

Headphone Measurement Datasheets

All Headphones September 2014

Those wishing to get headphones measured
should send all inquiries by email to:

Tyll Hertsens
InnerFidelity, Editor-in-Chief
tyll@innerfidelity.com

Copyright © SOURCE INTERLINK MEDIA All rights reserved.

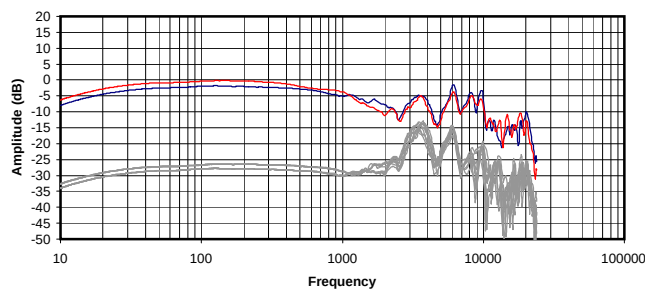


Headphone Measurement Datasheets

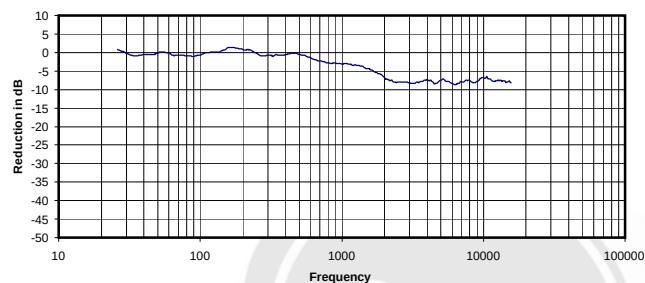
Full-Size Open



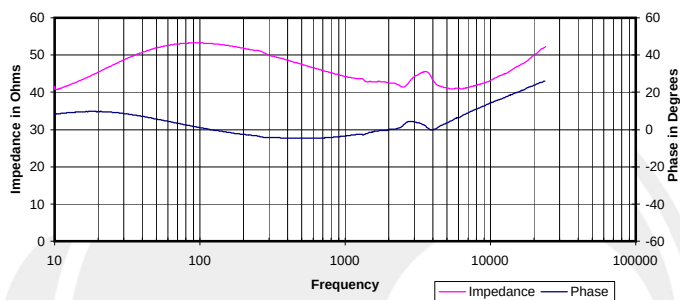
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



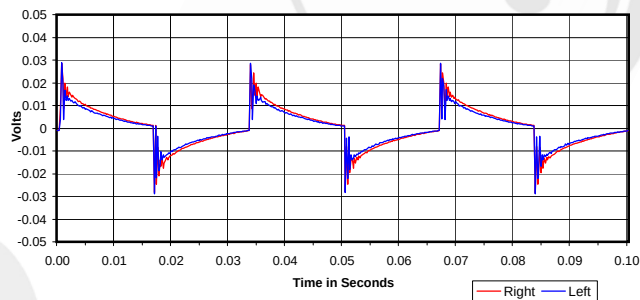
Isolation
Attenuation of External Sound vs. Frequency



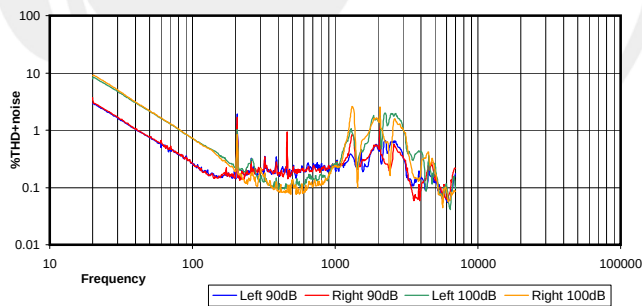
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



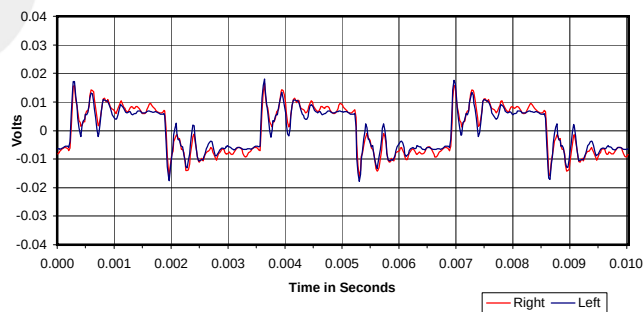
30 Hz Square Wave



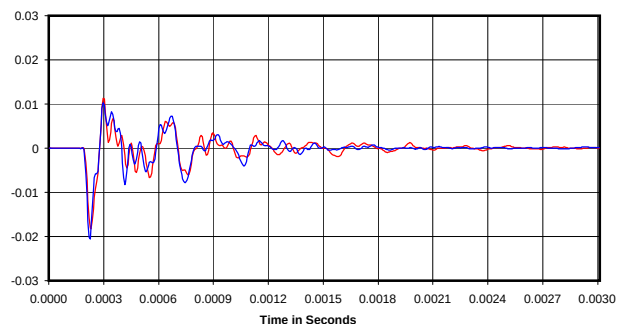
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



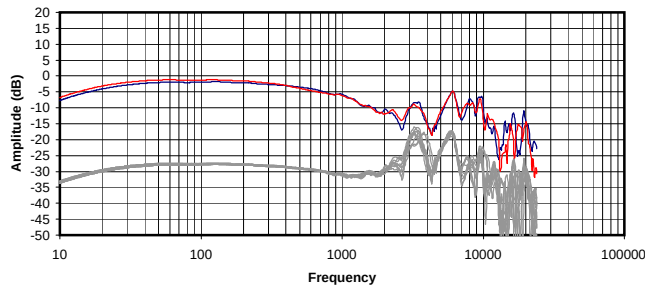
Impulse Response



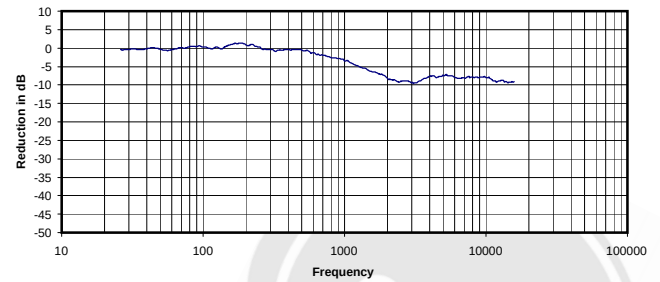
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.191 Vrms
44 Ohms
0.83 mW
-3 dBr

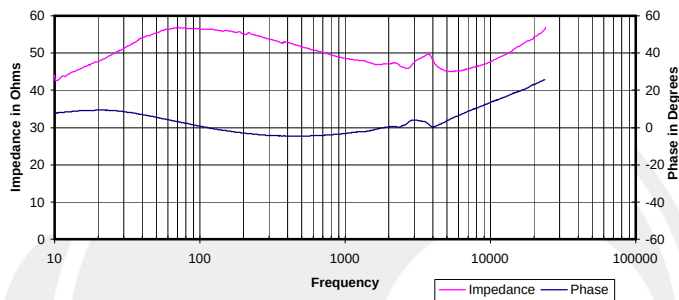
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



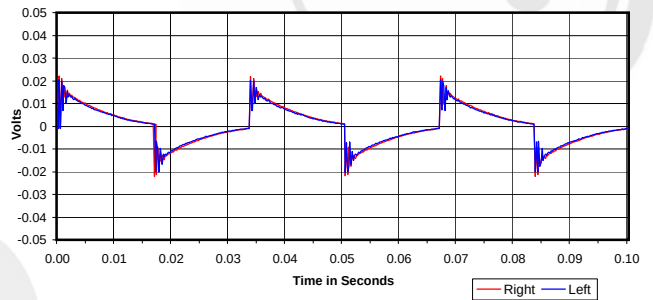
Isolation
Attenuation of External Sound vs. Frequency



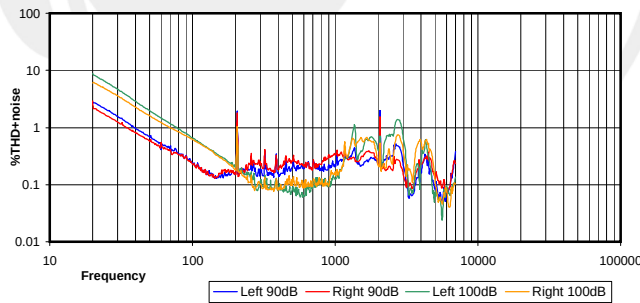
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



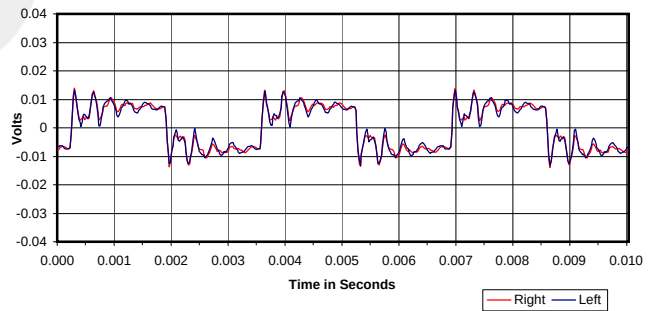
30 Hz Square Wave



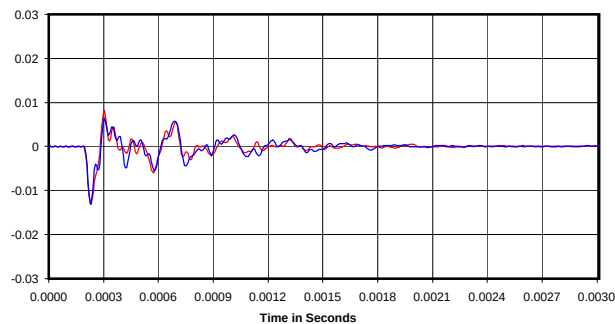
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



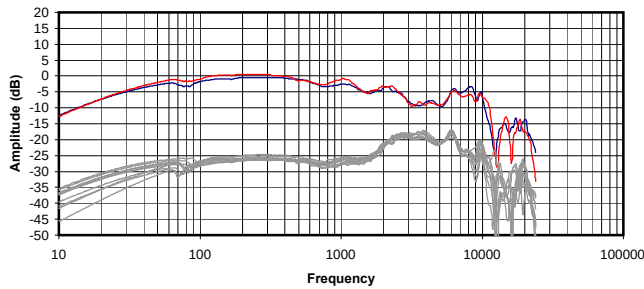
Impulse Response



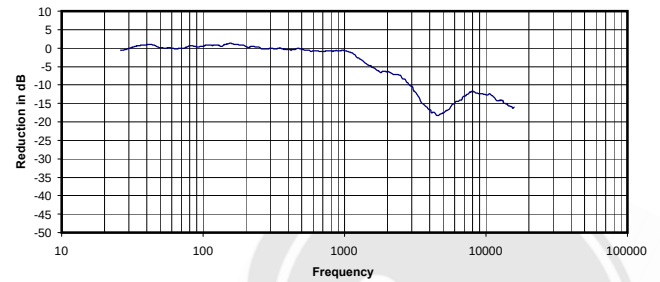
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.174 Vrms
49 Ohms
0.63 mW
-3 dBr

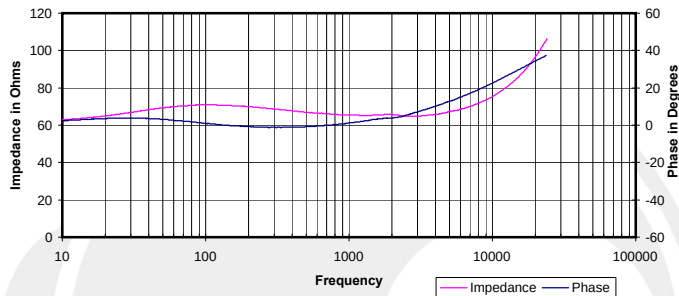
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



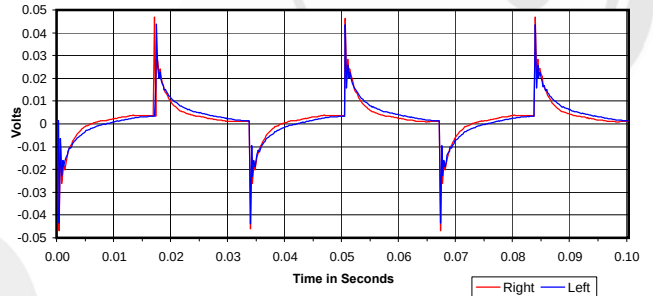
Isolation
Attenuation of External Sound vs. Frequency



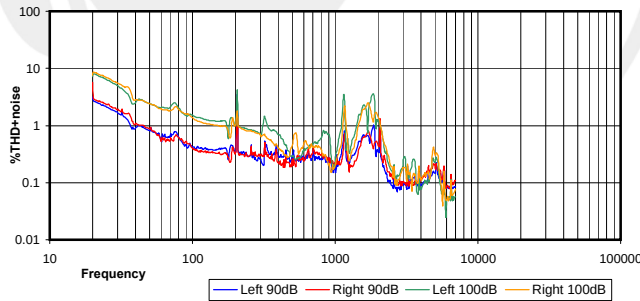
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



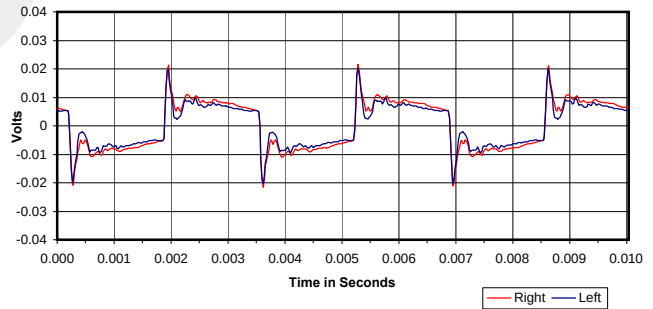
30 Hz Square Wave



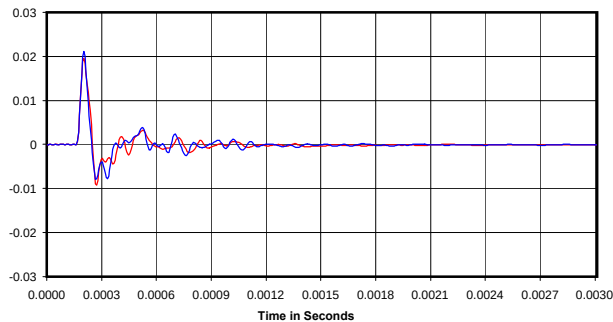
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



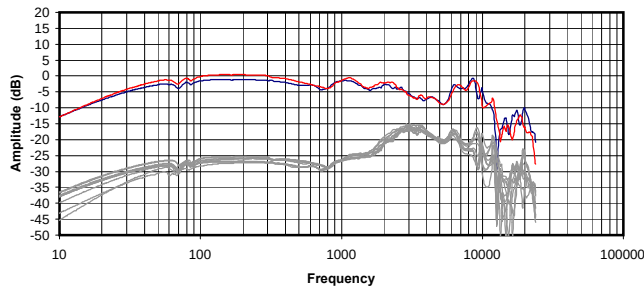
Impulse Response



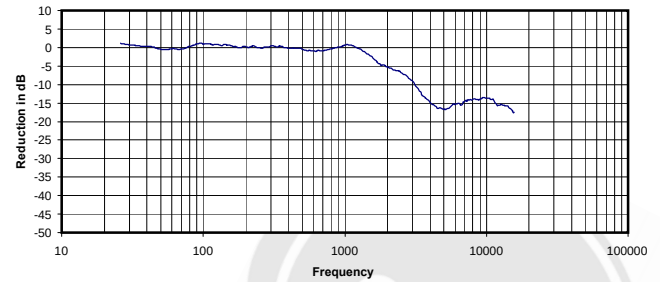
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.320 Vrms
65 Ohms
1.57 mW
-4 dBr

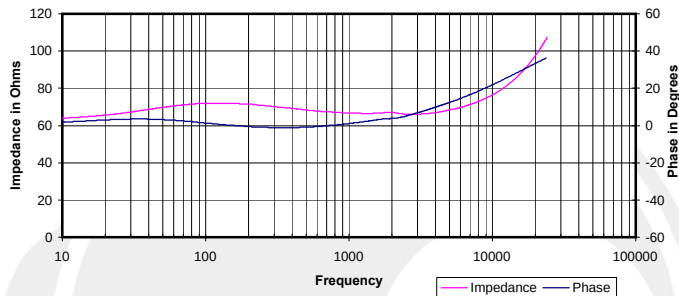
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



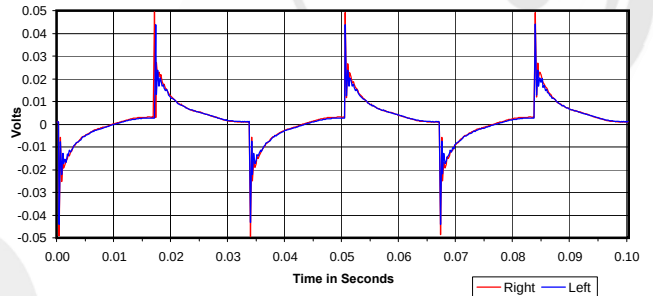
Isolation
Attenuation of External Sound vs. Frequency



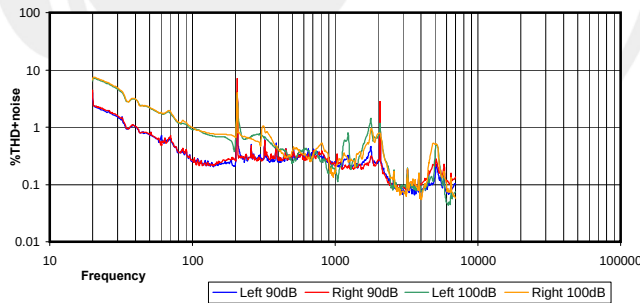
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



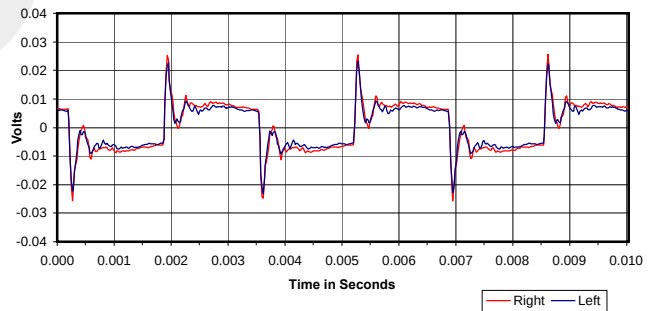
30 Hz Square Wave



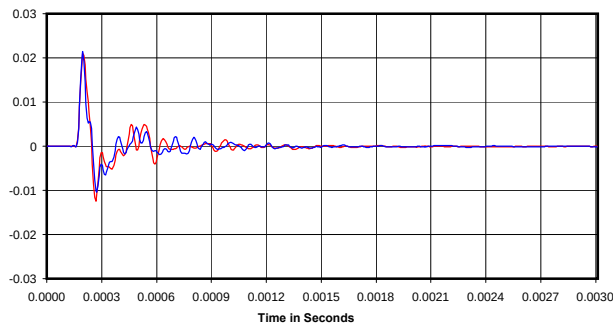
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



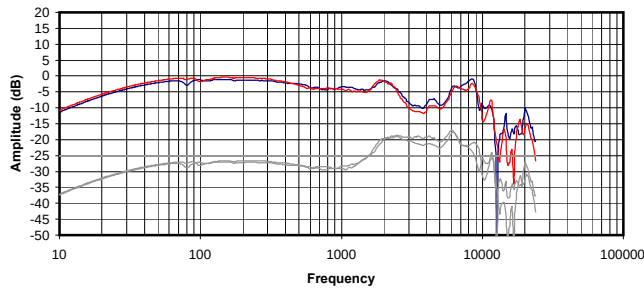
Impulse Response



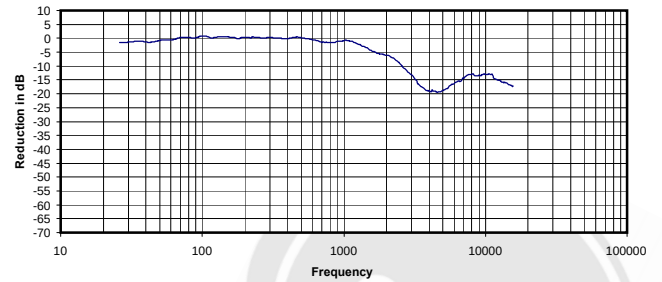
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.283 Vrms
67 Ohms
1.20 mW
-4 dBr

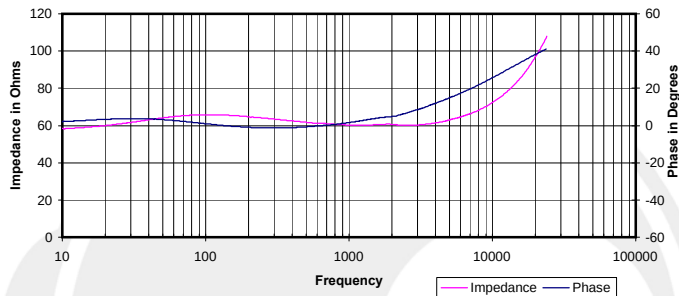
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



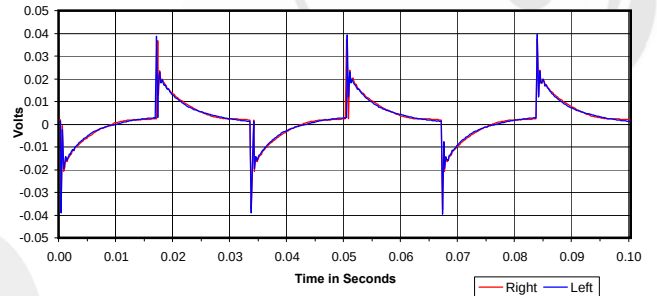
Isolation
Attenuation of External Sound vs. Frequency



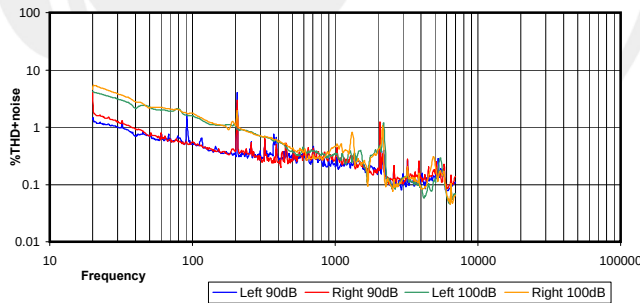
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



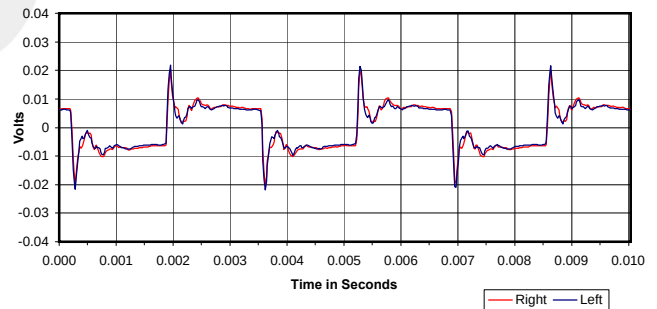
30 Hz Square Wave



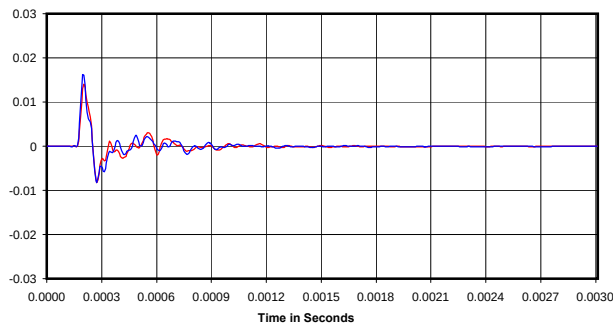
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



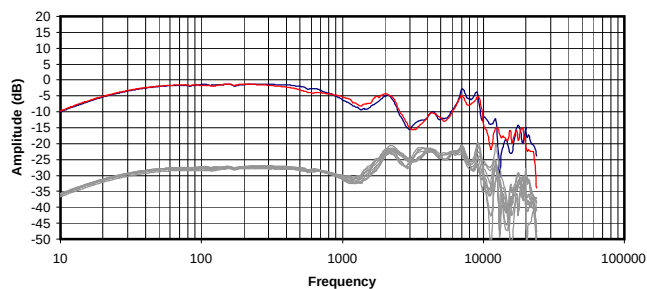
Impulse Response



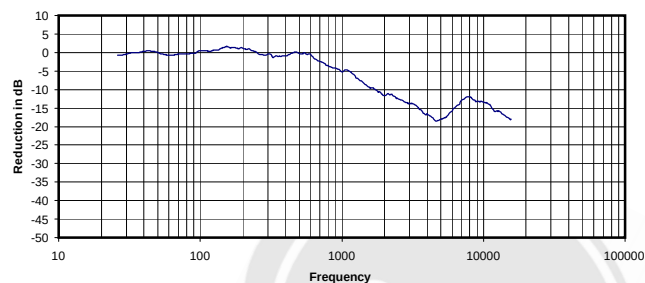
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.318 Vrms
60 Ohms
1.68 mW
-5 dB

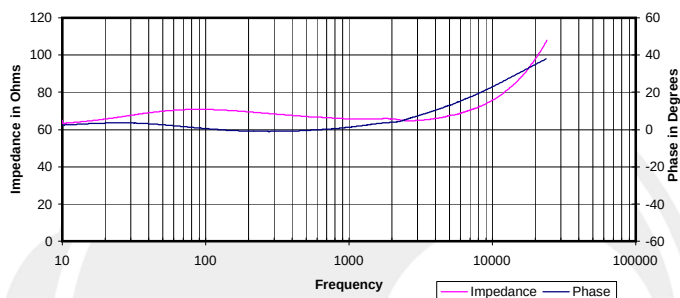
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



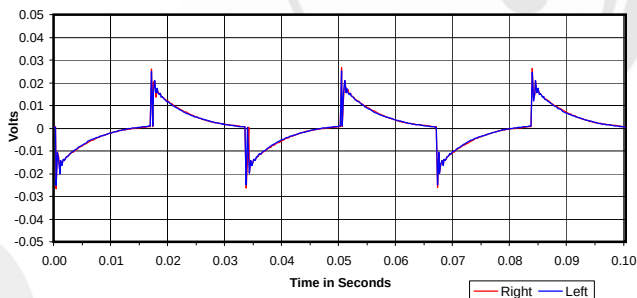
Isolation
Attenuation of External Sound vs. Frequency



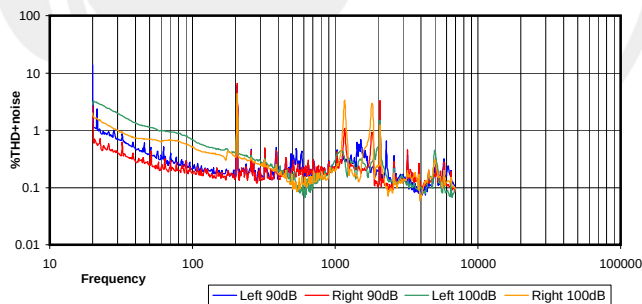
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



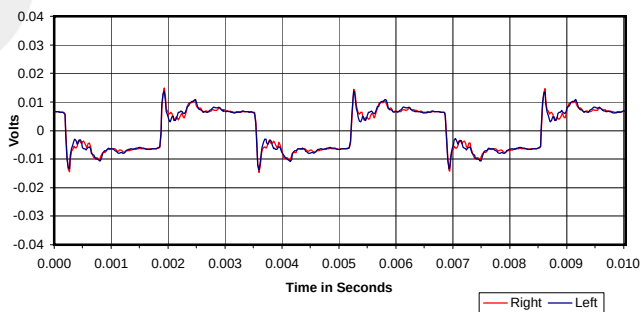
30 Hz Square Wave



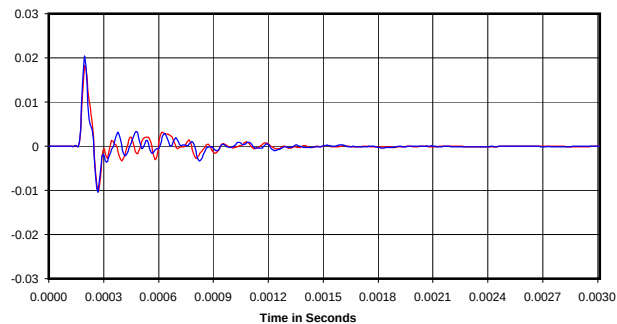
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



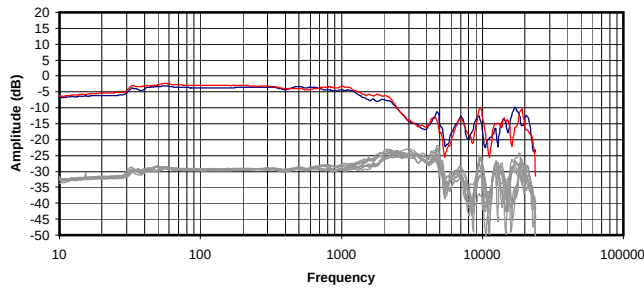
Impulse Response



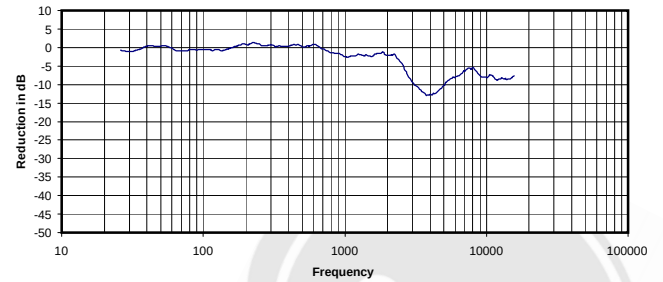
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.327 Vrms
66 Ohms
1.62 mW
-6 dBr

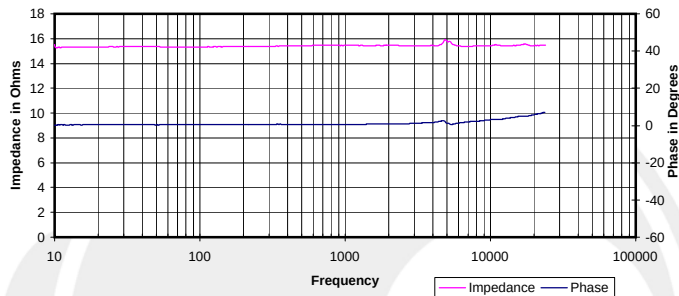
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



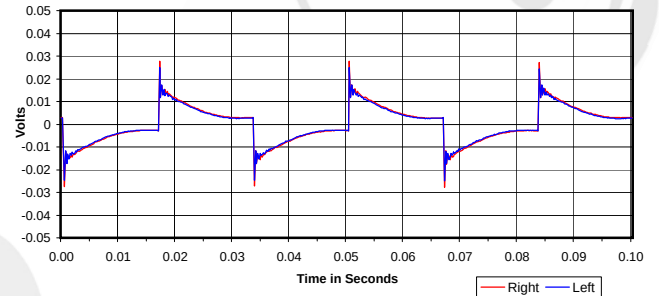
Isolation
Attenuation of External Sound vs. Frequency



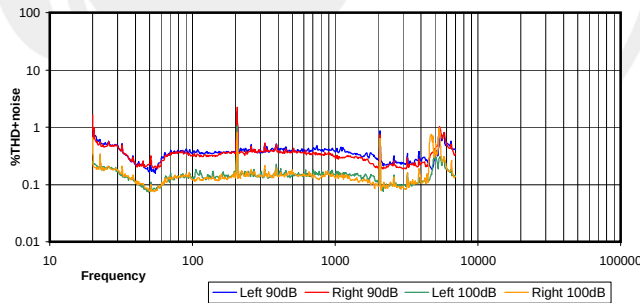
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



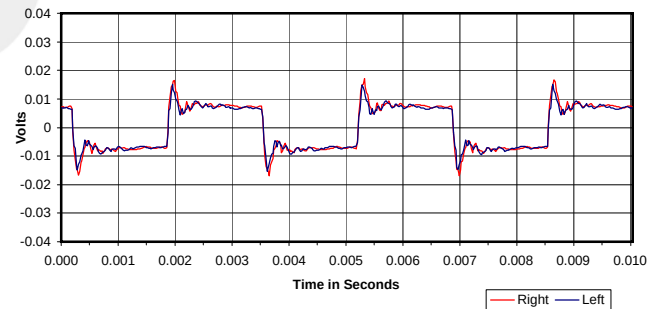
30 Hz Square Wave



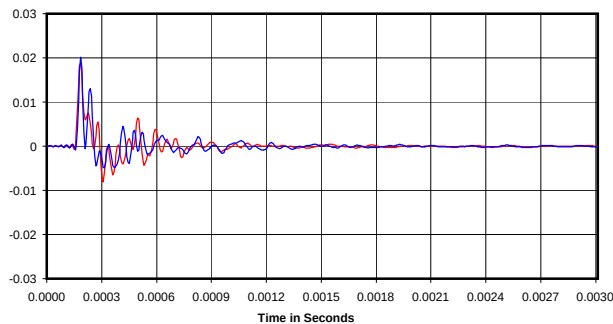
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



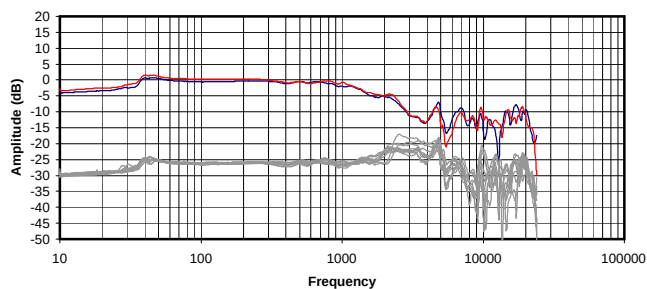
Impulse Response



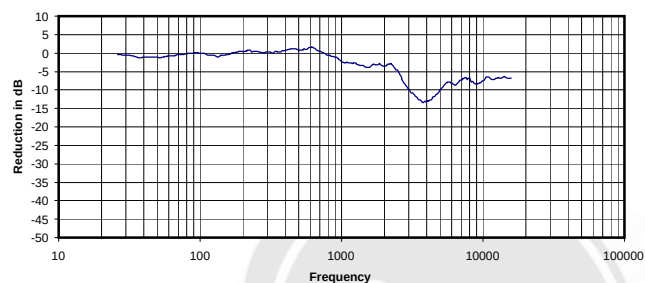
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.065 Vrms
15 Ohms
0.28 mW
-3 dBr

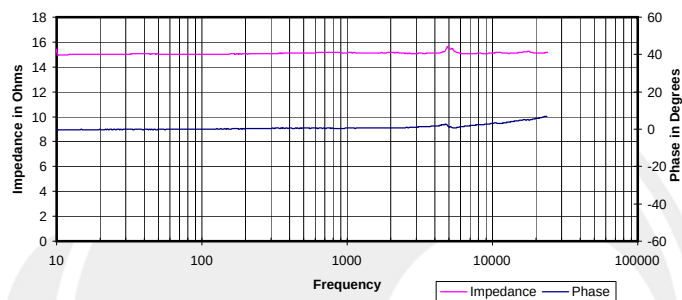
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



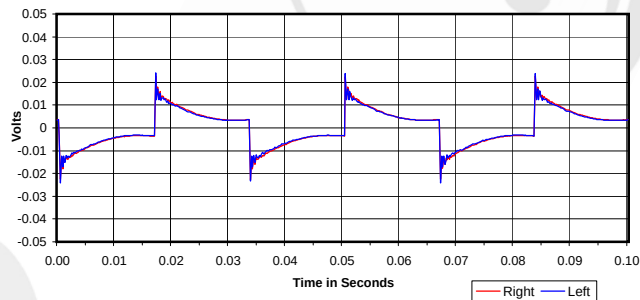
Isolation
Attenuation of External Sound vs. Frequency



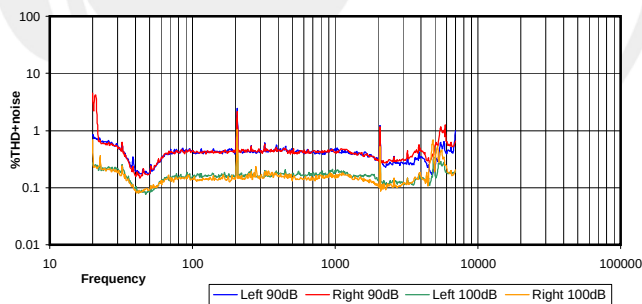
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



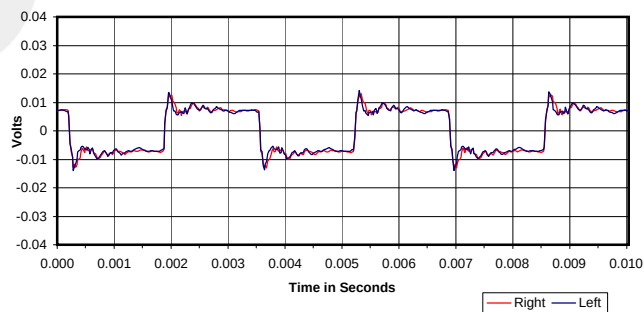
30 Hz Square Wave



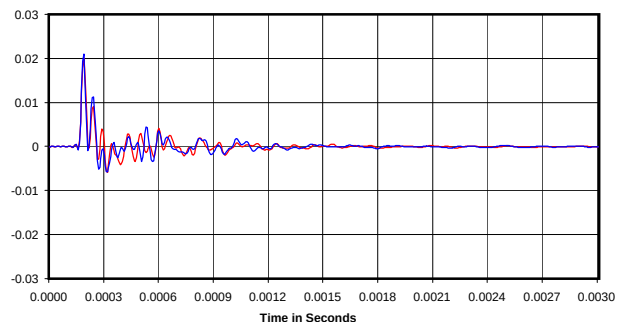
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



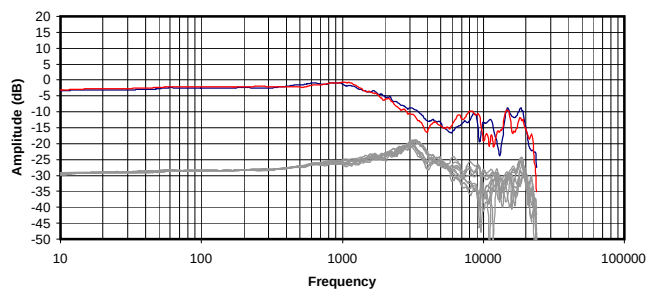
Impulse Response



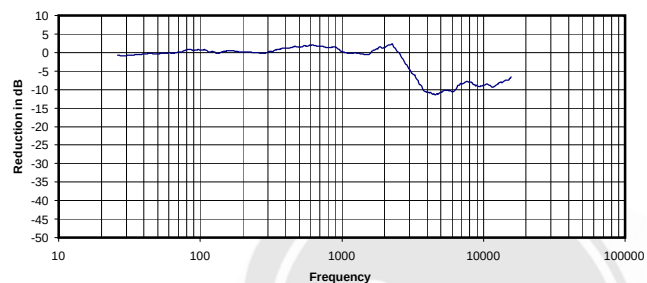
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.070 Vrms
15 Ohms
0.32 mW
-3 dBr

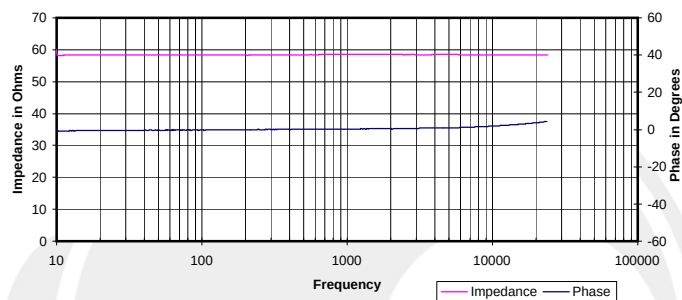
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



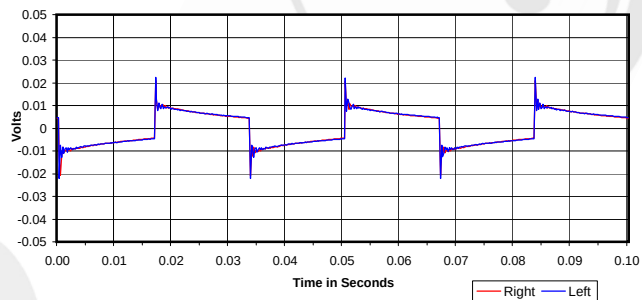
Isolation
Attenuation of External Sound vs. Frequency



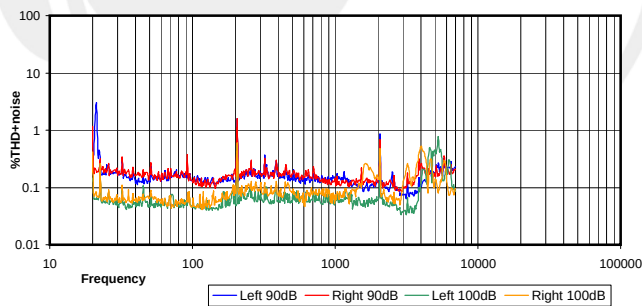
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



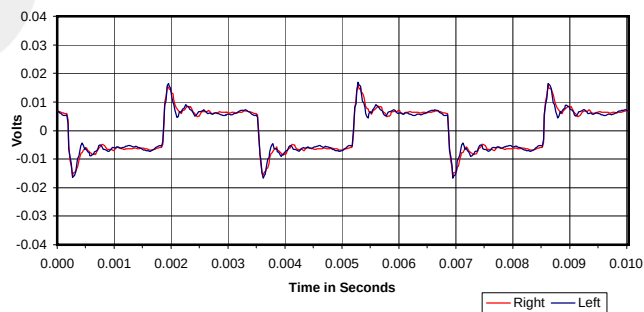
30 Hz Square Wave



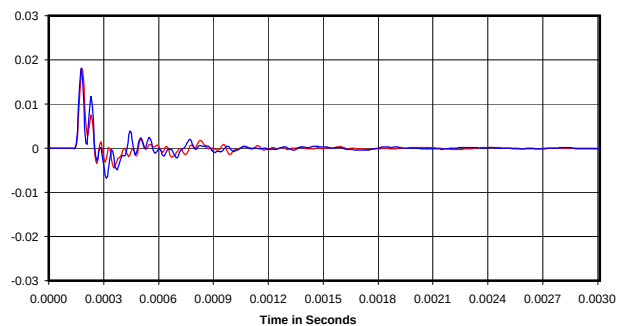
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



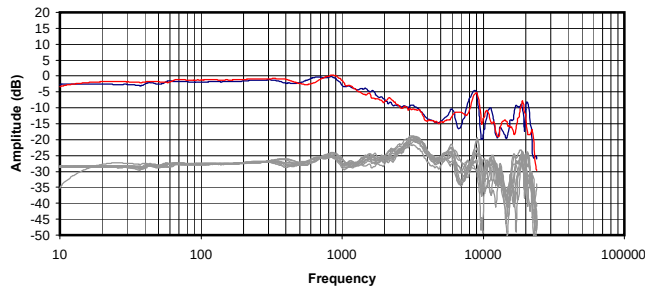
Impulse Response



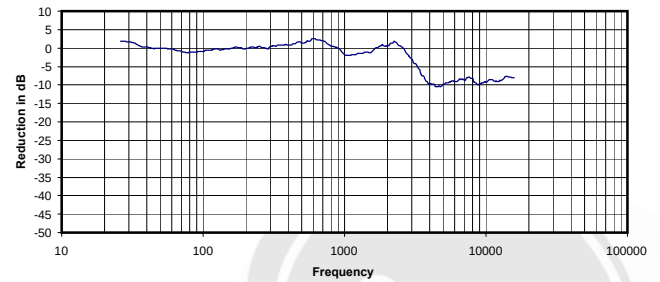
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.170 Vrms
59 Ohms
0.50 mW
-1 dBr

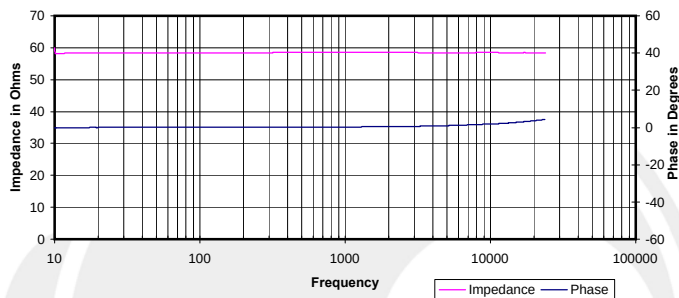
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



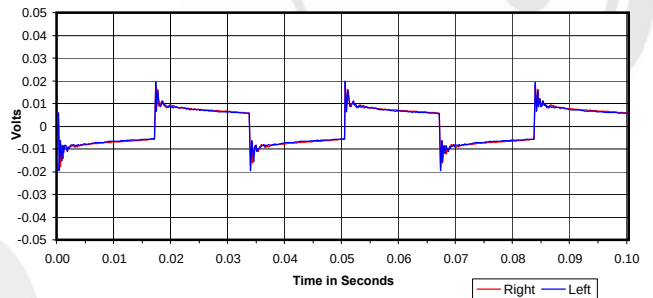
Isolation
Attenuation of External Sound vs. Frequency



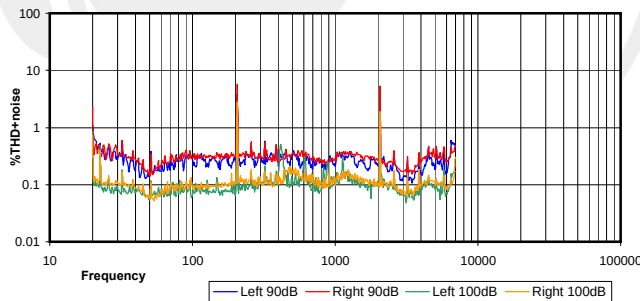
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



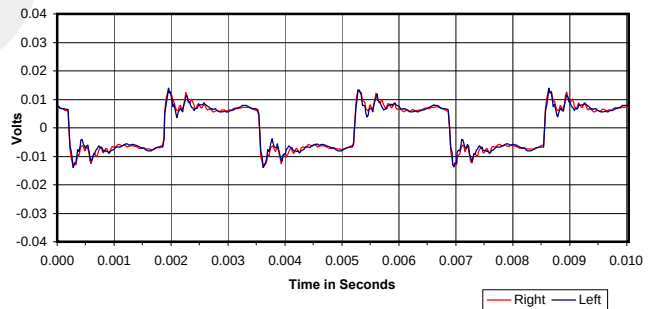
30 Hz Square Wave



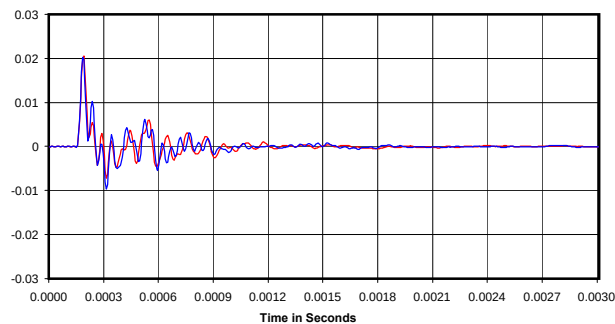
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



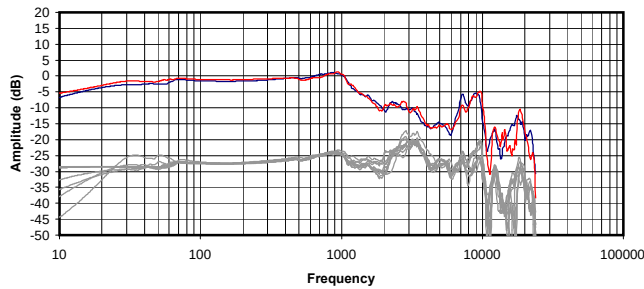
Impulse Response



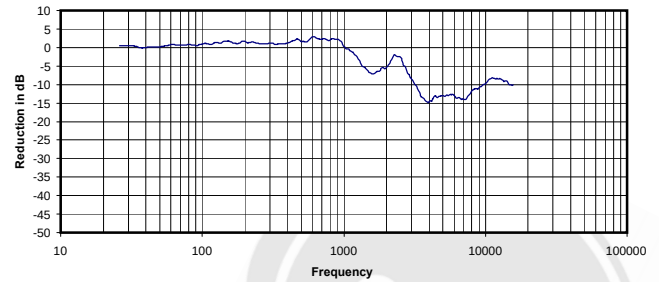
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.209 Vrms
59 Ohms
0.75 mW
-1 dBr

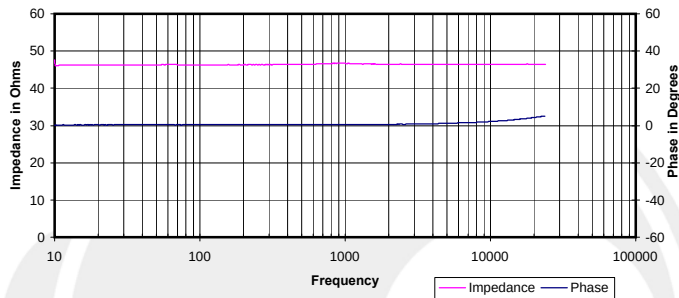
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



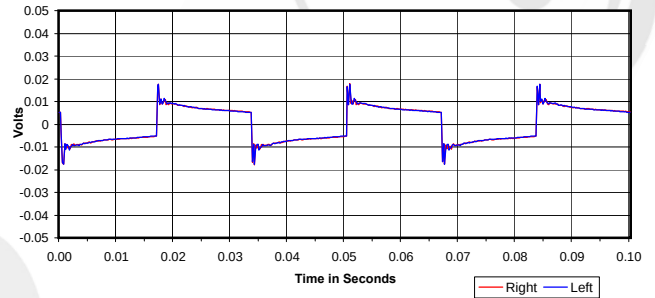
Isolation
Attenuation of External Sound vs. Frequency



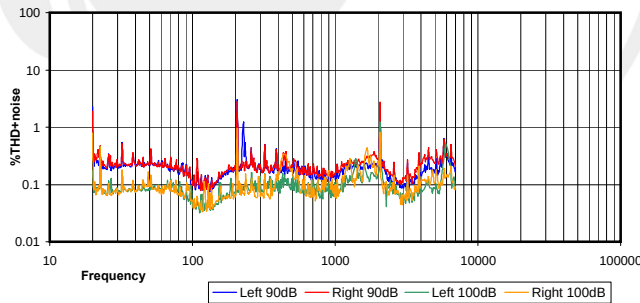
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



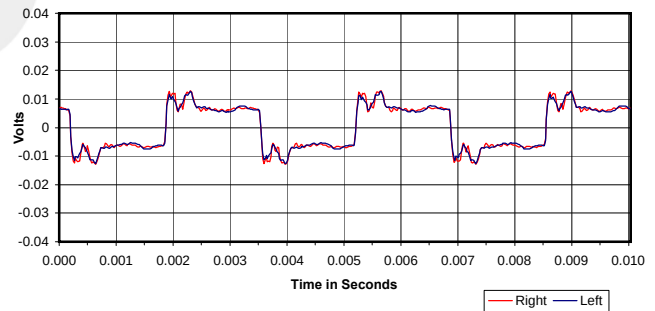
30 Hz Square Wave



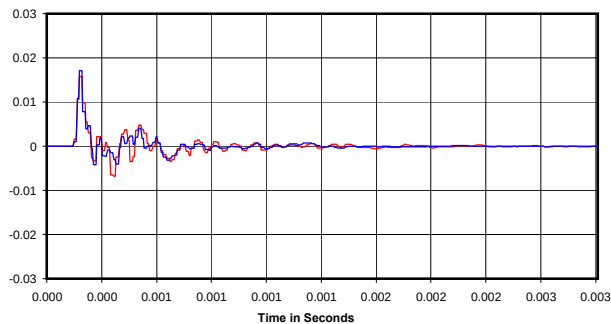
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

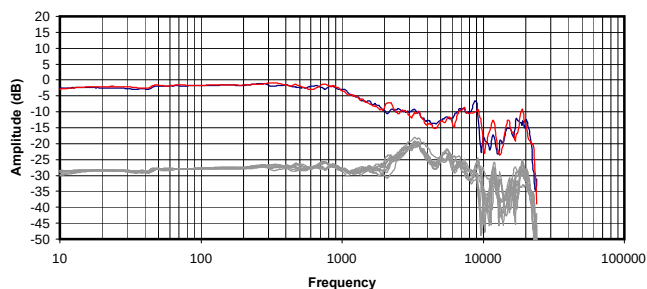
0.106 Vrms
47 Ohms
0.24 mW
-3 dB



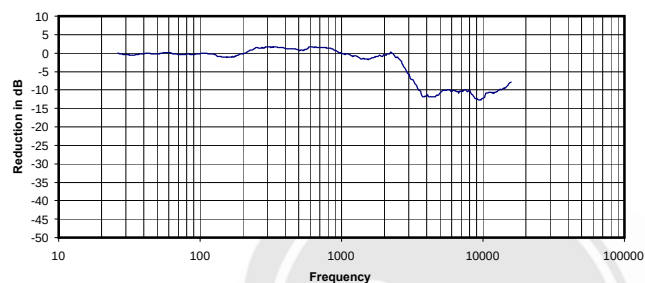
Headphone Measurements:

Audeze LCD-2 SN 5312123

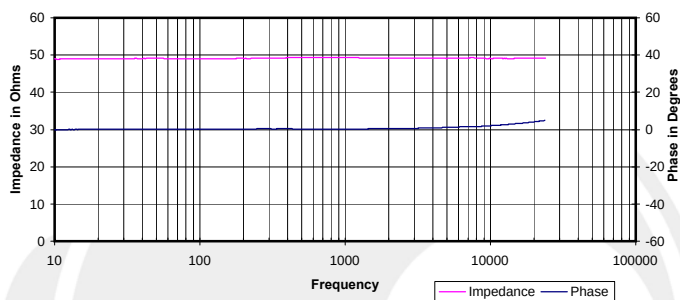
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



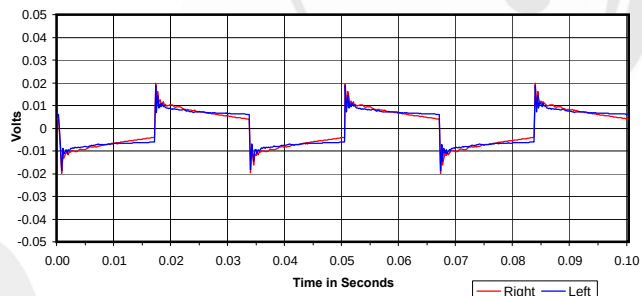
Isolation
Attenuation of External Sound vs. Frequency



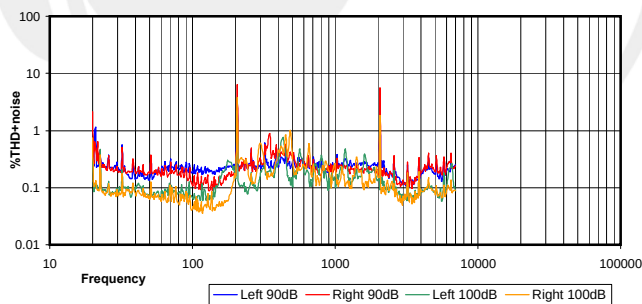
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



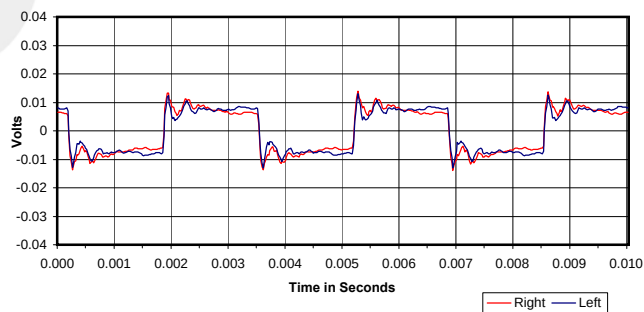
30 Hz Square Wave



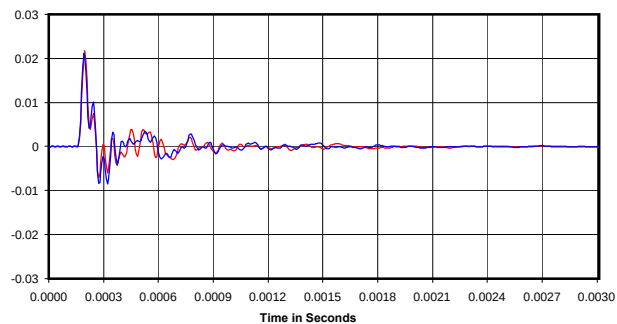
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



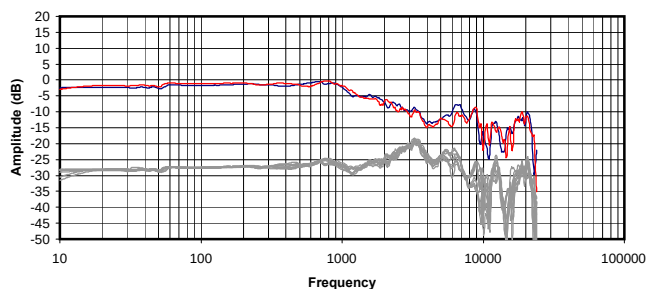
Impulse Response



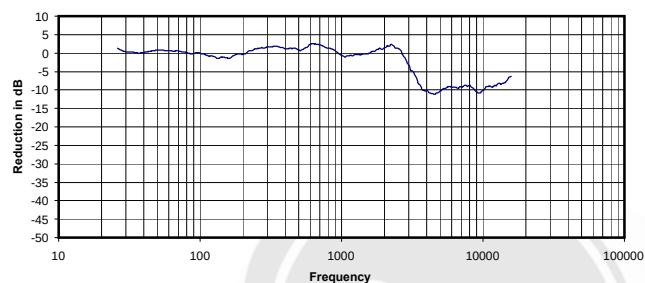
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.165 Vrms
49 Ohms
0.55 mW
-2 dBr

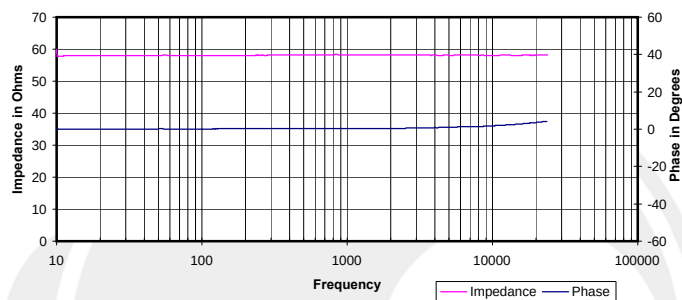
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



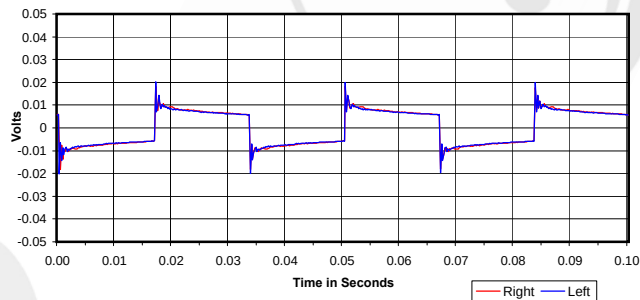
Isolation
Attenuation of External Sound vs. Frequency



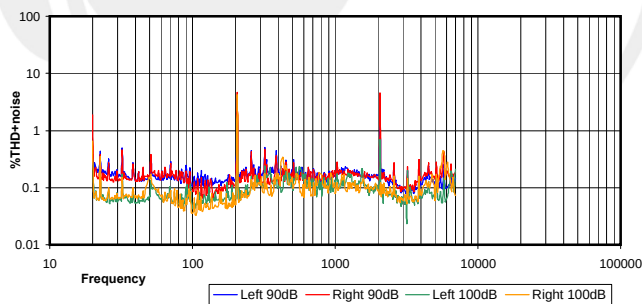
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



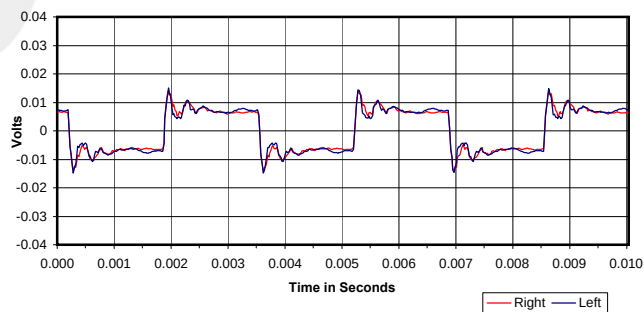
30 Hz Square Wave



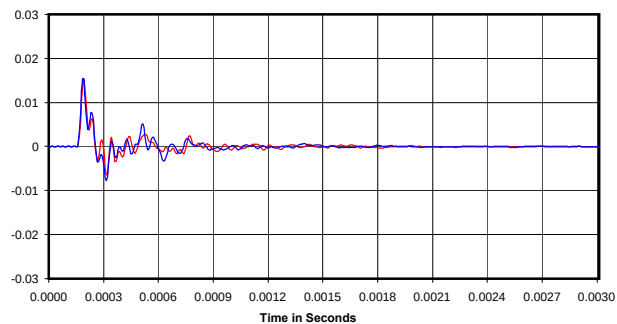
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



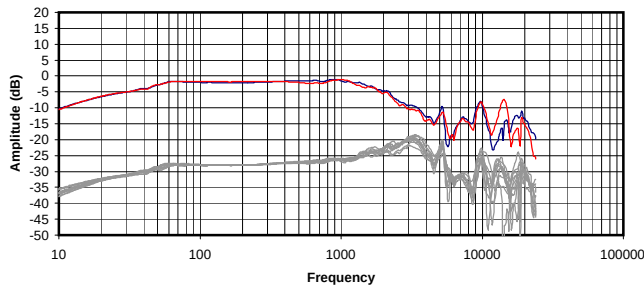
Impulse Response



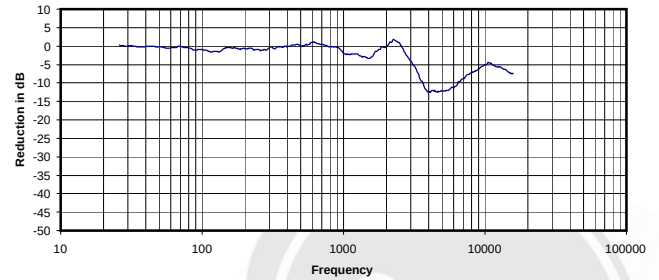
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.225 Vrms
58 Ohms
0.87 mW
-1 dBr

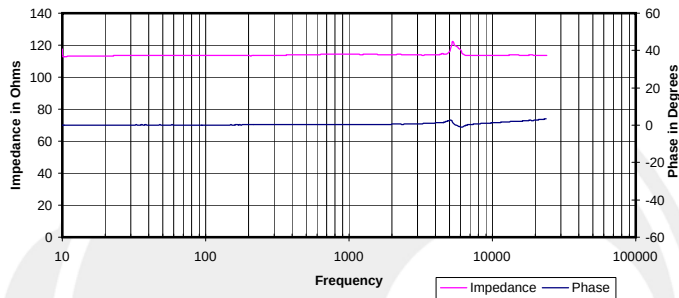
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



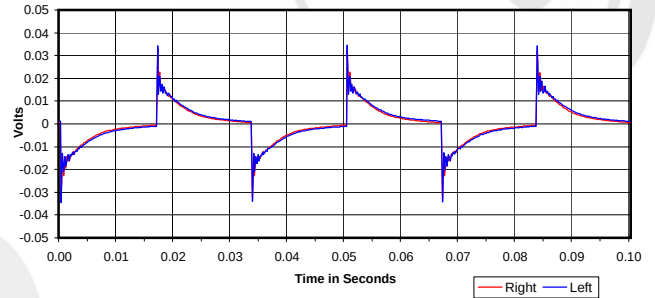
Isolation
Attenuation of External Sound vs. Frequency



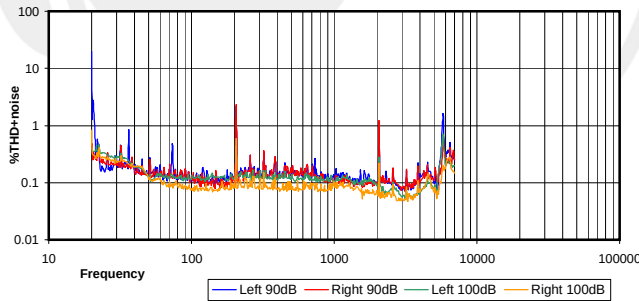
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



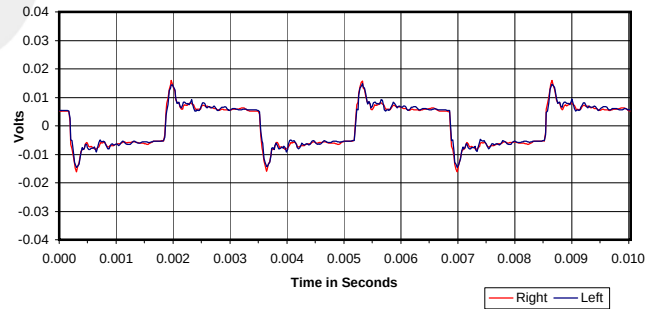
30 Hz Square Wave



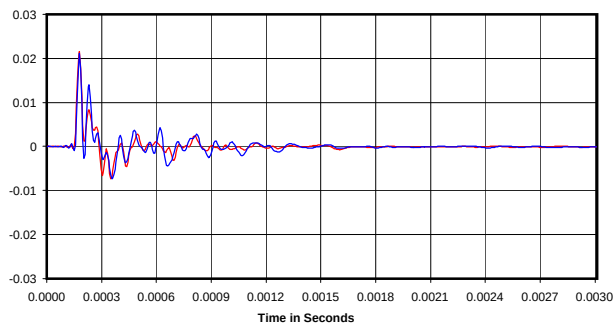
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



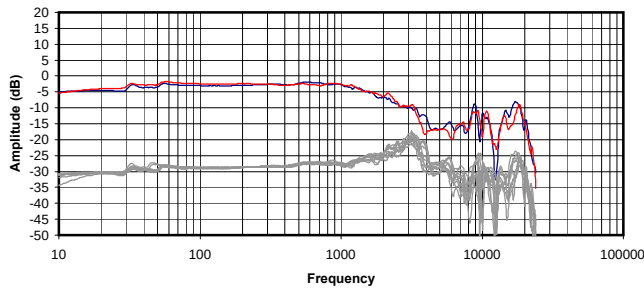
Impulse Response



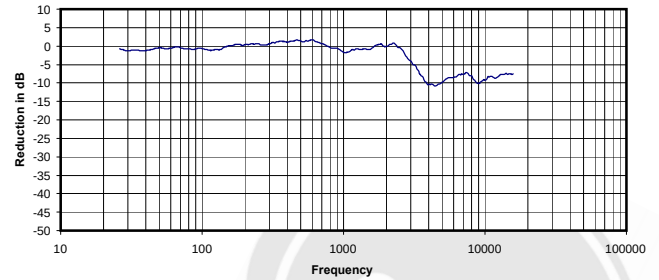
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.127 Vrms
114 Ohms
0.14 mW
-3 dBr

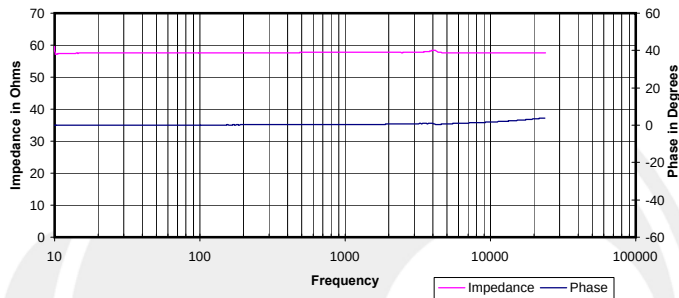
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



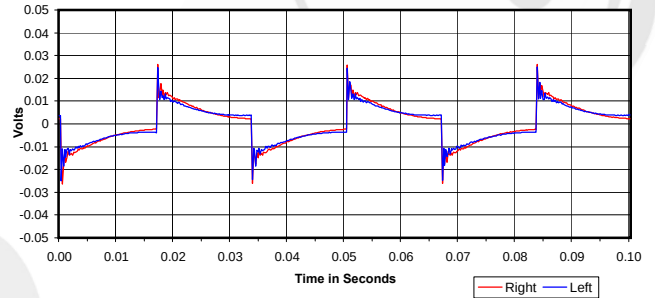
Isolation
Attenuation of External Sound vs. Frequency



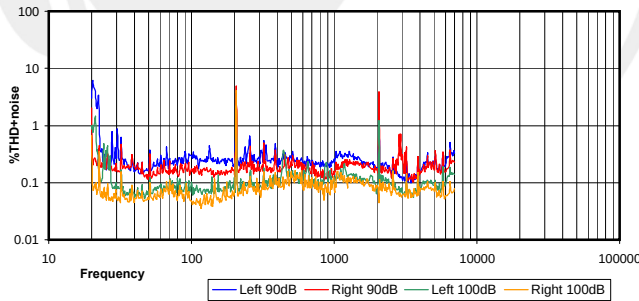
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



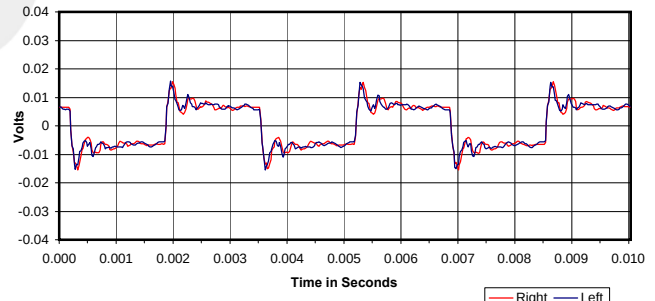
30 Hz Square Wave



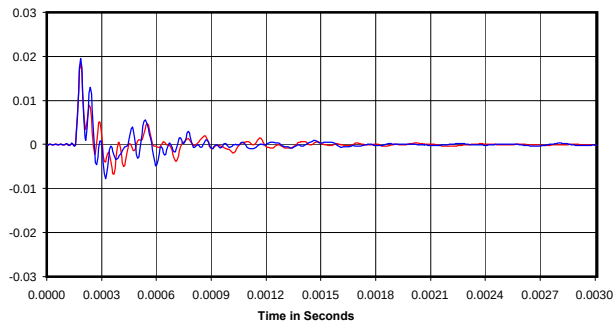
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



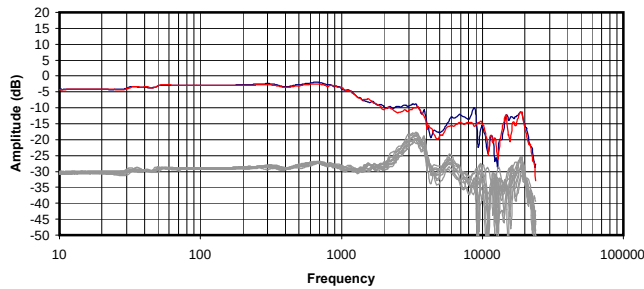
Impulse Response



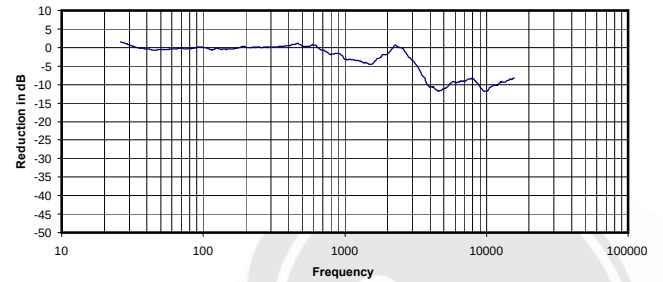
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.196 Vrms
58 Ohms
0.66 mW
-2 dBr

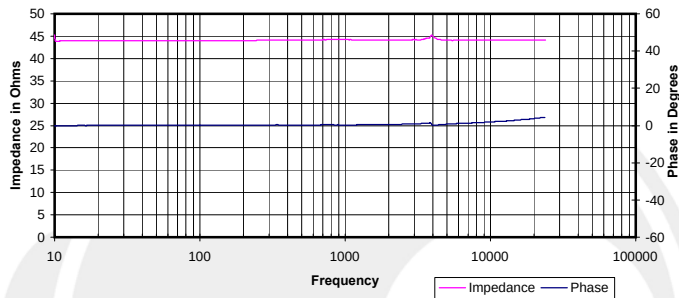
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



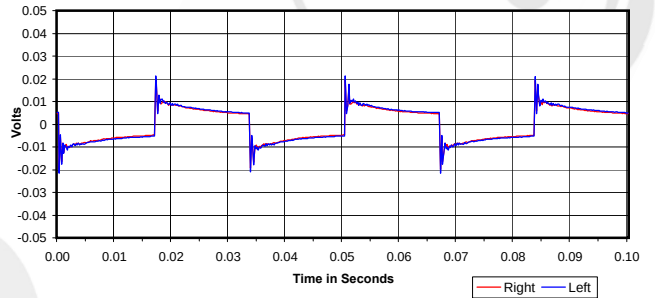
Isolation
Attenuation of External Sound vs. Frequency



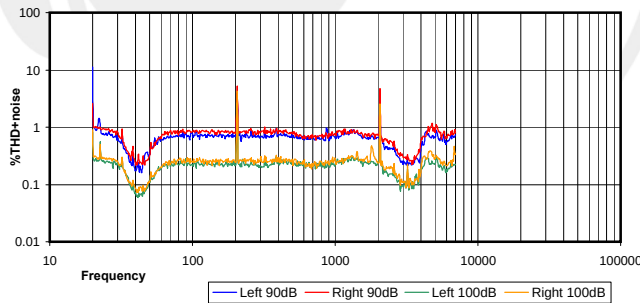
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



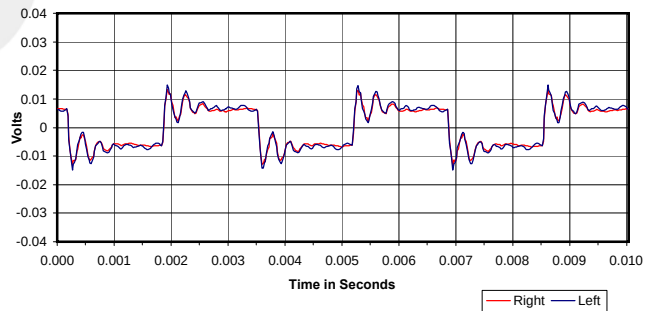
30 Hz Square Wave



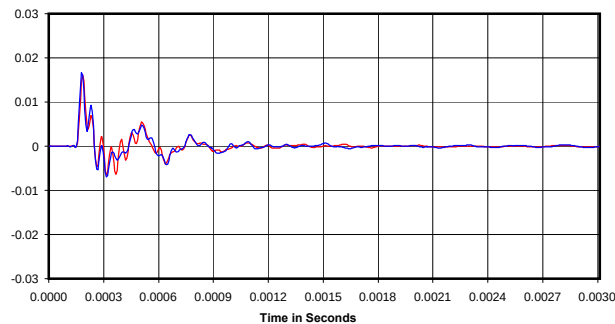
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



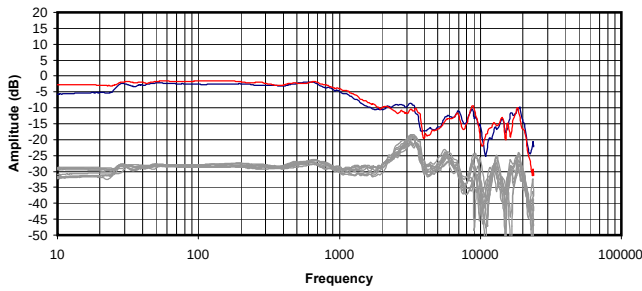
Impulse Response



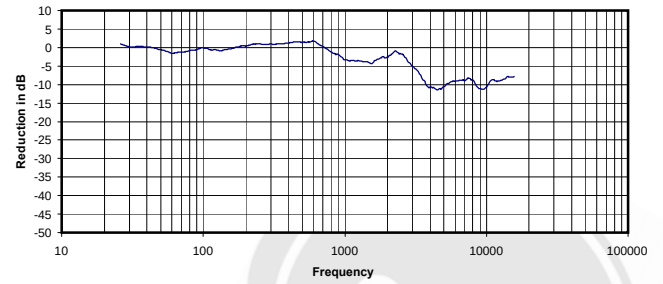
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.160 Vrms
44 Ohms
0.58 mW
-2 dBr

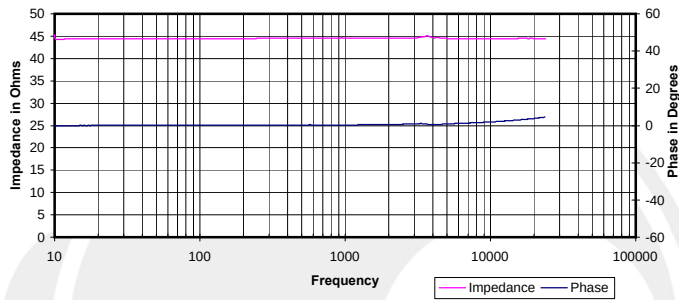
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



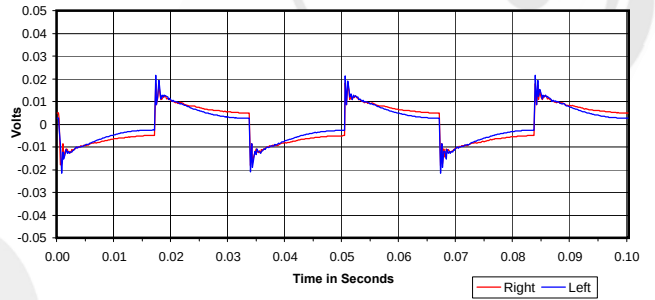
Isolation
Attenuation of External Sound vs. Frequency



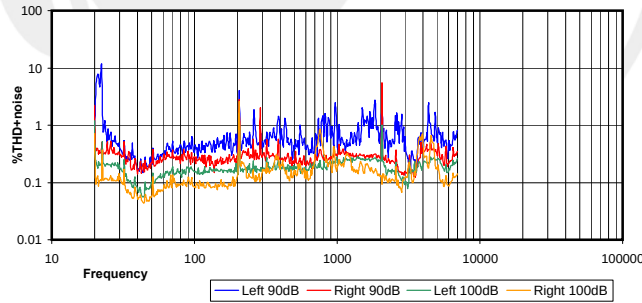
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



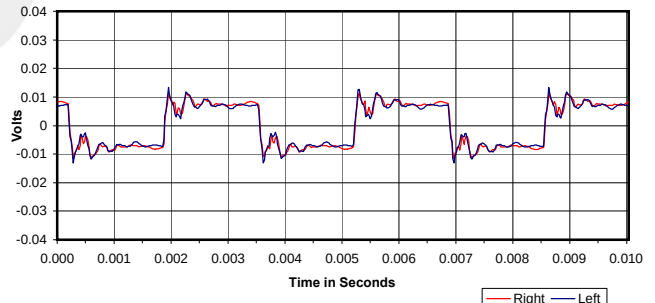
30 Hz Square Wave



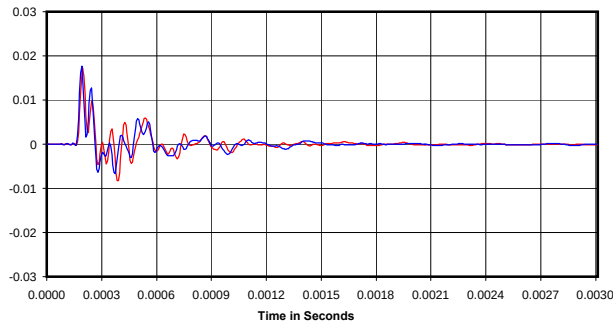
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



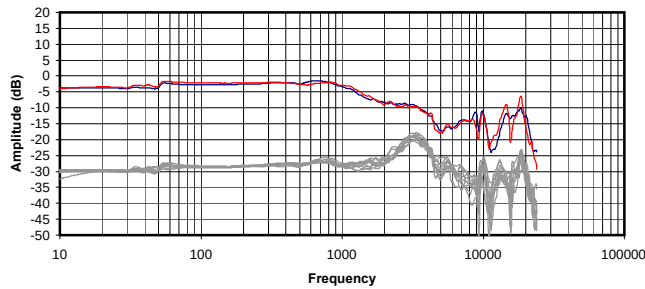
Impulse Response



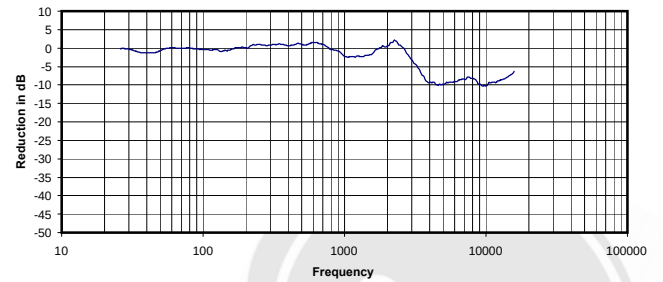
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.198 Vrms
45 Ohms
0.88 mW
-2 dBr

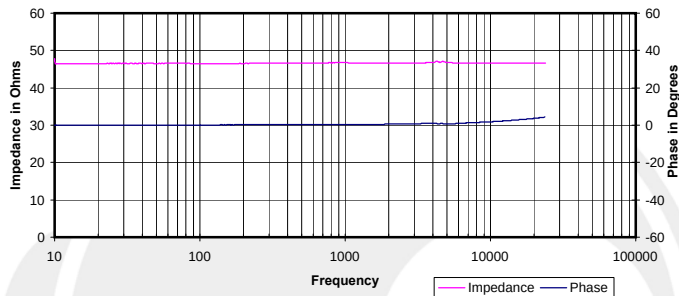
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



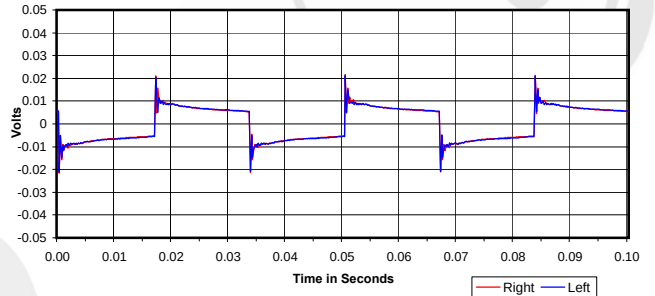
Isolation
Attenuation of External Sound vs. Frequency



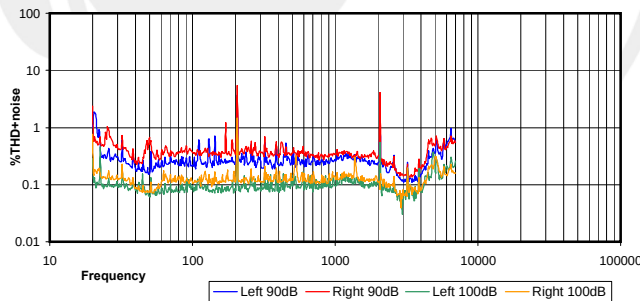
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



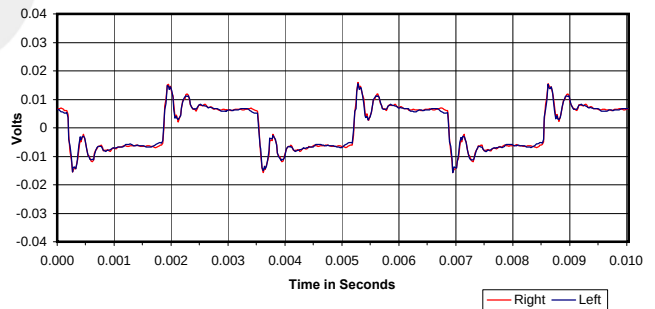
30 Hz Square Wave



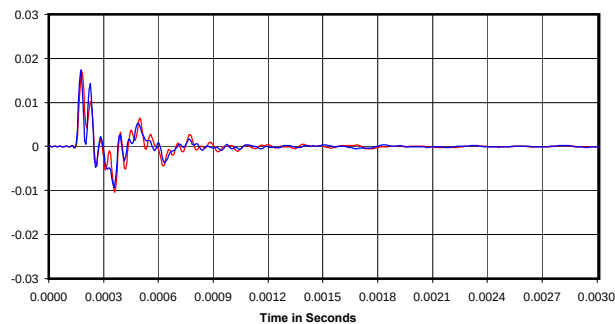
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



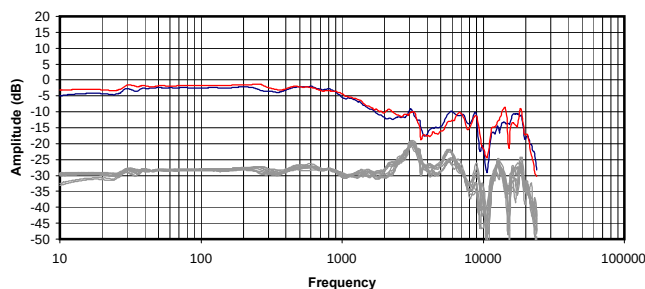
Impulse Response



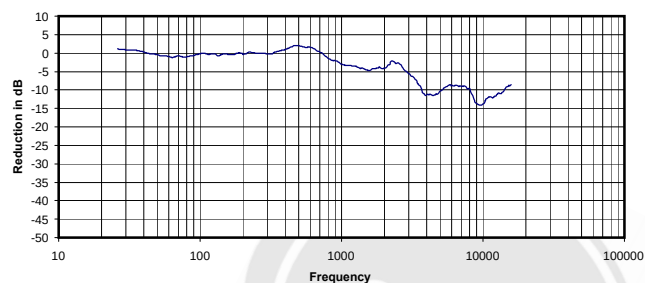
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.157 Vrms
47 Ohms
0.53 mW
-2 dBr

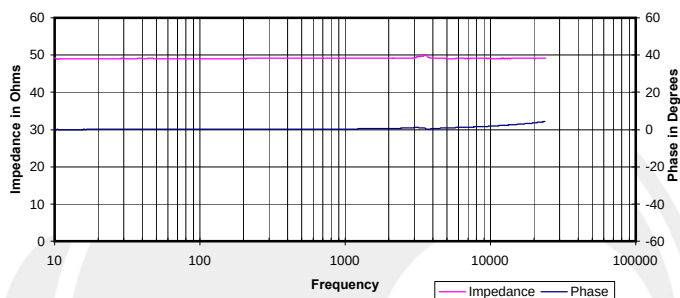
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



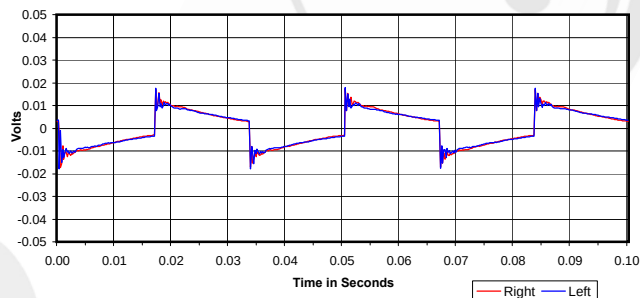
Isolation
Attenuation of External Sound vs. Frequency



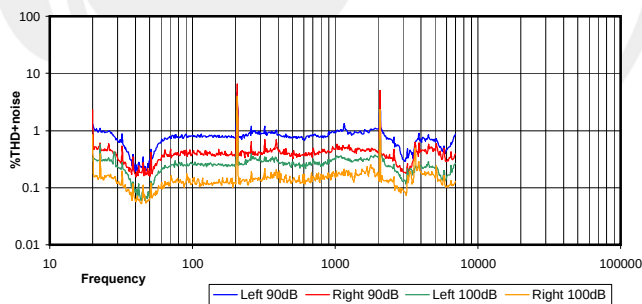
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



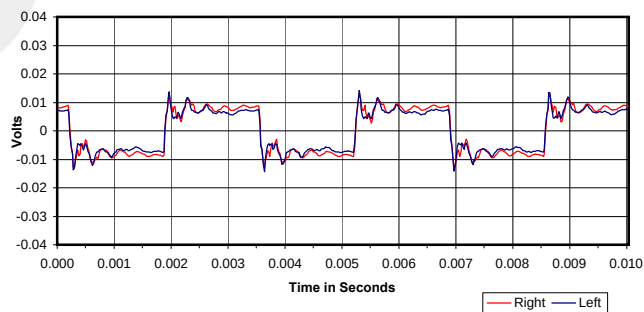
30 Hz Square Wave



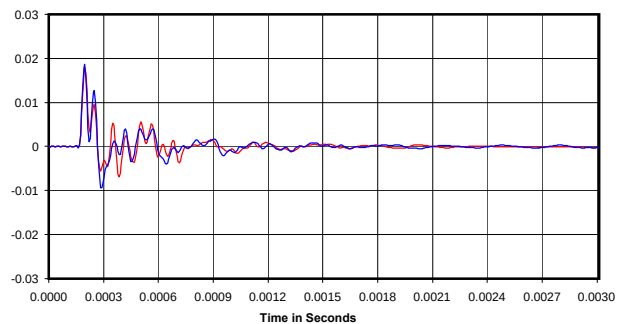
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



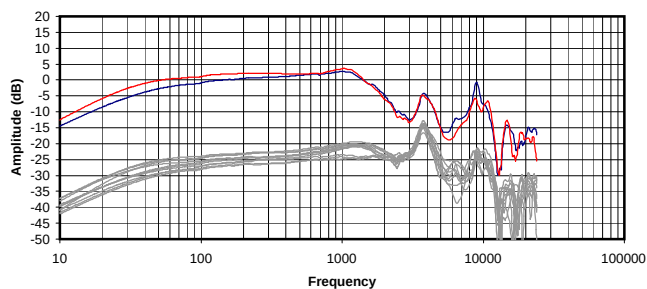
Impulse Response



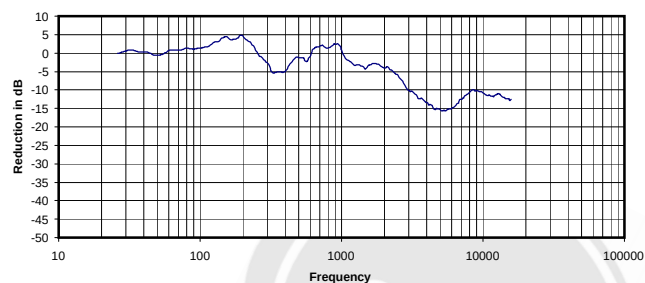
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.244 Vrms
49 Ohms
1.21 mW
-3 dBr

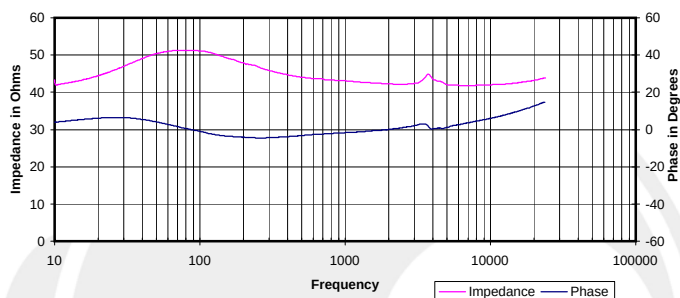
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



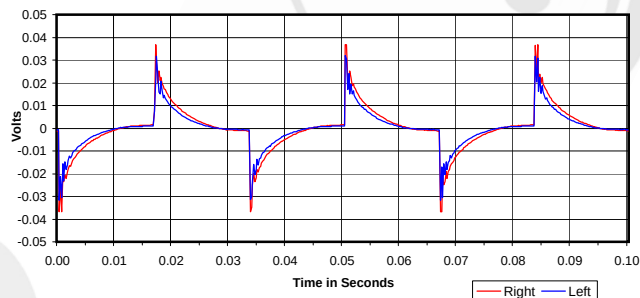
Isolation
Attenuation of External Sound vs. Frequency



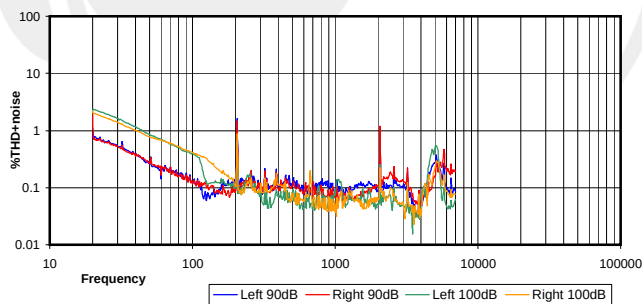
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



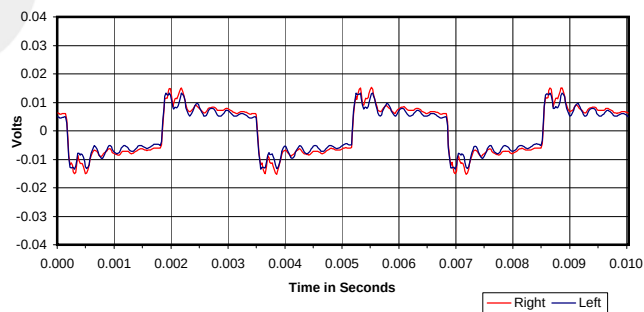
30 Hz Square Wave



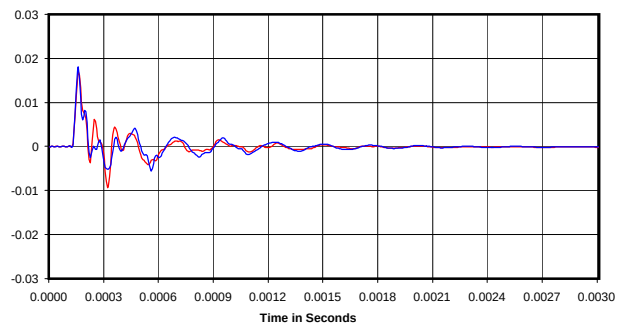
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



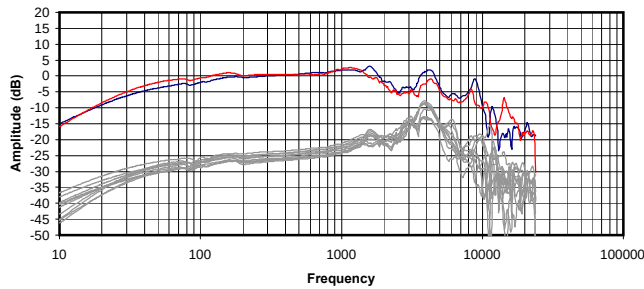
Impulse Response



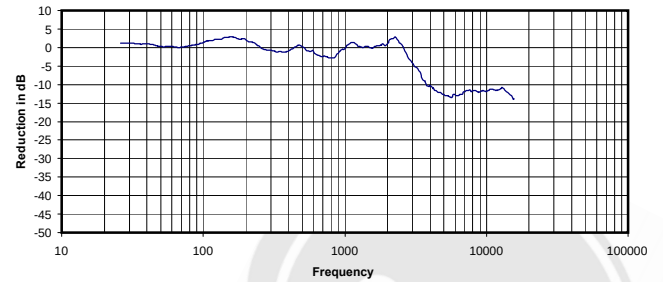
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.034 Vrms
43 Ohms
0.03 mW
-3 dBr

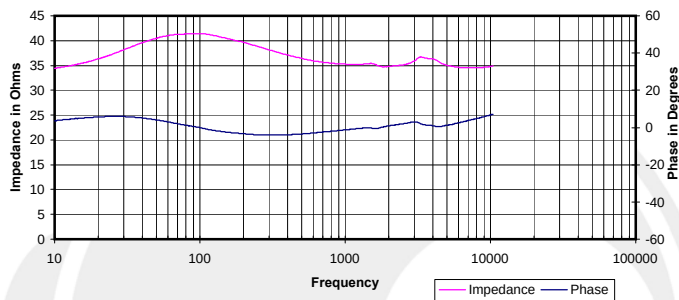
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



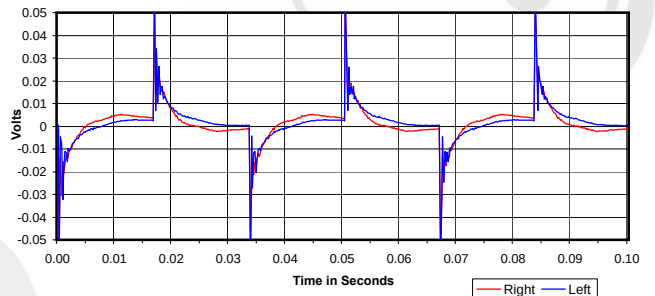
Isolation
Attenuation of External Sound vs. Frequency



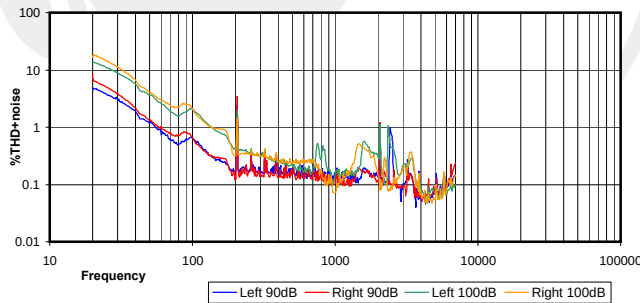
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



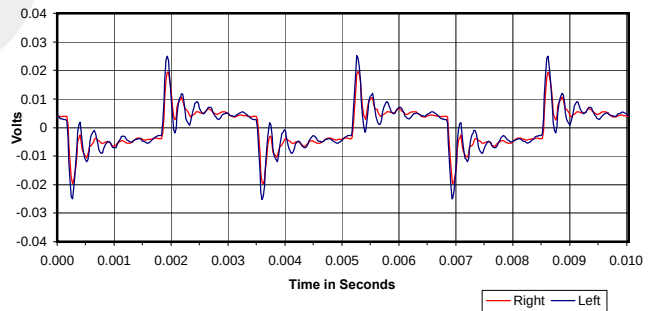
30 Hz Square Wave



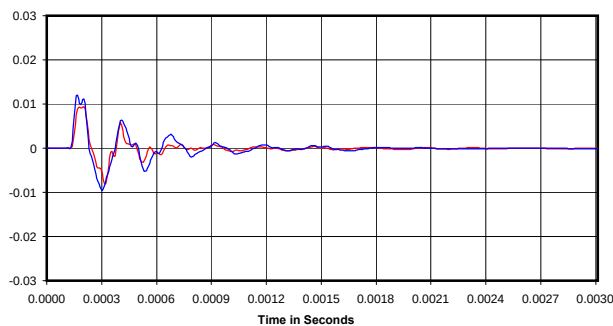
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



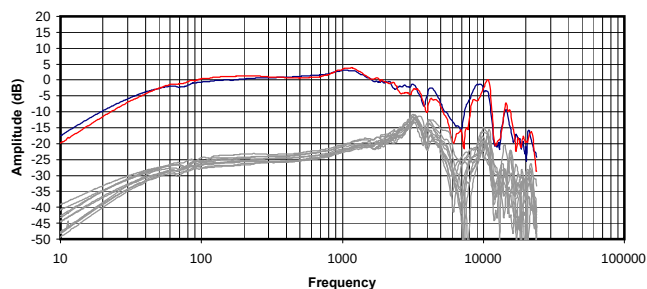
Impulse Response



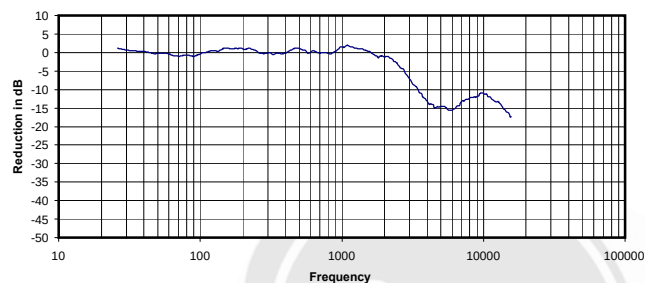
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.062 Vrms
35 Ohms
0.11 mW
-2 dBr

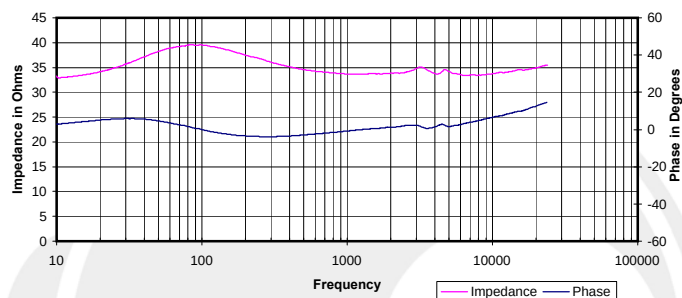
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



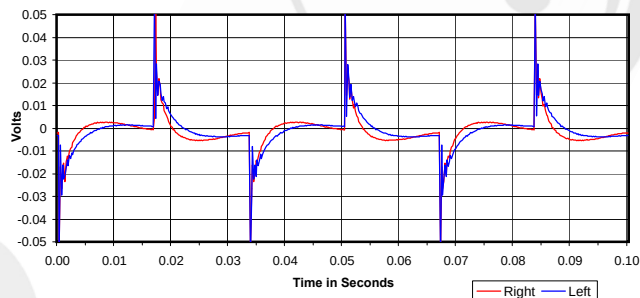
Isolation
Attenuation of External Sound vs. Frequency



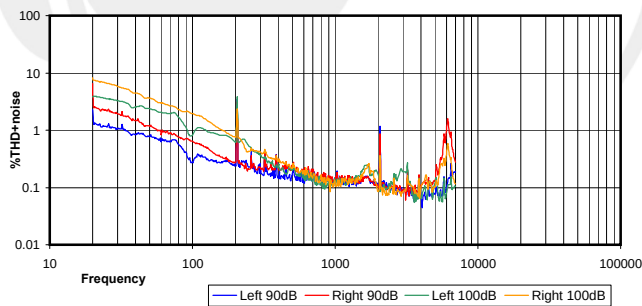
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



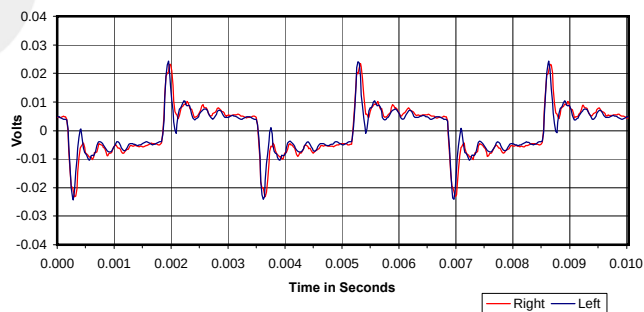
30 Hz Square Wave



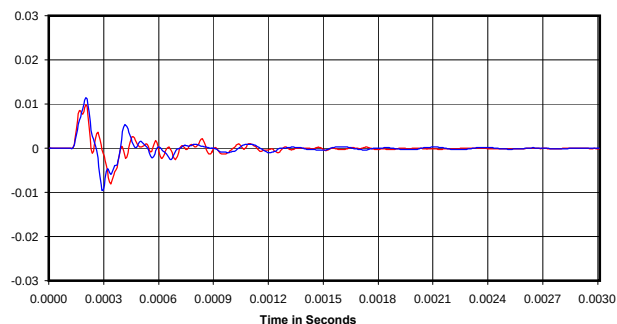
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



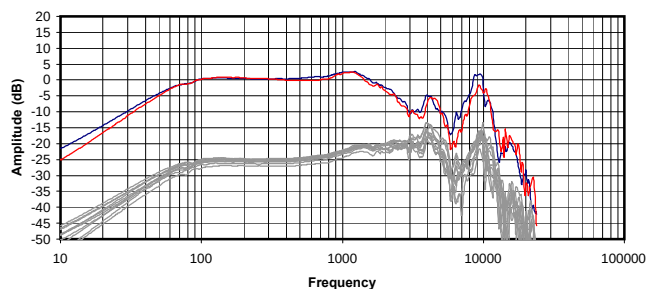
Impulse Response



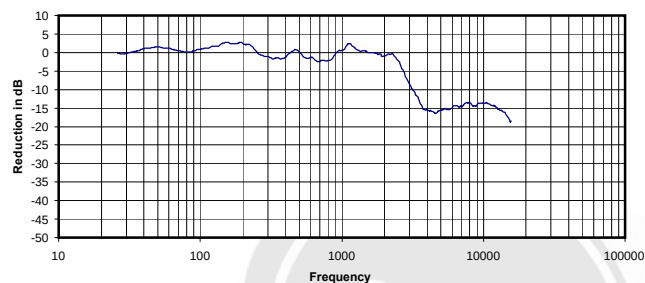
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.055 Vrms
34 Ohms
0.09 mW
-2 dBr

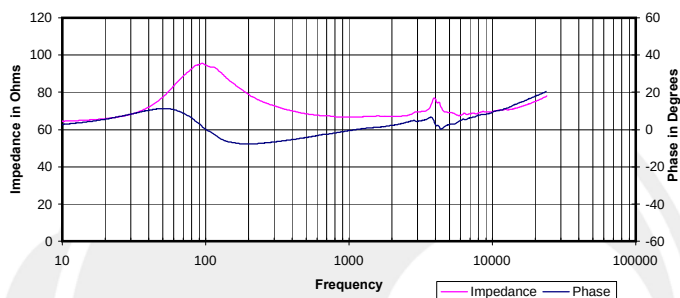
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



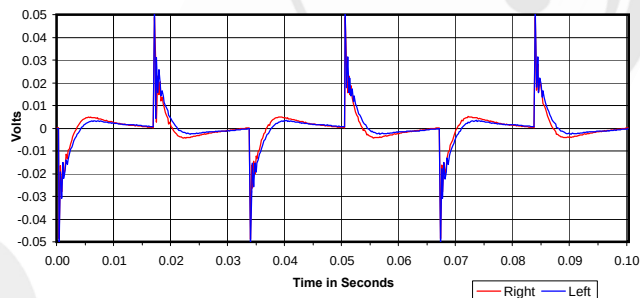
Isolation
Attenuation of External Sound vs. Frequency



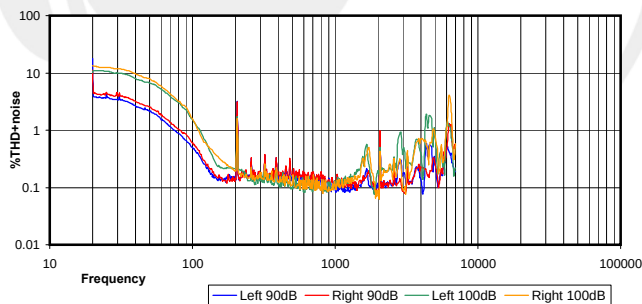
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



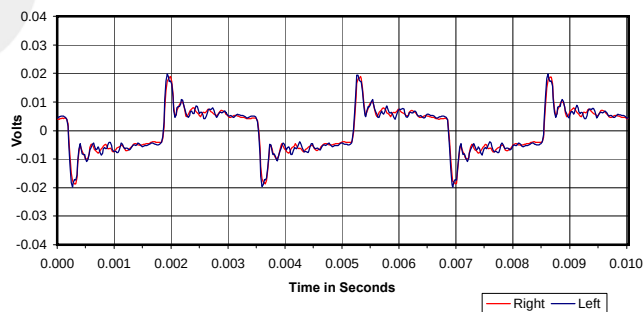
30 Hz Square Wave



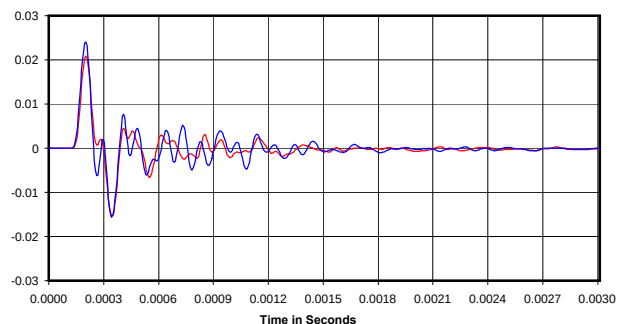
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



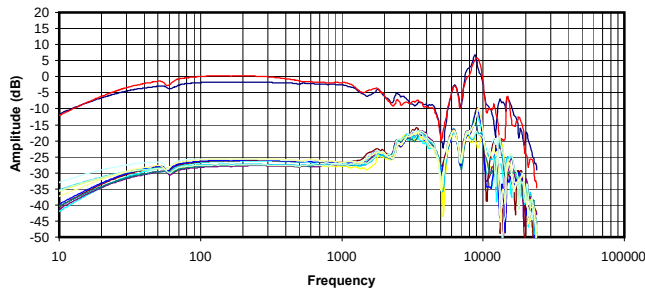
Impulse Response



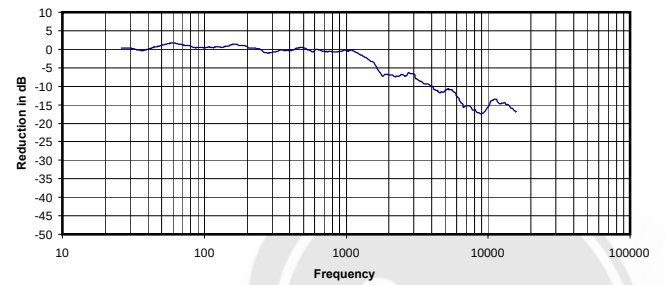
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.045 Vrms
67 Ohms
0.03 mW
-3 dBr

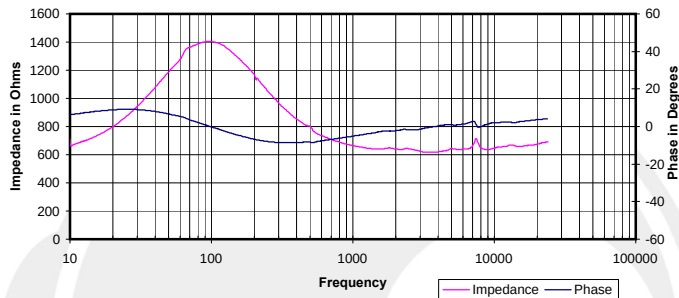
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



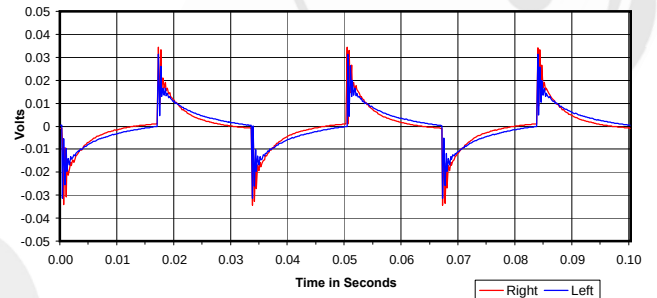
Isolation
Attenuation of External Sound vs. Frequency



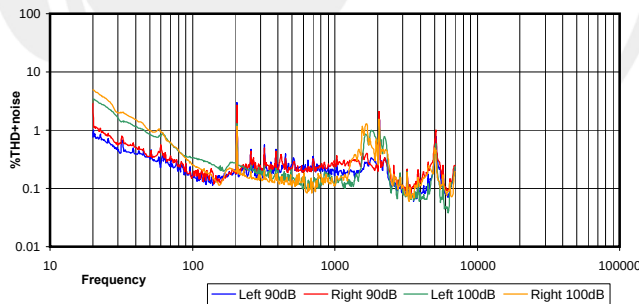
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



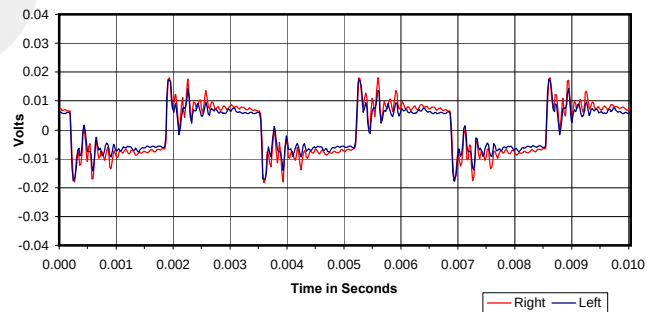
30 Hz Square Wave



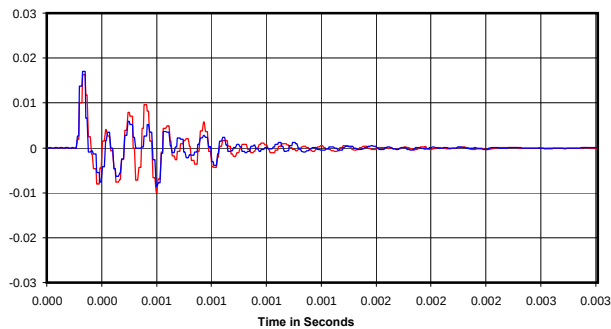
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



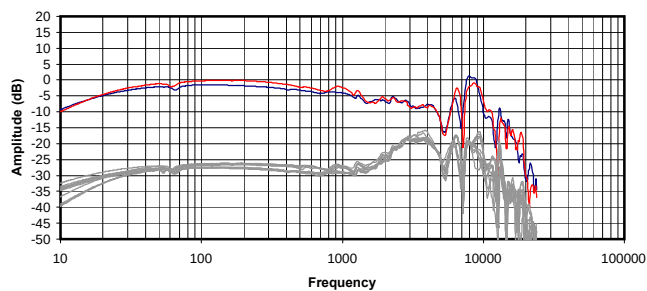
Impulse Response



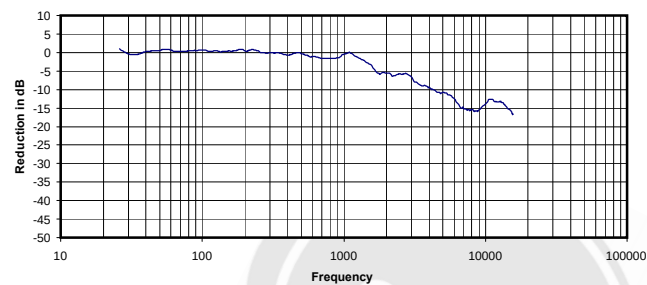
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.346 Vrms
665 Ohms
0.18 mW
-3 dBr

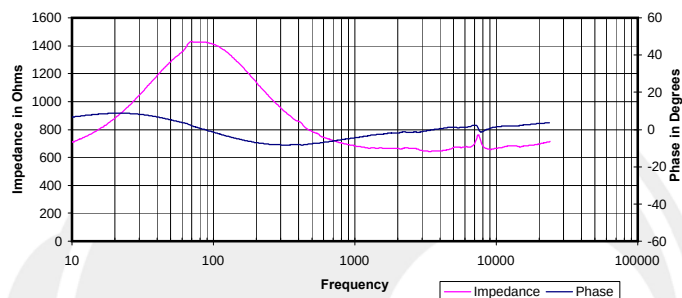
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



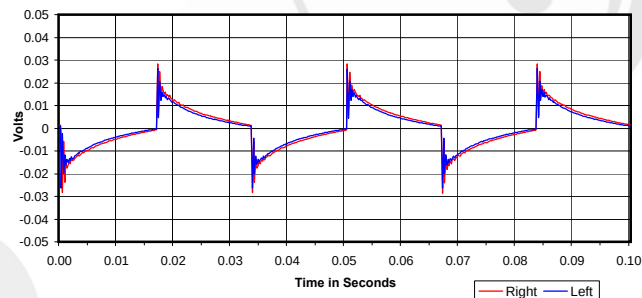
Isolation
Attenuation of External Sound vs. Frequency



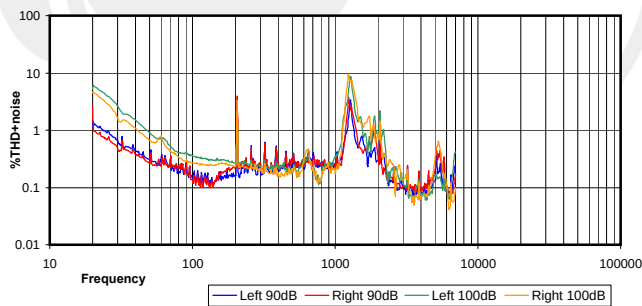
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



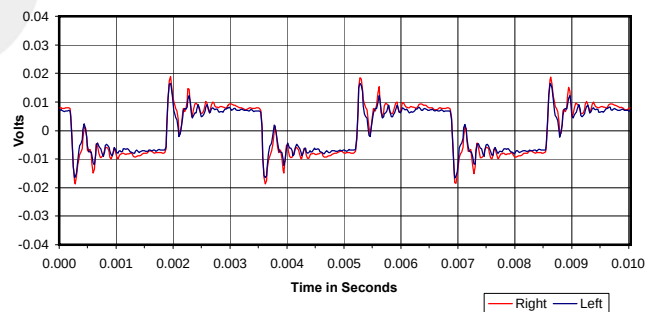
30 Hz Square Wave



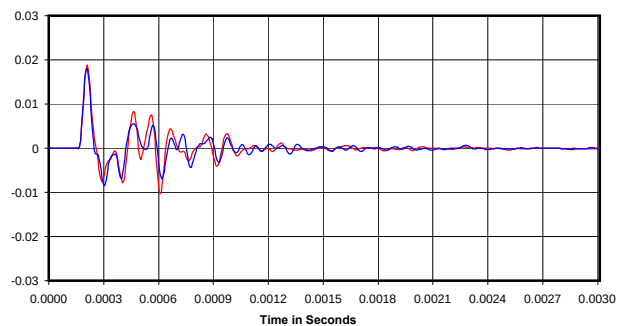
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



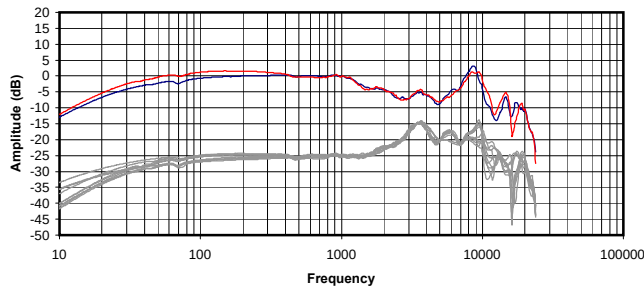
Impulse Response



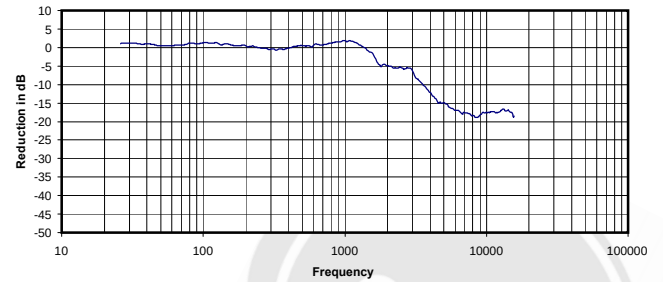
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.436 Vrms
683 Ohms
0.28 mW
-3 dBr

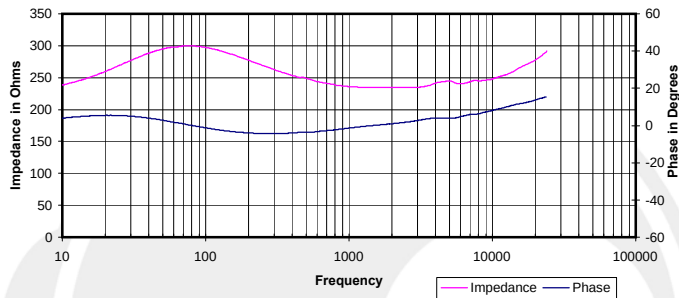
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



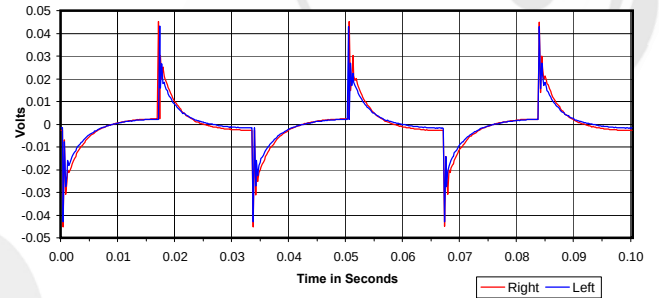
Isolation
Attenuation of External Sound vs. Frequency



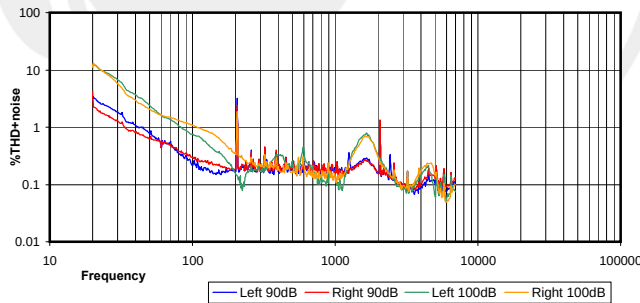
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



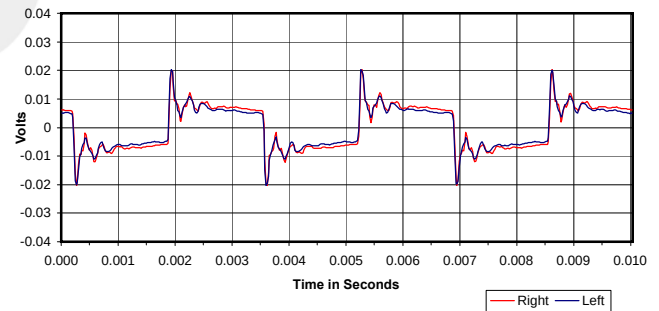
30 Hz Square Wave



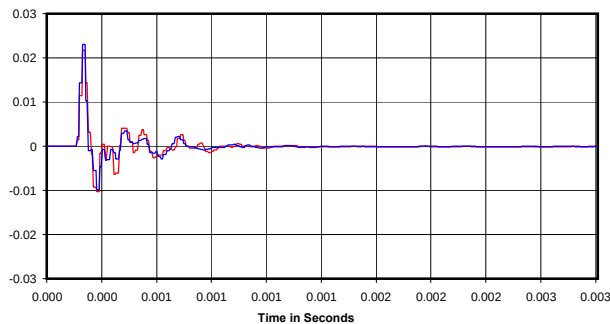
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



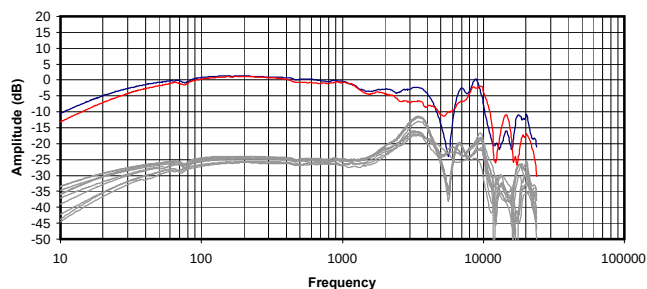
Impulse Response



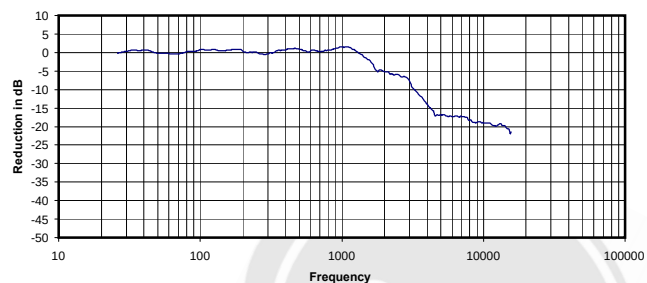
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.299 Vrms
236 Ohms
0.38 mW
-3 dBr

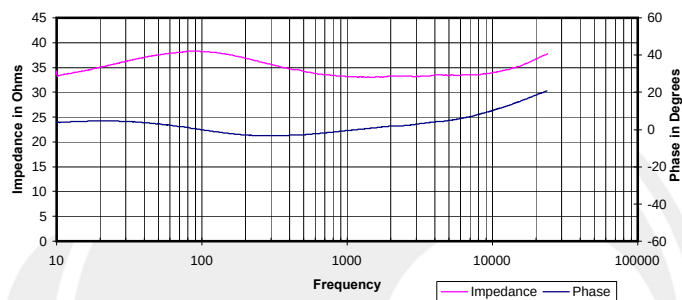
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



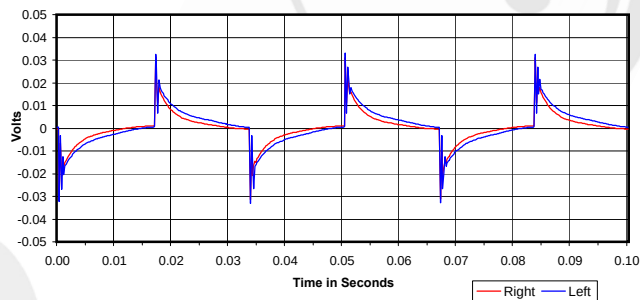
Isolation
Attenuation of External Sound vs. Frequency



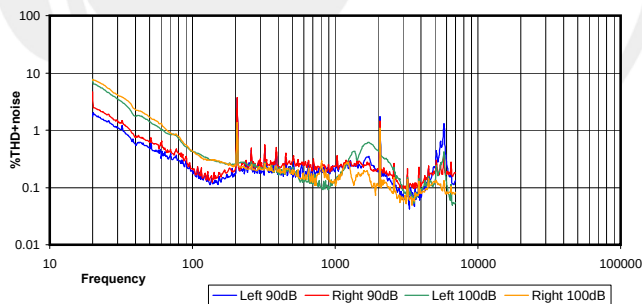
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



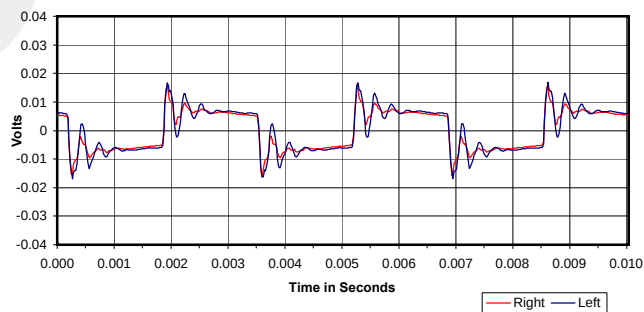
30 Hz Square Wave



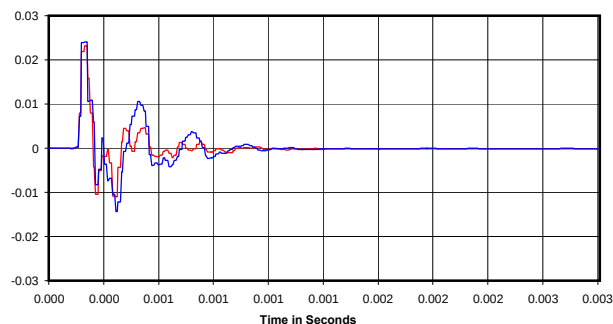
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



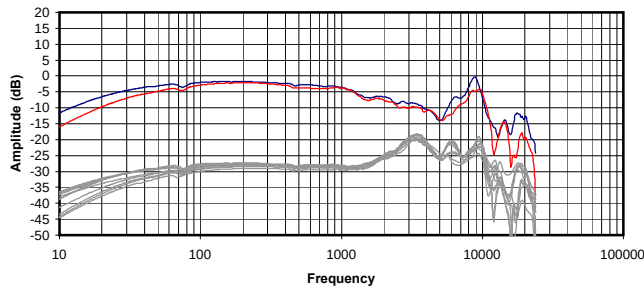
Impulse Response



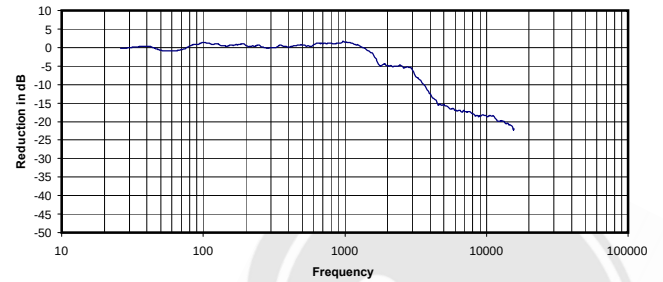
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.125 Vrms
33 Ohms
0.47 mW
-3 dBr

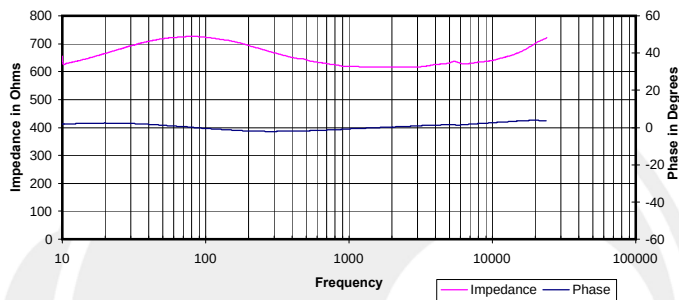
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



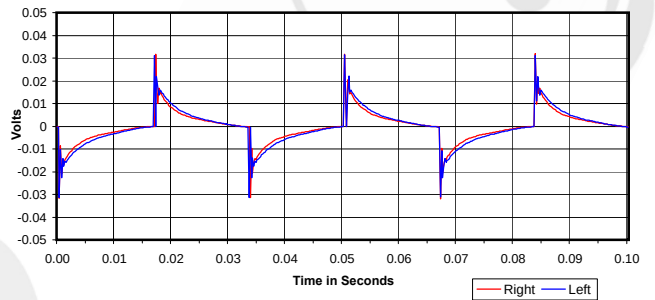
Isolation
Attenuation of External Sound vs. Frequency



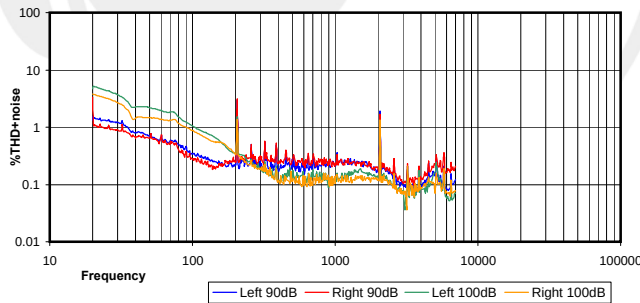
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



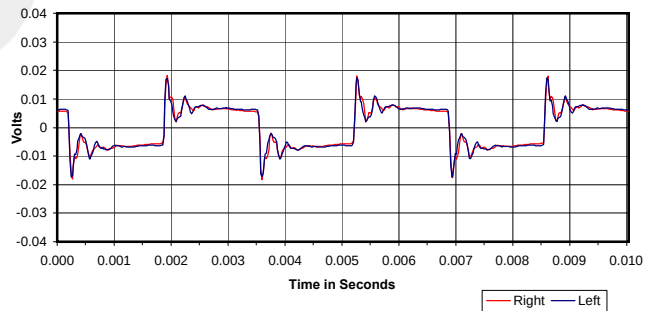
30 Hz Square Wave



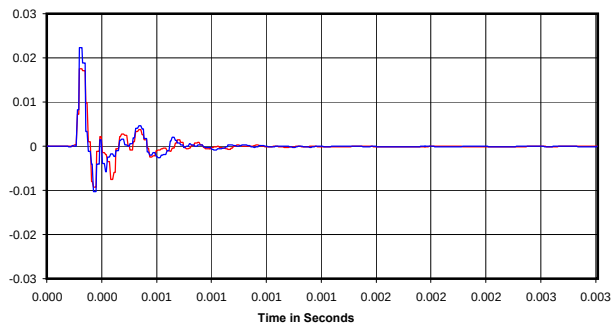
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



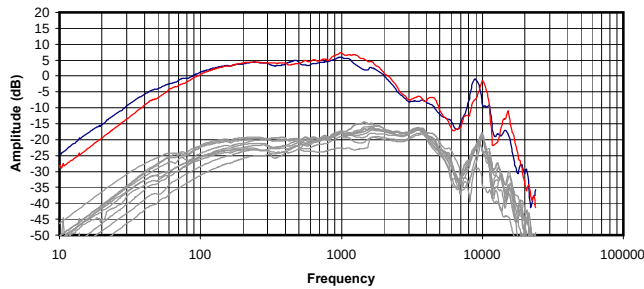
Impulse Response



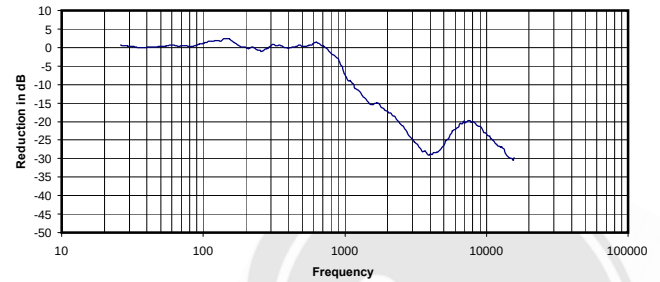
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.514 Vrms
619 Ohms
0.43 mW
-3 dBr

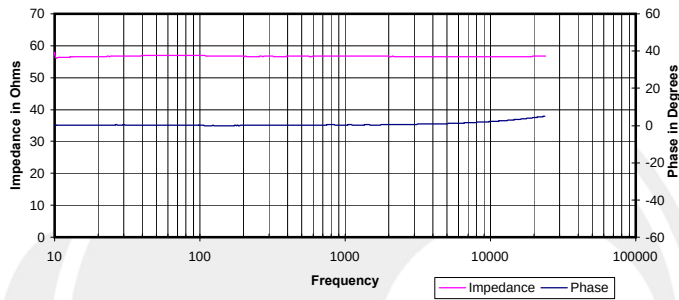
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



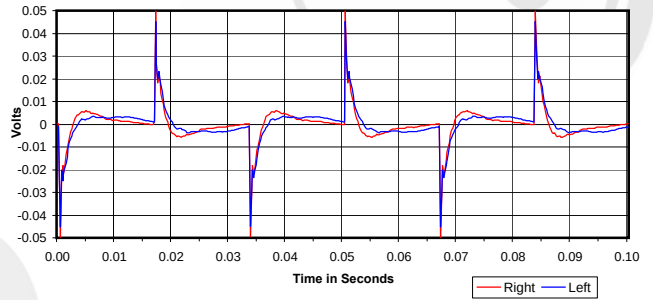
Isolation
Attenuation of External Sound vs. Frequency



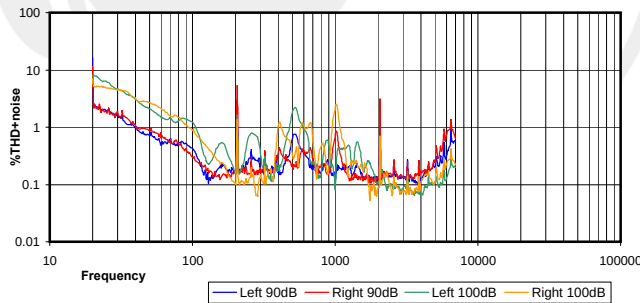
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



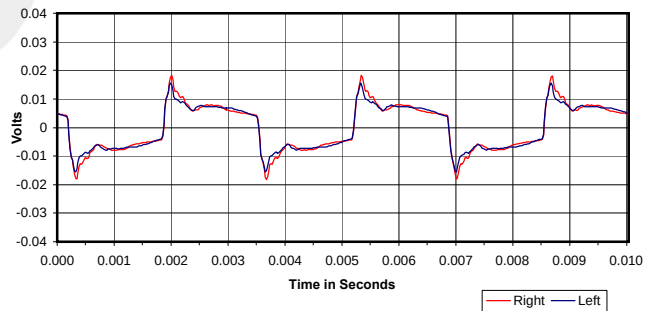
30 Hz Square Wave



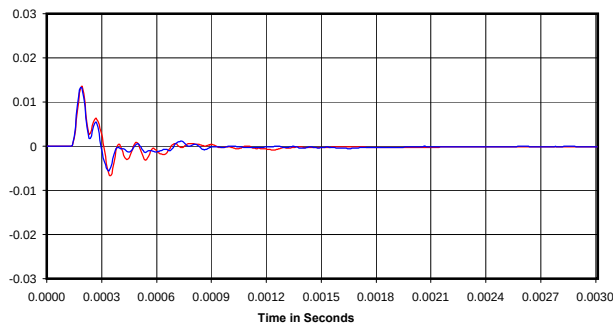
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



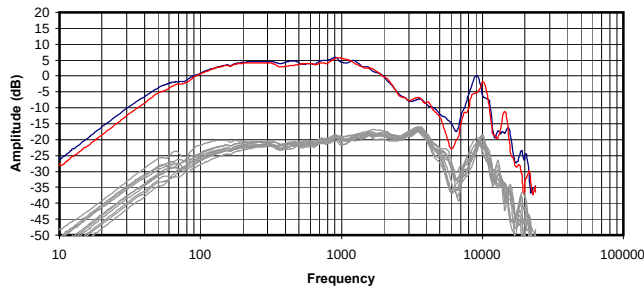
Impulse Response



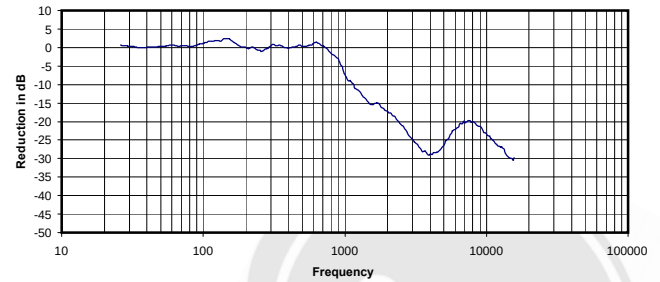
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.088 Vrms
57 Ohms
0.14 mW
-9 dBr

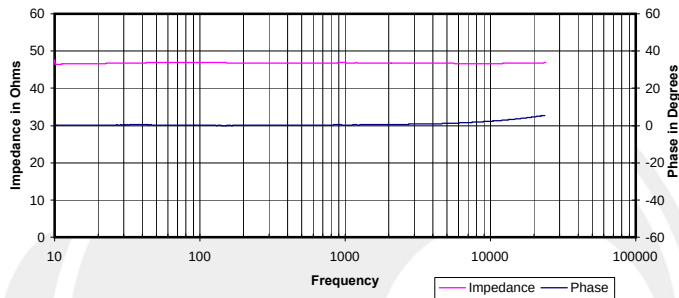
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



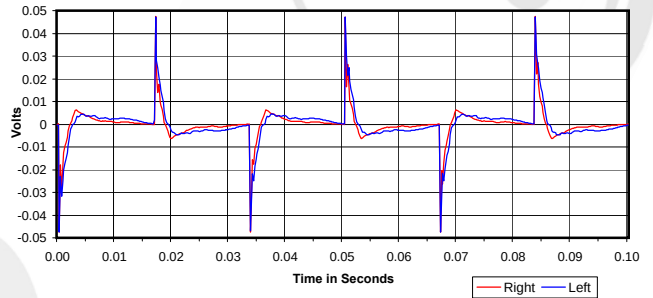
Isolation
Attenuation of External Sound vs. Frequency



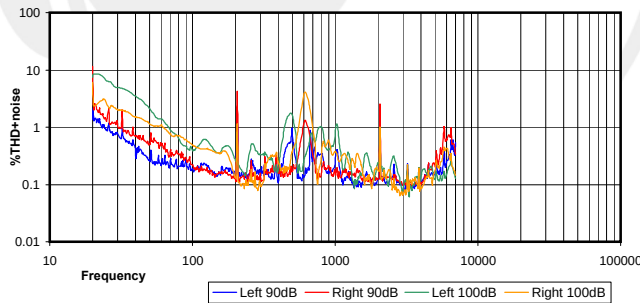
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



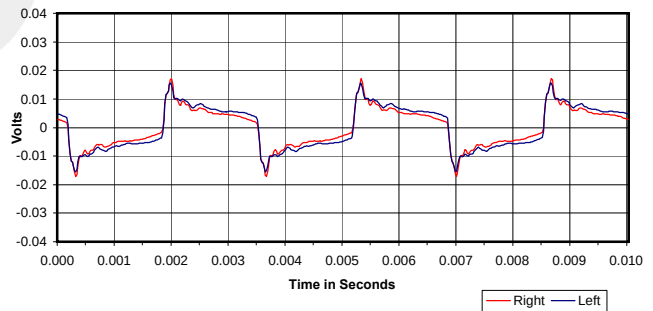
30 Hz Square Wave



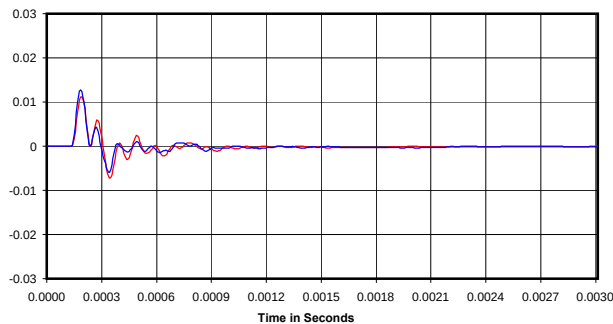
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



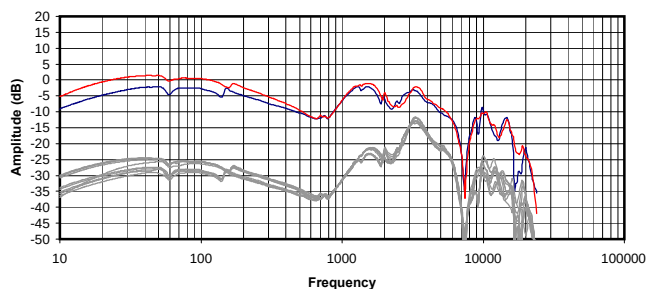
Impulse Response



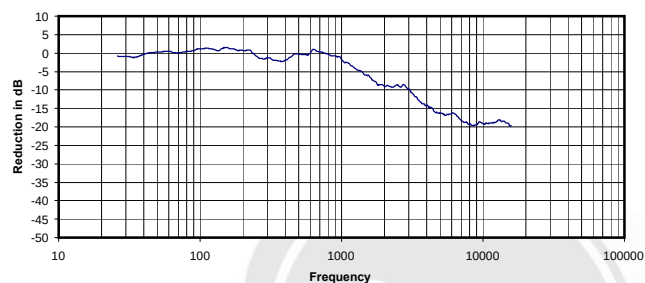
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.116 Vrms
47 Ohms
0.29 mW
-9 dBr

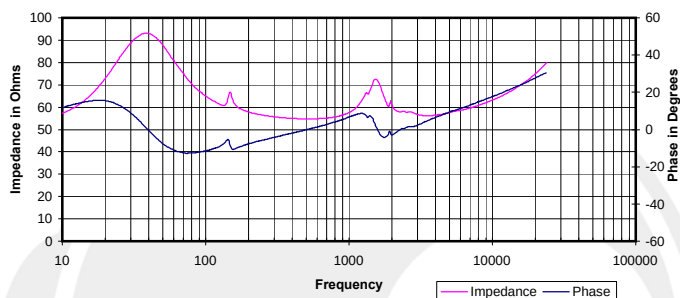
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



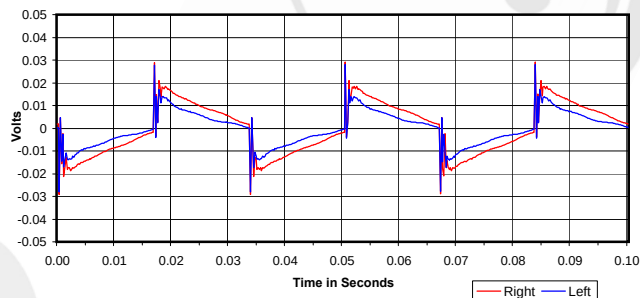
Isolation
Attenuation of External Sound vs. Frequency



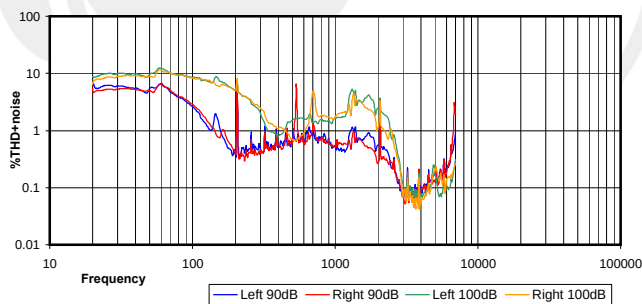
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



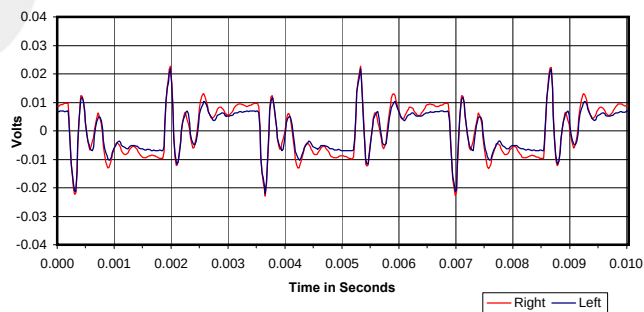
30 Hz Square Wave



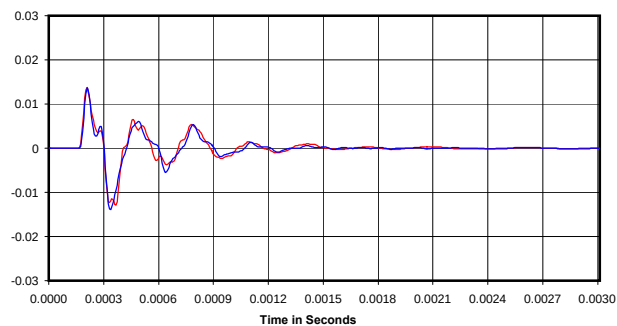
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



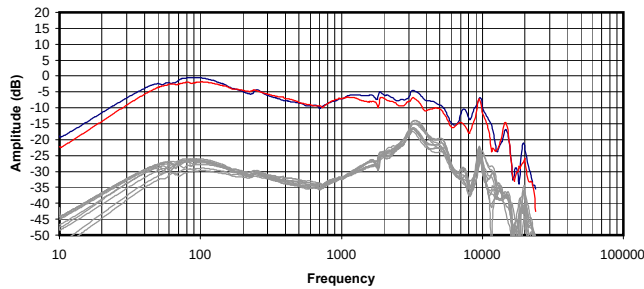
Impulse Response



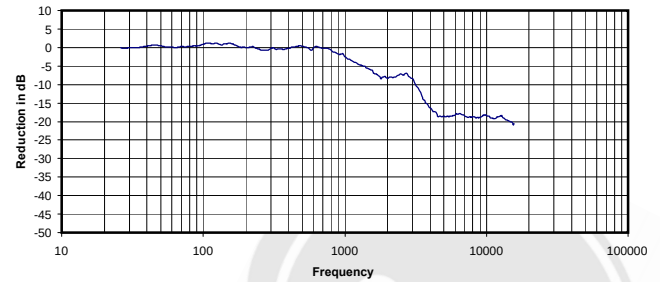
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.262 Vrms
58 Ohms
1.19 mW
-4 dBr

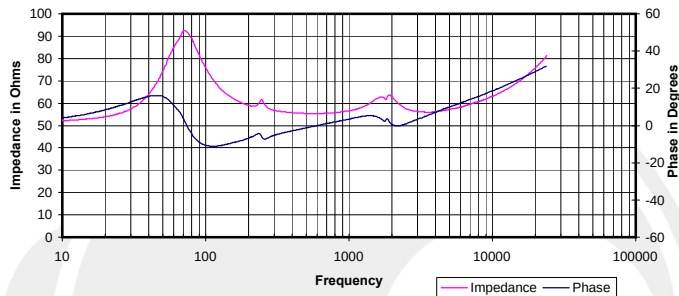
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



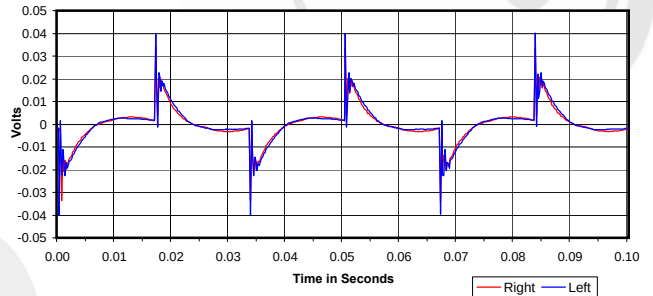
Isolation
Attenuation of External Sound vs. Frequency



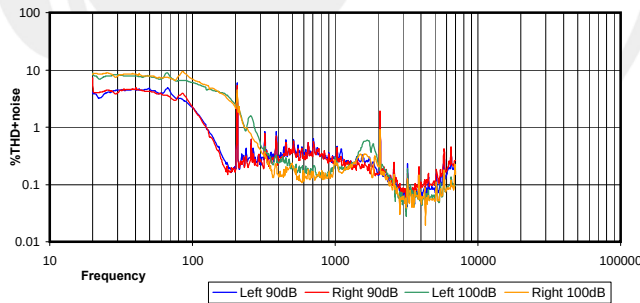
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



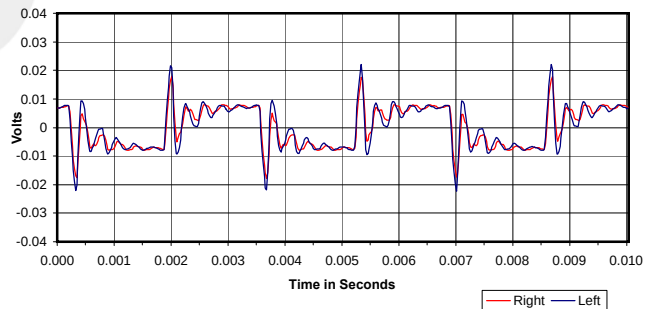
30 Hz Square Wave



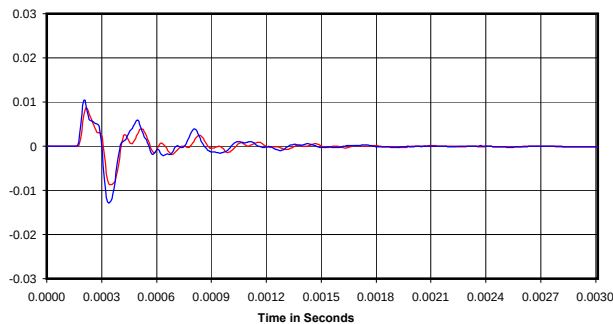
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



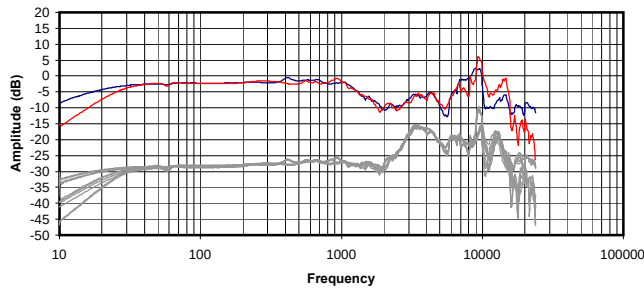
Impulse Response



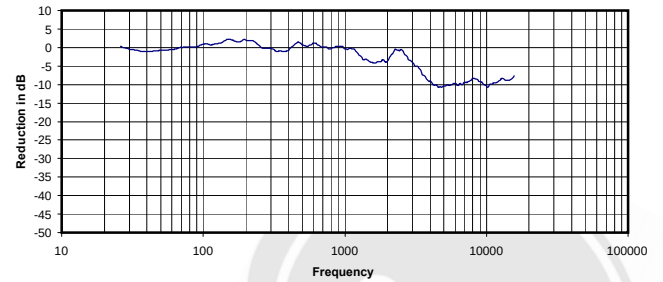
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.189 Vrms
57 Ohms
0.63 mW
-4 dBr

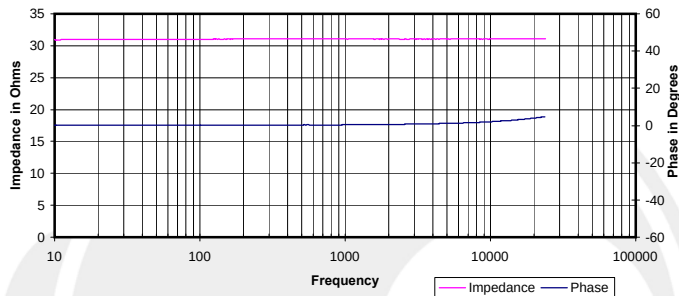
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



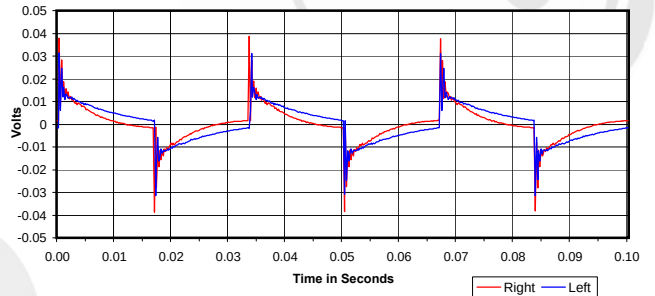
Isolation
Attenuation of External Sound vs. Frequency



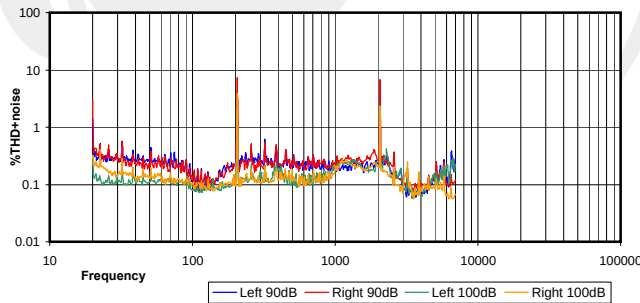
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



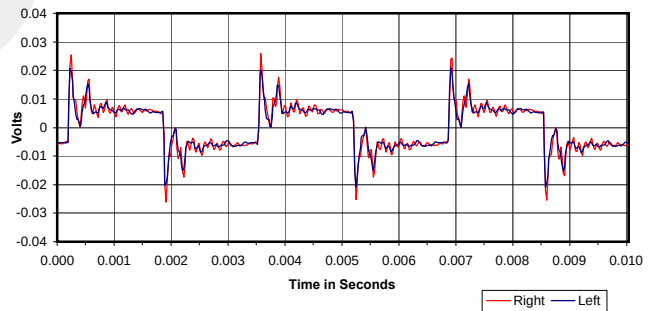
30 Hz Square Wave



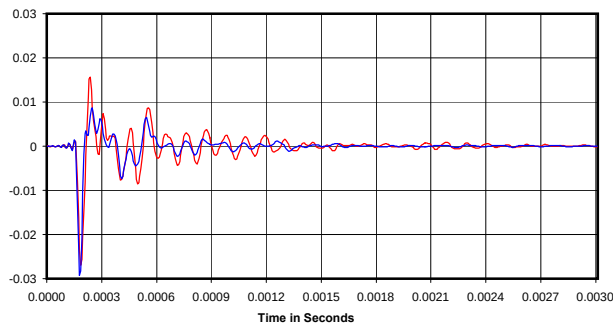
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



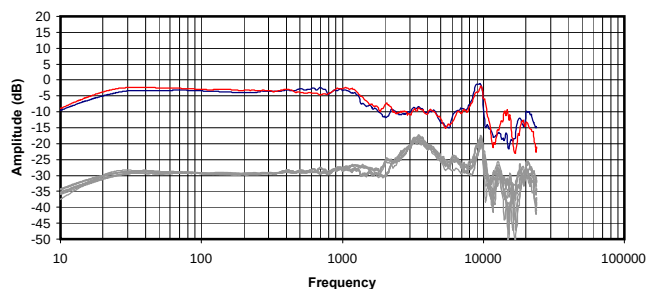
Impulse Response



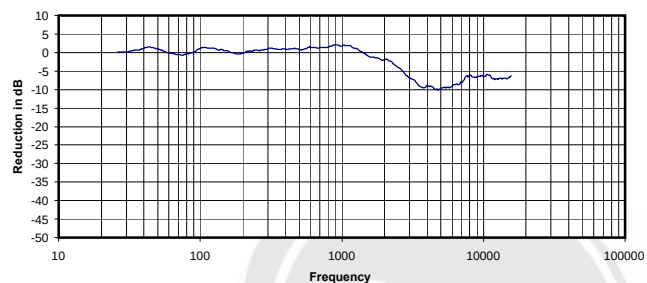
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.380 Vrms
31 Ohms
4.65 mW
-2 dBr

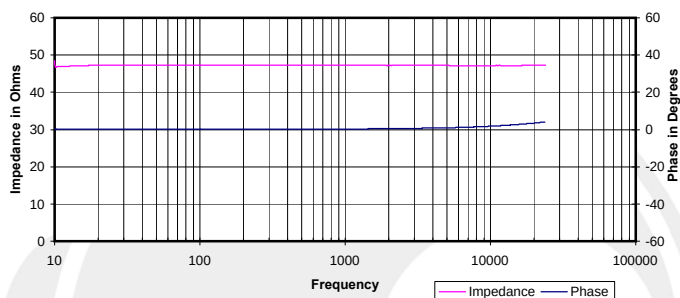
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



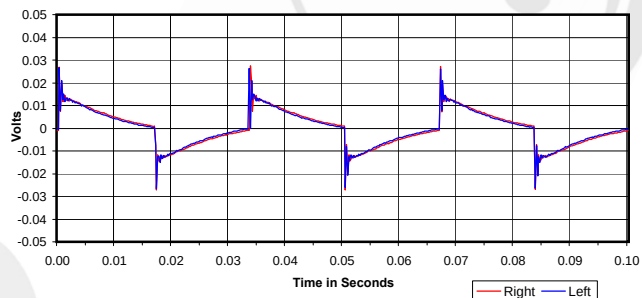
Isolation
Attenuation of External Sound vs. Frequency



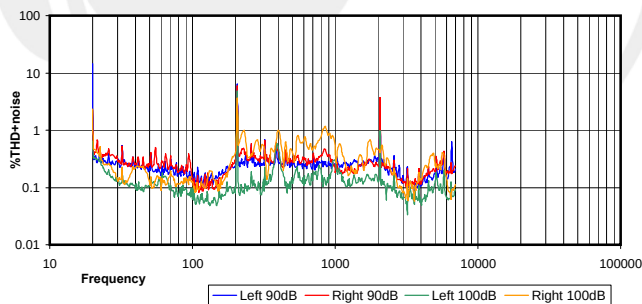
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



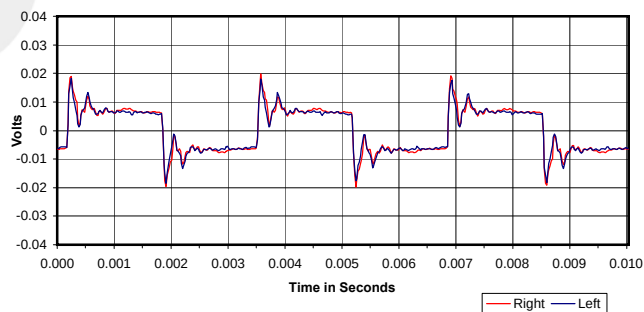
30 Hz Square Wave



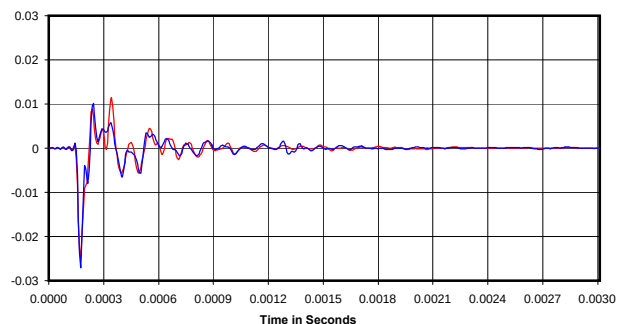
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



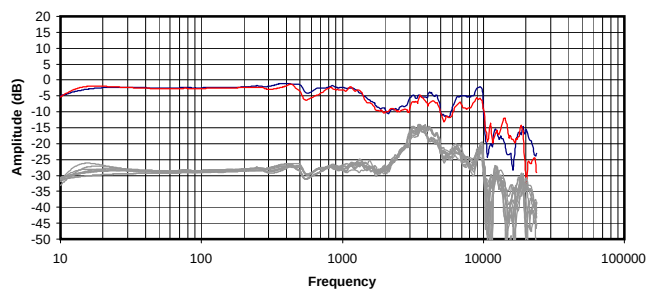
Impulse Response



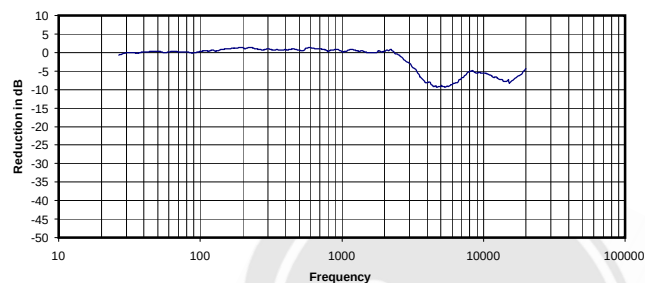
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.310 Vrms
47 Ohms
2.04 mW
-1 dB

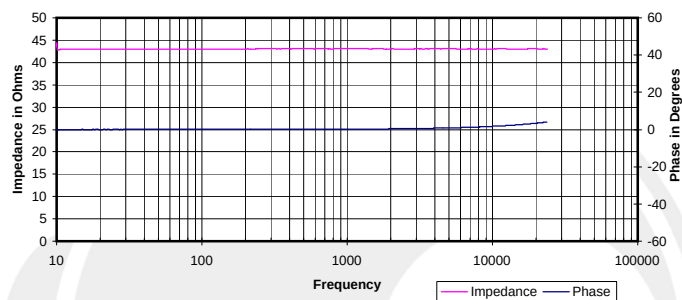
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



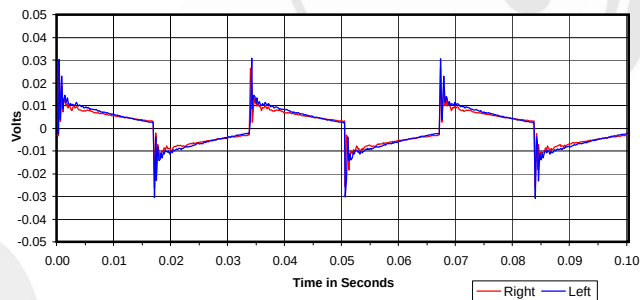
Isolation
Attenuation of External Sound vs. Frequency



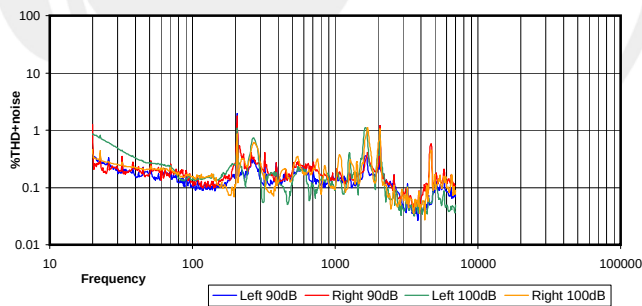
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



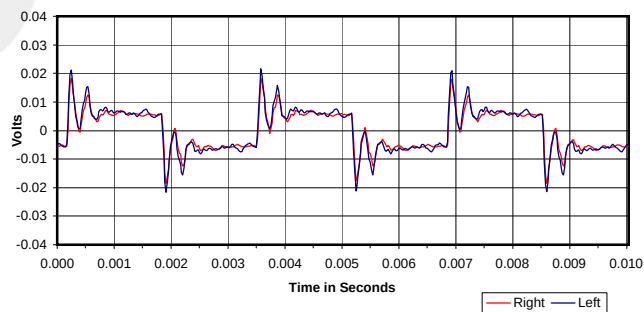
30 Hz Square Wave



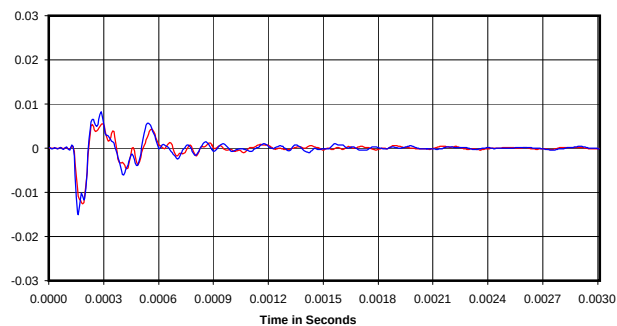
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



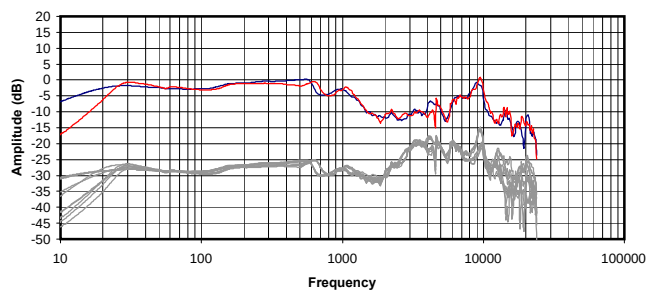
Impulse Response



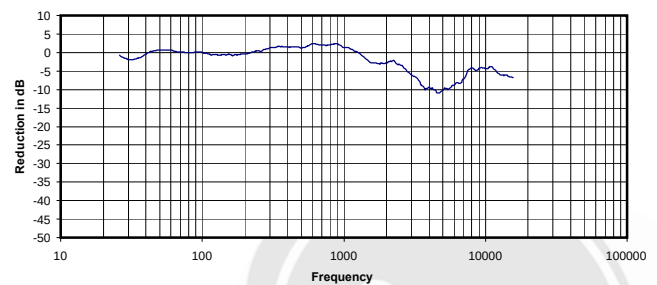
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.330 Vrms
43 Ohms
2.53 mW
-1 dB

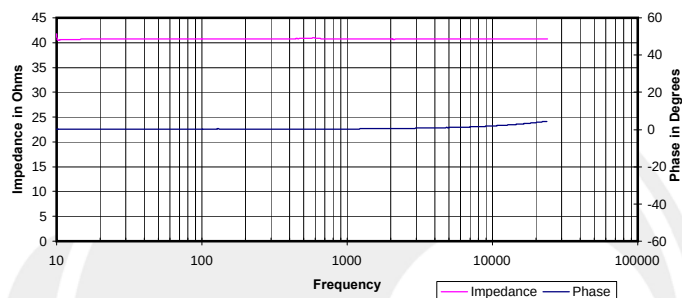
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



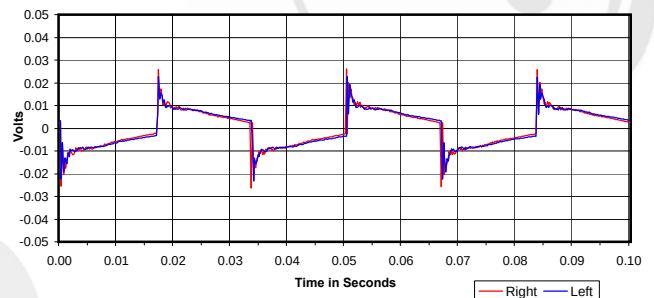
Isolation
Attenuation of External Sound vs. Frequency



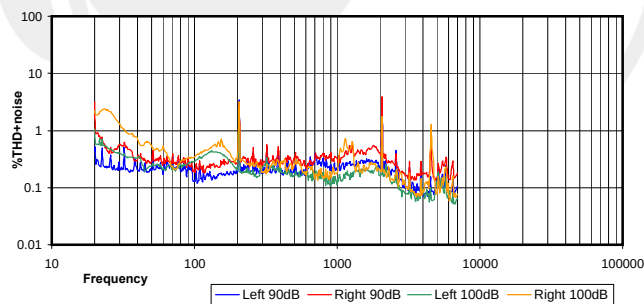
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



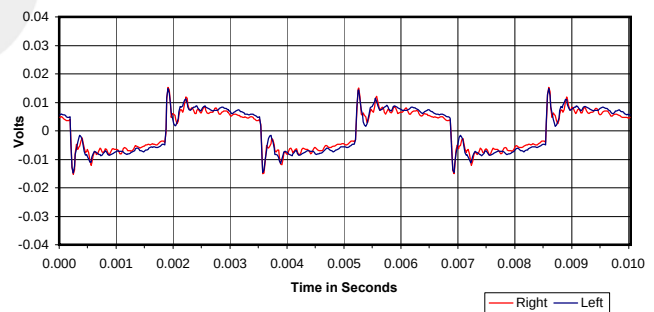
30 Hz Square Wave



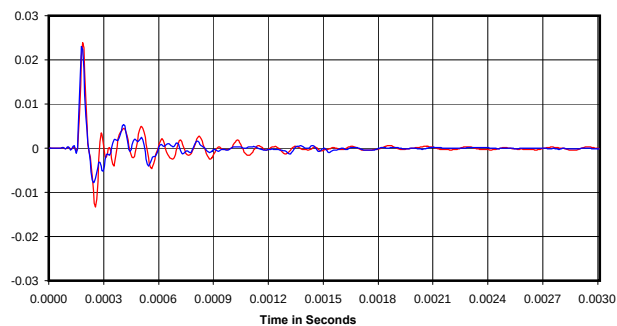
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



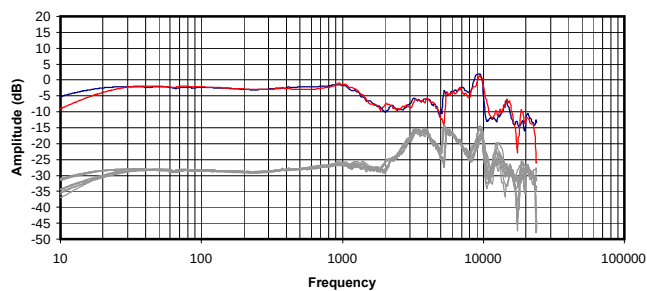
Impulse Response



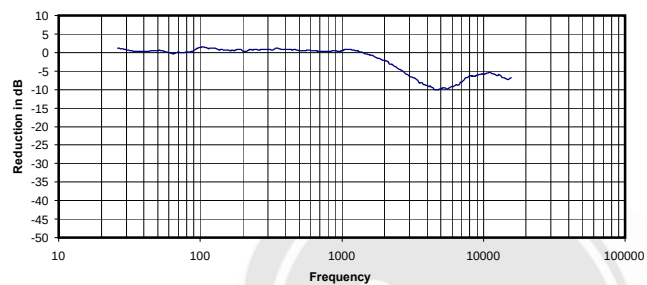
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.439 Vrms
41 Ohms
4.73 mW
-2 dBr

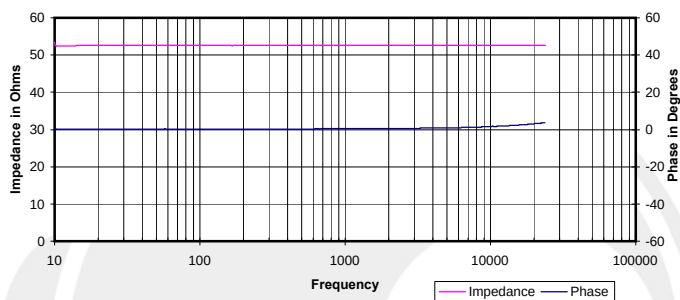
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



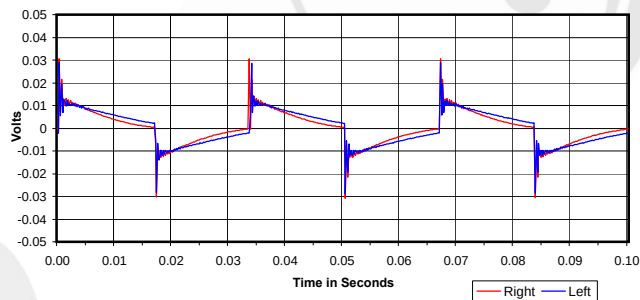
Isolation
Attenuation of External Sound vs. Frequency



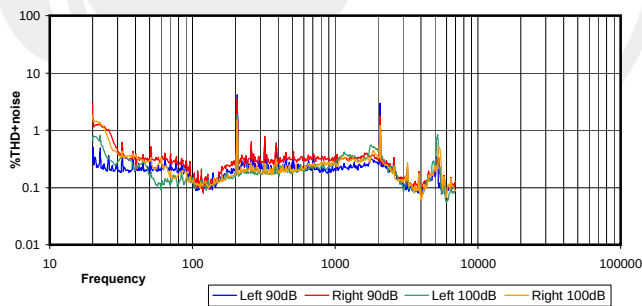
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



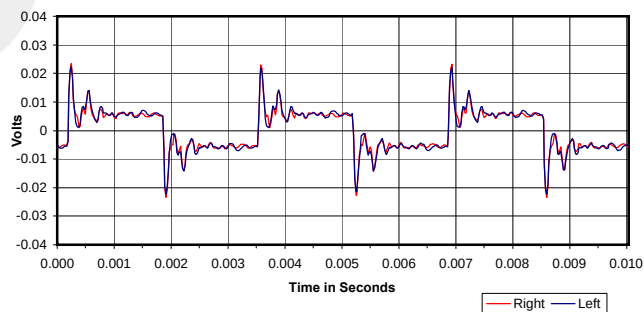
30 Hz Square Wave



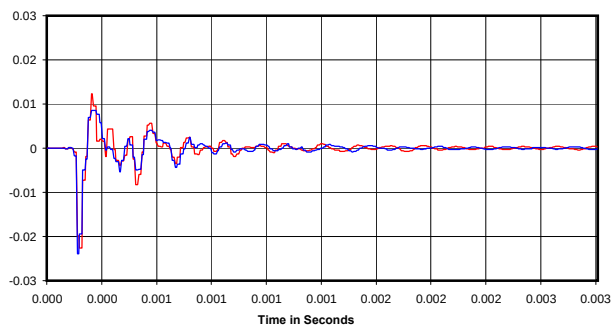
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



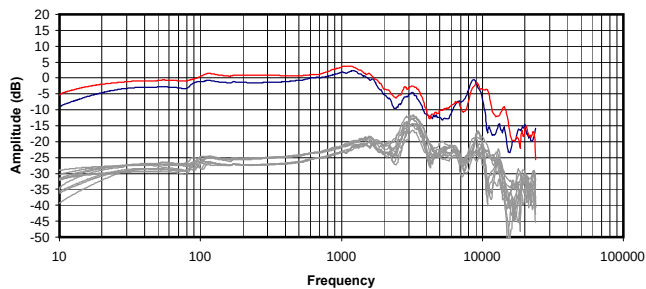
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

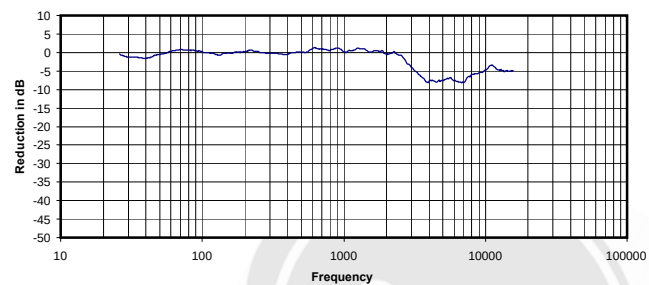
1.018 Vrms
53 Ohms
19.69 mW
-2 dBr

Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions

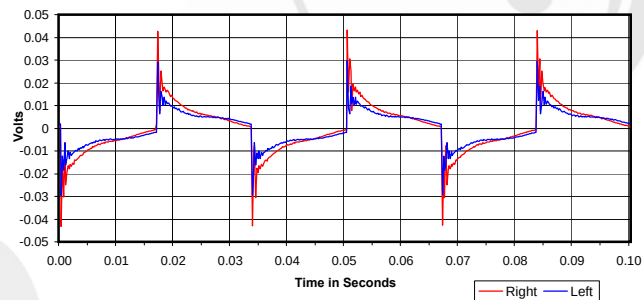


Electrical Impedance and phase measurements unavailable for Electrostatic headphones.

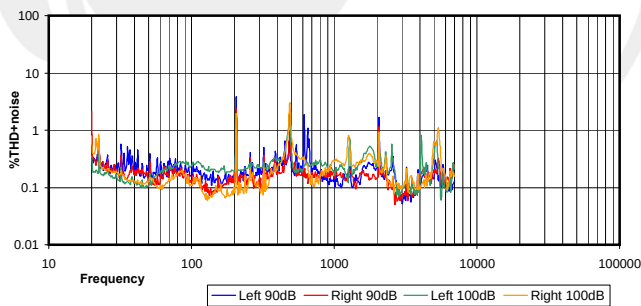
Isolation
Attenuation of External Sound vs. Frequency



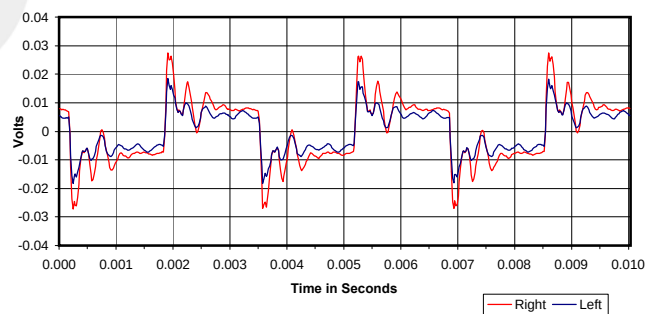
30 Hz Square Wave



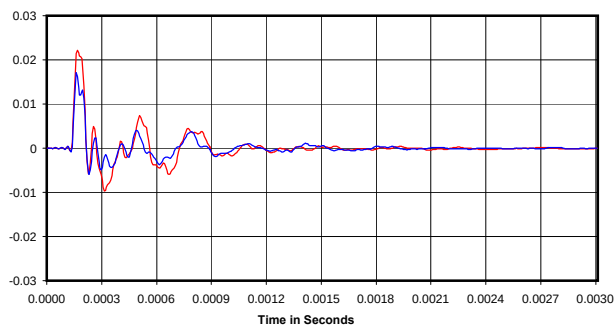
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



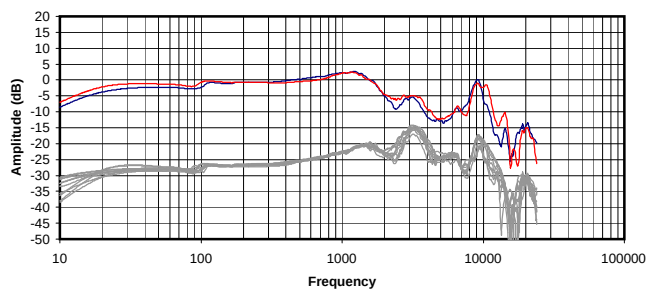
Impulse Response



Broadband Isolation in dB (100Hz to 10kHz):

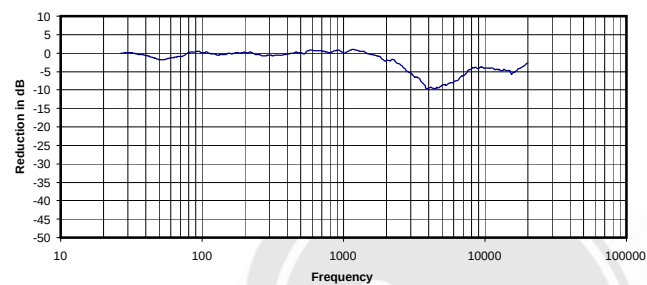
-1 dBr

Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions

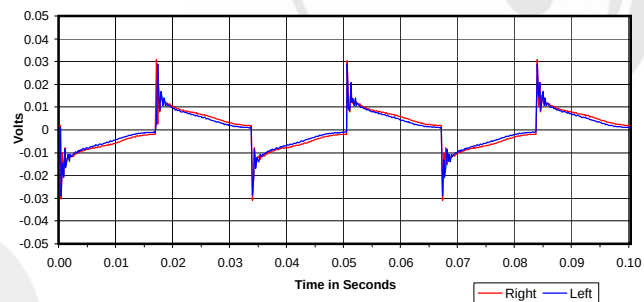


Electrical Impedance and phase measurements
unavailable for electrostatic and wireless headphones

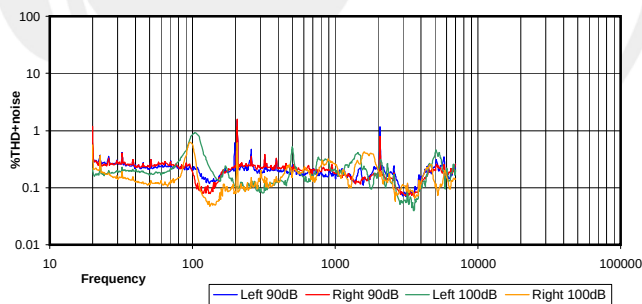
Isolation
Attenuation of External Sound vs. Frequency



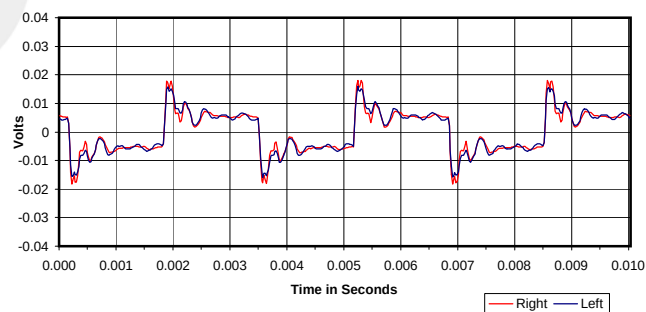
30 Hz Square Wave



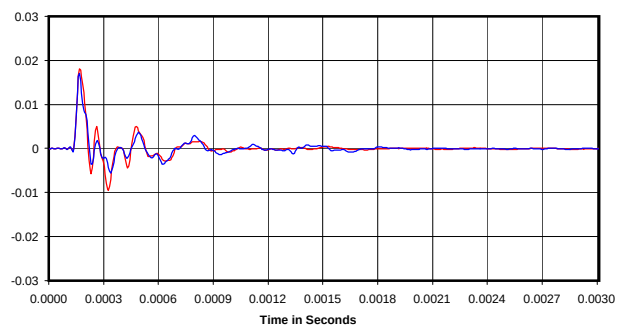
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



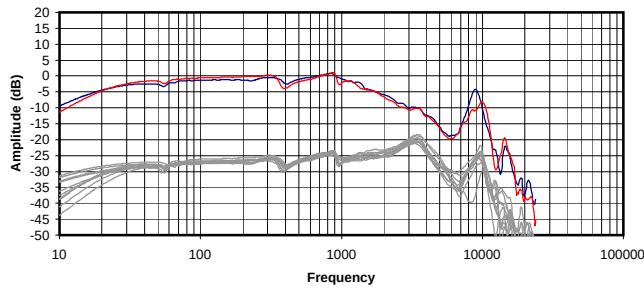
Impulse Response



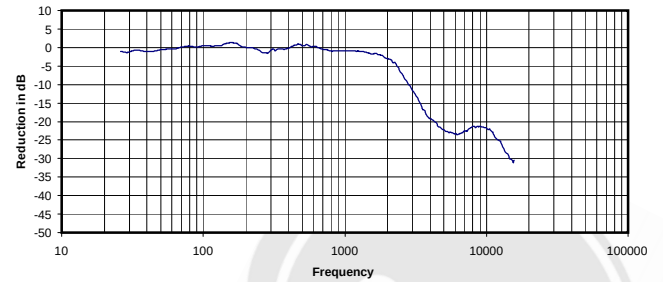
Broadband Isolation in dB (100Hz to 10kHz):

-2 dB

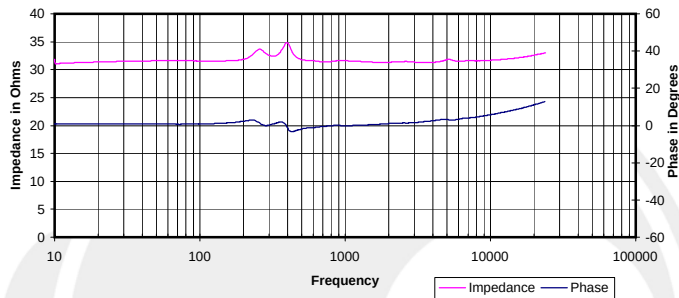
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



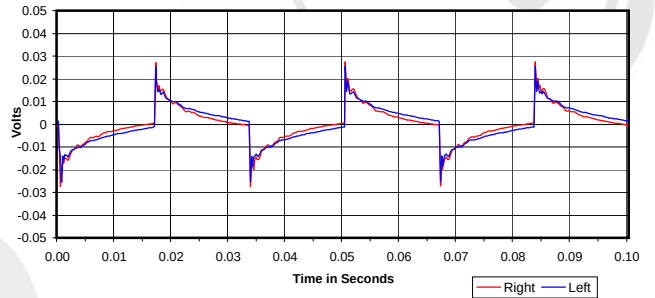
Isolation
Attenuation of External Sound vs. Frequency



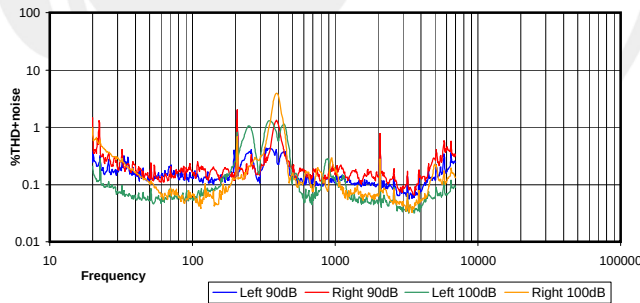
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



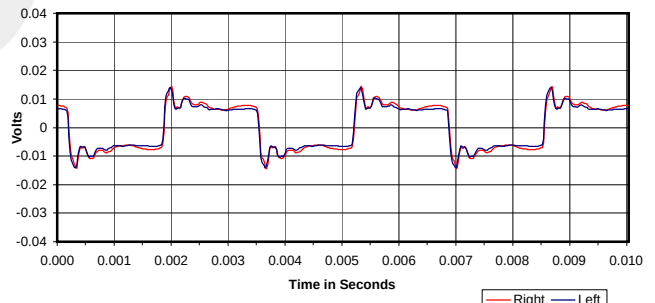
30 Hz Square Wave



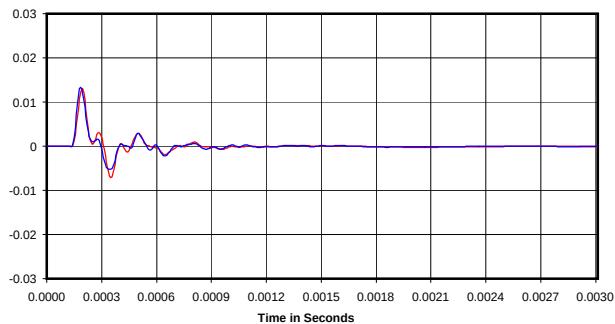
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



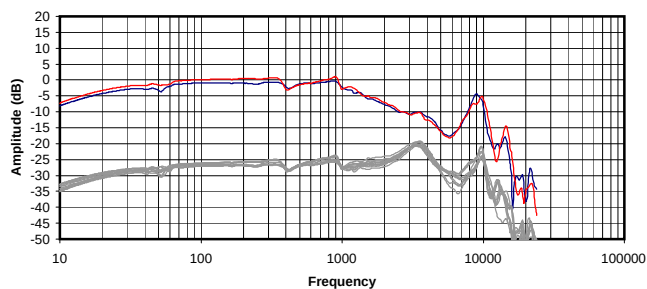
Impulse Response



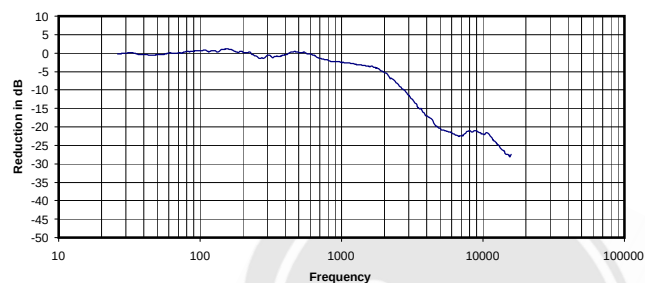
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.053 Vrms
32 Ohms
0.09 mW
-4 dB

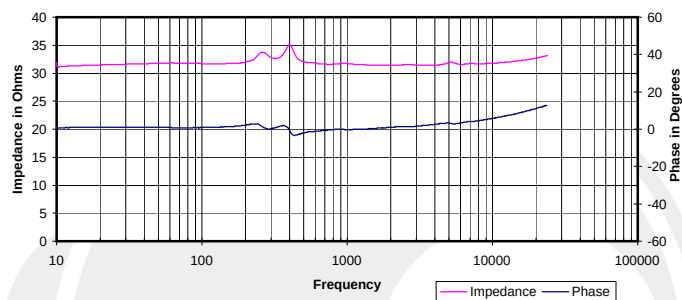
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



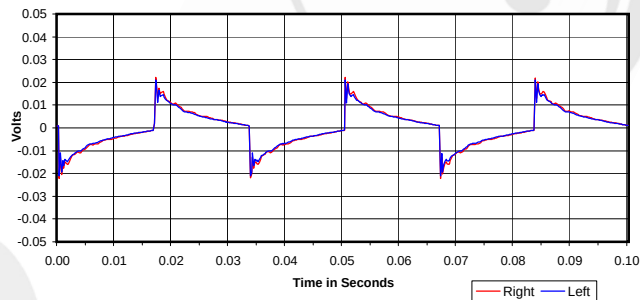
Isolation
Attenuation of External Sound vs. Frequency



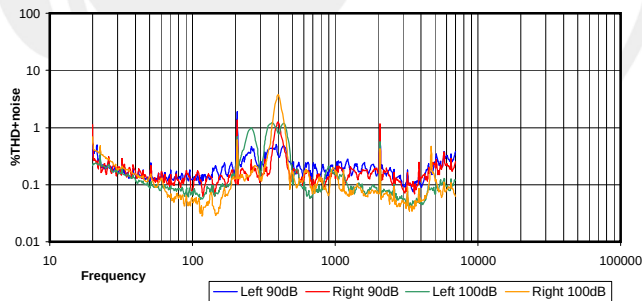
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



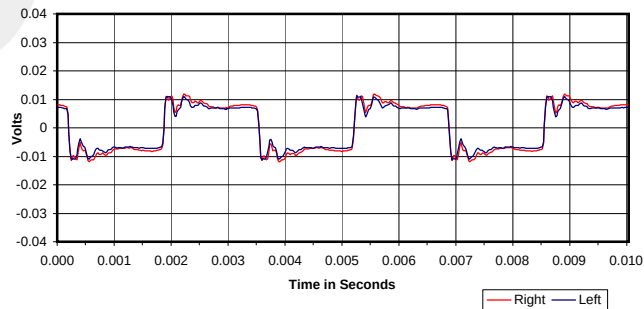
30 Hz Square Wave



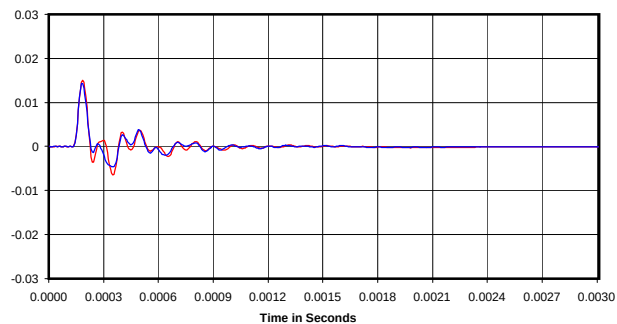
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



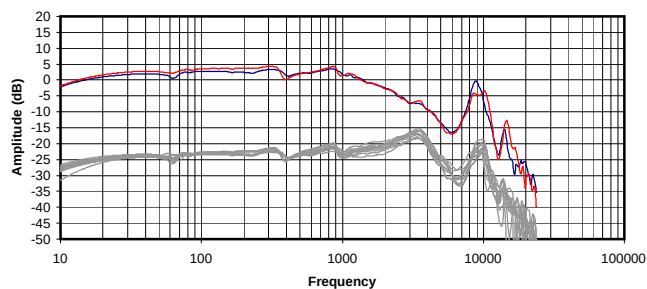
Impulse Response



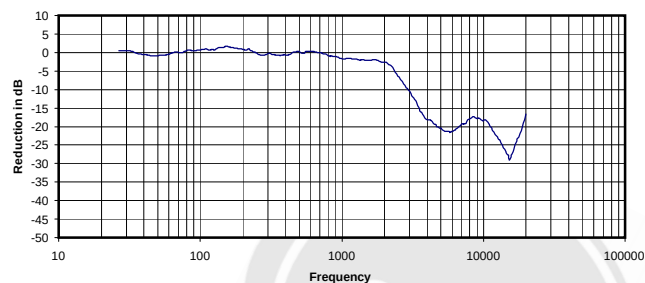
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.072 Vrms
32 Ohms
0.16 mW
-5 dBr

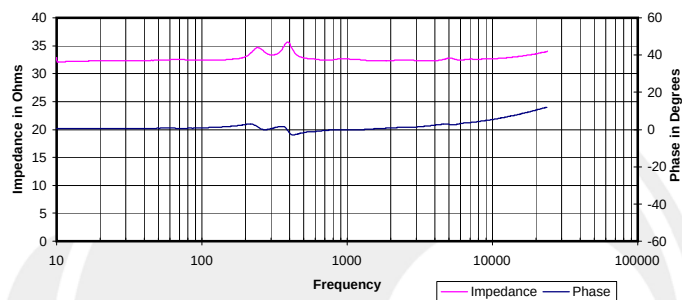
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



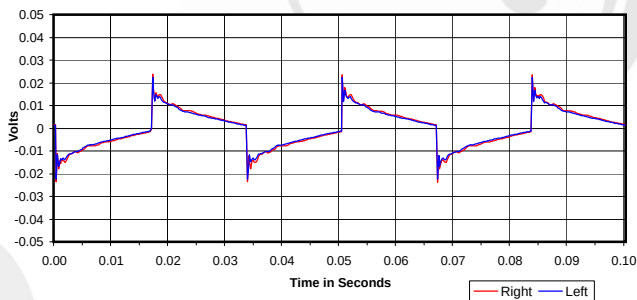
Isolation
Attenuation of External Sound vs. Frequency



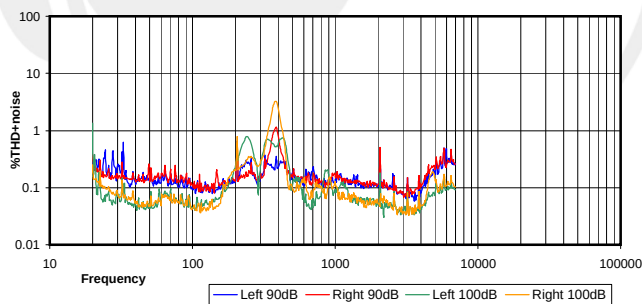
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



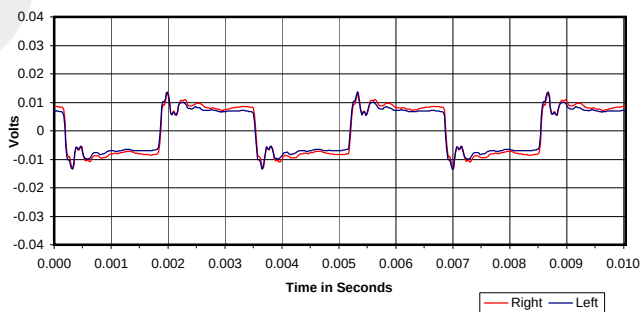
30 Hz Square Wave



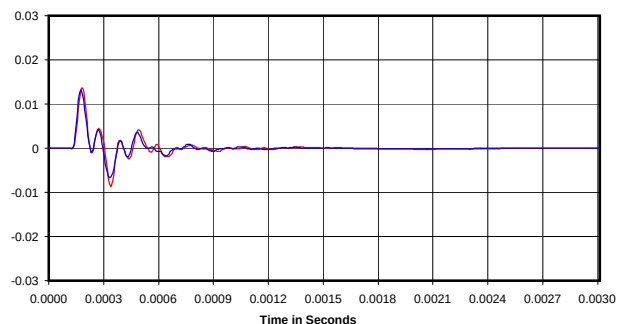
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



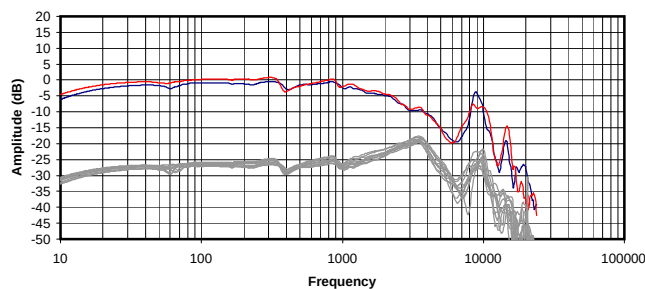
Impulse Response



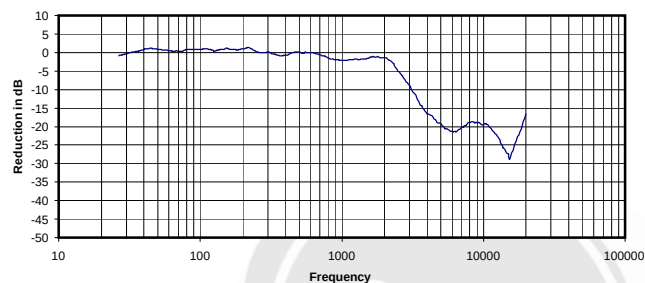
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.054 Vrms
33 Ohms
0.09 mW
-6 dBr

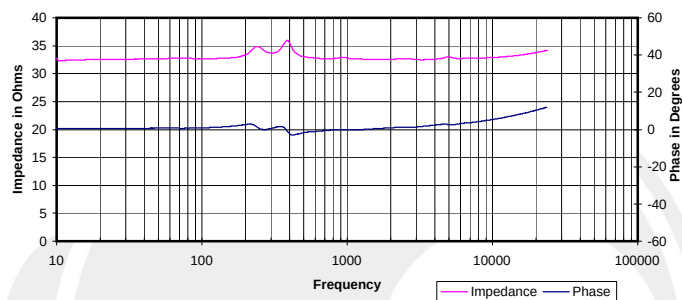
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



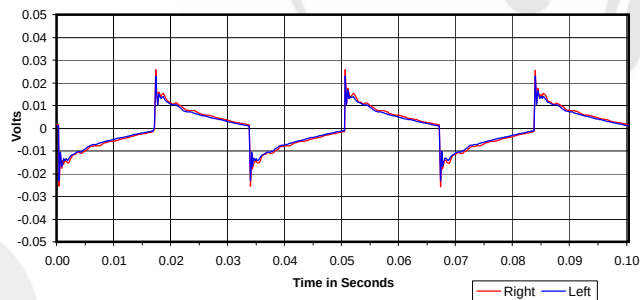
Isolation
Attenuation of External Sound vs. Frequency



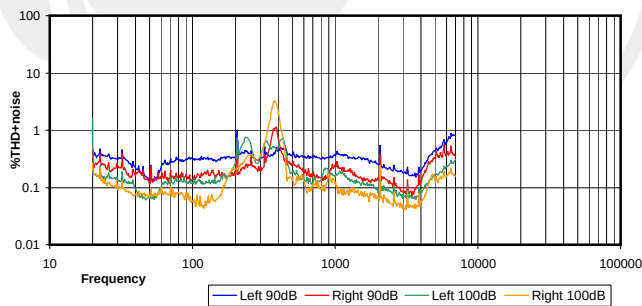
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



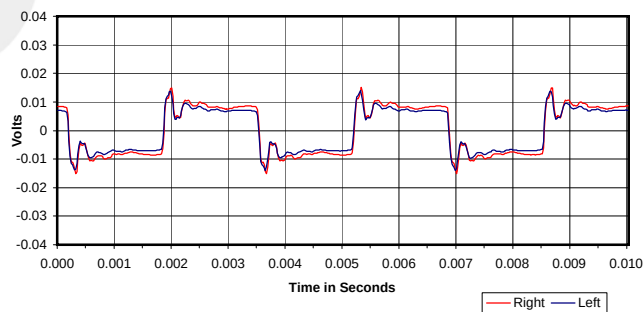
30 Hz Square Wave



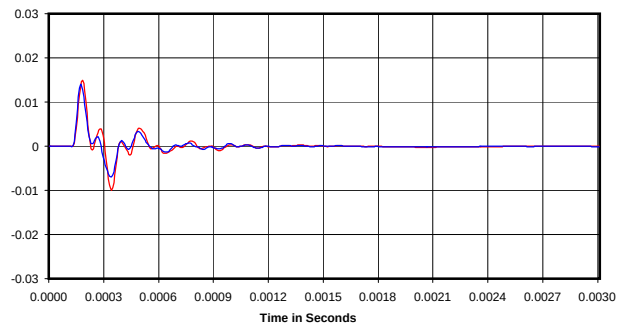
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



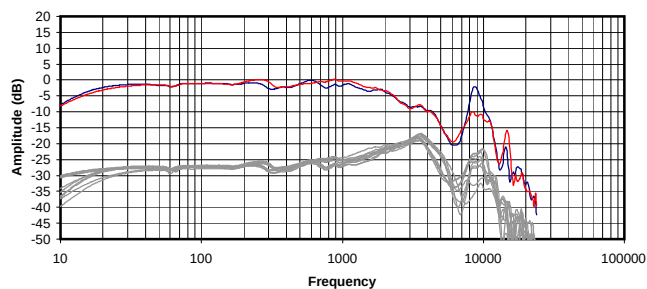
Impulse Response



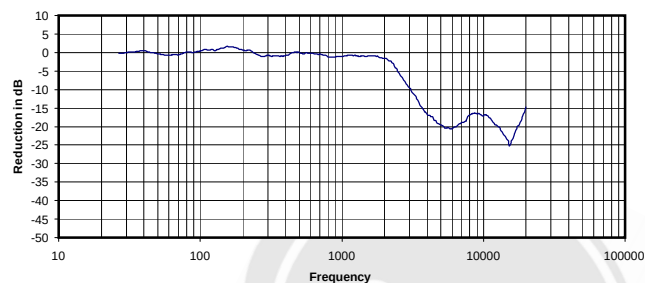
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.064 Vrms
33 Ohms
0.13 mW
-5 dBr

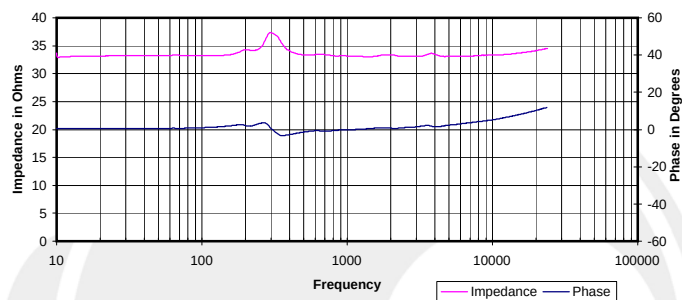
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



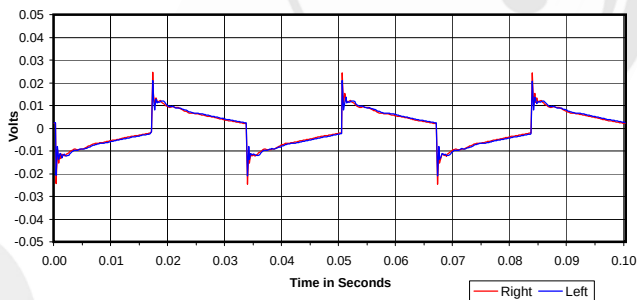
Isolation
Attenuation of External Sound vs. Frequency



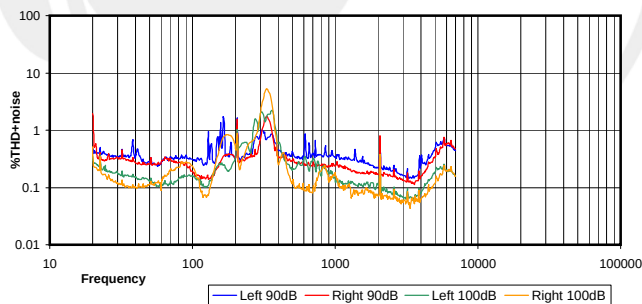
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



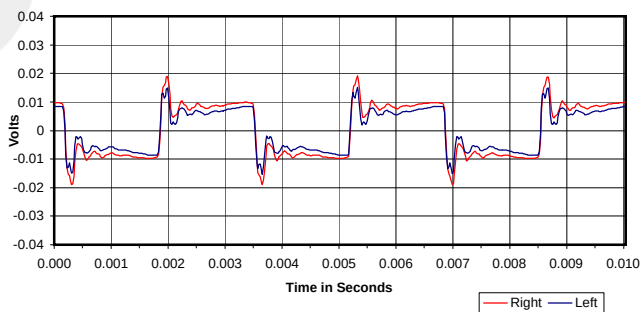
30 Hz Square Wave



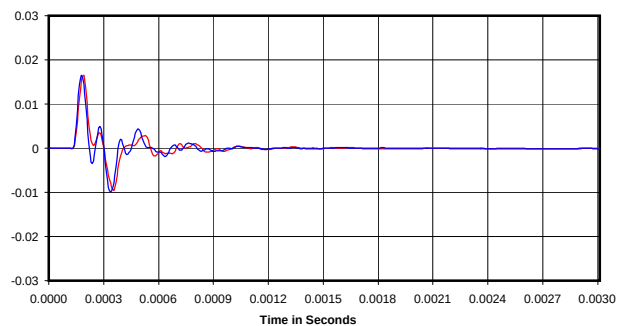
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



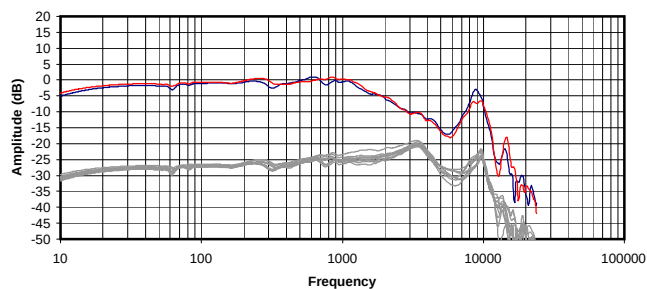
Impulse Response



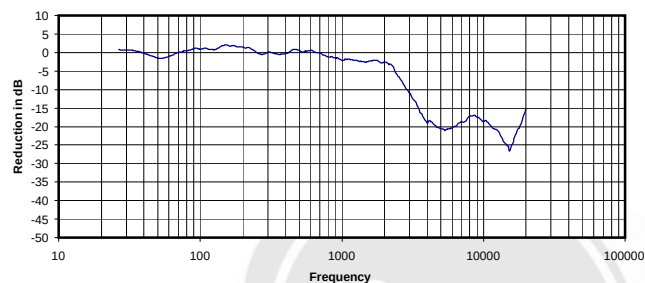
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.058 Vrms
33 Ohms
0.10 mW
-5 dBr

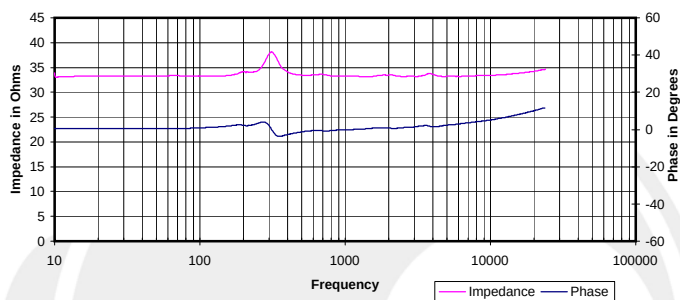
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



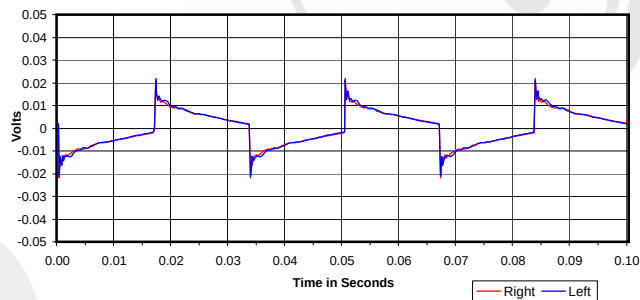
Isolation
Attenuation of External Sound vs. Frequency



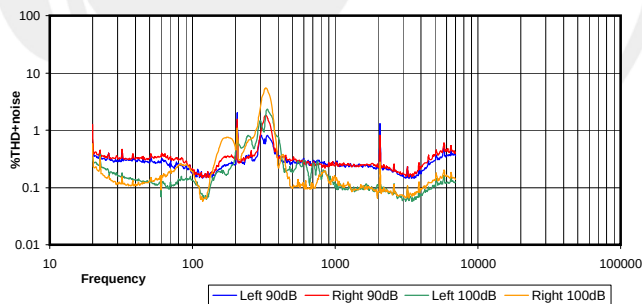
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



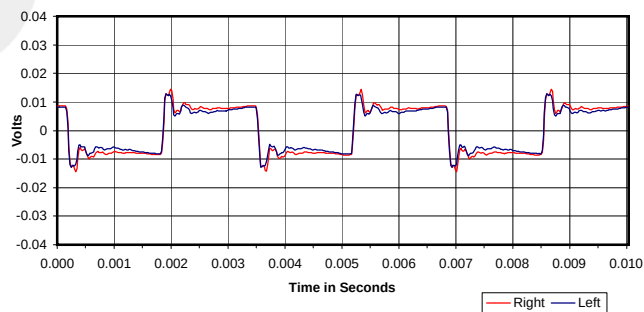
30 Hz Square Wave



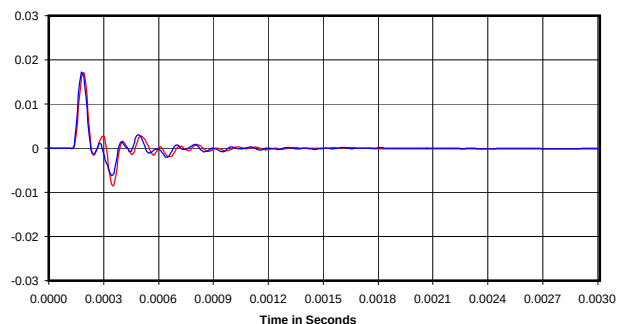
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



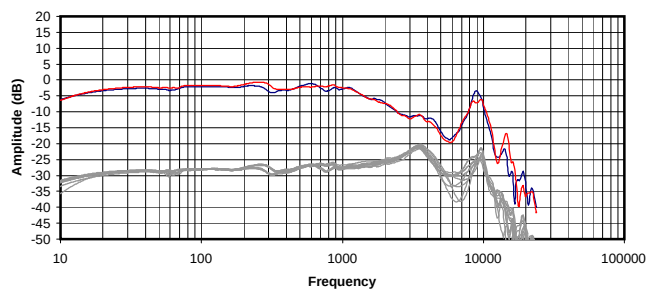
Impulse Response



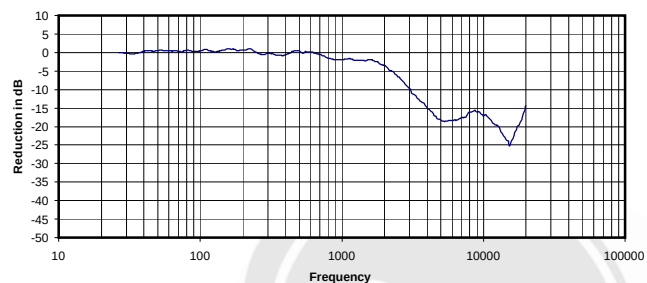
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.056 Vrms
33 Ohms
0.09 mW
-5 dBr

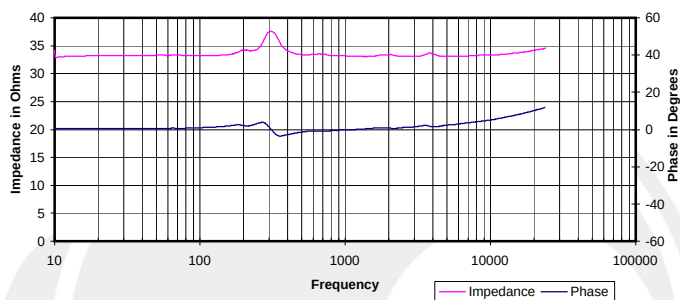
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



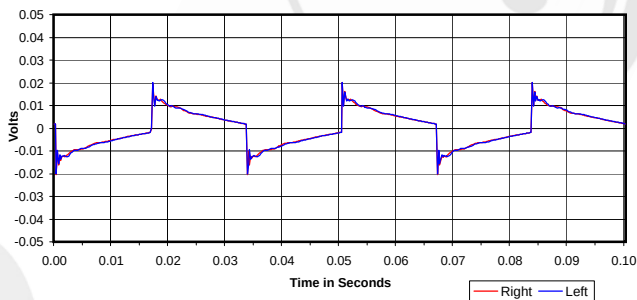
Isolation
Attenuation of External Sound vs. Frequency



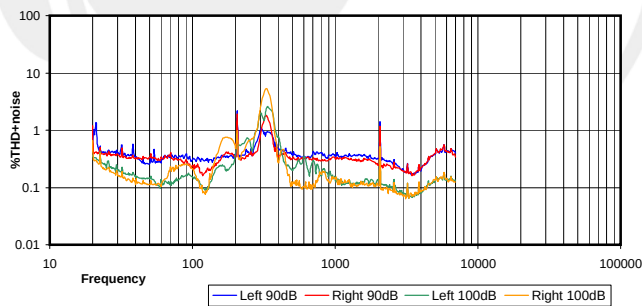
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



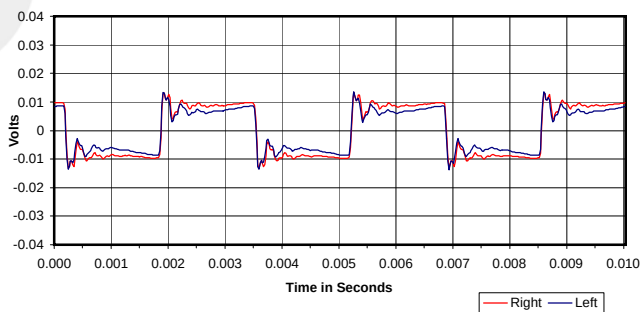
30 Hz Square Wave



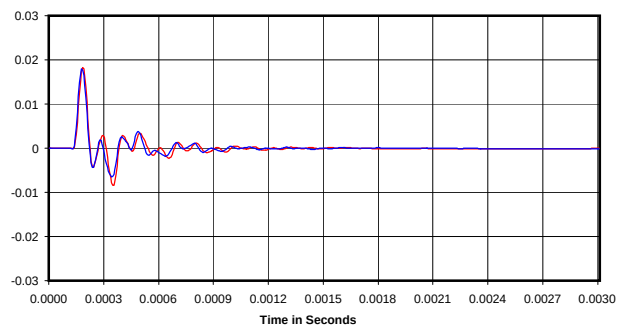
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



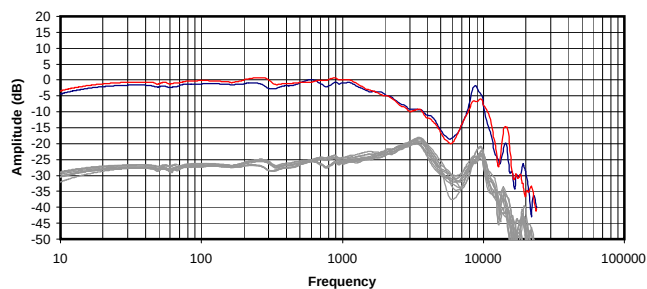
Impulse Response



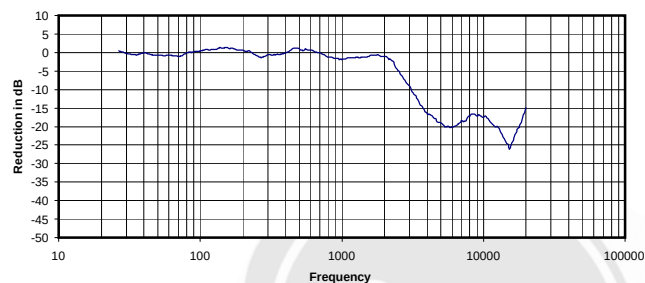
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.068 Vrms
33 Ohms
0.14 mW
-5 dBr

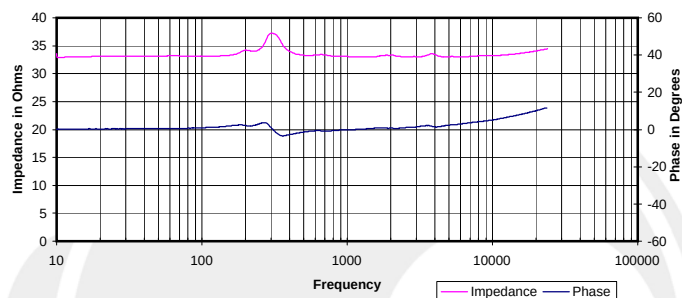
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



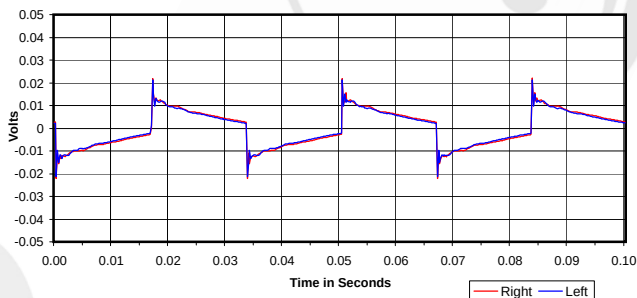
Isolation
Attenuation of External Sound vs. Frequency



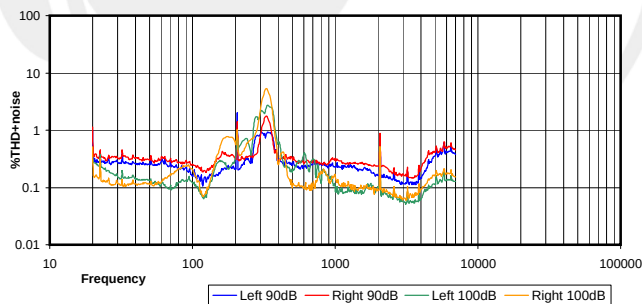
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



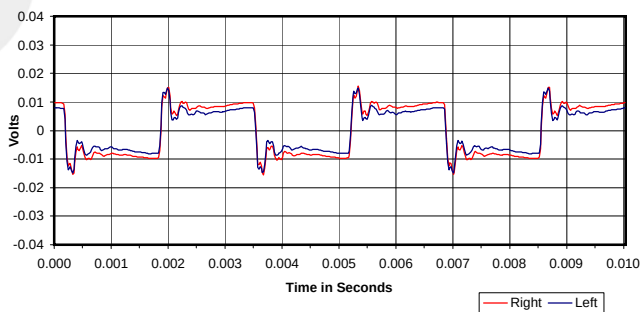
30 Hz Square Wave



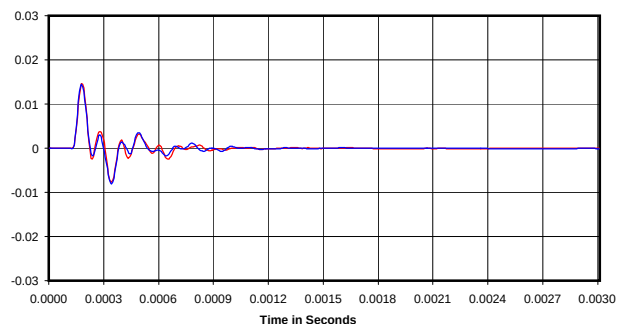
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



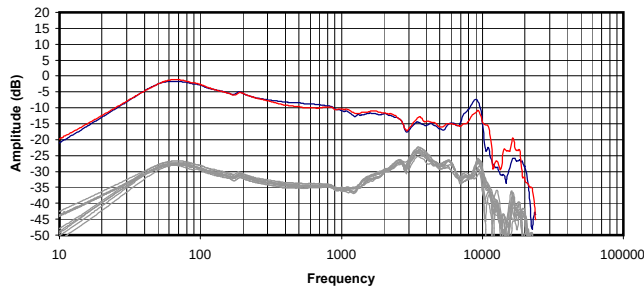
Impulse Response



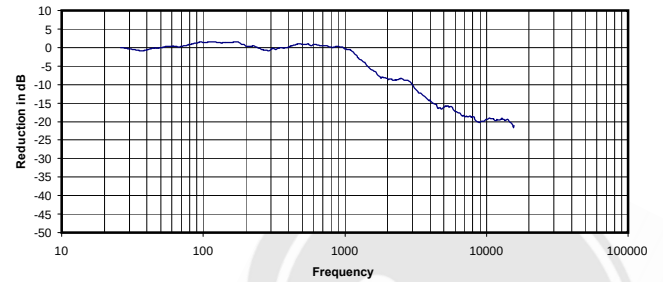
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.057 Vrms
33 Ohms
0.10 mW
-5 dBr

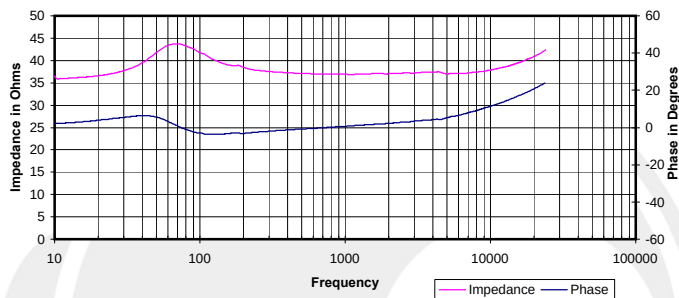
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



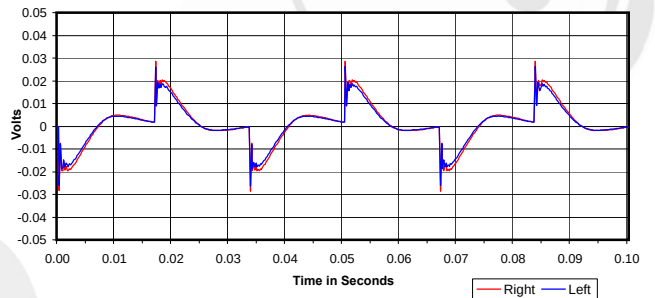
Isolation
Attenuation of External Sound vs. Frequency



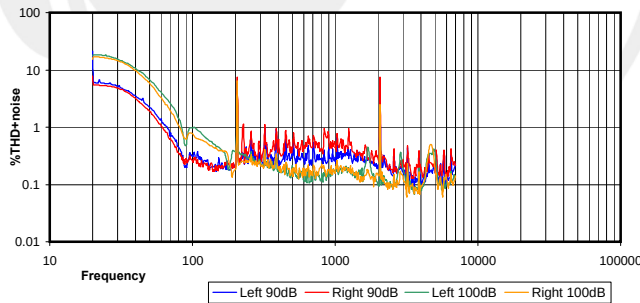
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



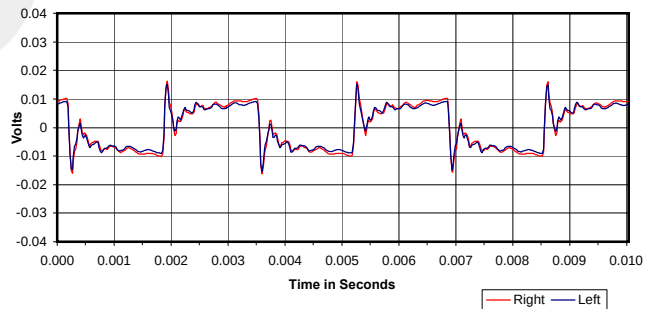
30 Hz Square Wave



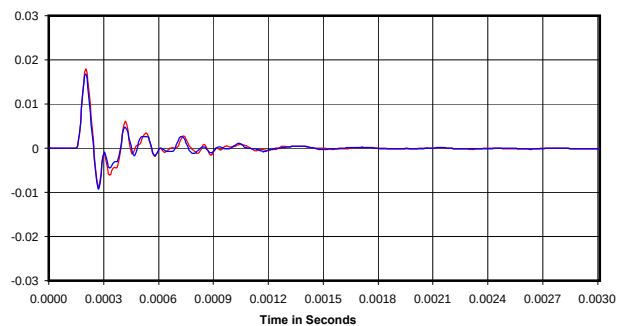
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



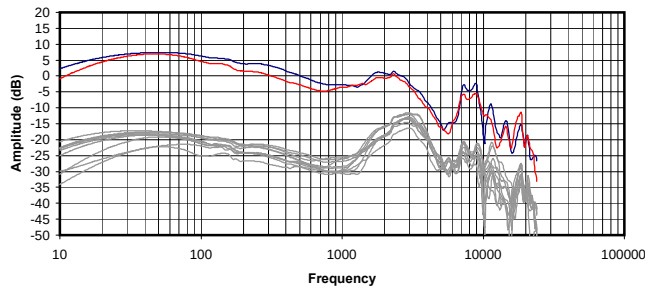
Impulse Response



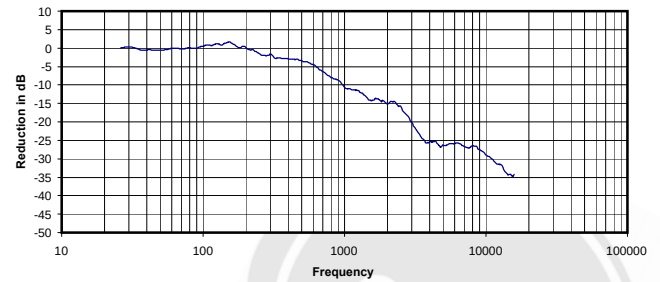
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.181 Vrms
37 Ohms
0.89 mW
-4 dBr

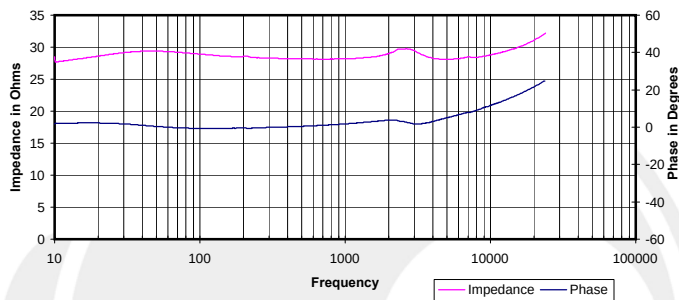
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



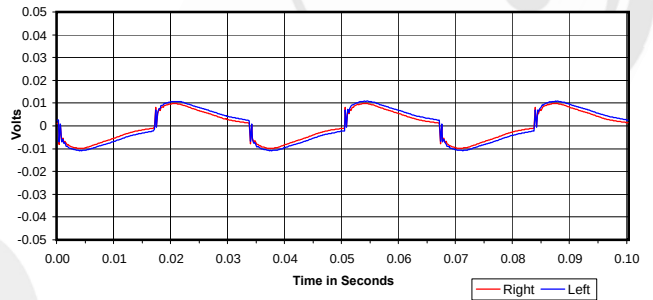
Isolation
Attenuation of External Sound vs. Frequency



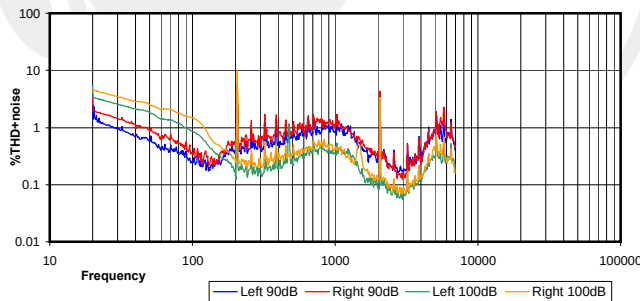
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



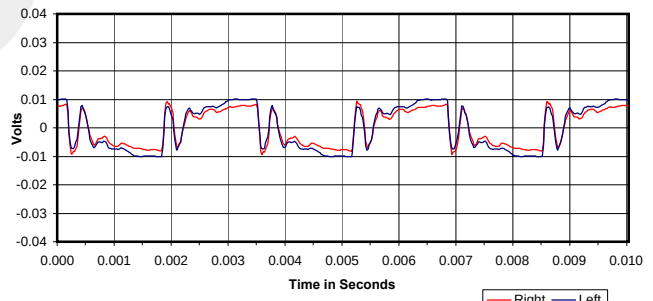
30 Hz Square Wave



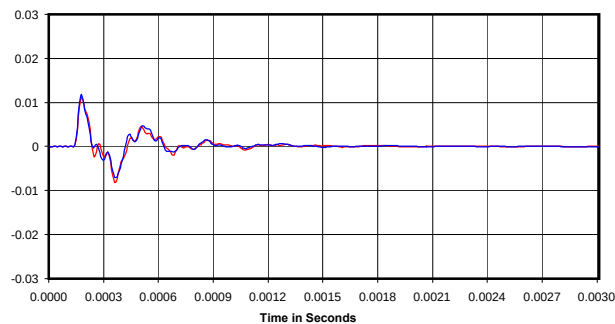
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



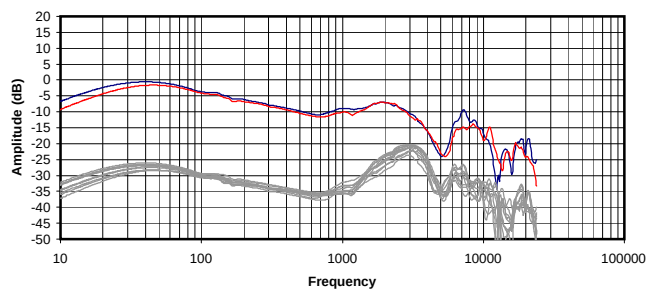
Impulse Response



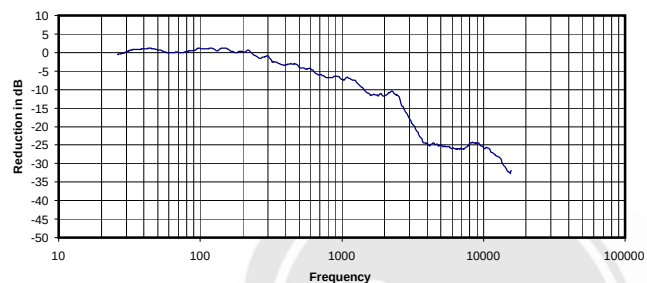
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.139 Vrms
28 Ohms
0.69 mW
-9 dBr

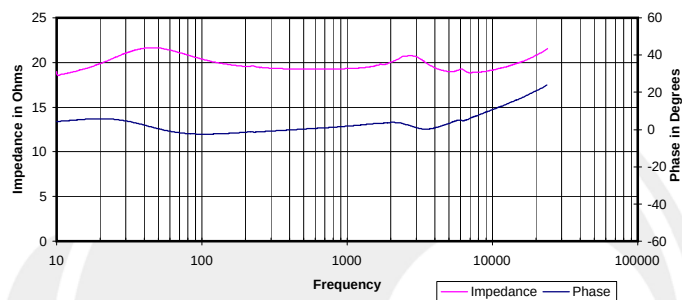
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



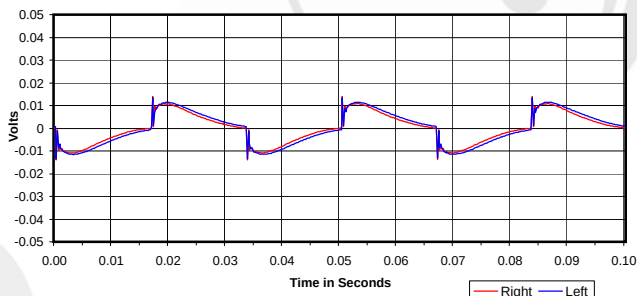
Isolation
Attenuation of External Sound vs. Frequency



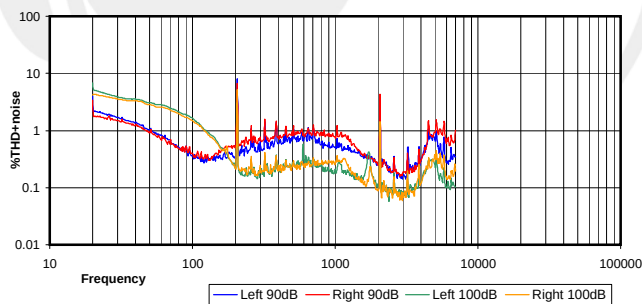
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



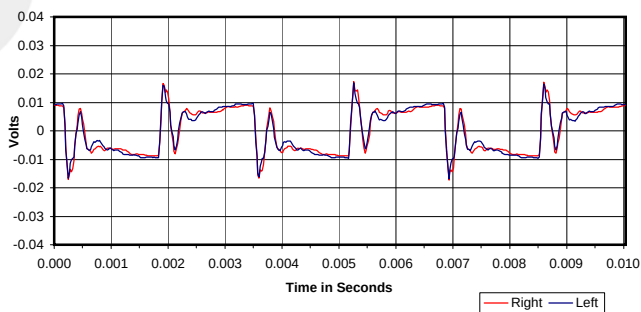
30 Hz Square Wave



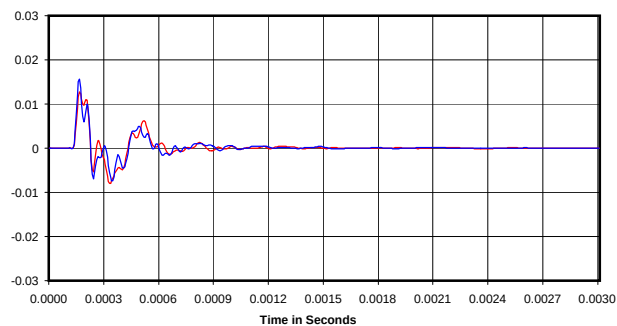
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



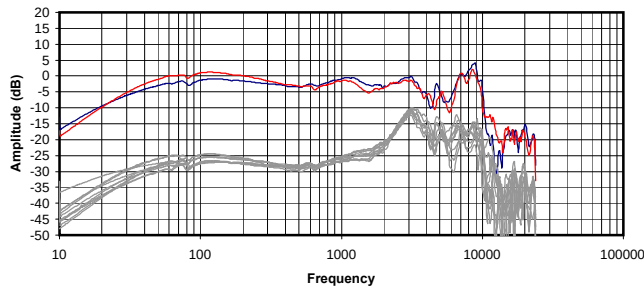
Impulse Response



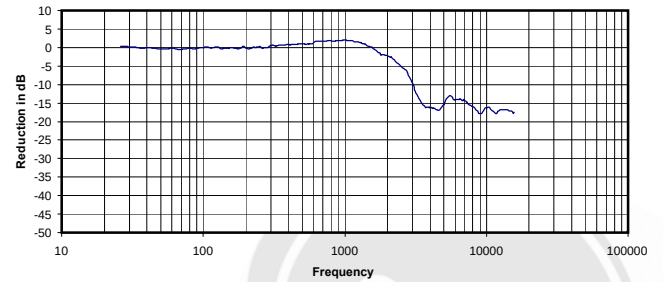
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.052 Vrms
19 Ohms
0.14 mW
-8 dBr

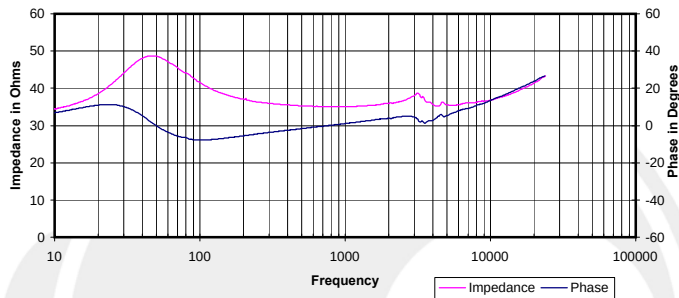
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



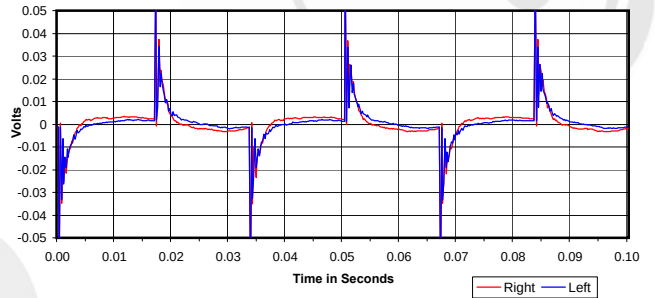
Isolation
Attenuation of External Sound vs. Frequency



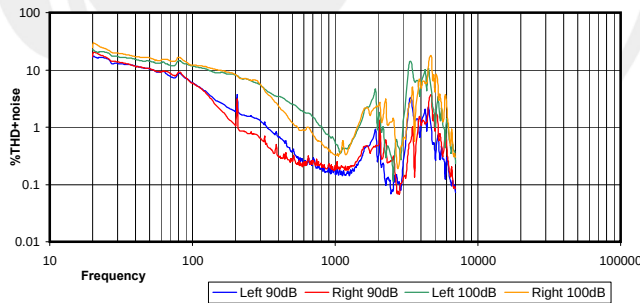
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



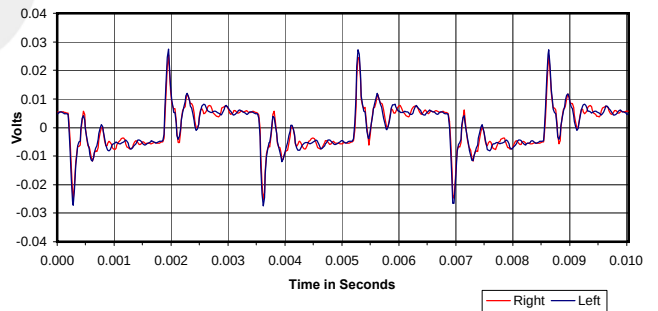
30 Hz Square Wave



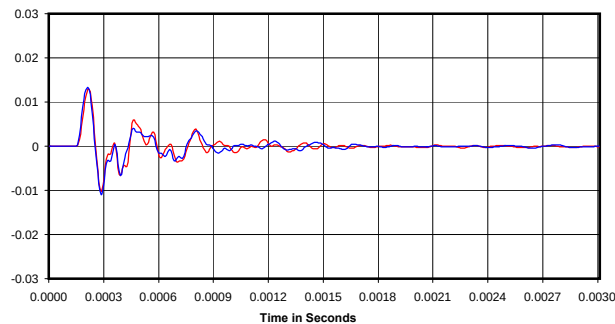
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



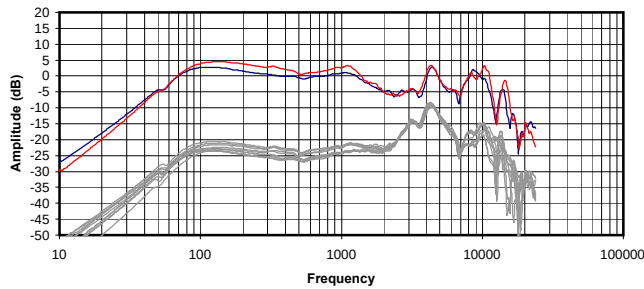
Impulse Response



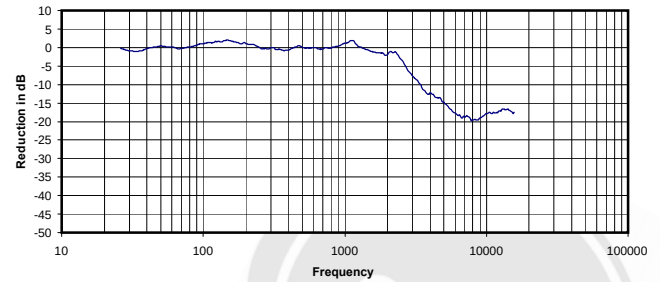
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.082 Vrms
35 Ohms
0.19 mW
-3 dBr

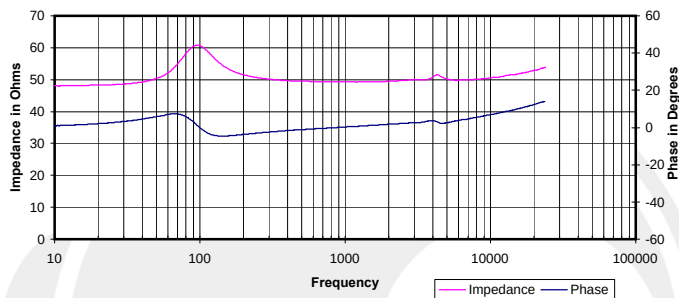
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



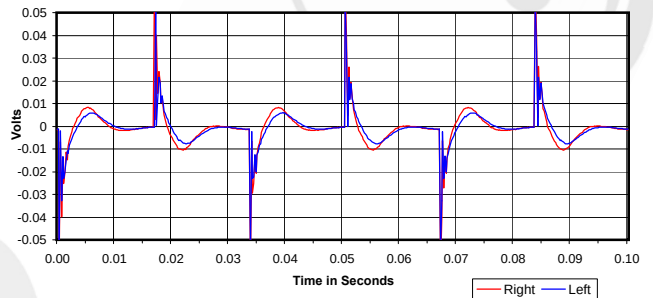
Isolation
Attenuation of External Sound vs. Frequency



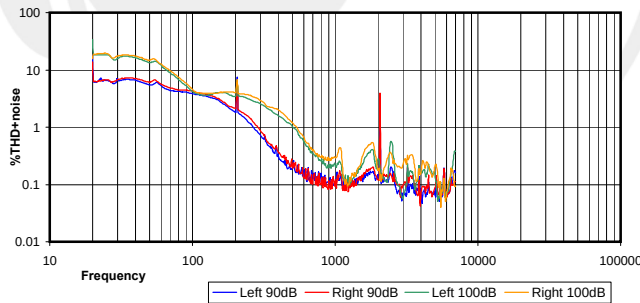
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



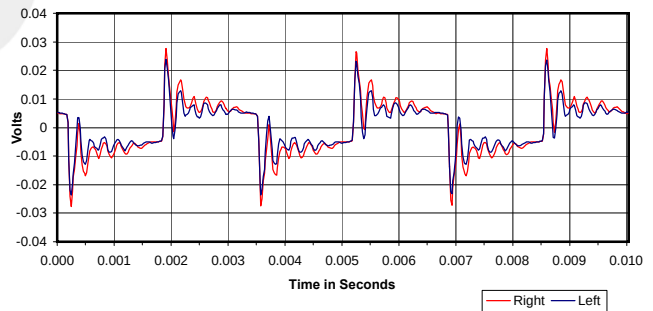
30 Hz Square Wave



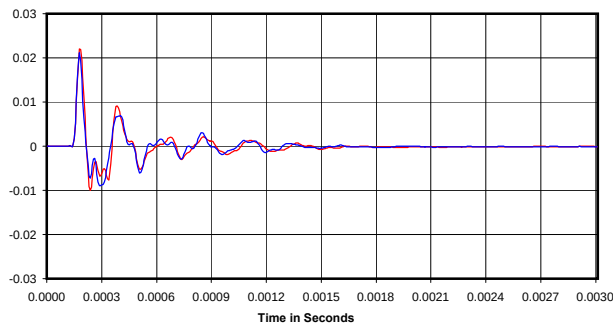
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



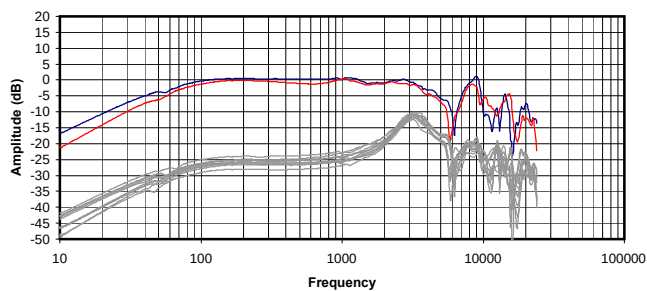
Impulse Response



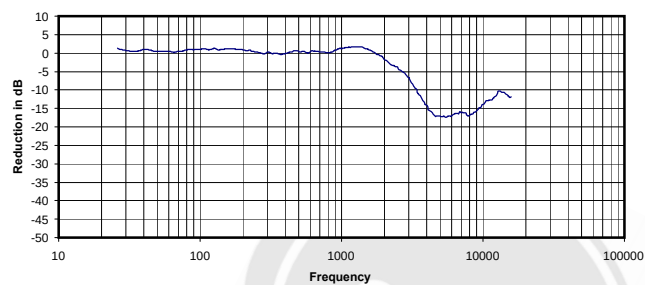
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.010 Vrms
49 Ohms
0.00 mW
-2 dBr

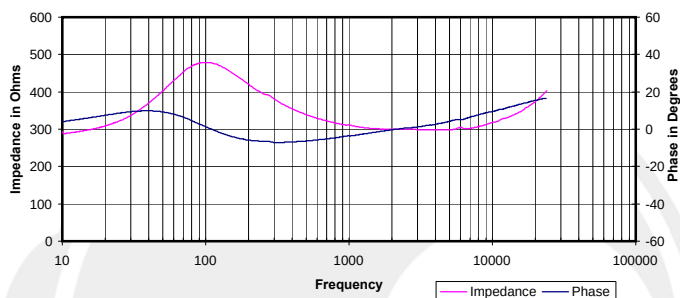
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



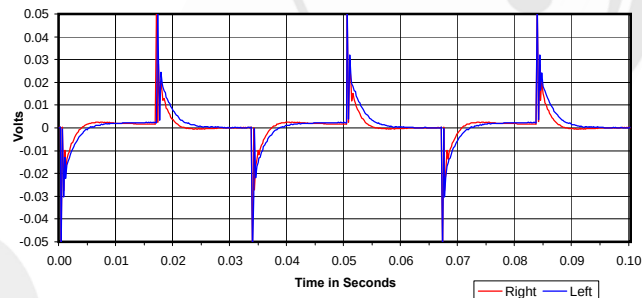
Isolation
Attenuation of External Sound vs. Frequency



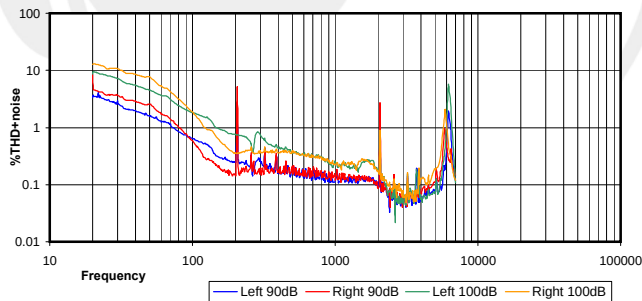
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



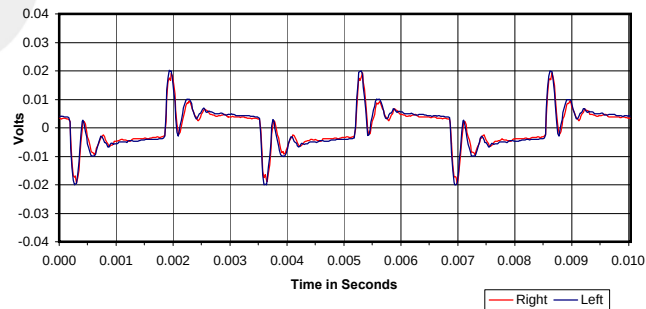
30 Hz Square Wave



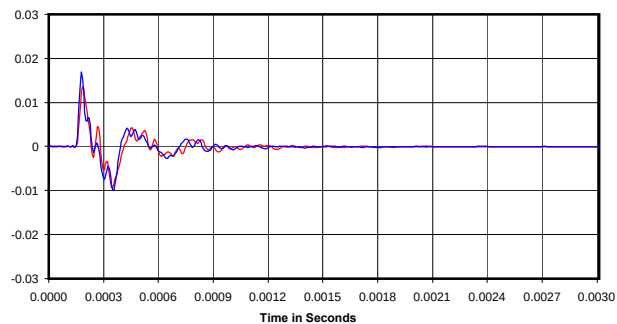
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



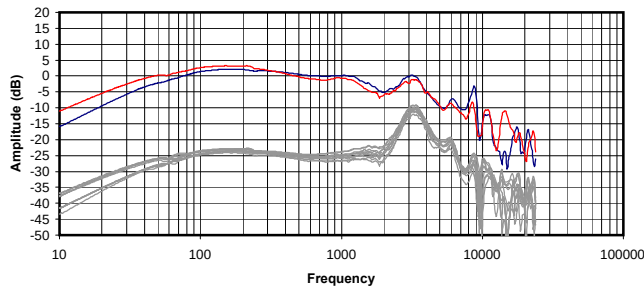
Impulse Response



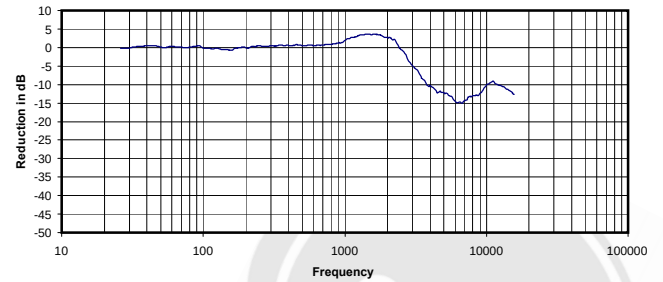
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.257 Vrms
310 Ohms
0.21 mW
-2 dBr

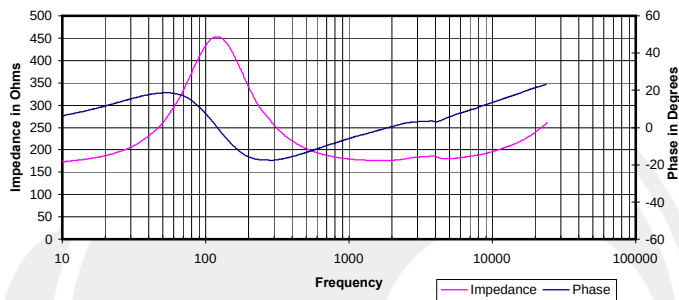
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



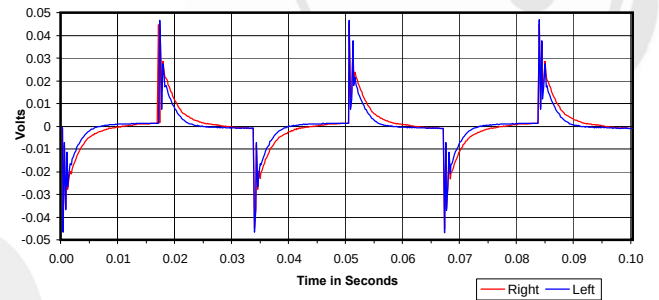
Isolation
Attenuation of External Sound vs. Frequency



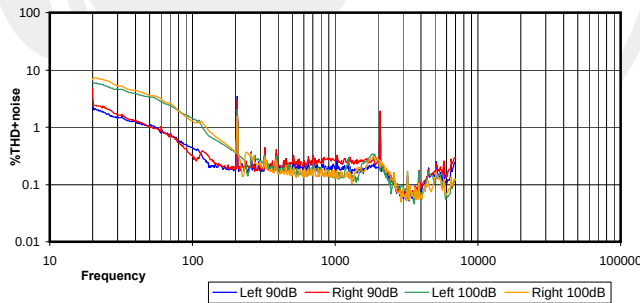
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



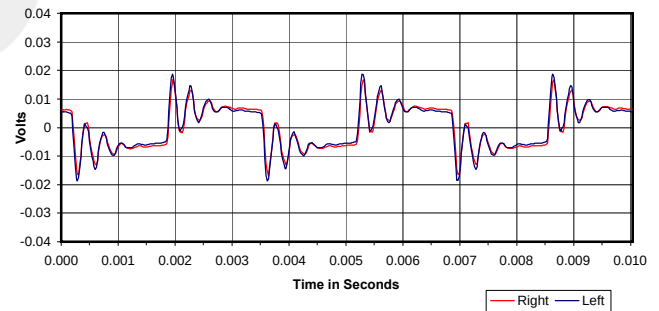
30 Hz Square Wave



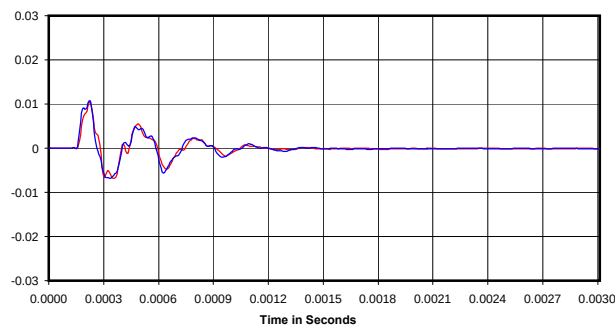
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



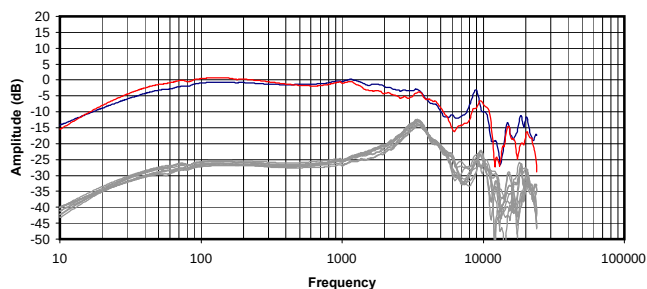
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.156 Vrms
179 Ohms
0.14 mW
-1 dBr

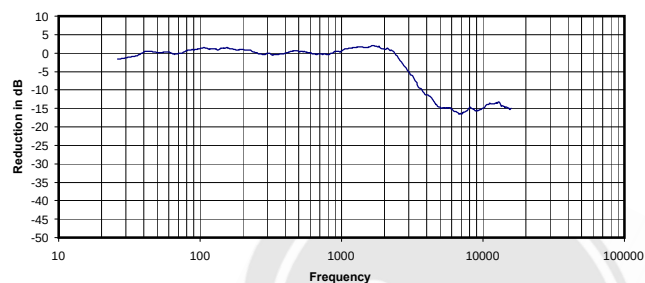


Headphone Measurements: Sennheiser HD 580 (HD600 headband)

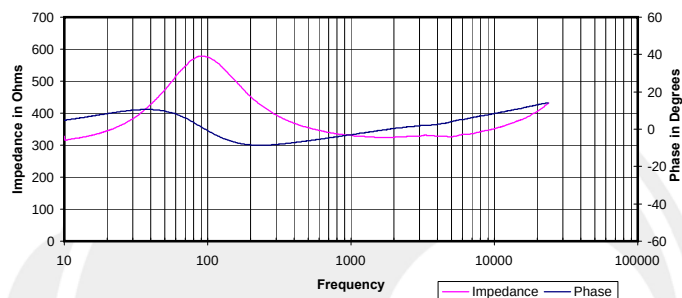
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



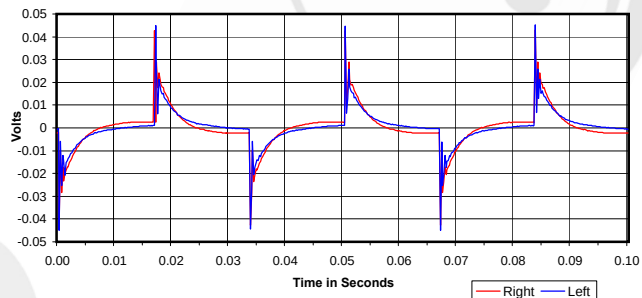
Isolation
Attenuation of External Sound vs. Frequency



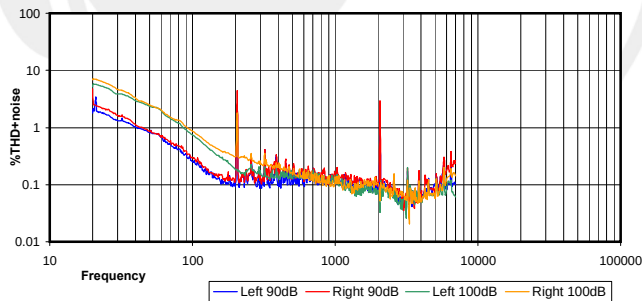
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



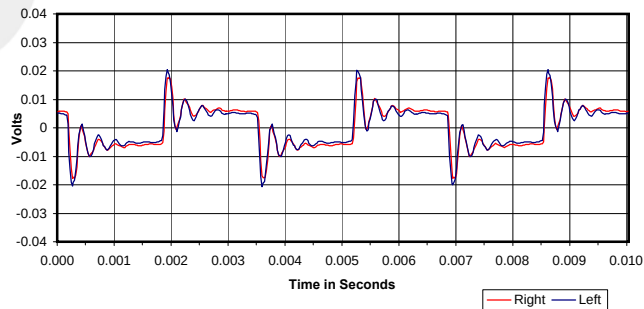
30 Hz Square Wave



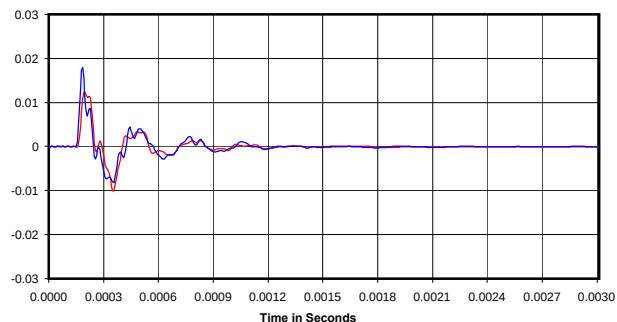
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



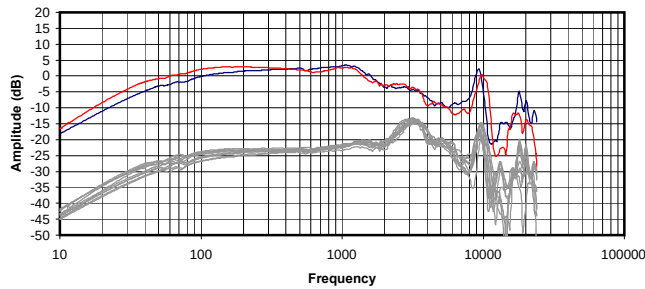
Impulse Response



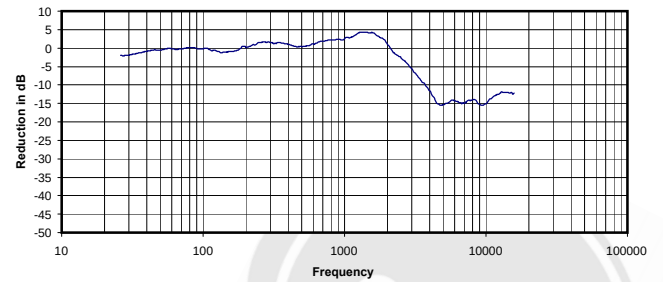
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.173 Vrms
330 Ohms
0.09 mW
-2 dBr

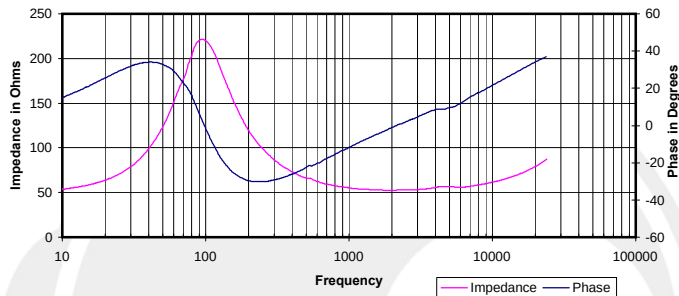
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



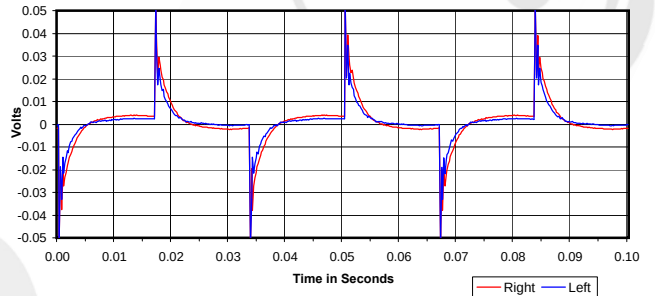
Isolation
Attenuation of External Sound vs. Frequency



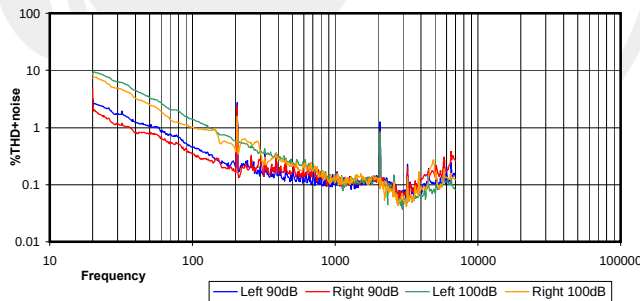
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



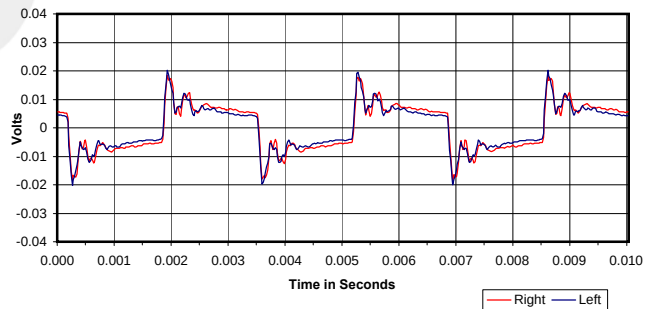
30 Hz Square Wave



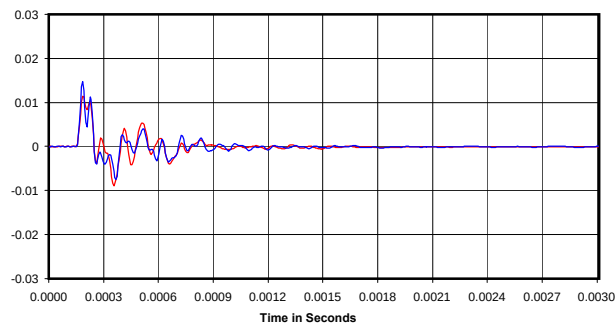
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



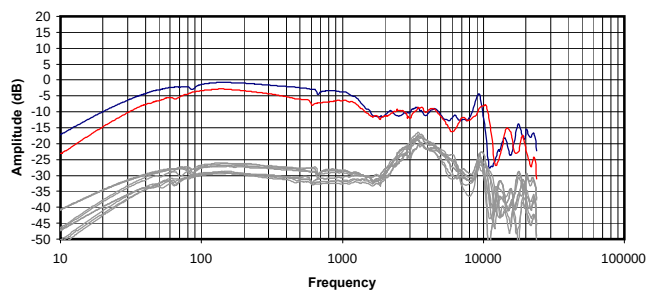
Impulse Response



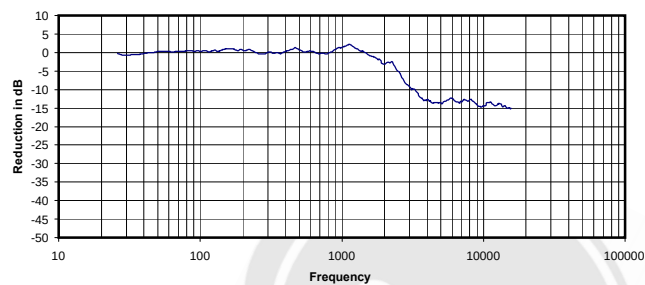
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.055 Vrms
55 Ohms
0.05 mW
-2 dBr

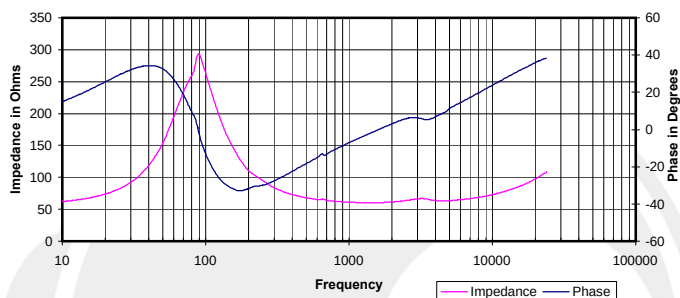
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



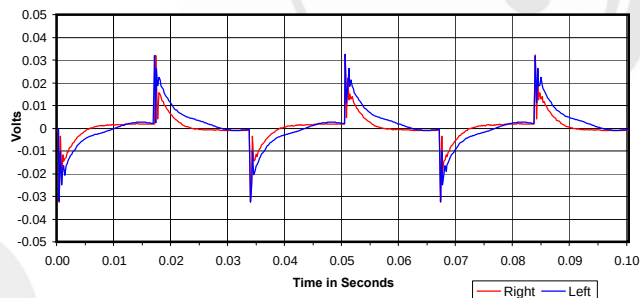
Isolation
Attenuation of External Sound vs. Frequency



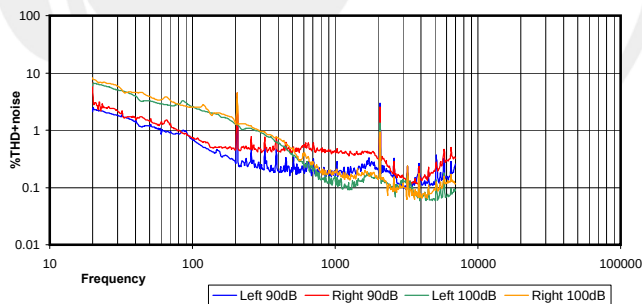
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



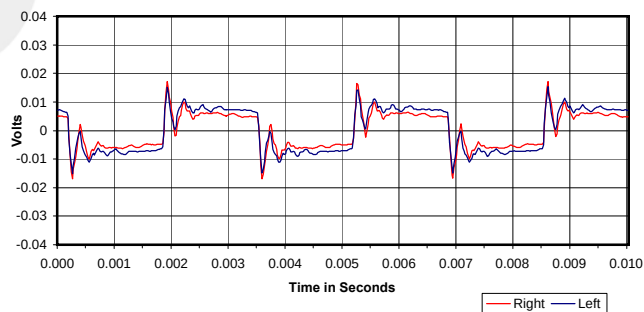
30 Hz Square Wave



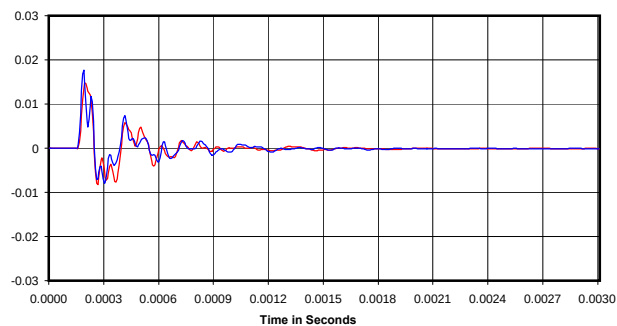
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



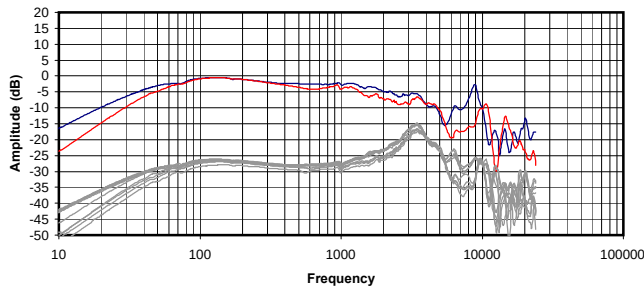
Impulse Response



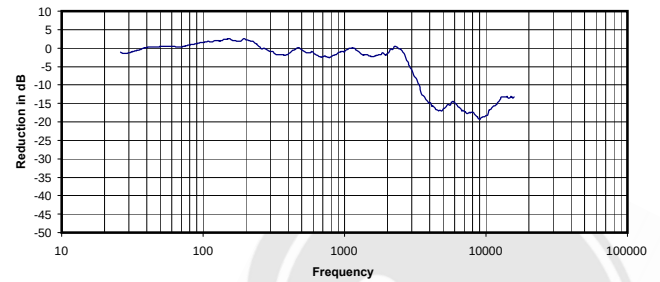
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.090 Vrms
61 Ohms
0.13 mW
-3 dBr

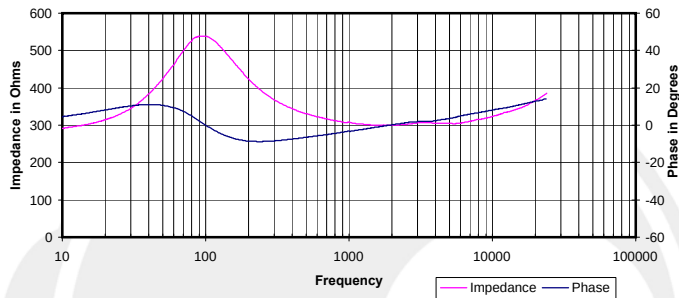
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



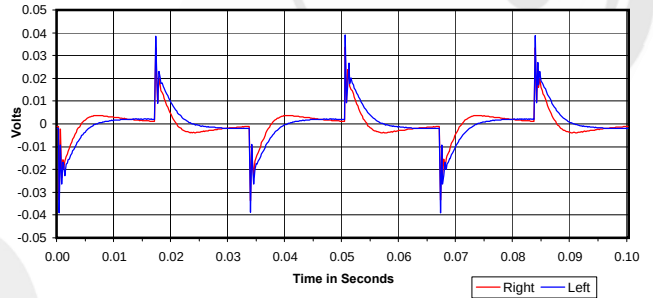
Isolation
Attenuation of External Sound vs. Frequency



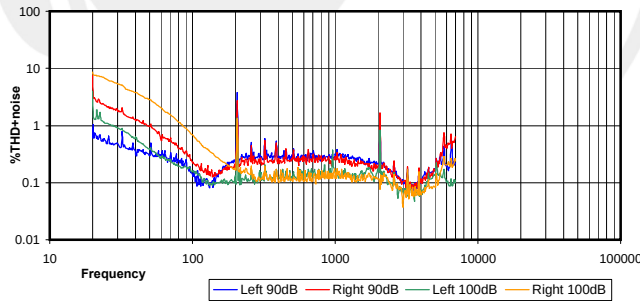
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



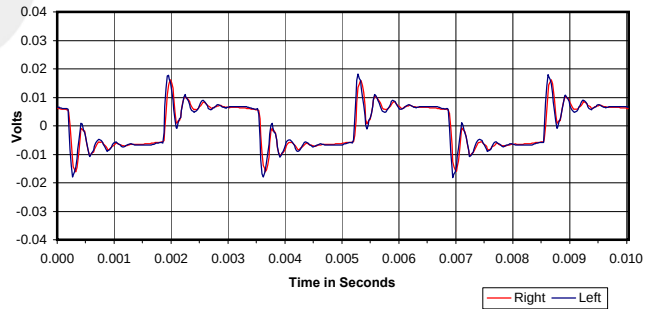
30 Hz Square Wave



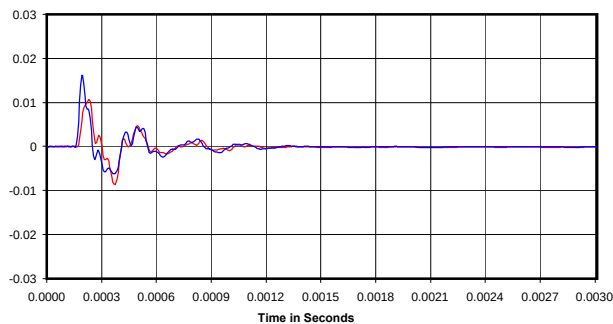
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



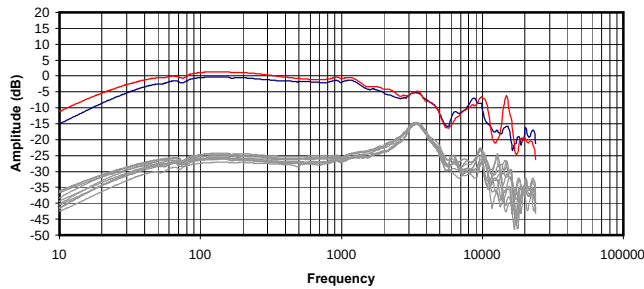
Impulse Response



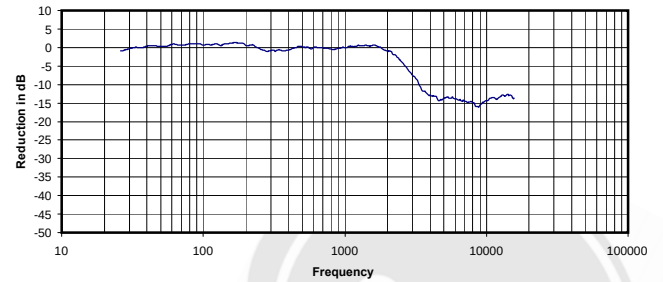
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.230 Vrms
307 Ohms
0.17 mW
-3 dBr

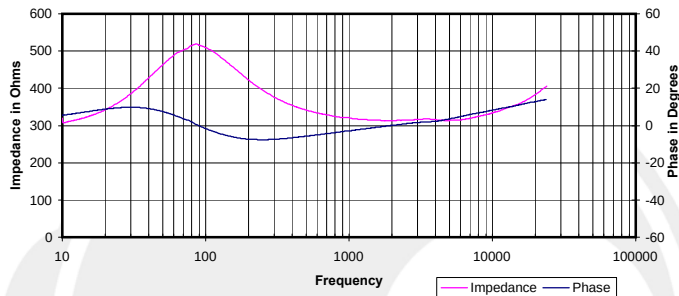
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



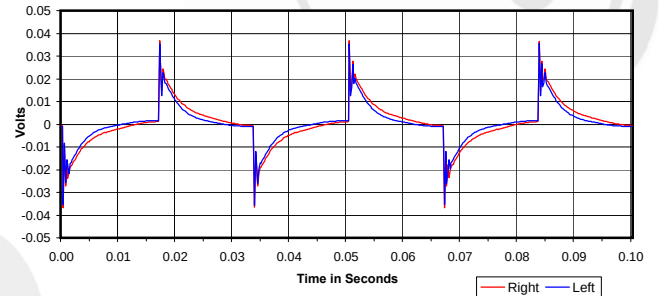
Isolation
Attenuation of External Sound vs. Frequency



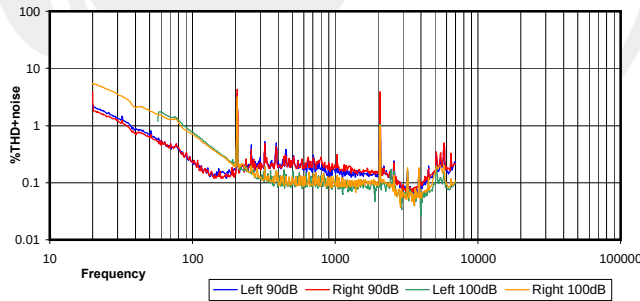
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



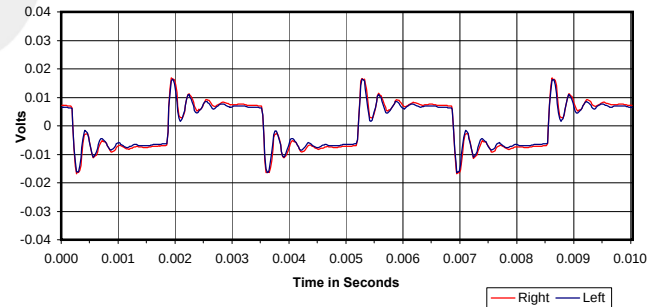
30 Hz Square Wave



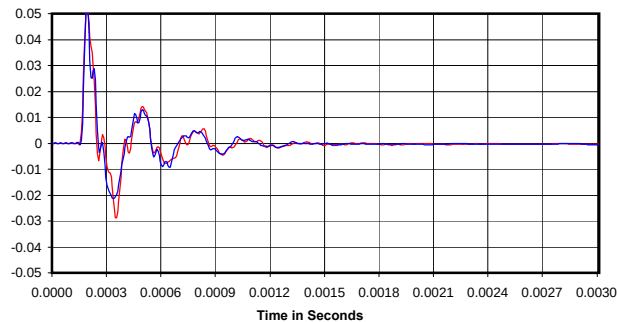
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



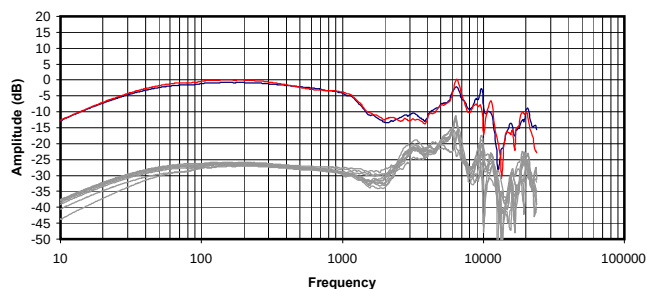
Impulse Response



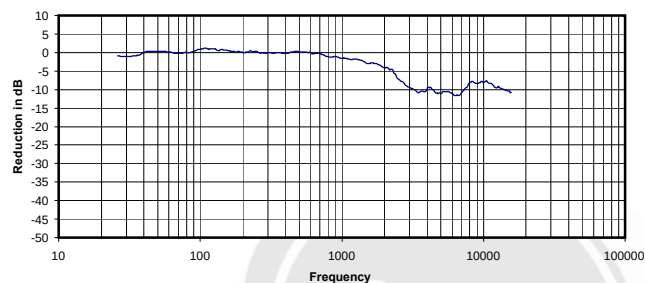
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.205 Vrms
320 Ohms
0.13 mW
-2 dBr

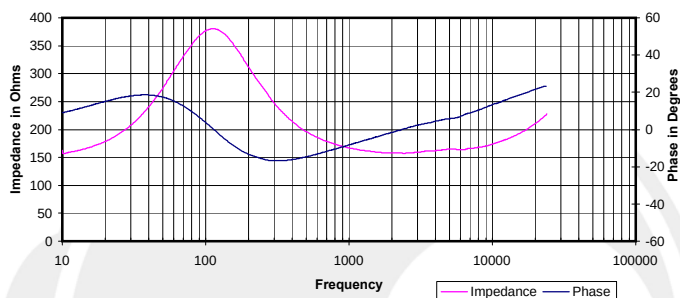
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



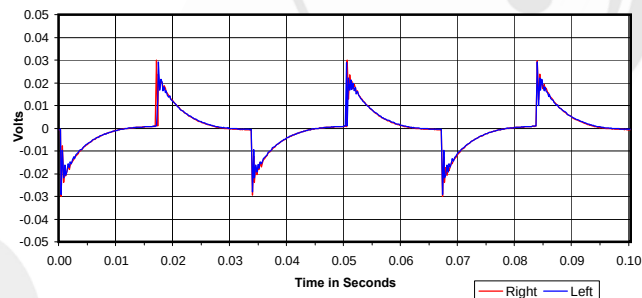
Isolation
Attenuation of External Sound vs. Frequency



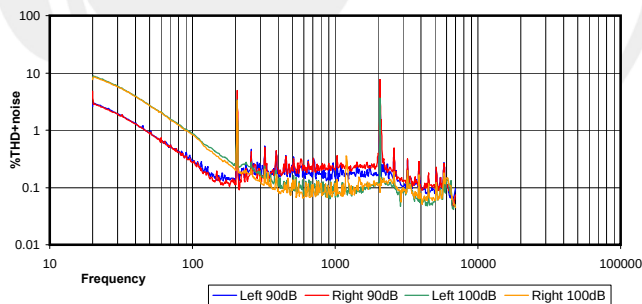
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



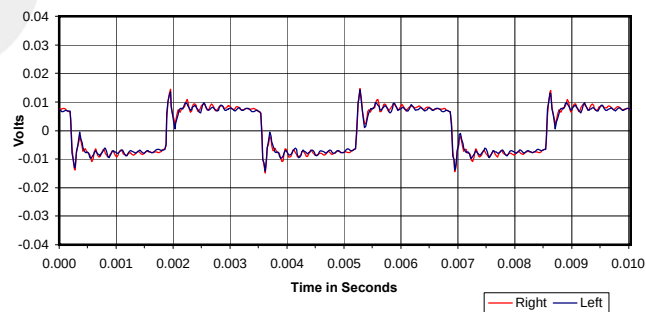
30 Hz Square Wave



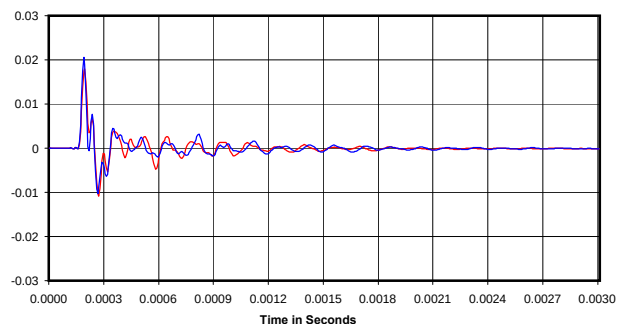
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



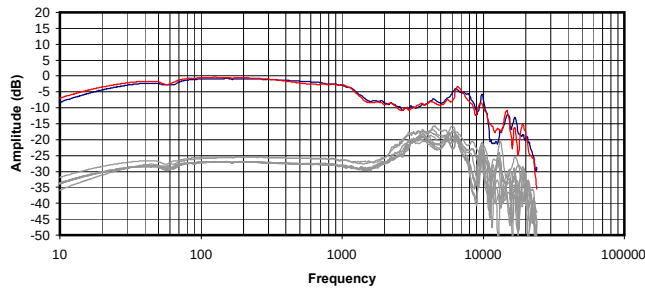
Impulse Response



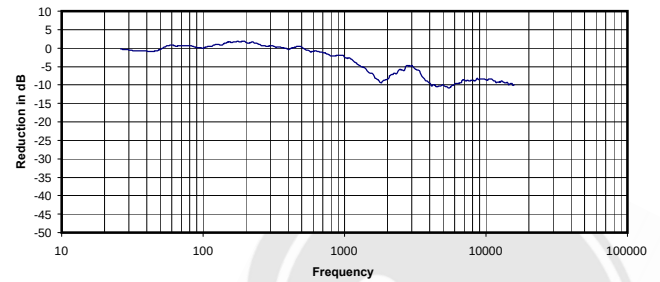
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.153 Vrms
167 Ohms
0.14 mW
-3 dBr

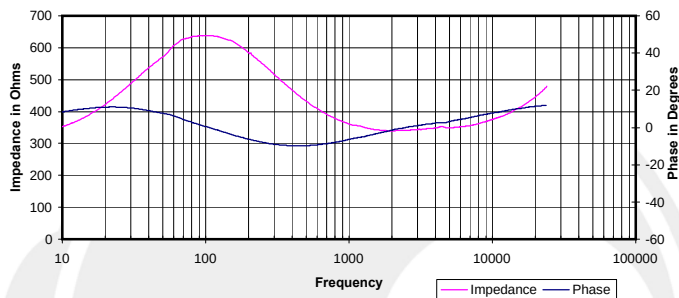
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



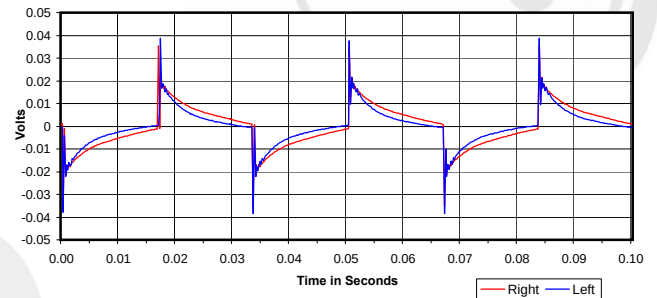
Isolation
Attenuation of External Sound vs. Frequency



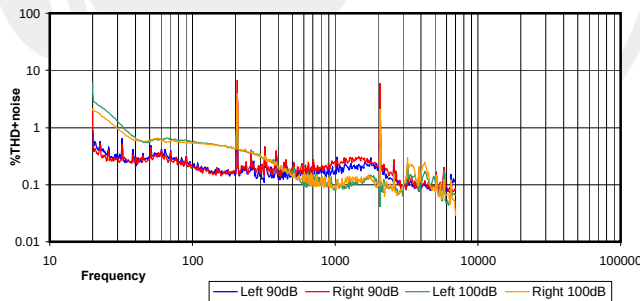
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



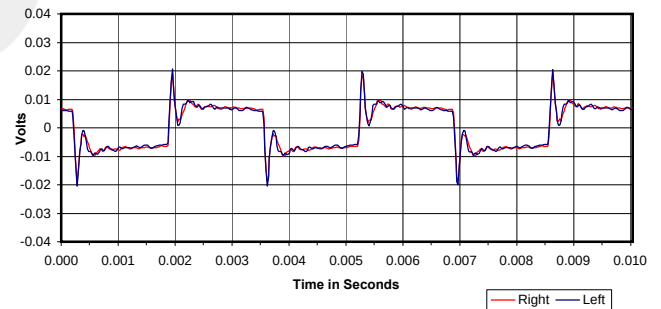
30 Hz Square Wave



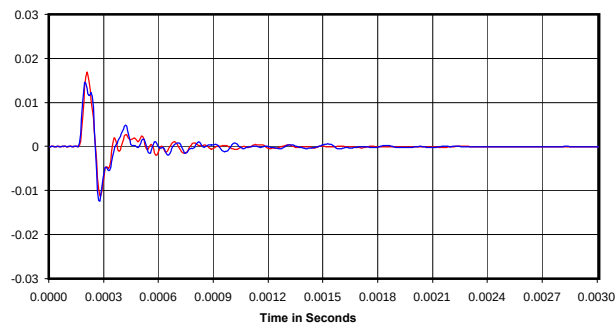
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



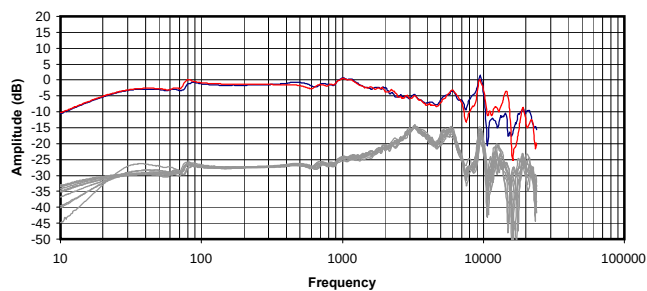
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

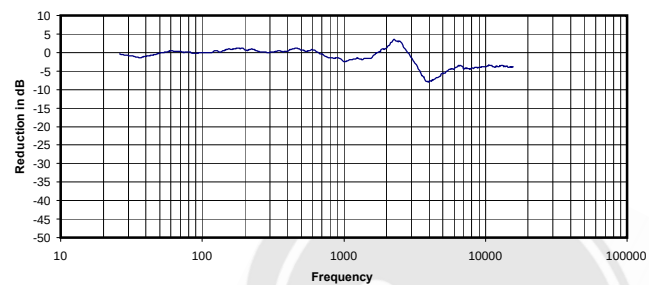
0.242 Vrms
361 Ohms
0.16 mW
-3 dBr

Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions

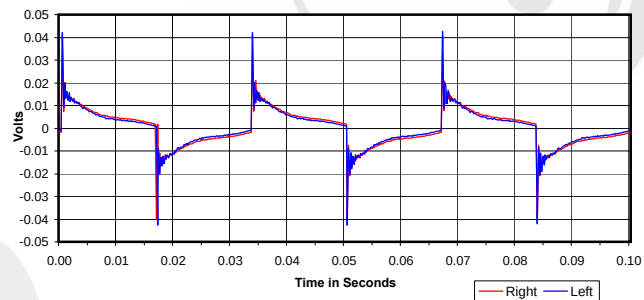


Electrical Impedance and phase measurements unavailable for Electrostatic headphones.

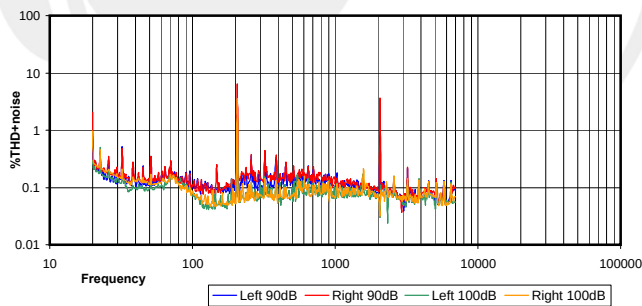
Isolation
Attenuation of External Sound vs. Frequency



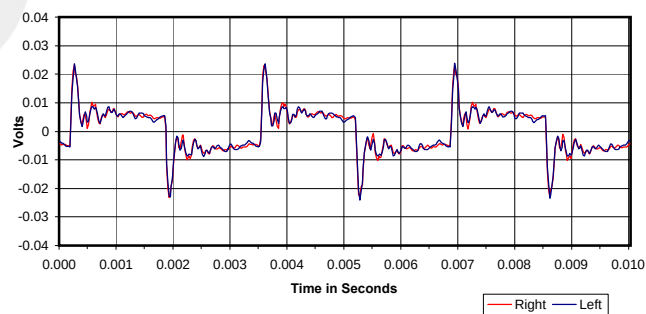
30 Hz Square Wave



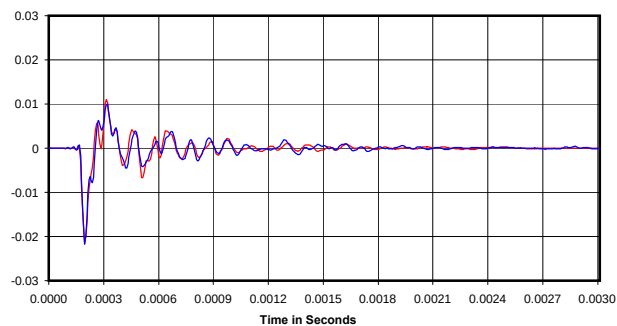
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



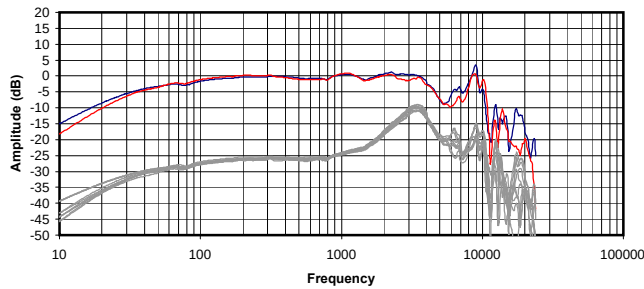
Impulse Response



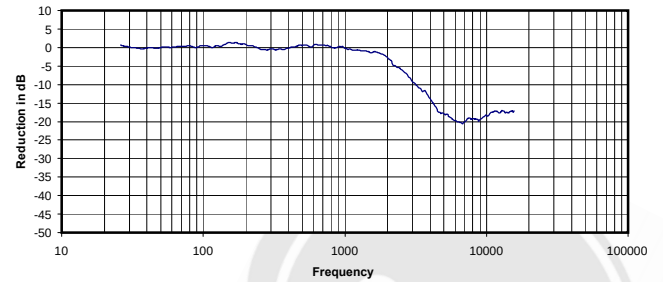
Broadband Isolation in dB (100Hz to 10kHz):

-1 dBr

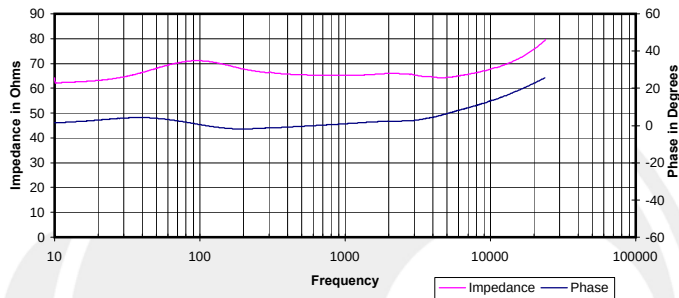
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



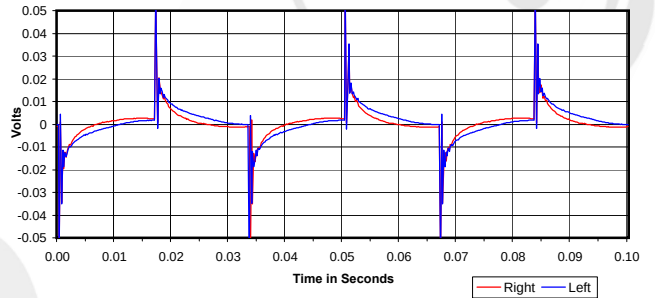
Isolation
Attenuation of External Sound vs. Frequency



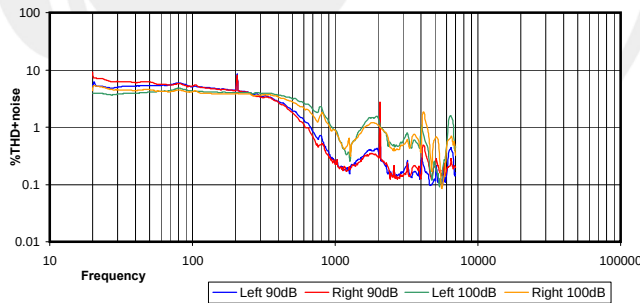
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



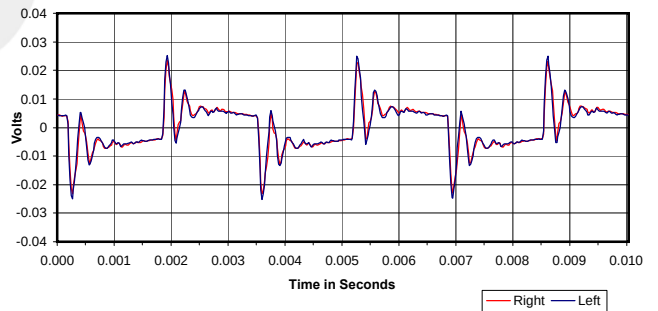
30 Hz Square Wave



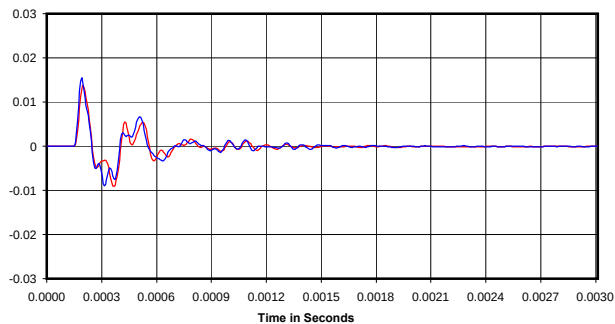
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



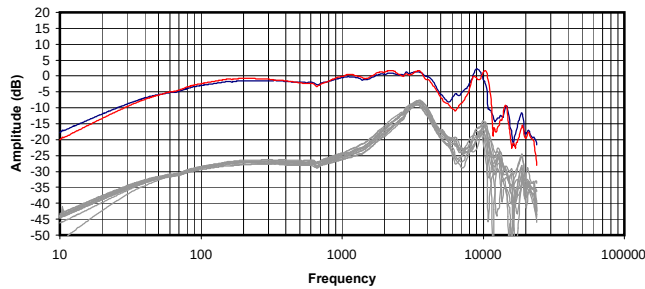
Impulse Response



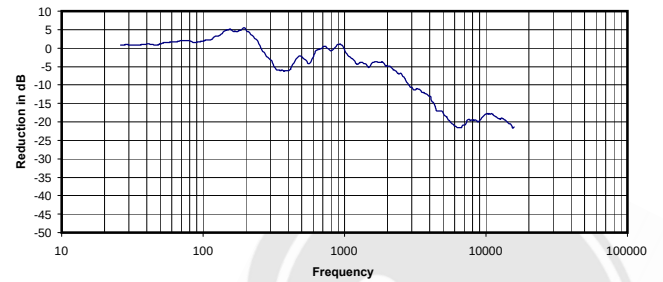
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.160 Vrms
65 Ohms
0.39 mW
-3 dBr

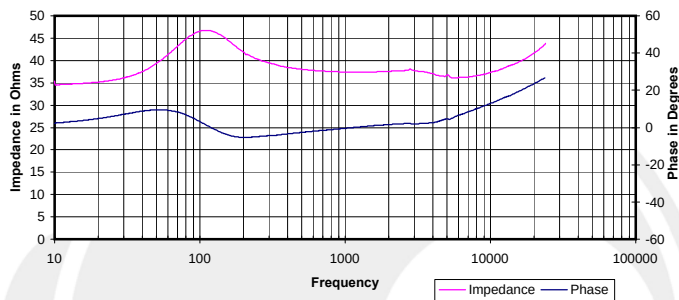
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



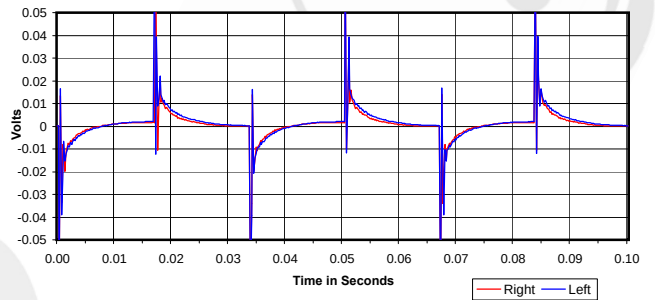
Isolation
Attenuation of External Sound vs. Frequency



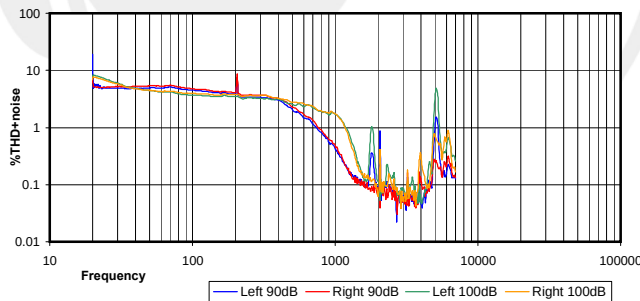
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



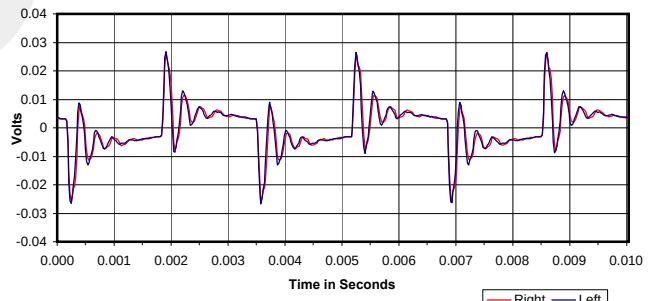
30 Hz Square Wave



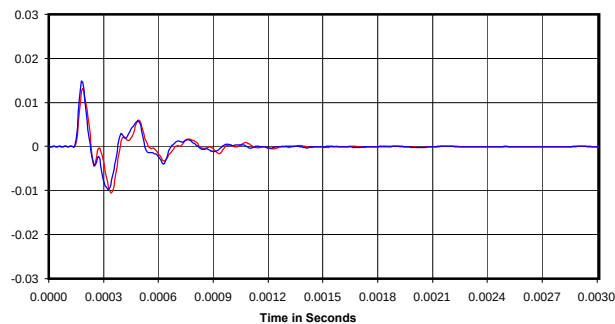
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



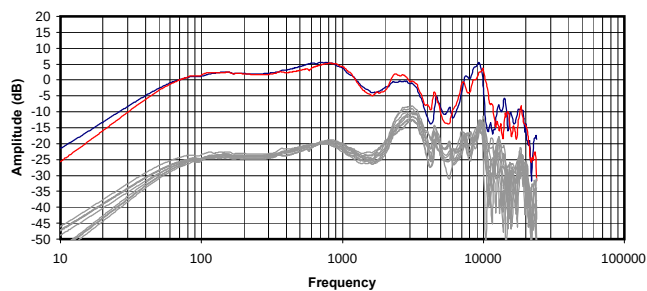
Impulse Response



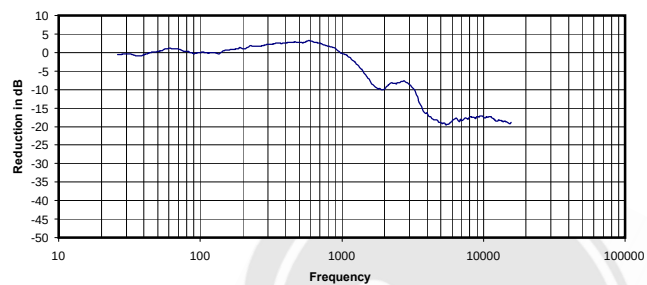
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.098 Vrms
37 Ohms
0.26 mW
-4 dBr

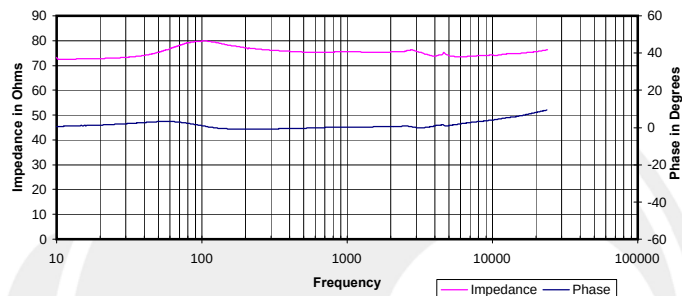
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



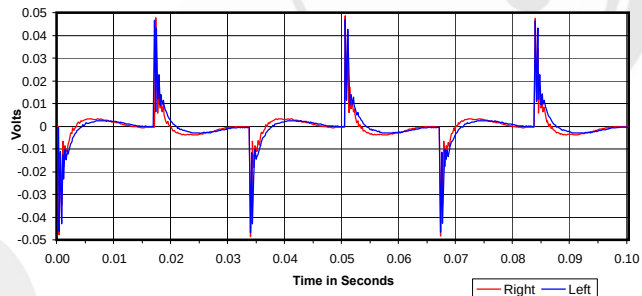
Isolation
Attenuation of External Sound vs. Frequency



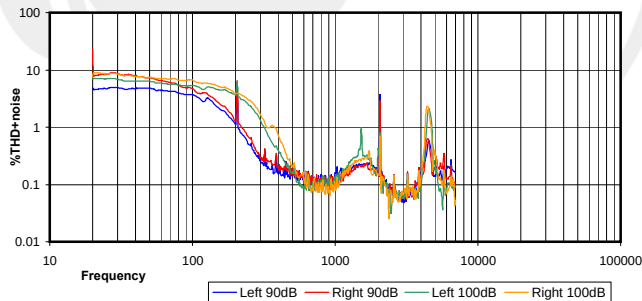
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



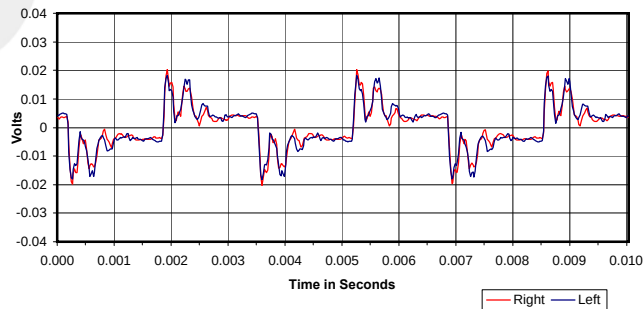
30 Hz Square Wave



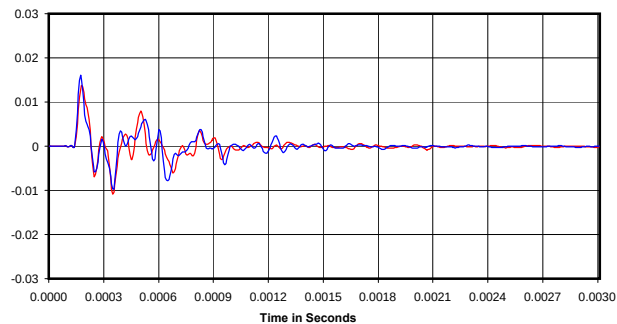
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



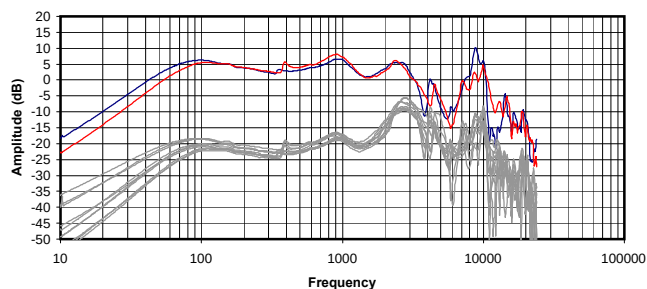
Impulse Response



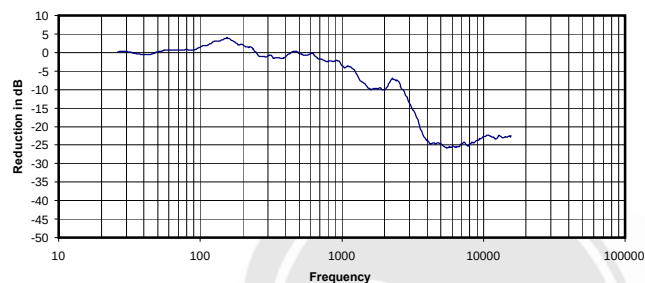
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.093 Vrms
76 Ohms
0.11 mW
-4 dBr

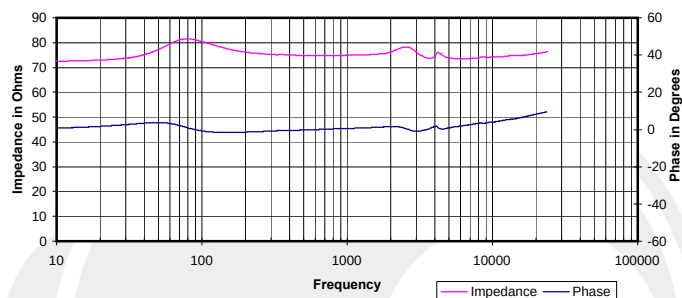
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



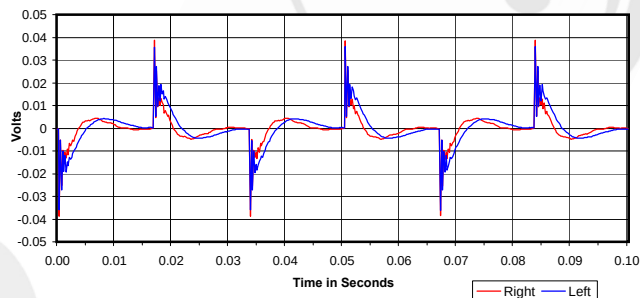
Isolation
Attenuation of External Sound vs. Frequency



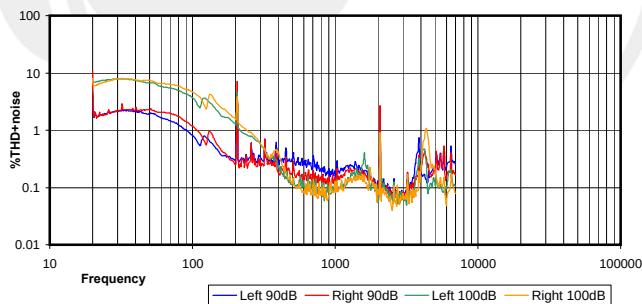
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



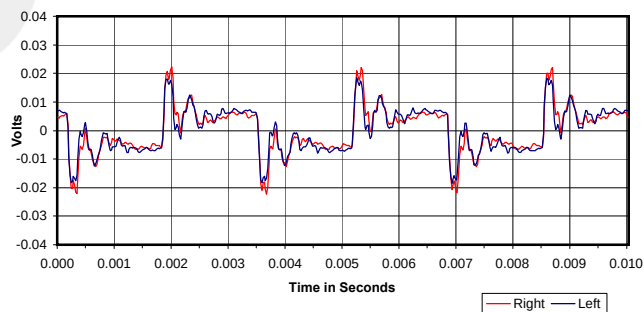
30 Hz Square Wave



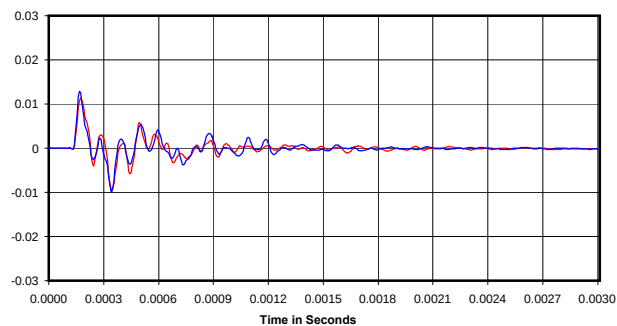
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



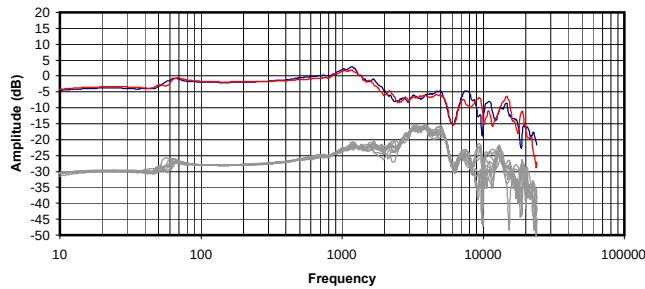
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

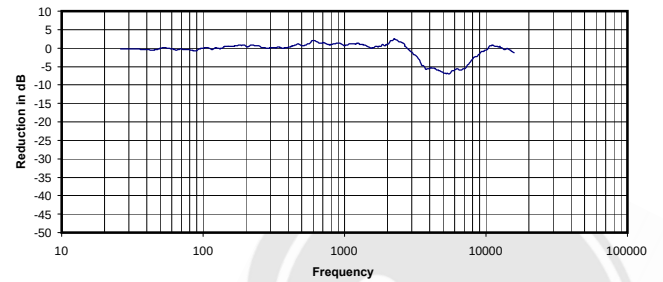
0.080 Vrms
75 Ohms
0.09 mW
-6 dBr

Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions

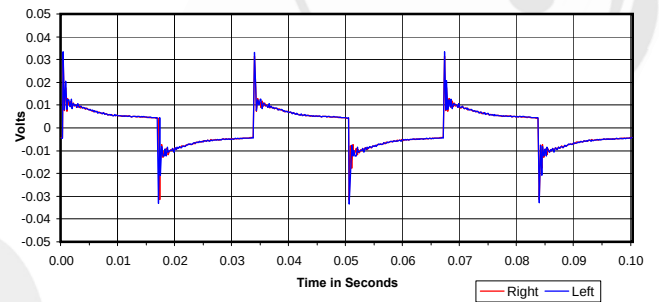


Electrical Impedance and phase measurements unavailable for Electrostatic headphones.

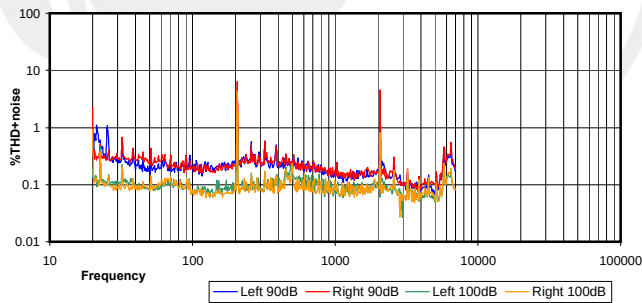
Isolation
Attenuation of External Sound vs. Frequency



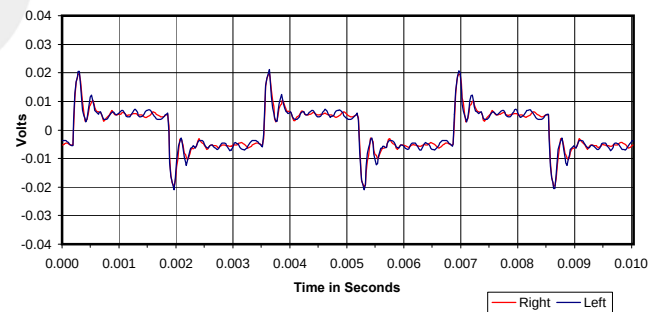
30 Hz Square Wave



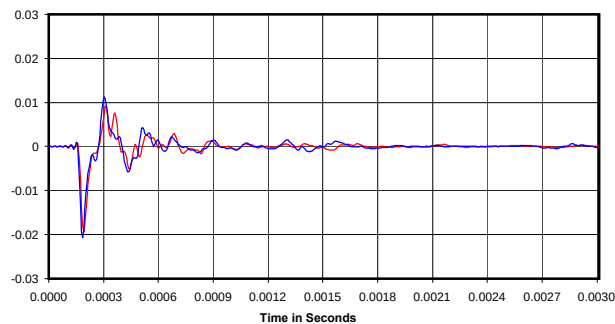
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



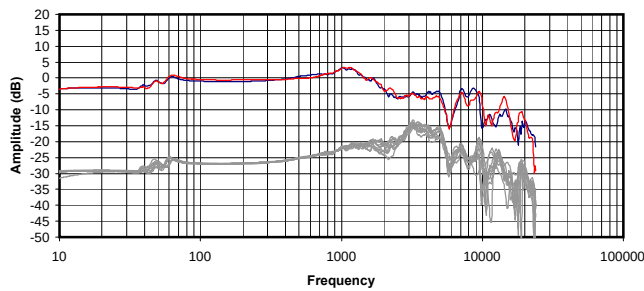
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

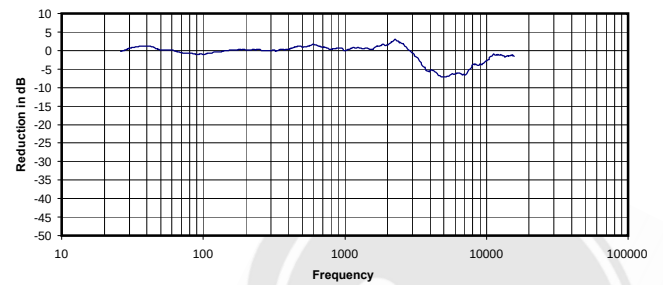
0.000 Vrms
#DIV/0! Ohms
#DIV/0! mW
0 dBr

Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions

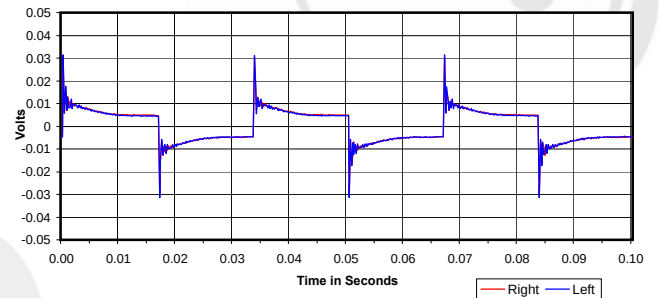


Electrical Impedance and phase measurements unavailable for Electrostatic headphones.

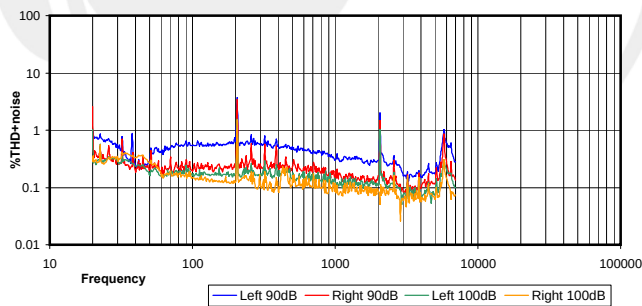
Isolation
Attenuation of External Sound vs. Frequency



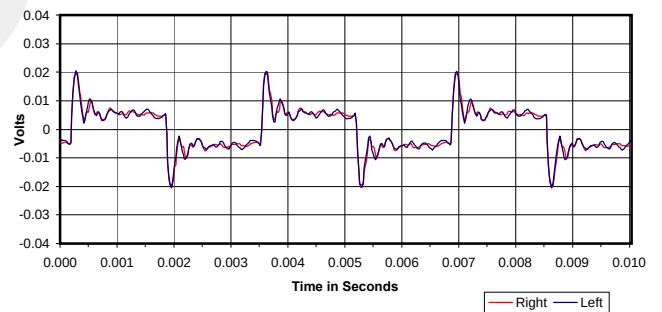
30 Hz Square Wave



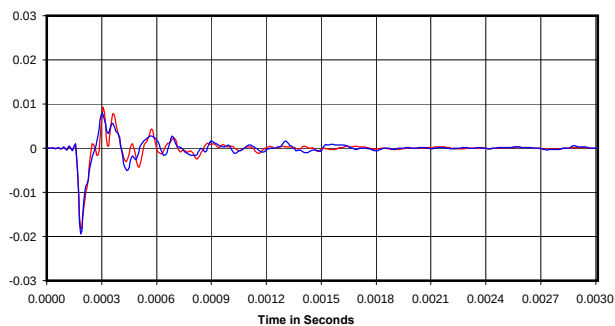
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



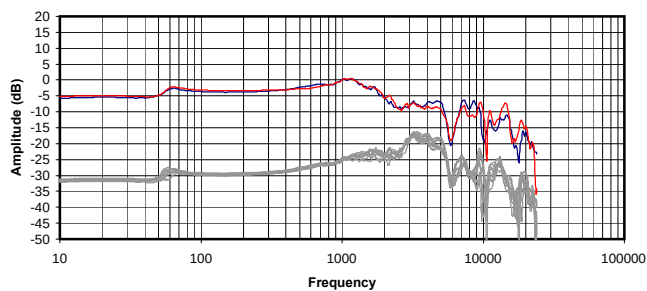
Impulse Response



Broadband Isolation in dB (100Hz to 10kHz):

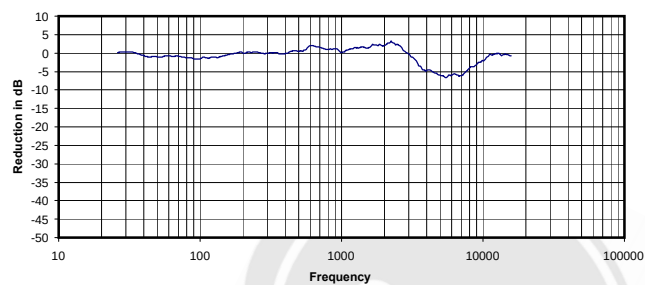
-1 dBr

Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions

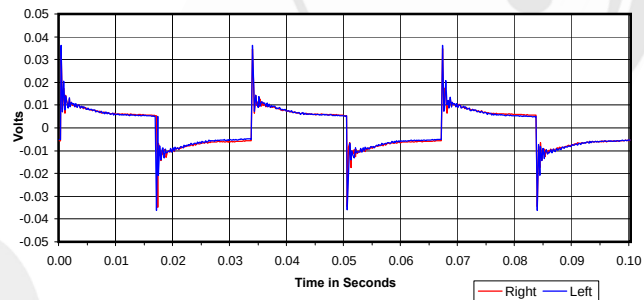


Electrical Impedance and phase measurements unavailable for Electrostatic headphones.

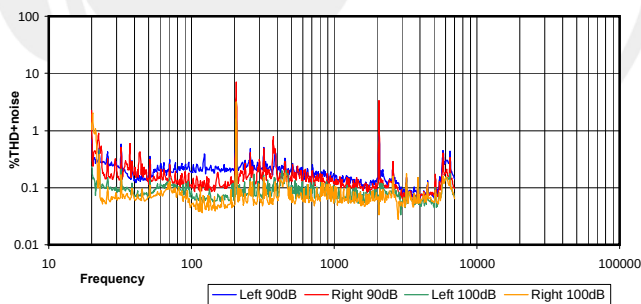
Isolation
Attenuation of External Sound vs. Frequency



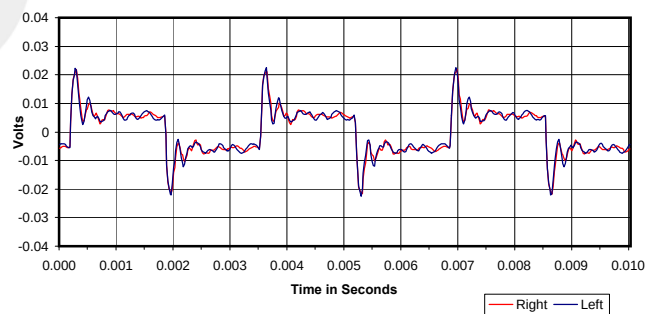
30 Hz Square Wave



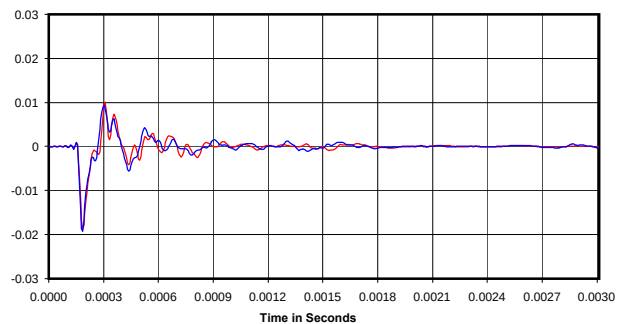
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



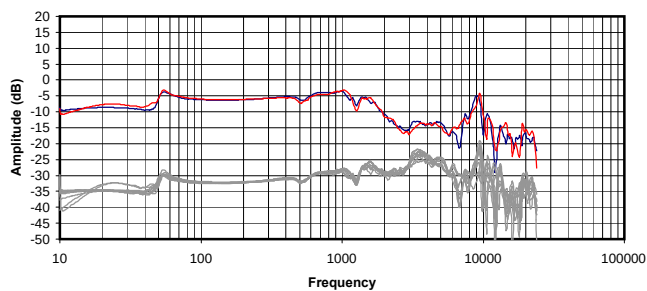
Impulse Response



Broadband Isolation in dB (100Hz to 10kHz):

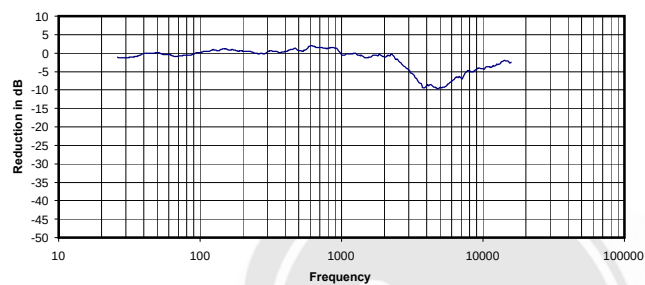
0 dBr

Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions

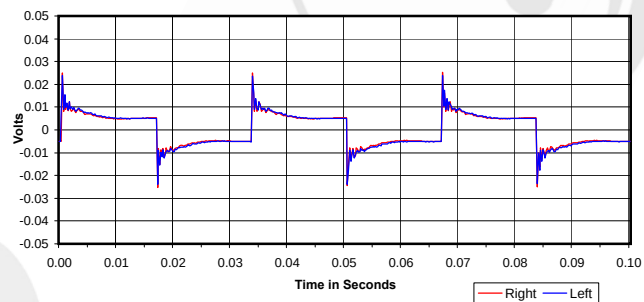


Electrical Impedance and phase measurements unavailable for Electrostatic headphones.

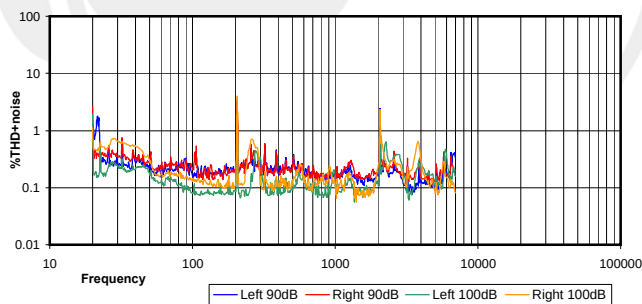
Isolation
Attenuation of External Sound vs. Frequency



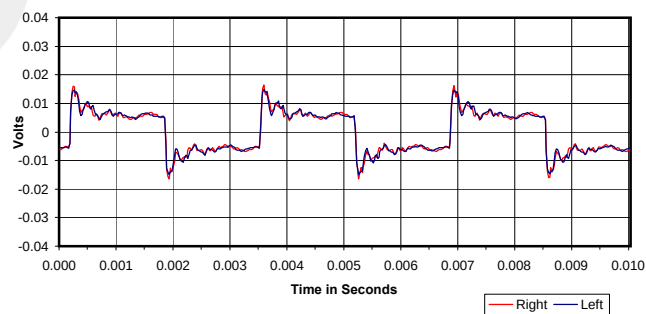
30 Hz Square Wave



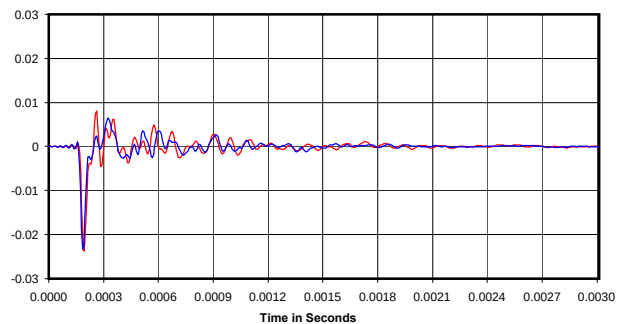
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



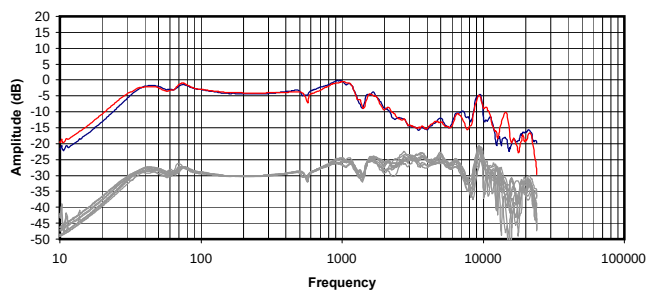
Impulse Response



Broadband Isolation in dB (100Hz to 10kHz):

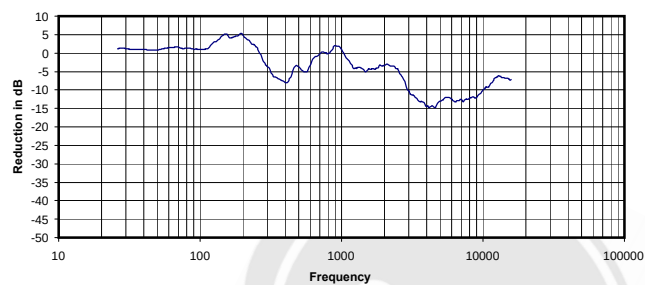
-1 dBr

Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions

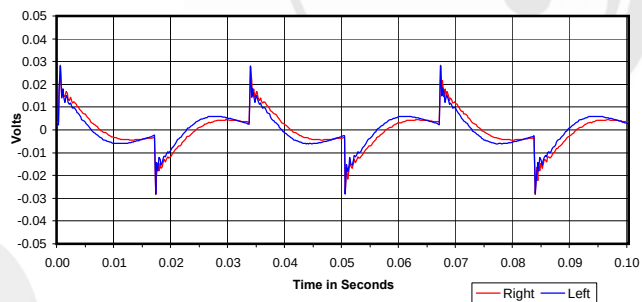


Electrical Impedance and phase measurements unavailable for Electrostatic headphones.

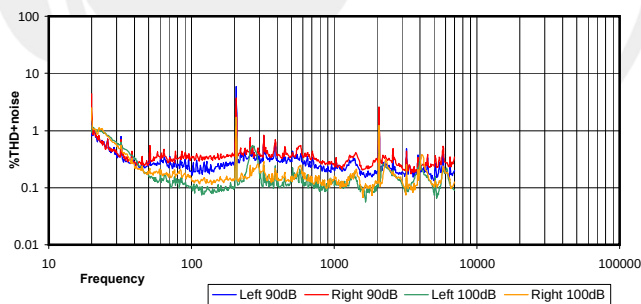
Isolation
Attenuation of External Sound vs. Frequency



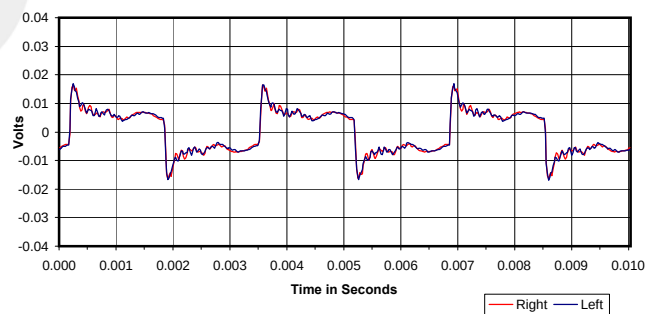
30 Hz Square Wave



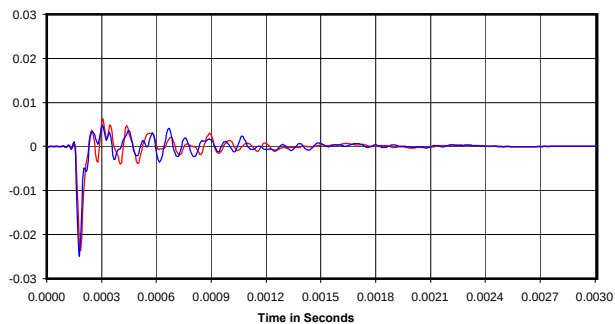
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



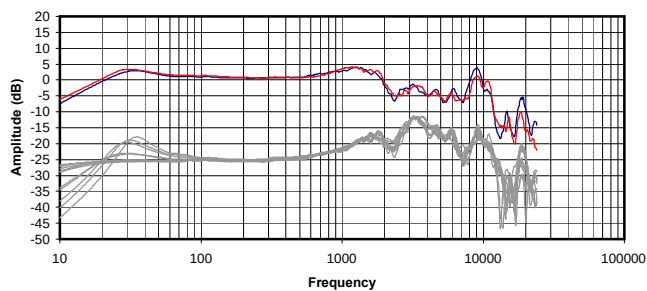
Impulse Response



Broadband Isolation in dB (100Hz to 10kHz):

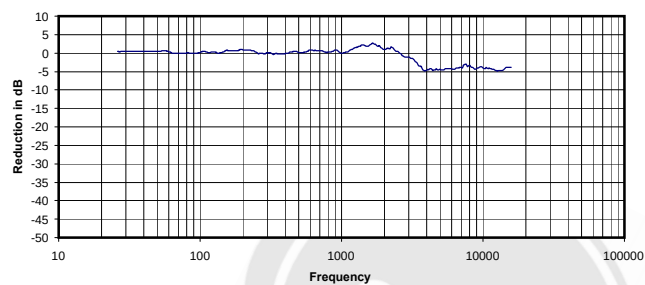
-4 dBr

Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions

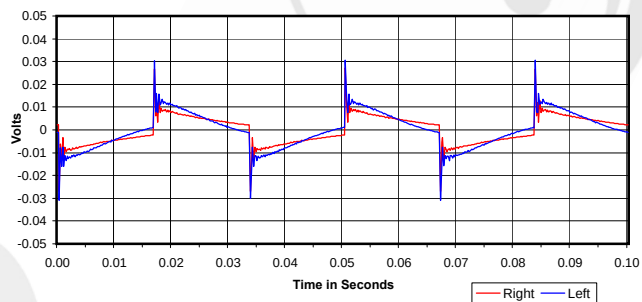


Electrical Impedance and phase measurements unavailable for Electrostatic headphones.

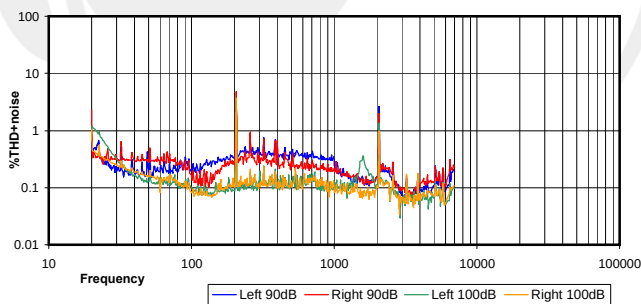
Isolation
Attenuation of External Sound vs. Frequency



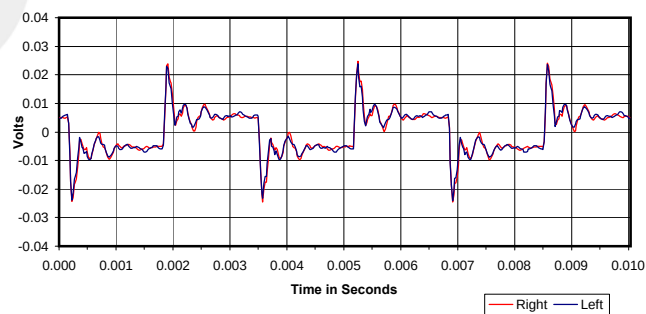
30 Hz Square Wave



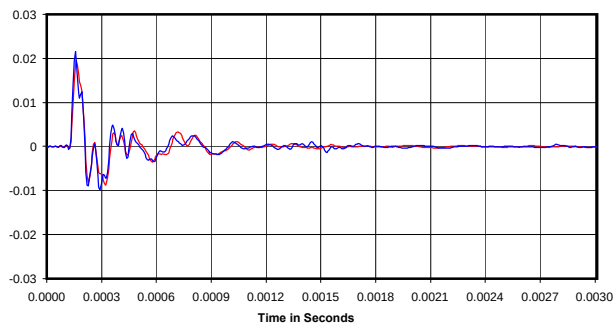
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



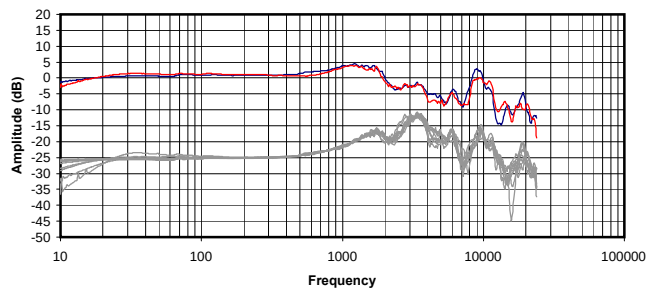
Impulse Response



Broadband Isolation in dB (100Hz to 10kHz):

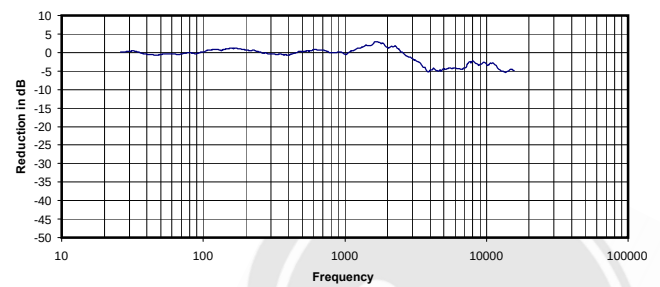
0 dB

Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions

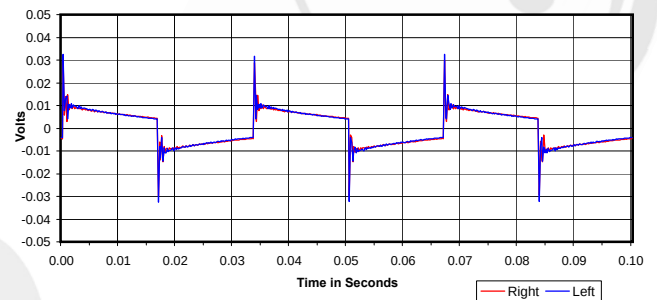


Electrical Impedance and phase measurements unavailable for Electrostatic headphones.

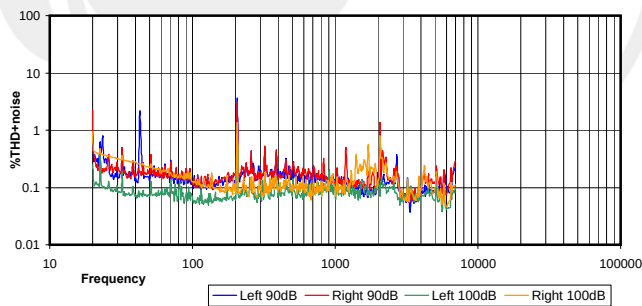
Isolation
Attenuation of External Sound vs. Frequency



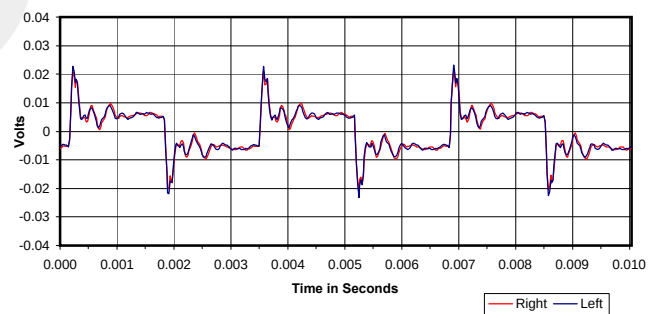
30 Hz Square Wave



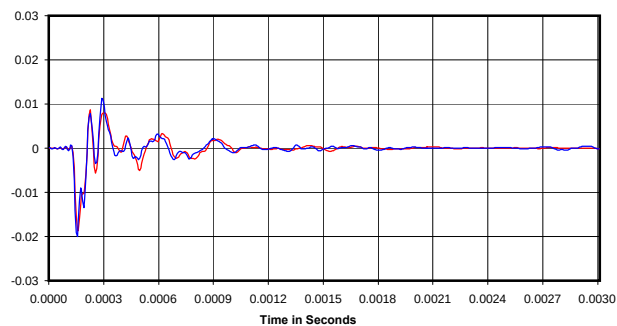
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



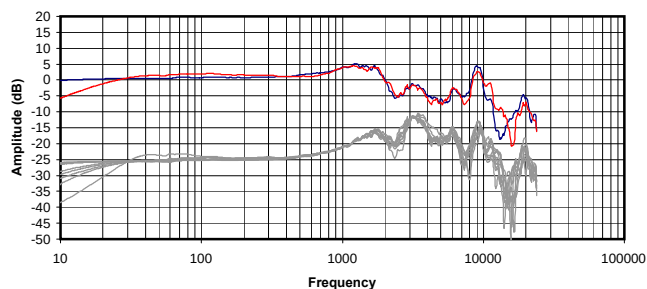
Impulse Response



Broadband Isolation in dB (100Hz to 10kHz):

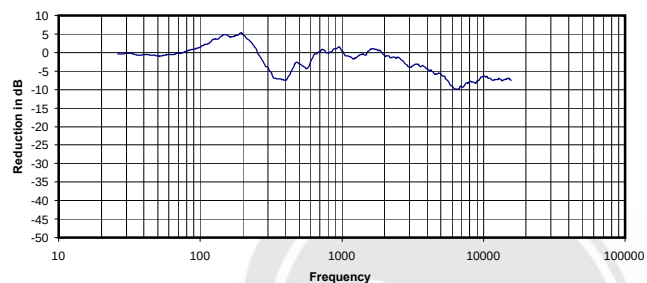
0 dBr

Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions

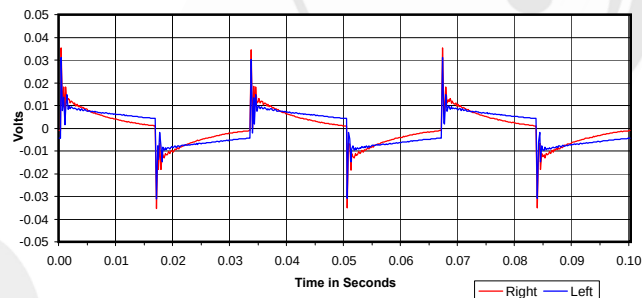


Electrical Impedance and phase measurements unavailable for Electrostatic headphones.

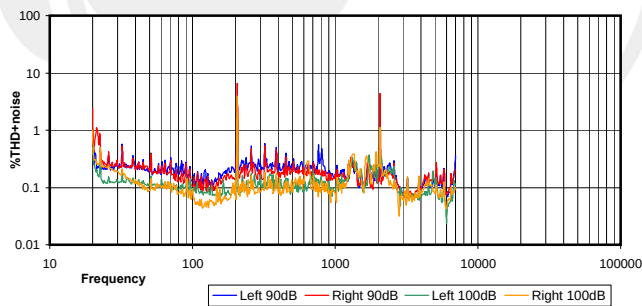
Isolation
Attenuation of External Sound vs. Frequency



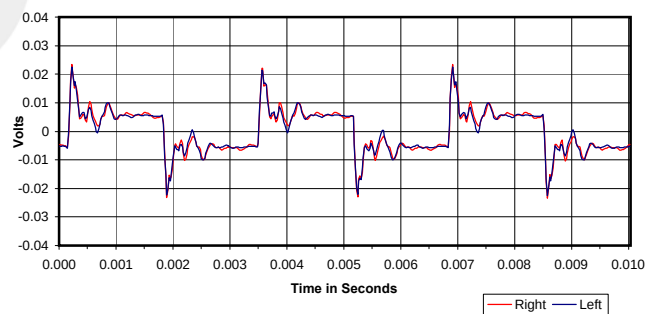
30 Hz Square Wave



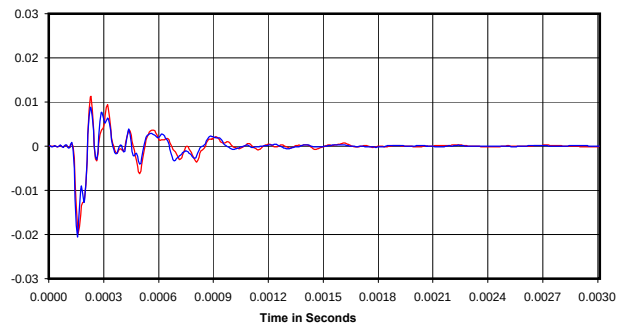
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



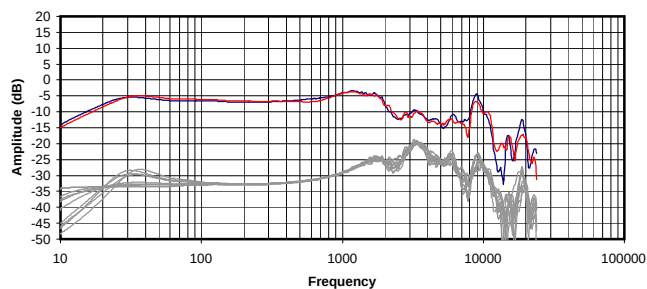
Impulse Response



Broadband Isolation in dB (100Hz to 10kHz):

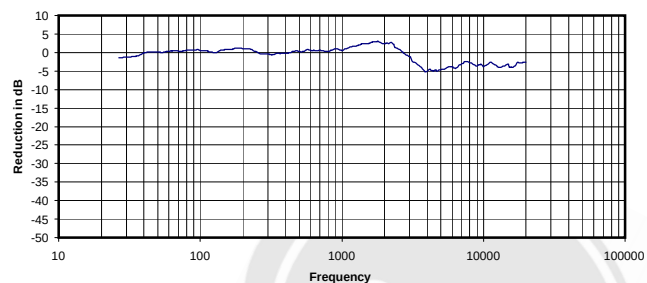
-1 dBr

Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions

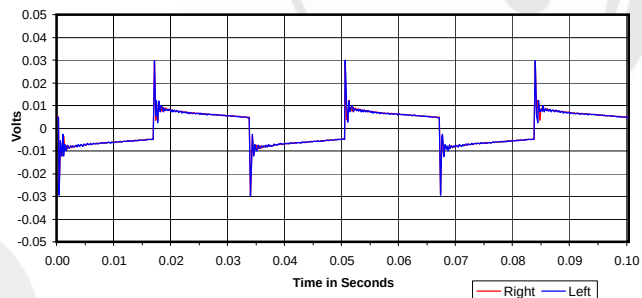


Electrical Impedance and phase measurements
unavailable for electrostatic and wireless headphones

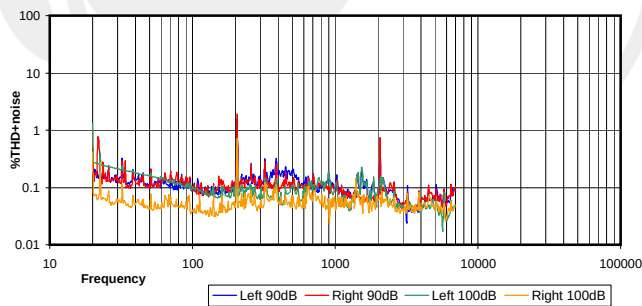
Isolation
Attenuation of External Sound vs. Frequency



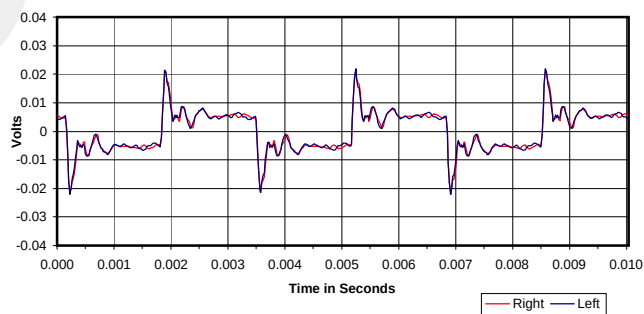
30 Hz Square Wave



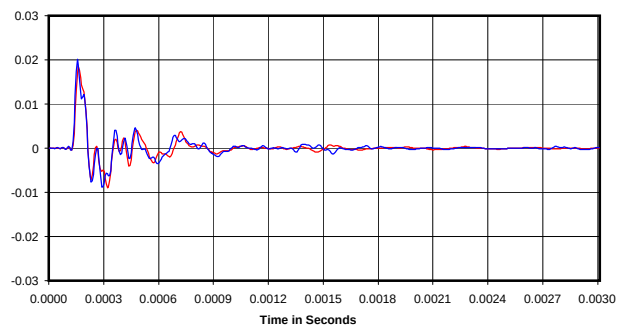
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



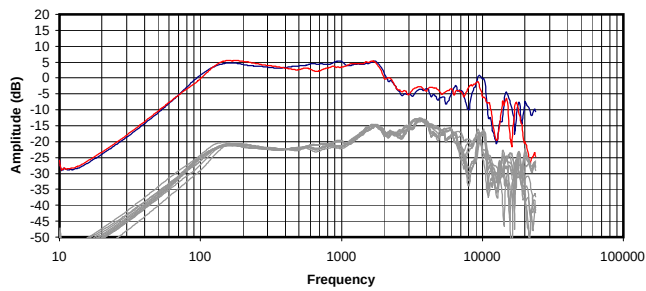
Impulse Response



Broadband Isolation in dB (100Hz to 10kHz):

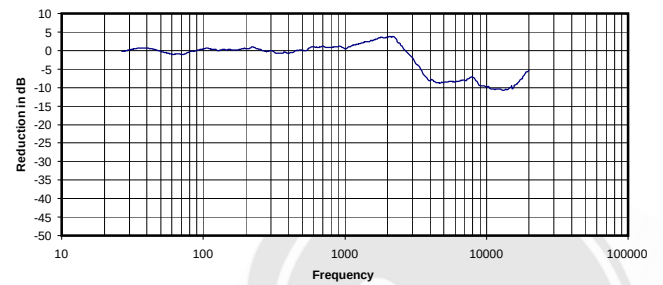
0 dB

Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions

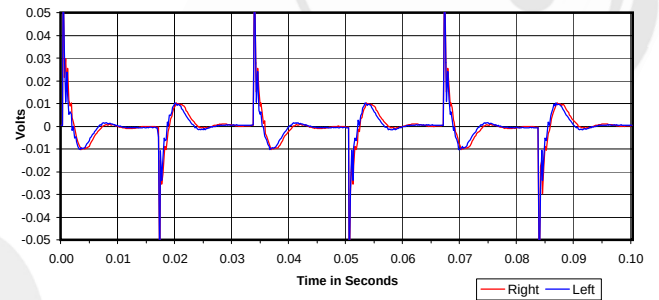


Electrical Impedance and phase measurements
unavailable for electrostatic and wireless headphones

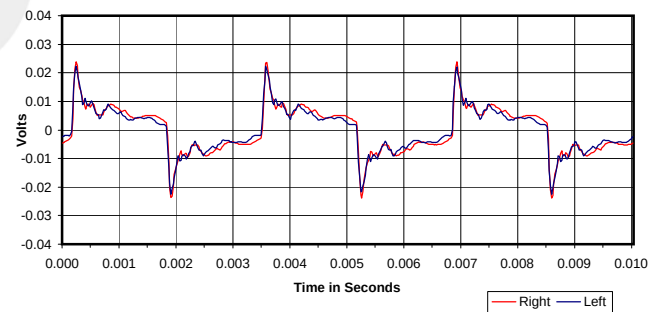
Isolation
Attenuation of External Sound vs. Frequency



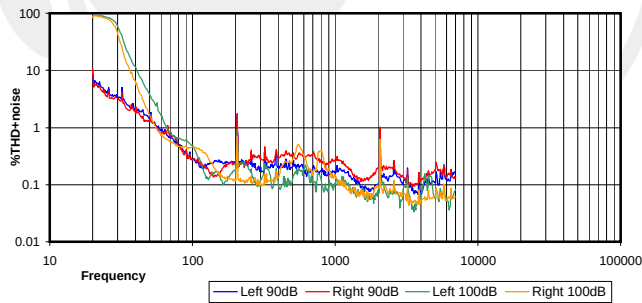
30 Hz Square Wave



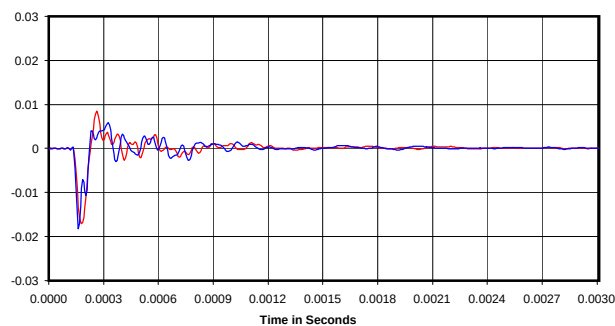
300 Hz Square Wave



%THD+noise @ 90dB and 100dB



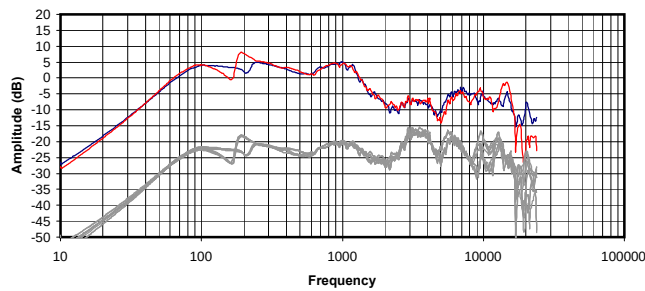
Impulse Response



Broadband Isolation in dB (100Hz to 10kHz):

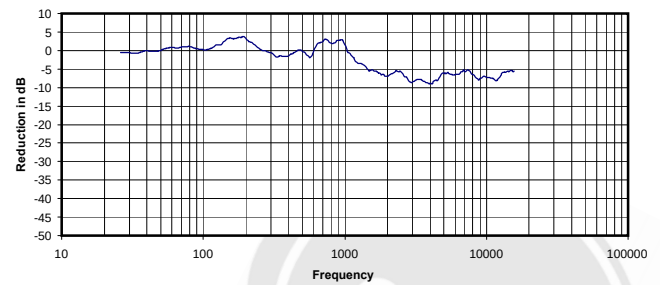
-1 dBr

Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions

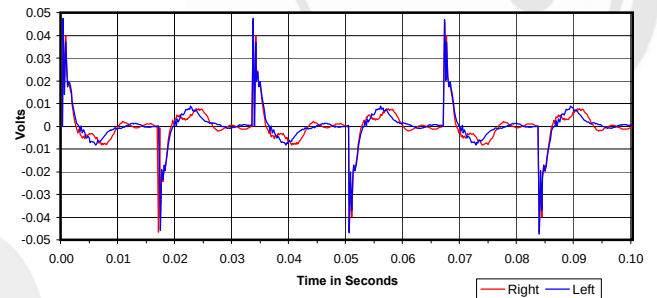


Electrical Impedance and phase measurements unavailable for Electrostatic headphones.

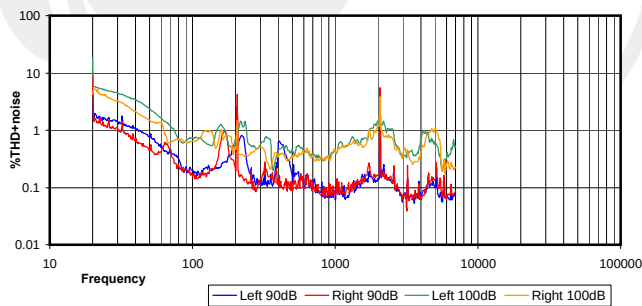
Isolation
Attenuation of External Sound vs. Frequency



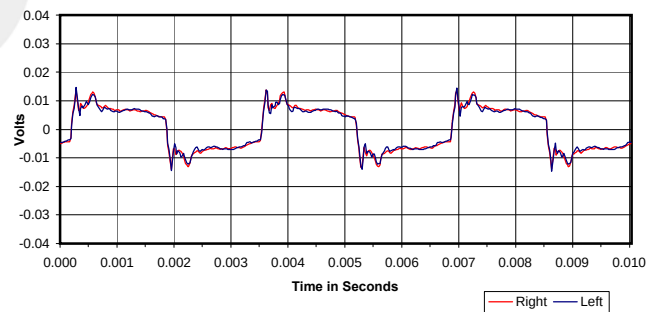
30 Hz Square Wave



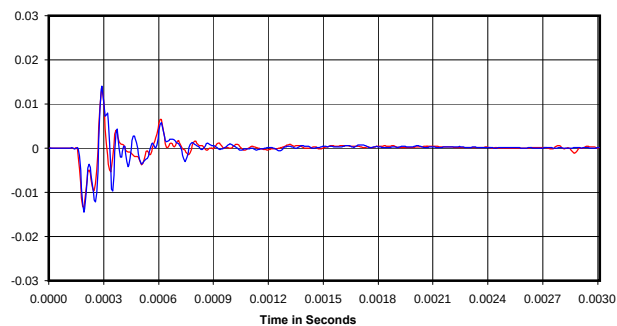
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



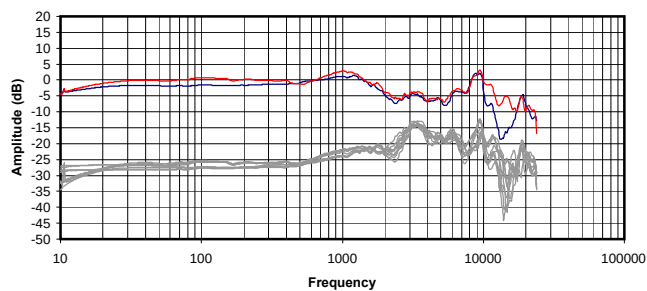
Impulse Response



Broadband Isolation in dB (100Hz to 10kHz):

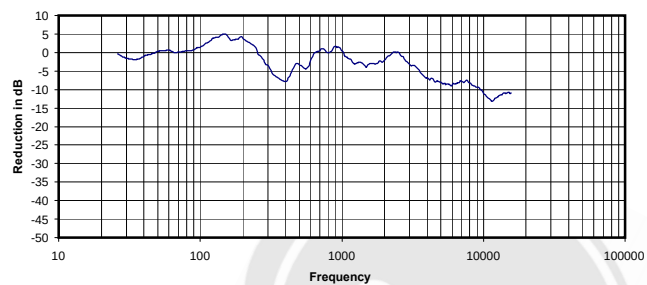
-2 dB

Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions

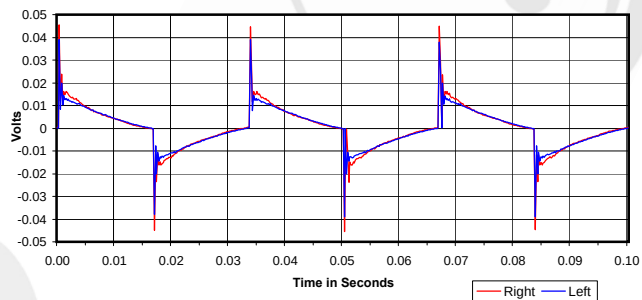


Electrical Impedance and phase measurements unavailable for Electrostatic headphones.

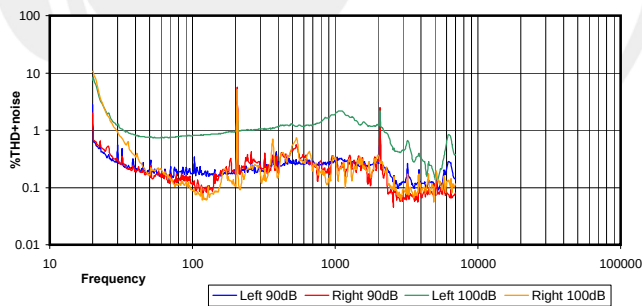
Isolation
Attenuation of External Sound vs. Frequency



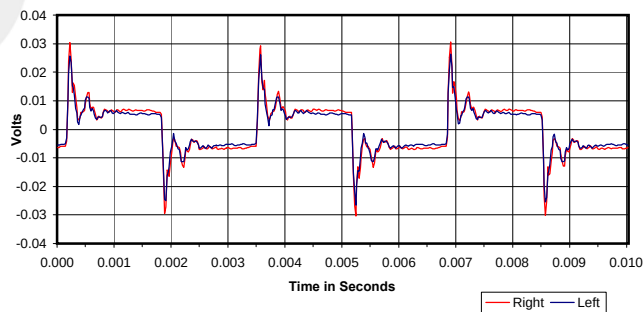
30 Hz Square Wave



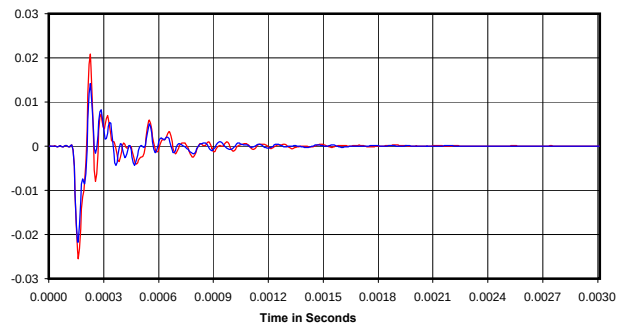
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



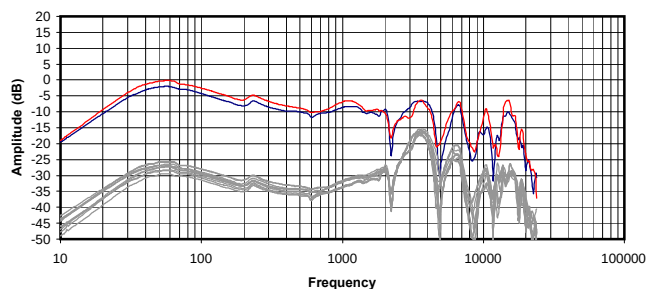
Impulse Response



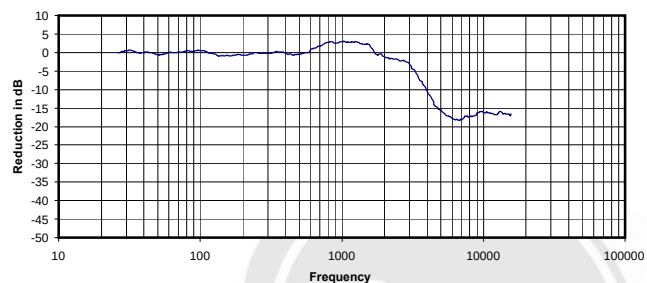
Broadband Isolation in dB (100Hz to 10kHz):

-2 dB

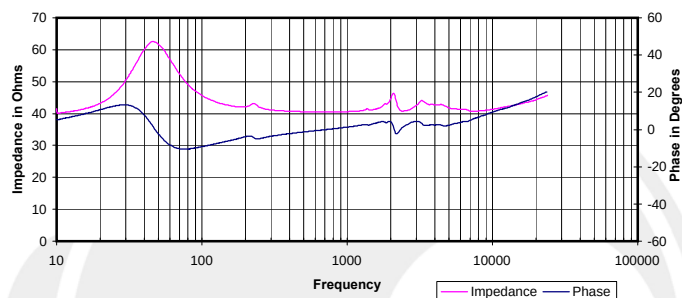
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



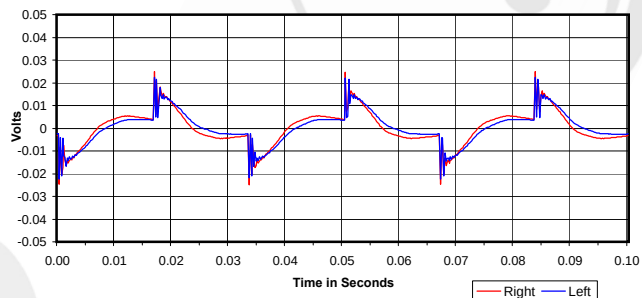
Isolation
Attenuation of External Sound vs. Frequency



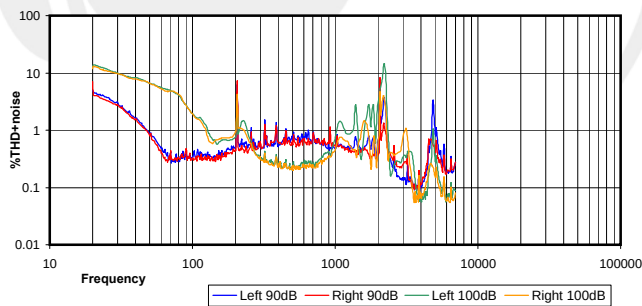
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



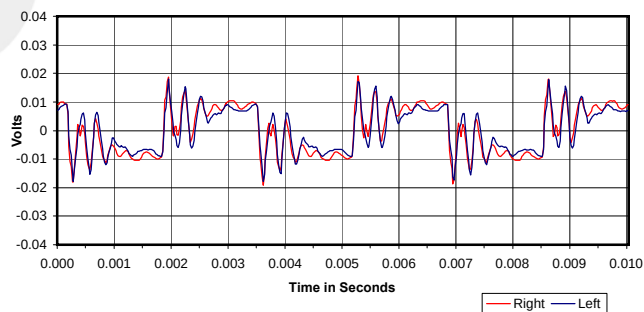
30 Hz Square Wave



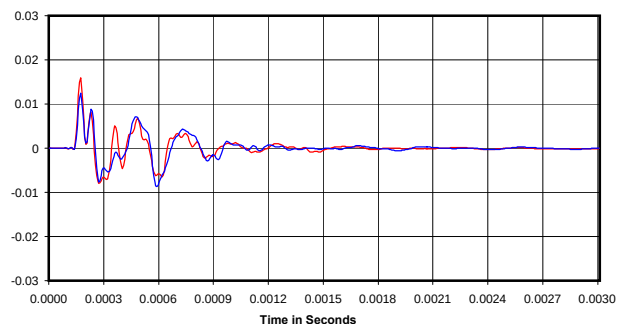
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



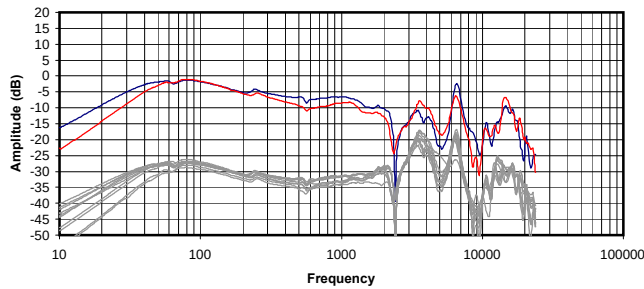
Impulse Response



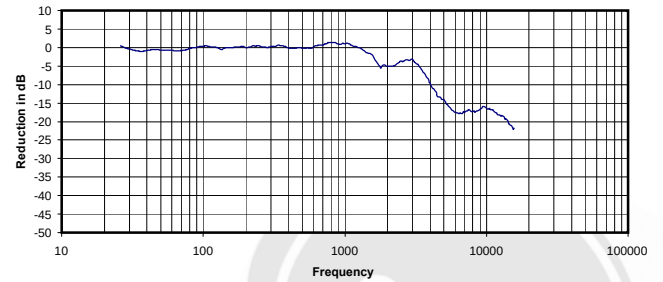
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.131 Vrms
41 Ohms
0.42 mW
-2 dBr

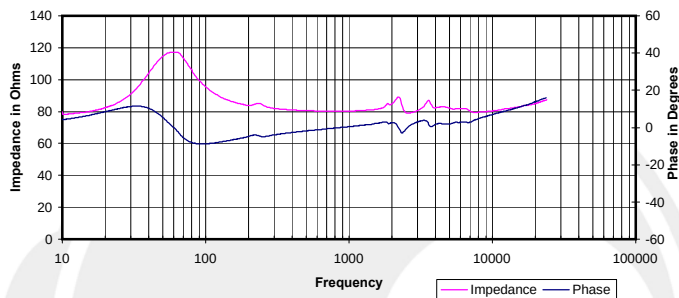
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



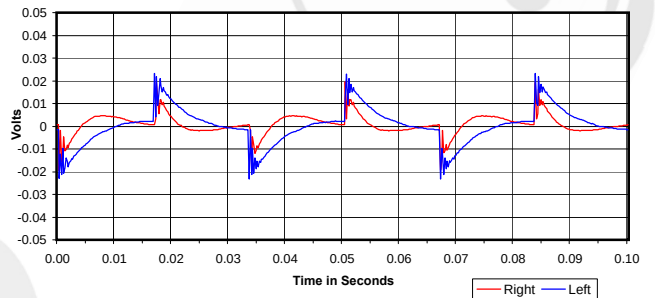
Isolation
Attenuation of External Sound vs. Frequency



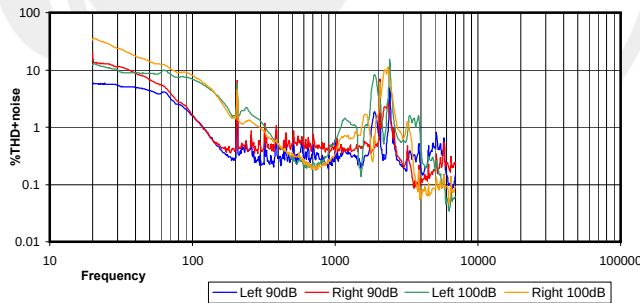
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



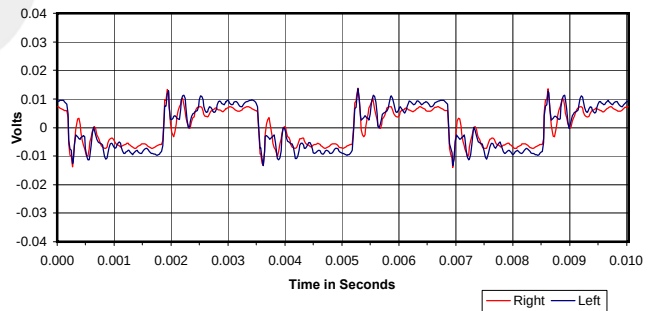
30 Hz Square Wave



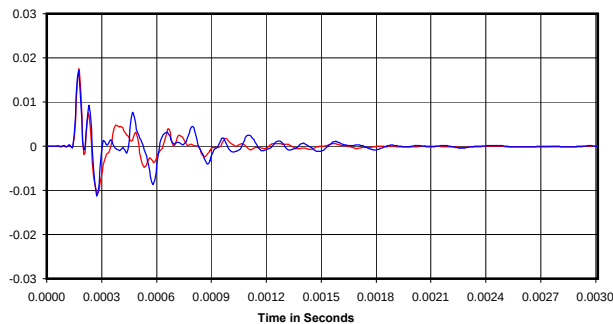
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



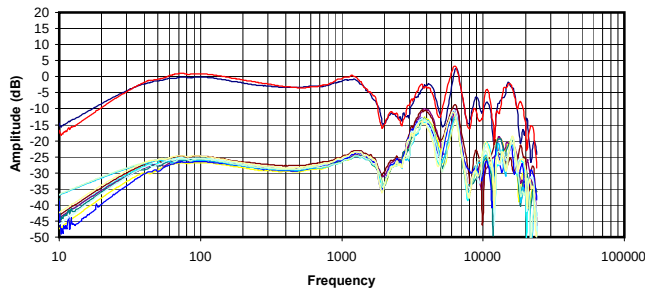
Impulse Response



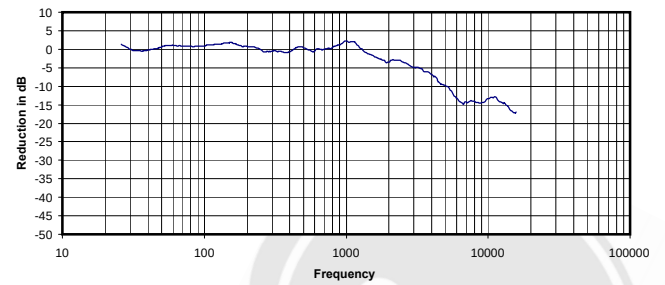
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.162 Vrms
80 Ohms
0.33 mW
-2 dBr

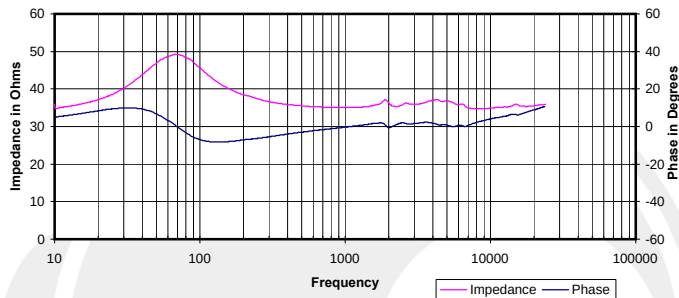
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



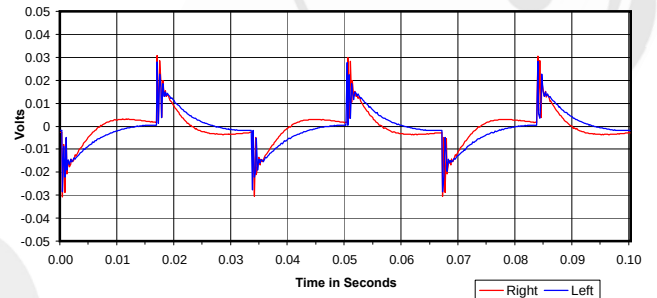
Isolation
Attenuation of External Sound vs. Frequency



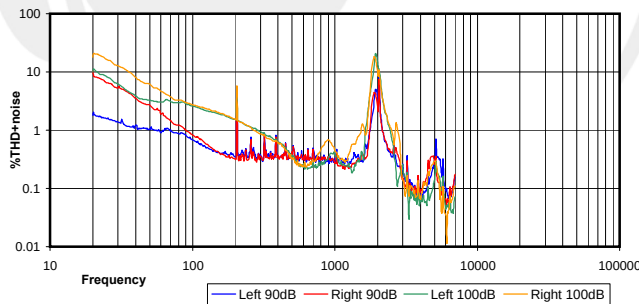
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



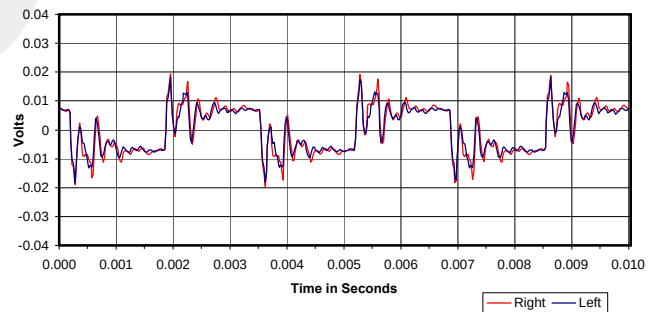
30 Hz Square Wave



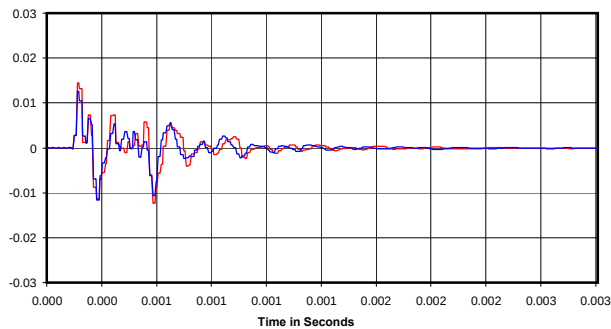
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

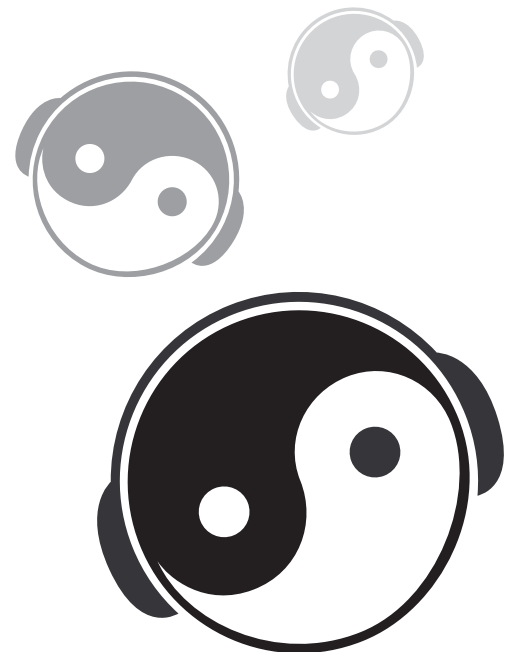


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

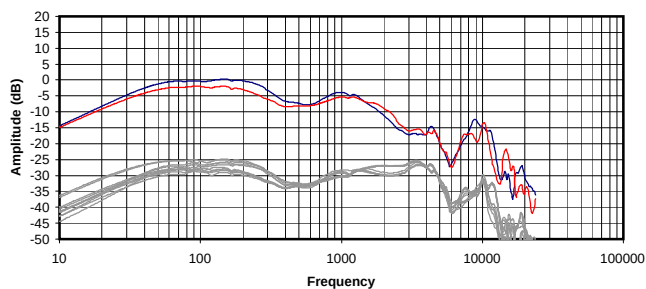
0.121 Vrms
35 Ohms
0.42 mW
-2 dBr

Headphone Measurement Datasheets

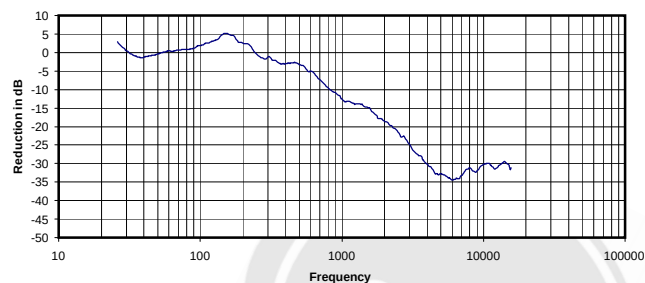
Full-Size Sealed



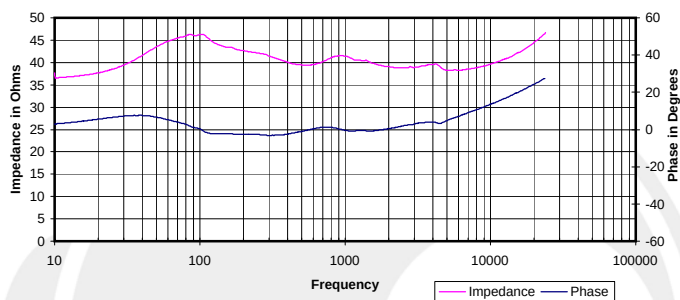
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



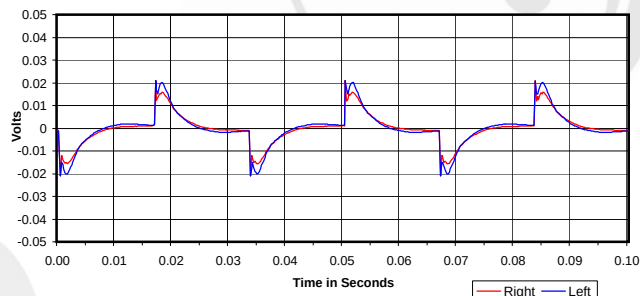
Isolation
Attenuation of External Sound vs. Frequency



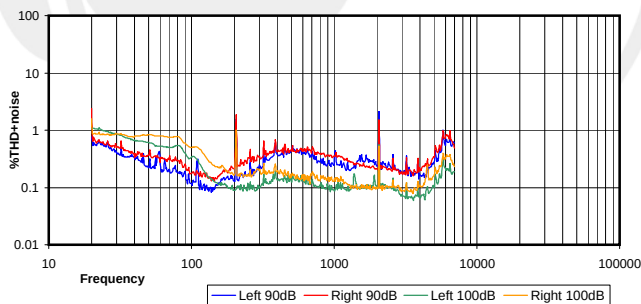
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



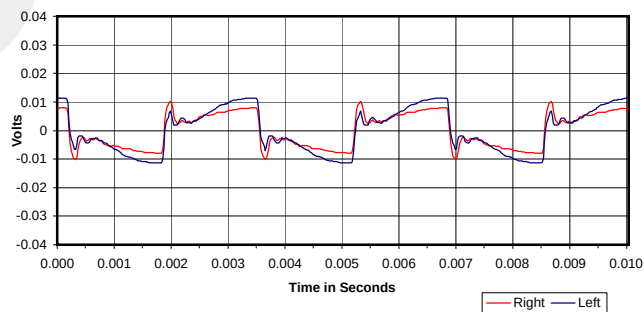
30 Hz Square Wave



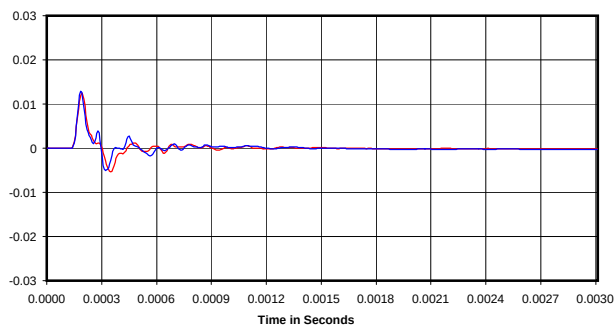
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



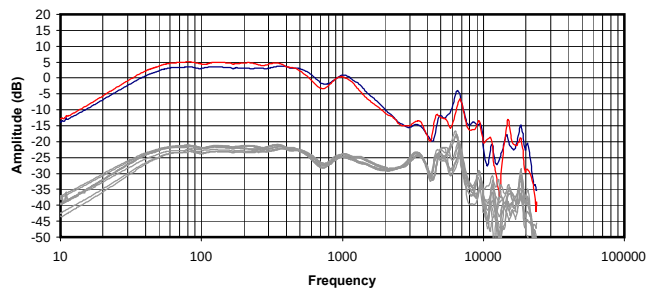
Impulse Response



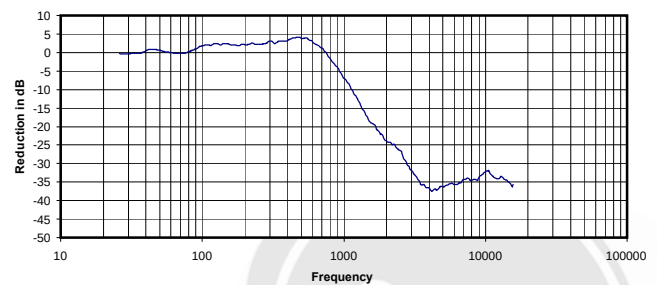
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.023 Vrms
41 Ohms
0.01 mW
-11 dB

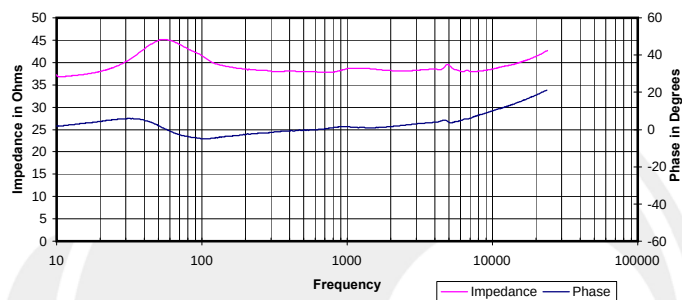
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



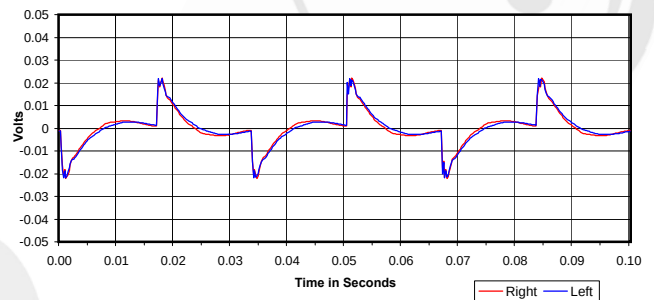
Isolation
Attenuation of External Sound vs. Frequency



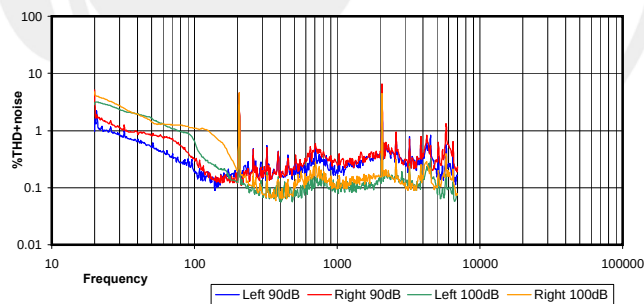
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



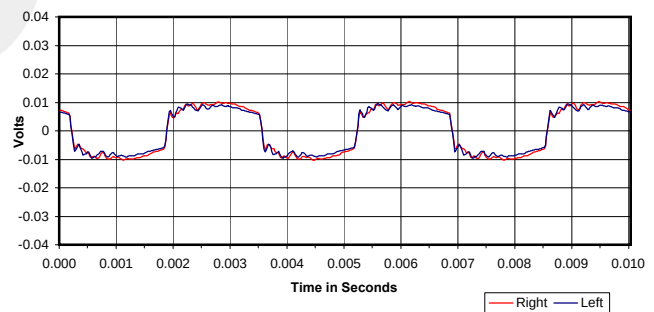
30 Hz Square Wave



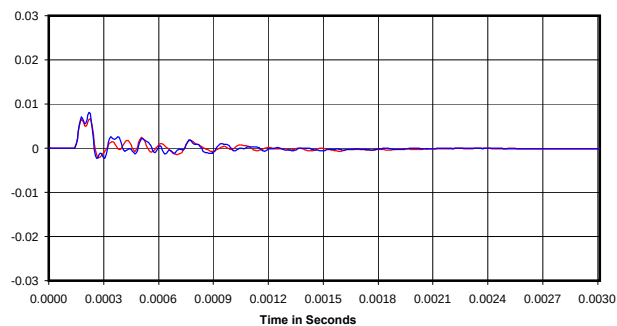
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



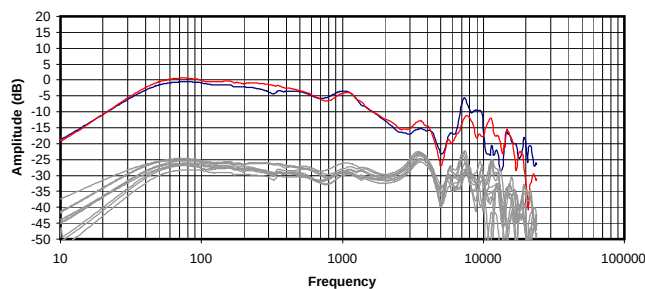
Impulse Response



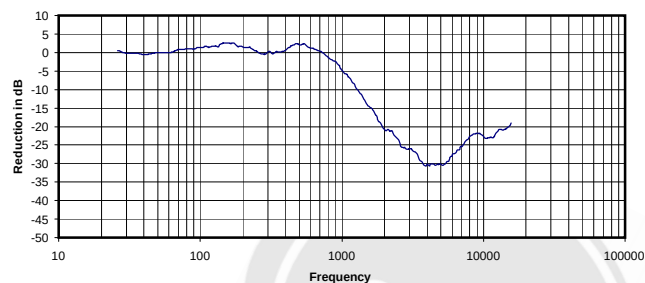
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.027 Vrms
39 Ohms
0.02 mW
-10 dBr

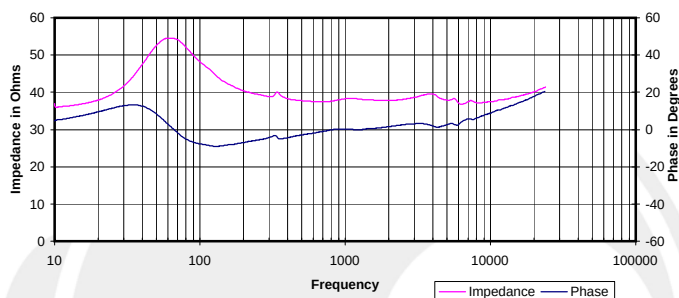
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



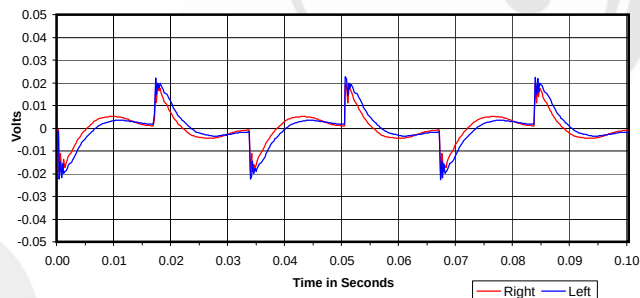
Isolation
Attenuation of External Sound vs. Frequency



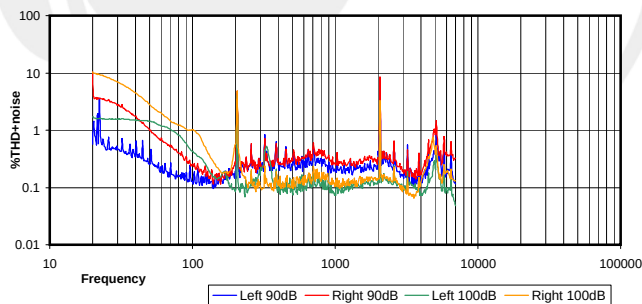
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



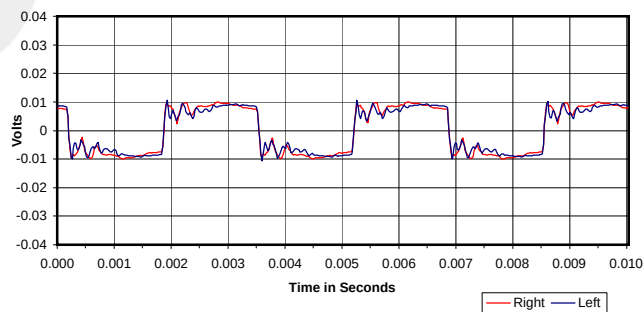
30 Hz Square Wave



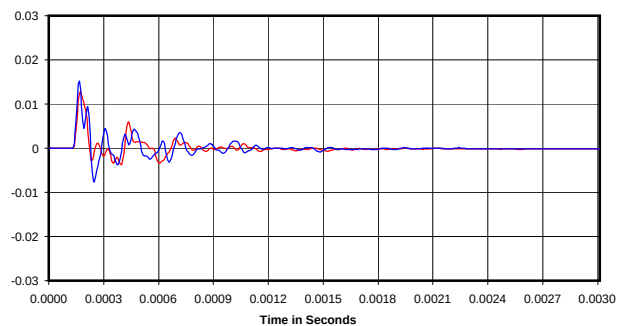
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



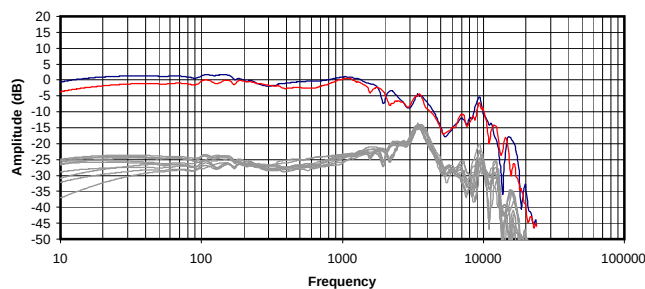
Impulse Response



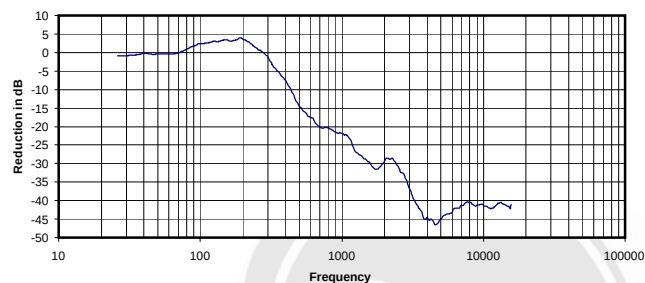
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.030 Vrms
38 Ohms
0.02 mW
-9 dBr

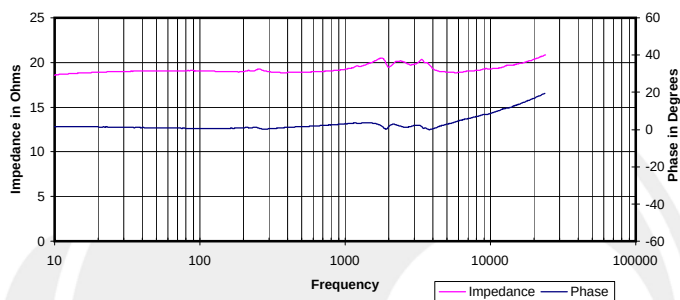
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



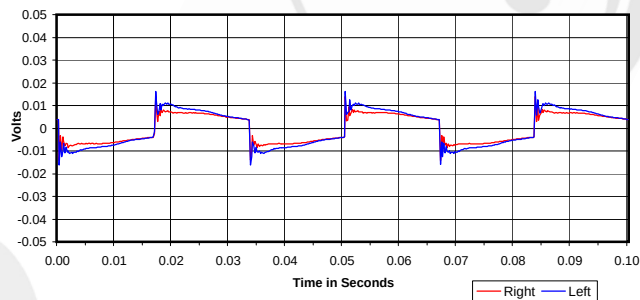
Isolation
Attenuation of External Sound vs. Frequency



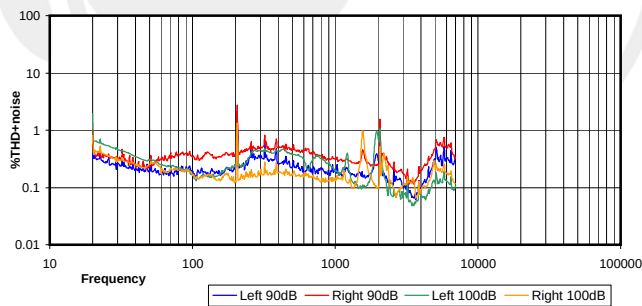
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



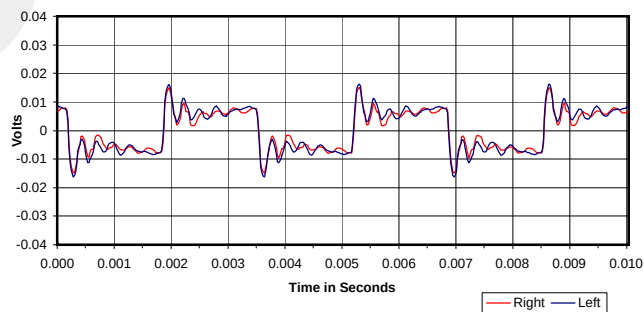
30 Hz Square Wave



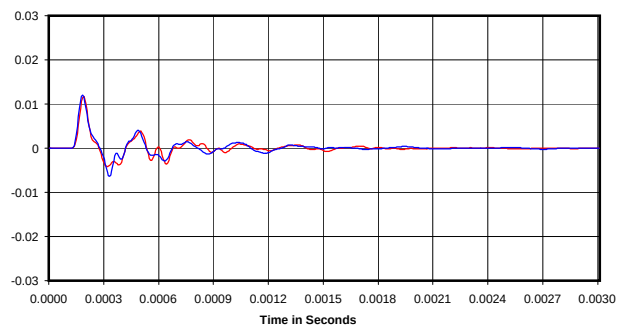
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



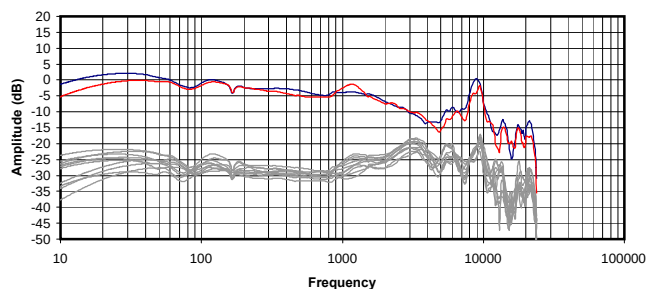
Impulse Response



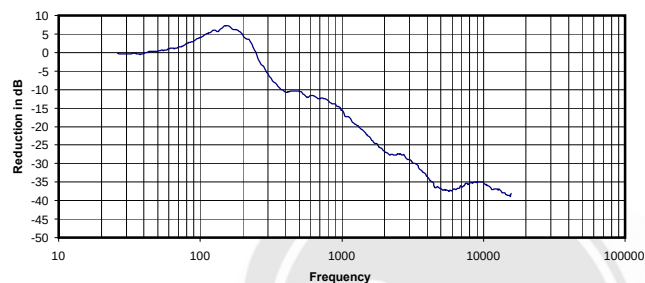
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.020 Vrms
19 Ohms
0.02 mW
-18 dBr

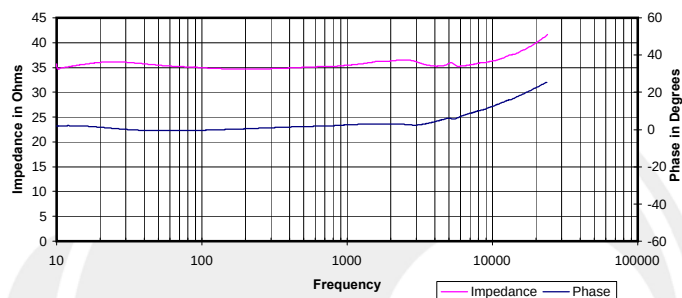
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



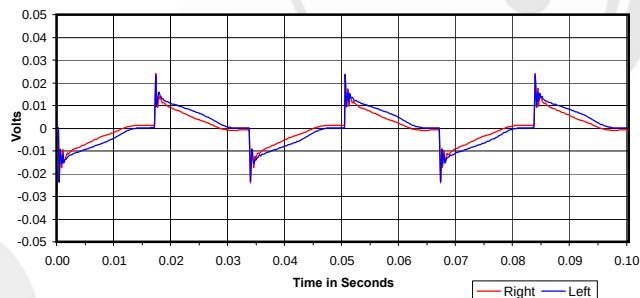
Isolation
Attenuation of External Sound vs. Frequency



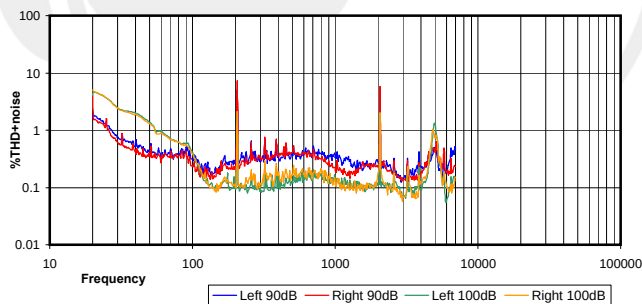
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



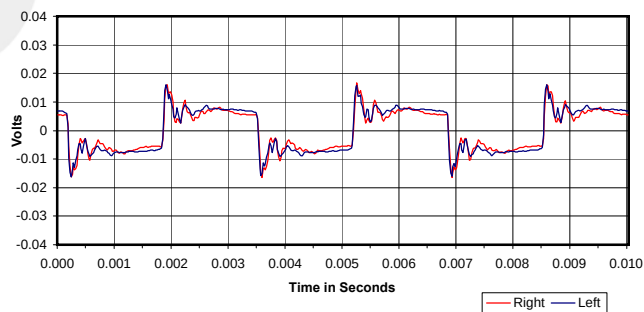
30 Hz Square Wave



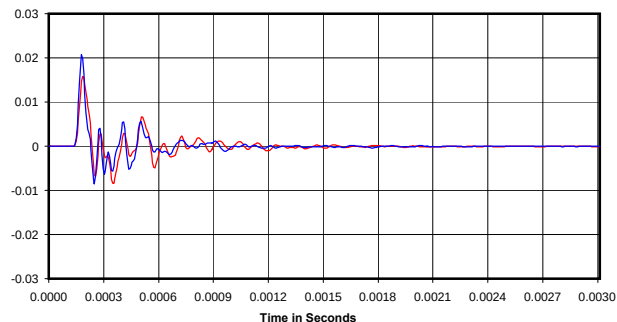
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



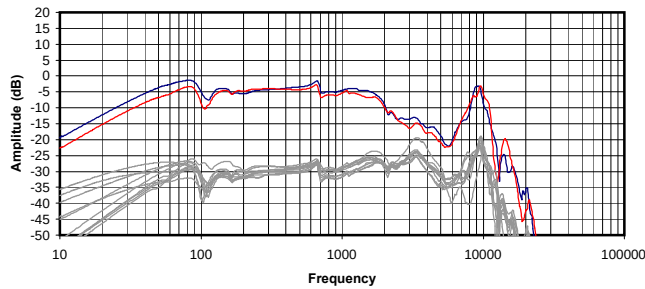
Impulse Response



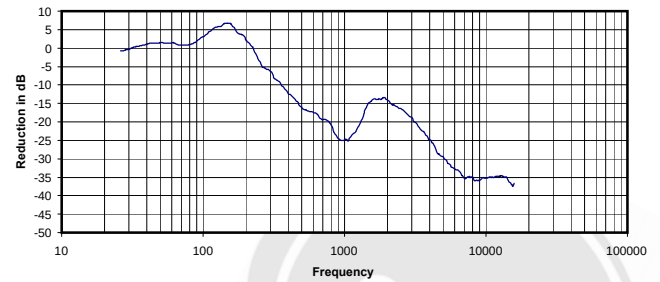
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.055 Vrms
35 Ohms
0.09 mW
-14 dBr

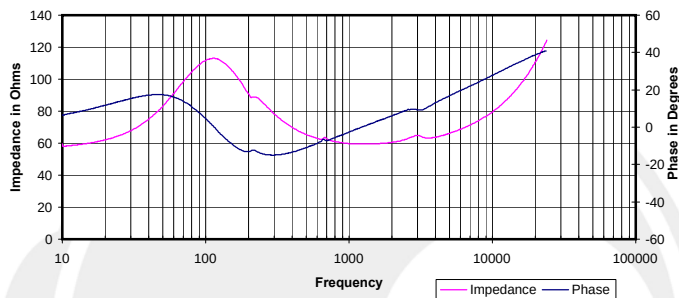
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



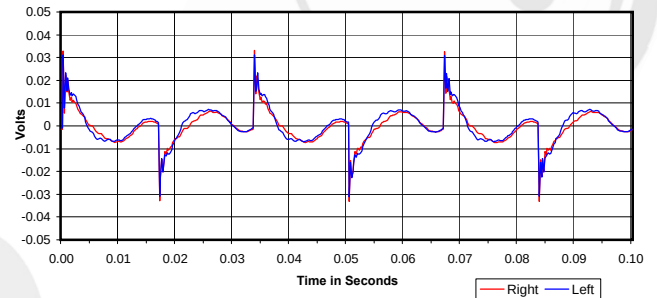
Isolation
Attenuation of External Sound vs. Frequency



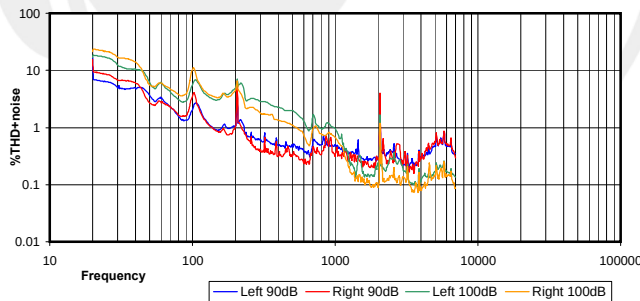
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



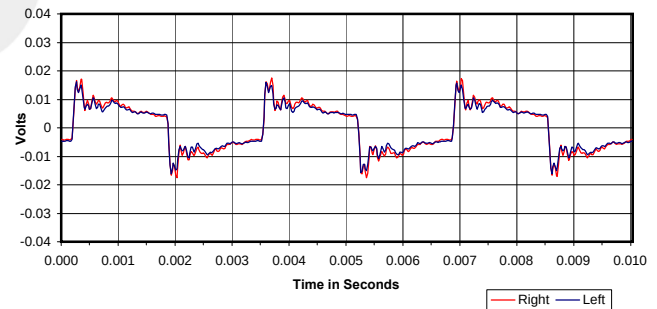
30 Hz Square Wave



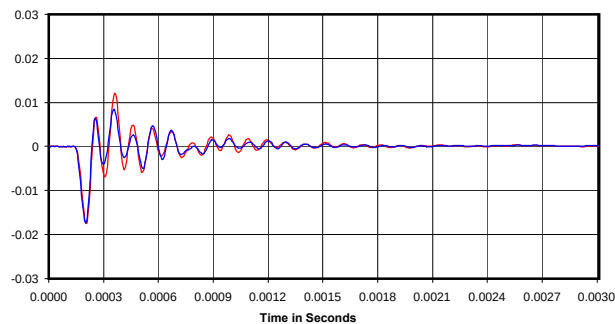
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



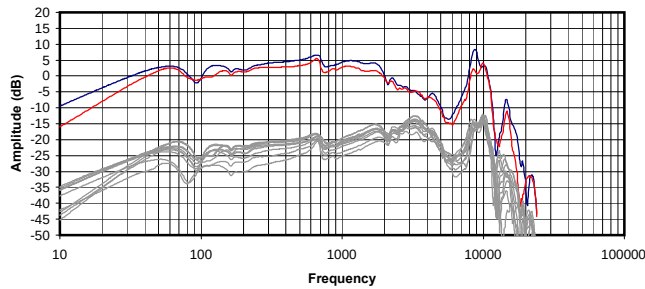
Impulse Response



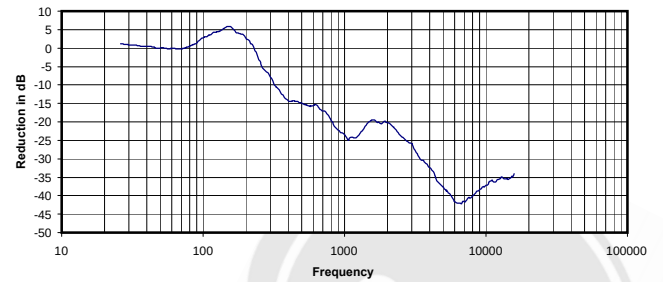
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.145 Vrms
60 Ohms
0.35 mW
-13 dB

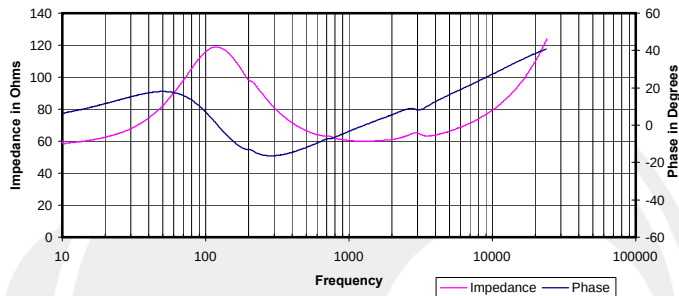
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



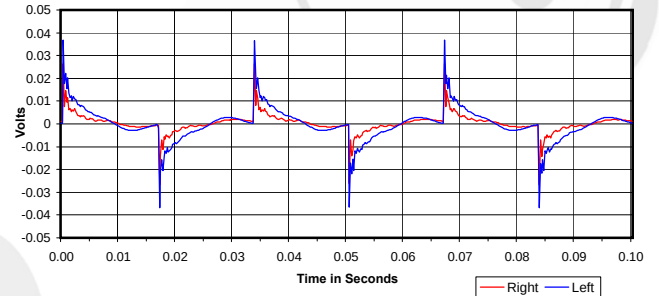
Isolation
Attenuation of External Sound vs. Frequency



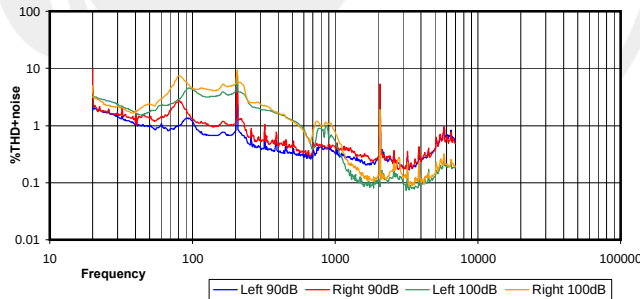
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



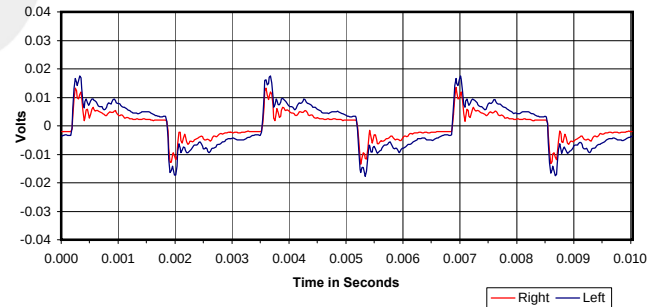
30 Hz Square Wave



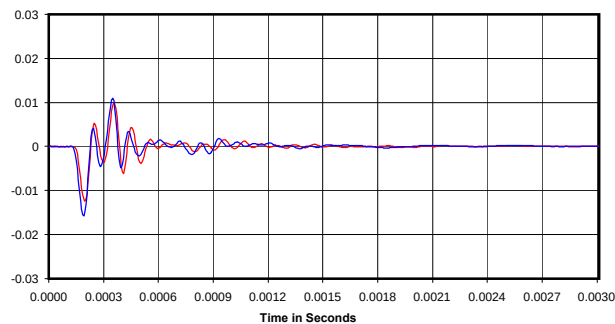
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



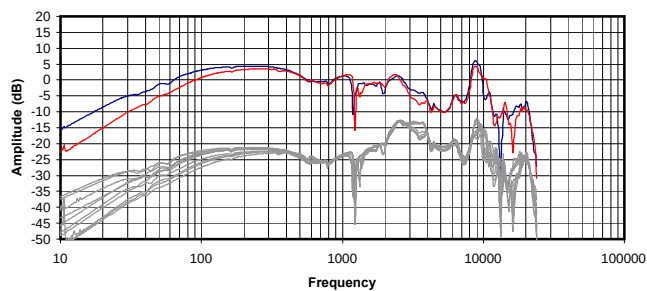
Impulse Response



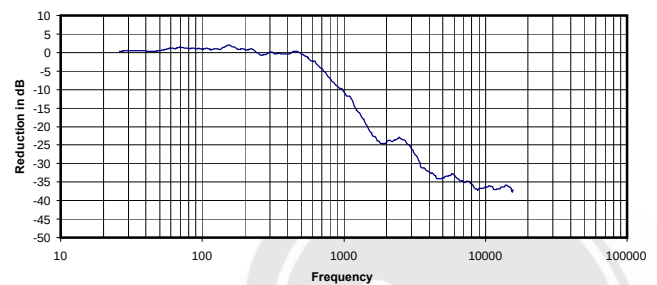
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.093 Vrms
60 Ohms
0.14 mW
-16 dBr

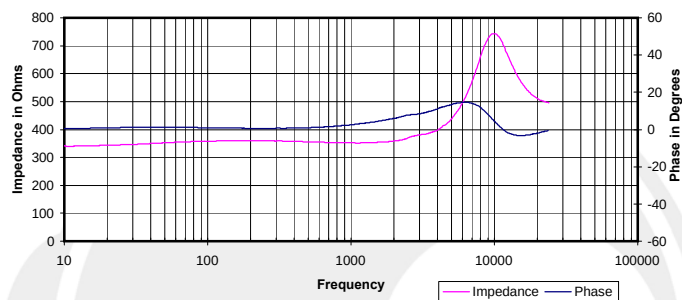
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



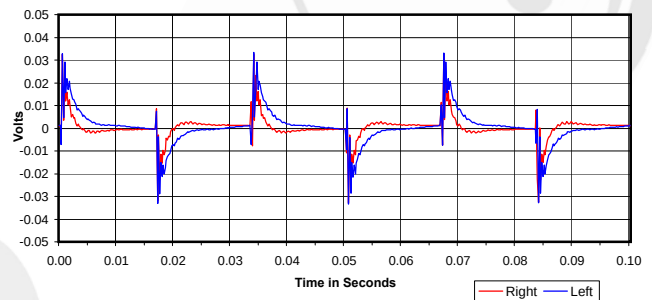
Isolation
Attenuation of External Sound vs. Frequency



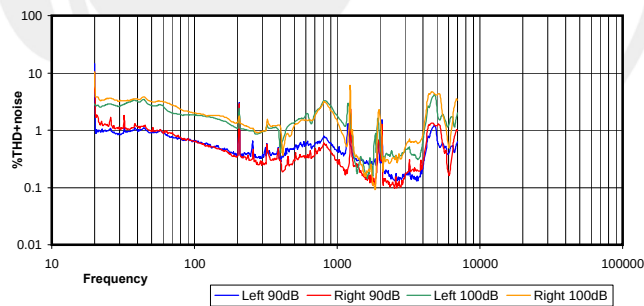
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



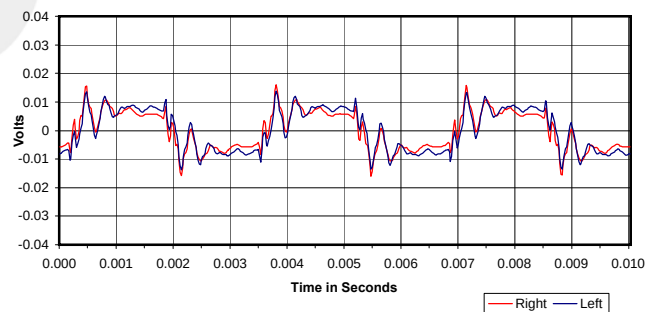
30 Hz Square Wave



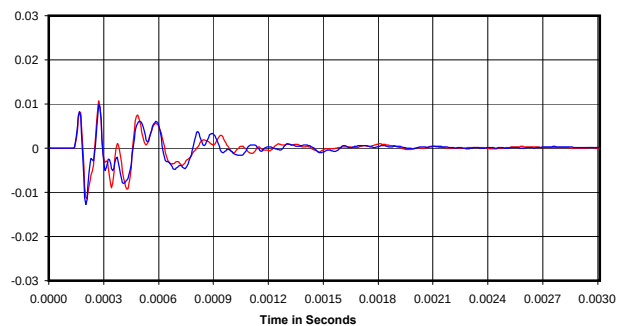
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



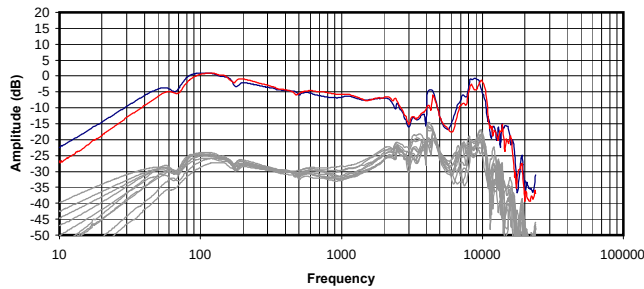
Impulse Response



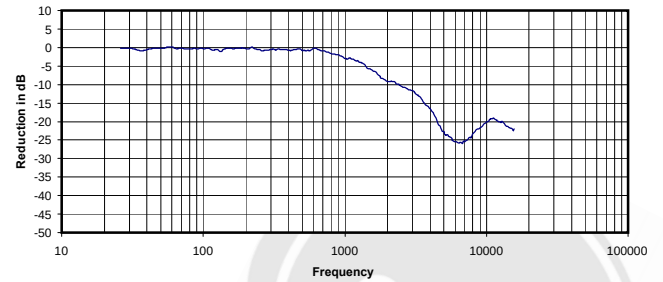
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.670 Vrms
352 Ohms
1.27 mW
-12 dBr

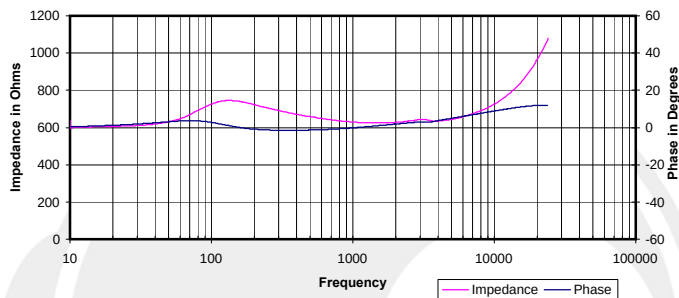
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



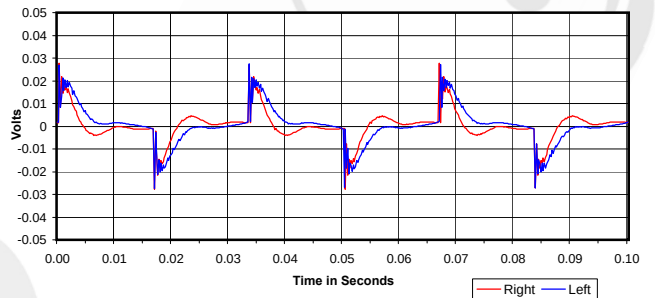
Isolation
Attenuation of External Sound vs. Frequency



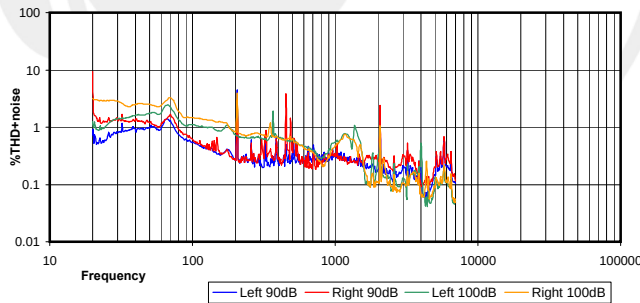
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



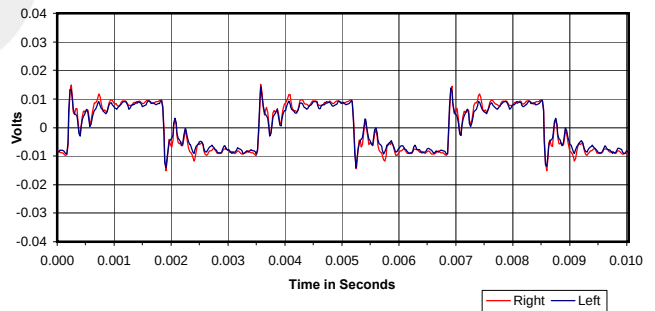
30 Hz Square Wave



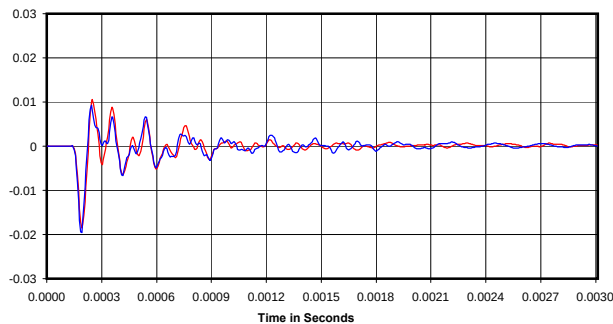
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



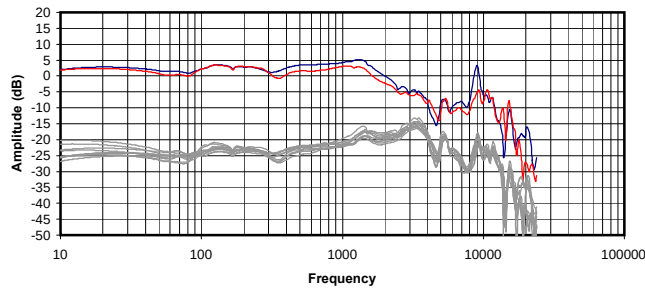
Impulse Response



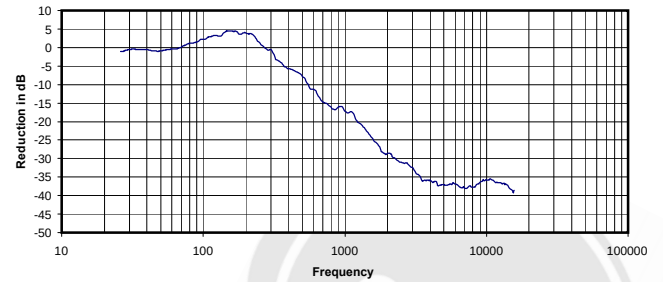
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.893 Vrms
630 Ohms
1.27 mW
-6 dBr

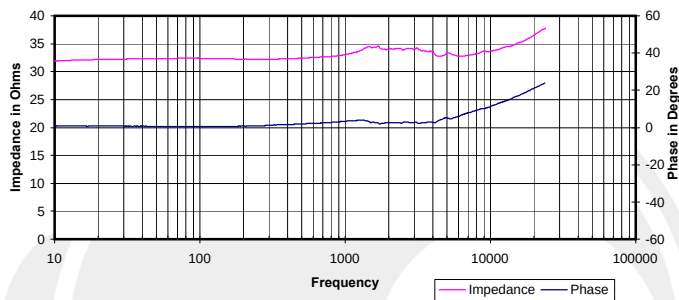
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



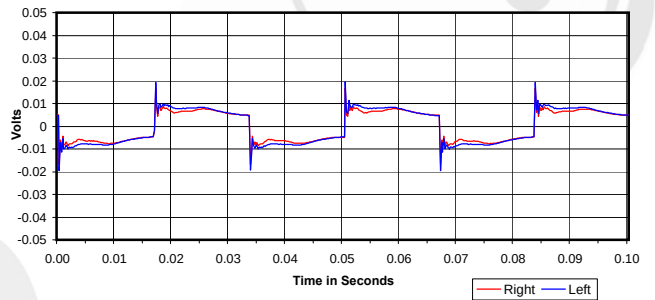
Isolation
Attenuation of External Sound vs. Frequency



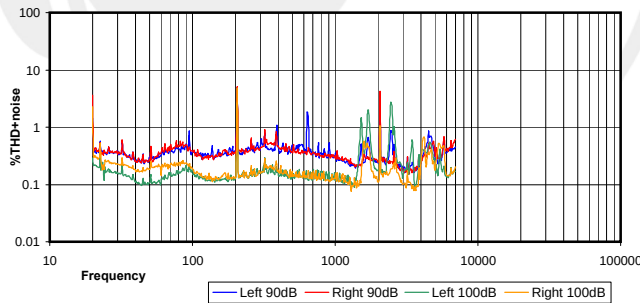
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



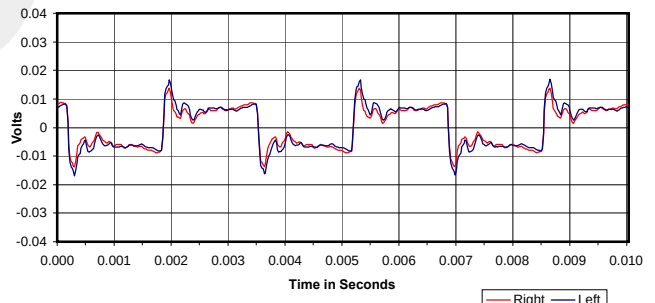
30 Hz Square Wave



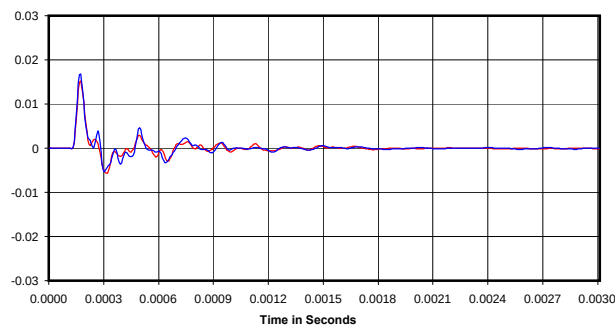
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



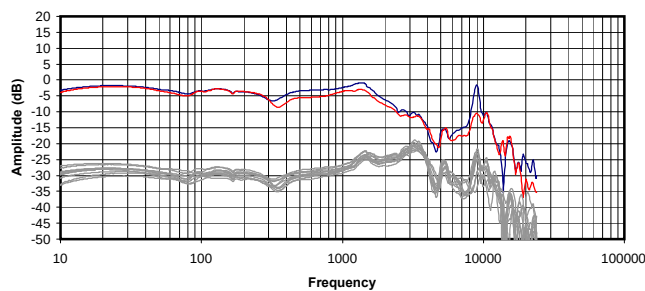
Impulse Response



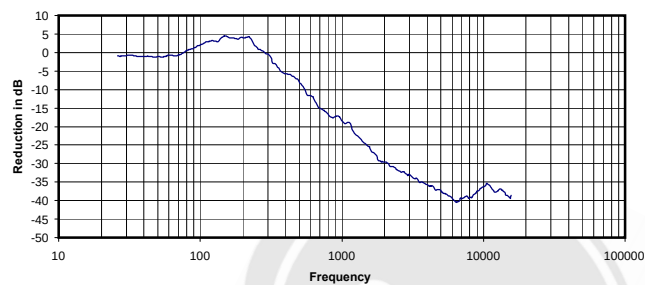
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.034 Vrms
33 Ohms
0.04 mW
-15 dBr

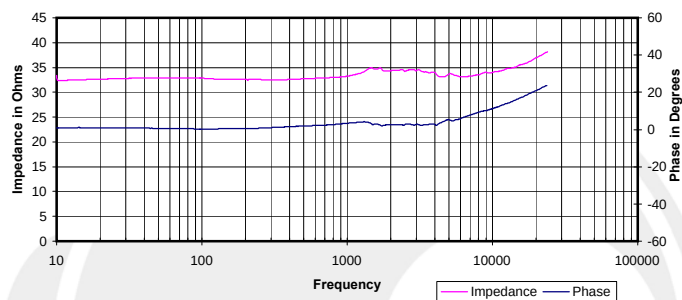
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



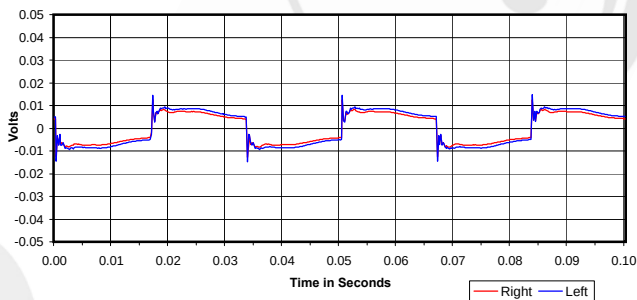
Isolation
Attenuation of External Sound vs. Frequency



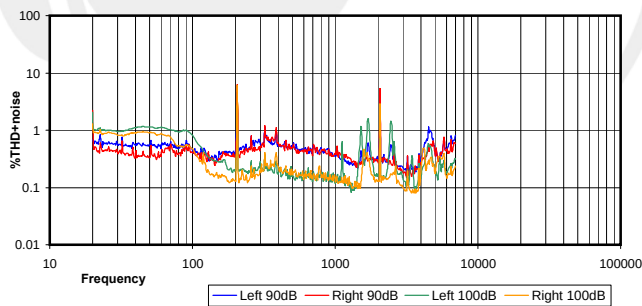
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



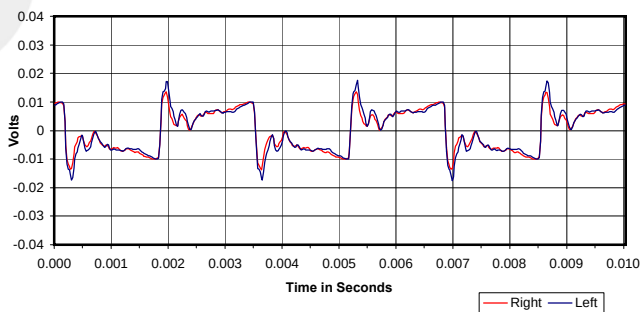
30 Hz Square Wave



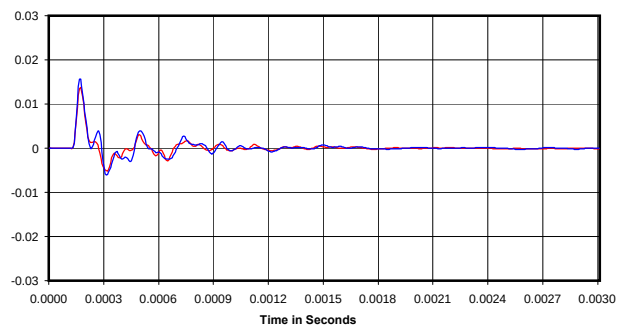
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



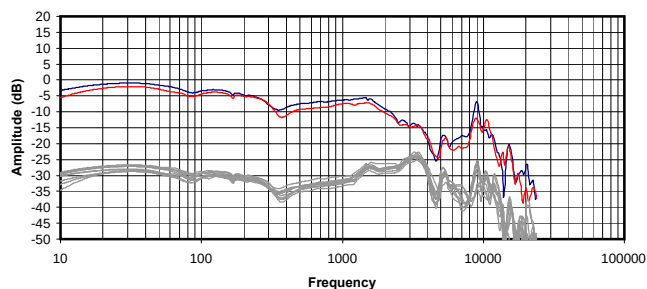
Impulse Response



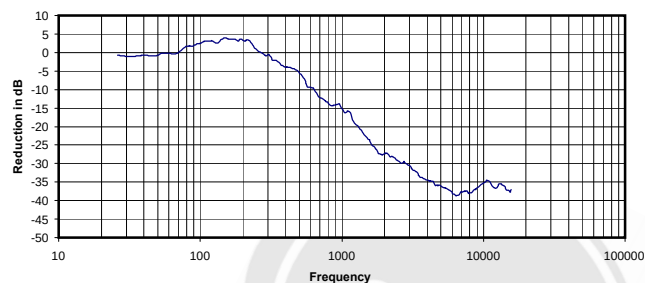
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.032 Vrms
33 Ohms
0.03 mW
-15 dBr

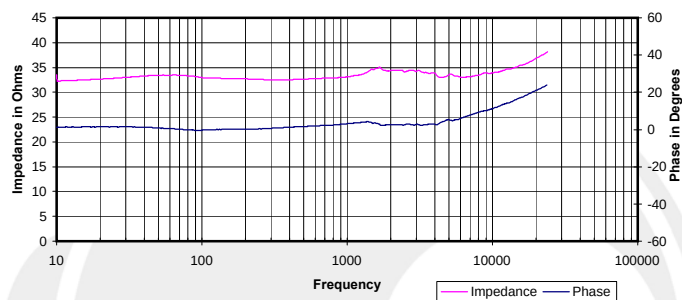
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



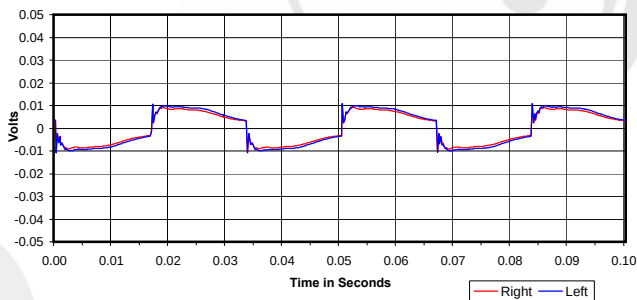
Isolation
Attenuation of External Sound vs. Frequency



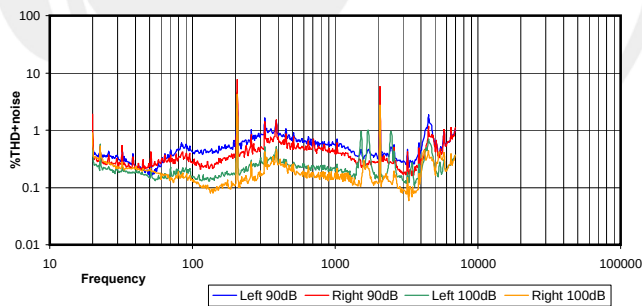
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



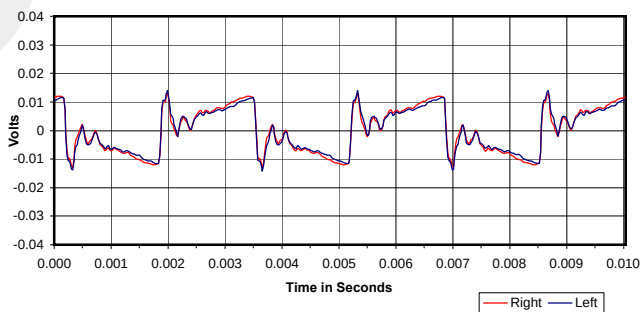
30 Hz Square Wave



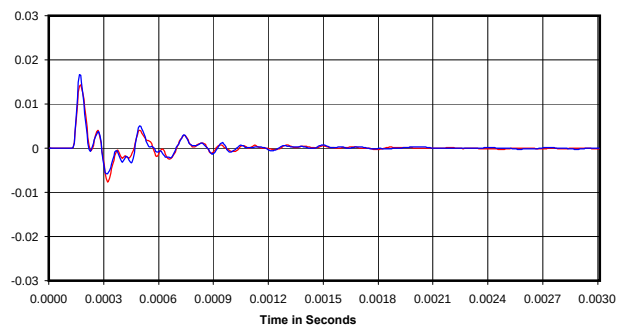
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



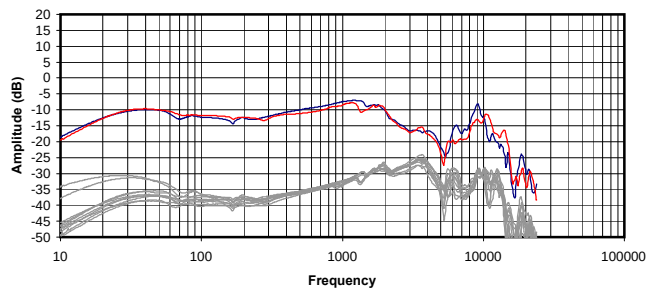
Impulse Response



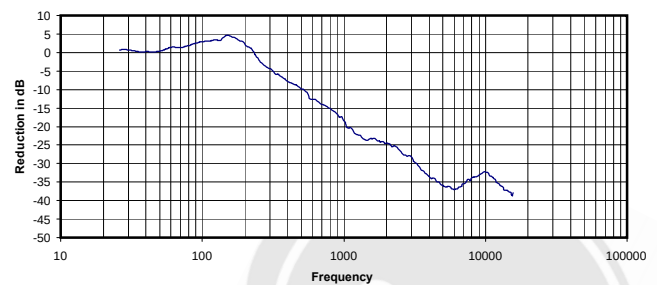
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.038 Vrms
33 Ohms
0.04 mW
-14 dBr

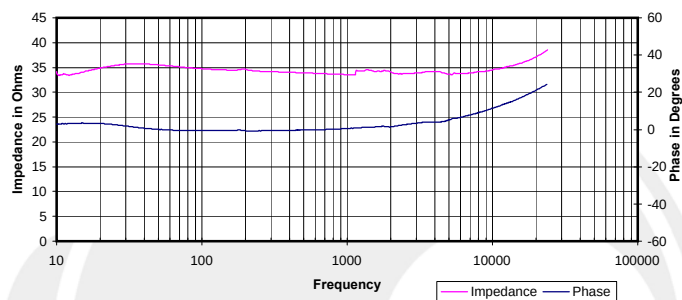
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



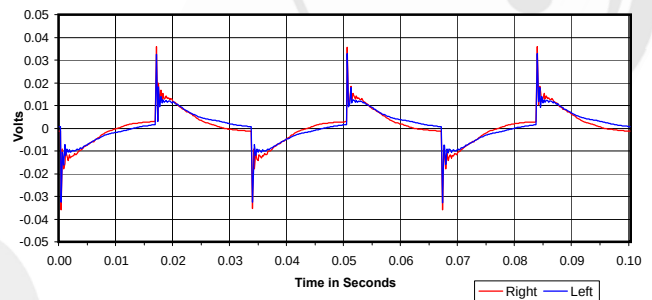
Isolation
Attenuation of External Sound vs. Frequency



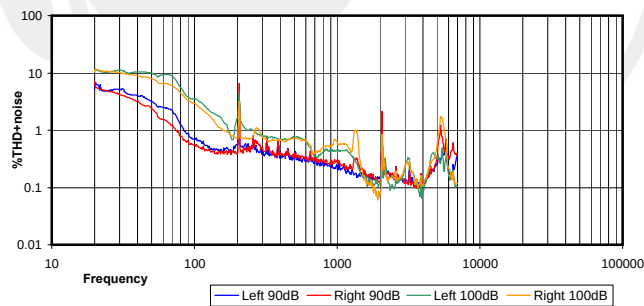
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



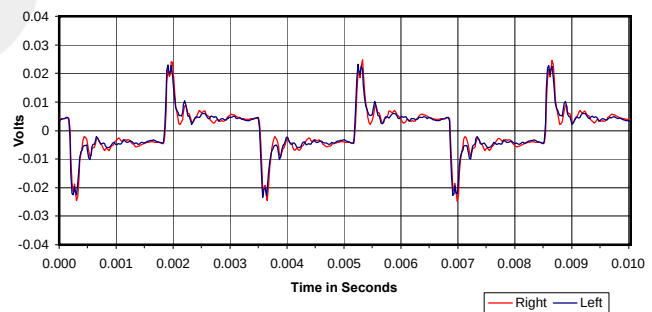
30 Hz Square Wave



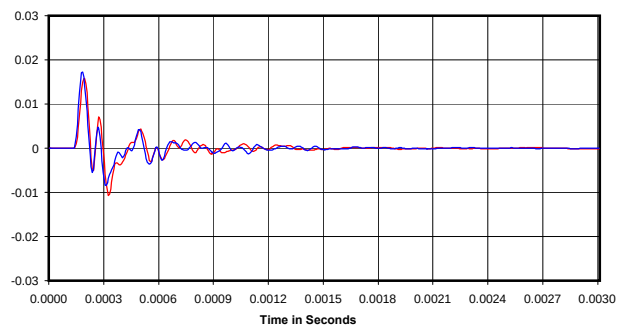
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



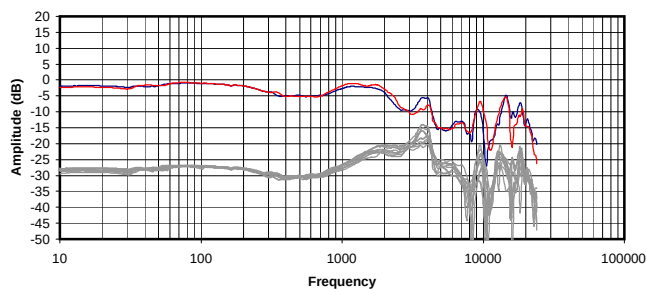
Impulse Response



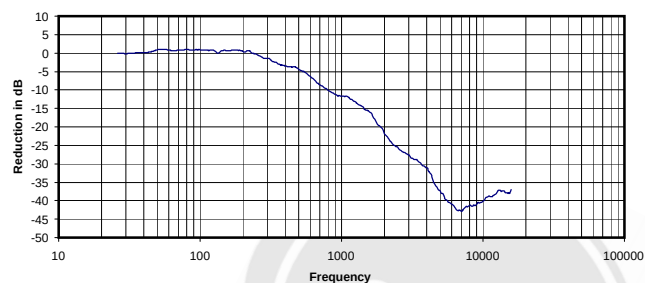
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.057 Vrms
34 Ohms
0.10 mW
-15 dBr

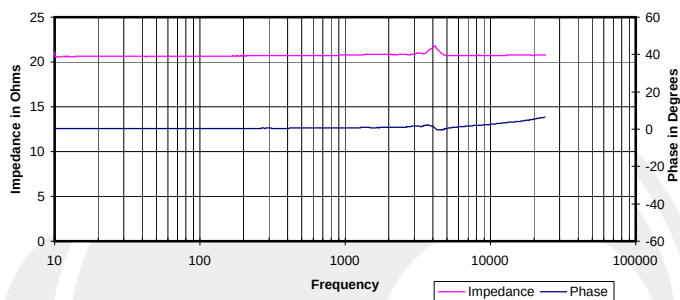
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



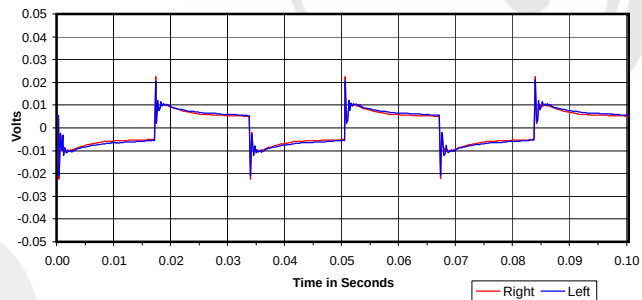
Isolation
Attenuation of External Sound vs. Frequency



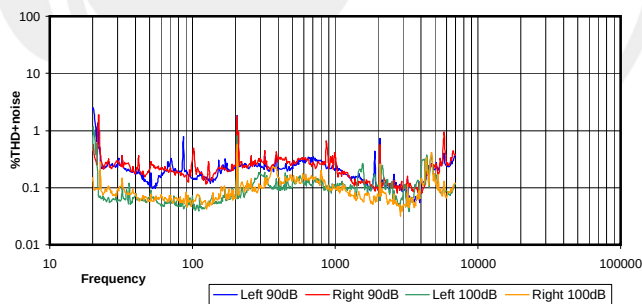
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



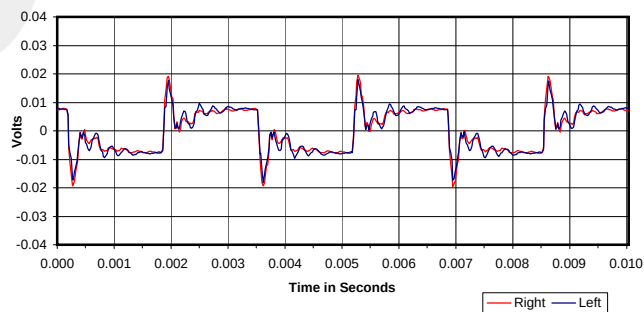
30 Hz Square Wave



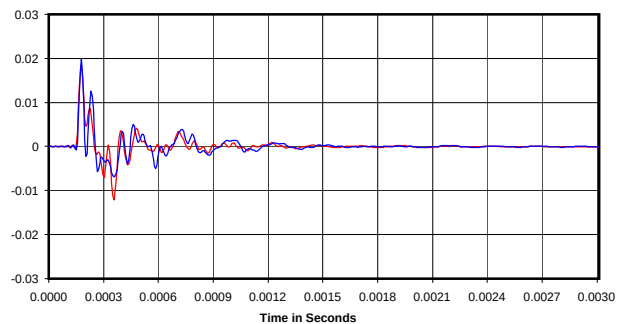
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



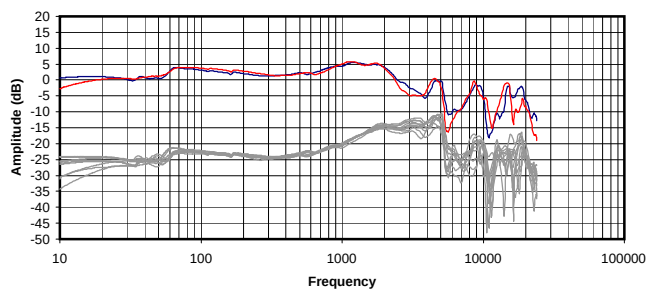
Impulse Response



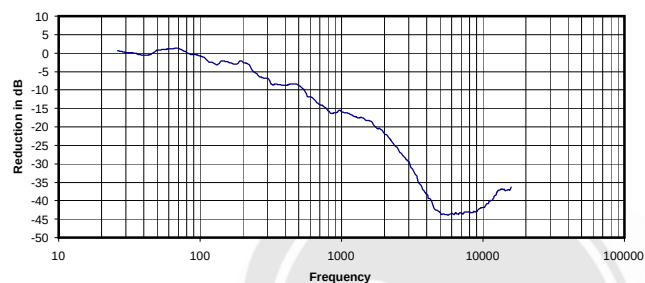
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.090 Vrms
21 Ohms
0.39 mW
-13 dBr

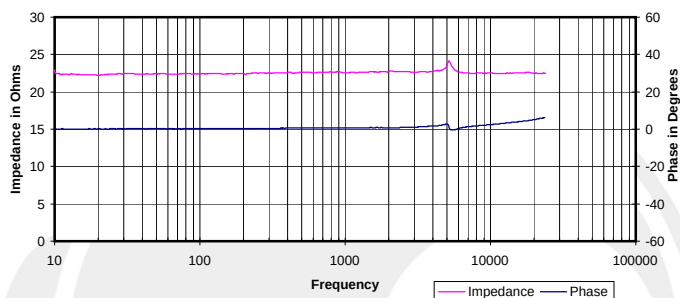
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



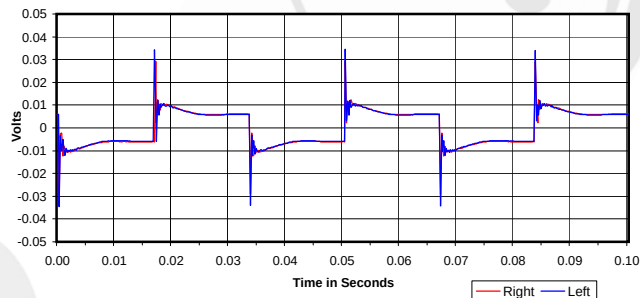
Isolation
Attenuation of External Sound vs. Frequency



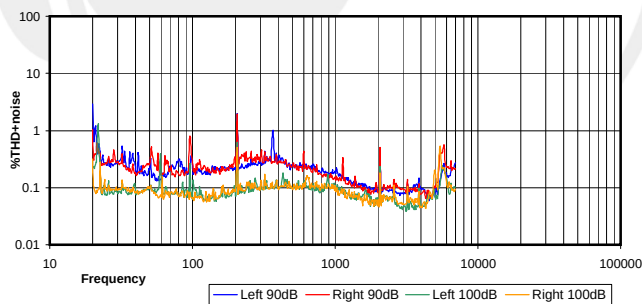
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



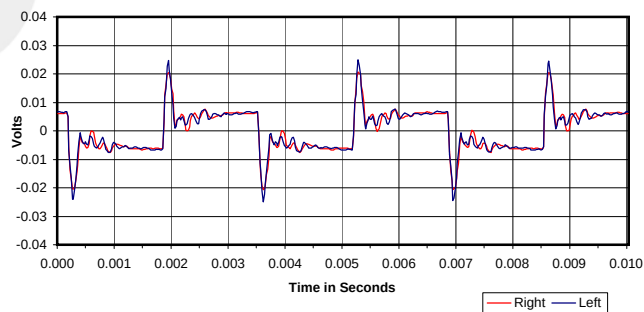
30 Hz Square Wave



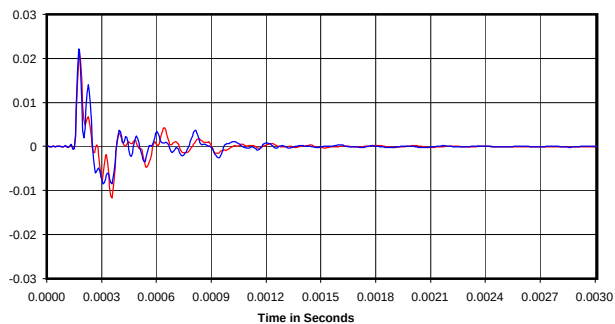
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



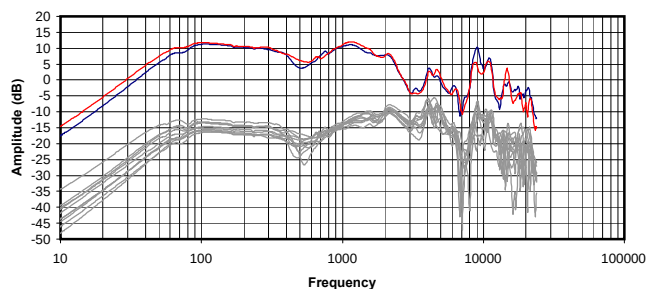
Impulse Response



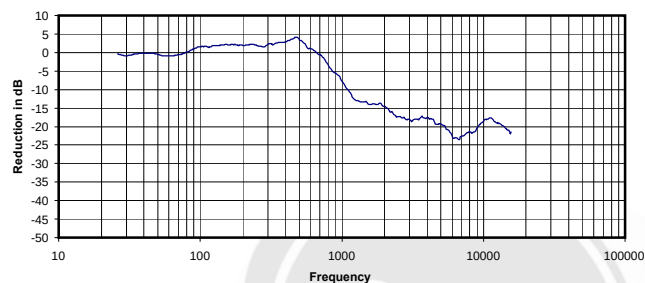
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.071 Vrms
23 Ohms
0.22 mW
-16 dBr

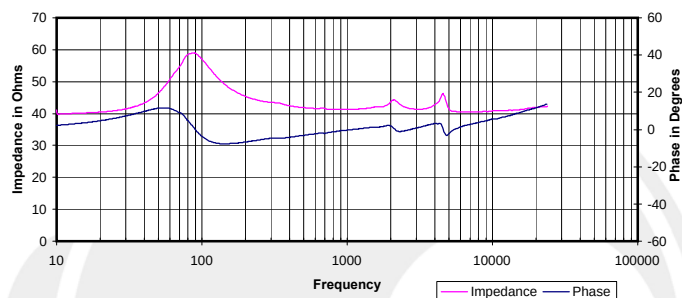
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



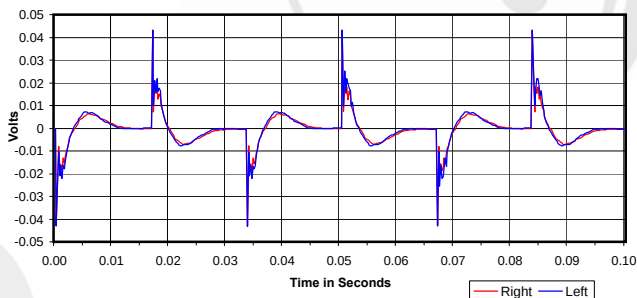
Isolation
Attenuation of External Sound vs. Frequency



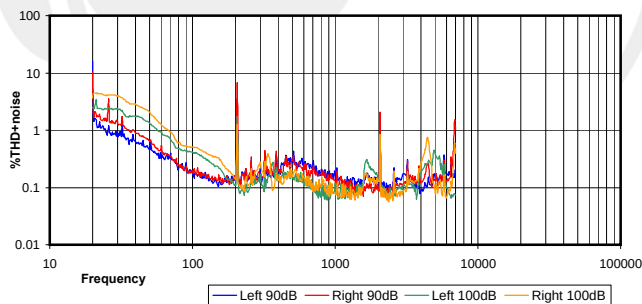
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



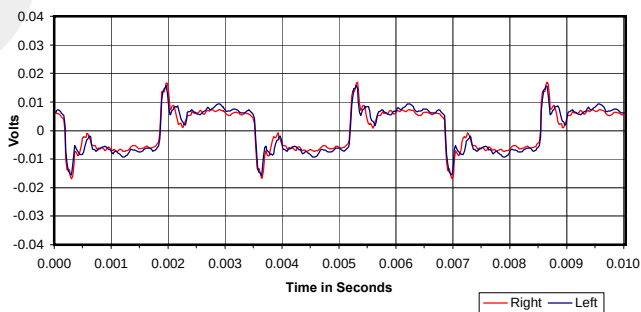
30 Hz Square Wave



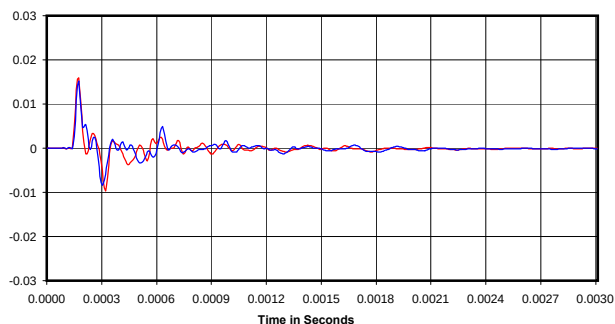
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



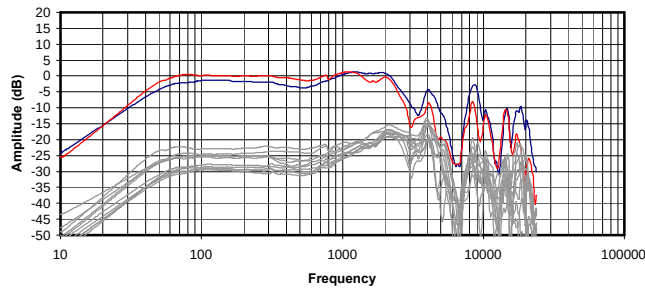
Impulse Response



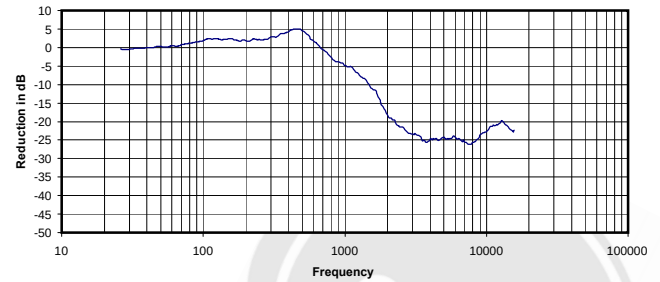
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.036 Vrms
41 Ohms
0.03 mW
-6 dBr

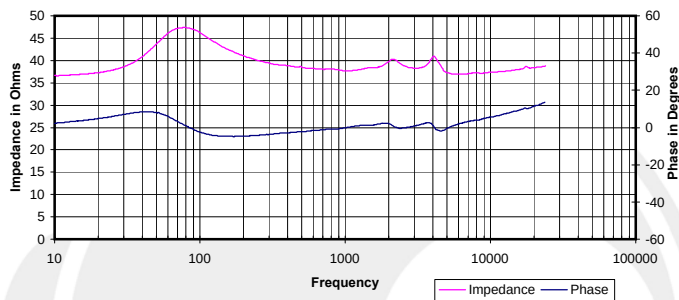
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



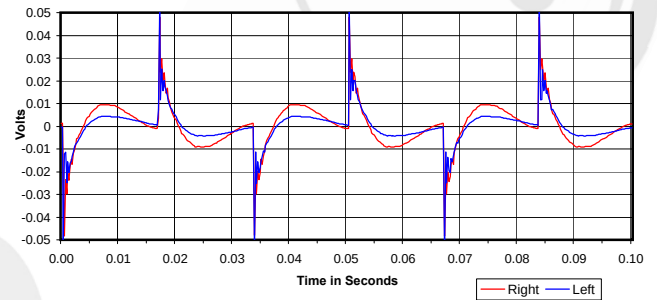
Isolation
Attenuation of External Sound vs. Frequency



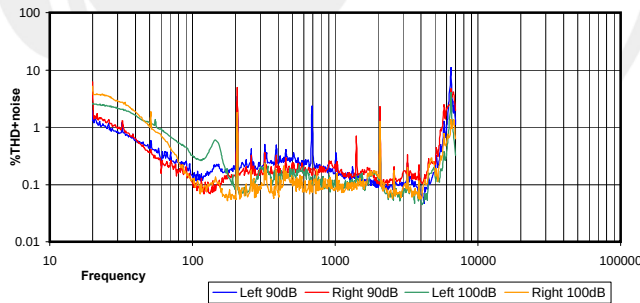
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



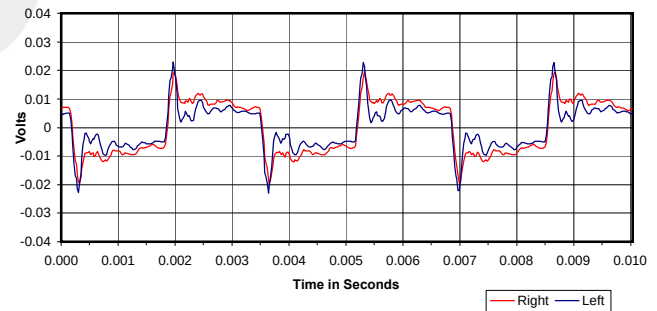
30 Hz Square Wave



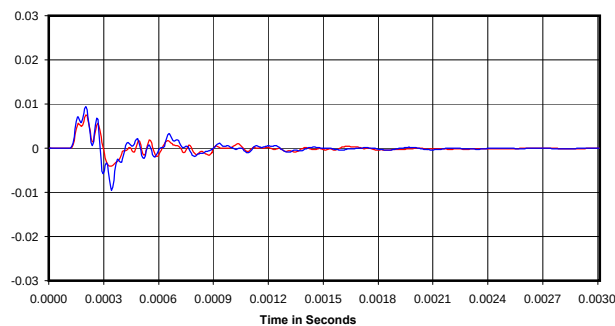
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



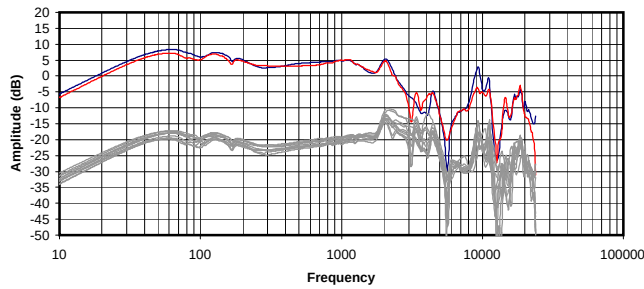
Impulse Response



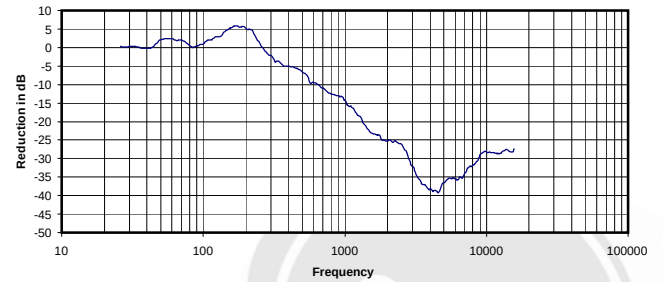
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.031 Vrms
38 Ohms
0.03 mW
-7 dBr

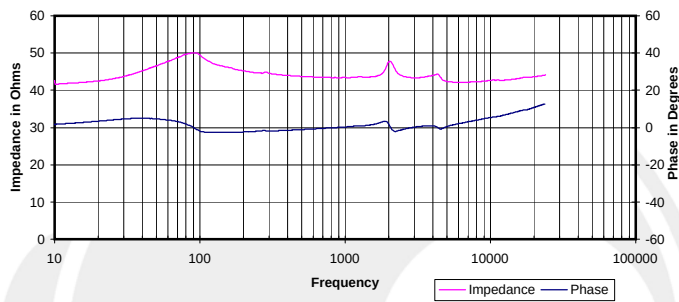
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



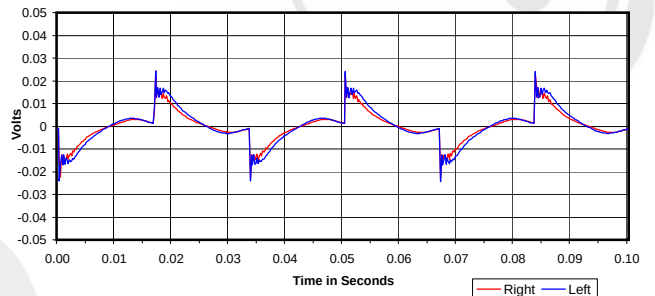
Isolation
Attenuation of External Sound vs. Frequency



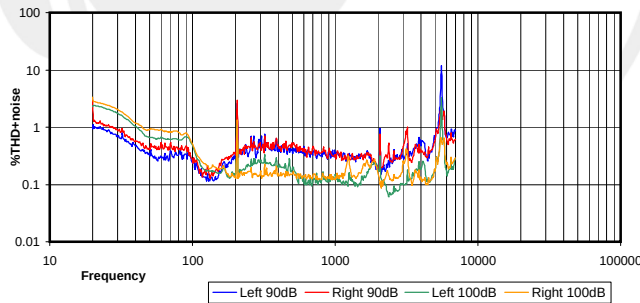
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



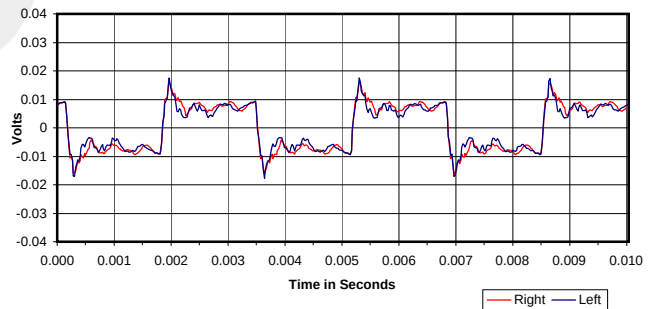
30 Hz Square Wave



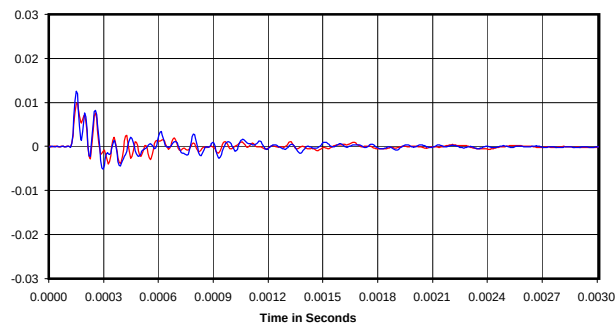
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



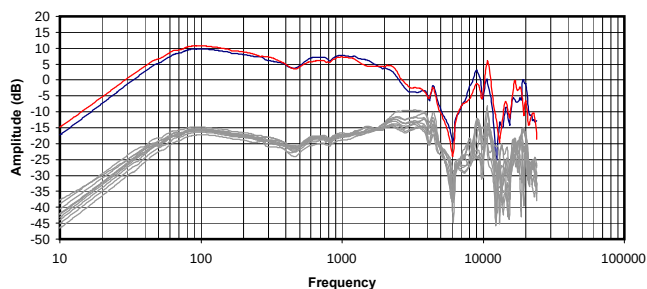
Impulse Response



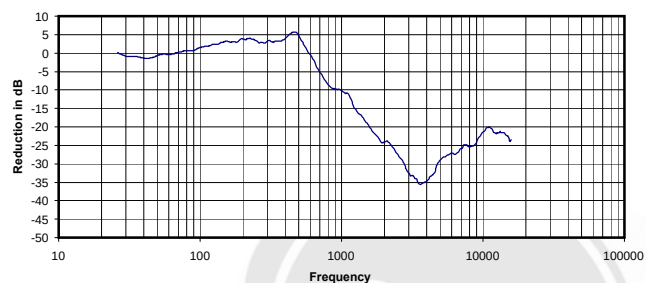
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.011 Vrms
43 Ohms
0.00 mW
-14 dBr

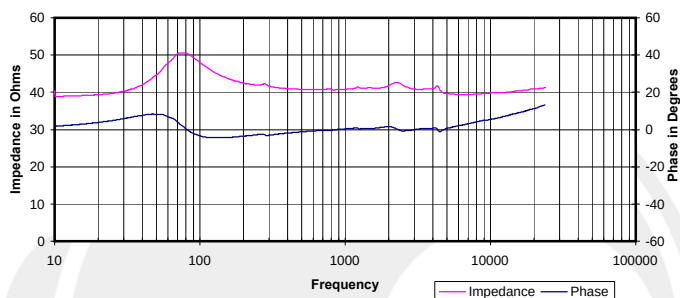
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



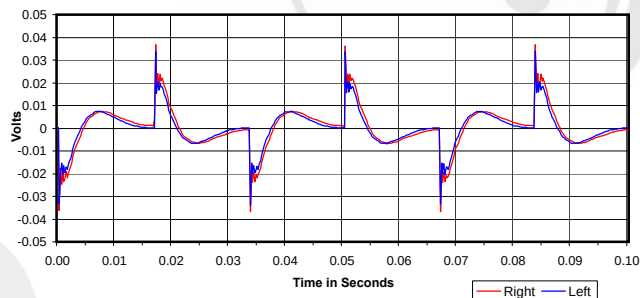
Isolation
Attenuation of External Sound vs. Frequency



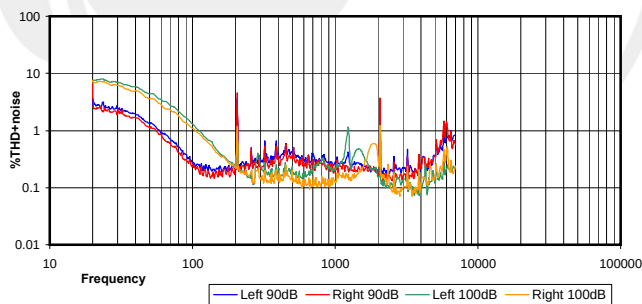
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



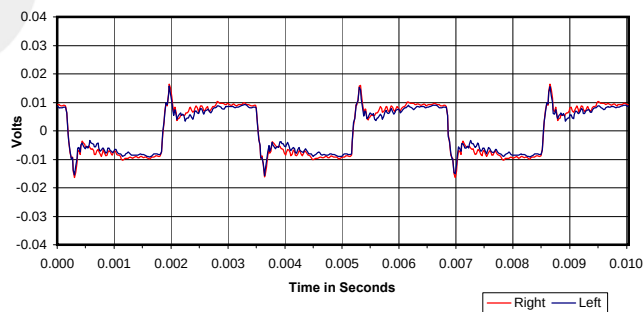
30 Hz Square Wave



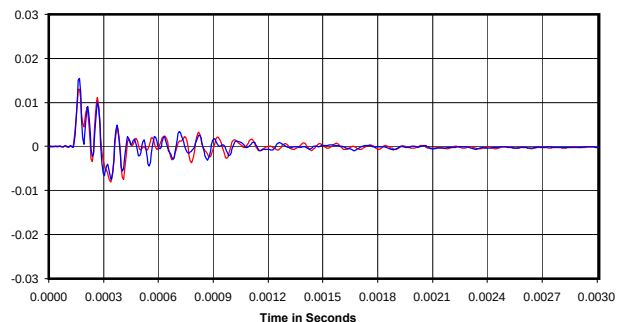
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



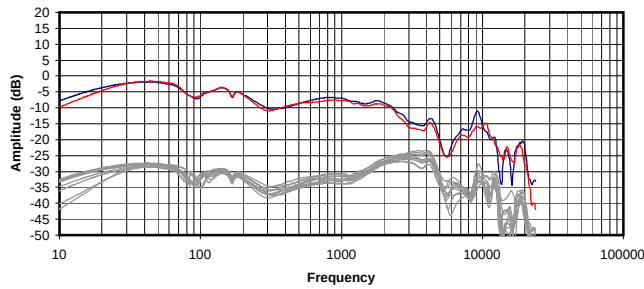
Impulse Response



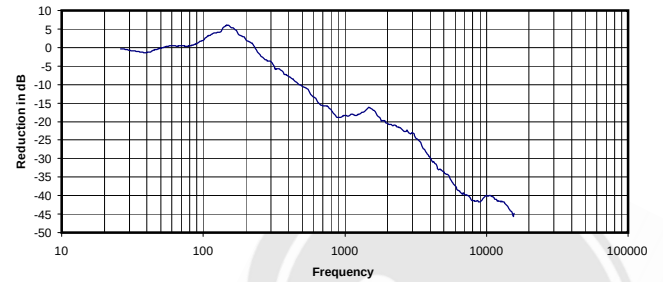
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.046 Vrms
41 Ohms
0.05 mW
-10 dBr

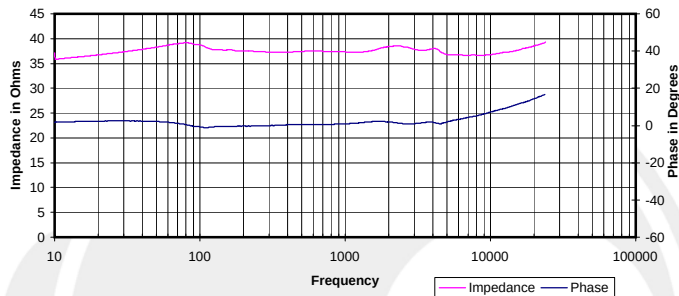
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



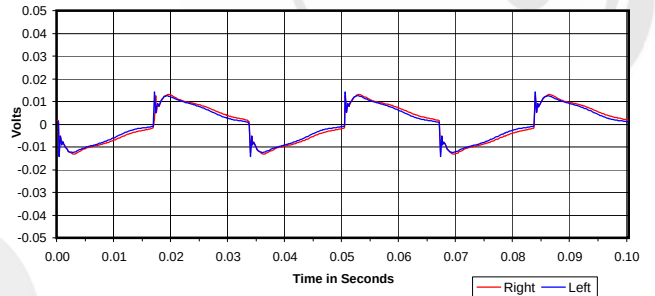
Isolation
Attenuation of External Sound vs. Frequency



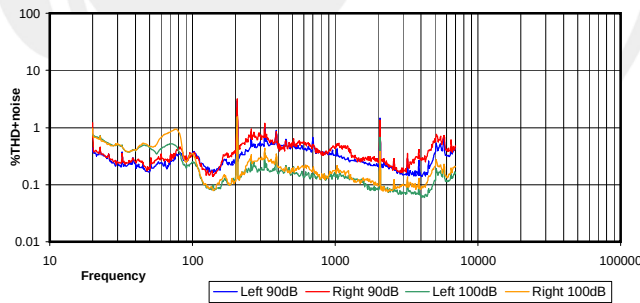
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



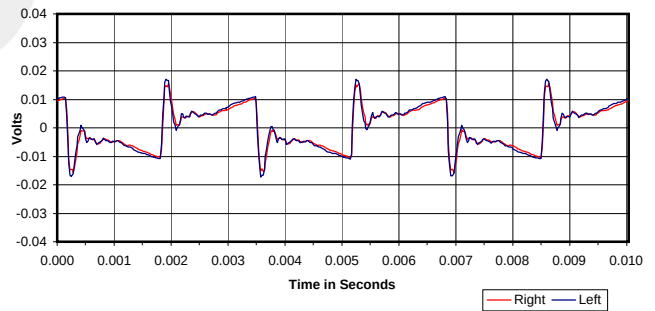
30 Hz Square Wave



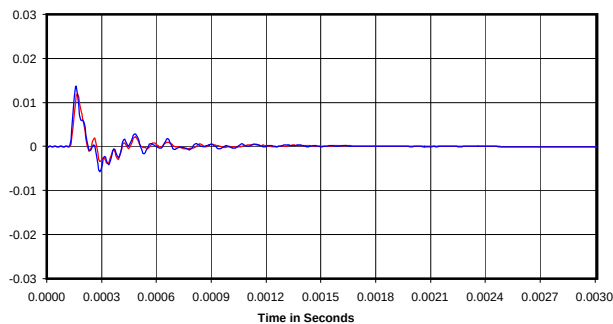
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



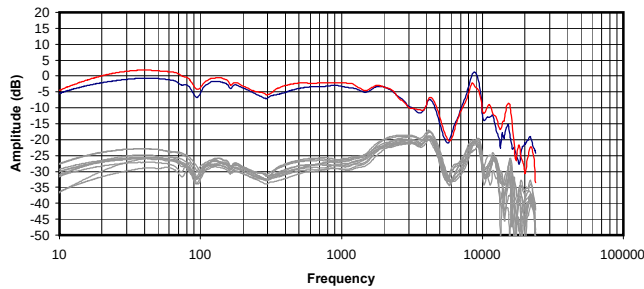
Impulse Response



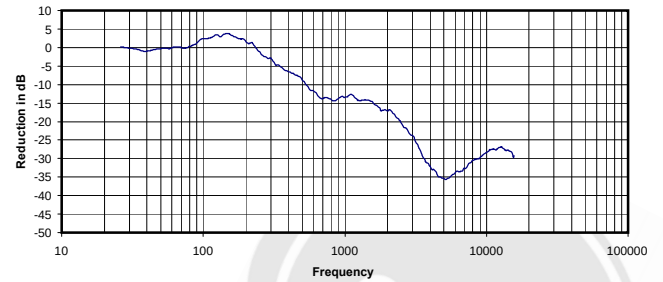
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.042 Vrms
37 Ohms
0.05 mW
-13 dBr

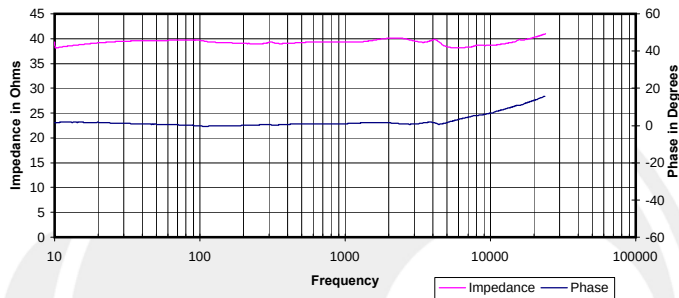
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



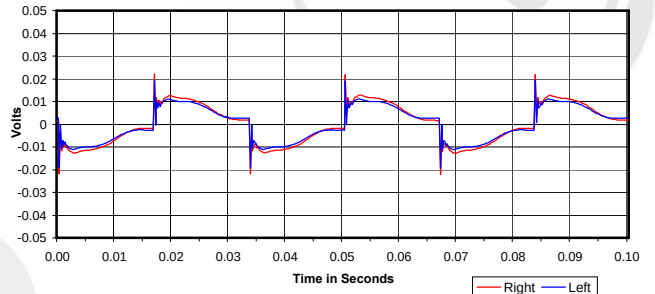
Isolation
Attenuation of External Sound vs. Frequency



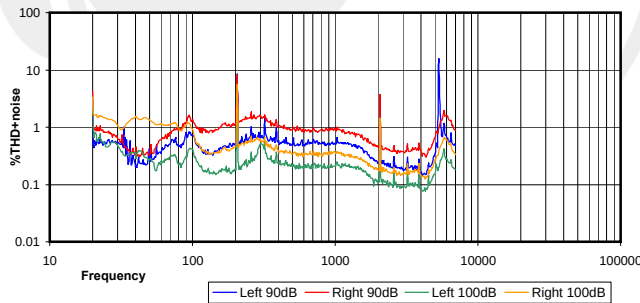
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



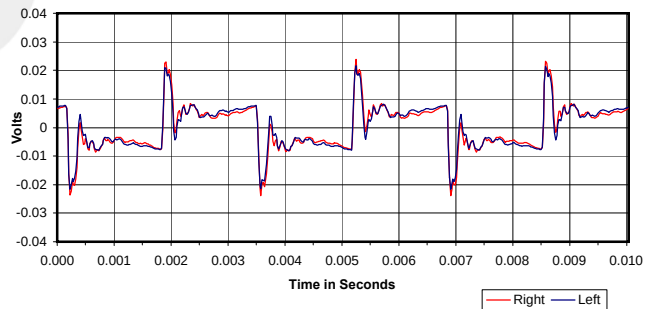
30 Hz Square Wave



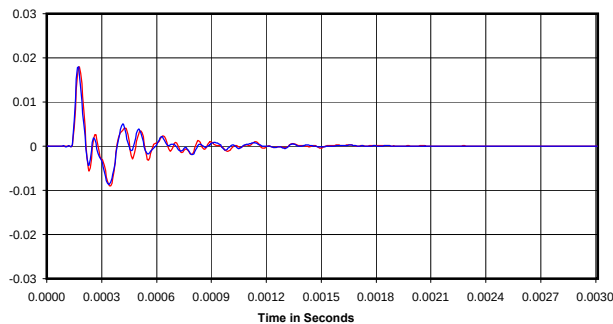
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



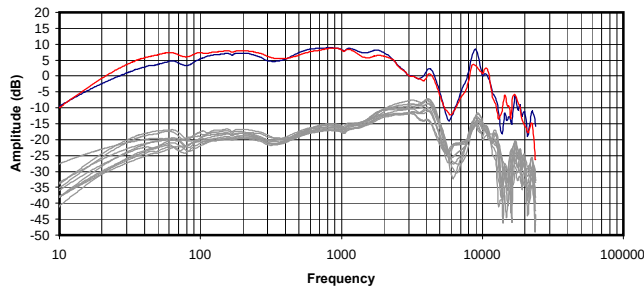
Impulse Response



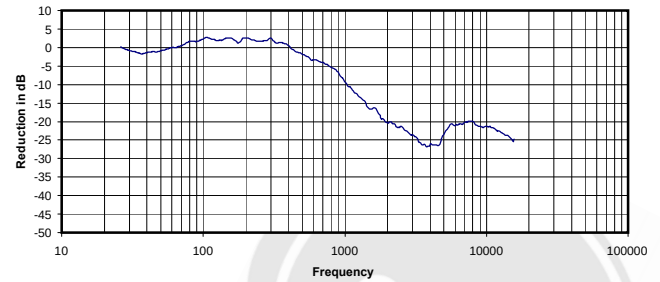
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.073 Vrms
39 Ohms
0.13 mW
-12 dBr

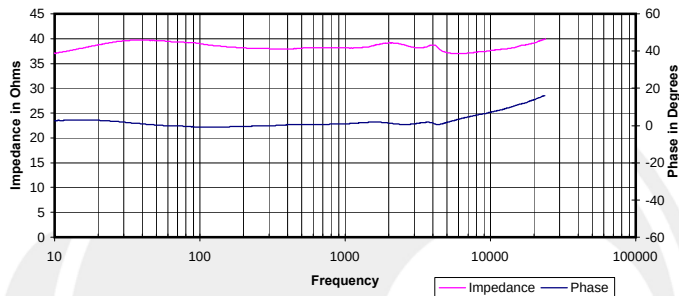
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



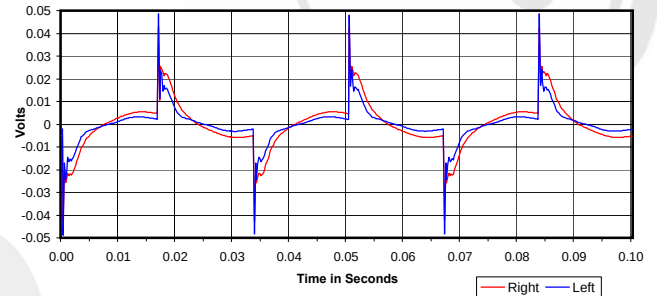
Isolation
Attenuation of External Sound vs. Frequency



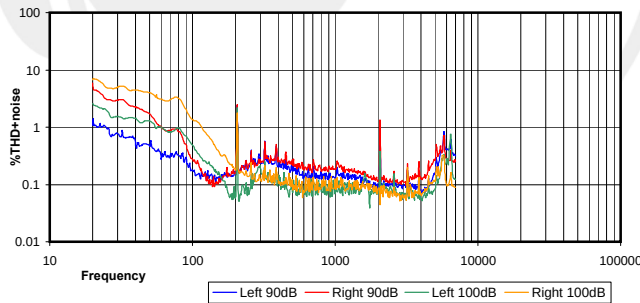
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



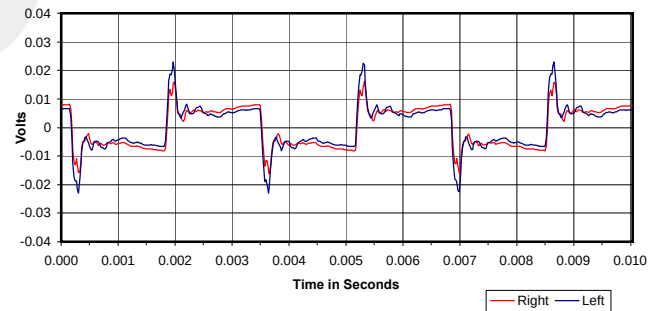
30 Hz Square Wave



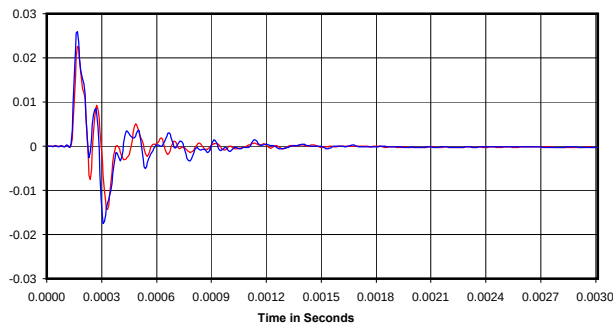
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



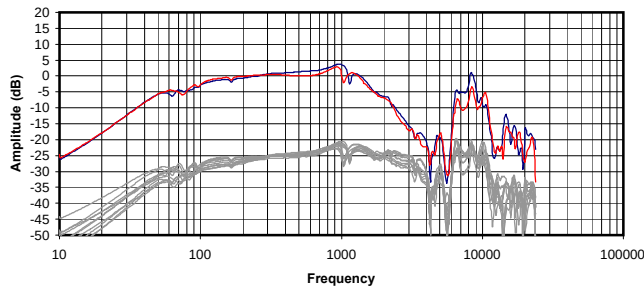
Impulse Response



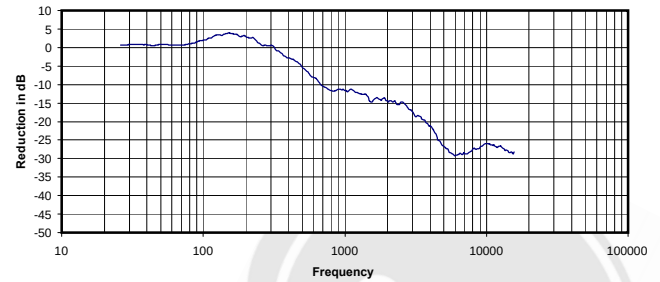
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.041 Vrms
38 Ohms
0.04 mW
-9 dBr

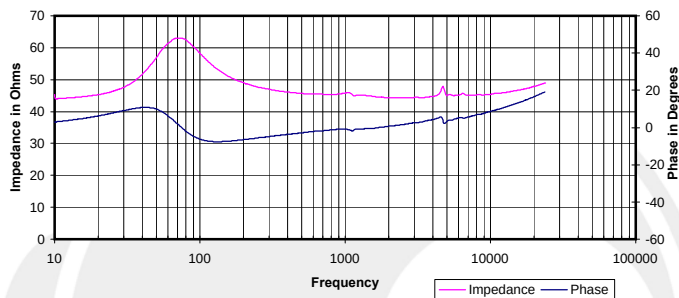
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



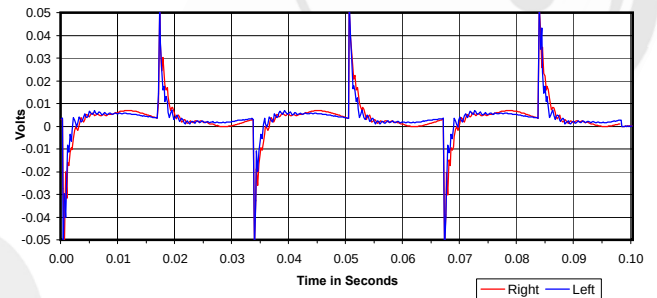
Isolation
Attenuation of External Sound vs. Frequency



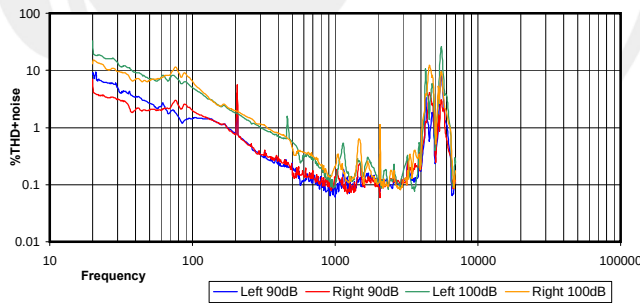
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



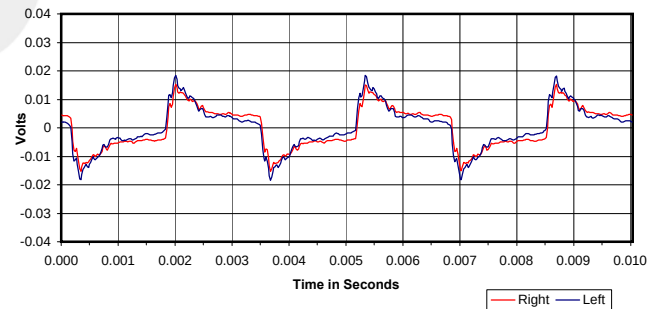
30 Hz Square Wave



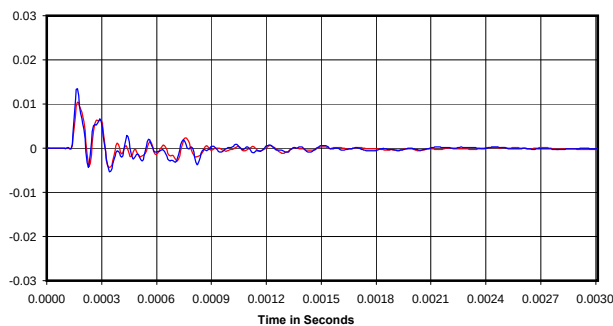
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



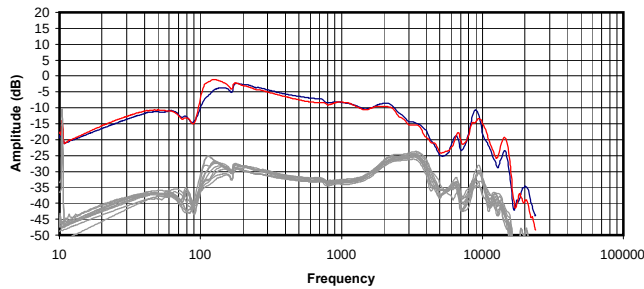
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.032 Vrms
46 Ohms
0.02 mW
-9 dBr

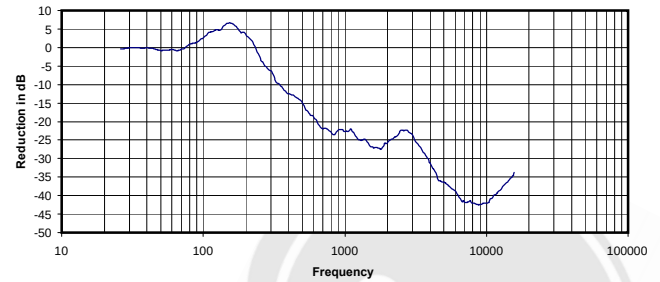


Headphone Measurements: Beyerdynamic Custom Pro One switch position 1

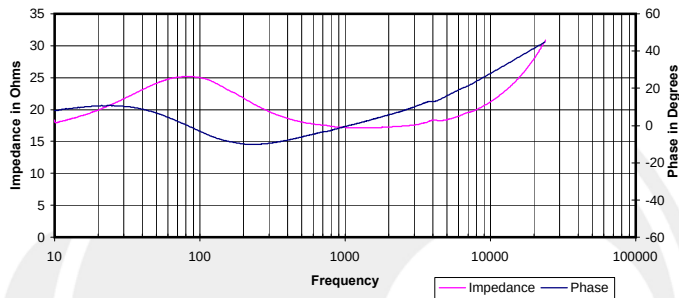
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



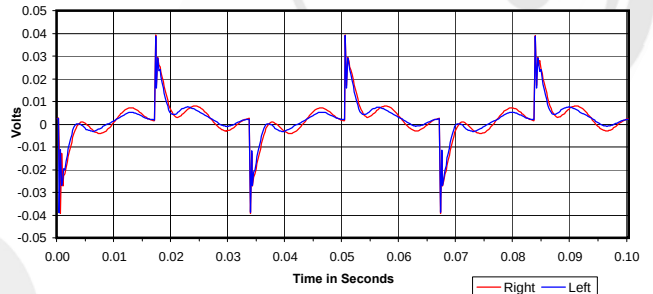
Isolation
Attenuation of External Sound vs. Frequency



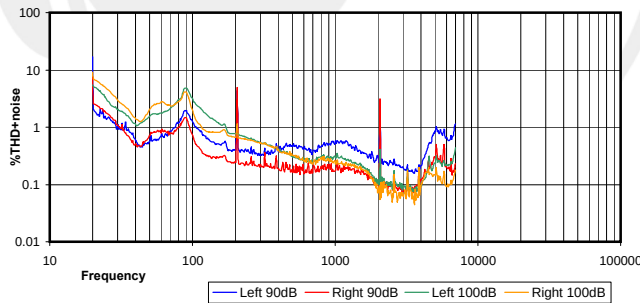
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



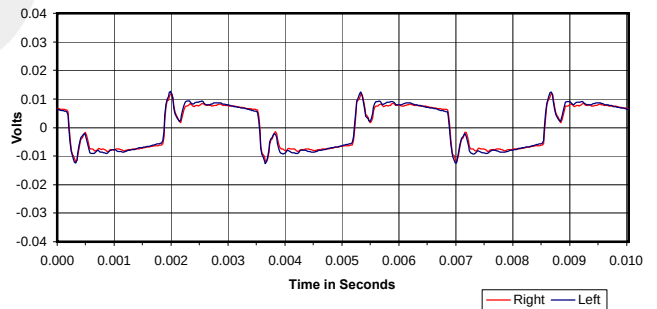
30 Hz Square Wave



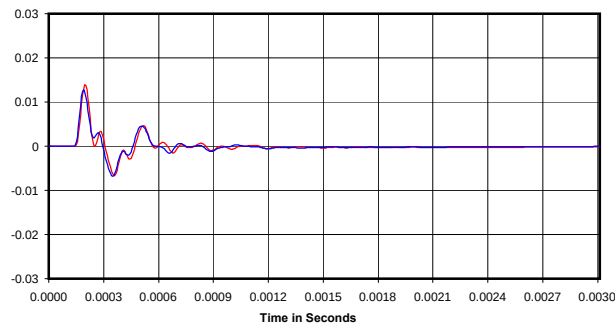
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



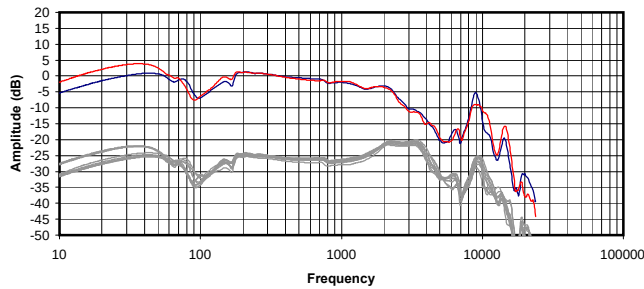
Impulse Response



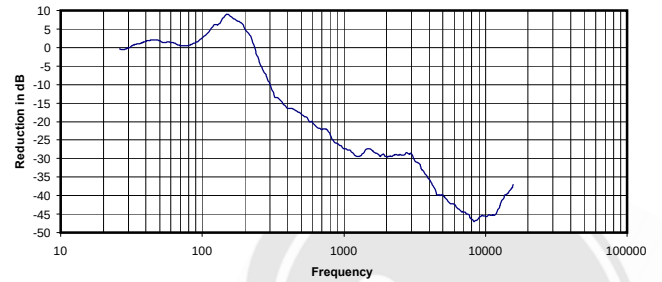
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.056 Vrms
17 Ohms
0.18 mW
-16 dBr

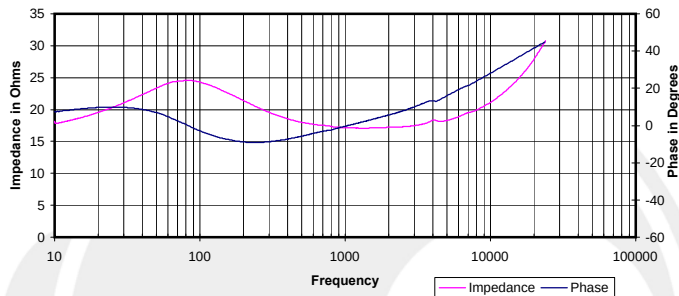
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



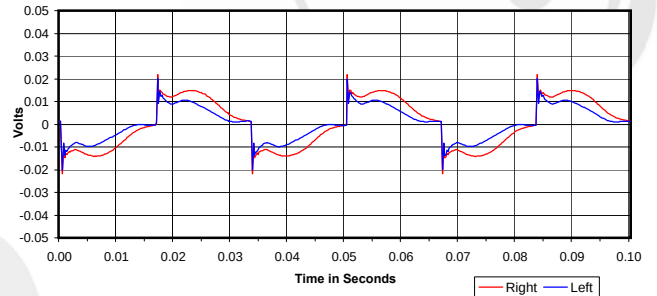
Isolation
Attenuation of External Sound vs. Frequency



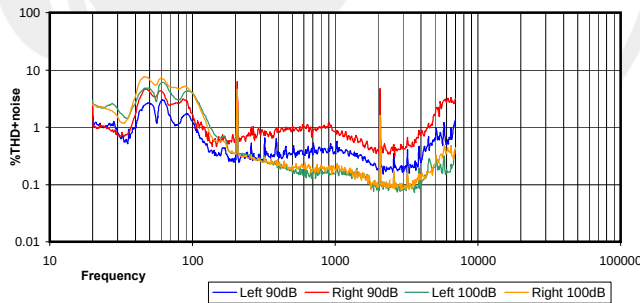
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



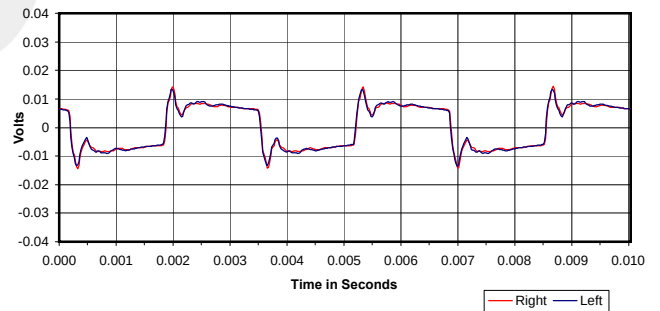
30 Hz Square Wave



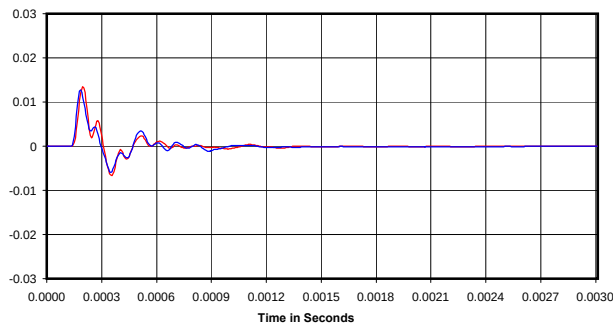
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



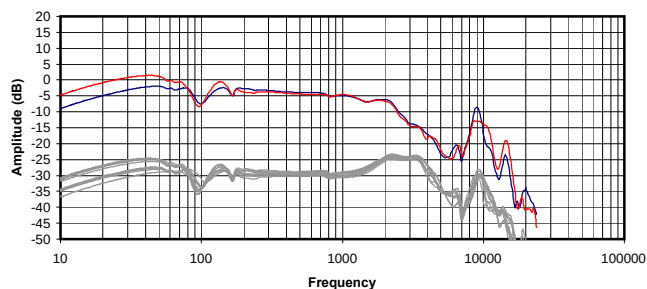
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.038 Vrms
17 Ohms
0.09 mW
-18 dBr

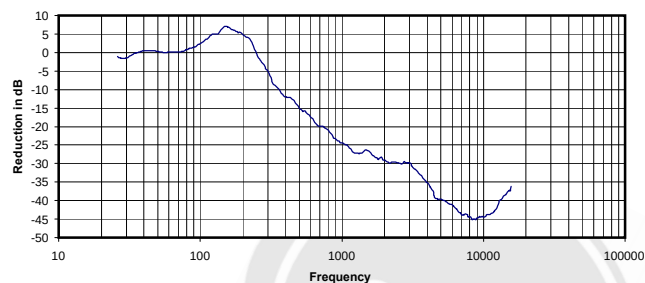


Headphone Measurements: Beyerdynamic Custom One Pro switch position 3

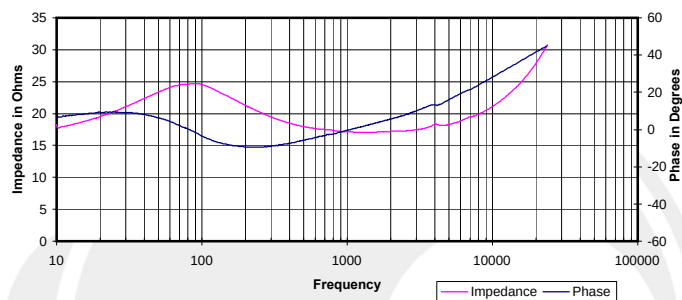
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



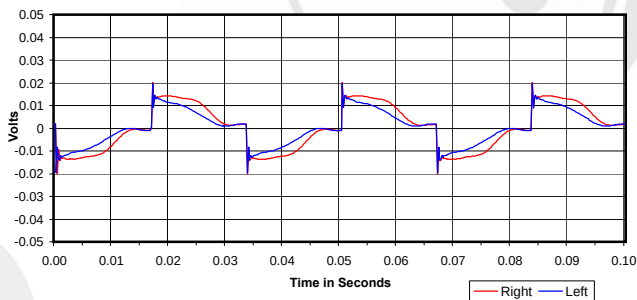
Isolation
Attenuation of External Sound vs. Frequency



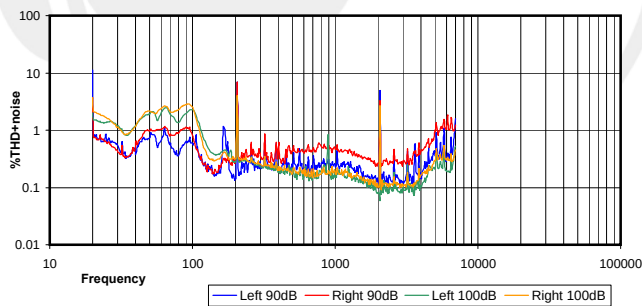
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



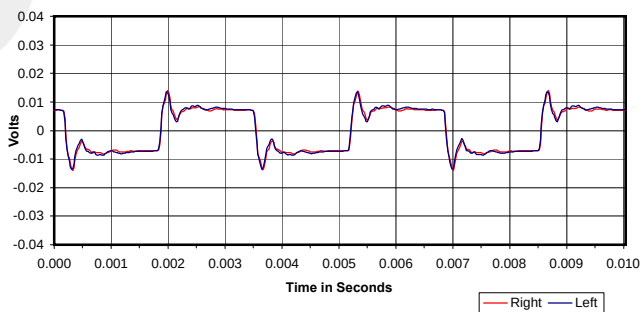
30 Hz Square Wave



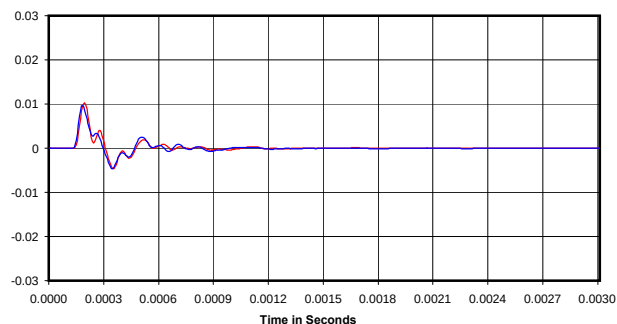
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



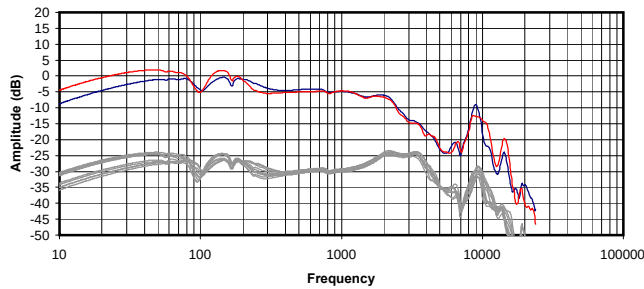
Impulse Response



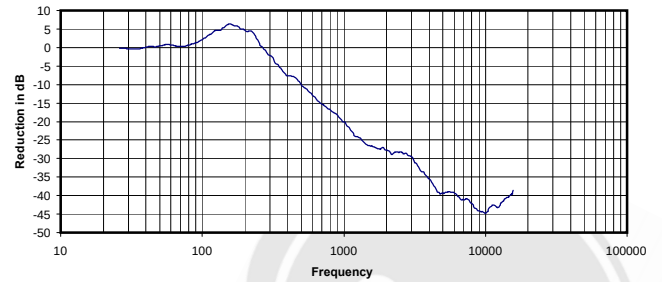
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90dB BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.038 Vrms
17 Ohms
0.08 mW
-17 dBr

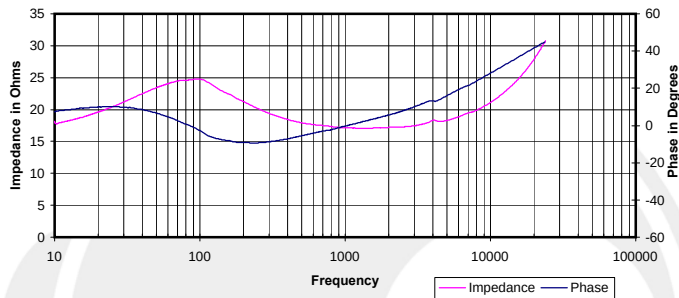
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



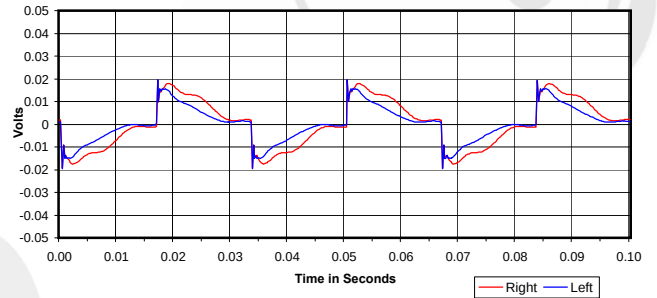
Isolation
Attenuation of External Sound vs. Frequency



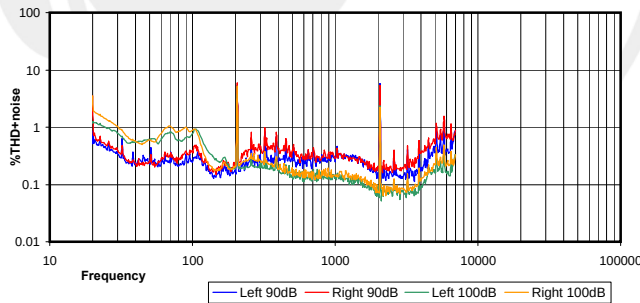
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



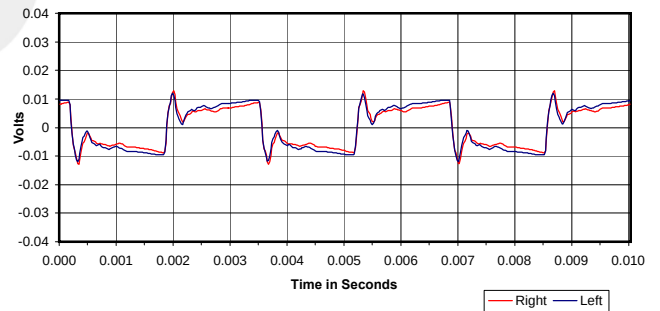
30 Hz Square Wave



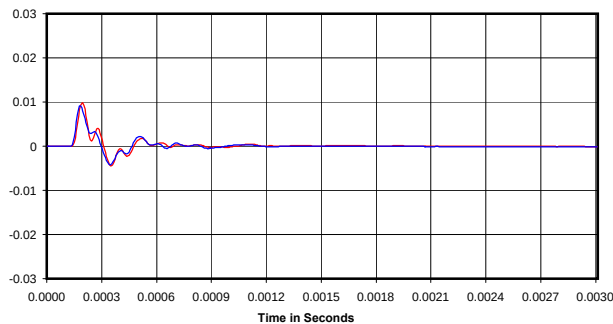
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



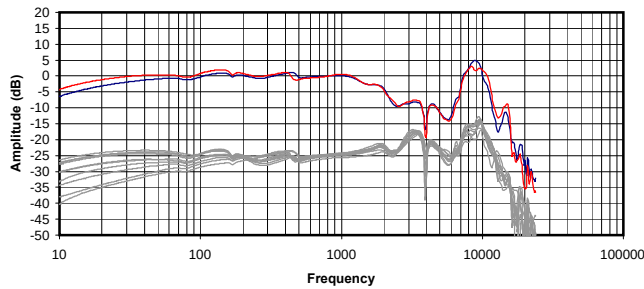
Impulse Response



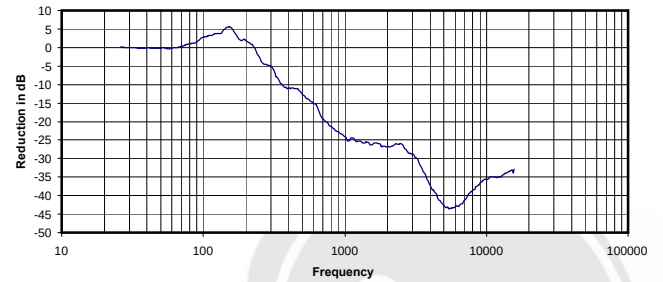
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.038 Vrms
17 Ohms
0.08 mW
-15 dBr

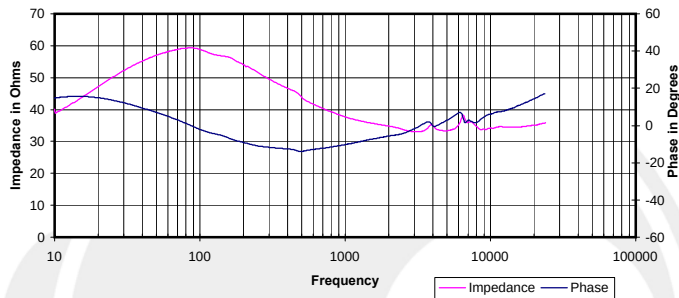
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



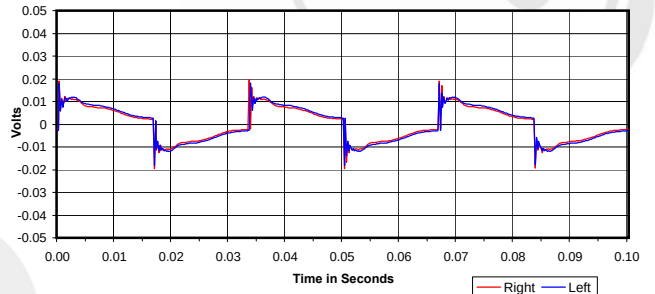
Isolation
Attenuation of External Sound vs. Frequency



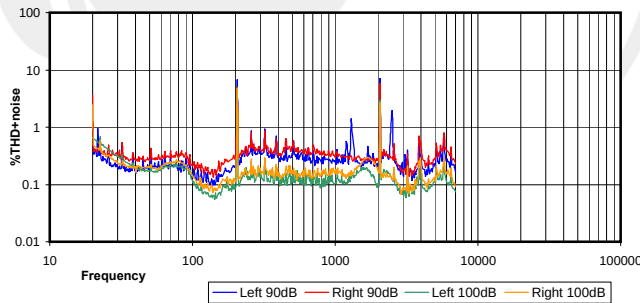
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



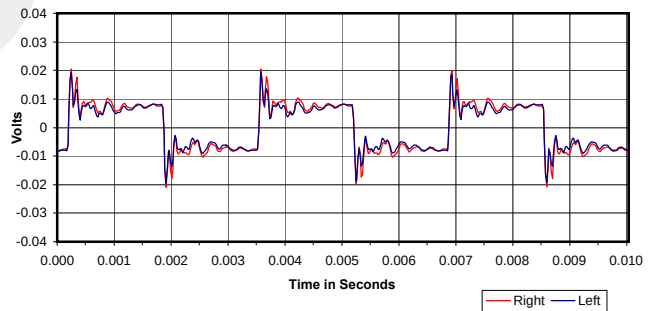
30 Hz Square Wave



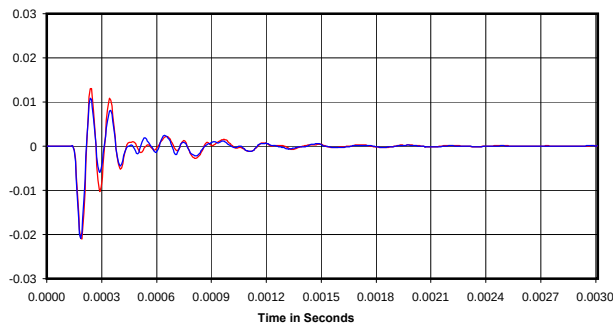
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



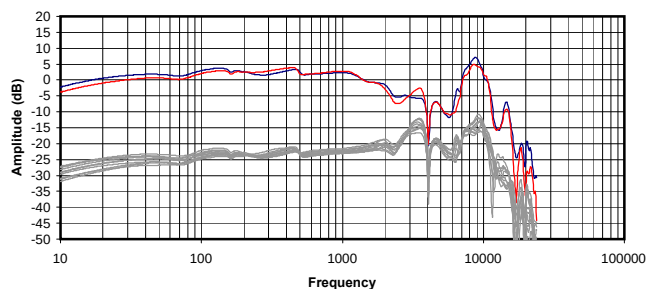
Impulse Response



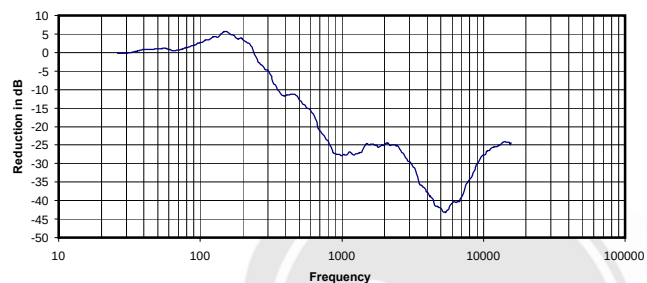
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.033 Vrms
38 Ohms
0.03 mW
-17 dBr

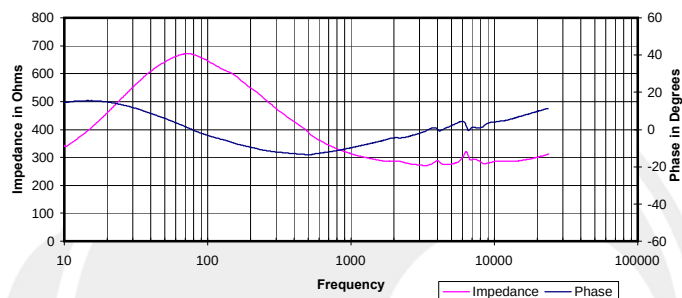
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



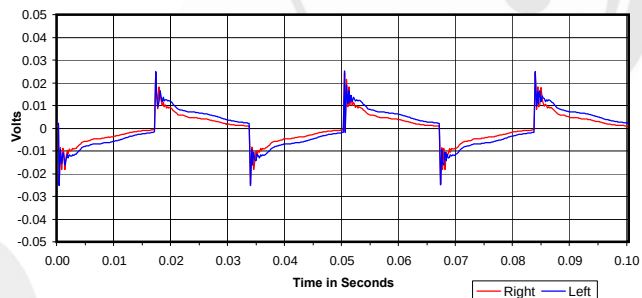
Isolation
Attenuation of External Sound vs. Frequency



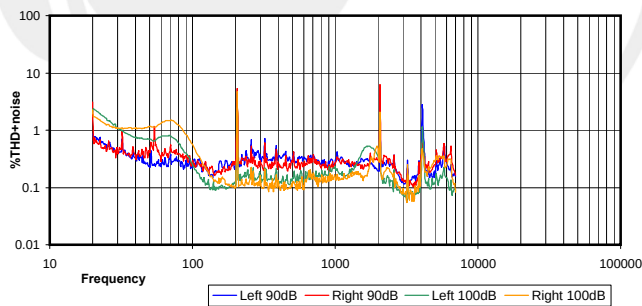
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



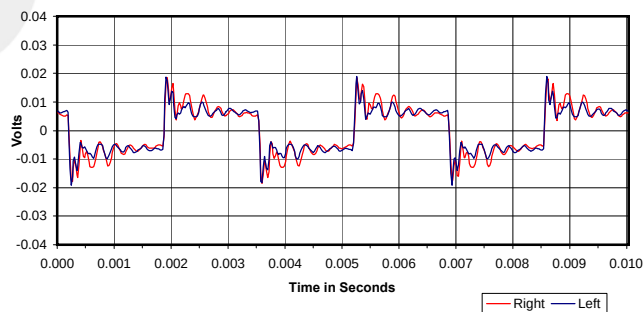
30 Hz Square Wave



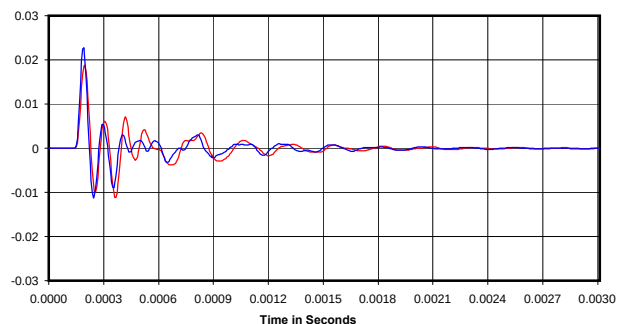
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



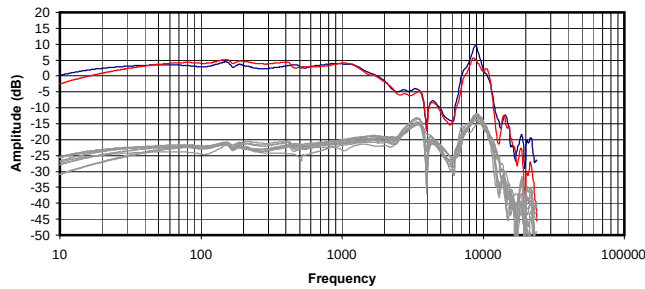
Impulse Response



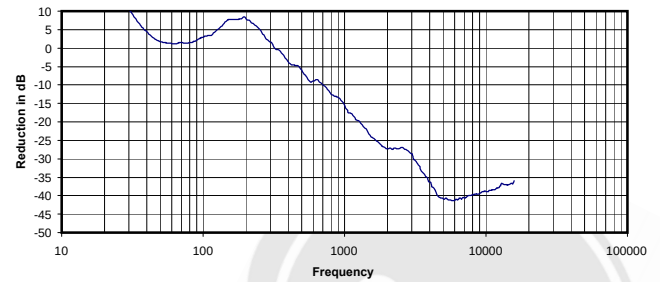
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.099 Vrms
313 Ohms
0.03 mW
-18 dBr

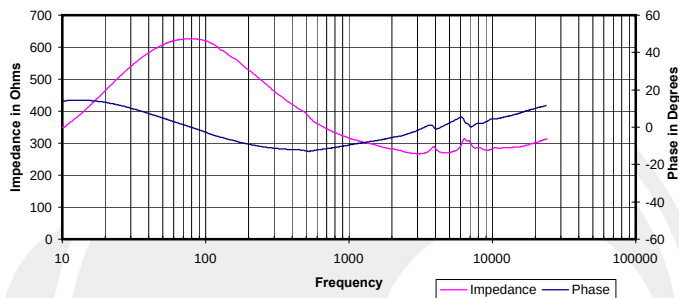
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



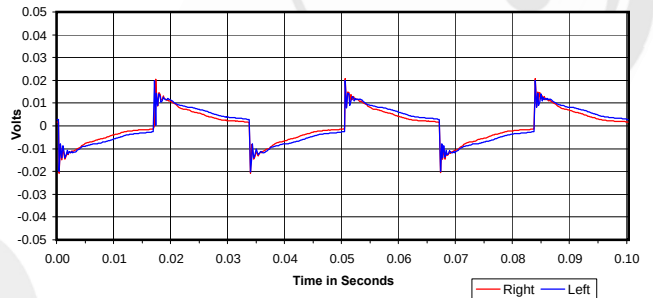
Isolation
Attenuation of External Sound vs. Frequency



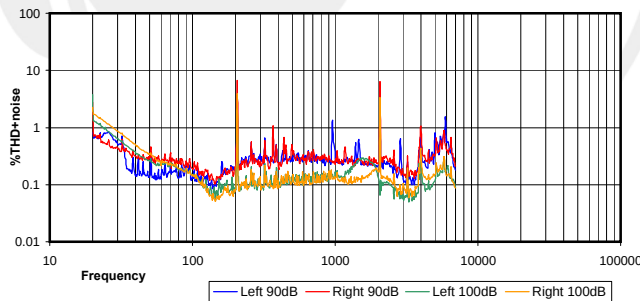
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



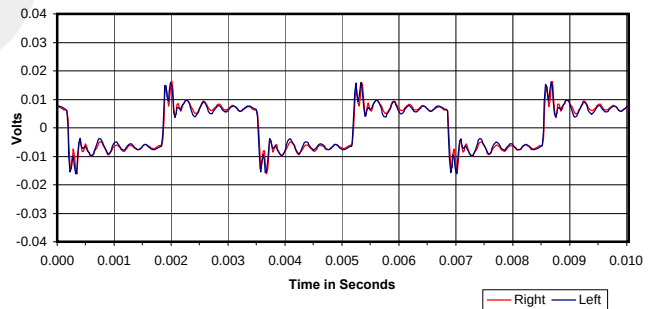
30 Hz Square Wave



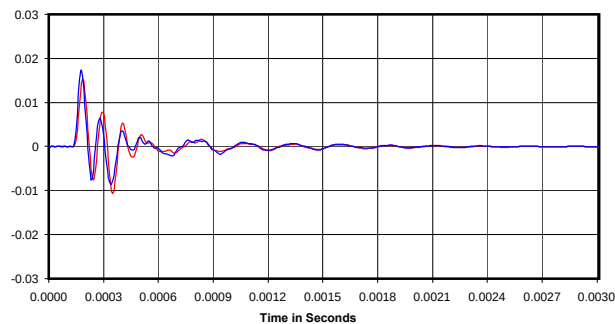
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



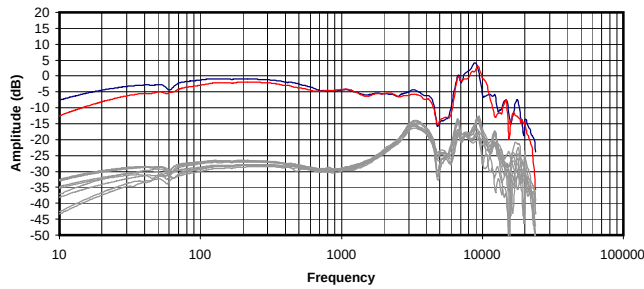
Impulse Response



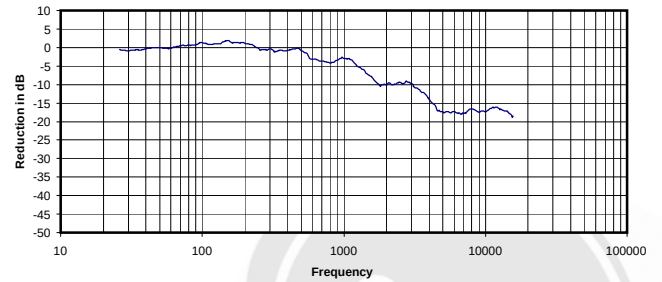
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.073 Vrms
316 Ohms
0.02 mW
-13 dBr

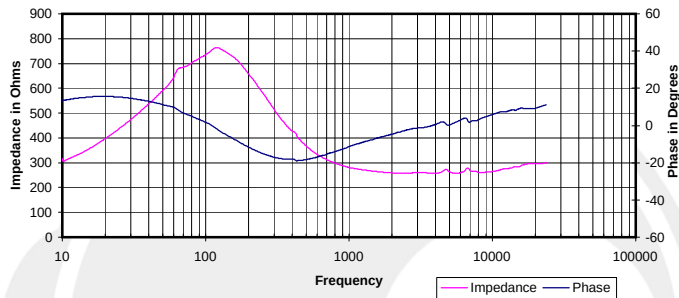
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



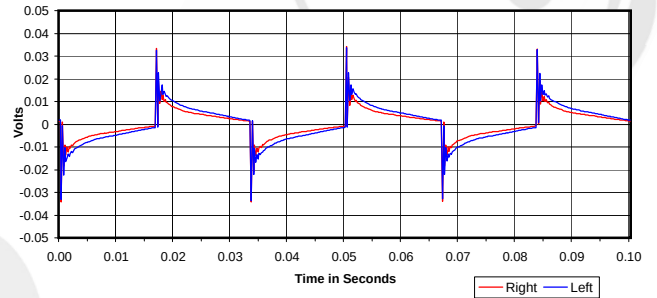
Isolation
Attenuation of External Sound vs. Frequency



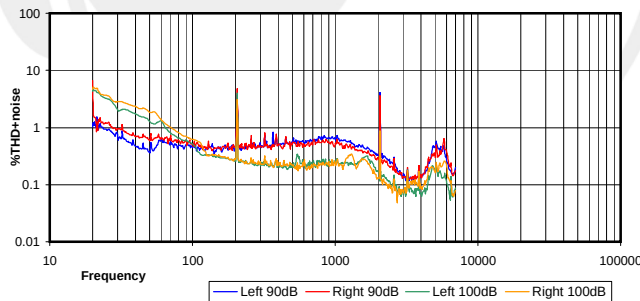
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



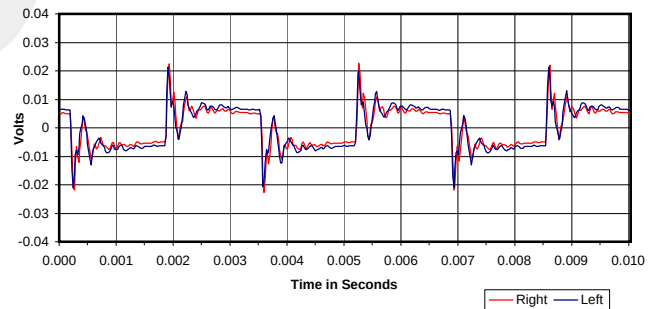
30 Hz Square Wave



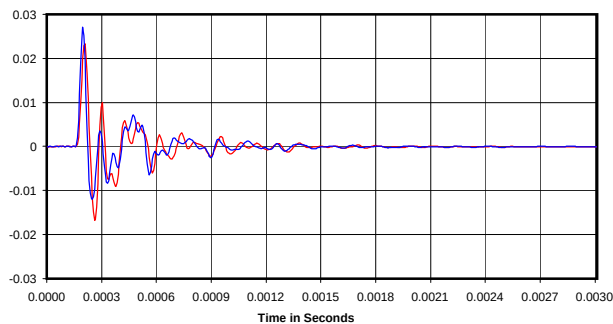
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



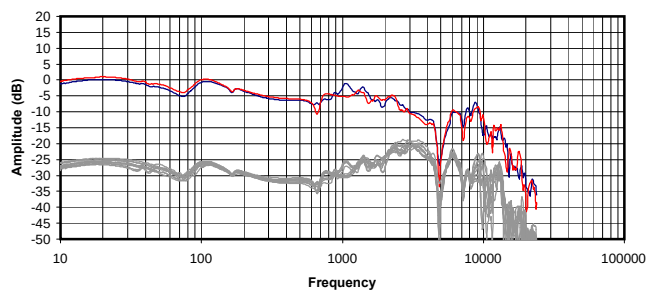
Impulse Response



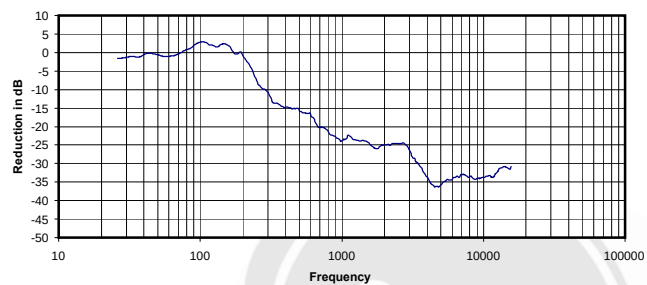
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.225 Vrms
281 Ohms
0.18 mW
-5 dBr

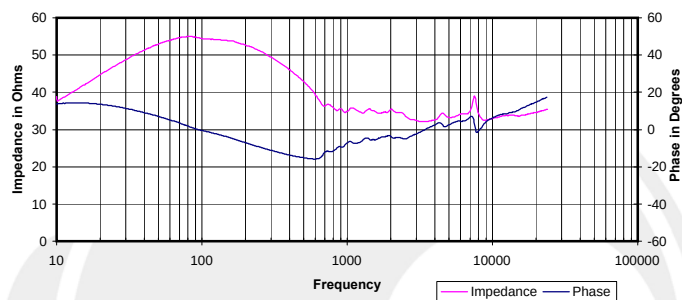
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



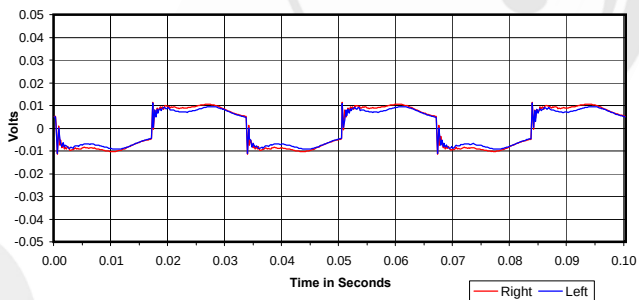
Isolation
Attenuation of External Sound vs. Frequency



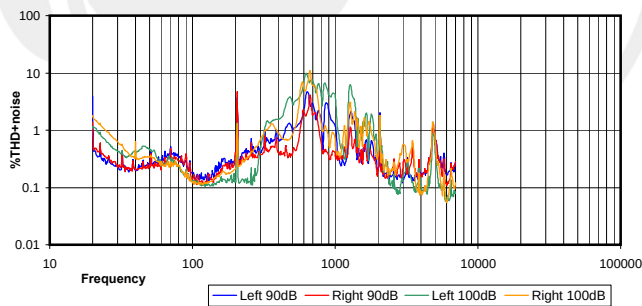
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



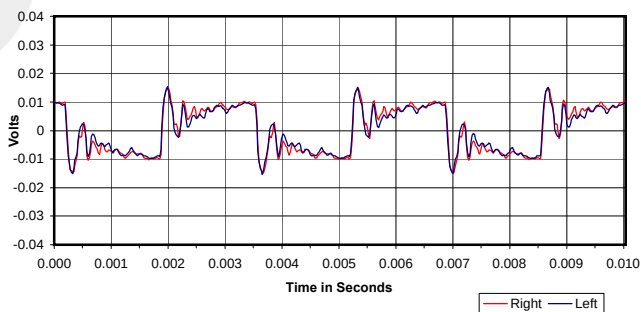
30 Hz Square Wave



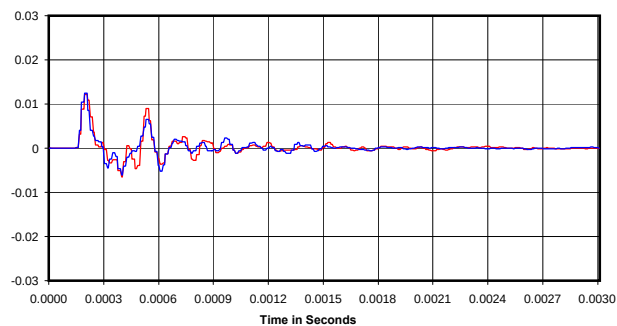
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



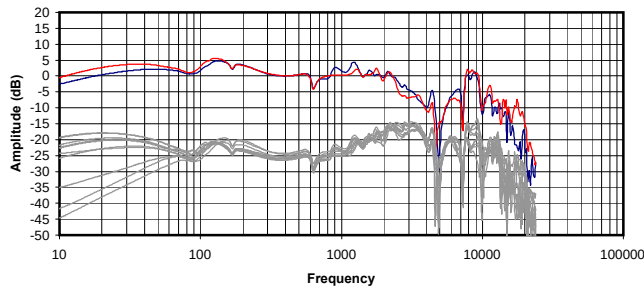
Impulse Response



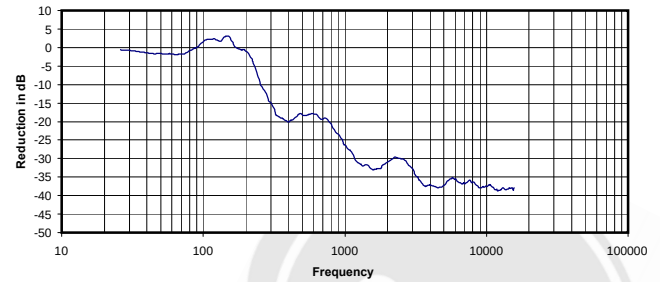
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.049 Vrms
35 Ohms
0.07 mW
-17 dBr

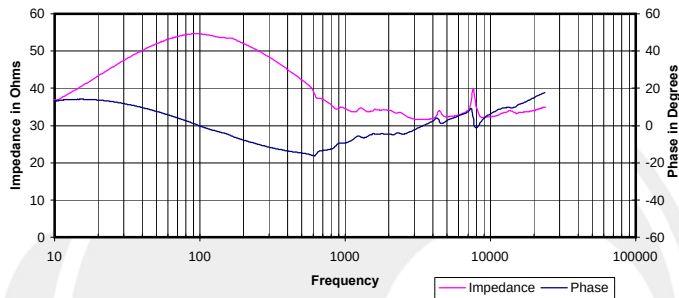
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



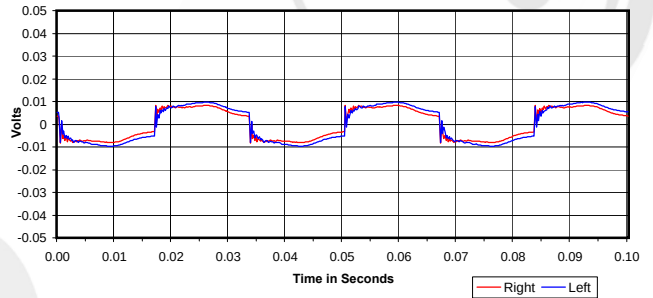
Isolation
Attenuation of External Sound vs. Frequency



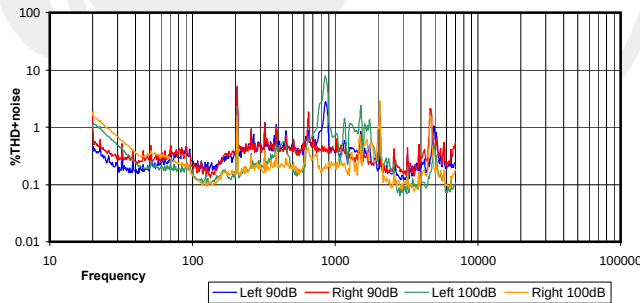
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



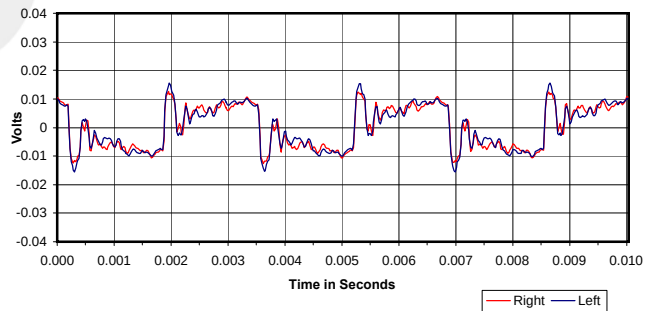
30 Hz Square Wave



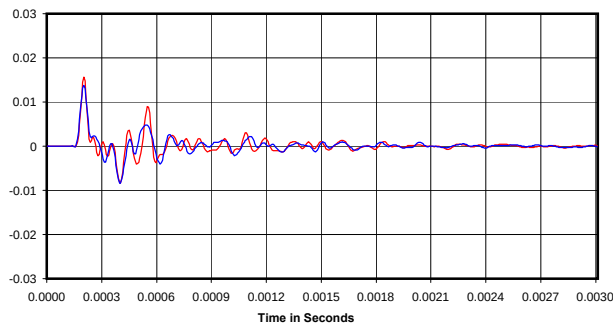
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



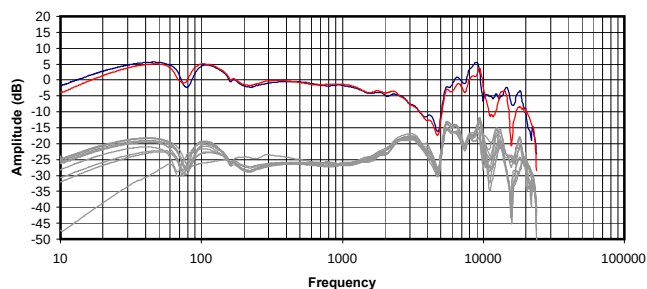
Impulse Response



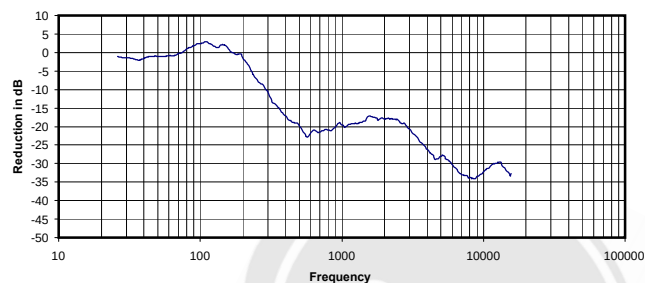
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.055 Vrms
34 Ohms
0.09 mW
-20 dBr

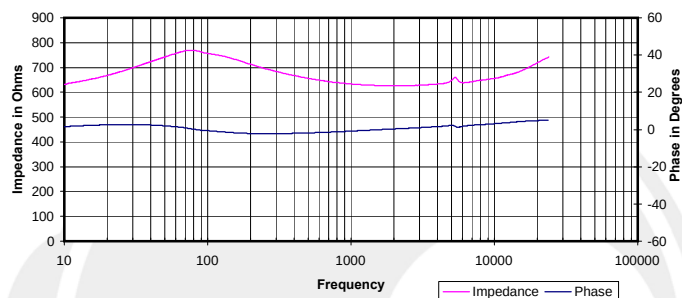
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



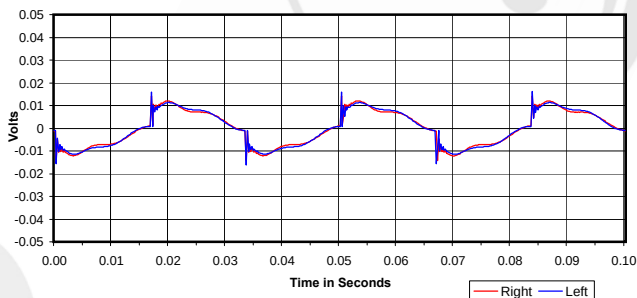
Isolation
Attenuation of External Sound vs. Frequency



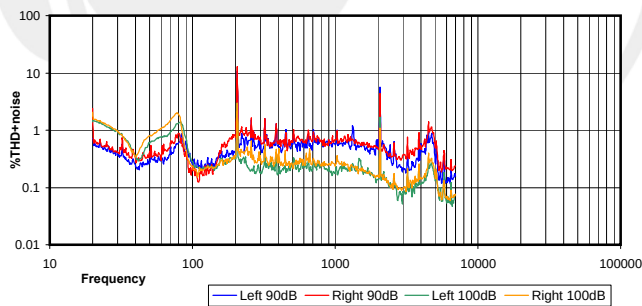
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



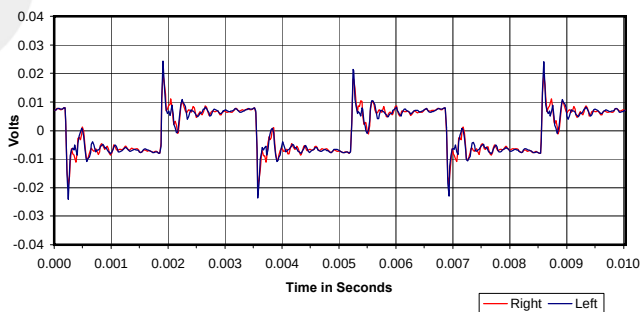
30 Hz Square Wave



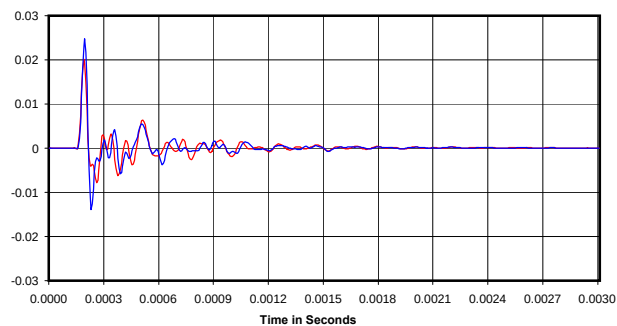
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



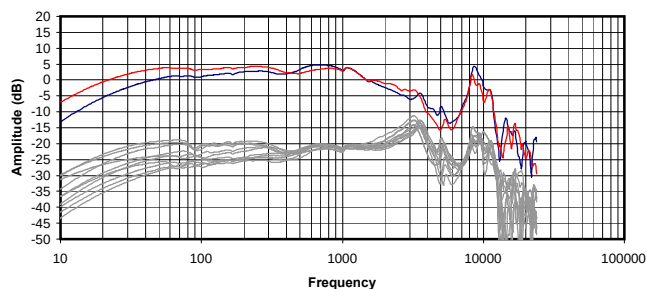
Impulse Response



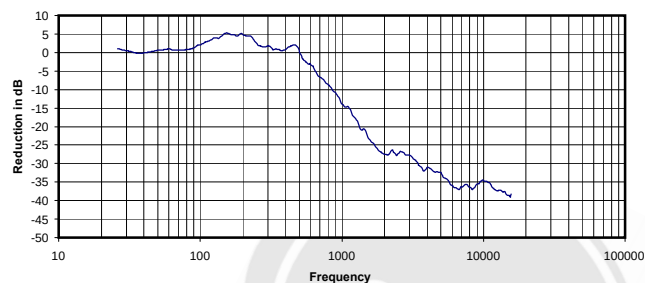
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.592 Vrms
633 Ohms
0.55 mW
-15 dBr

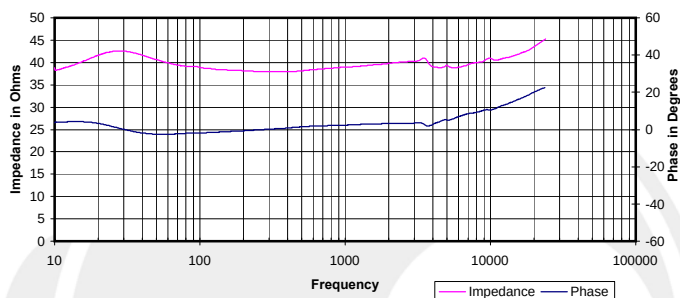
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



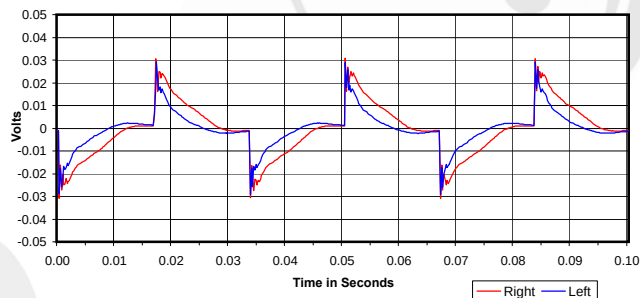
Isolation
Attenuation of External Sound vs. Frequency



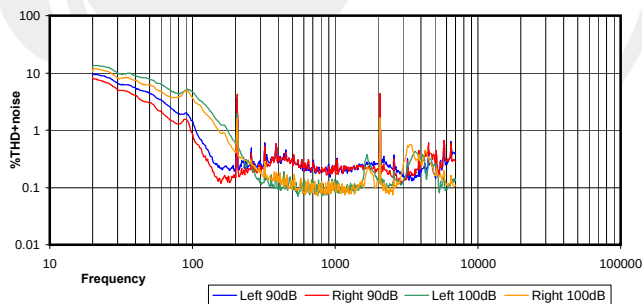
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



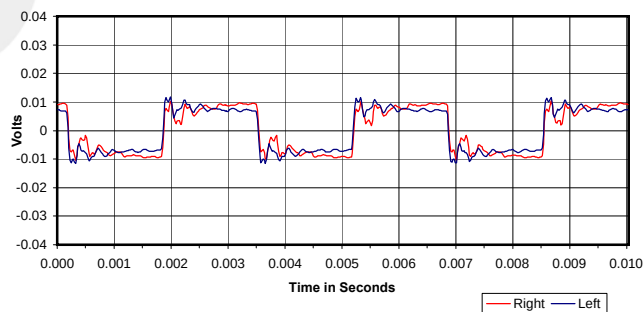
30 Hz Square Wave



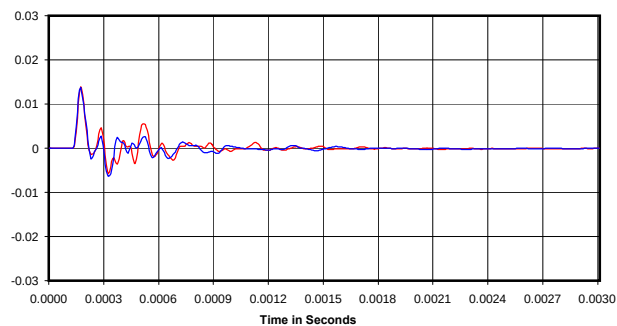
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



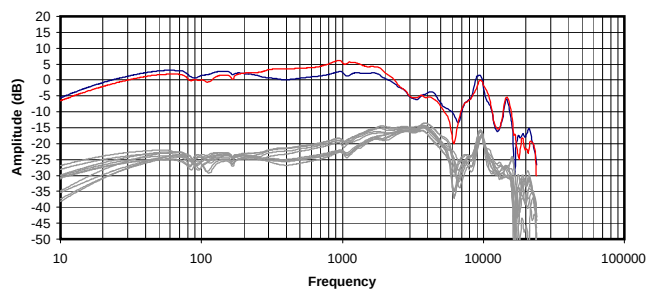
Impulse Response



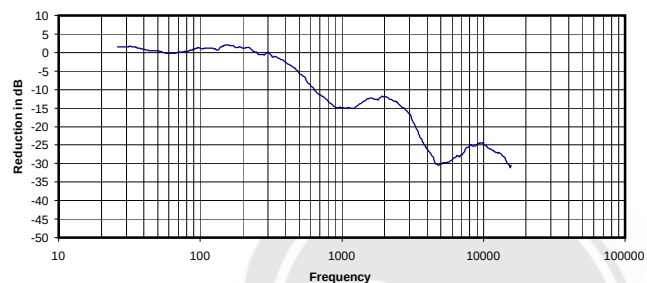
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.043 Vrms
39 Ohms
0.05 mW
-11 dBr

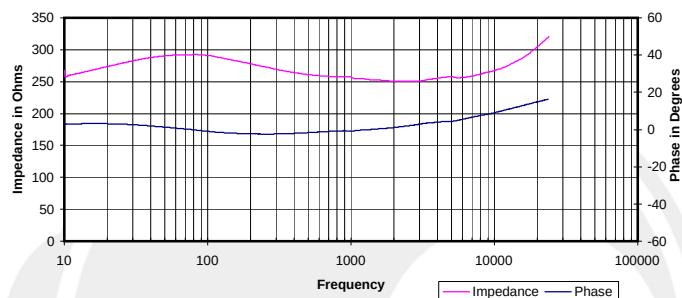
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



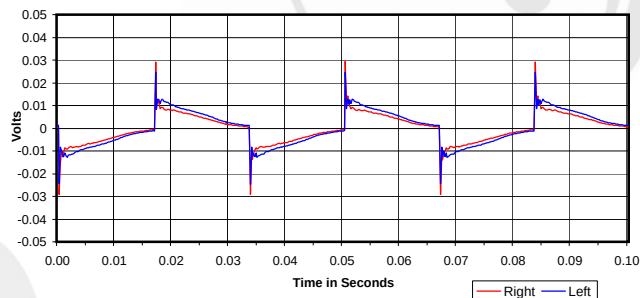
Isolation
Attenuation of External Sound vs. Frequency



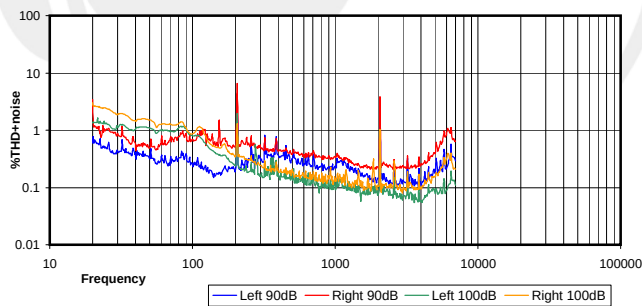
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



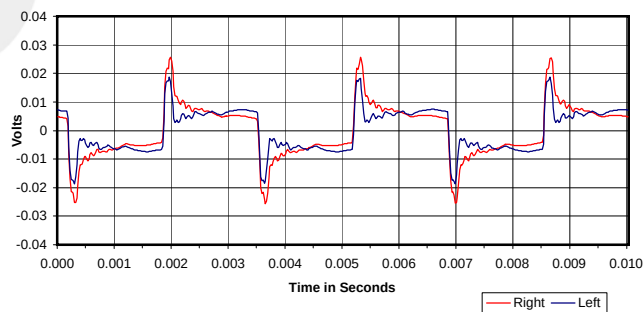
30 Hz Square Wave



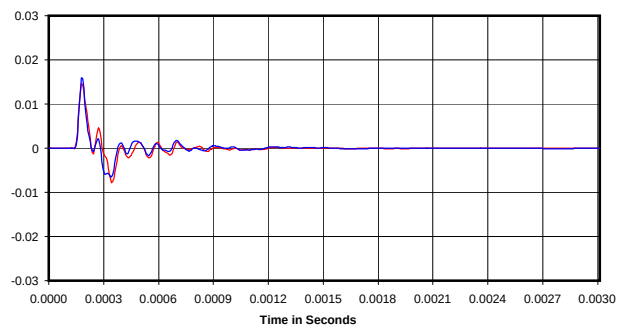
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



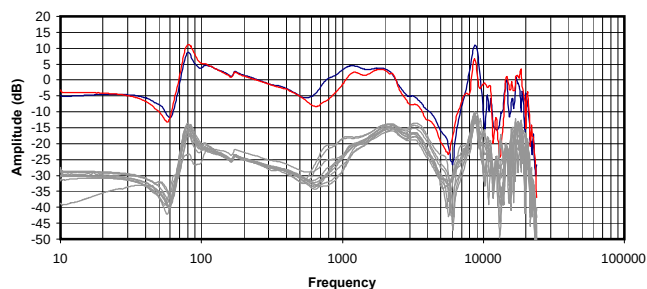
Impulse Response



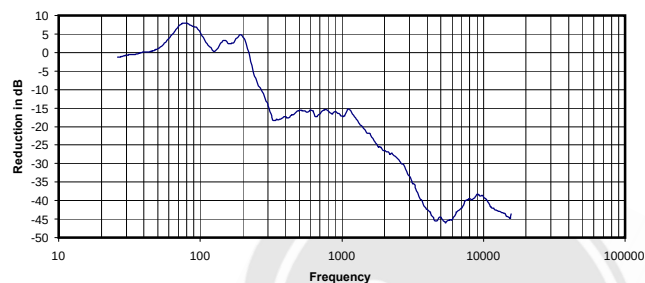
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.161 Vrms
257 Ohms
0.10 mW
-10 dBr

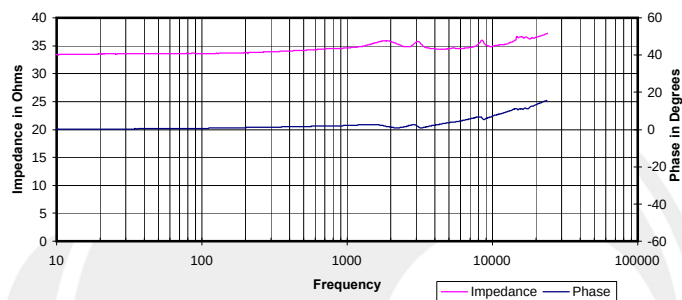
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



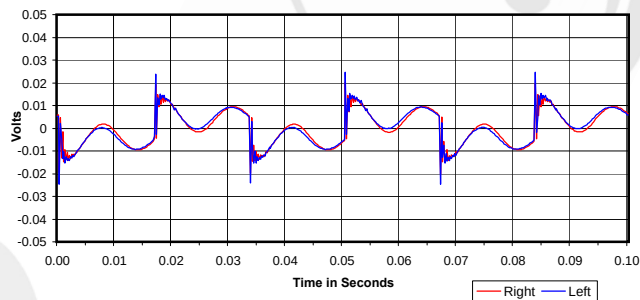
Isolation
Attenuation of External Sound vs. Frequency



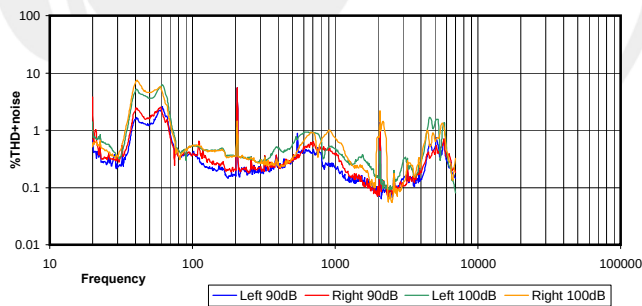
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



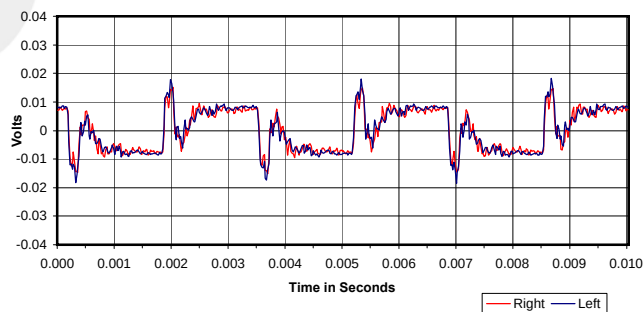
30 Hz Square Wave



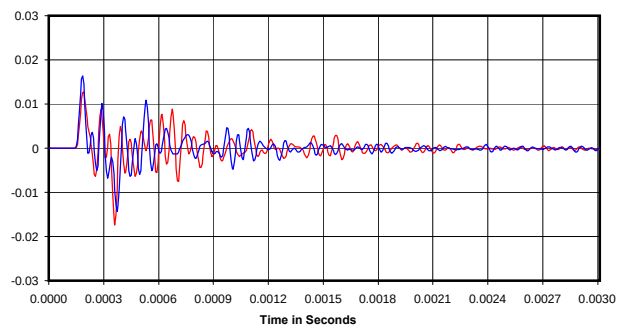
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



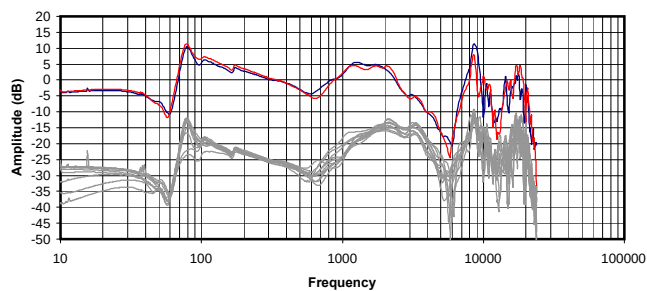
Impulse Response



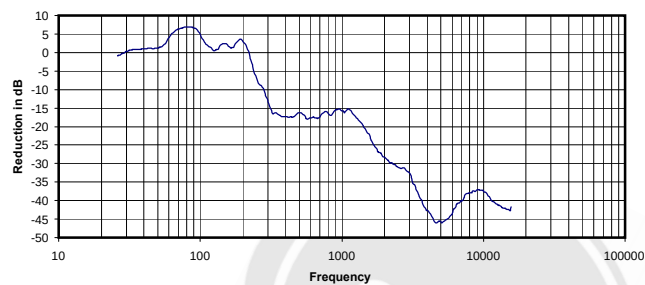
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.075 Vrms
35 Ohms
0.16 mW
-18 dBr

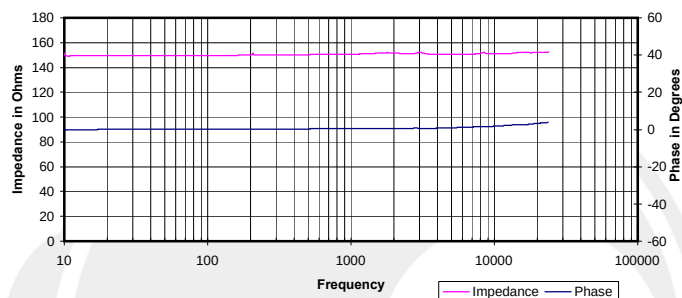
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



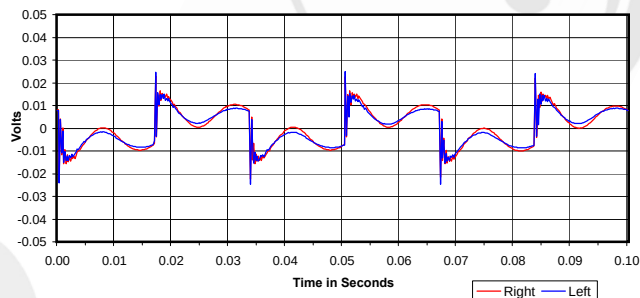
Isolation
Attenuation of External Sound vs. Frequency



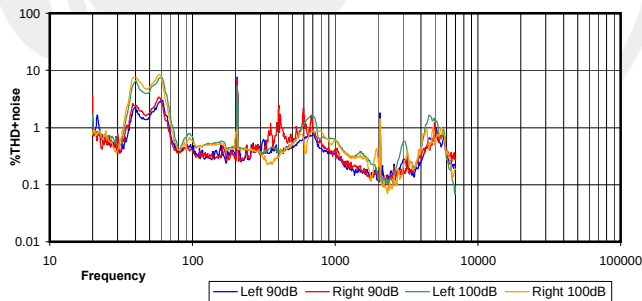
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



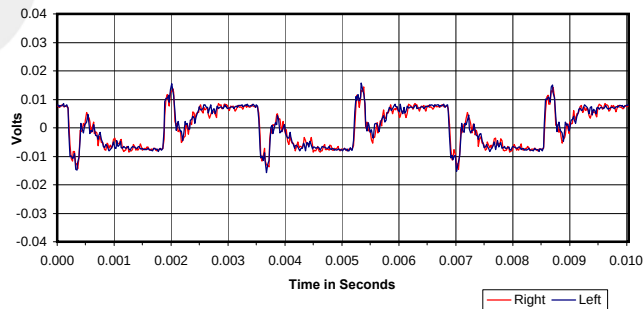
30 Hz Square Wave



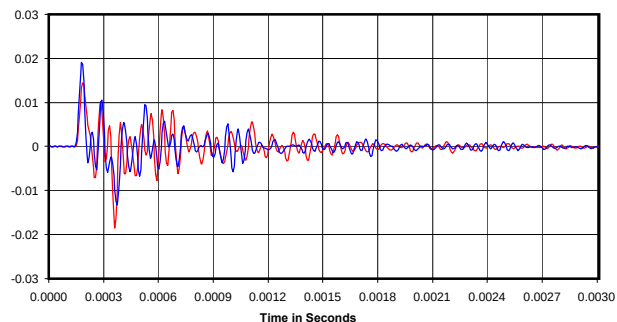
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



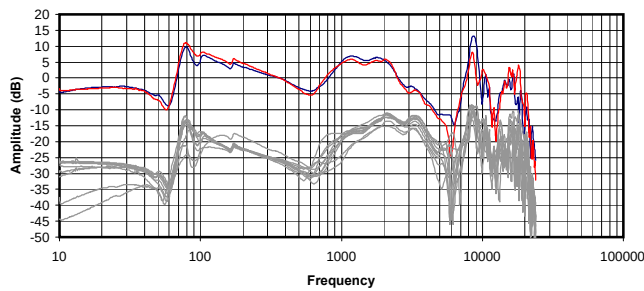
Impulse Response



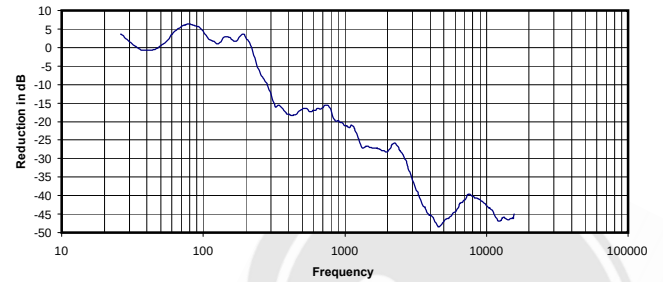
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.389 Vrms
150 Ohms
1.01 mW
-19 dBr

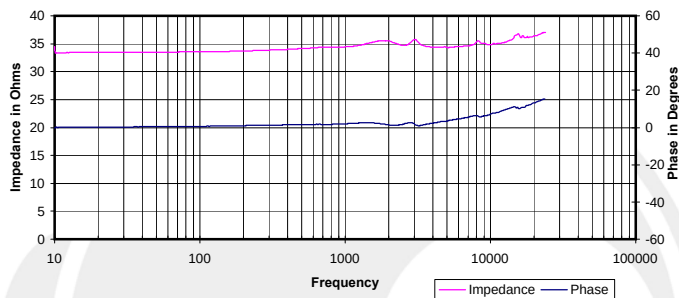
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



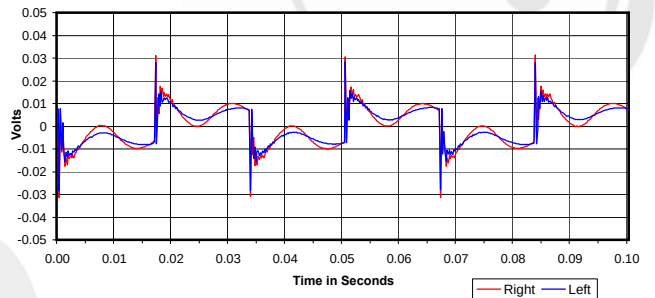
Isolation
Attenuation of External Sound vs. Frequency



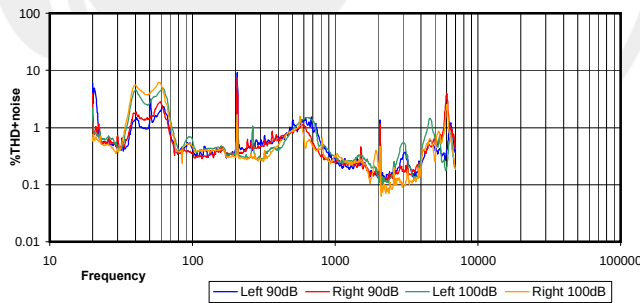
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



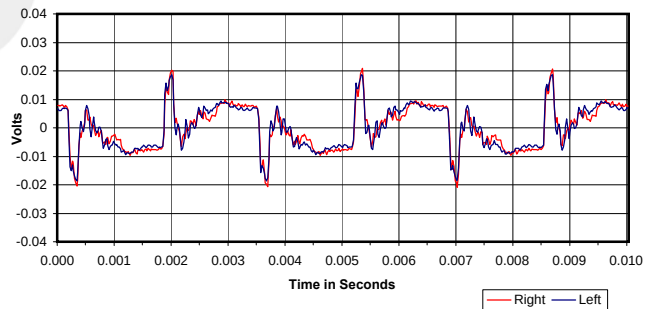
30 Hz Square Wave



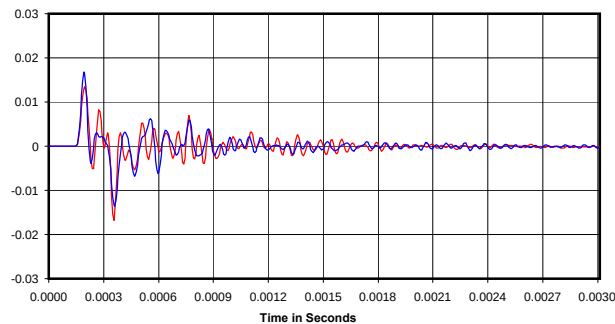
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



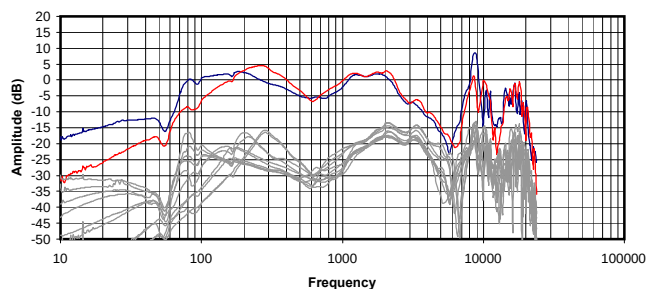
Impulse Response



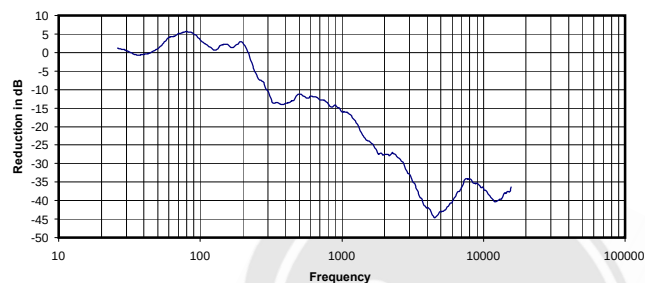
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.043 Vrms
34 Ohms
0.05 mW
-20 dBr

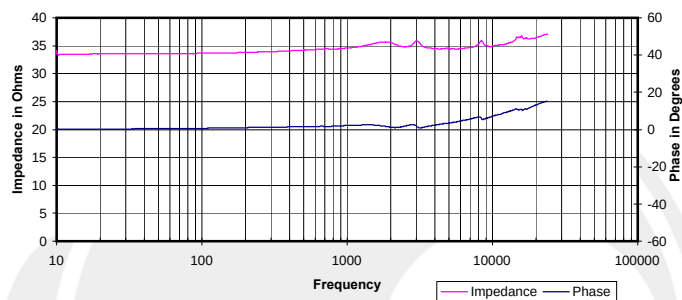
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



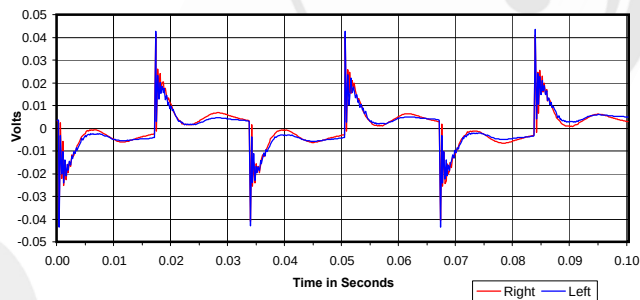
Isolation
Attenuation of External Sound vs. Frequency



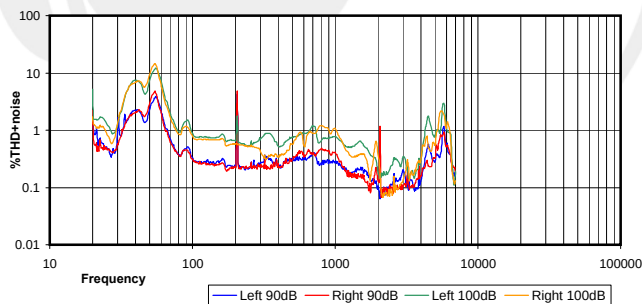
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



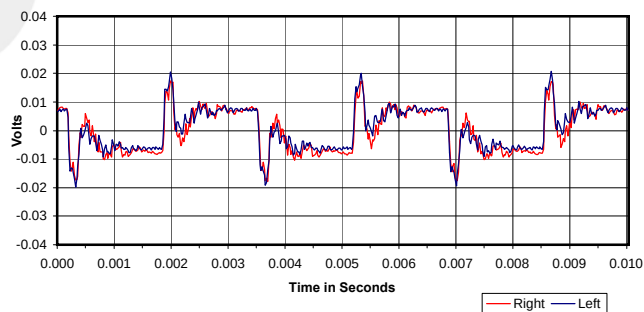
30 Hz Square Wave



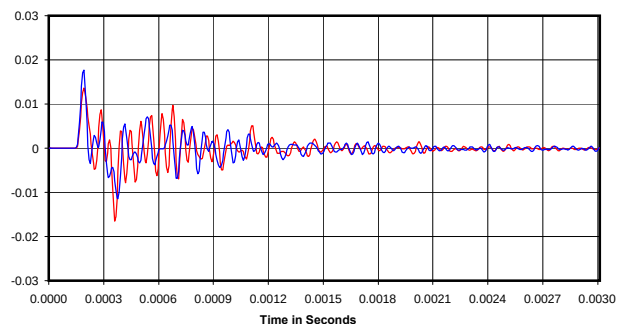
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



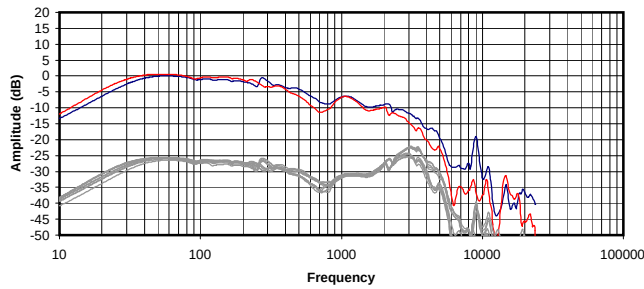
Impulse Response



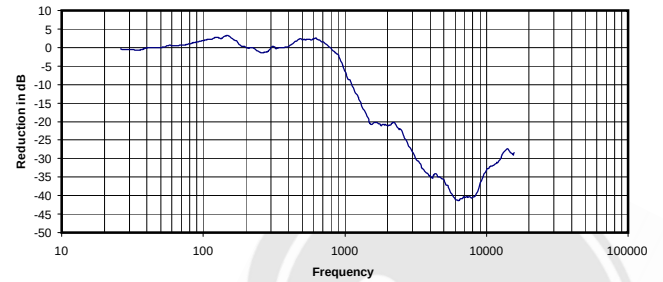
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.081 Vrms
35 Ohms
0.19 mW
-17 dBr

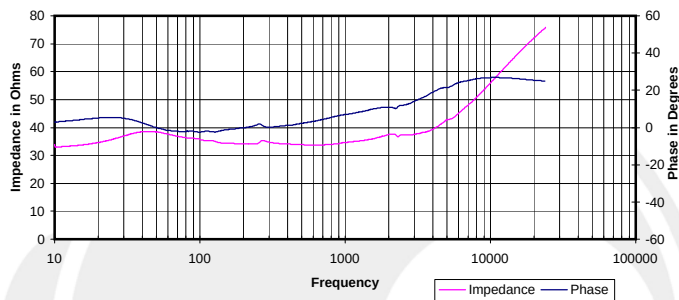
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



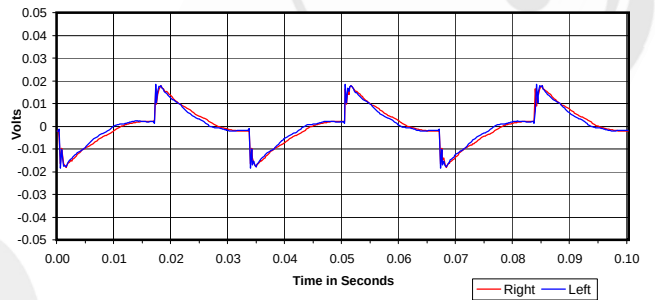
Isolation
Attenuation of External Sound vs. Frequency



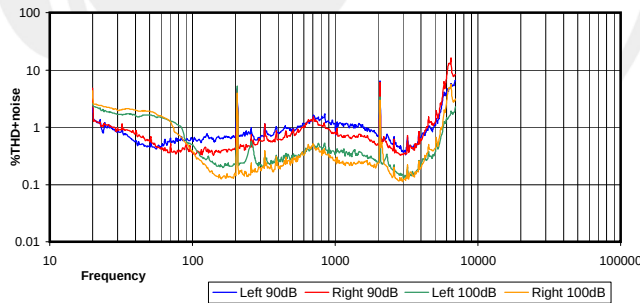
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



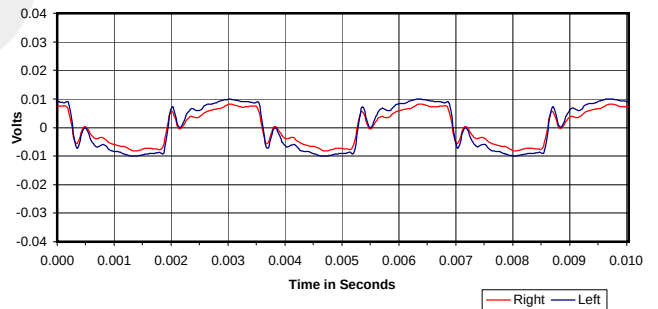
30 Hz Square Wave



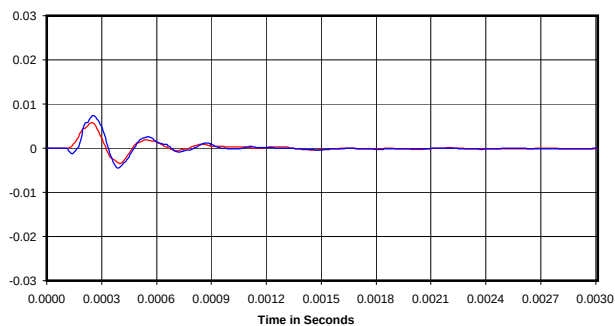
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



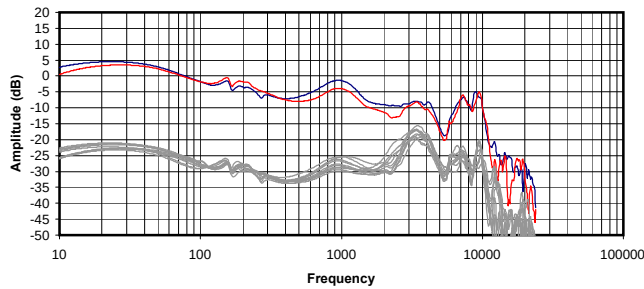
Impulse Response



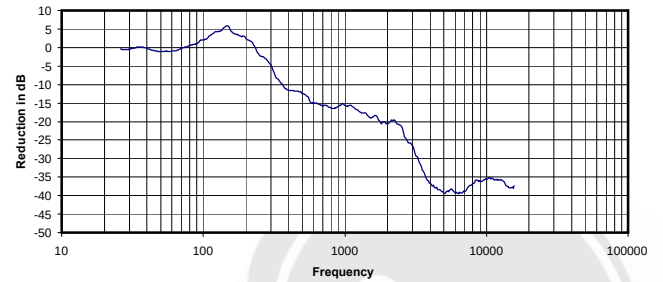
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.029 Vrms
35 Ohms
0.02 mW
-11 dBr

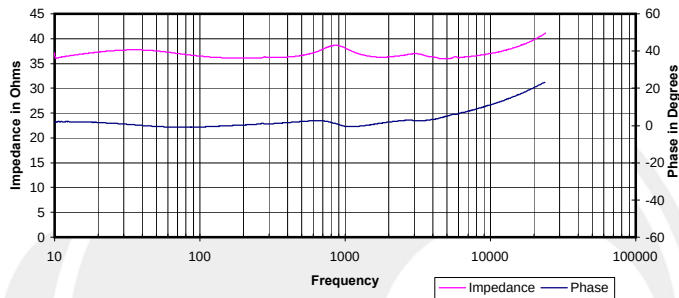
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



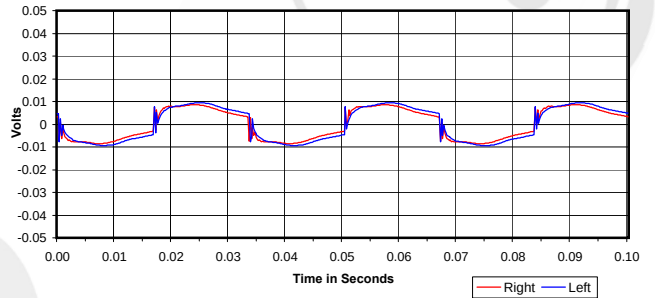
Isolation
Attenuation of External Sound vs. Frequency



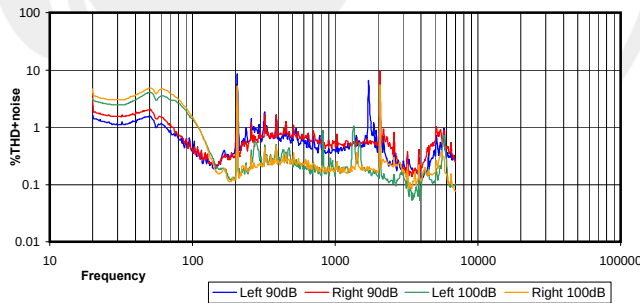
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



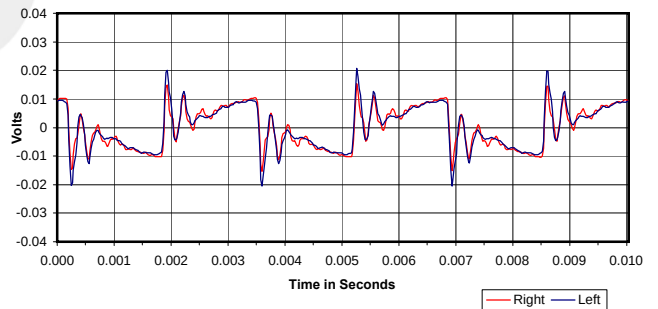
30 Hz Square Wave



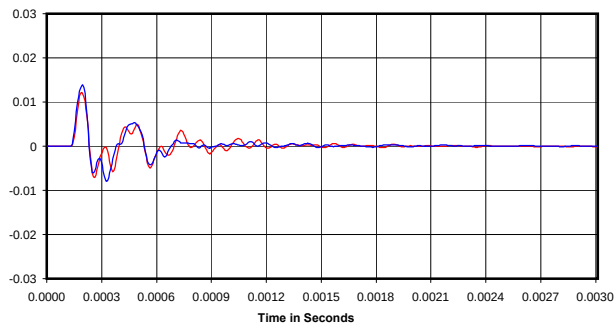
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



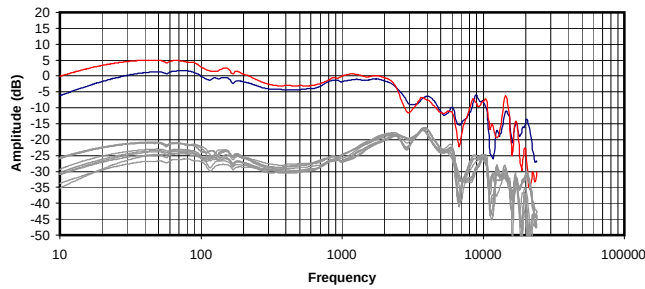
Impulse Response



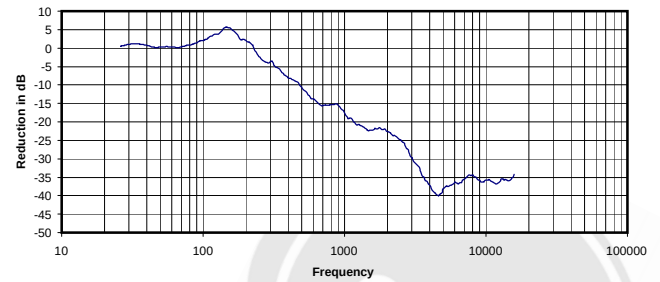
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.071 Vrms
38 Ohms
0.13 mW
-15 dBr

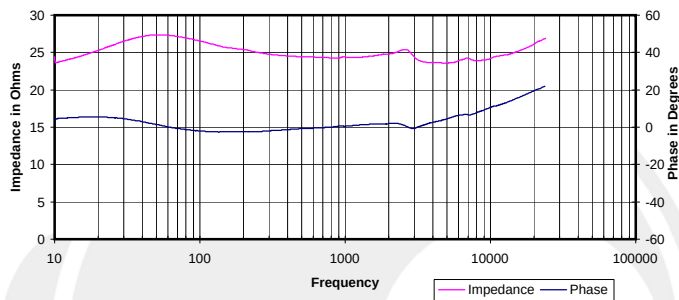
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



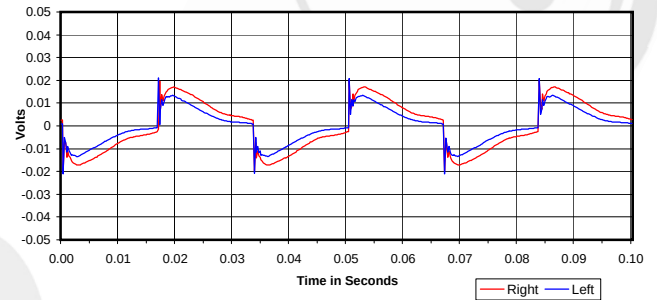
Isolation
Attenuation of External Sound vs. Frequency



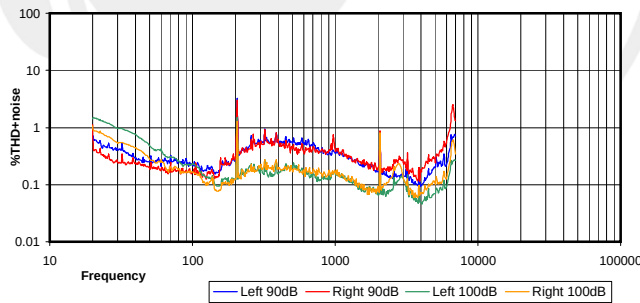
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



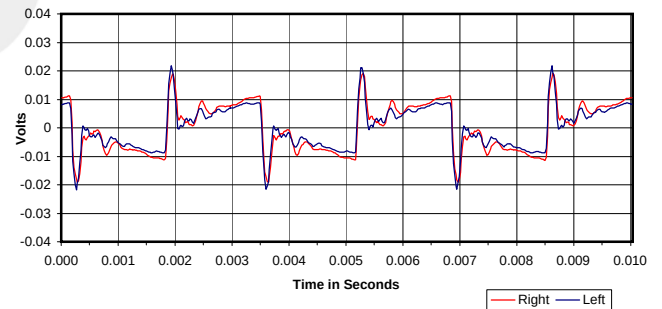
30 Hz Square Wave



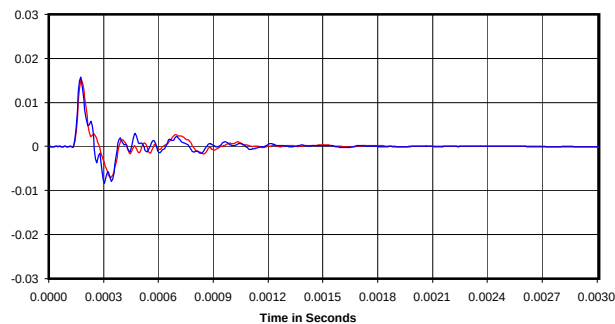
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



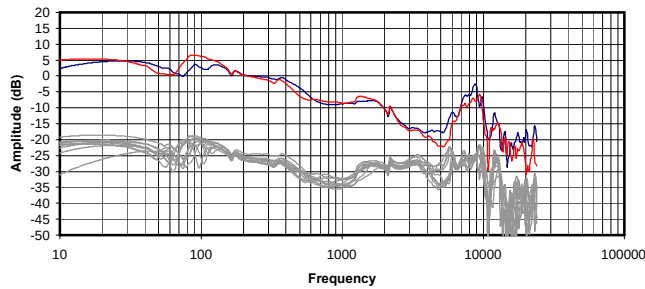
Impulse Response



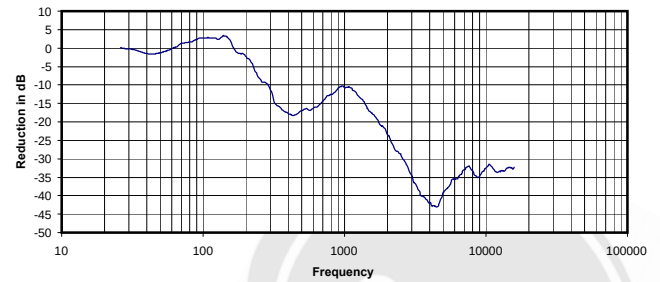
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.044 Vrms
24 Ohms
0.08 mW
-15 dBr

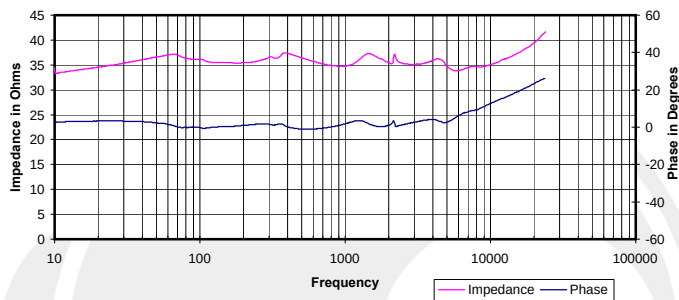
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



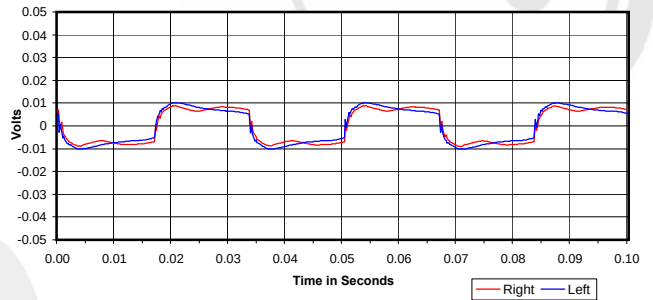
Isolation
Attenuation of External Sound vs. Frequency



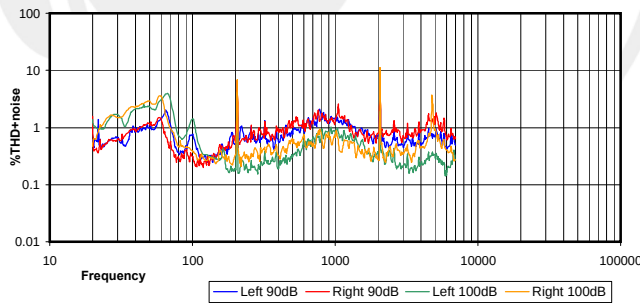
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



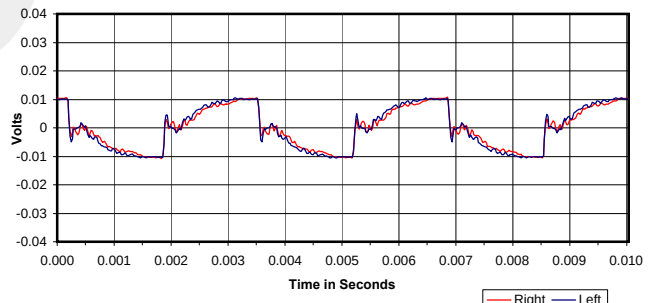
30 Hz Square Wave



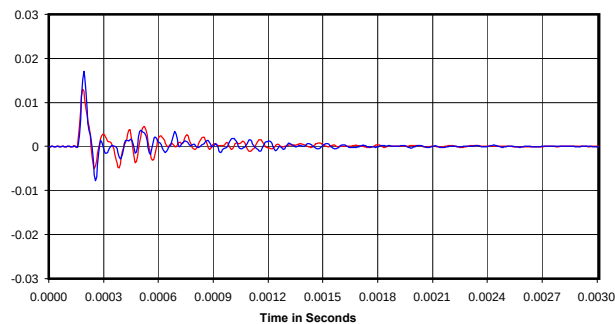
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



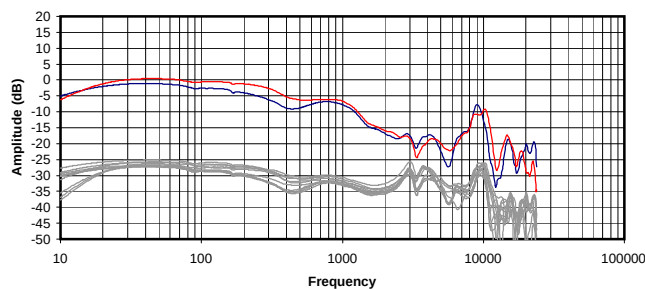
Impulse Response



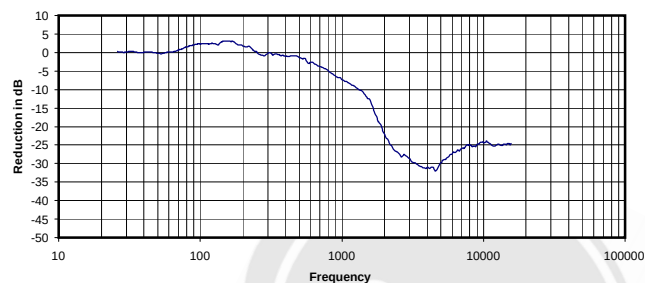
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.117 Vrms
35 Ohms
0.39 mW
-17 dBr

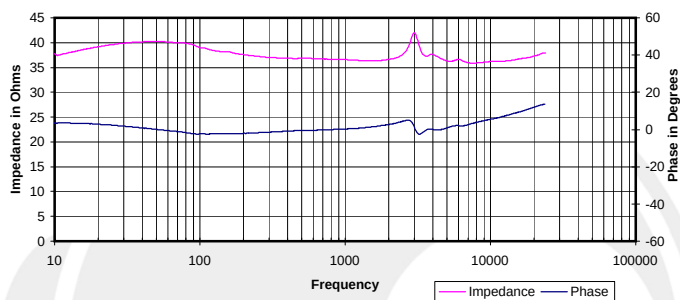
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



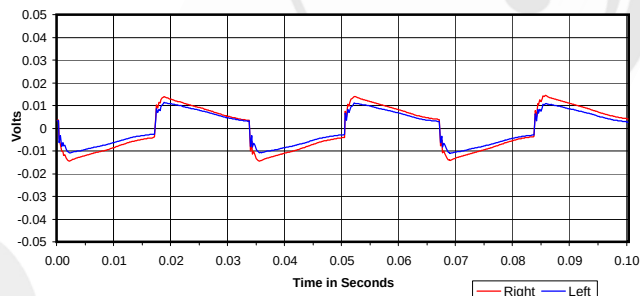
Isolation
Attenuation of External Sound vs. Frequency



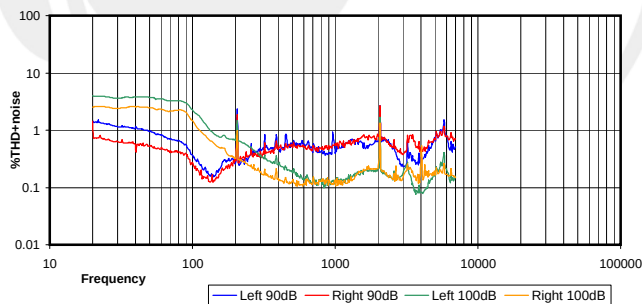
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



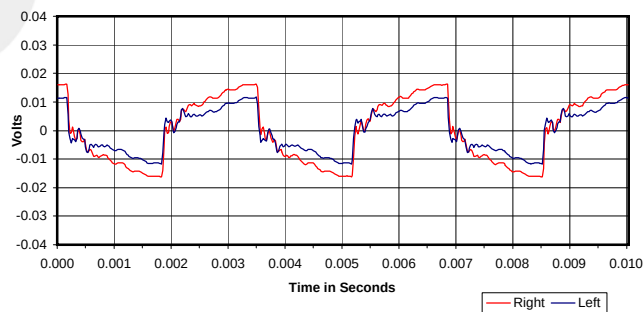
30 Hz Square Wave



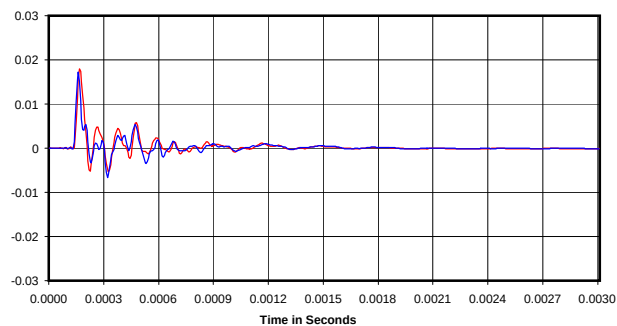
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



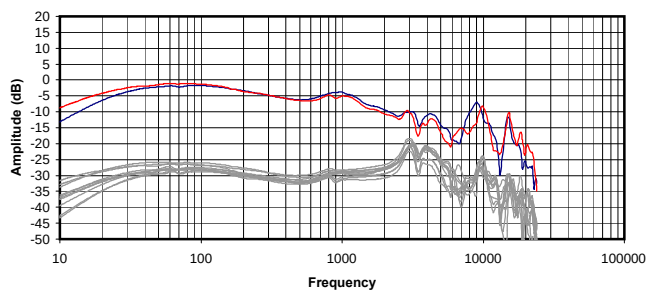
Impulse Response



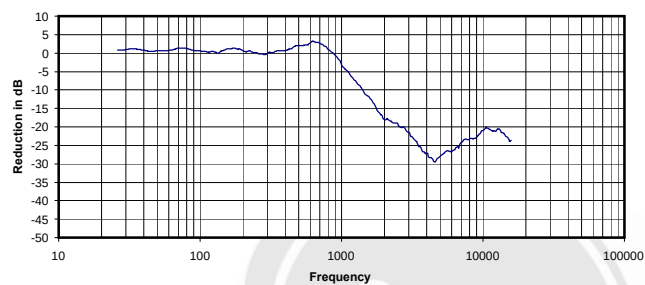
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.041 Vrms
37 Ohms
0.05 mW
-10 dBr

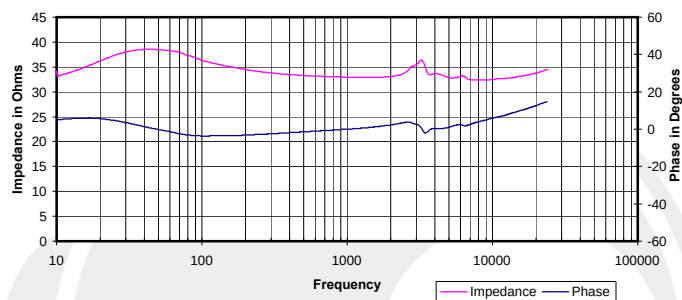
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



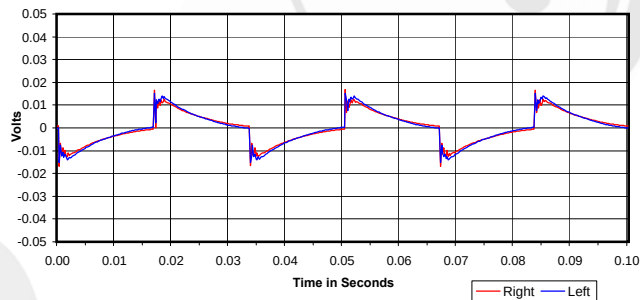
Isolation
Attenuation of External Sound vs. Frequency



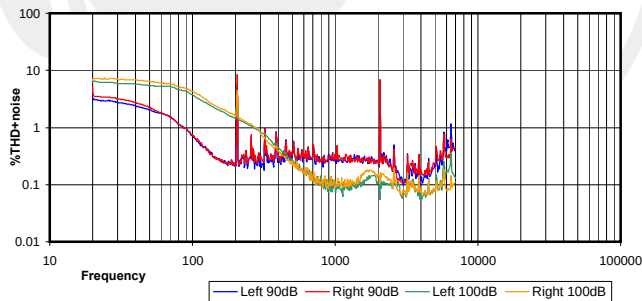
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



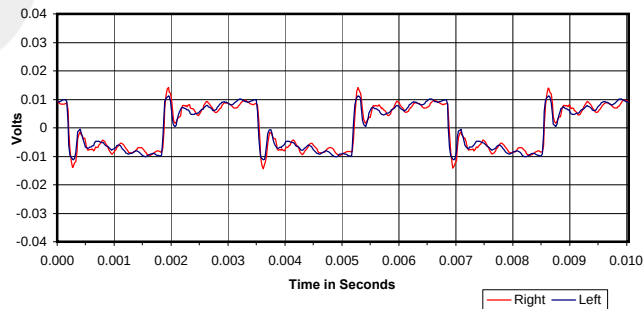
30 Hz Square Wave



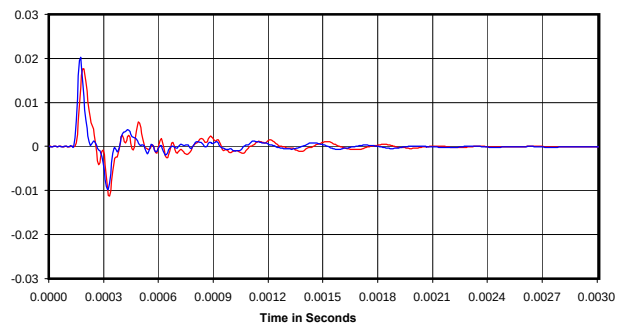
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



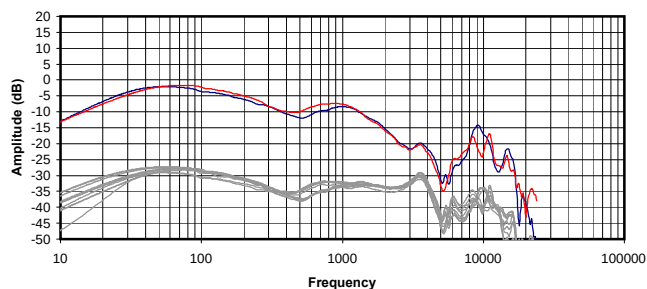
Impulse Response



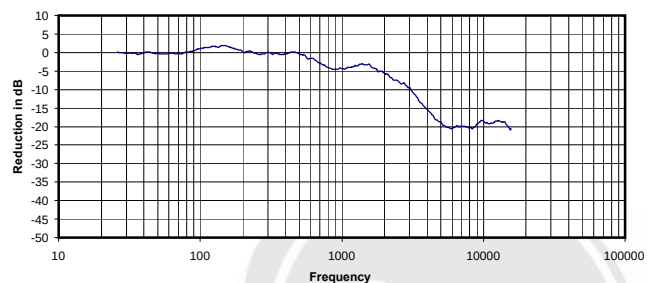
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.039 Vrms
33 Ohms
0.05 mW
-8 dBr

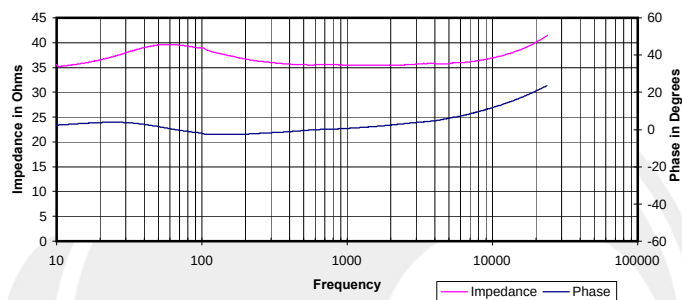
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



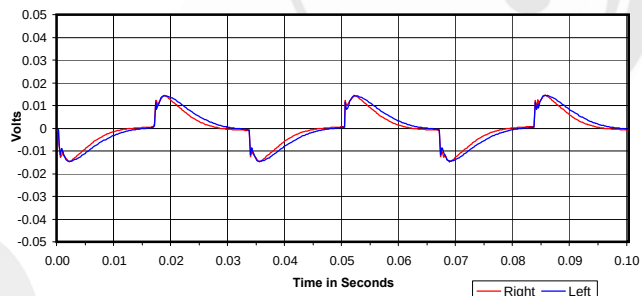
Isolation
Attenuation of External Sound vs. Frequency



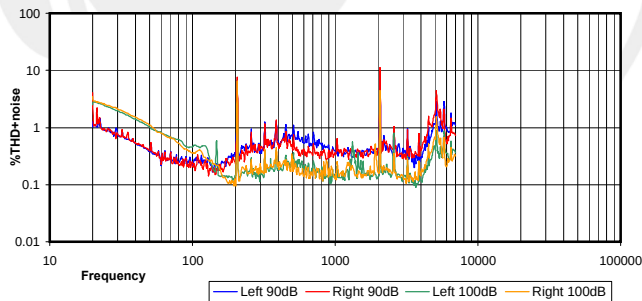
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



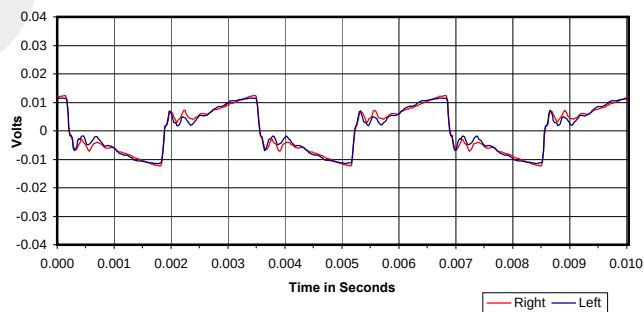
30 Hz Square Wave



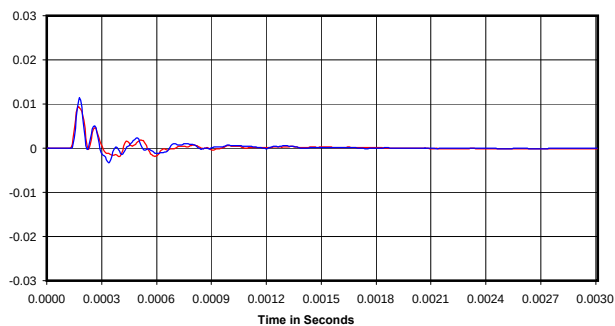
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



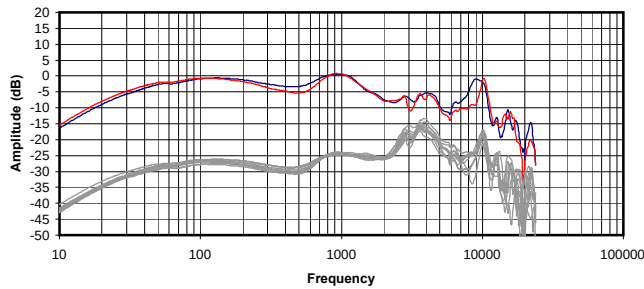
Impulse Response



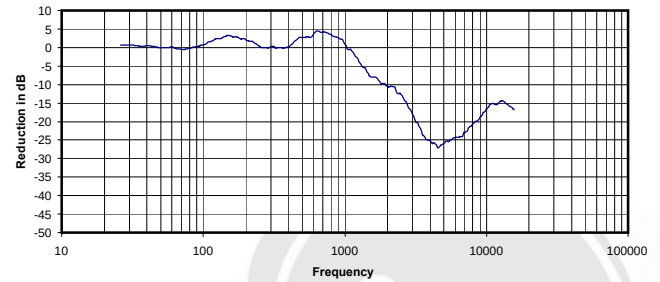
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.050 Vrms
35 Ohms
0.07 mW
-5 dBr

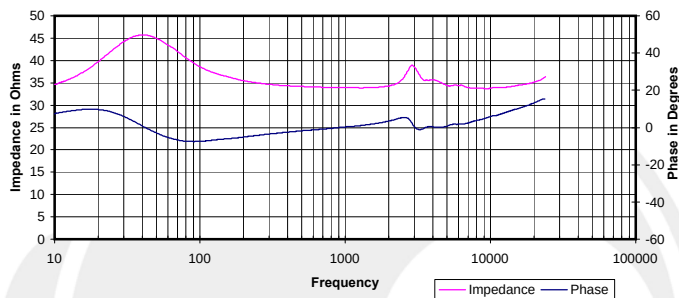
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



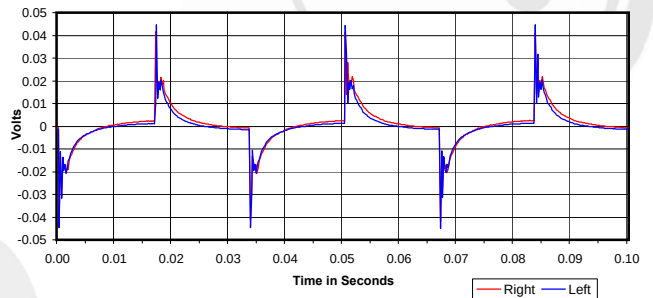
Isolation
Attenuation of External Sound vs. Frequency



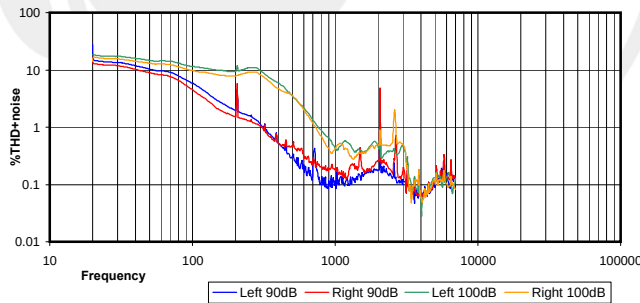
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



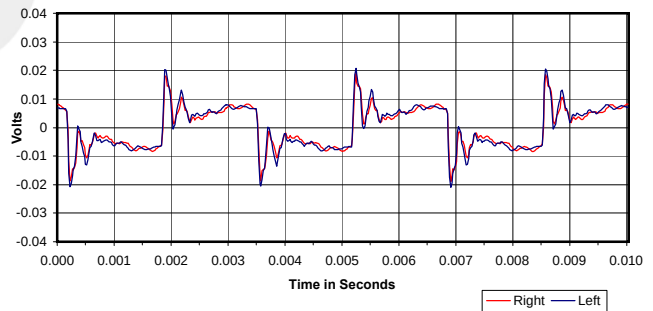
30 Hz Square Wave



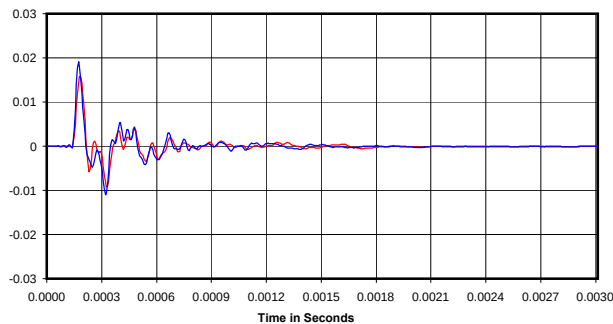
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



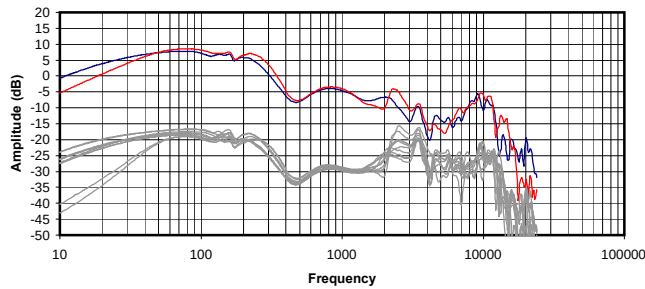
Impulse Response



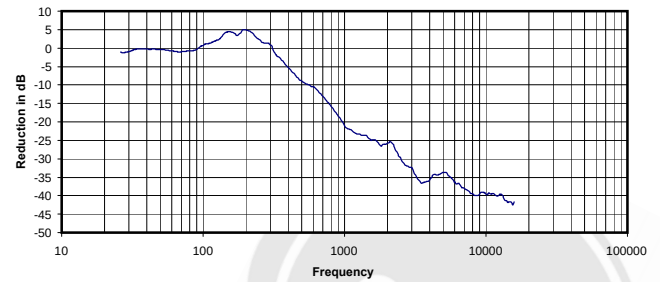
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.046 Vrms
34 Ohms
0.06 mW
-5 dBr

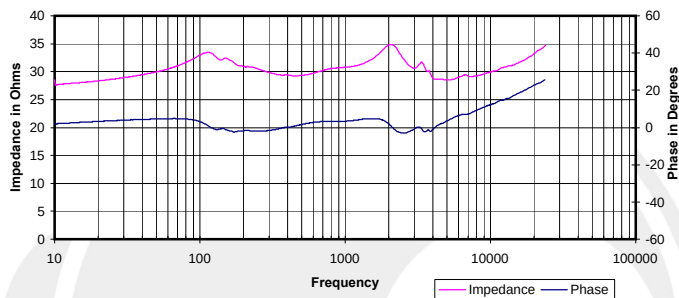
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



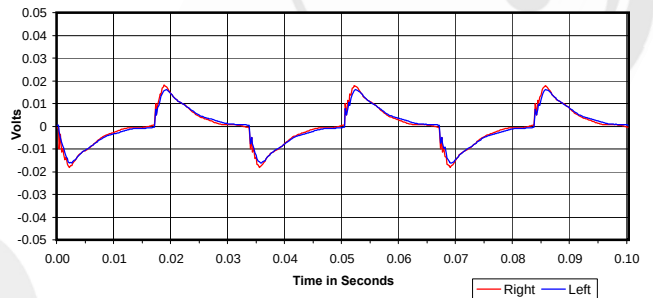
Isolation
Attenuation of External Sound vs. Frequency



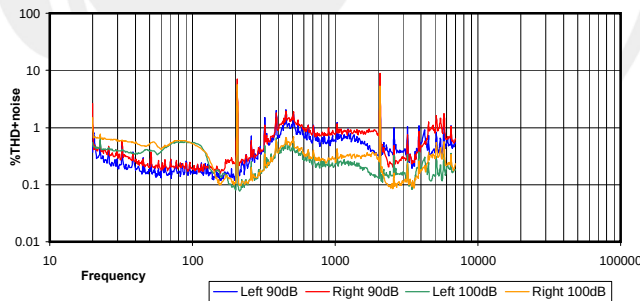
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



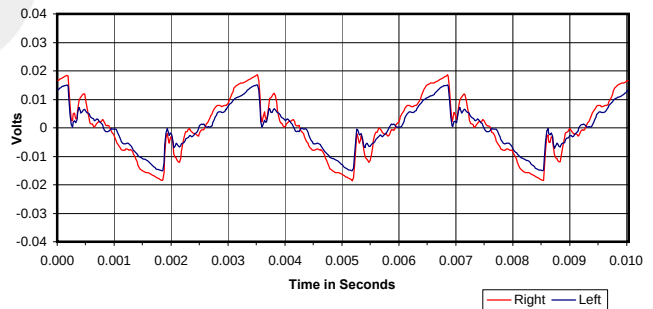
30 Hz Square Wave



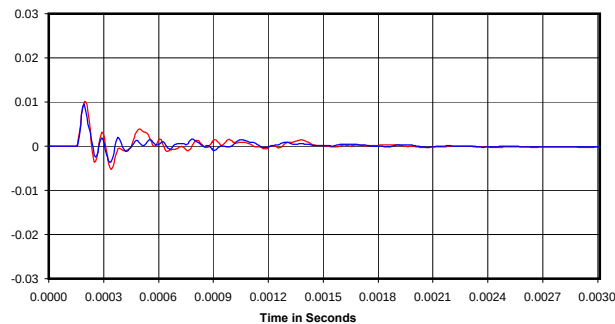
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



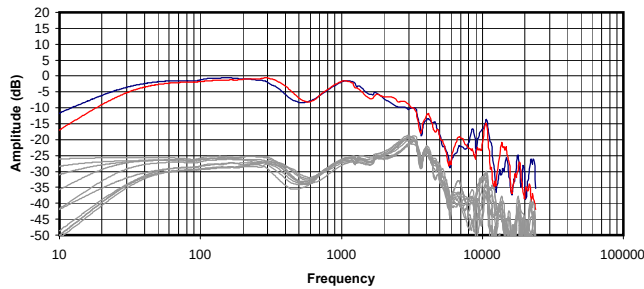
Impulse Response



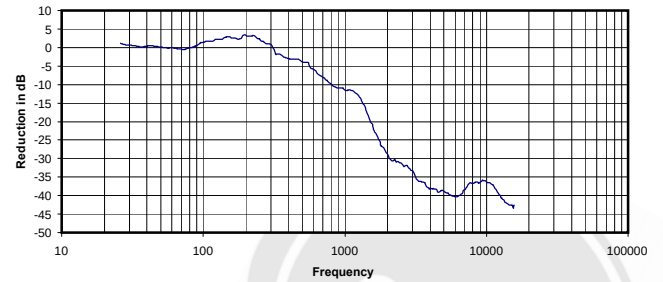
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.052 Vrms
31 Ohms
0.09 mW
-15 dBr

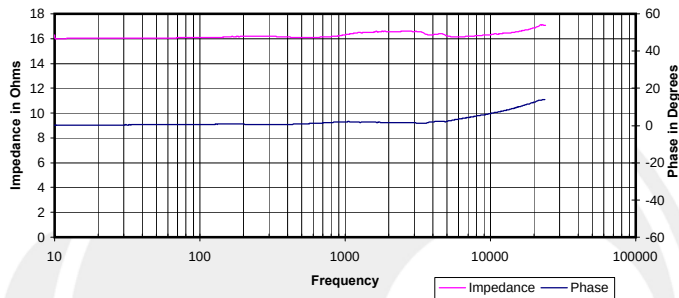
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



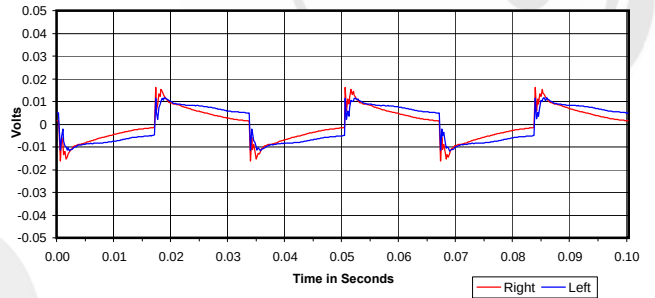
Isolation
Attenuation of External Sound vs. Frequency



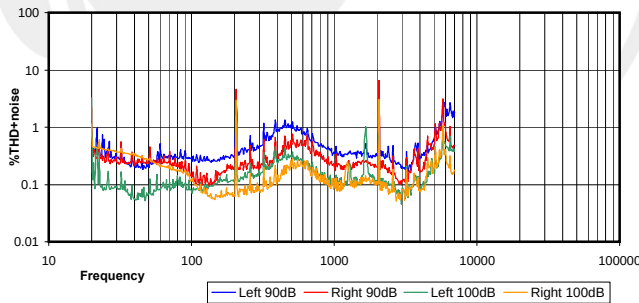
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



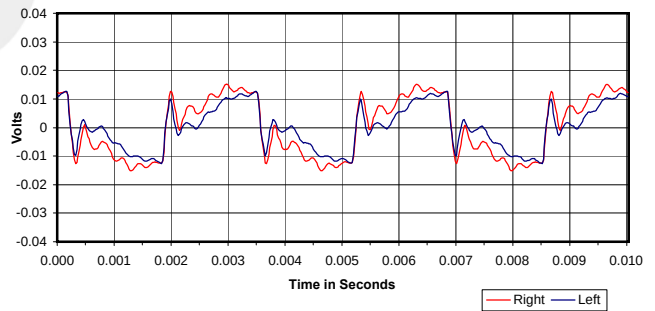
30 Hz Square Wave



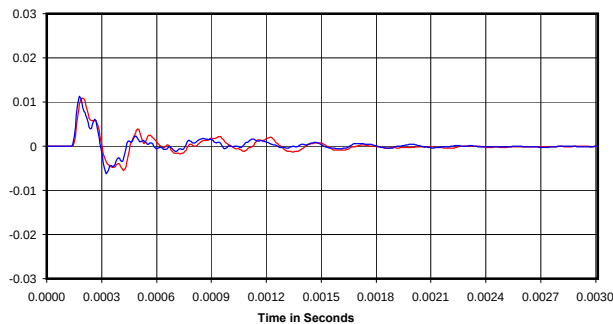
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



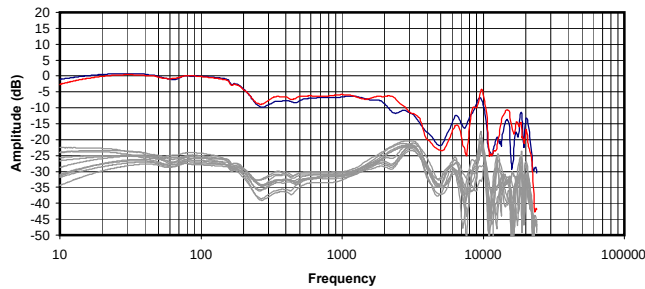
Impulse Response



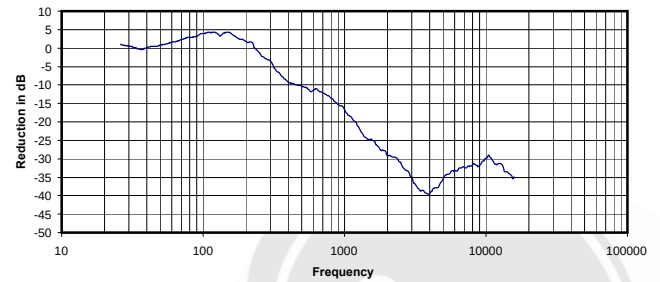
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.021 Vrms
16 Ohms
0.03 mW
-14 dBr

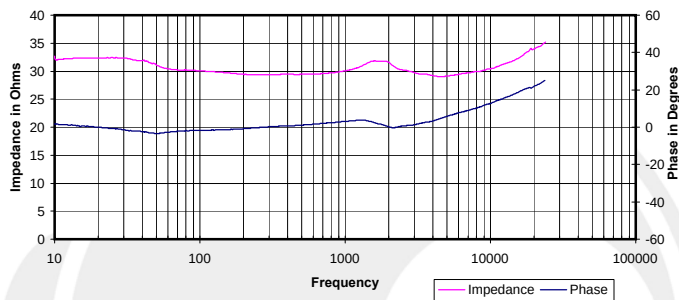
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



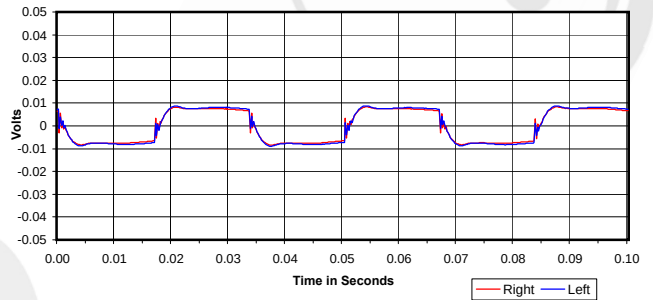
Isolation
Attenuation of External Sound vs. Frequency



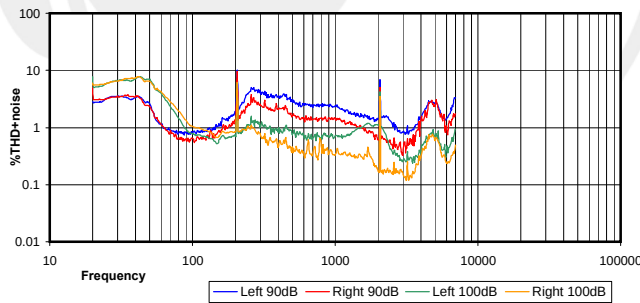
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



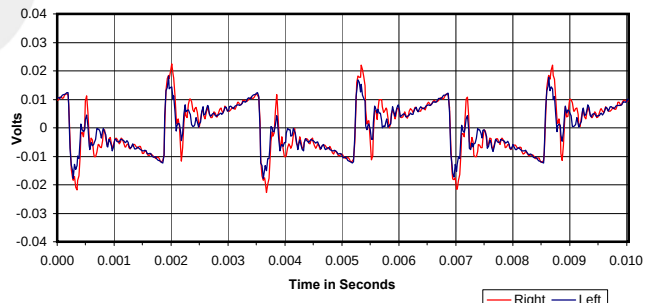
30 Hz Square Wave



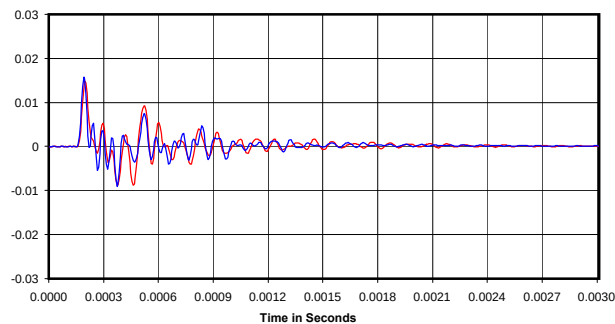
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



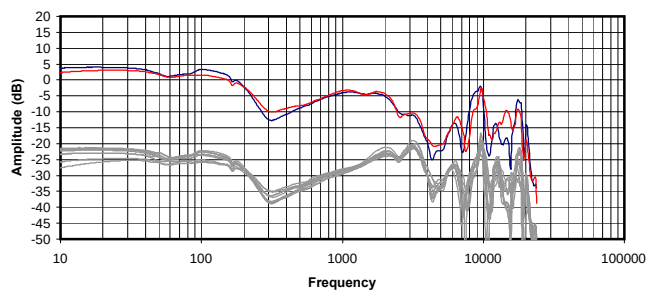
Impulse Response



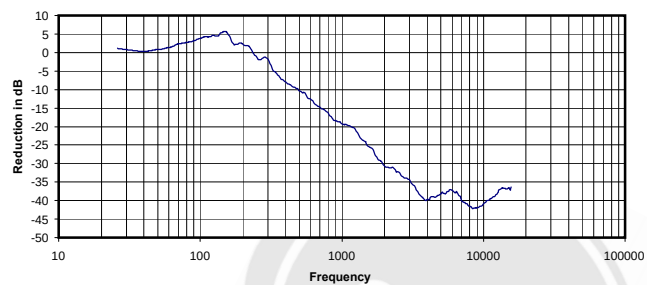
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.071 Vrms
30 Ohms
0.17 mW
-16 dB

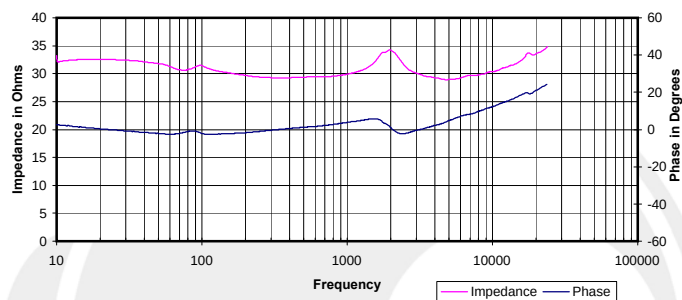
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



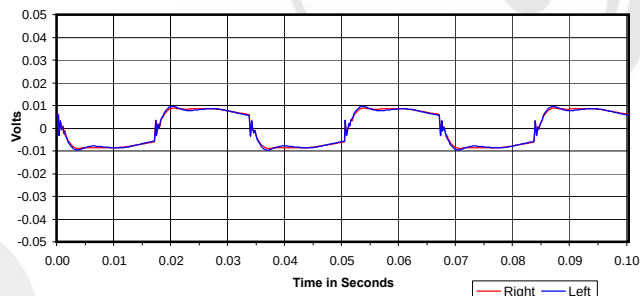
Isolation
Attenuation of External Sound vs. Frequency



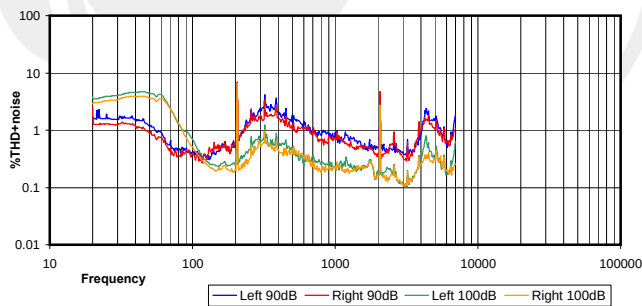
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



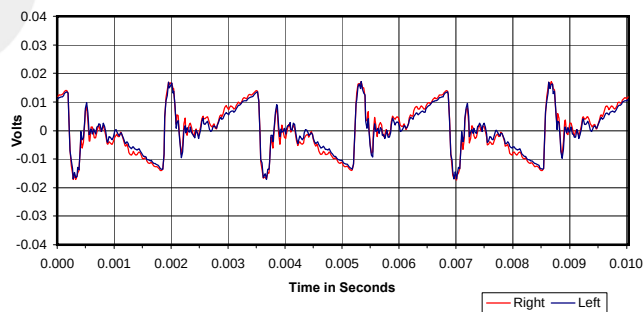
30 Hz Square Wave



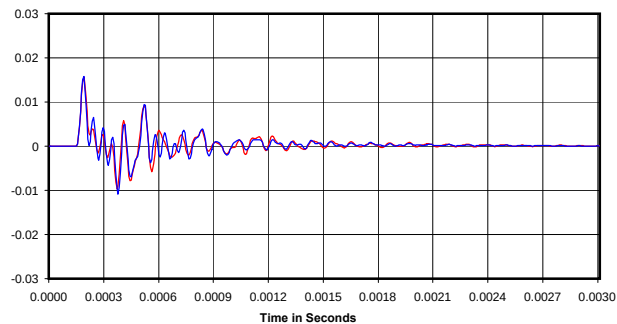
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



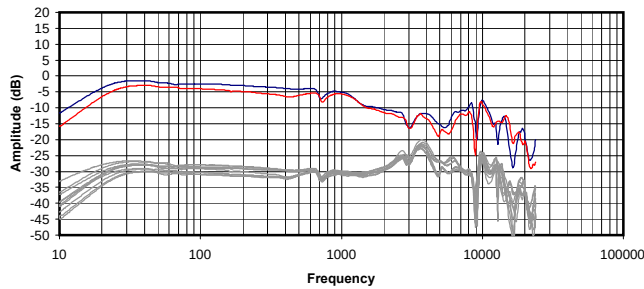
Impulse Response



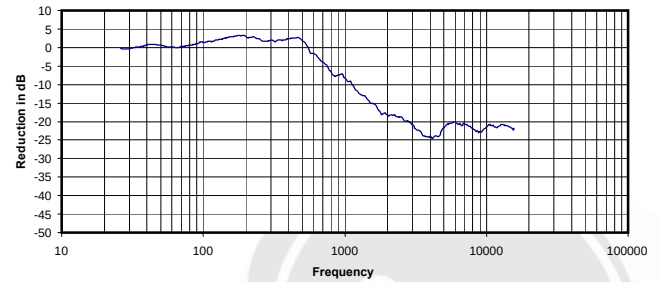
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.044 Vrms
30 Ohms
0.06 mW
-16 dBr

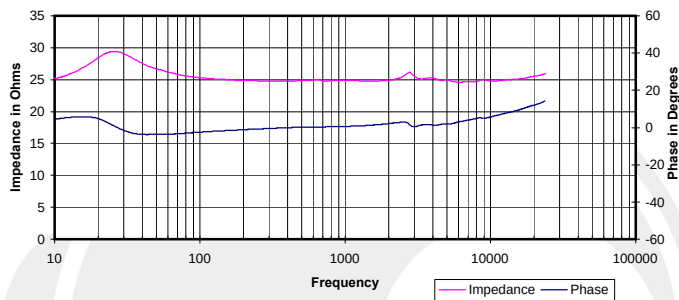
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



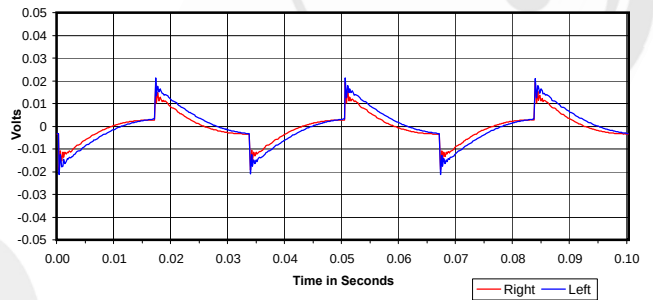
Isolation
Attenuation of External Sound vs. Frequency



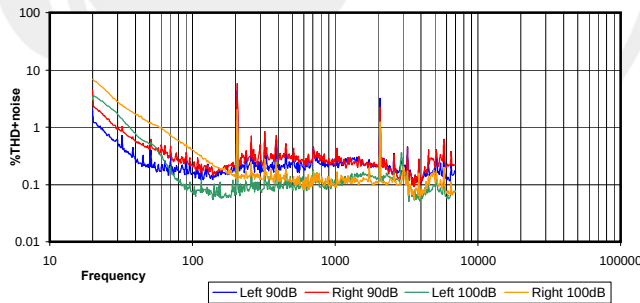
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



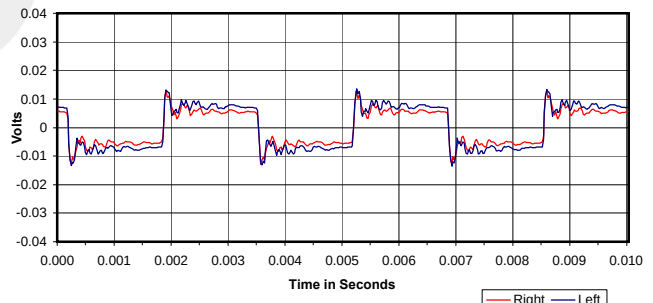
30 Hz Square Wave



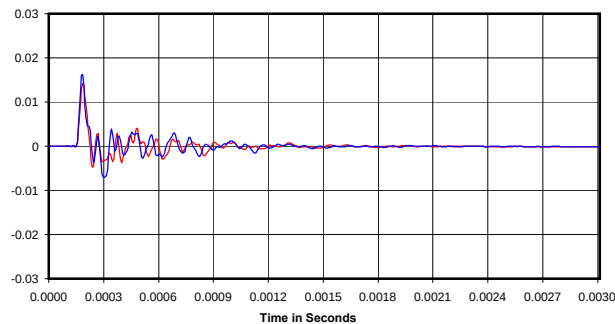
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



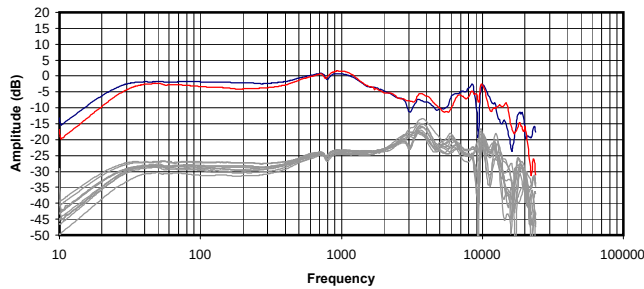
Impulse Response



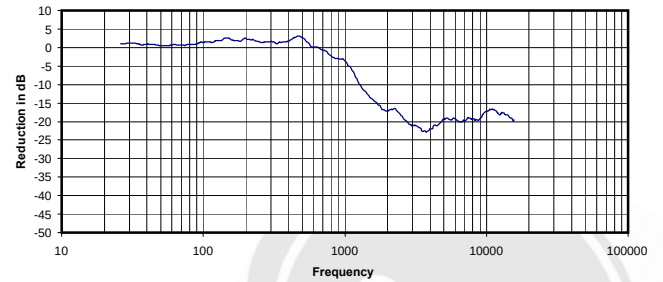
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.064 Vrms
25 Ohms
0.17 mW
-8 dBr

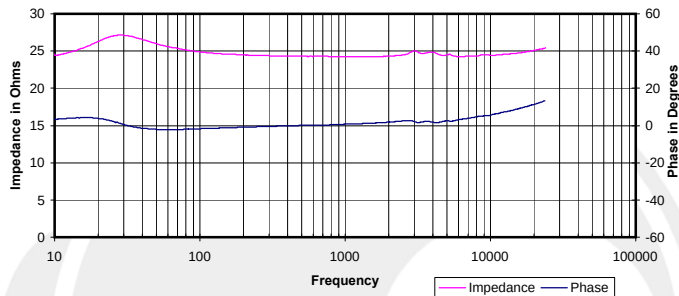
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



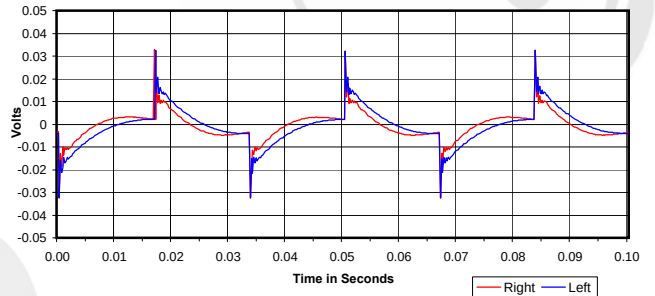
Isolation
Attenuation of External Sound vs. Frequency



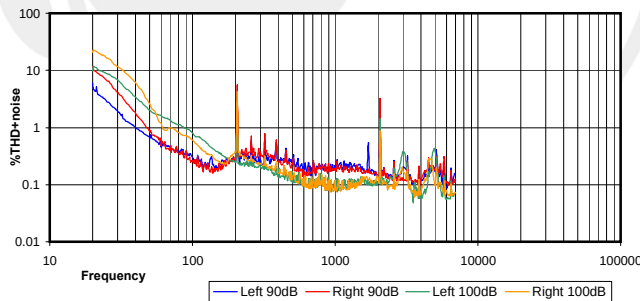
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



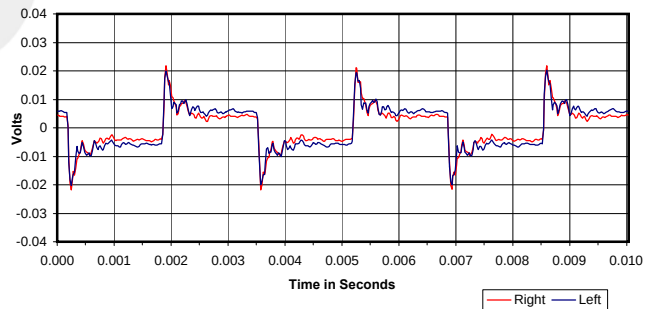
30 Hz Square Wave



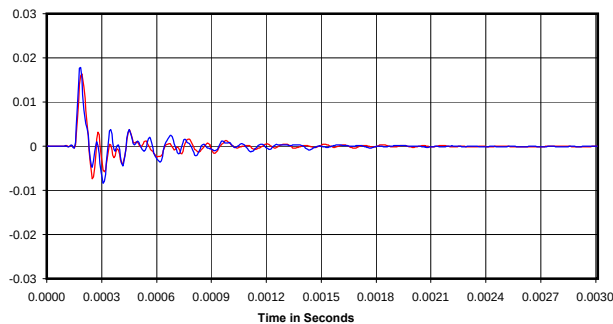
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



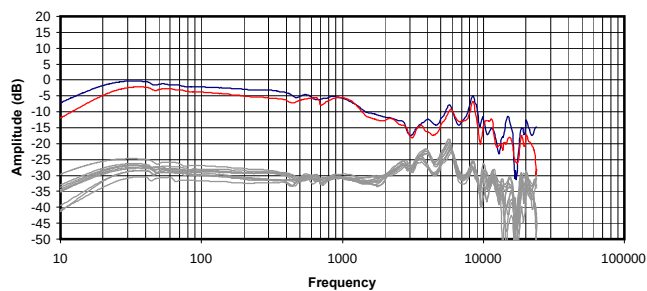
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.073 Vrms
24 Ohms
0.22 mW
-7 dBr

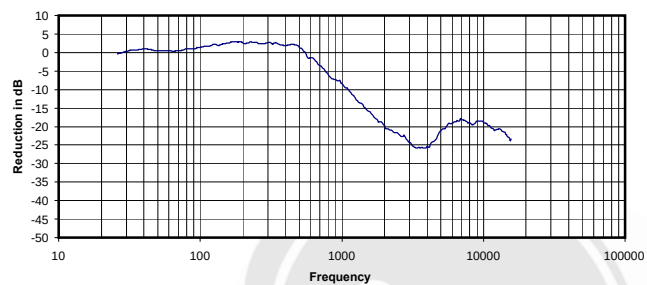


Headphone Measurements: Denon AH-D2000 B2012 Lawton Pads

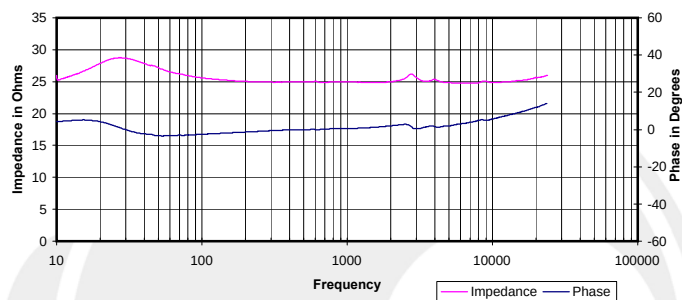
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



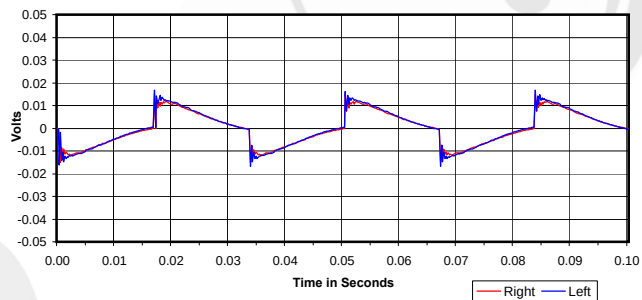
Isolation
Attenuation of External Sound vs. Frequency



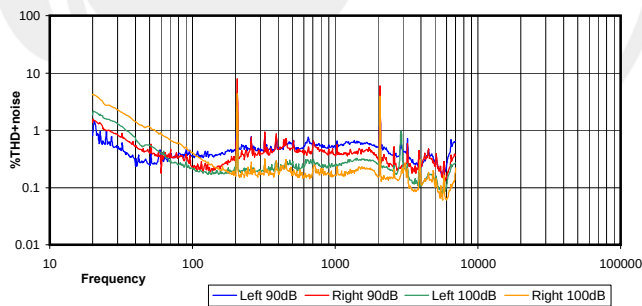
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



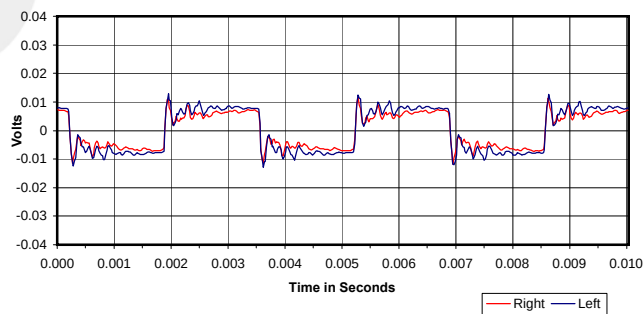
30 Hz Square Wave



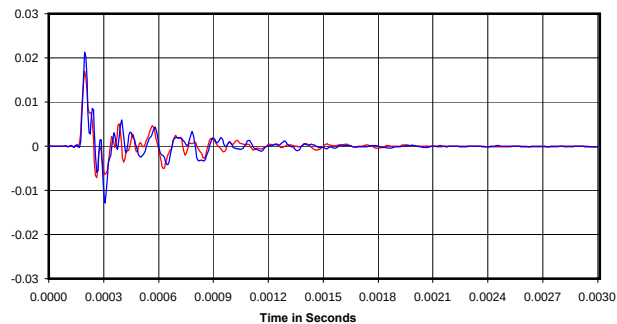
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



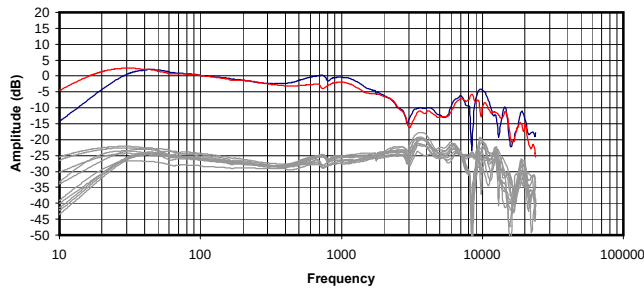
Impulse Response



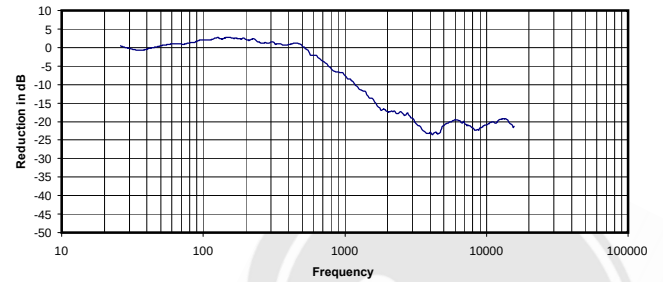
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.080 Vrms
25 Ohms
0.25 mW
-8 dBr

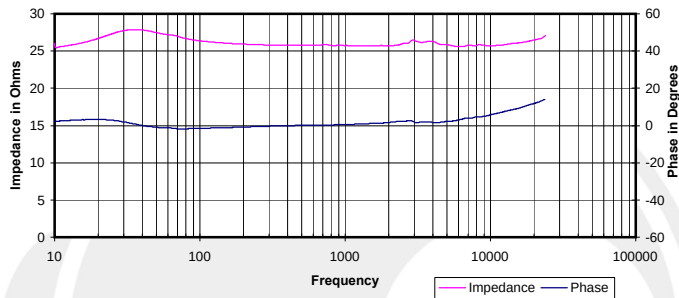
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



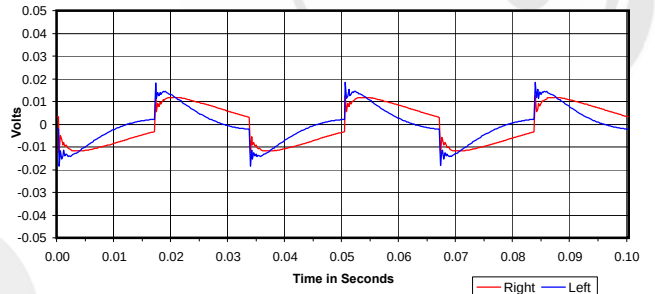
Isolation
Attenuation of External Sound vs. Frequency



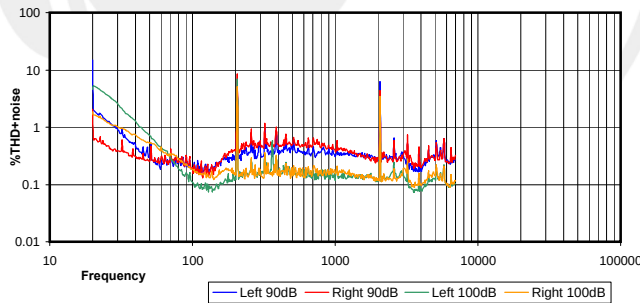
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



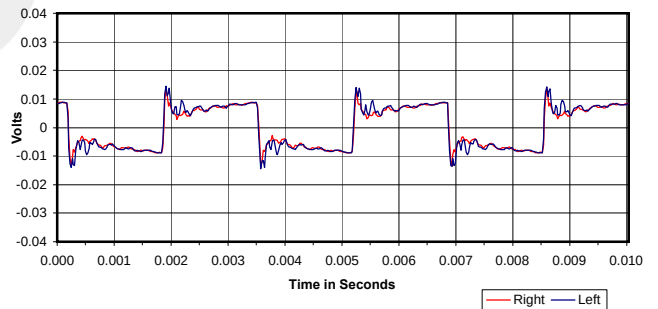
30 Hz Square Wave



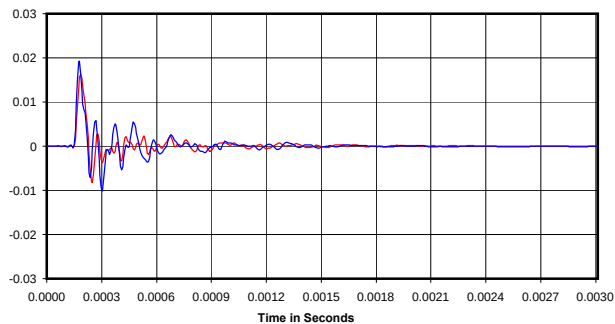
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



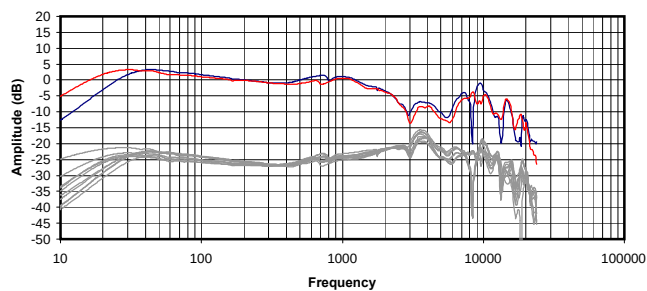
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.062 Vrms
26 Ohms
0.15 mW
-7 dBr

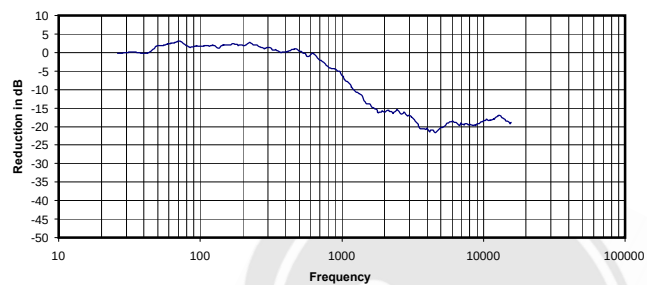


Headphone Measurements: Denon AH-D2000 - Old Headphones, Old Pads

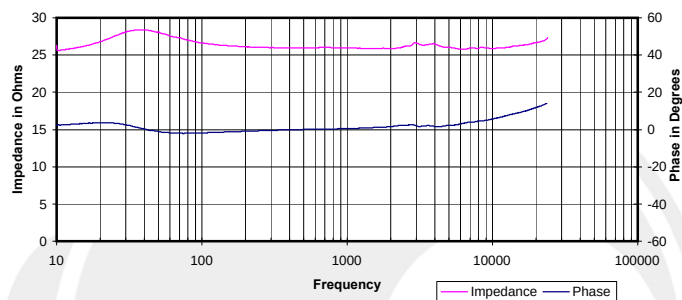
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



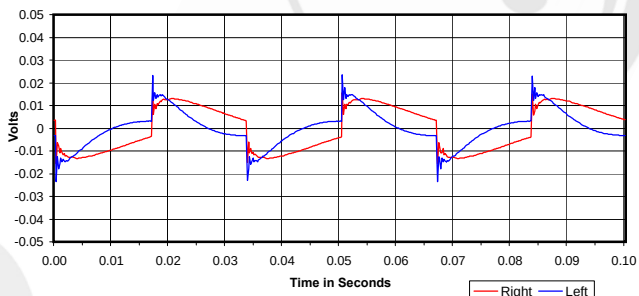
Isolation
Attenuation of External Sound vs. Frequency



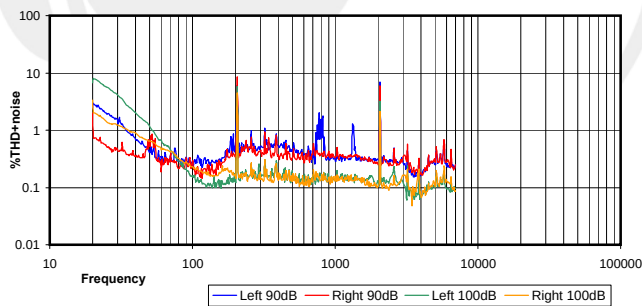
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



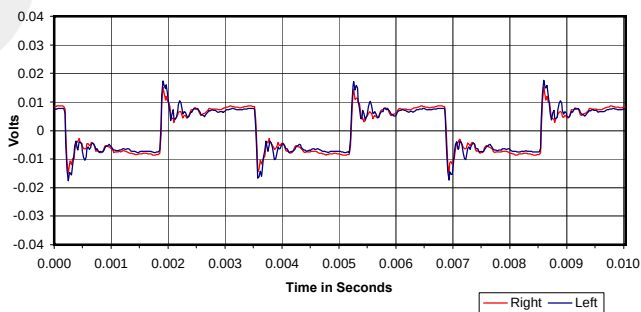
30 Hz Square Wave



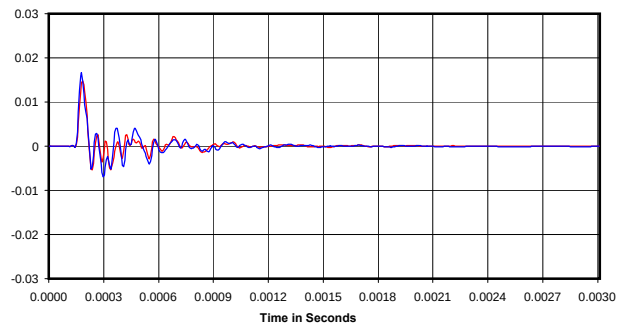
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



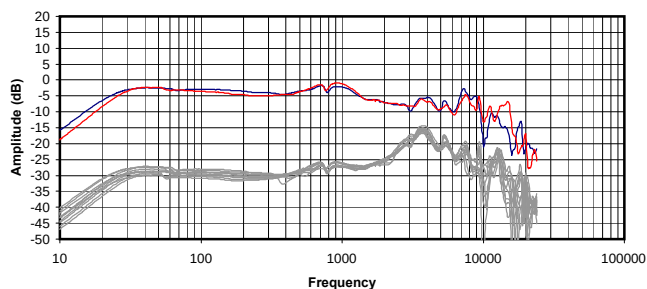
Impulse Response



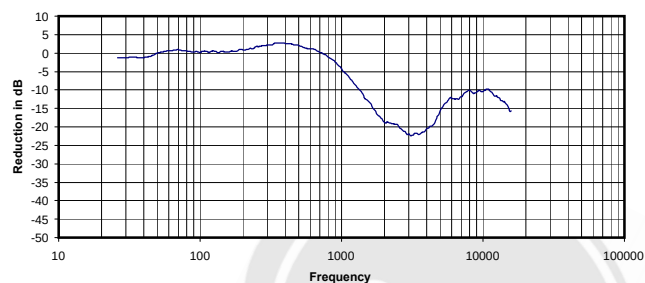
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.064 Vrms
26 Ohms
0.16 mW
-7 dBr

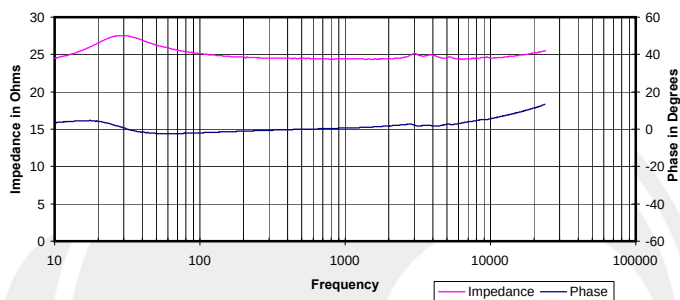
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



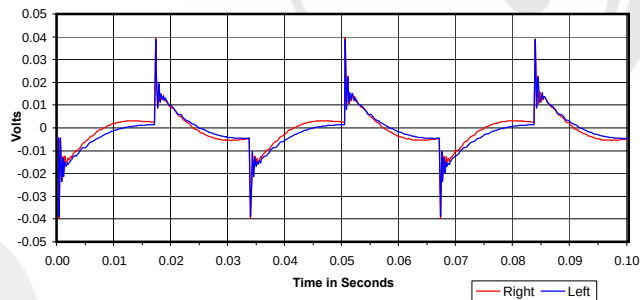
Isolation
Attenuation of External Sound vs. Frequency



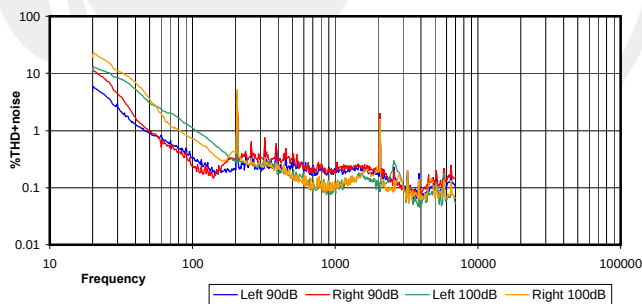
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



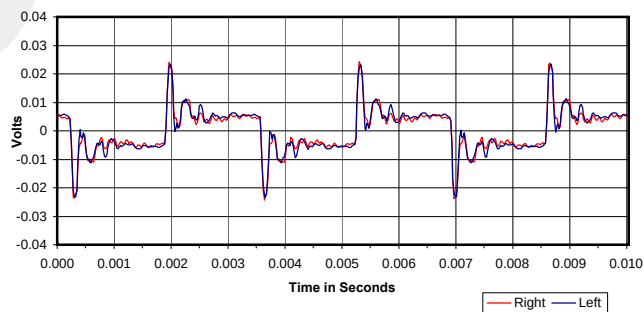
30 Hz Square Wave



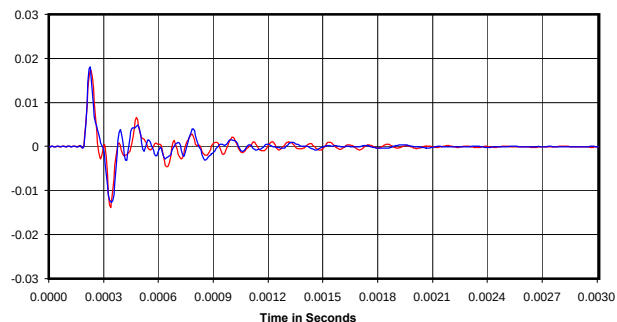
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



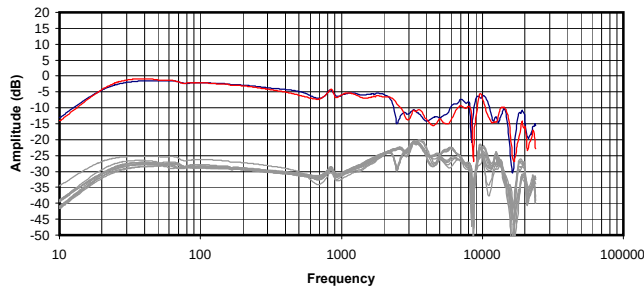
Impulse Response



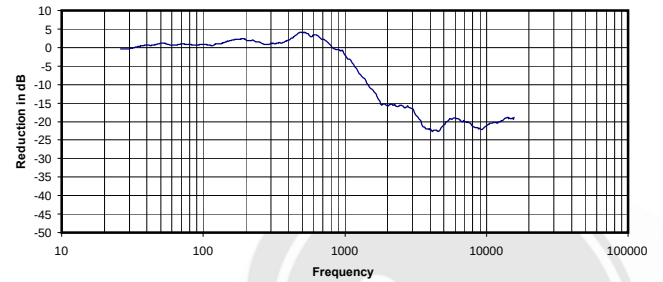
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.103 Vrms
24 Ohms
0.43 mW
-7 dBr

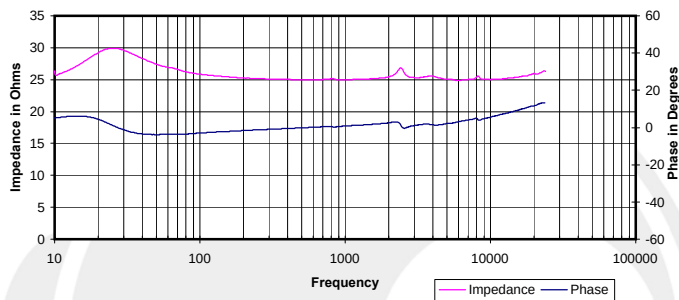
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



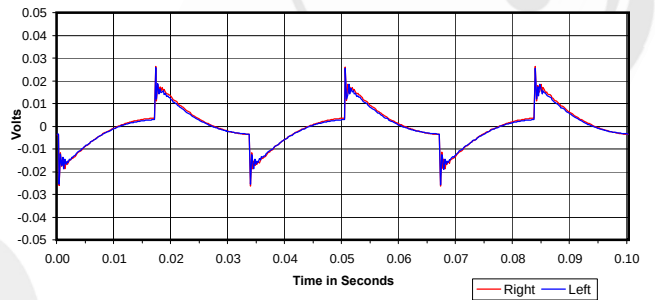
Isolation
Attenuation of External Sound vs. Frequency



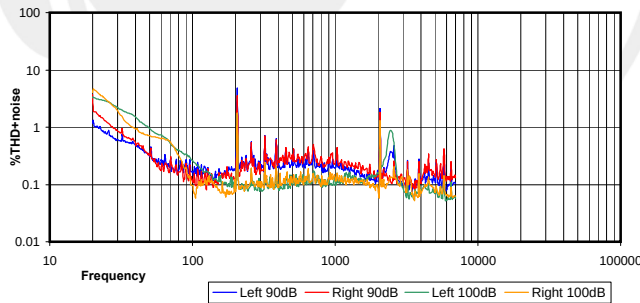
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



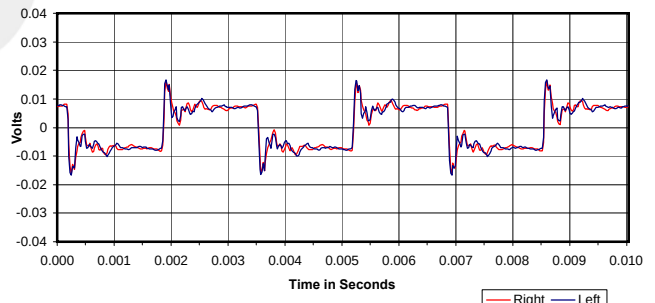
30 Hz Square Wave



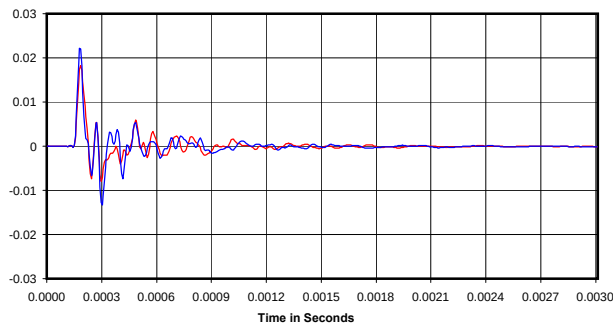
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



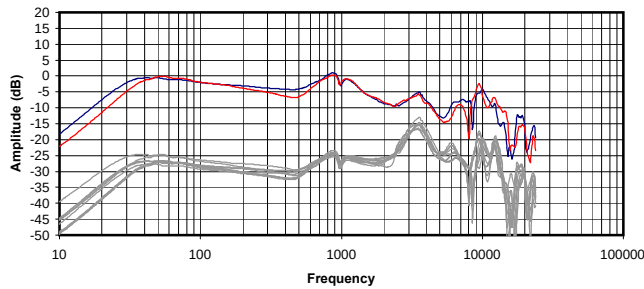
Impulse Response



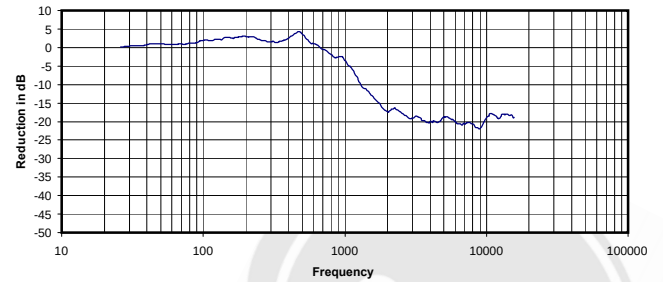
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.081 Vrms
25 Ohms
0.26 mW
-6 dBr

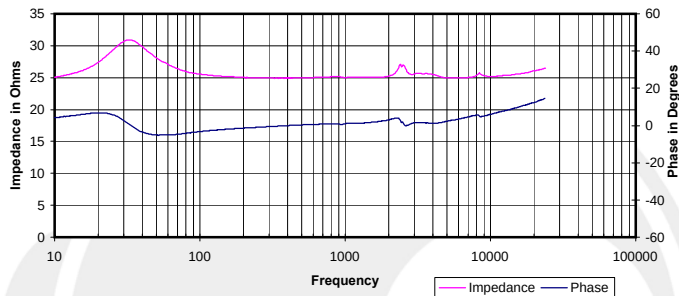
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



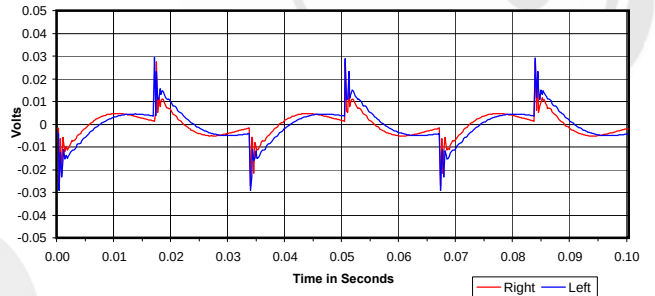
Isolation
Attenuation of External Sound vs. Frequency



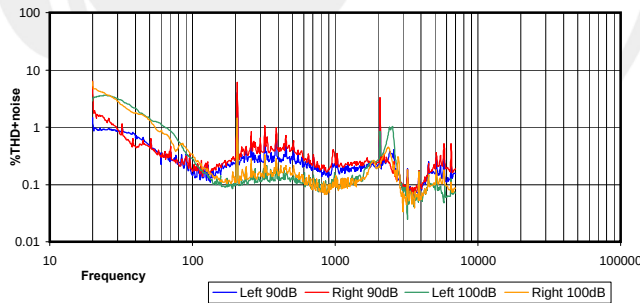
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



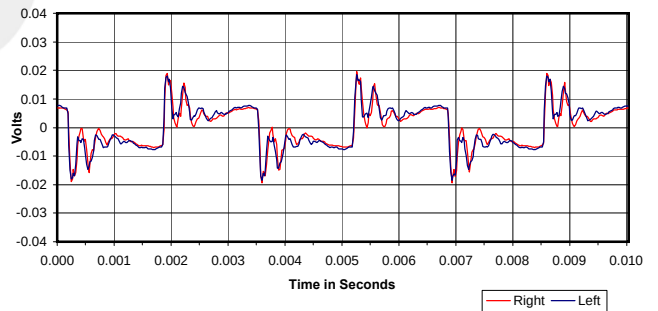
30 Hz Square Wave



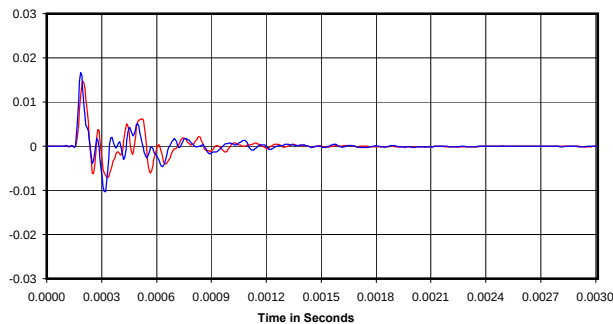
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



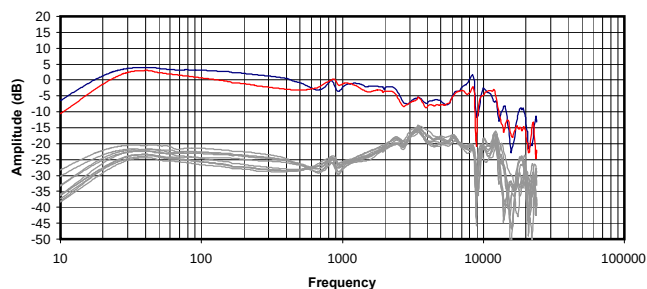
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.082 Vrms
25 Ohms
0.27 mW
-6 dBr

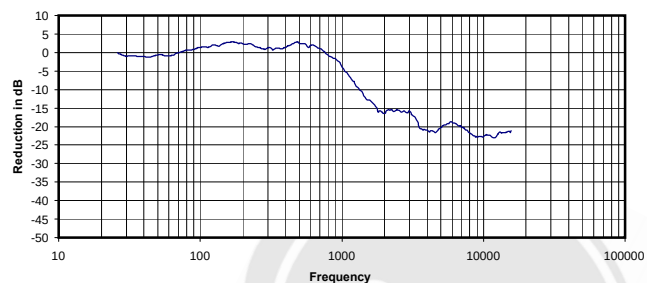


Headphone Measurements: Denon AH-D5000 - old headphones with new (2012) pads

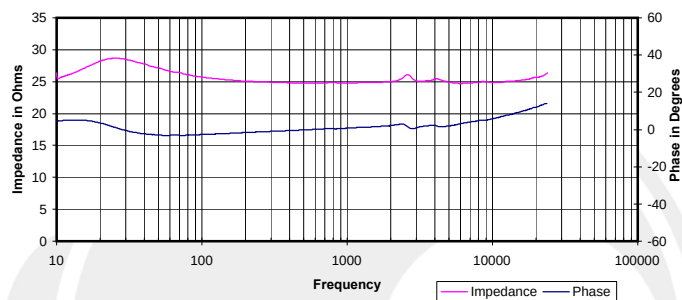
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



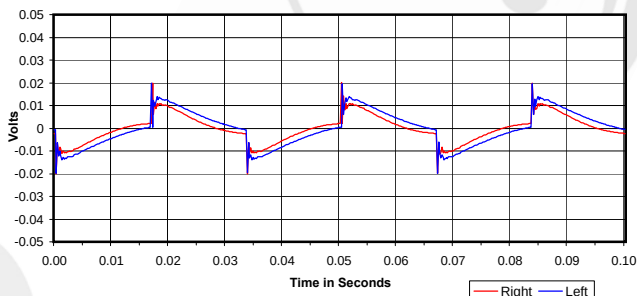
Isolation
Attenuation of External Sound vs. Frequency



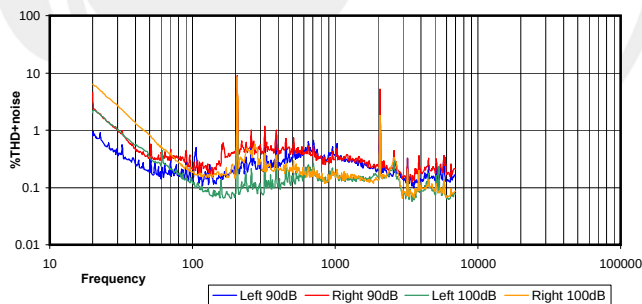
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



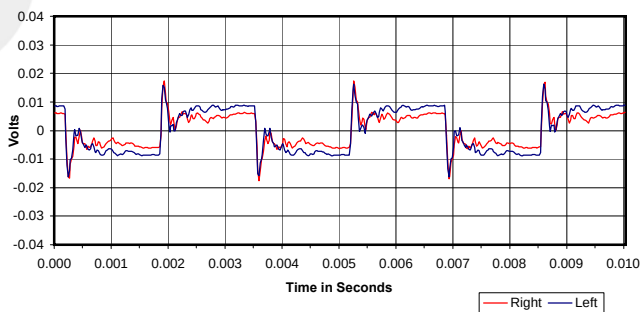
30 Hz Square Wave



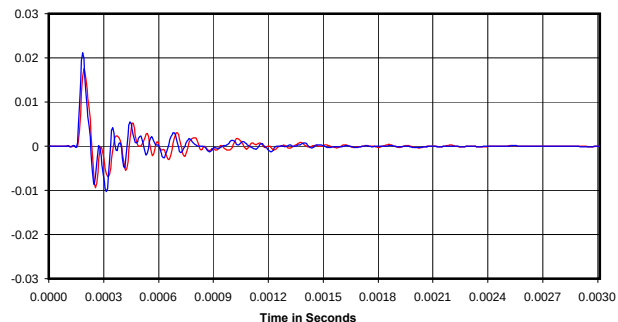
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



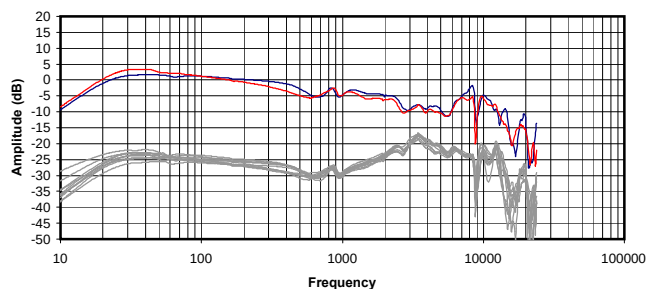
Impulse Response



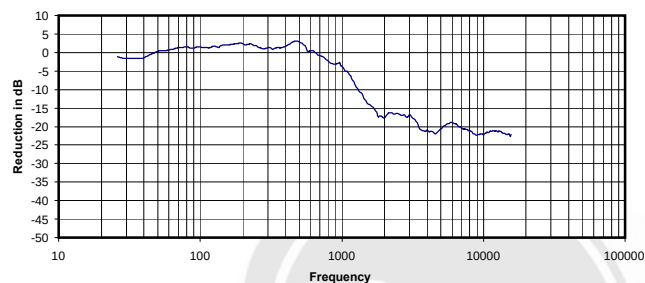
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.109 Vrms
25 Ohms
0.48 mW
-6 dBr

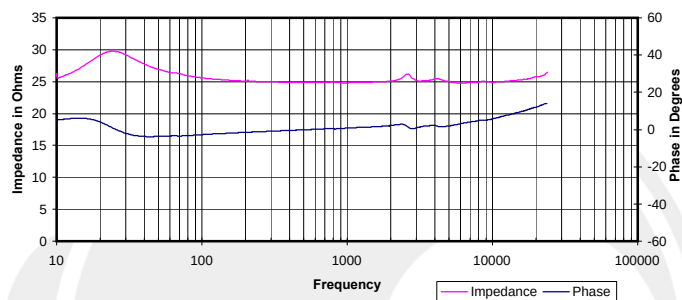
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



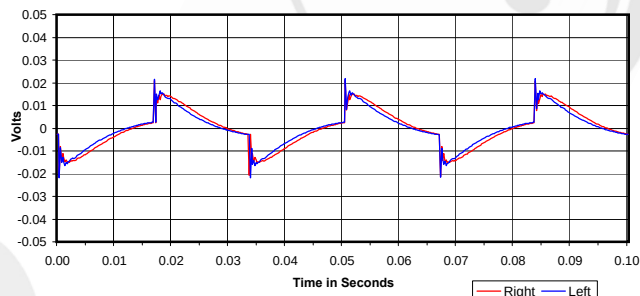
Isolation
Attenuation of External Sound vs. Frequency



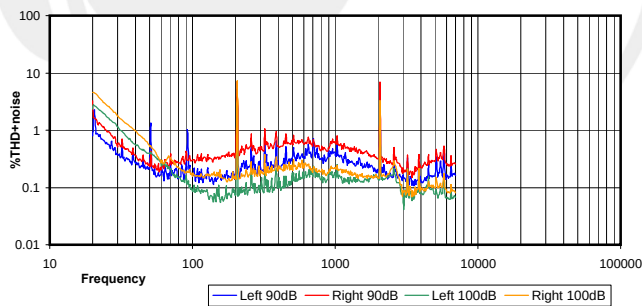
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



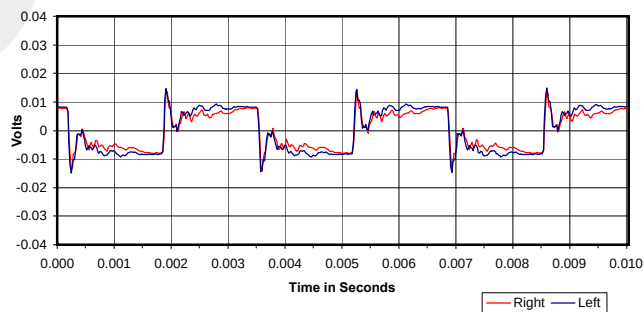
30 Hz Square Wave



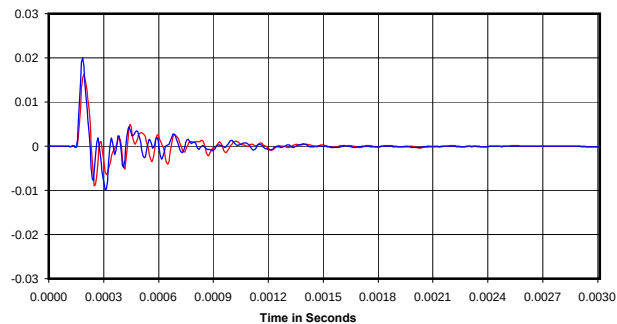
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



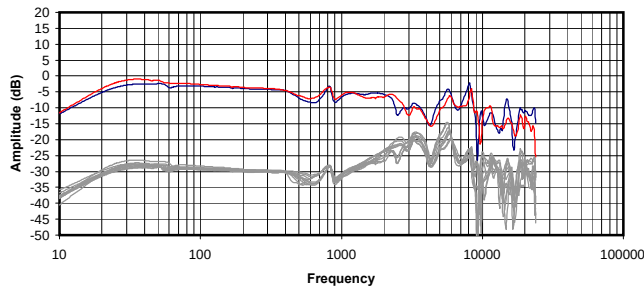
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.102 Vrms
25 Ohms
0.42 mW
-6 dBr

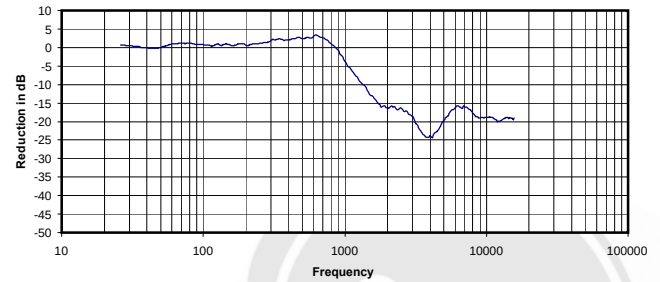


Headphone Measurements: Denon AH-D5000 B2012 Lawton Pads

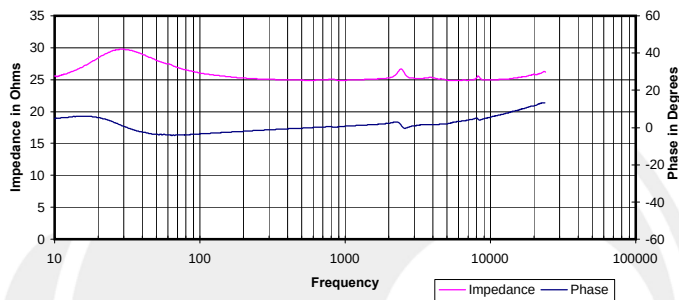
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



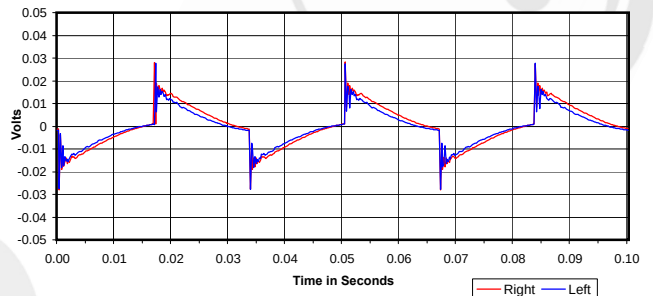
Isolation
Attenuation of External Sound vs. Frequency



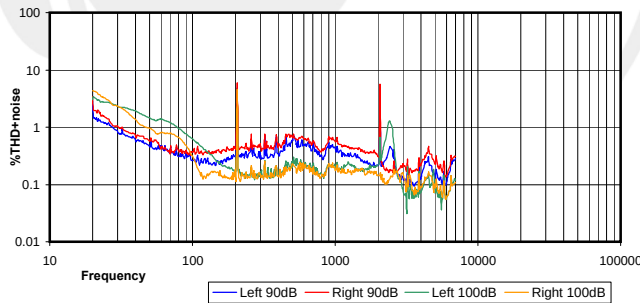
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



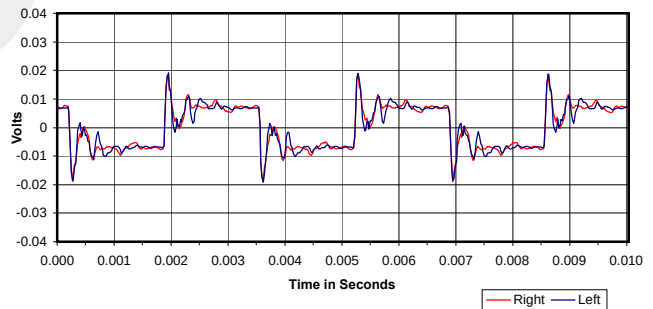
30 Hz Square Wave



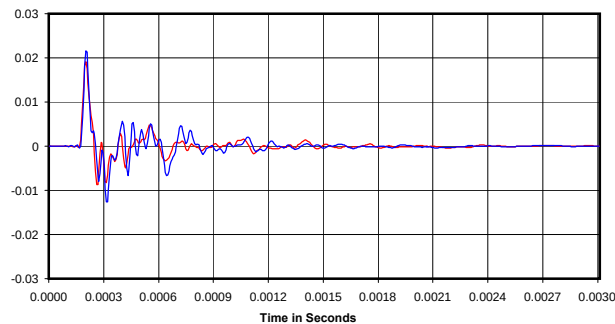
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



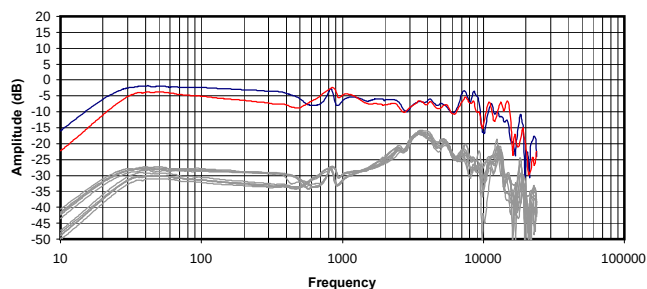
Impulse Response



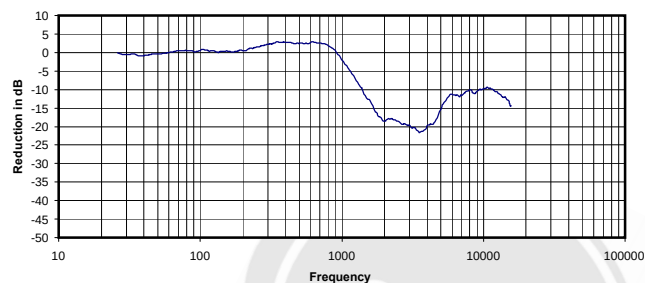
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.138 Vrms
25 Ohms
0.76 mW
-6 dBr

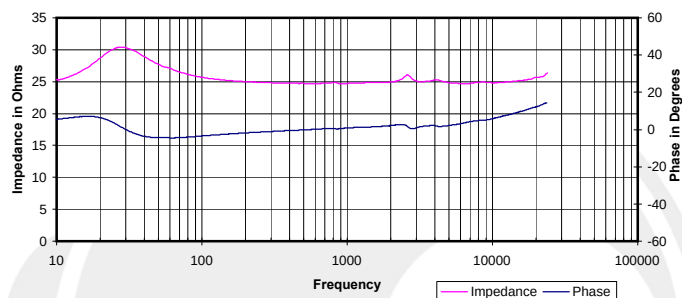
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



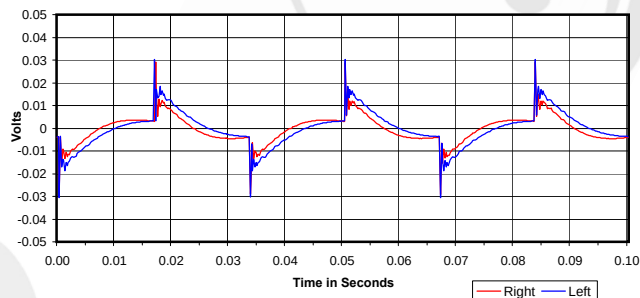
Isolation
Attenuation of External Sound vs. Frequency



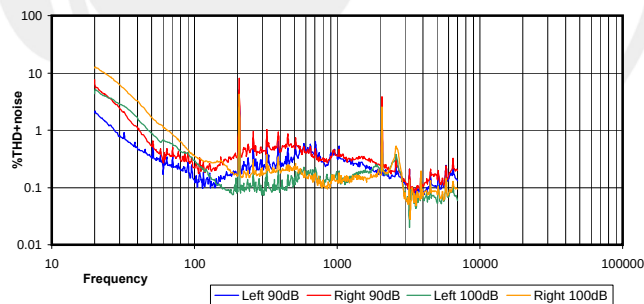
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



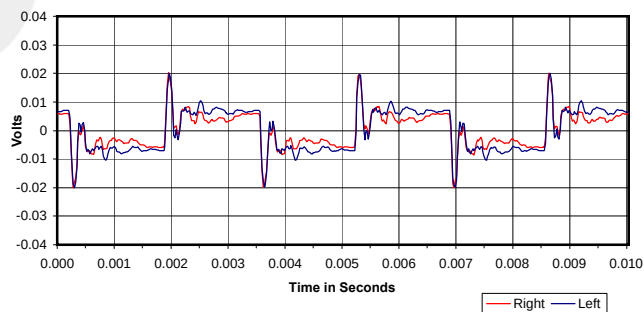
30 Hz Square Wave



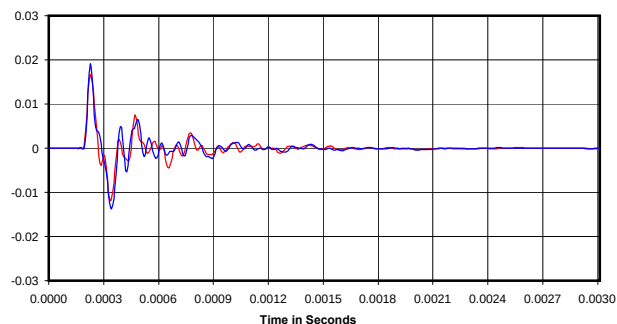
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



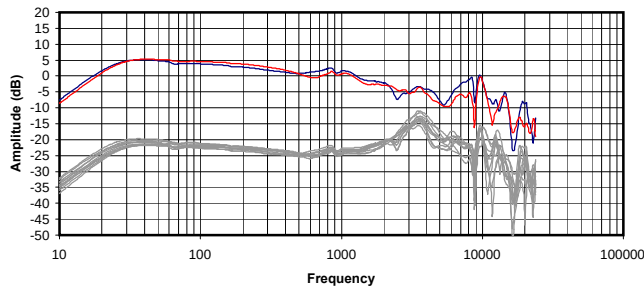
Impulse Response



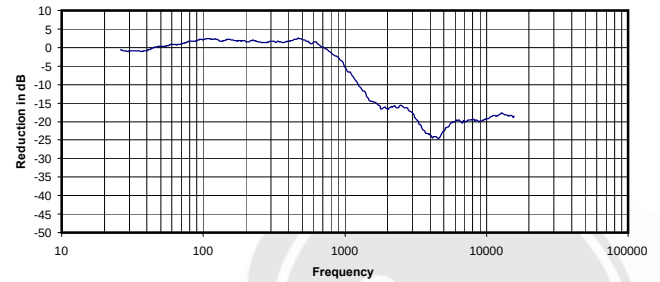
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.132 Vrms
25 Ohms
0.71 mW
-6 dBr

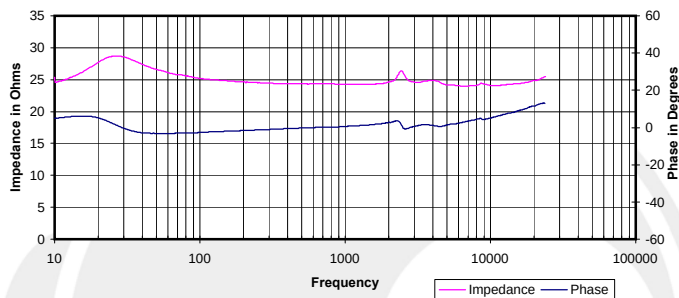
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



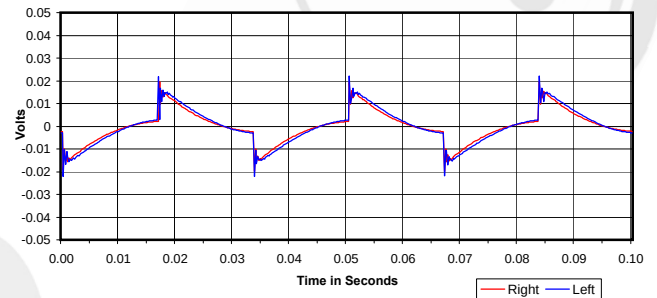
Isolation
Attenuation of External Sound vs. Frequency



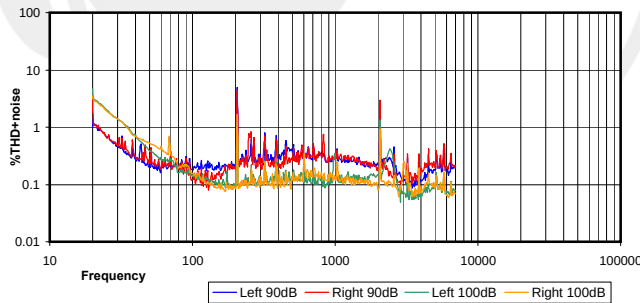
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



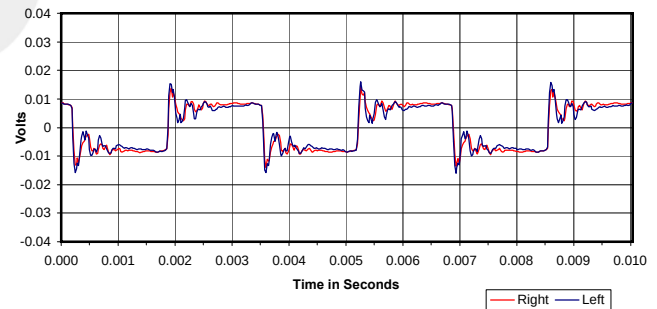
30 Hz Square Wave



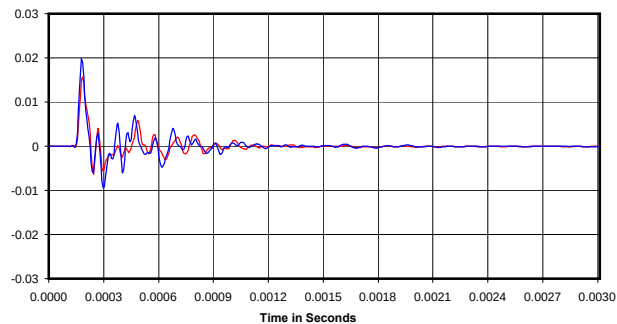
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



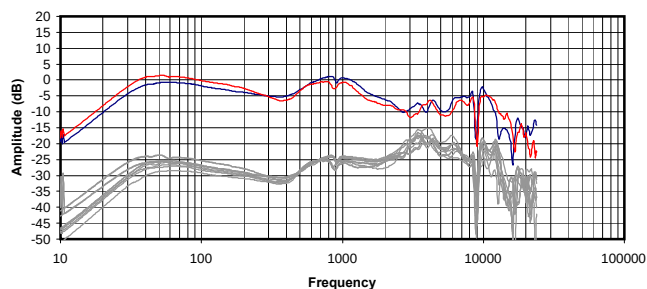
Impulse Response



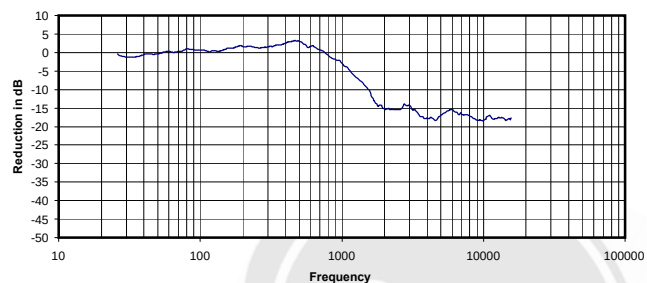
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.060 Vrms
24 Ohms
0.15 mW
-7 dBr

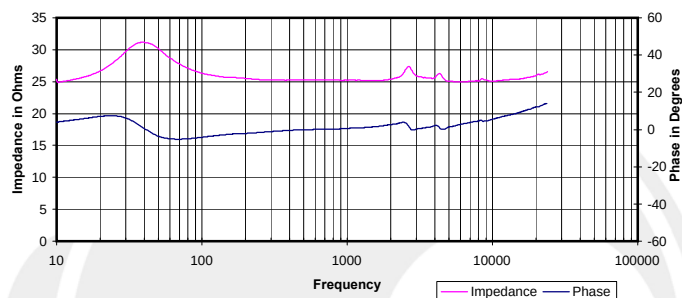
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



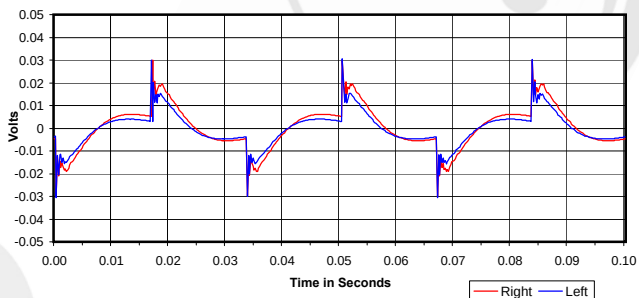
Isolation
Attenuation of External Sound vs. Frequency



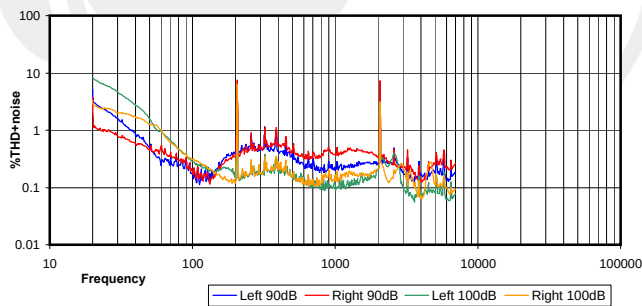
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



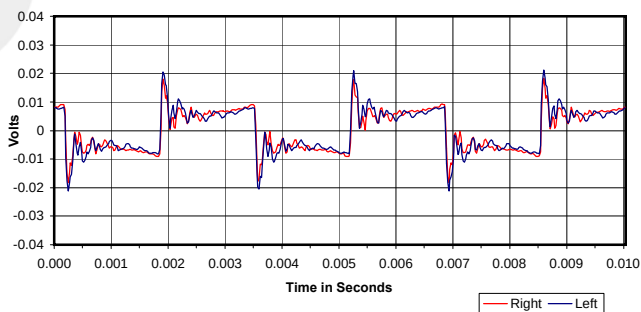
30 Hz Square Wave



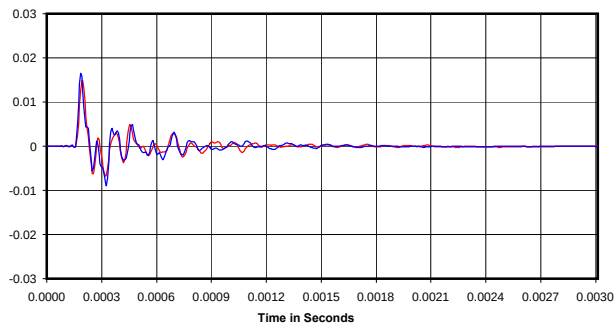
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



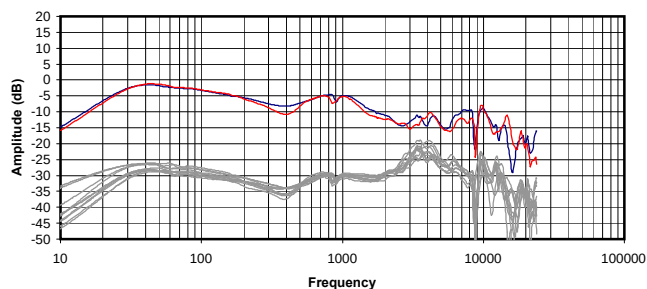
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.053 Vrms
25 Ohms
0.11 mW
-5 dBr

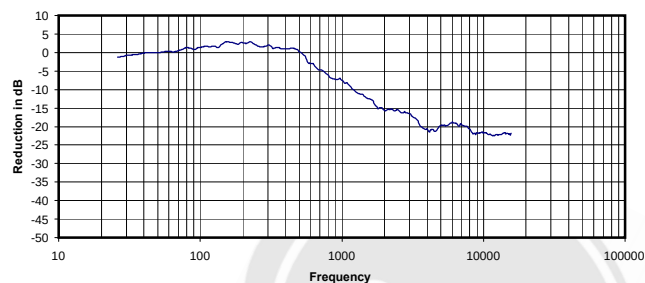


Headphone Measurements: Denon AH-D7000 - Old Headphones, Old Pads

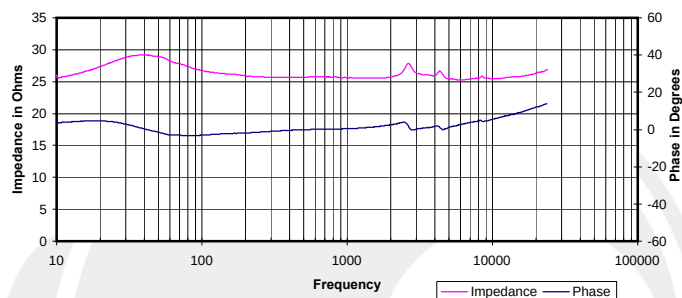
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



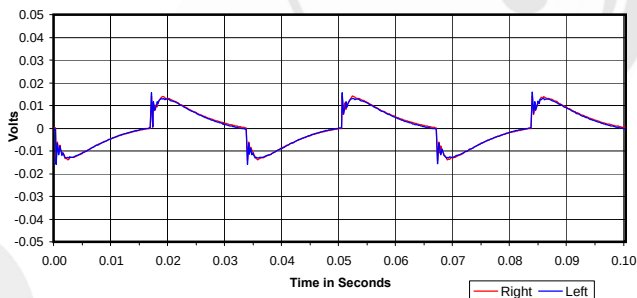
Isolation
Attenuation of External Sound vs. Frequency



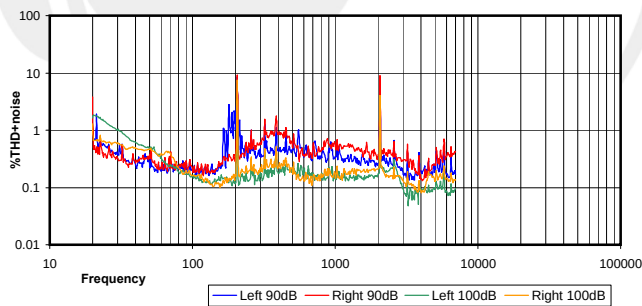
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



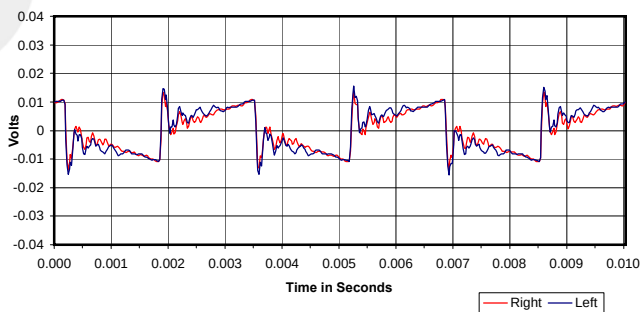
30 Hz Square Wave



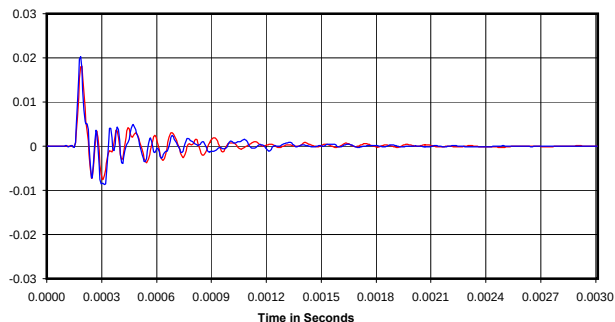
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



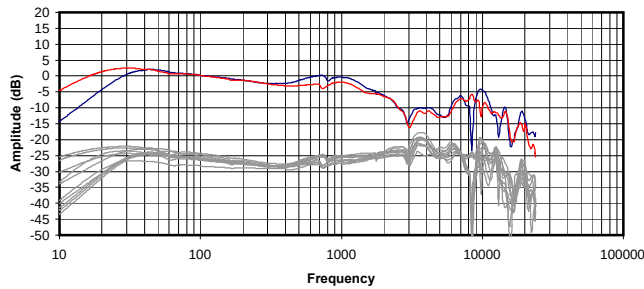
Impulse Response



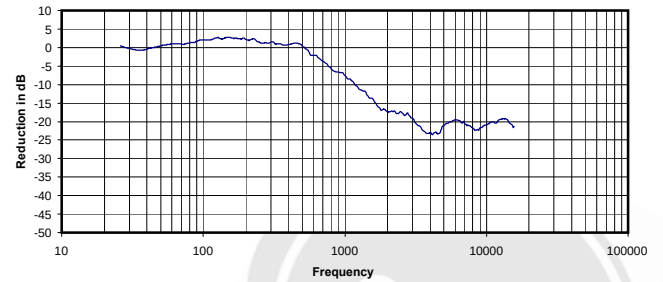
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.061 Vrms
26 Ohms
0.14 mW
-7 dBr

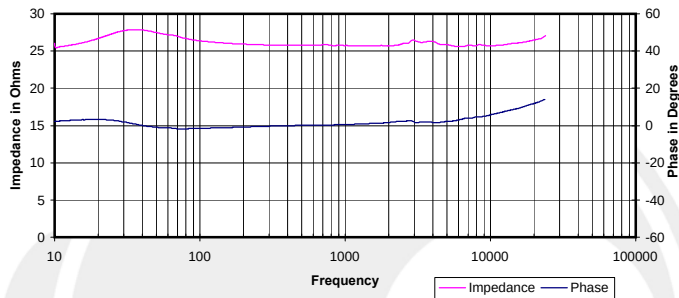
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



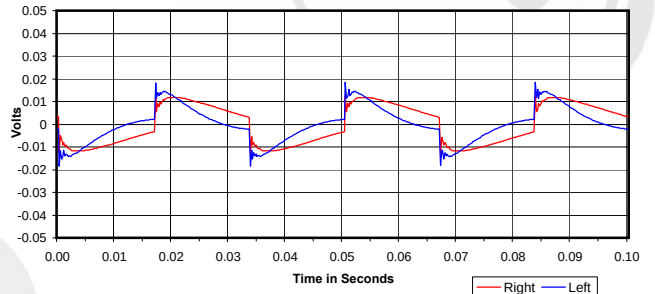
Isolation
Attenuation of External Sound vs. Frequency



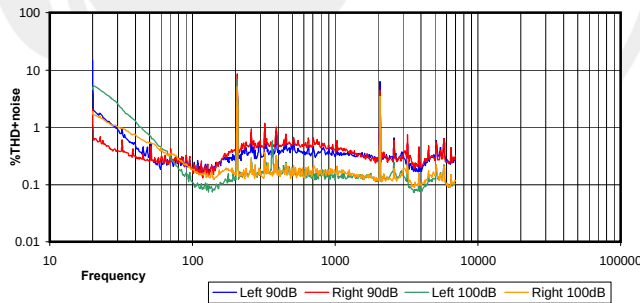
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



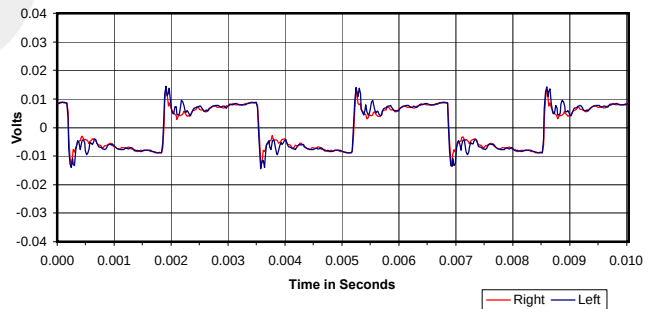
30 Hz Square Wave



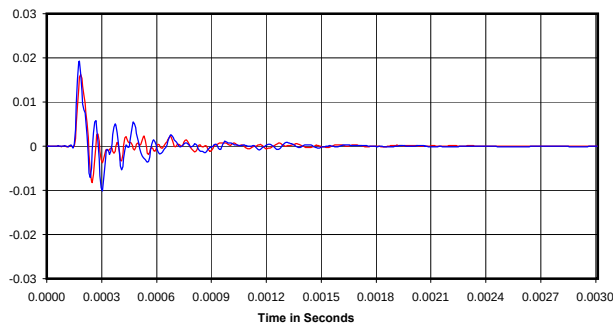
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



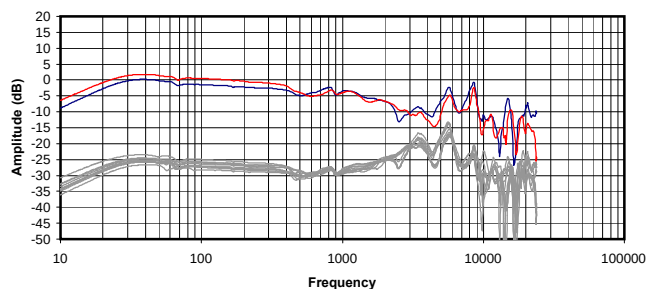
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.062 Vrms
26 Ohms
0.15 mW
-7 dBr

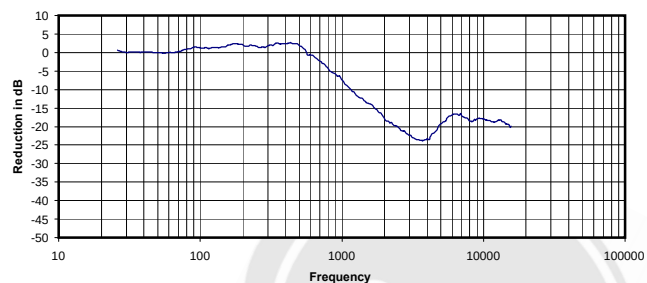


Headphone Measurements: Denon AH-D7000 B2012 Lawton Pad

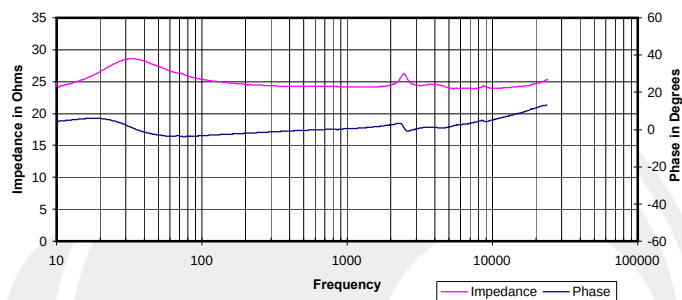
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



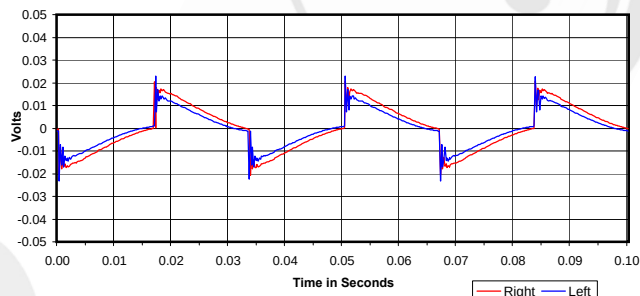
Isolation
Attenuation of External Sound vs. Frequency



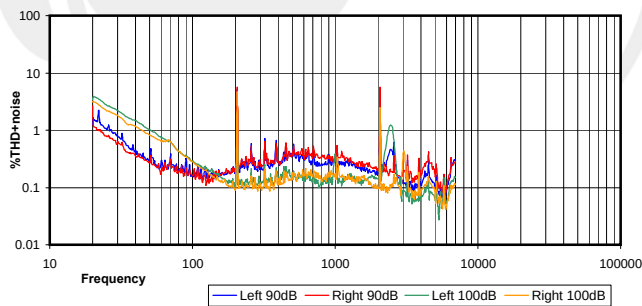
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



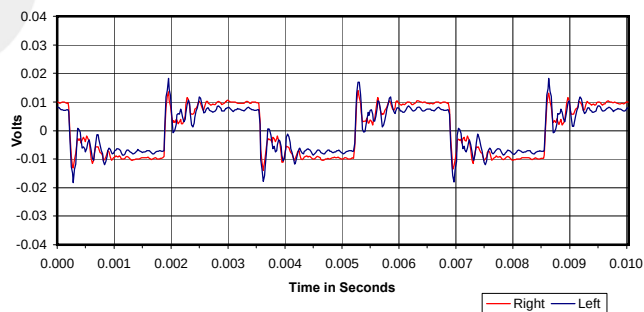
30 Hz Square Wave



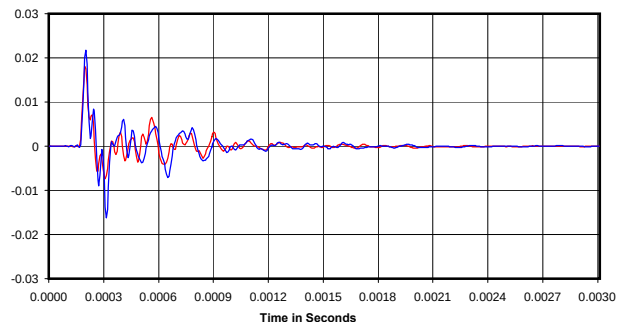
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



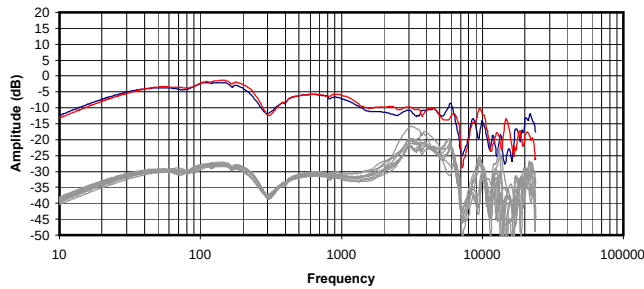
Impulse Response



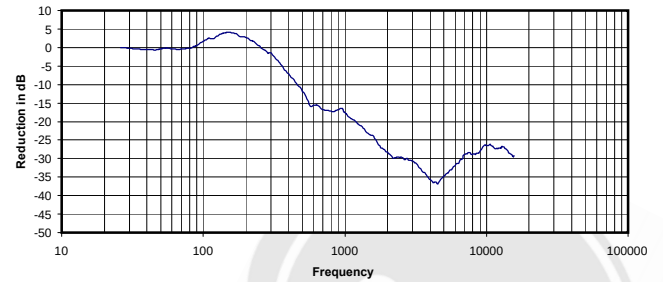
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.089 Vrms
24 Ohms
0.33 mW
-7 dBr

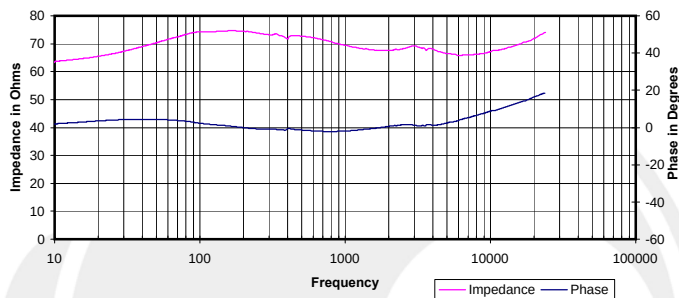
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



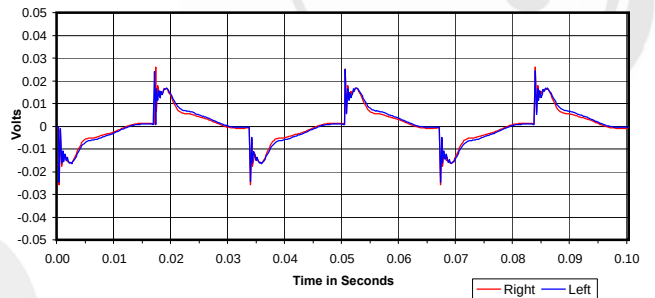
Isolation
Attenuation of External Sound vs. Frequency



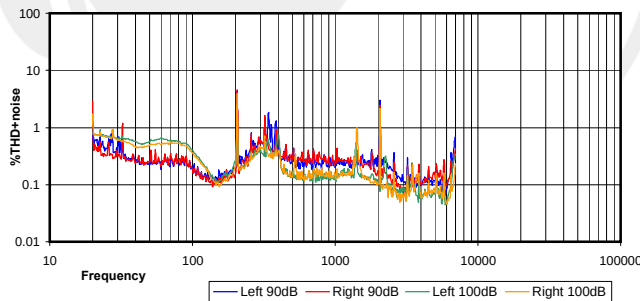
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



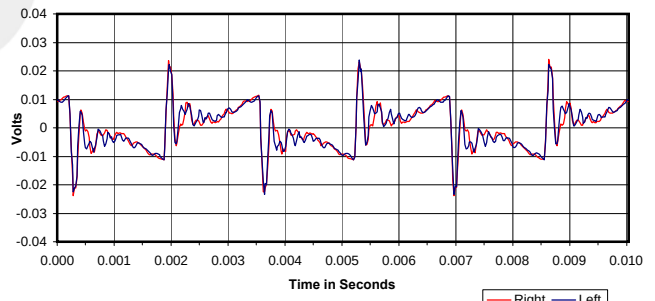
30 Hz Square Wave



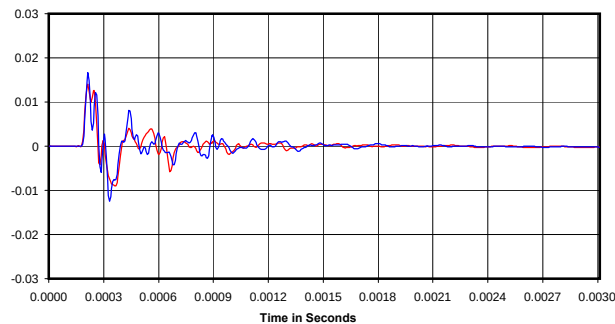
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



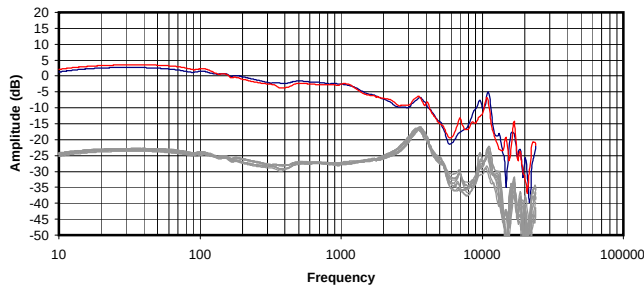
Impulse Response



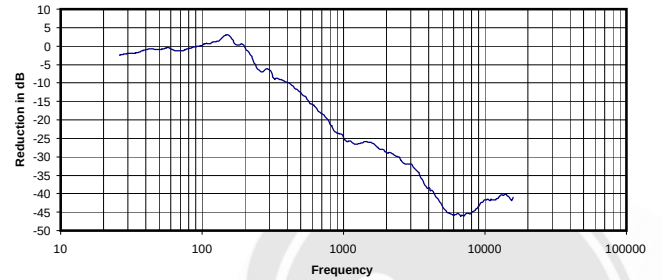
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.115 Vrms
69 Ohms
0.19 mW
-15 dBr

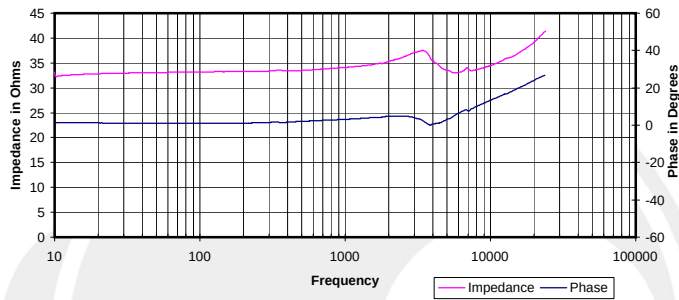
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



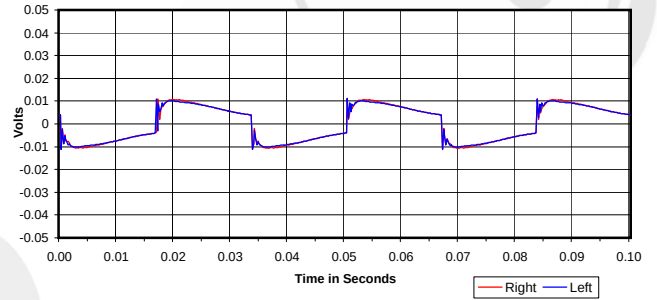
Isolation
Attenuation of External Sound vs. Frequency



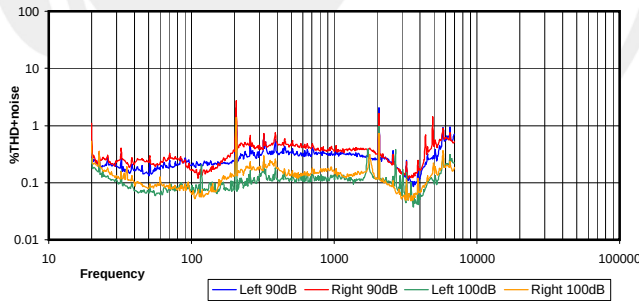
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



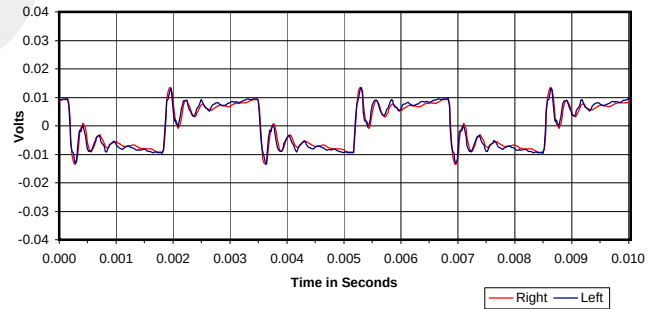
30 Hz Square Wave



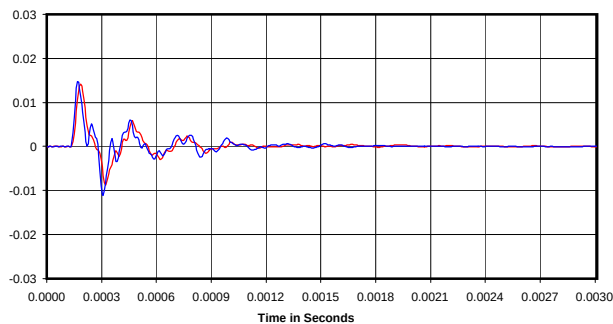
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



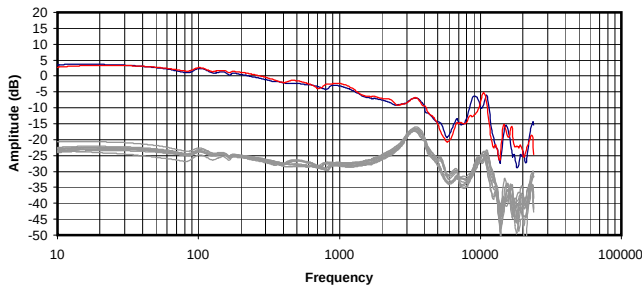
Impulse Response



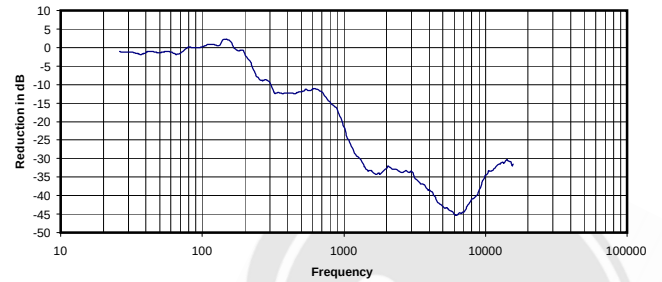
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.036 Vrms
34 Ohms
0.04 mW
-19 dBr

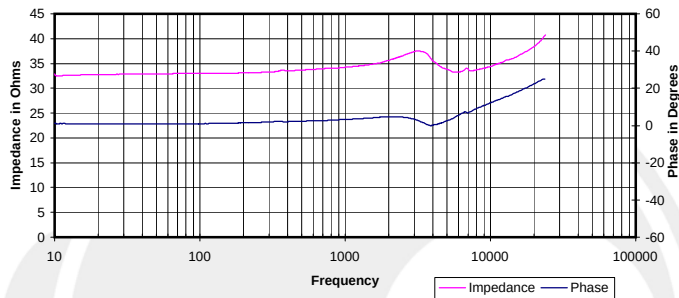
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



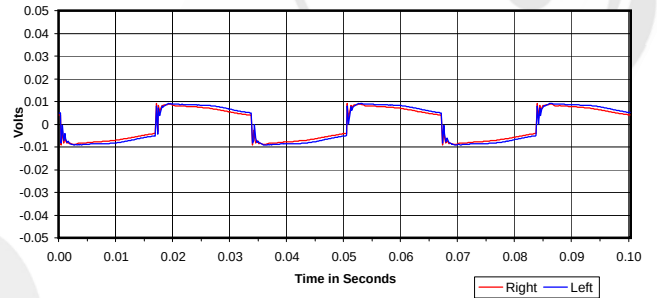
Isolation
Attenuation of External Sound vs. Frequency



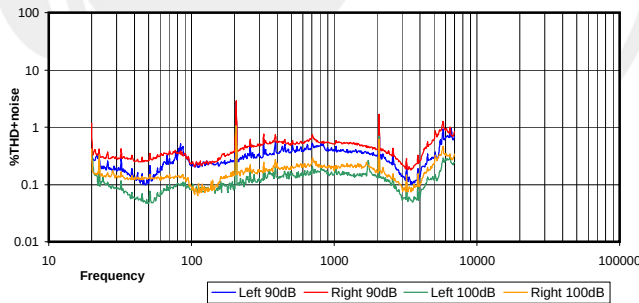
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



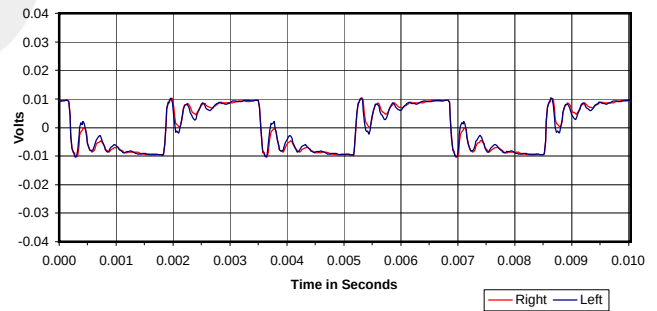
30 Hz Square Wave



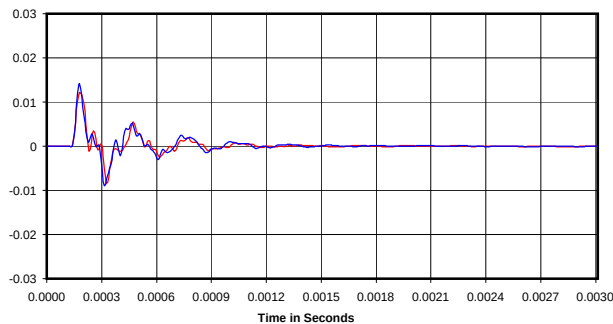
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



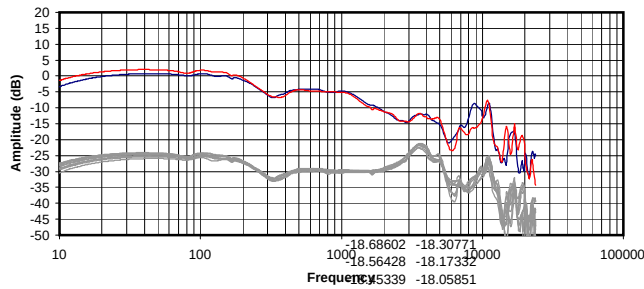
Impulse Response



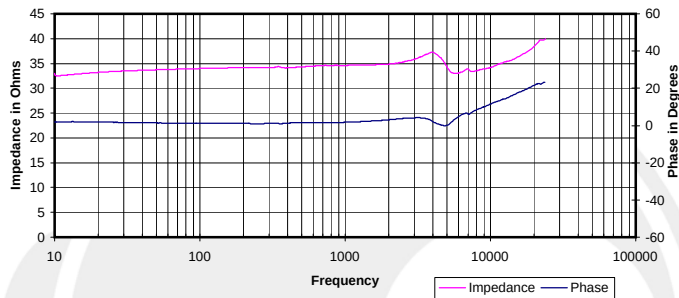
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.043 Vrms
34 Ohms
0.05 mW
-19 dBr

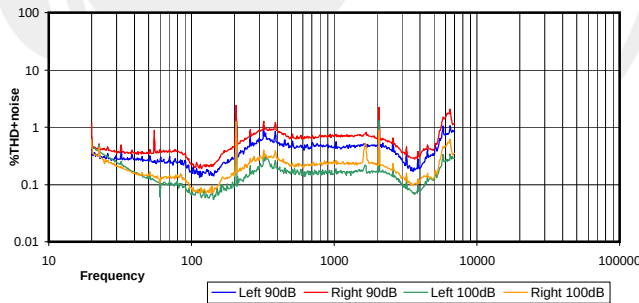
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



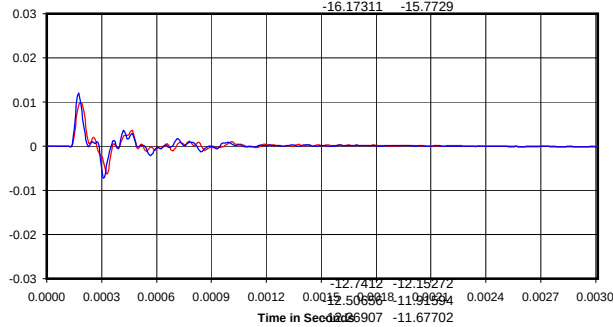
Electrical Impedance and Phase
Measured with 600 Ohm output impedance



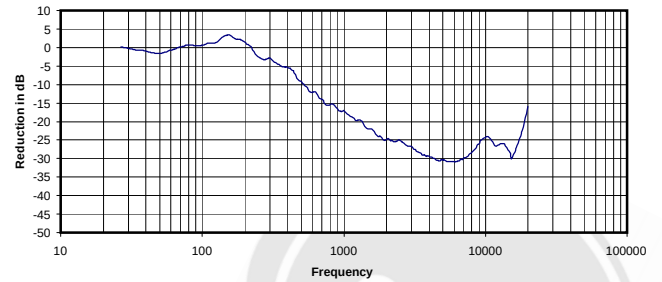
%THD+noise @ 90dB and 100dB



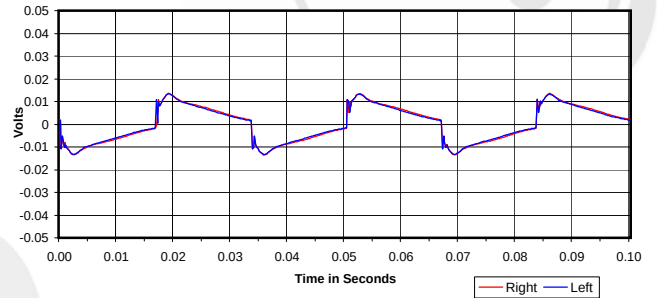
Impulse Response



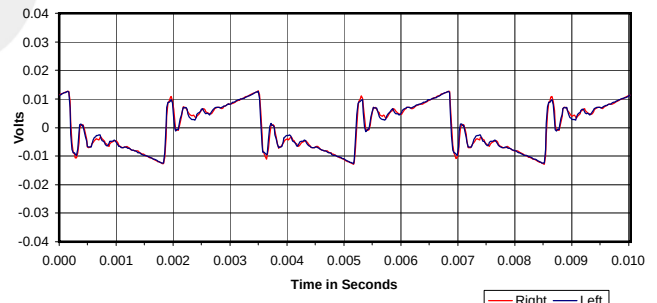
Isolation
Attenuation of External Sound vs. Frequency



30 Hz Square Wave



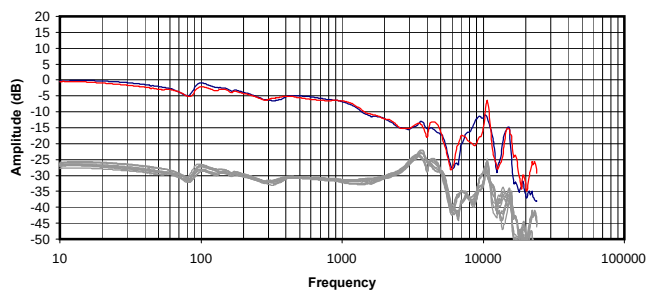
300 Hz Square Wave



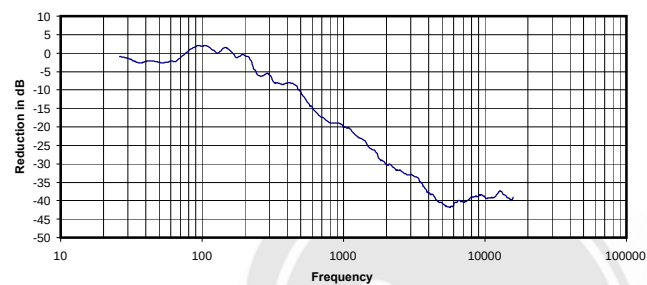
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.032 Vrms
35 Ohms
0.03 mW
-16 dBr

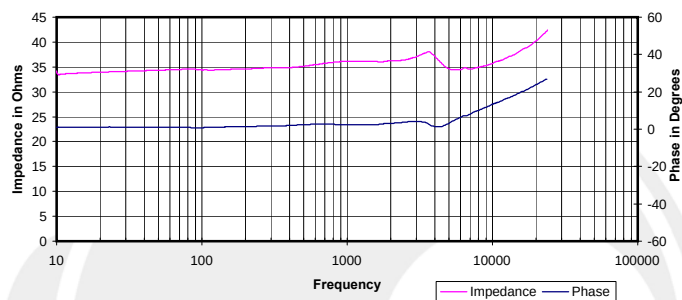
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



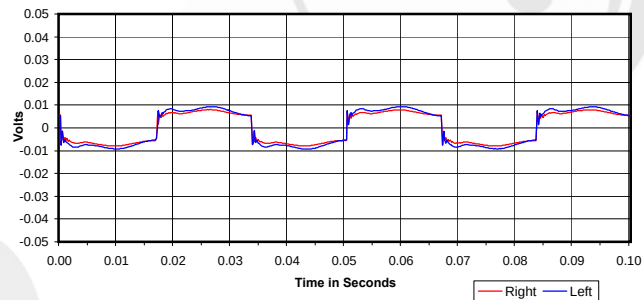
Isolation
Attenuation of External Sound vs. Frequency



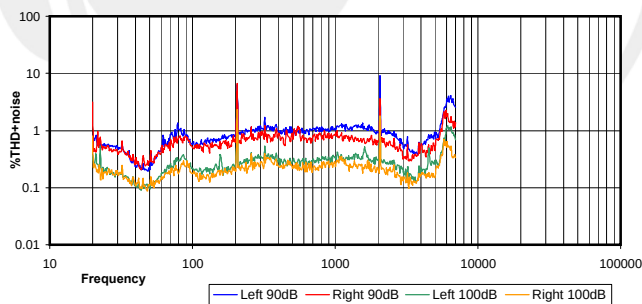
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



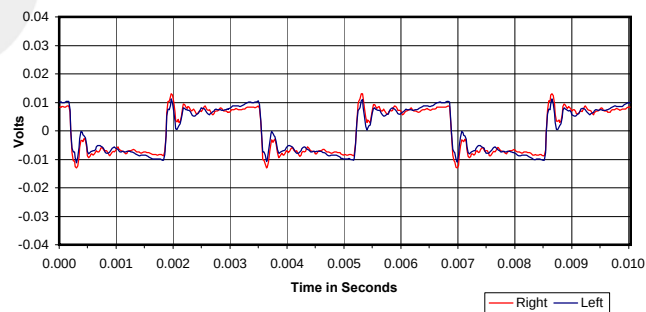
30 Hz Square Wave



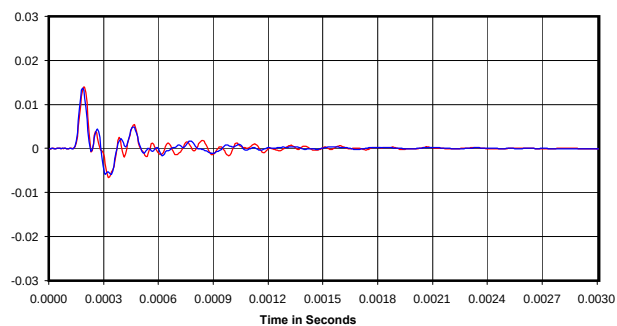
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



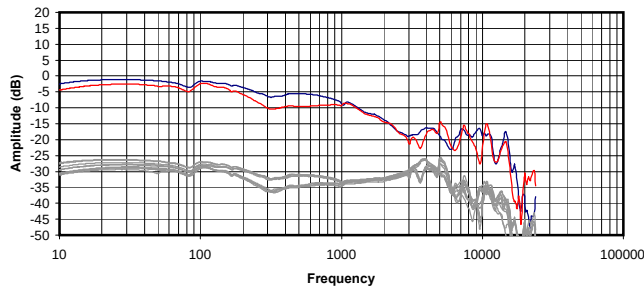
Impulse Response



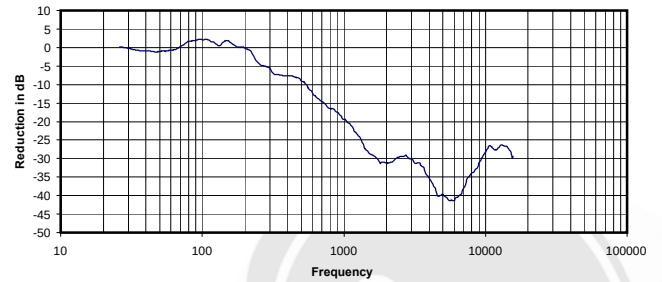
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.035 Vrms
36 Ohms
0.03 mW
-18 dBr

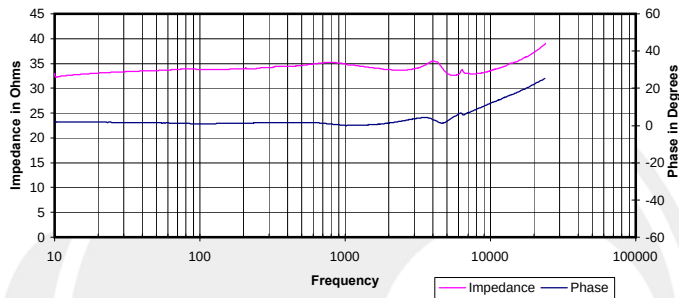
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



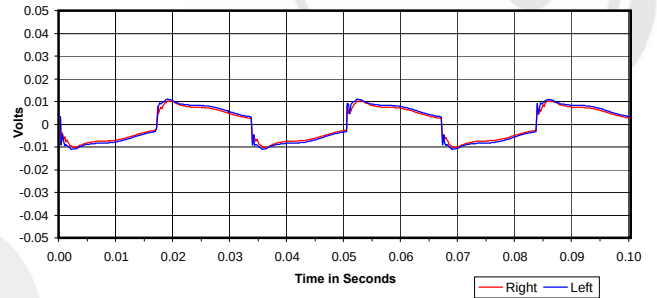
Isolation
Attenuation of External Sound vs. Frequency



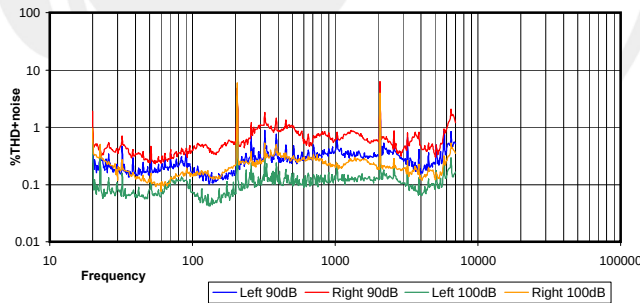
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



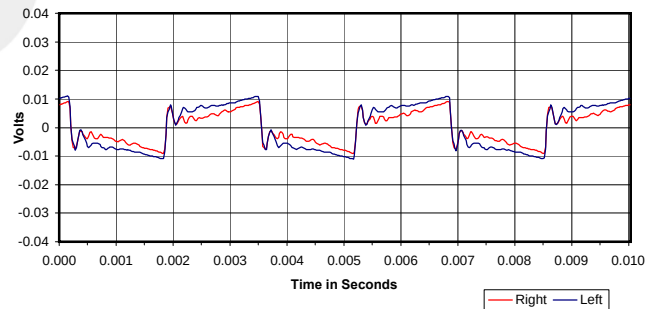
30 Hz Square Wave



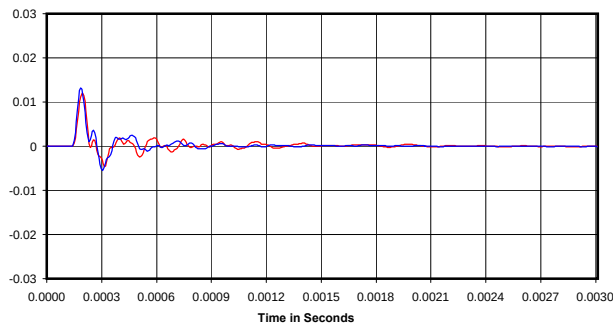
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



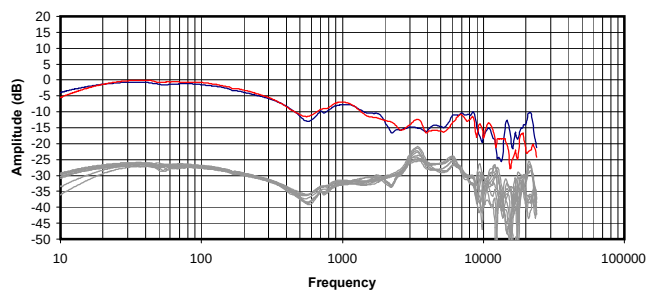
Impulse Response



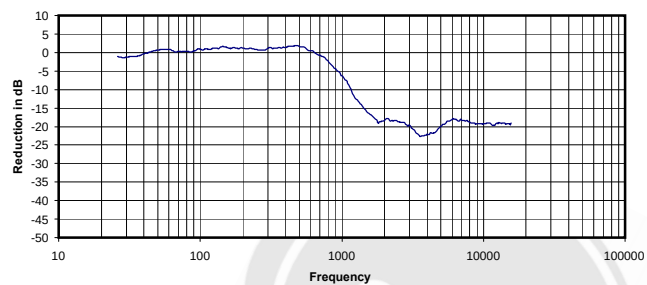
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.032 Vrms
35 Ohms
0.03 mW
-17 dBr

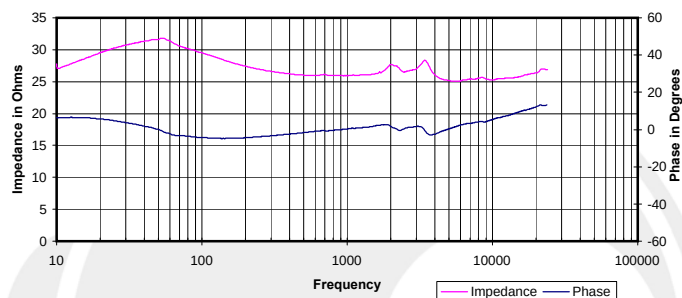
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



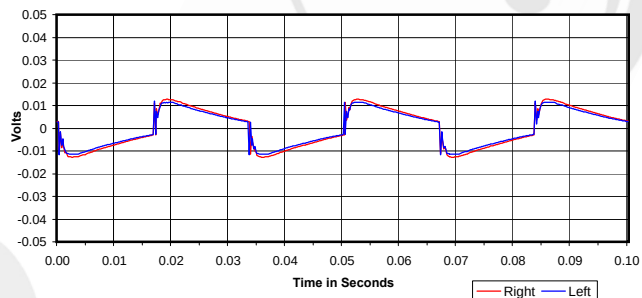
Isolation
Attenuation of External Sound vs. Frequency



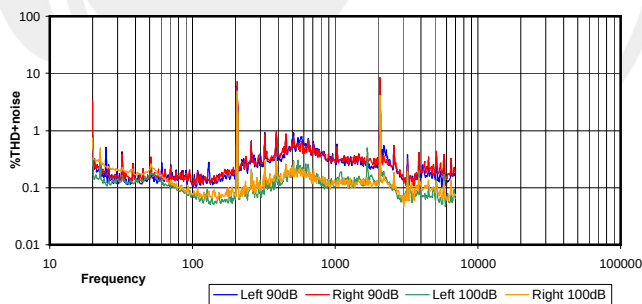
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



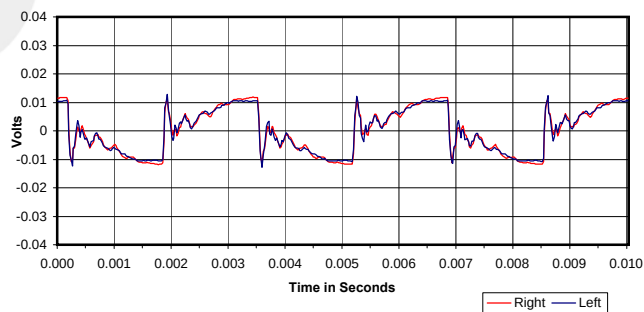
30 Hz Square Wave



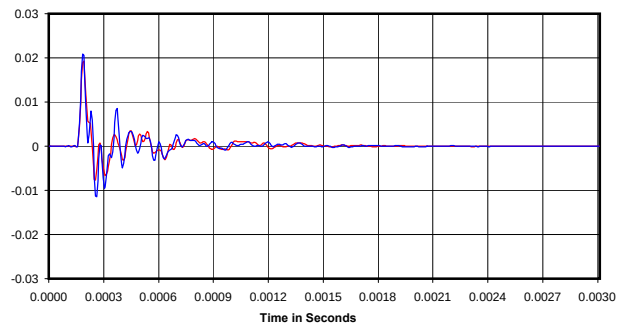
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



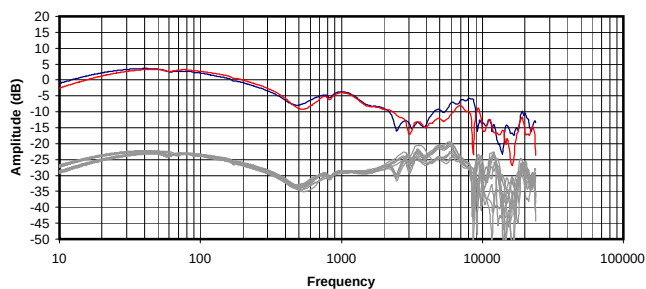
Impulse Response



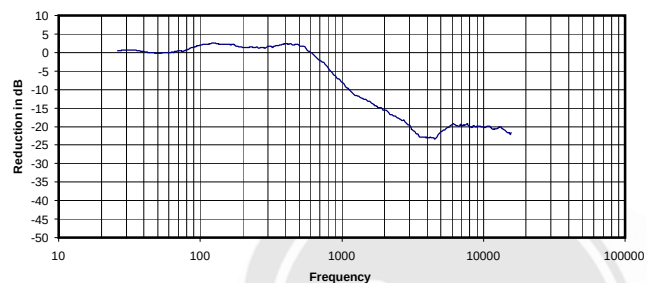
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.062 Vrms
26 Ohms
0.15 mW
-7 dBr

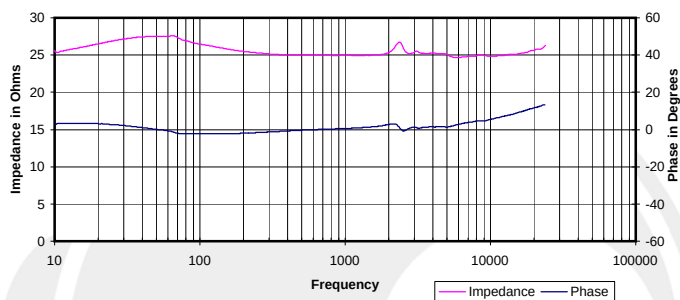
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



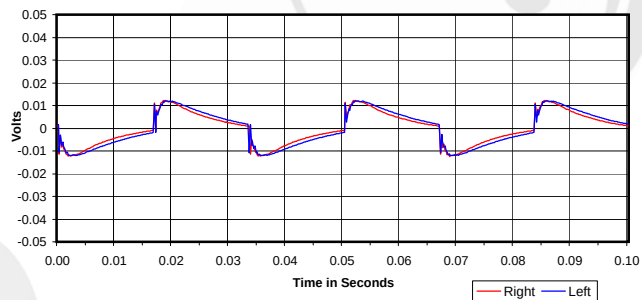
Isolation
Attenuation of External Sound vs. Frequency



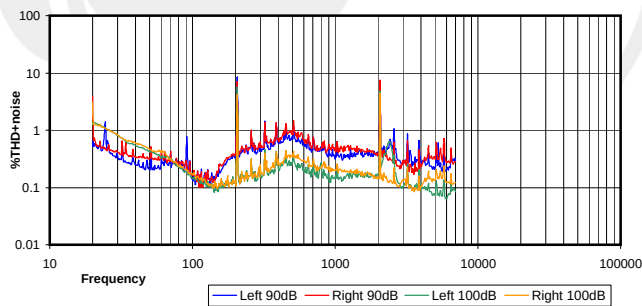
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



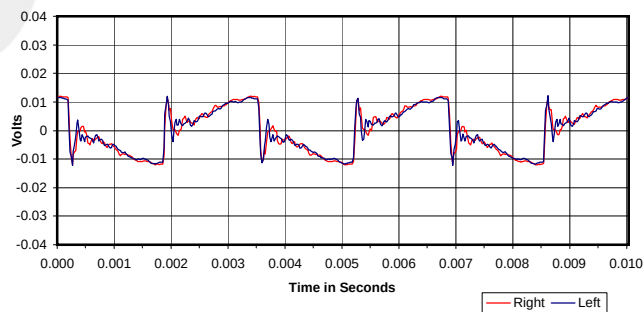
30 Hz Square Wave



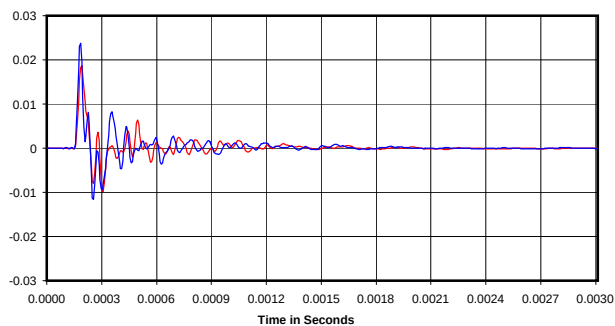
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



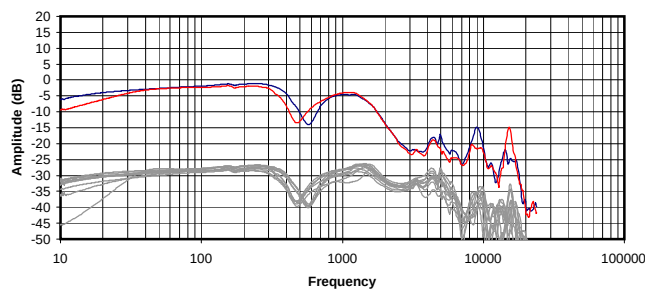
Impulse Response



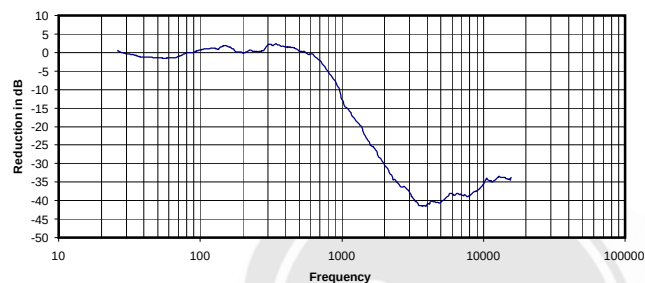
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.069 Vrms
25 Ohms
0.19 mW
-7 dBr

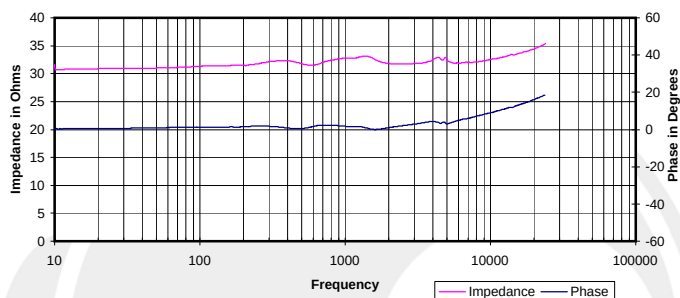
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



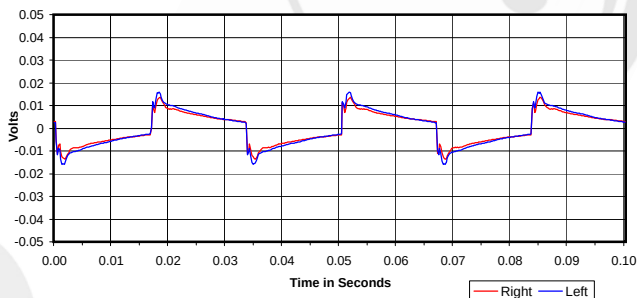
Isolation
Attenuation of External Sound vs. Frequency



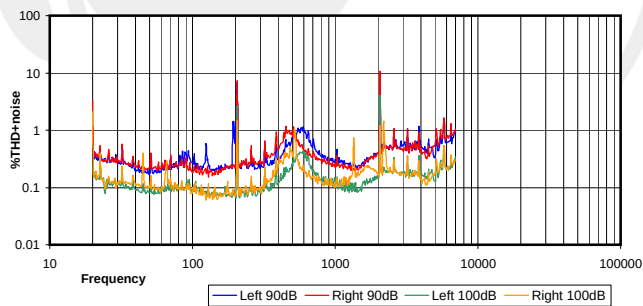
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



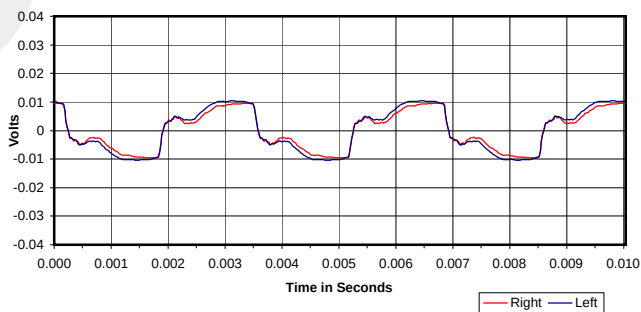
30 Hz Square Wave



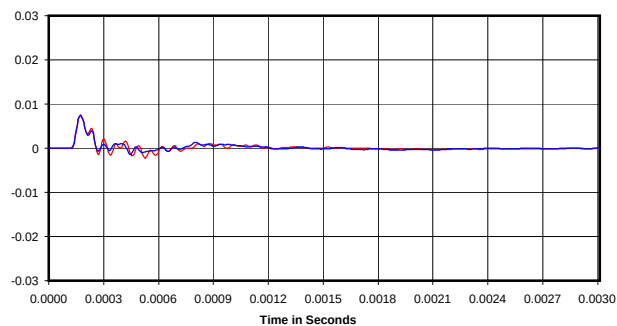
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



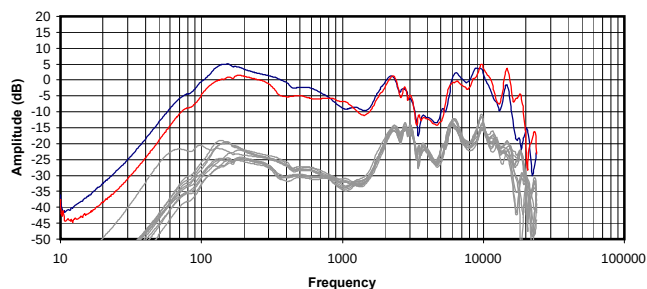
Impulse Response



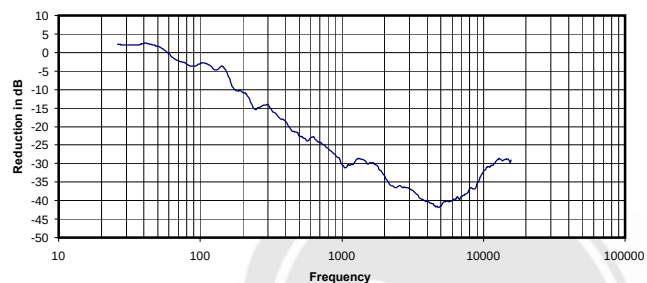
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.023 Vrms
33 Ohms
0.02 mW
-14 dBr

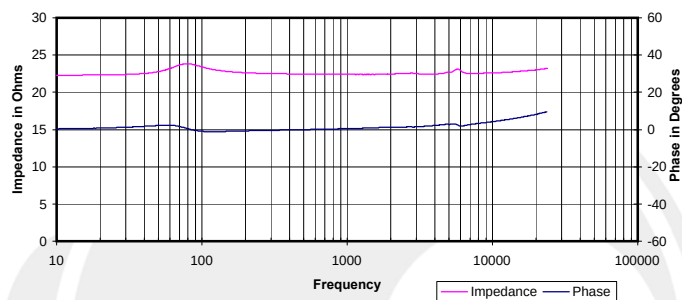
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



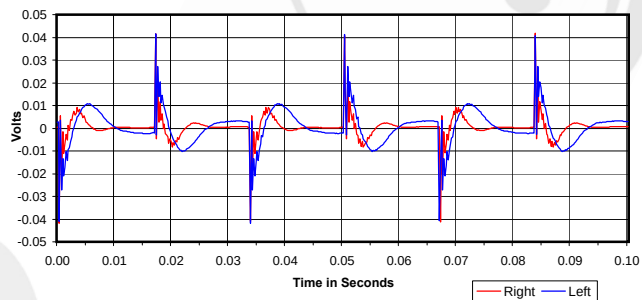
Isolation
Attenuation of External Sound vs. Frequency



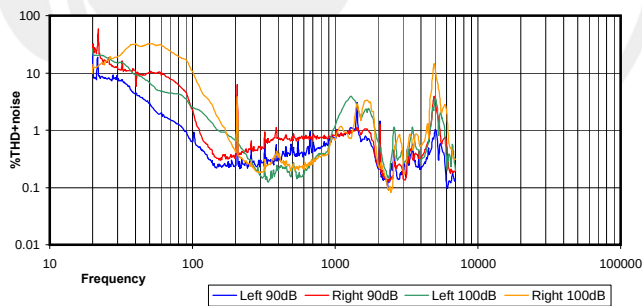
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



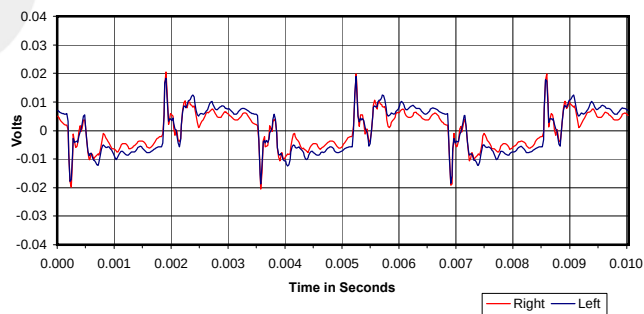
30 Hz Square Wave



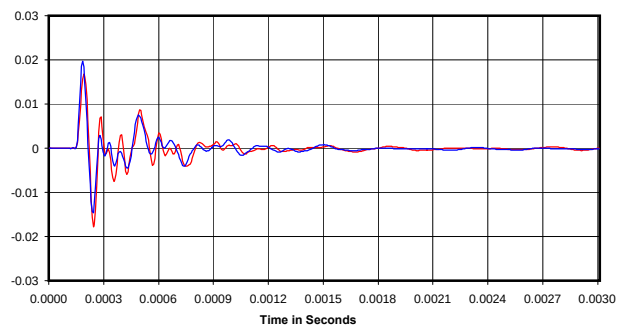
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



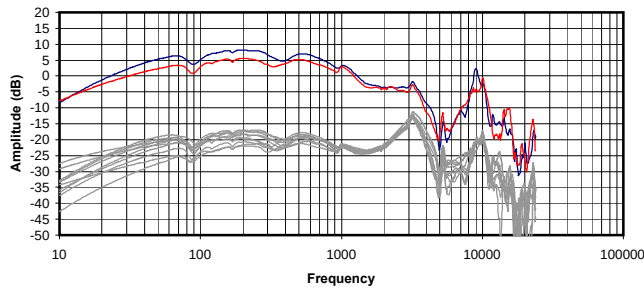
Impulse Response



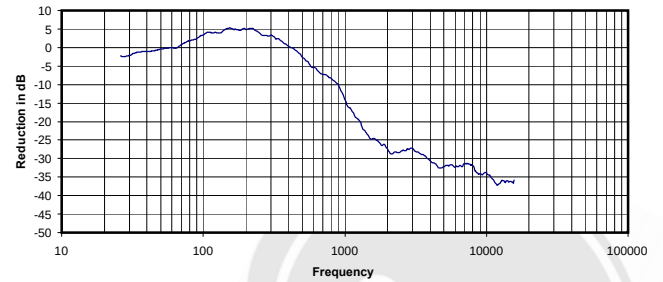
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.370 Vrms
22 Ohms
6.13 mW
-24 dBr

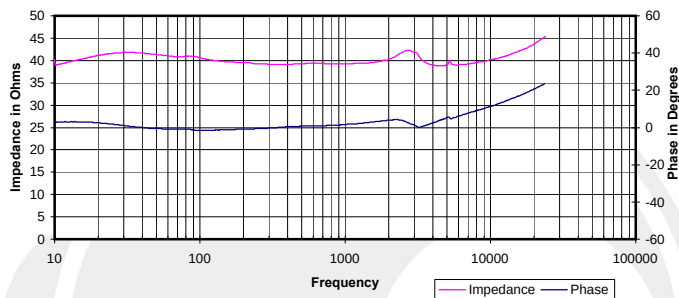
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



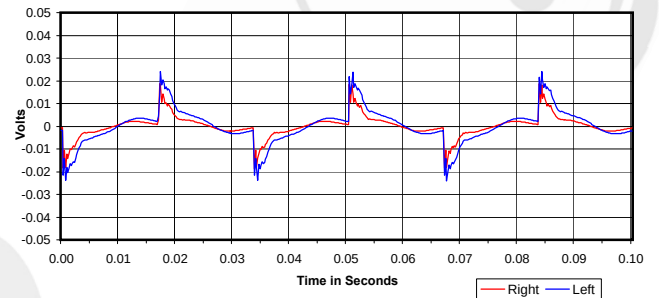
Isolation
Attenuation of External Sound vs. Frequency



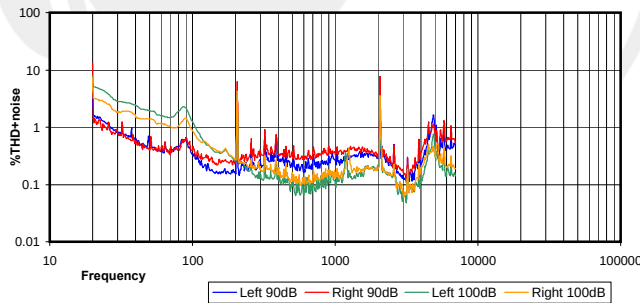
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



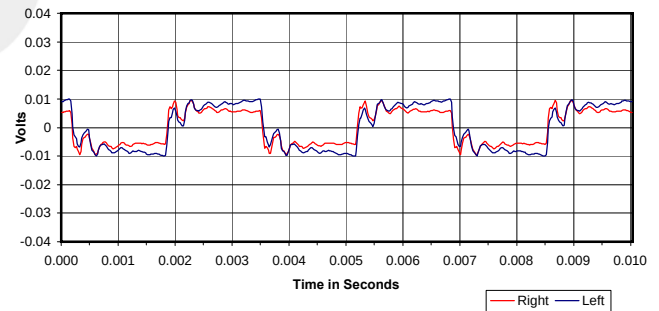
30 Hz Square Wave



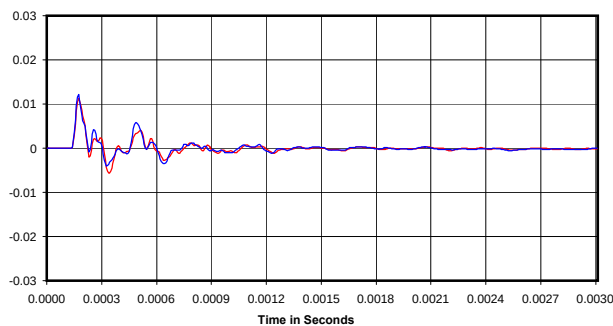
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



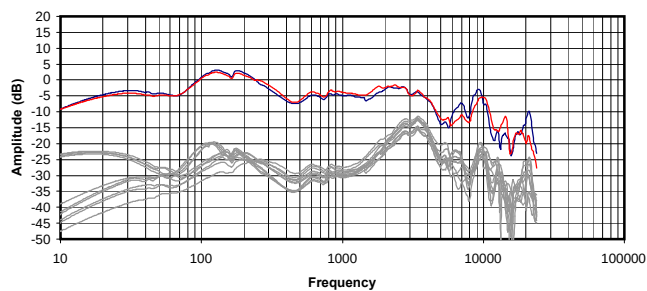
Impulse Response



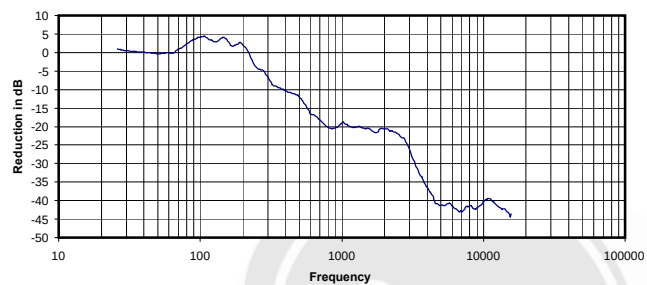
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.050 Vrms
39 Ohms
0.06 mW
-12 dBr

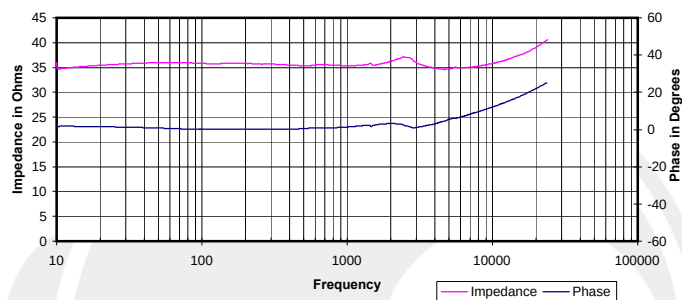
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



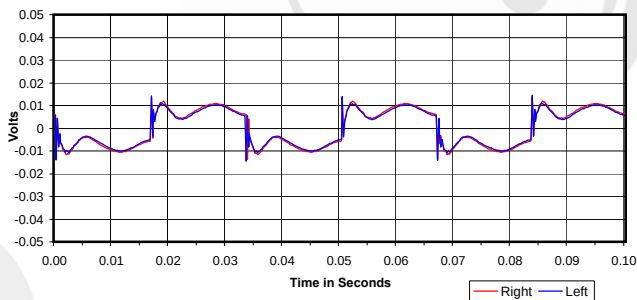
Isolation
Attenuation of External Sound vs. Frequency



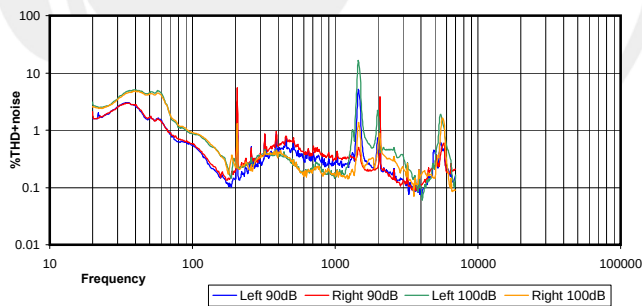
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



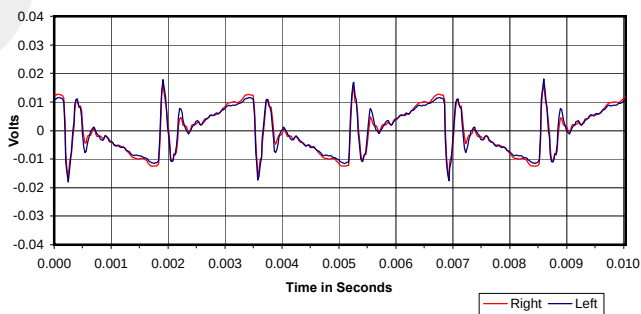
30 Hz Square Wave



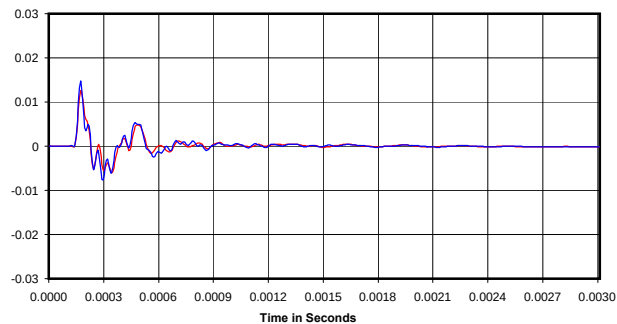
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

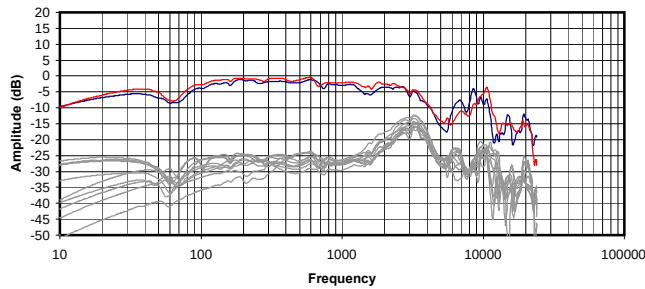
0.139 Vrms
35 Ohms
0.55 mW
-16 dBr



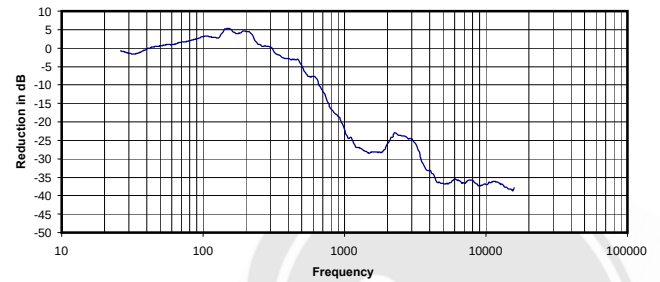
Headphone Measurements:

KRK KNS 6400

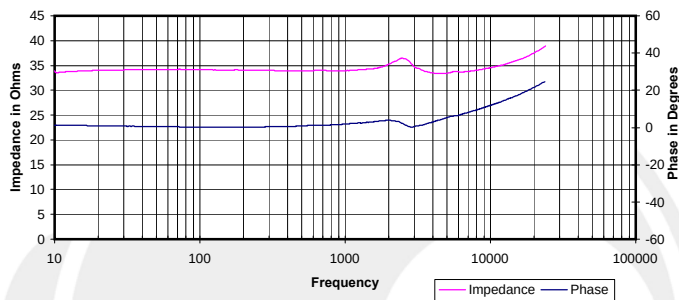
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



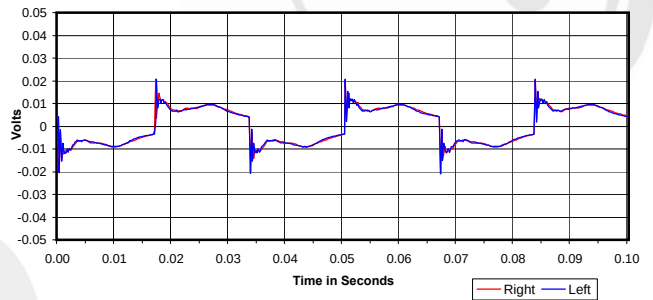
Isolation
Attenuation of External Sound vs. Frequency



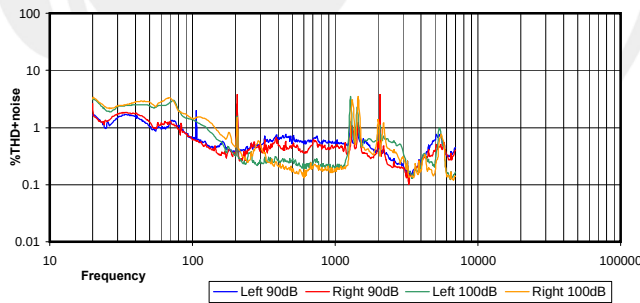
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



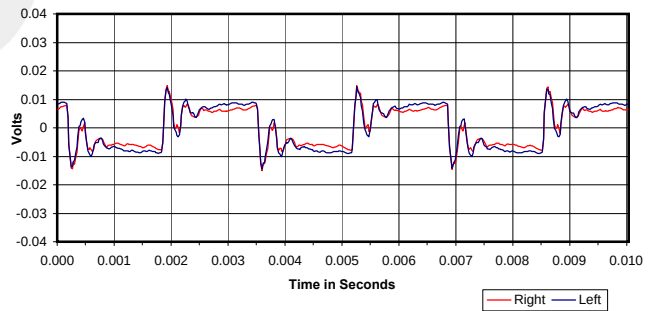
30 Hz Square Wave



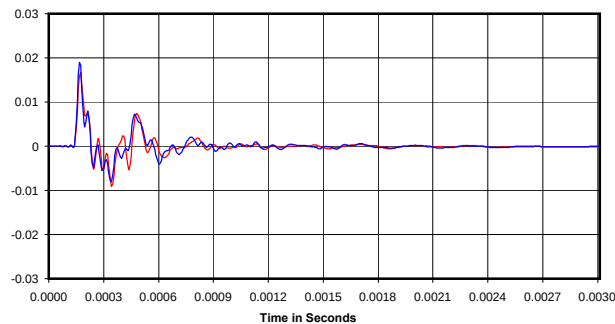
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



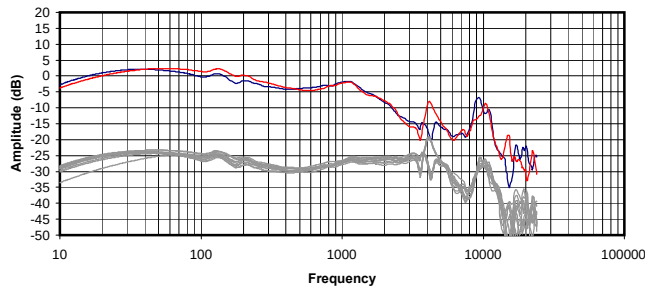
Impulse Response



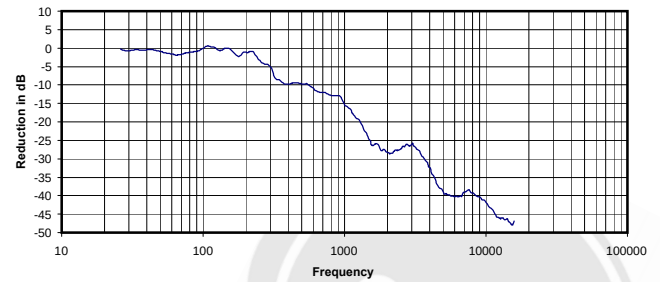
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.091 Vrms
34 Ohms
0.24 mW
-14 dBr

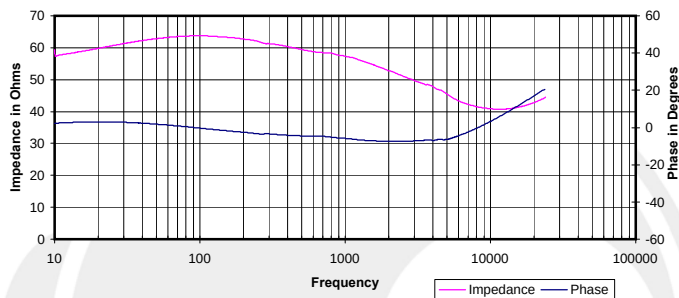
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



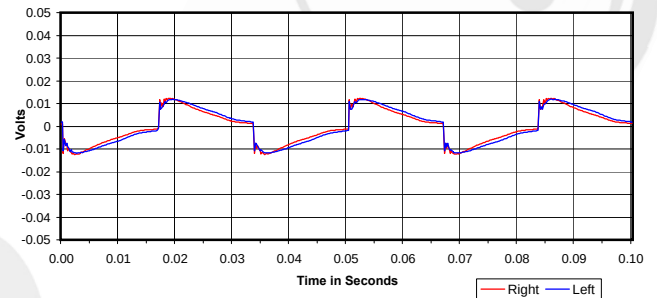
Isolation
Attenuation of External Sound vs. Frequency



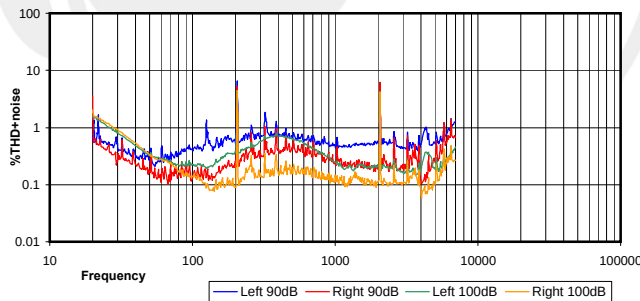
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



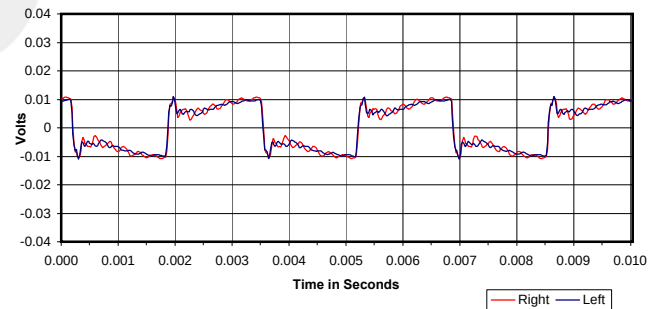
30 Hz Square Wave



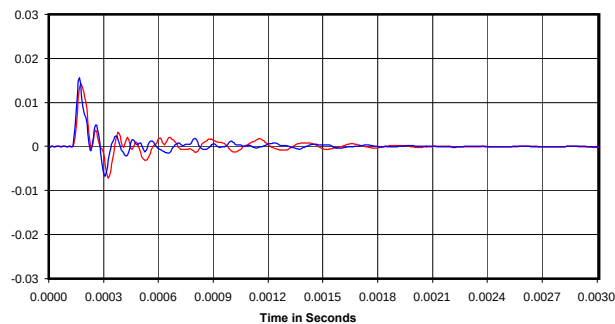
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



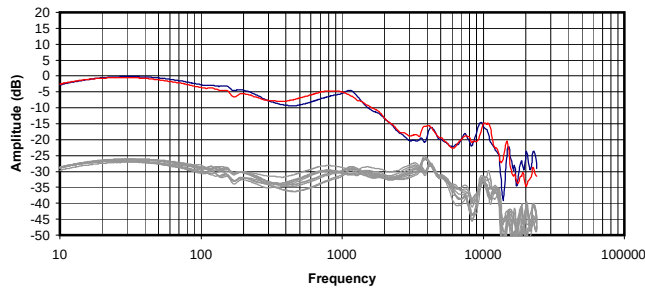
Impulse Response



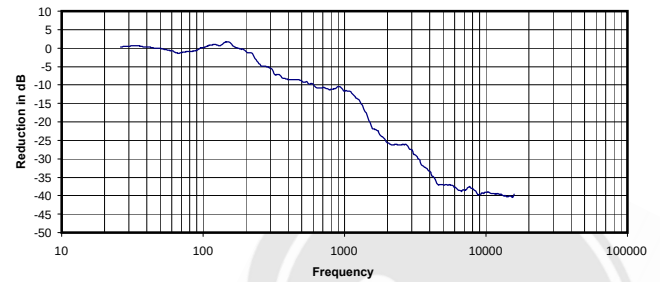
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.052 Vrms
57 Ohms
0.05 mW
-16 dBr

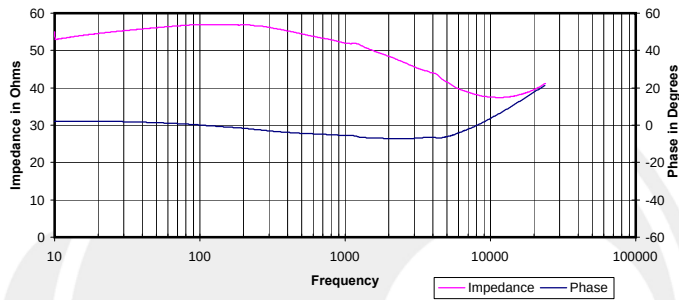
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



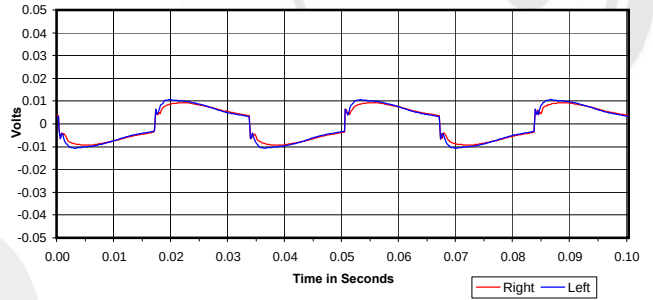
Isolation
Attenuation of External Sound vs. Frequency



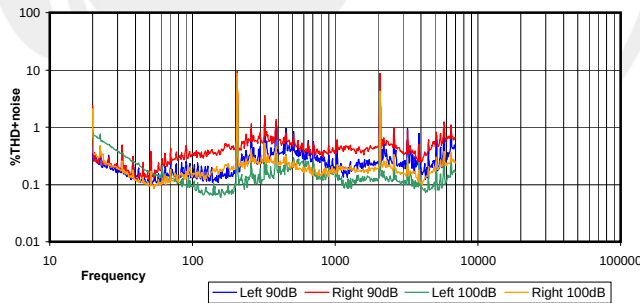
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



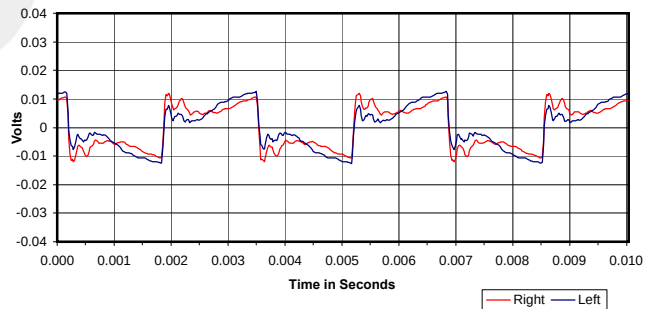
30 Hz Square Wave



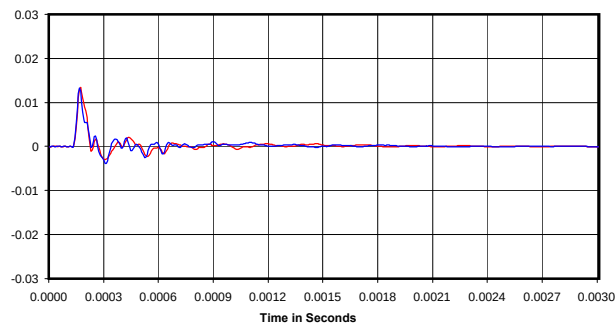
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



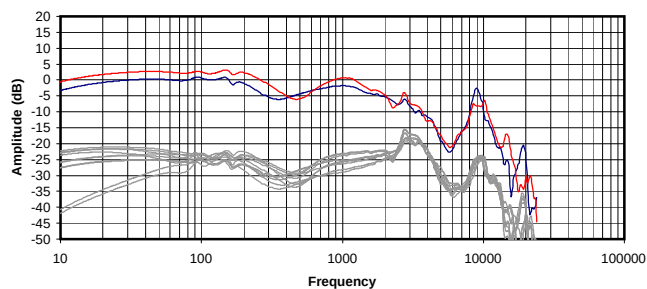
Impulse Response



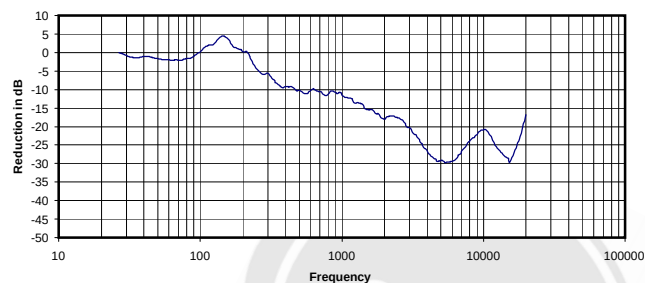
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.053 Vrms
52 Ohms
0.05 mW
-14 dBr

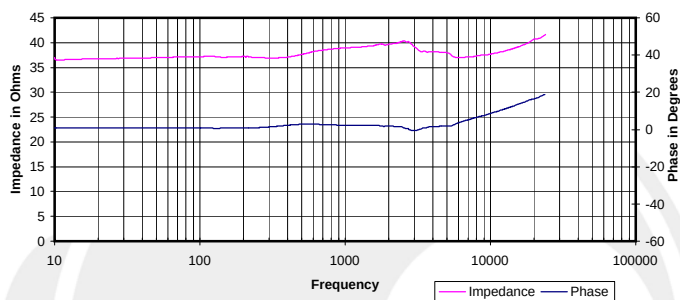
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



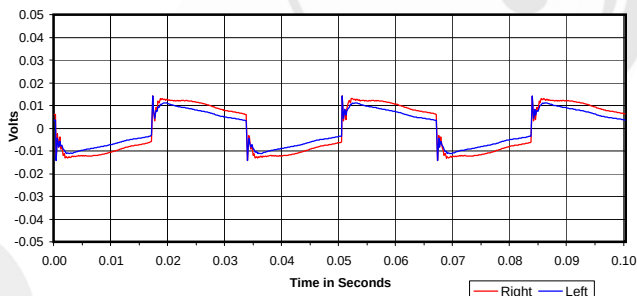
Isolation
Attenuation of External Sound vs. Frequency



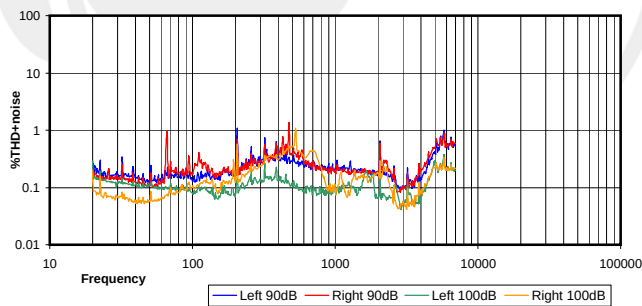
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



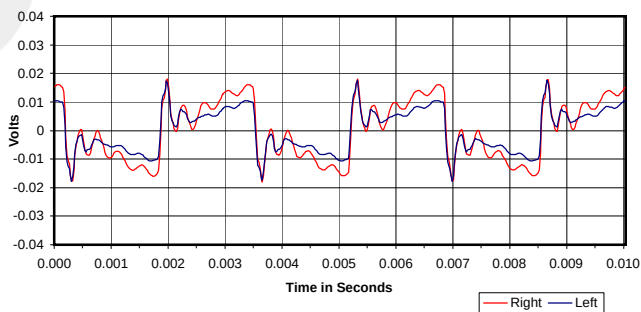
30 Hz Square Wave



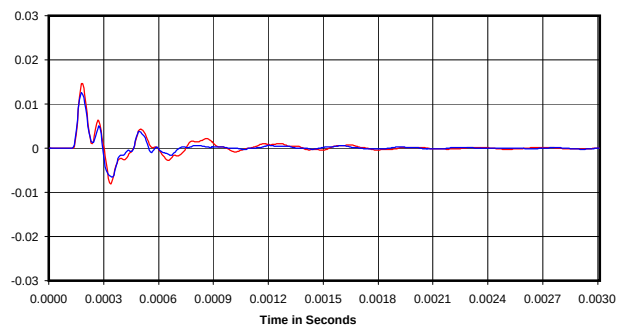
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



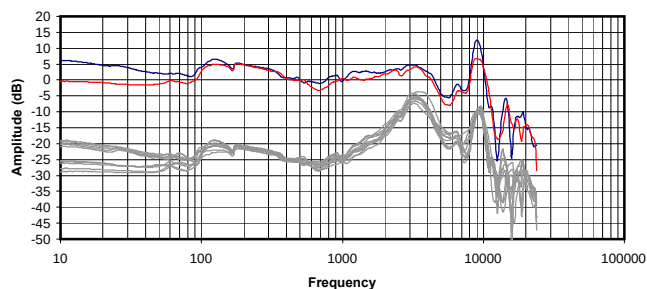
Impulse Response



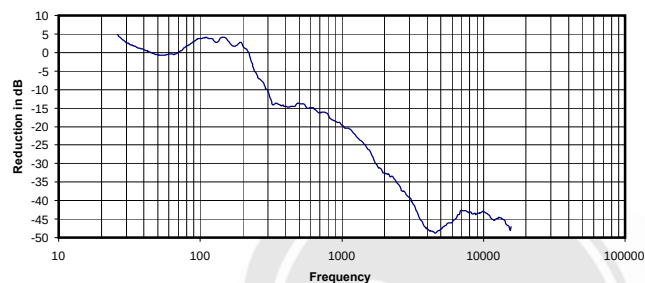
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.028 Vrms
39 Ohms
0.02 mW
-13 dBr

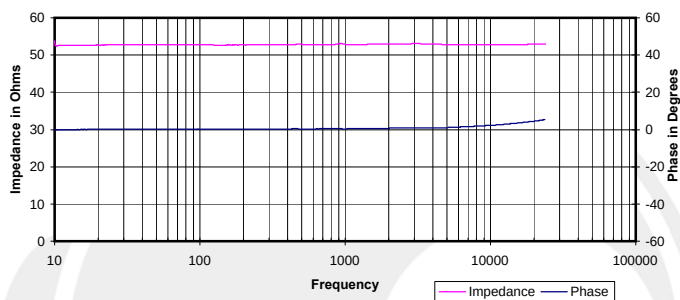
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



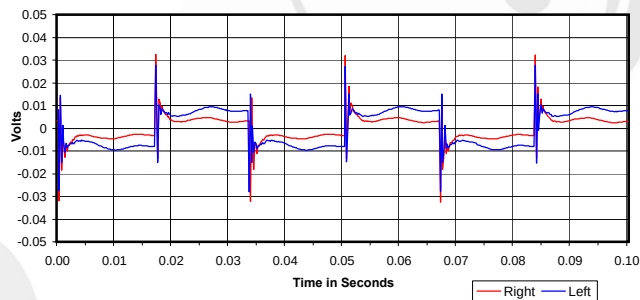
Isolation
Attenuation of External Sound vs. Frequency



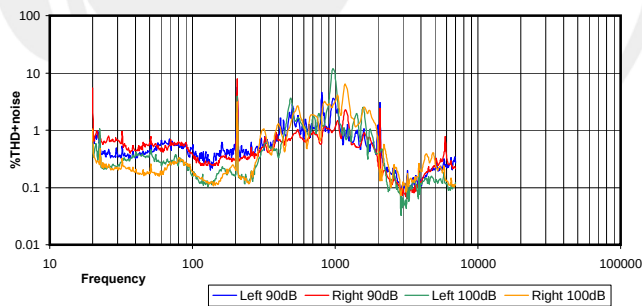
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



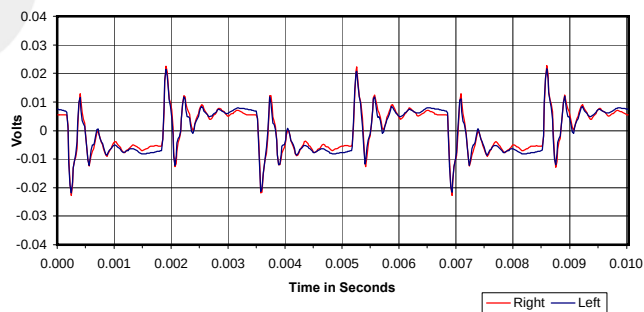
30 Hz Square Wave



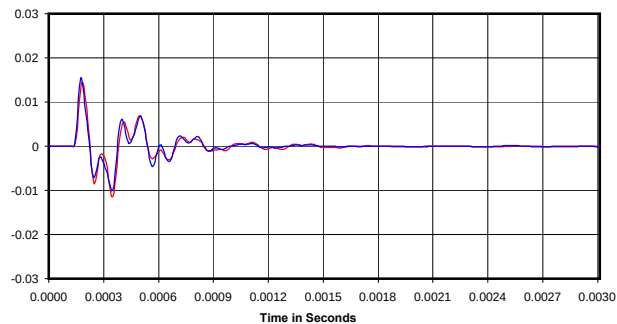
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



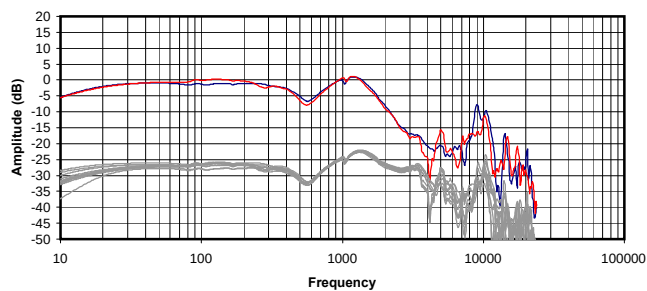
Impulse Response



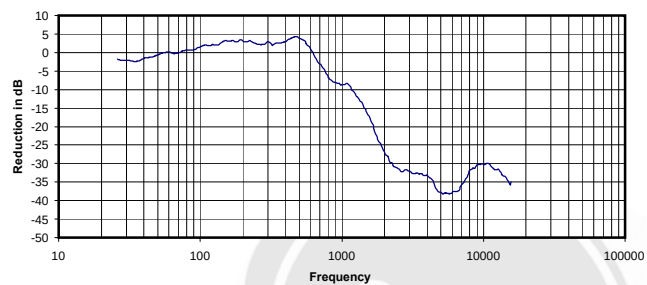
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.458 Vrms
53 Ohms
3.97 mW
-20 dBr

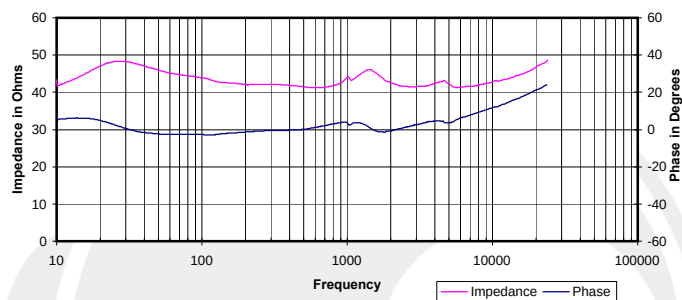
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



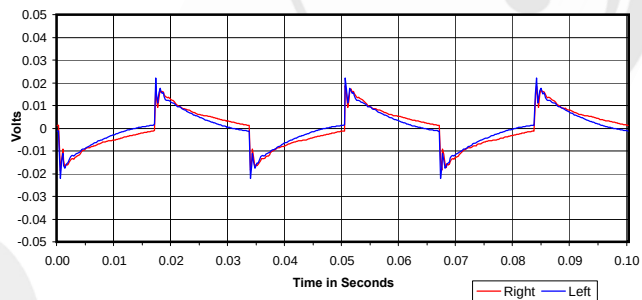
Isolation
Attenuation of External Sound vs. Frequency



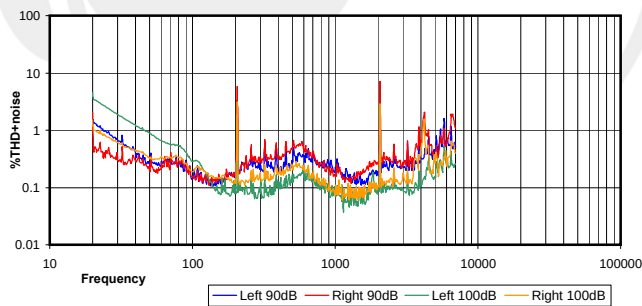
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



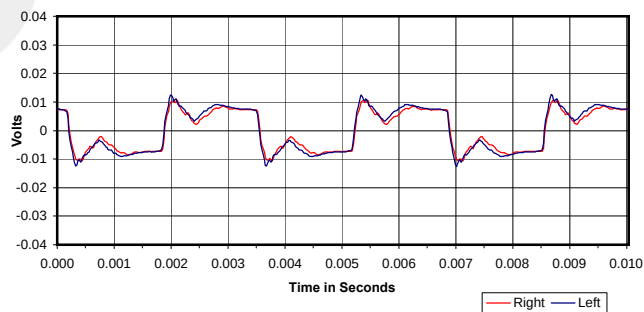
30 Hz Square Wave



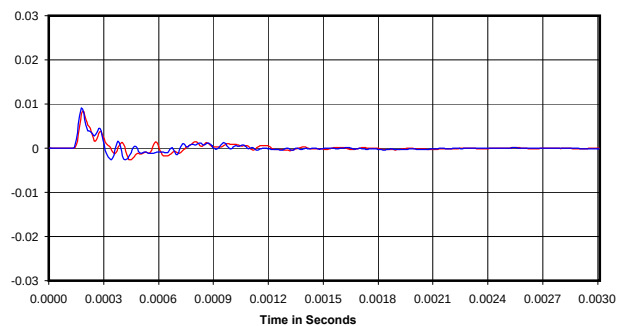
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



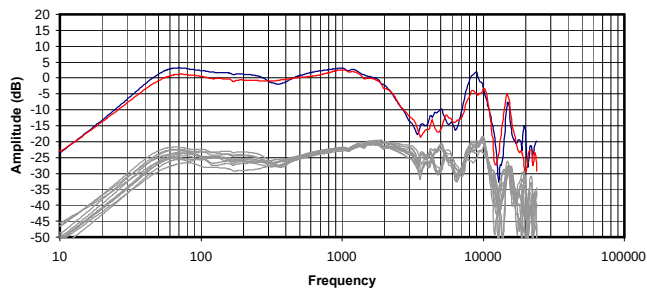
Impulse Response



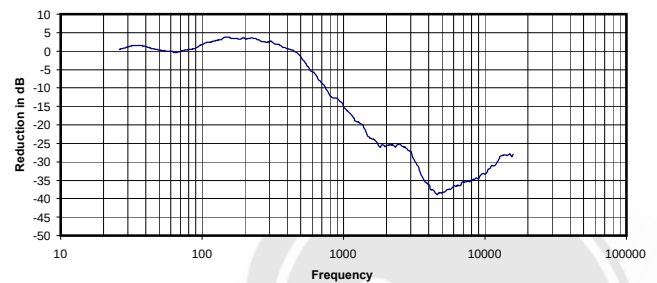
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.016 Vrms
43 Ohms
0.01 mW
-11 dBr

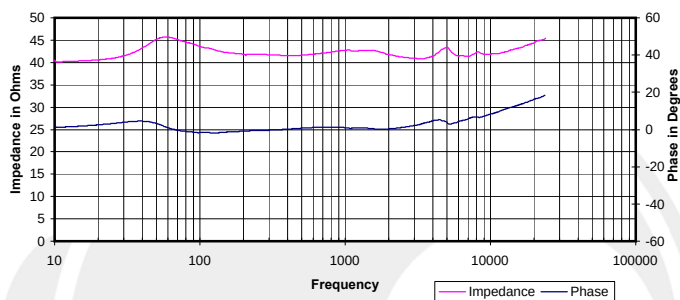
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



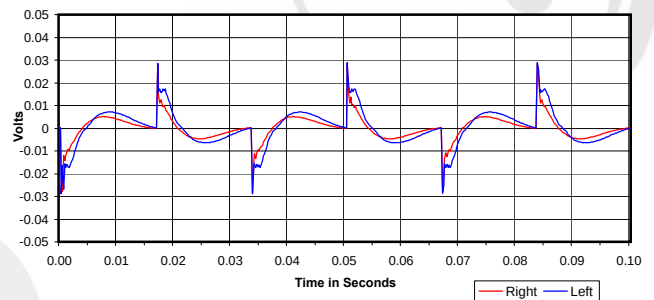
Isolation
Attenuation of External Sound vs. Frequency



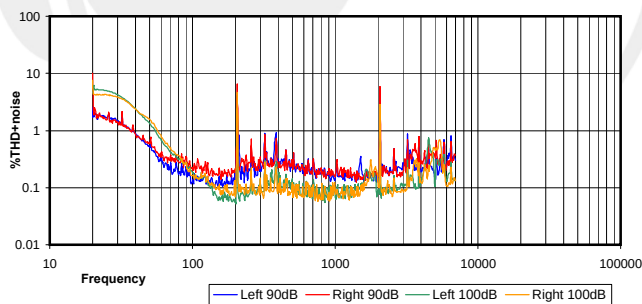
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



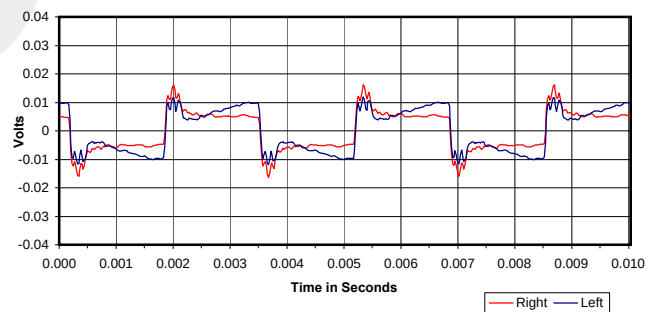
30 Hz Square Wave



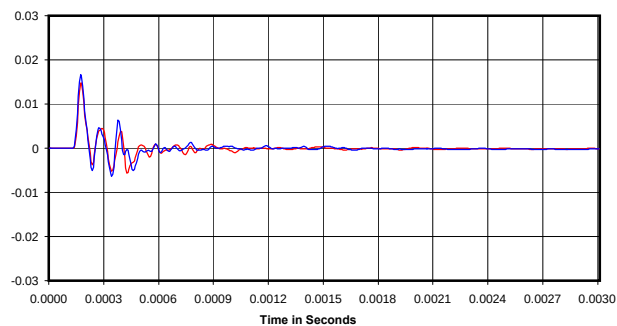
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



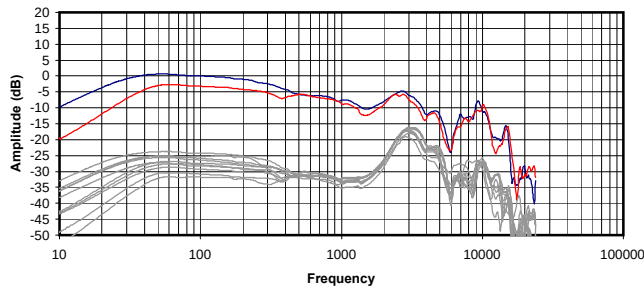
Impulse Response



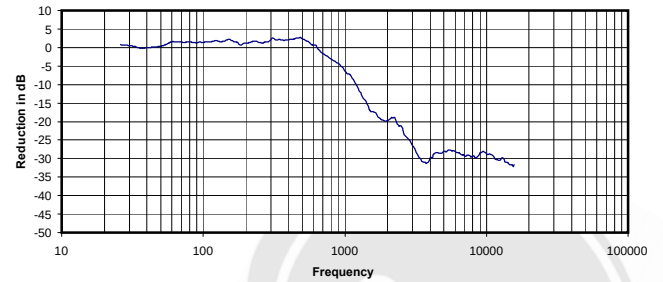
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.025 Vrms
43 Ohms
0.01 mW
-13 dBr

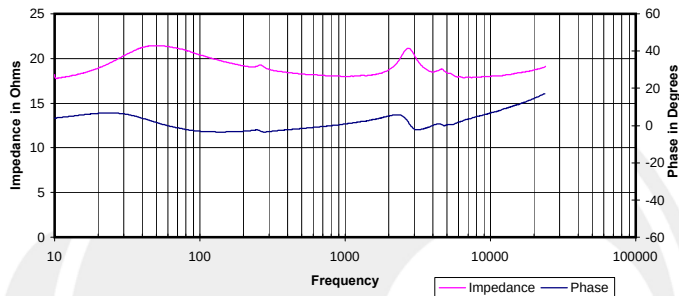
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



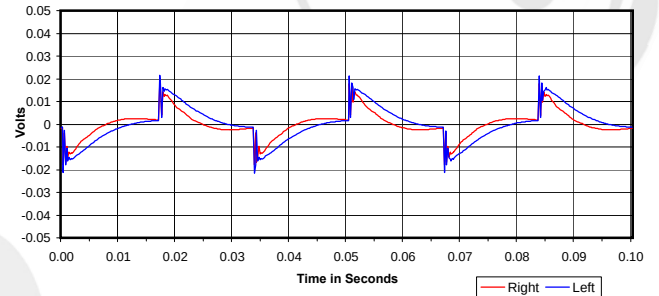
Isolation
Attenuation of External Sound vs. Frequency



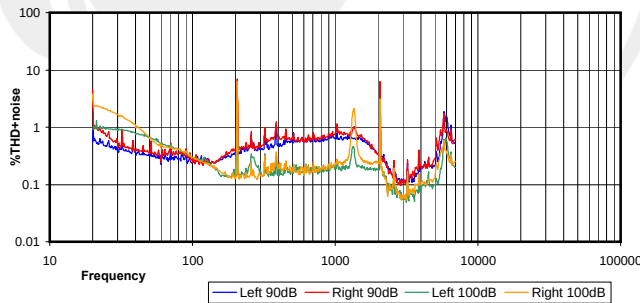
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



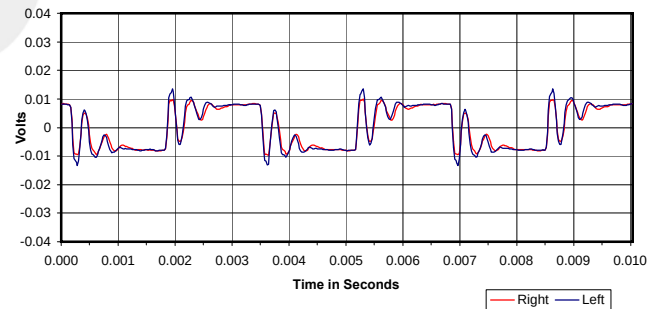
30 Hz Square Wave



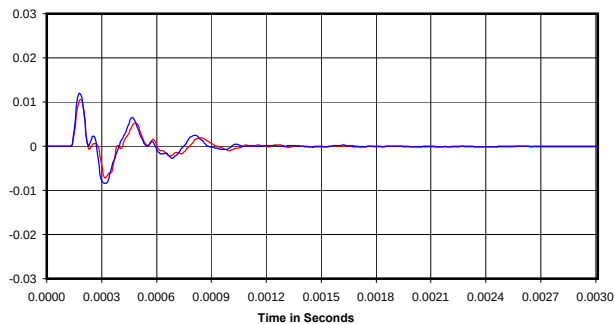
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



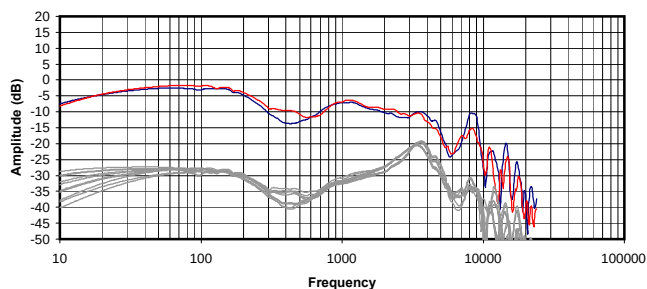
Impulse Response



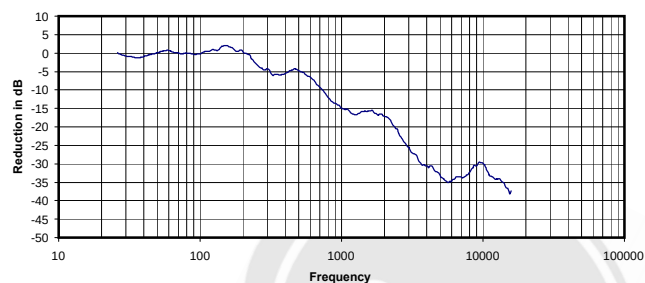
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.034 Vrms
18 Ohms
0.06 mW
-9 dBr

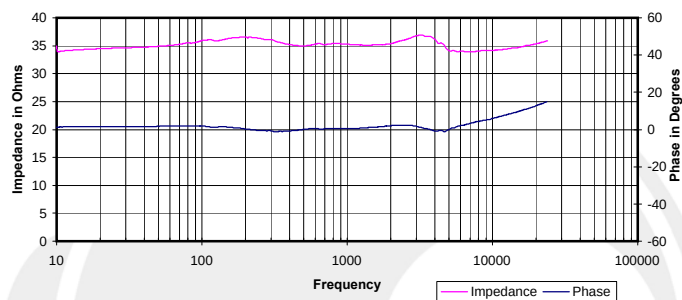
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



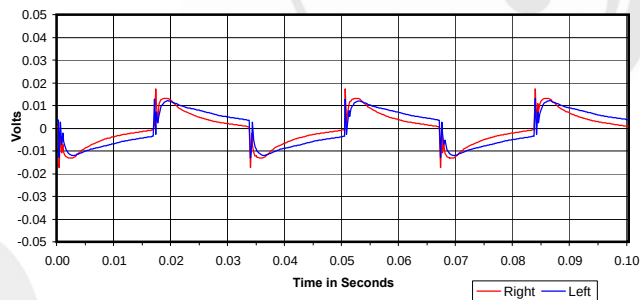
Isolation
Attenuation of External Sound vs. Frequency



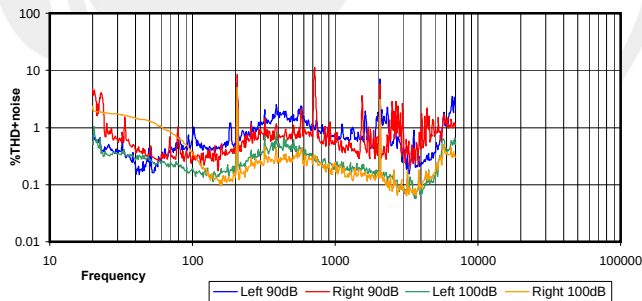
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



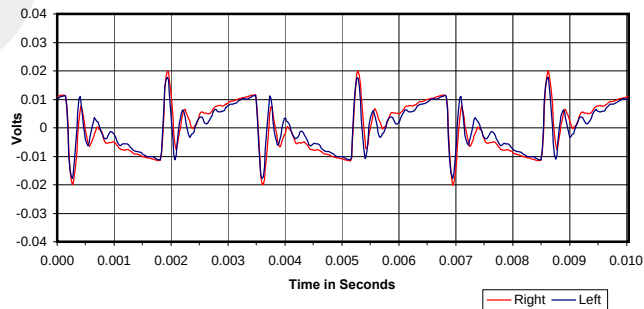
30 Hz Square Wave



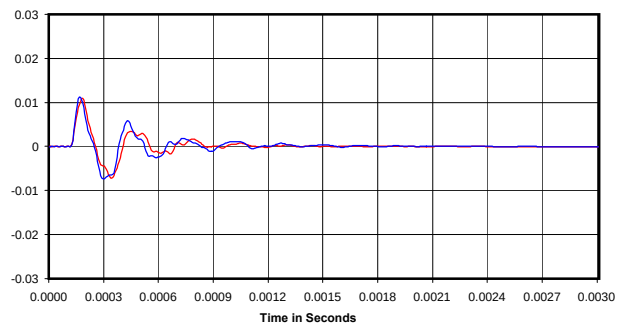
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



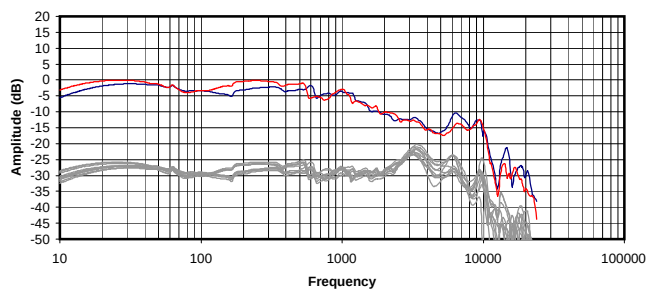
Impulse Response



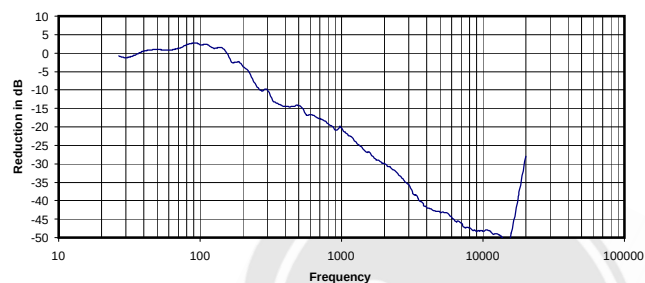
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.028 Vrms
35 Ohms
0.02 mW
-12 dBr

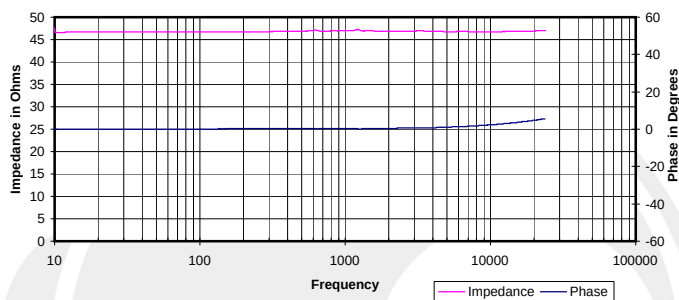
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



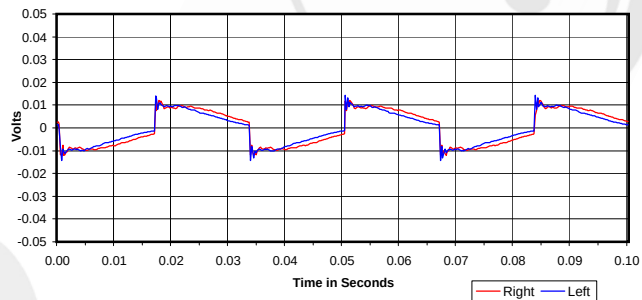
Isolation
Attenuation of External Sound vs. Frequency



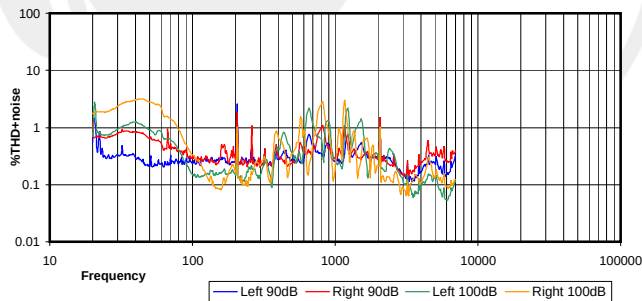
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



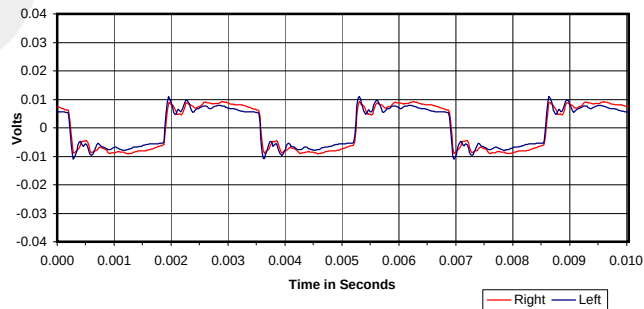
30 Hz Square Wave



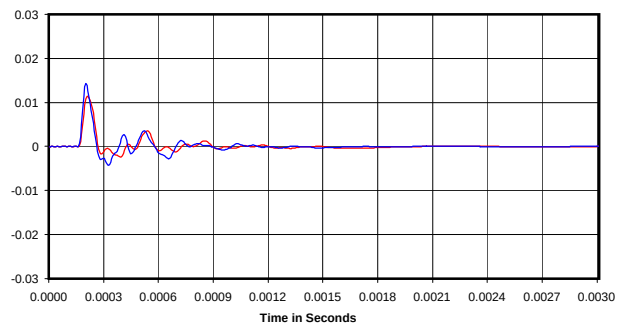
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



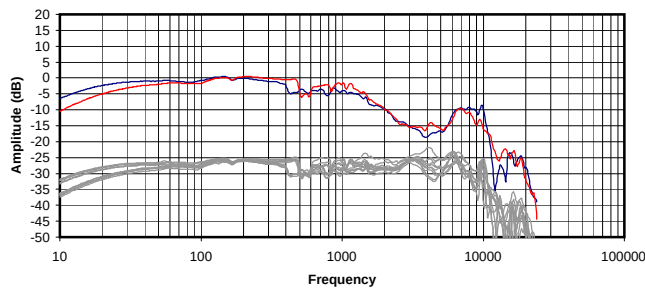
Impulse Response



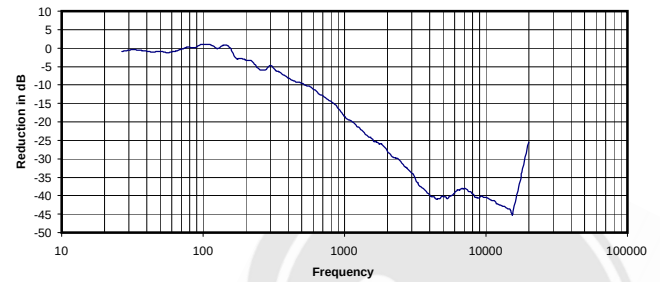
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.208 Vrms
47 Ohms
0.92 mW
-23 dBr

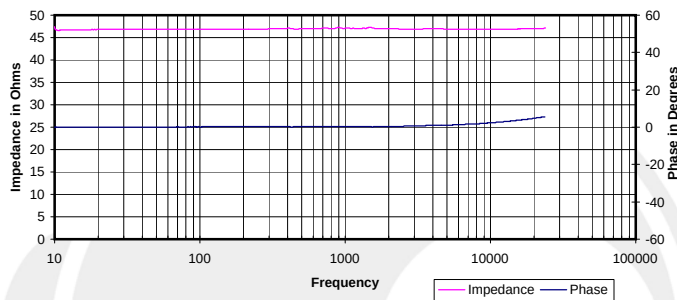
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



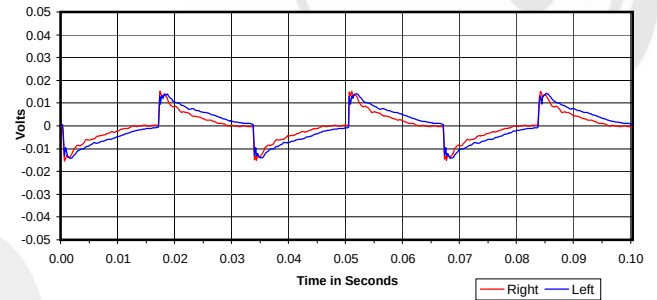
Isolation
Attenuation of External Sound vs. Frequency



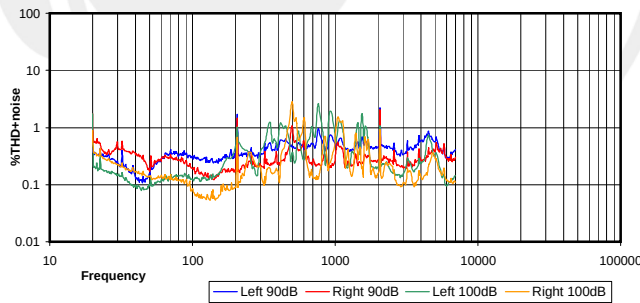
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



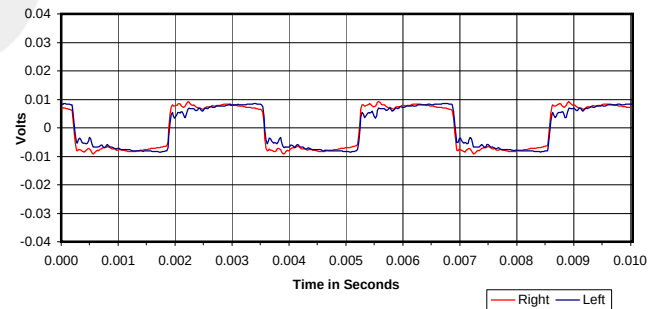
30 Hz Square Wave



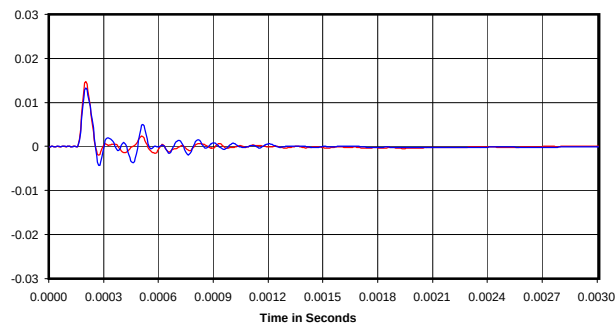
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



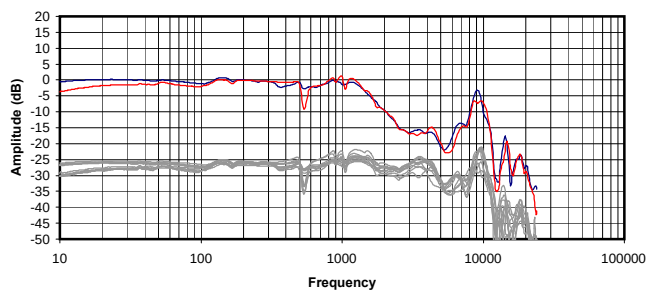
Impulse Response



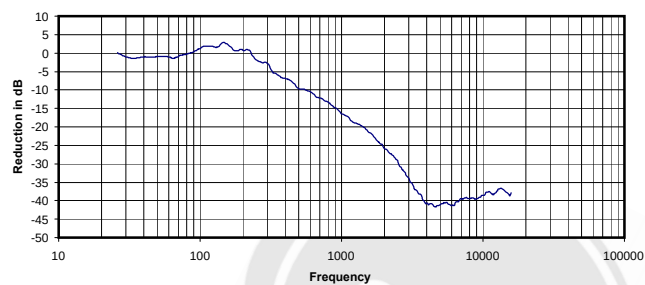
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.208 Vrms
47 Ohms
0.92 mW
-20 dBr

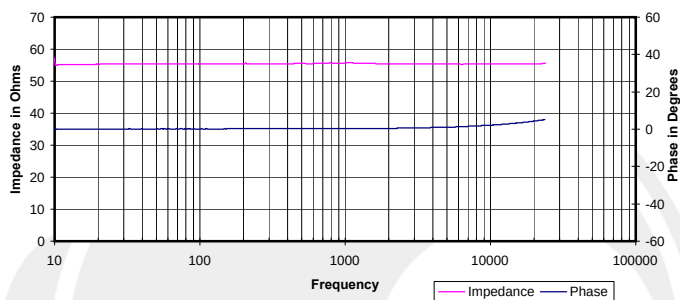
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



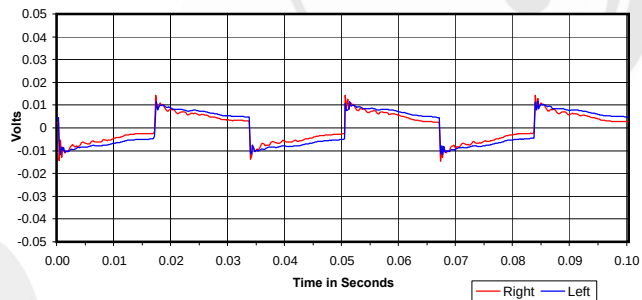
Isolation
Attenuation of External Sound vs. Frequency



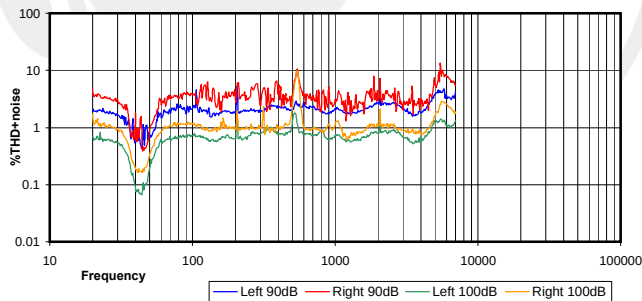
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



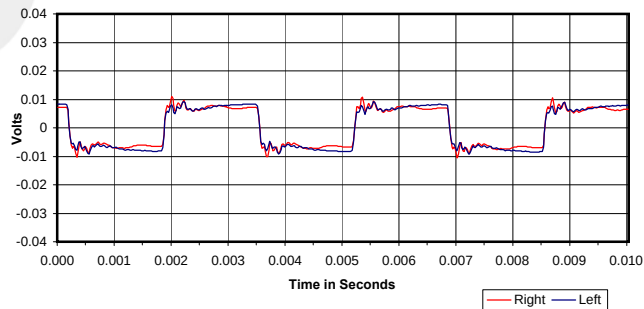
30 Hz Square Wave



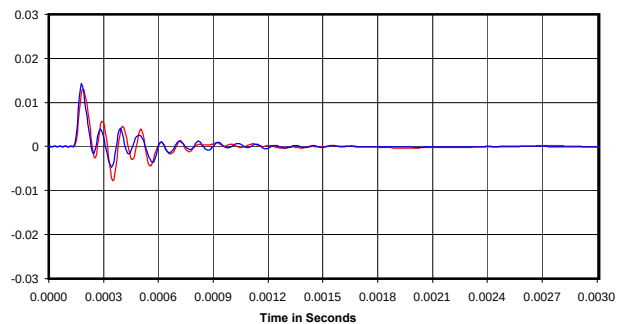
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



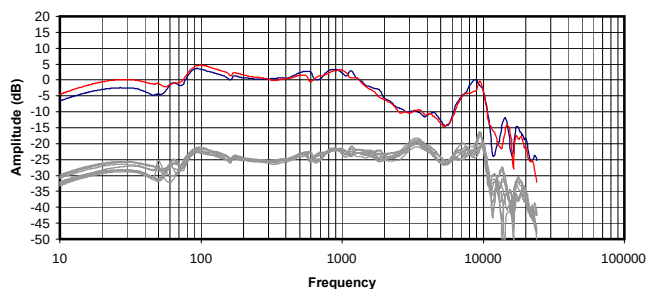
Impulse Response



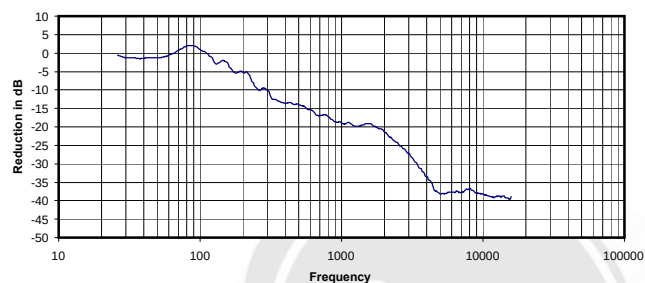
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.127 Vrms
56 Ohms
0.29 mW
-16 dBr

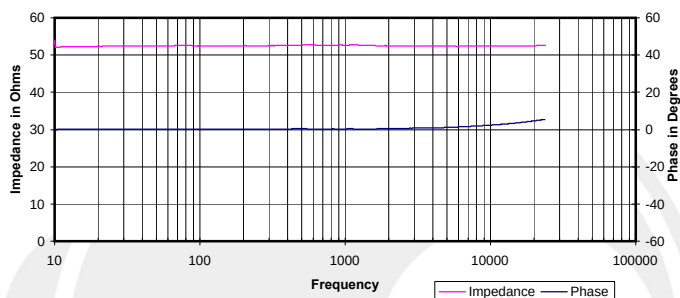
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



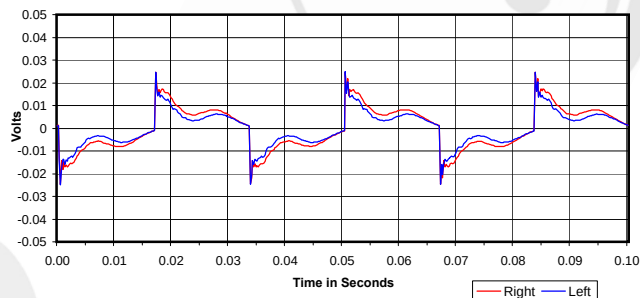
Isolation
Attenuation of External Sound vs. Frequency



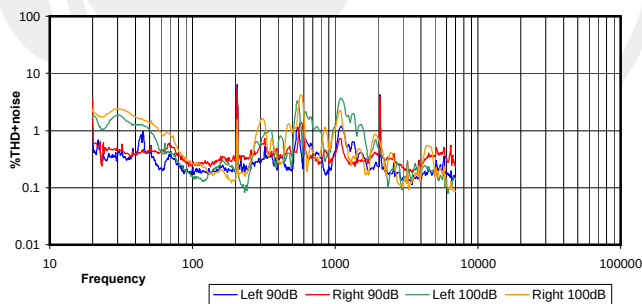
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



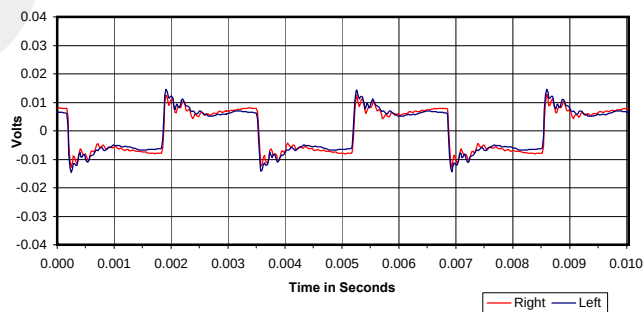
30 Hz Square Wave



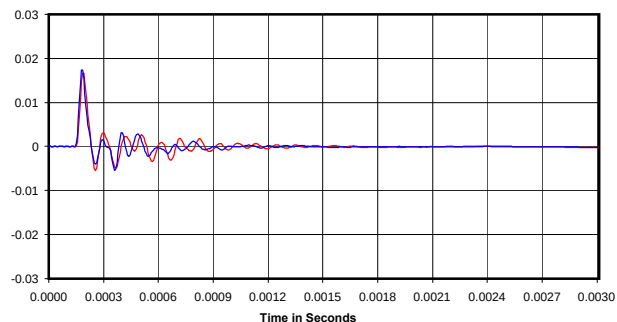
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



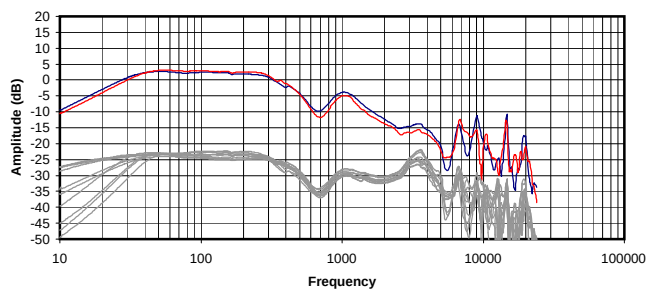
Impulse Response



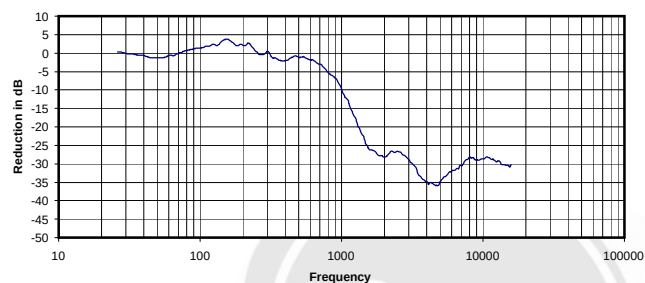
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.166 Vrms
53 Ohms
0.52 mW
-17 dBr

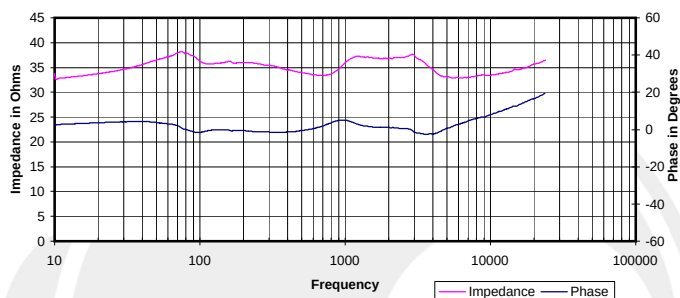
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



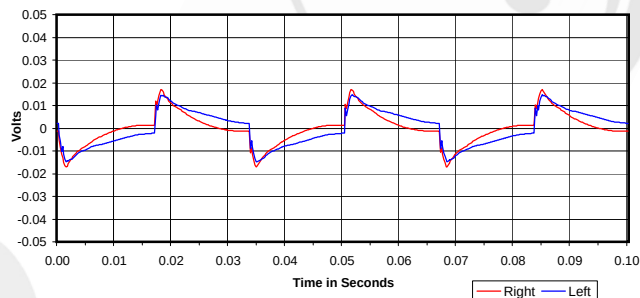
Isolation
Attenuation of External Sound vs. Frequency



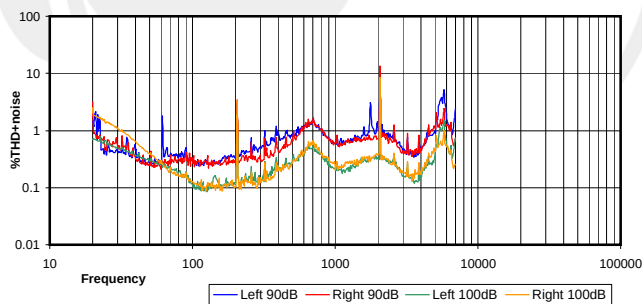
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



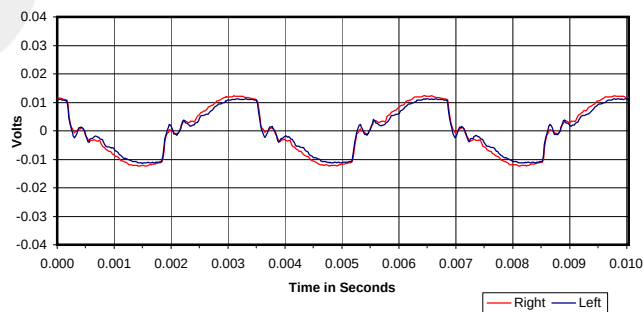
30 Hz Square Wave



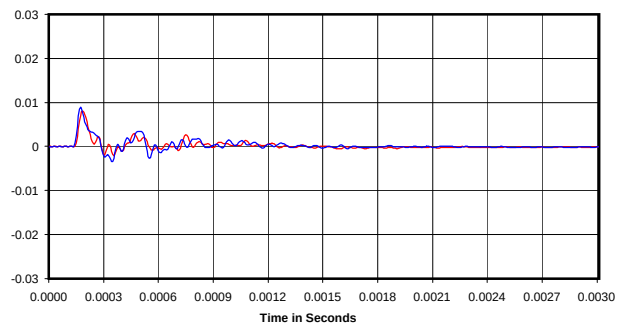
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



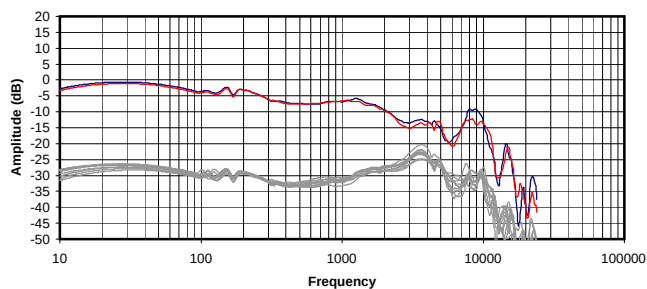
Impulse Response



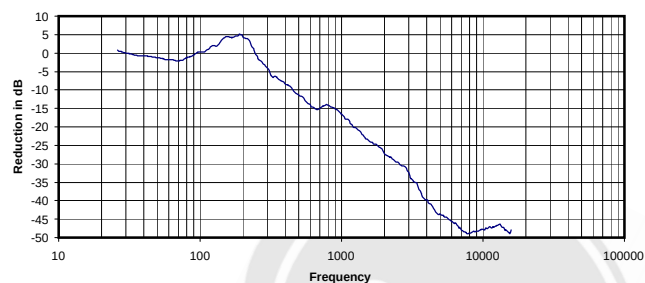
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.021 Vrms
36 Ohms
0.01 mW
-12 dBr

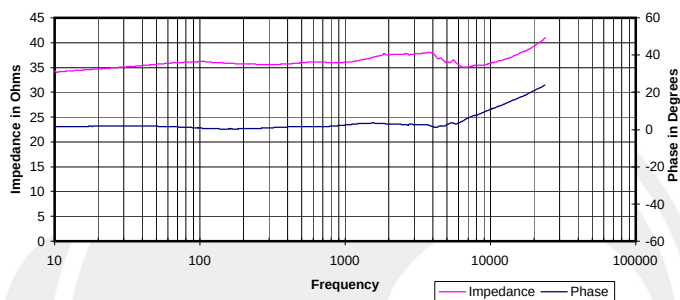
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



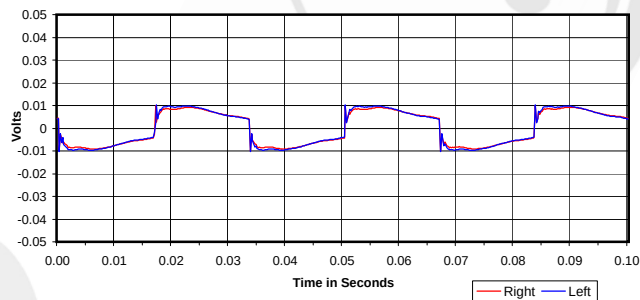
Isolation
Attenuation of External Sound vs. Frequency



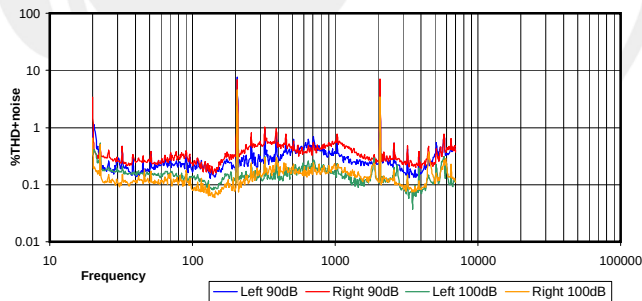
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



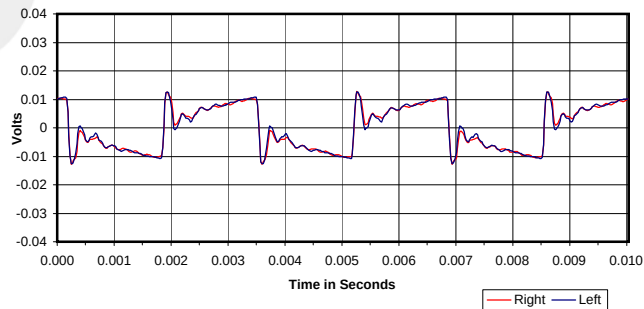
30 Hz Square Wave



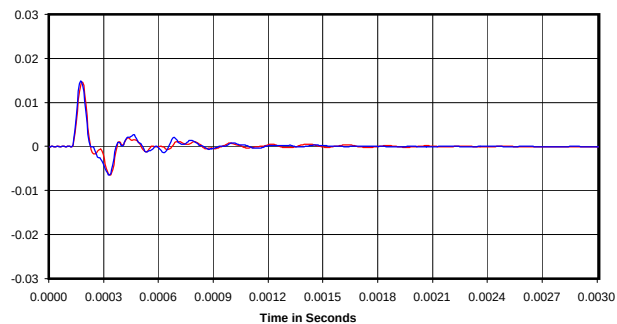
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



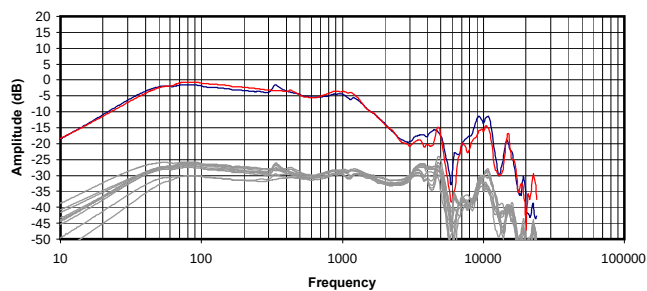
Impulse Response



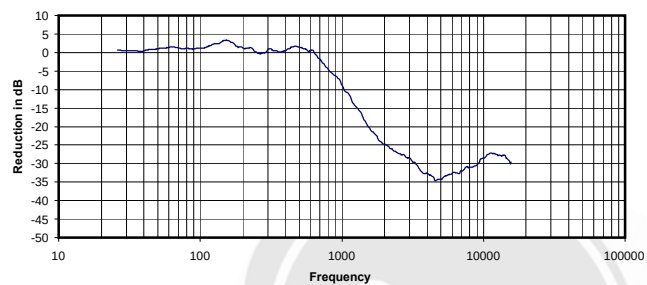
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.037 Vrms
36 Ohms
0.04 mW
-16 dBr

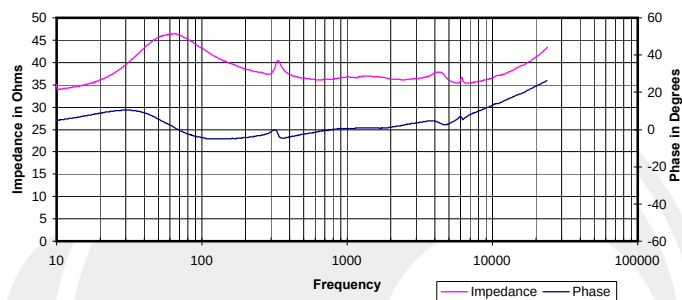
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



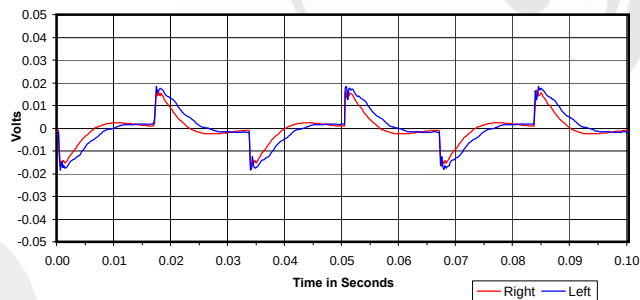
Isolation
Attenuation of External Sound vs. Frequency



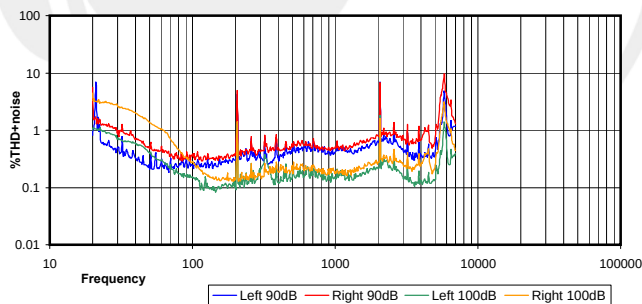
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



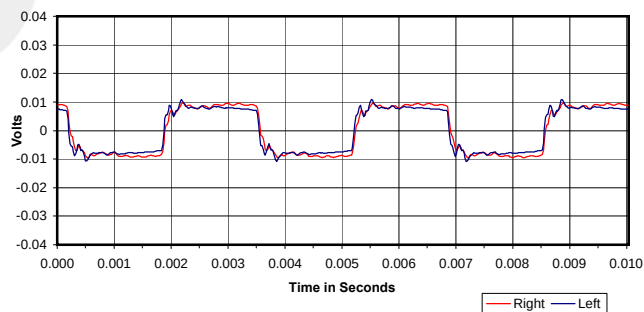
30 Hz Square Wave



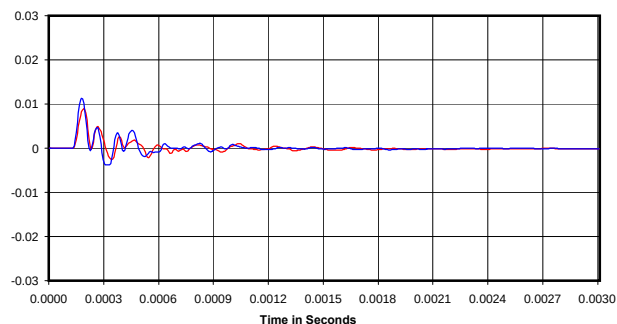
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



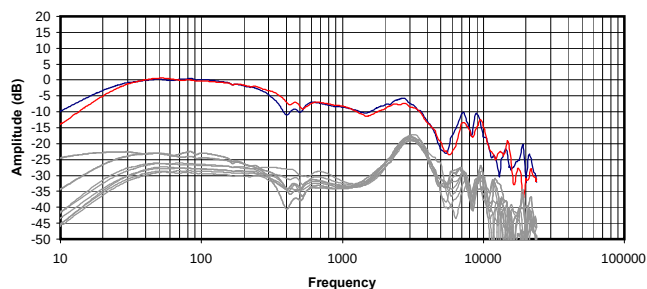
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.023 Vrms
37 Ohms
0.01 mW
-11 dBr

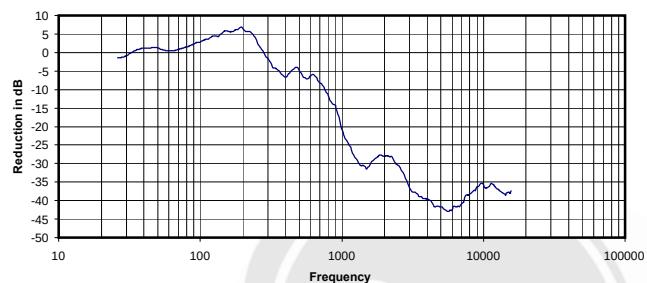


Headphone Measurements: Nu Force HP-800

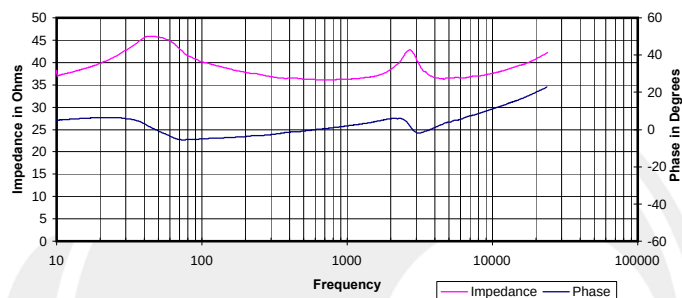
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



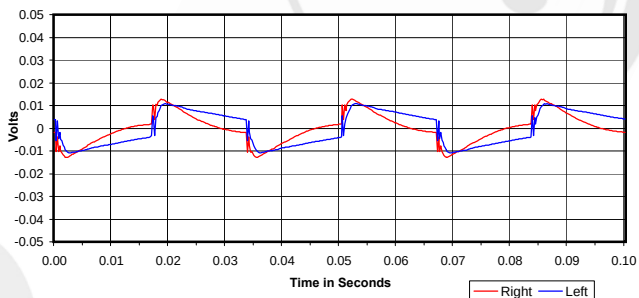
Isolation
Attenuation of External Sound vs. Frequency



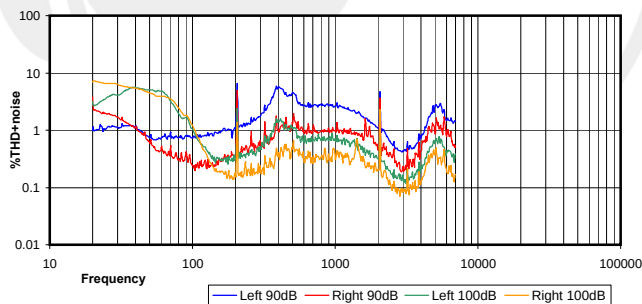
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



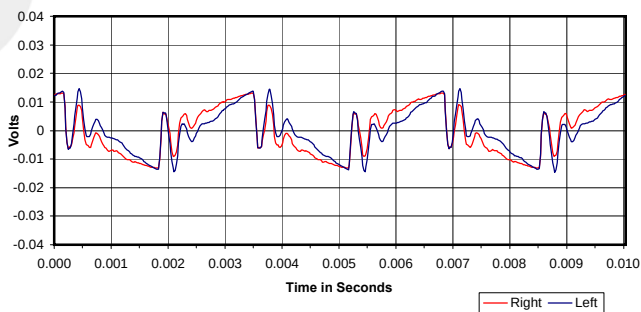
30 Hz Square Wave



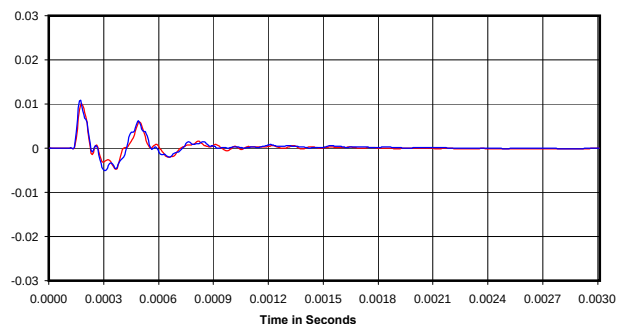
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



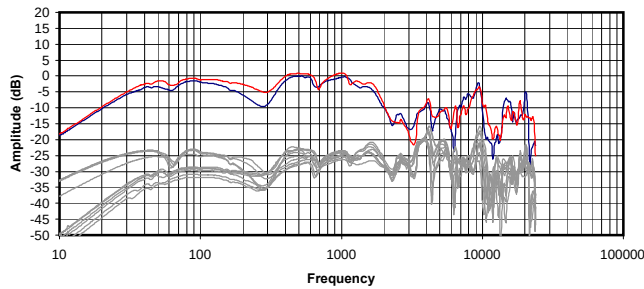
Impulse Response



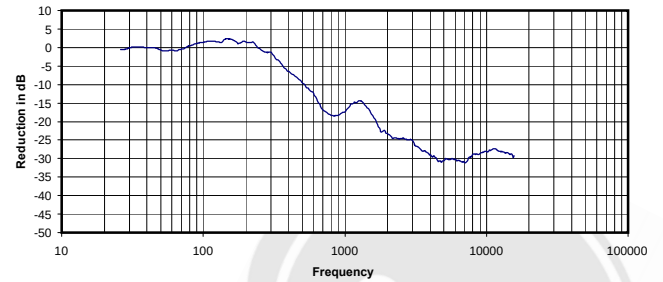
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.068 Vrms
36 Ohms
0.13 mW
-16 dBr

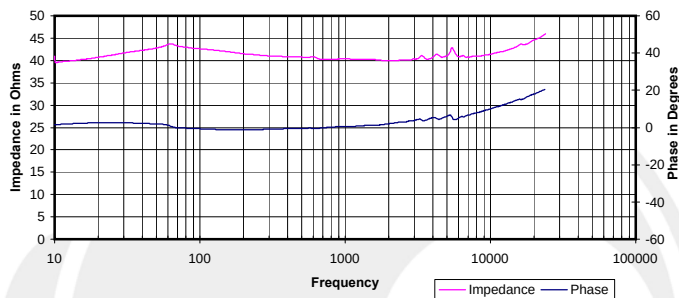
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



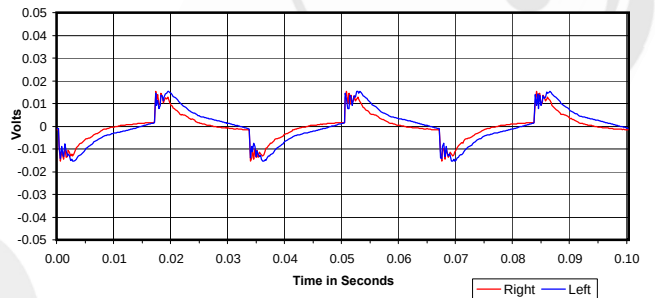
Isolation
Attenuation of External Sound vs. Frequency



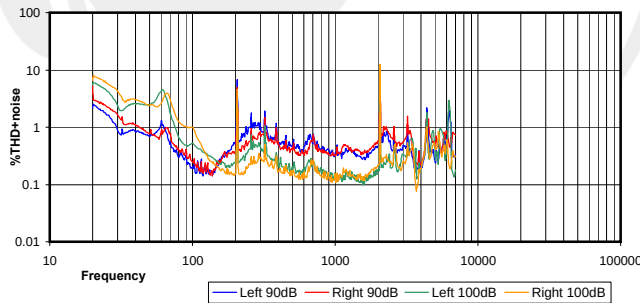
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



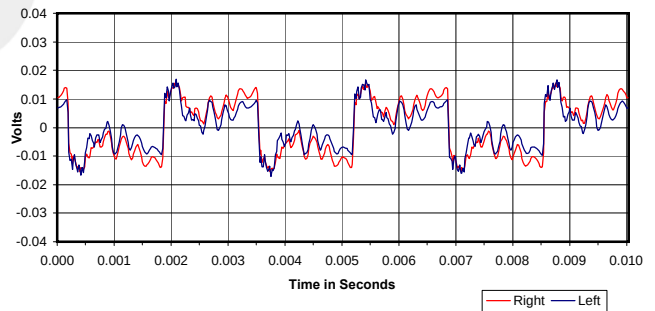
30 Hz Square Wave



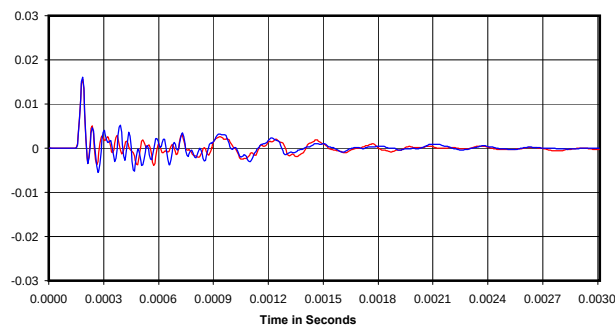
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



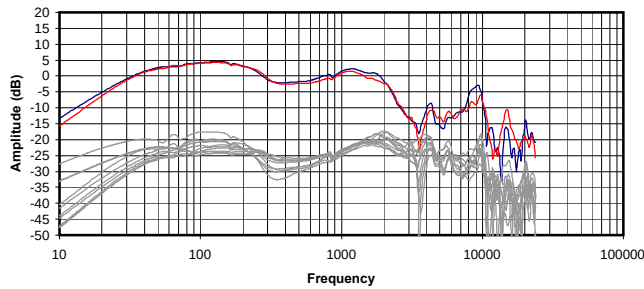
Impulse Response



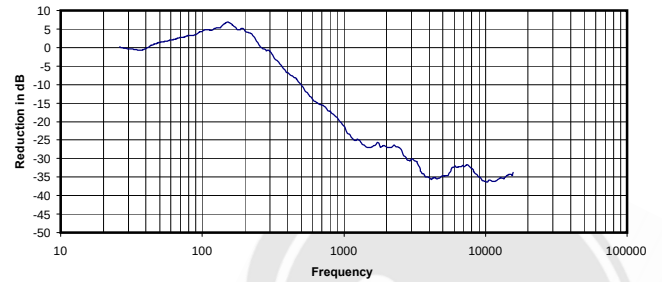
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.069 Vrms
40 Ohms
0.12 mW
-13 dBr

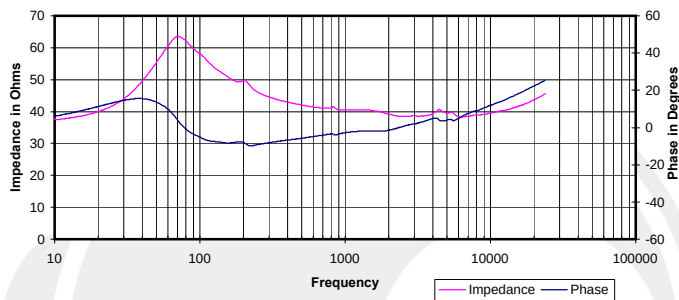
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



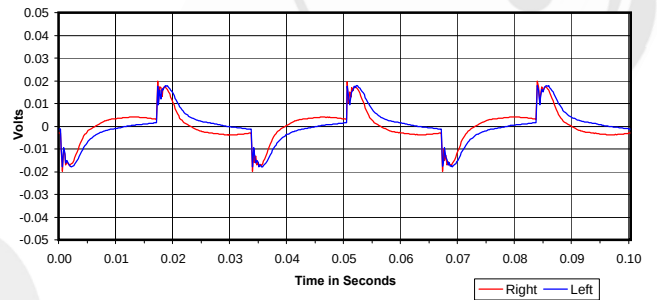
Isolation
Attenuation of External Sound vs. Frequency



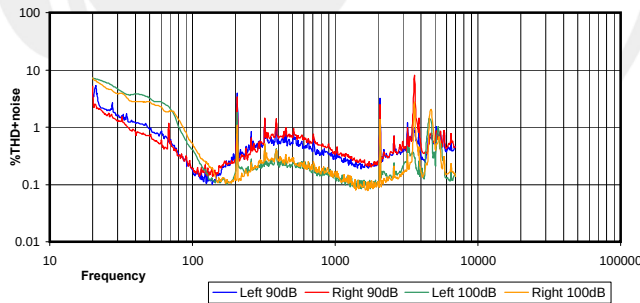
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



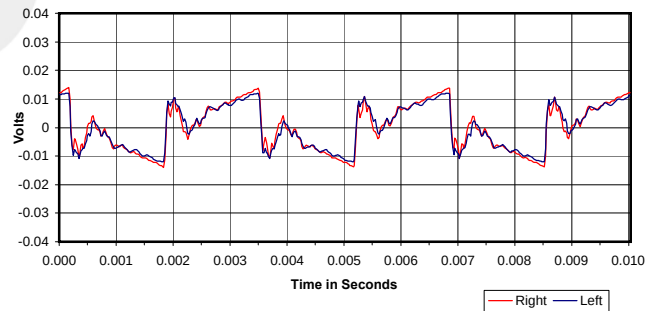
30 Hz Square Wave



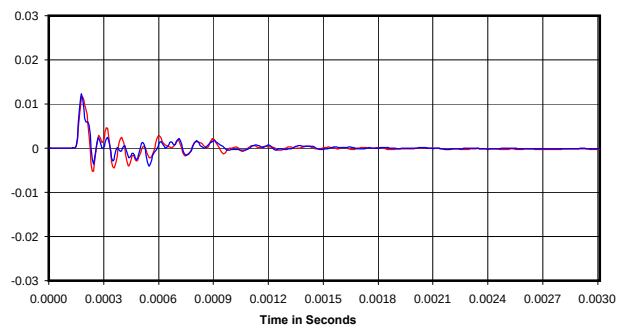
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



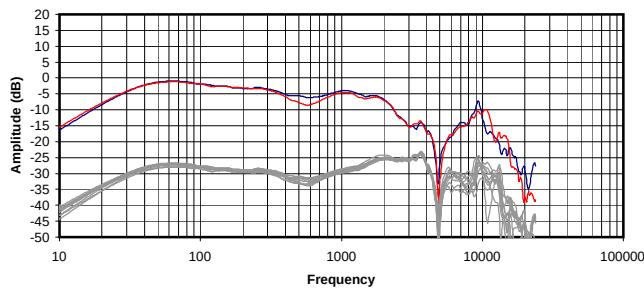
Impulse Response



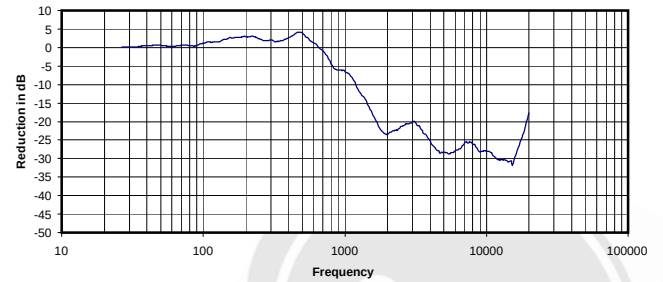
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.039 Vrms
40 Ohms
0.04 mW
-15 dBr

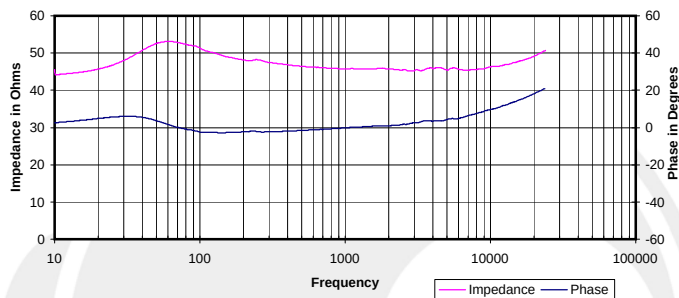
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



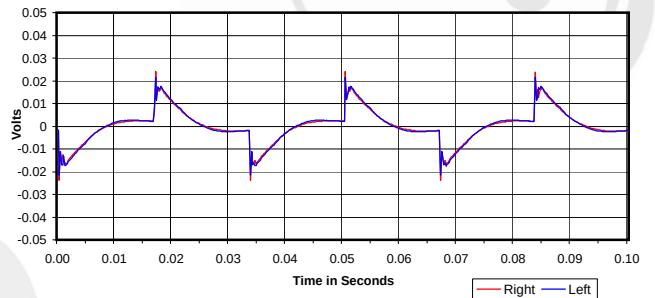
Isolation
Attenuation of External Sound vs. Frequency



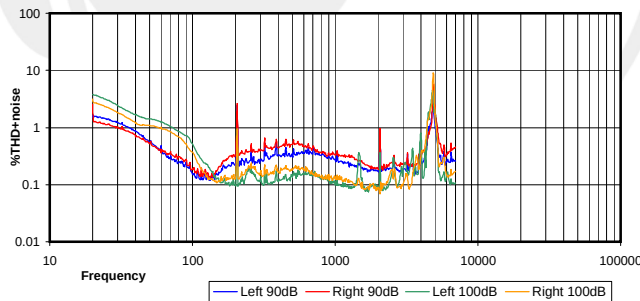
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



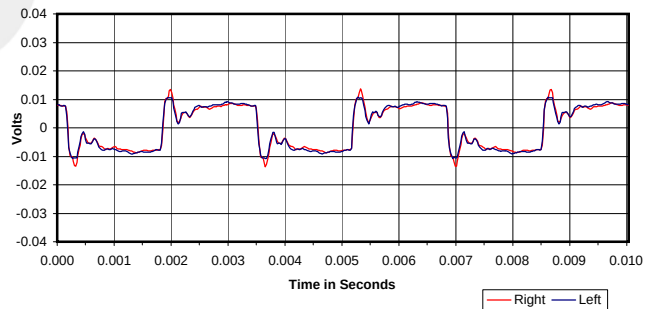
30 Hz Square Wave



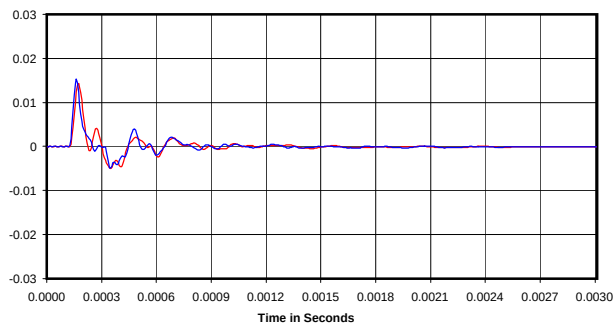
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



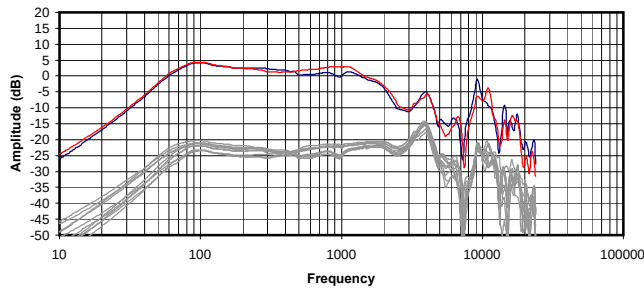
Impulse Response



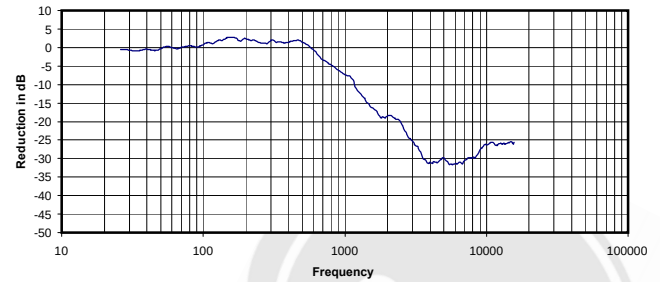
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.036 Vrms
46 Ohms
0.03 mW
-10 dBr

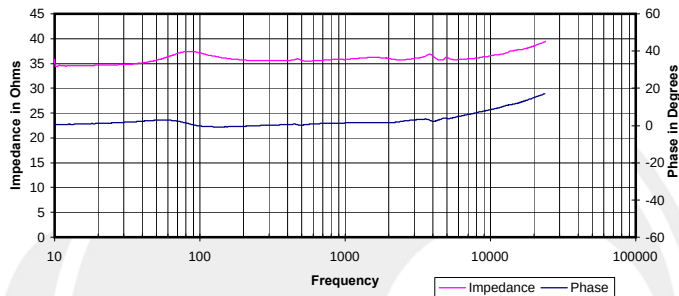
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



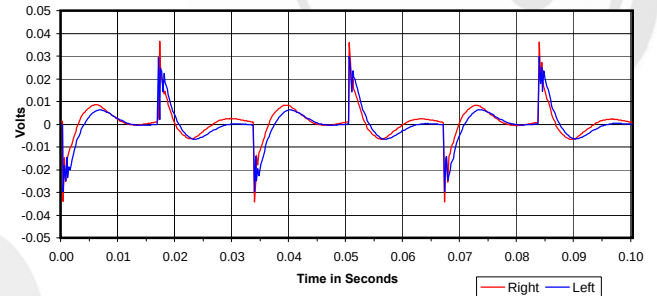
Isolation
Attenuation of External Sound vs. Frequency



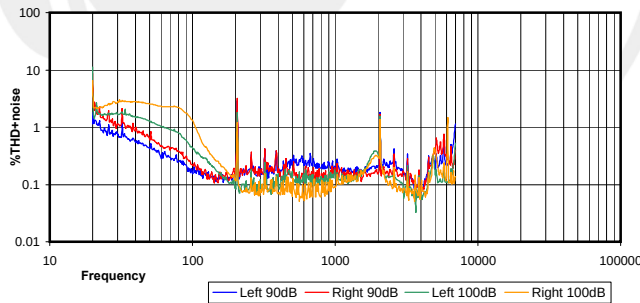
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



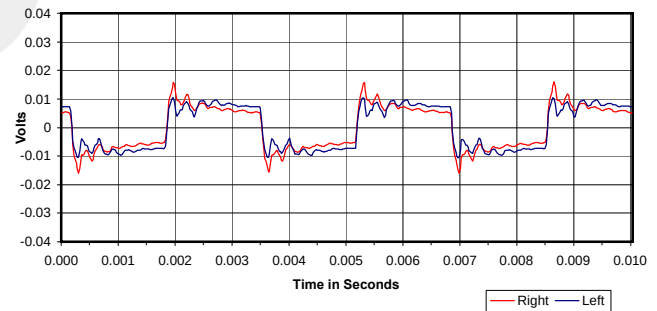
30 Hz Square Wave



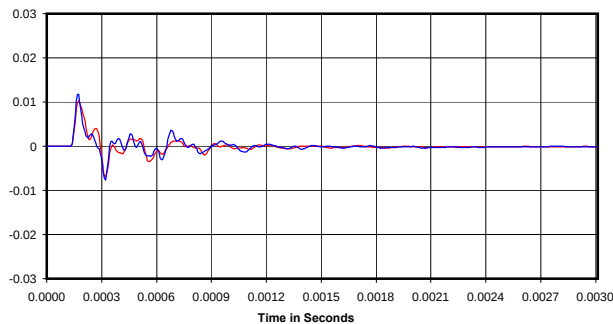
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



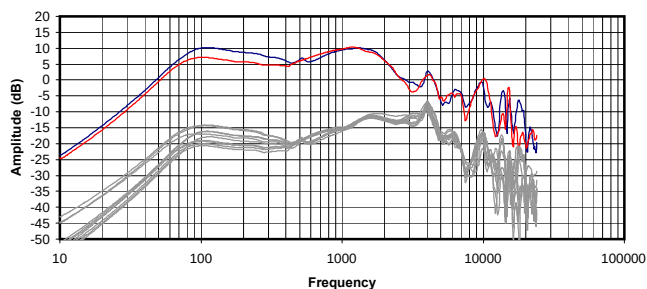
Impulse Response



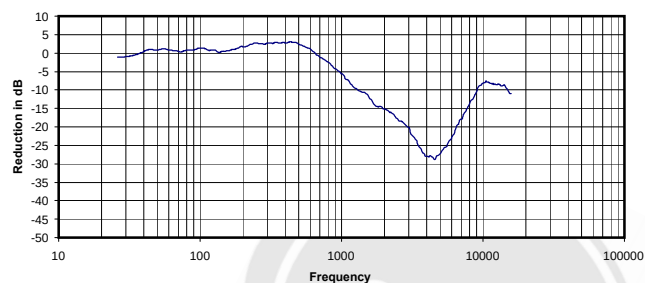
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.049 Vrms
36 Ohms
0.07 mW
-9 dBr

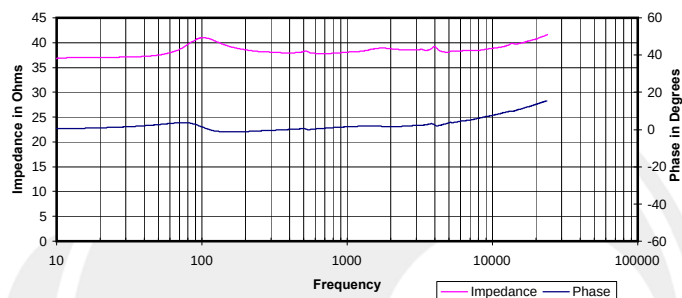
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



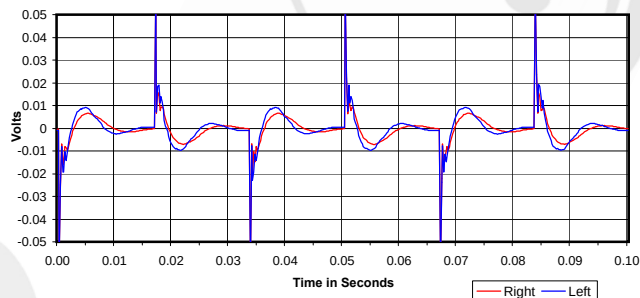
Isolation
Attenuation of External Sound vs. Frequency



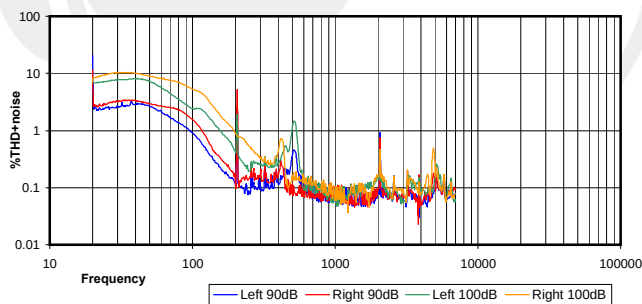
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



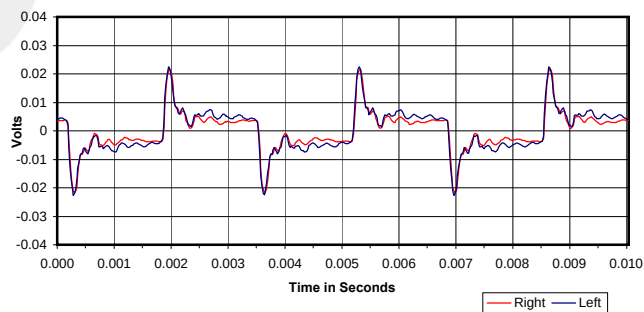
30 Hz Square Wave



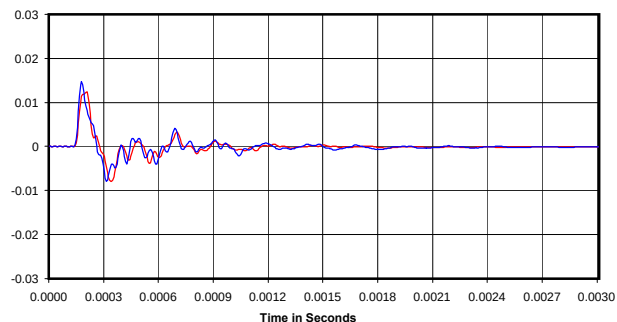
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



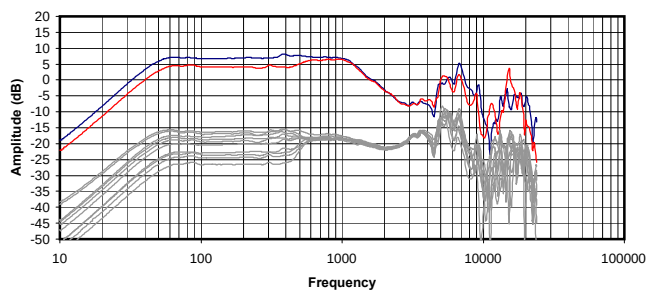
Impulse Response



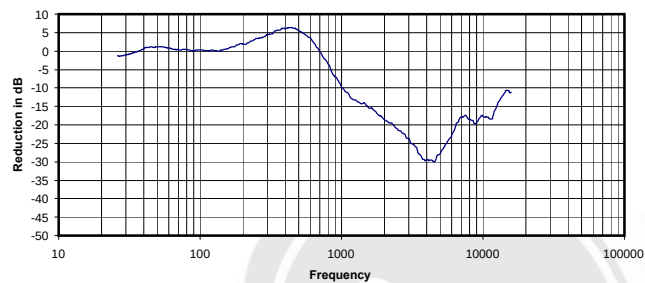
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.037 Vrms
38 Ohms
0.04 mW
-8 dBr

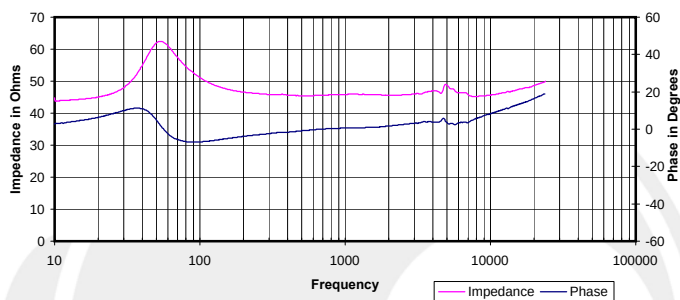
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



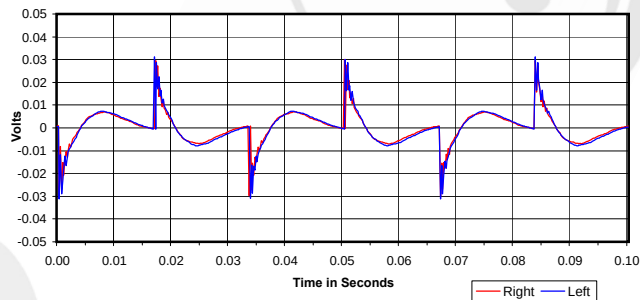
Isolation
Attenuation of External Sound vs. Frequency



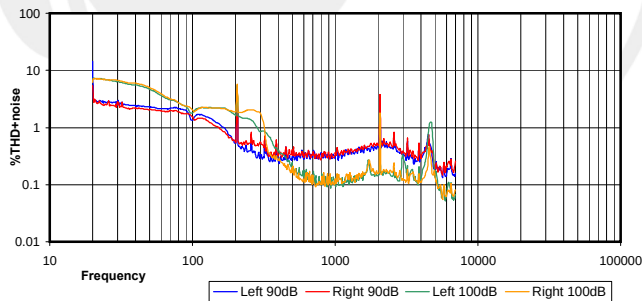
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



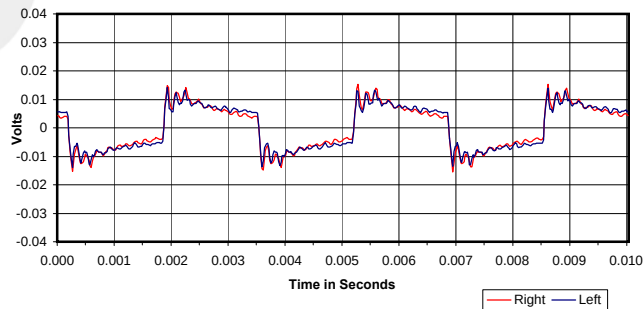
30 Hz Square Wave



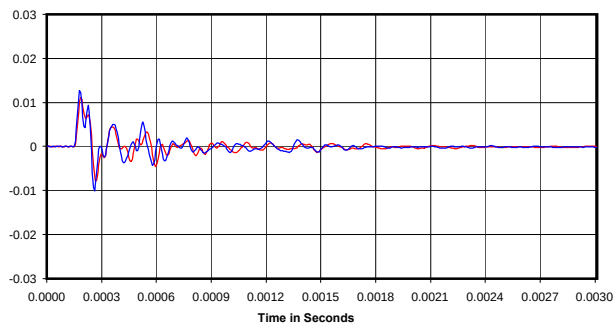
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



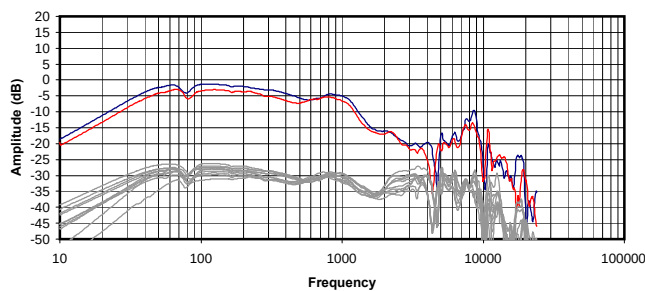
Impulse Response



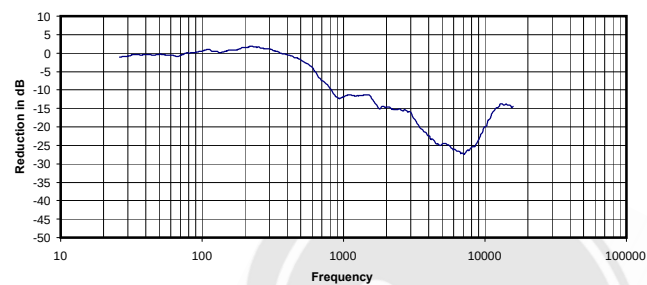
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.036 Vrms
46 Ohms
0.03 mW
-8 dBr

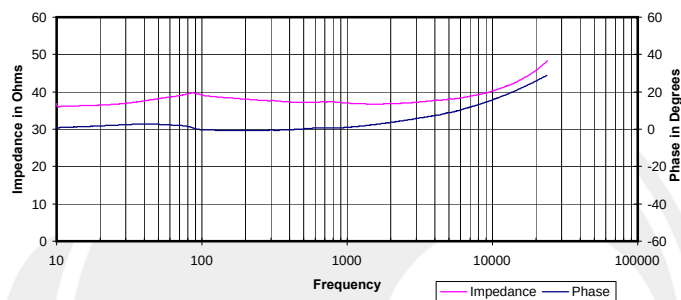
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



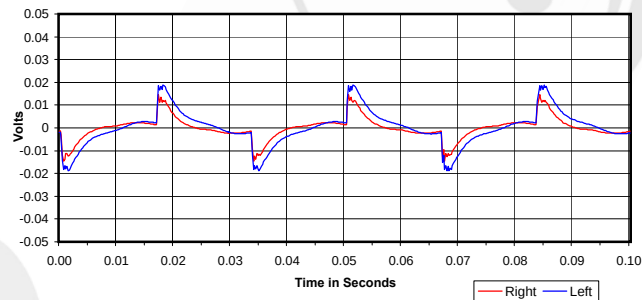
Isolation
Attenuation of External Sound vs. Frequency



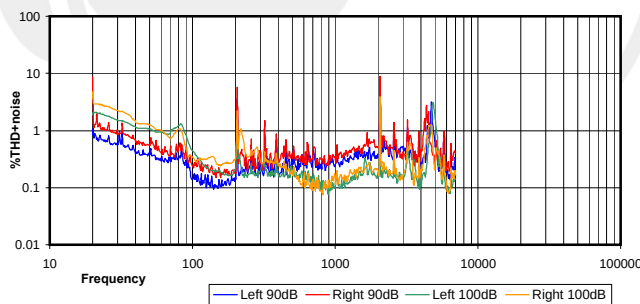
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



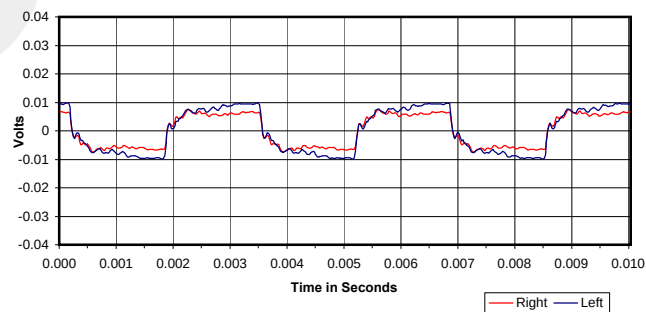
30 Hz Square Wave



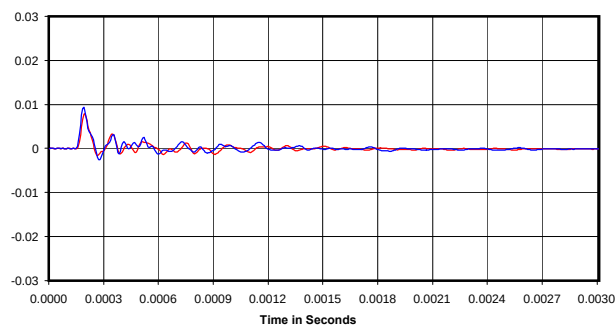
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



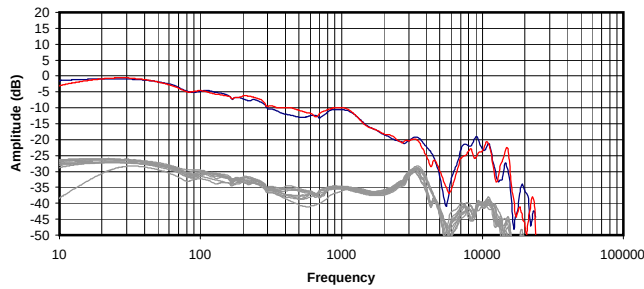
Impulse Response



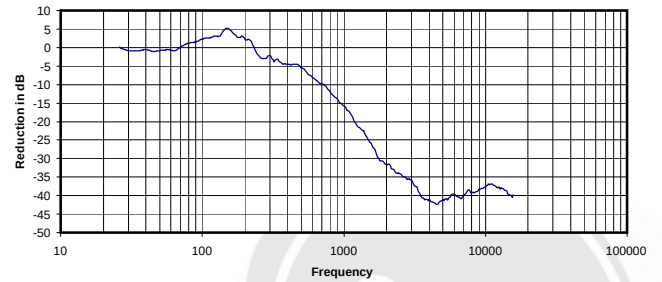
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.091 Vrms
37 Ohms
0.22 mW
-8 dBr

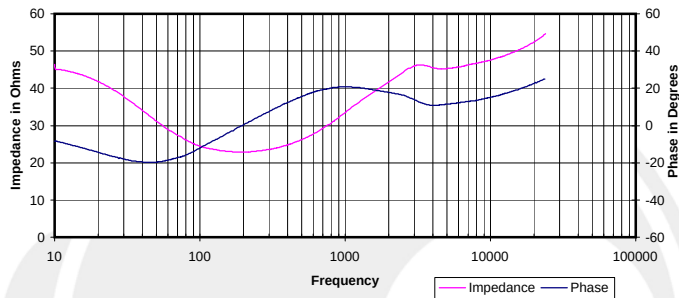
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



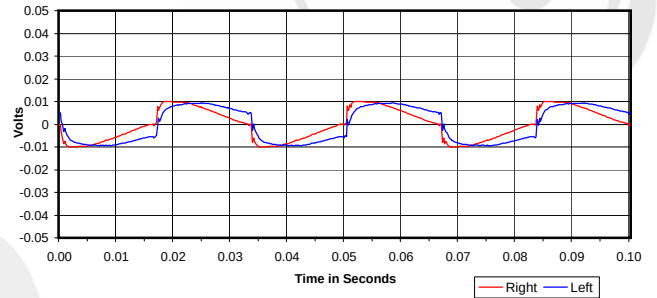
Isolation
Attenuation of External Sound vs. Frequency



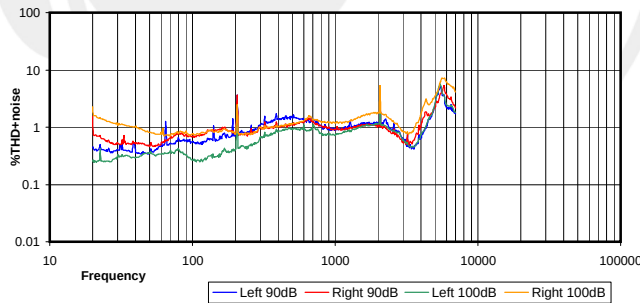
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



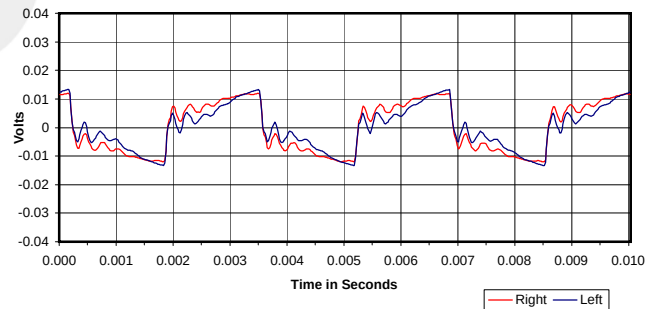
30 Hz Square Wave



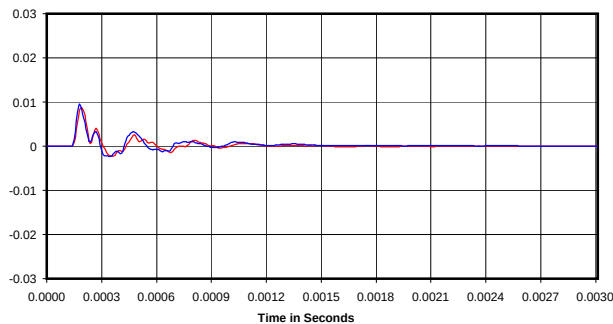
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



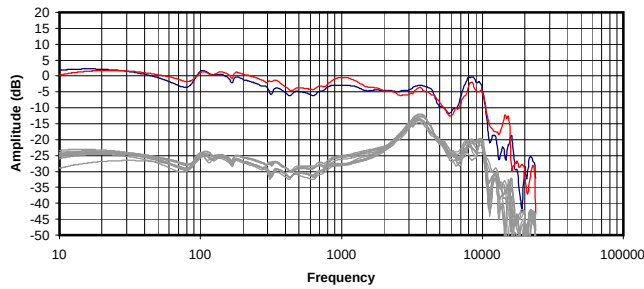
Impulse Response



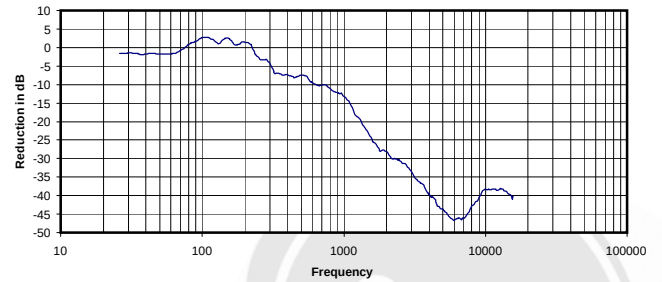
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.040 Vrms
34 Ohms
0.05 mW
-16 dBr

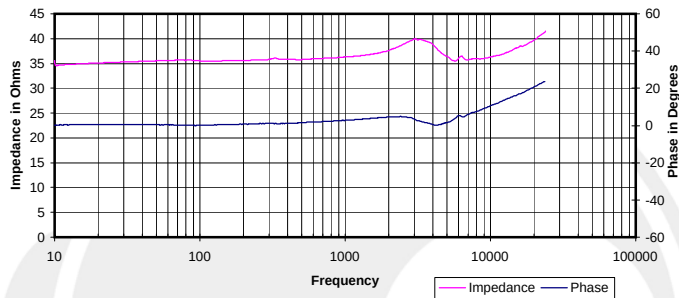
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



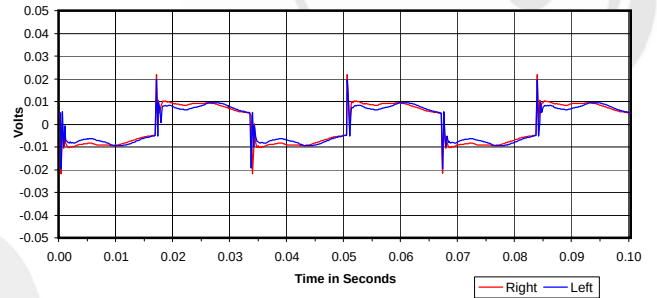
Isolation
Attenuation of External Sound vs. Frequency



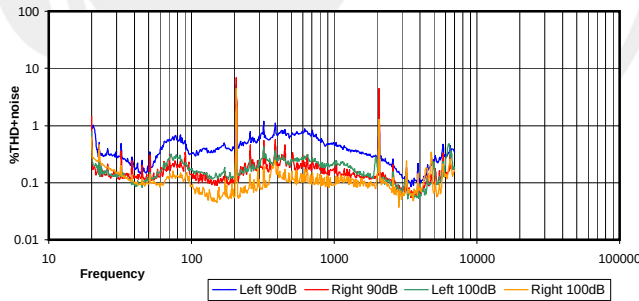
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



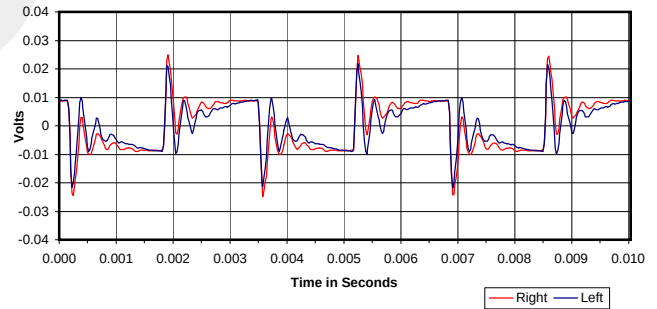
30 Hz Square Wave



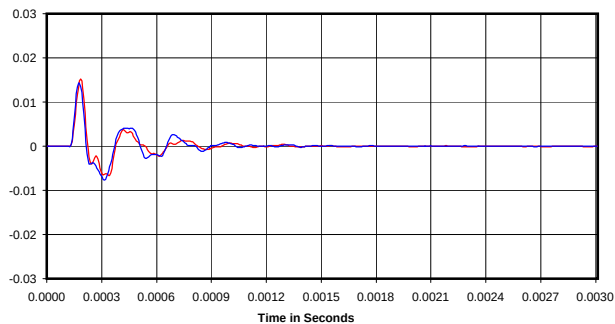
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



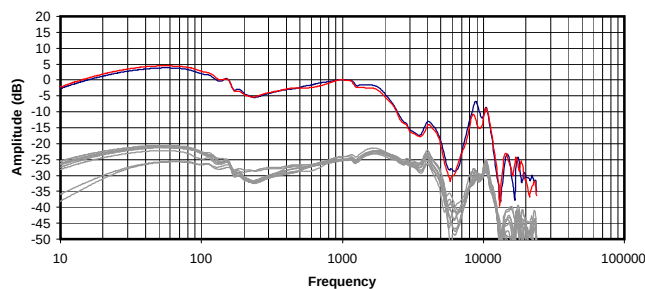
Impulse Response



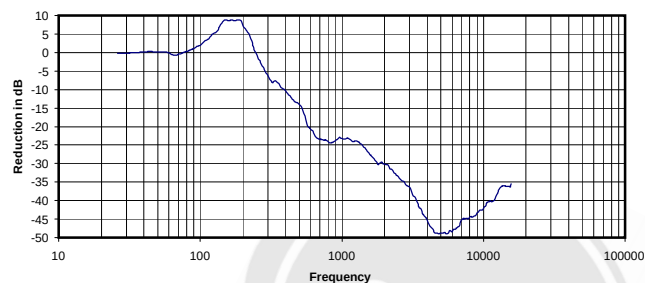
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.045 Vrms
36 Ohms
0.06 mW
-16 dBr

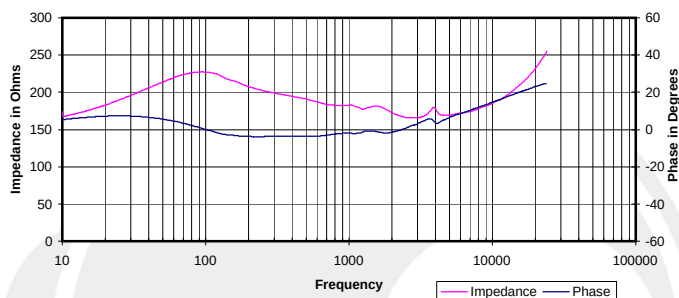
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



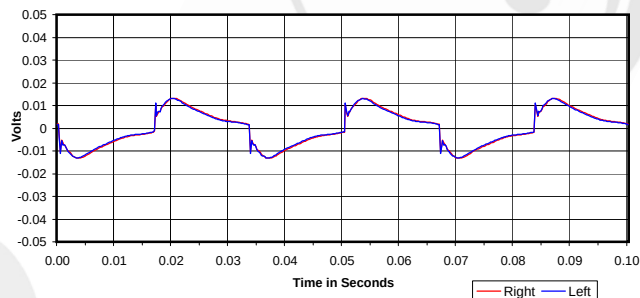
Isolation
Attenuation of External Sound vs. Frequency



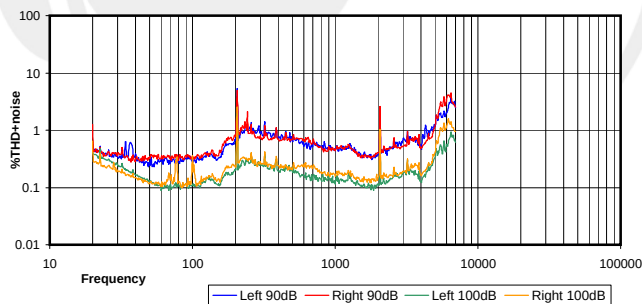
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



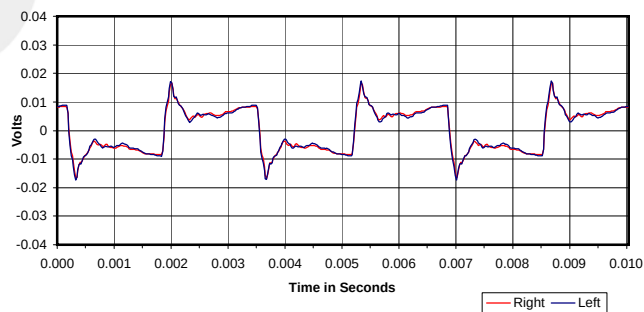
30 Hz Square Wave



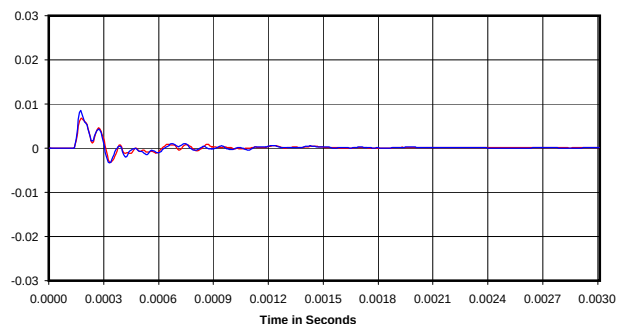
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



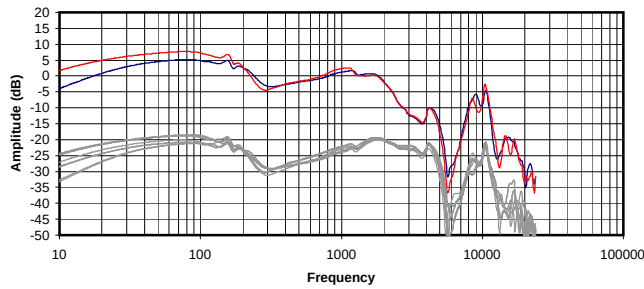
Impulse Response



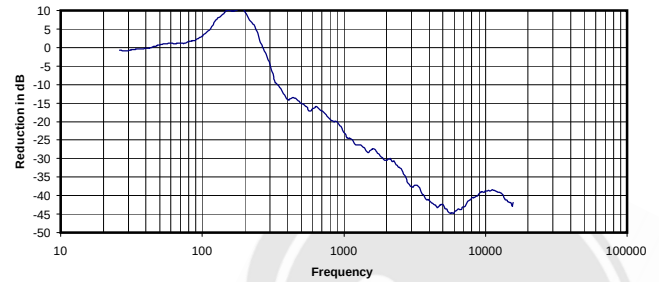
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.040 Vrms
182 Ohms
0.01 mW
-19 dBr

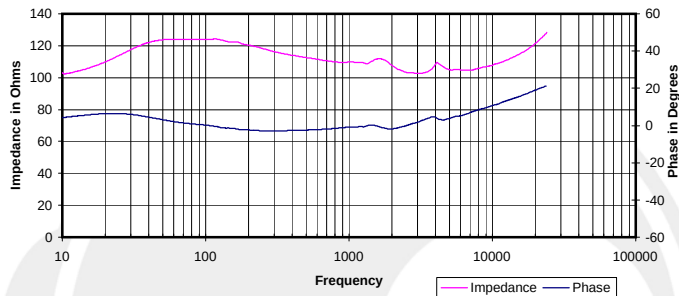
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



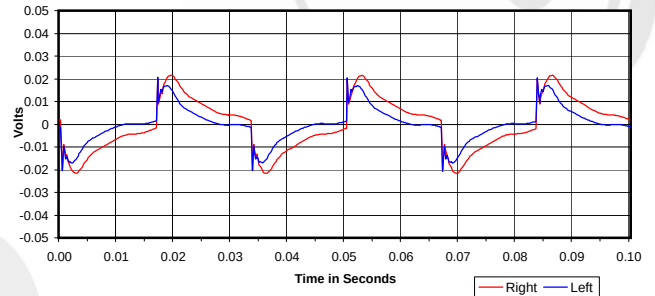
Isolation
Attenuation of External Sound vs. Frequency



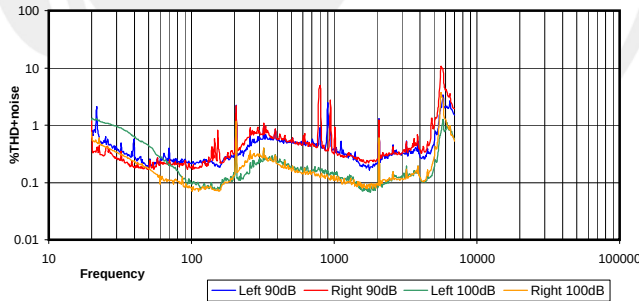
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



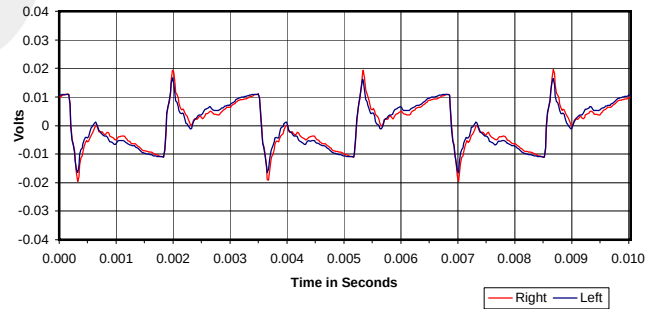
30 Hz Square Wave



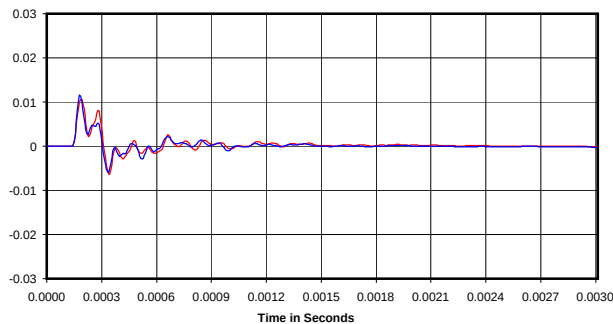
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



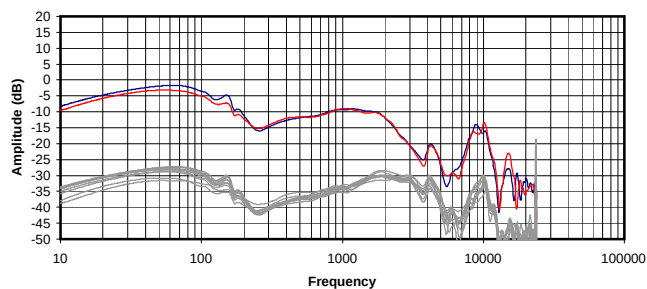
Impulse Response



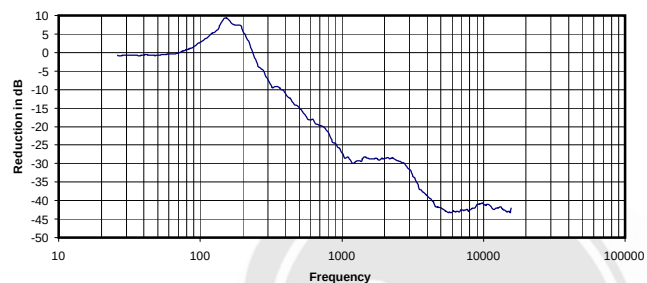
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.035 Vrms
110 Ohms
0.01 mW
-18 dBr

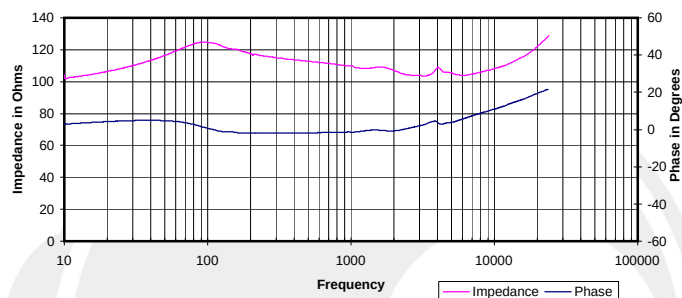
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



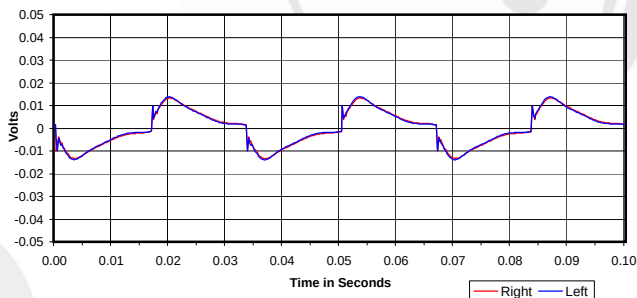
Isolation
Attenuation of External Sound vs. Frequency



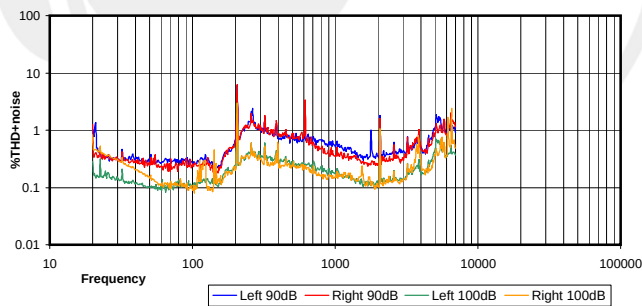
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



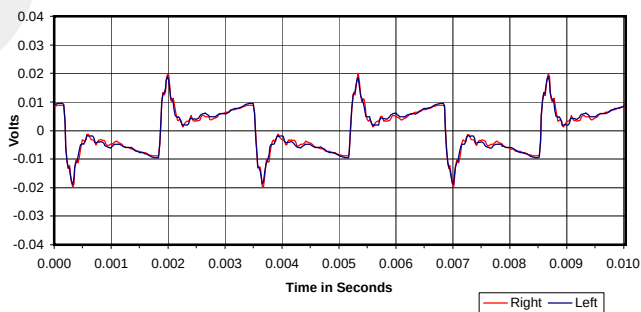
30 Hz Square Wave



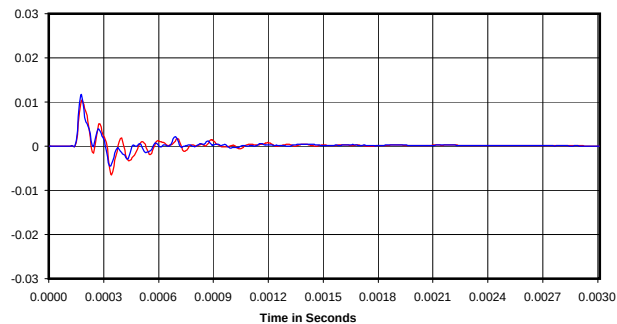
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



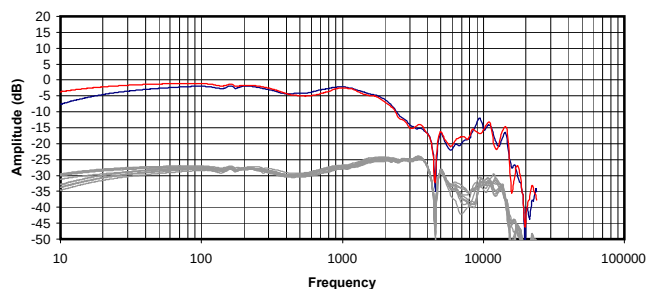
Impulse Response



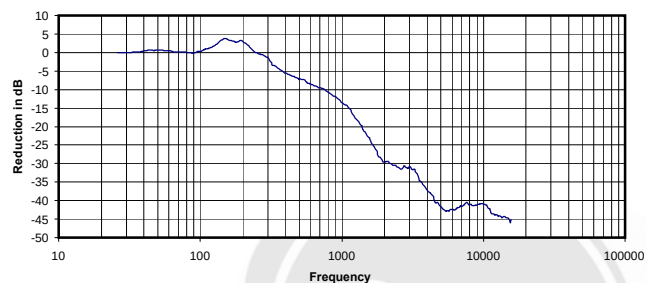
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.051 Vrms
110 Ohms
0.02 mW
-18 dBr

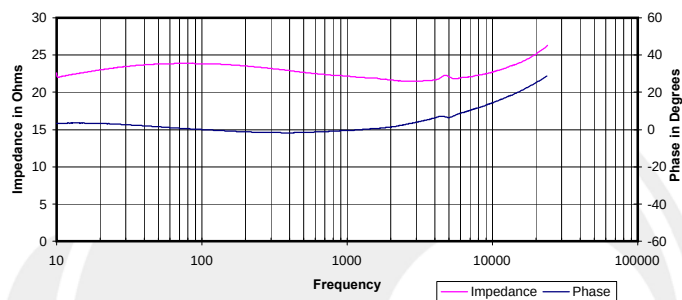
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



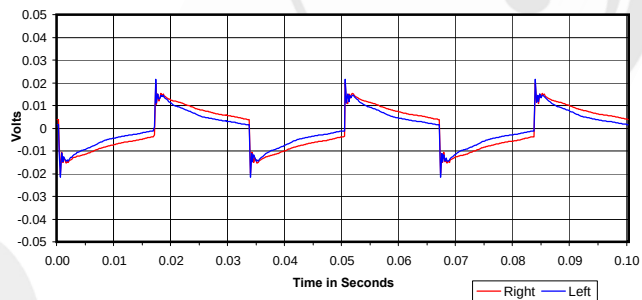
Isolation
Attenuation of External Sound vs. Frequency



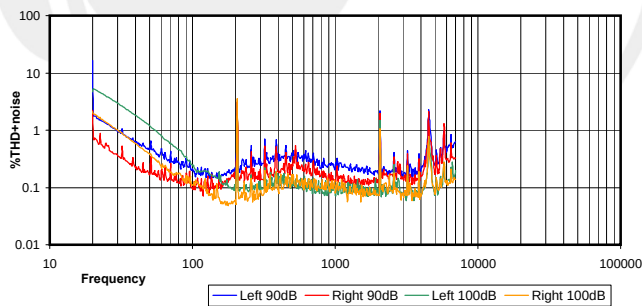
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



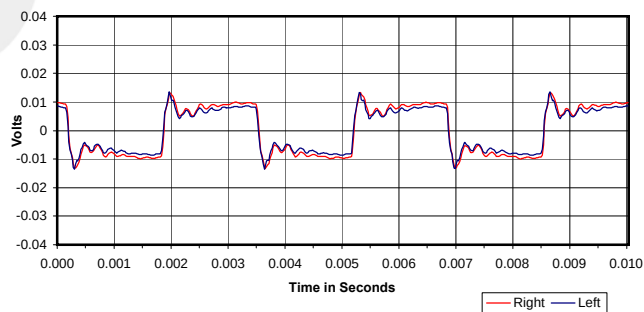
30 Hz Square Wave



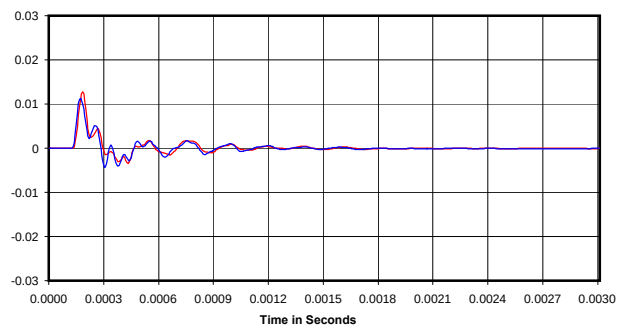
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



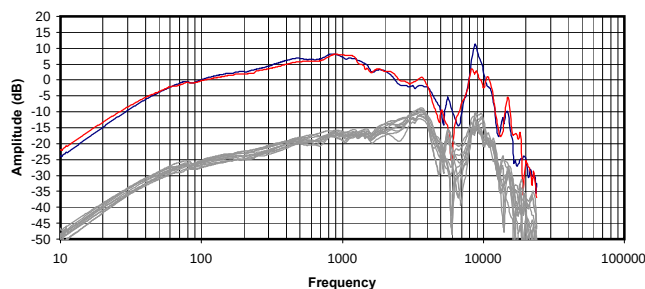
Impulse Response



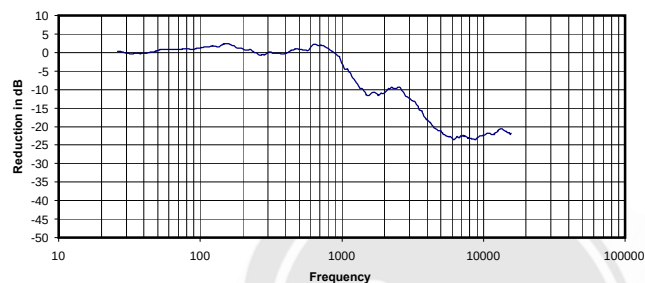
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.022 Vrms
22 Ohms
0.02 mW
-15 dBr

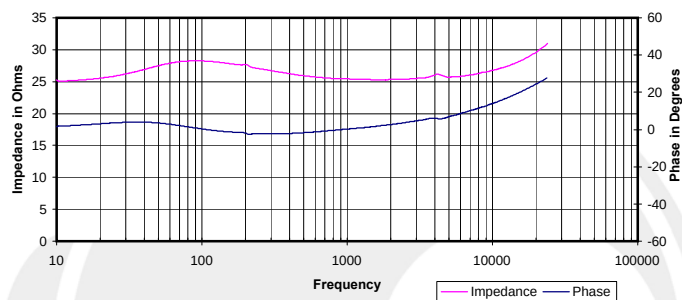
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



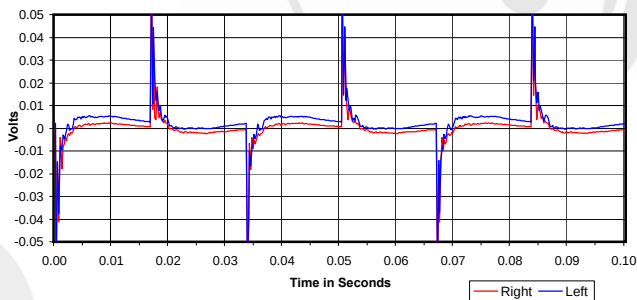
Isolation
Attenuation of External Sound vs. Frequency



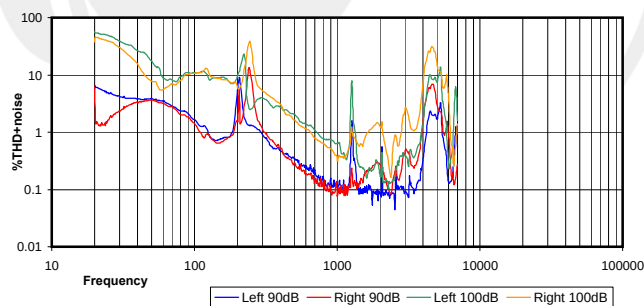
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



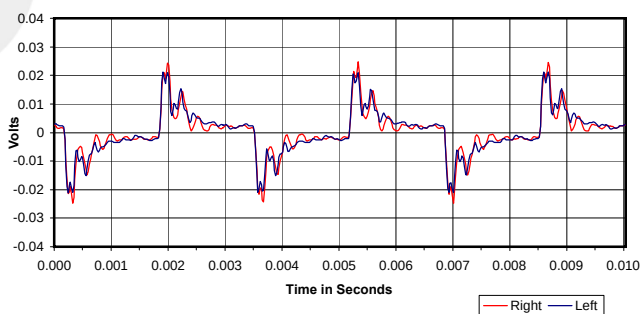
30 Hz Square Wave



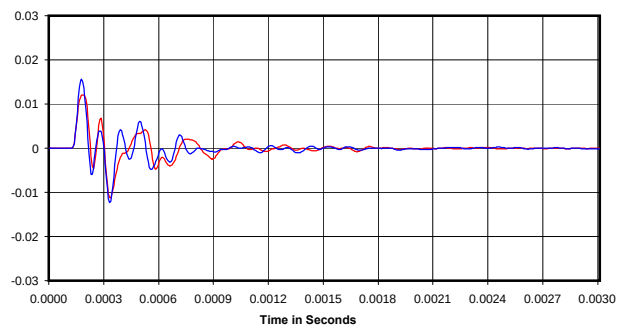
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



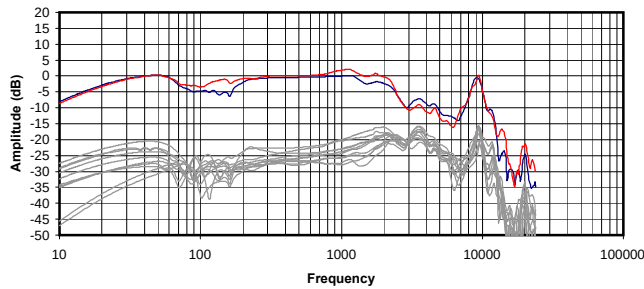
Impulse Response



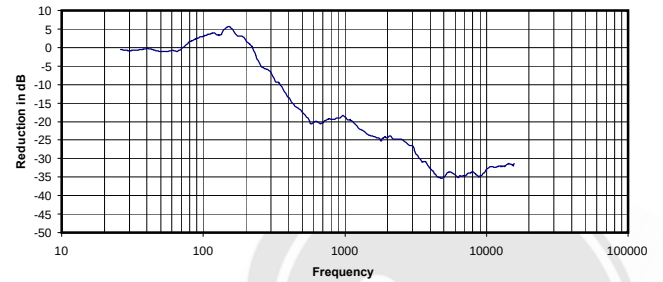
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.074 Vrms
25 Ohms
0.22 mW
-5 dBr

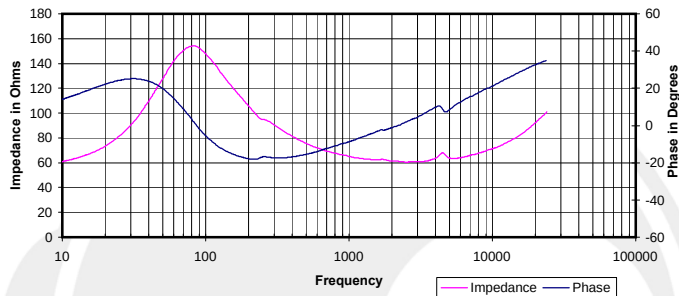
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



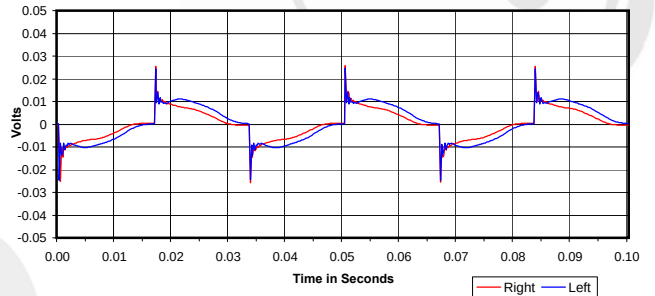
Isolation
Attenuation of External Sound vs. Frequency



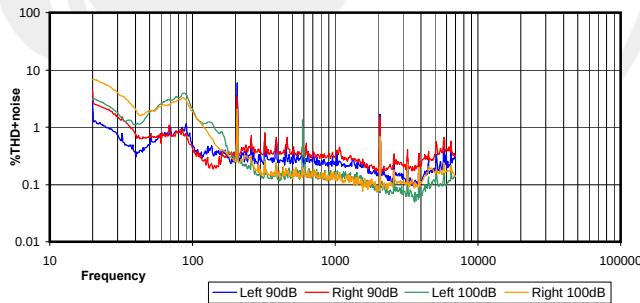
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



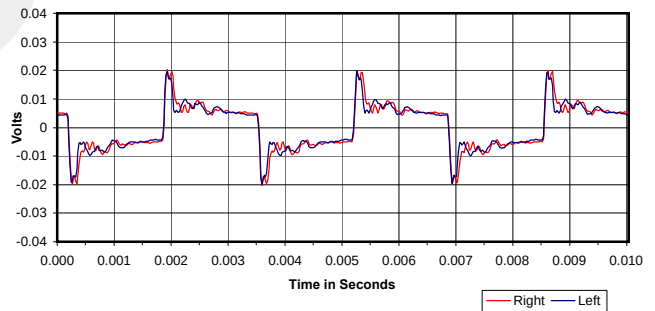
30 Hz Square Wave



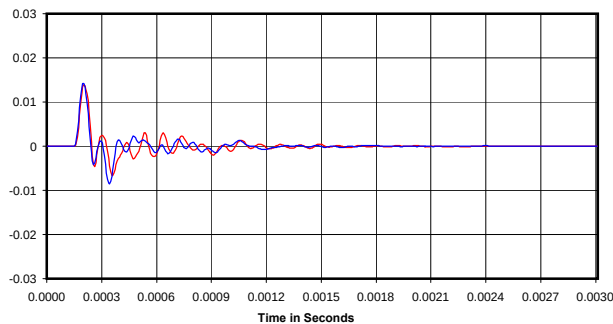
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



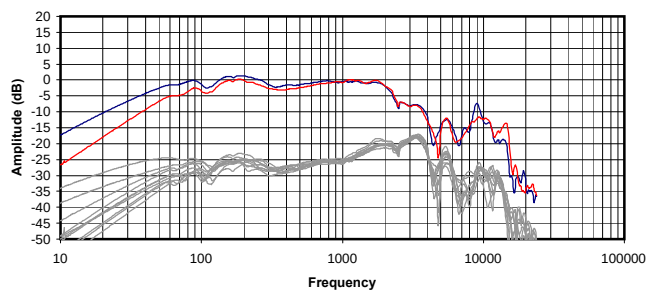
Impulse Response



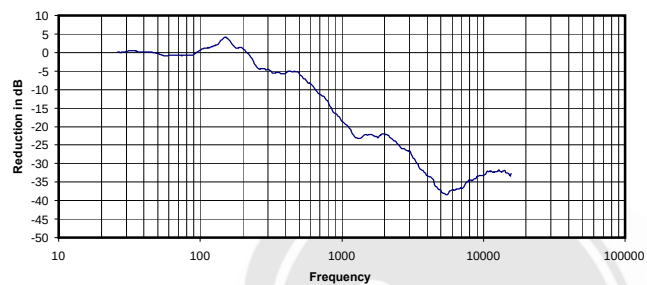
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.061 Vrms
65 Ohms
0.06 mW
-16 dBr

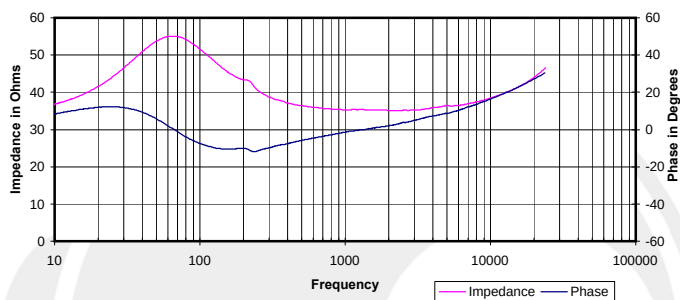
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



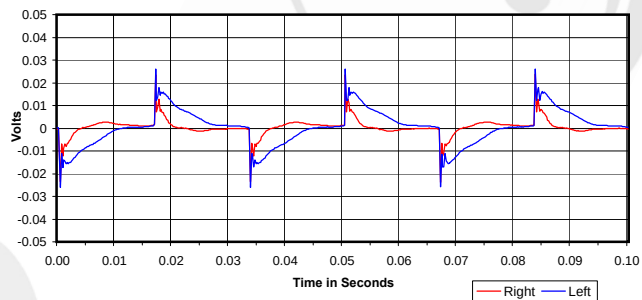
Isolation
Attenuation of External Sound vs. Frequency



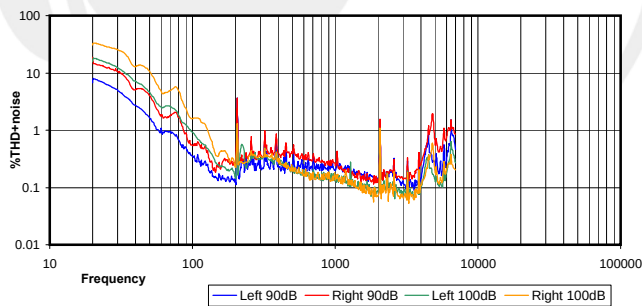
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



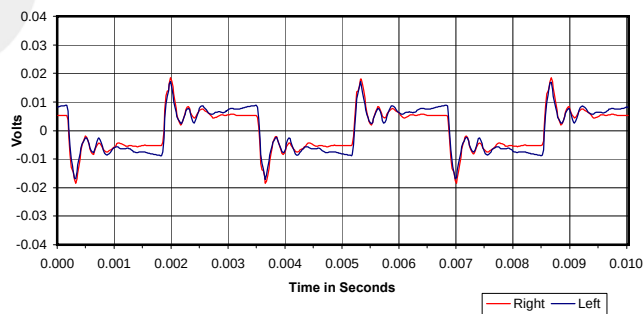
30 Hz Square Wave



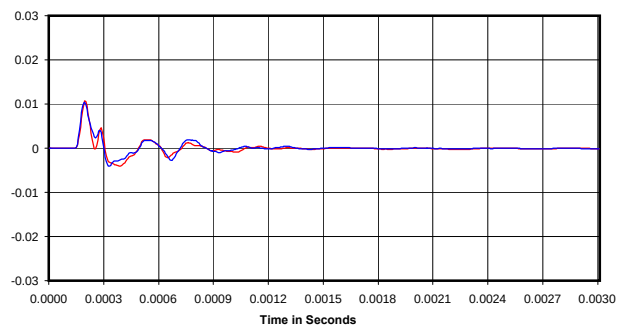
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



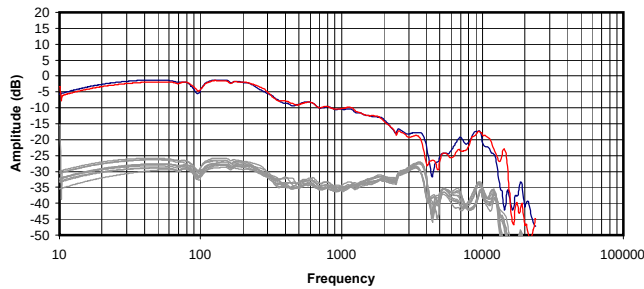
Impulse Response



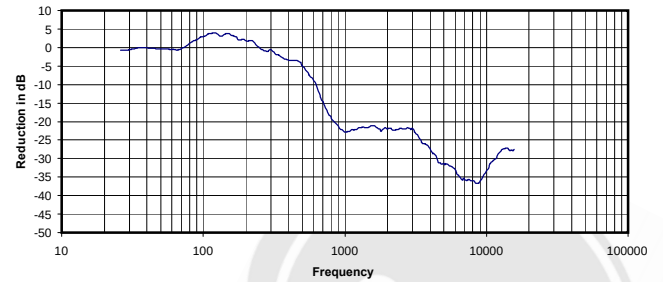
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.059 Vrms
35 Ohms
0.10 mW
-14 dBr

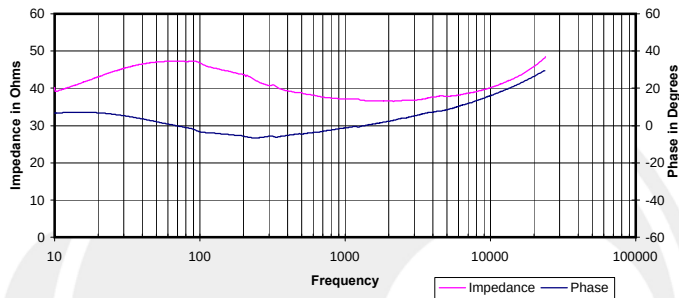
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



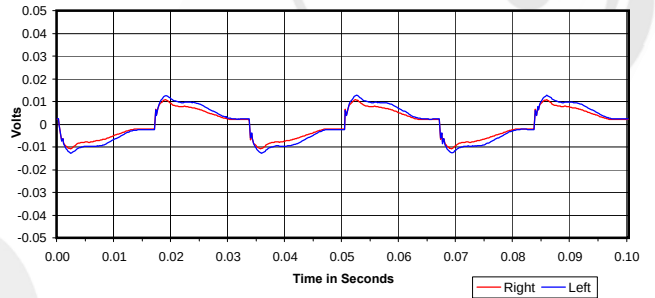
Isolation
Attenuation of External Sound vs. Frequency



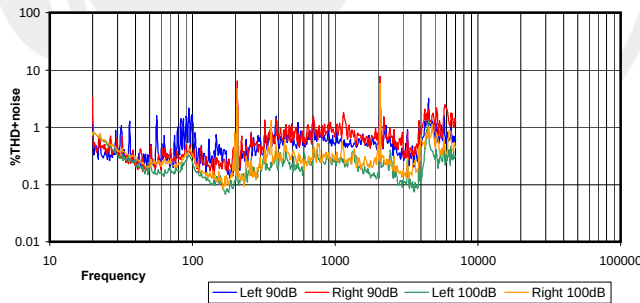
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



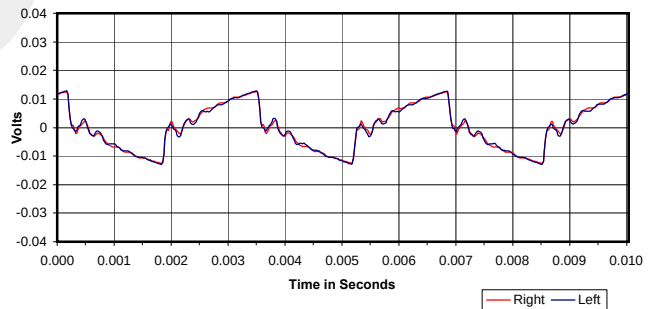
30 Hz Square Wave



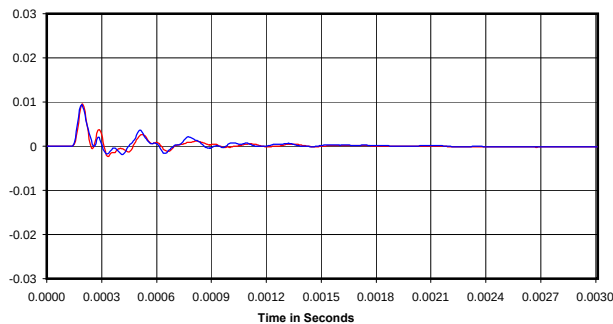
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



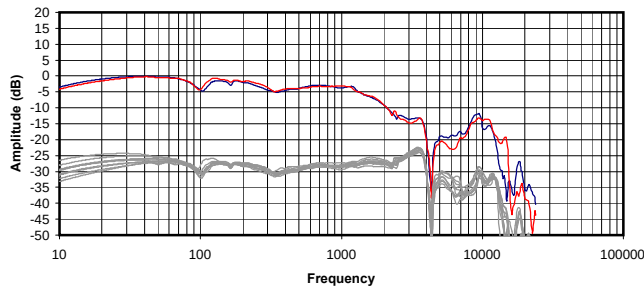
Impulse Response



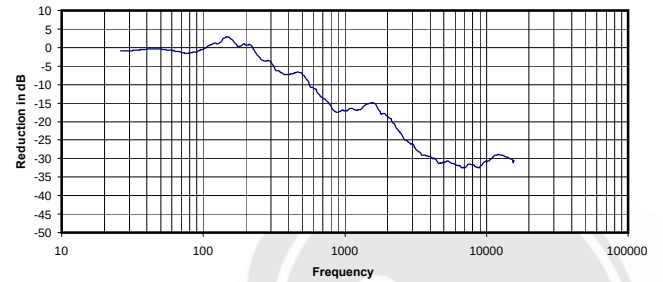
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.081 Vrms
37 Ohms
0.18 mW
-13 dBr

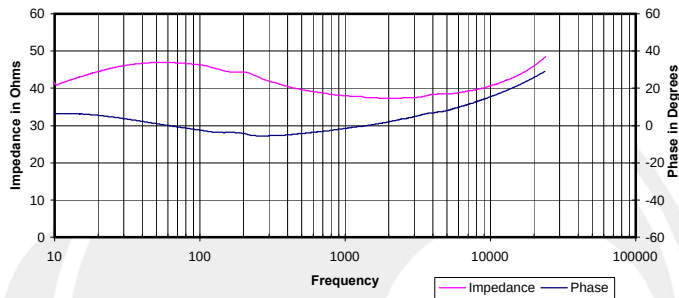
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



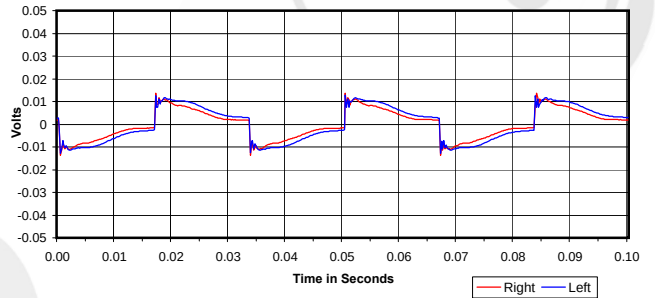
Isolation
Attenuation of External Sound vs. Frequency



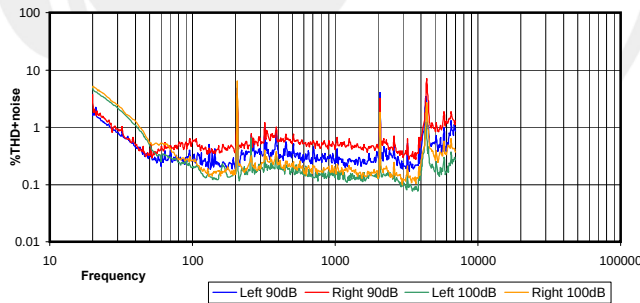
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



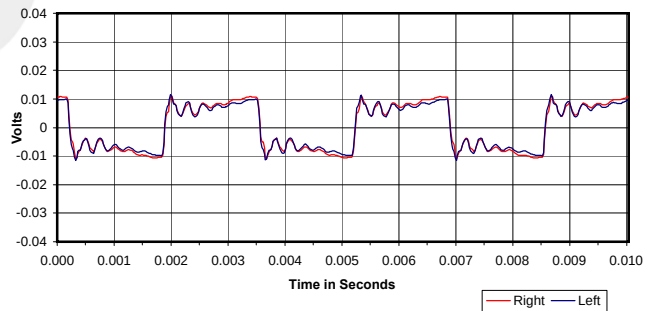
30 Hz Square Wave



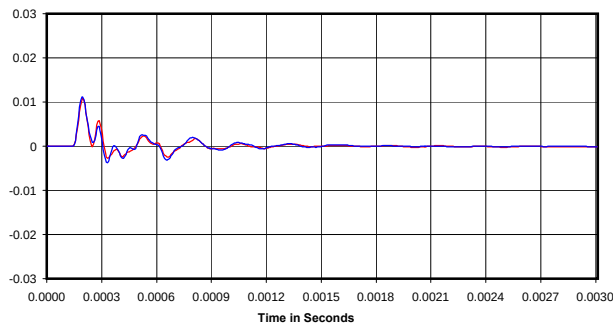
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



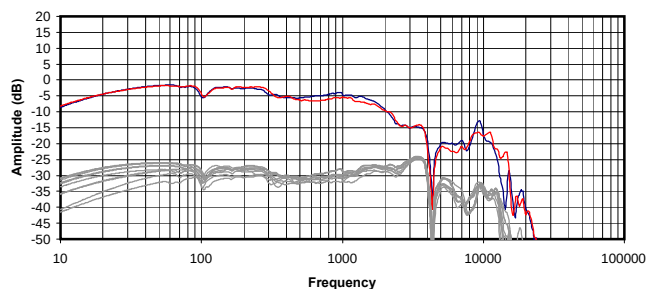
Impulse Response



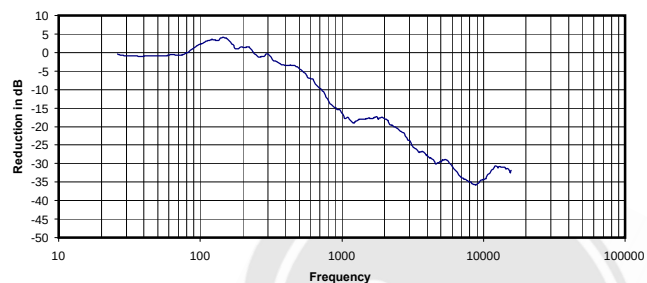
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.061 Vrms
38 Ohms
0.10 mW
-13 dBr

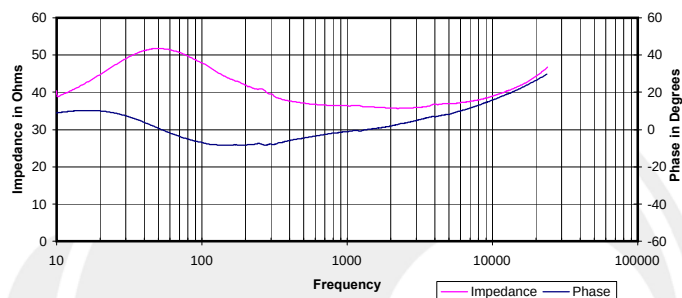
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



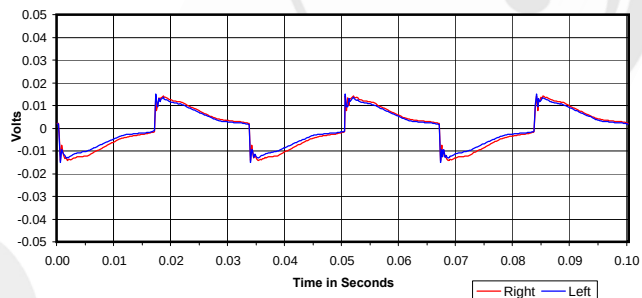
Isolation
Attenuation of External Sound vs. Frequency



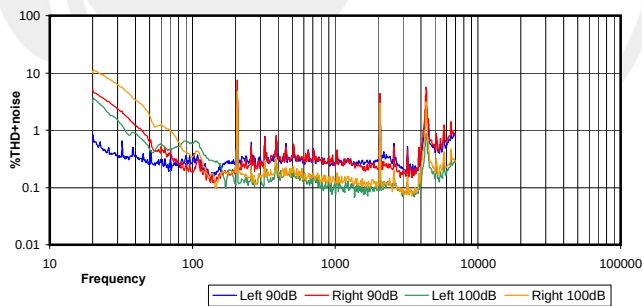
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



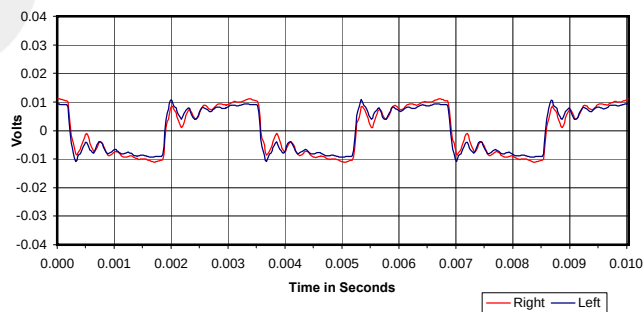
30 Hz Square Wave



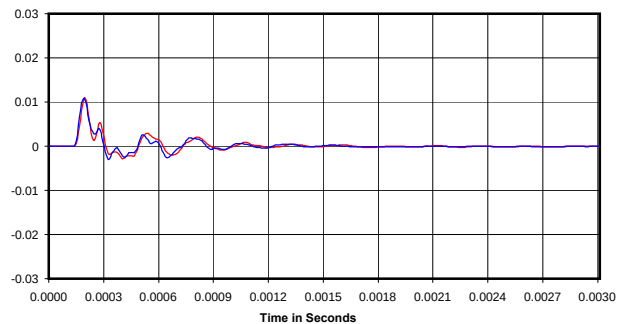
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



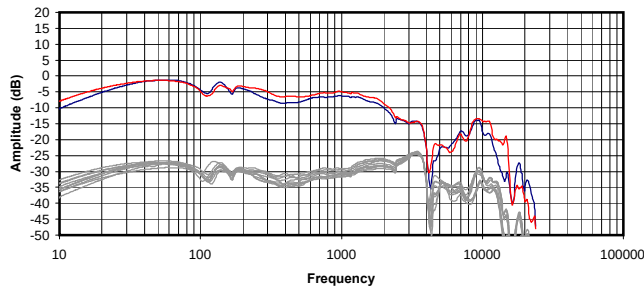
Impulse Response



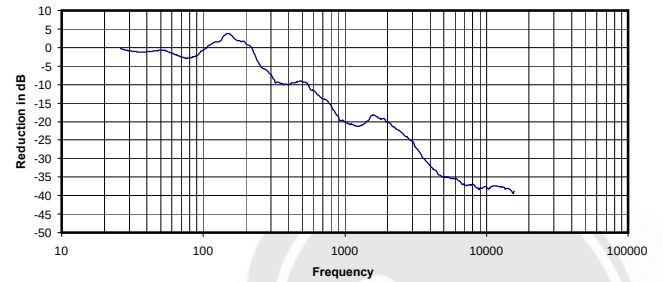
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.047 Vrms
36 Ohms
0.06 mW
-11 dBr

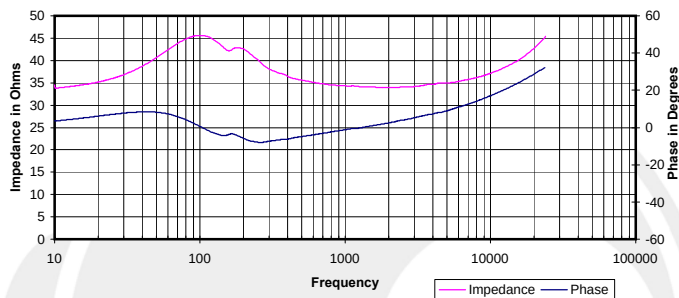
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



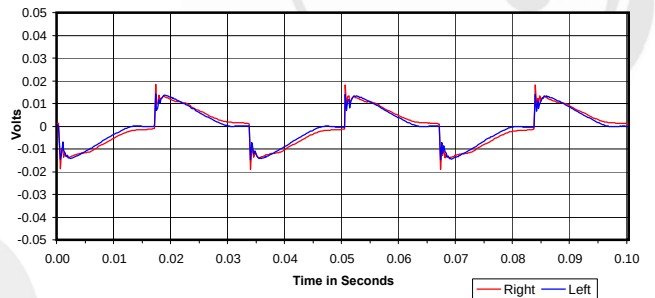
Isolation
Attenuation of External Sound vs. Frequency



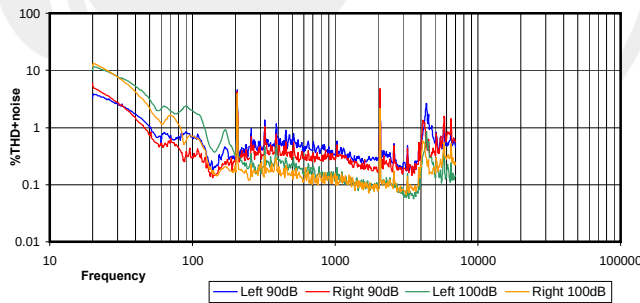
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



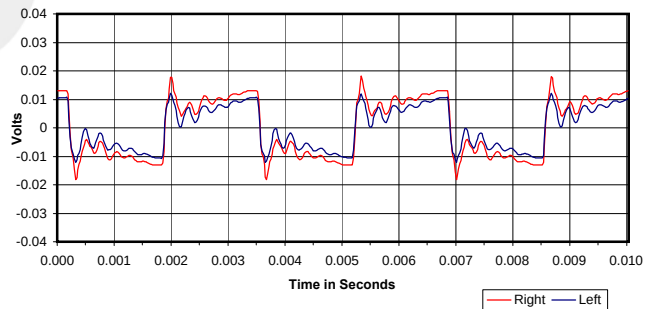
30 Hz Square Wave



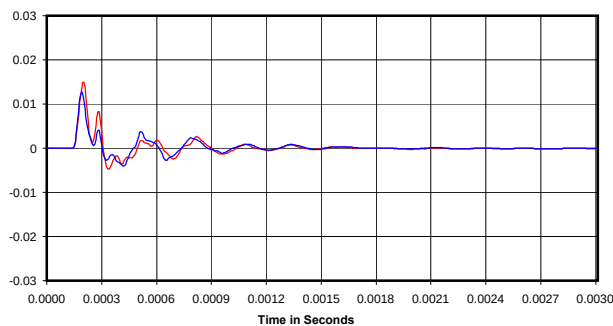
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



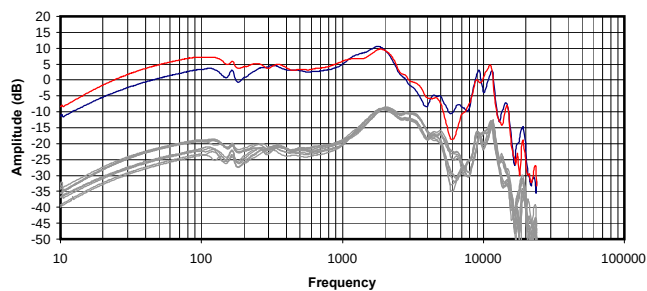
Impulse Response



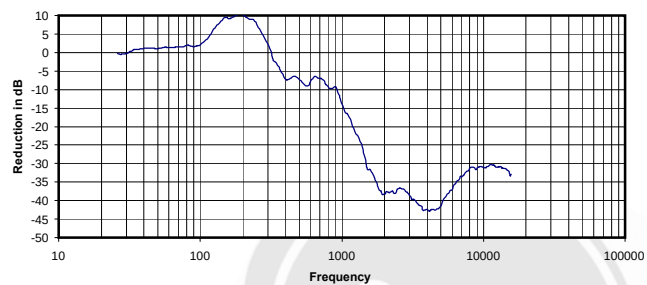
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.070 Vrms
34 Ohms
0.14 mW
-15 dBr

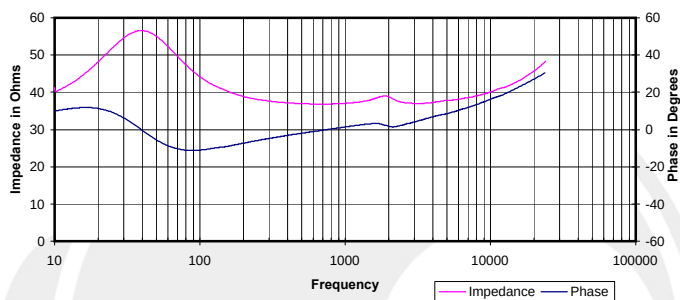
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



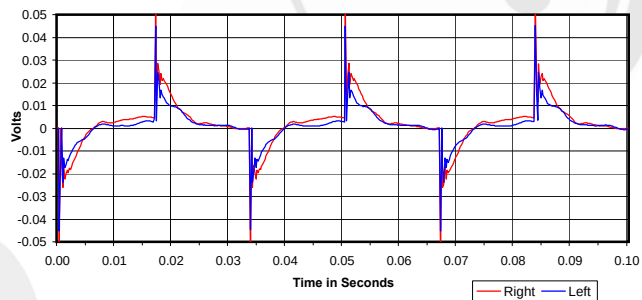
Isolation
Attenuation of External Sound vs. Frequency



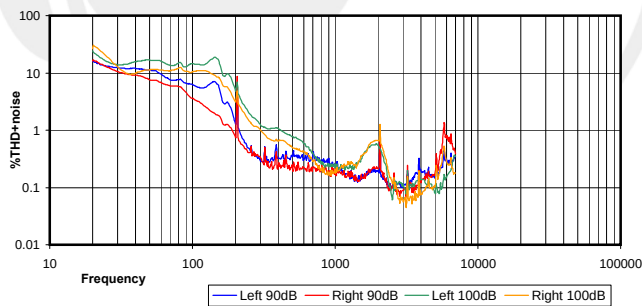
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



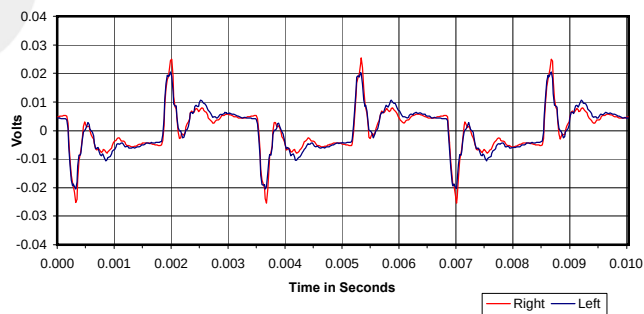
30 Hz Square Wave



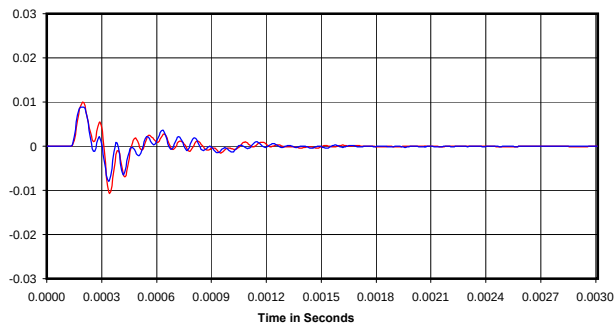
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



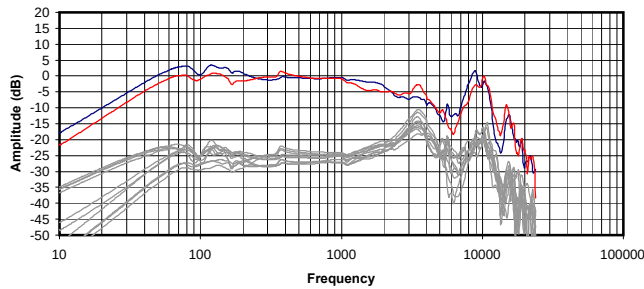
Impulse Response



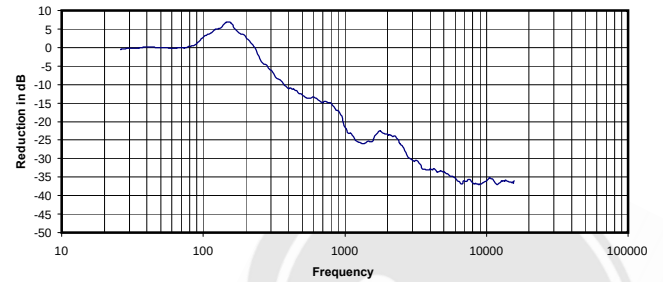
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.079 Vrms
37 Ohms
0.17 mW
-15 dBr

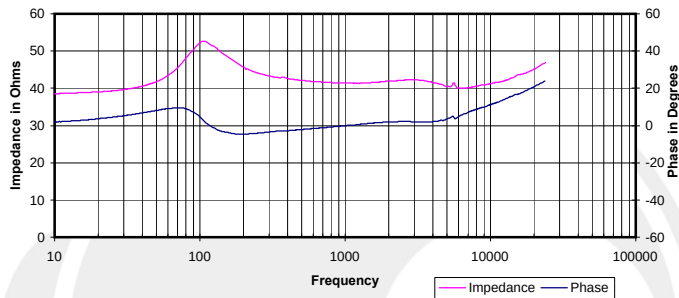
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



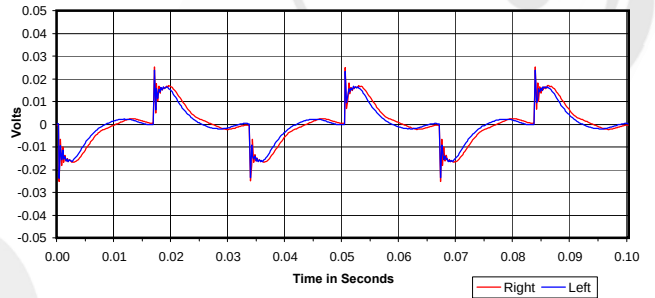
Isolation
Attenuation of External Sound vs. Frequency



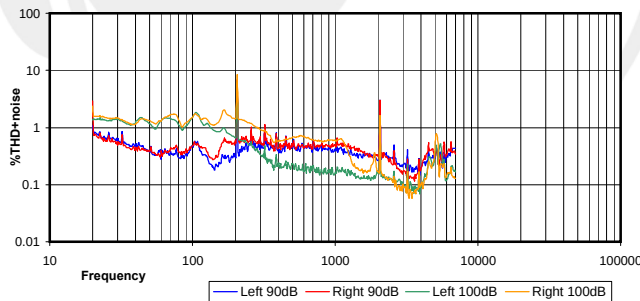
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



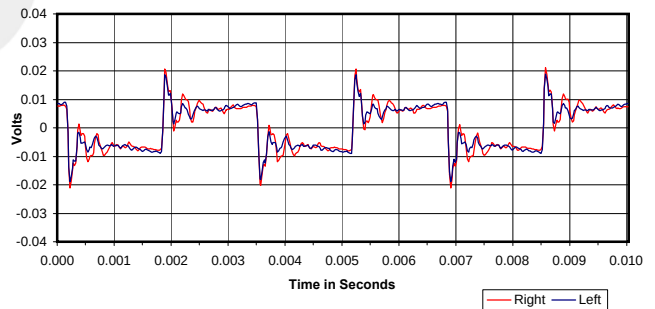
30 Hz Square Wave



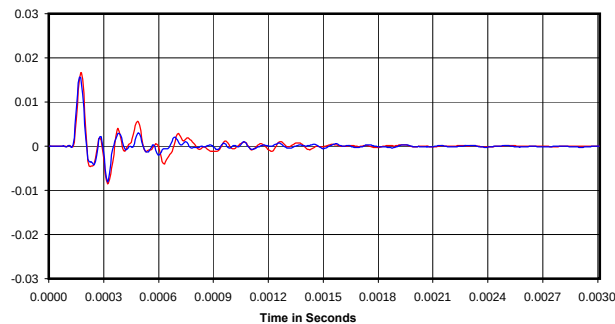
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



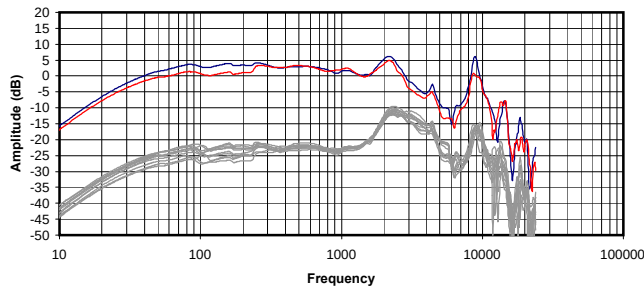
Impulse Response



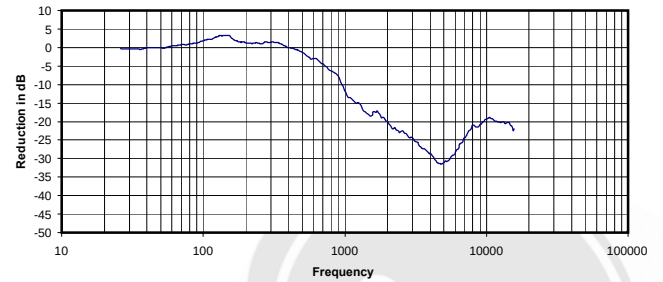
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.050 Vrms
41 Ohms
0.06 mW
-15 dBr

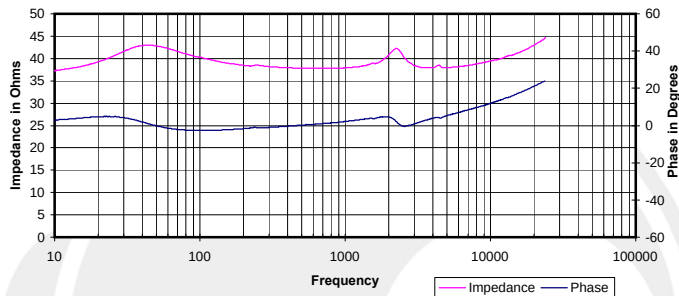
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



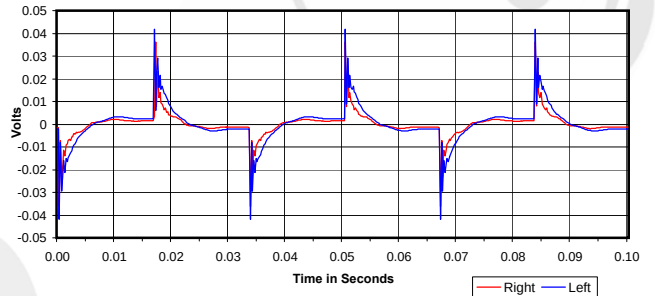
Isolation
Attenuation of External Sound vs. Frequency



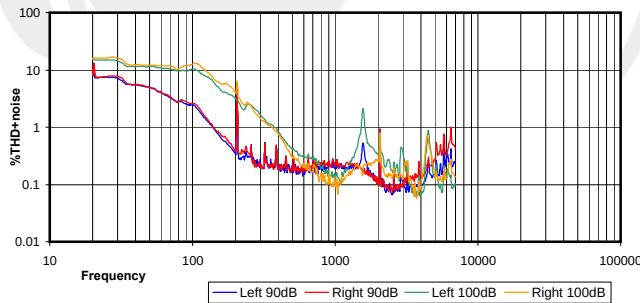
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



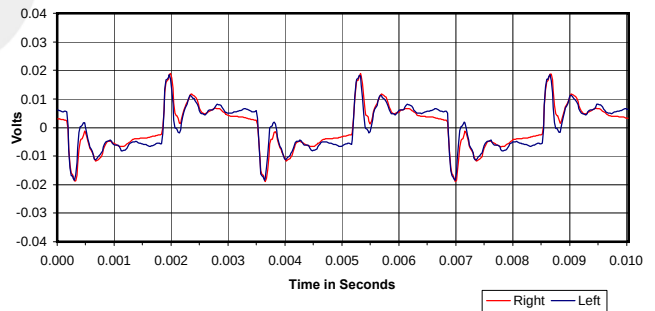
30 Hz Square Wave



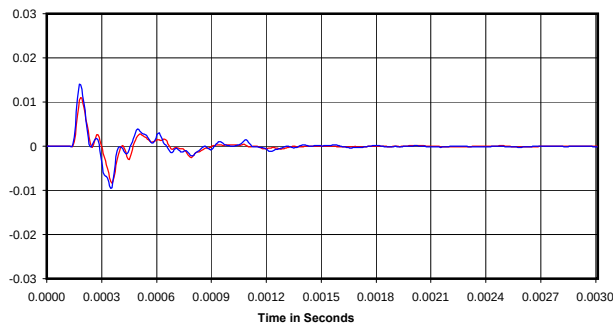
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



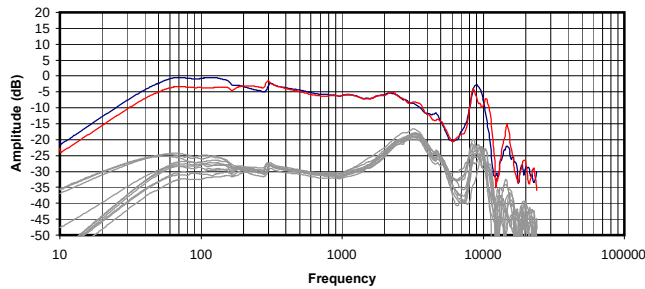
Impulse Response



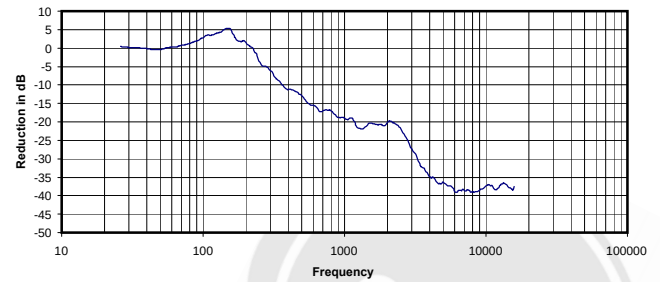
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.087 Vrms
38 Ohms
0.20 mW
-10 dBr

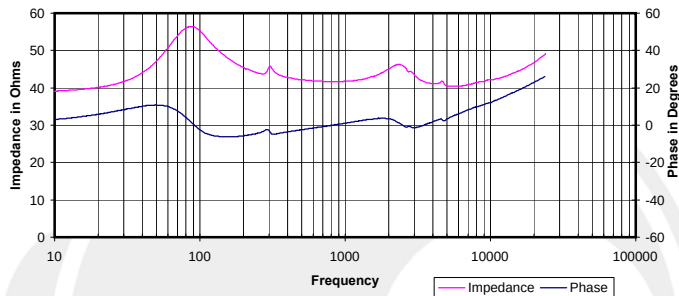
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



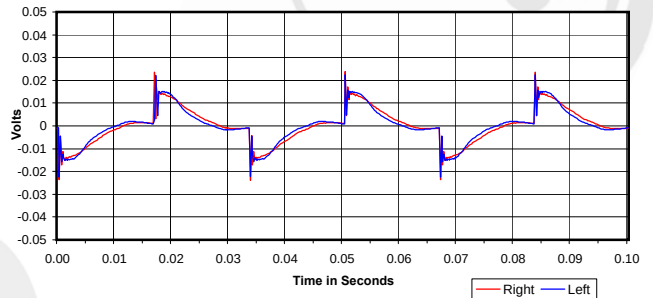
Isolation
Attenuation of External Sound vs. Frequency



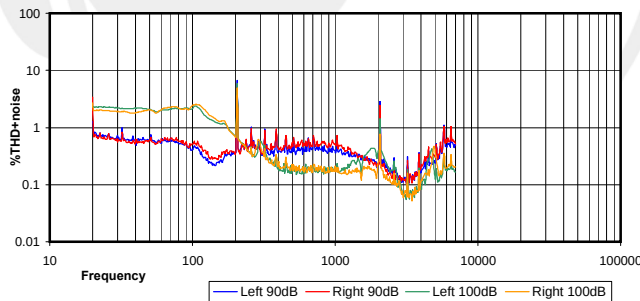
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



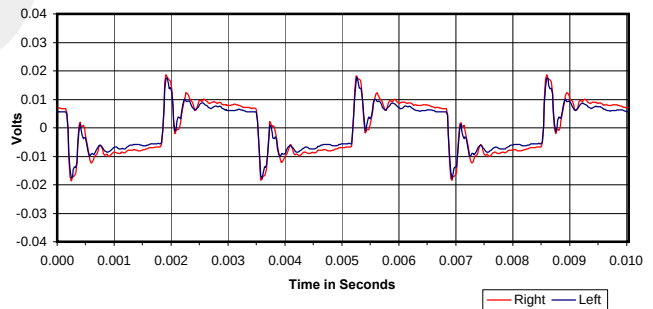
30 Hz Square Wave



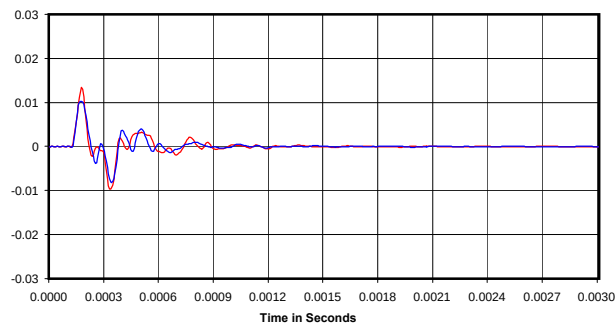
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



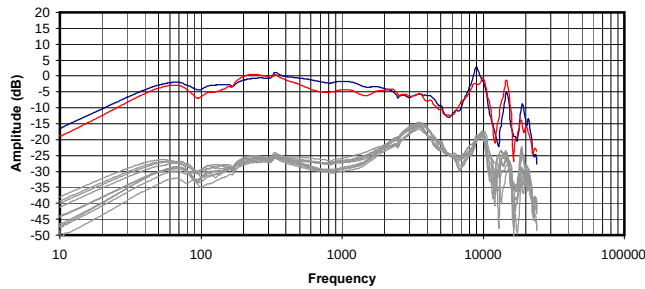
Impulse Response



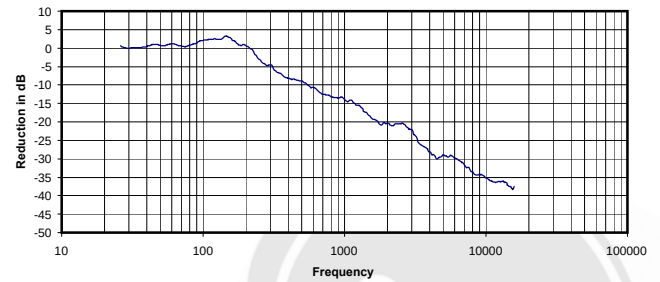
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.066 Vrms
42 Ohms
0.11 mW
-15 dB

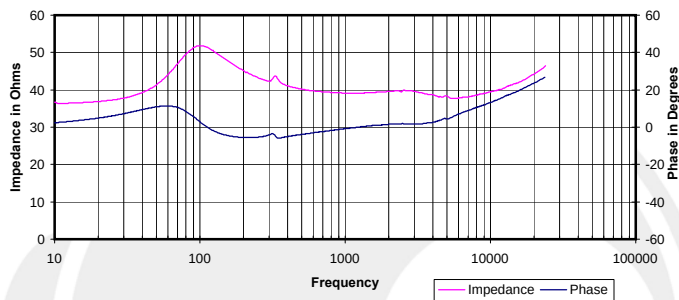
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



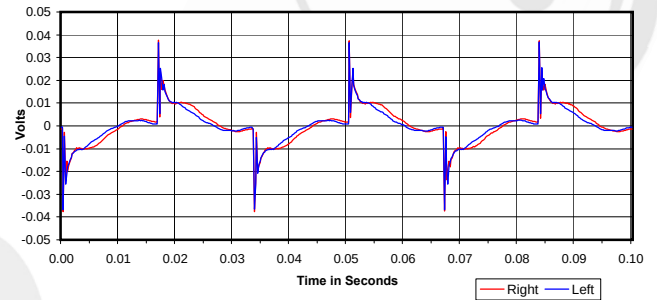
Isolation
Attenuation of External Sound vs. Frequency



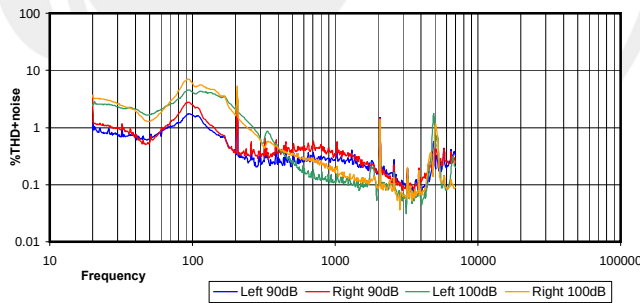
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



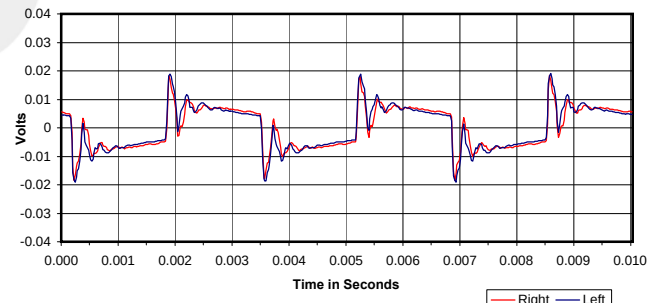
30 Hz Square Wave



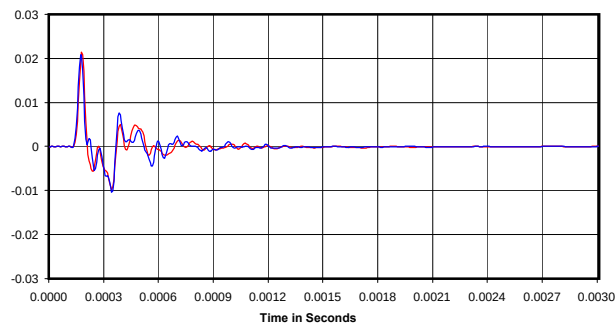
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



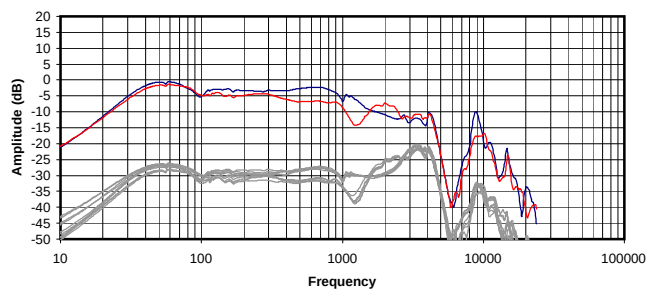
Impulse Response



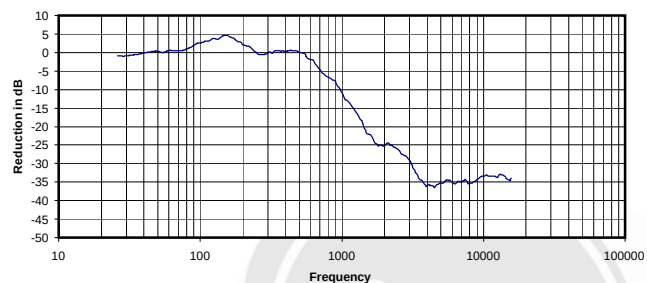
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.066 Vrms
39 Ohms
0.11 mW
-12 dBr

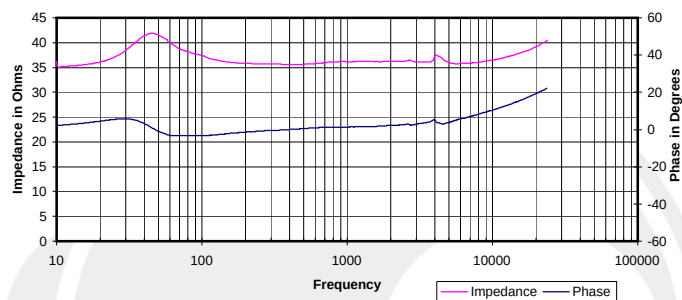
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



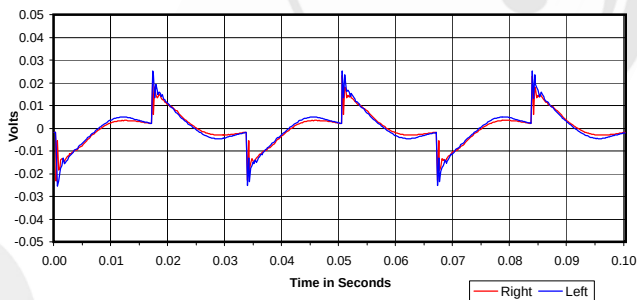
Isolation
Attenuation of External Sound vs. Frequency



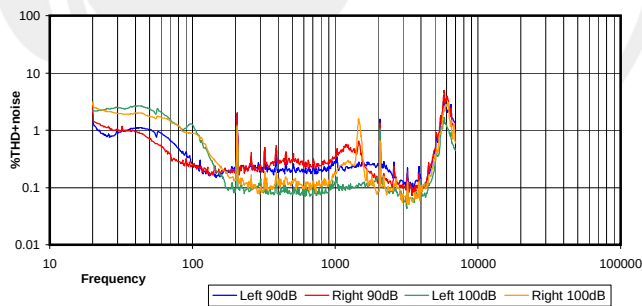
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



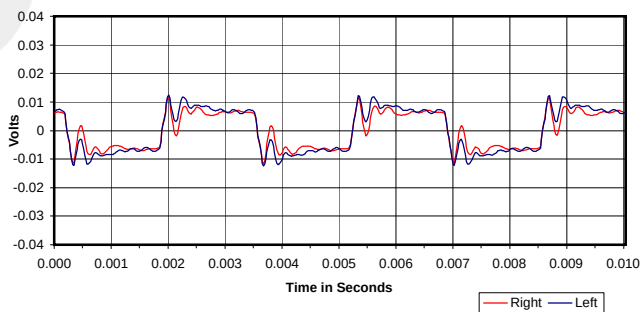
30 Hz Square Wave



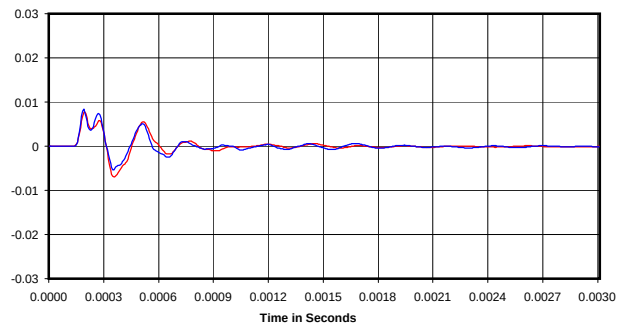
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



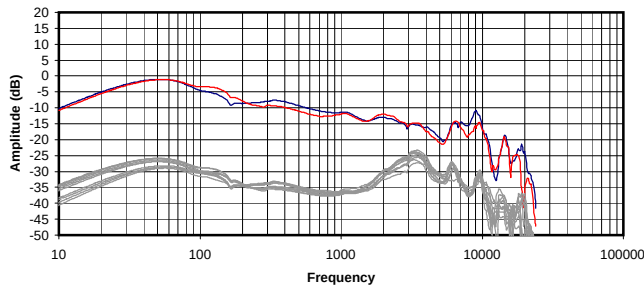
Impulse Response



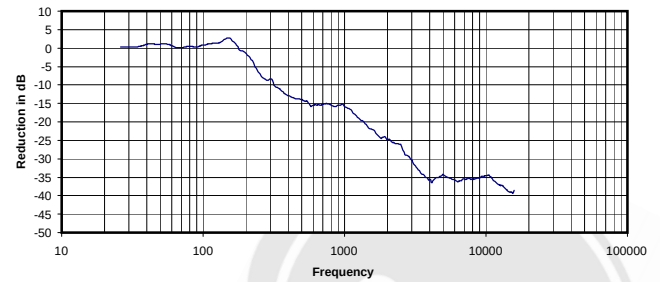
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90dB BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.043 Vrms
36 Ohms
0.05 mW
-12 dBr

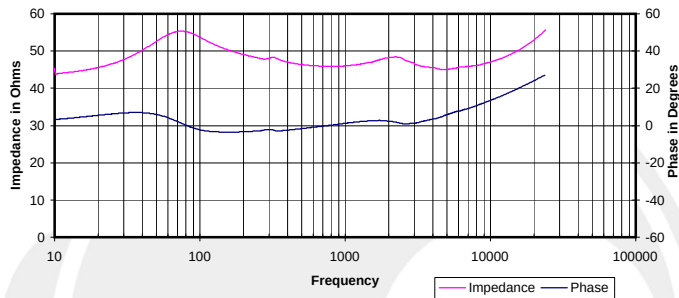
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



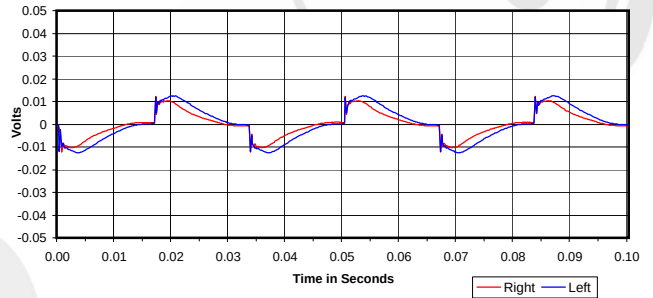
Isolation
Attenuation of External Sound vs. Frequency



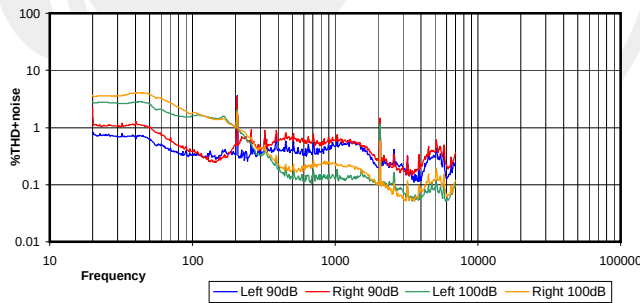
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



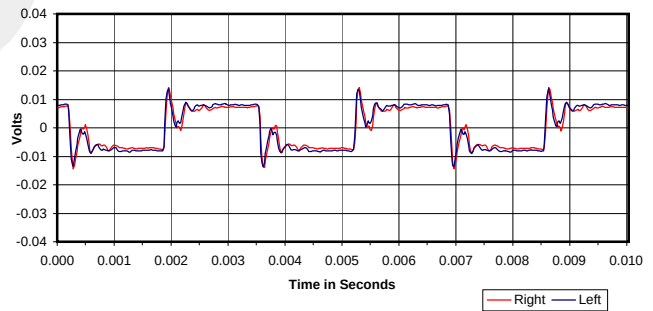
30 Hz Square Wave



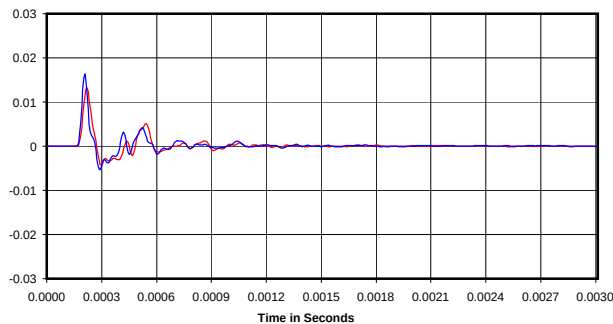
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



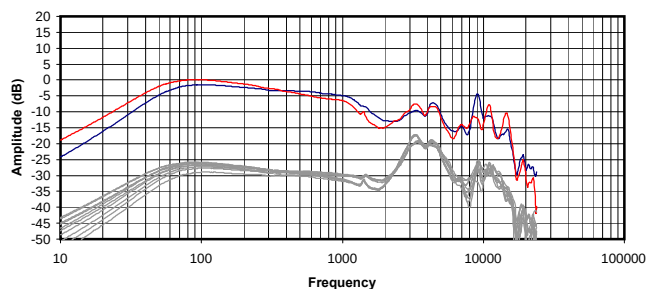
Impulse Response



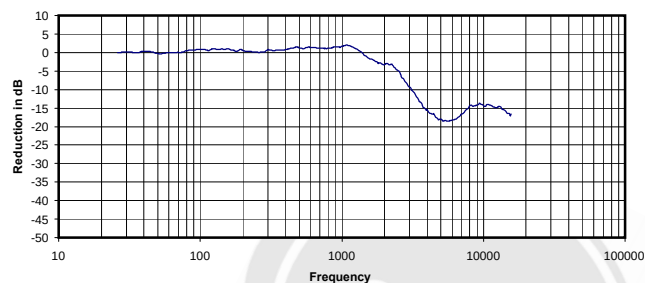
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.109 Vrms
46 Ohms
0.26 mW
-16 dBr

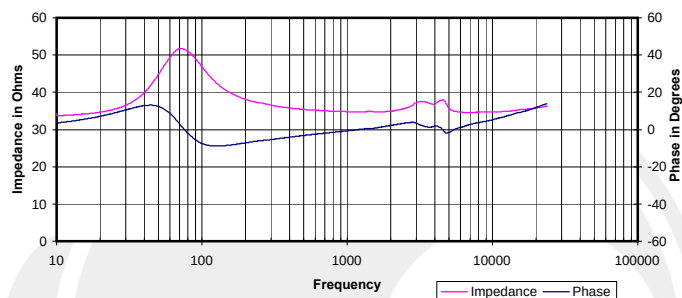
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



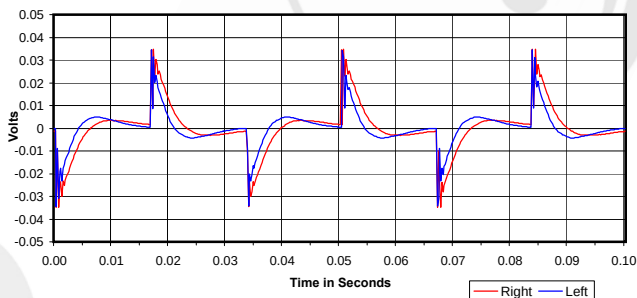
Isolation
Attenuation of External Sound vs. Frequency



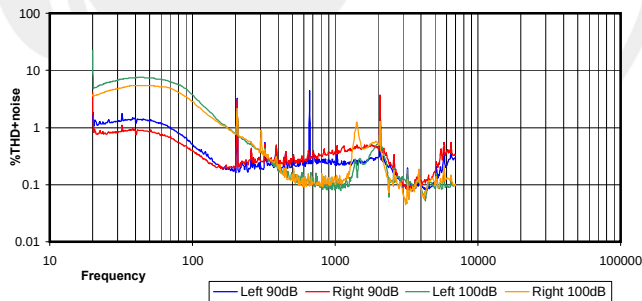
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



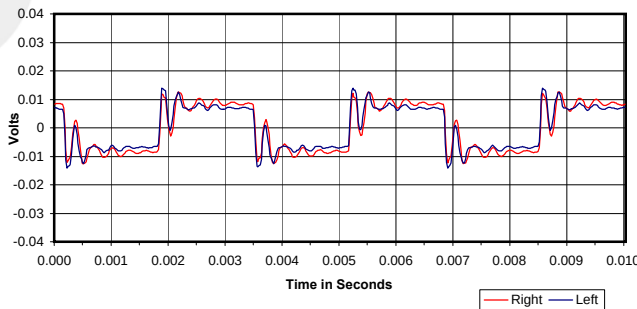
30 Hz Square Wave



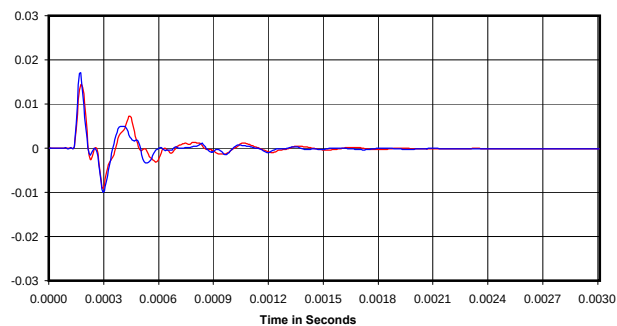
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



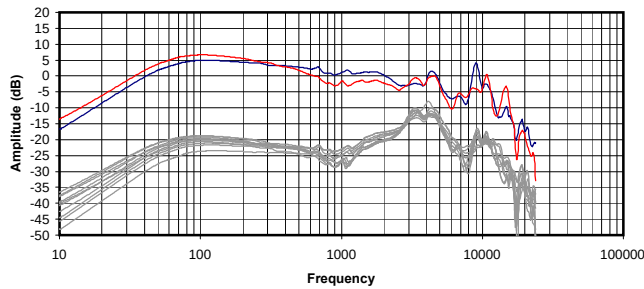
Impulse Response



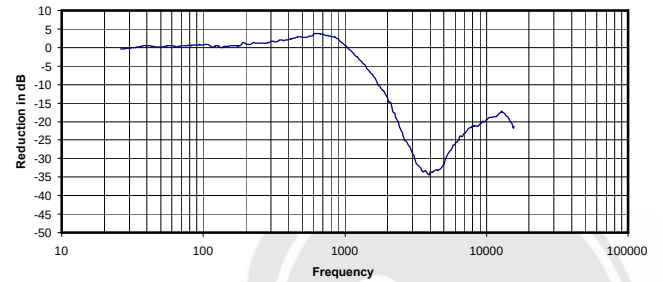
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.037 Vrms
35 Ohms
0.04 mW
-3 dBr

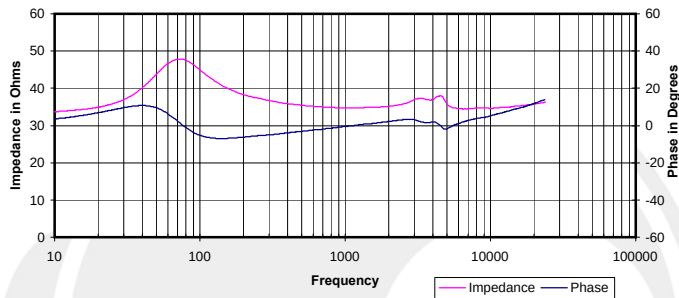
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



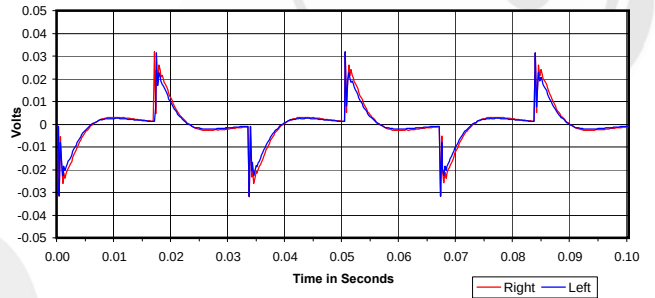
Isolation
Attenuation of External Sound vs. Frequency



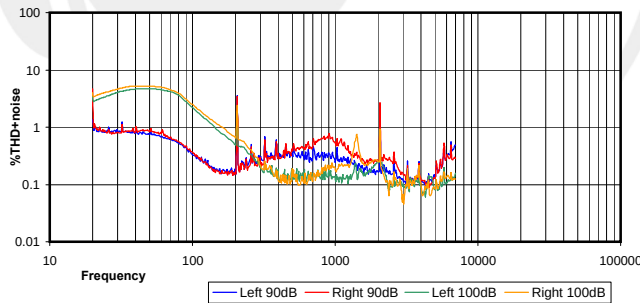
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



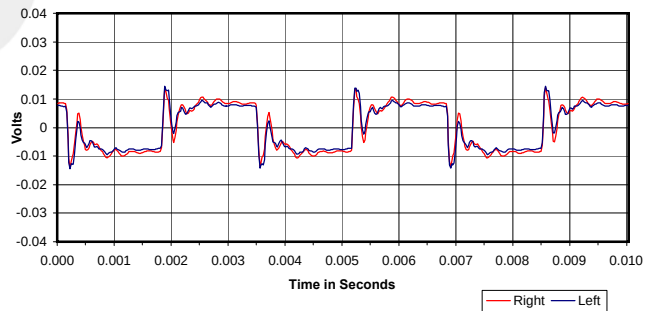
30 Hz Square Wave



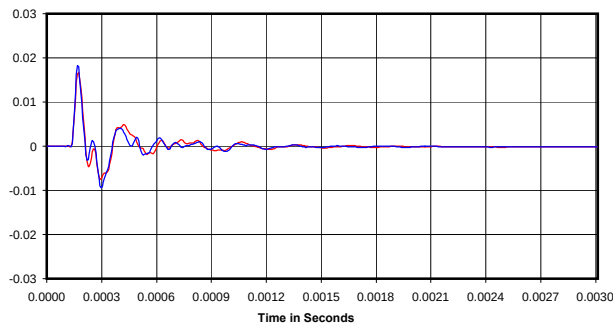
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



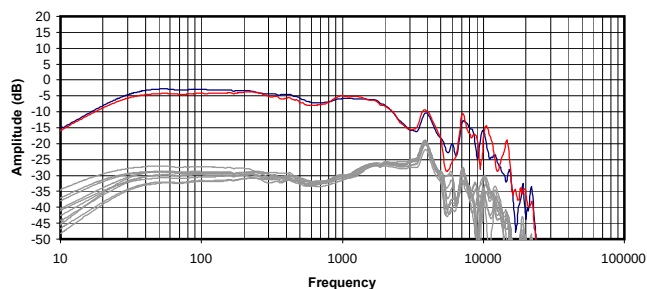
Impulse Response



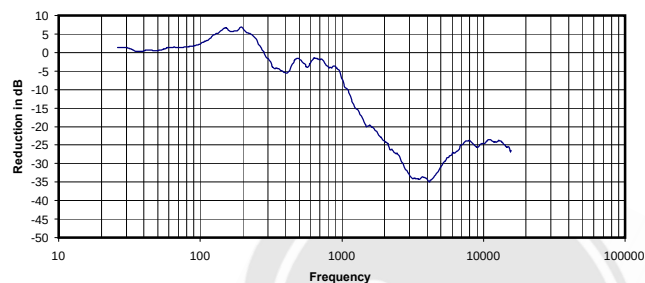
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.055 Vrms
35 Ohms
0.09 mW
-8 dBr

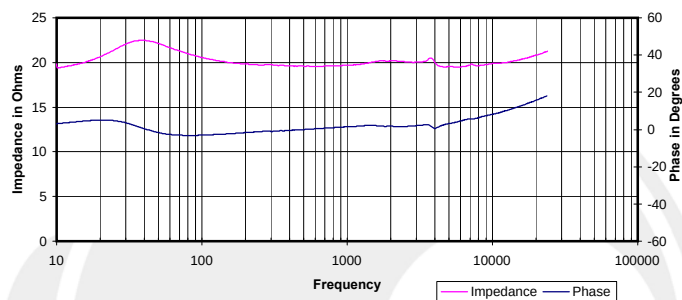
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



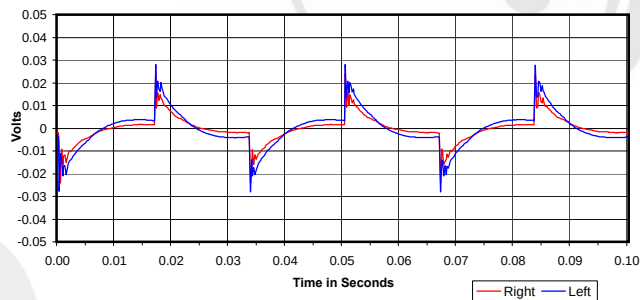
Isolation
Attenuation of External Sound vs. Frequency



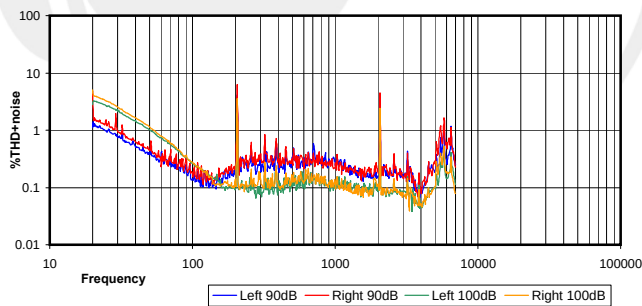
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



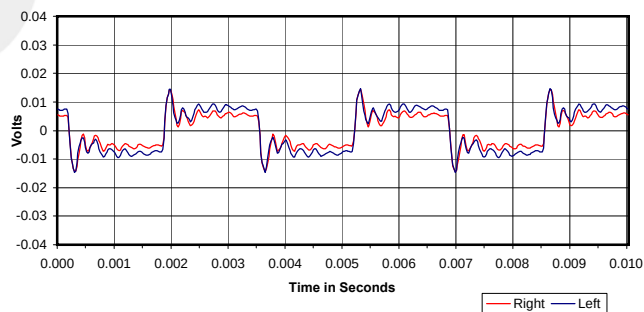
30 Hz Square Wave



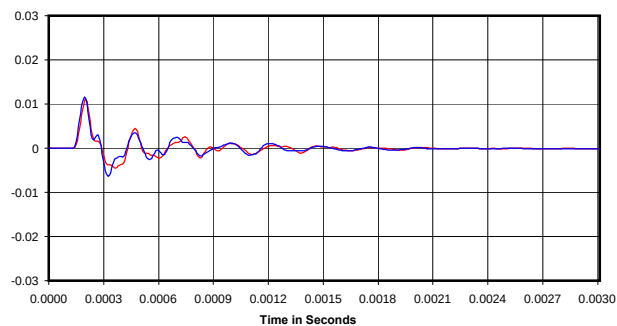
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



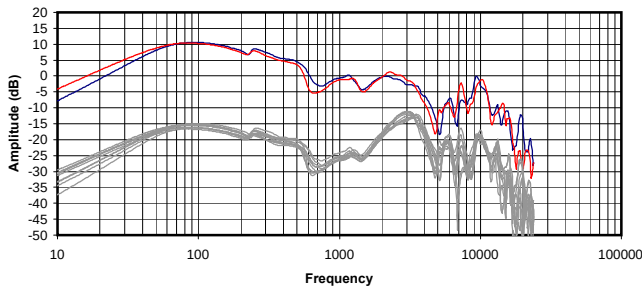
Impulse Response



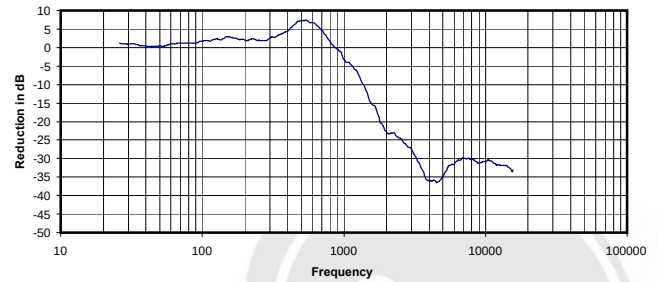
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.027 Vrms
20 Ohms
0.04 mW
-11 dBr

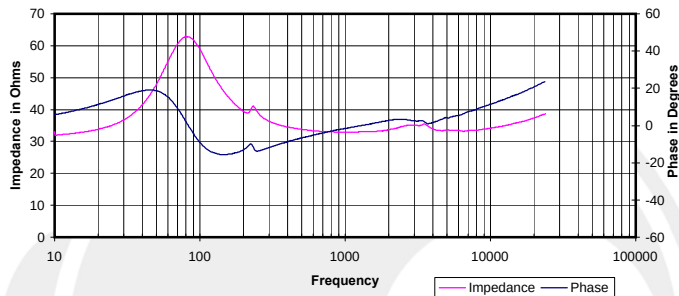
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



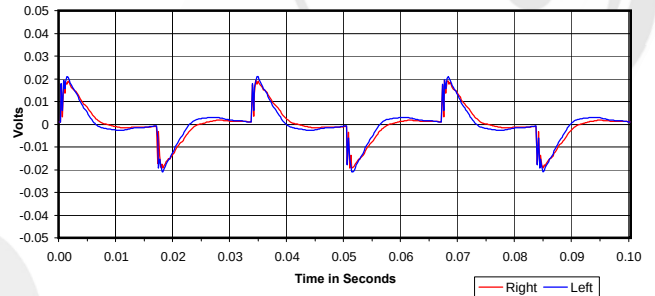
Isolation
Attenuation of External Sound vs. Frequency



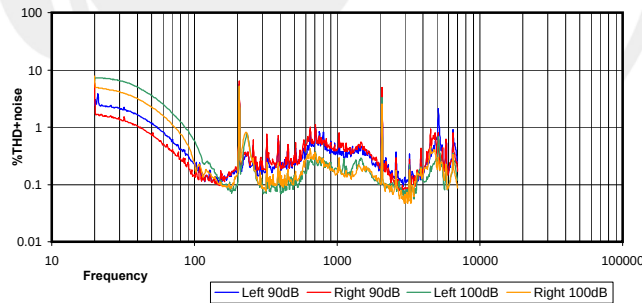
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



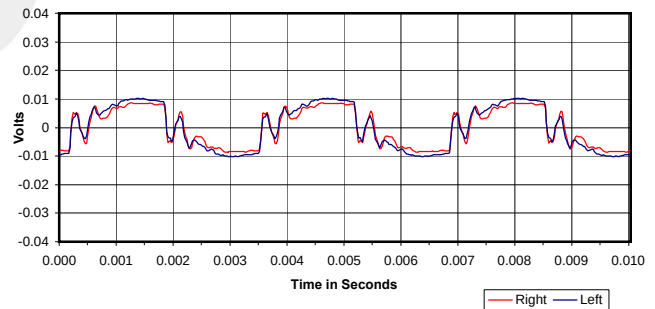
30 Hz Square Wave



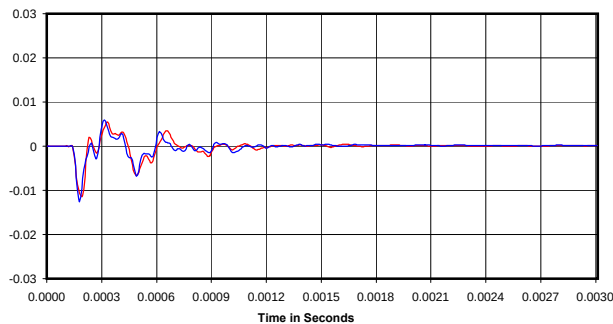
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



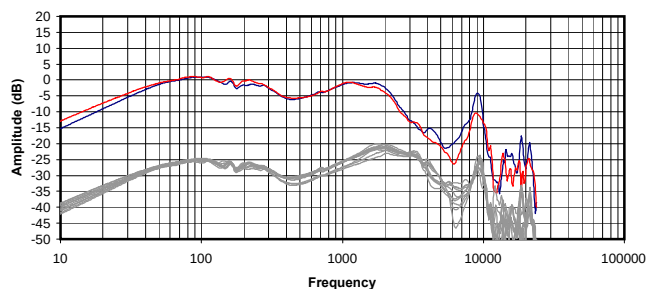
Impulse Response



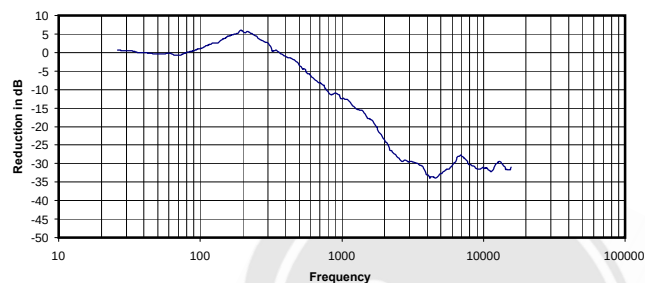
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.061 Vrms
33 Ohms
0.11 mW
-8 dBr

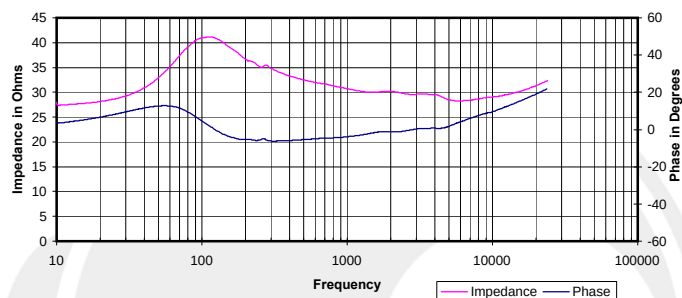
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



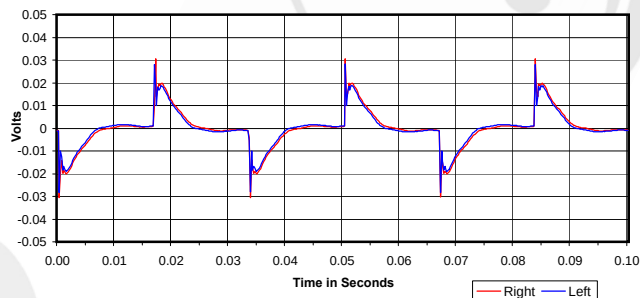
Isolation
Attenuation of External Sound vs. Frequency



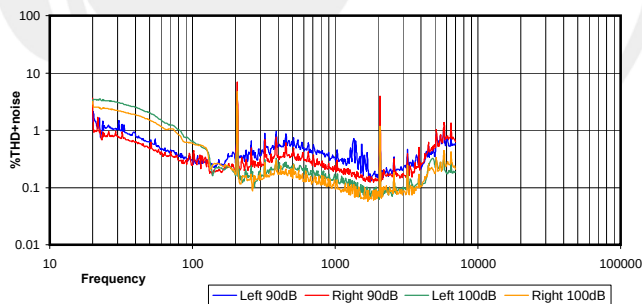
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



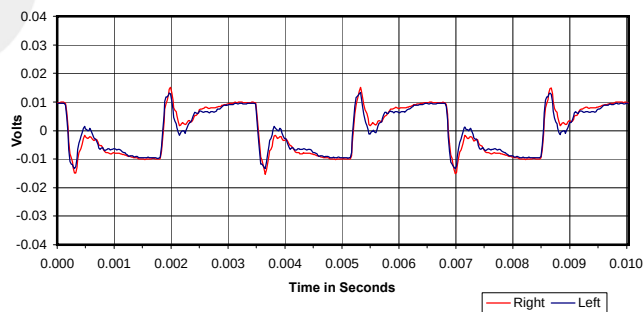
30 Hz Square Wave



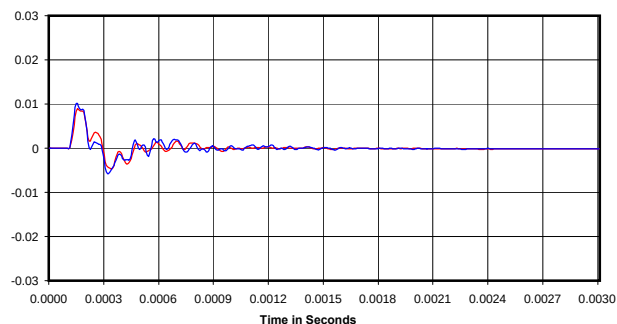
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



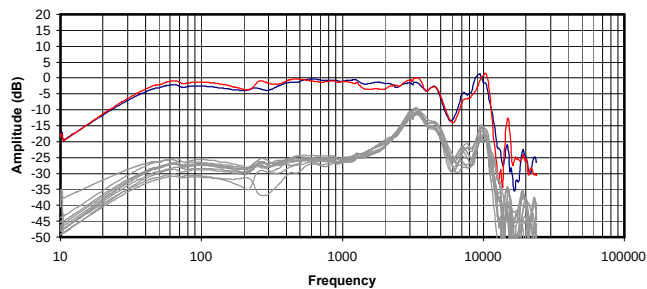
Impulse Response



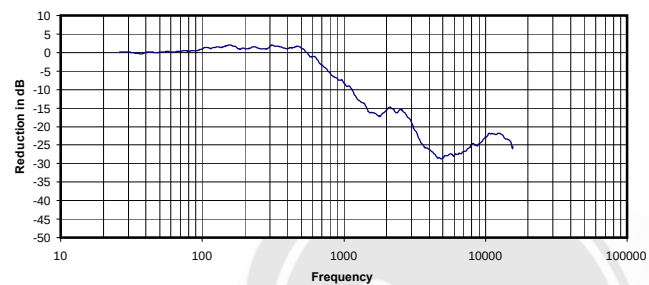
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.024 Vrms
31 Ohms
0.02 mW
-11 dBr

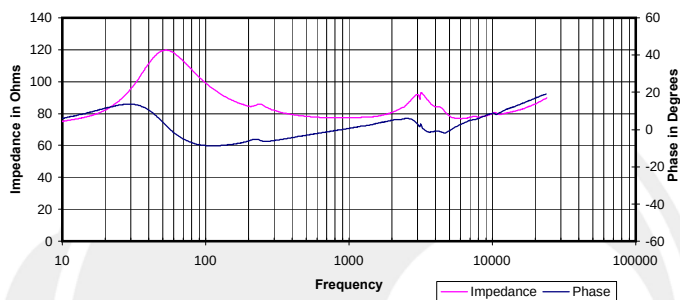
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



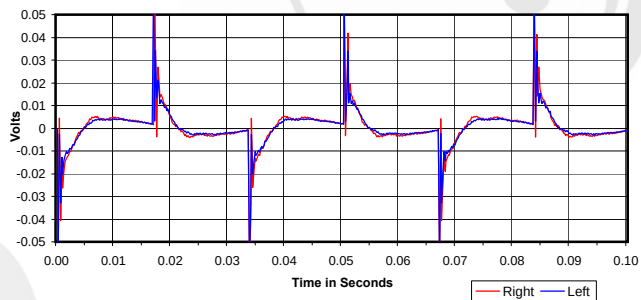
Isolation
Attenuation of External Sound vs. Frequency



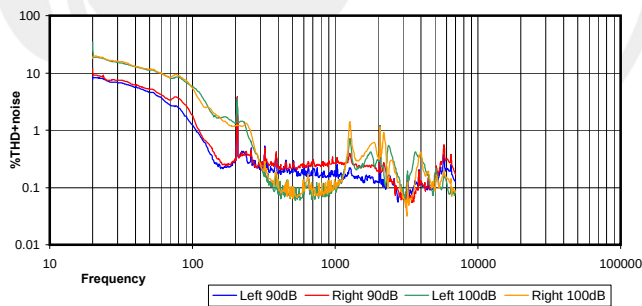
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



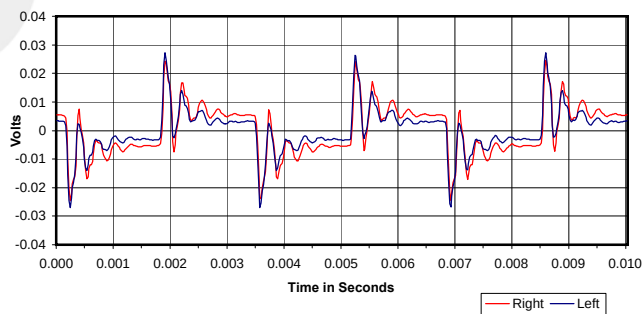
30 Hz Square Wave



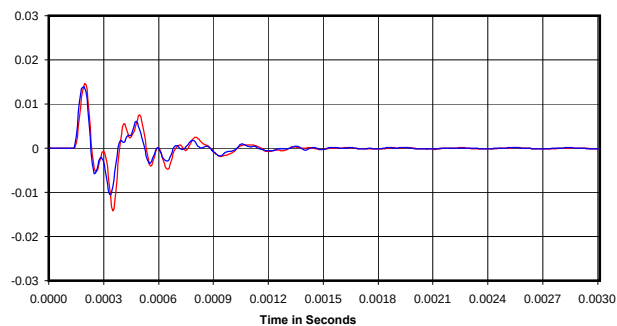
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



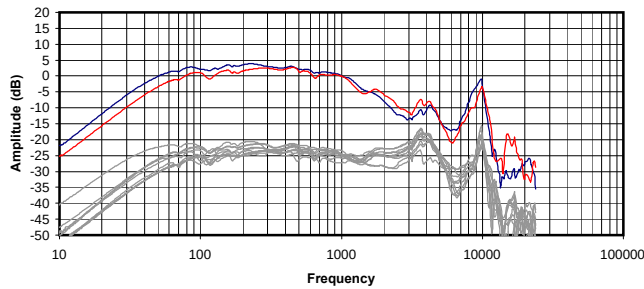
Impulse Response



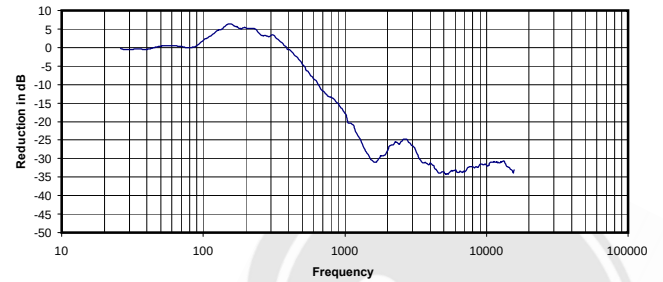
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.061 Vrms
77 Ohms
0.05 mW
-8 dBr

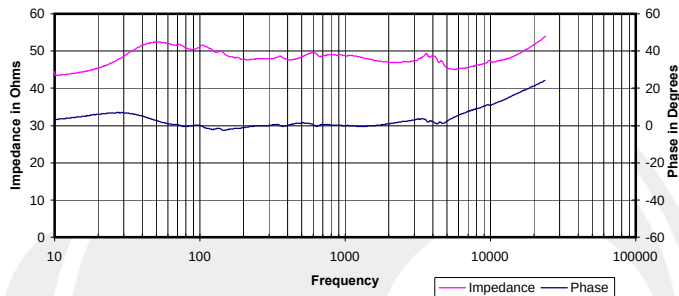
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



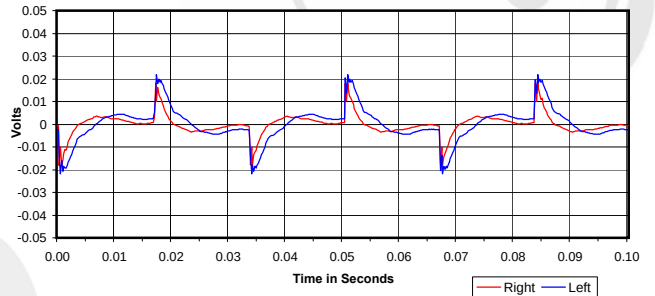
Isolation
Attenuation of External Sound vs. Frequency



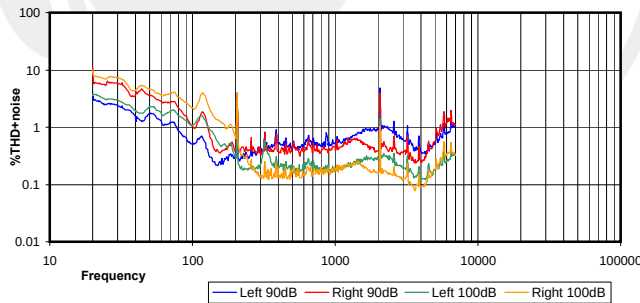
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



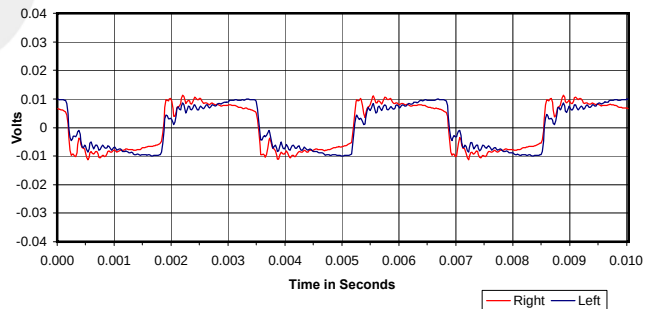
30 Hz Square Wave



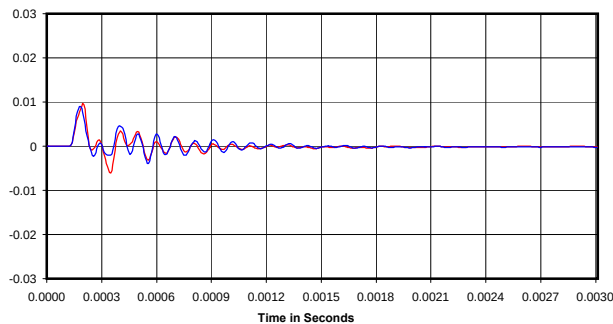
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



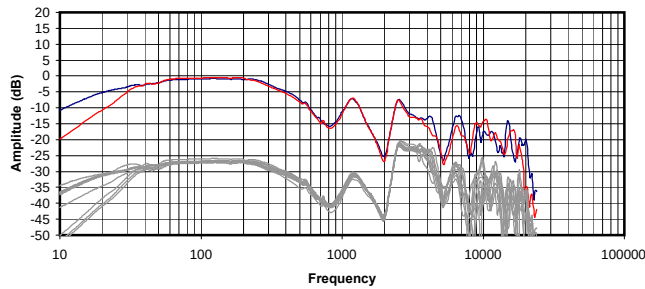
Impulse Response



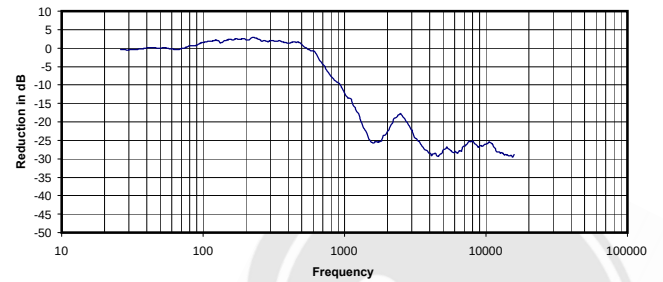
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.030 Vrms
49 Ohms
0.02 mW
-13 dBr

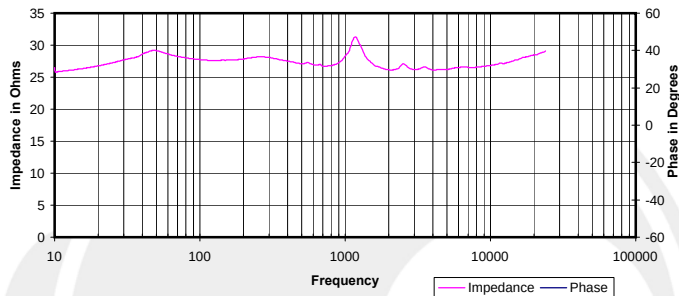
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



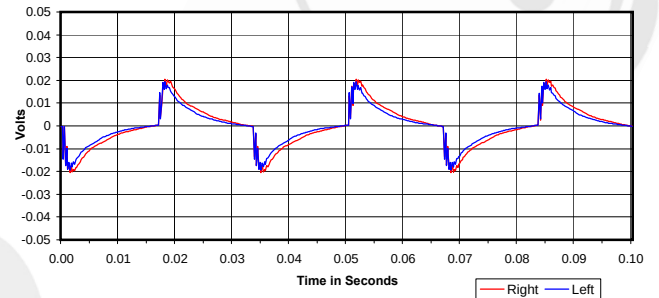
Isolation
Attenuation of External Sound vs. Frequency



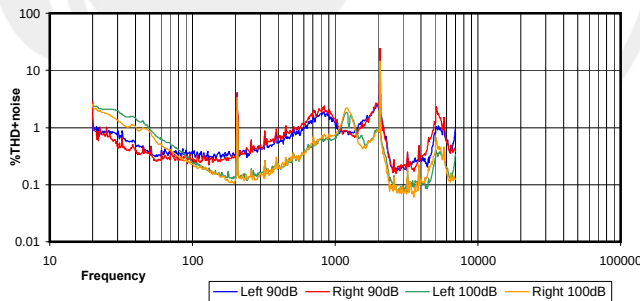
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



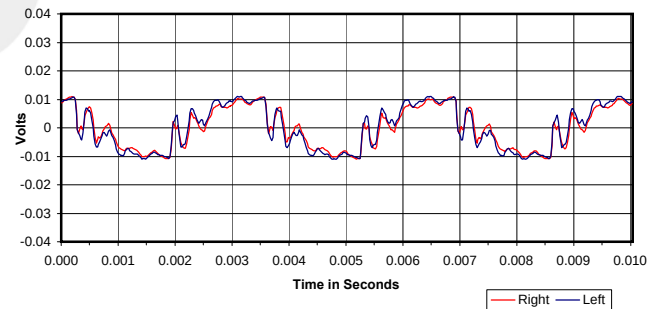
30 Hz Square Wave



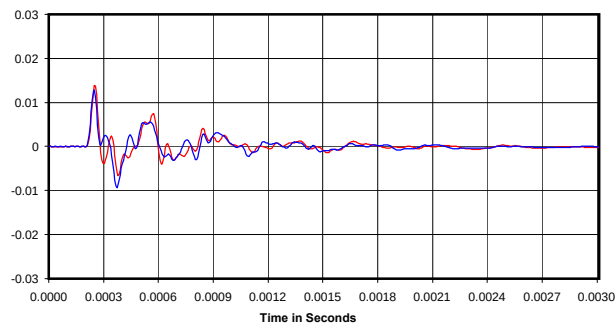
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



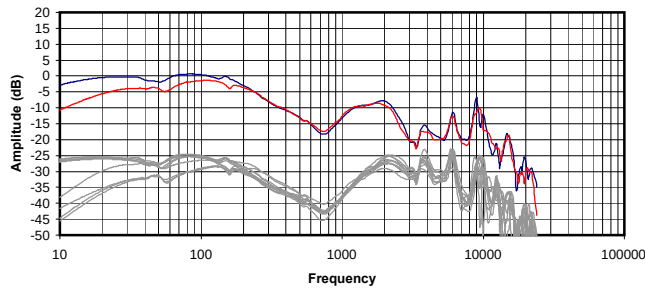
Impulse Response



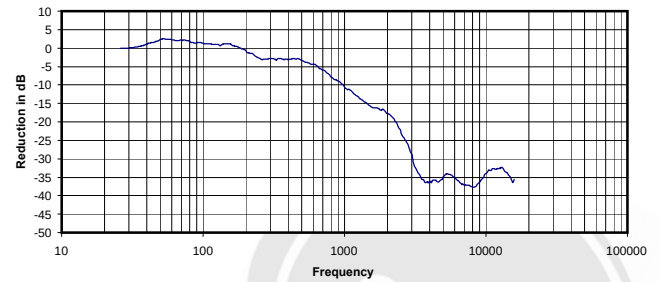
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.090 Vrms
28 Ohms
0.28 mW
-10 dBr

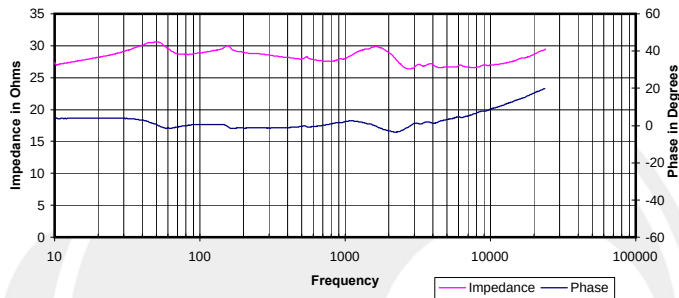
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



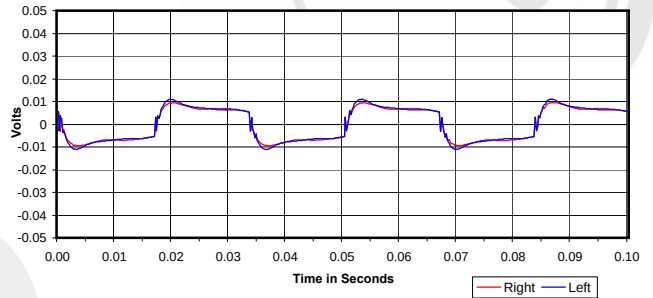
Isolation
Attenuation of External Sound vs. Frequency



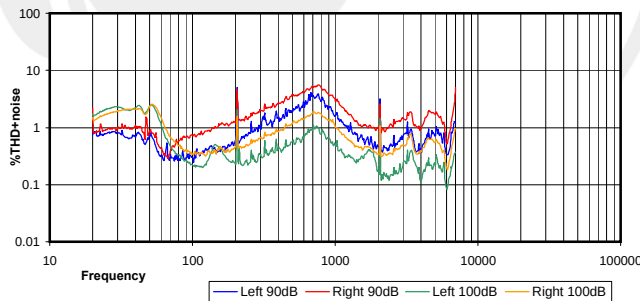
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



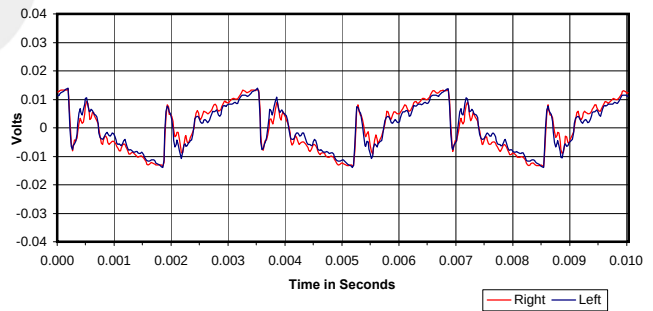
30 Hz Square Wave



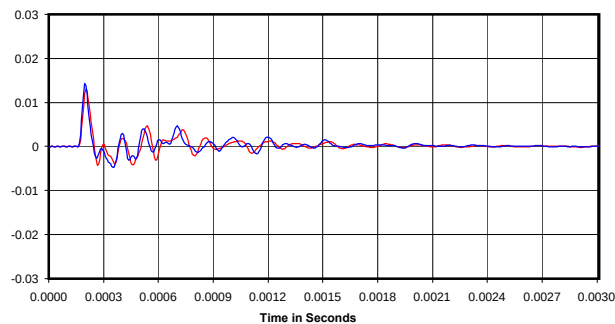
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



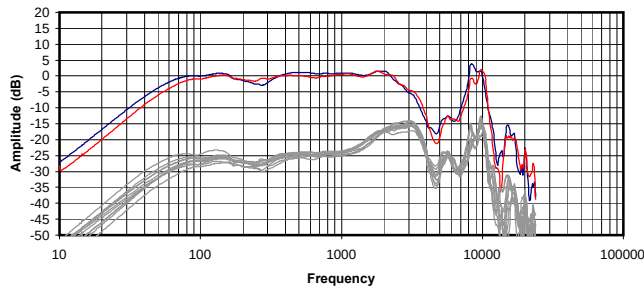
Impulse Response



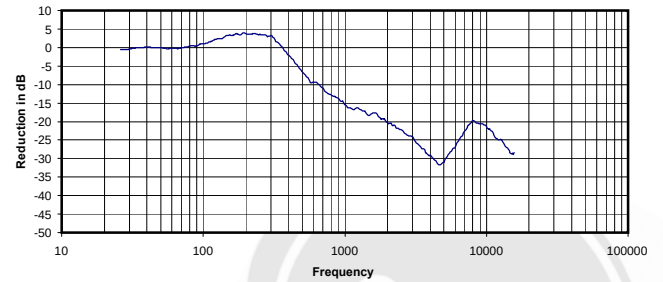
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.072 Vrms
28 Ohms
0.19 mW
-12 dB

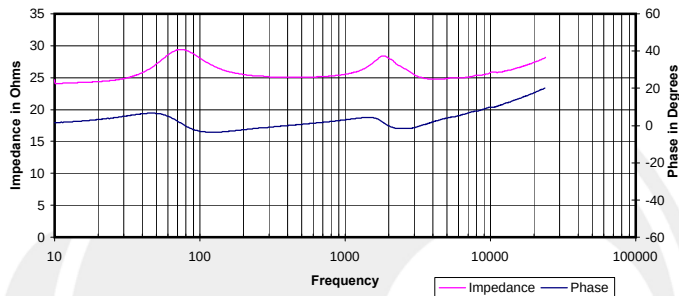
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



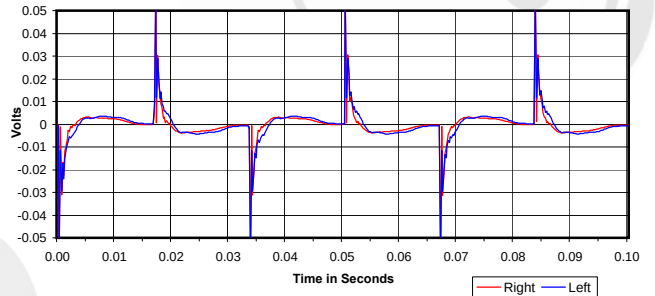
Isolation
Attenuation of External Sound vs. Frequency



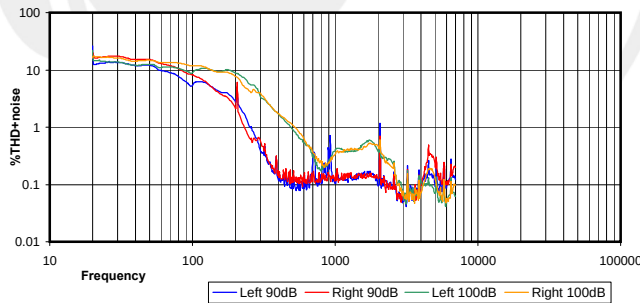
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



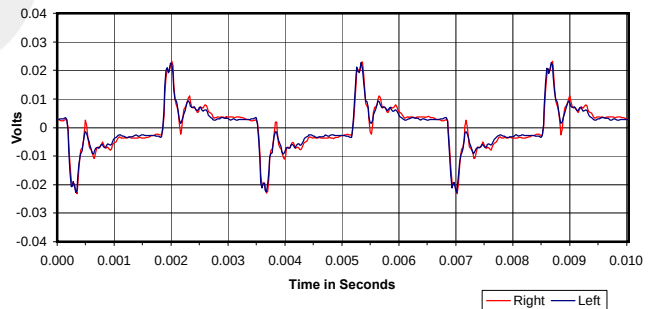
30 Hz Square Wave



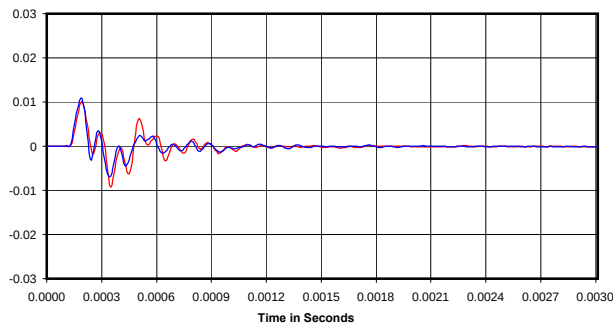
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



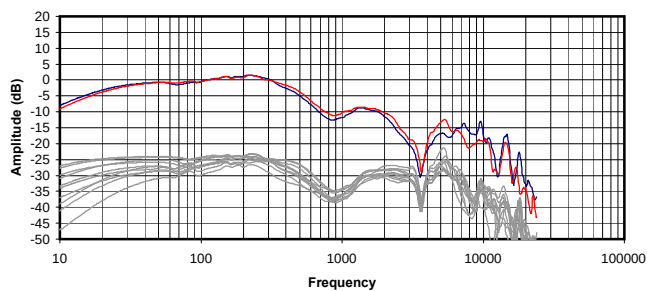
Impulse Response



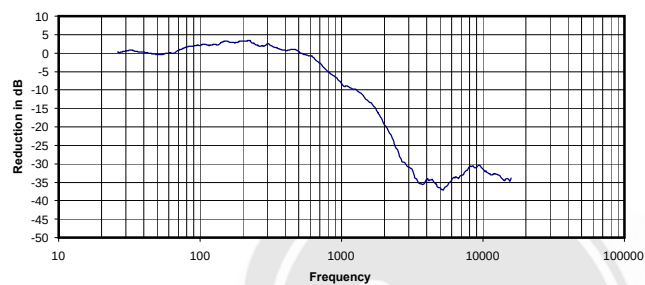
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.034 Vrms
26 Ohms
0.05 mW
-11 dBr

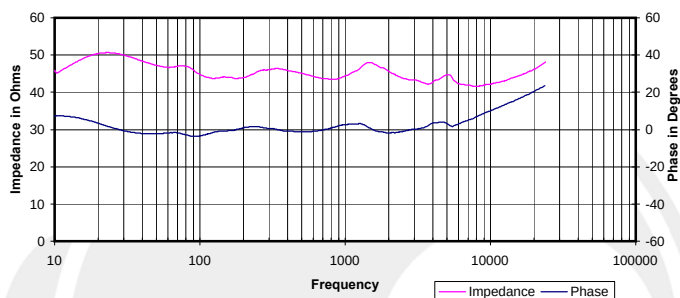
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



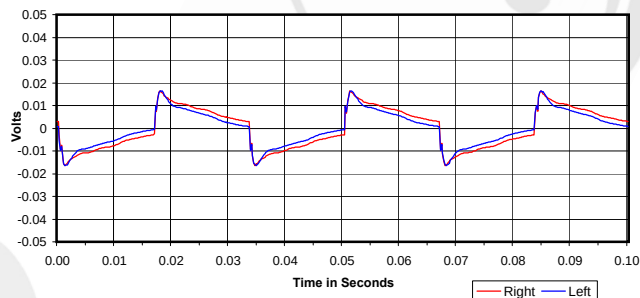
Isolation
Attenuation of External Sound vs. Frequency



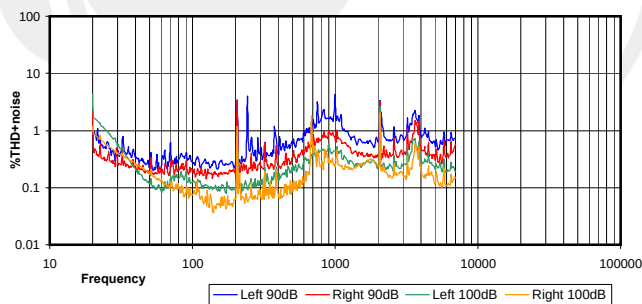
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



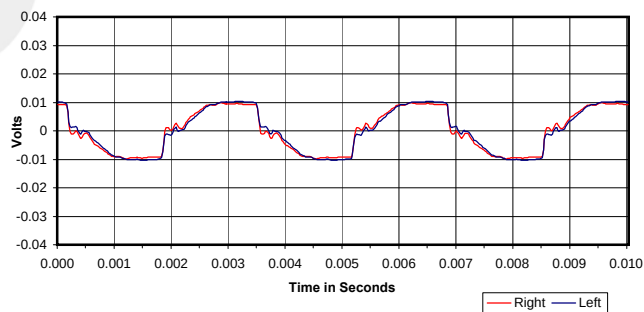
30 Hz Square Wave



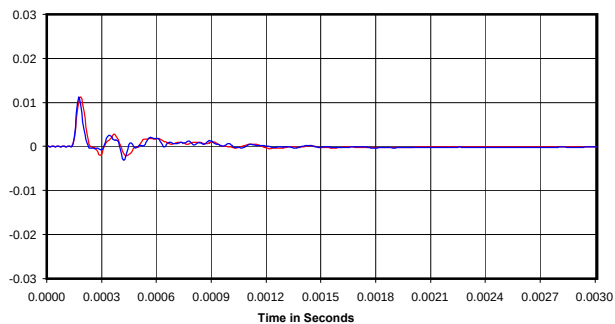
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



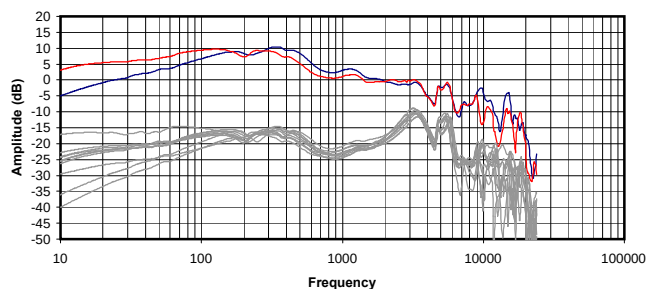
Impulse Response



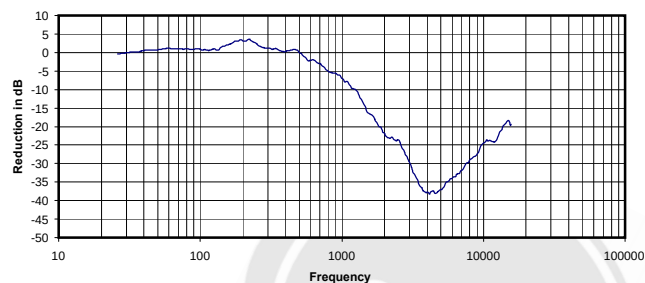
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.046 Vrms
44 Ohms
0.05 mW
-10 dBr

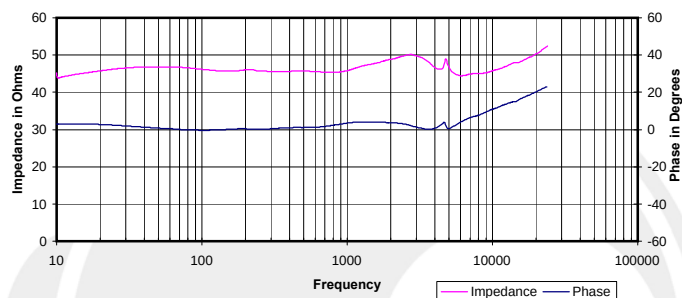
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



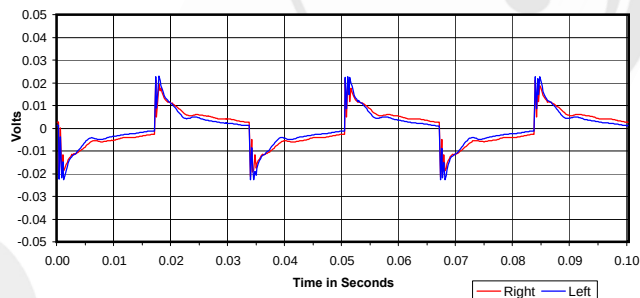
Isolation
Attenuation of External Sound vs. Frequency



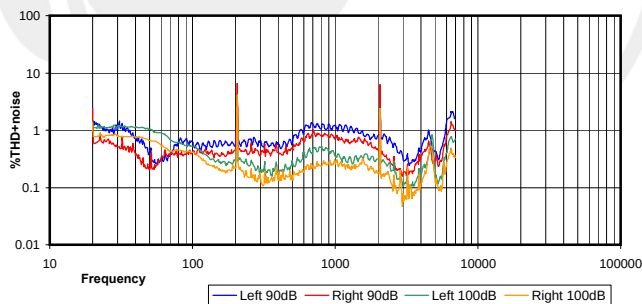
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



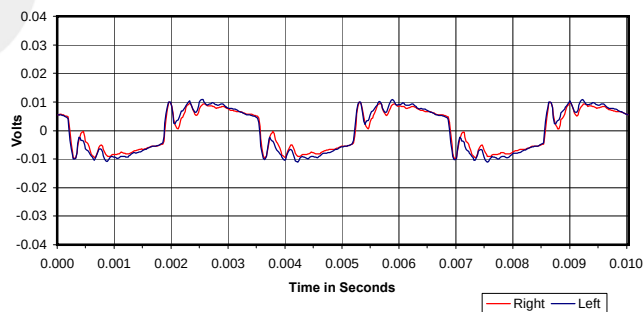
30 Hz Square Wave



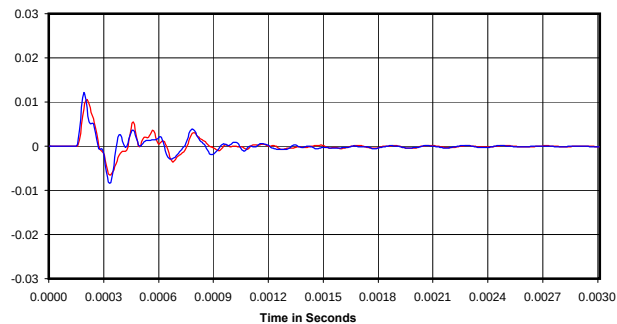
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



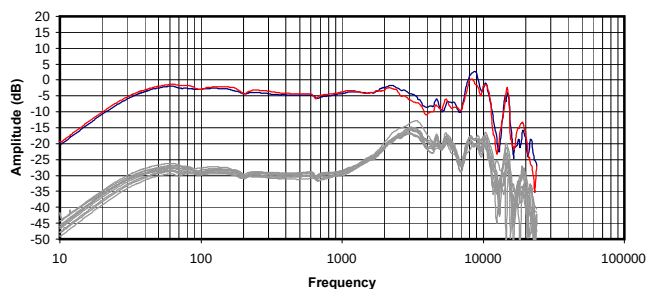
Impulse Response



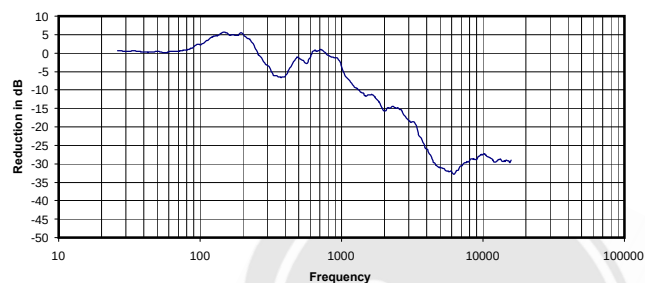
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.040 Vrms
46 Ohms
0.03 mW
-11 dBr

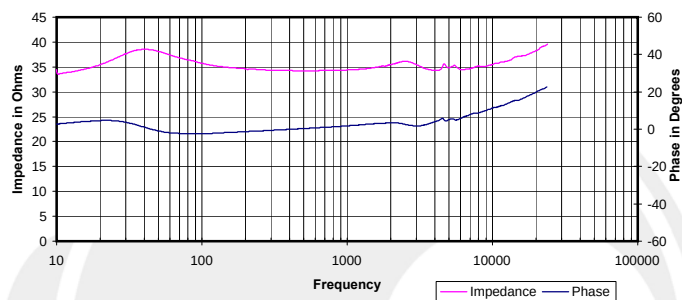
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



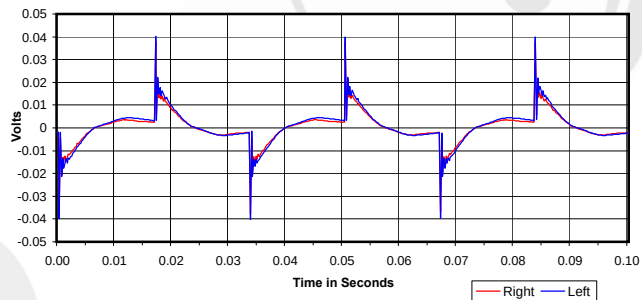
Isolation
Attenuation of External Sound vs. Frequency



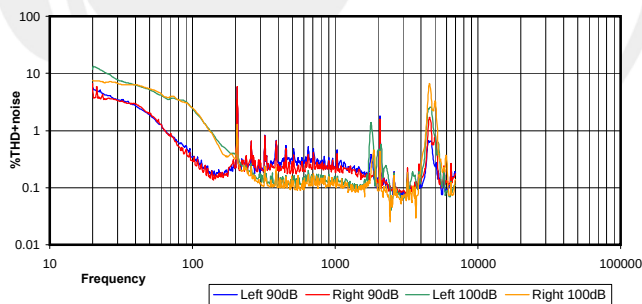
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



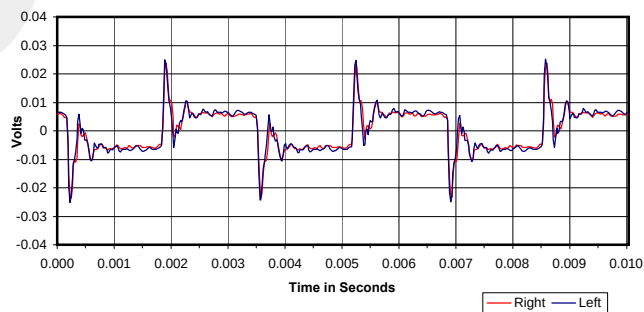
30 Hz Square Wave



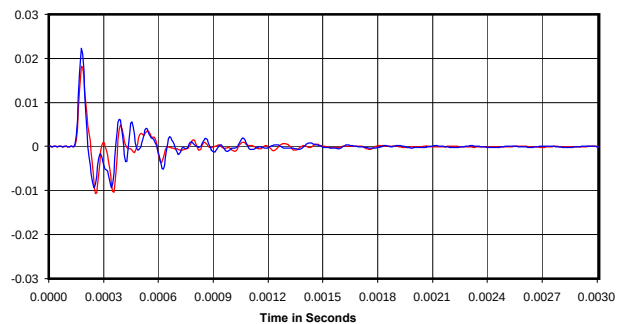
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



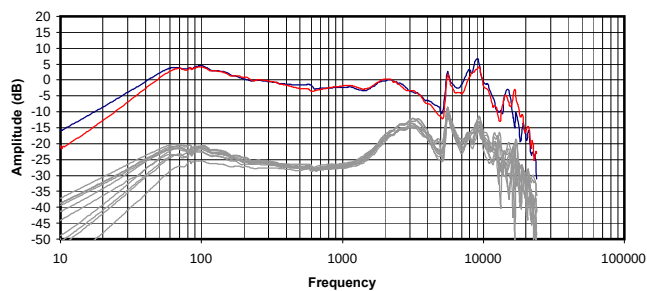
Impulse Response



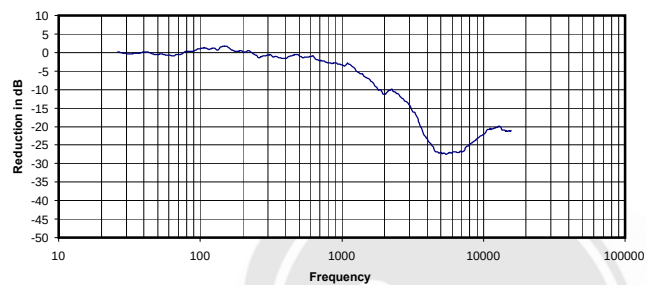
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.110 Vrms
34 Ohms
0.35 mW
-8 dBr

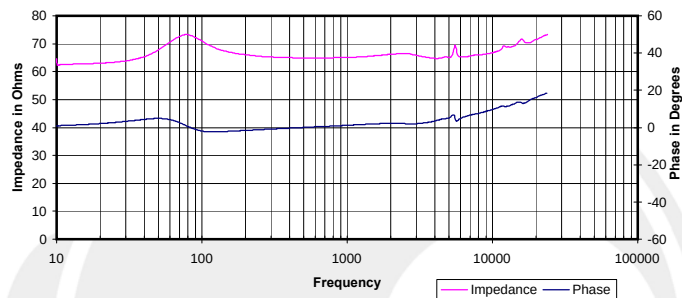
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



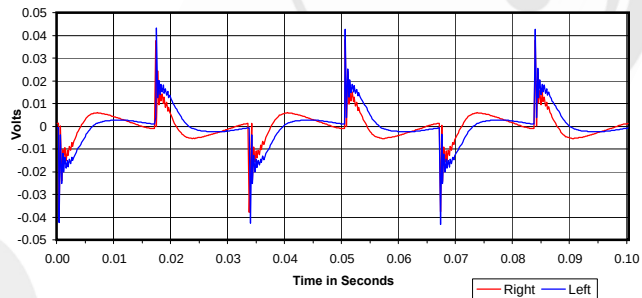
Isolation
Attenuation of External Sound vs. Frequency



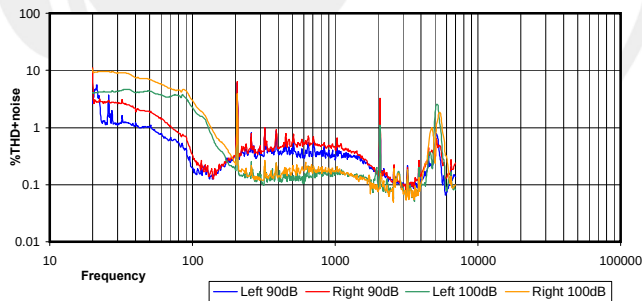
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



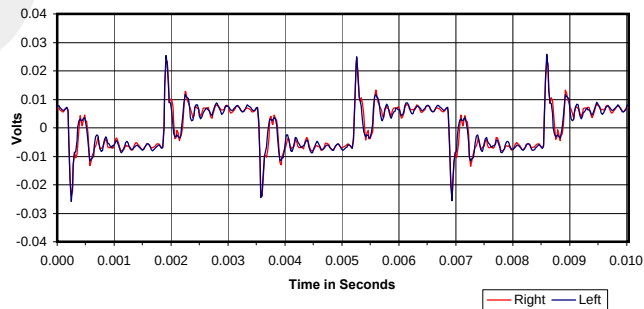
30 Hz Square Wave



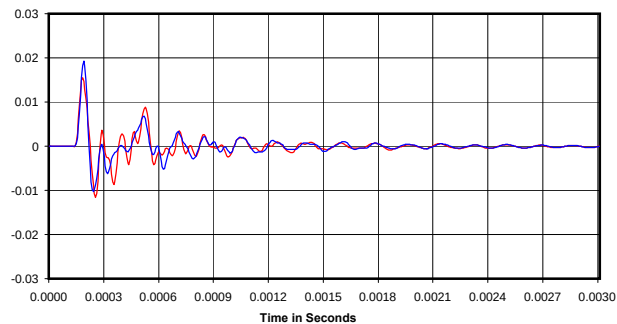
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



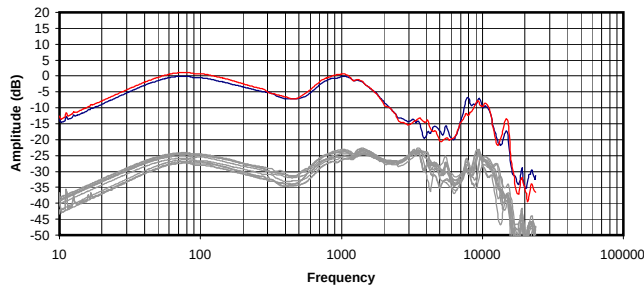
Impulse Response



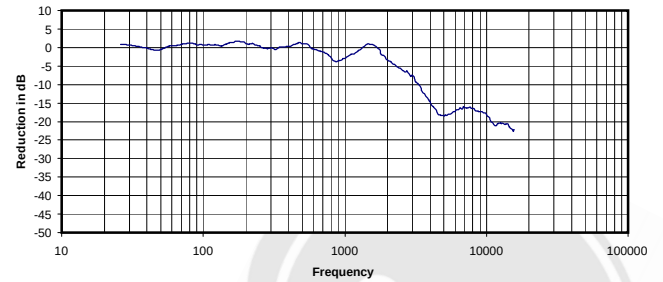
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.181 Vrms
65 Ohms
0.50 mW
-7 dBr

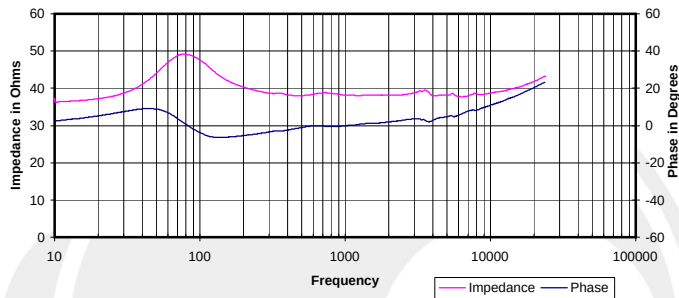
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



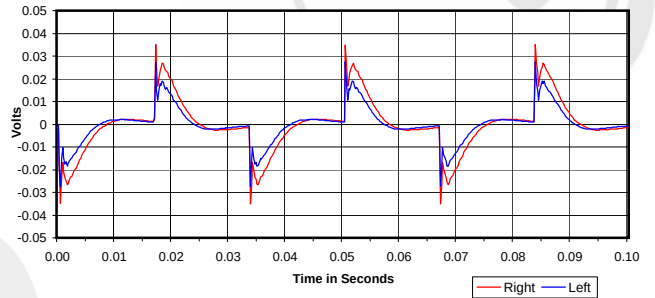
Isolation
Attenuation of External Sound vs. Frequency



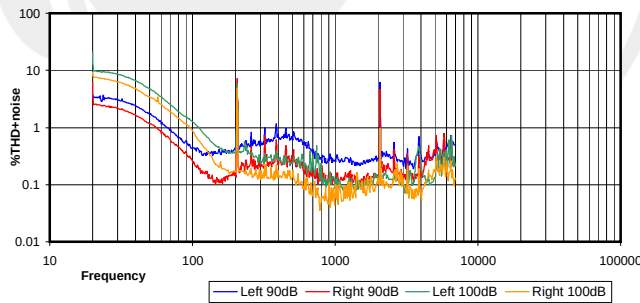
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



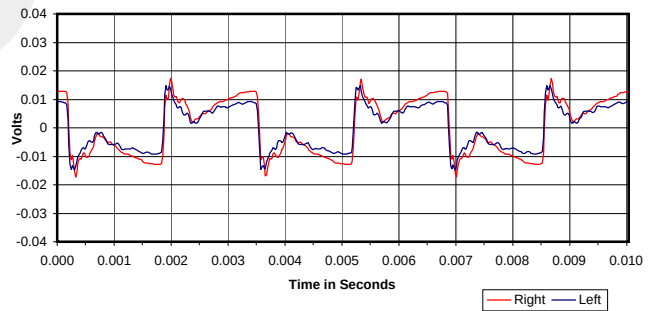
30 Hz Square Wave



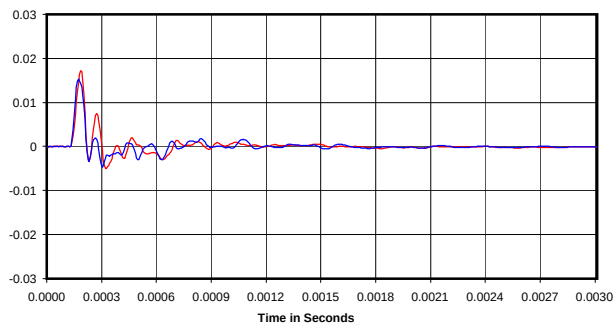
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



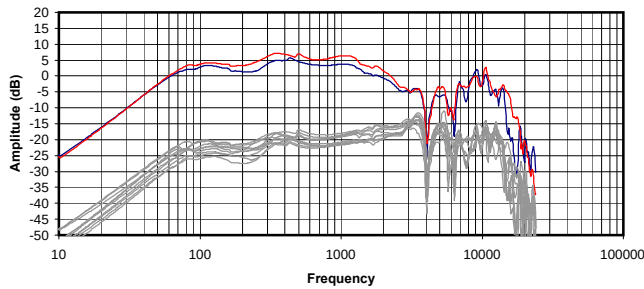
Impulse Response



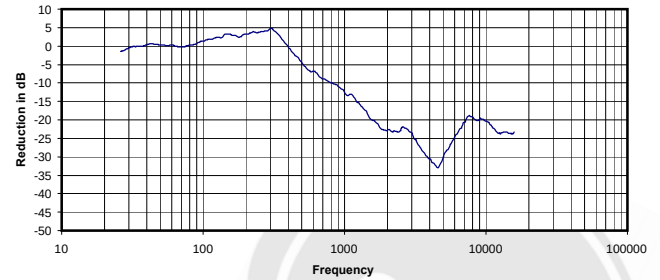
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.029 Vrms
38 Ohms
0.02 mW
-3 dBr

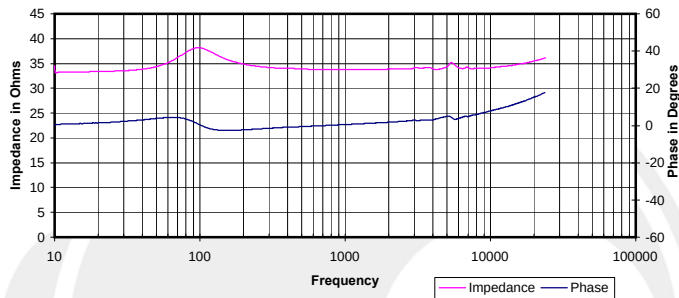
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



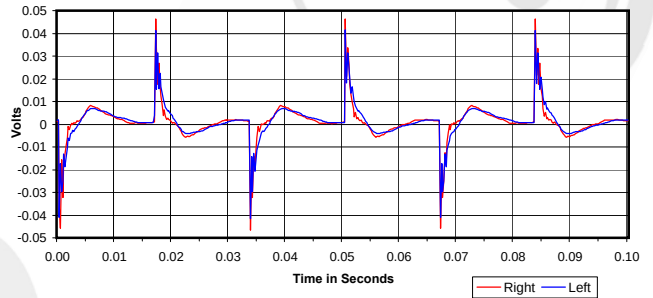
Isolation
Attenuation of External Sound vs. Frequency



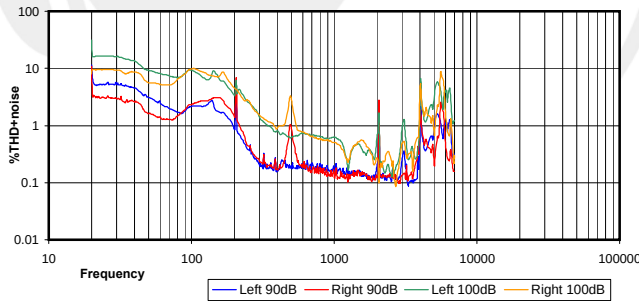
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



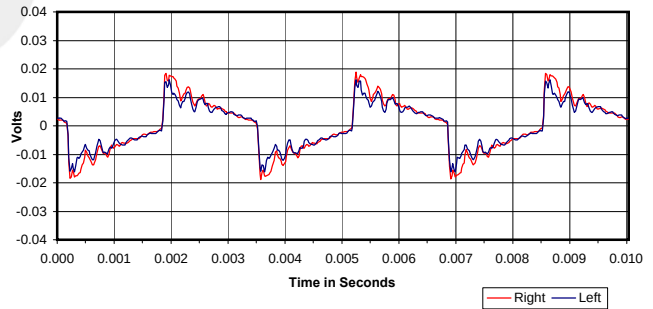
30 Hz Square Wave



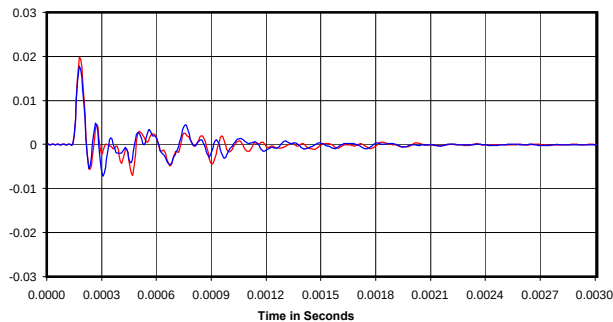
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



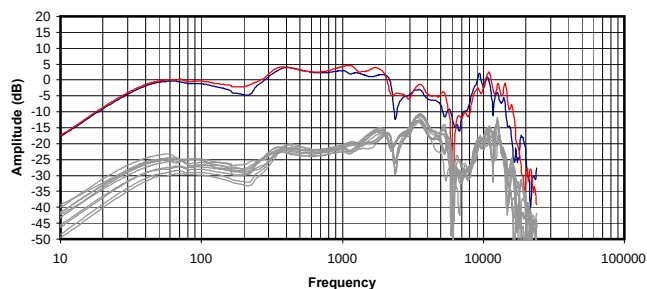
Impulse Response



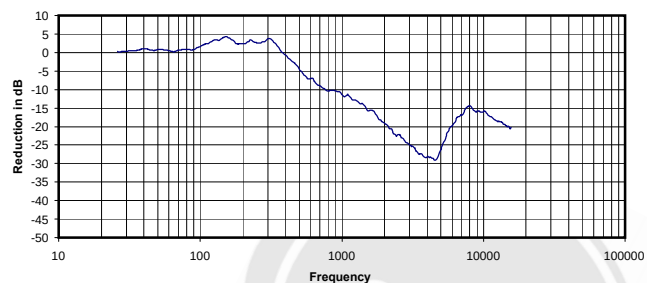
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.091 Vrms
34 Ohms
0.25 mW
-11 dBr

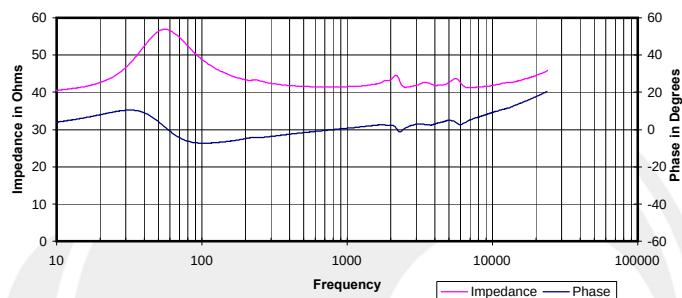
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



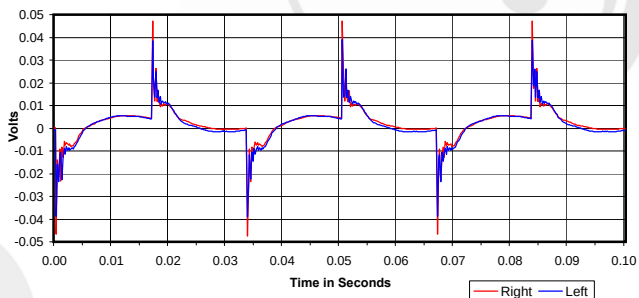
Isolation
Attenuation of External Sound vs. Frequency



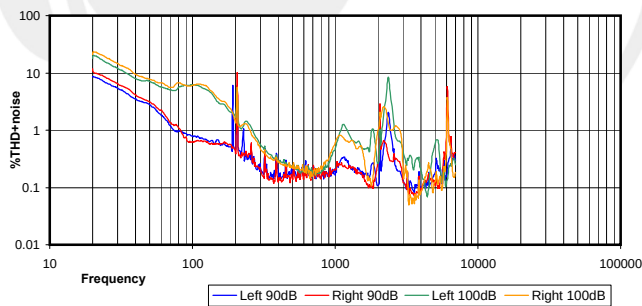
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



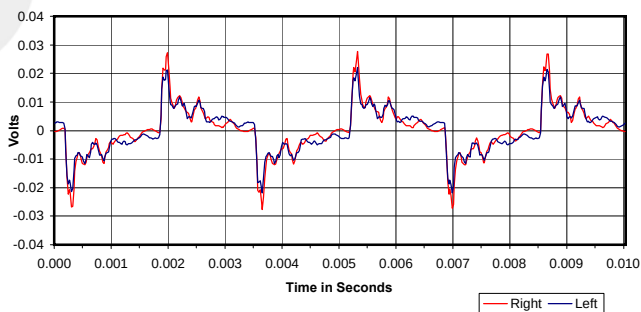
30 Hz Square Wave



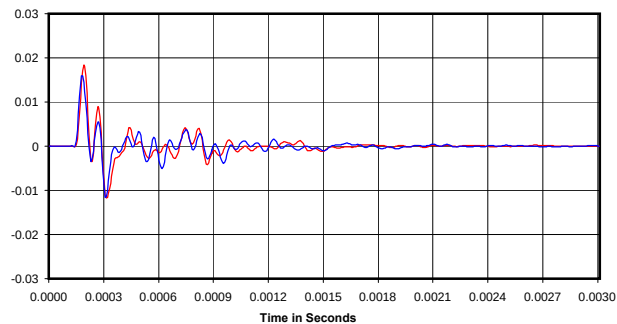
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



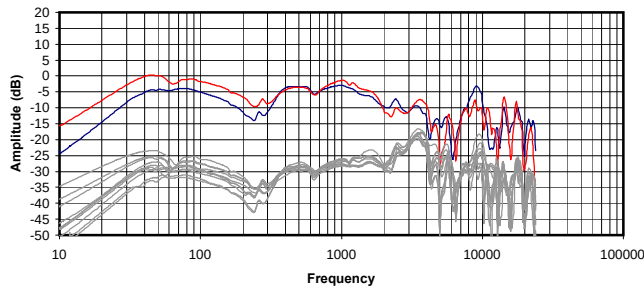
Impulse Response



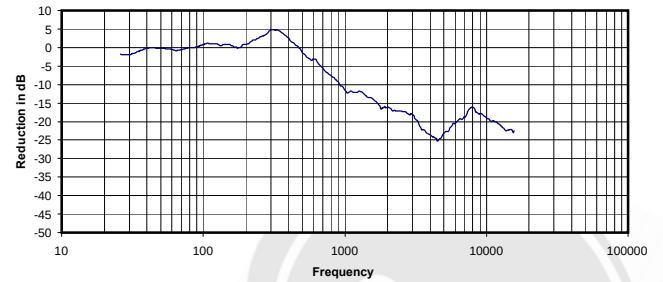
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.061 Vrms
42 Ohms
0.09 mW
-10 dBr

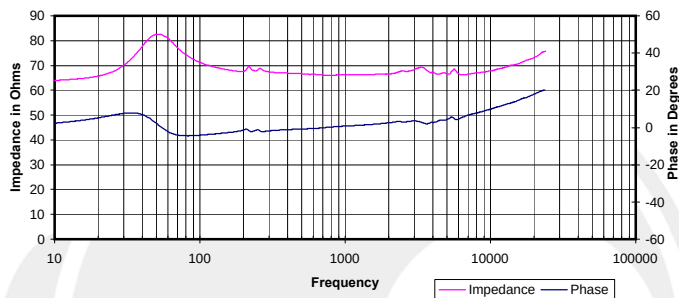
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



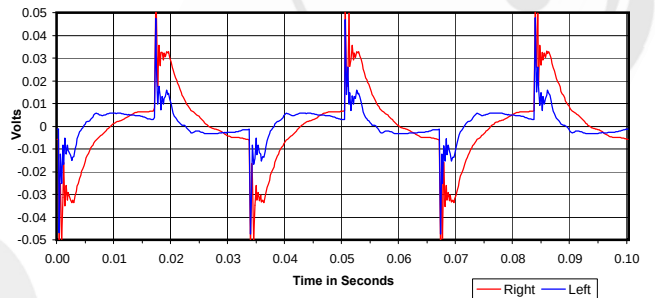
Isolation
Attenuation of External Sound vs. Frequency



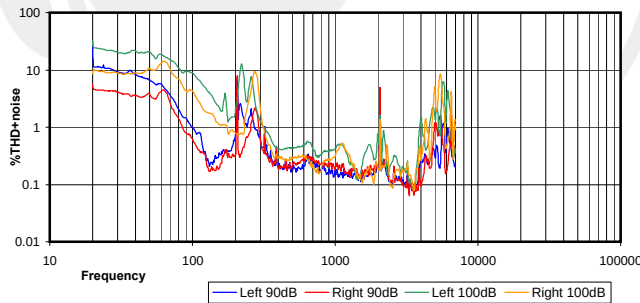
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



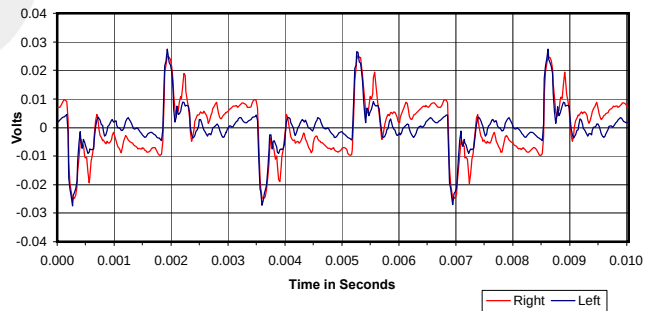
30 Hz Square Wave



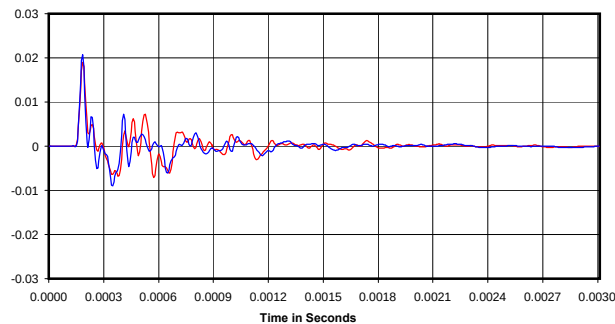
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



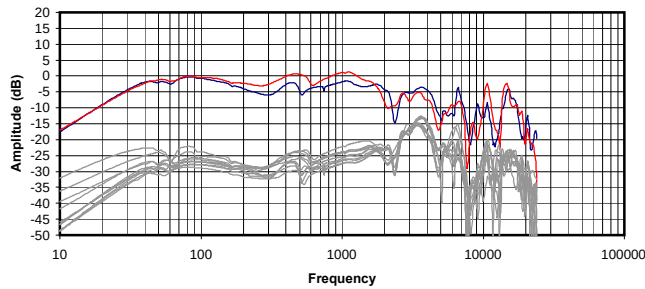
Impulse Response



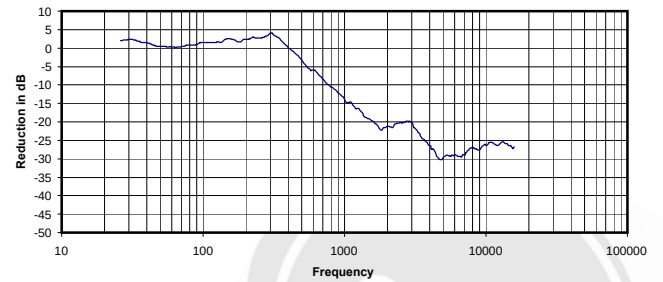
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.083 Vrms
66 Ohms
0.10 mW
-8 dBr

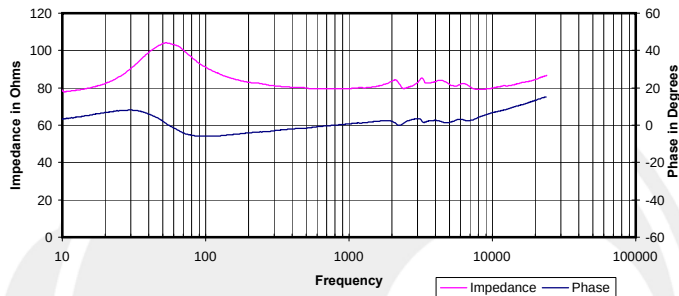
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



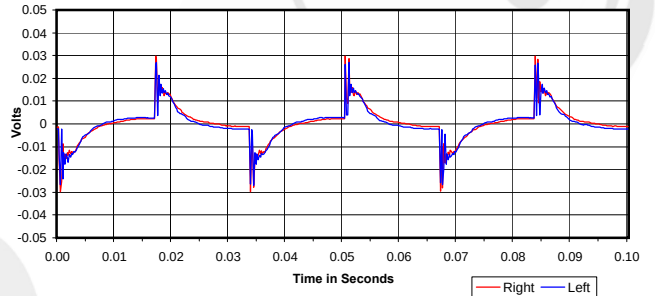
Isolation
Attenuation of External Sound vs. Frequency



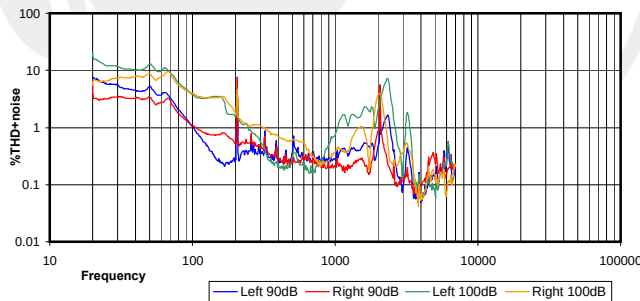
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



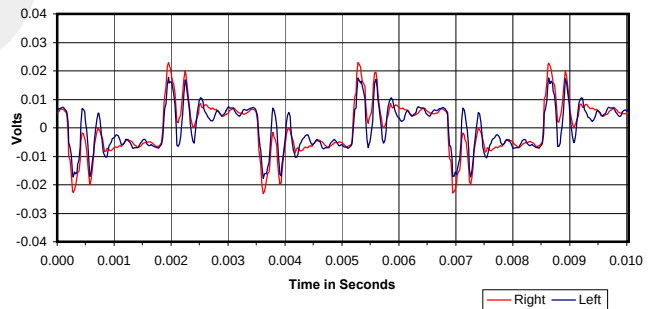
30 Hz Square Wave



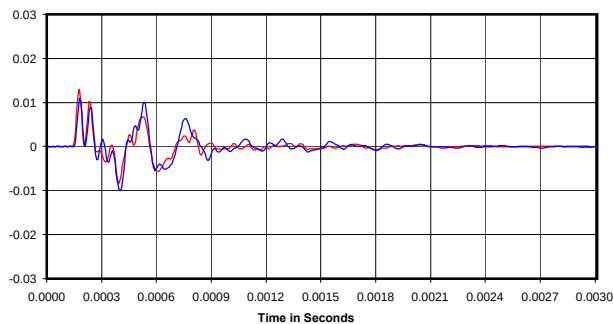
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



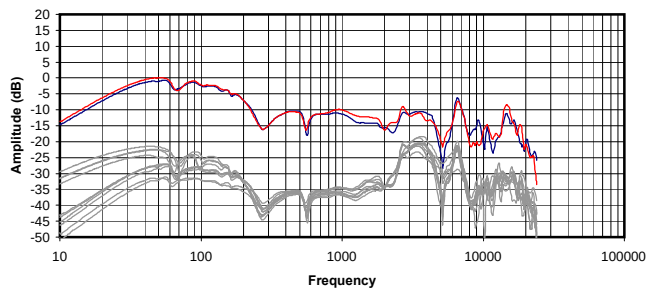
Impulse Response



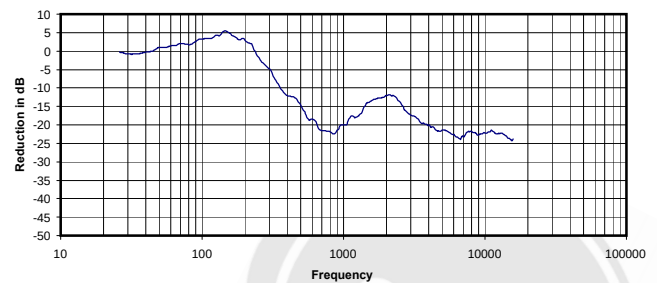
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.129 Vrms
80 Ohms
0.21 mW
-10 dBr

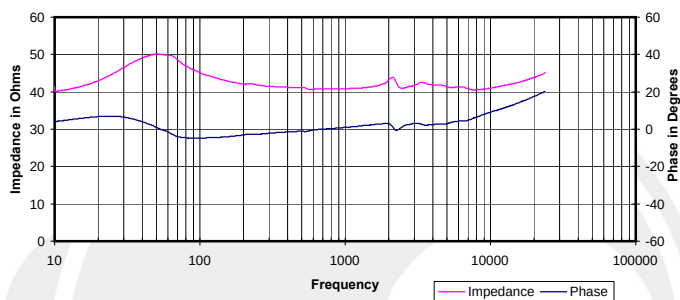
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



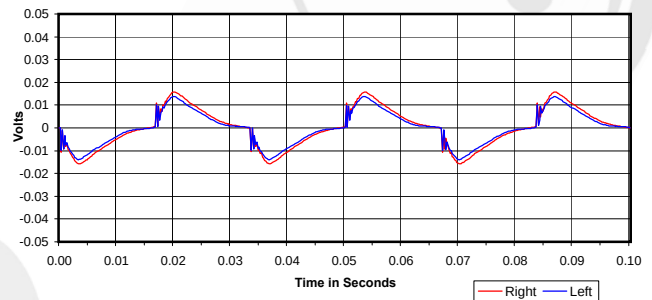
Isolation
Attenuation of External Sound vs. Frequency



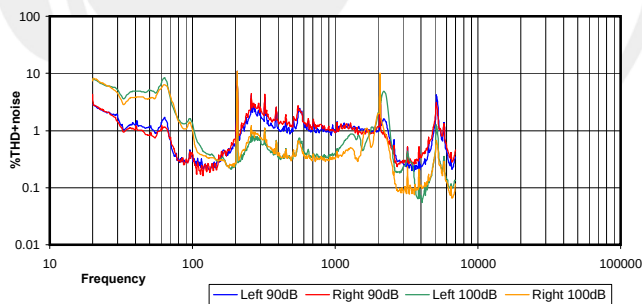
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



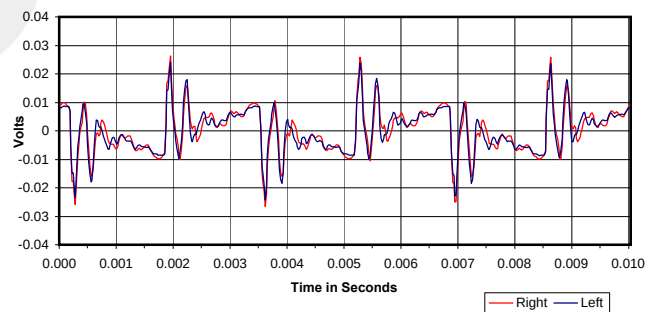
30 Hz Square Wave



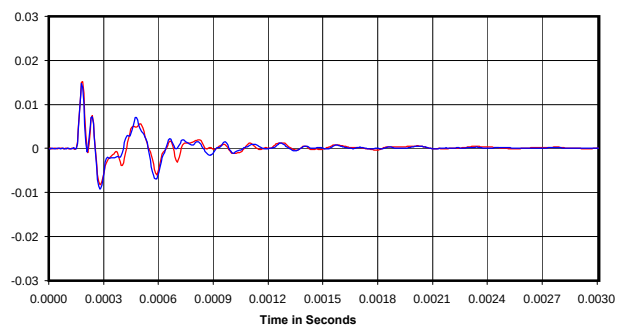
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



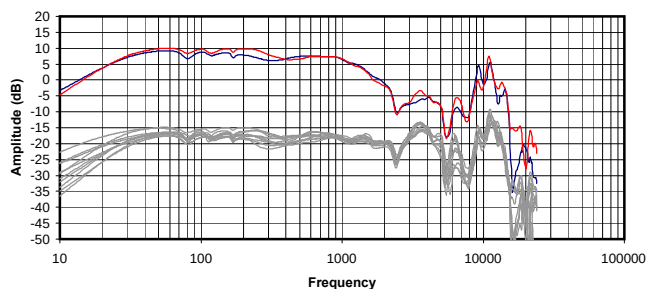
Impulse Response



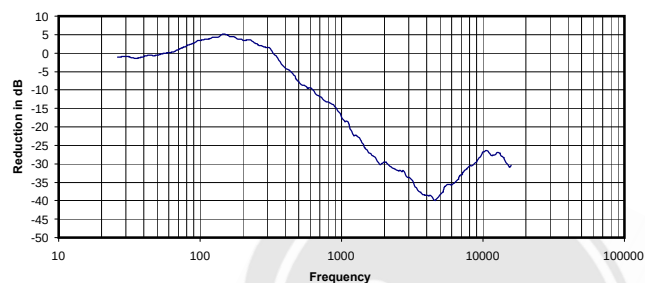
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.175 Vrms
41 Ohms
0.75 mW
-11 dBr

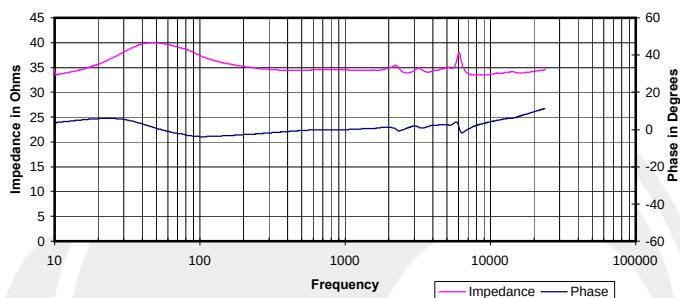
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



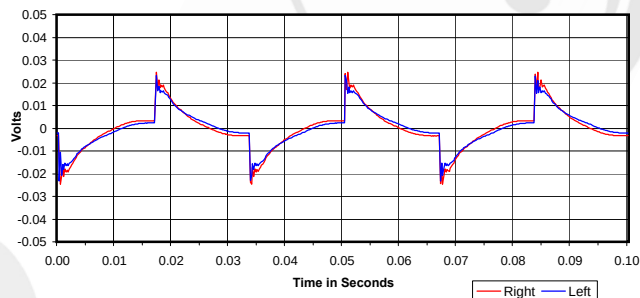
Isolation
Attenuation of External Sound vs. Frequency



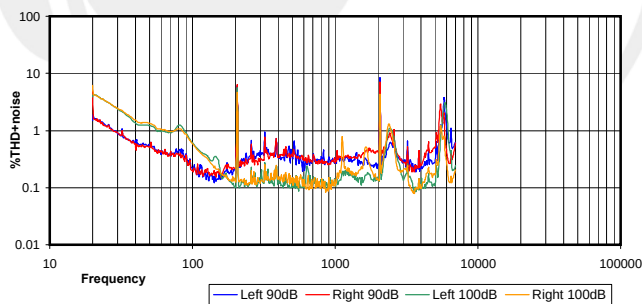
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



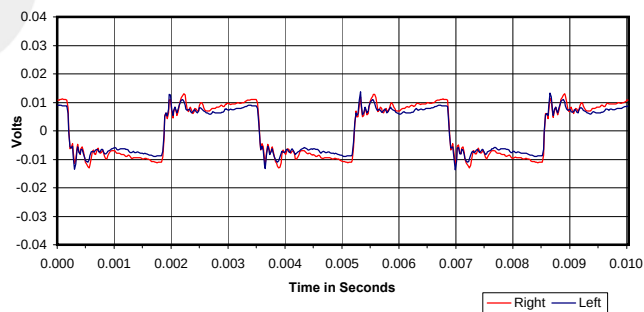
30 Hz Square Wave



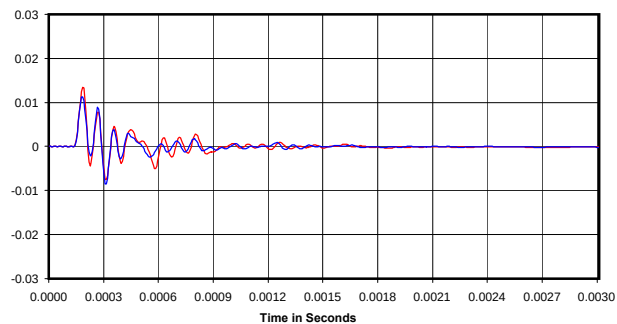
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



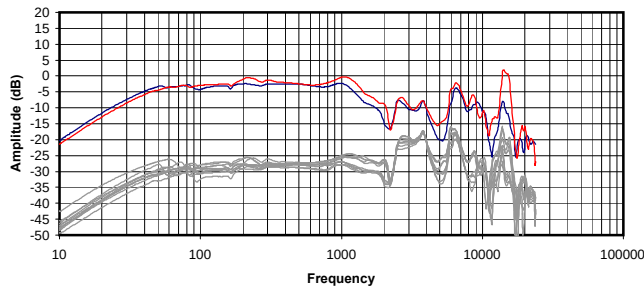
Impulse Response



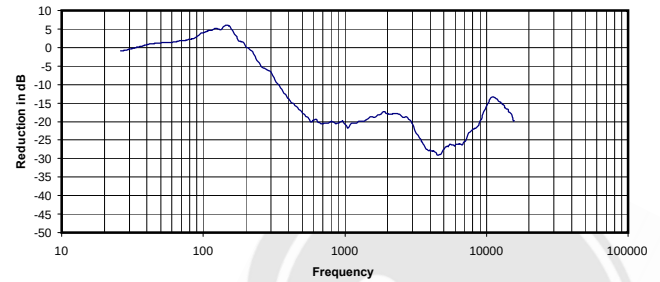
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.033 Vrms
35 Ohms
0.03 mW
-15 dBr

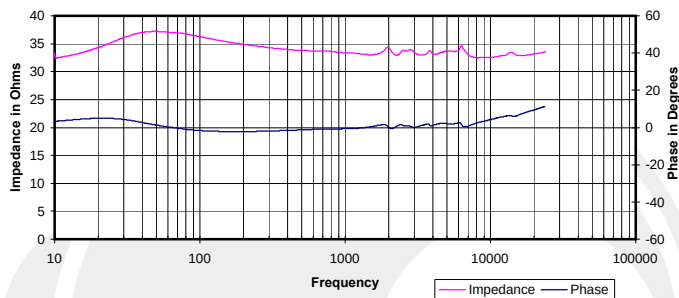
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



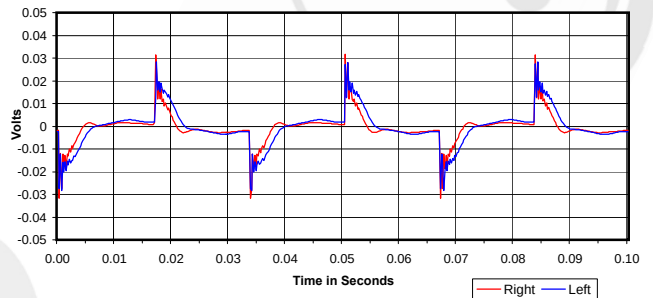
Isolation
Attenuation of External Sound vs. Frequency



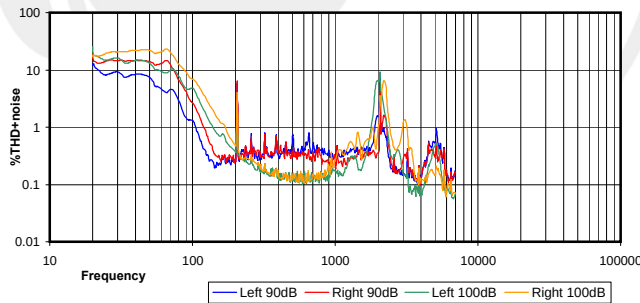
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



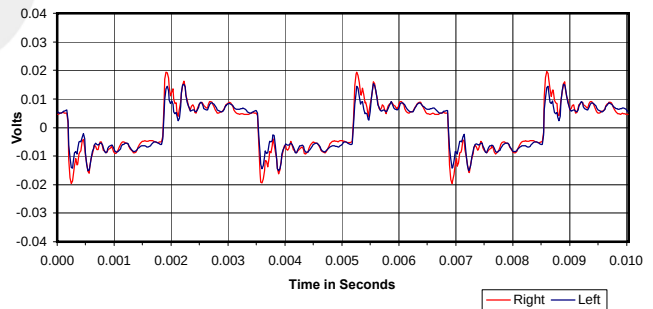
30 Hz Square Wave



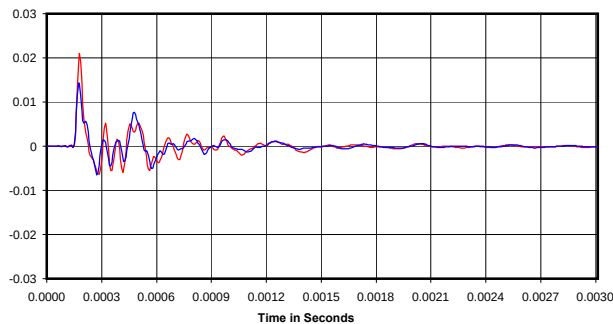
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



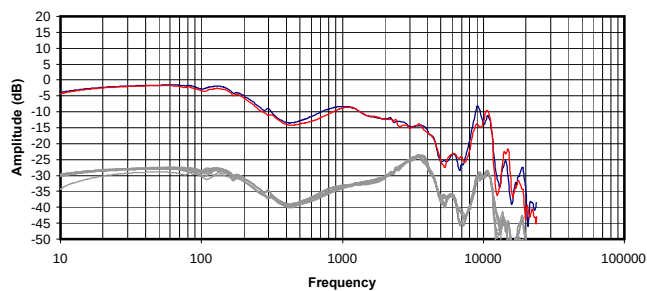
Impulse Response



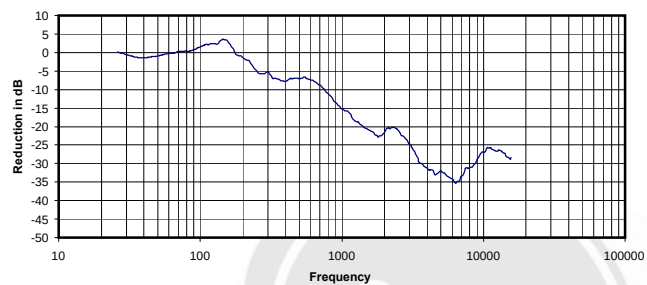
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.065 Vrms
33 Ohms
0.13 mW
-14 dBr

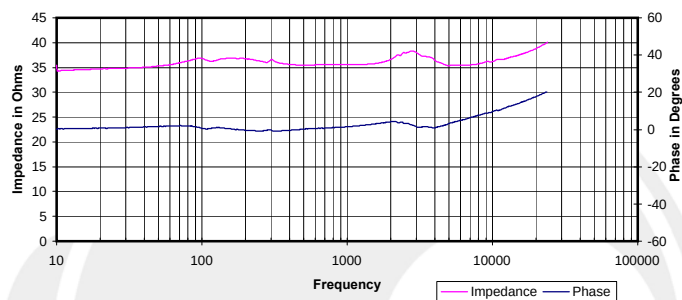
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



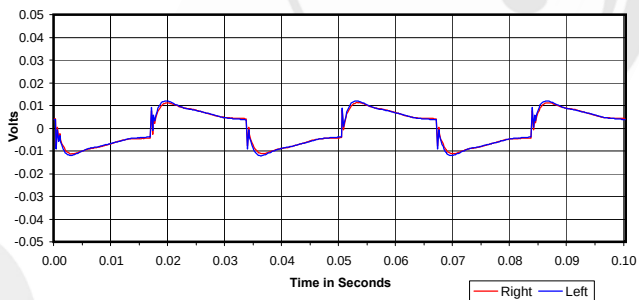
Isolation
Attenuation of External Sound vs. Frequency



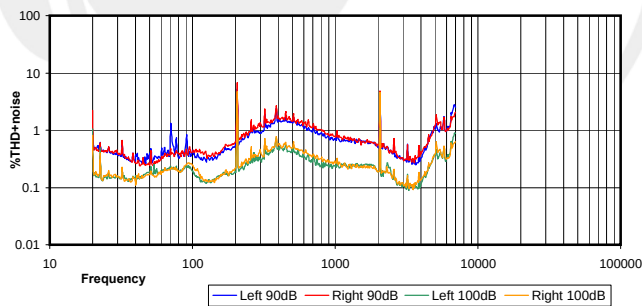
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



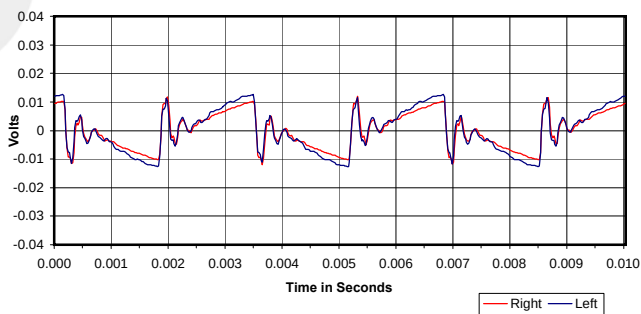
30 Hz Square Wave



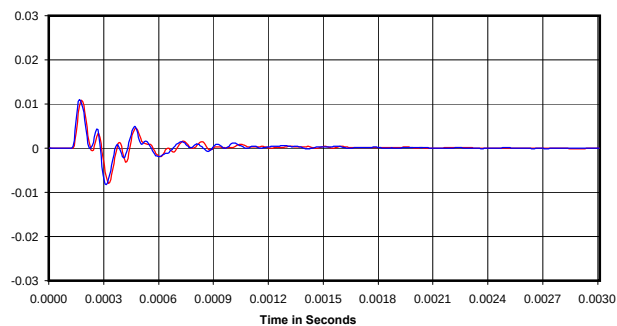
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



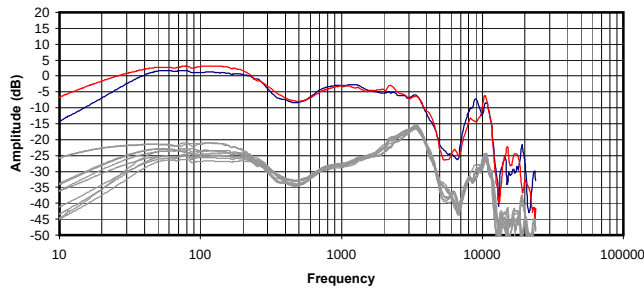
Impulse Response



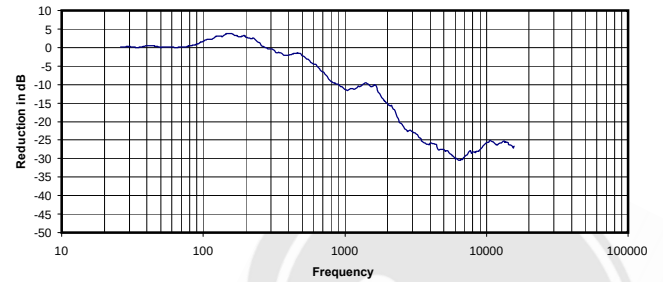
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.031 Vrms
36 Ohms
0.03 mW
-13 dBr

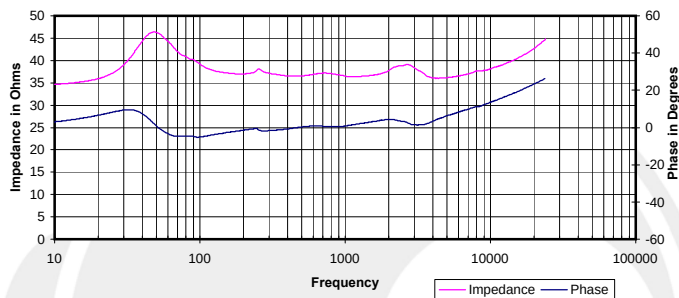
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



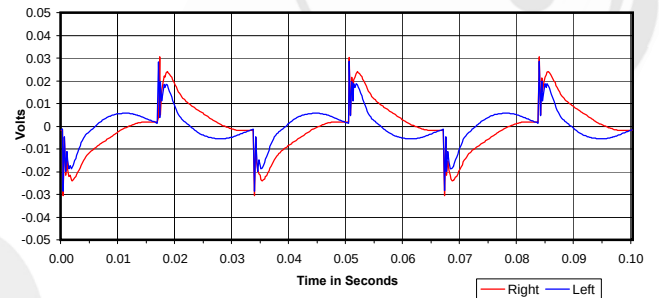
Isolation
Attenuation of External Sound vs. Frequency



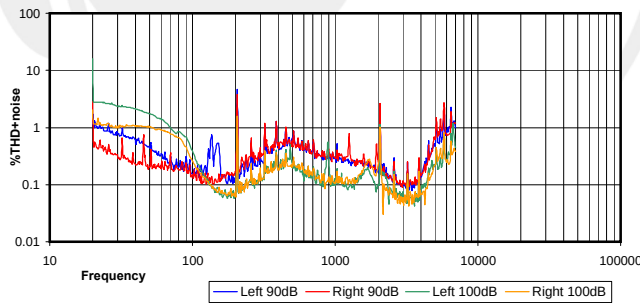
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



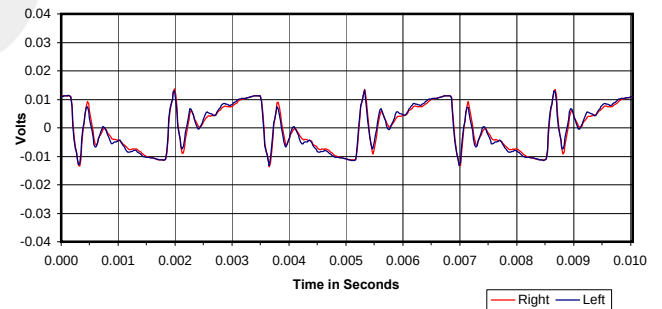
30 Hz Square Wave



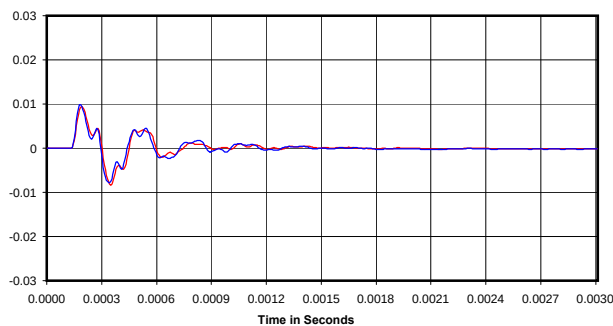
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

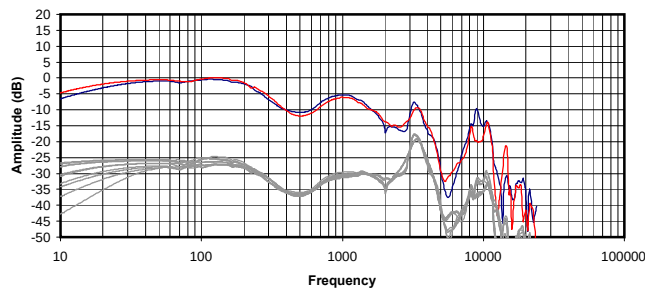
0.034 Vrms
37 Ohms
0.03 mW
-9 dBr



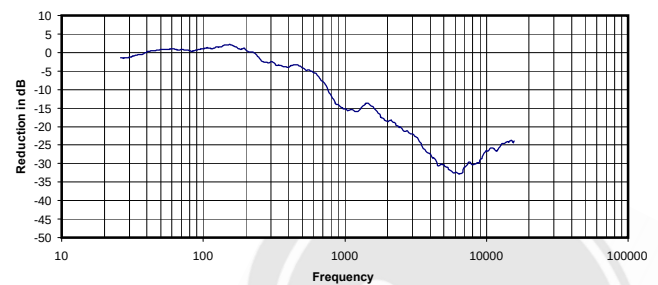
Headphone Measurements:

V-Moda Crossfade LP2

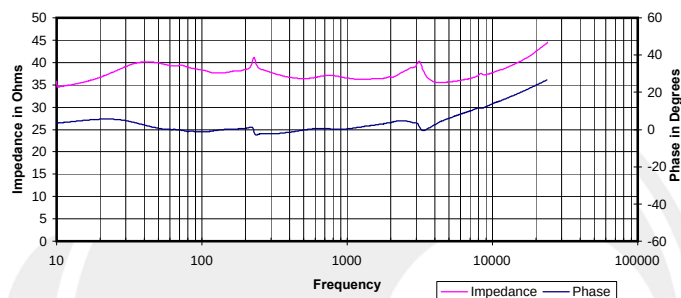
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



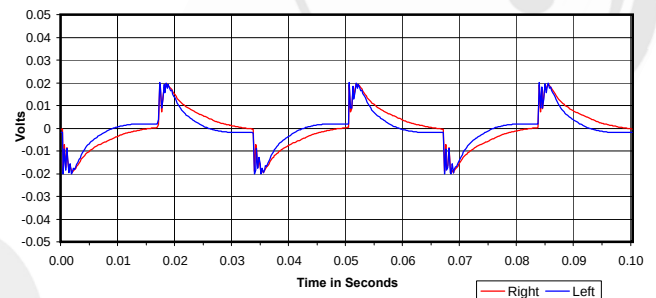
Isolation
Attenuation of External Sound vs. Frequency



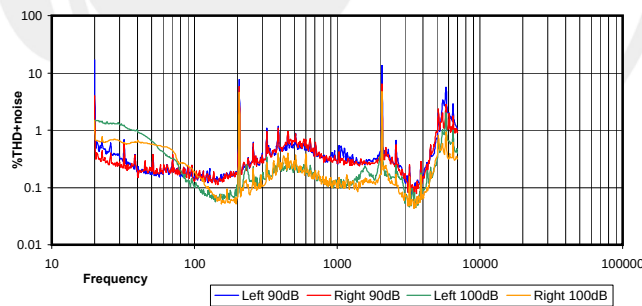
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



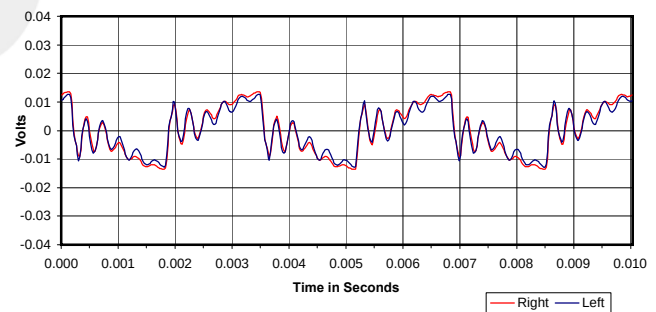
30 Hz Square Wave



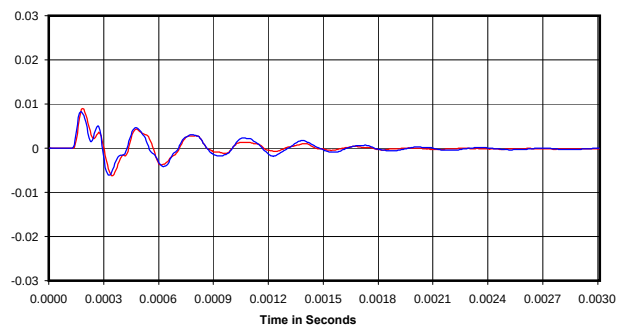
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



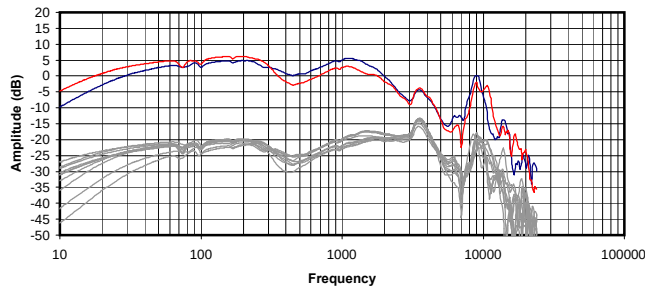
Impulse Response



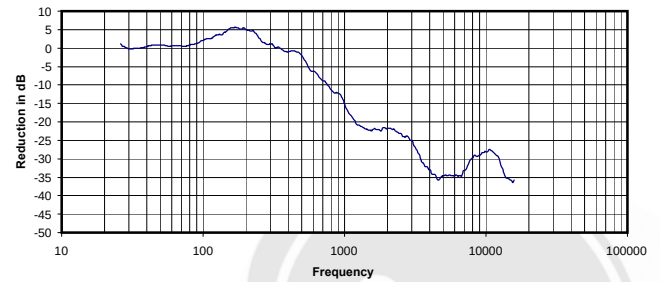
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.026 Vrms
37 Ohms
0.02 mW
-11 dBr

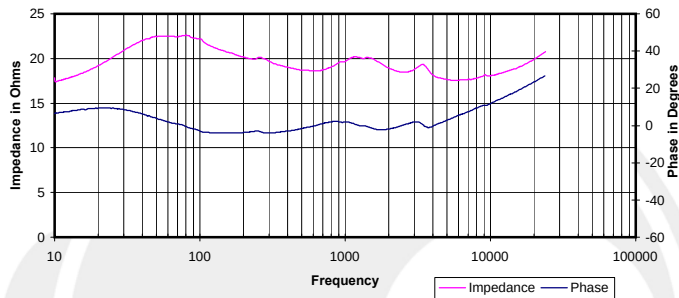
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



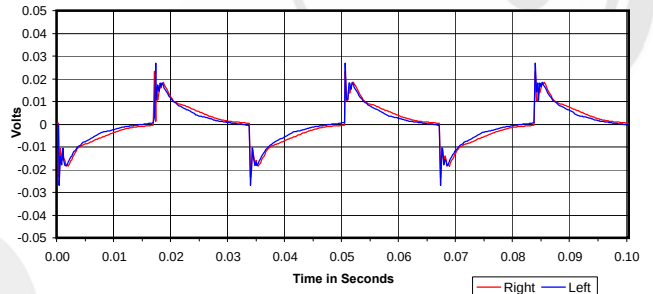
Isolation
Attenuation of External Sound vs. Frequency



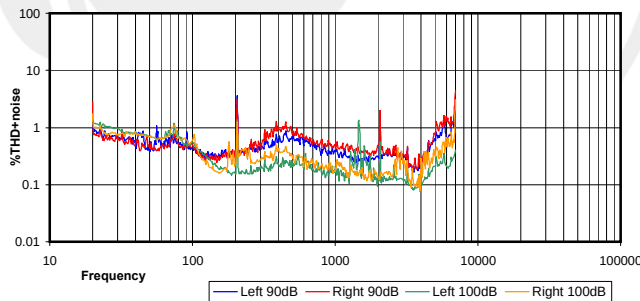
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



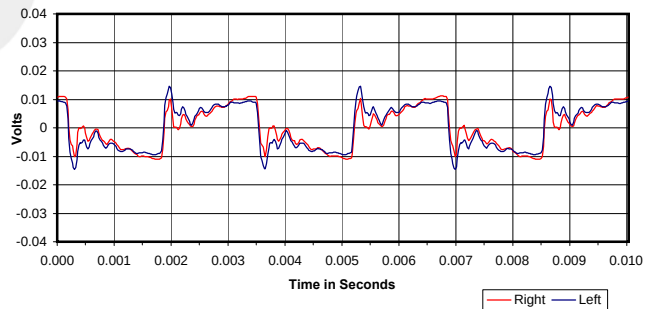
30 Hz Square Wave



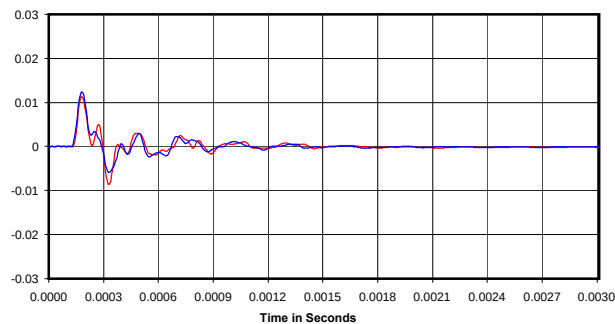
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



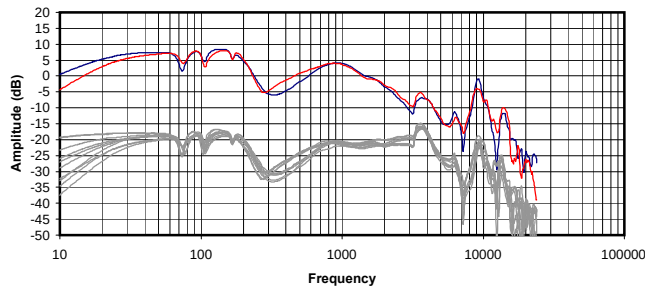
Impulse Response



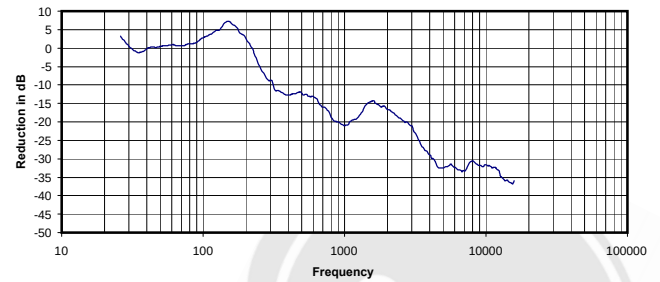
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.013 Vrms
20 Ohms
0.01 mW
-12 dBr

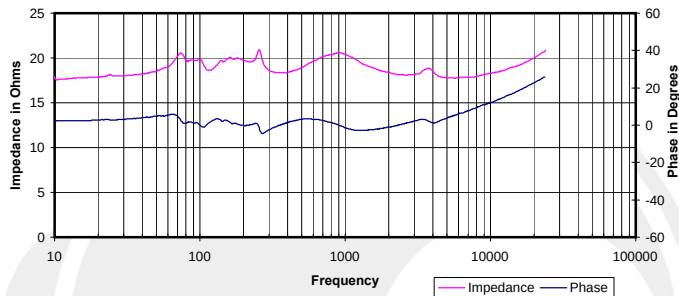
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



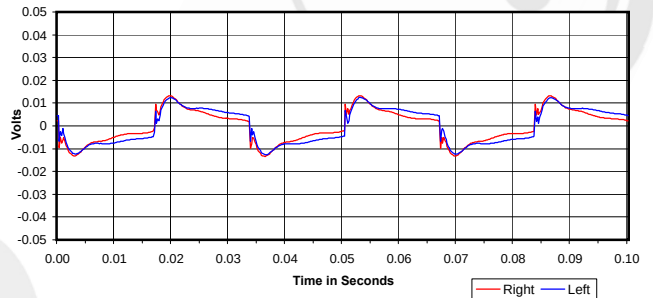
Isolation
Attenuation of External Sound vs. Frequency



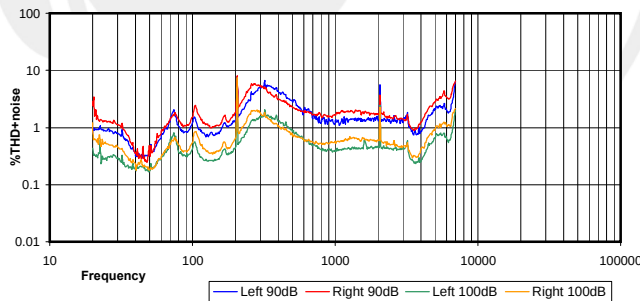
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



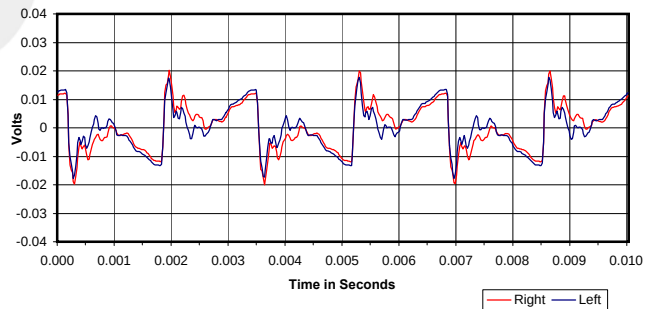
30 Hz Square Wave



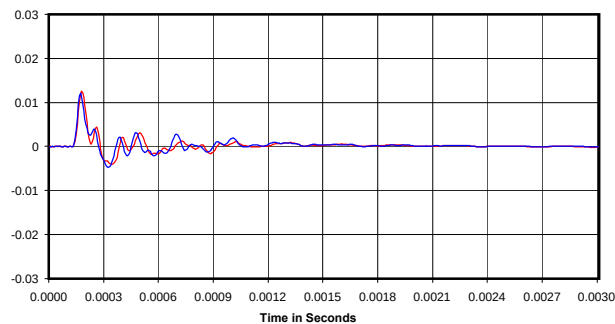
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

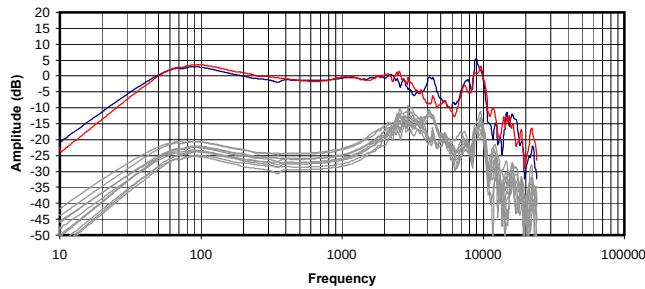
0.016 Vrms
20 Ohms
0.01 mW
-13 dBr

Headphone Measurement Datasheets

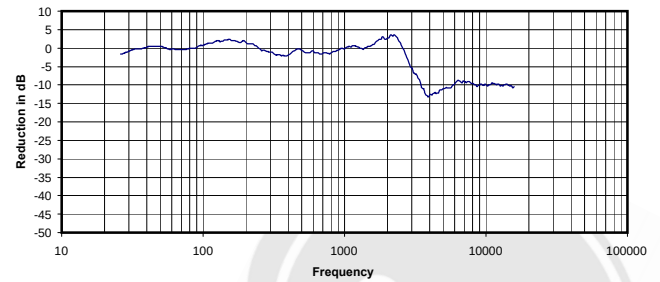
Earpad Open



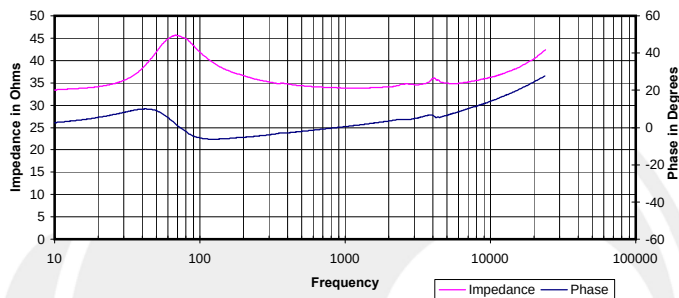
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



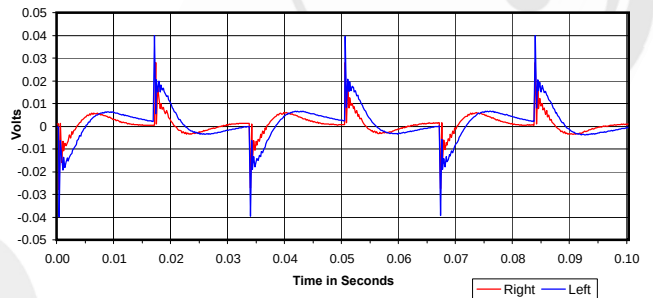
Isolation
Attenuation of External Sound vs. Frequency



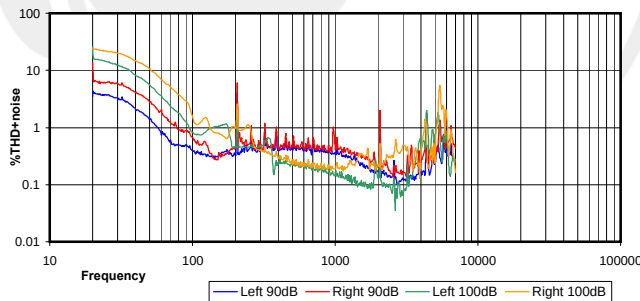
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



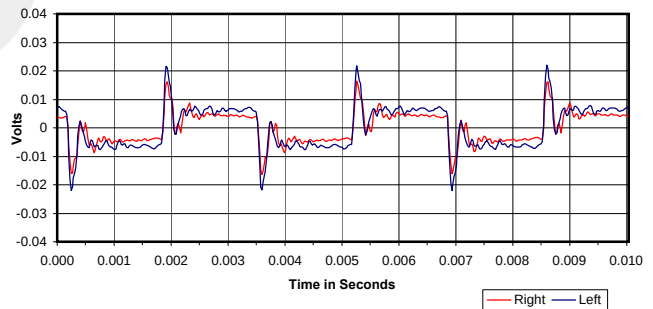
30 Hz Square Wave



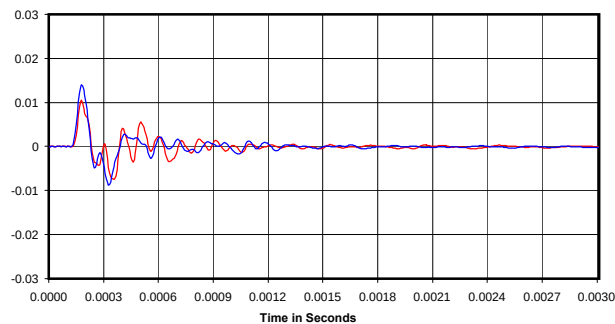
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



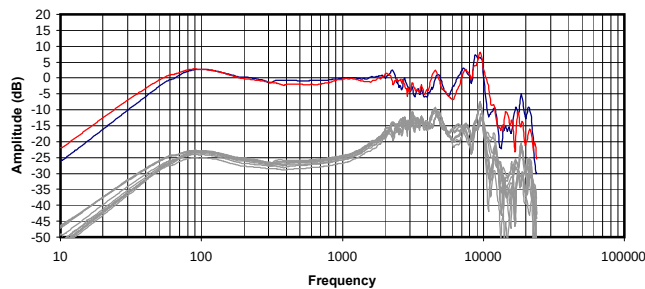
Impulse Response



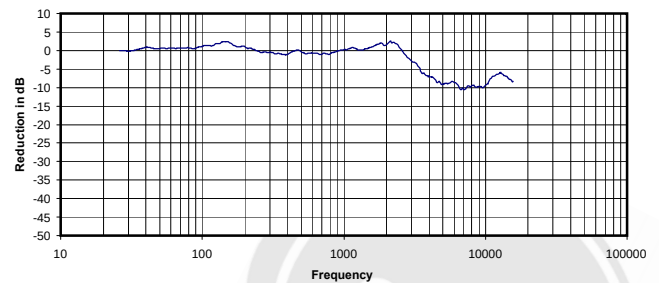
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.073 Vrms
34 Ohms
0.16 mW
-2 dBr

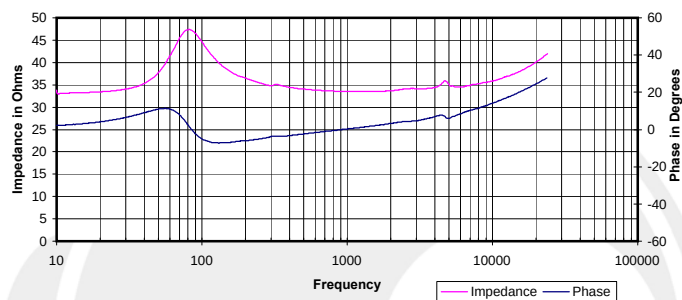
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



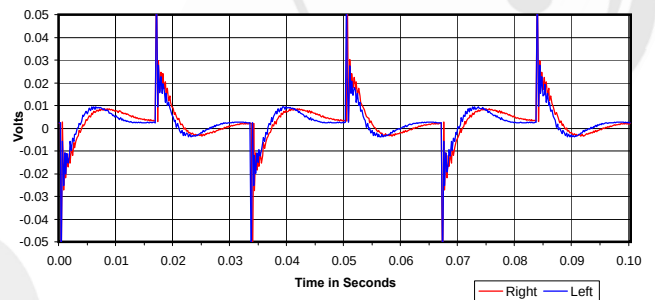
Isolation
Attenuation of External Sound vs. Frequency



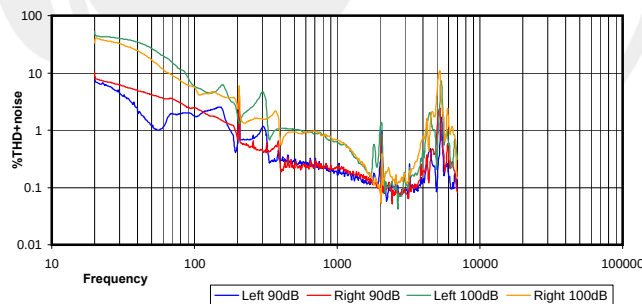
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



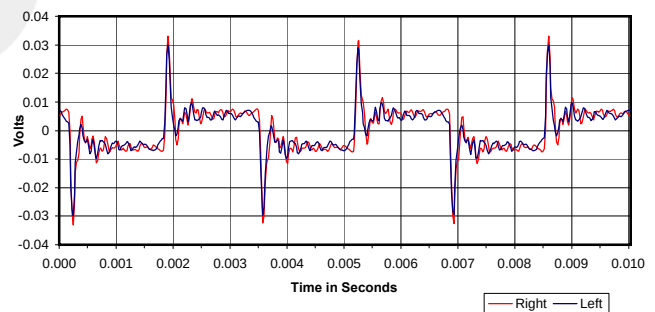
30 Hz Square Wave



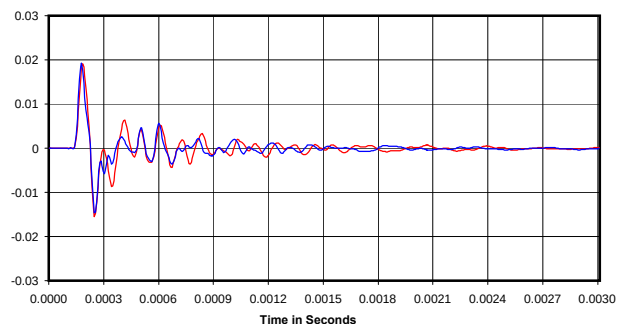
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



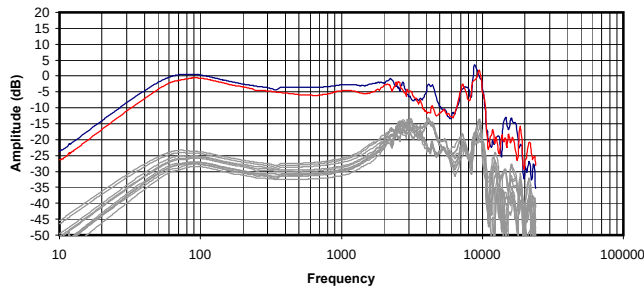
Impulse Response



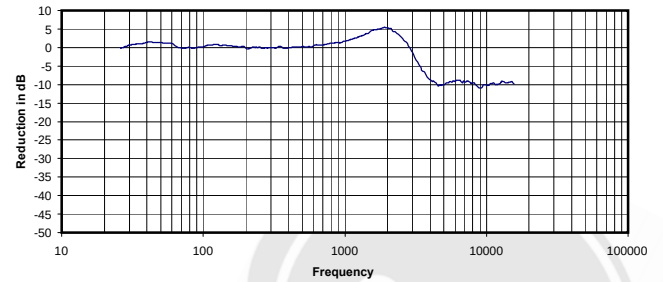
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.126 Vrms
34 Ohms
0.47 mW
-1 dBr

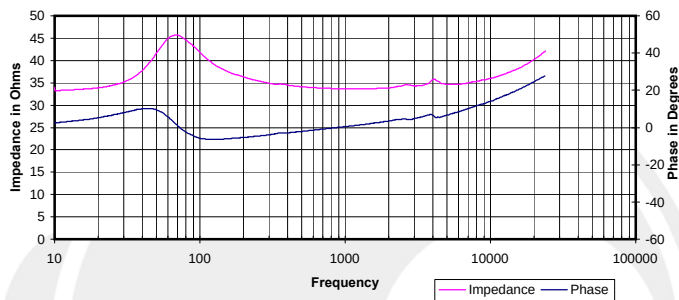
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



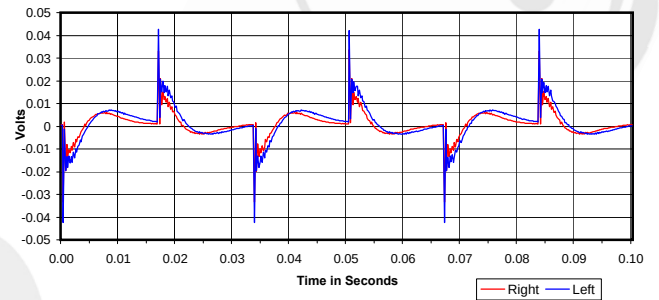
Isolation
Attenuation of External Sound vs. Frequency



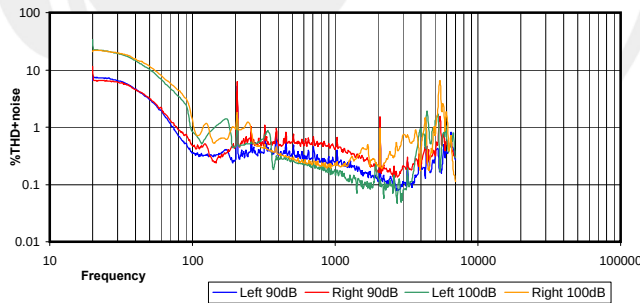
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



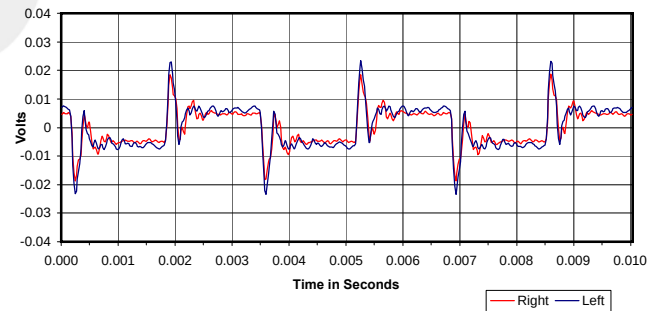
30 Hz Square Wave



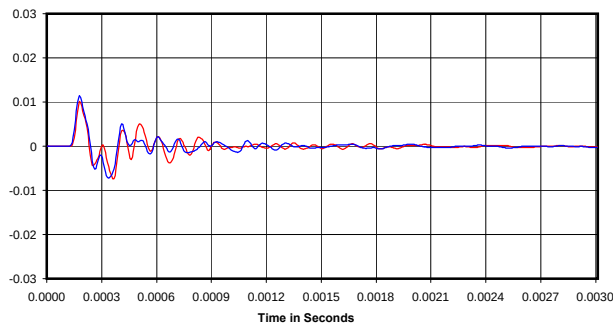
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



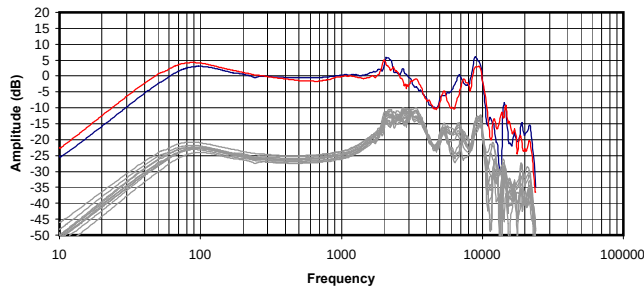
Impulse Response



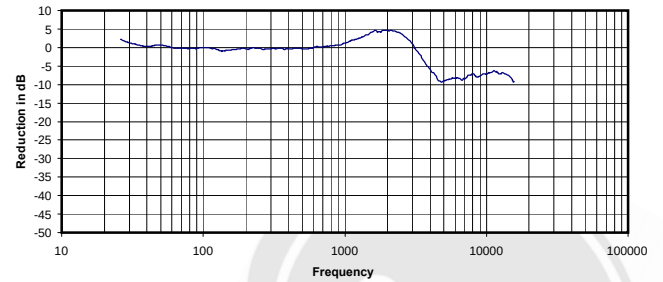
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.079 Vrms
34 Ohms
0.19 mW
0 dBr

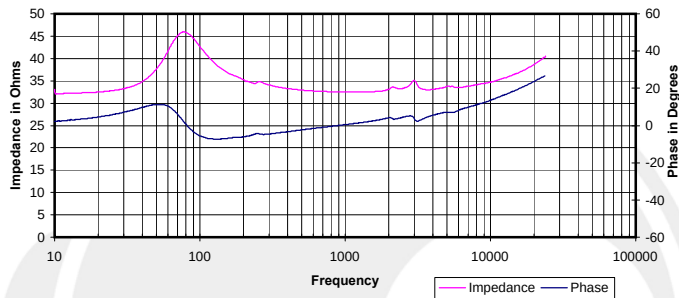
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



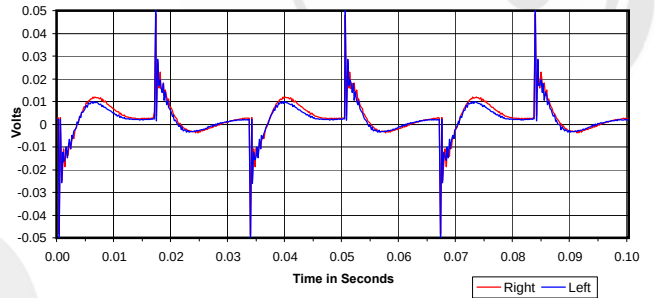
Isolation
Attenuation of External Sound vs. Frequency



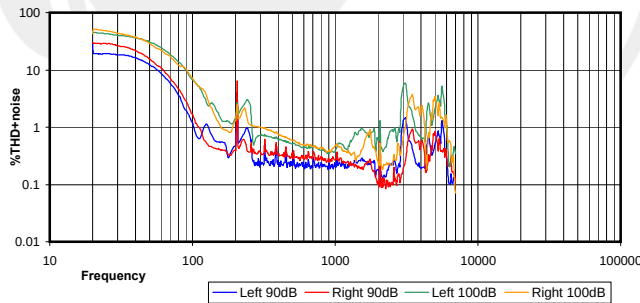
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



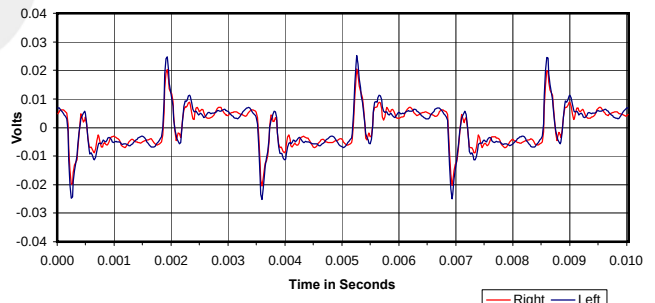
30 Hz Square Wave



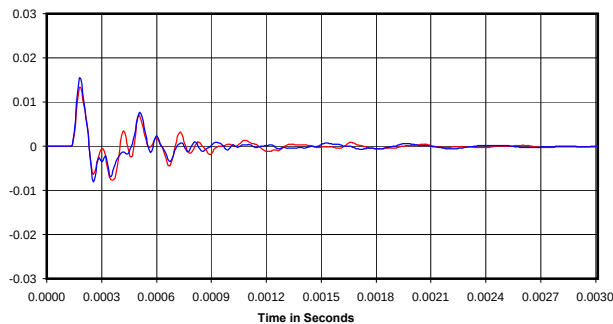
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



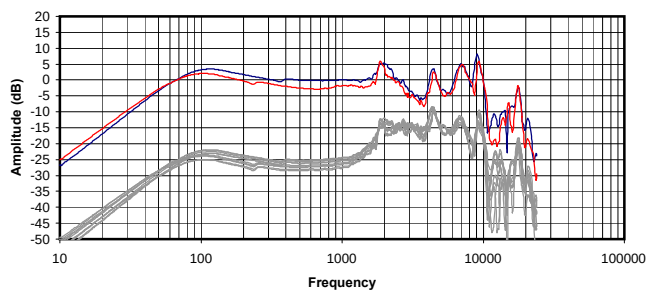
Impulse Response



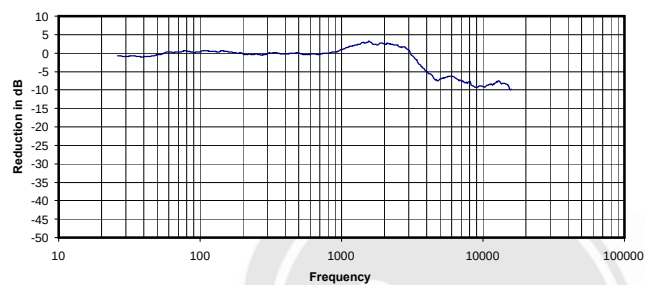
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.110 Vrms
32 Ohms
0.37 mW
0 dBr

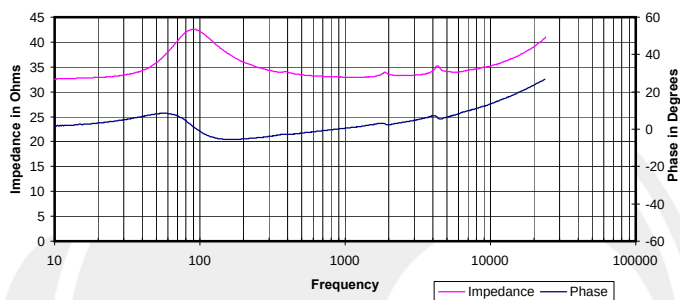
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



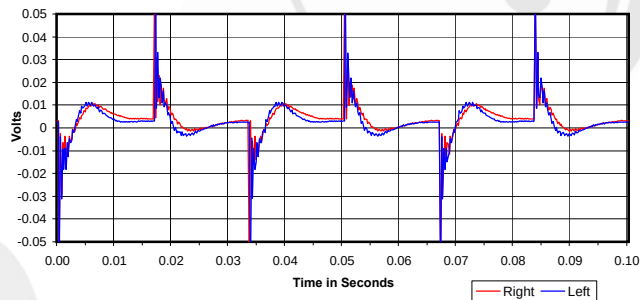
Isolation
Attenuation of External Sound vs. Frequency



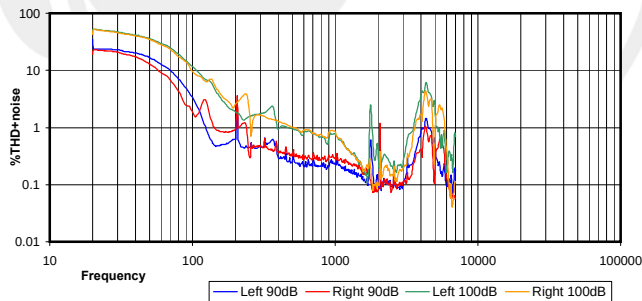
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



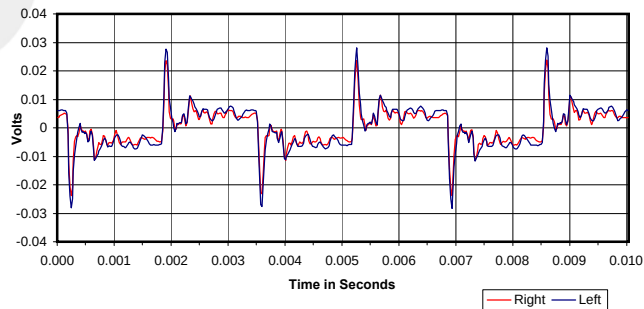
30 Hz Square Wave



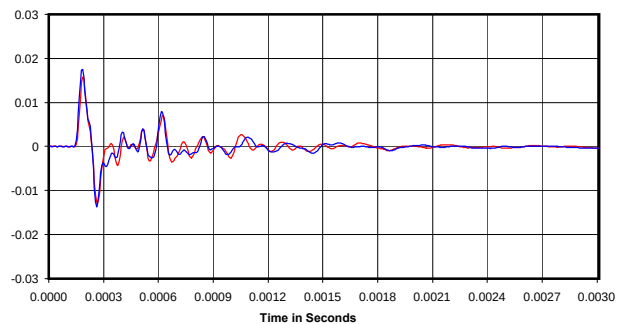
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



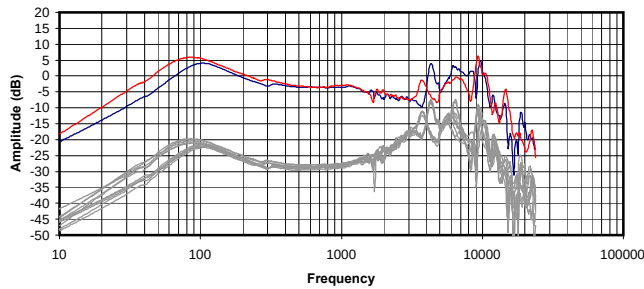
Impulse Response



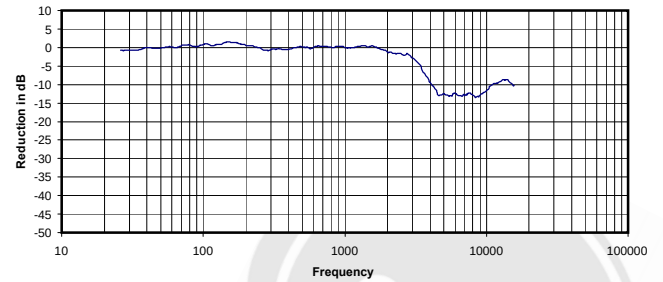
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.161 Vrms
33 Ohms
0.78 mW
0 dBr

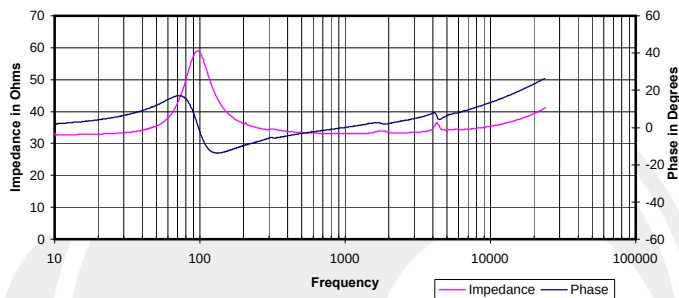
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



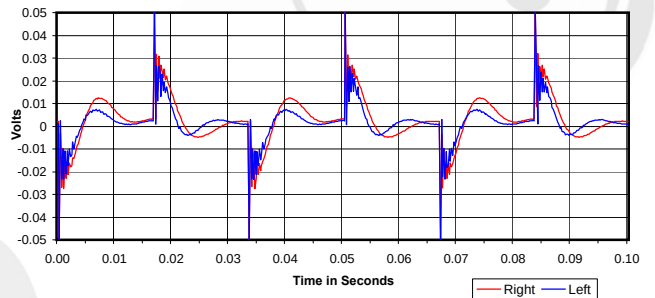
Isolation
Attenuation of External Sound vs. Frequency



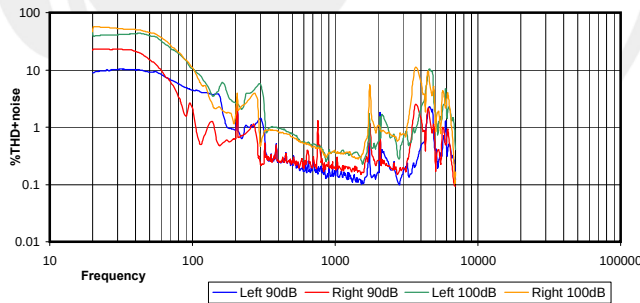
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



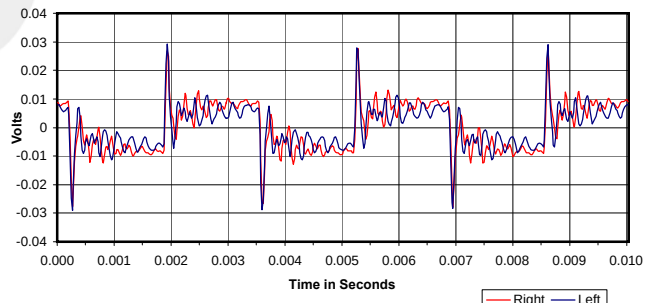
30 Hz Square Wave



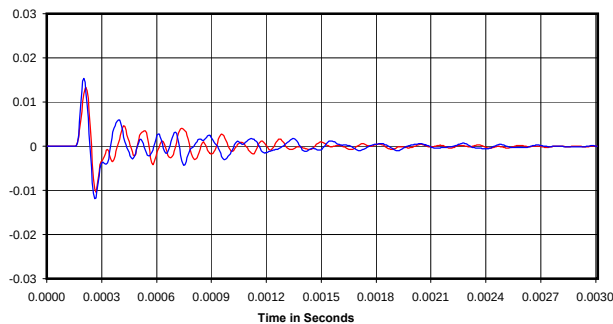
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



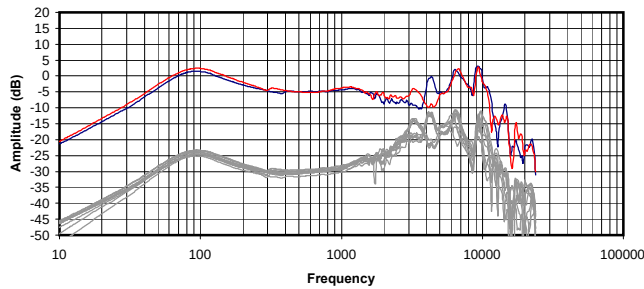
Impulse Response



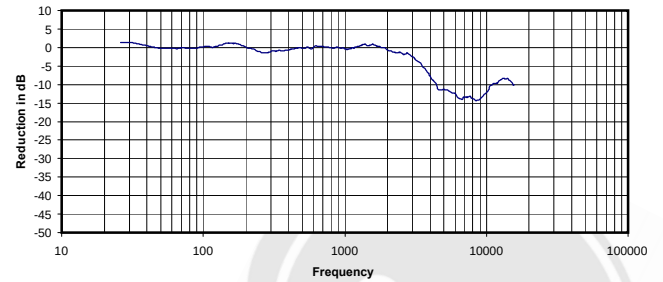
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.188 Vrms
33 Ohms
1.06 mW
-2 dBr

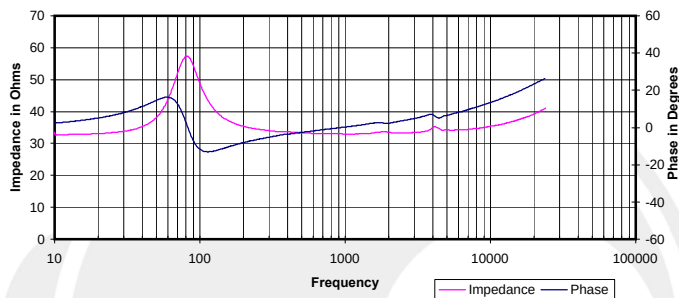
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



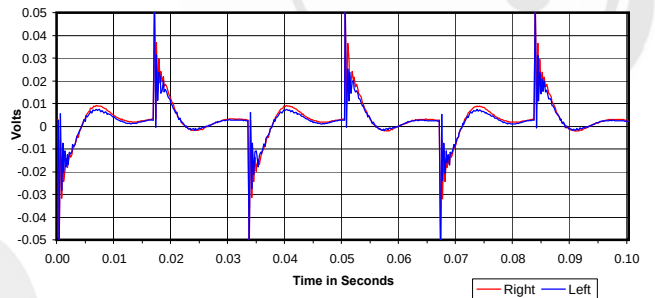
Isolation
Attenuation of External Sound vs. Frequency



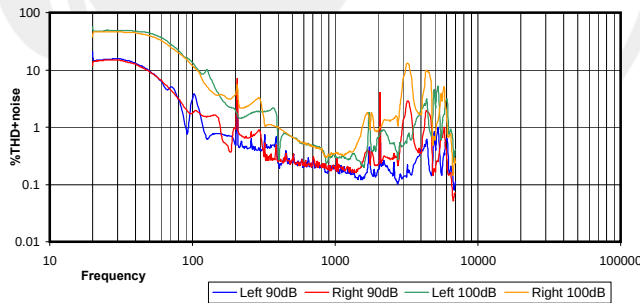
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



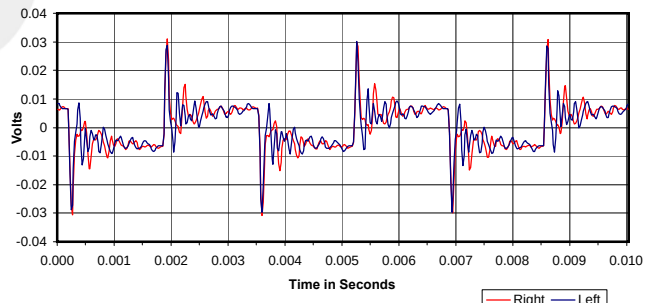
30 Hz Square Wave



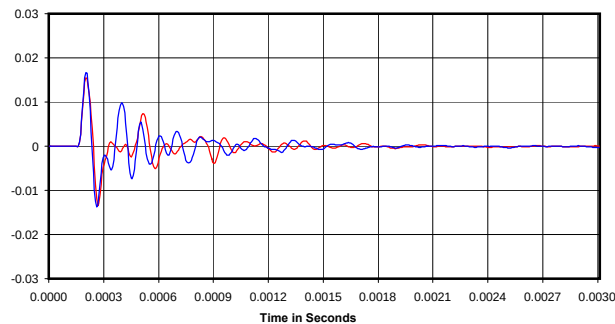
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



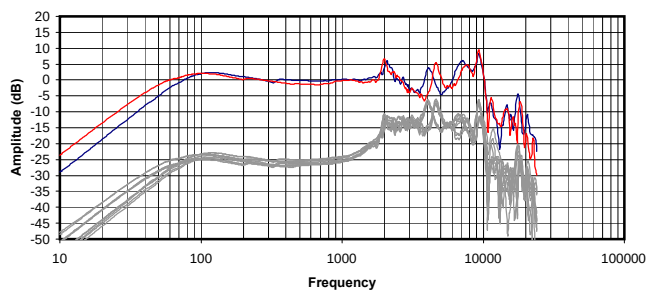
Impulse Response



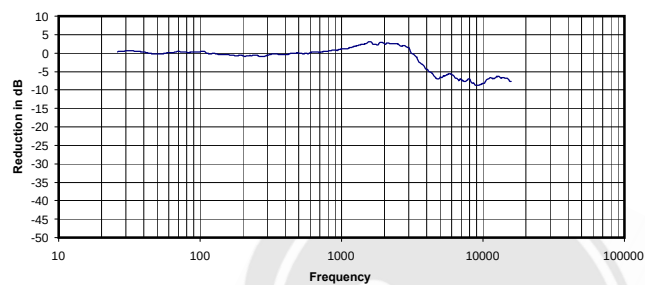
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.189 Vrms
33 Ohms
1.09 mW
-2 dB

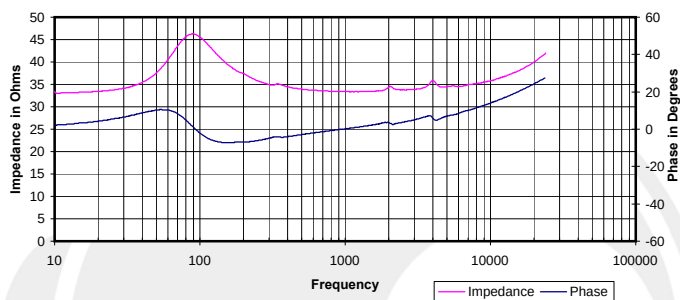
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



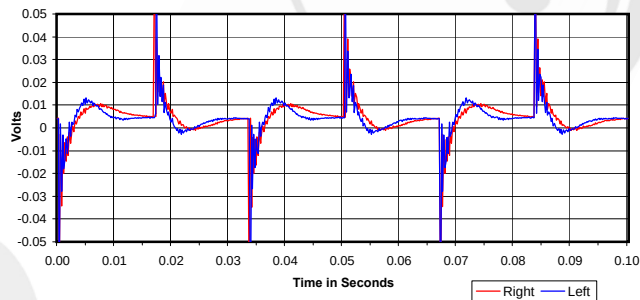
Isolation
Attenuation of External Sound vs. Frequency



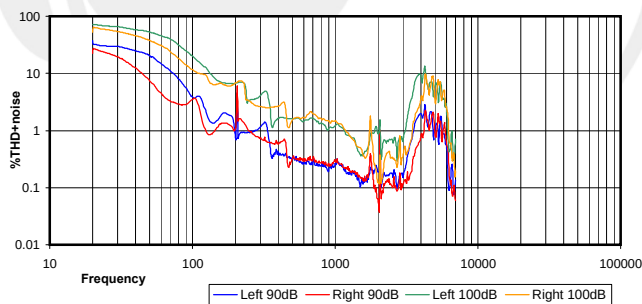
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



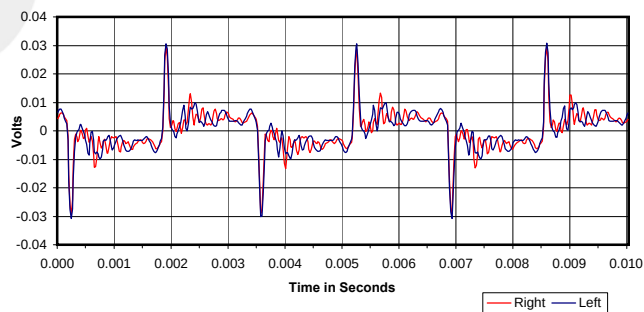
30 Hz Square Wave



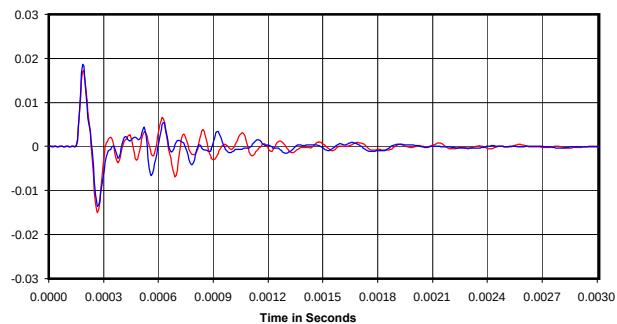
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



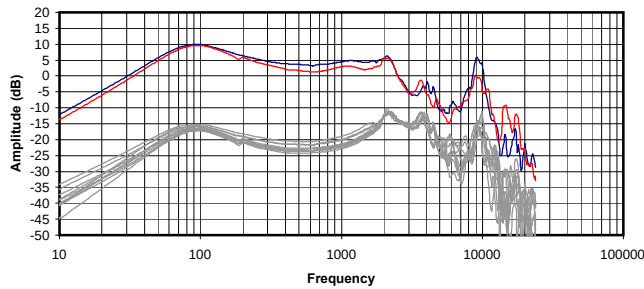
Impulse Response



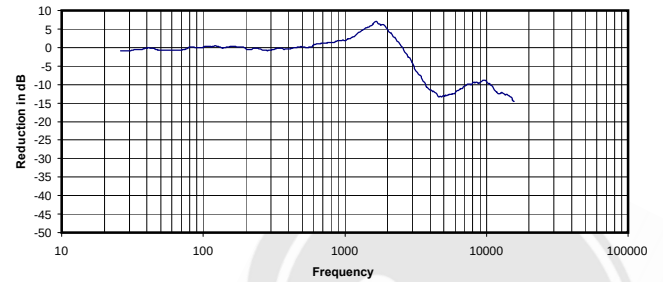
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.175 Vrms
33 Ohms
0.92 mW
0 dBr

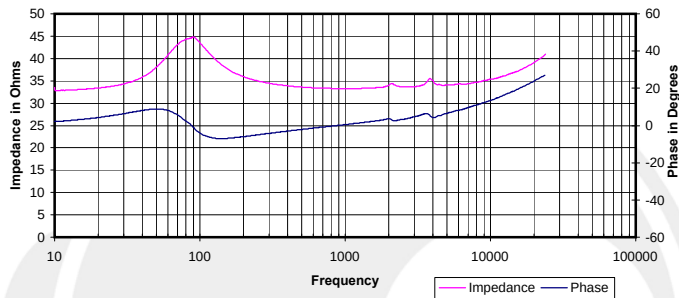
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



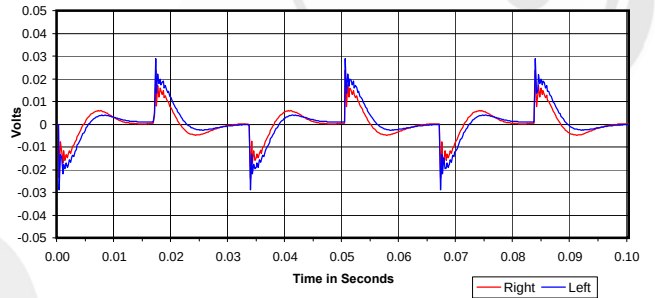
Isolation
Attenuation of External Sound vs. Frequency



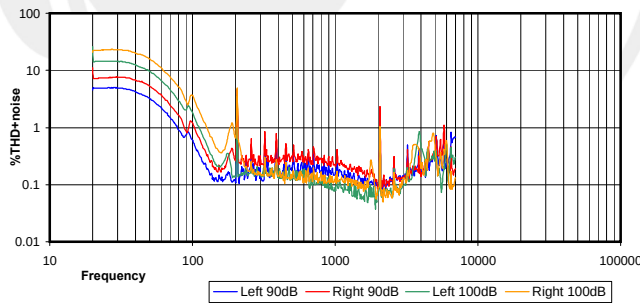
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



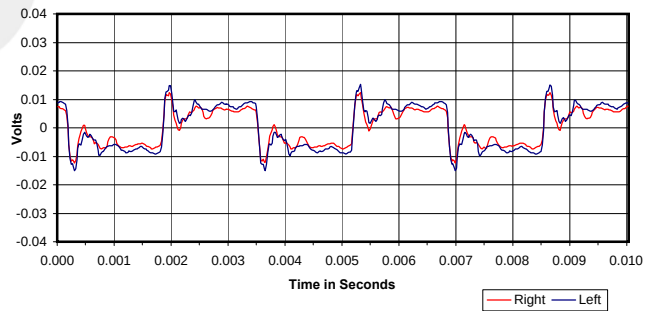
30 Hz Square Wave



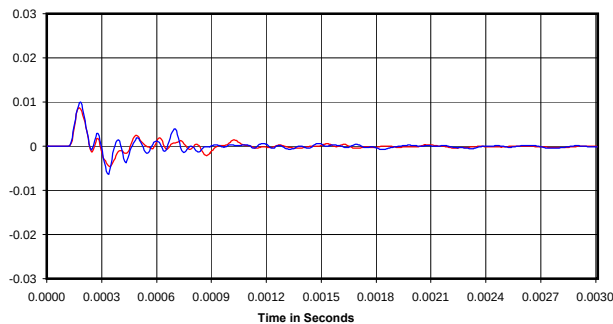
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



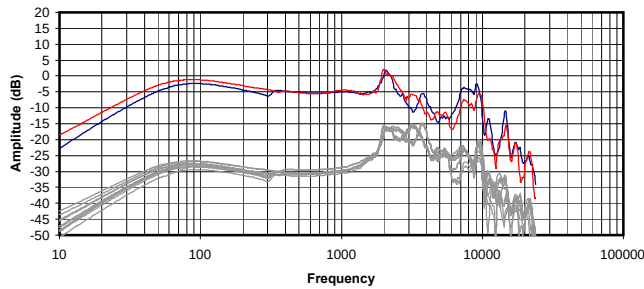
Impulse Response



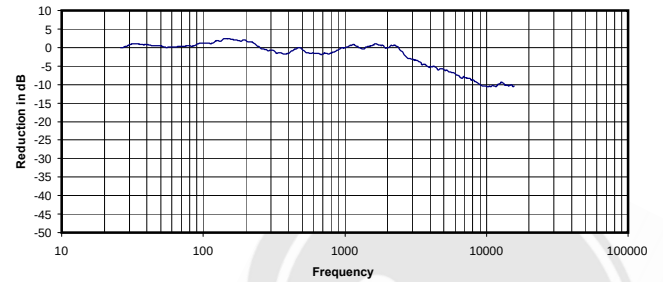
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.039 Vrms
33 Ohms
0.05 mW
-1 dBr

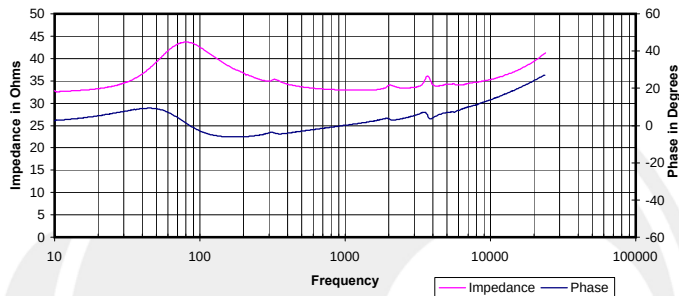
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



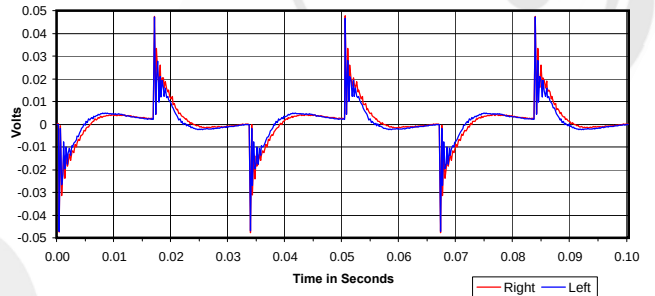
Isolation
Attenuation of External Sound vs. Frequency



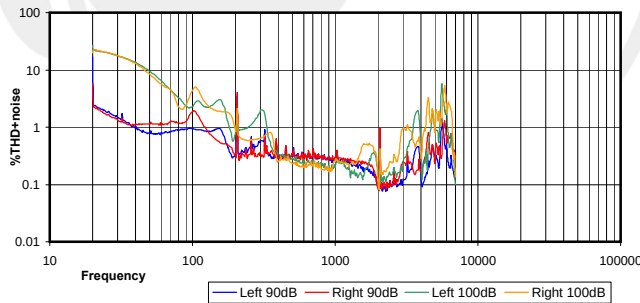
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



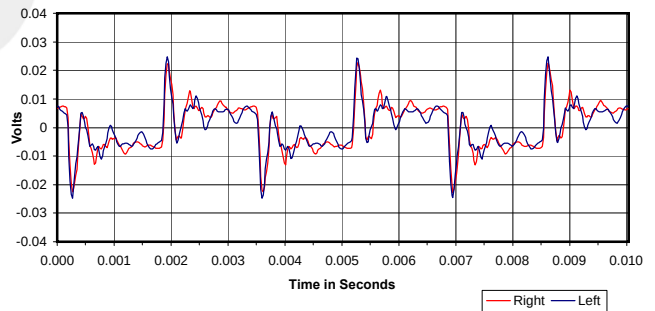
30 Hz Square Wave



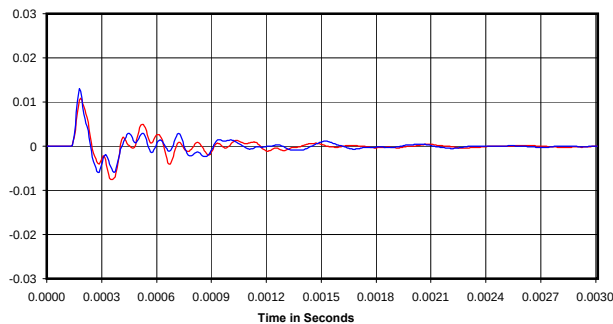
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



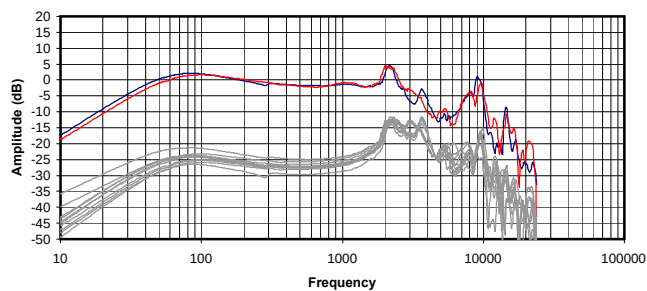
Impulse Response



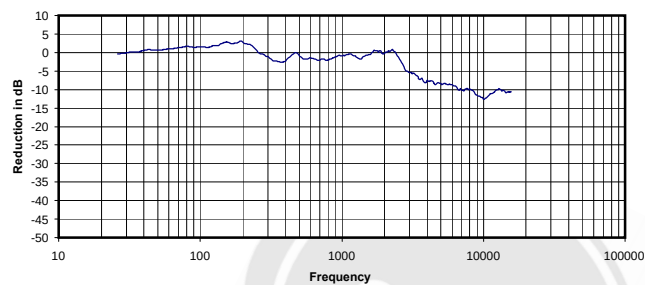
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.104 Vrms
33 Ohms
0.33 mW
-1 dBr

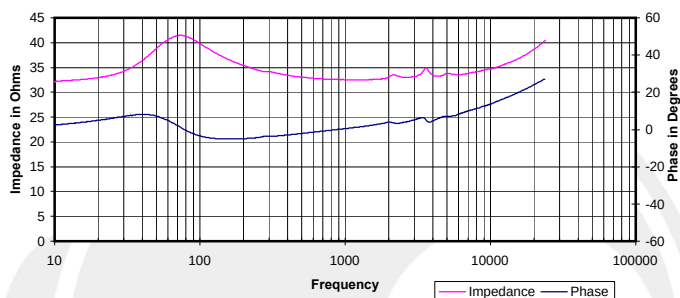
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



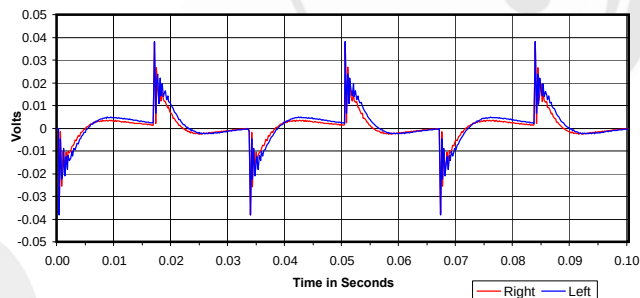
Isolation
Attenuation of External Sound vs. Frequency



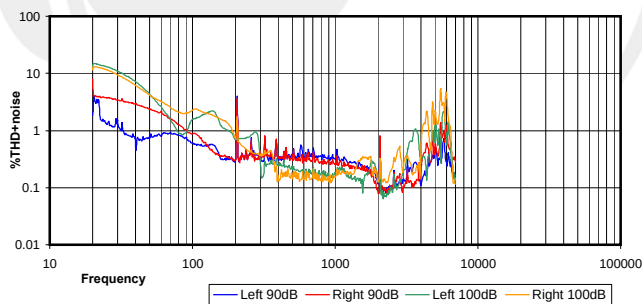
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



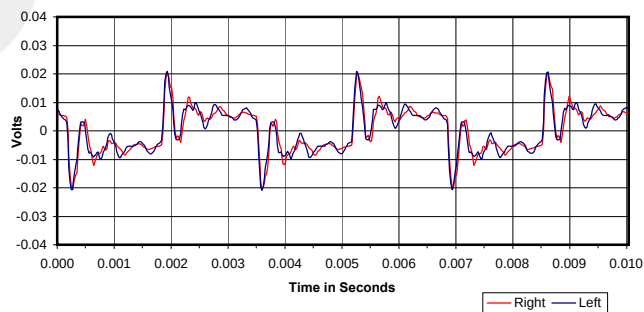
30 Hz Square Wave



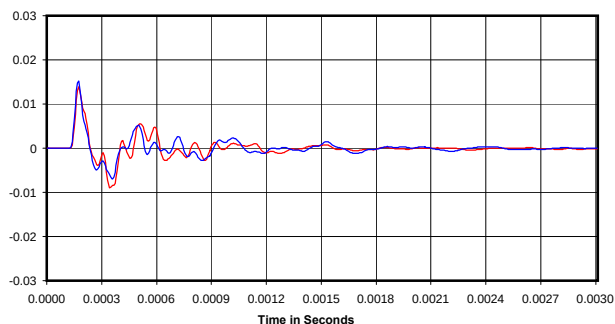
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



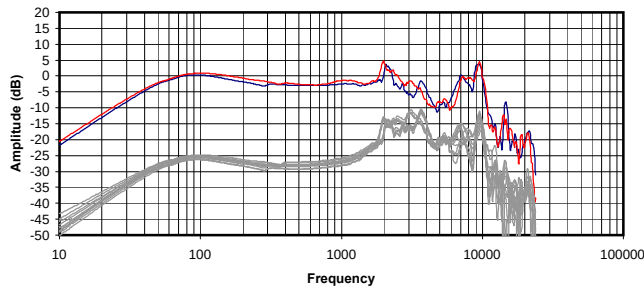
Impulse Response



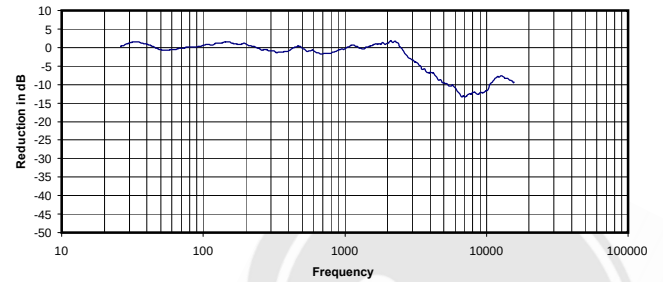
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

4.727 Vrms
33 Ohms
686.40 mW
-2 dBr

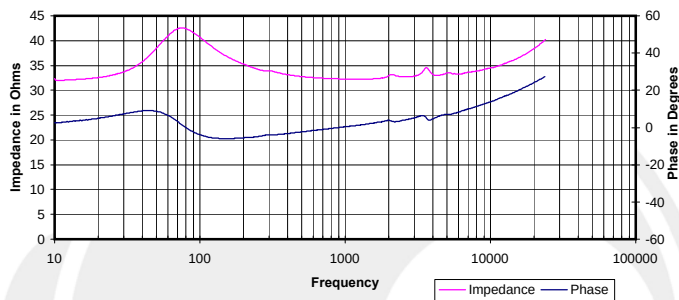
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



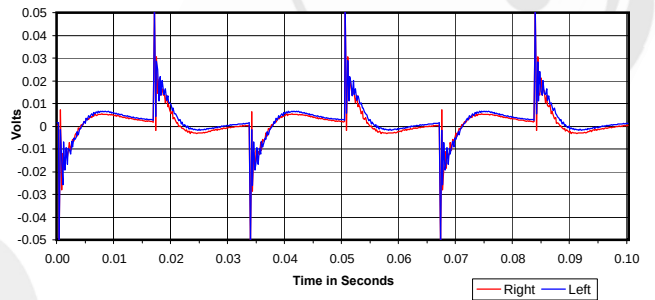
Isolation
Attenuation of External Sound vs. Frequency



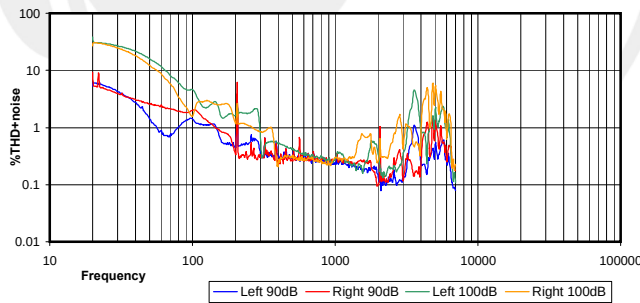
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



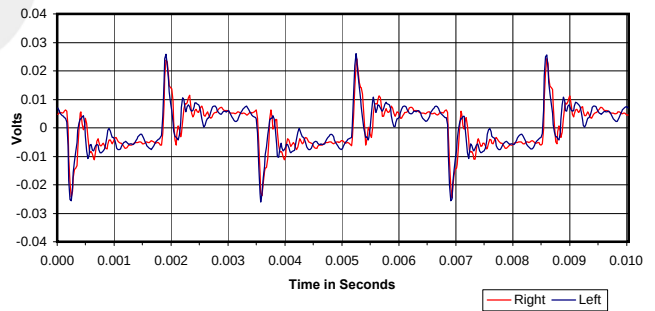
30 Hz Square Wave



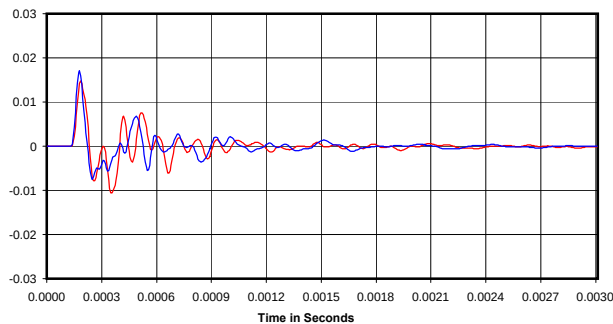
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



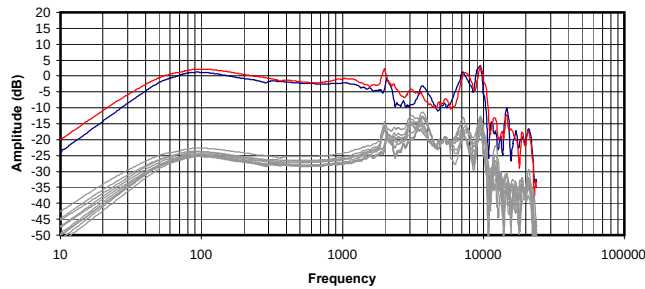
Impulse Response



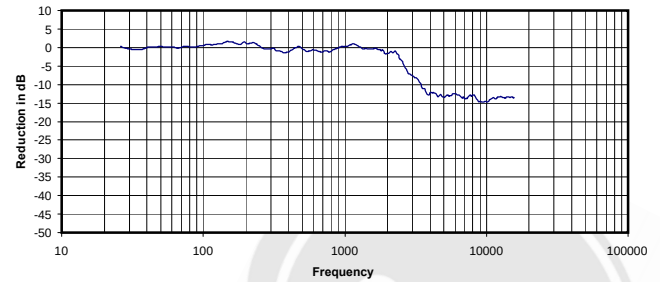
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.116 Vrms
32 Ohms
0.42 mW
-1 dBr

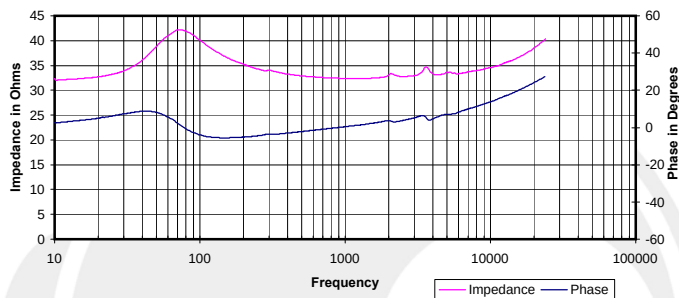
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



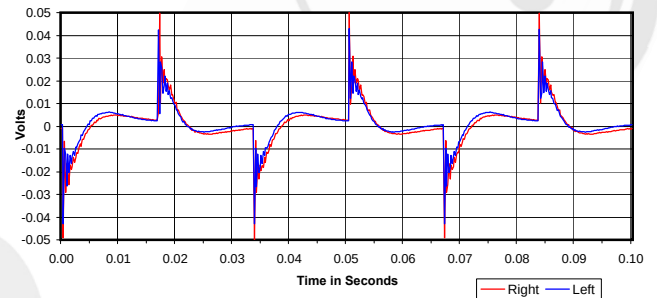
Isolation
Attenuation of External Sound vs. Frequency



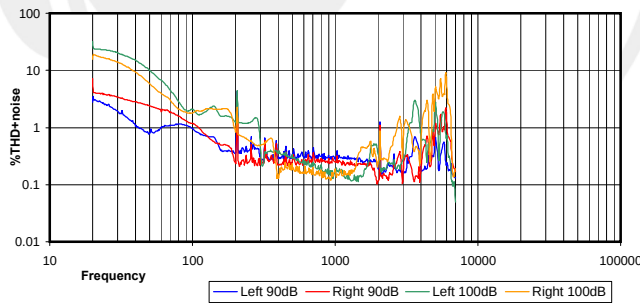
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



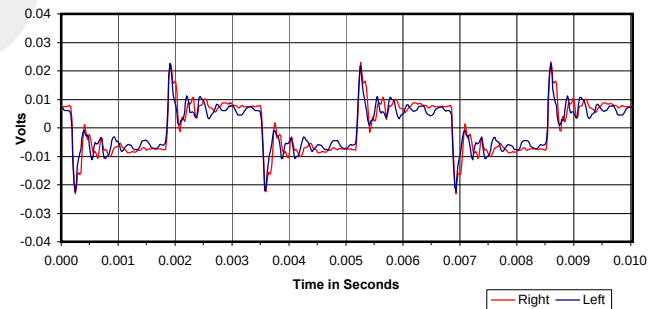
30 Hz Square Wave



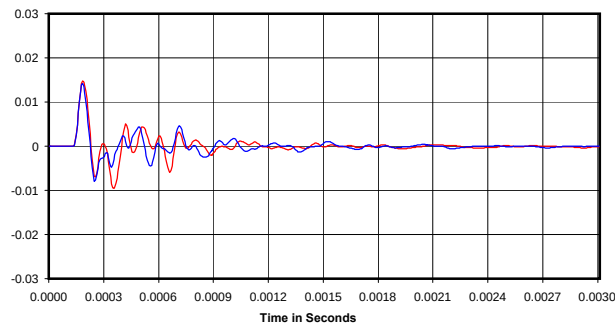
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



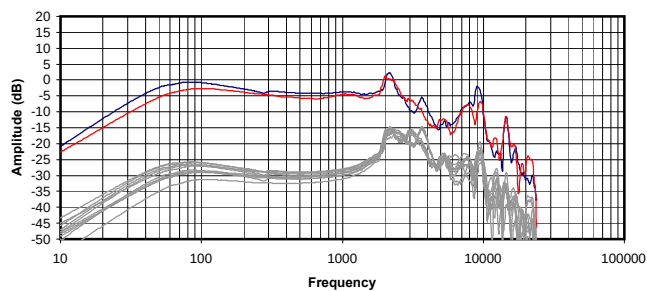
Impulse Response



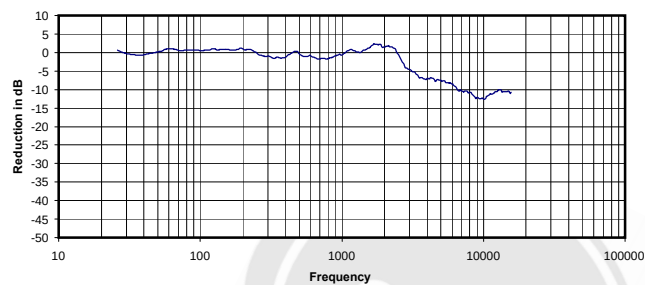
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.094 Vrms
32 Ohms
0.27 mW
-3 dBr

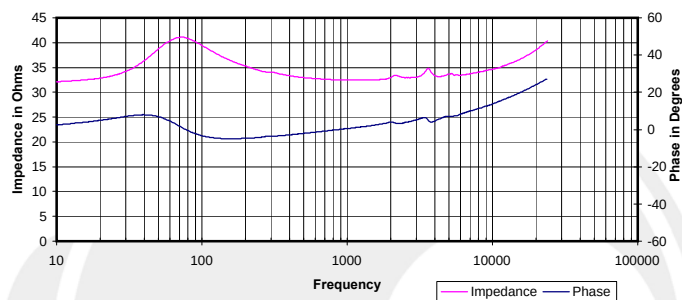
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



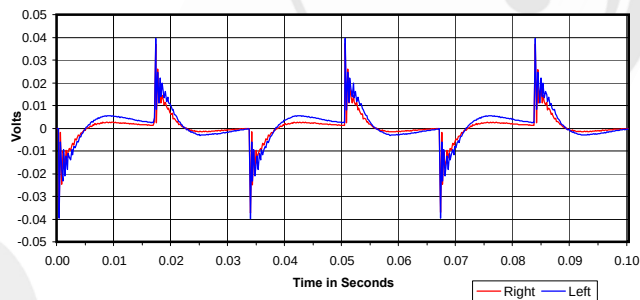
Isolation
Attenuation of External Sound vs. Frequency



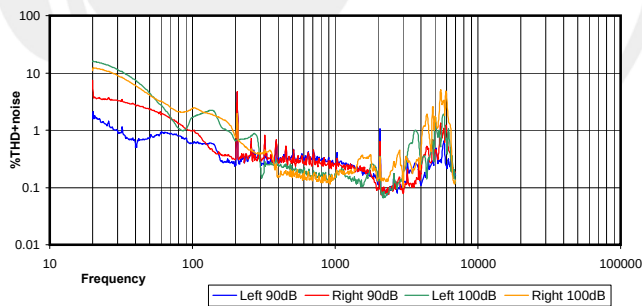
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



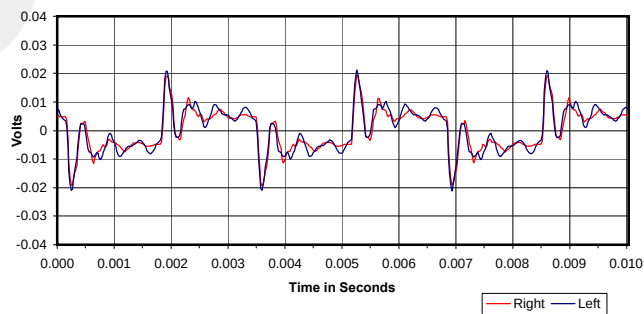
30 Hz Square Wave



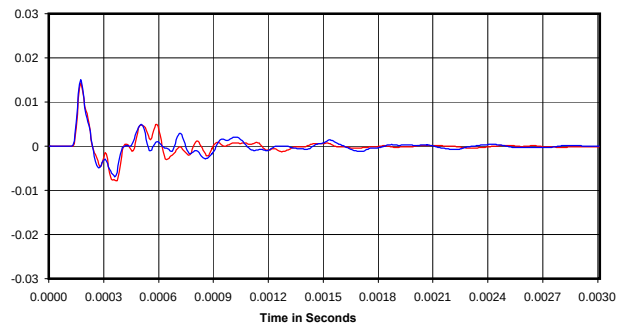
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



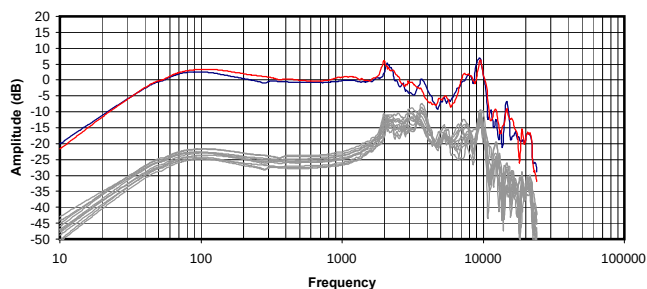
Impulse Response



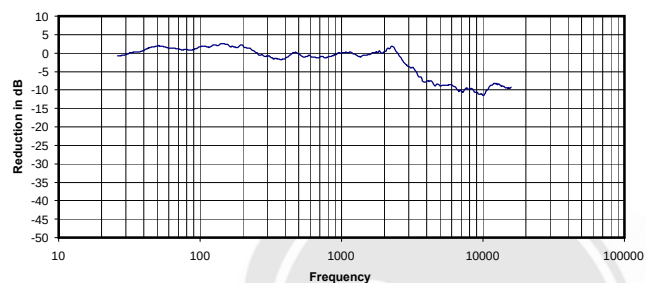
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.079 Vrms
32 Ohms
0.19 mW
-1 dBr

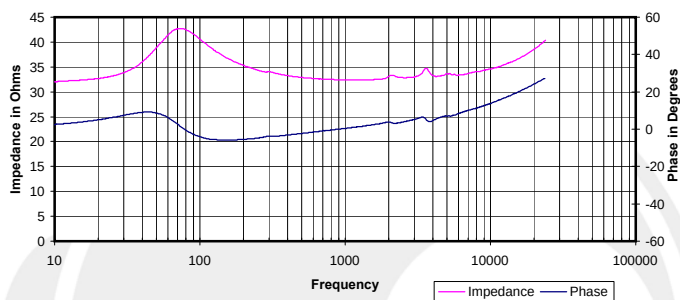
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



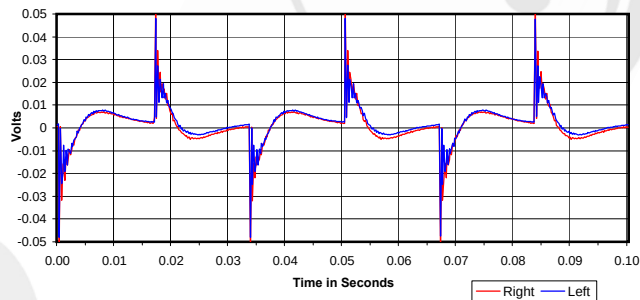
Isolation
Attenuation of External Sound vs. Frequency



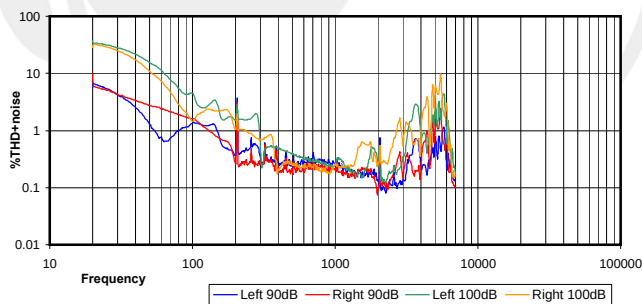
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



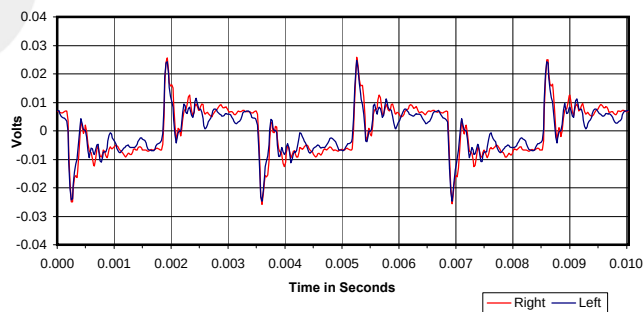
30 Hz Square Wave



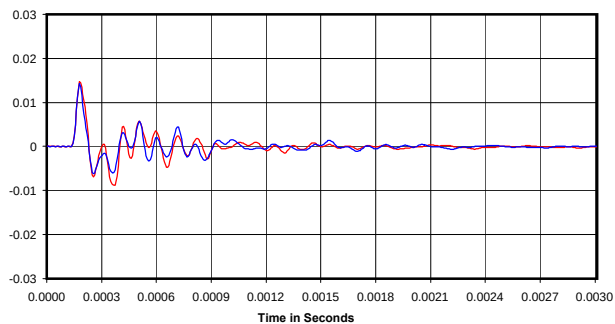
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



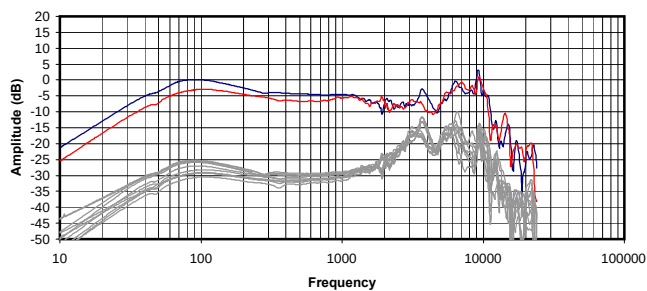
Impulse Response



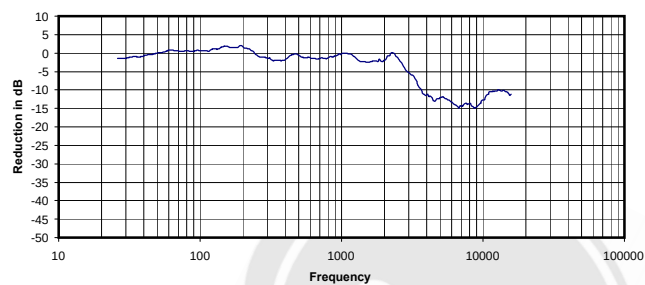
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.112 Vrms
32 Ohms
0.39 mW
-1 dBr

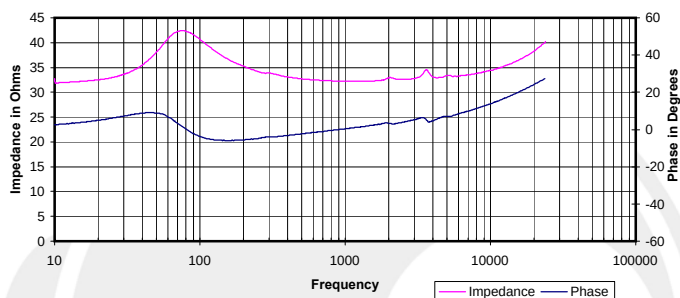
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



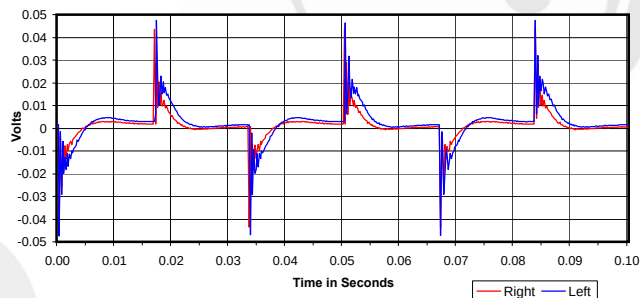
Isolation
Attenuation of External Sound vs. Frequency



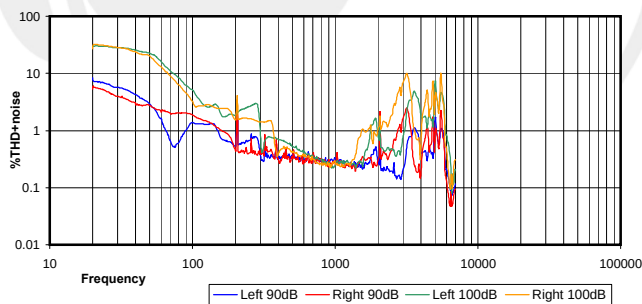
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



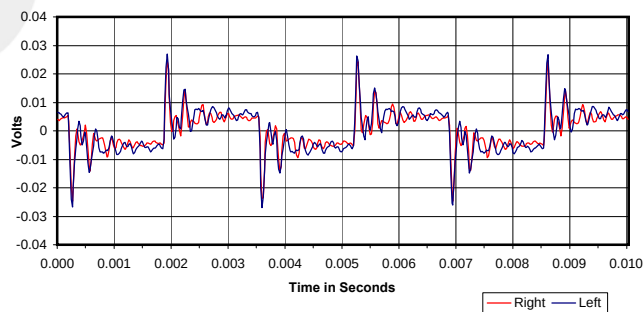
30 Hz Square Wave



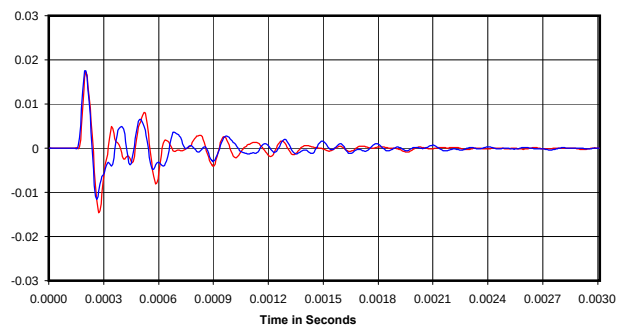
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

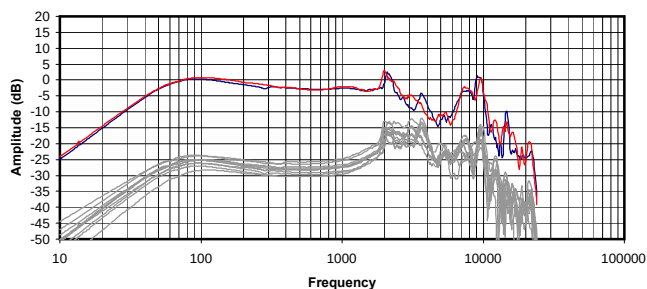
0.151 Vrms
32 Ohms
0.71 mW
-3 dB



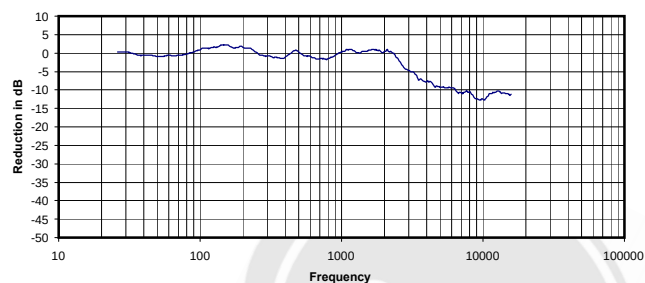
Headphone Measurements:

Grado SR225i Reverse Bowls

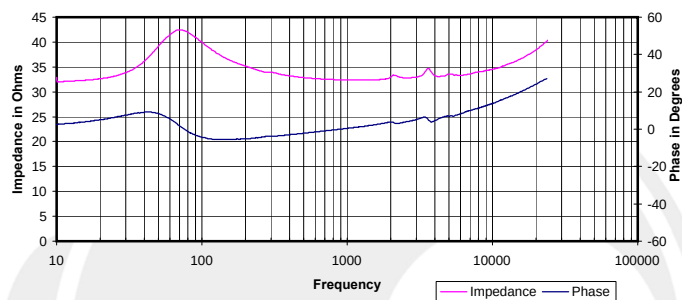
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



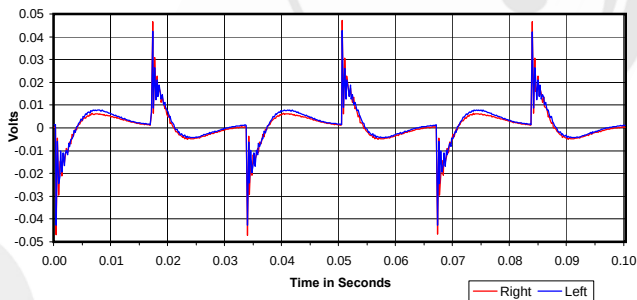
Isolation
Attenuation of External Sound vs. Frequency



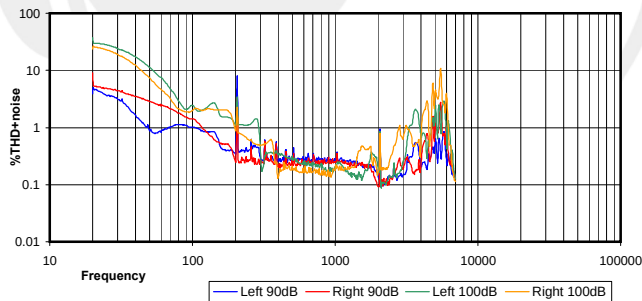
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



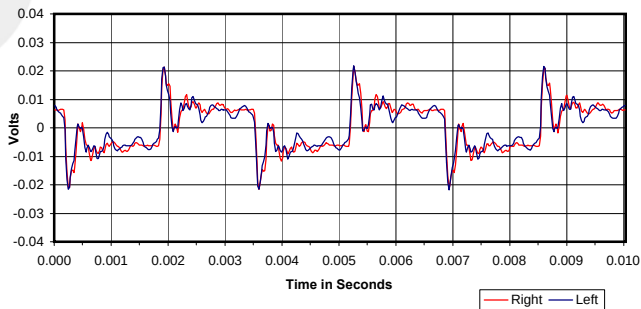
30 Hz Square Wave



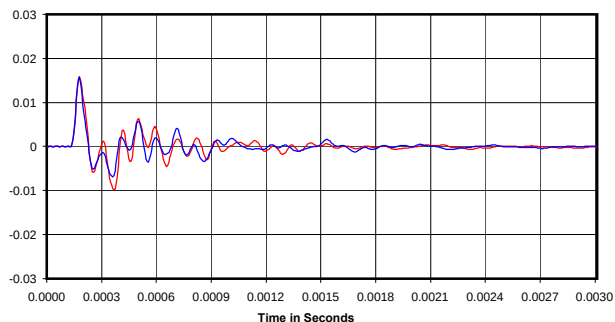
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



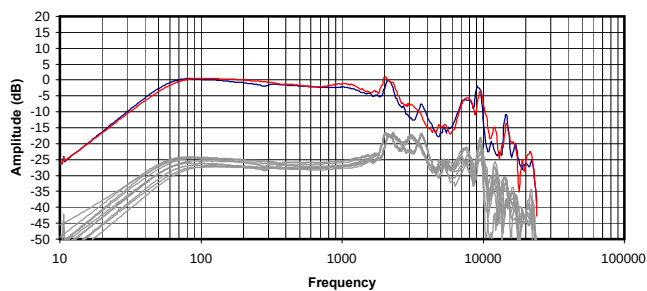
Impulse Response



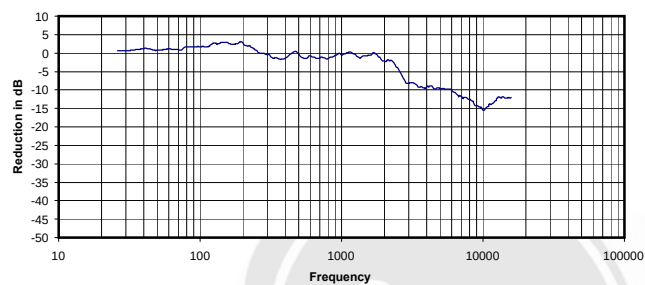
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.091 Vrms
32 Ohms
0.25 mW
-1 dBr

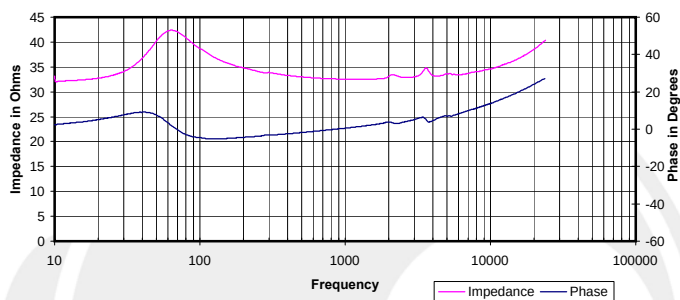
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



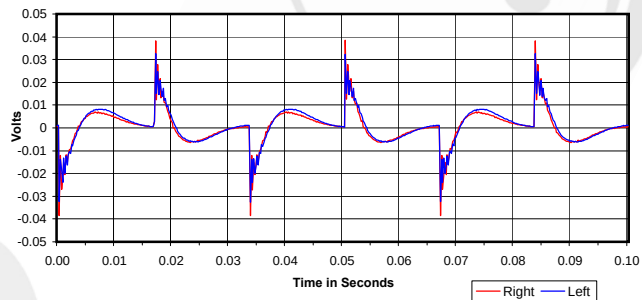
Isolation
Attenuation of External Sound vs. Frequency



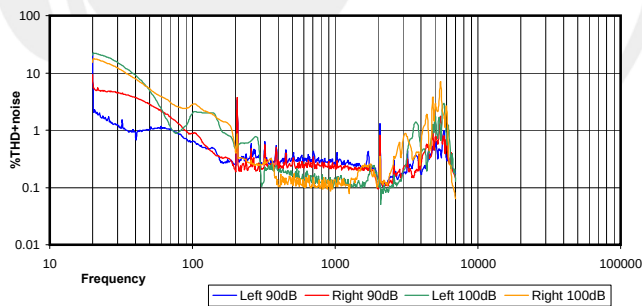
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



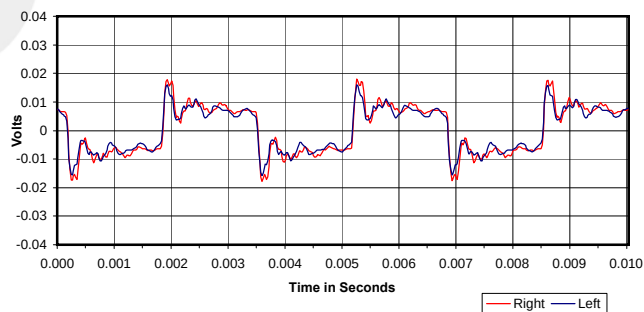
30 Hz Square Wave



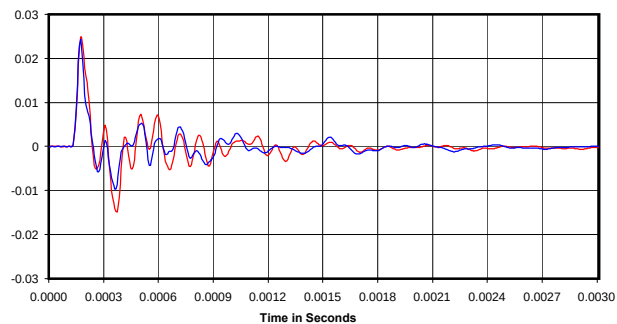
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



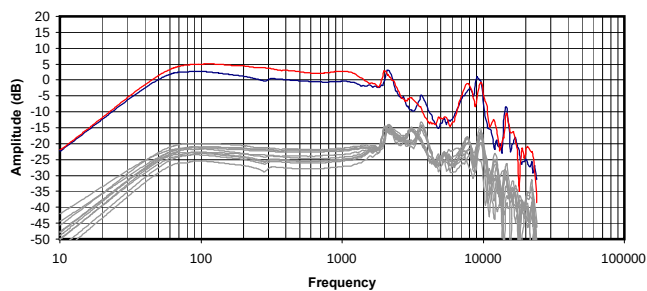
Impulse Response



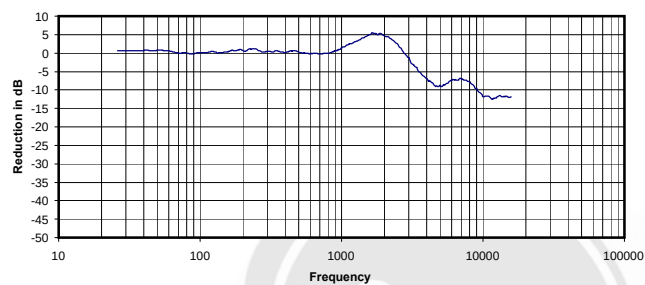
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.063 Vrms
33 Ohms
0.12 mW
-2 dBr

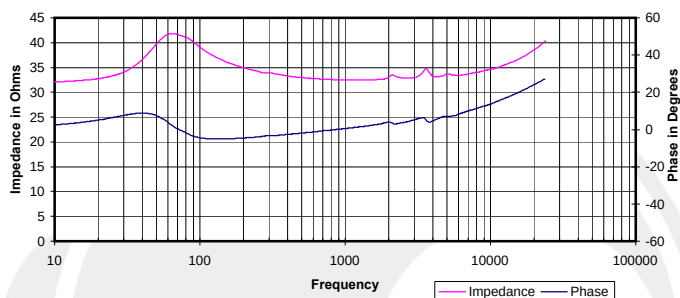
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



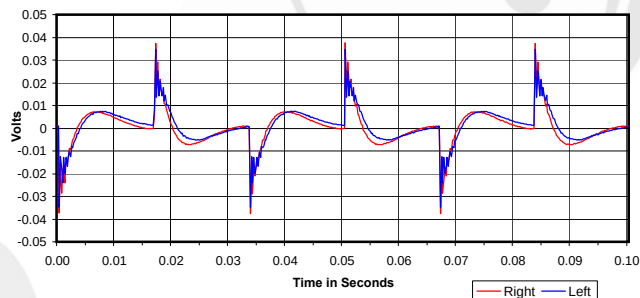
Isolation
Attenuation of External Sound vs. Frequency



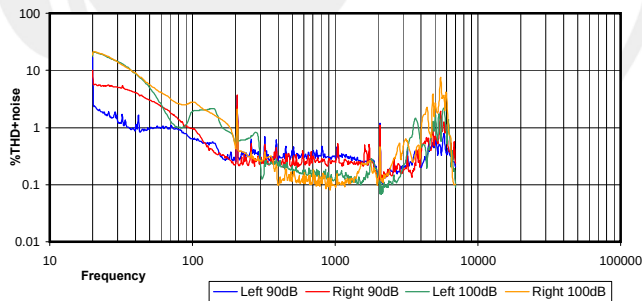
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



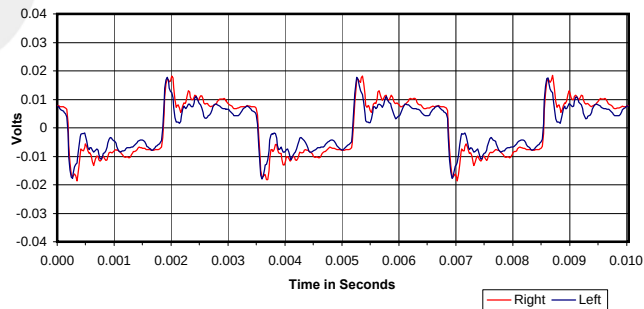
30 Hz Square Wave



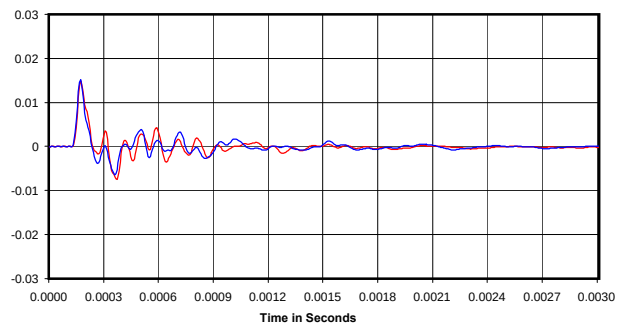
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



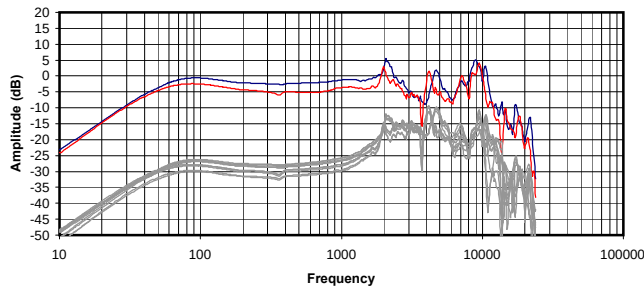
Impulse Response



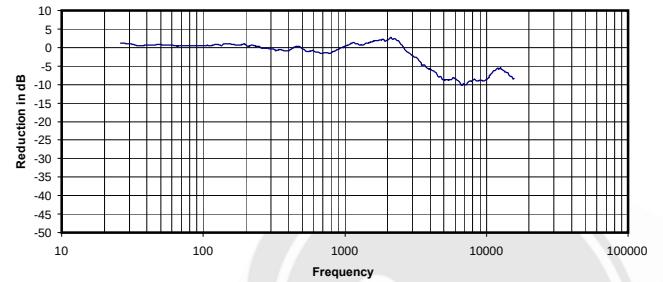
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.069 Vrms
32 Ohms
0.14 mW
0 dBr

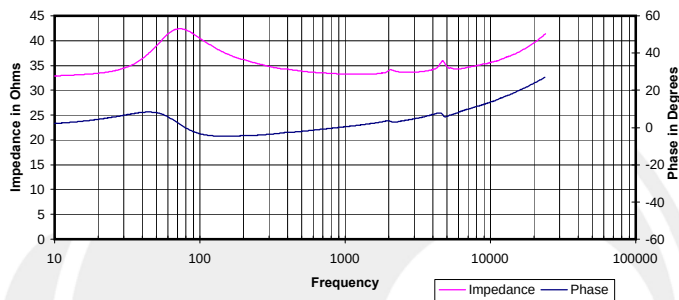
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



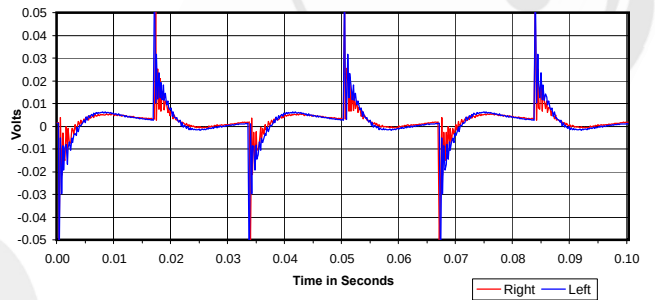
Isolation
Attenuation of External Sound vs. Frequency



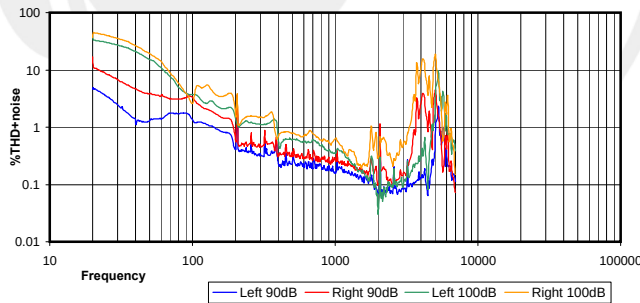
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



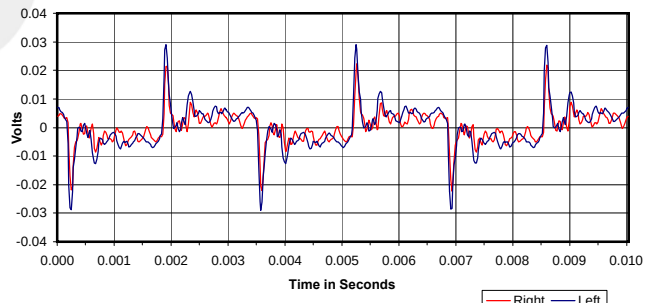
30 Hz Square Wave



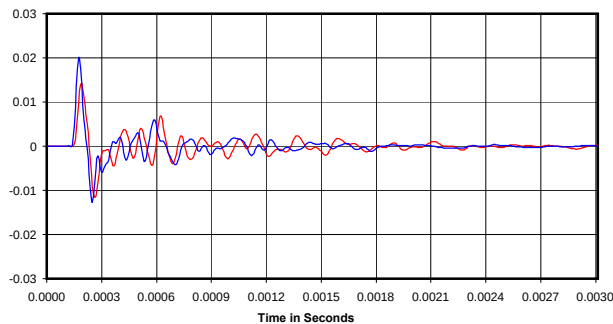
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



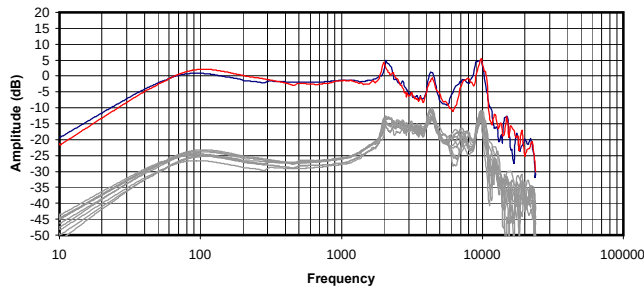
Impulse Response



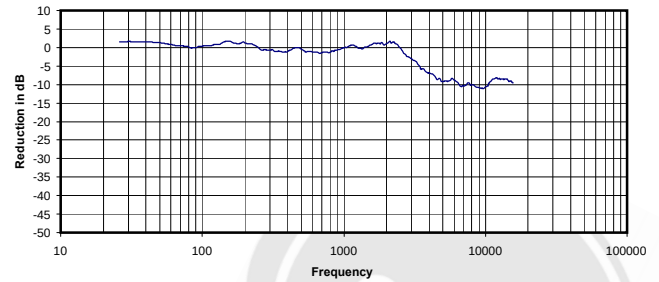
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.120 Vrms
33 Ohms
0.43 mW
-1 dBr

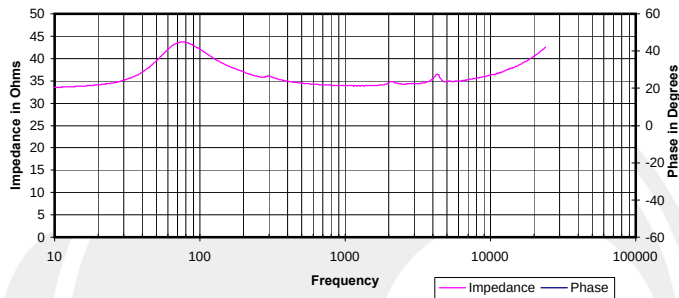
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



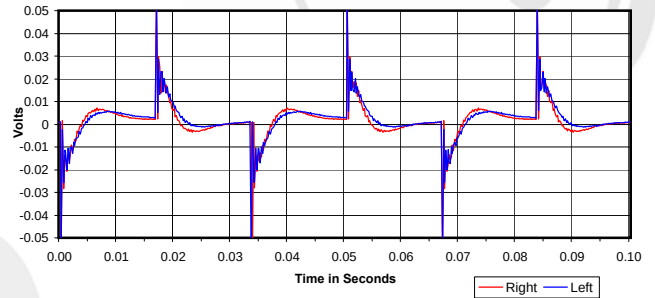
Isolation
Attenuation of External Sound vs. Frequency



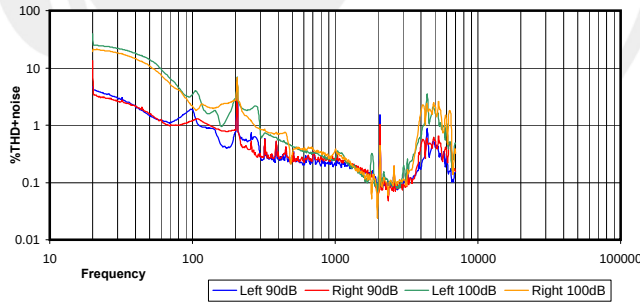
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



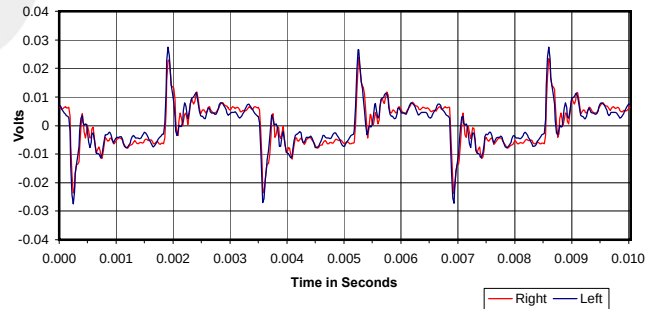
30 Hz Square Wave



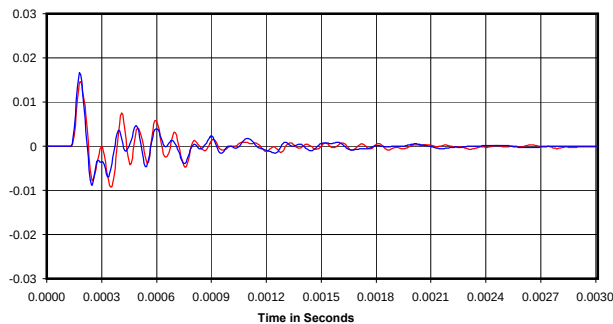
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



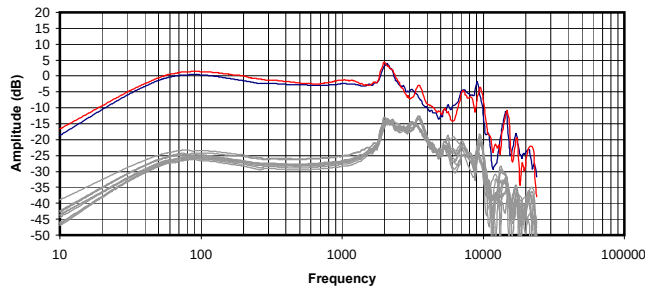
Impulse Response



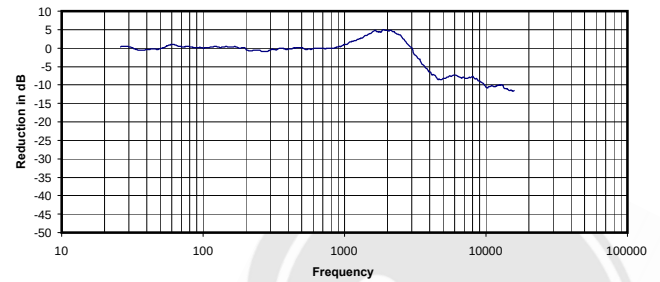
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.112 Vrms
34 Ohms
0.37 mW
-1 dBr

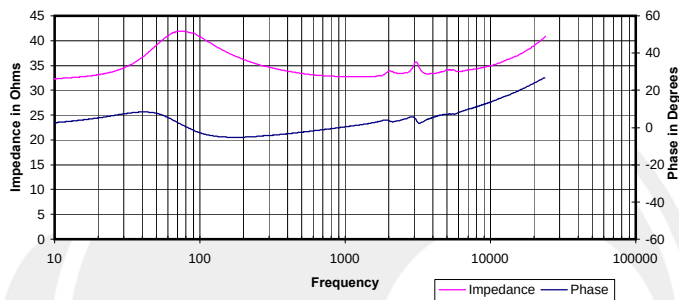
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



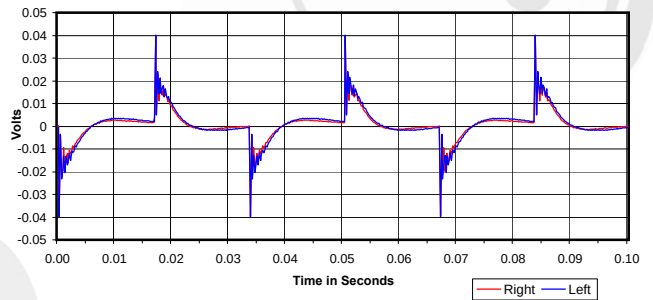
Isolation
Attenuation of External Sound vs. Frequency



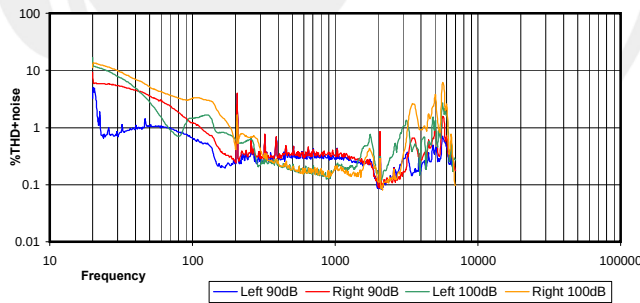
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



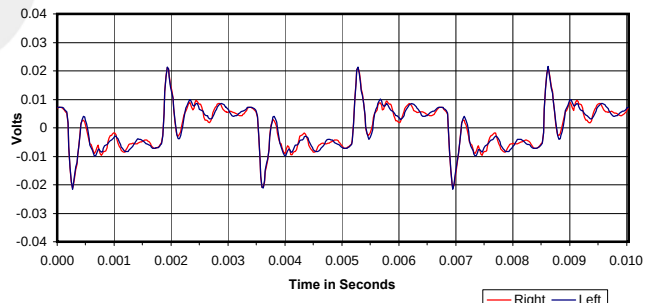
30 Hz Square Wave



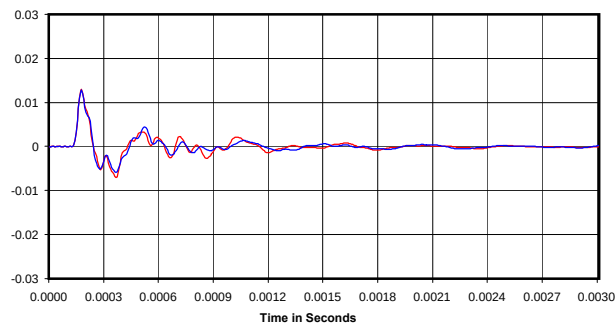
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



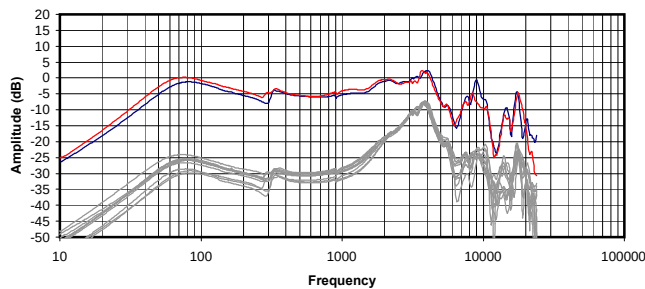
Impulse Response



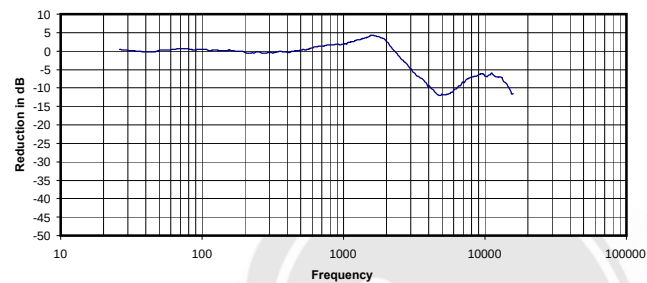
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.088 Vrms
33 Ohms
0.24 mW
0 dBr

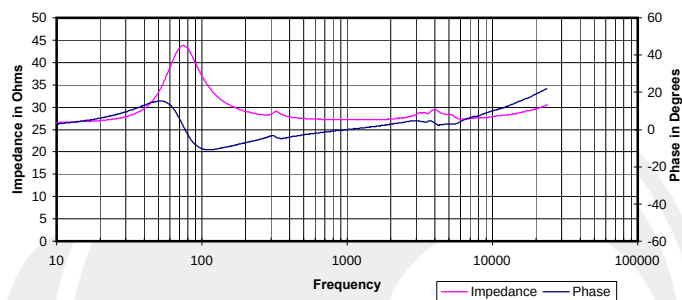
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



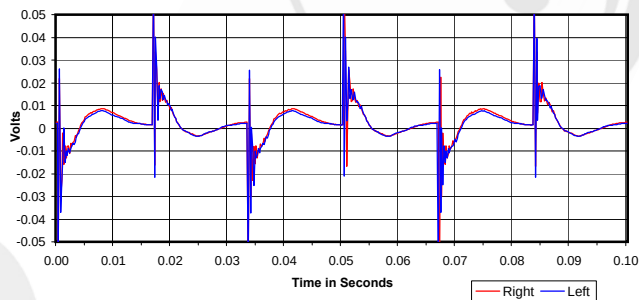
Isolation
Attenuation of External Sound vs. Frequency



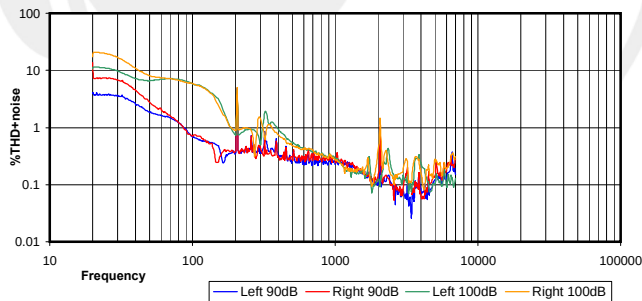
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



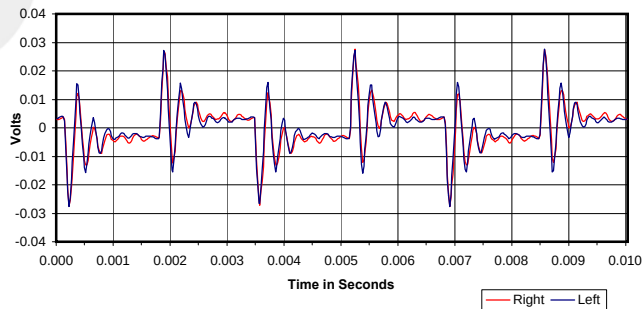
30 Hz Square Wave



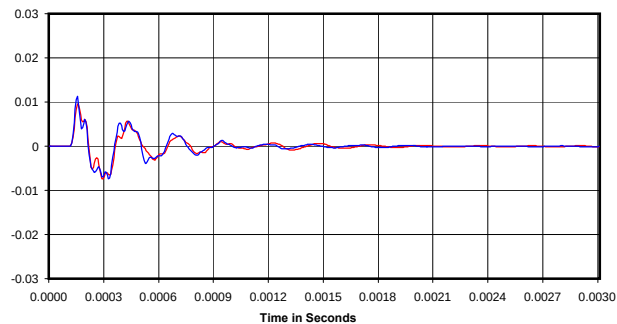
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



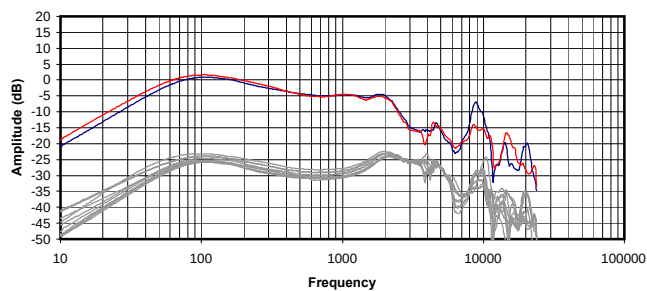
Impulse Response



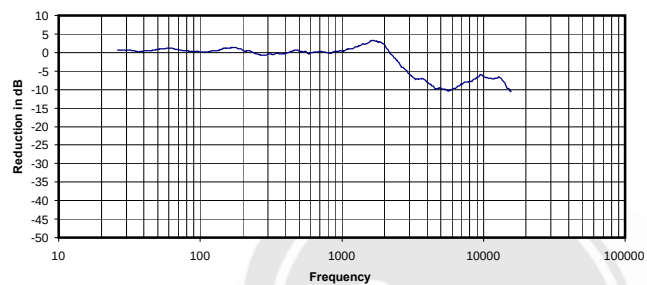
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.071 Vrms
27 Ohms
0.19 mW
-1 dBr

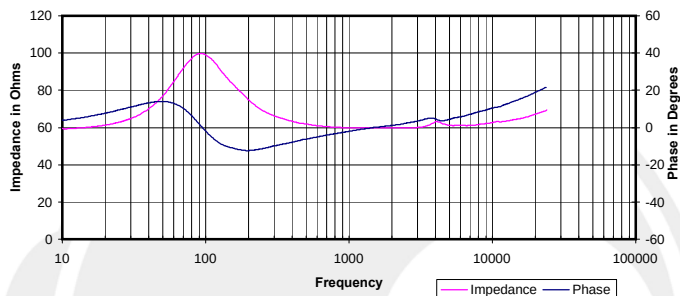
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



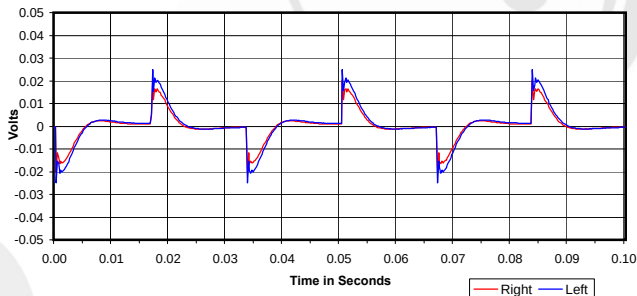
Isolation
Attenuation of External Sound vs. Frequency



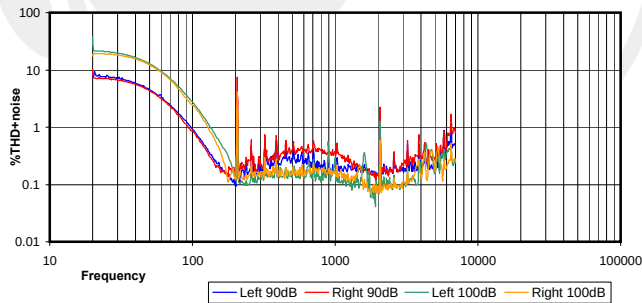
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



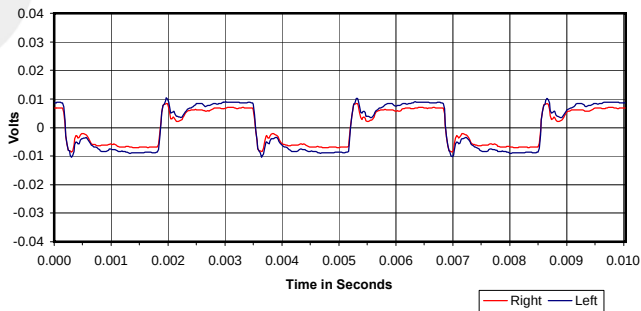
30 Hz Square Wave



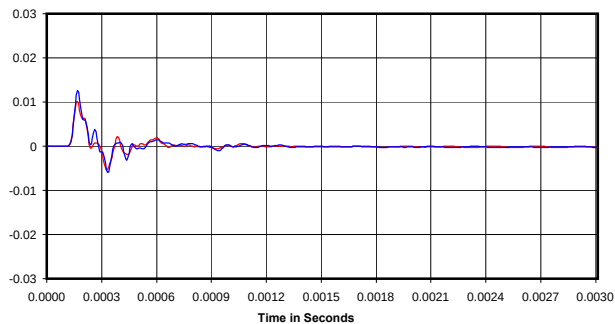
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



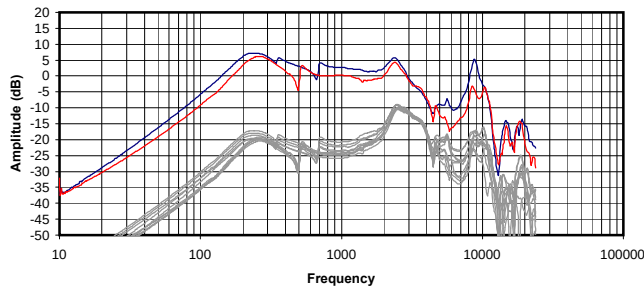
Impulse Response



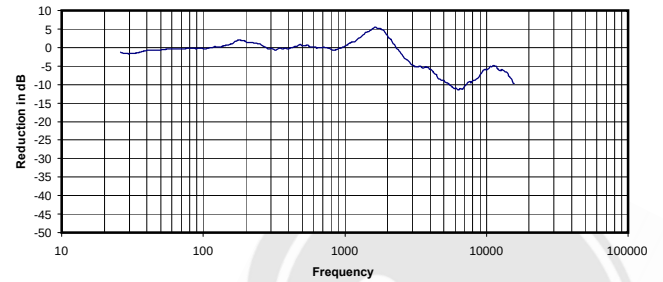
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.047 Vrms
60 Ohms
0.04 mW
-1 dBr

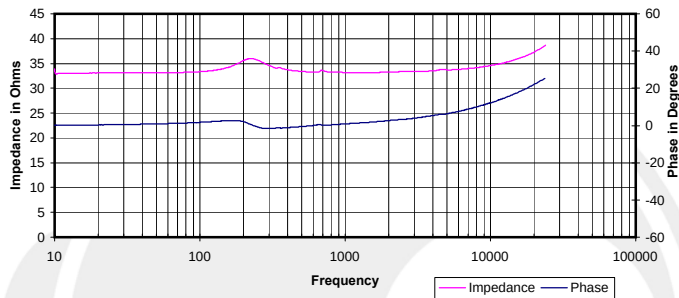
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



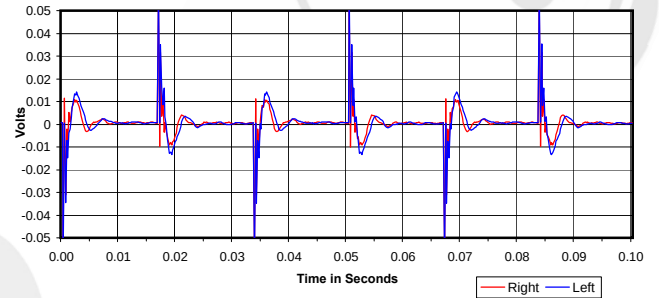
Isolation
Attenuation of External Sound vs. Frequency



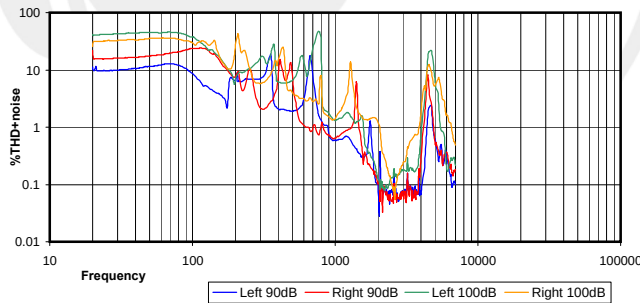
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



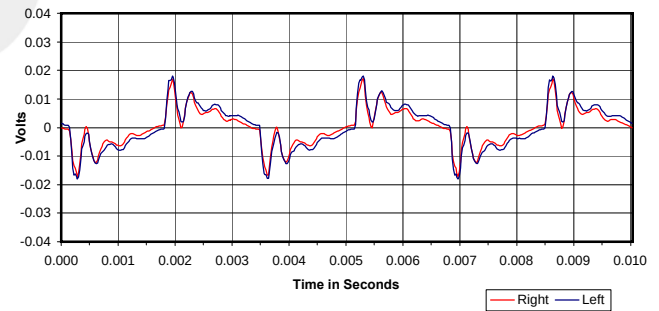
30 Hz Square Wave



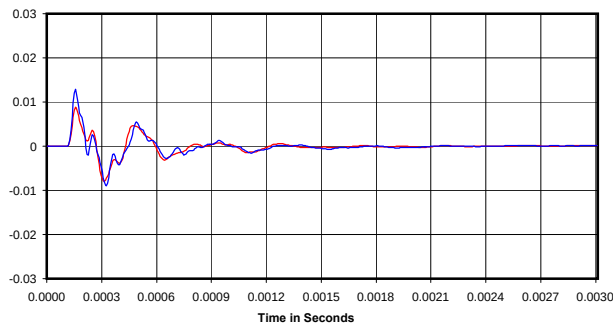
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



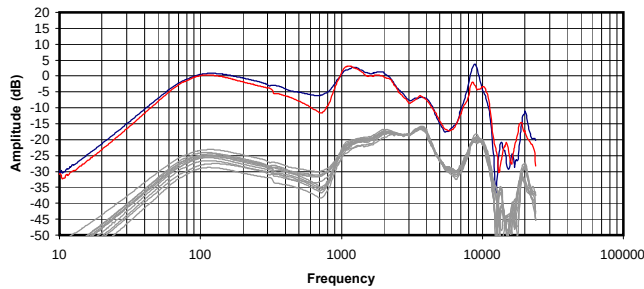
Impulse Response



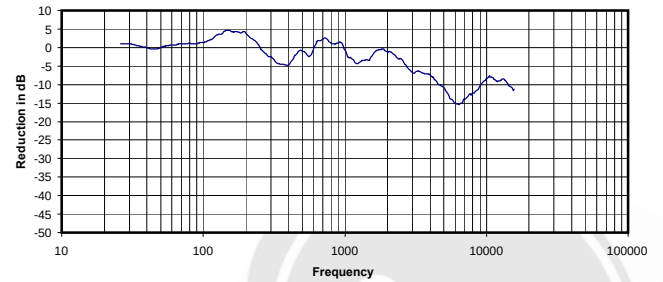
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.162 Vrms
33 Ohms
0.79 mW
-1 dBr

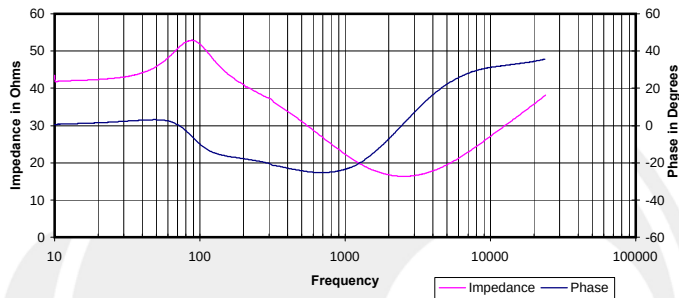
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



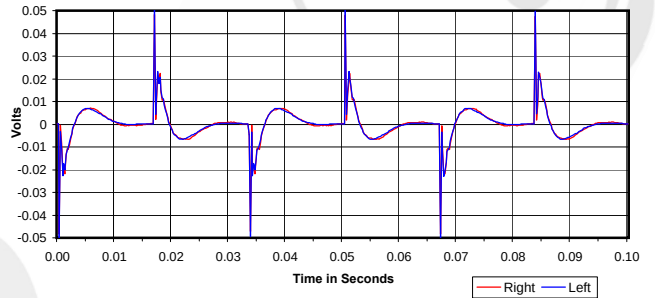
Isolation
Attenuation of External Sound vs. Frequency



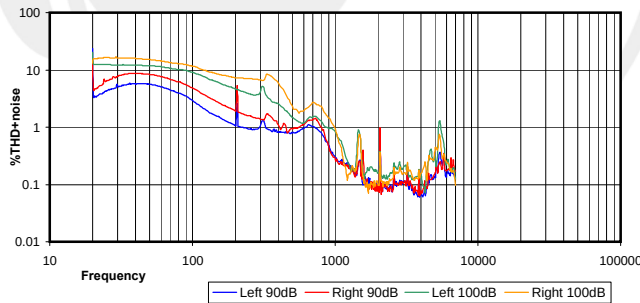
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



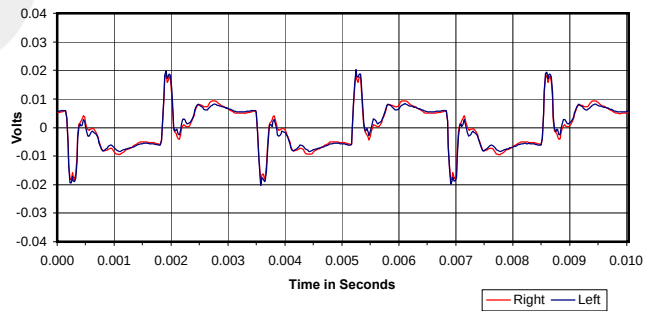
30 Hz Square Wave



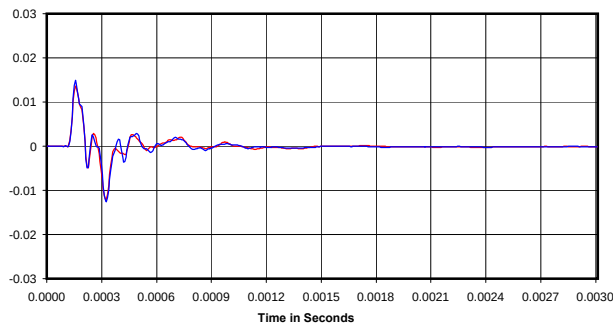
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



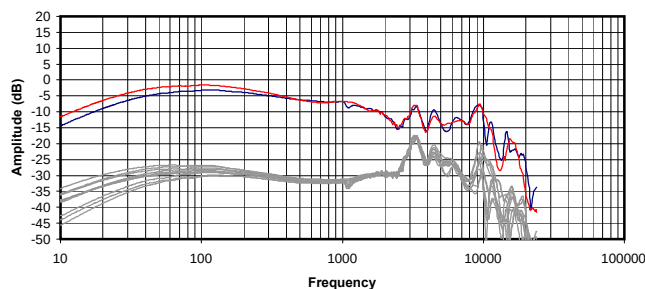
Impulse Response



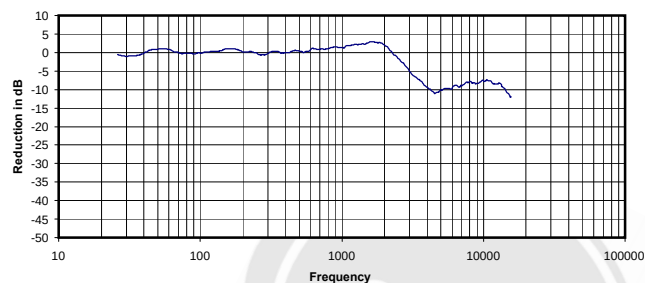
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.078 Vrms
22 Ohms
0.27 mW
-2 dBr

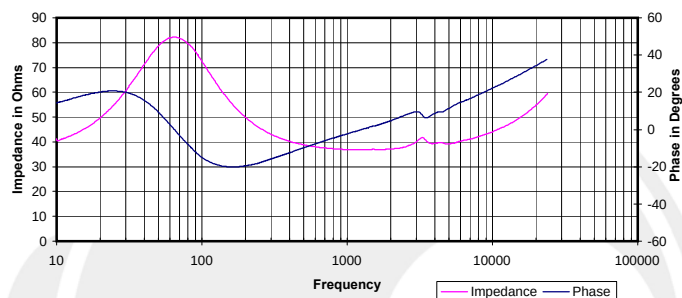
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



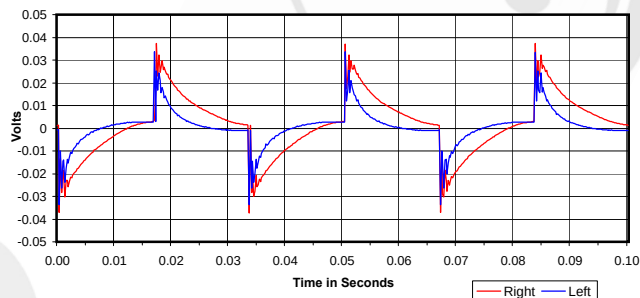
Isolation
Attenuation of External Sound vs. Frequency



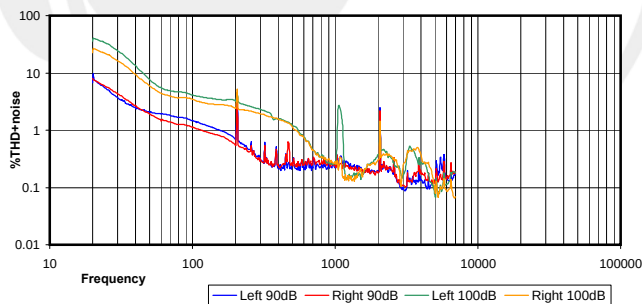
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



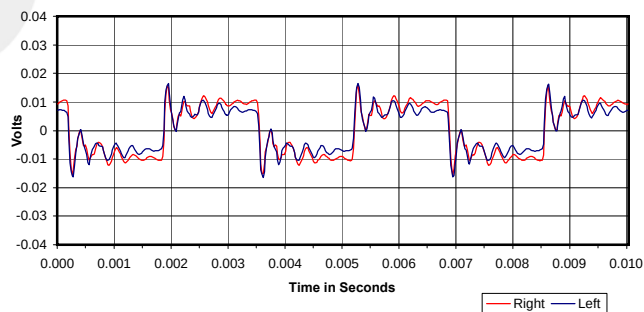
30 Hz Square Wave



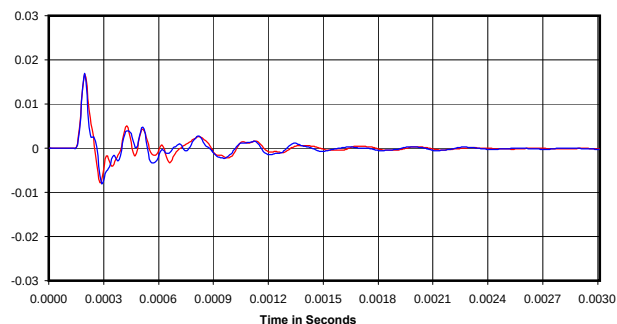
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



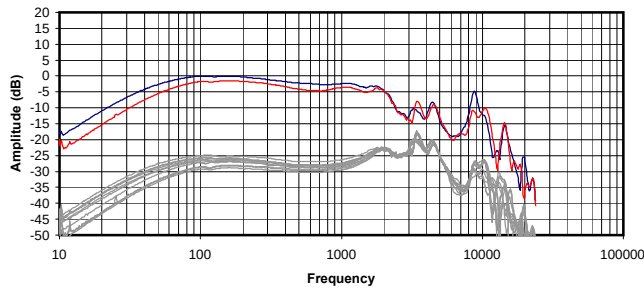
Impulse Response



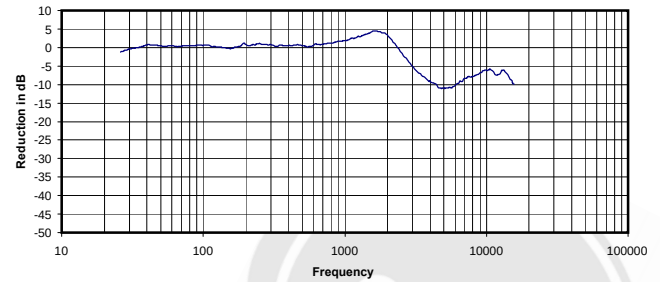
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.119 Vrms
37 Ohms
0.38 mW
-1 dBr

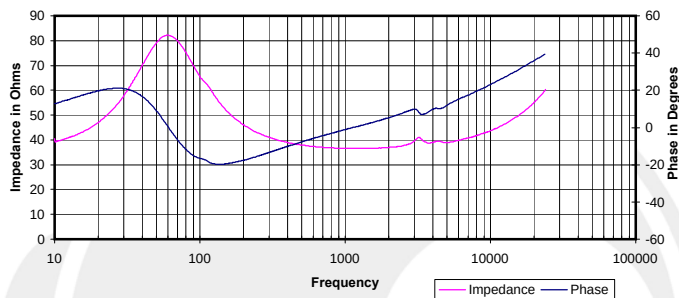
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



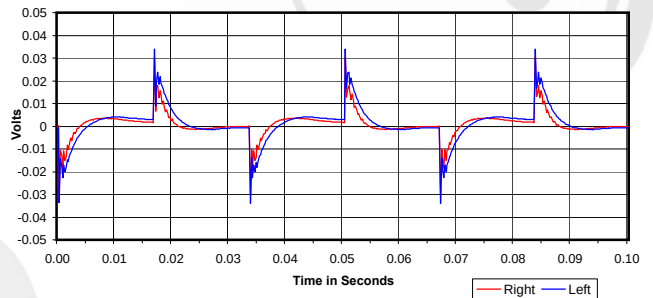
Isolation
Attenuation of External Sound vs. Frequency



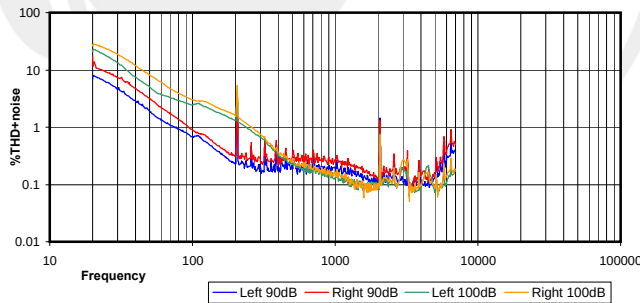
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



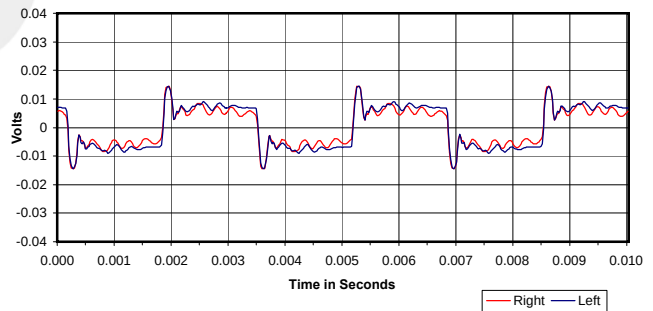
30 Hz Square Wave



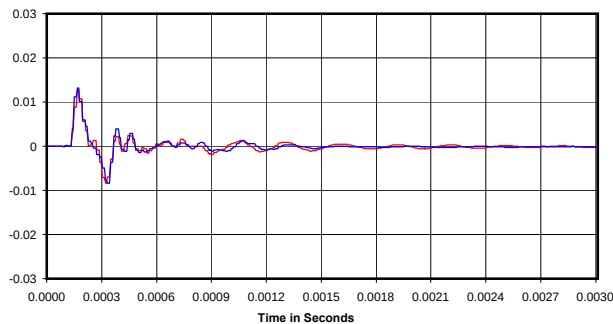
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

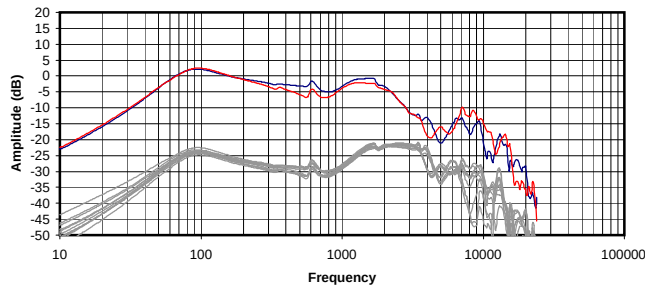
0.054 Vrms
37 Ohms
0.08 mW
-1 dBr

Headphone Measurement Datasheets

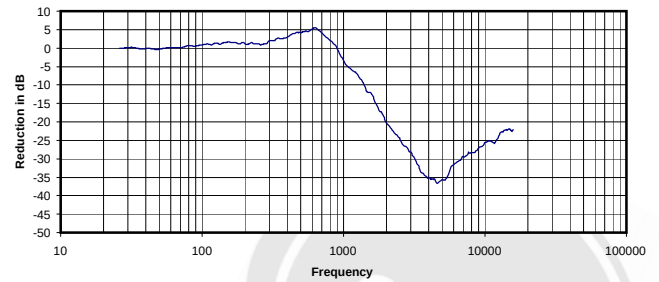
Earpad Sealed



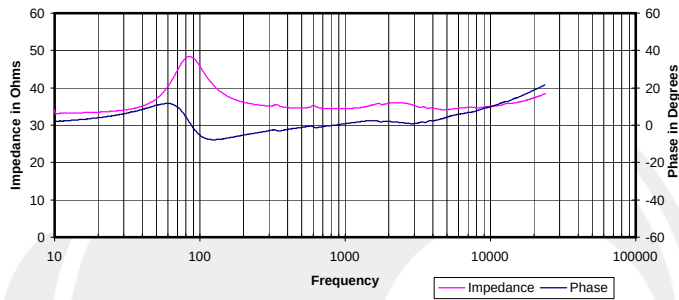
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



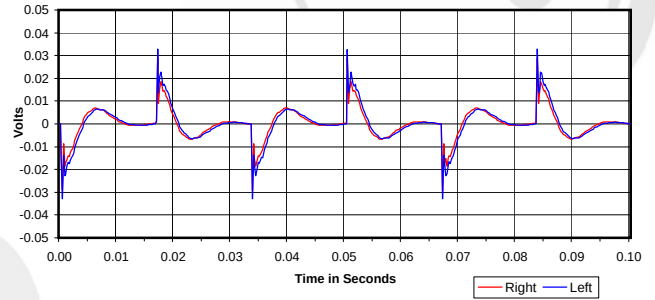
Isolation
Attenuation of External Sound vs. Frequency



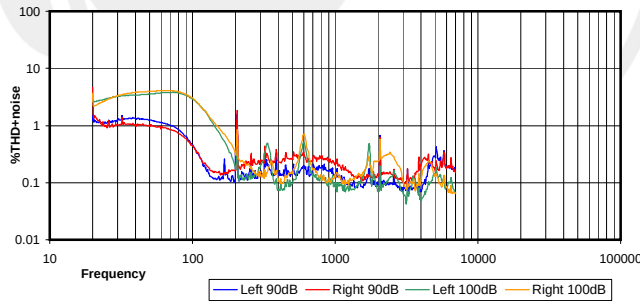
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



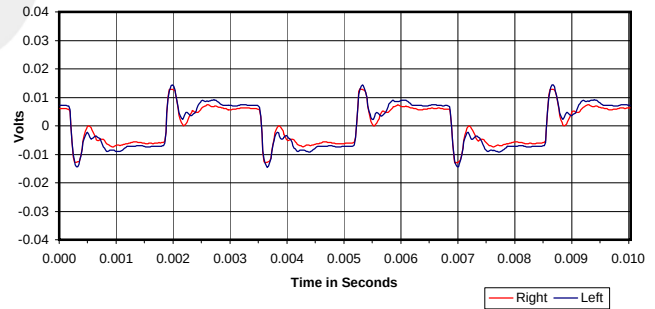
30 Hz Square Wave



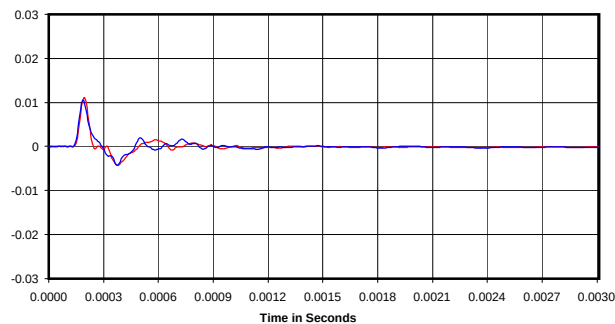
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



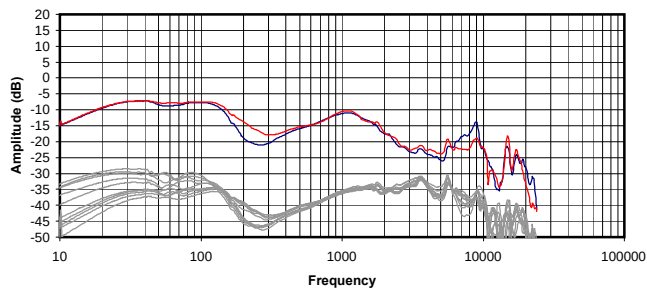
Impulse Response



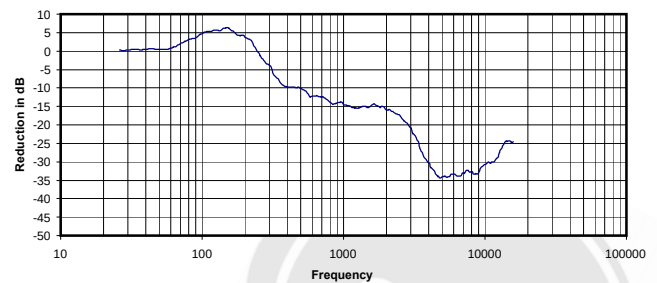
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.047 Vrms
34 Ohms
0.06 mW
-9 dBr

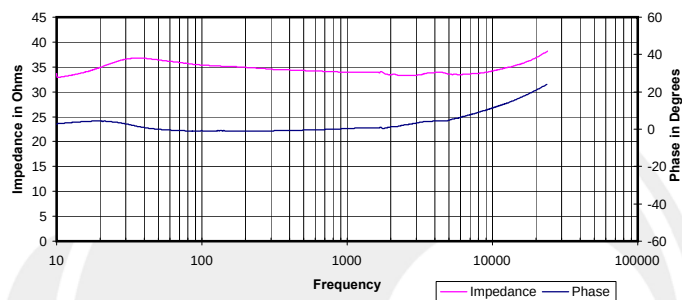
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



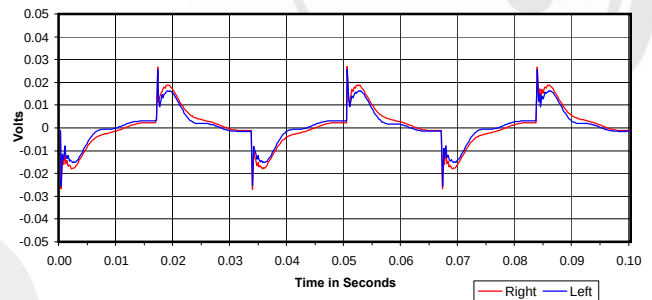
Isolation
Attenuation of External Sound vs. Frequency



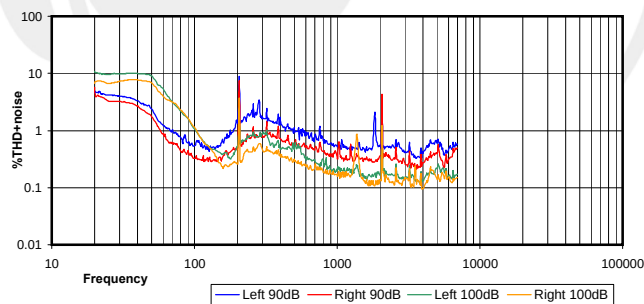
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



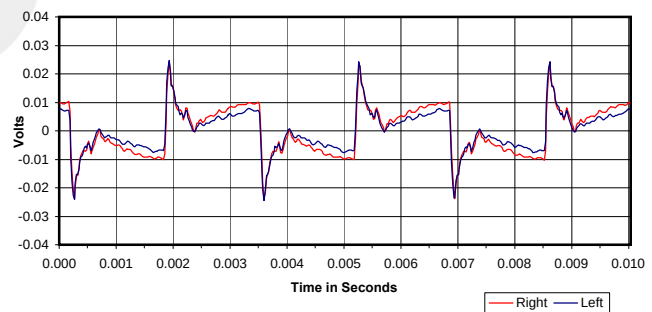
30 Hz Square Wave



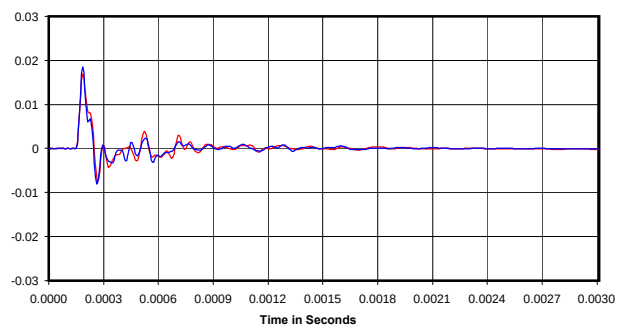
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



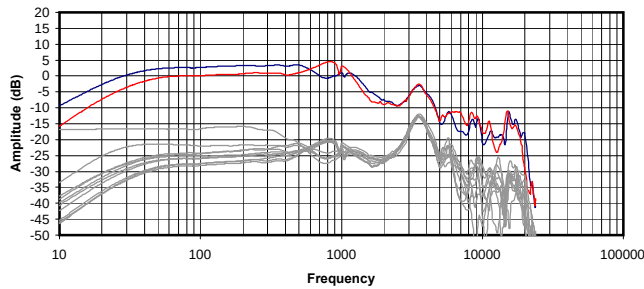
Impulse Response



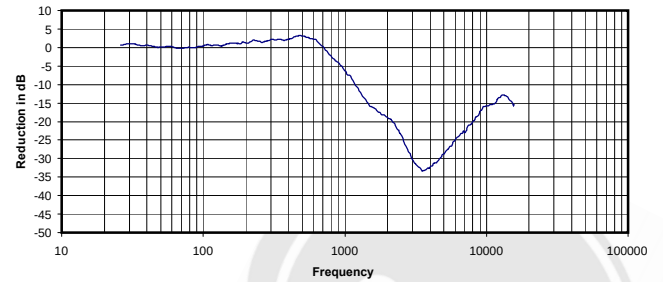
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.006 Vrms
34 Ohms
0.00 mW
-12 dBr

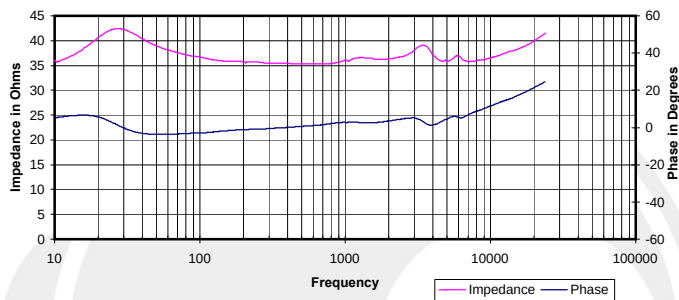
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



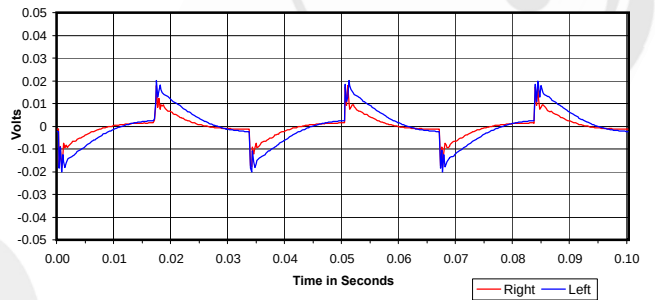
Isolation
Attenuation of External Sound vs. Frequency



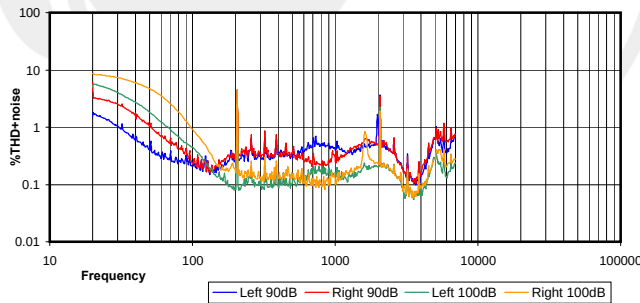
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



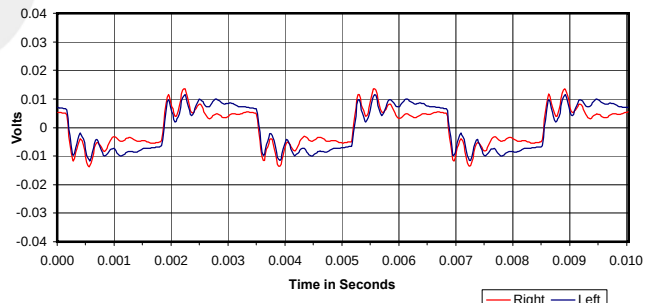
30 Hz Square Wave



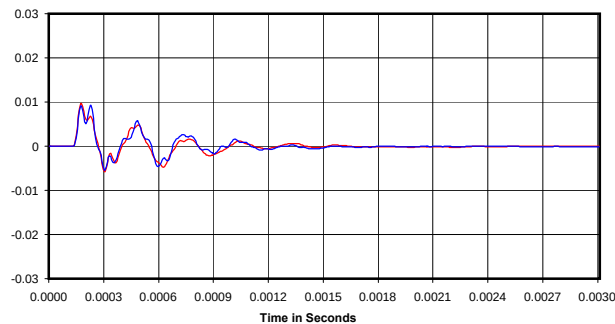
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



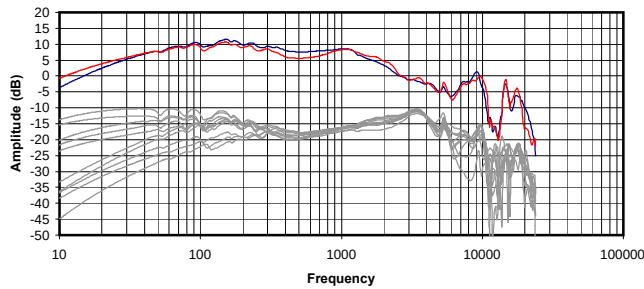
Impulse Response



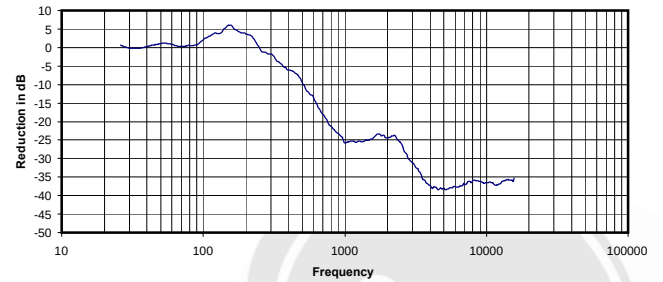
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.024 Vrms
36 Ohms
0.02 mW
-9 dBr

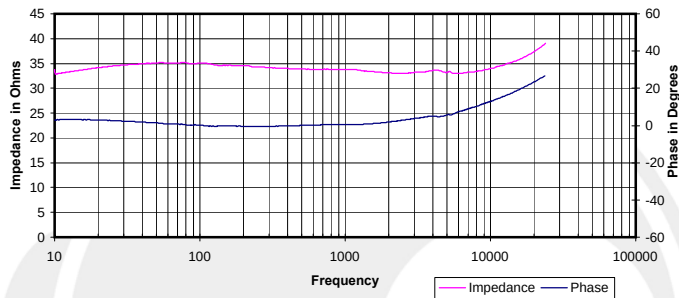
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



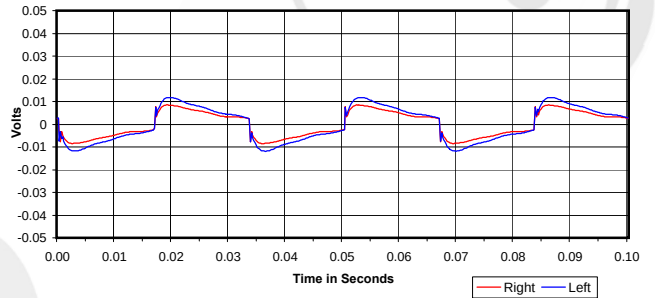
Isolation
Attenuation of External Sound vs. Frequency



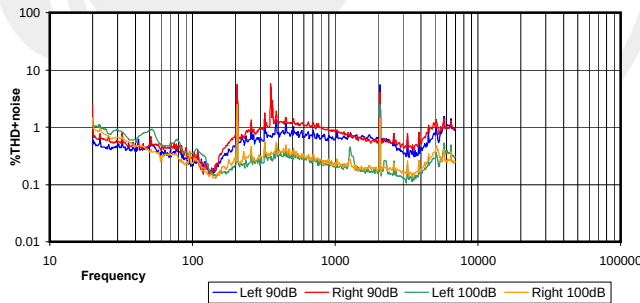
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



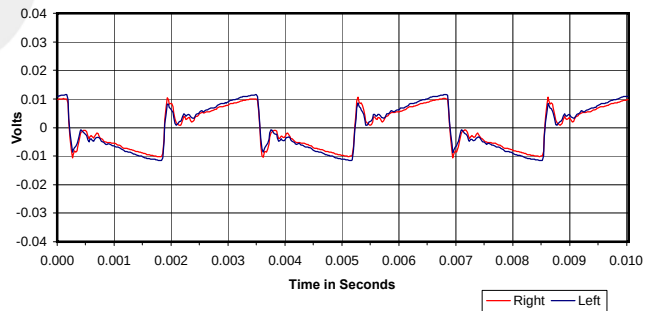
30 Hz Square Wave



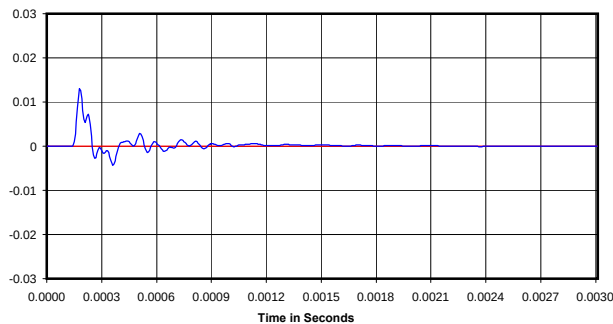
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



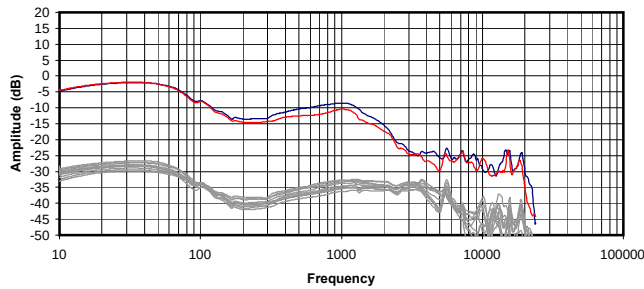
Impulse Response



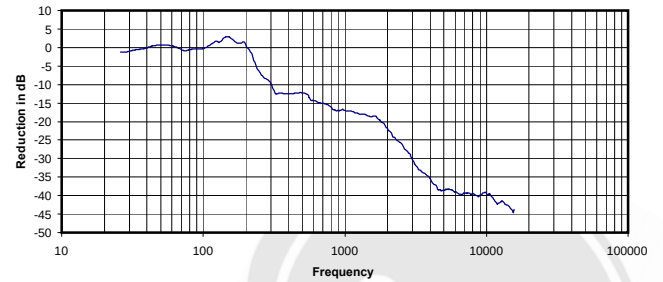
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.056 Vrms
34 Ohms
0.09 mW
-16 dBr

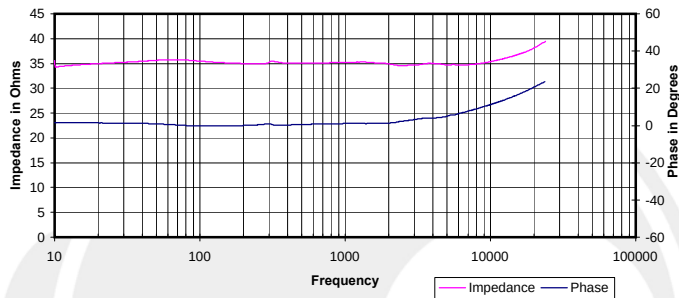
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



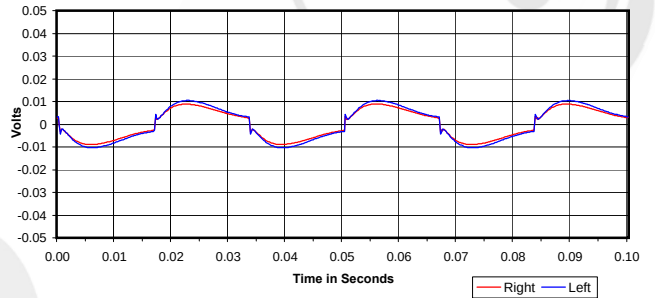
Isolation
Attenuation of External Sound vs. Frequency



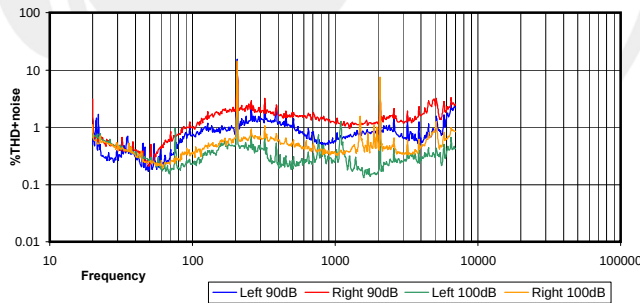
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



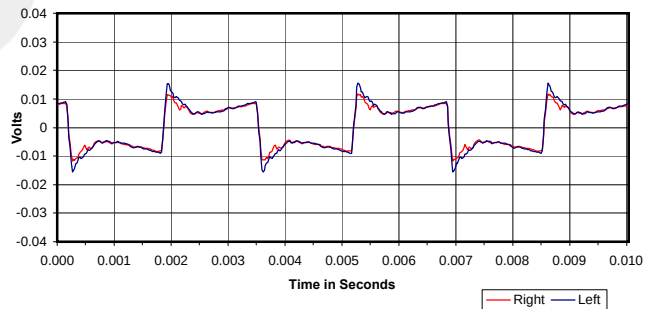
30 Hz Square Wave



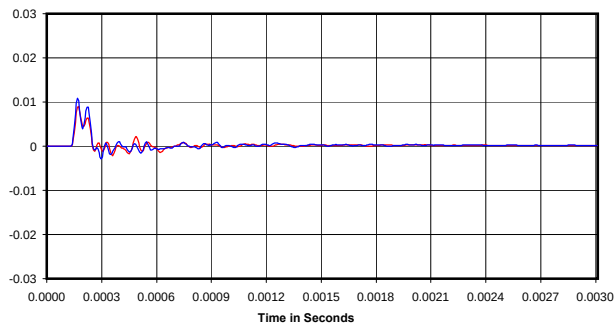
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



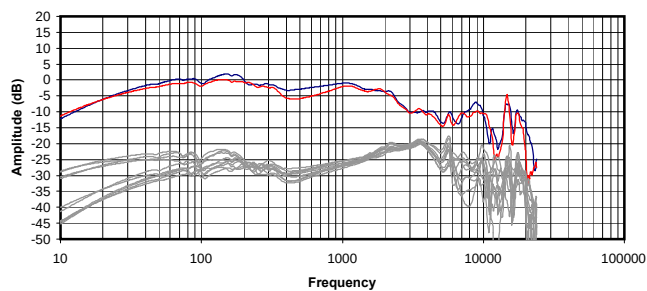
Impulse Response



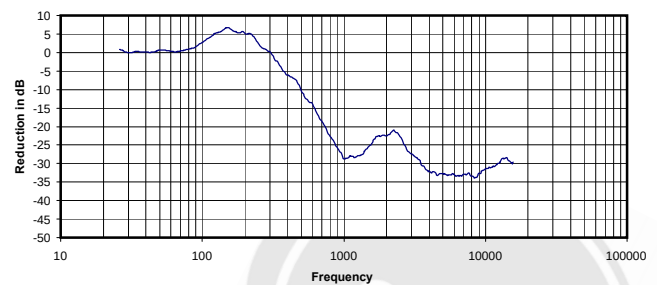
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.037 Vrms
35 Ohms
0.04 mW
-16 dBr

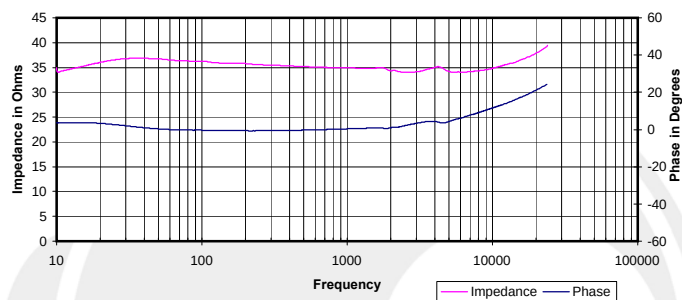
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



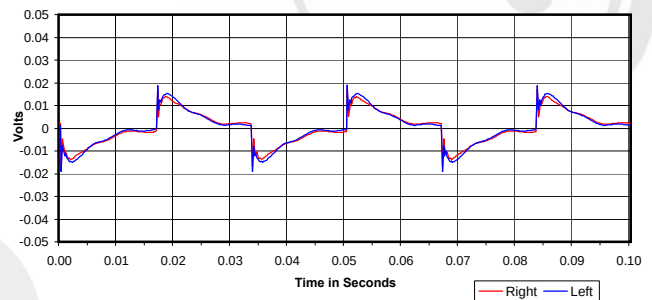
Isolation
Attenuation of External Sound vs. Frequency



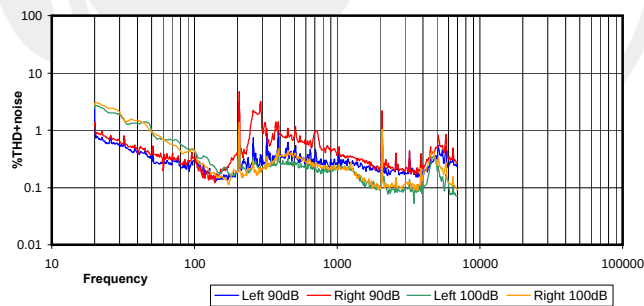
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



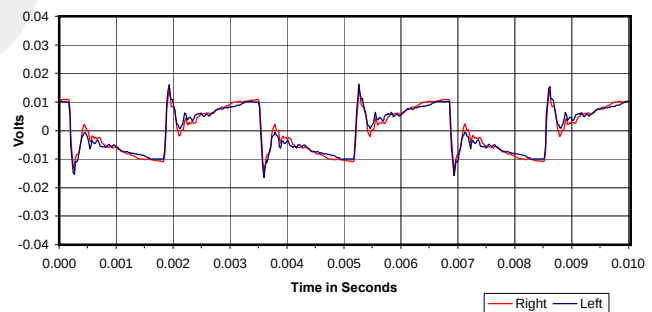
30 Hz Square Wave



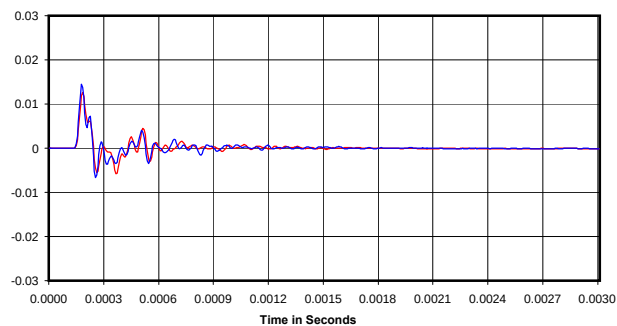
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



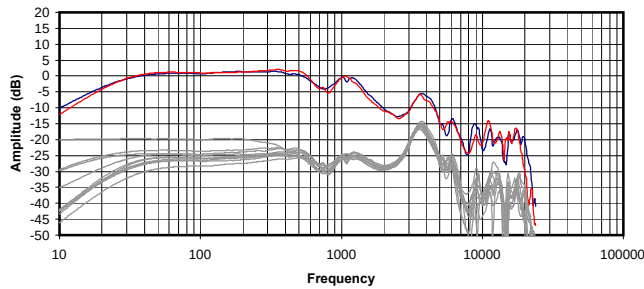
Impulse Response



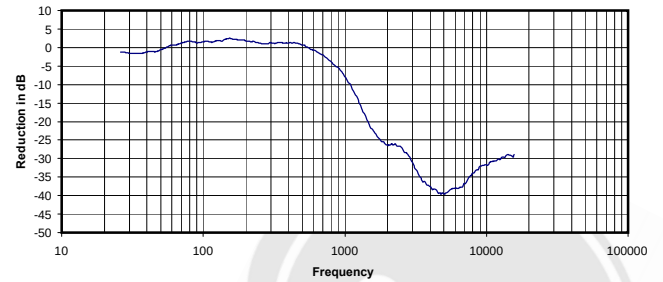
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.060 Vrms
35 Ohms
0.10 mW
-15 dBr

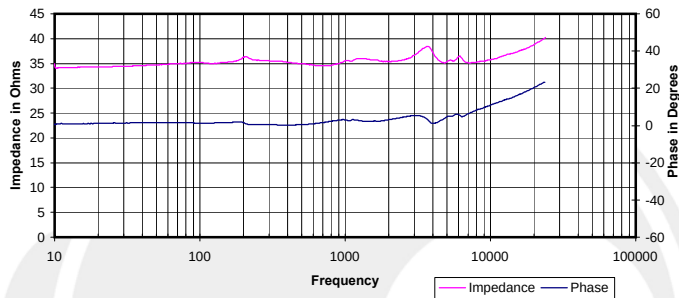
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



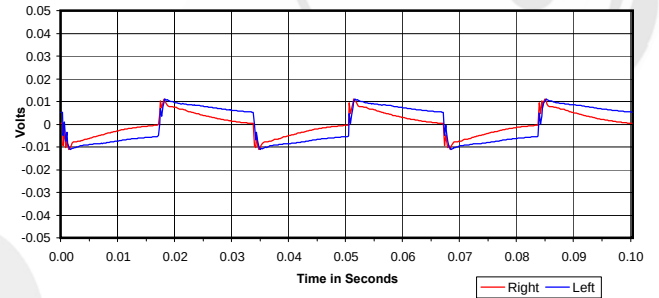
Isolation
Attenuation of External Sound vs. Frequency



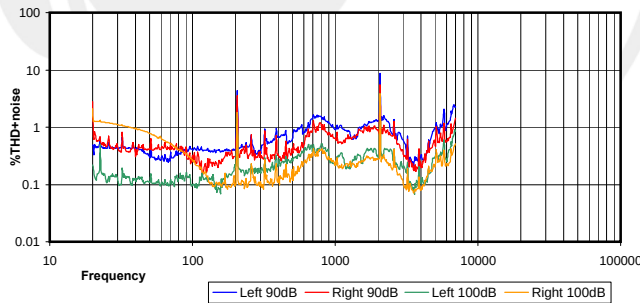
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



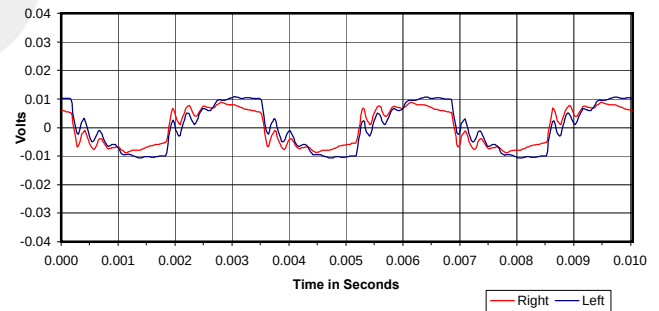
30 Hz Square Wave



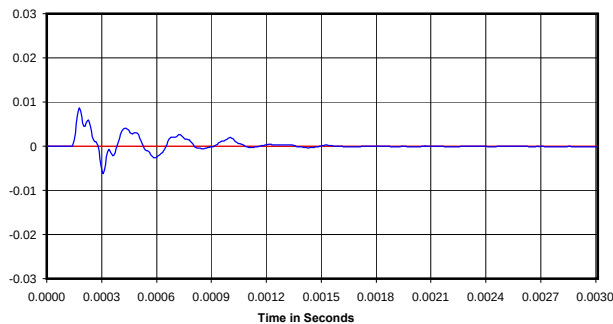
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



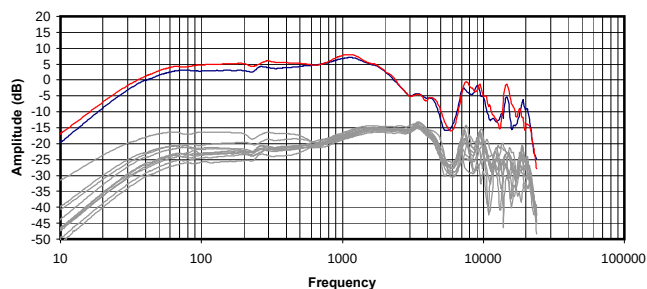
Impulse Response



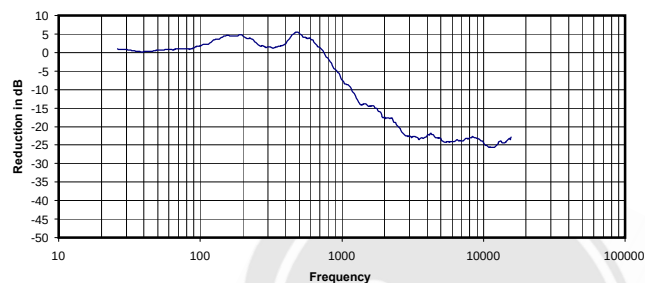
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.023 Vrms
35 Ohms
0.01 mW
-12 dBr

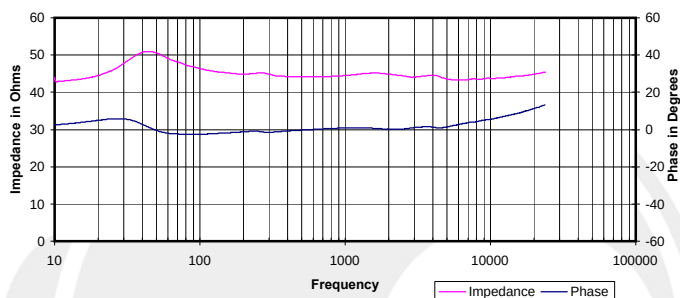
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



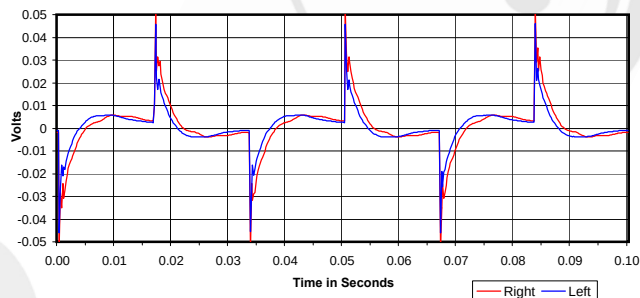
Isolation
Attenuation of External Sound vs. Frequency



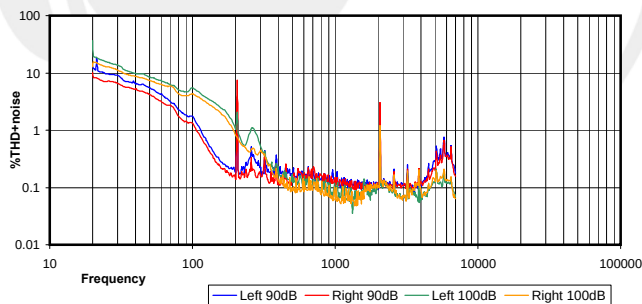
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



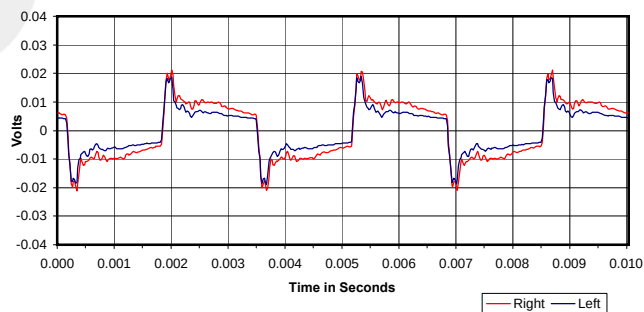
30 Hz Square Wave



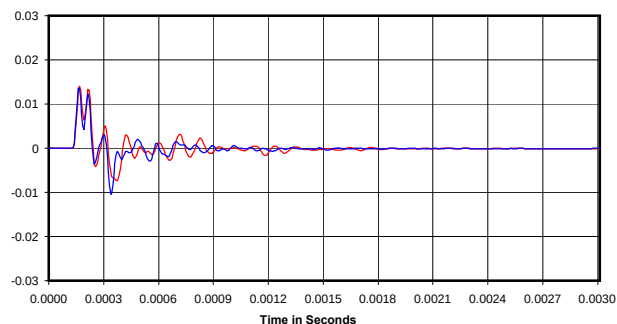
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



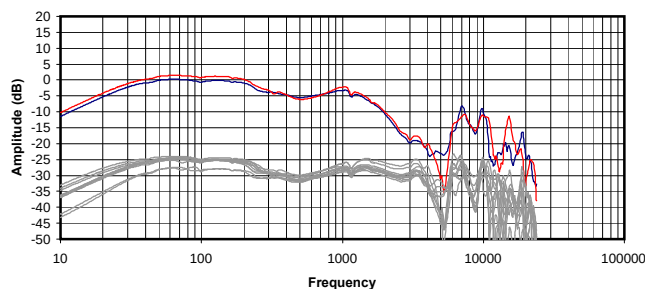
Impulse Response



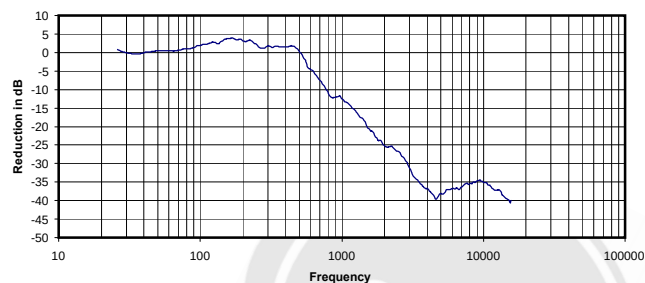
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.043 Vrms
44 Ohms
0.04 mW
-7 dBr

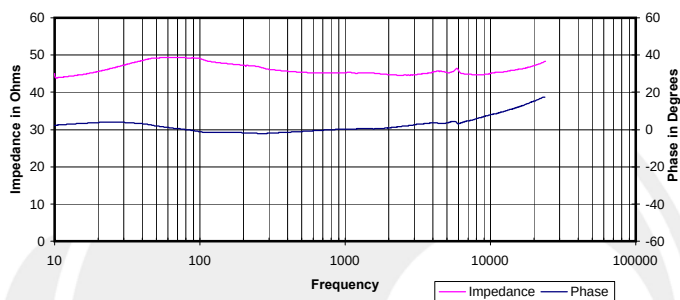
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



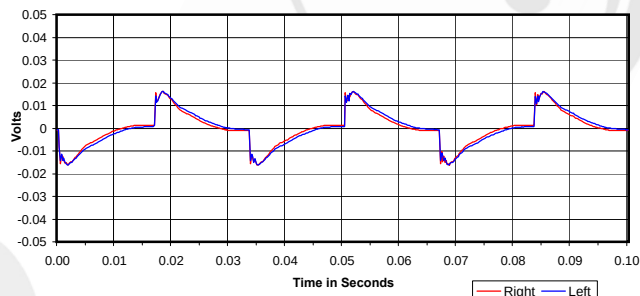
Isolation
Attenuation of External Sound vs. Frequency



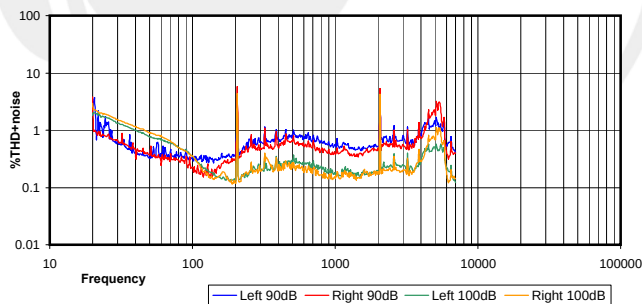
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



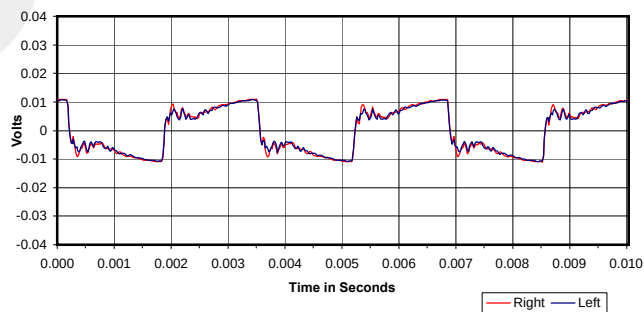
30 Hz Square Wave



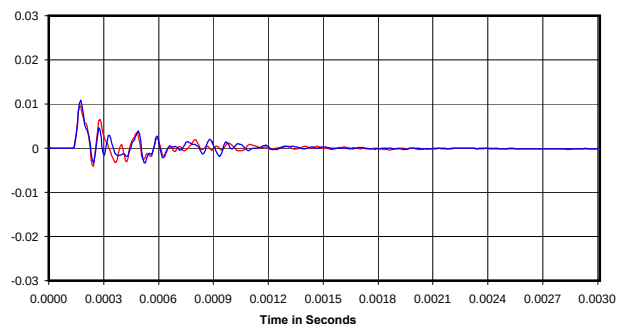
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



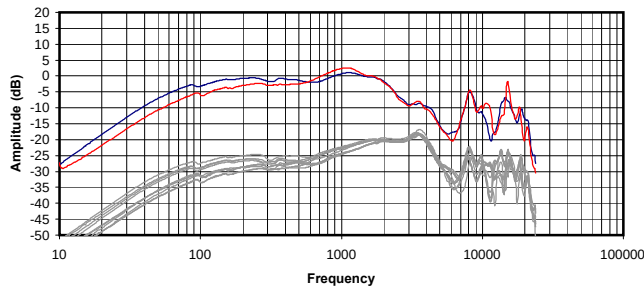
Impulse Response



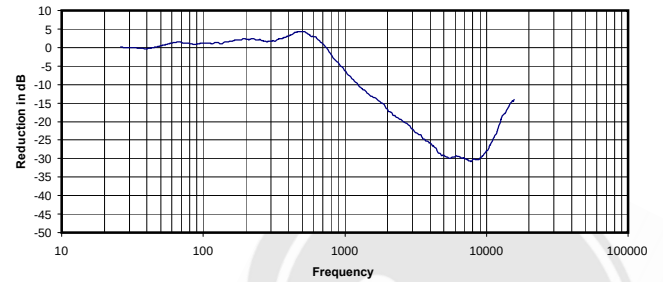
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.034 Vrms
45 Ohms
0.03 mW
-12 dBr

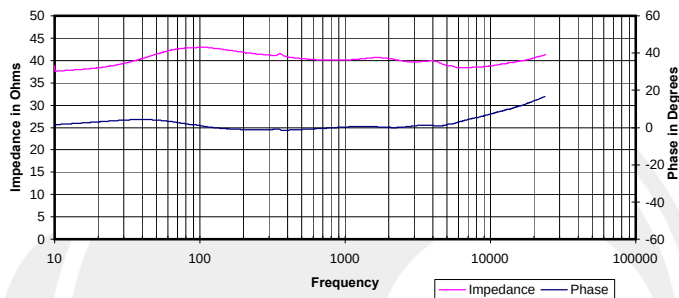
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



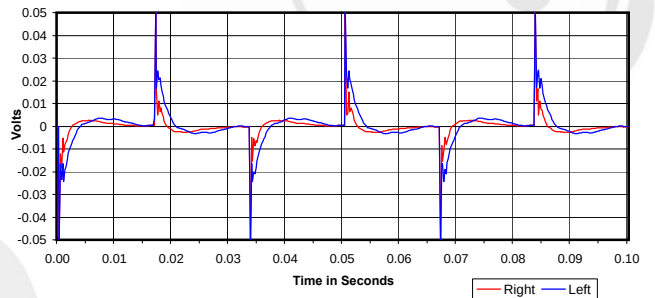
Isolation
Attenuation of External Sound vs. Frequency



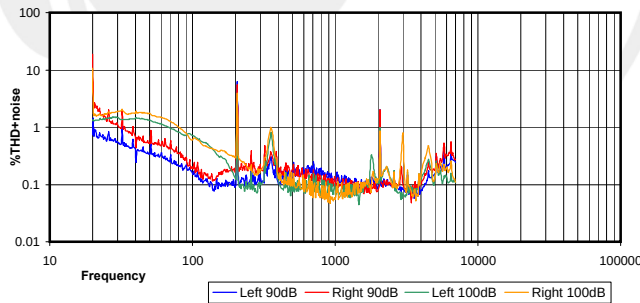
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



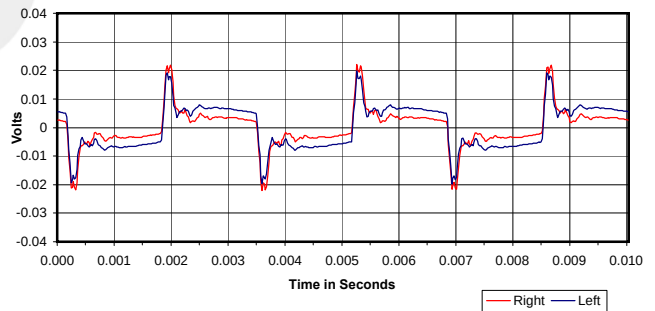
30 Hz Square Wave



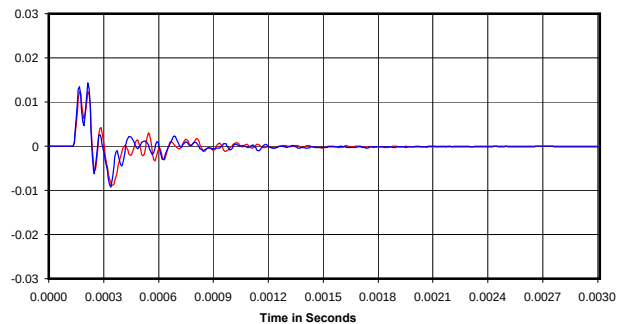
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



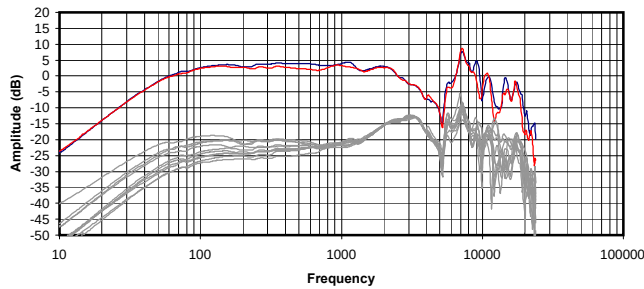
Impulse Response



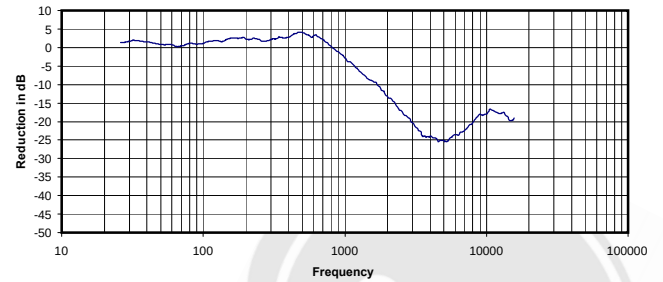
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.033 Vrms
40 Ohms
0.03 mW
-8 dBr

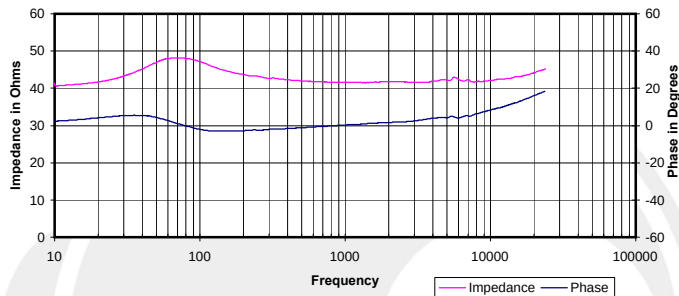
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



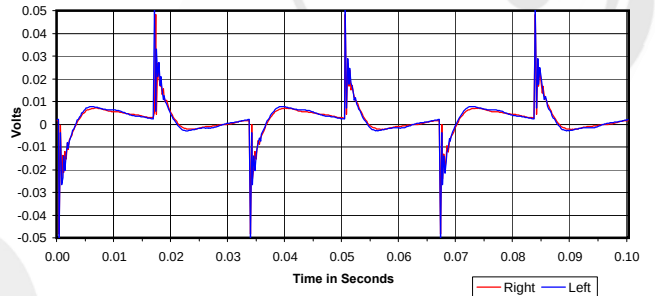
Isolation
Attenuation of External Sound vs. Frequency



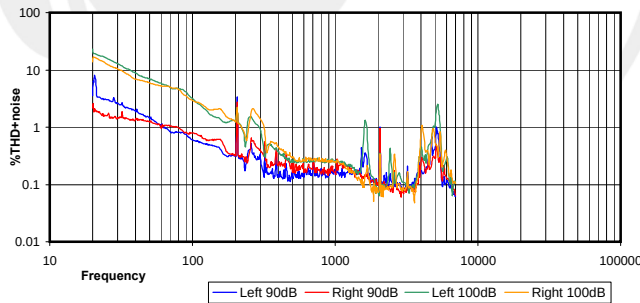
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



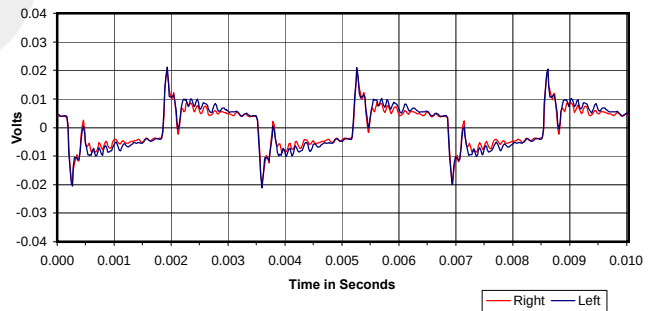
30 Hz Square Wave



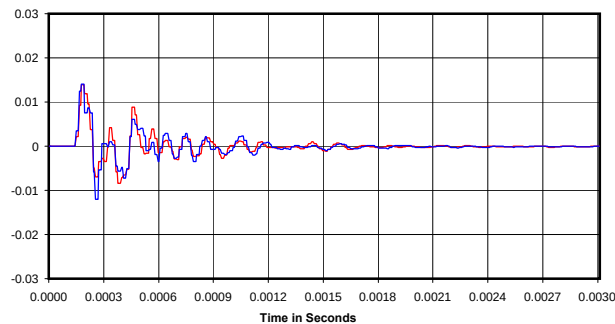
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



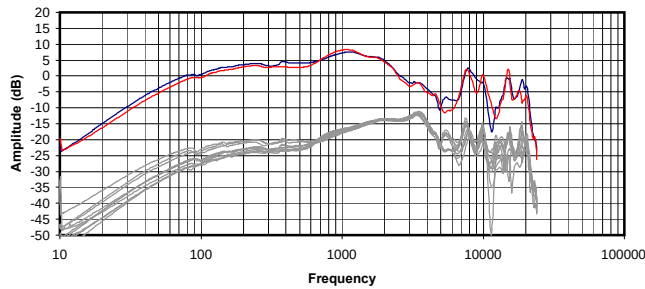
Impulse Response



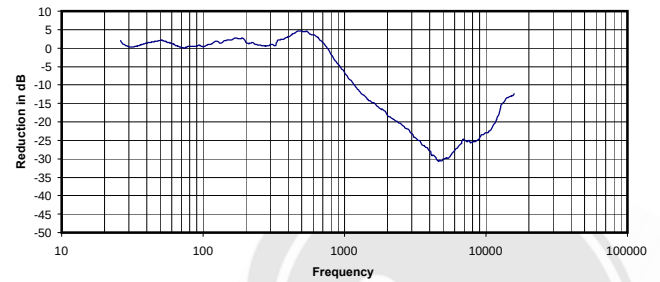
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.074 Vrms
42 Ohms
0.13 mW
-6 dBr

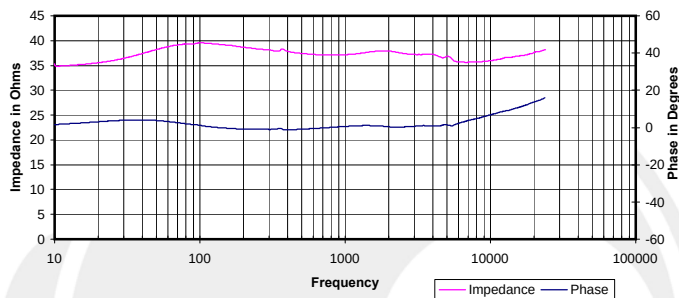
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



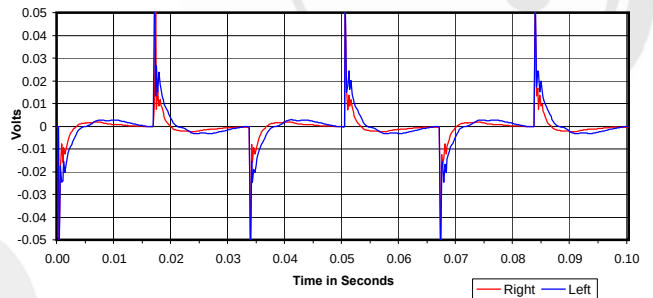
Isolation
Attenuation of External Sound vs. Frequency



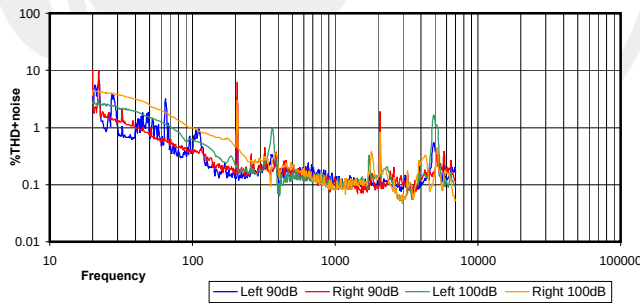
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



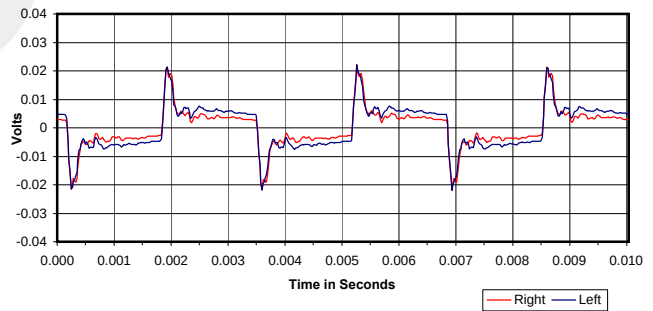
30 Hz Square Wave



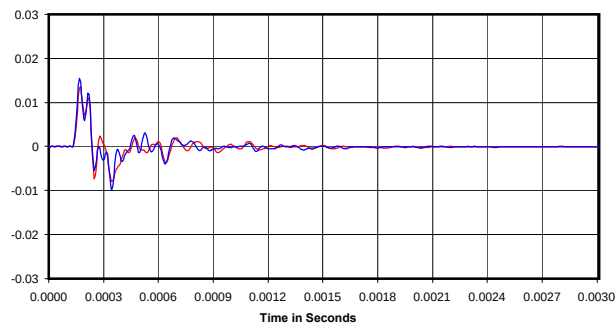
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



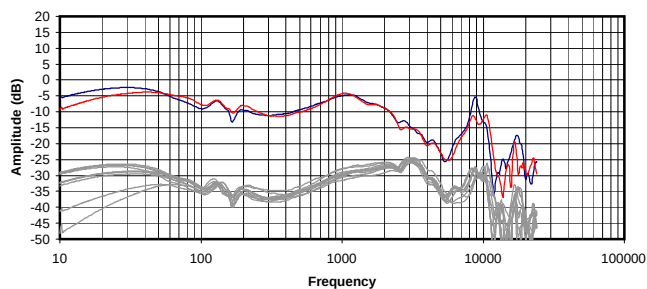
Impulse Response



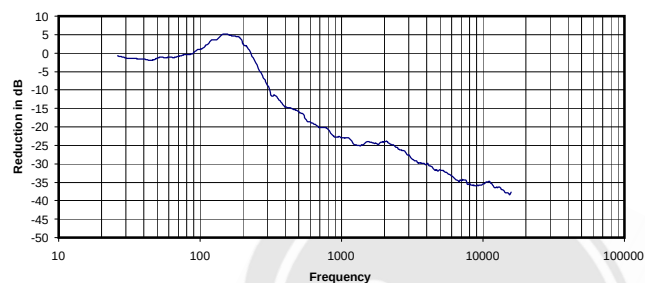
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.031 Vrms
37 Ohms
0.03 mW
-8 dBr

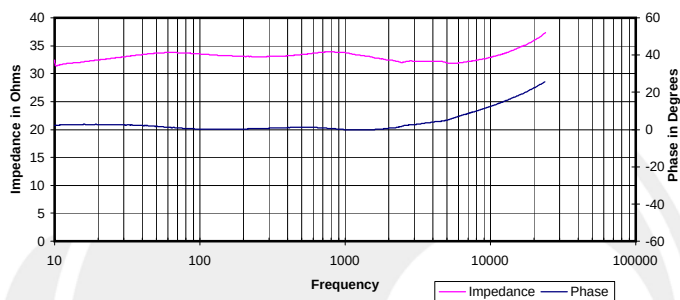
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



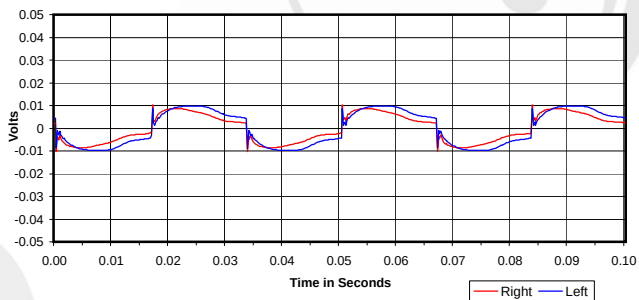
Isolation
Attenuation of External Sound vs. Frequency



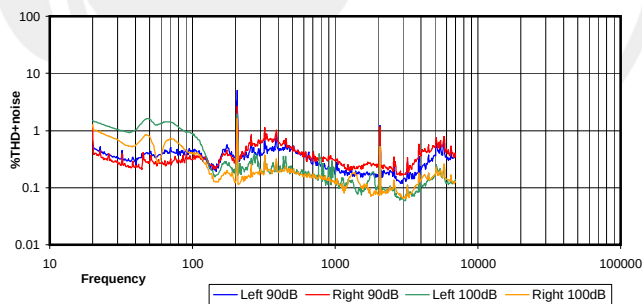
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



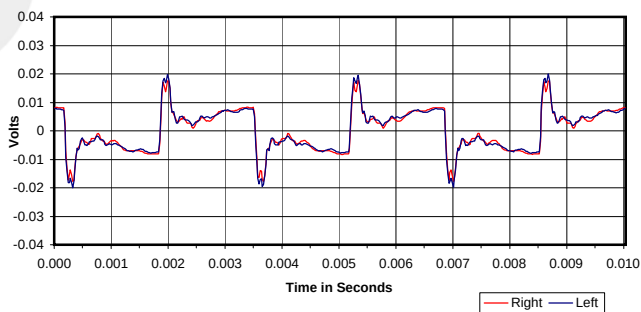
30 Hz Square Wave



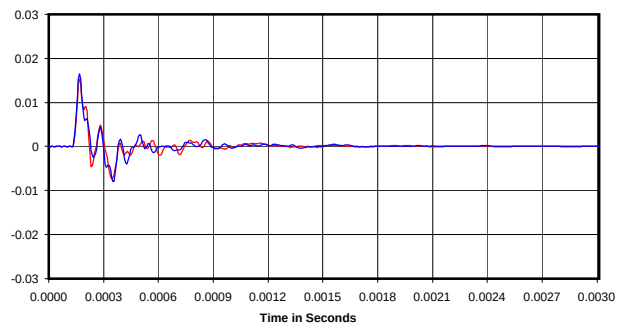
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



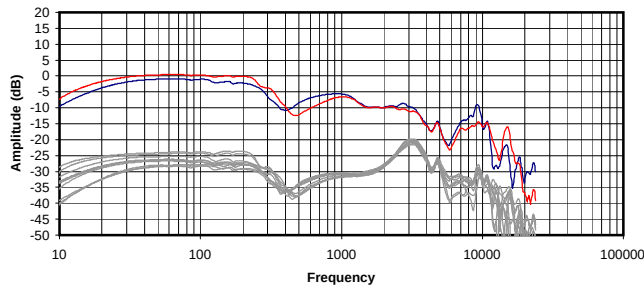
Impulse Response



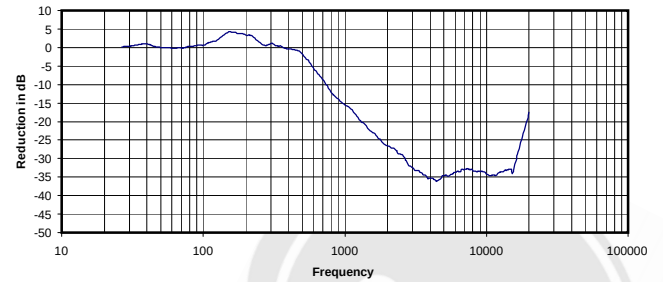
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.044 Vrms
34 Ohms
0.06 mW
-16 dBr

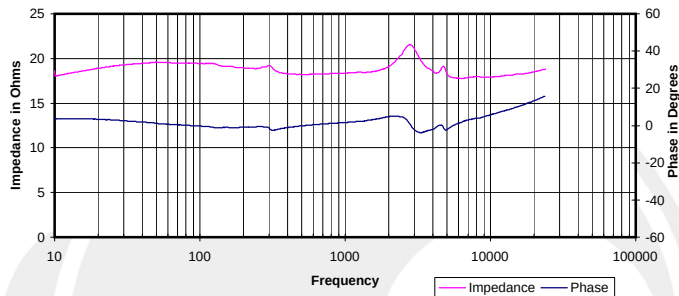
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



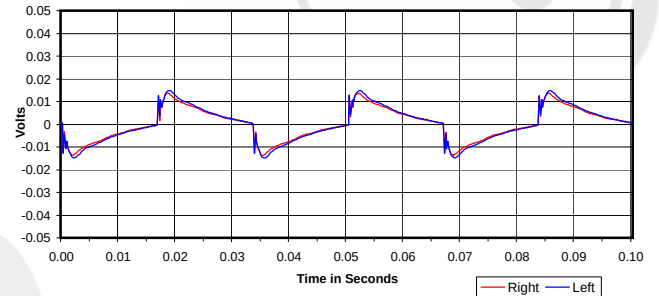
Isolation
Attenuation of External Sound vs. Frequency



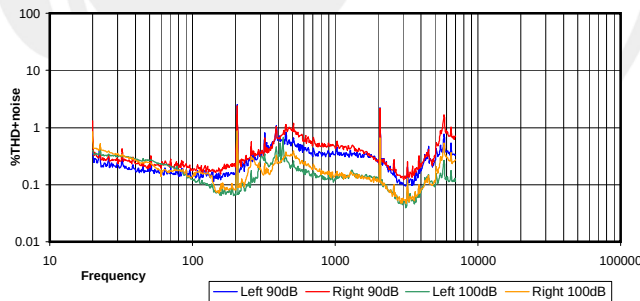
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



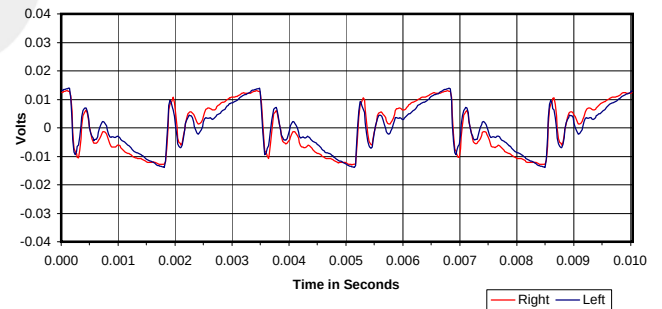
30 Hz Square Wave



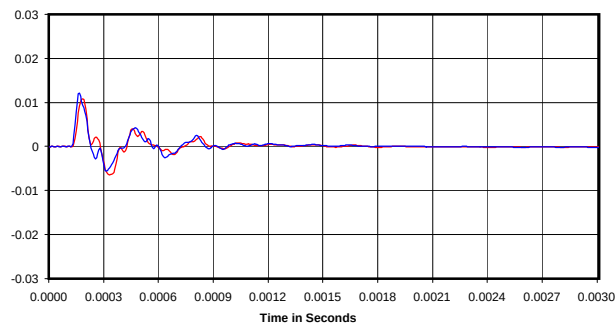
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



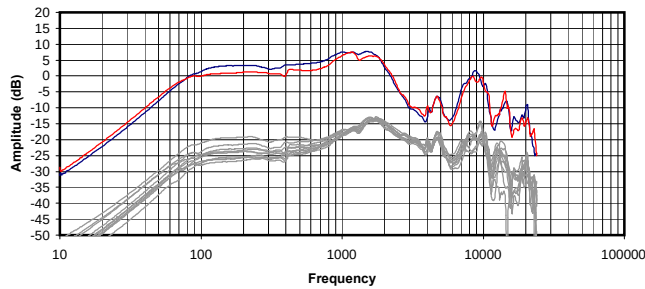
Impulse Response



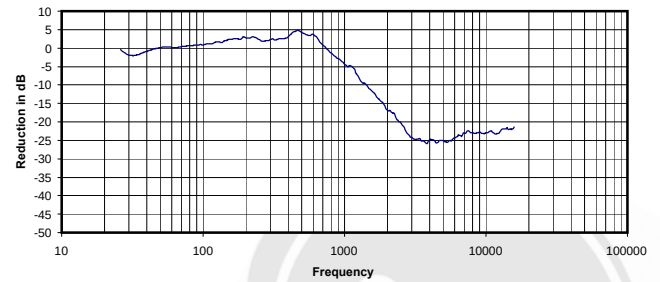
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.020 Vrms
18 Ohms
0.02 mW
-15 dBr

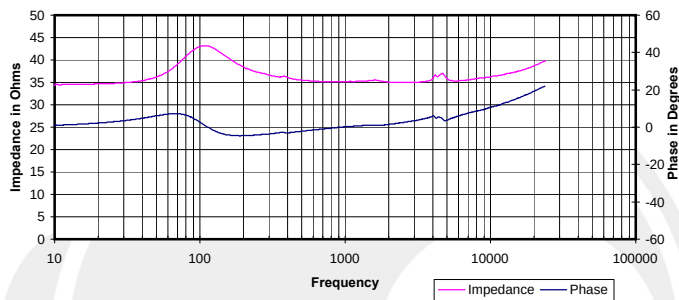
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



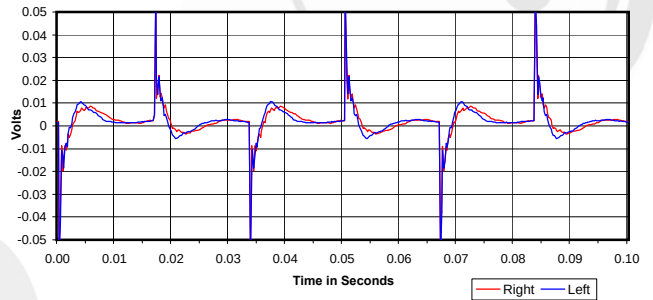
Isolation
Attenuation of External Sound vs. Frequency



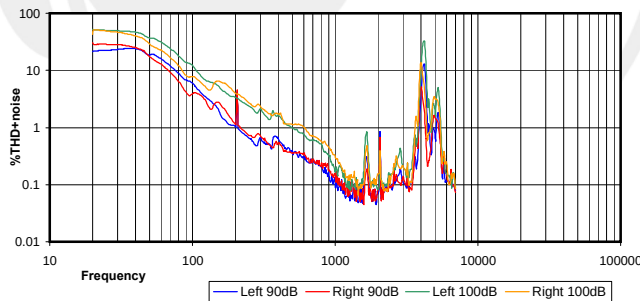
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



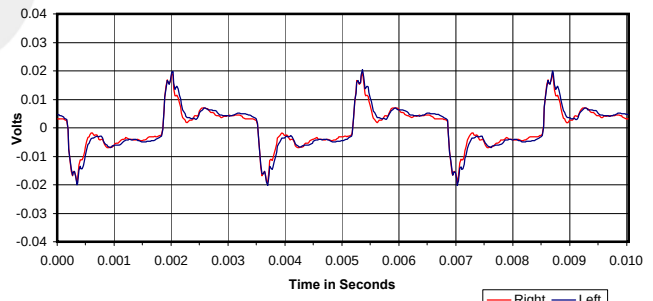
30 Hz Square Wave



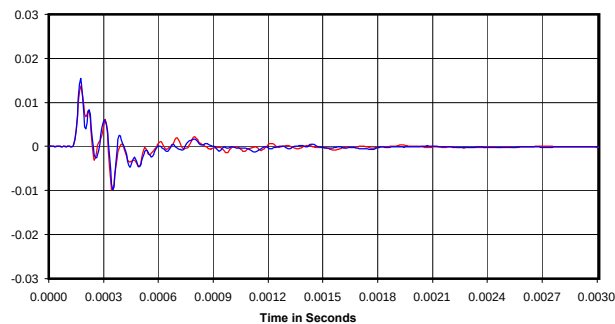
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



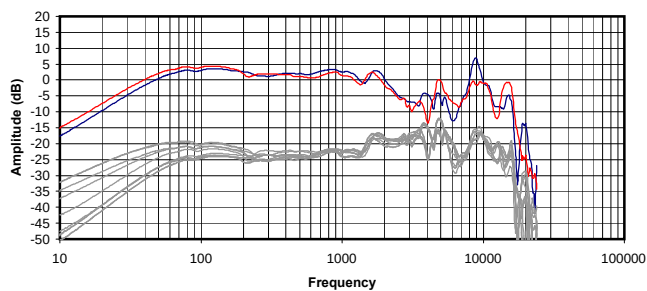
Impulse Response



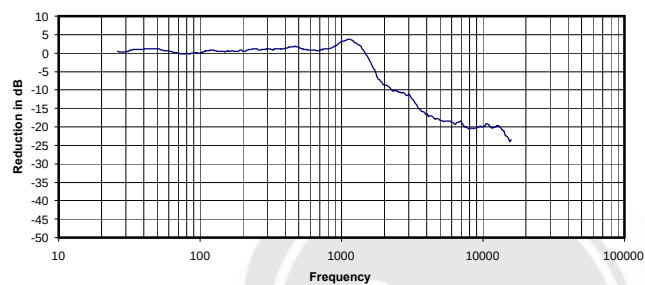
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.040 Vrms
35 Ohms
0.04 mW
-7 dBr

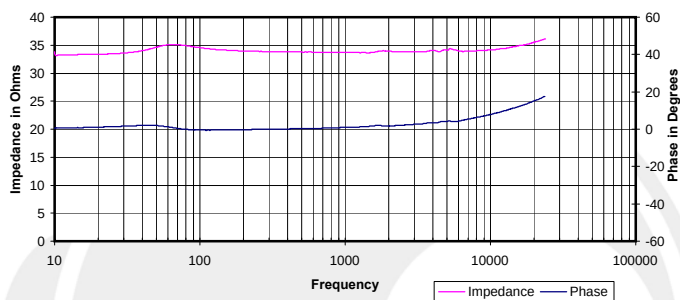
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



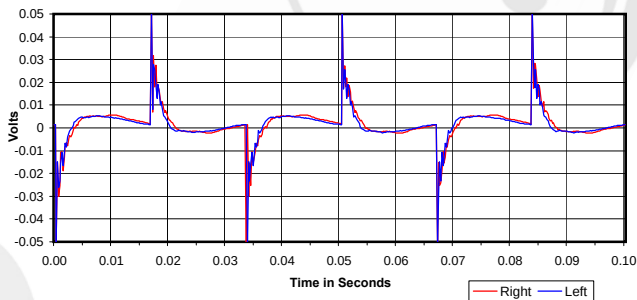
Isolation
Attenuation of External Sound vs. Frequency



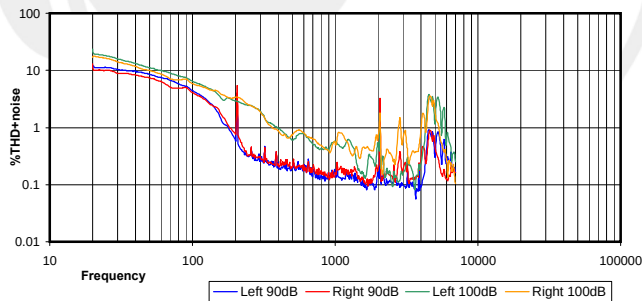
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



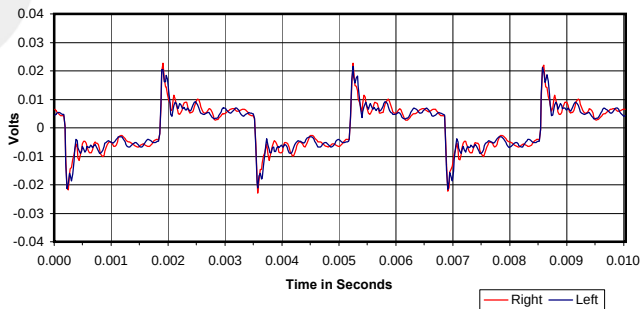
30 Hz Square Wave



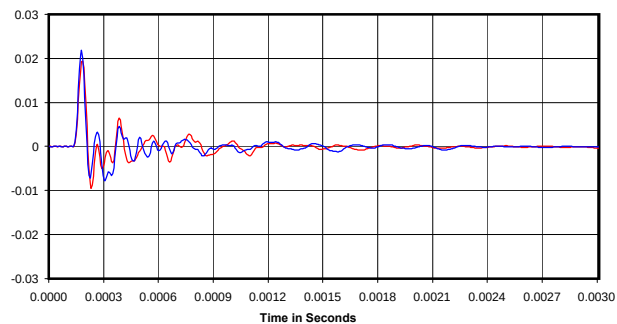
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



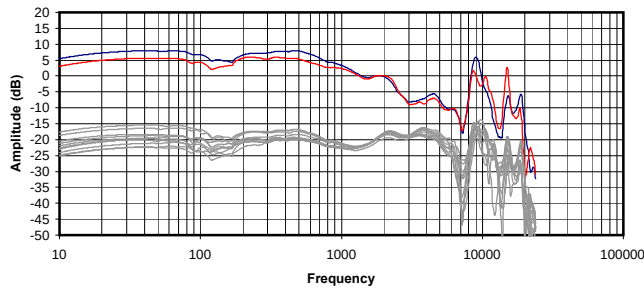
Impulse Response



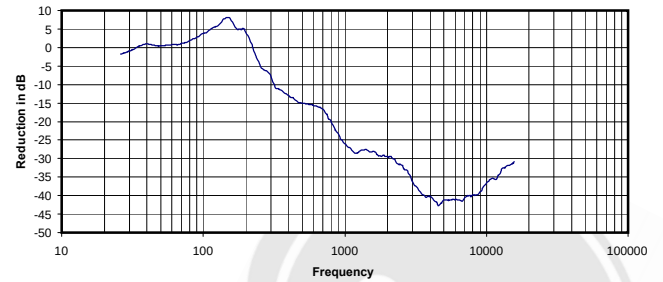
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.099 Vrms
34 Ohms
0.29 mW
-3 dBr

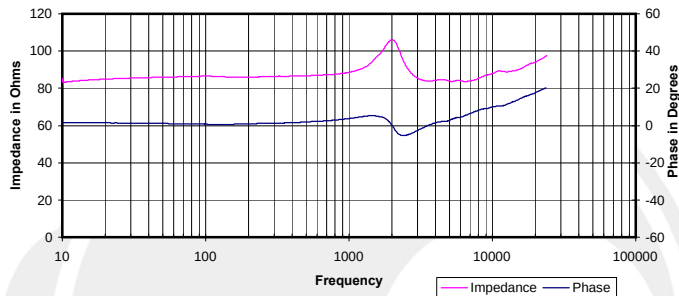
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



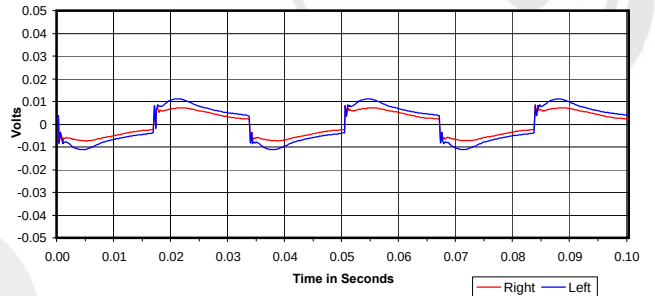
Isolation
Attenuation of External Sound vs. Frequency



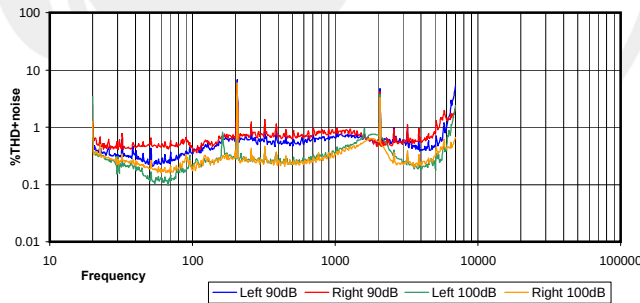
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



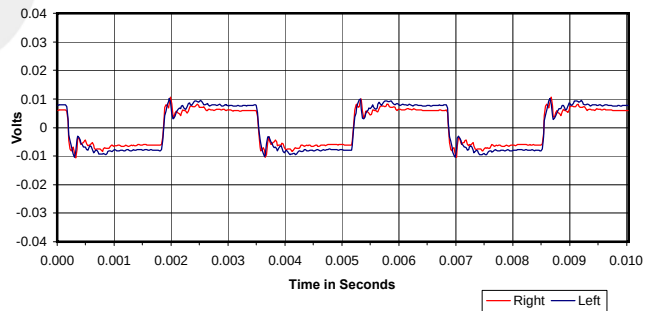
30 Hz Square Wave



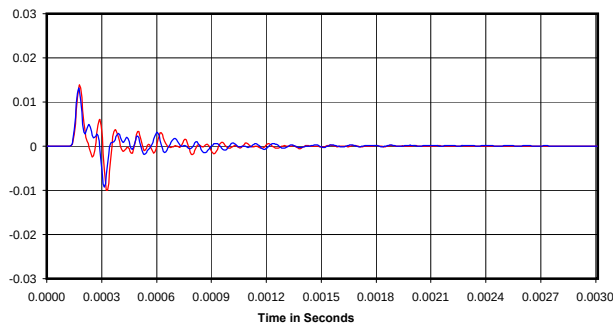
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



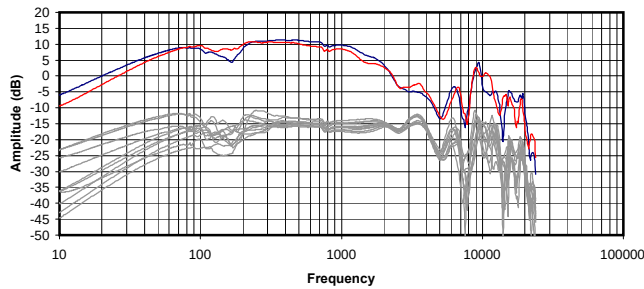
Impulse Response



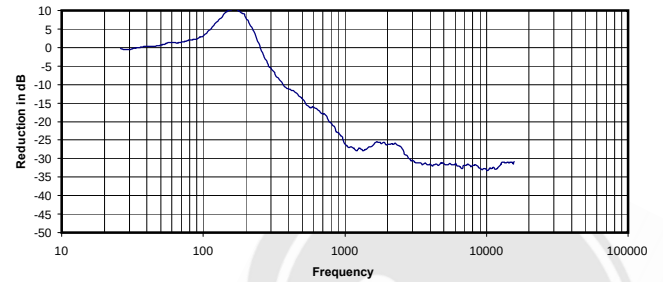
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.051 Vrms
89 Ohms
0.03 mW
-19 dBr

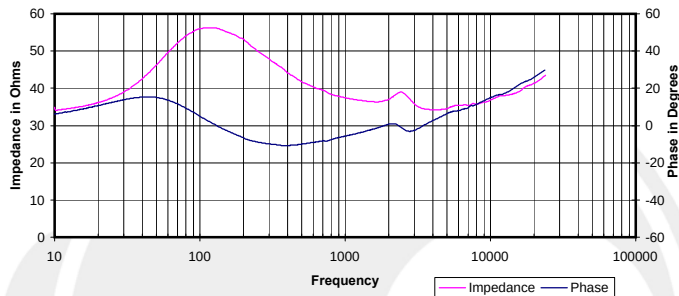
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



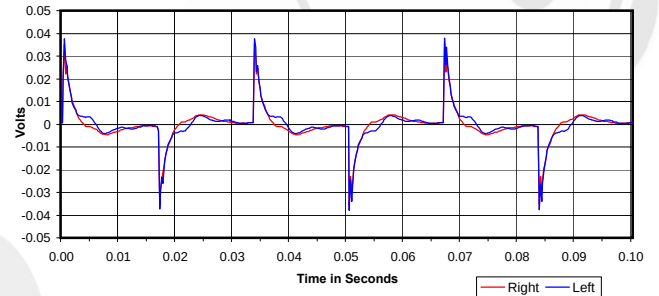
Isolation
Attenuation of External Sound vs. Frequency



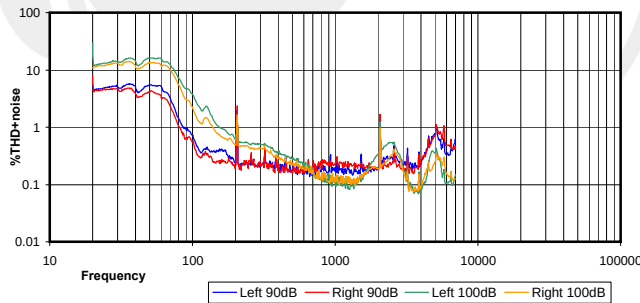
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



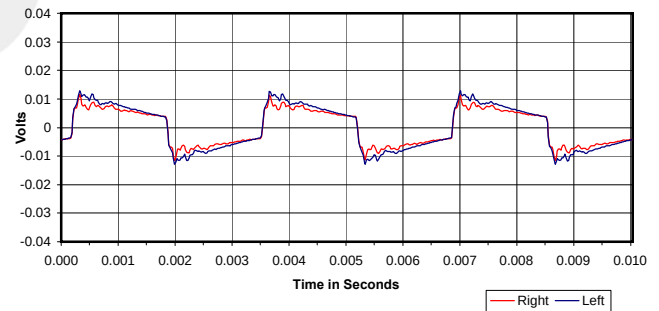
30 Hz Square Wave



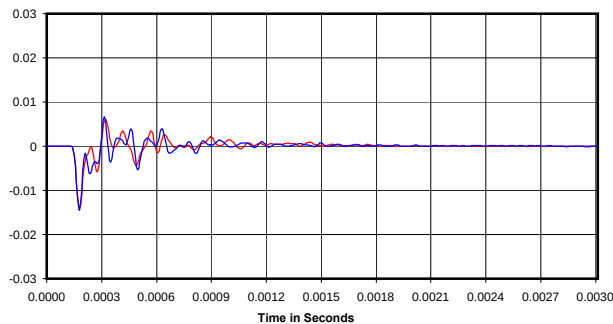
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

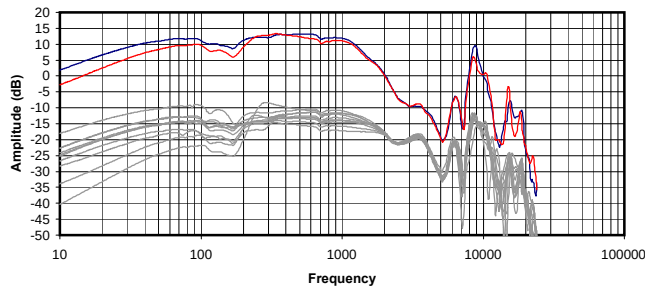
0.020 Vrms
37 Ohms
0.01 mW
-15 dB



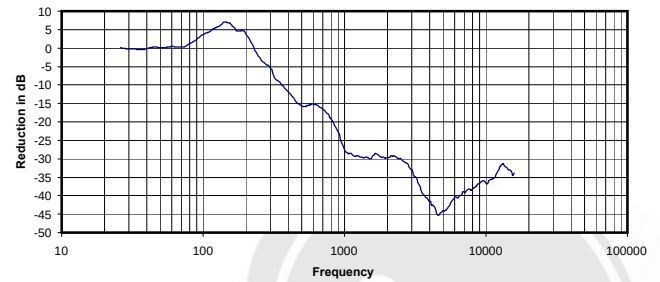
Headphone Measurements:

Beyerdynamic T50p Sample B

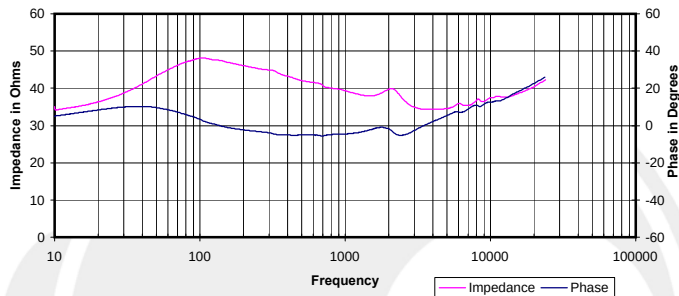
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



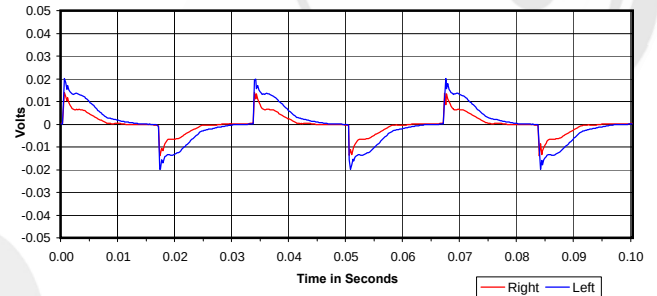
Isolation
Attenuation of External Sound vs. Frequency



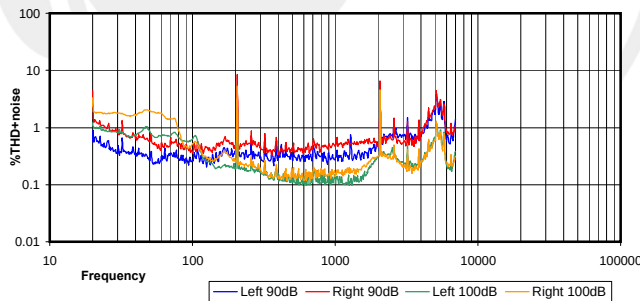
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



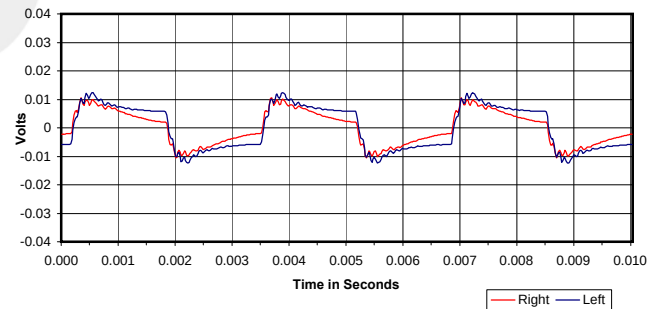
30 Hz Square Wave



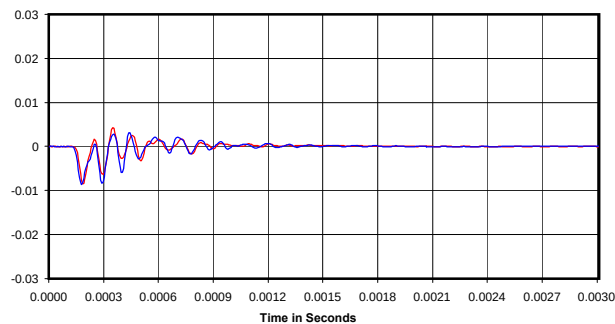
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



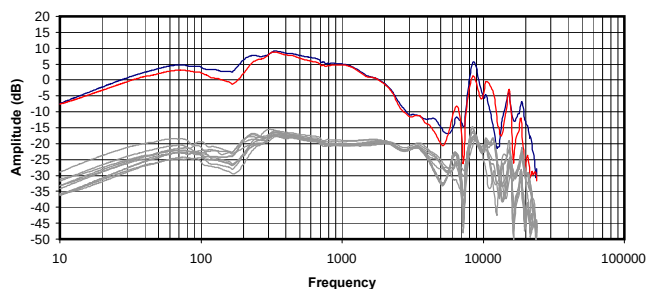
Impulse Response



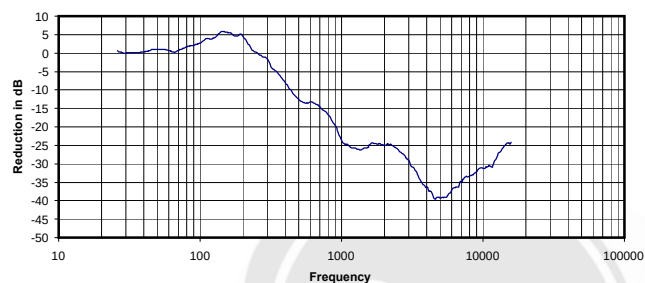
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90dB BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.013 Vrms
39 Ohms
0.00 mW
-18 dB

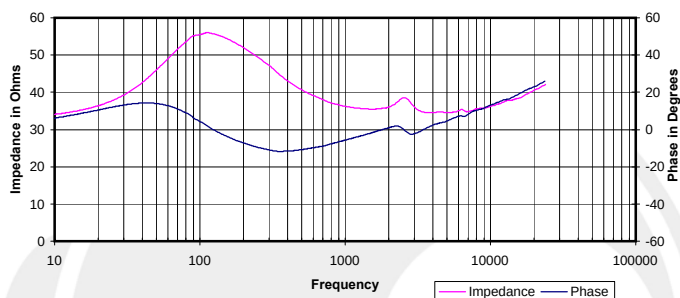
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



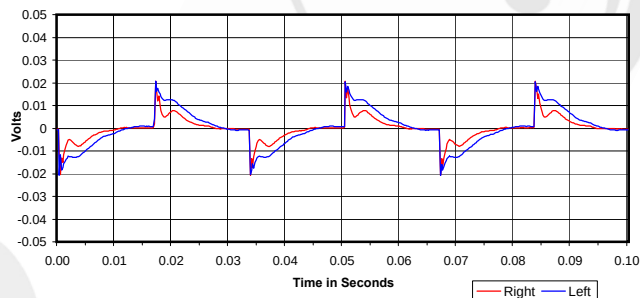
Isolation
Attenuation of External Sound vs. Frequency



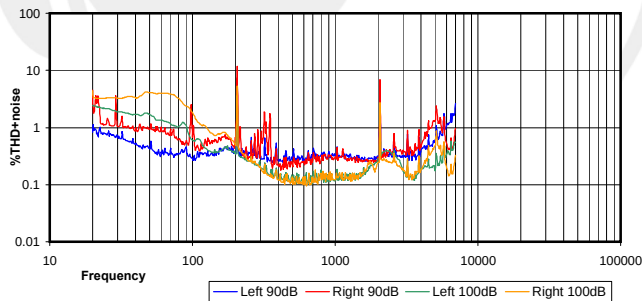
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



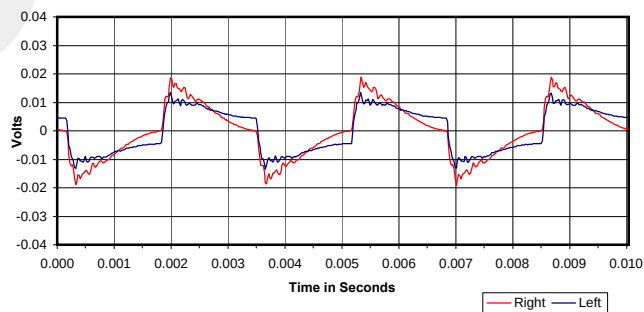
30 Hz Square Wave



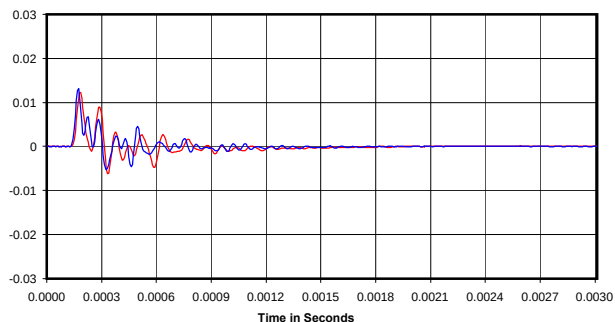
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



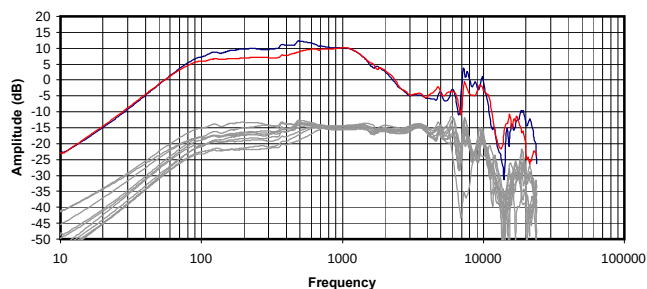
Impulse Response



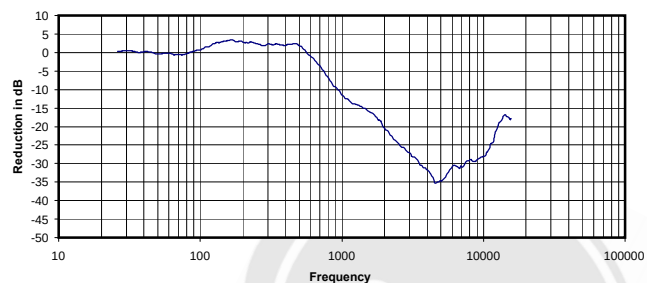
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.025 Vrms
36 Ohms
0.02 mW
-16 dBr

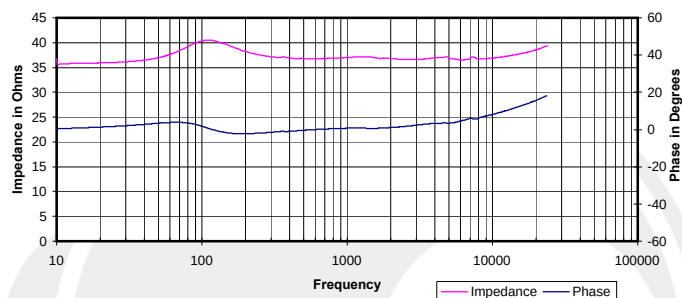
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



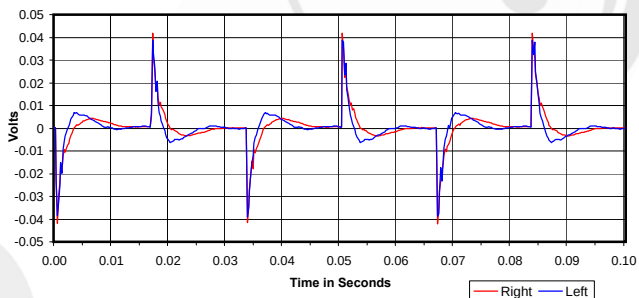
Isolation
Attenuation of External Sound vs. Frequency



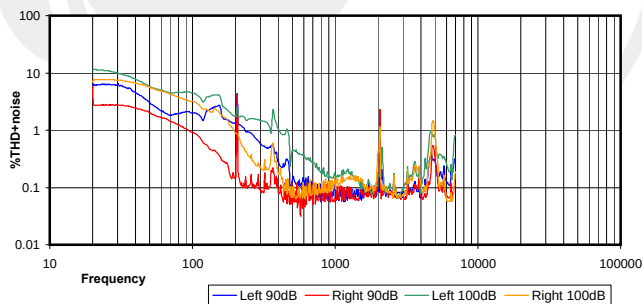
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



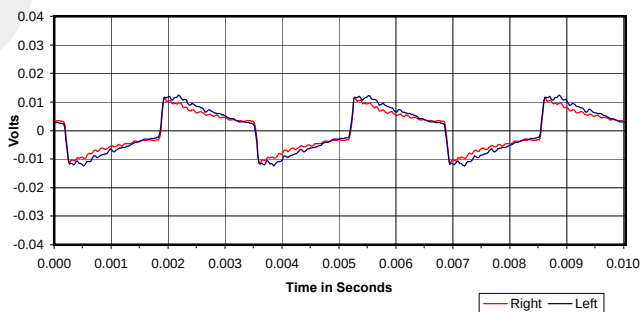
30 Hz Square Wave



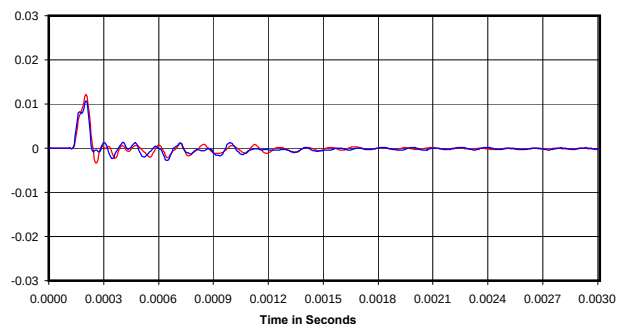
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



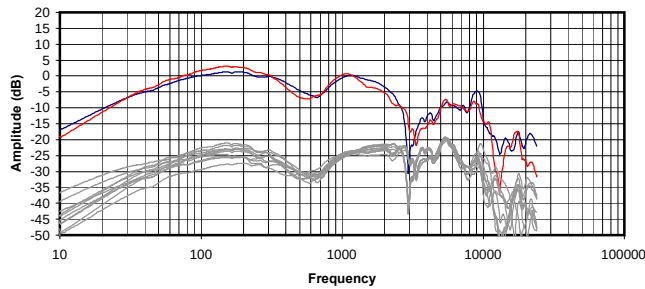
Impulse Response



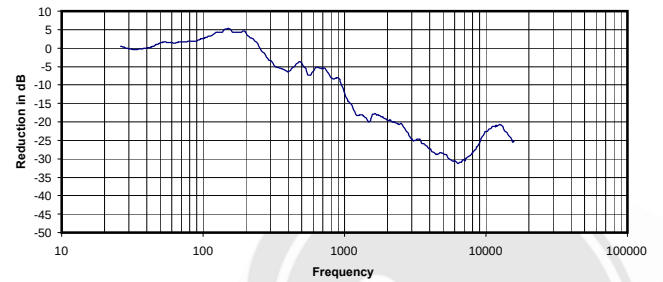
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.028 Vrms
37 Ohms
0.02 mW
-10 dBr

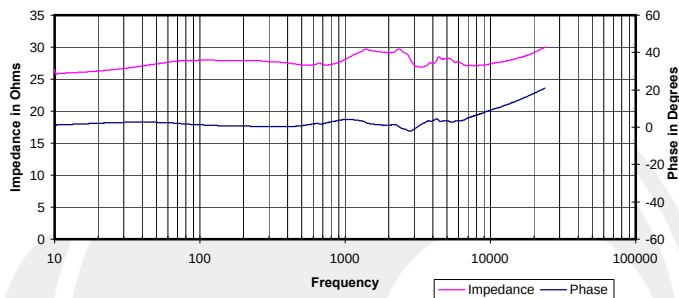
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



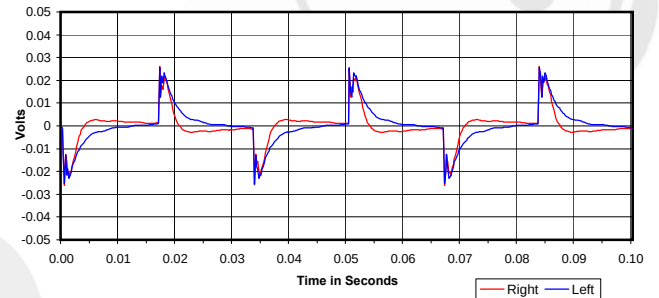
Isolation
Attenuation of External Sound vs. Frequency



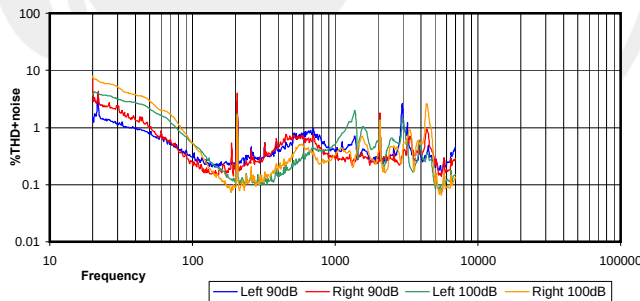
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



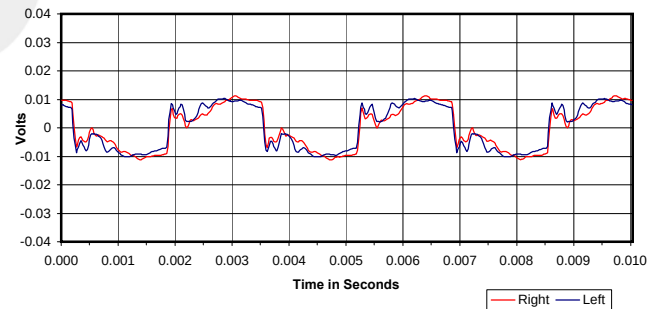
30 Hz Square Wave



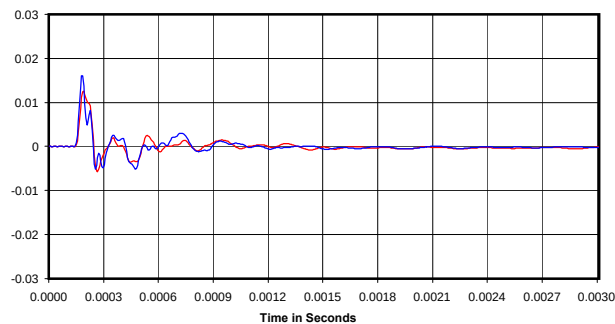
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



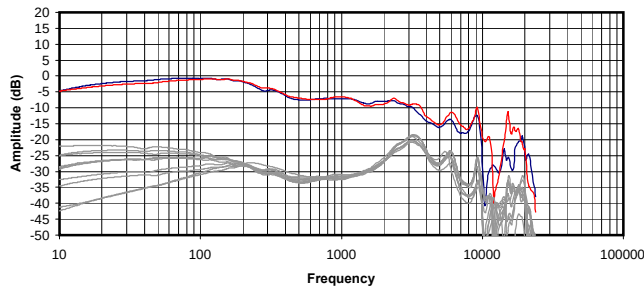
Impulse Response



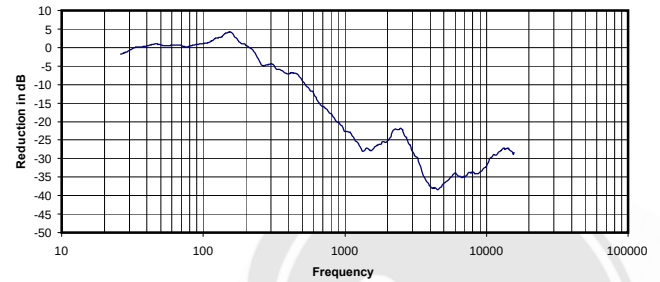
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.043 Vrms
28 Ohms
0.07 mW
-11 dBr

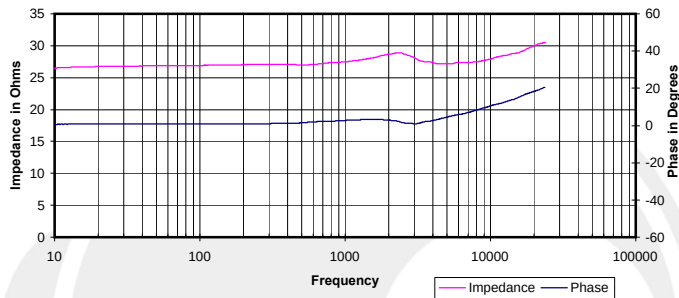
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



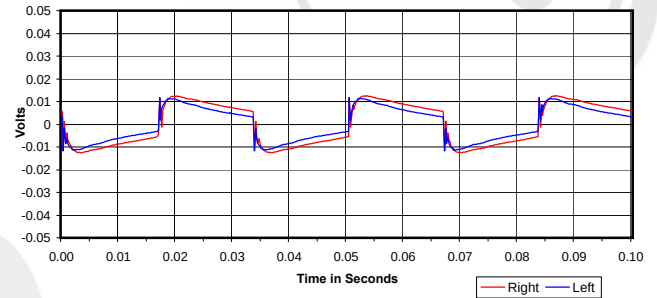
Isolation
Attenuation of External Sound vs. Frequency



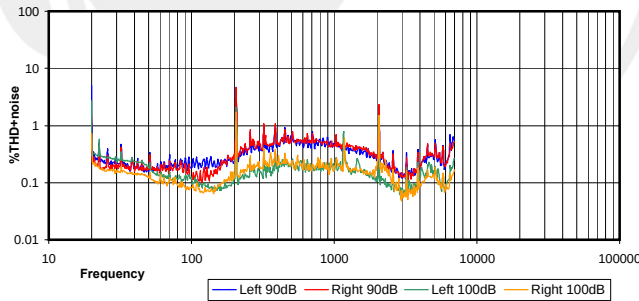
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



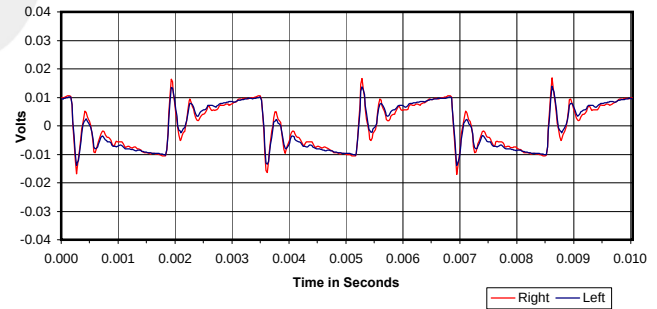
30 Hz Square Wave



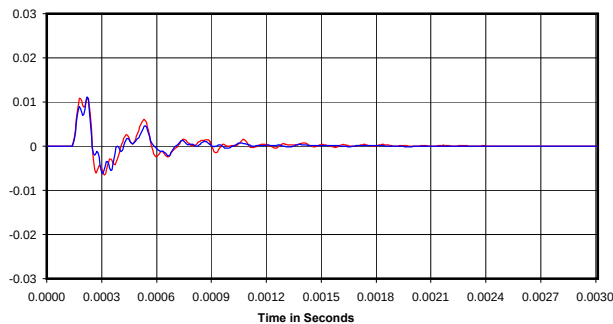
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



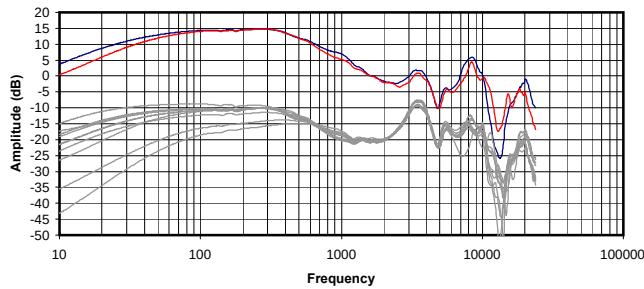
Impulse Response



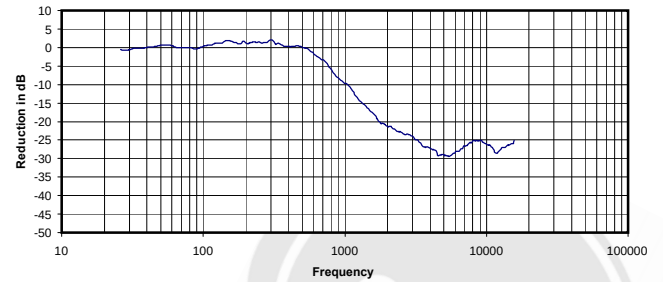
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.051 Vrms
27 Ohms
0.09 mW
-16 dBr

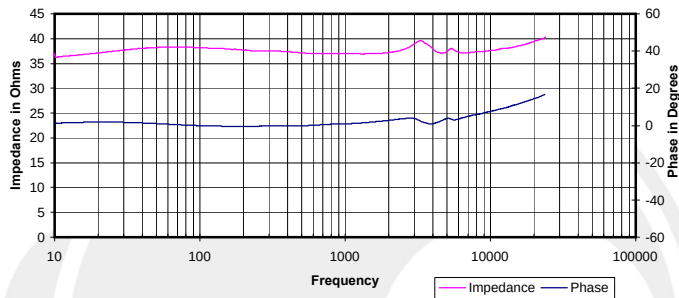
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



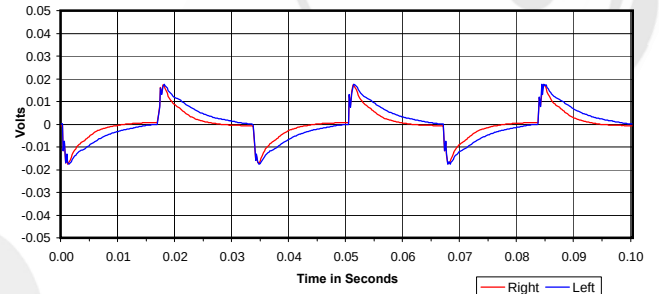
Isolation
Attenuation of External Sound vs. Frequency



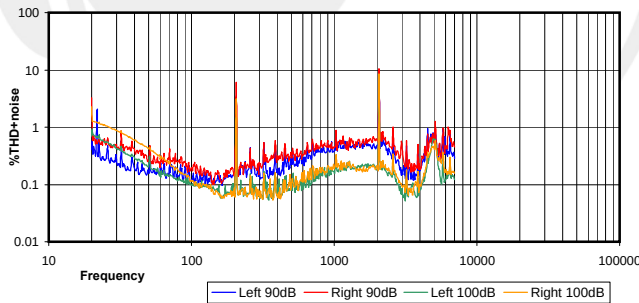
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



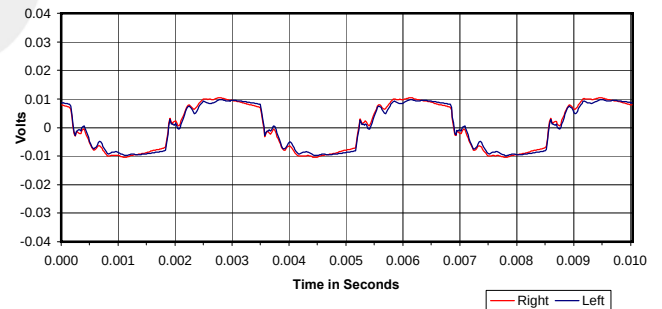
30 Hz Square Wave



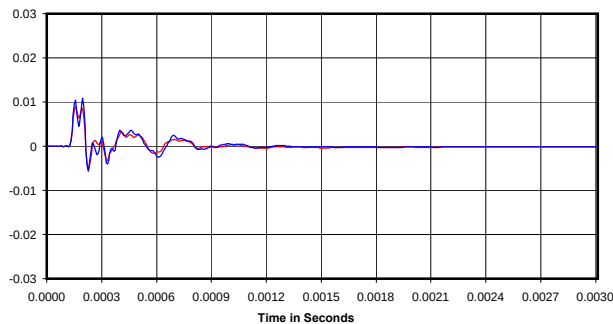
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



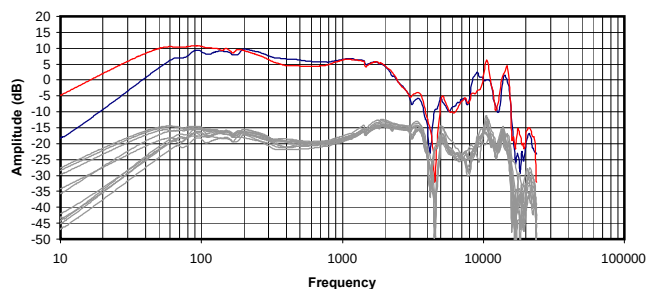
Impulse Response



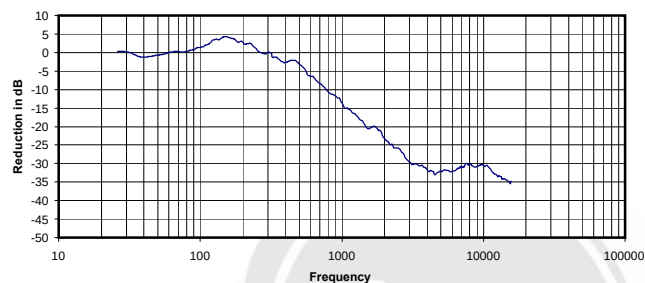
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.050 Vrms
37 Ohms
0.07 mW
-10 dBr

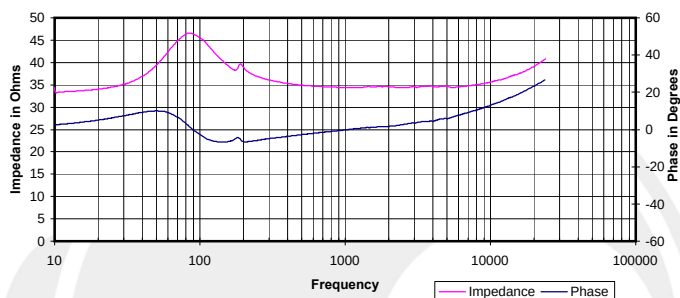
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



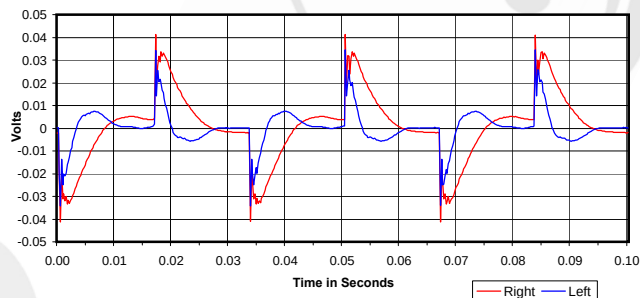
Isolation
Attenuation of External Sound vs. Frequency



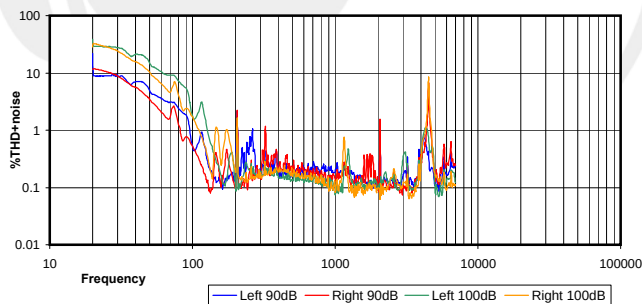
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



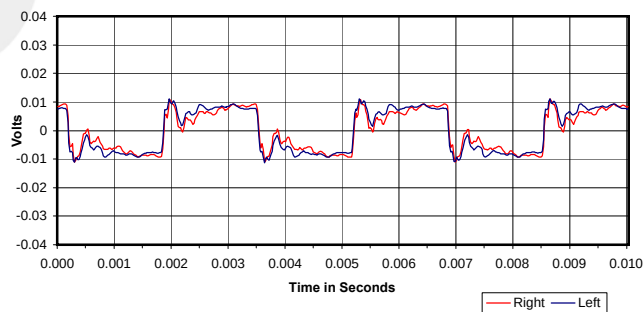
30 Hz Square Wave



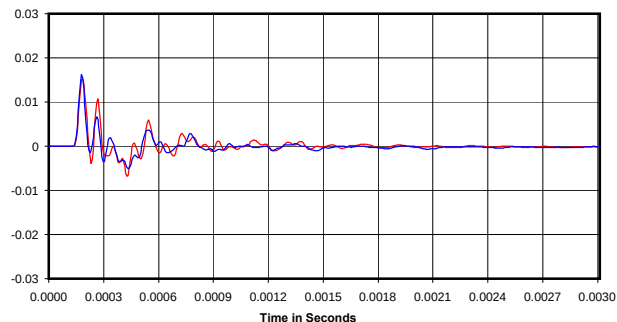
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



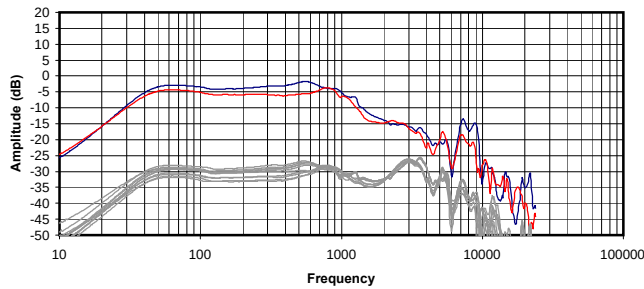
Impulse Response



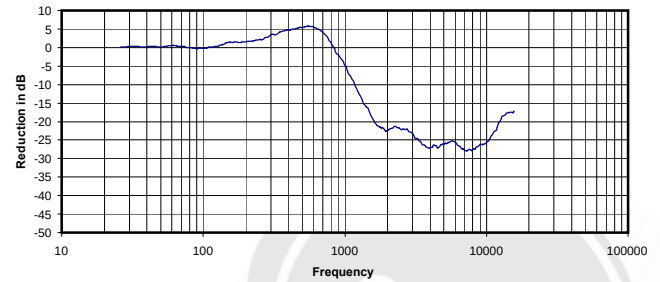
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.040 Vrms
34 Ohms
0.05 mW
-12 dBr

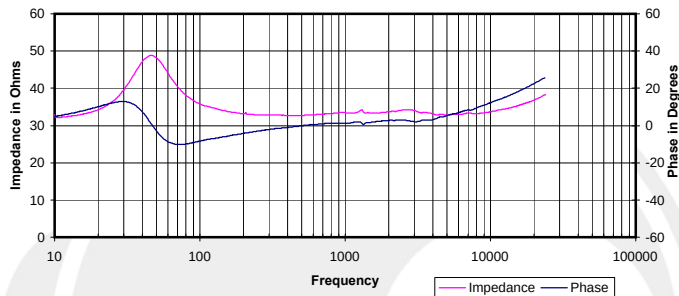
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



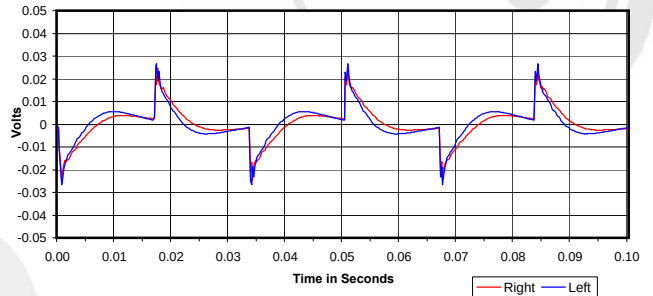
Isolation
Attenuation of External Sound vs. Frequency



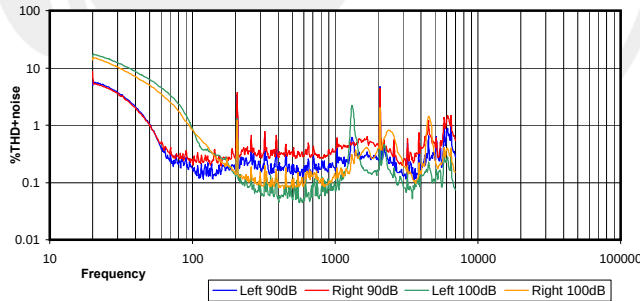
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



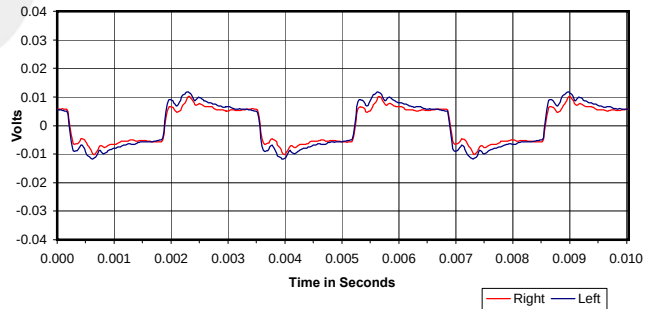
30 Hz Square Wave



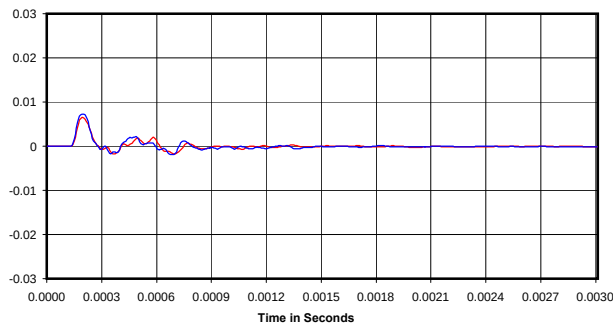
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



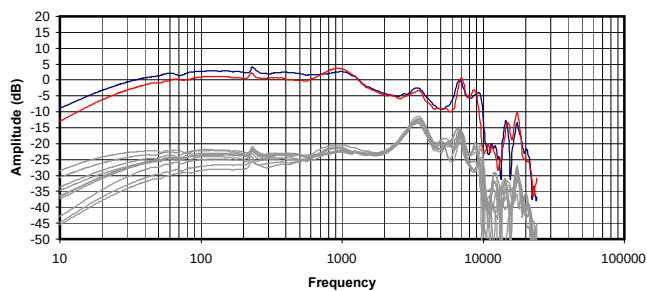
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.023 Vrms
33 Ohms
0.02 mW
-8 dBr

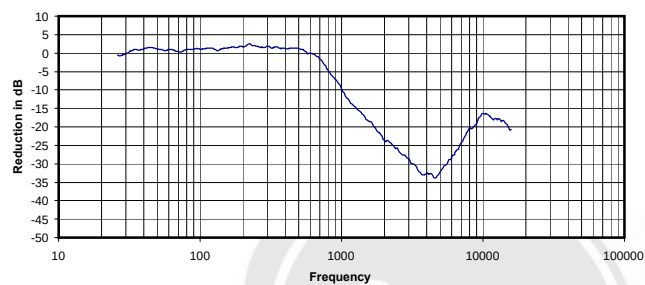


Headphone Measurements: House of Marley Exodus Second Pair

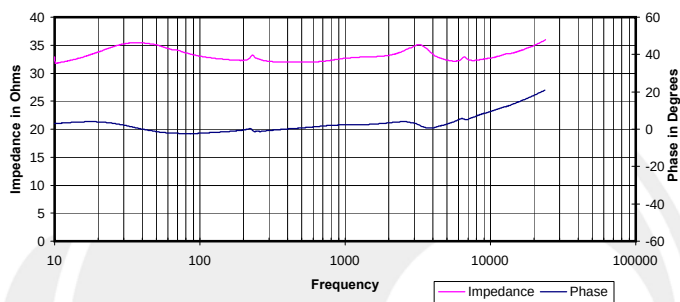
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



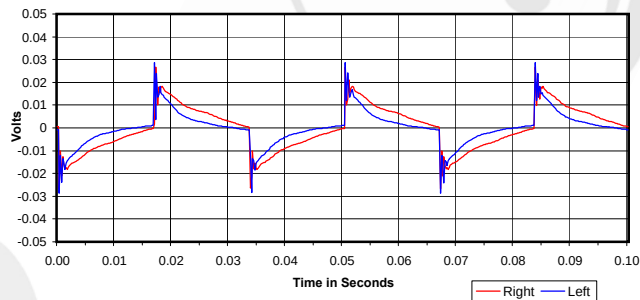
Isolation
Attenuation of External Sound vs. Frequency



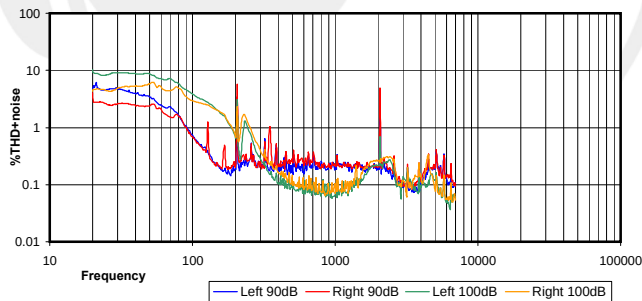
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



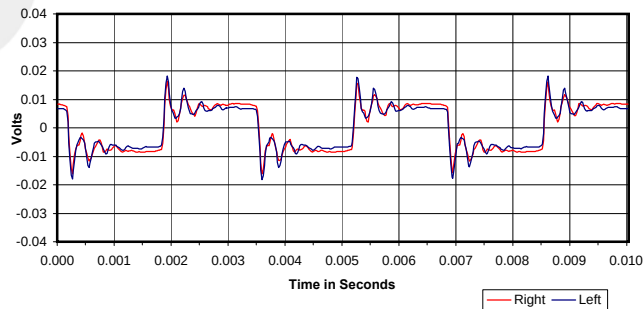
30 Hz Square Wave



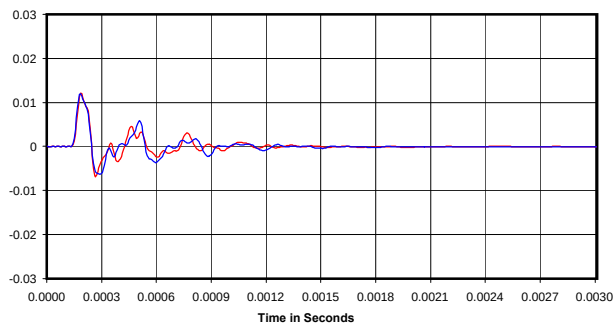
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



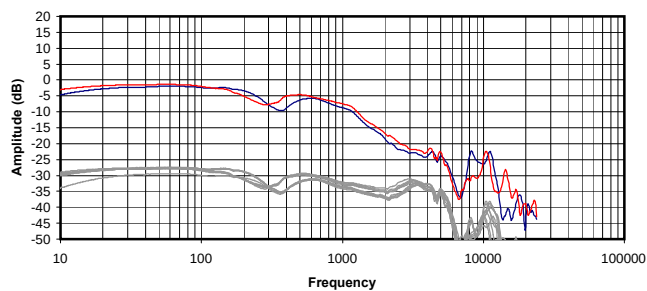
Impulse Response



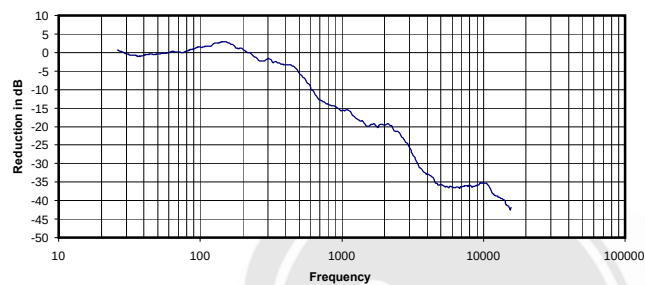
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90dB BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.029 Vrms
33 Ohms
0.03 mW
-11 dB

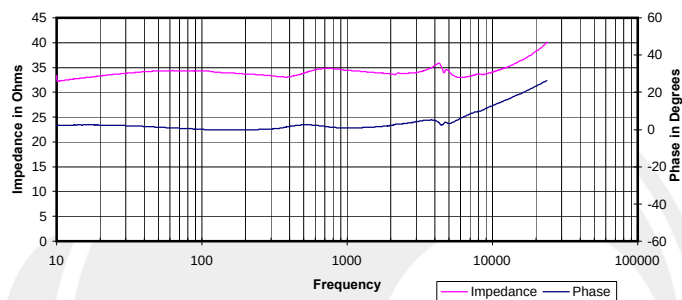
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



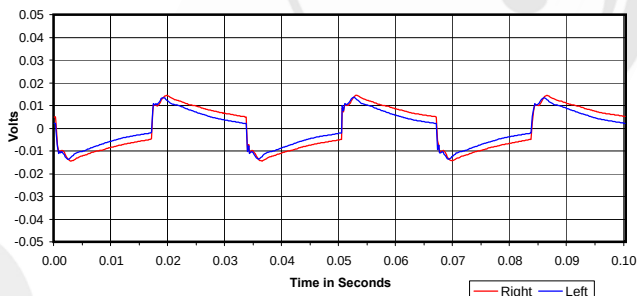
Isolation
Attenuation of External Sound vs. Frequency



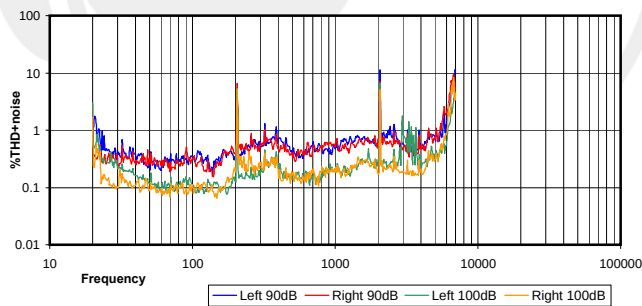
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



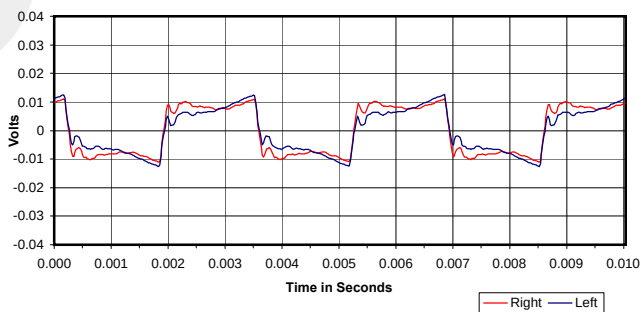
30 Hz Square Wave



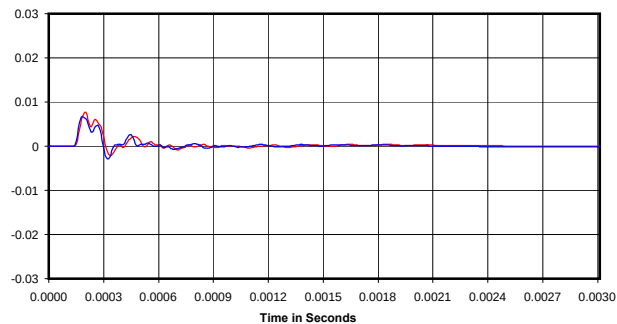
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



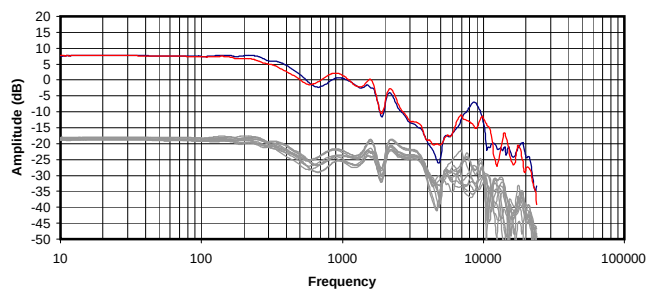
Impulse Response



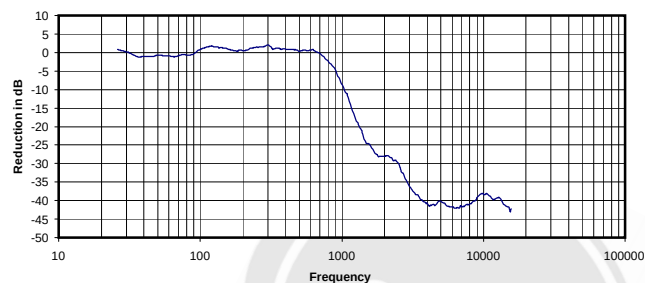
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.022 Vrms
34 Ohms
0.01 mW
-13 dBr

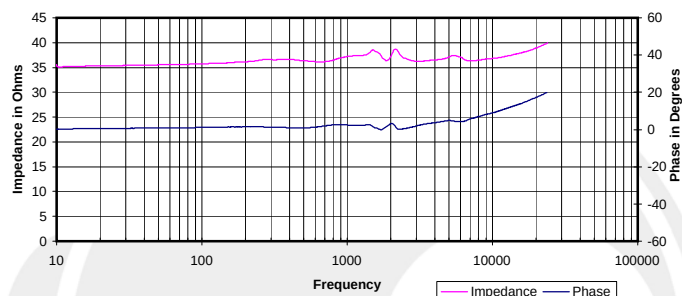
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



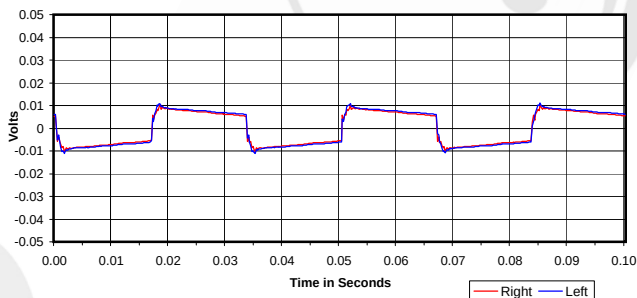
Isolation
Attenuation of External Sound vs. Frequency



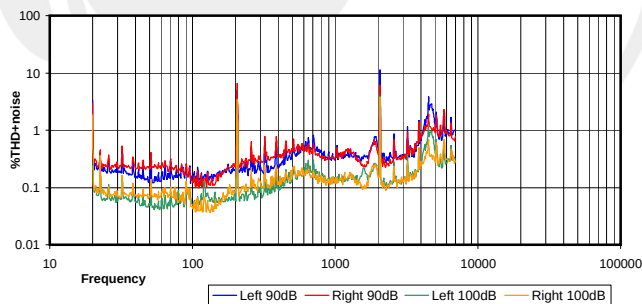
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



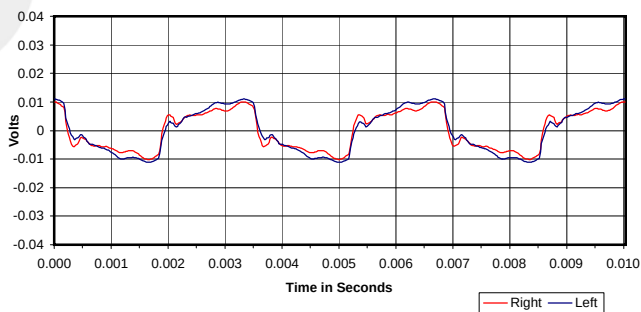
30 Hz Square Wave



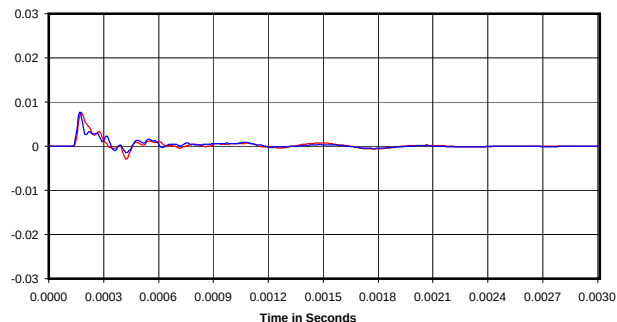
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



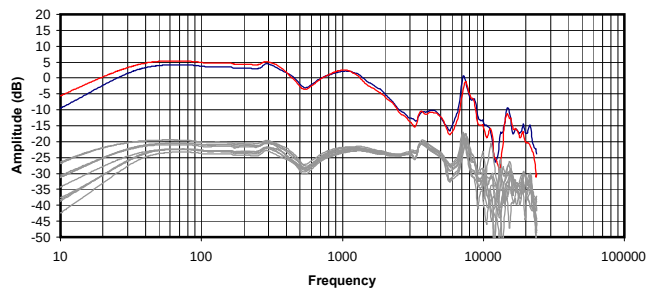
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.024 Vrms
37 Ohms
0.02 mW
-13 dBr

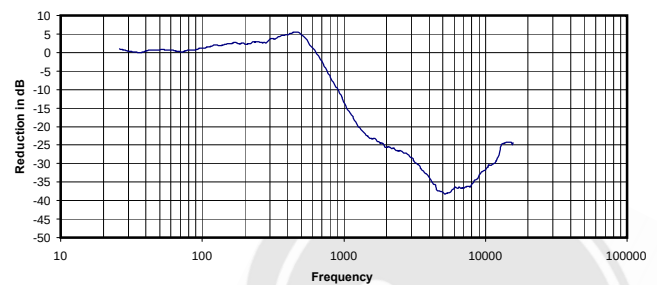


Headphone Measurements: JVC HA-S500-Z

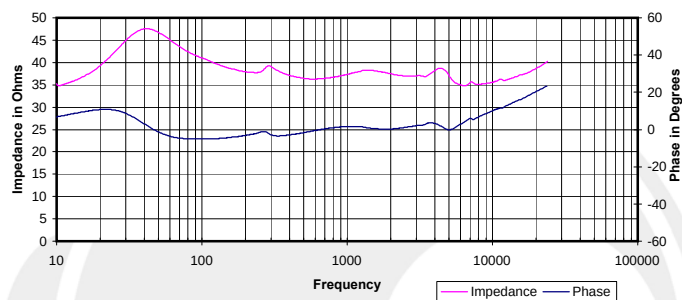
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



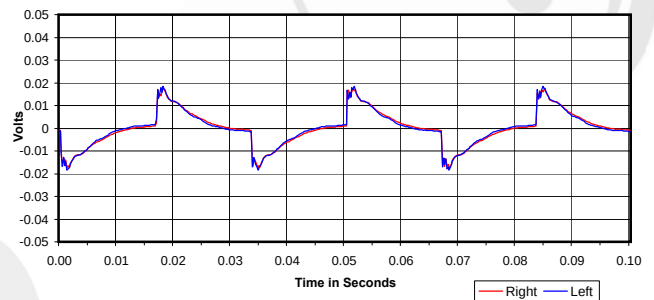
Isolation
Attenuation of External Sound vs. Frequency



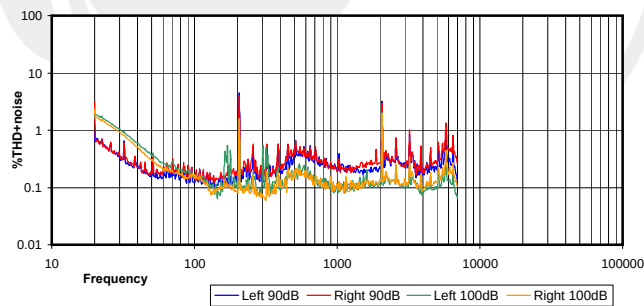
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



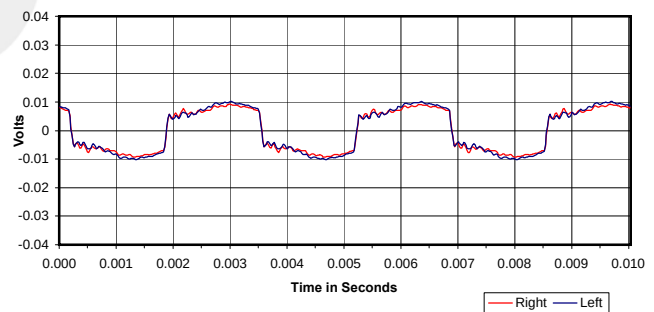
30 Hz Square Wave



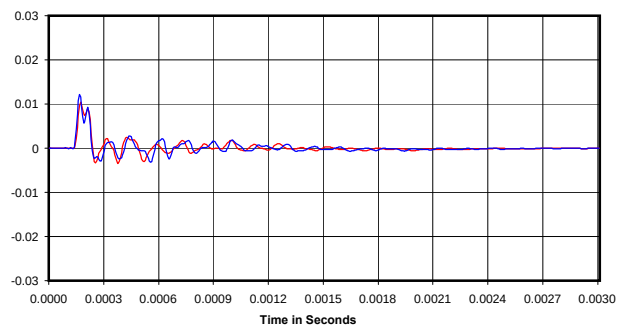
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



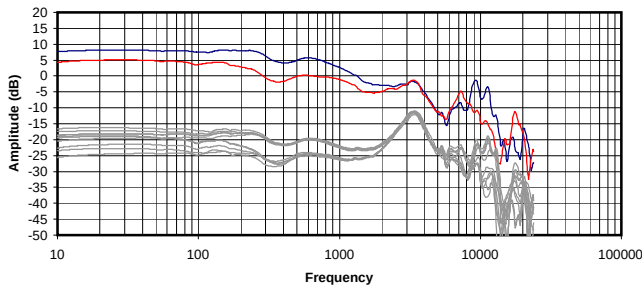
Impulse Response



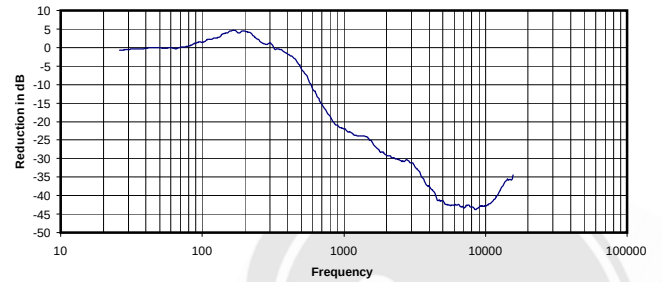
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90dB BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.018 Vrms
37 Ohms
0.01 mW
-12 dBr

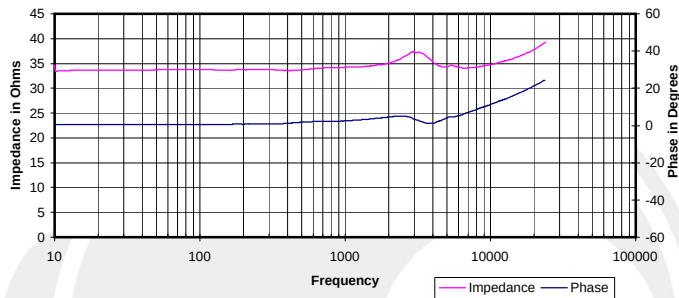
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



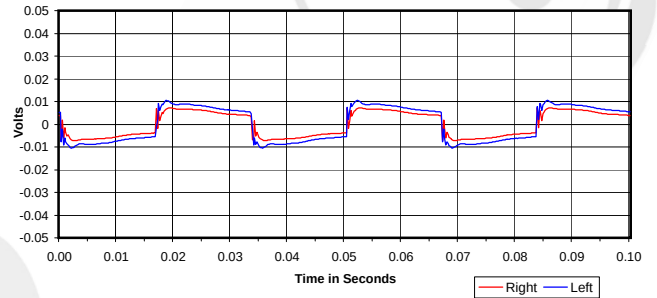
Isolation
Attenuation of External Sound vs. Frequency



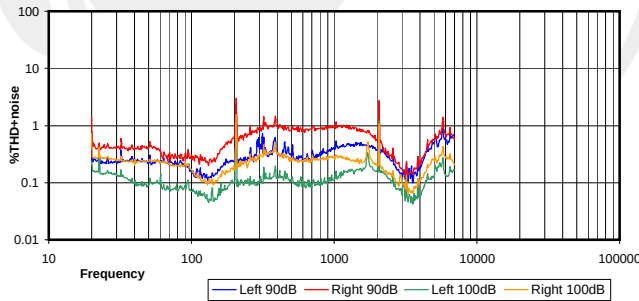
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



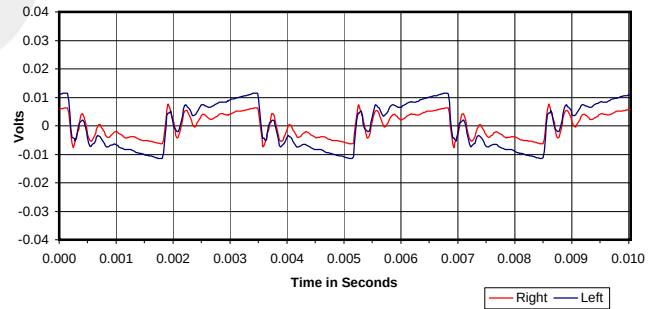
30 Hz Square Wave



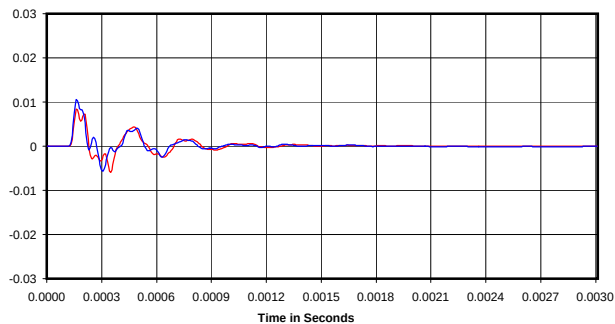
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



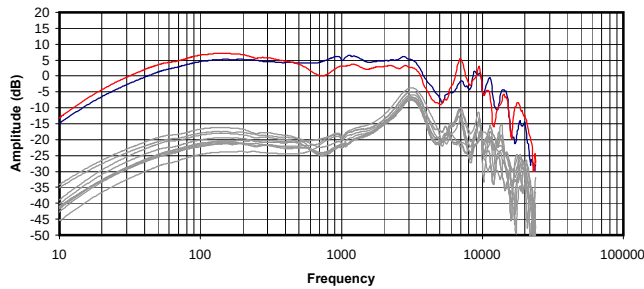
Impulse Response



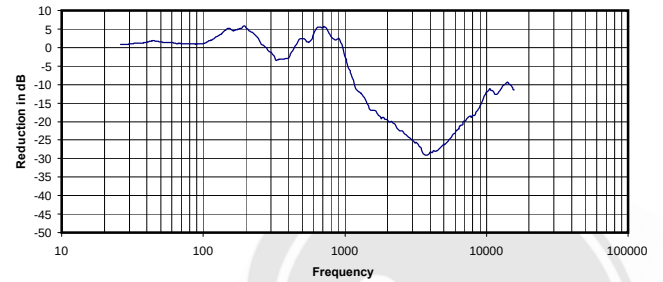
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.030 Vrms
34 Ohms
0.03 mW
-16 dBr

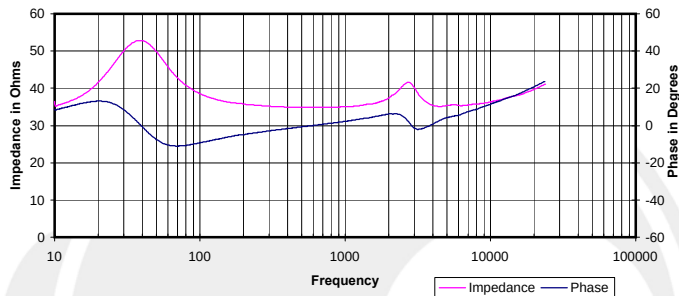
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



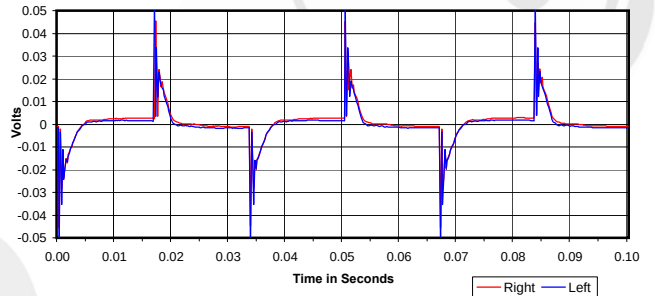
Isolation
Attenuation of External Sound vs. Frequency



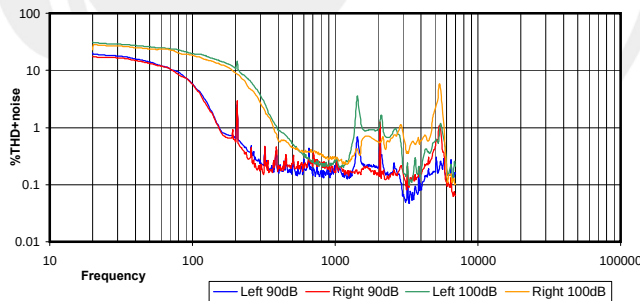
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



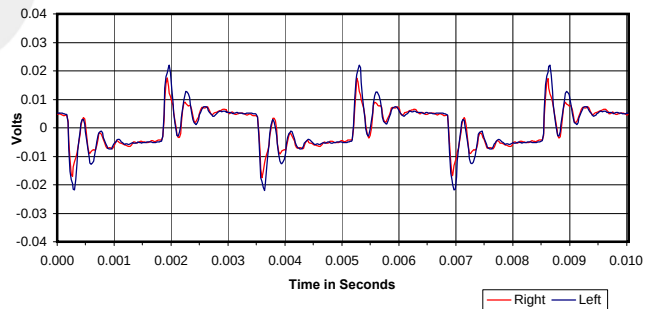
30 Hz Square Wave



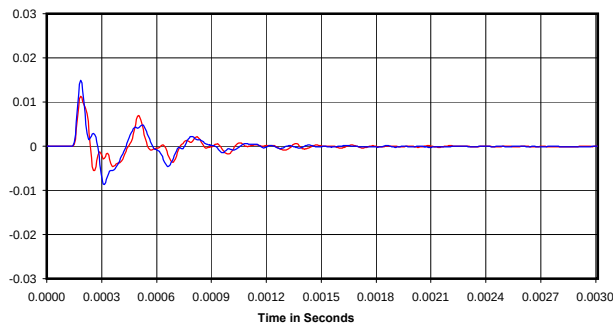
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



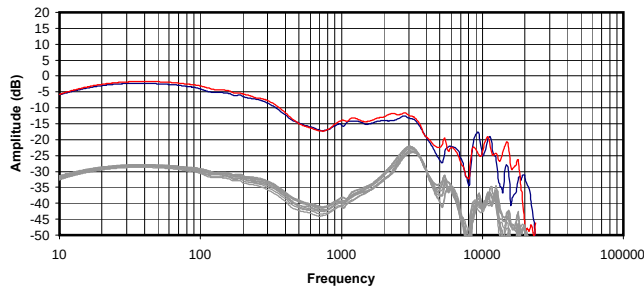
Impulse Response



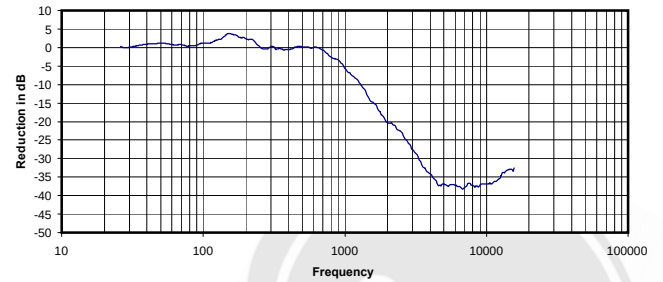
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.049 Vrms
35 Ohms
0.07 mW
-8 dBr

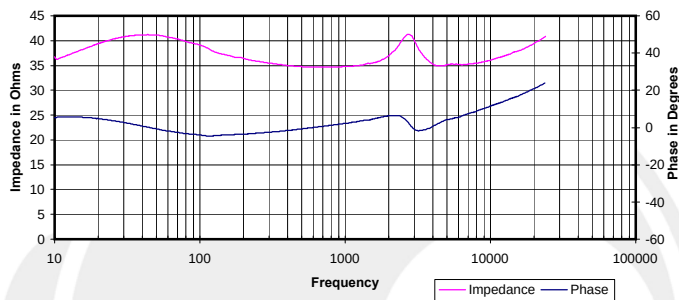
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



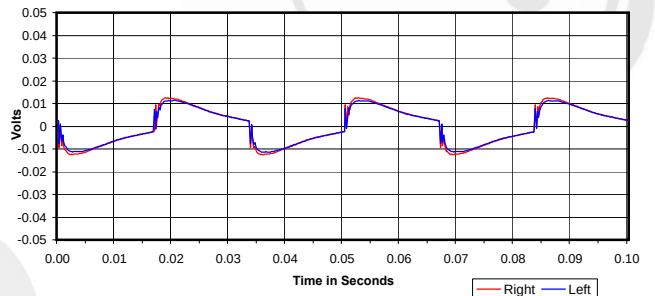
Isolation
Attenuation of External Sound vs. Frequency



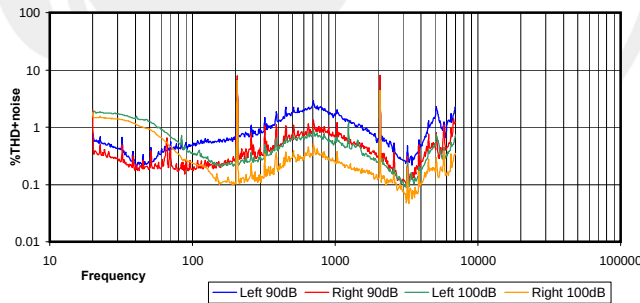
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



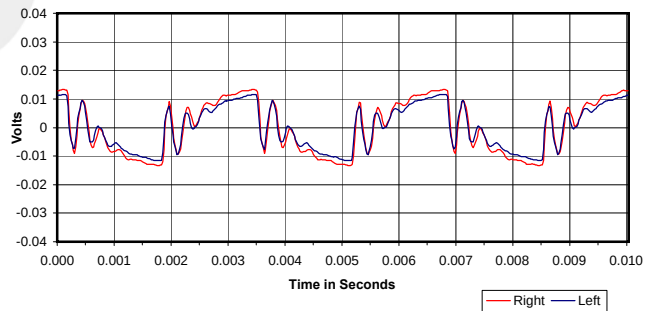
30 Hz Square Wave



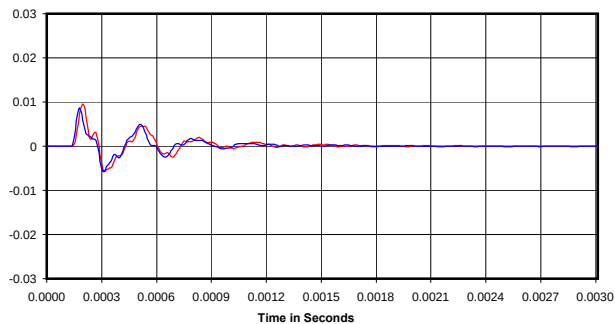
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



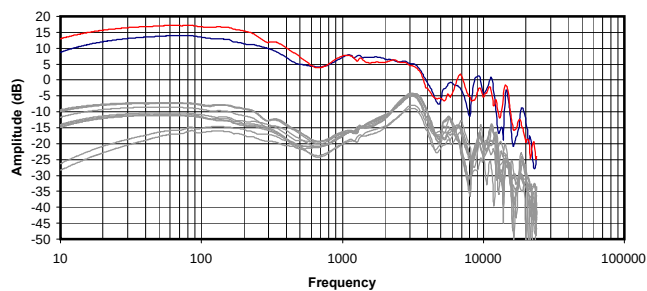
Impulse Response



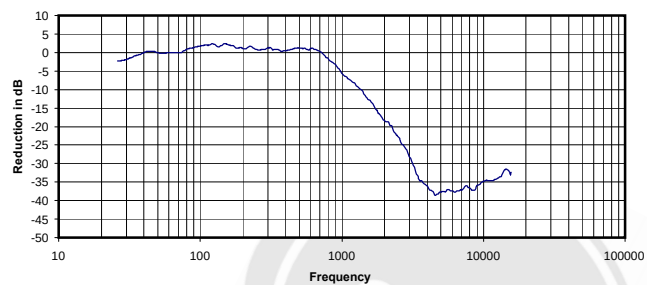
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.049 Vrms
35 Ohms
0.07 mW
-10 dBr

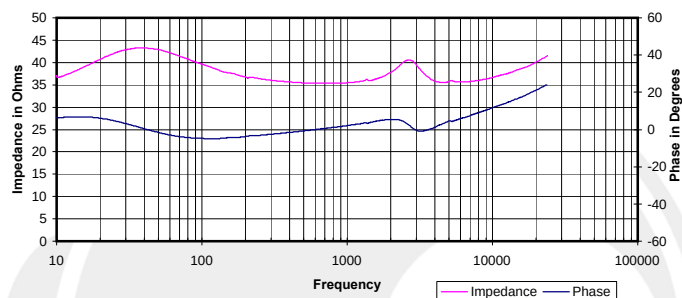
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



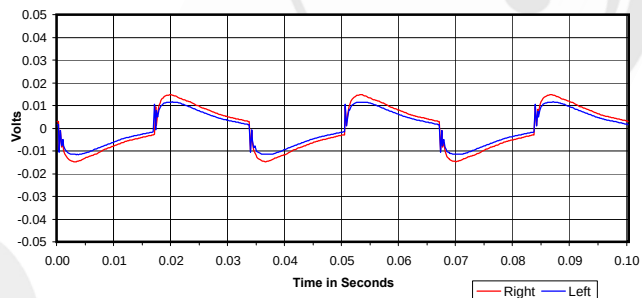
Isolation
Attenuation of External Sound vs. Frequency



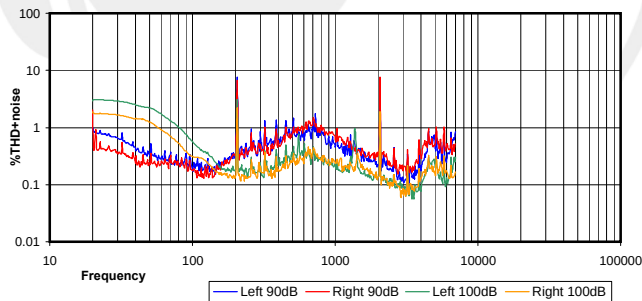
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



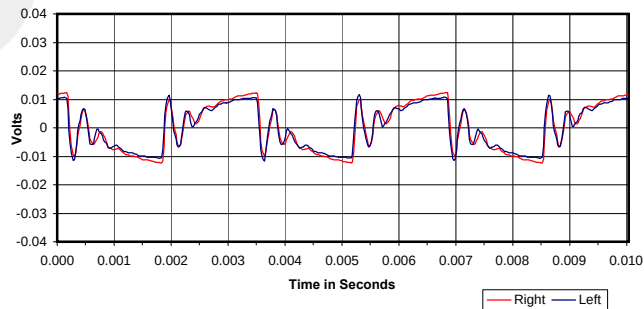
30 Hz Square Wave



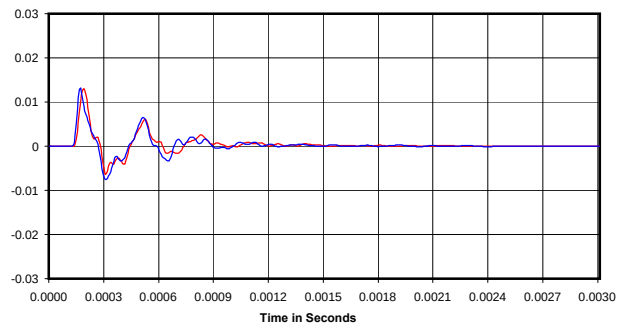
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



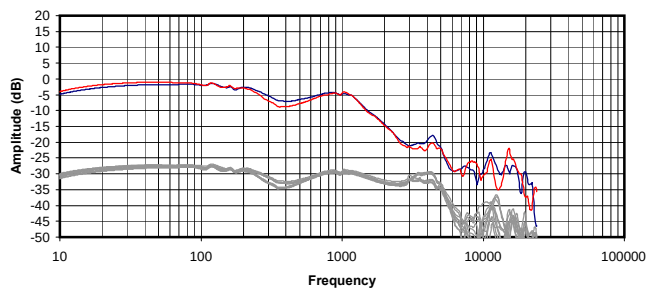
Impulse Response



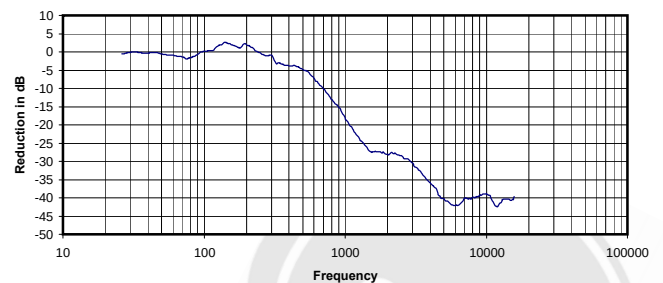
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.038 Vrms
35 Ohms
0.04 mW
-10 dBr

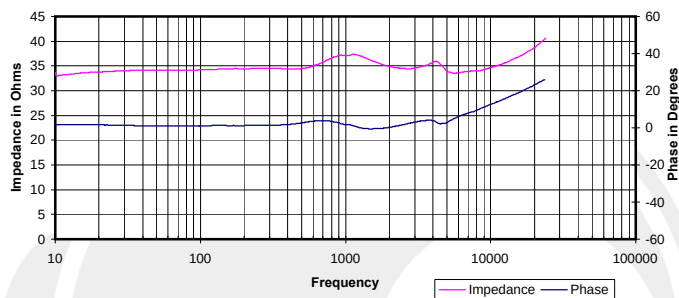
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



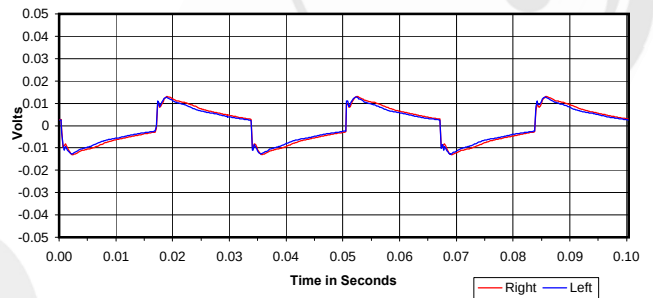
Isolation
Attenuation of External Sound vs. Frequency



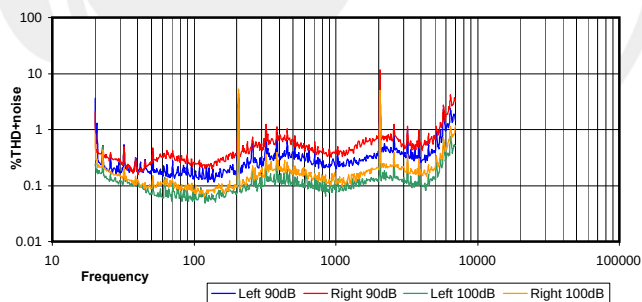
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



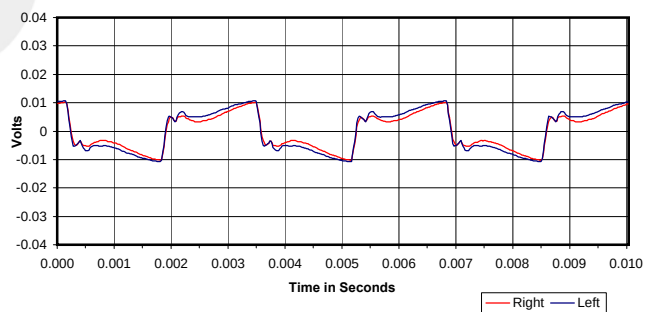
30 Hz Square Wave



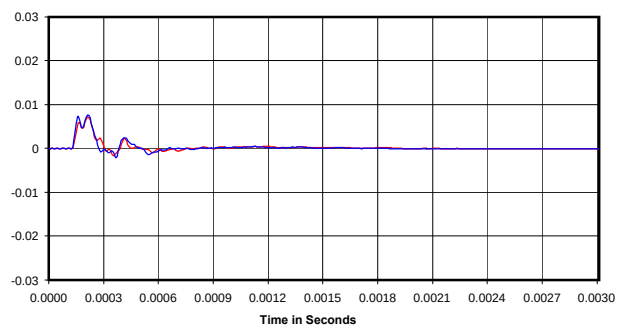
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



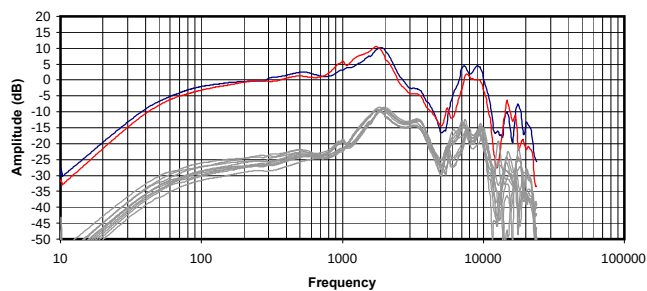
Impulse Response



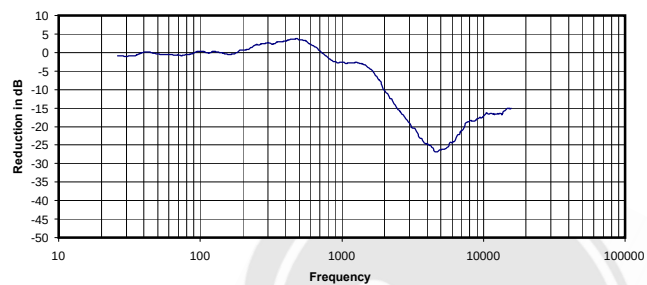
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.018 Vrms
37 Ohms
0.01 mW
-15 dBr

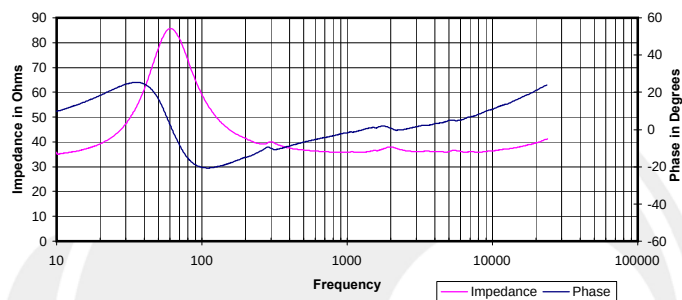
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



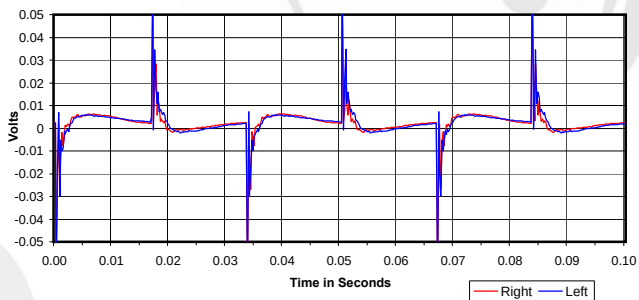
Isolation
Attenuation of External Sound vs. Frequency



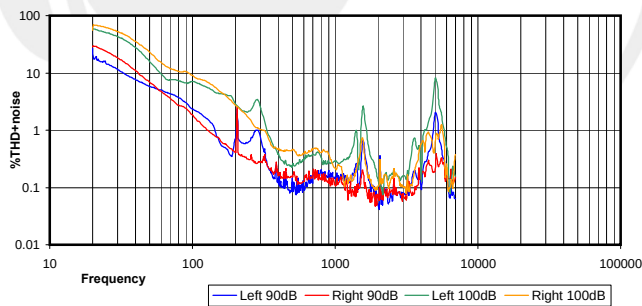
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



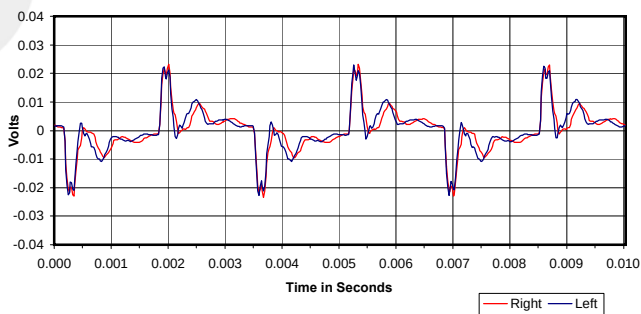
30 Hz Square Wave



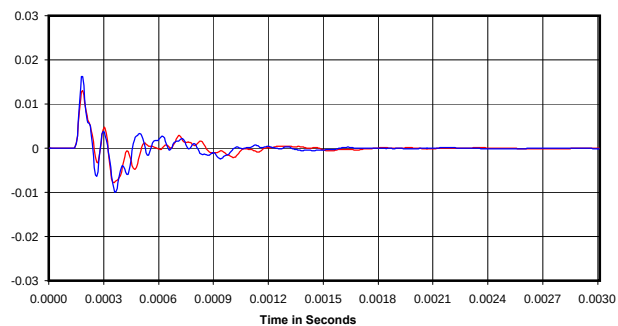
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



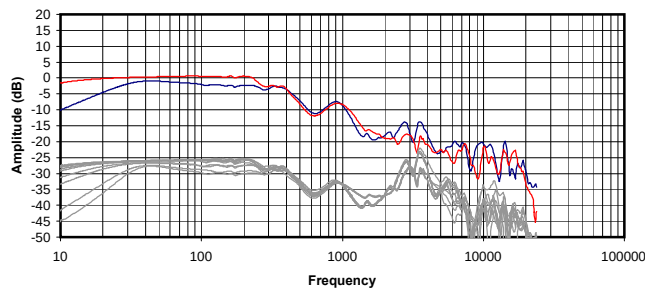
Impulse Response



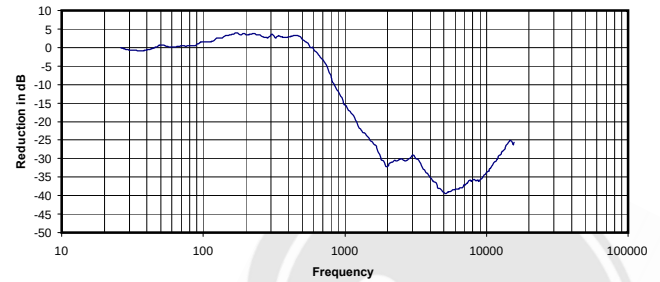
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.047 Vrms
36 Ohms
0.06 mW
-6 dBr

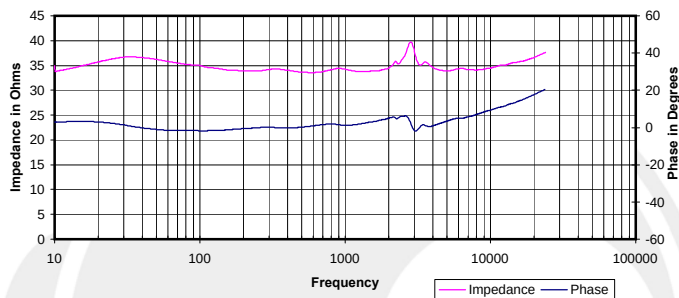
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



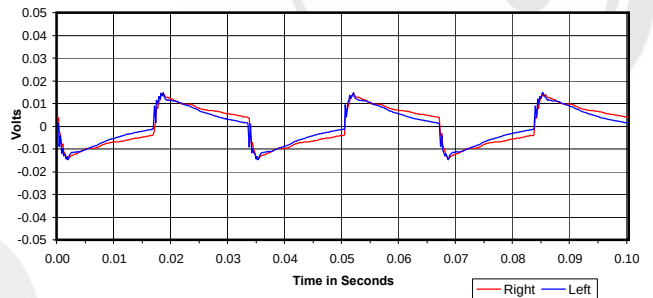
Isolation
Attenuation of External Sound vs. Frequency



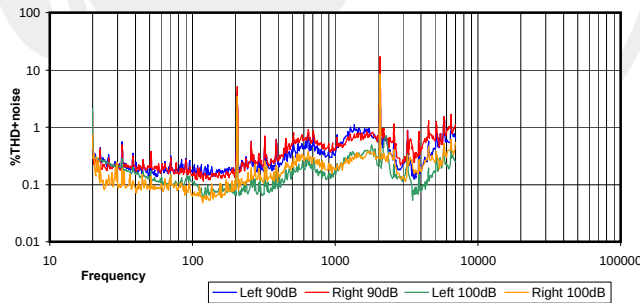
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



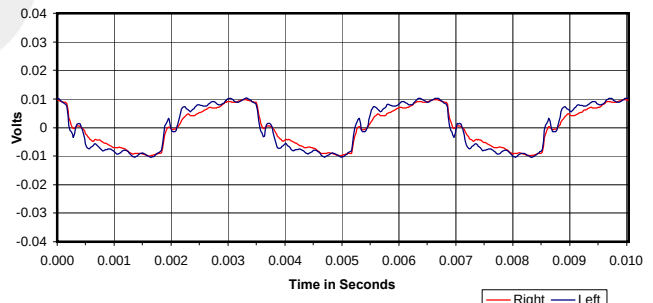
30 Hz Square Wave



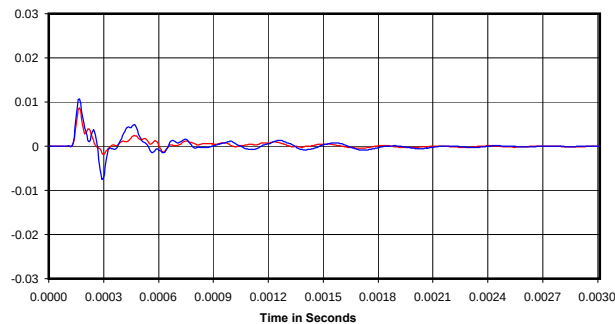
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



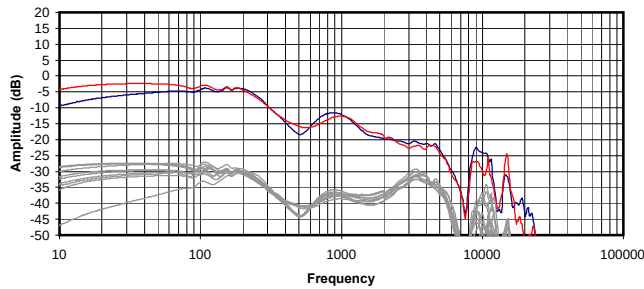
Impulse Response



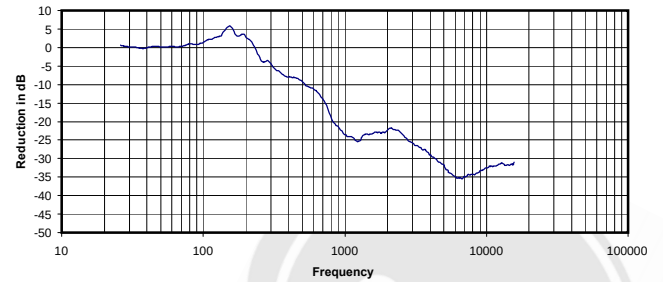
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.028 Vrms
34 Ohms
0.02 mW
-13 dBr

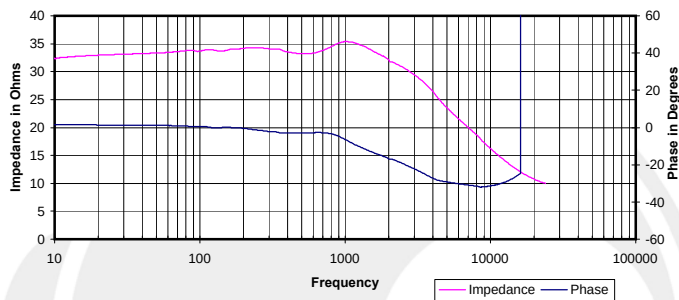
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



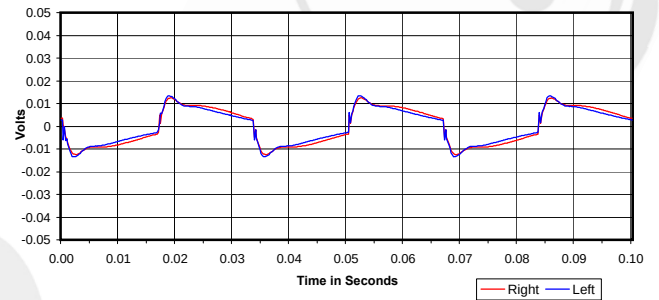
Isolation
Attenuation of External Sound vs. Frequency



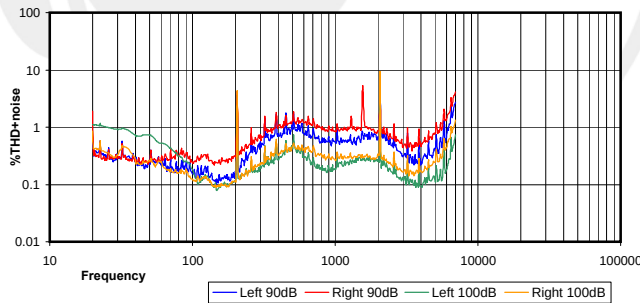
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



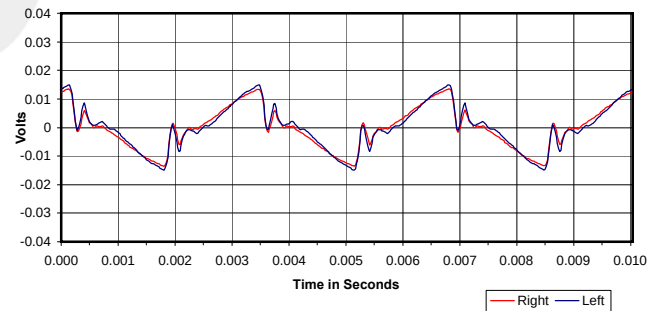
30 Hz Square Wave



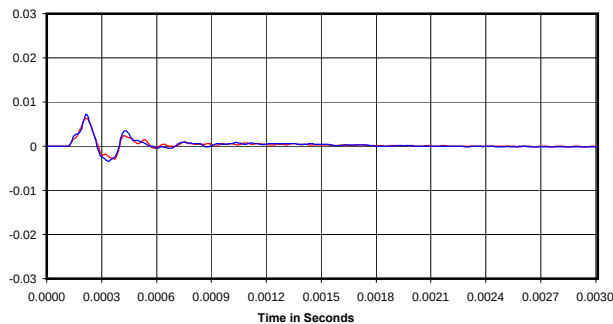
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



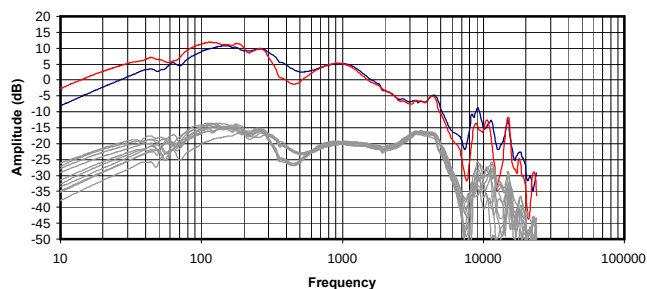
Impulse Response



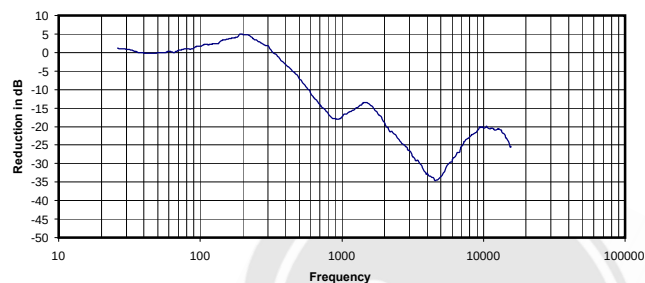
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.038 Vrms
35 Ohms
0.04 mW
-14 dBr

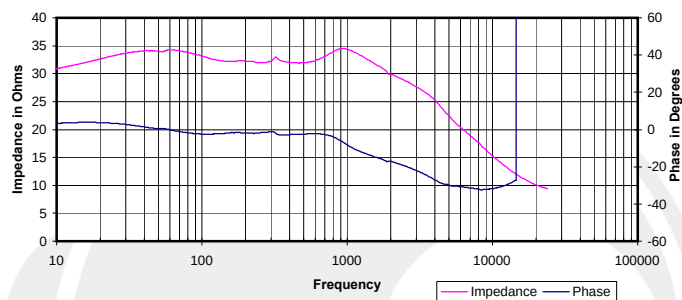
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



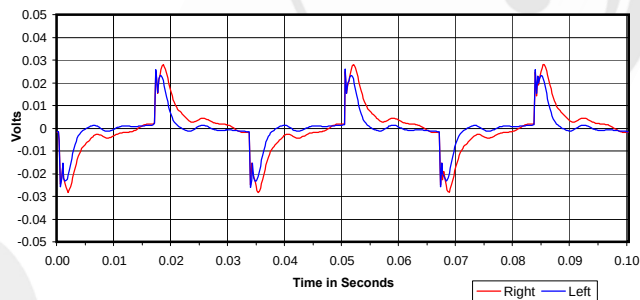
Isolation
Attenuation of External Sound vs. Frequency



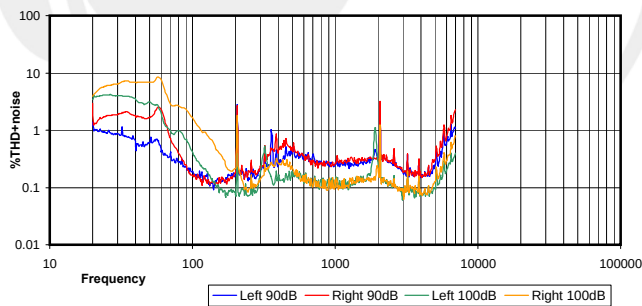
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



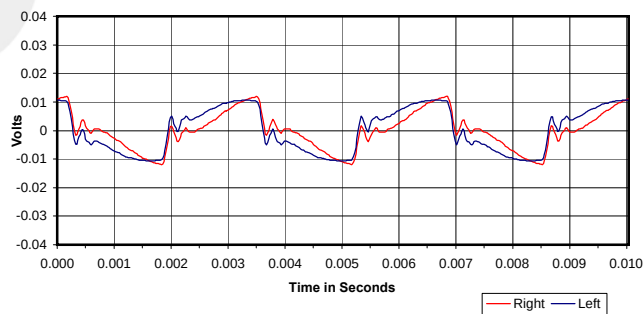
30 Hz Square Wave



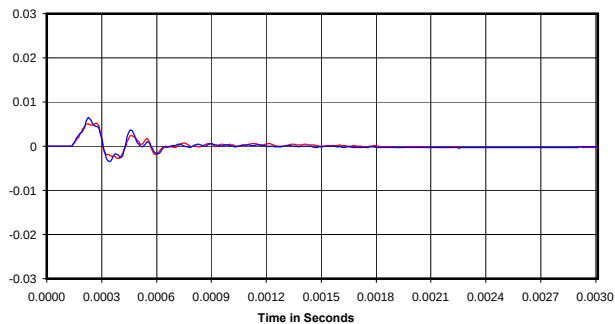
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



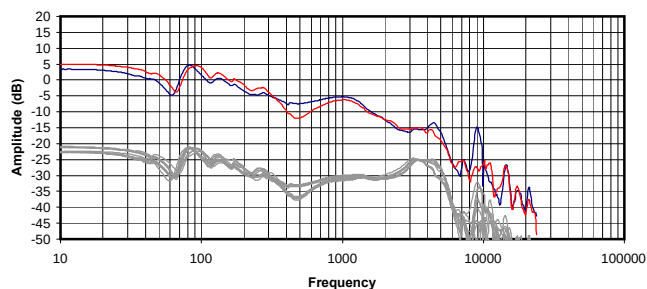
Impulse Response



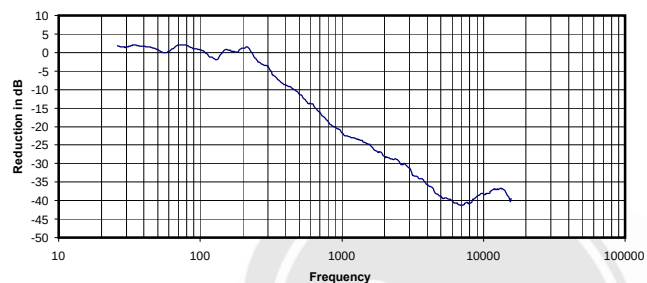
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.033 Vrms
34 Ohms
0.03 mW
-12 dBr

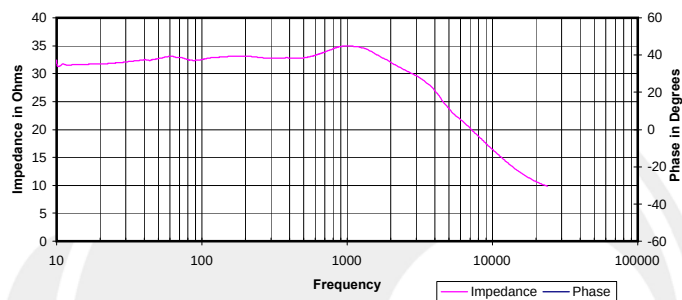
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



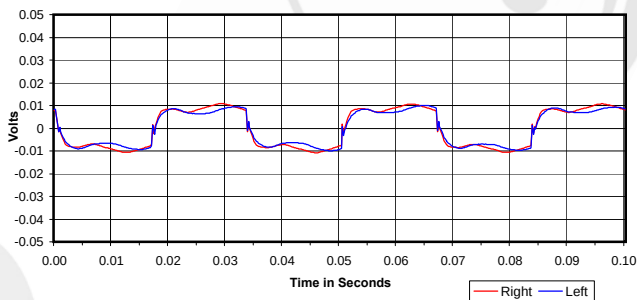
Isolation
Attenuation of External Sound vs. Frequency



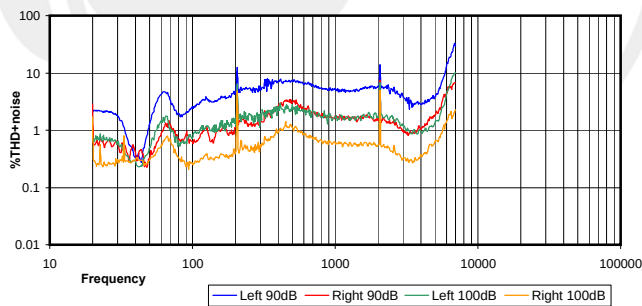
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



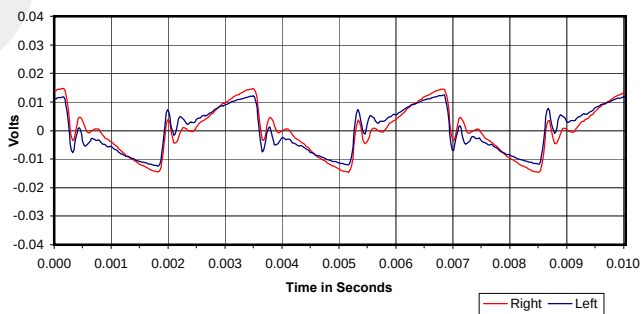
30 Hz Square Wave



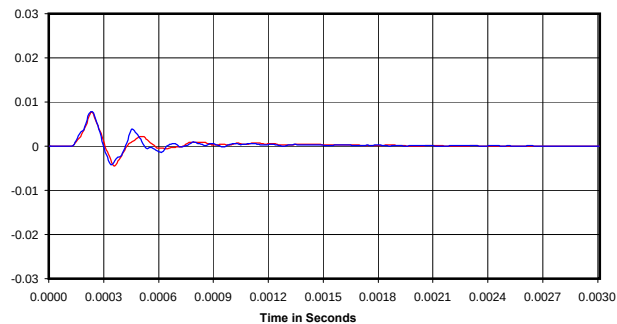
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



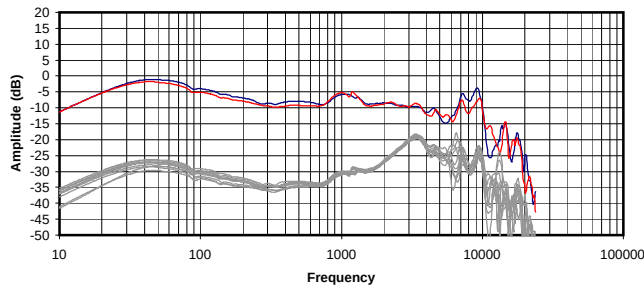
Impulse Response



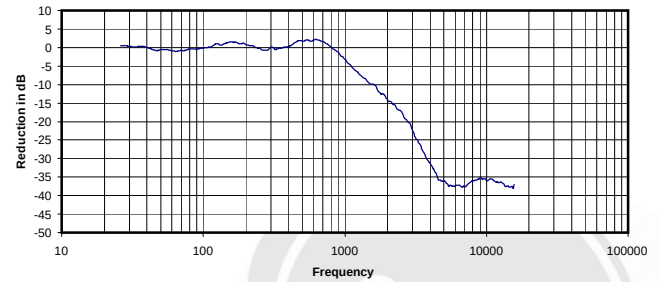
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.030 Vrms
35 Ohms
0.03 mW
-17 dBr

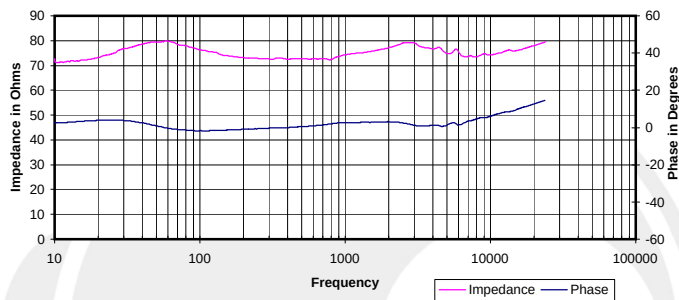
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



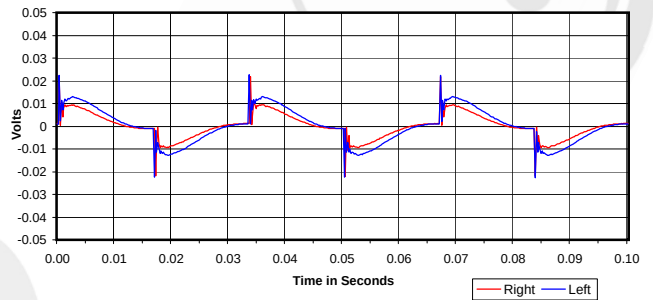
Isolation
Attenuation of External Sound vs. Frequency



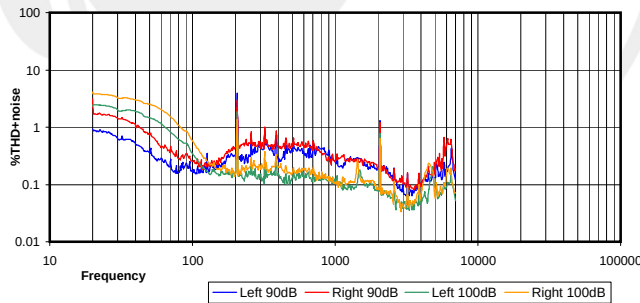
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



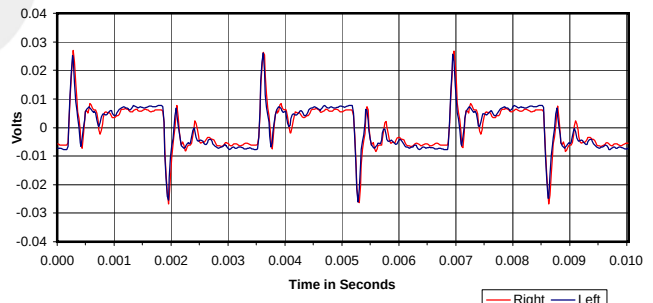
30 Hz Square Wave



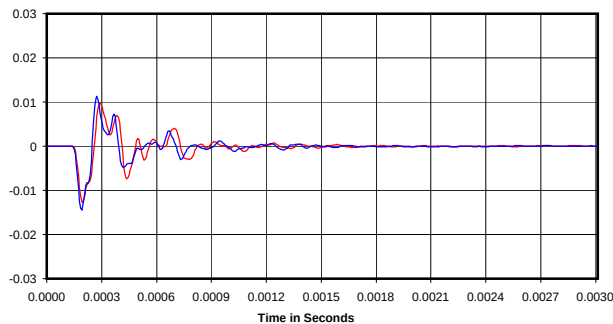
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



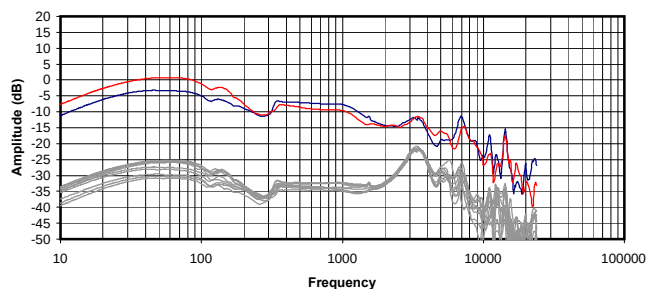
Impulse Response



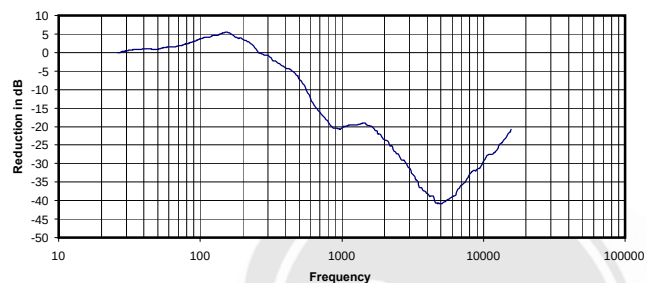
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.057 Vrms
74 Ohms
0.04 mW
-9 dB

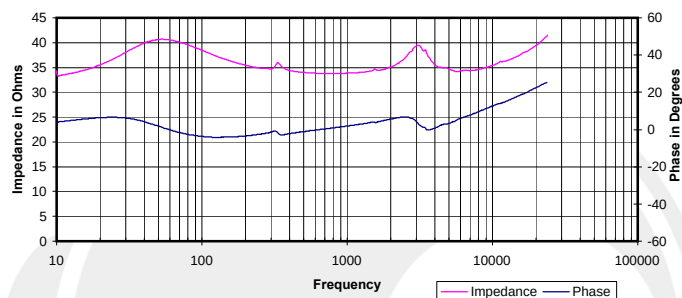
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



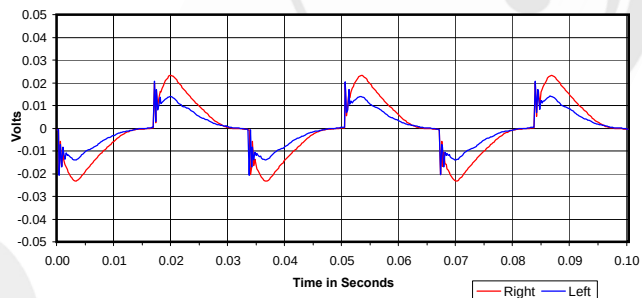
Isolation
Attenuation of External Sound vs. Frequency



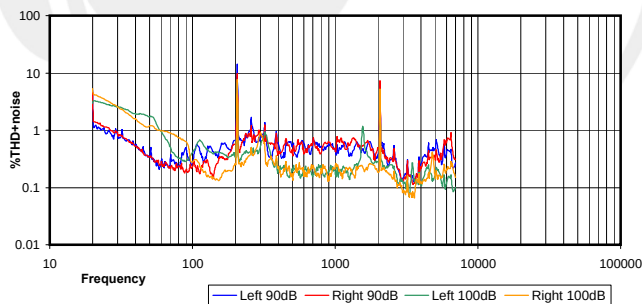
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



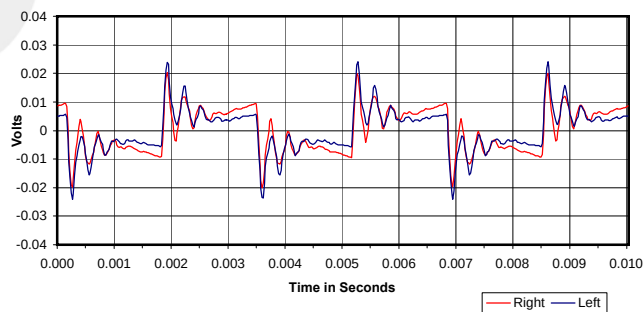
30 Hz Square Wave



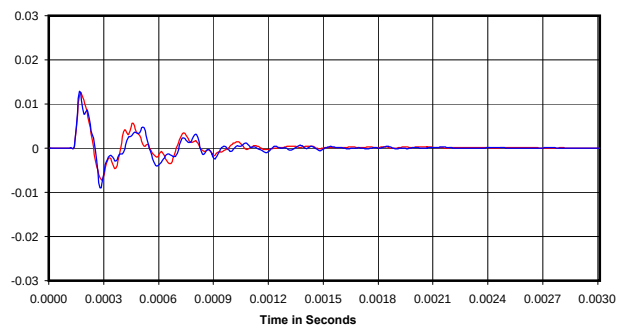
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



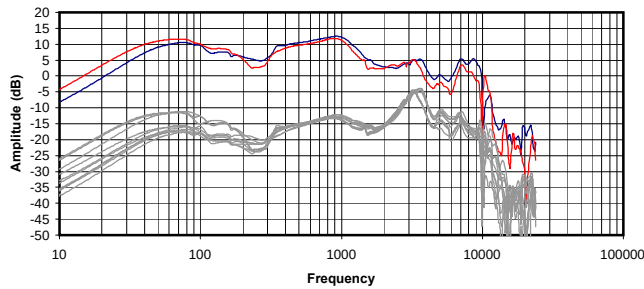
Impulse Response



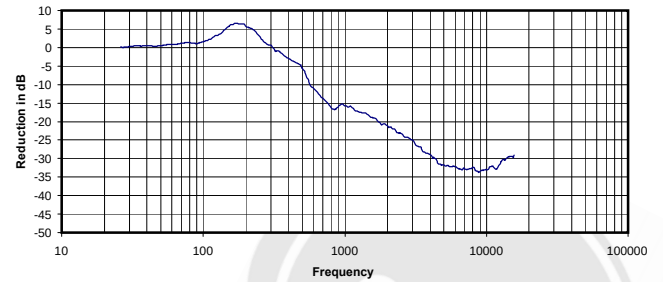
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.042 Vrms
34 Ohms
0.05 mW
-15 dBr

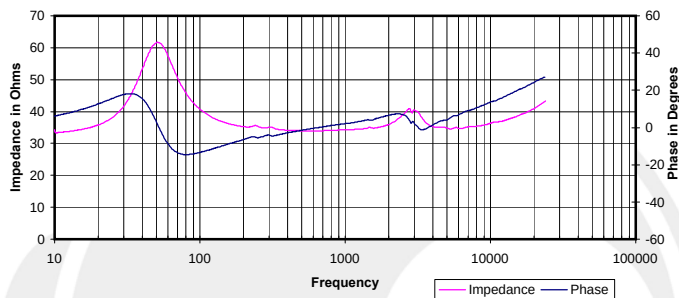
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



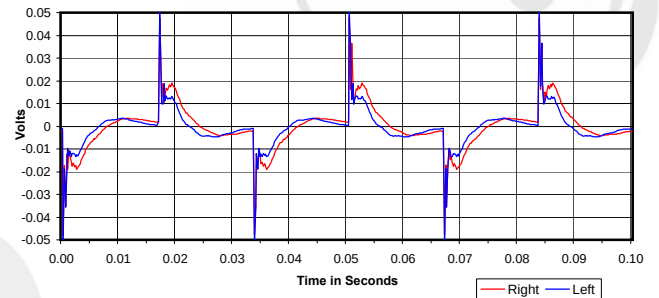
Isolation
Attenuation of External Sound vs. Frequency



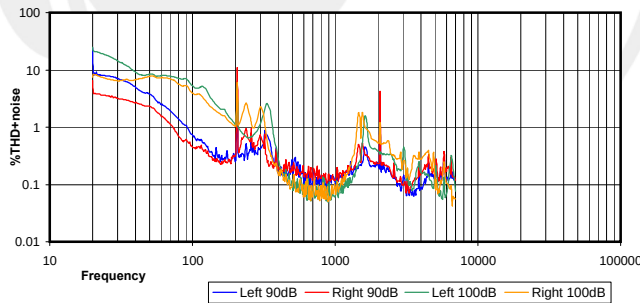
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



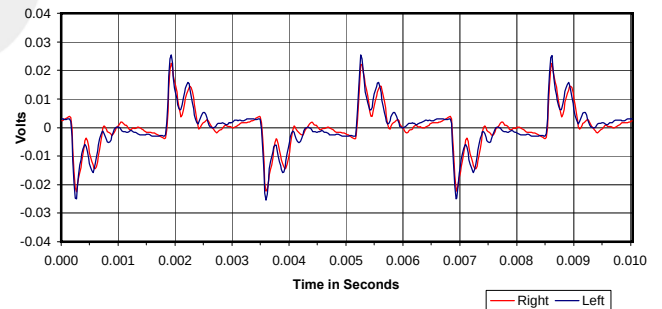
30 Hz Square Wave



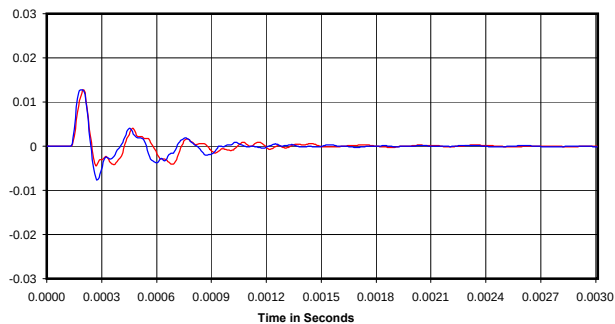
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



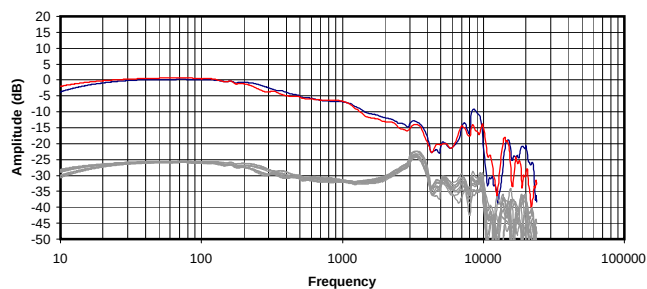
Impulse Response



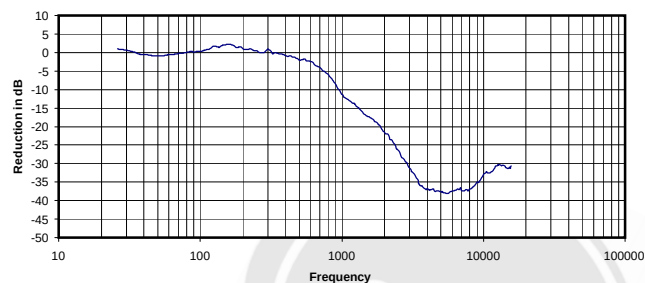
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.028 Vrms
34 Ohms
0.02 mW
-12 dBr

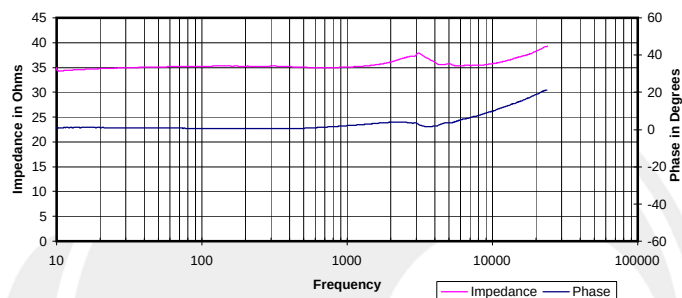
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



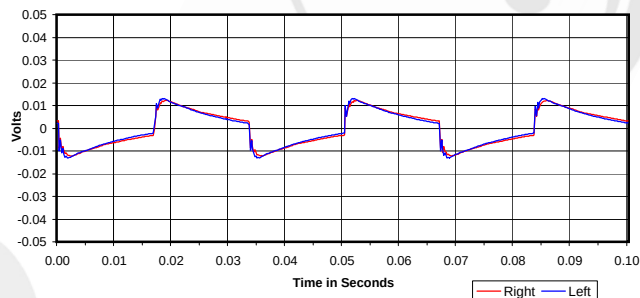
Isolation
Attenuation of External Sound vs. Frequency



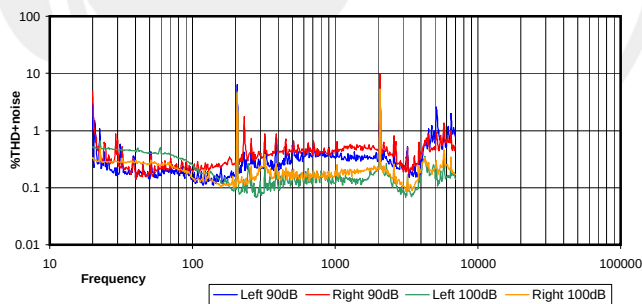
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



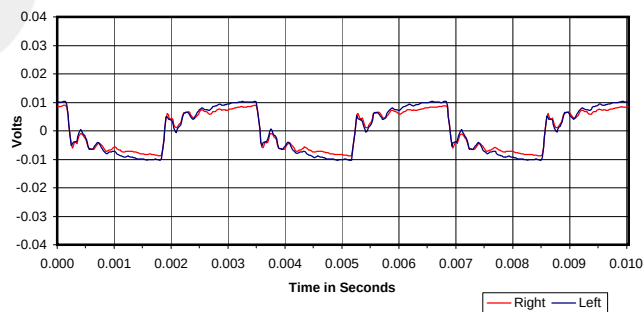
30 Hz Square Wave



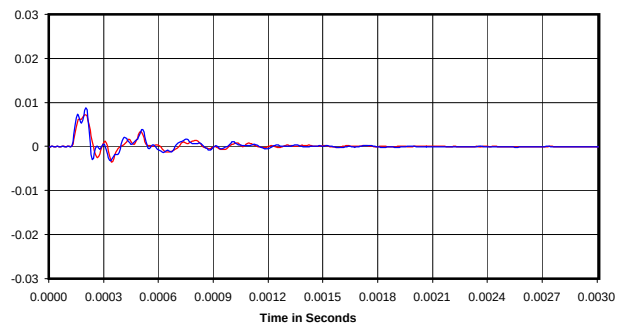
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



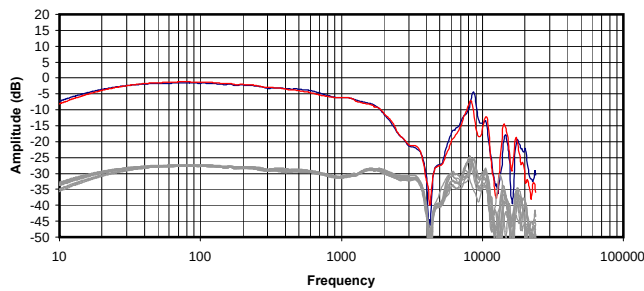
Impulse Response



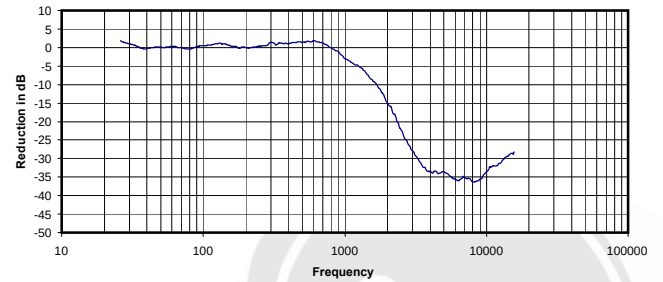
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.030 Vrms
35 Ohms
0.03 mW
-12 dBr

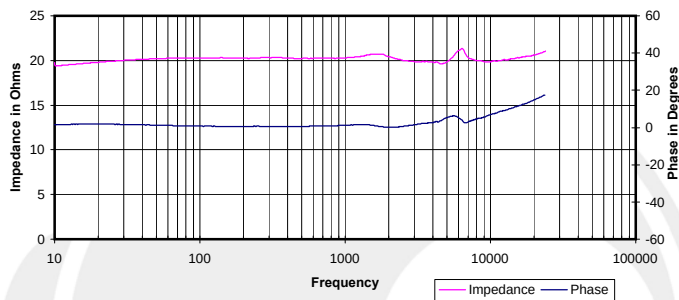
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



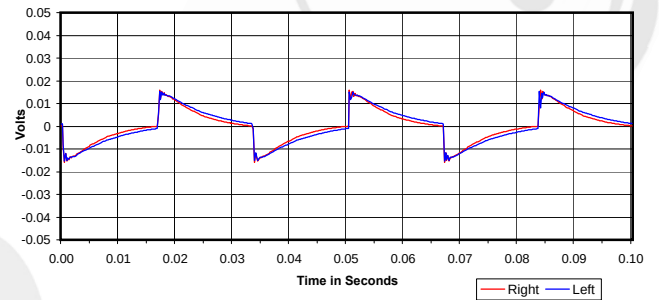
Isolation
Attenuation of External Sound vs. Frequency



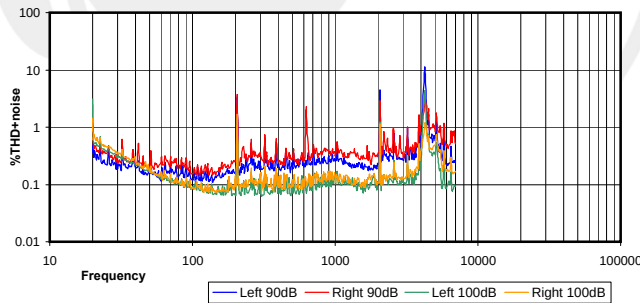
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



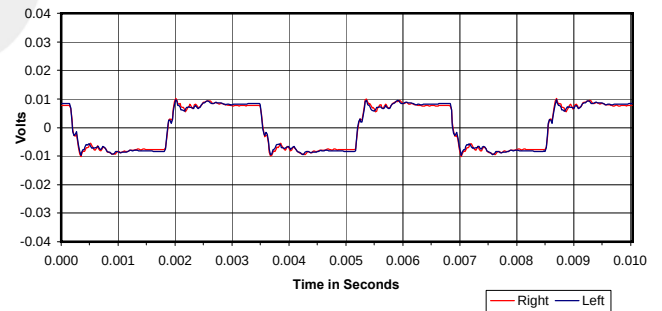
30 Hz Square Wave



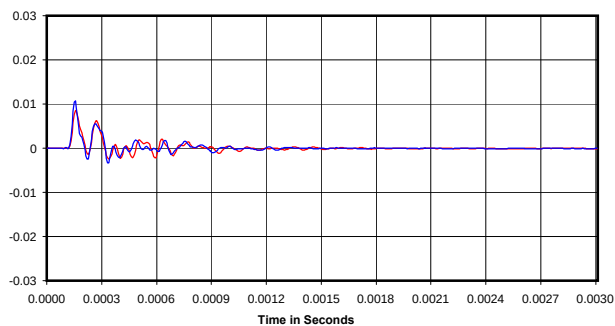
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



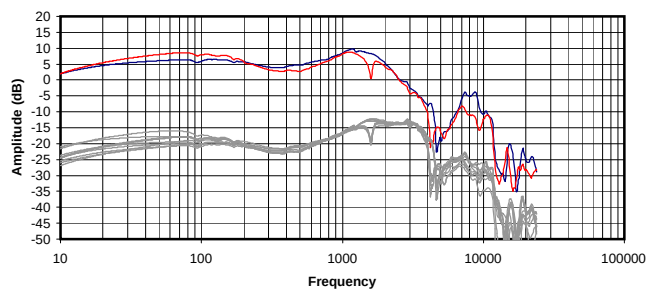
Impulse Response



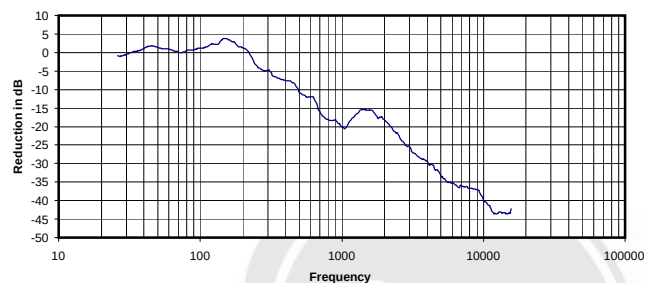
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90dB BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.016 Vrms
20 Ohms
0.01 mW
-9 dBr

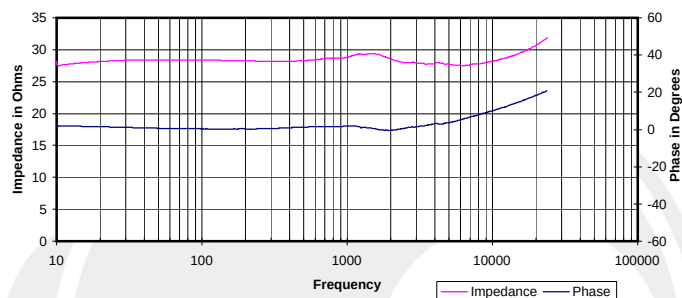
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



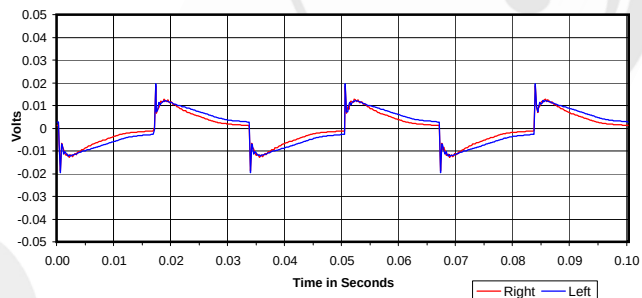
Isolation
Attenuation of External Sound vs. Frequency



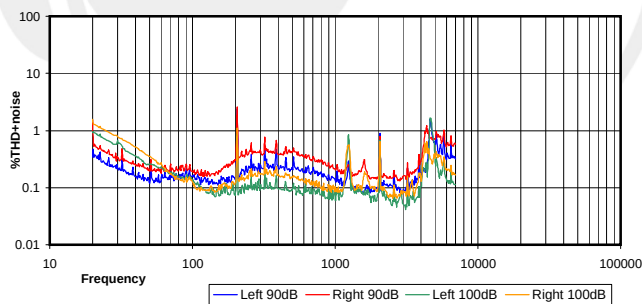
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



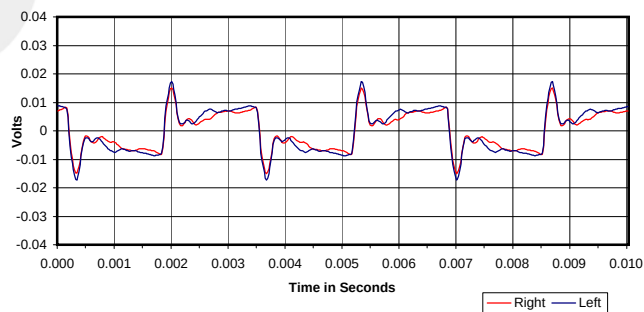
30 Hz Square Wave



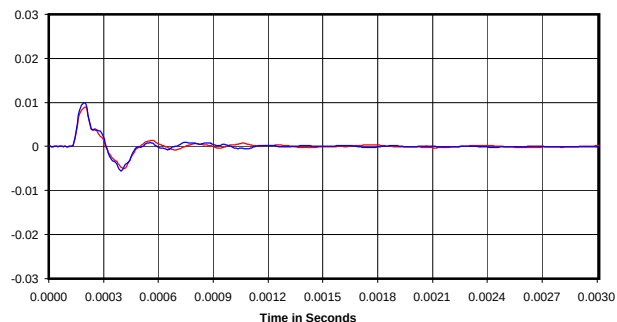
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



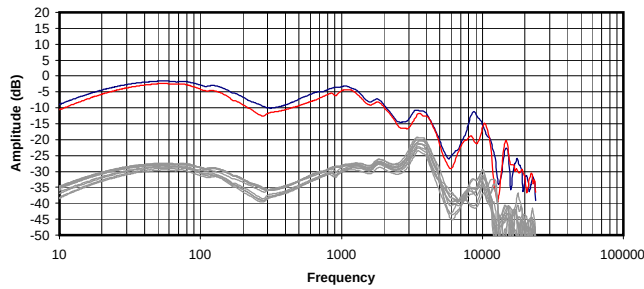
Impulse Response



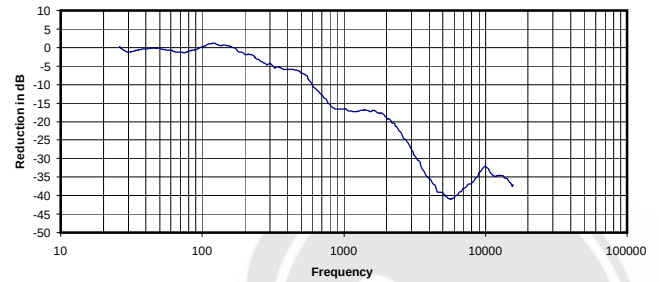
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.020 Vrms
29 Ohms
0.01 mW
-14 dBr

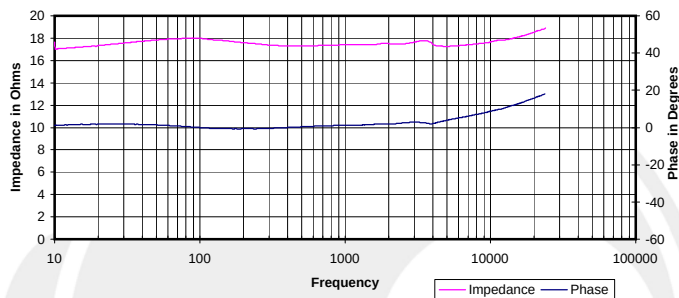
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



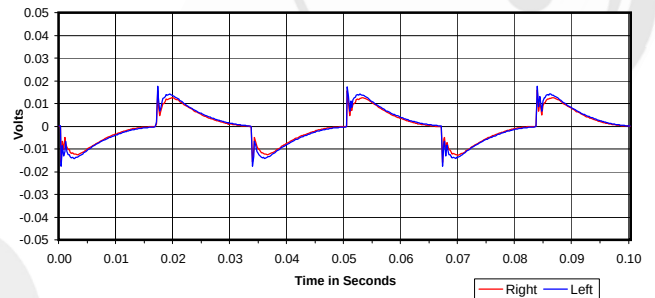
Isolation
Attenuation of External Sound vs. Frequency



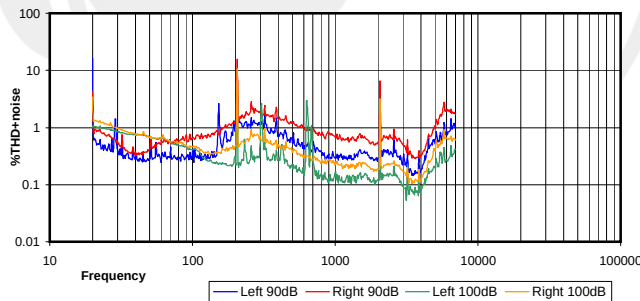
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



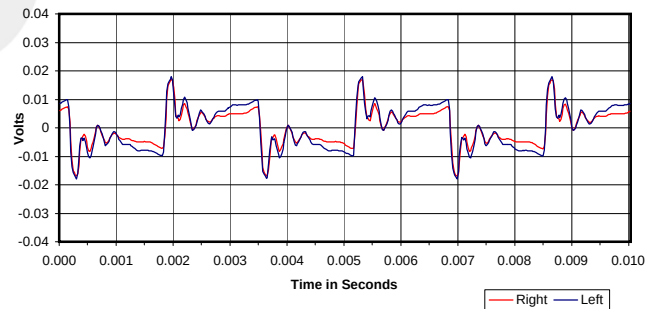
30 Hz Square Wave



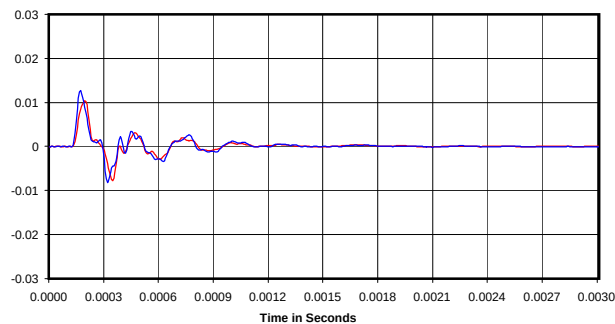
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



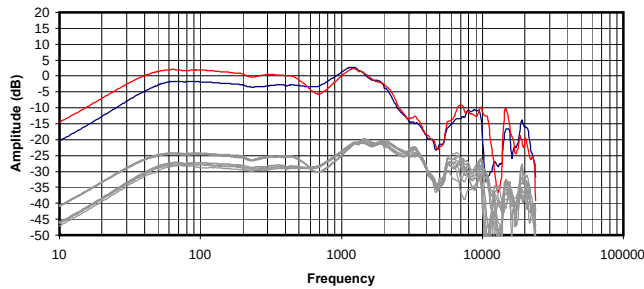
Impulse Response



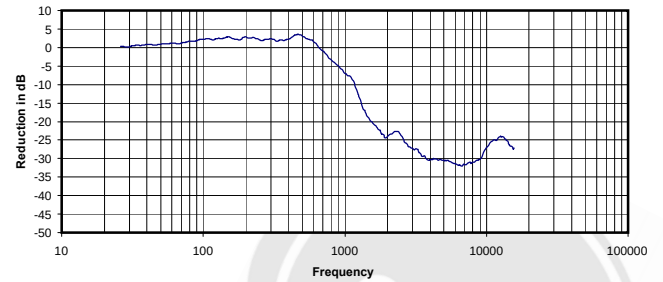
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.022 Vrms
17 Ohms
0.03 mW
-14 dBr

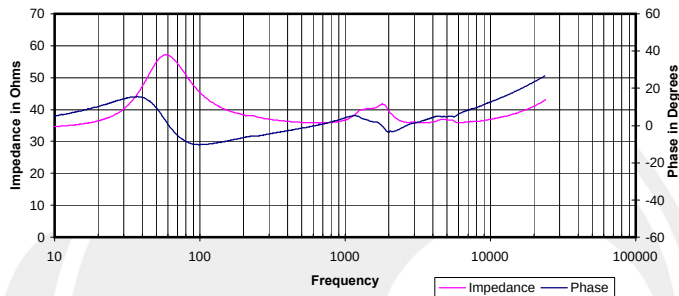
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



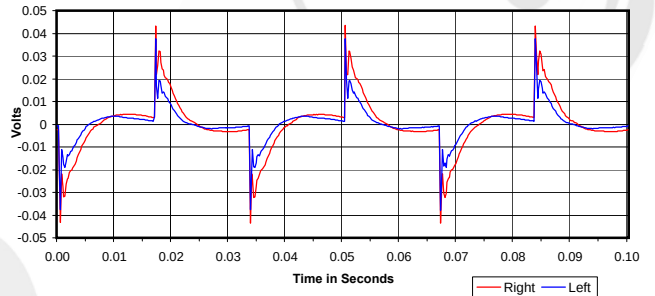
Isolation
Attenuation of External Sound vs. Frequency



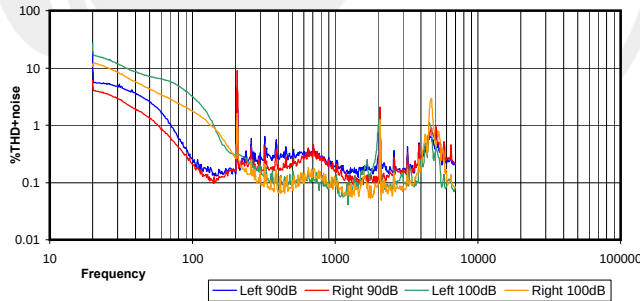
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



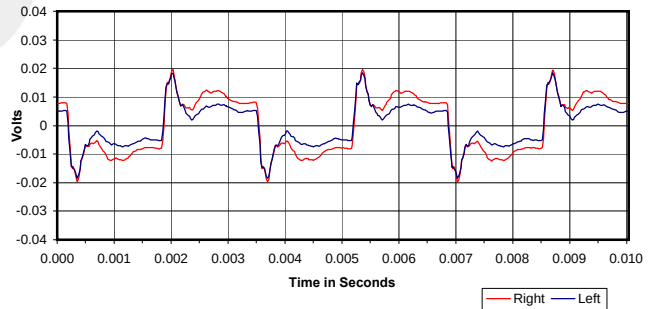
30 Hz Square Wave



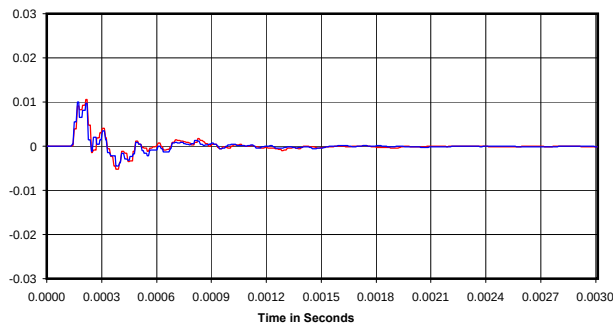
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



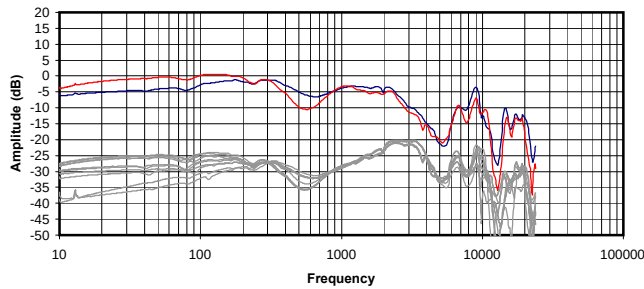
Impulse Response



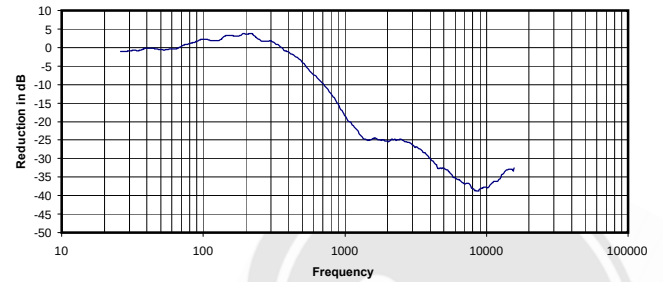
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.020 Vrms
37 Ohms
0.01 mW
-10 dBr

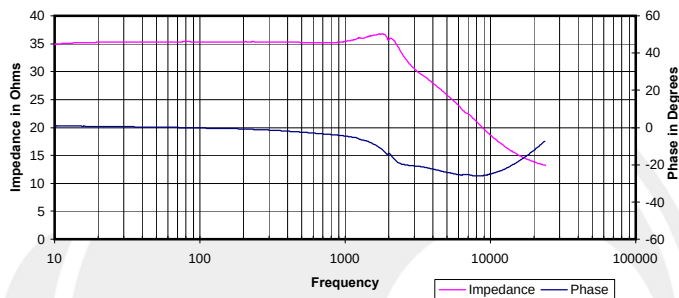
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



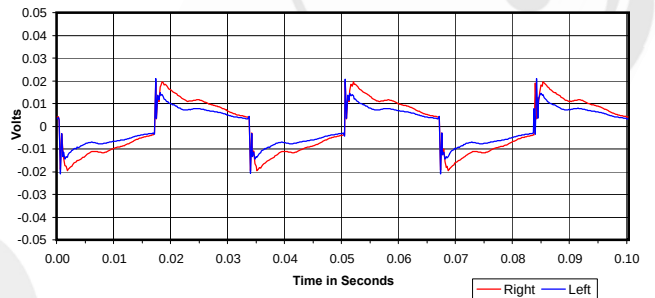
Isolation
Attenuation of External Sound vs. Frequency



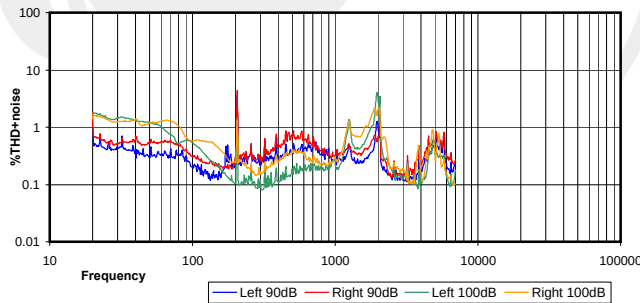
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



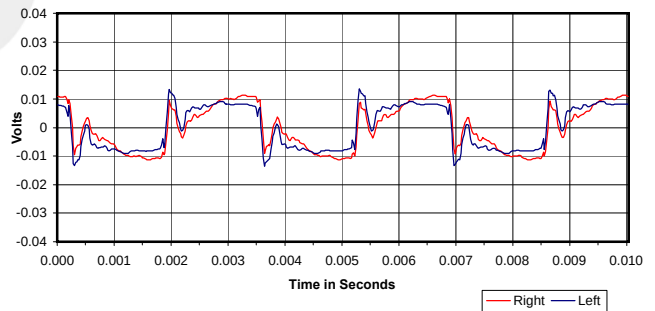
30 Hz Square Wave



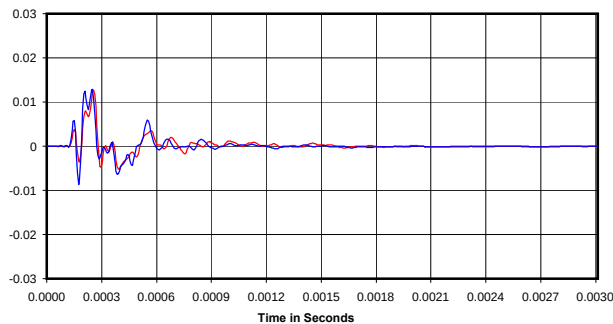
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



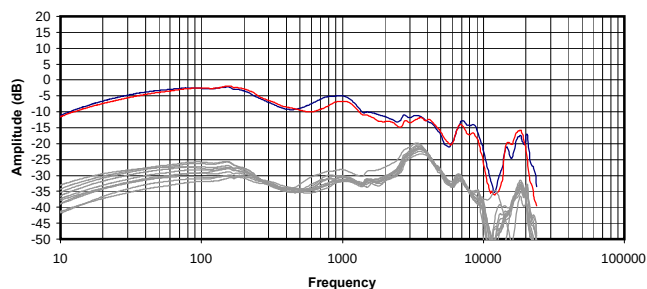
Impulse Response



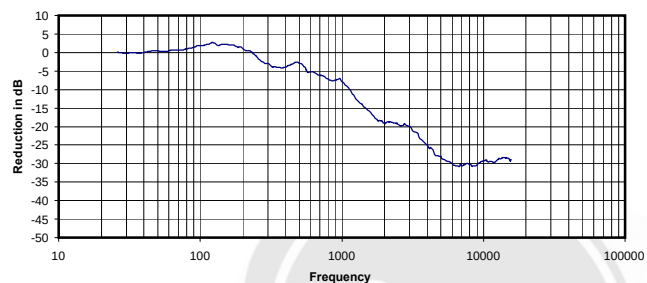
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.050 Vrms
35 Ohms
0.07 mW
-13 dBr

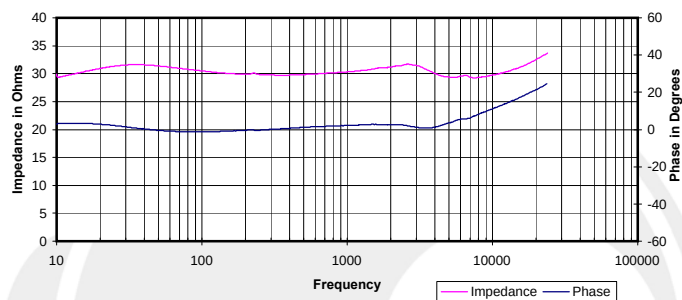
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



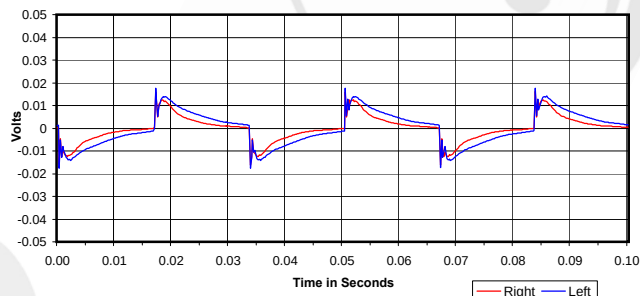
Isolation
Attenuation of External Sound vs. Frequency



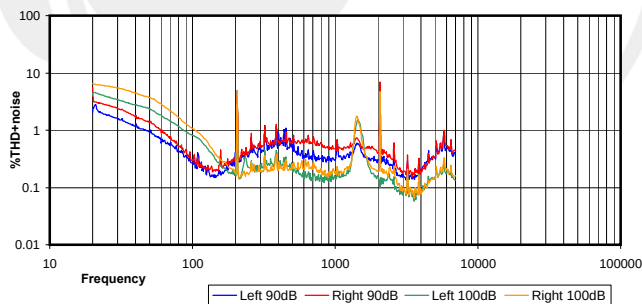
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



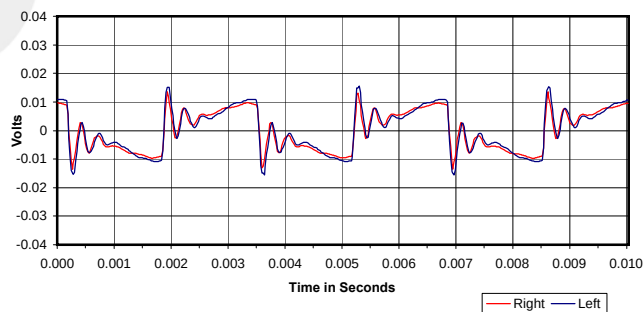
30 Hz Square Wave



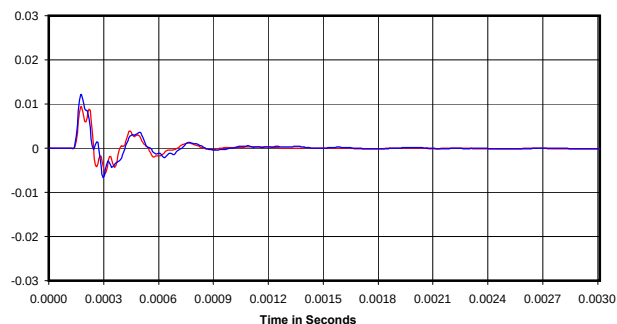
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



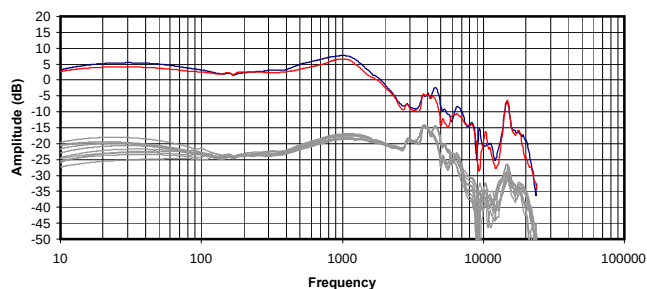
Impulse Response



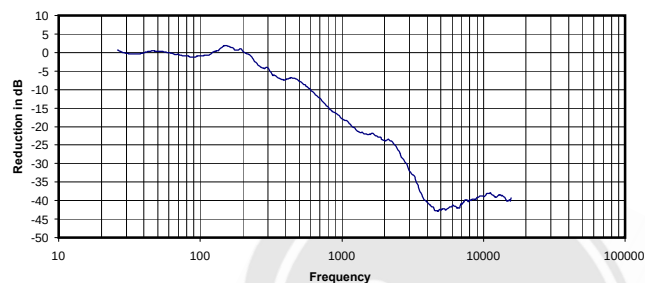
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.052 Vrms
30 Ohms
0.09 mW
-10 dBr

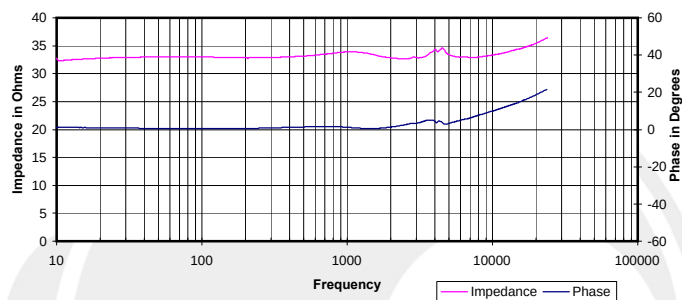
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



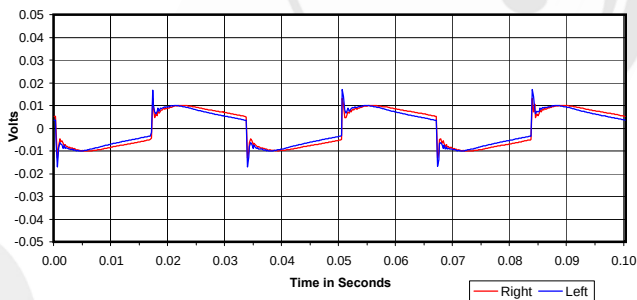
Isolation
Attenuation of External Sound vs. Frequency



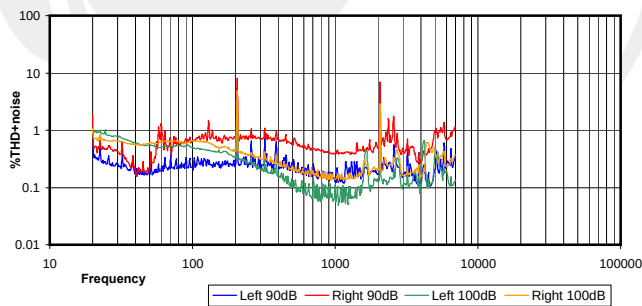
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



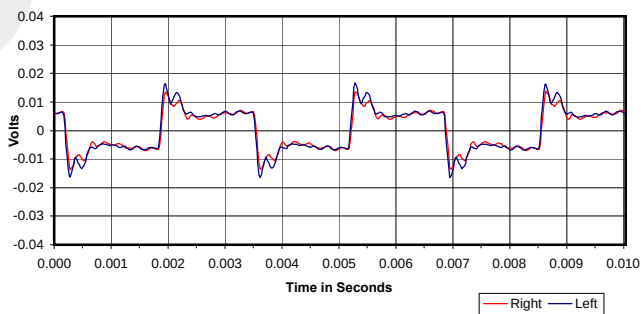
30 Hz Square Wave



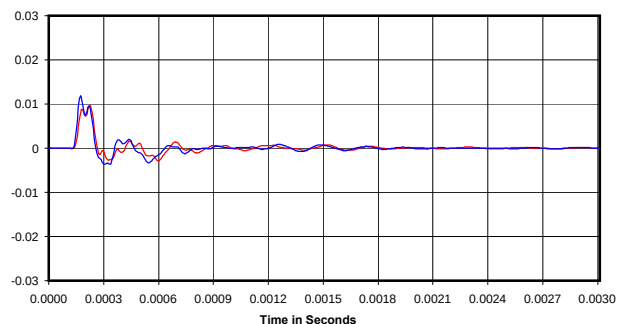
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



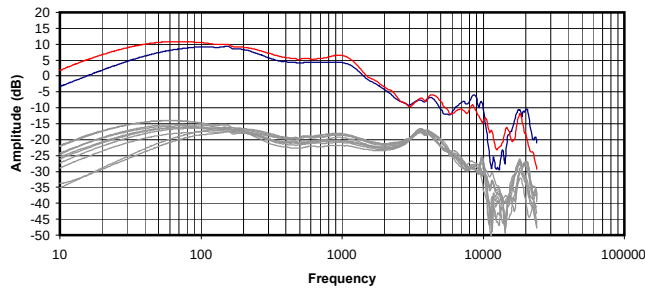
Impulse Response



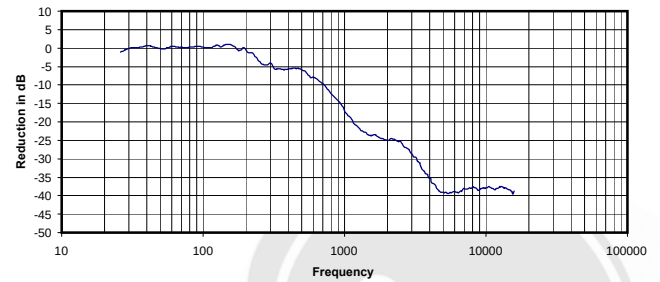
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.027 Vrms
34 Ohms
0.02 mW
-16 dBr

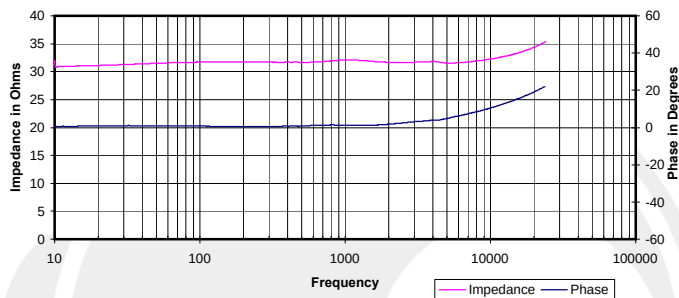
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



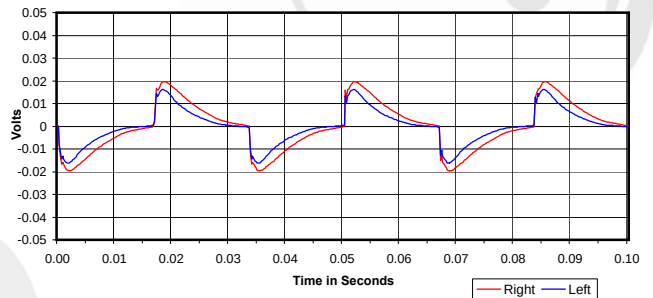
Isolation
Attenuation of External Sound vs. Frequency



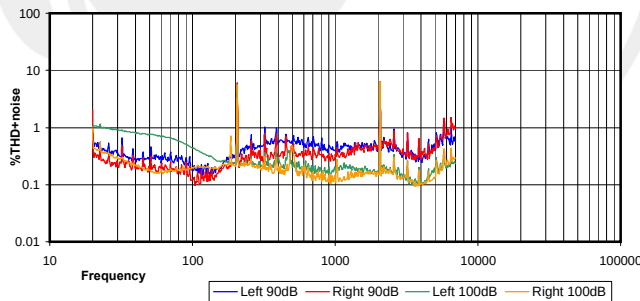
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



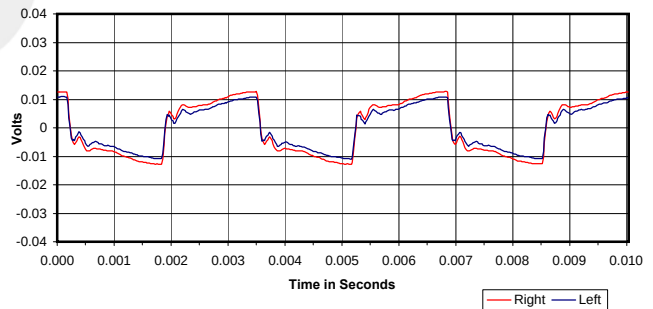
30 Hz Square Wave



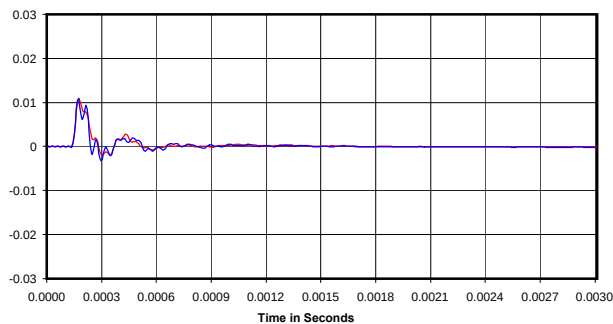
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



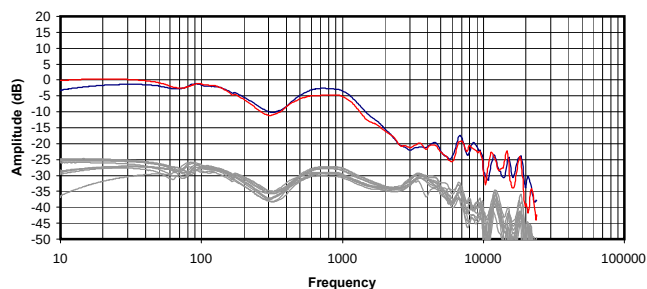
Impulse Response



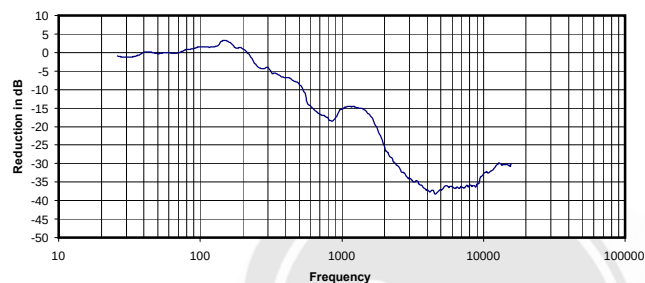
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.062 Vrms
32 Ohms
0.12 mW
-15 dBr

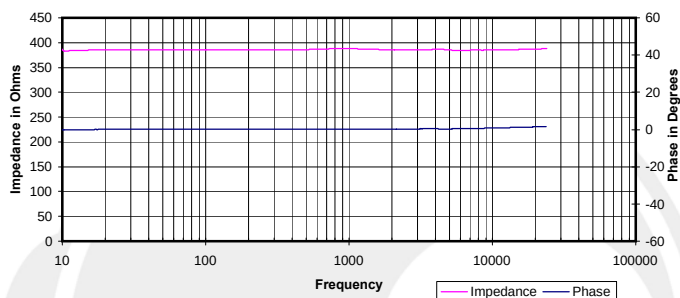
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



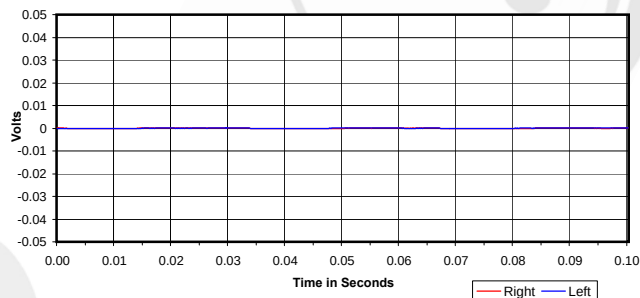
Isolation
Attenuation of External Sound vs. Frequency



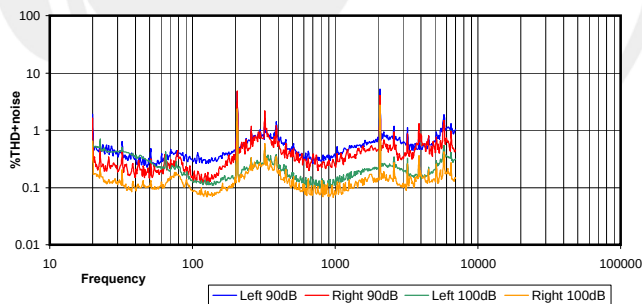
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



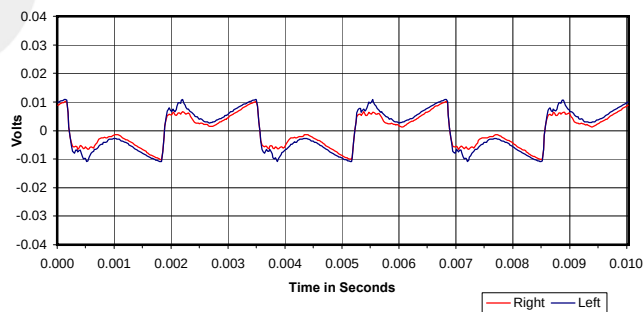
30 Hz Square Wave



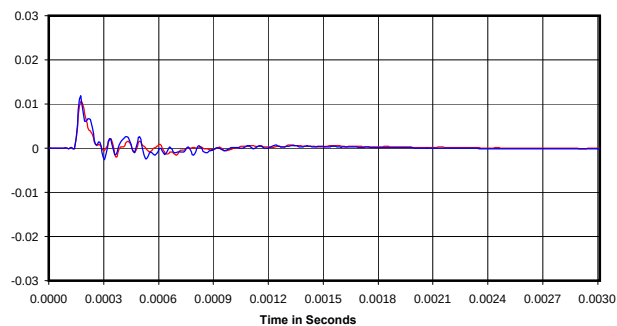
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



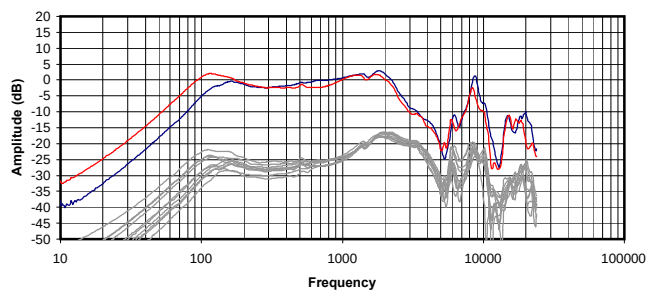
Impulse Response



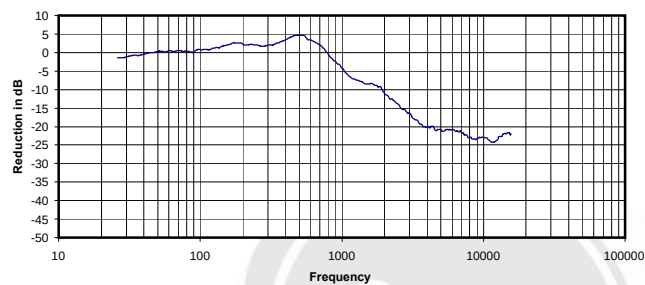
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.181 Vrms
388 Ohms
0.08 mW
-15 dBr

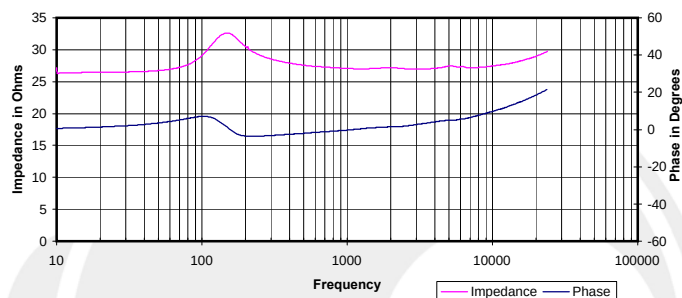
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



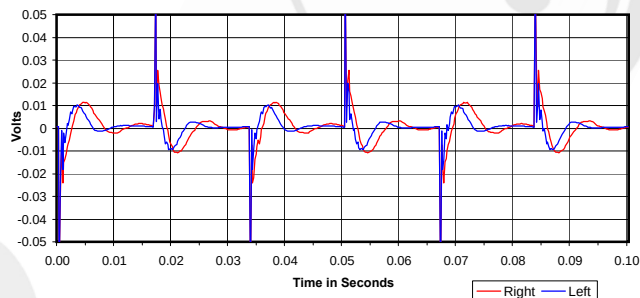
Isolation
Attenuation of External Sound vs. Frequency



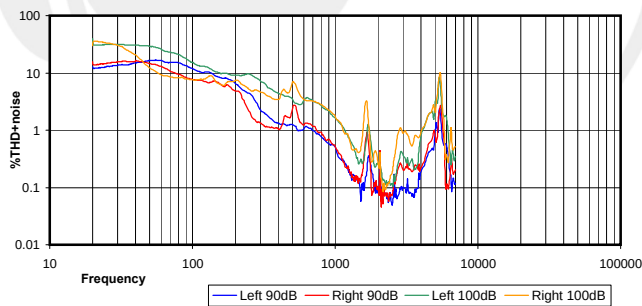
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



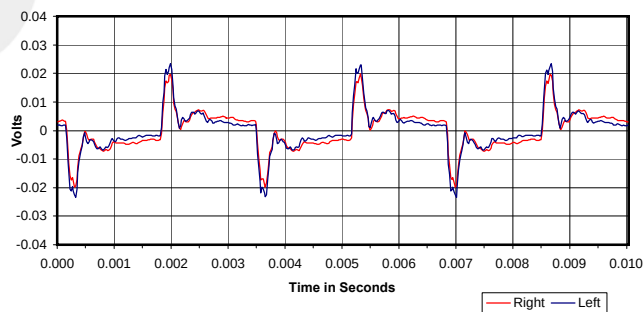
30 Hz Square Wave



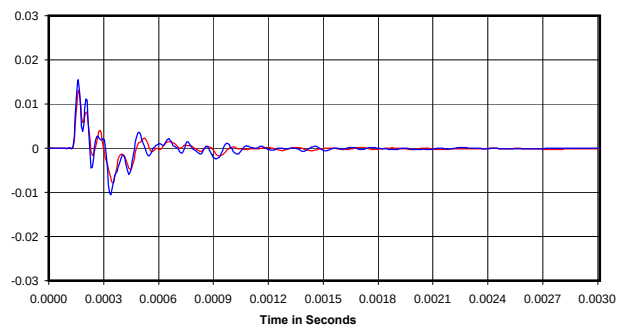
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



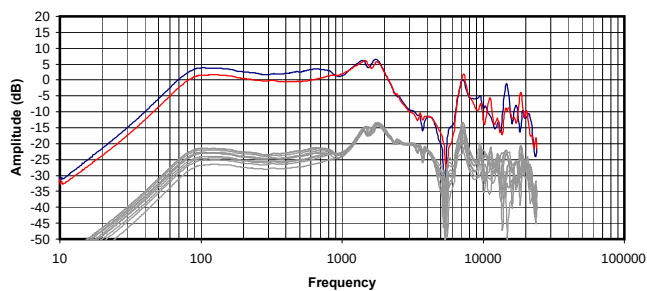
Impulse Response



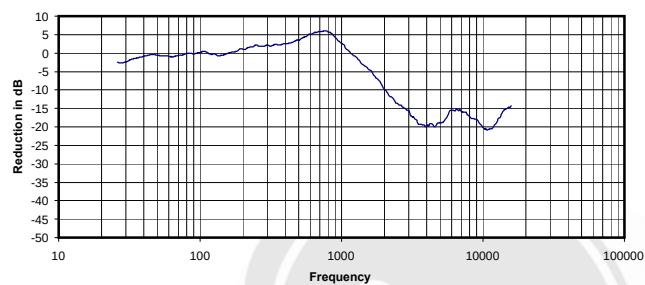
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.051 Vrms
27 Ohms
0.10 mW
-5 dBr

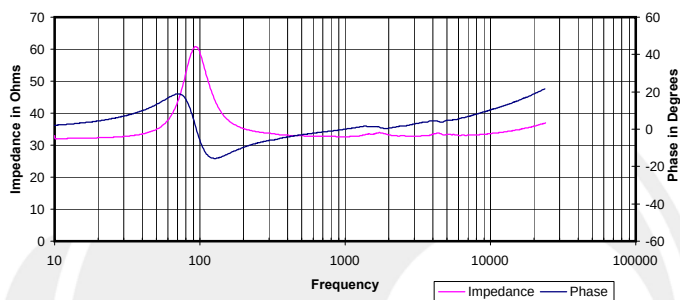
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



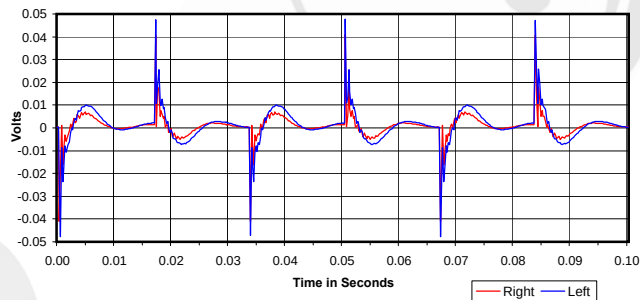
Isolation
Attenuation of External Sound vs. Frequency



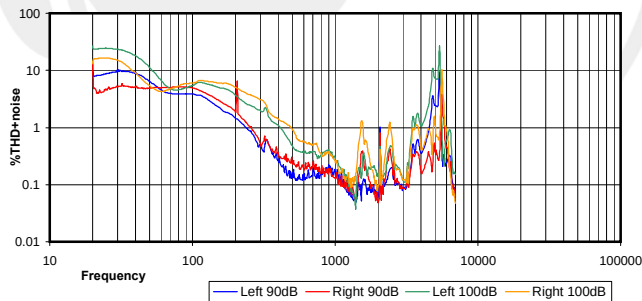
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



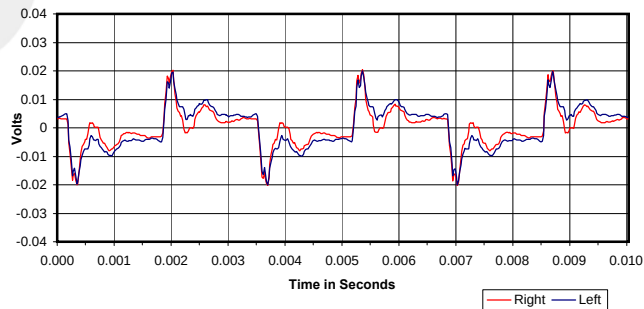
30 Hz Square Wave



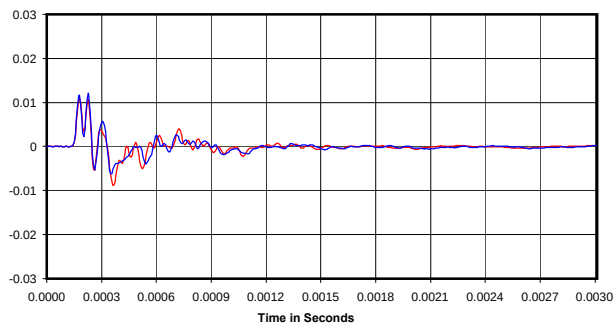
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



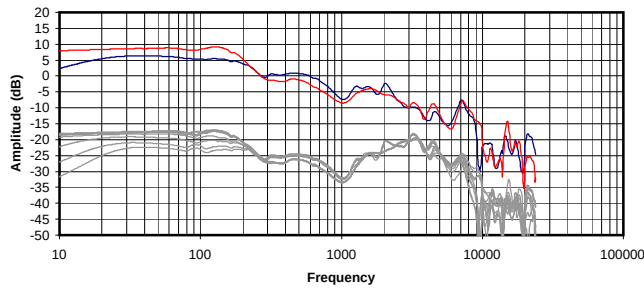
Impulse Response



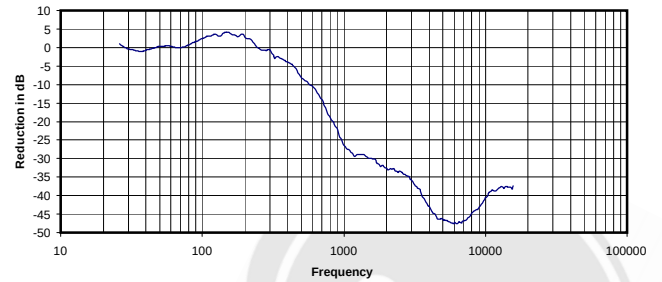
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.054 Vrms
33 Ohms
0.09 mW
-4 dBr

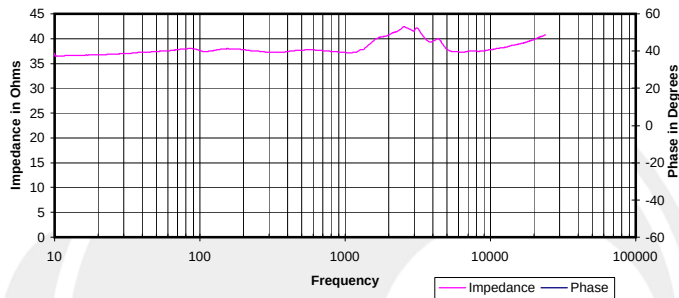
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



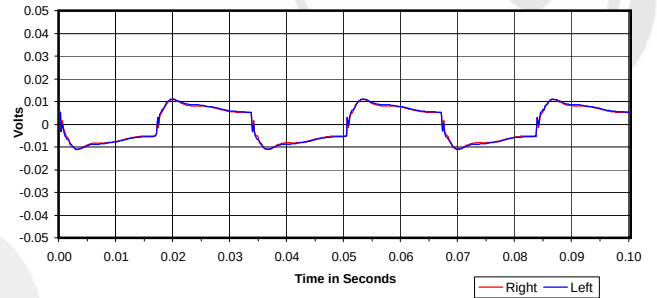
Isolation
Attenuation of External Sound vs. Frequency



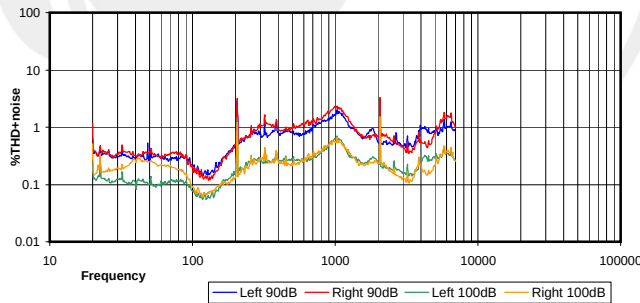
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



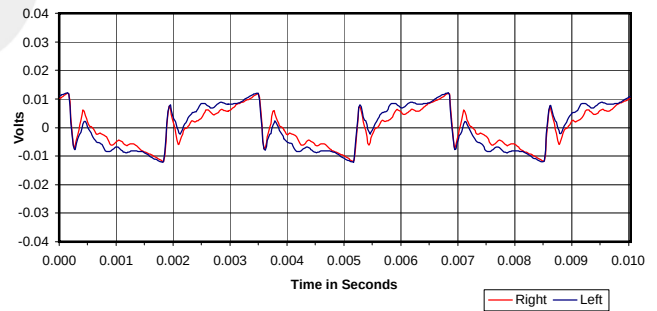
30 Hz Square Wave



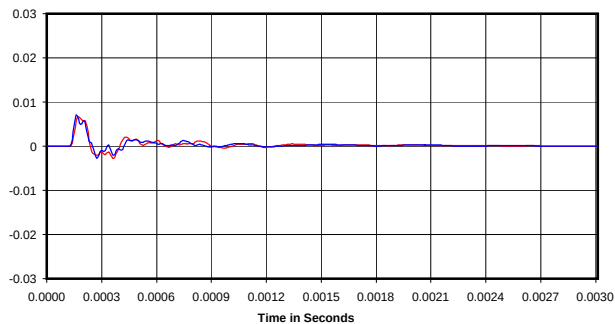
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



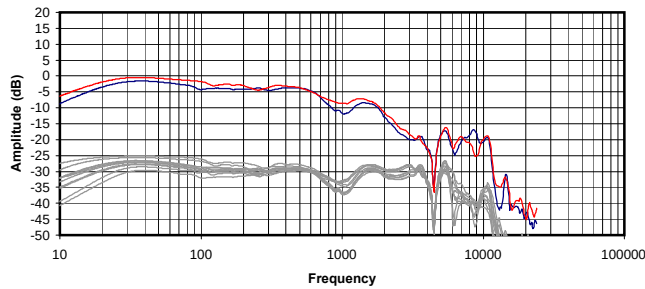
Impulse Response



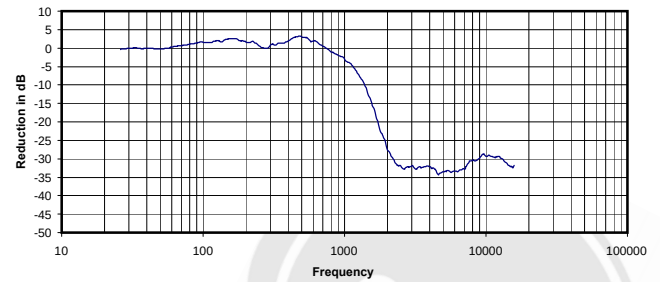
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.064 Vrms
37 Ohms
0.11 mW
-18 dBr

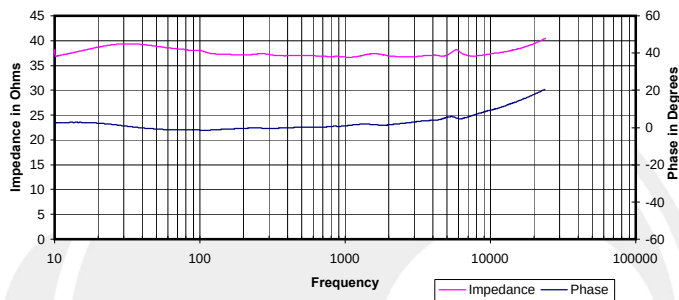
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



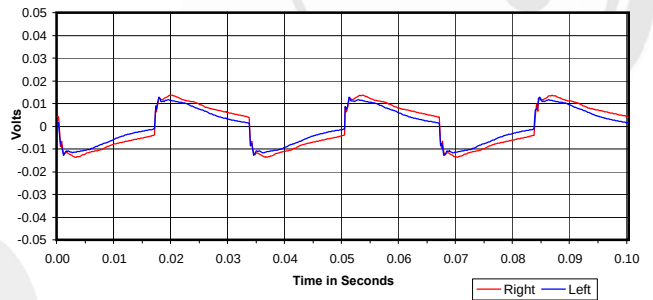
Isolation
Attenuation of External Sound vs. Frequency



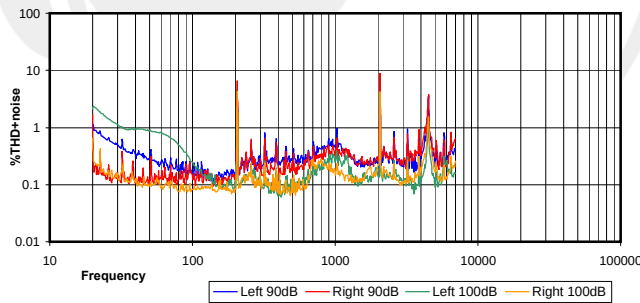
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



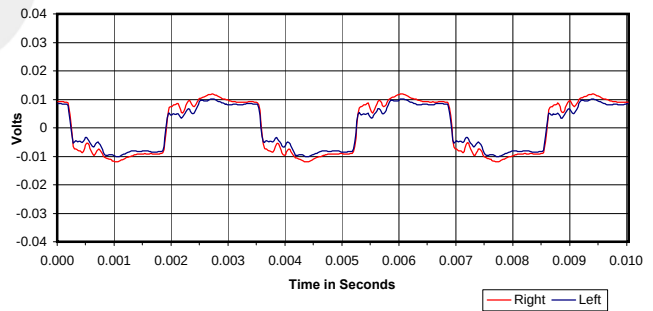
30 Hz Square Wave



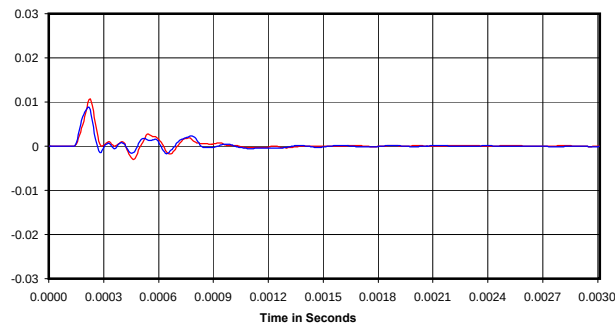
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



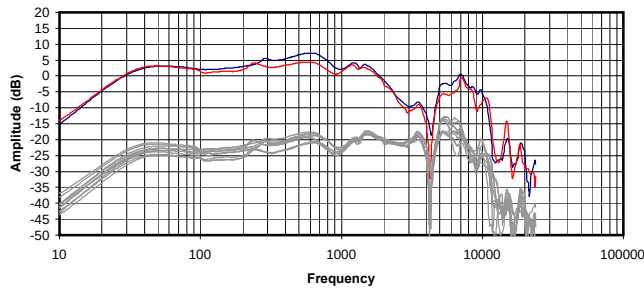
Impulse Response



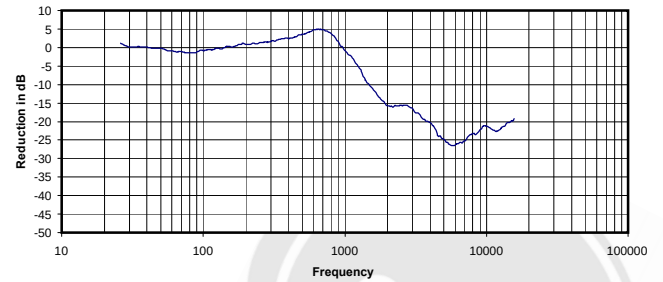
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.062 Vrms
37 Ohms
0.10 mW
-10 dBr

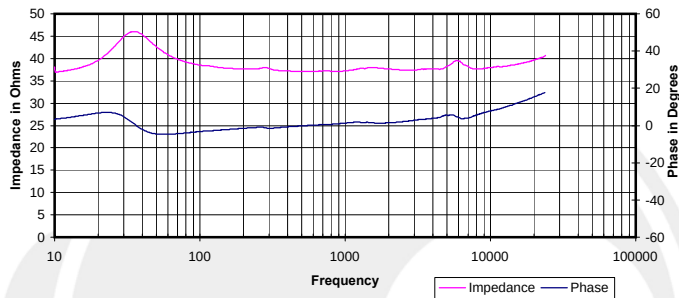
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



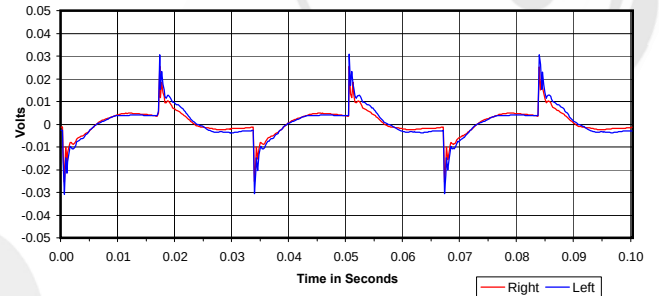
Isolation
Attenuation of External Sound vs. Frequency



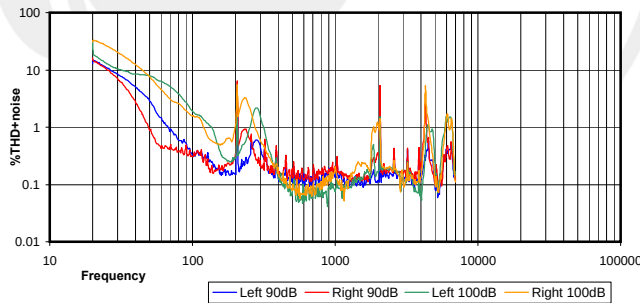
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



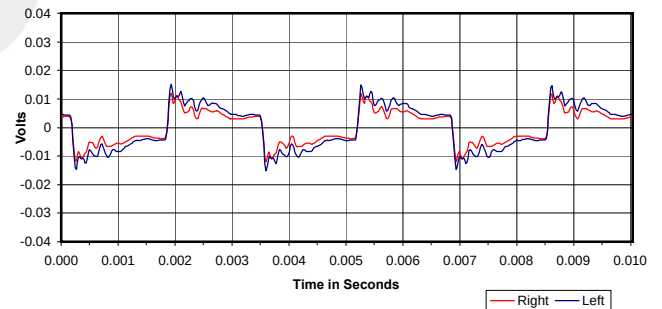
30 Hz Square Wave



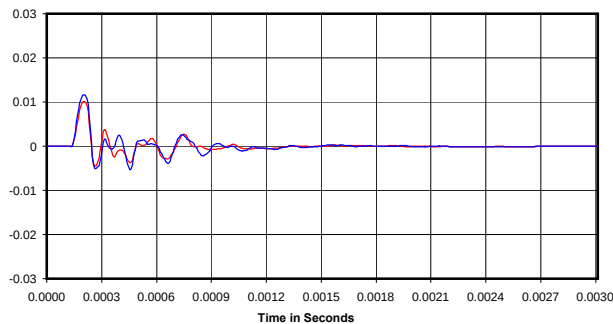
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



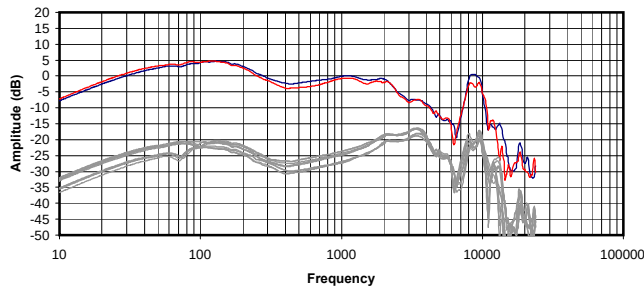
Impulse Response



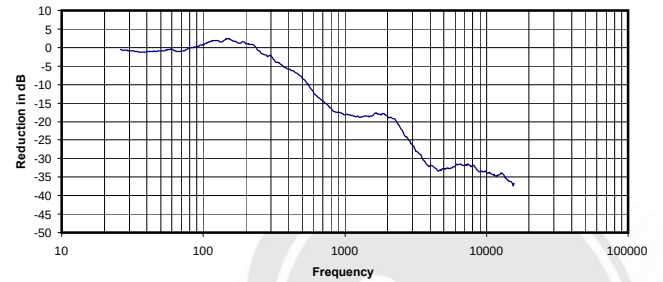
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.049 Vrms
37 Ohms
0.07 mW
-6 dBr

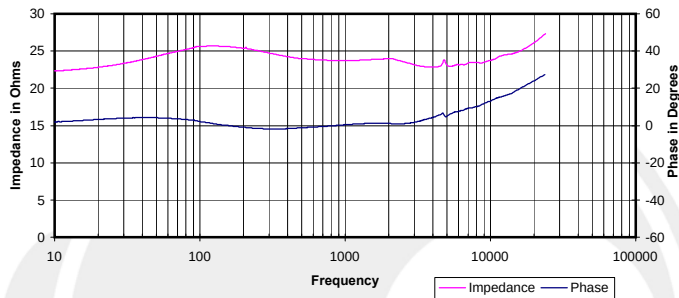
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



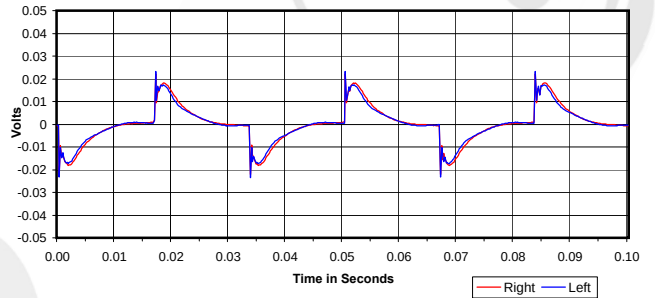
Isolation
Attenuation of External Sound vs. Frequency



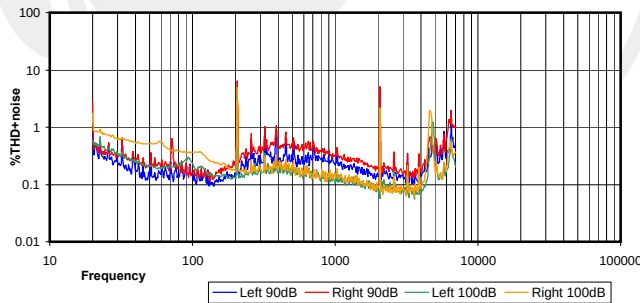
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



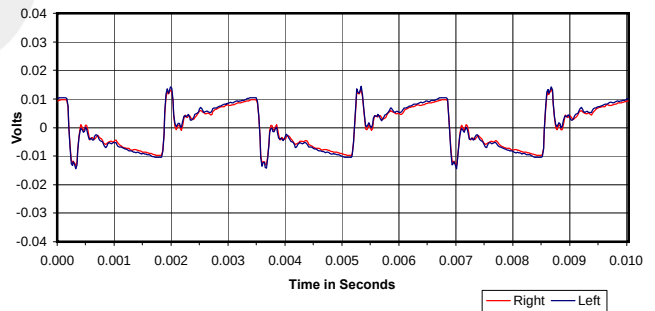
30 Hz Square Wave



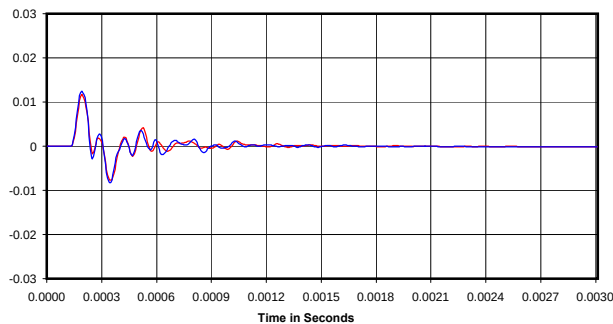
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



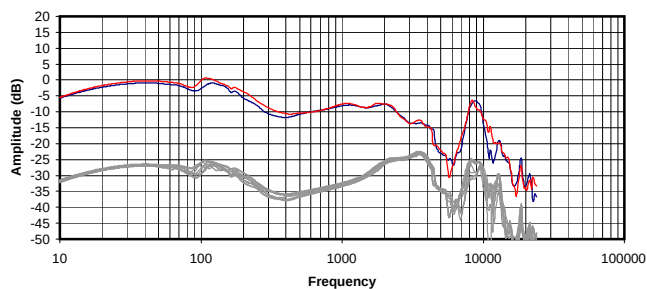
Impulse Response



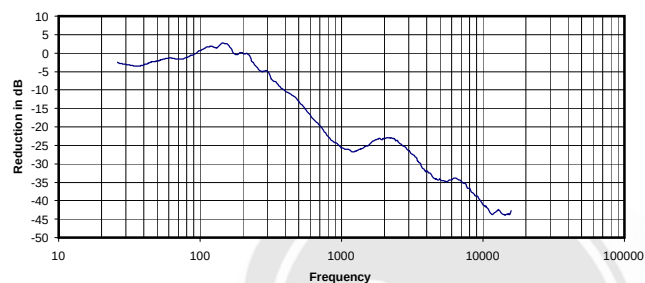
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.024 Vrms
24 Ohms
0.02 mW
-13 dBr

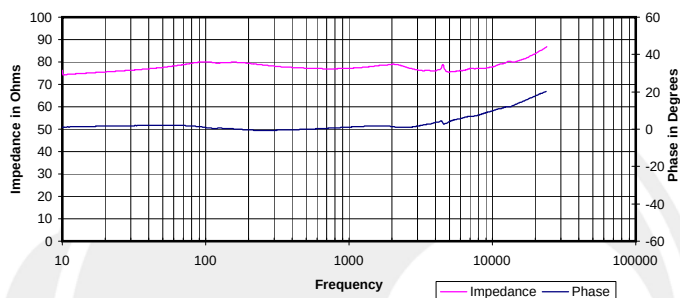
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



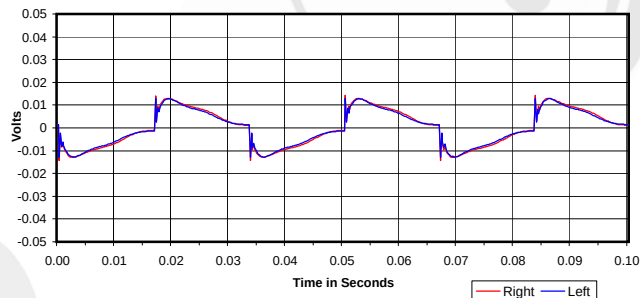
Isolation
Attenuation of External Sound vs. Frequency



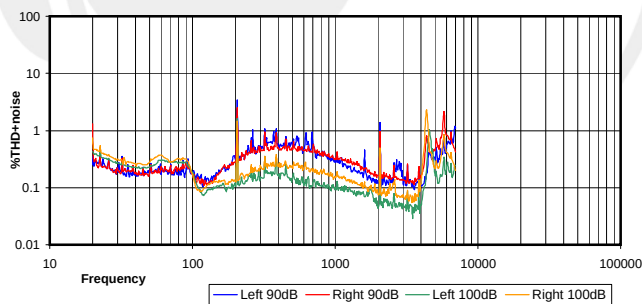
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



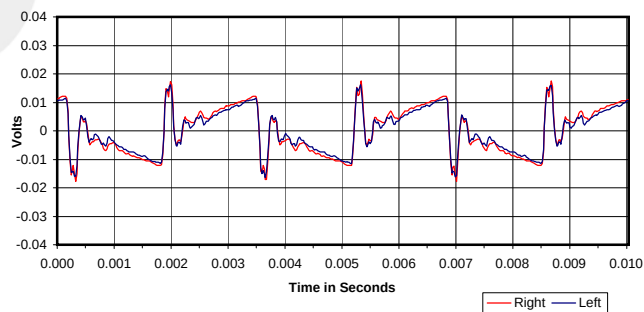
30 Hz Square Wave



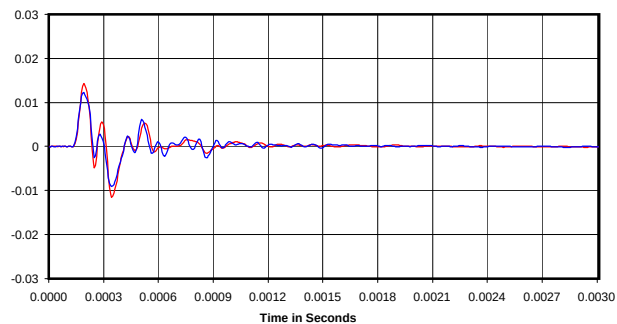
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



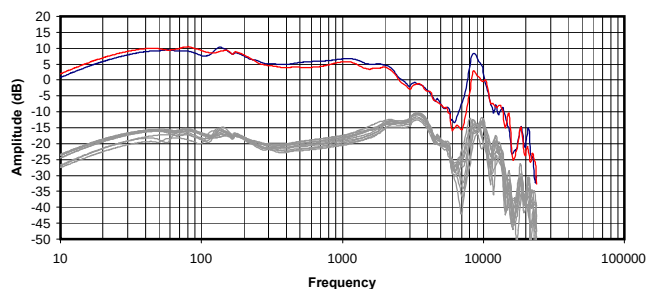
Impulse Response



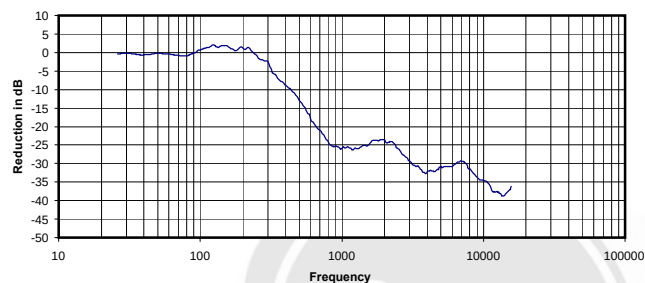
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.059 Vrms
77 Ohms
0.04 mW
-16 dBr

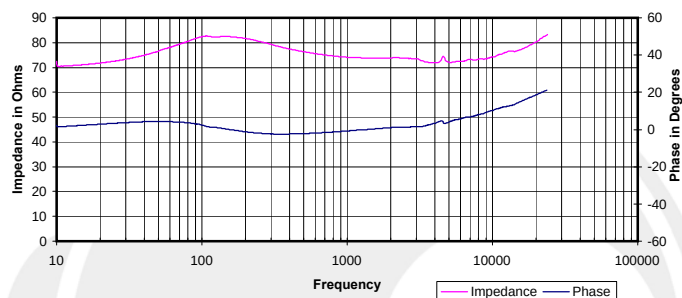
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



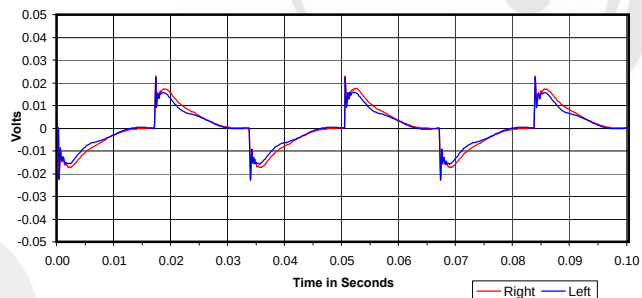
Isolation
Attenuation of External Sound vs. Frequency



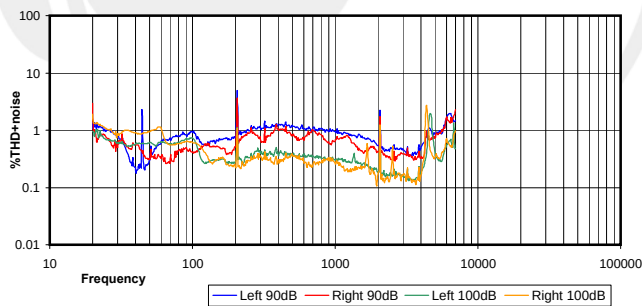
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



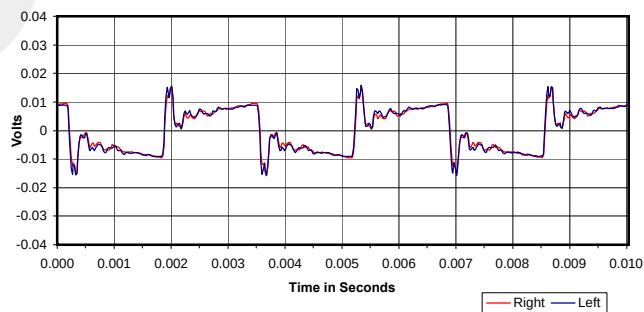
30 Hz Square Wave



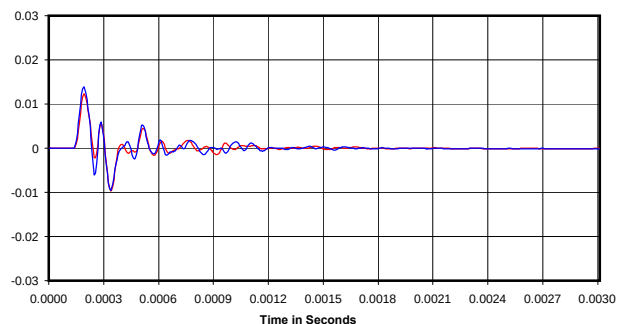
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



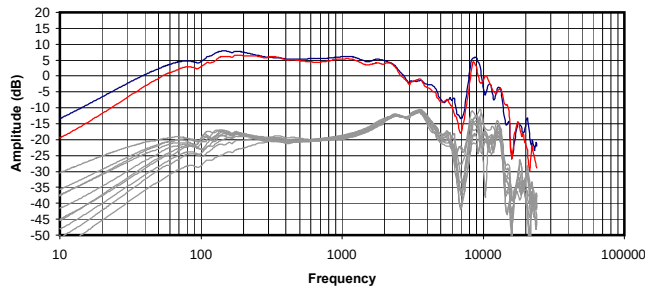
Impulse Response



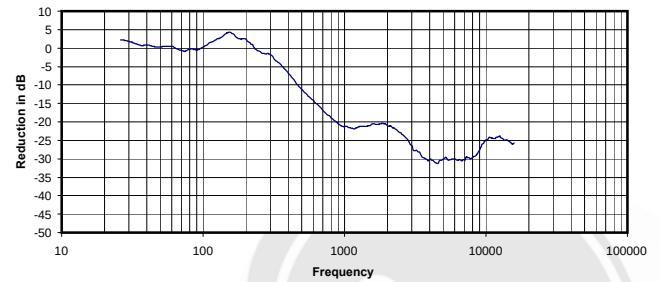
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.055 Vrms
74 Ohms
0.04 mW
-16 dBr

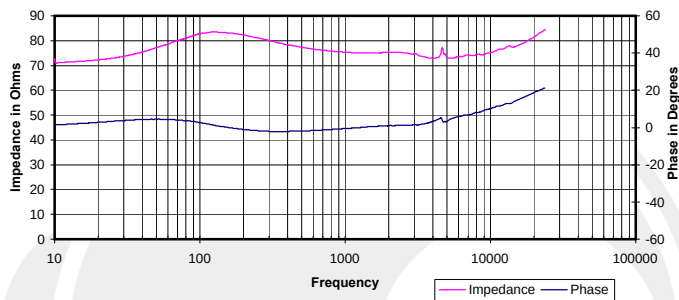
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



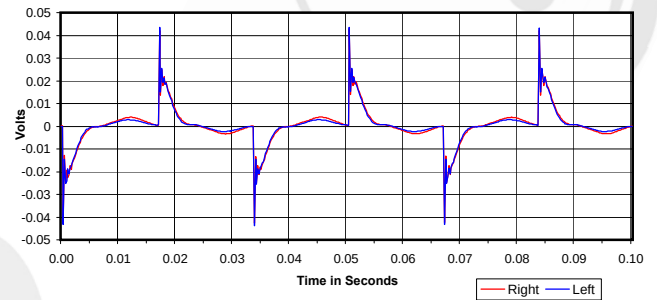
Isolation
Attenuation of External Sound vs. Frequency



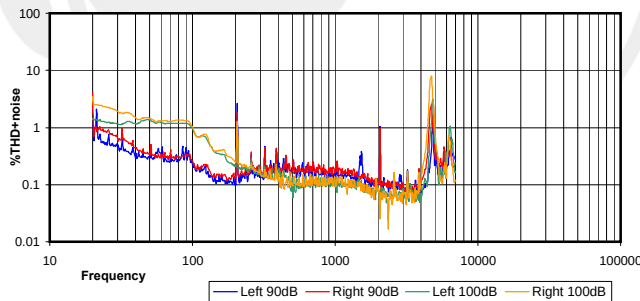
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



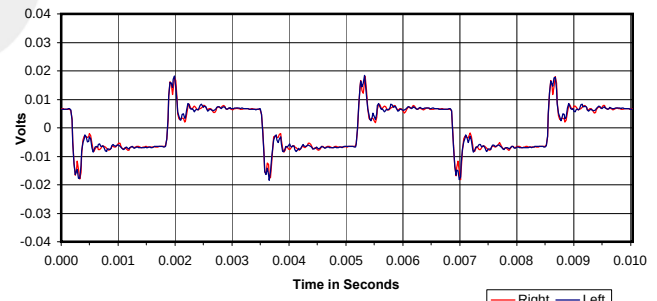
30 Hz Square Wave



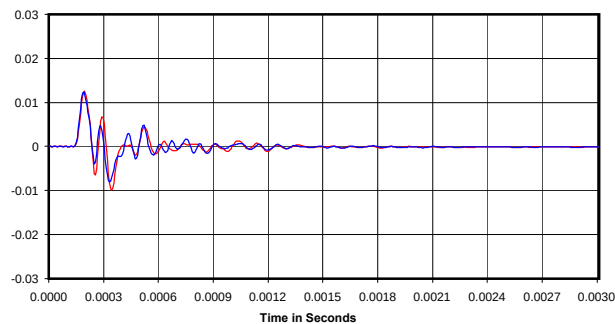
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



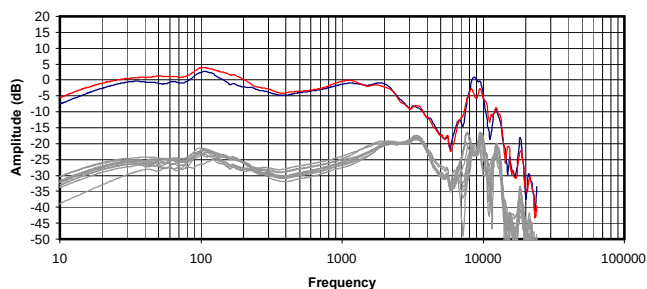
Impulse Response



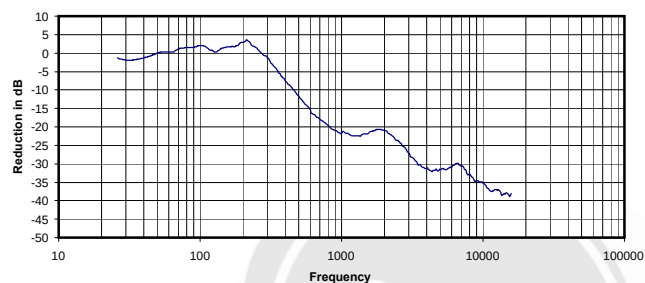
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.051 Vrms
75 Ohms
0.03 mW
-14 dBr

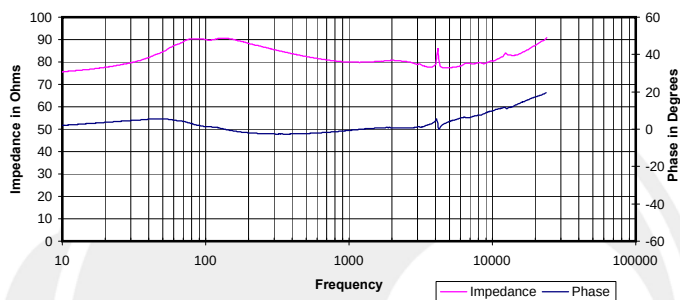
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



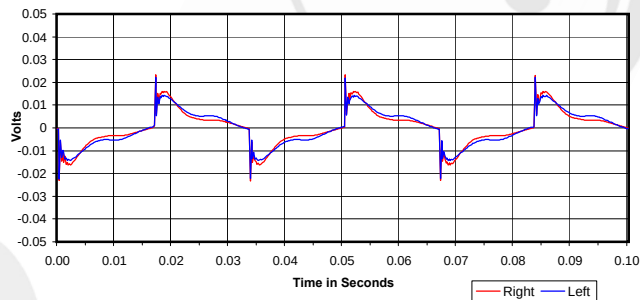
Isolation
Attenuation of External Sound vs. Frequency



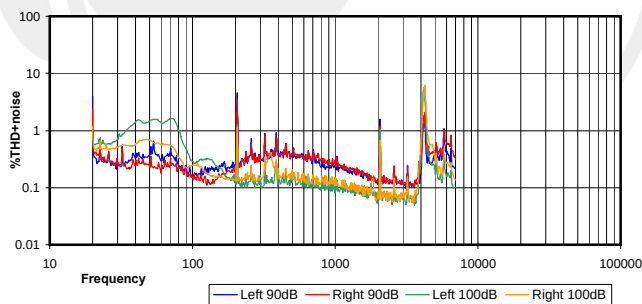
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



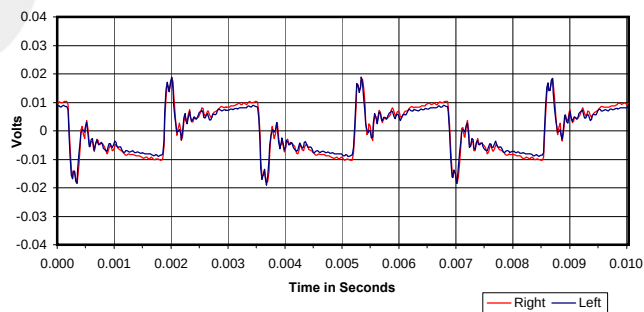
30 Hz Square Wave



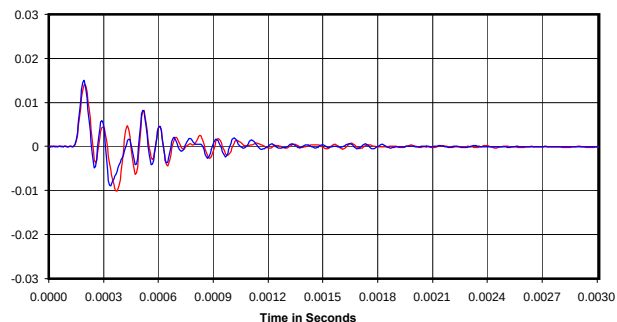
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



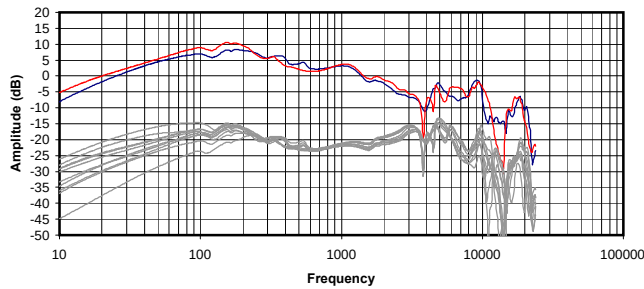
Impulse Response



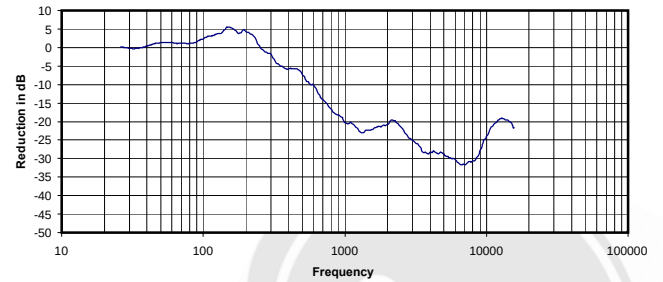
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.048 Vrms
80 Ohms
0.03 mW
-14 dBr

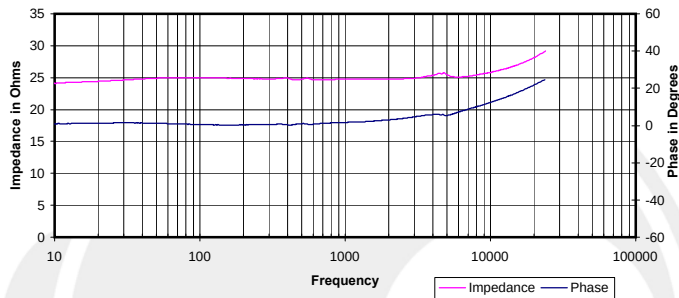
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



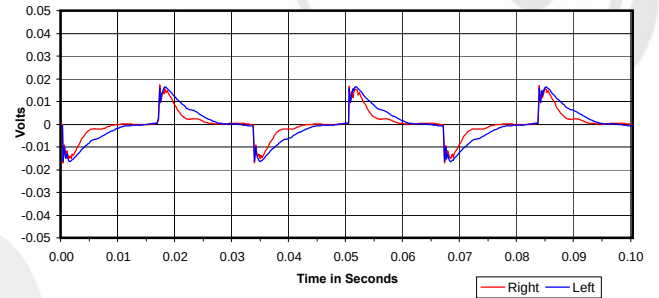
Isolation
Attenuation of External Sound vs. Frequency



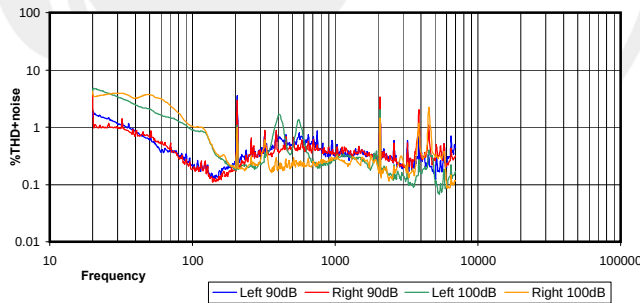
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



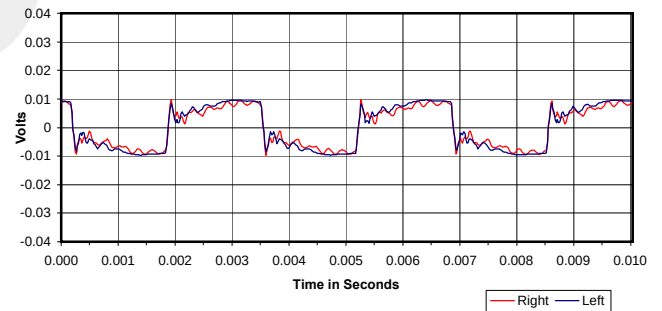
30 Hz Square Wave



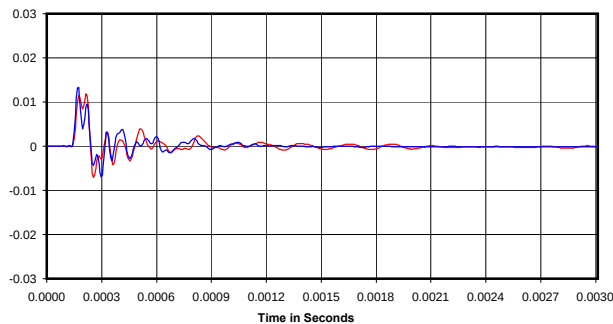
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



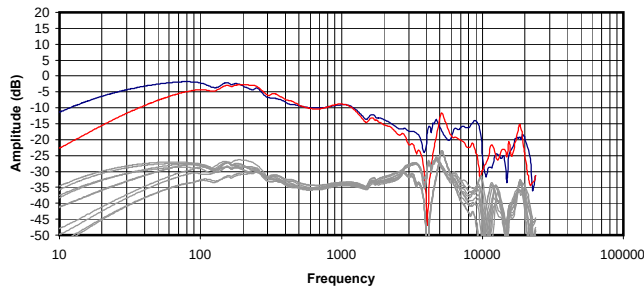
Impulse Response



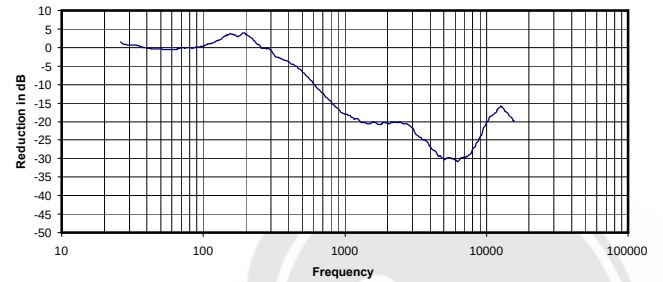
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.097 Vrms
25 Ohms
0.38 mW
-13 dBr

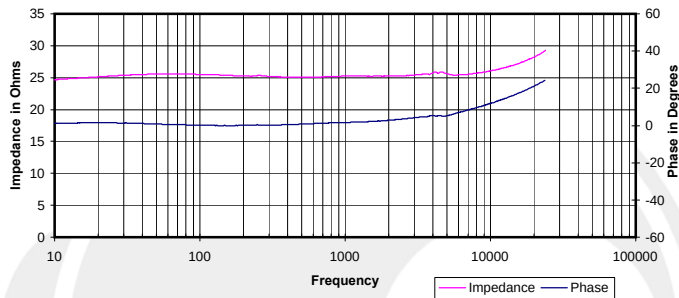
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



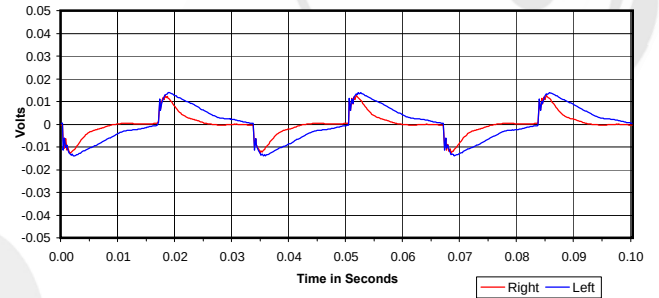
Isolation
Attenuation of External Sound vs. Frequency



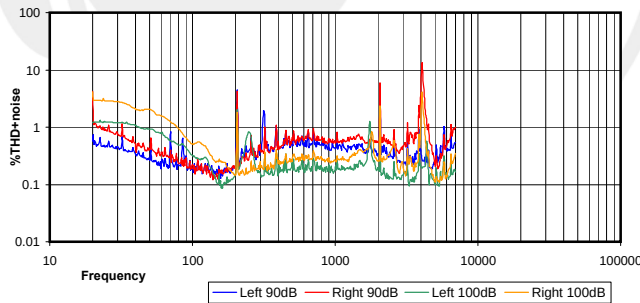
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



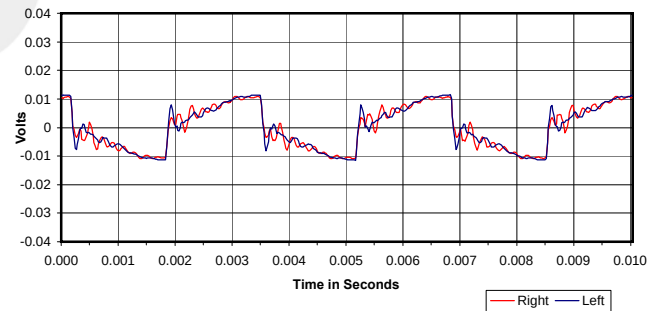
30 Hz Square Wave



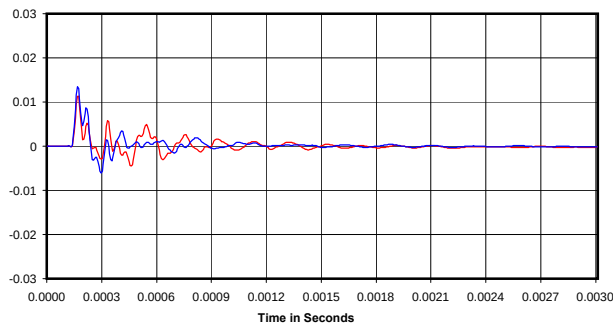
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



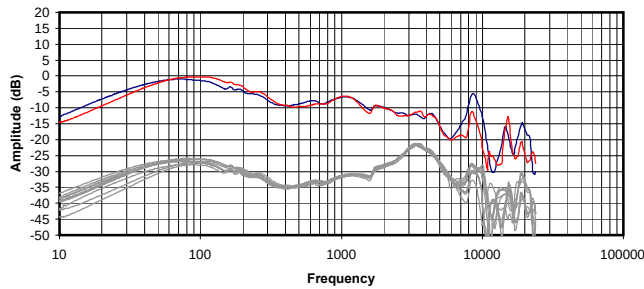
Impulse Response



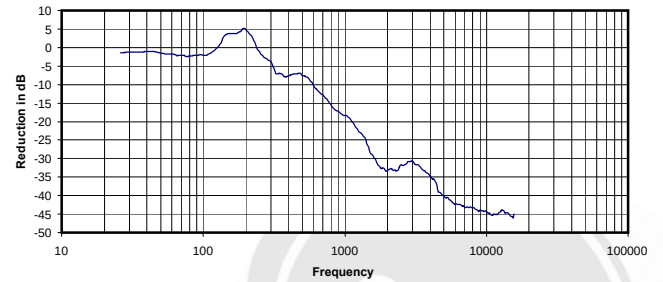
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.097 Vrms
25 Ohms
0.37 mW
-12 dBr

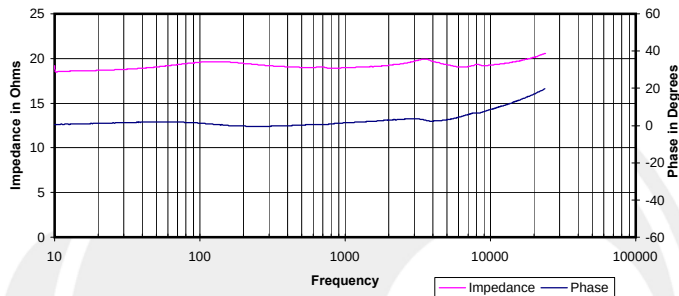
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



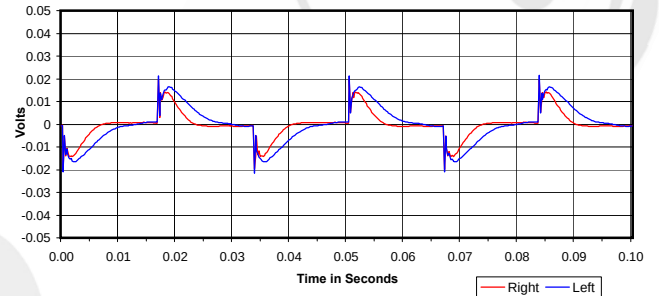
Isolation
Attenuation of External Sound vs. Frequency



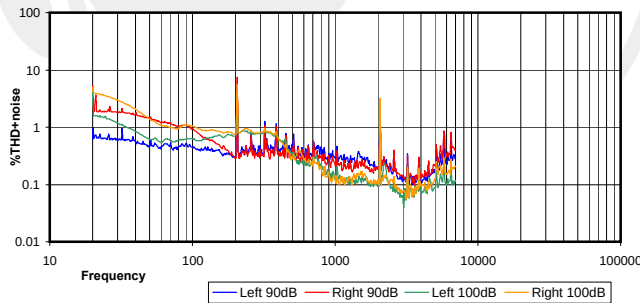
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



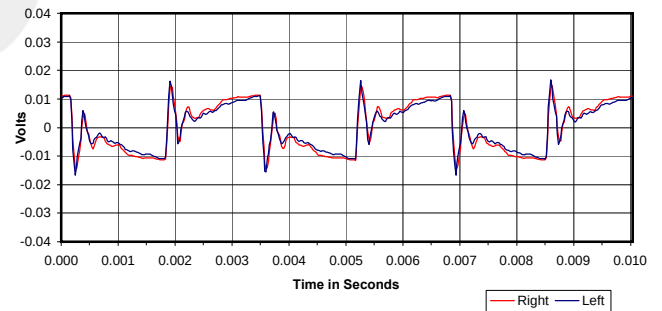
30 Hz Square Wave



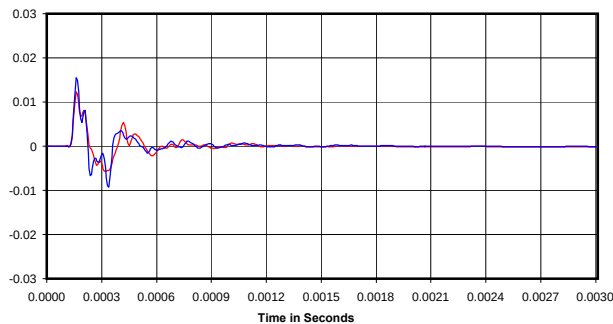
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



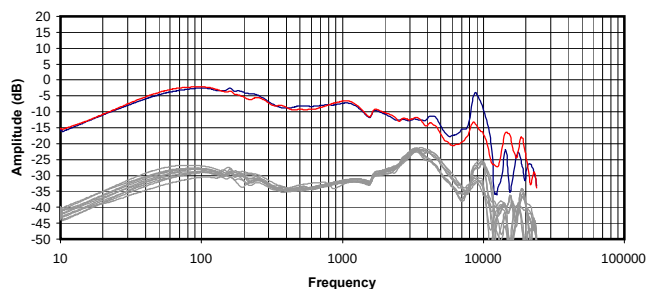
Impulse Response



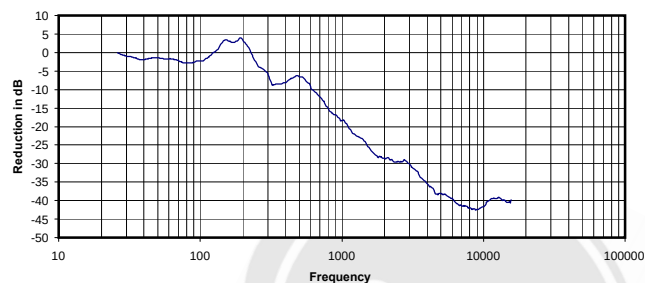
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.055 Vrms
19 Ohms
0.16 mW
-17 dBr

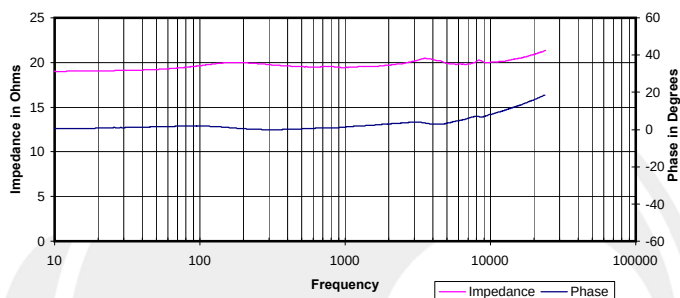
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



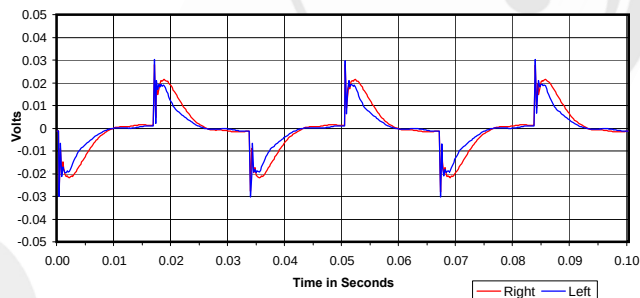
Isolation
Attenuation of External Sound vs. Frequency



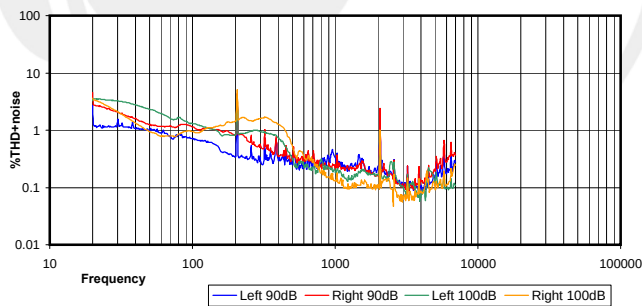
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



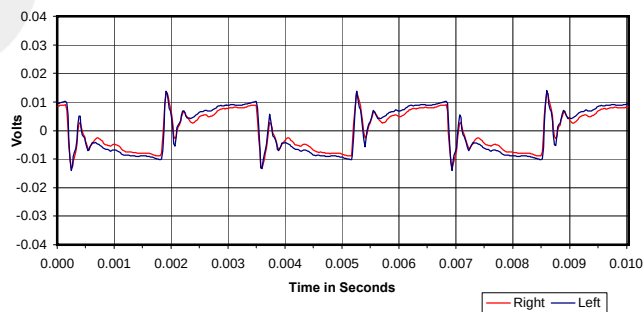
30 Hz Square Wave



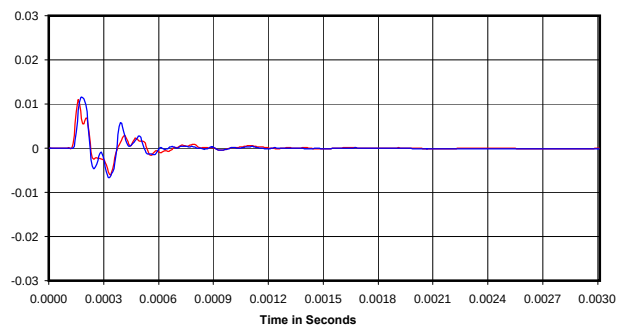
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



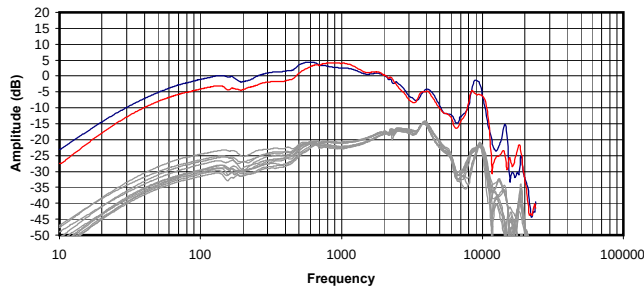
Impulse Response



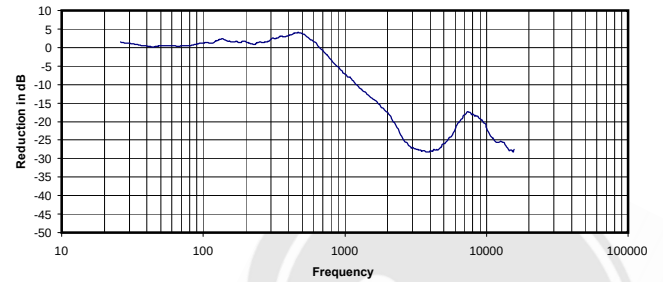
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.055 Vrms
19 Ohms
0.16 mW
-16 dBr

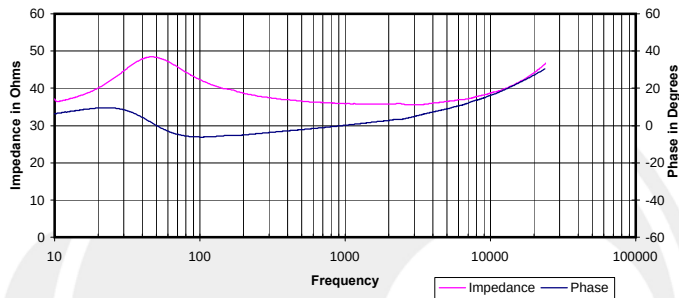
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



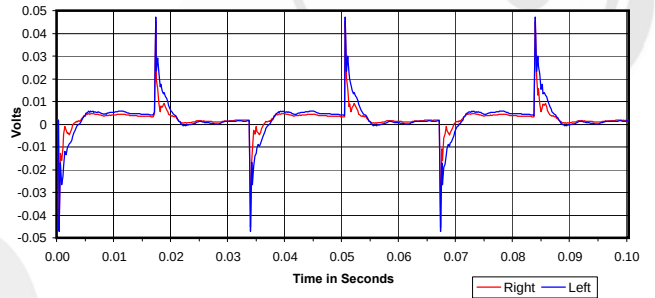
Isolation
Attenuation of External Sound vs. Frequency



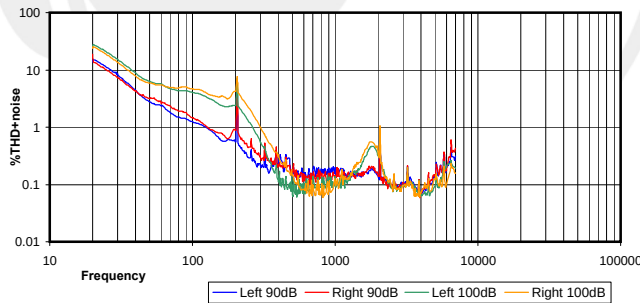
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



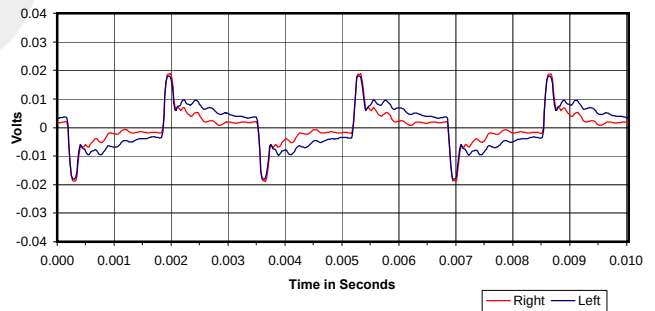
30 Hz Square Wave



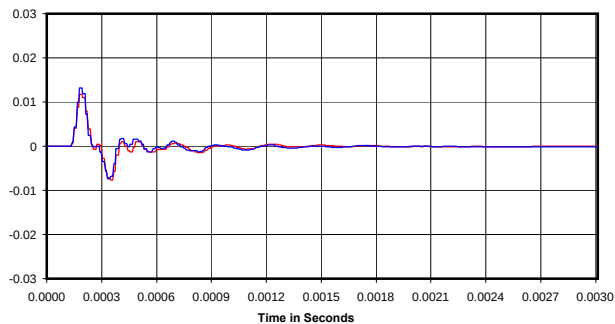
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



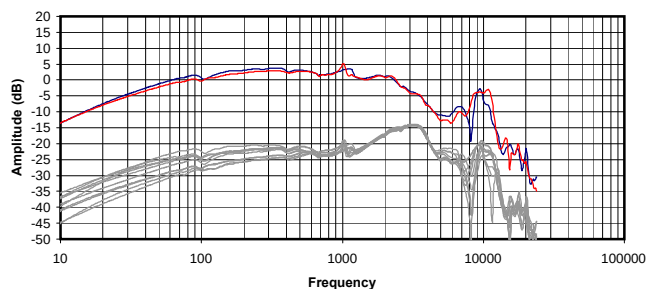
Impulse Response



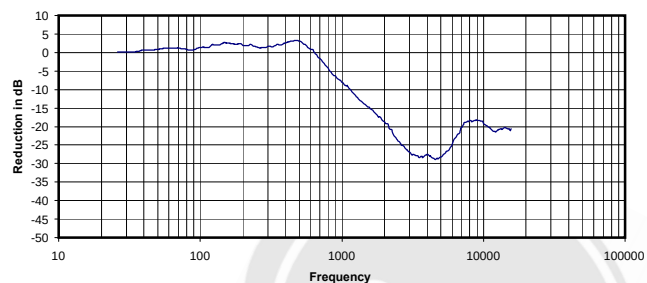
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.052 Vrms
36 Ohms
0.07 mW
-8 dBr

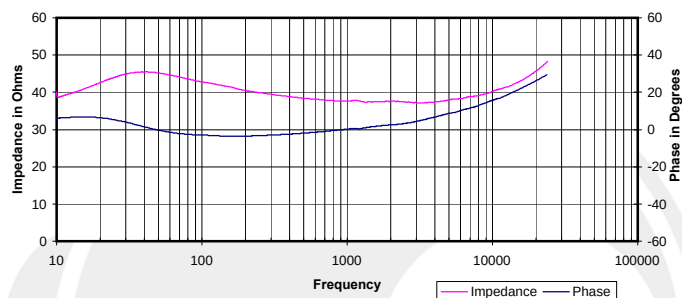
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



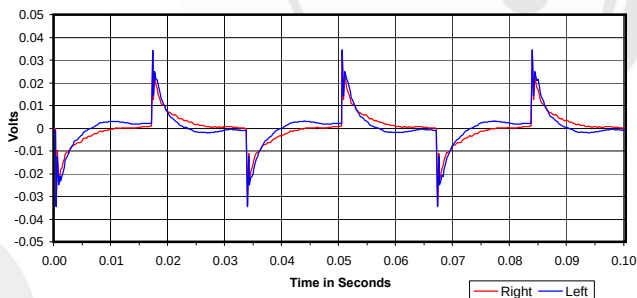
Isolation
Attenuation of External Sound vs. Frequency



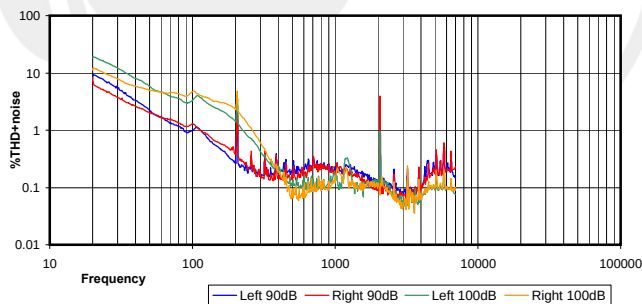
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



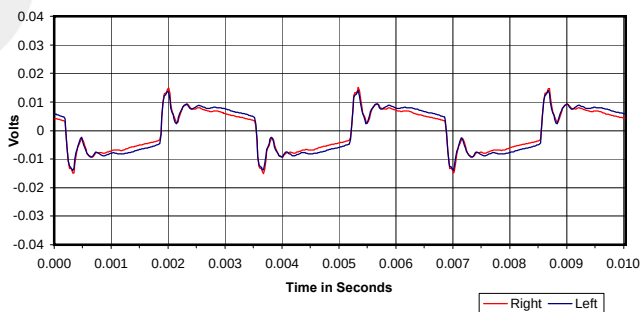
30 Hz Square Wave



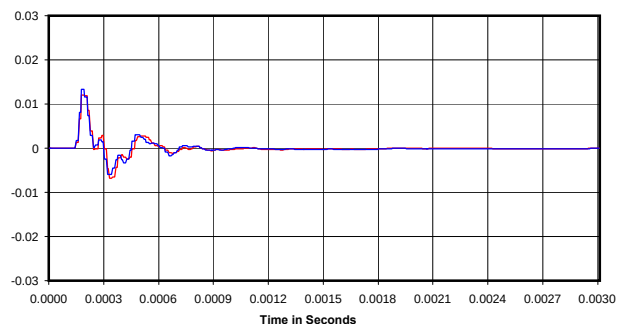
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



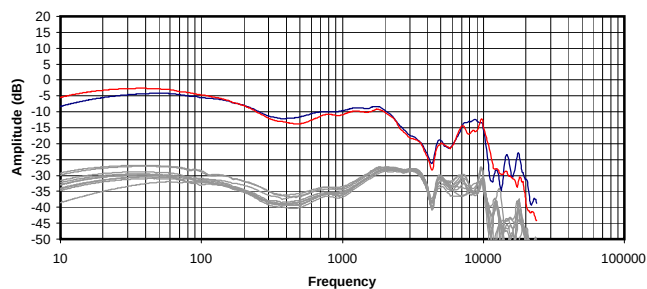
Impulse Response



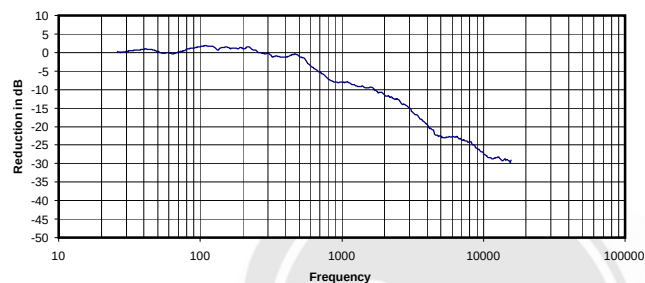
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.055 Vrms
38 Ohms
0.08 mW
-9 dBr

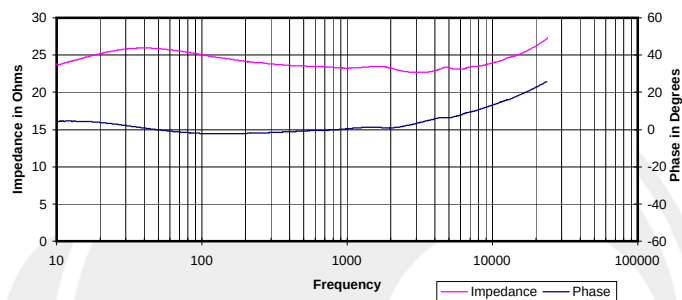
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



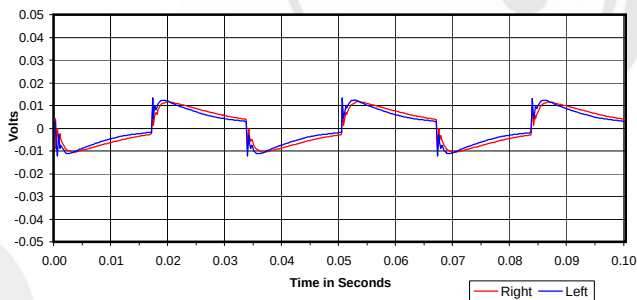
Isolation
Attenuation of External Sound vs. Frequency



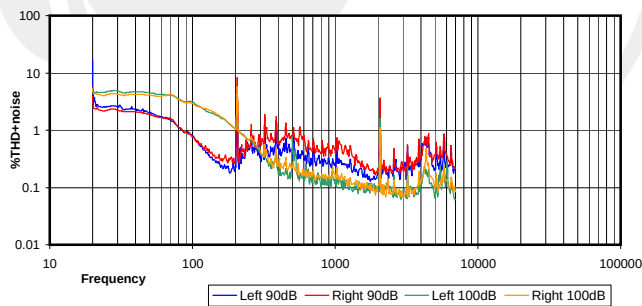
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



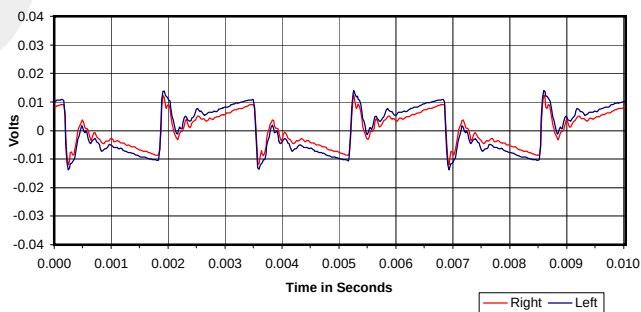
30 Hz Square Wave



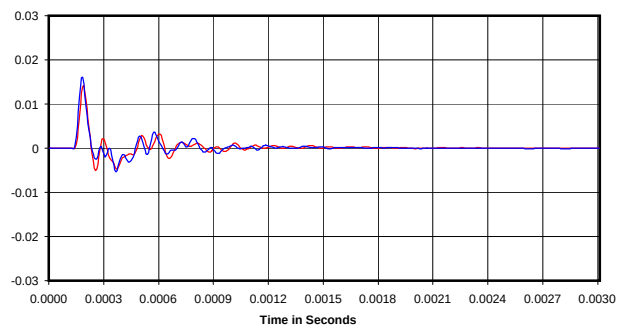
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



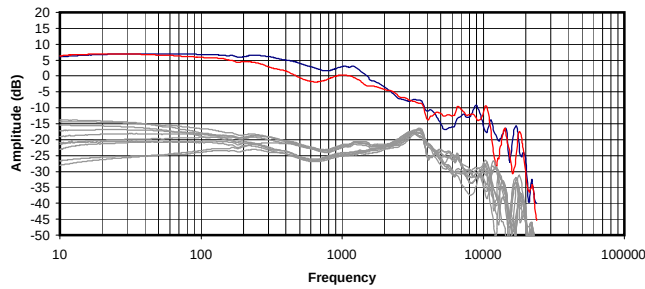
Impulse Response



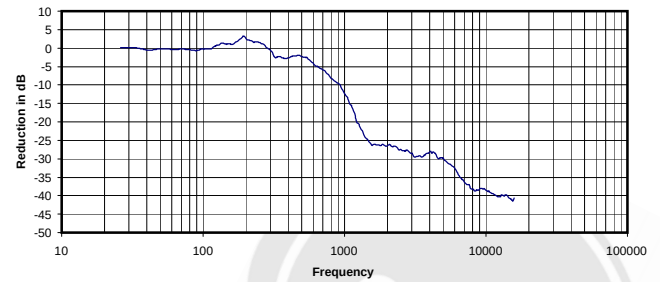
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.050 Vrms
23 Ohms
0.11 mW
-7 dBr

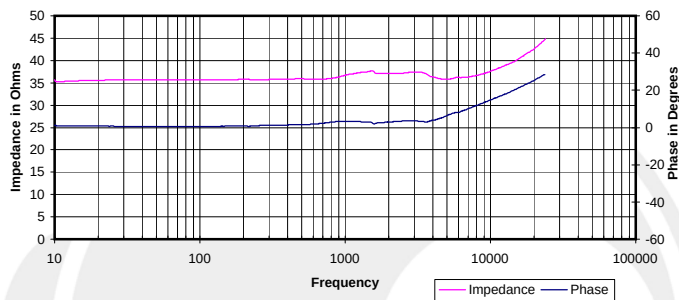
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



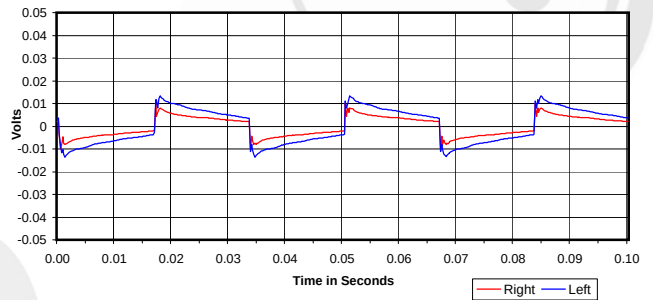
Isolation
Attenuation of External Sound vs. Frequency



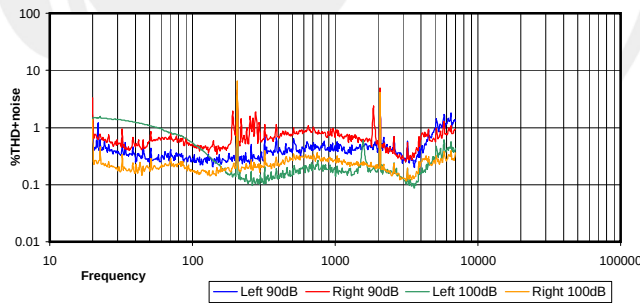
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



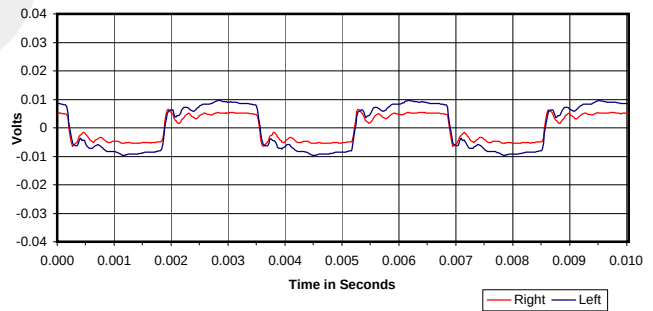
30 Hz Square Wave



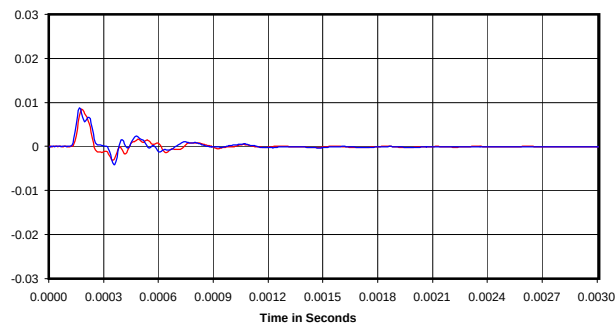
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



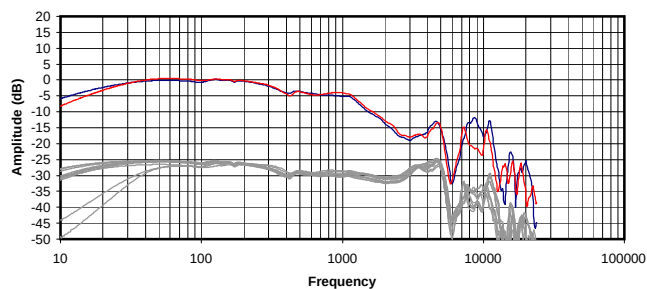
Impulse Response



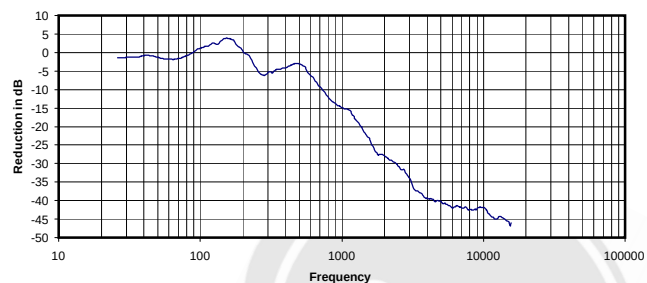
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.005 Vrms
37 Ohms
0.00 mW
-12 dBr

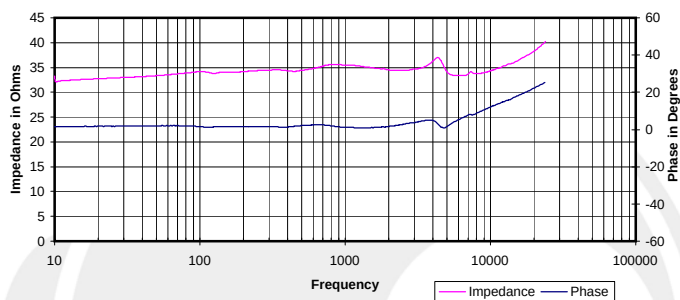
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



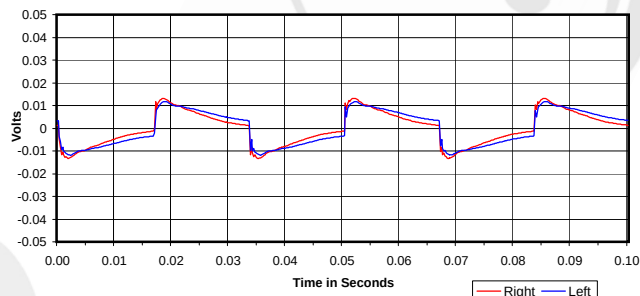
Isolation
Attenuation of External Sound vs. Frequency



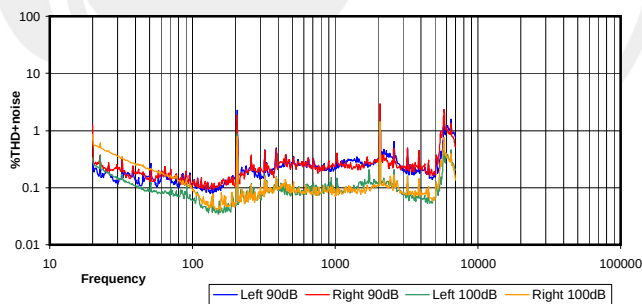
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



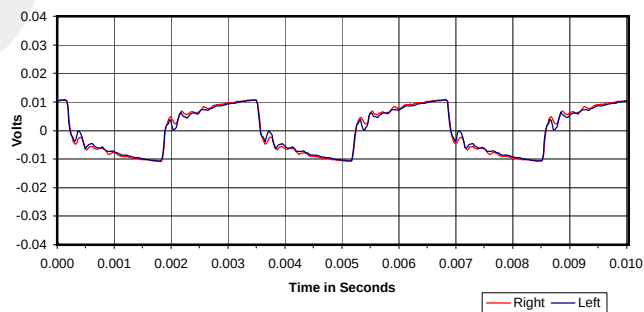
30 Hz Square Wave



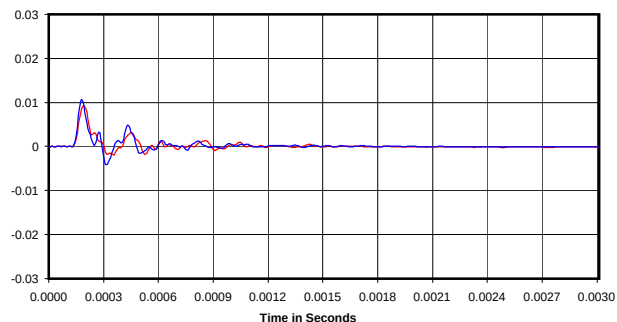
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

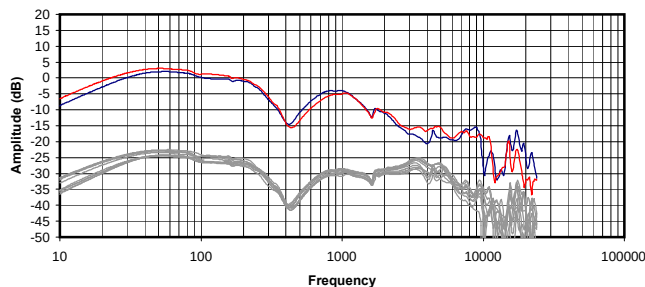
0.020 Vrms
35 Ohms
0.01 mW
-15 dBr



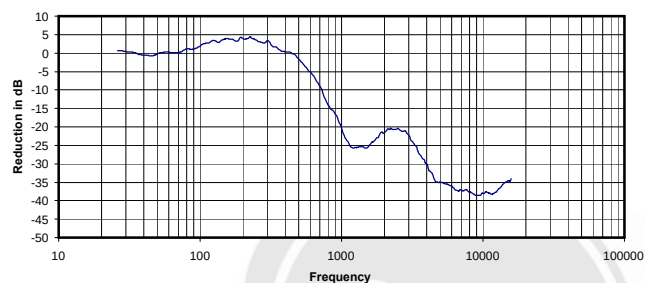
Headphone Measurements:

Sol Republic Tracks

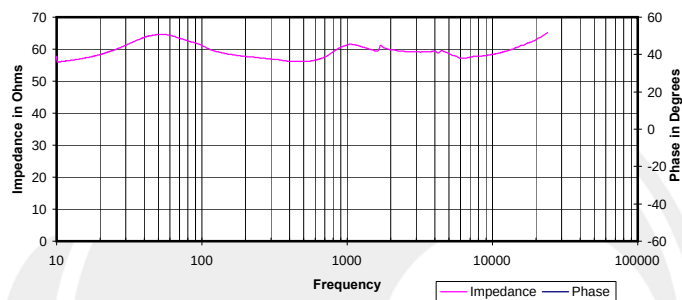
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



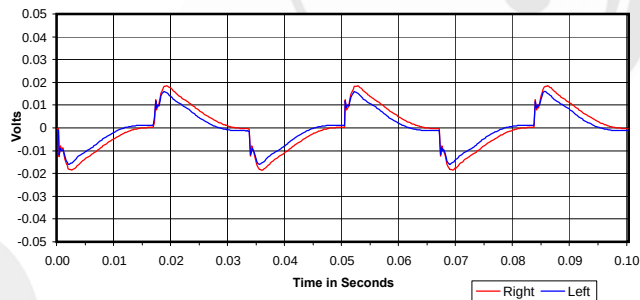
Isolation
Attenuation of External Sound vs. Frequency



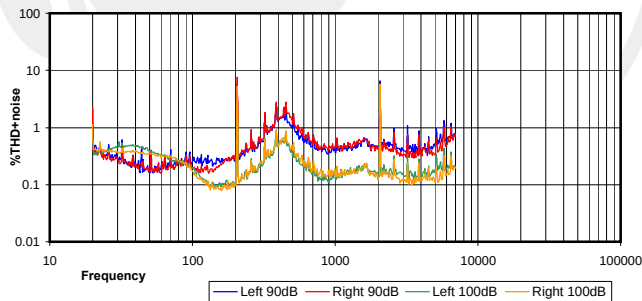
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



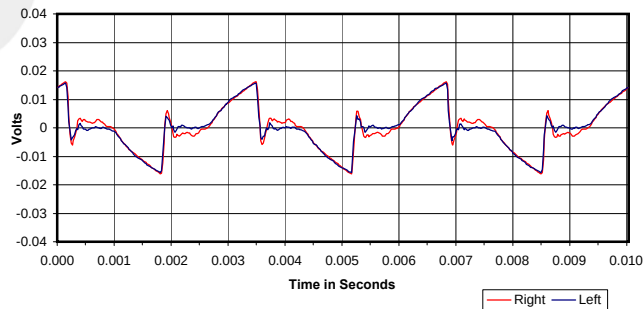
30 Hz Square Wave



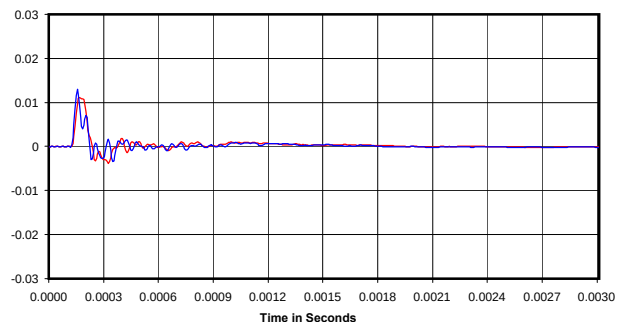
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



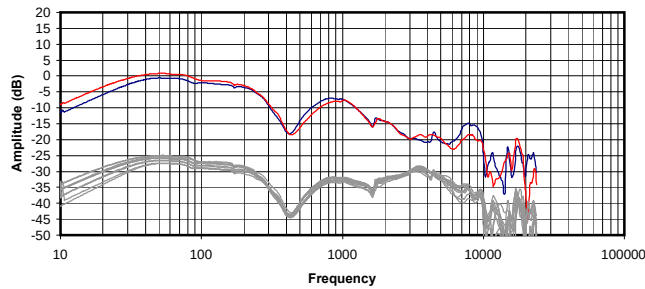
Impulse Response



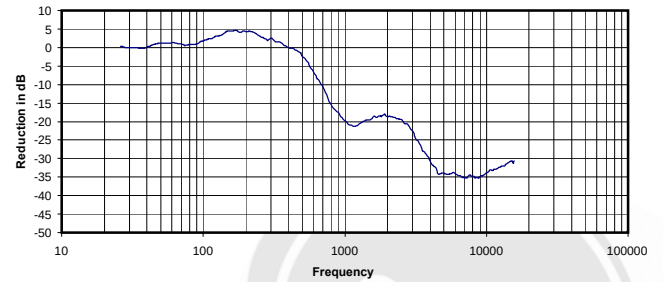
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.040 Vrms
61 Ohms
0.03 mW
-12 dBr

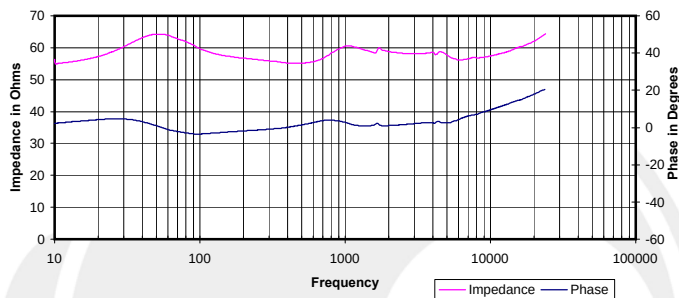
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



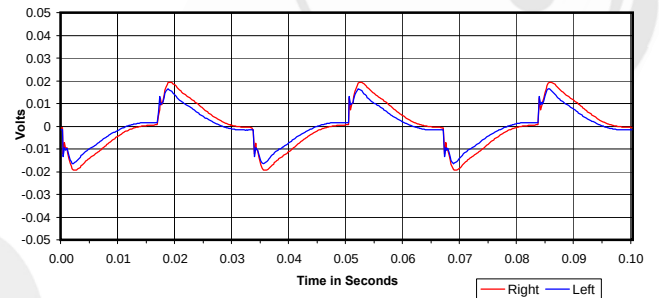
Isolation
Attenuation of External Sound vs. Frequency



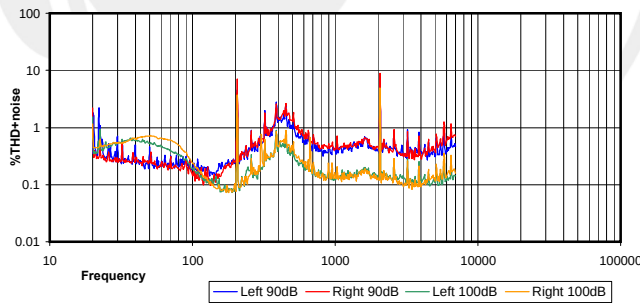
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



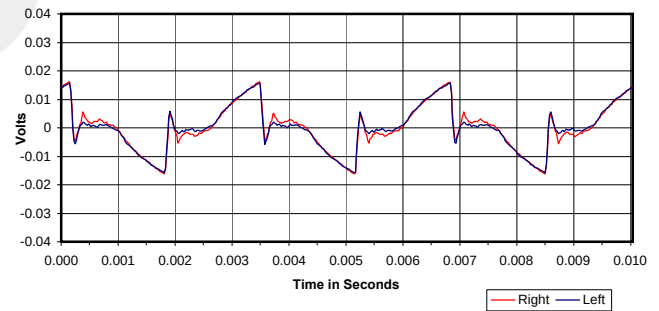
30 Hz Square Wave



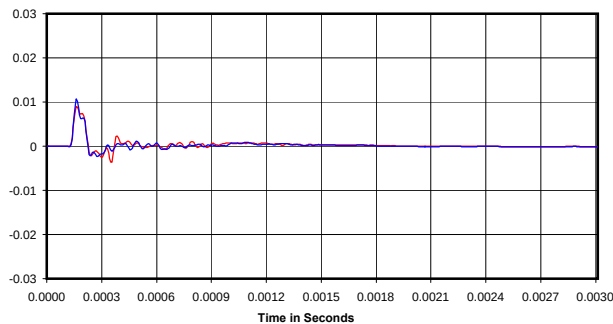
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



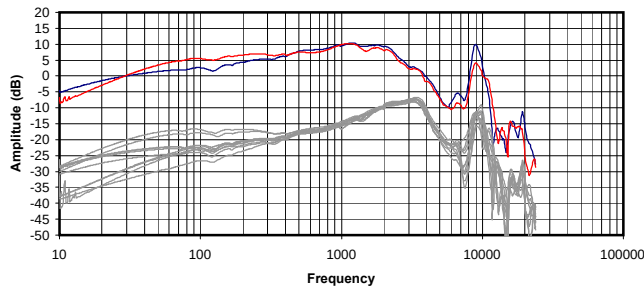
Impulse Response



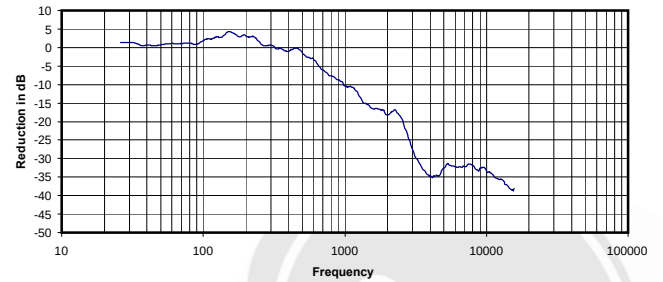
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.042 Vrms
60 Ohms
0.03 mW
-11 dBr

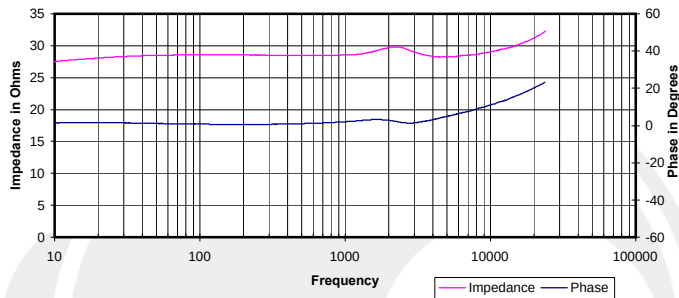
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



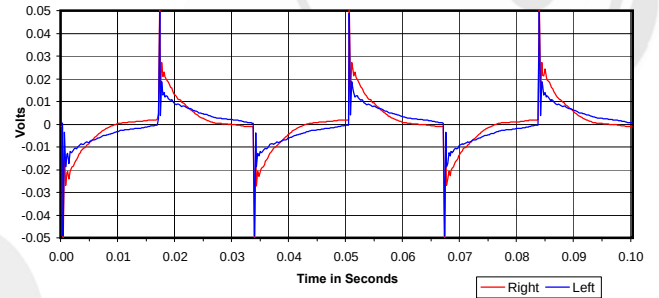
Isolation
Attenuation of External Sound vs. Frequency



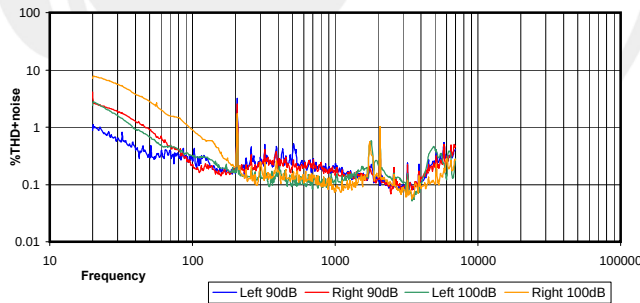
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



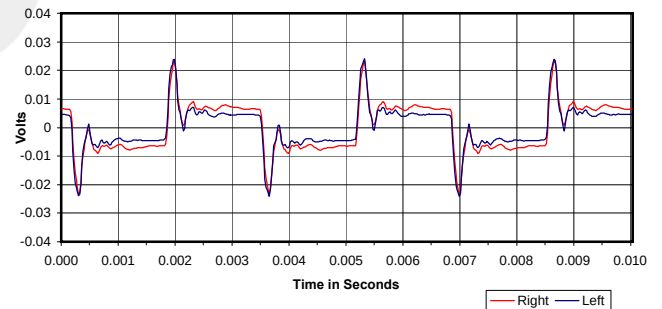
30 Hz Square Wave



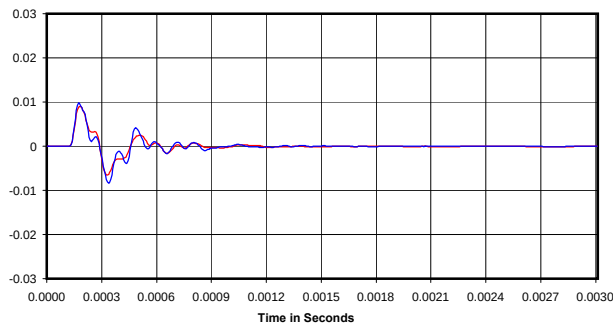
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



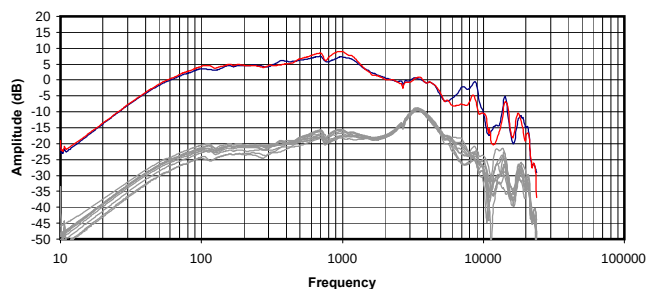
Impulse Response



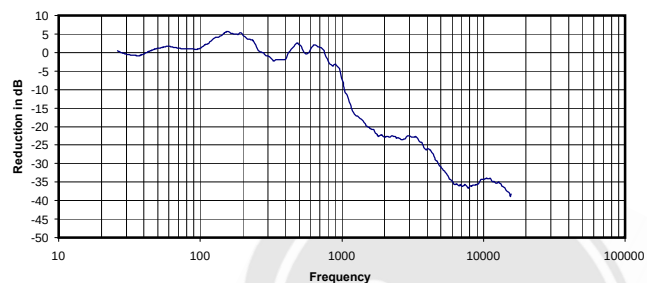
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.042 Vrms
29 Ohms
0.06 mW
-10 dBr

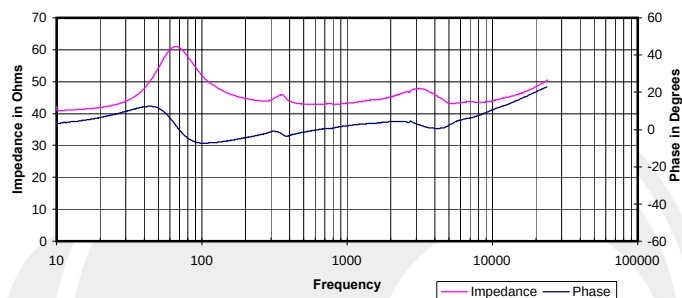
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



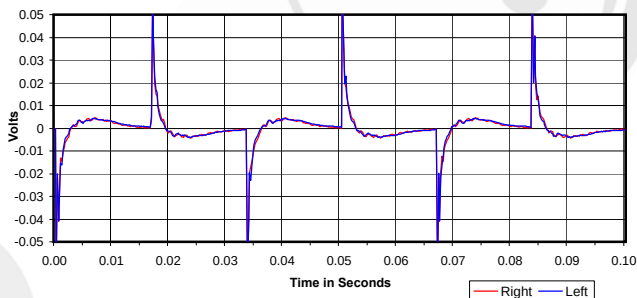
Isolation
Attenuation of External Sound vs. Frequency



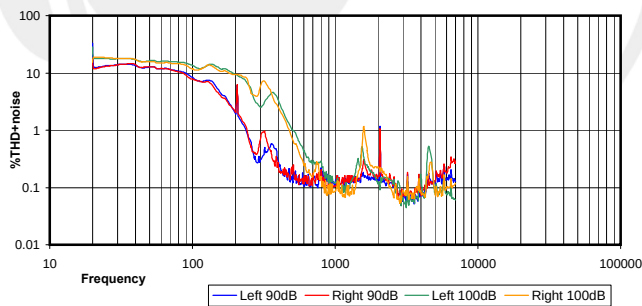
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



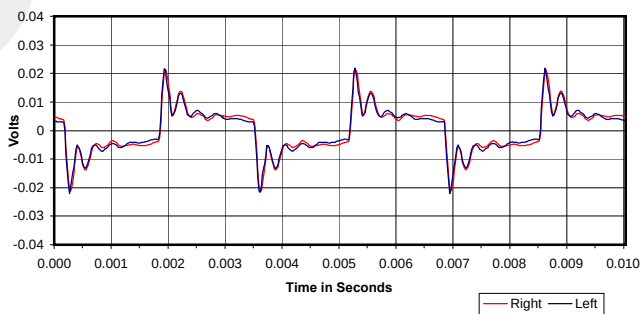
30 Hz Square Wave



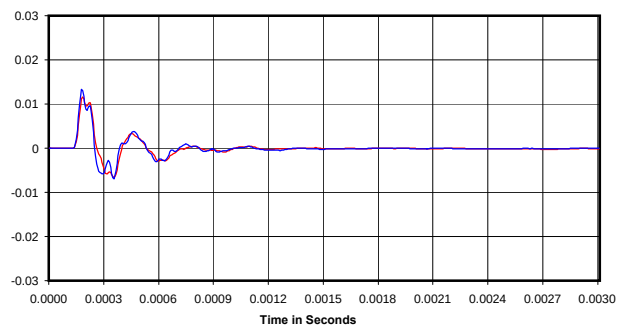
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



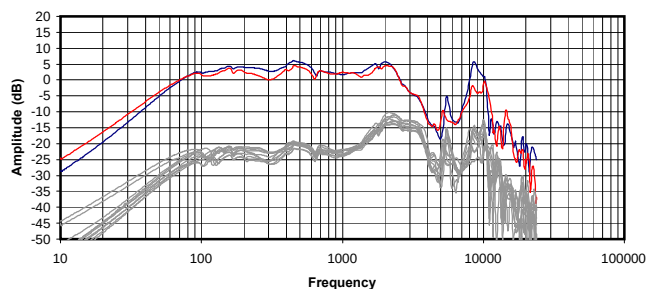
Impulse Response



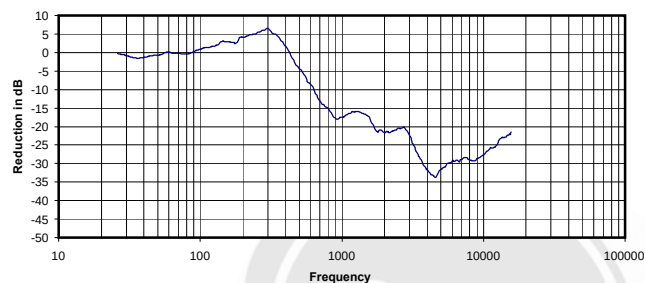
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.035 Vrms
43 Ohms
0.03 mW
-9 dBr

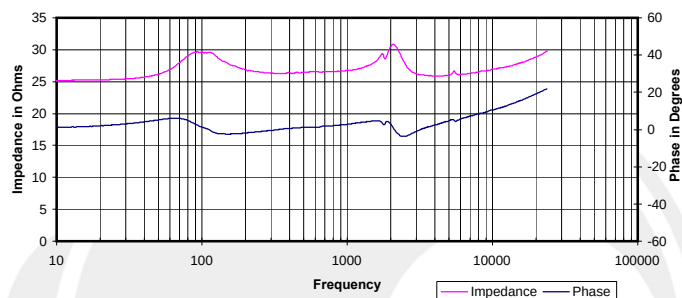
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



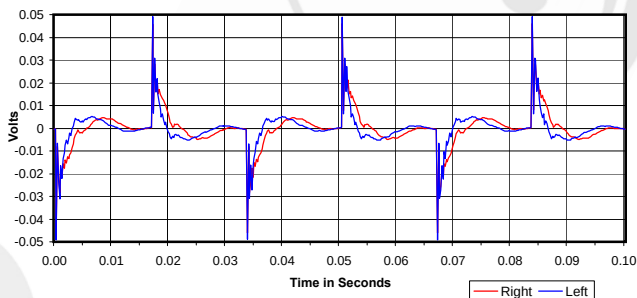
Isolation
Attenuation of External Sound vs. Frequency



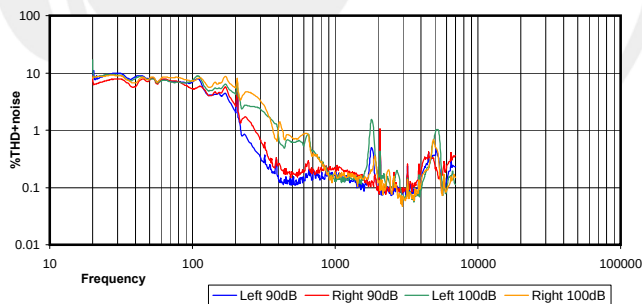
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



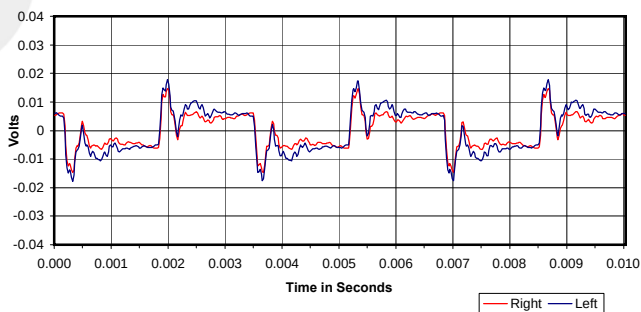
30 Hz Square Wave



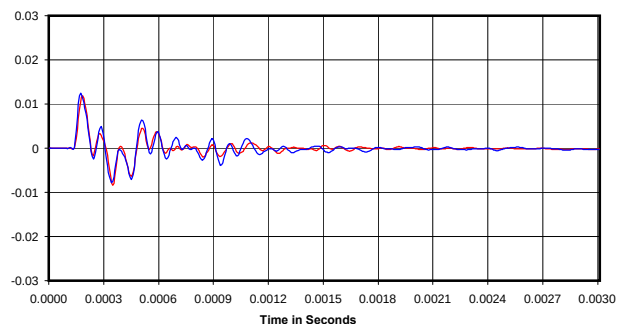
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



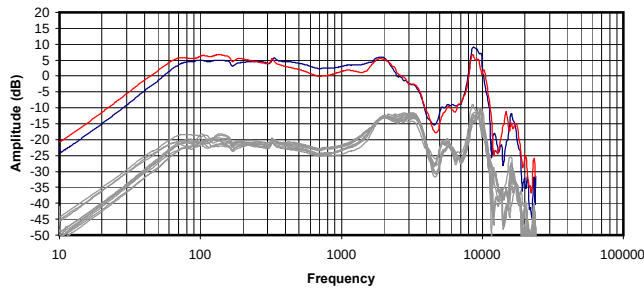
Impulse Response



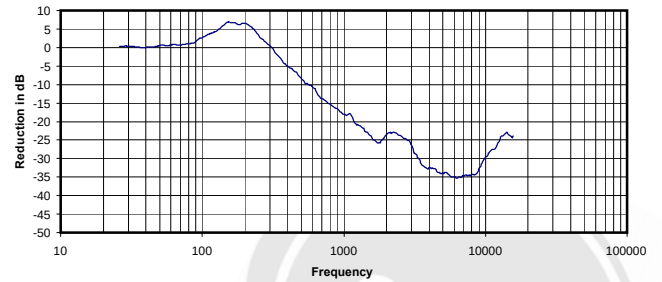
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.049 Vrms
27 Ohms
0.09 mW
-11 dBr

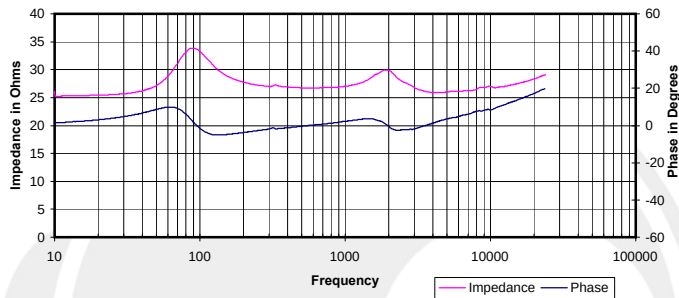
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



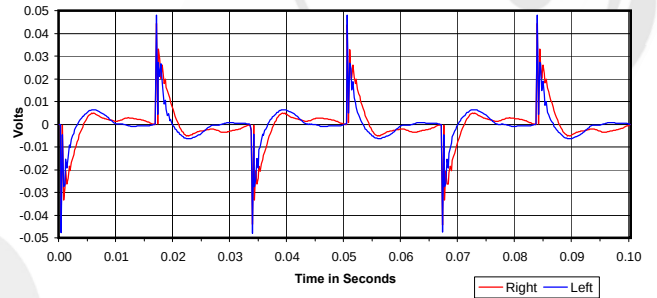
Isolation
Attenuation of External Sound vs. Frequency



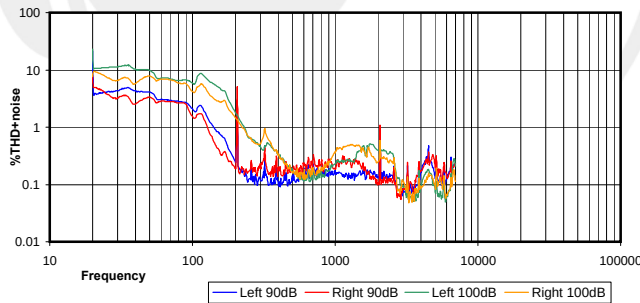
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



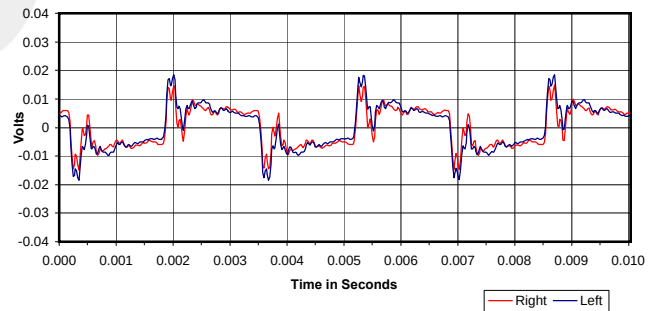
30 Hz Square Wave



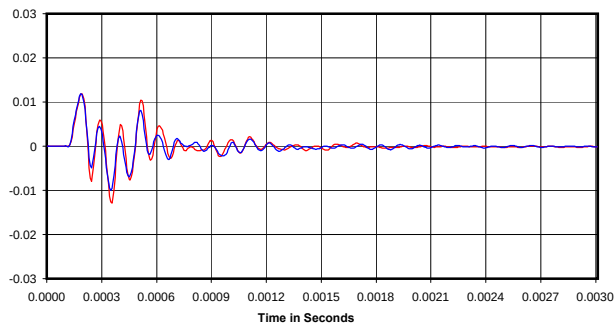
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



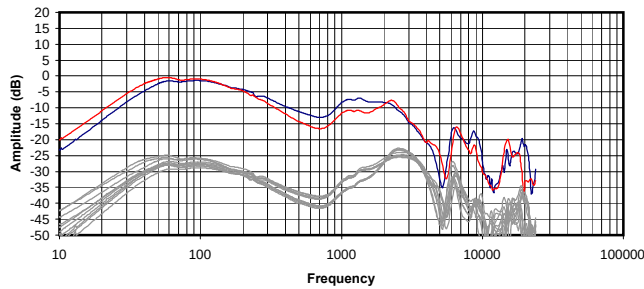
Impulse Response



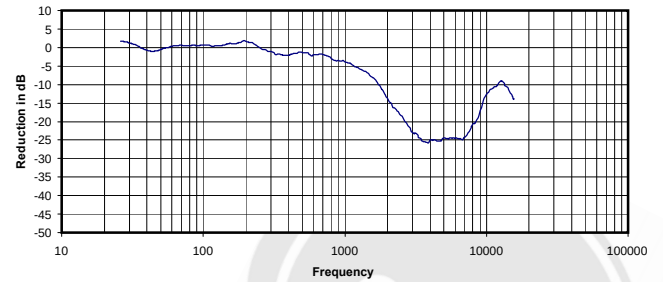
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.040 Vrms
27 Ohms
0.06 mW
-13 dBr

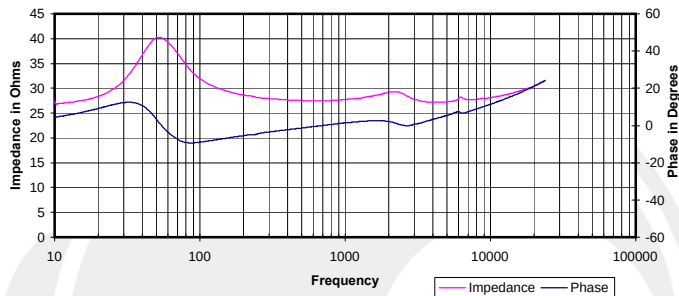
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



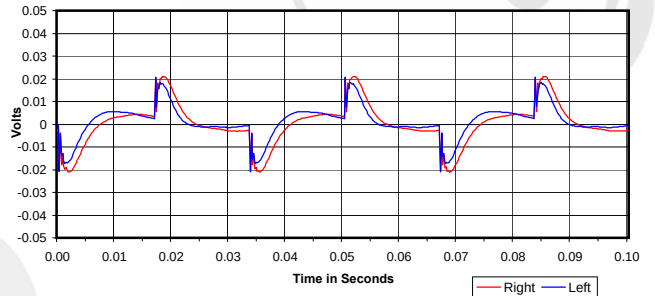
Isolation
Attenuation of External Sound vs. Frequency



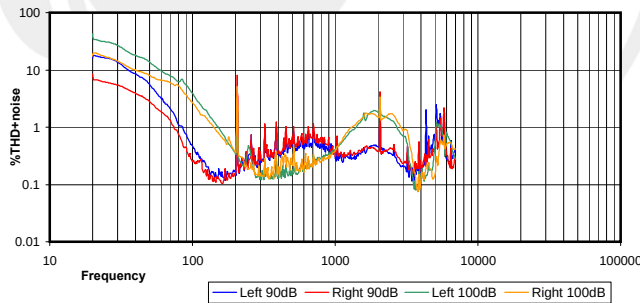
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



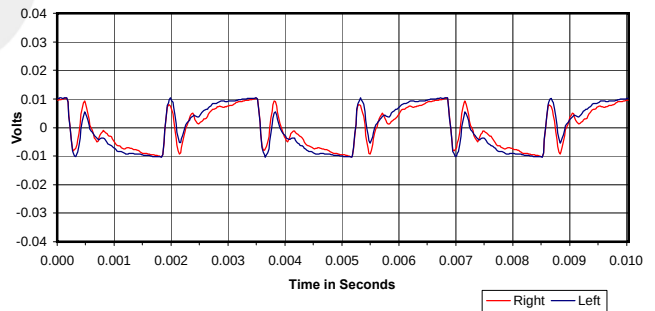
30 Hz Square Wave



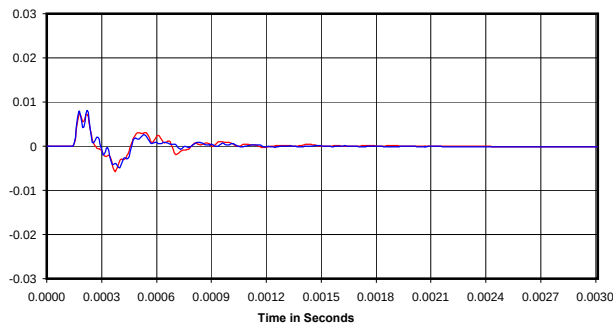
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



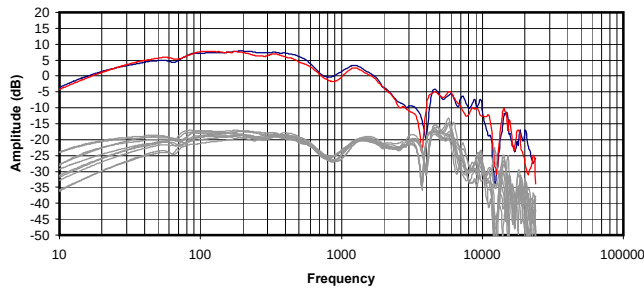
Impulse Response



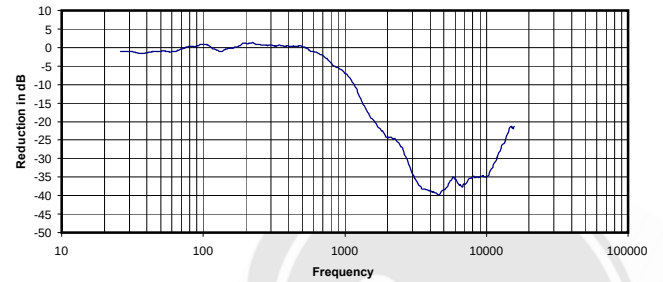
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.073 Vrms
28 Ohms
0.19 mW
-8 dBr

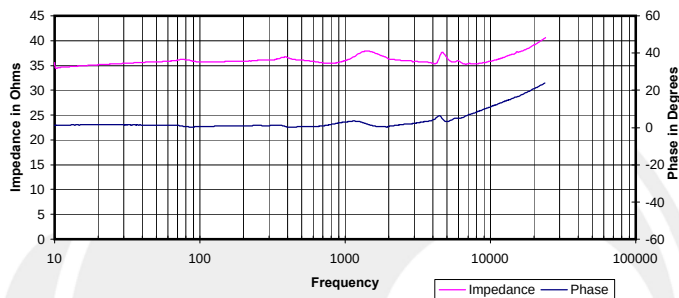
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



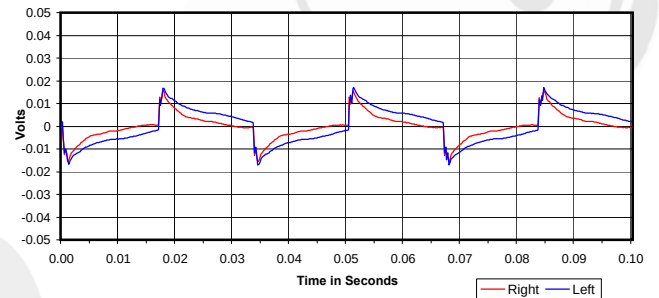
Isolation
Attenuation of External Sound vs. Frequency



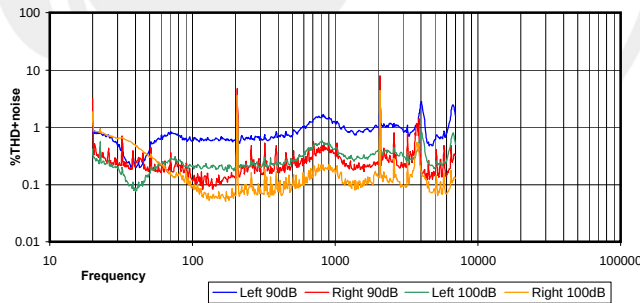
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



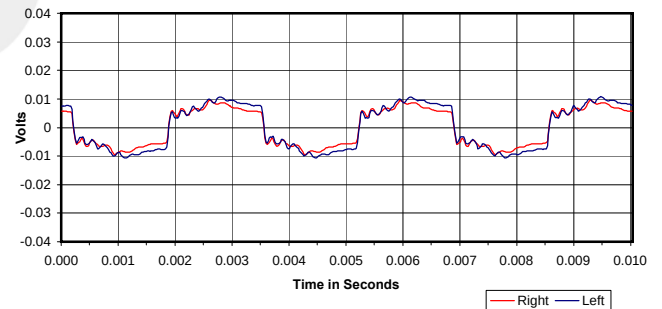
30 Hz Square Wave



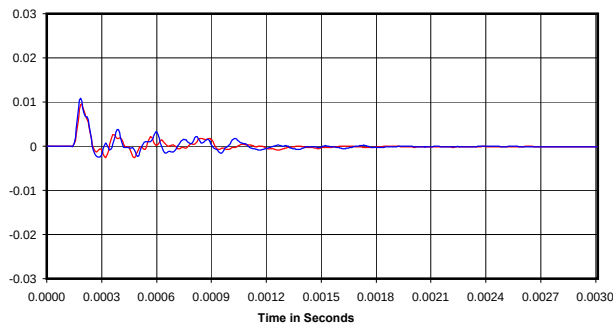
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

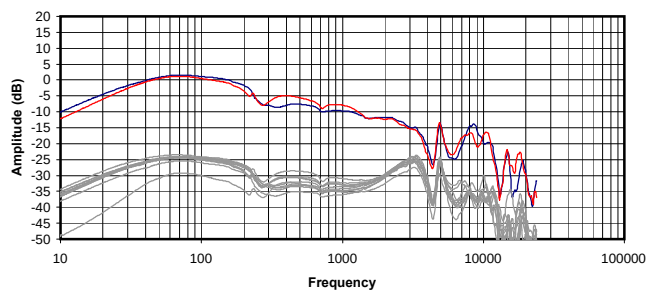
0.031 Vrms
36 Ohms
0.03 mW
-12 dBr



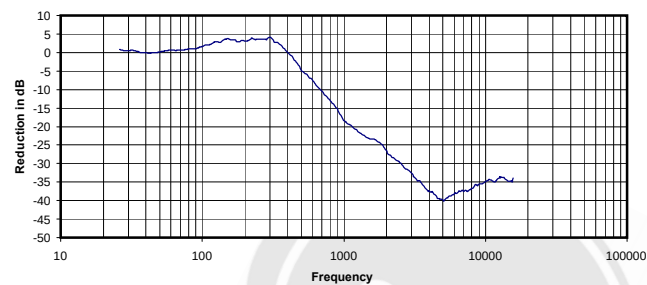
Headphone Measurements:

Spider PowerForce

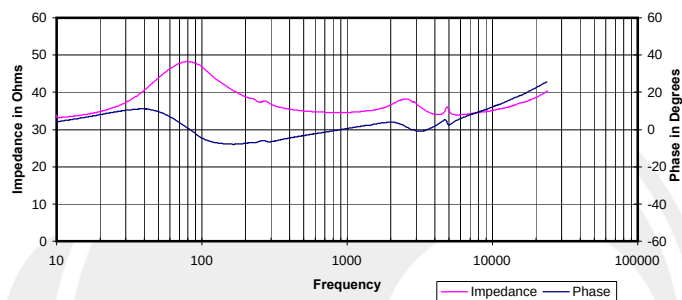
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



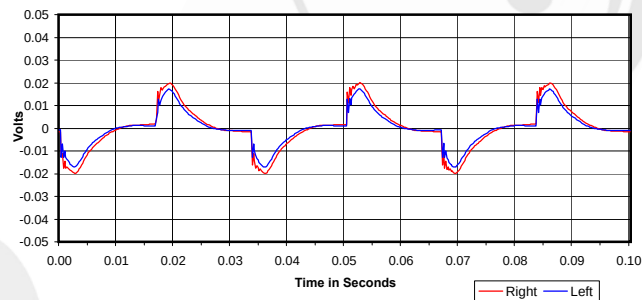
Isolation
Attenuation of External Sound vs. Frequency



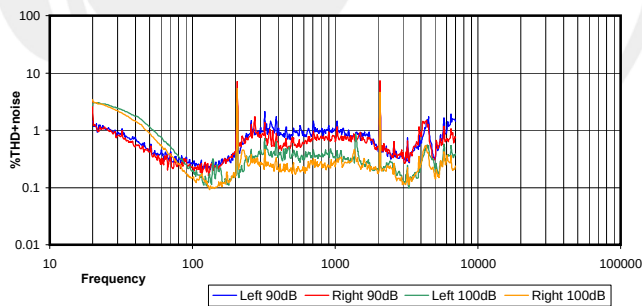
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



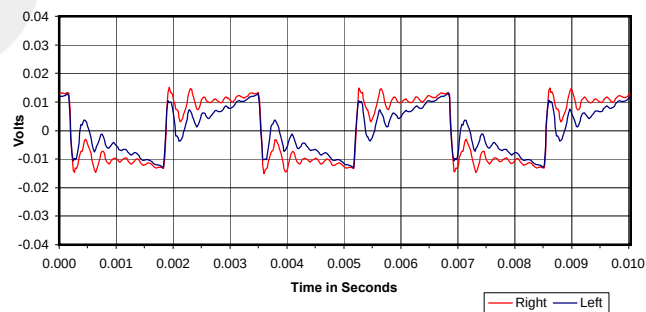
30 Hz Square Wave



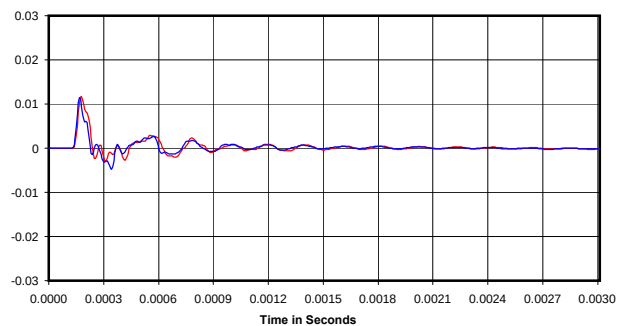
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



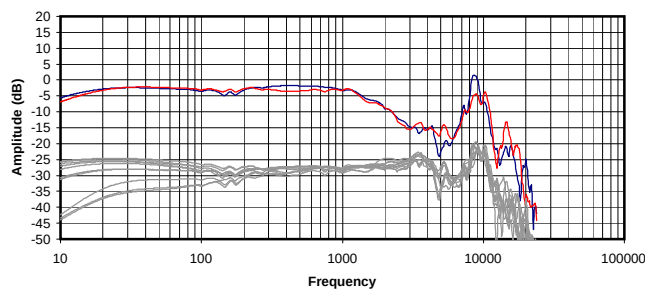
Impulse Response



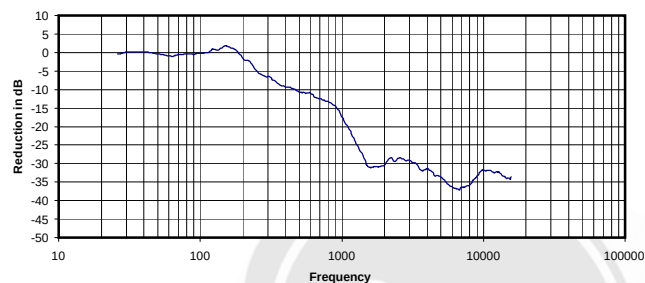
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.044 Vrms
35 Ohms
0.06 mW
-14 dBr

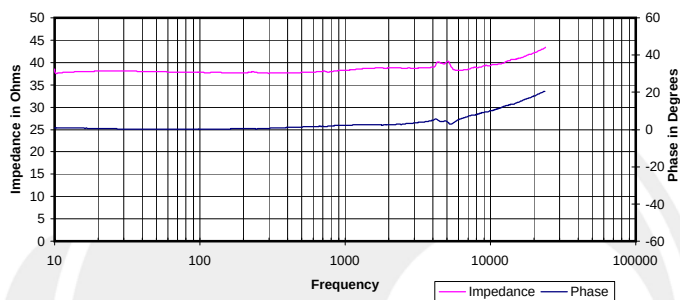
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



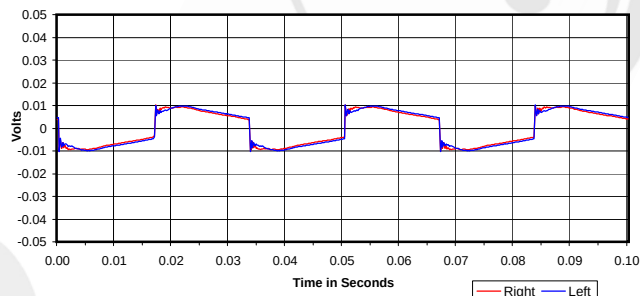
Isolation
Attenuation of External Sound vs. Frequency



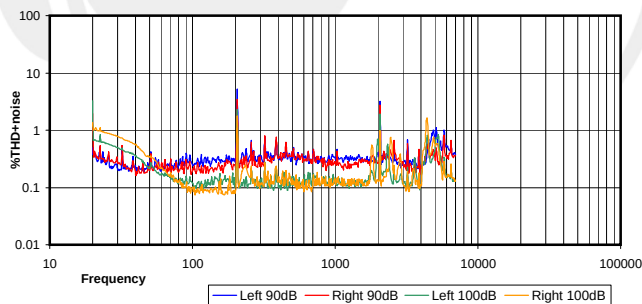
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



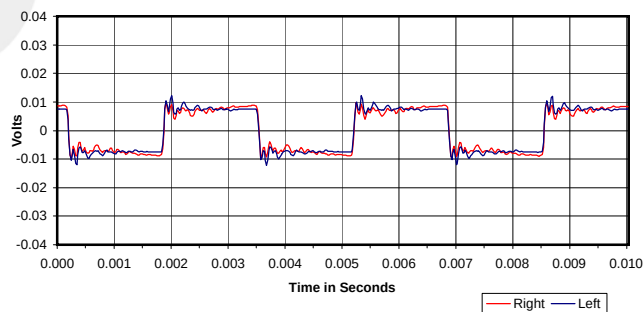
30 Hz Square Wave



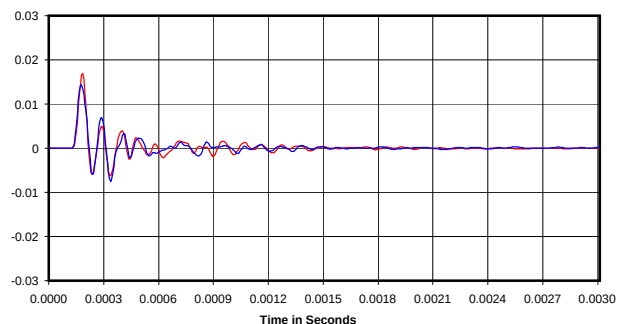
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



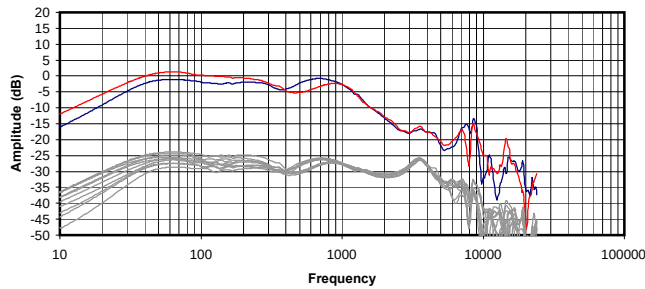
Impulse Response



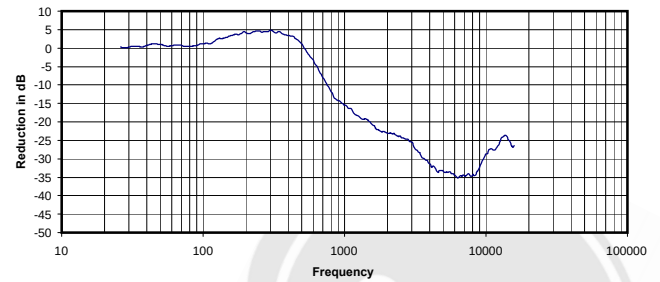
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.035 Vrms
38 Ohms
0.03 mW
-16 dBr

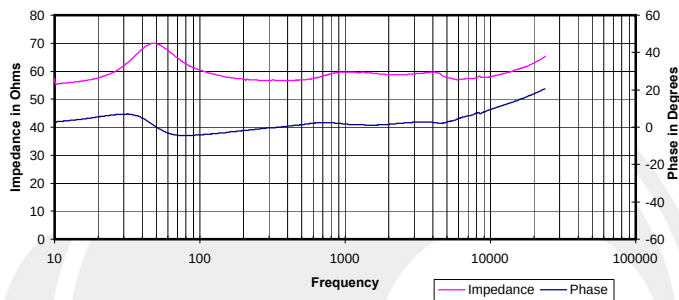
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



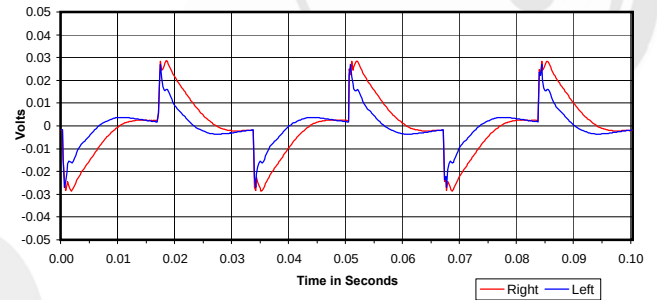
Isolation
Attenuation of External Sound vs. Frequency



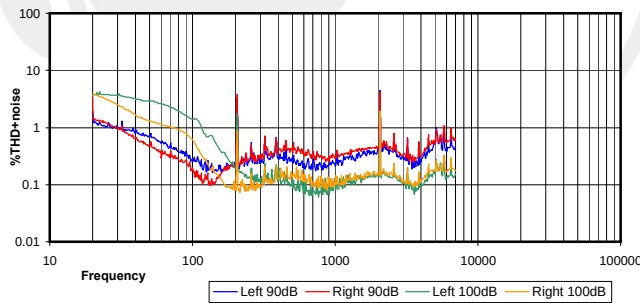
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



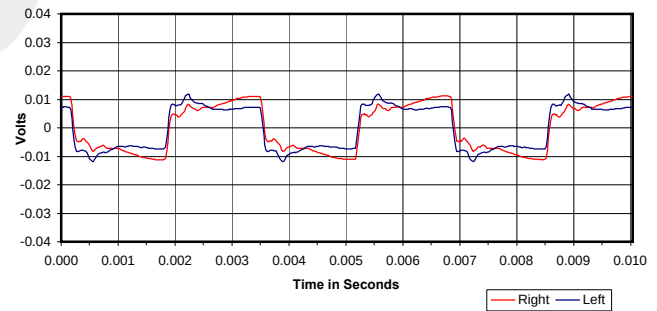
30 Hz Square Wave



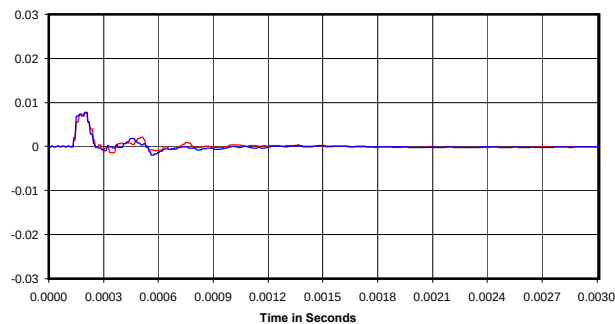
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



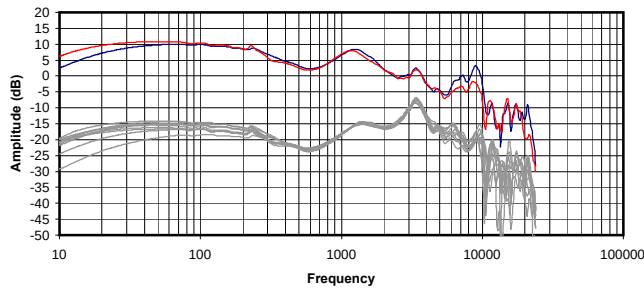
Impulse Response



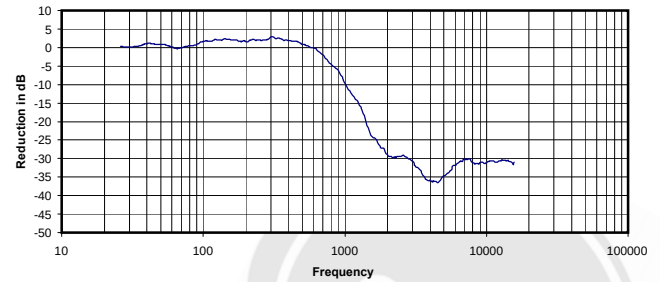
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.023 Vrms
60 Ohms
0.01 mW
-11 dBr

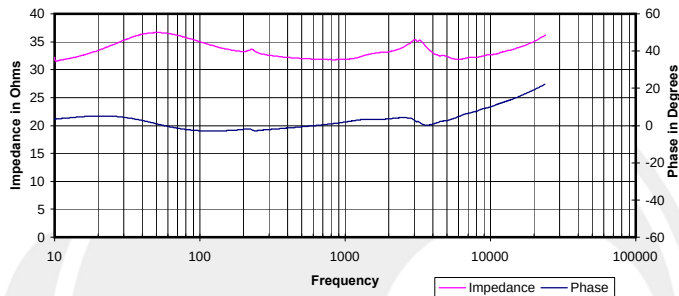
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



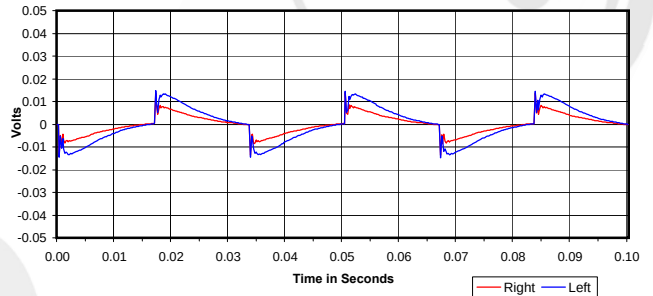
Isolation
Attenuation of External Sound vs. Frequency



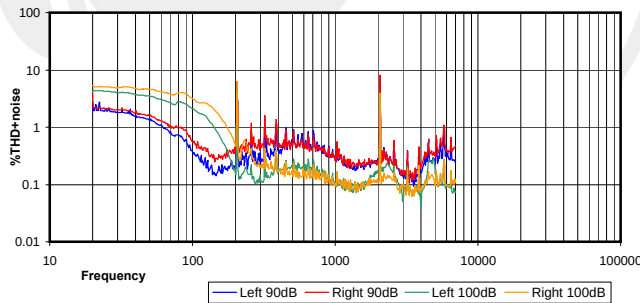
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



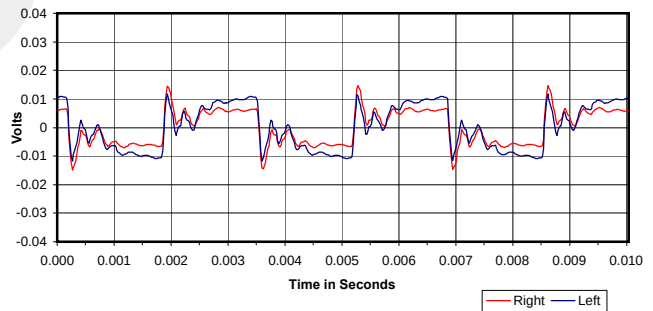
30 Hz Square Wave



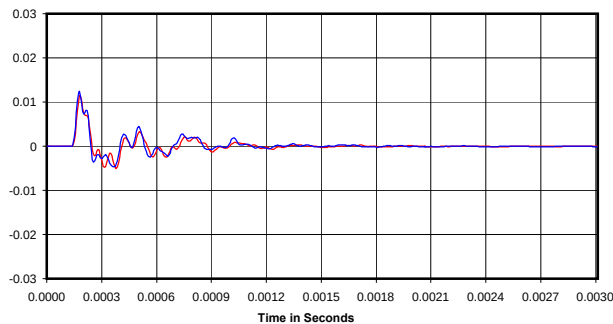
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



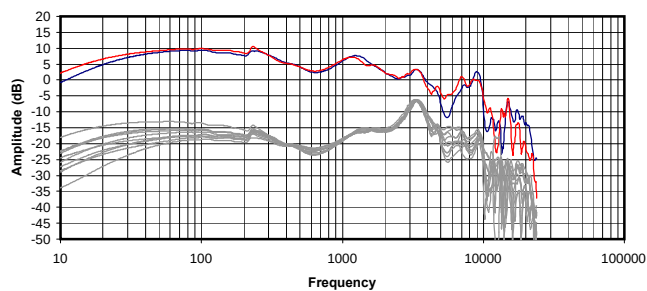
Impulse Response



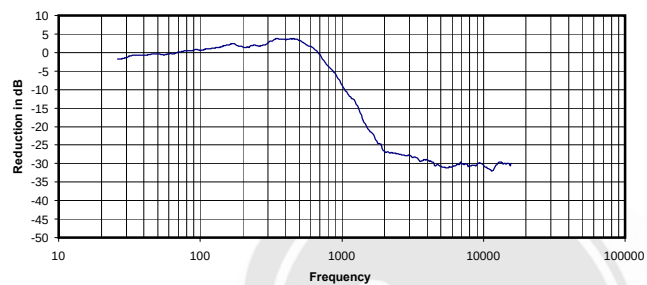
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.037 Vrms
32 Ohms
0.04 mW
-12 dBr

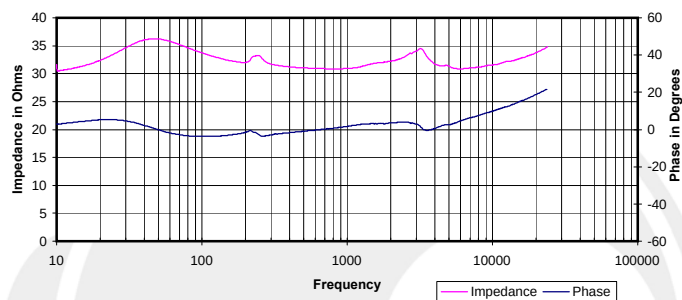
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



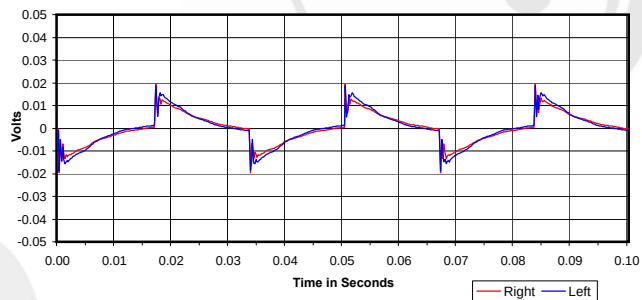
Isolation
Attenuation of External Sound vs. Frequency



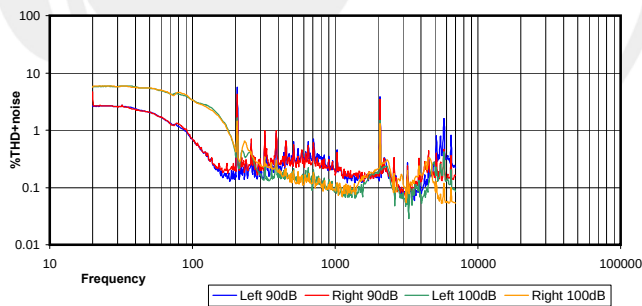
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



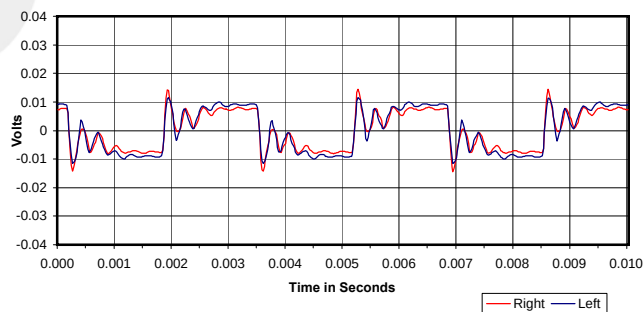
30 Hz Square Wave



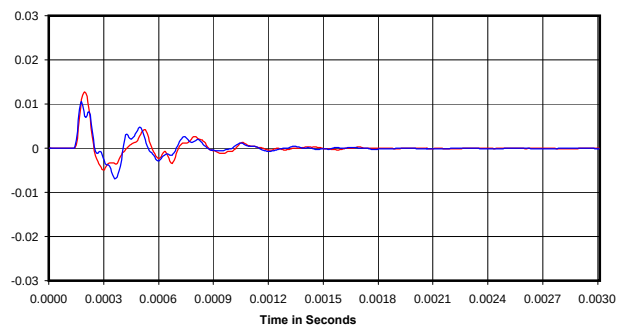
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



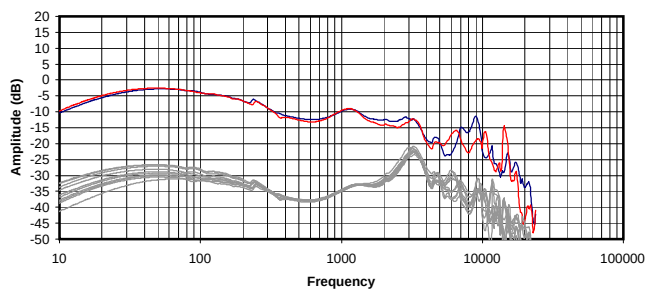
Impulse Response



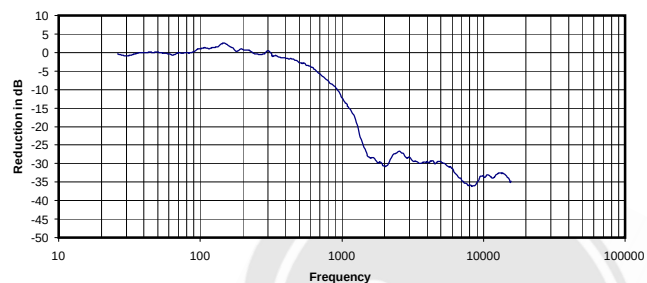
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.039 Vrms
31 Ohms
0.05 mW
-10 dBr

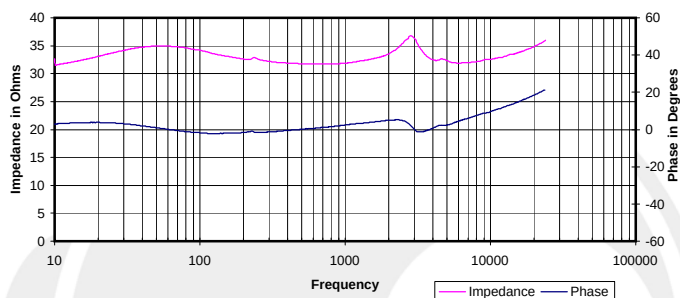
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



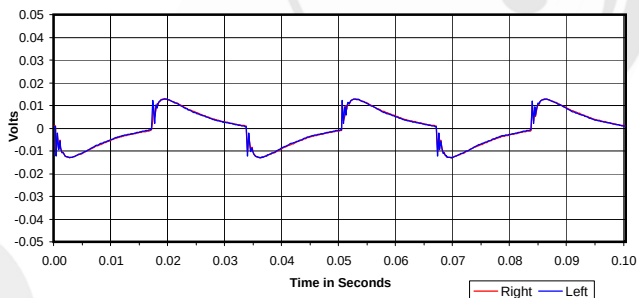
Isolation
Attenuation of External Sound vs. Frequency



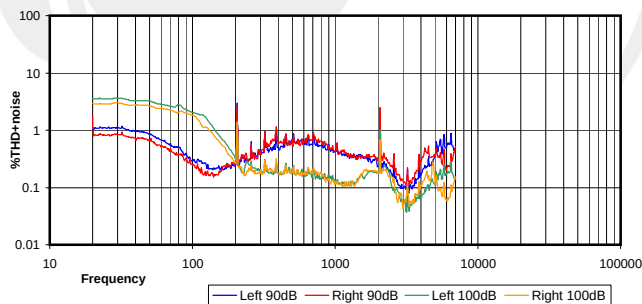
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



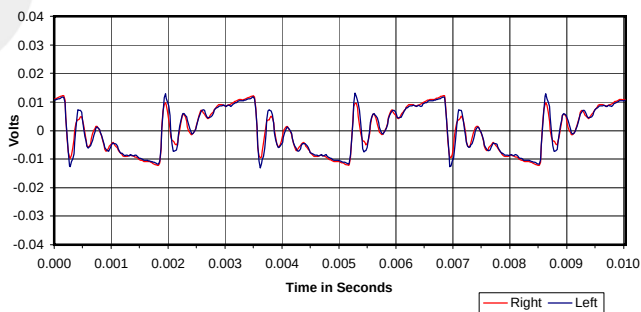
30 Hz Square Wave



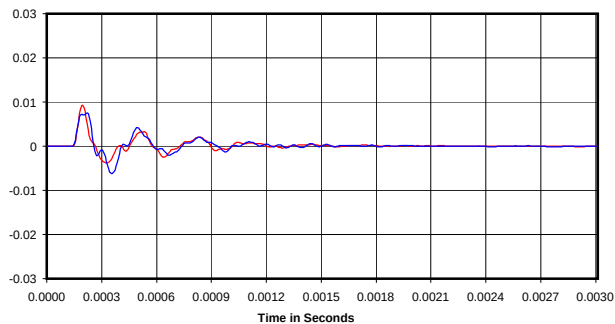
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



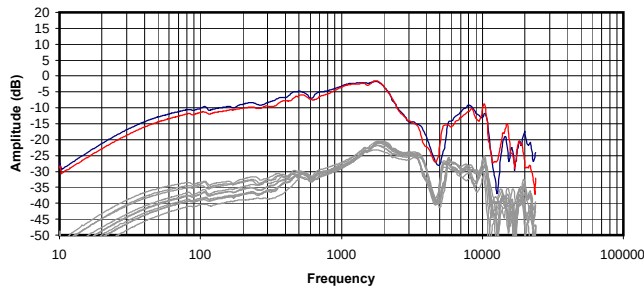
Impulse Response



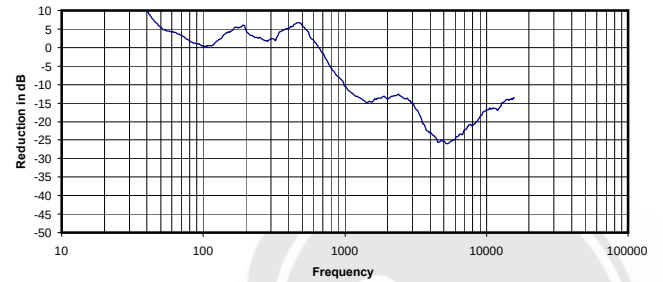
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.036 Vrms
32 Ohms
0.04 mW
-13 dBr

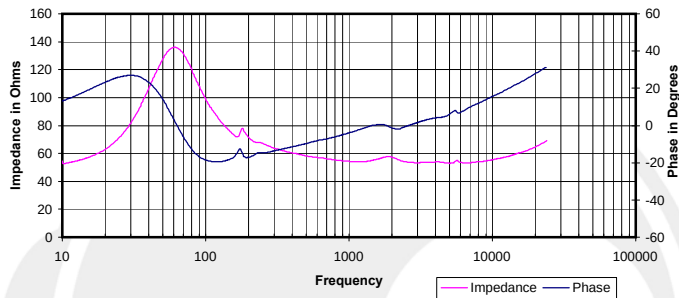
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



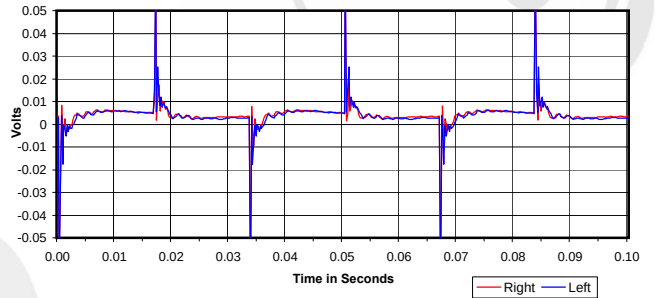
Isolation
Attenuation of External Sound vs. Frequency



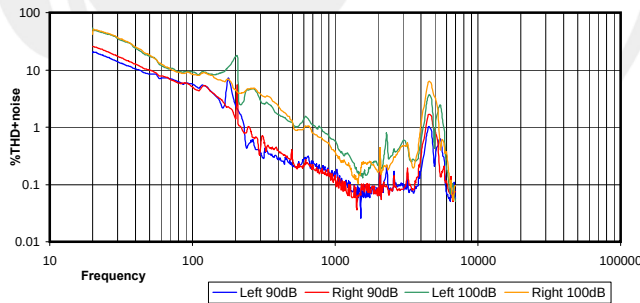
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



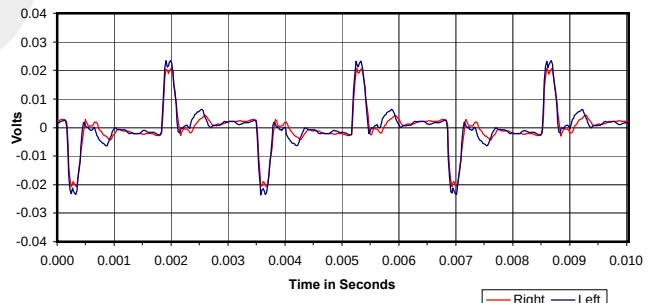
30 Hz Square Wave



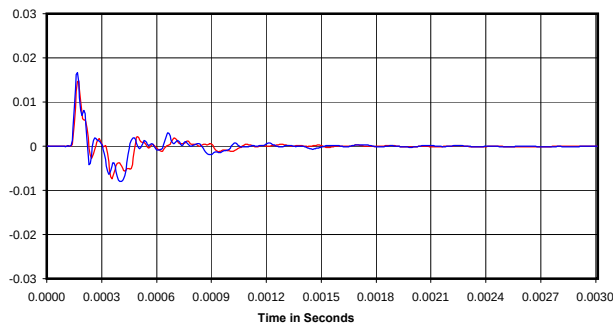
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

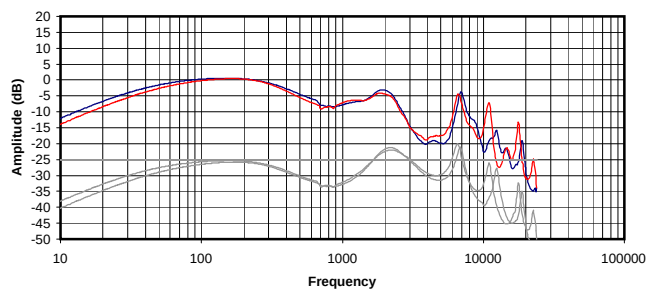
0.039 Vrms
54 Ohms
0.03 mW
-6 dBr

Headphone Measurement Datasheets

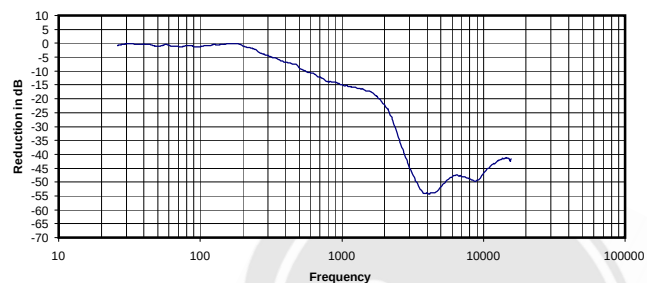
In-Ear Headphones



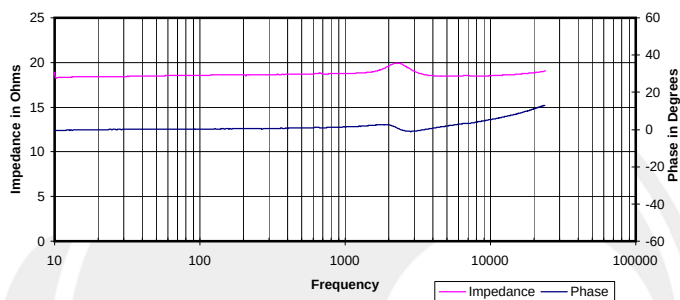
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



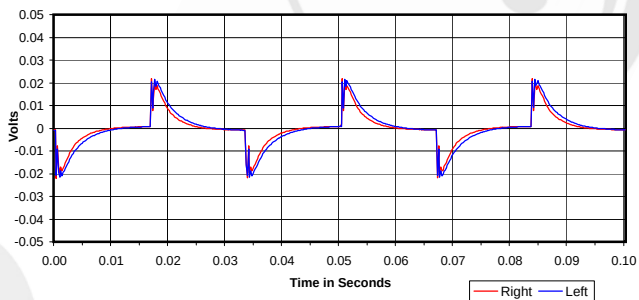
Isolation
Attenuation of External Sound vs. Frequency



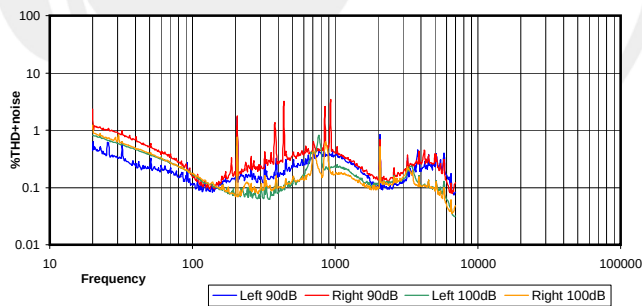
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



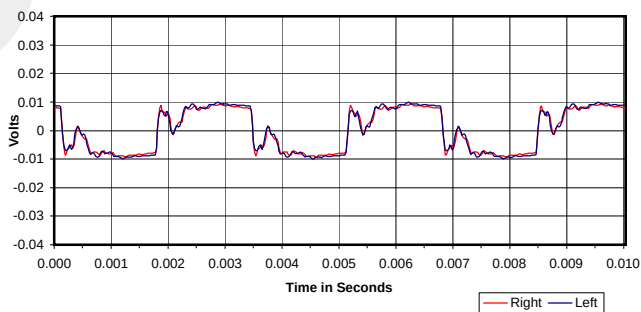
30 Hz Square Wave



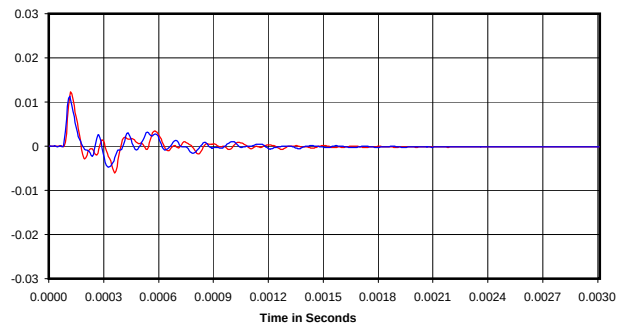
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



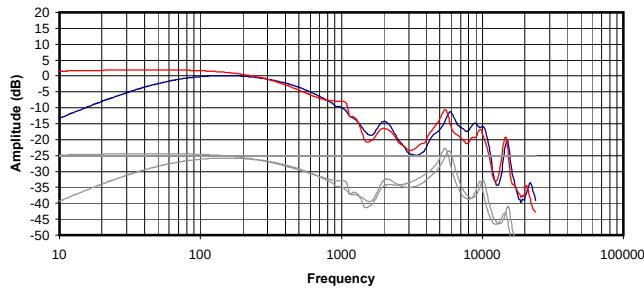
Impulse Response



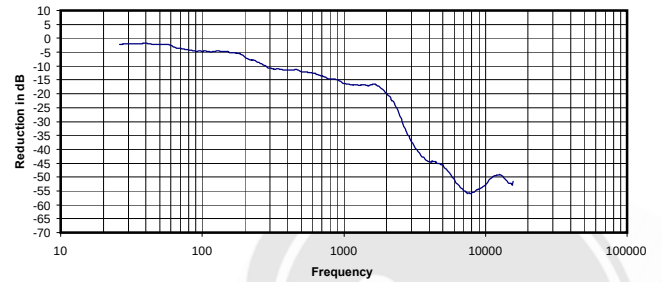
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.031 Vrms
19 Ohms
0.05 mW
-18 dB

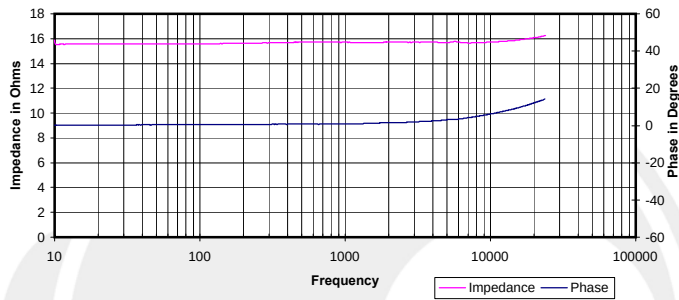
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



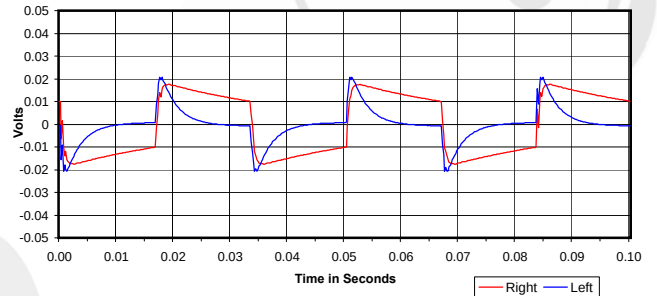
Isolation
Attenuation of External Sound vs. Frequency



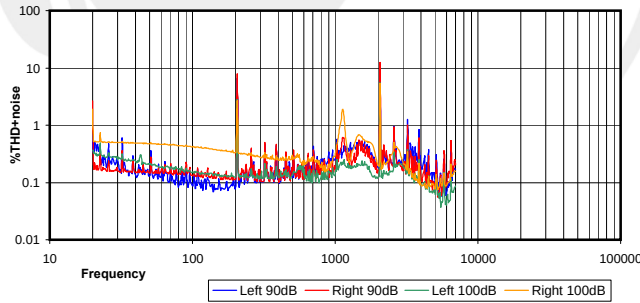
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



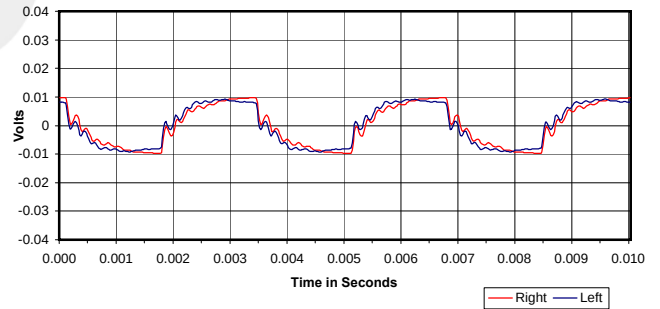
30 Hz Square Wave



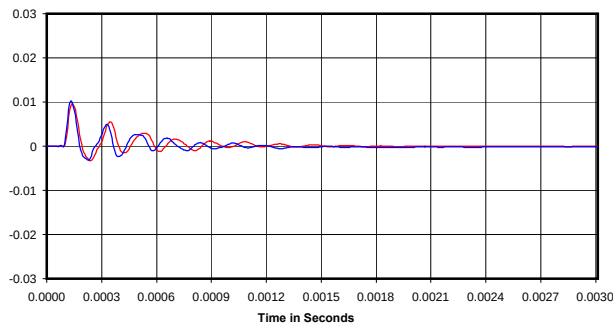
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



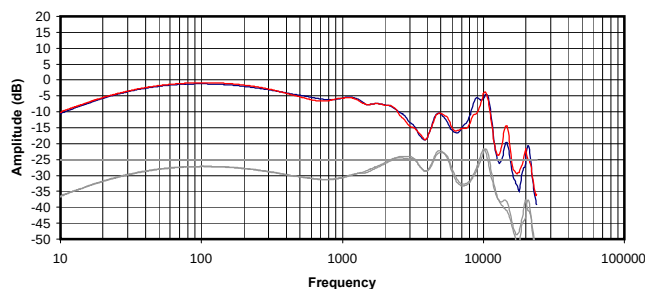
Impulse Response



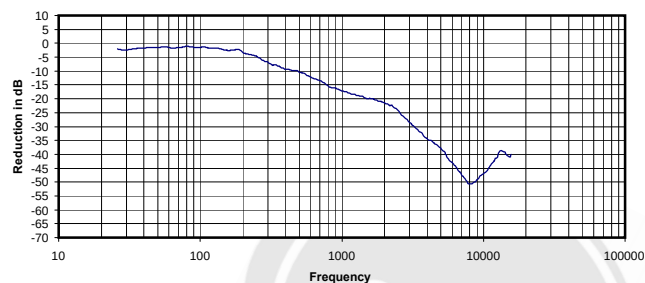
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.040 Vrms
16 Ohms
0.10 mW
-19 dBr

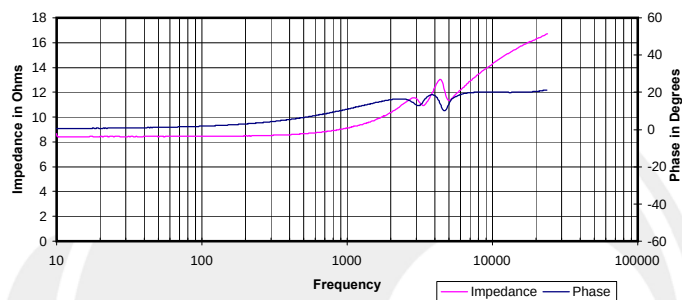
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



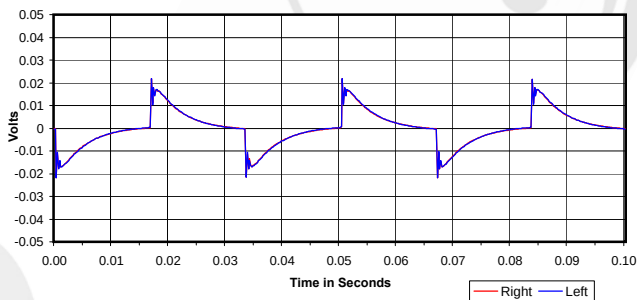
Isolation
Attenuation of External Sound vs. Frequency



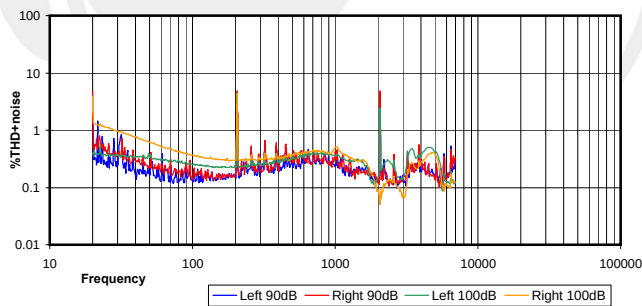
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



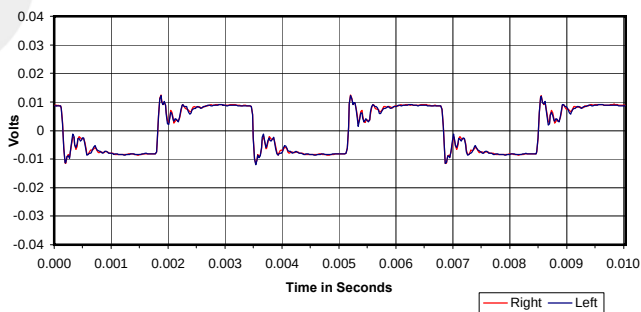
30 Hz Square Wave



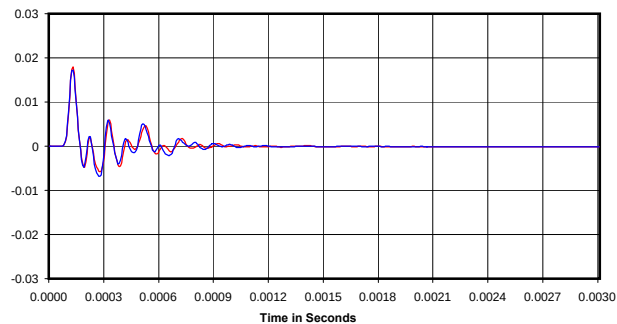
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



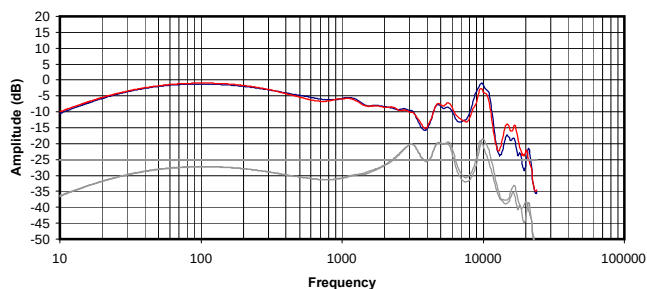
Impulse Response



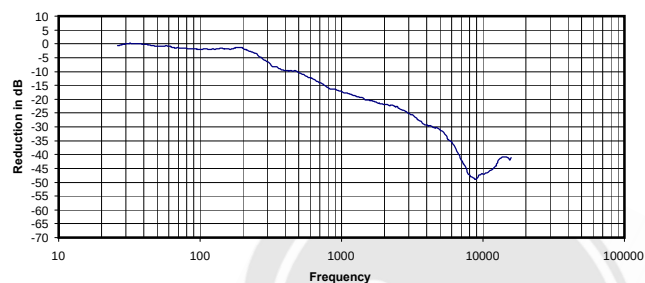
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.023 Vrms
9 Ohms
0.06 mW
-16 dB

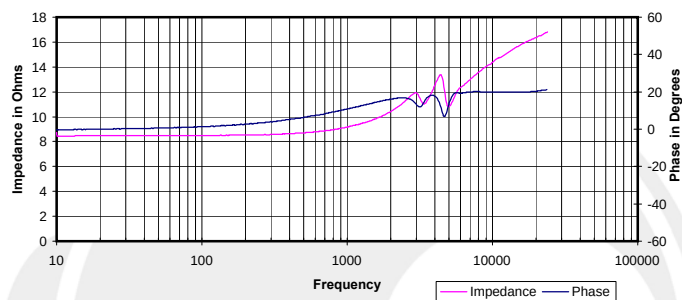
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



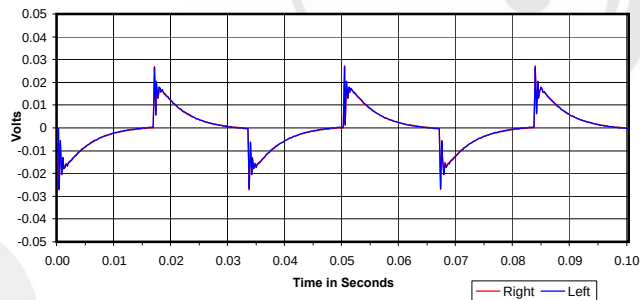
Isolation
Attenuation of External Sound vs. Frequency



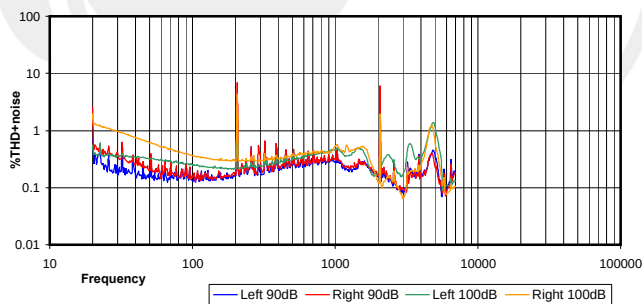
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



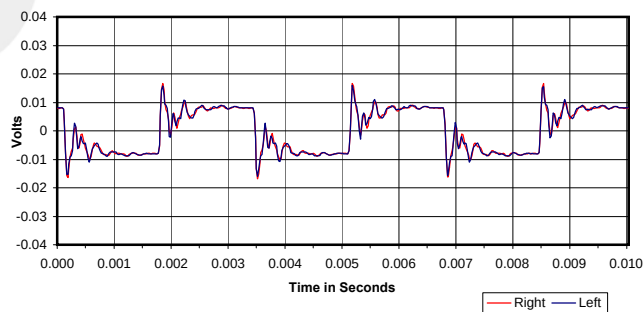
30 Hz Square Wave



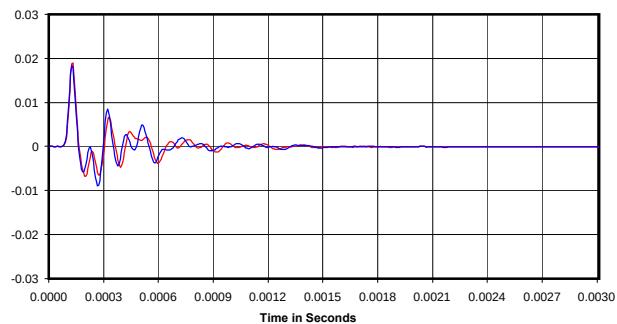
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



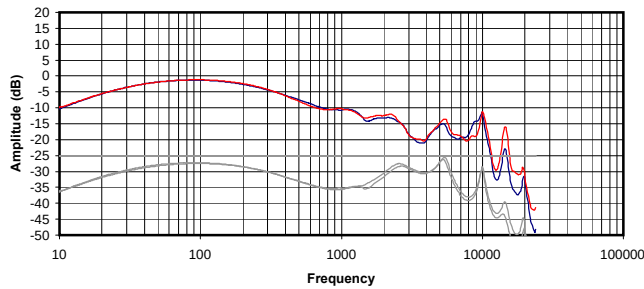
Impulse Response



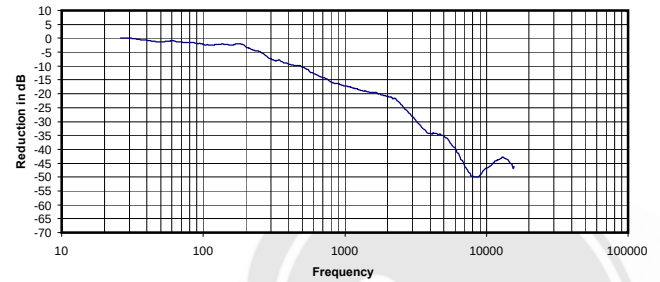
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.024 Vrms
9 Ohms
0.06 mW
-15 dBr

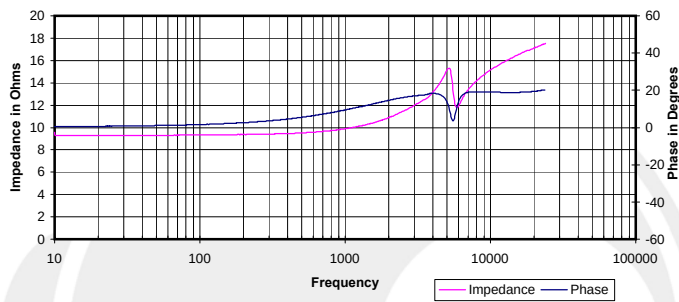
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



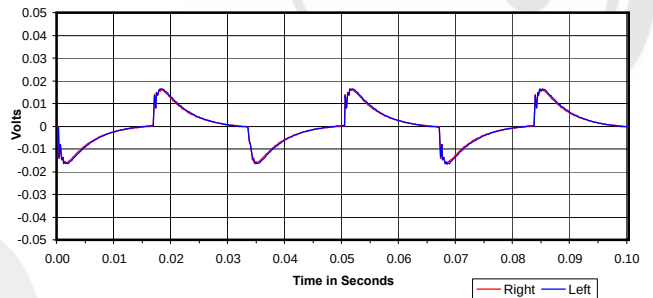
Isolation
Attenuation of External Sound vs. Frequency



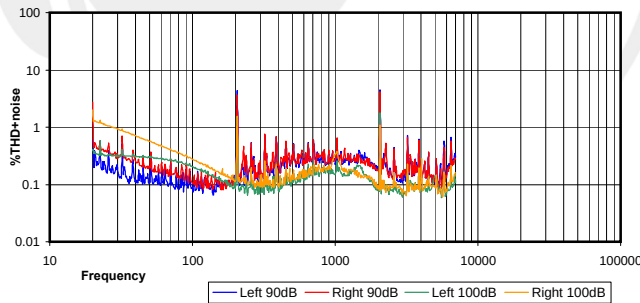
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



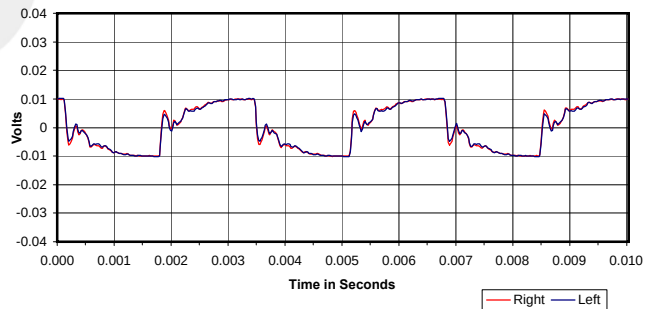
30 Hz Square Wave



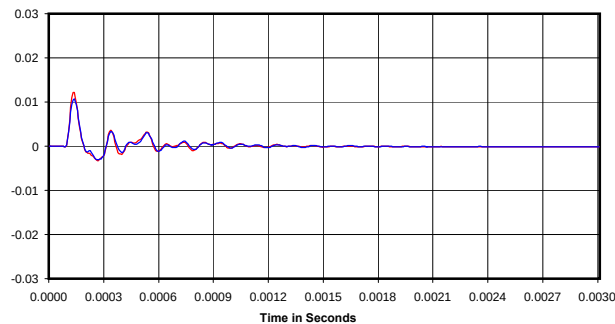
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



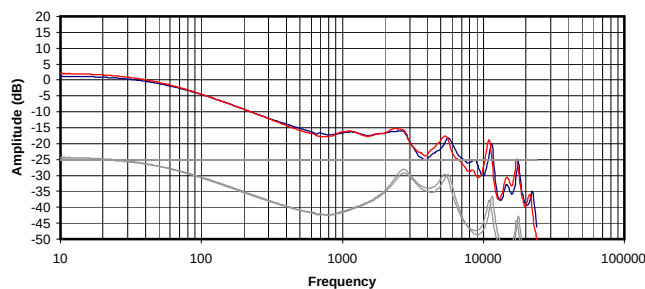
Impulse Response



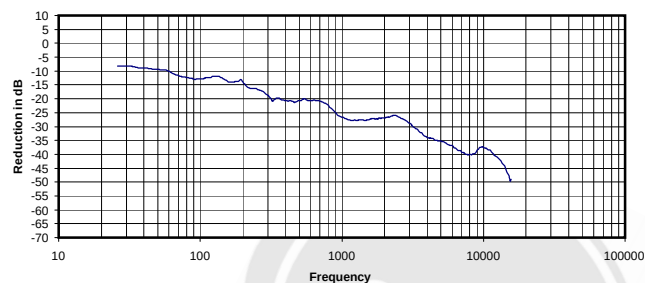
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.051 Vrms
10 Ohms
0.27 mW
-16 dBr

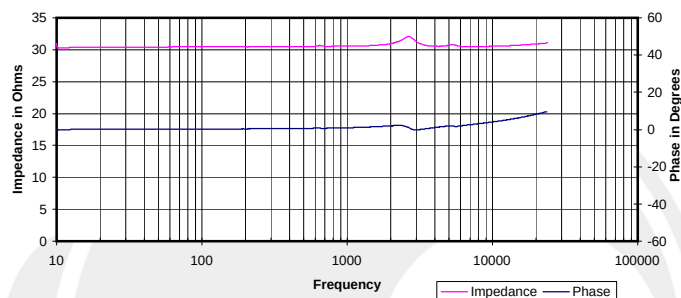
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



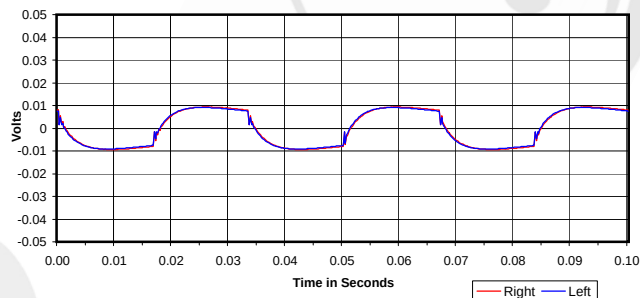
Isolation
Attenuation of External Sound vs. Frequency



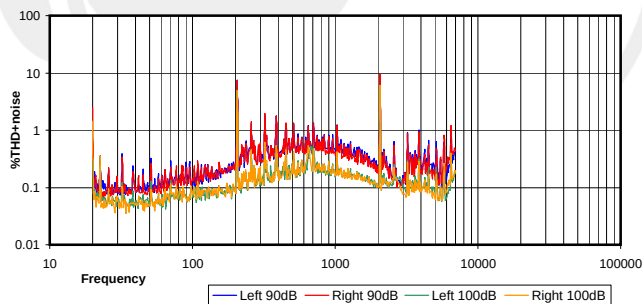
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



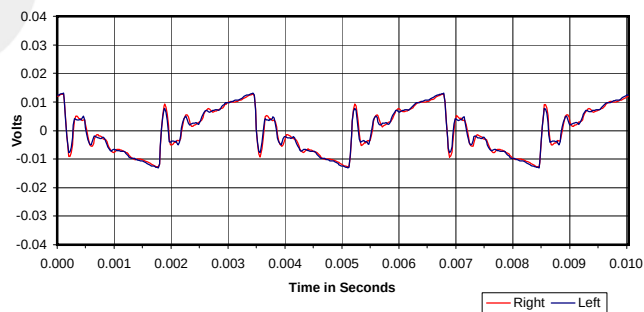
30 Hz Square Wave



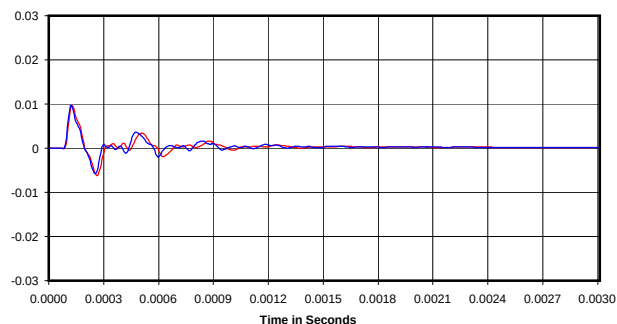
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



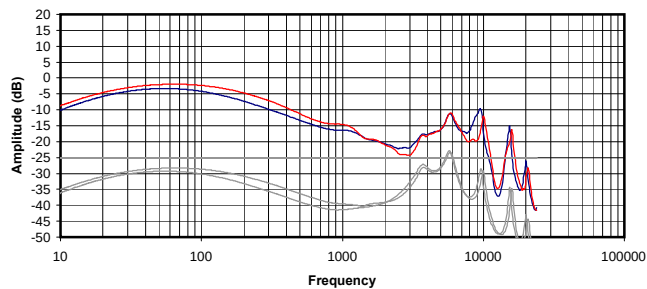
Impulse Response



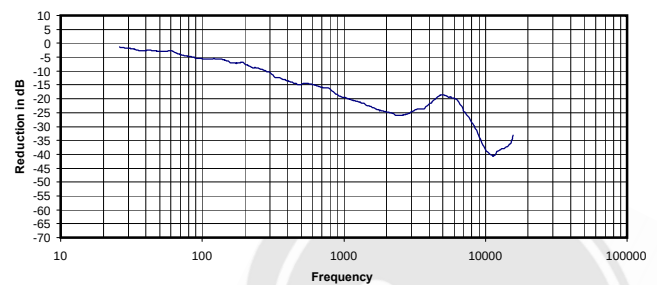
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.047 Vrms
31 Ohms
0.07 mW
-23 dBr

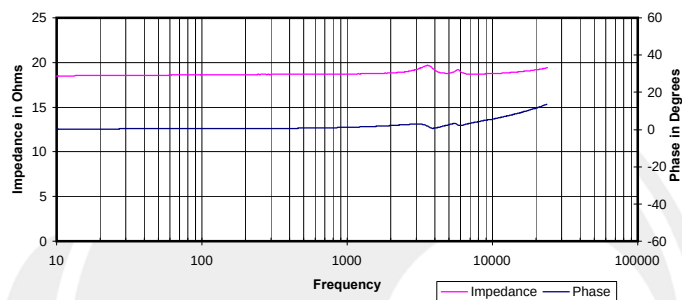
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



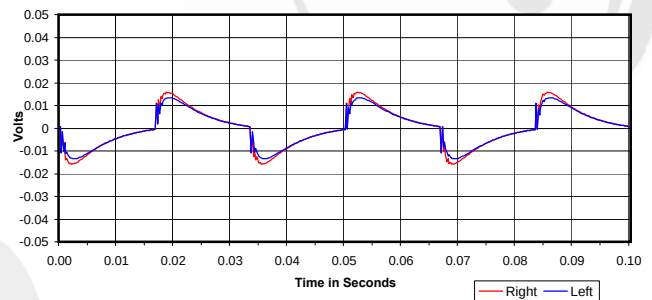
Isolation
Attenuation of External Sound vs. Frequency



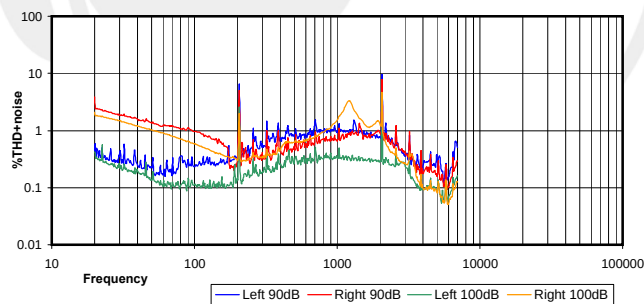
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



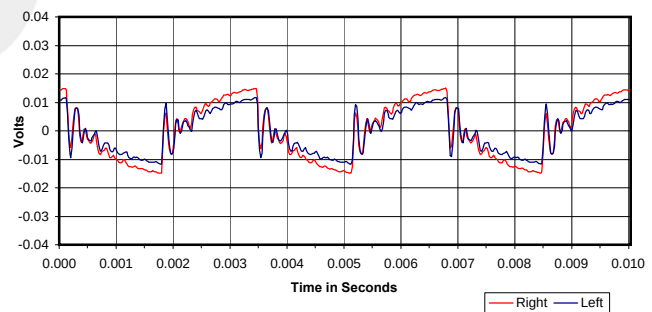
30 Hz Square Wave



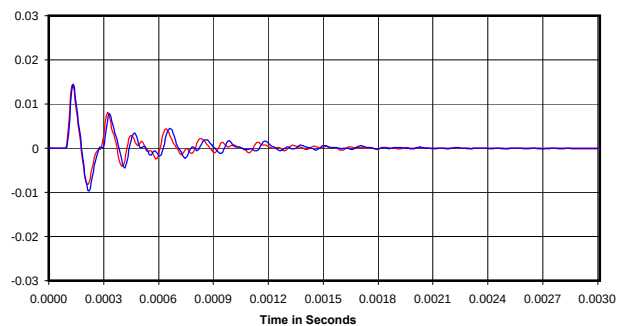
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



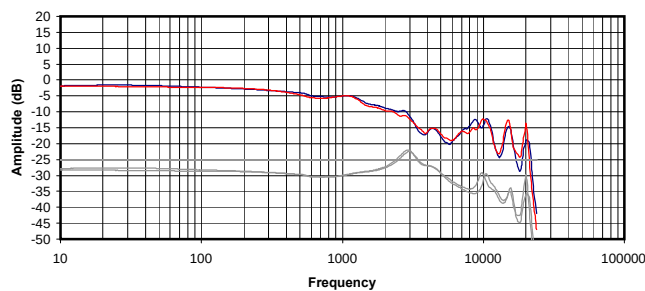
Impulse Response



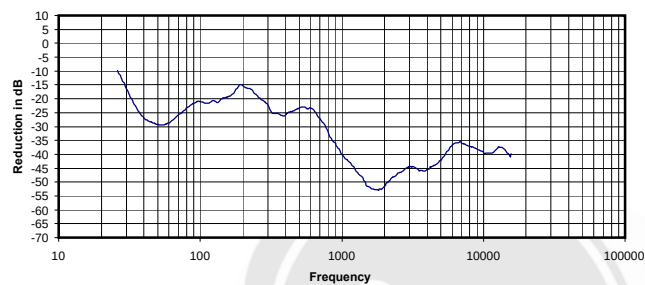
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.038 Vrms
19 Ohms
0.08 mW
-16 dBr

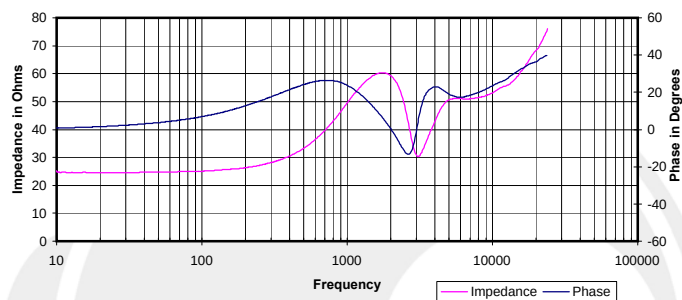
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



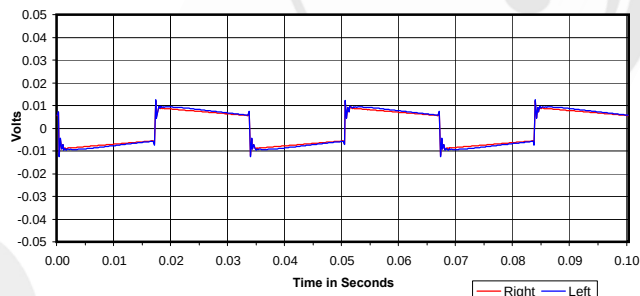
Isolation
Attenuation of External Sound vs. Frequency



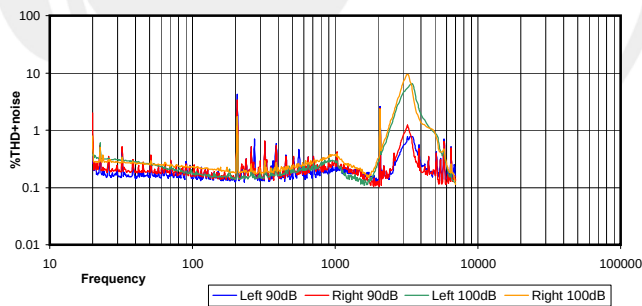
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



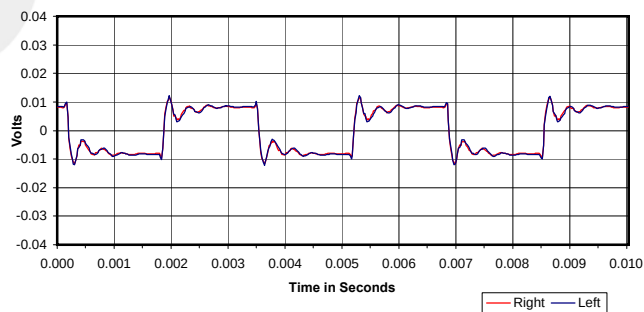
30 Hz Square Wave



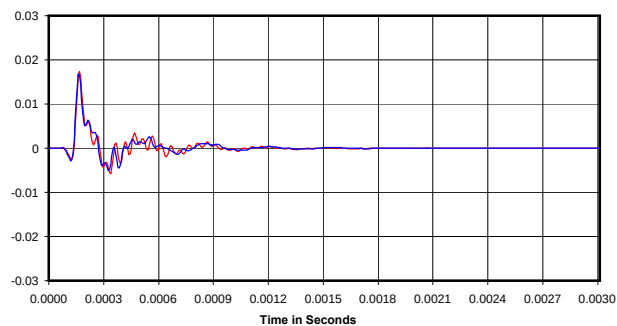
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



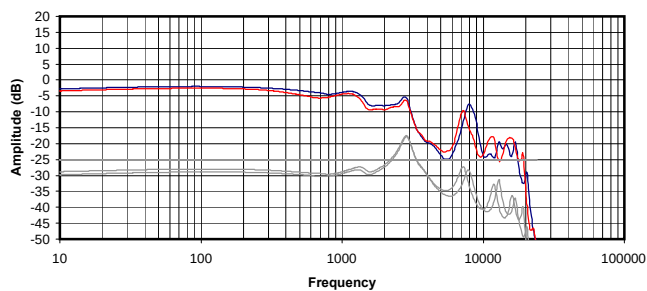
Impulse Response



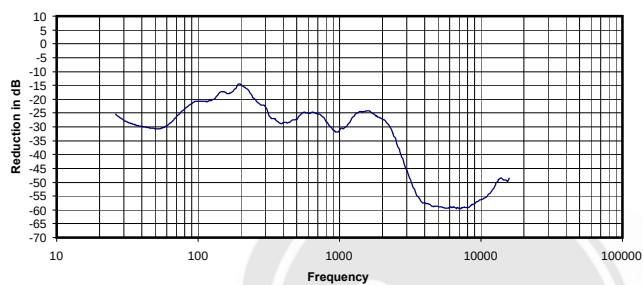
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.035 Vrms
49 Ohms
0.02 mW
-33 dBr

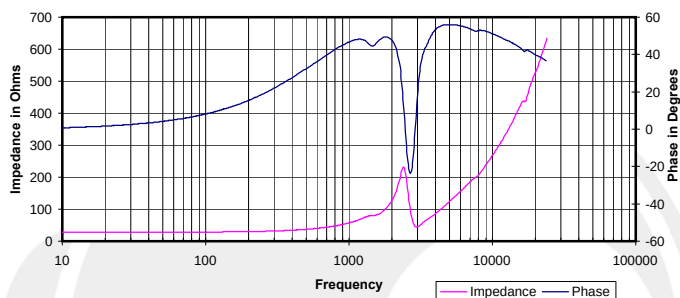
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



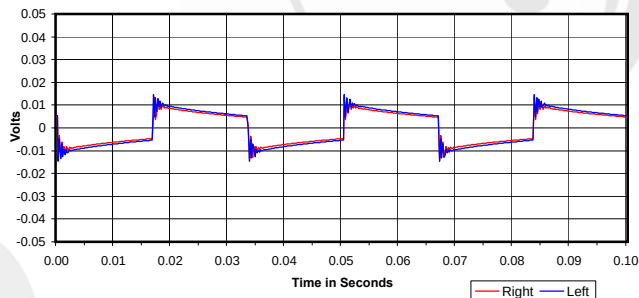
Isolation
Attenuation of External Sound vs. Frequency



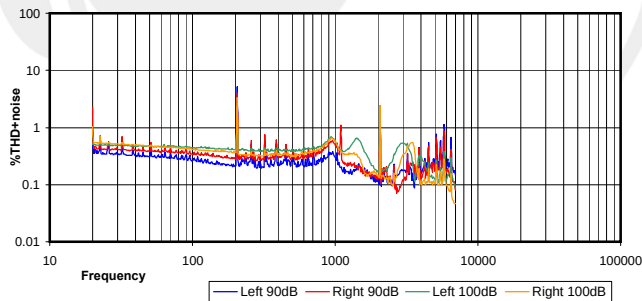
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



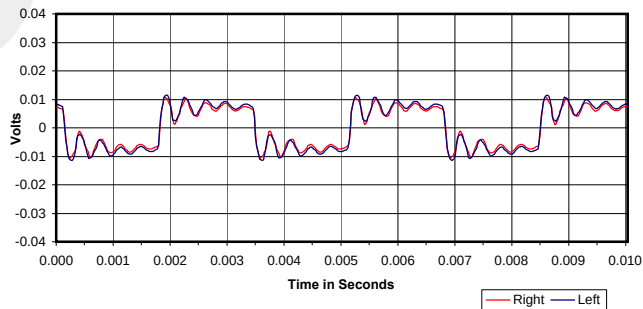
30 Hz Square Wave



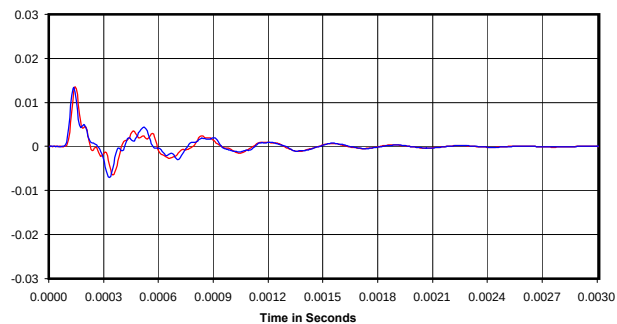
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



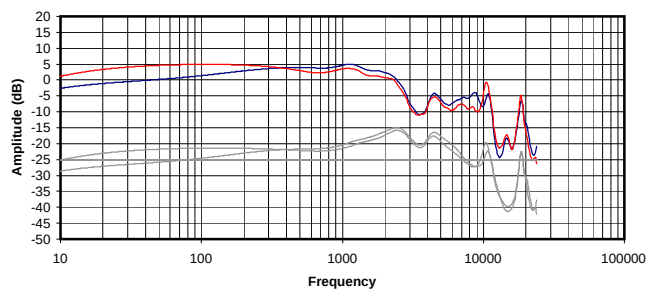
Impulse Response



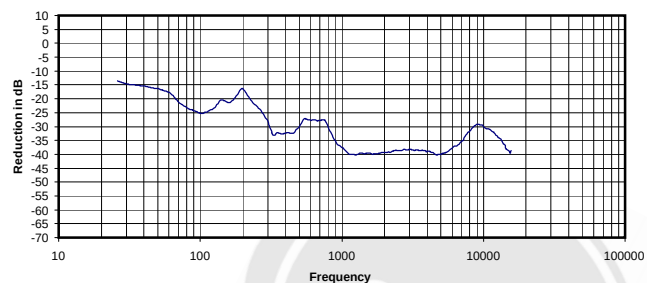
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90dB SPL
Broadband Isolation in dB (100Hz to 10kHz):

0.019 Vrms
57 Ohms
0.01 mW
-31 dBr

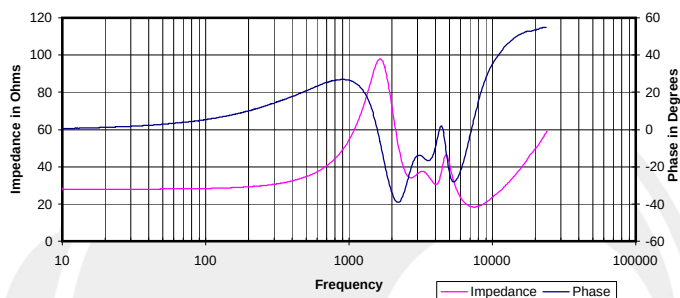
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



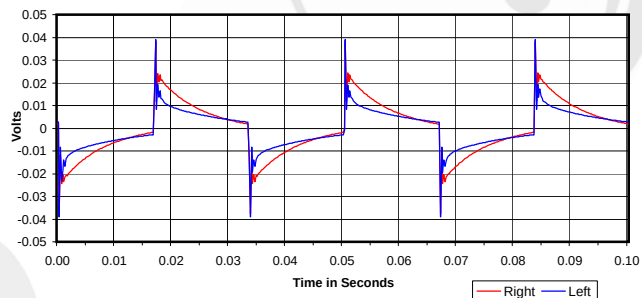
Isolation
Attenuation of External Sound vs. Frequency



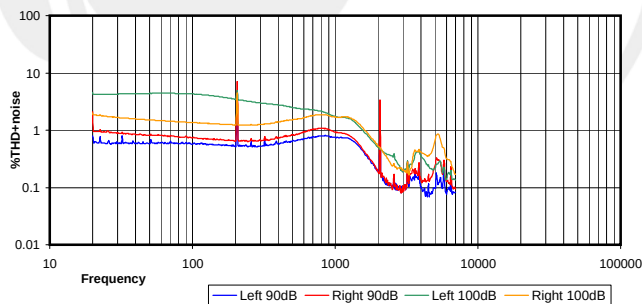
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



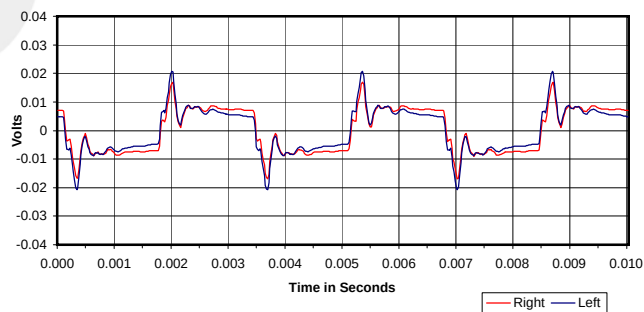
30 Hz Square Wave



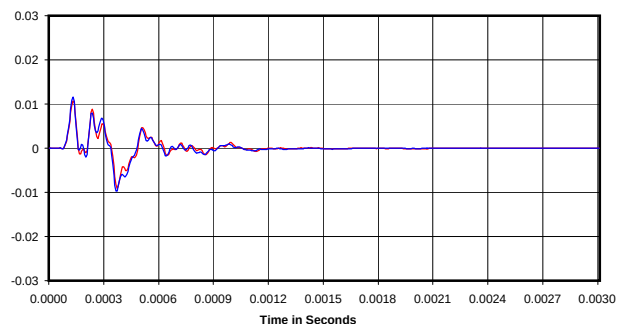
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



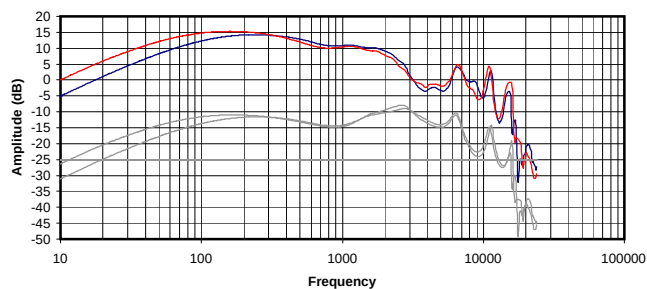
Impulse Response



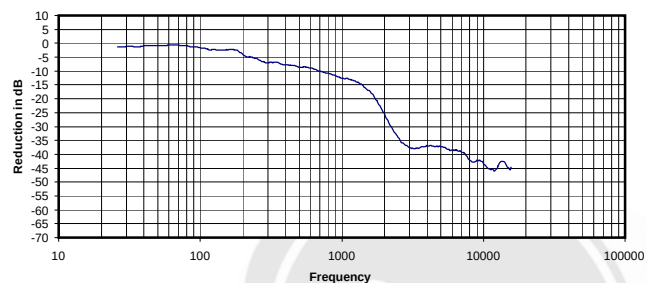
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.027 Vrms
55 Ohms
0.01 mW
-32 dB

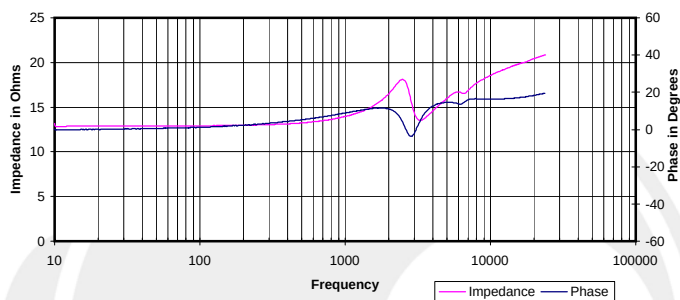
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



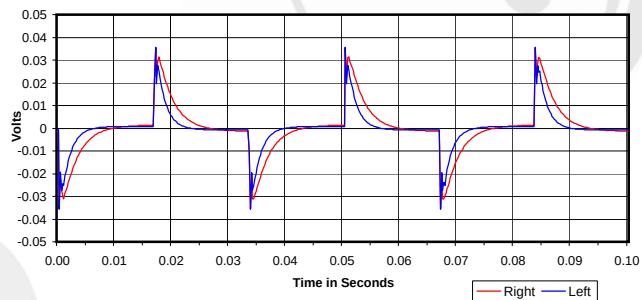
Isolation
Attenuation of External Sound vs. Frequency



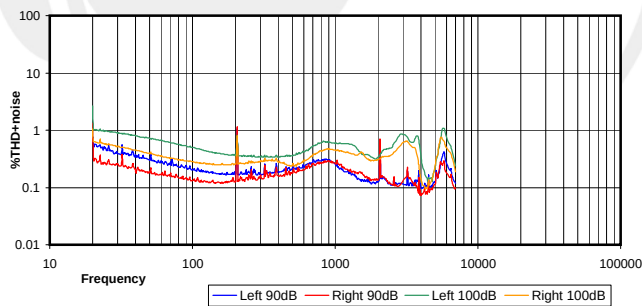
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



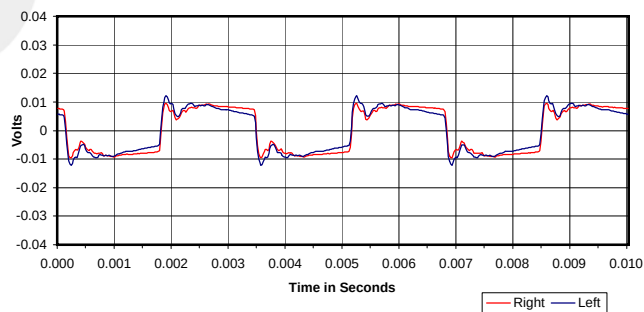
30 Hz Square Wave



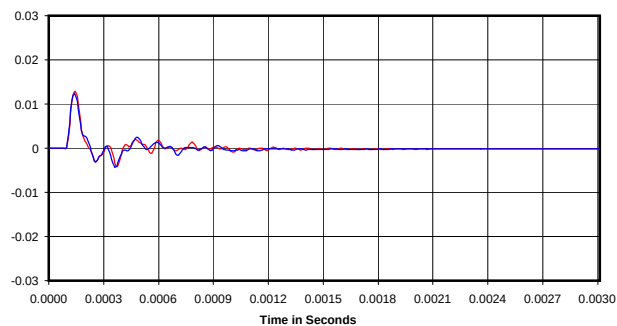
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

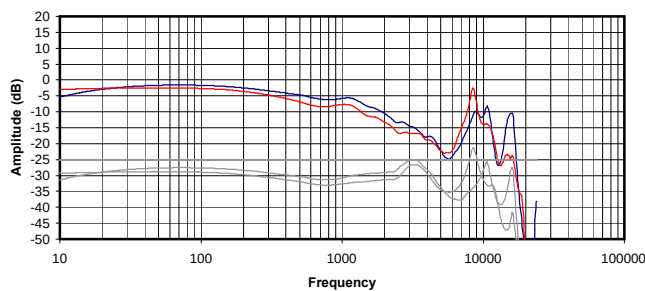
0.022 Vrms
14 Ohms
0.04 mW
-16 dBr



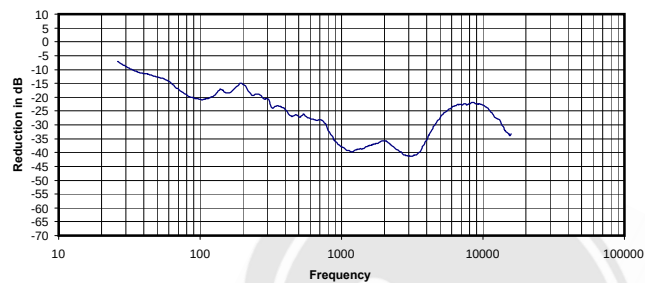
Headphone Measurements:

Audeo PFE 121 Black Filter

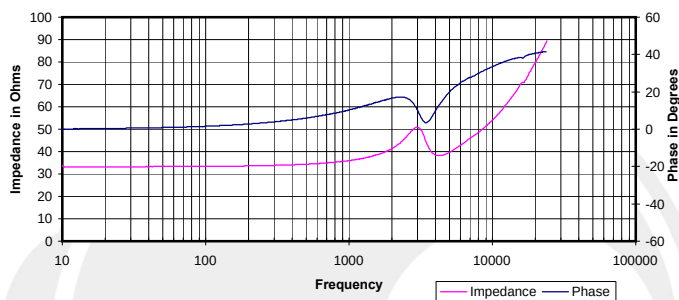
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



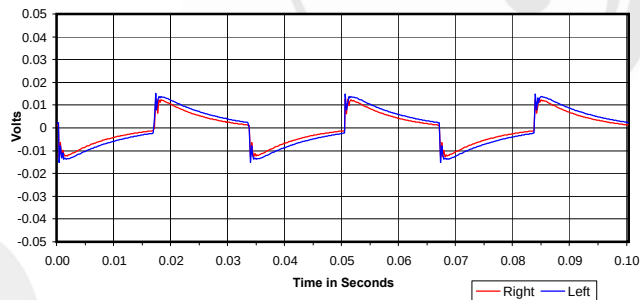
Isolation
Attenuation of External Sound vs. Frequency



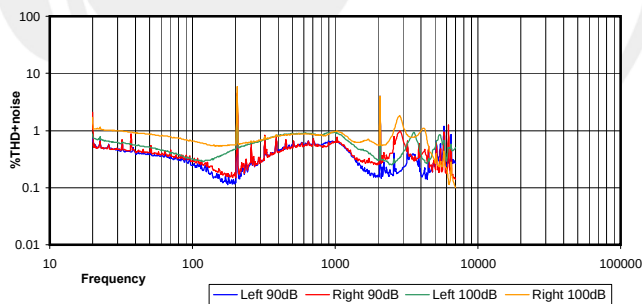
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



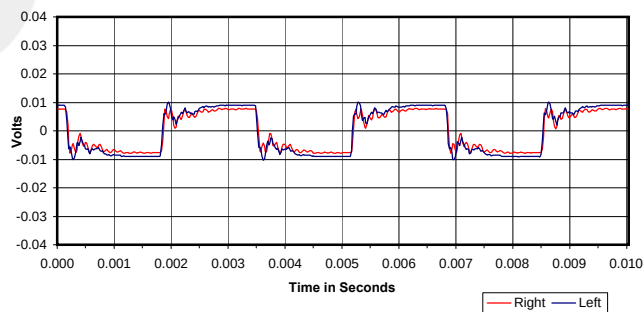
30 Hz Square Wave



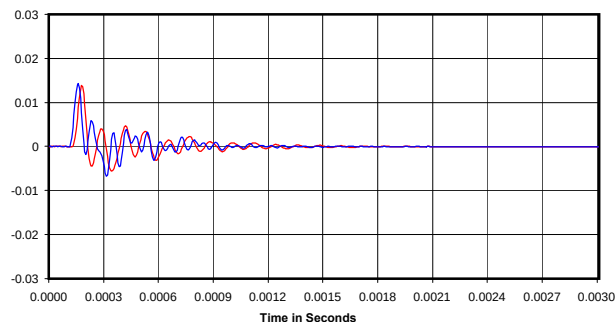
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



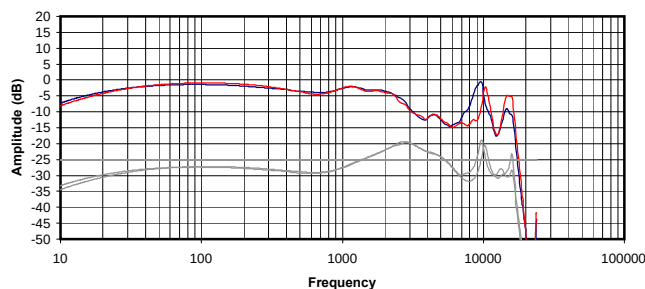
Impulse Response



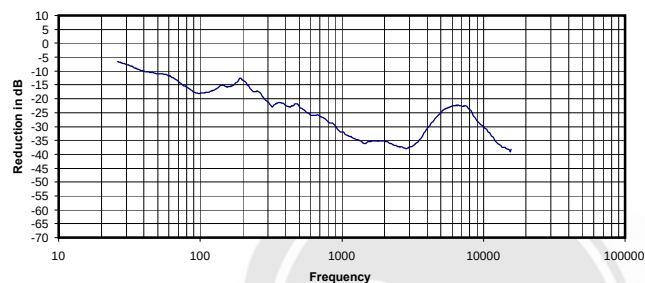
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.050 Vrms
36 Ohms
0.07 mW
-29 dBr

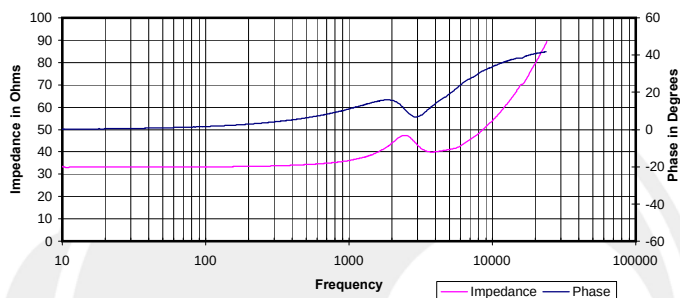
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



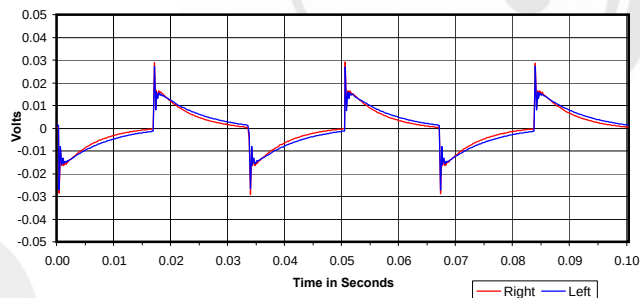
Isolation
Attenuation of External Sound vs. Frequency



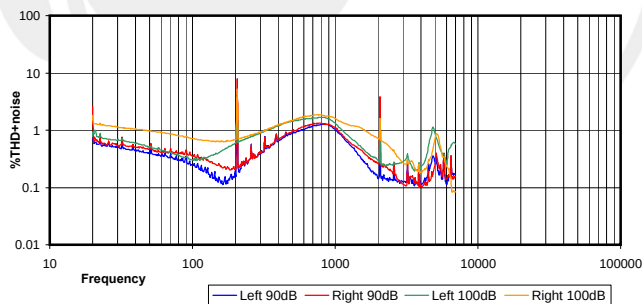
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



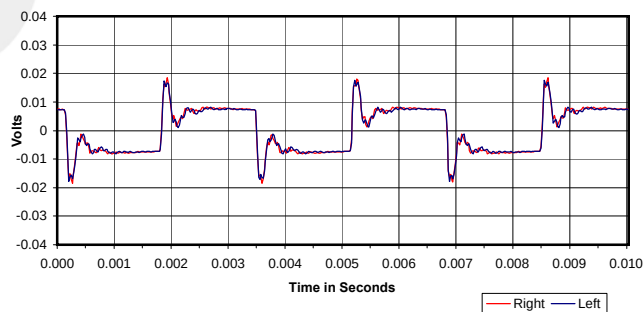
30 Hz Square Wave



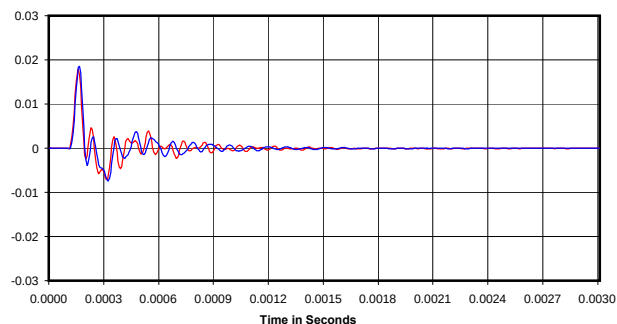
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

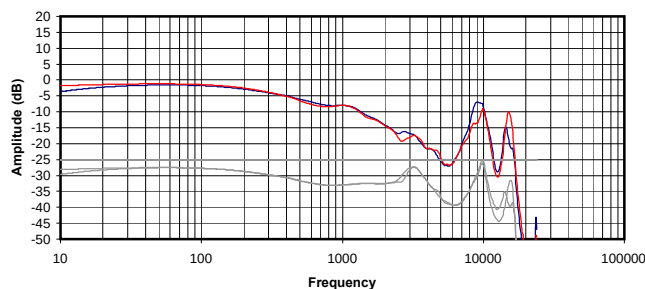
0.036 Vrms
36 Ohms
0.04 mW
-26 dBr



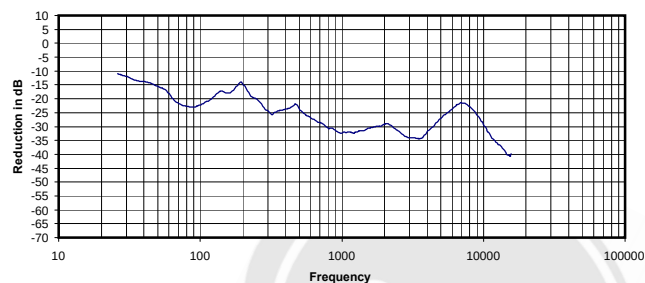
Headphone Measurements:

Audeo PFE 121 Green Filter

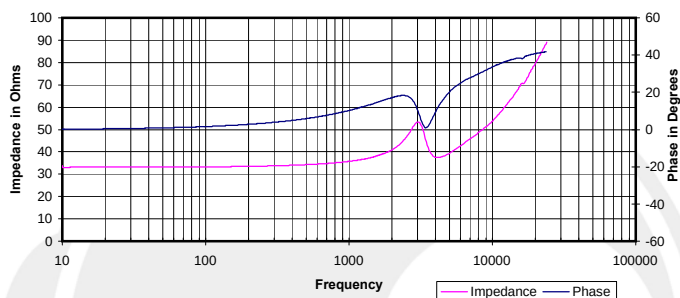
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



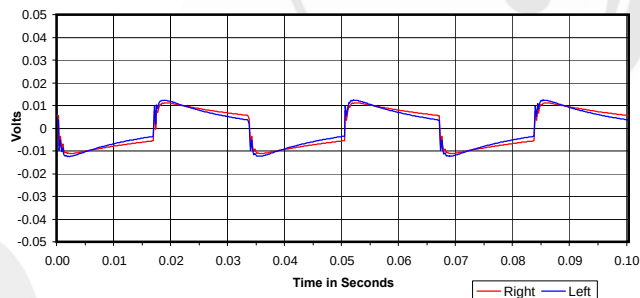
Isolation
Attenuation of External Sound vs. Frequency



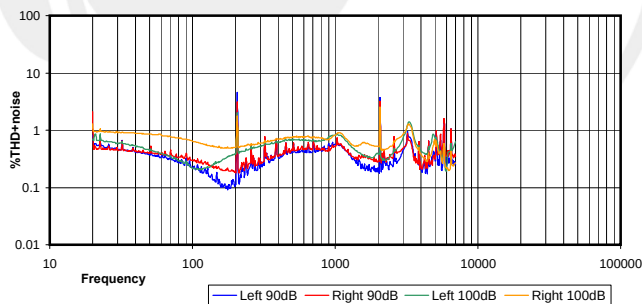
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



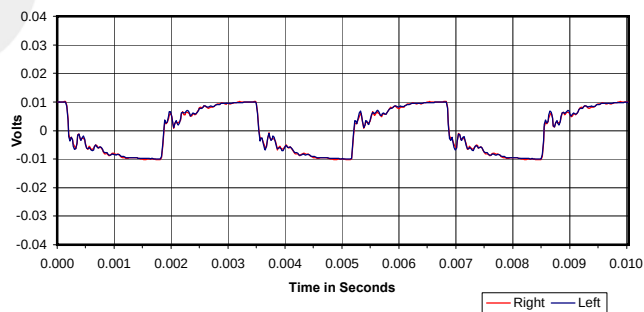
30 Hz Square Wave



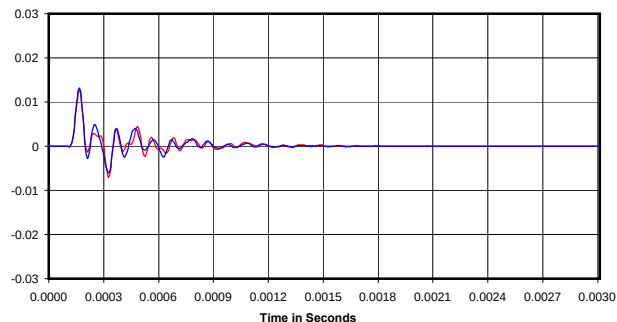
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



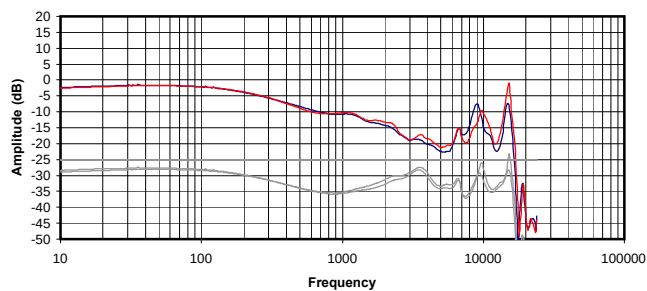
Impulse Response



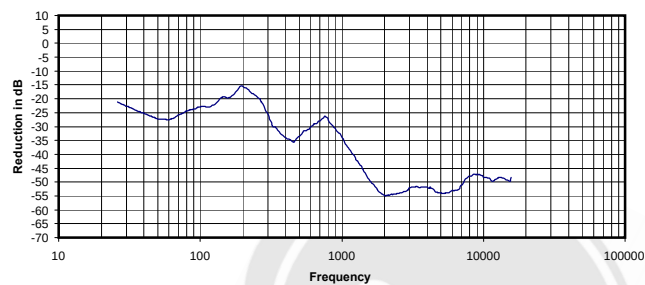
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.067 Vrms
36 Ohms
0.12 mW
-26 dB

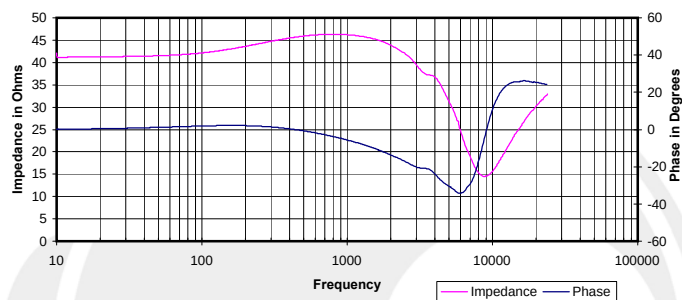
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



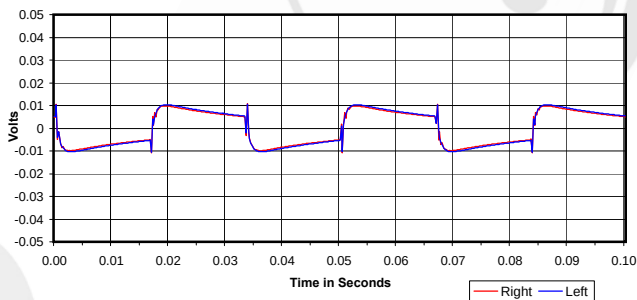
Isolation
Attenuation of External Sound vs. Frequency



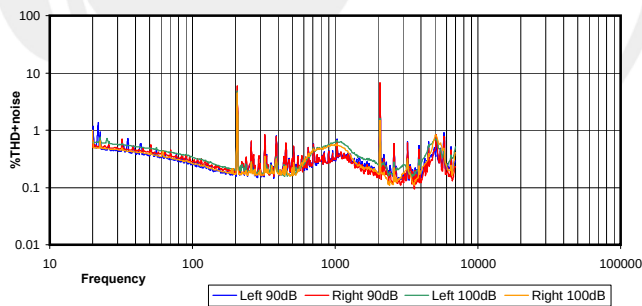
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



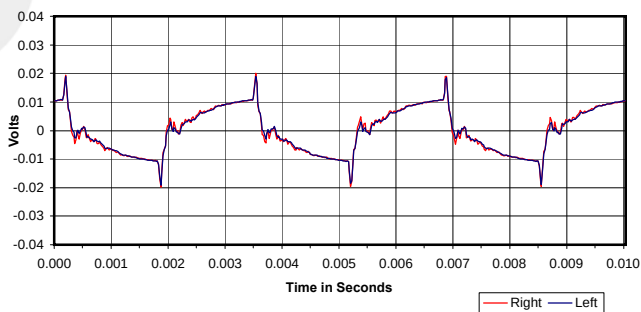
30 Hz Square Wave



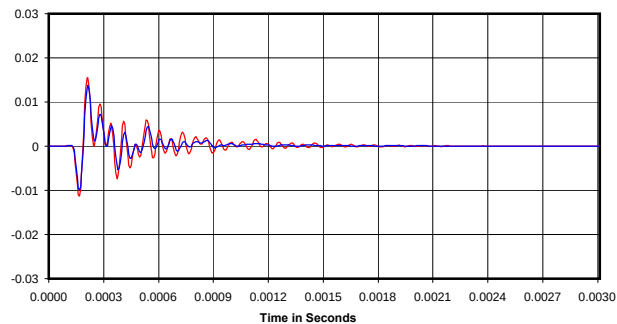
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



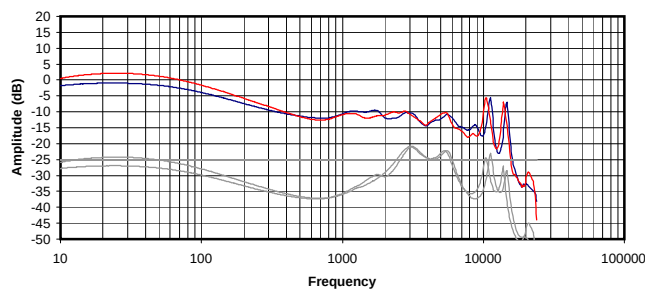
Impulse Response



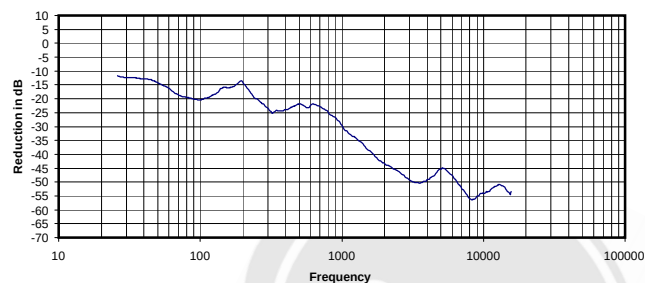
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90dB BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.065 Vrms
46 Ohms
0.09 mW
-36 dBr

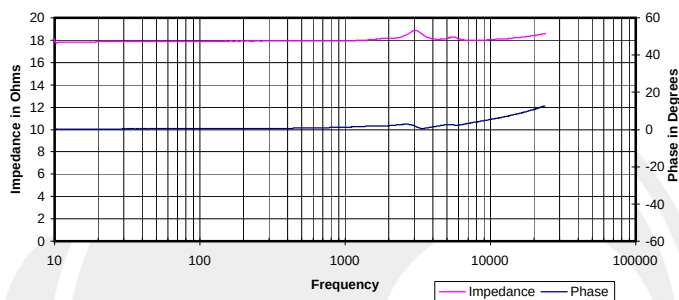
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



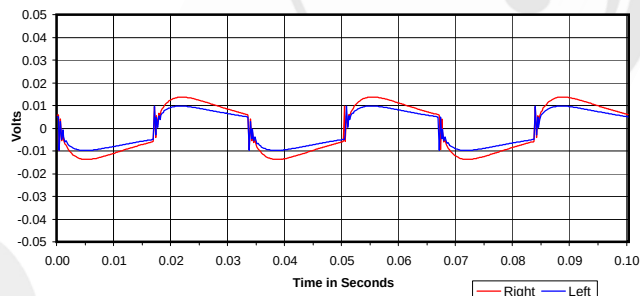
Isolation
Attenuation of External Sound vs. Frequency



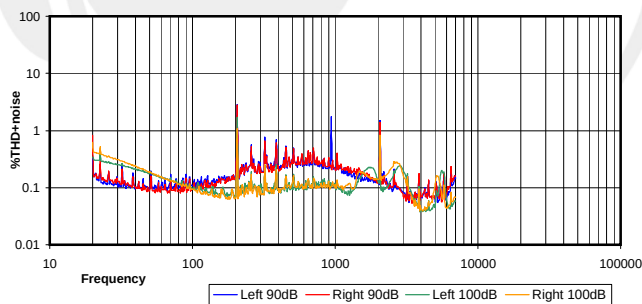
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



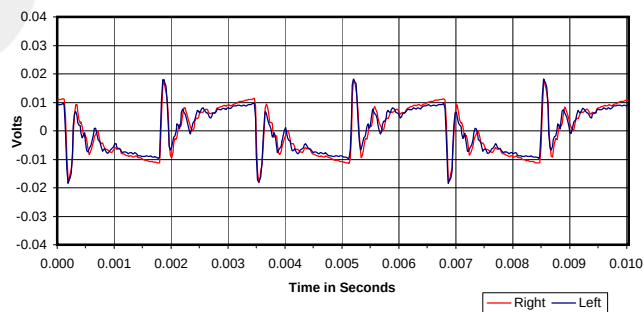
30 Hz Square Wave



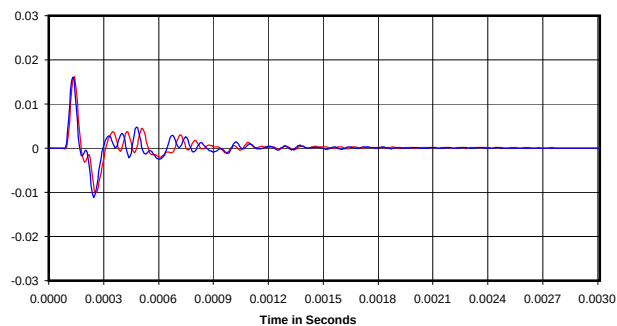
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



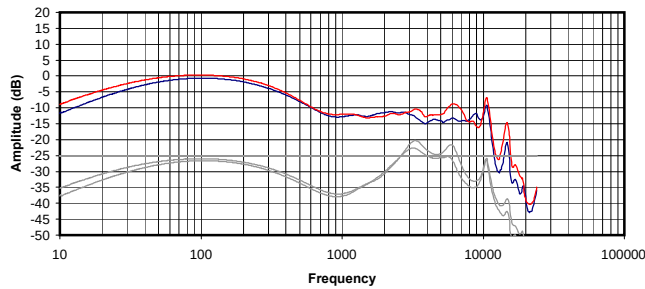
Impulse Response



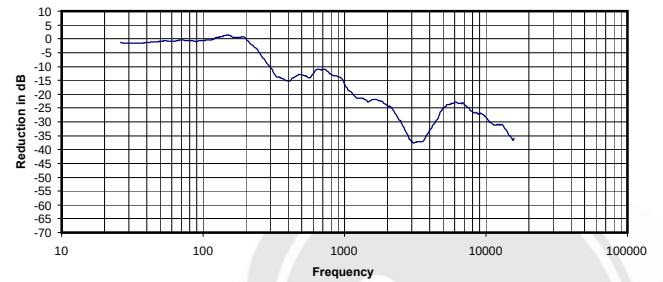
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.043 Vrms
18 Ohms
0.10 mW
-31 dBr

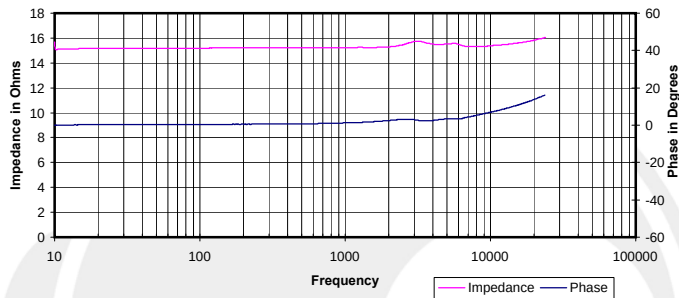
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



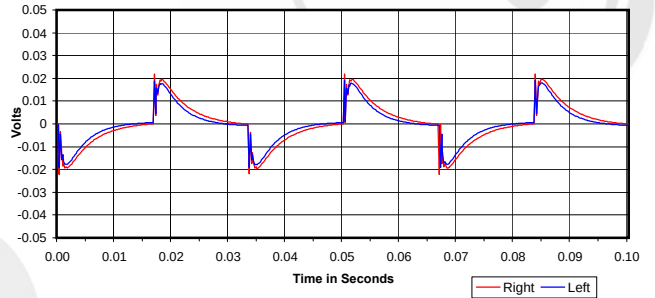
Isolation
Attenuation of External Sound vs. Frequency



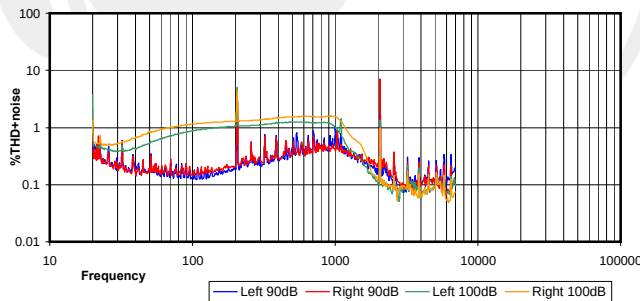
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



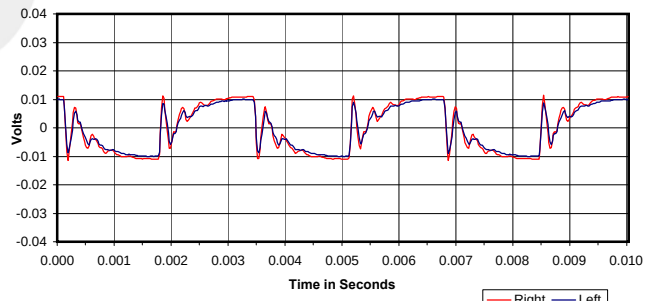
30 Hz Square Wave



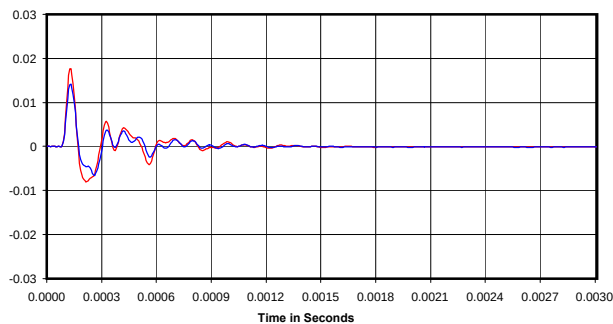
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



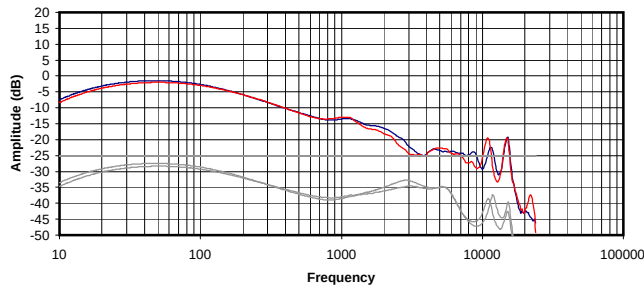
Impulse Response



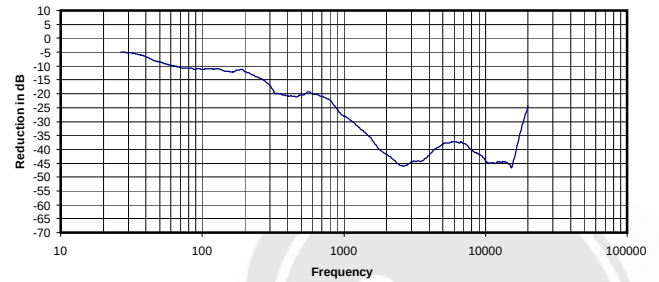
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.046 Vrms
15 Ohms
0.14 mW
-16 dBr

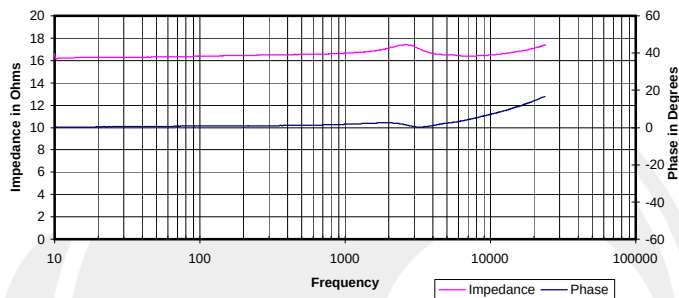
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



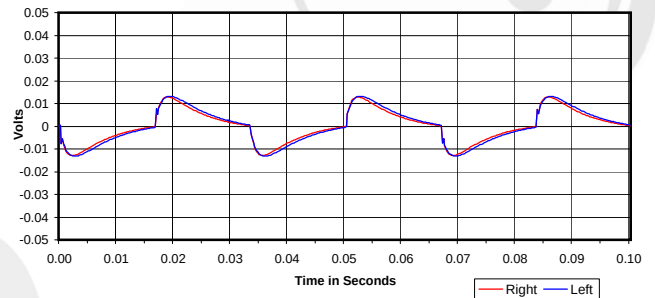
Isolation
Attenuation of External Sound vs. Frequency



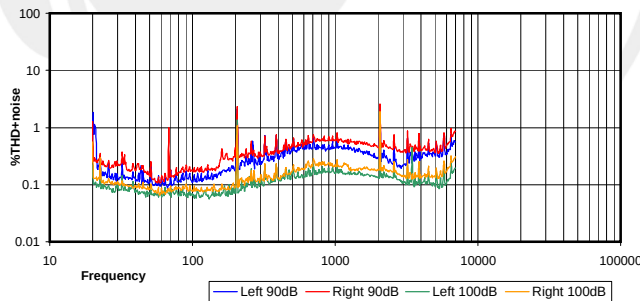
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



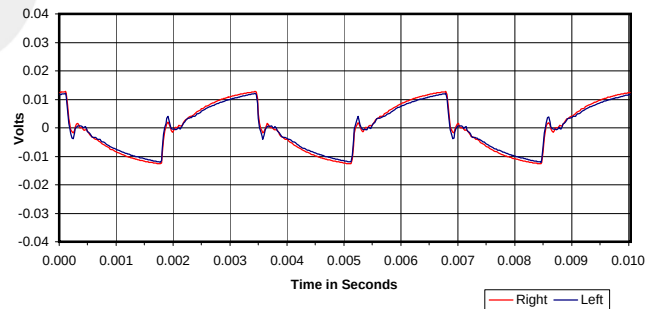
30 Hz Square Wave



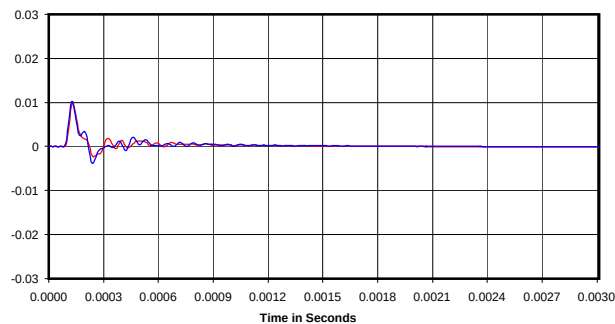
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



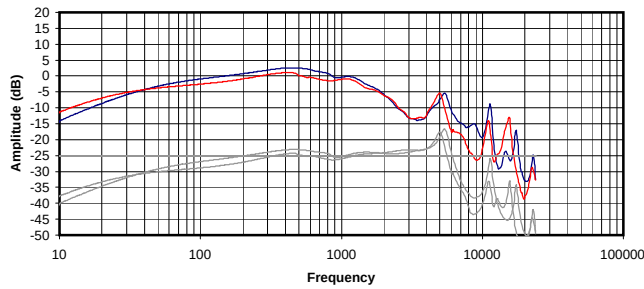
Impulse Response



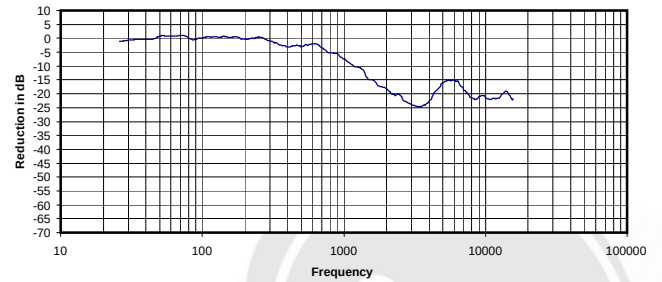
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.023 Vrms
17 Ohms
0.03 mW
-28 dB

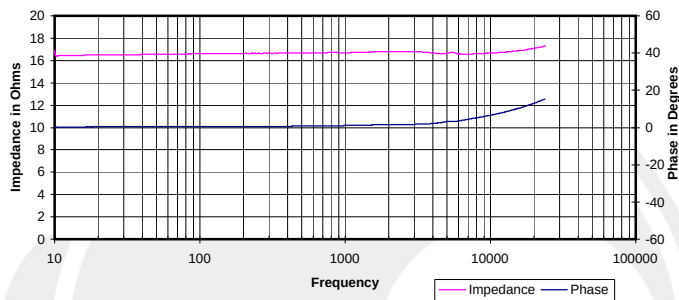
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



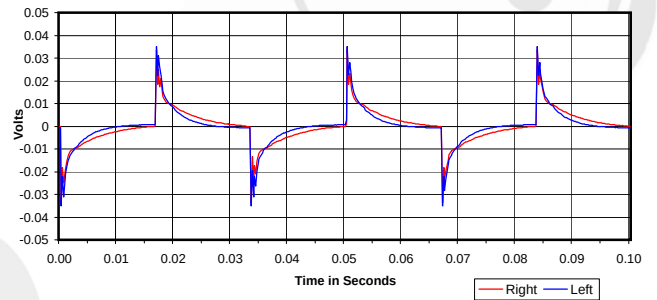
Isolation
Attenuation of External Sound vs. Frequency



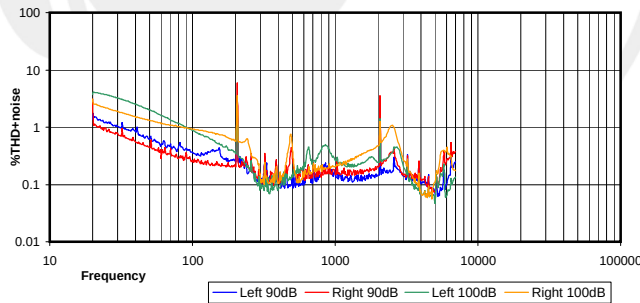
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



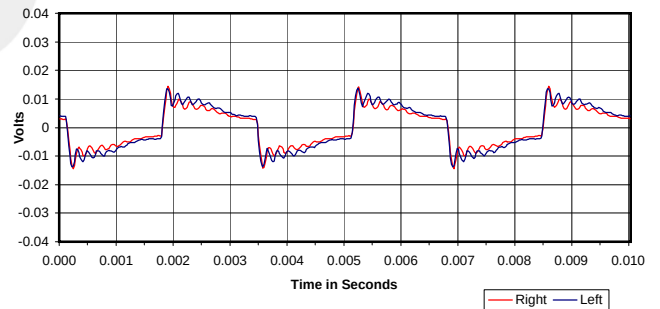
30 Hz Square Wave



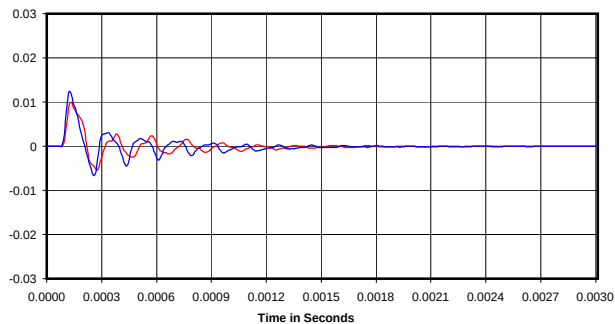
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



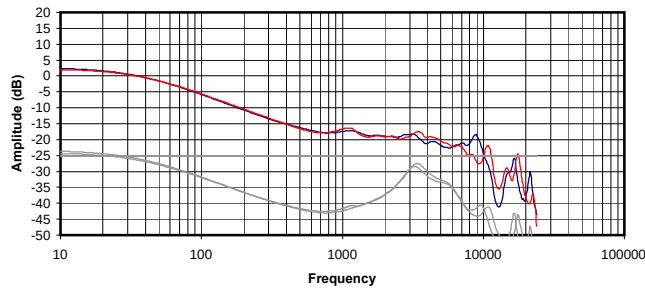
Impulse Response



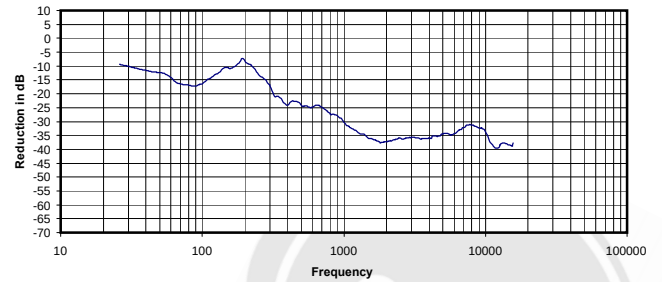
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.024 Vrms
17 Ohms
0.03 mW
-8 dB

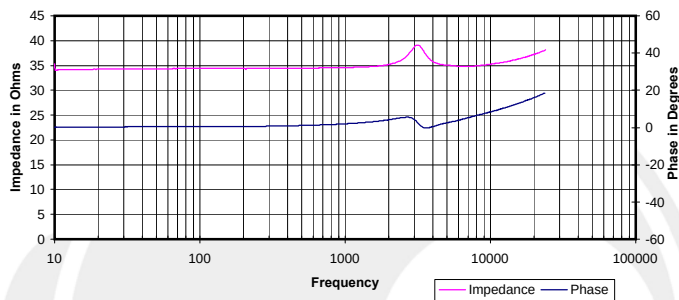
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



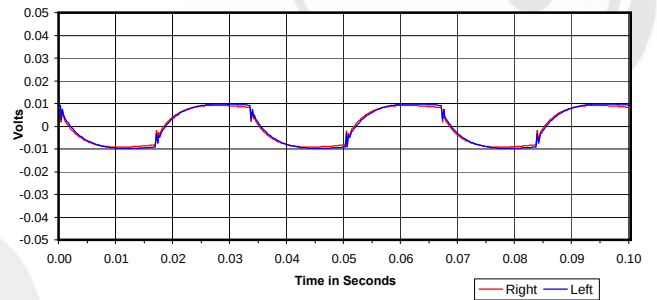
Isolation
Attenuation of External Sound vs. Frequency



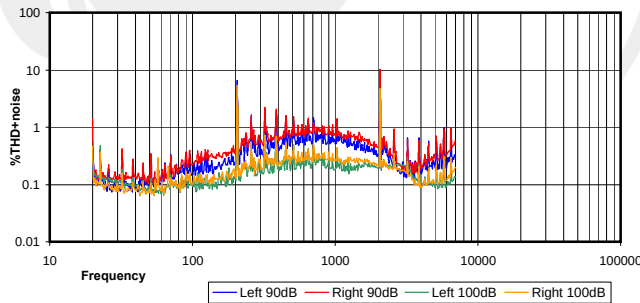
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



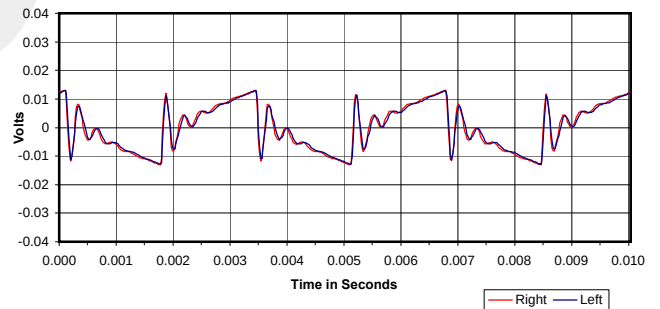
30 Hz Square Wave



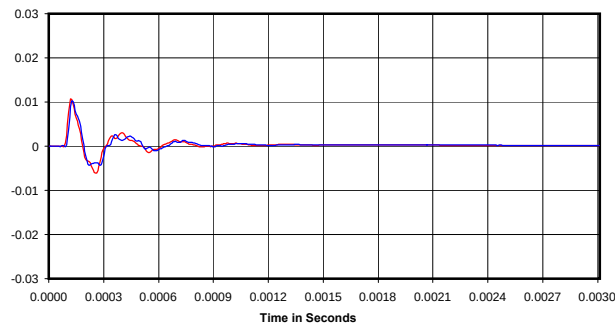
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



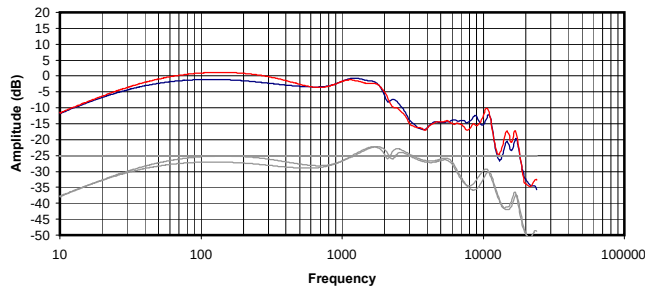
Impulse Response



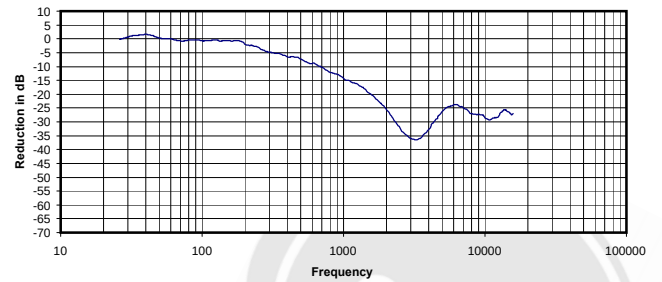
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.048 Vrms
35 Ohms
0.07 mW
-26 dBr

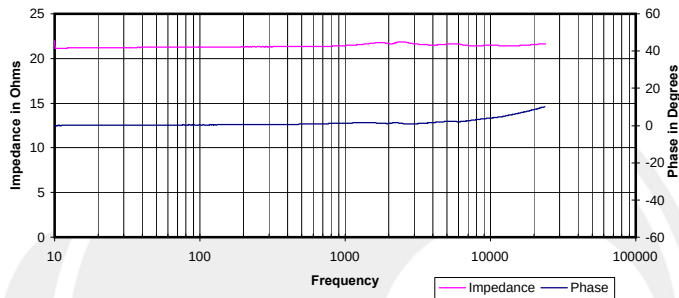
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



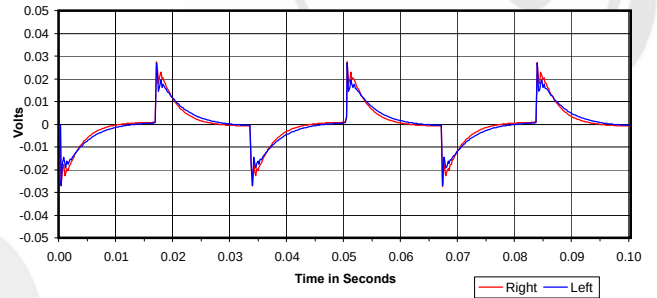
Isolation
Attenuation of External Sound vs. Frequency



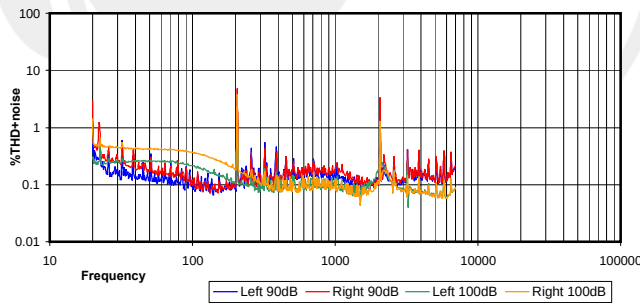
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



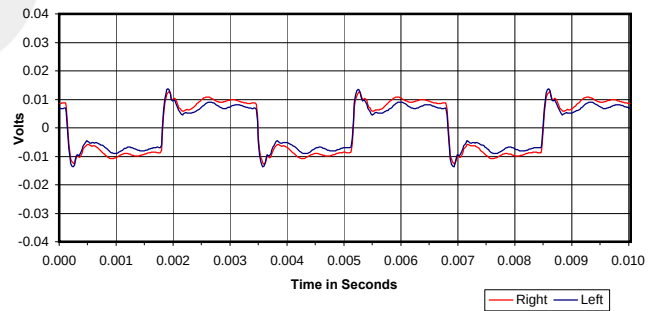
30 Hz Square Wave



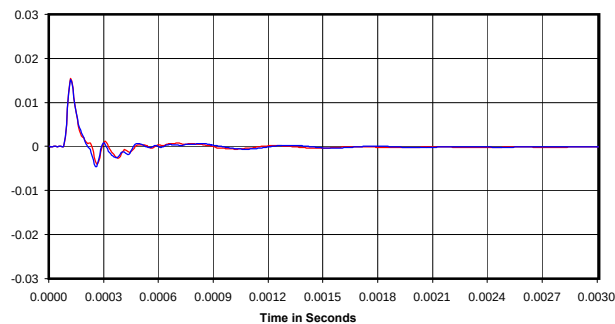
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



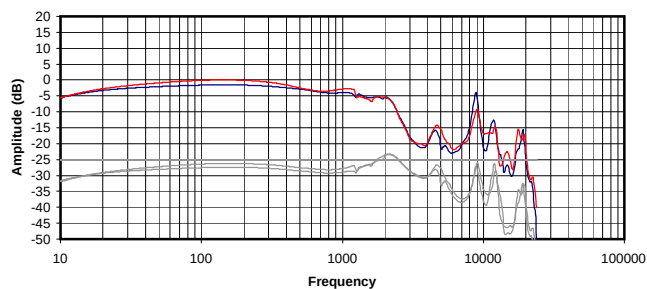
Impulse Response



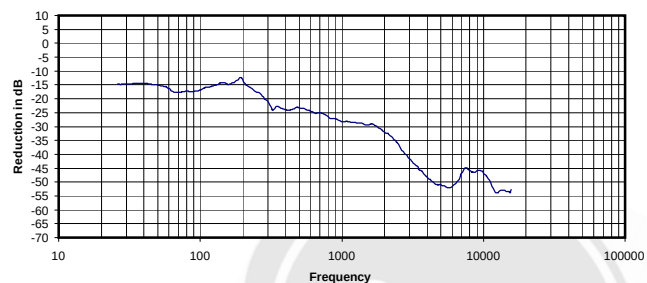
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.018 Vrms
21 Ohms
0.01 mW
-14 dBr

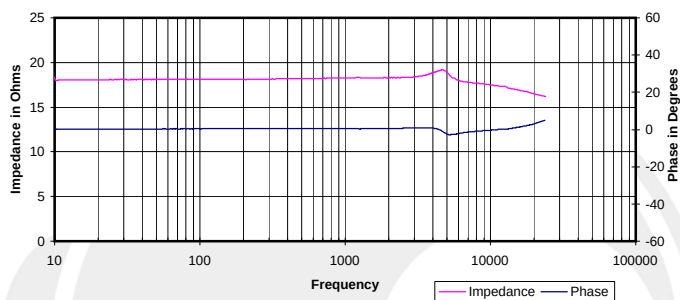
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



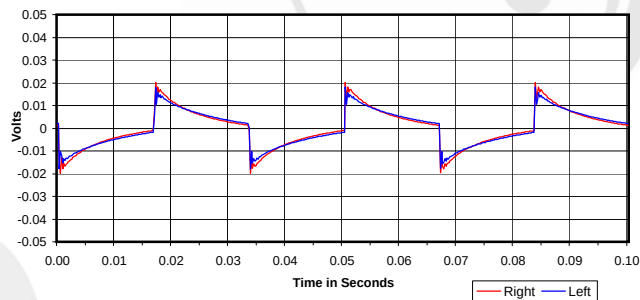
Isolation
Attenuation of External Sound vs. Frequency



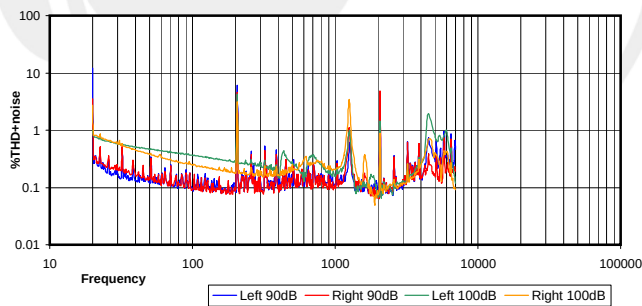
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



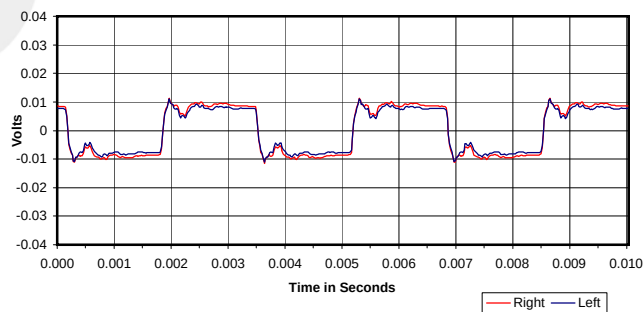
30 Hz Square Wave



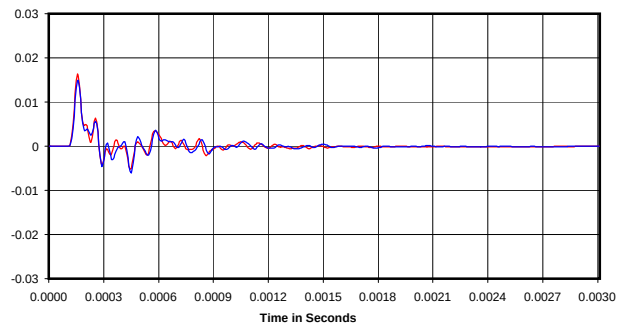
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



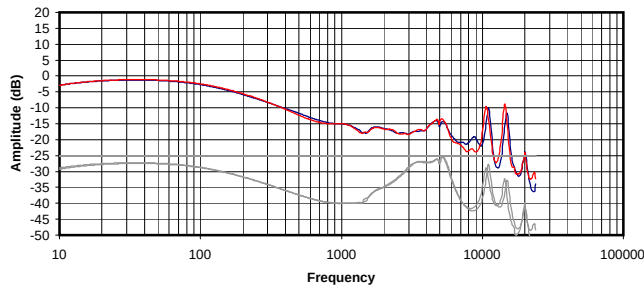
Impulse Response



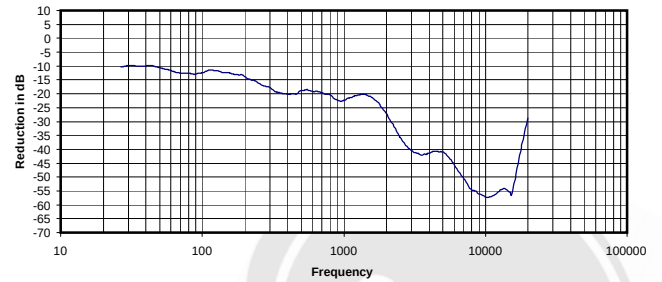
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.034 Vrms
18 Ohms
0.07 mW
-28 dBr

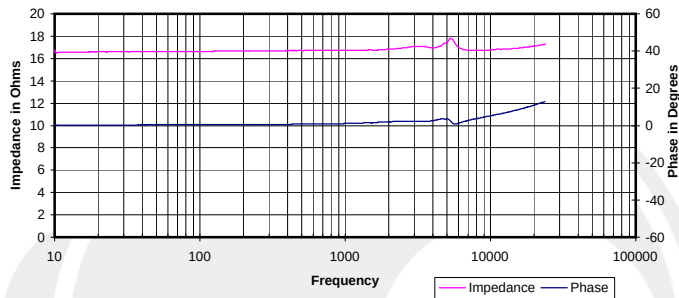
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



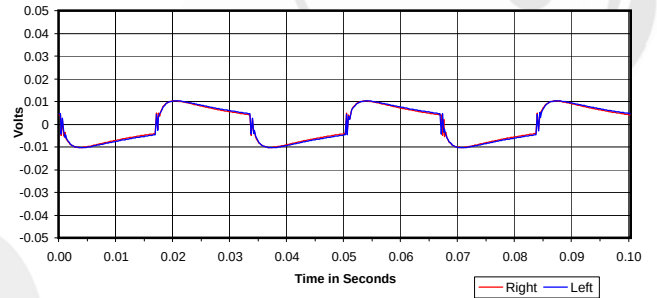
Isolation
Attenuation of External Sound vs. Frequency



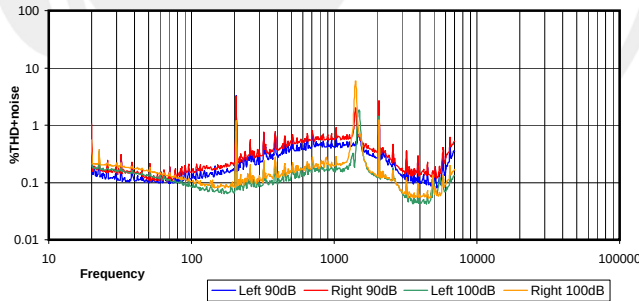
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



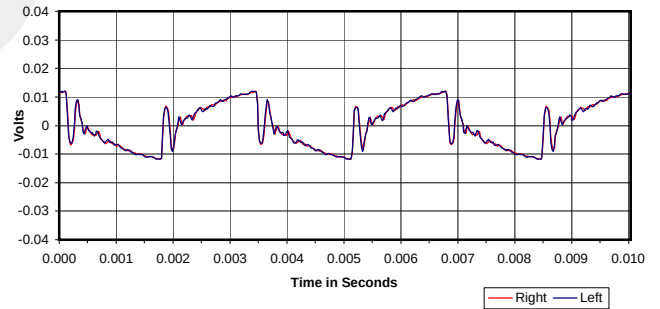
30 Hz Square Wave



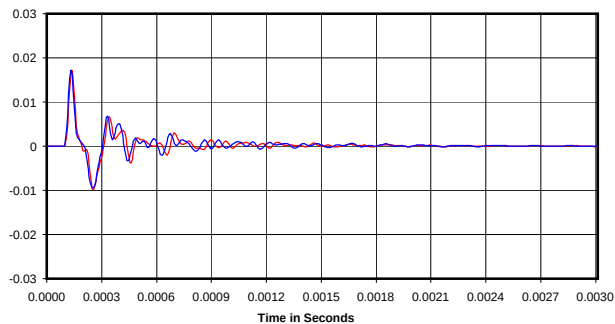
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



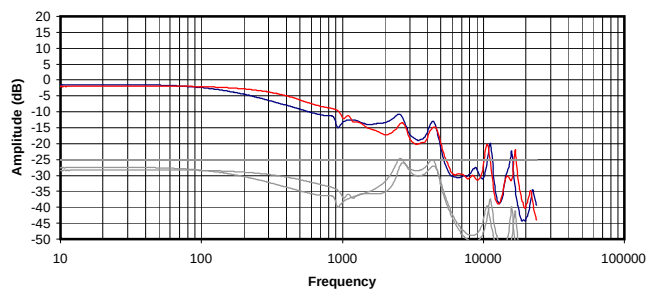
Impulse Response



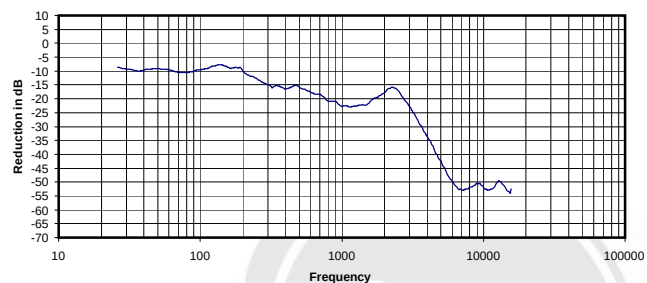
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.034 Vrms
17 Ohms
0.07 mW
-27 dBr

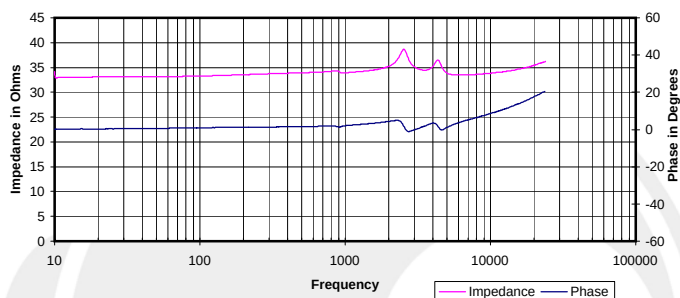
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



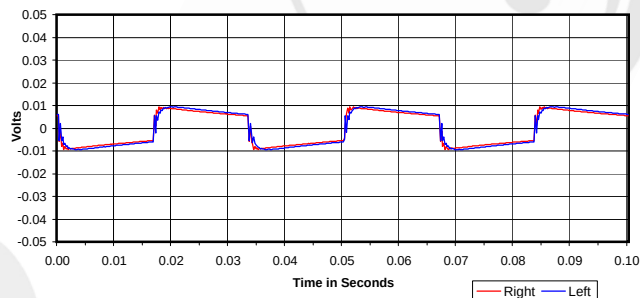
Isolation
Attenuation of External Sound vs. Frequency



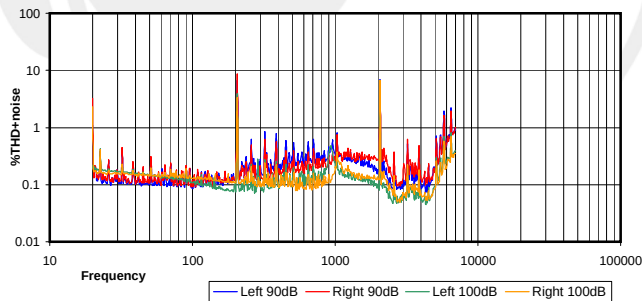
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



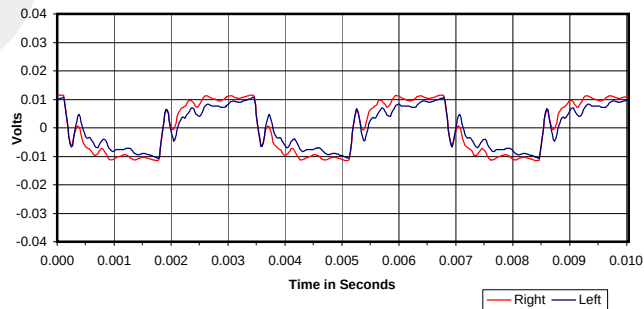
30 Hz Square Wave



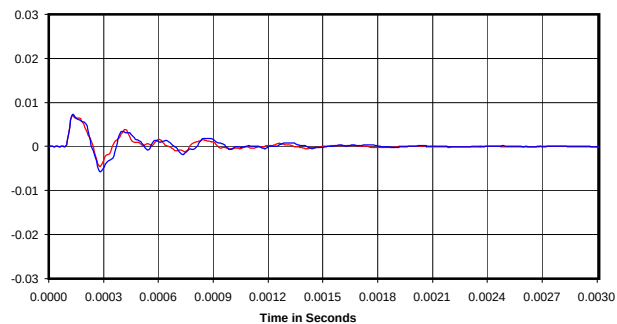
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



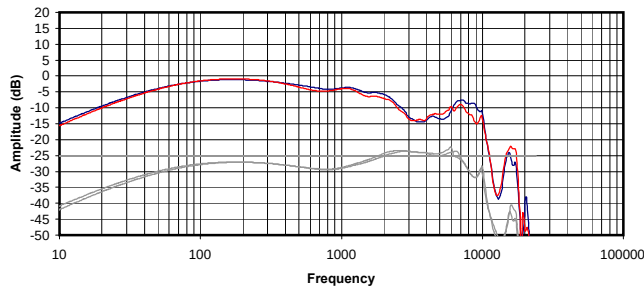
Impulse Response



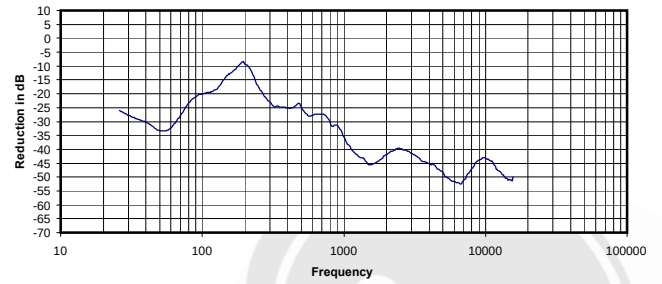
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.022 Vrms
34 Ohms
0.01 mW
-20 dB

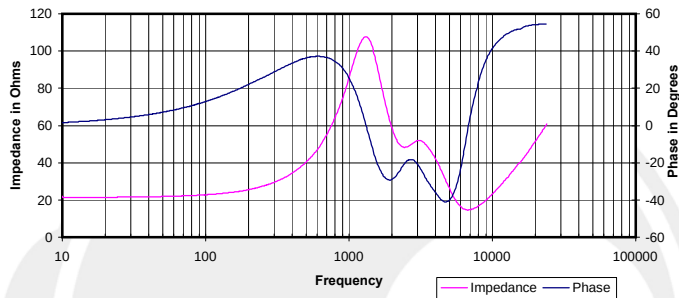
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



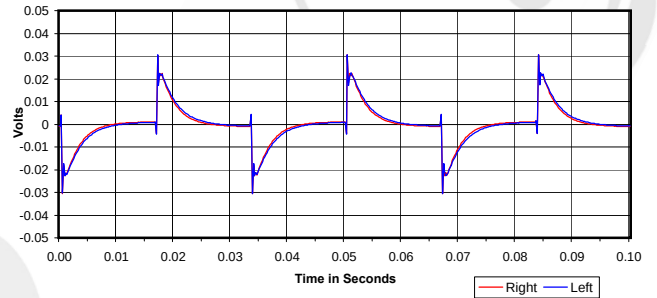
Isolation
Attenuation of External Sound vs. Frequency



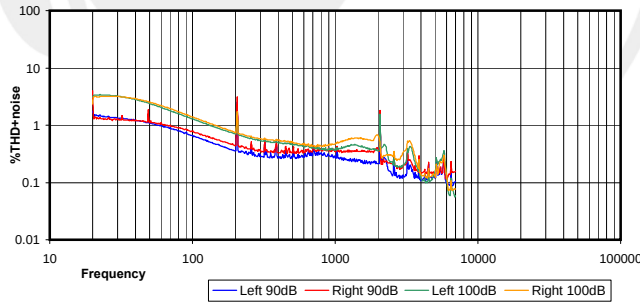
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



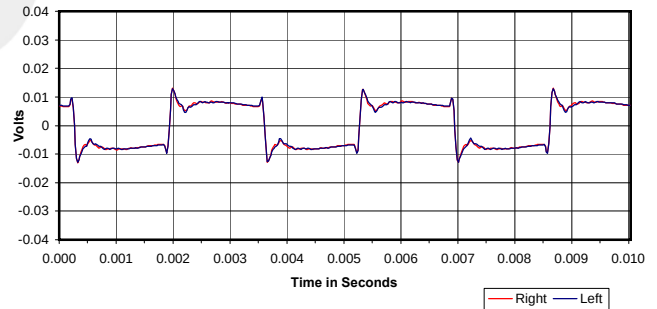
30 Hz Square Wave



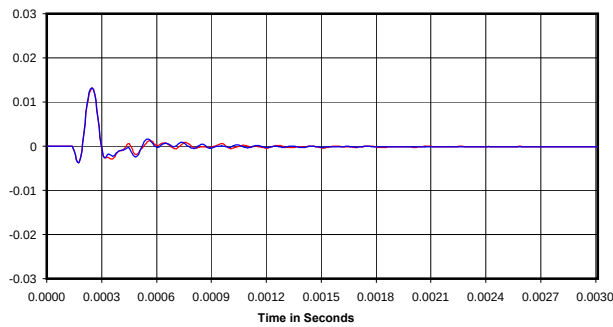
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



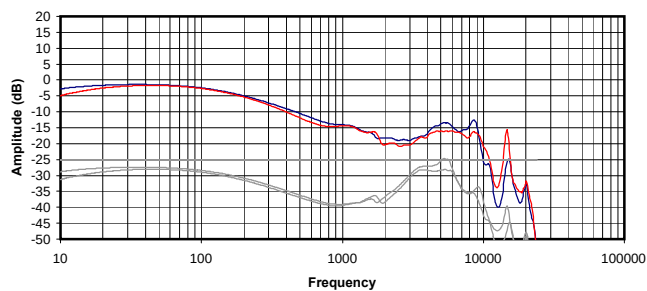
Impulse Response



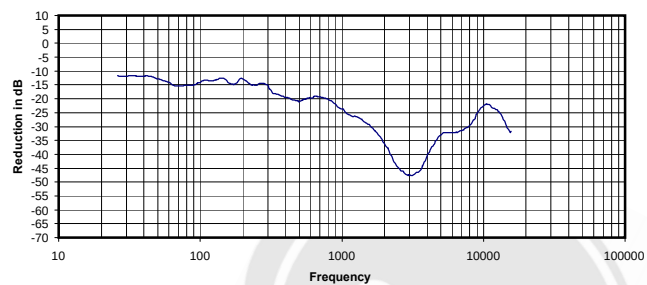
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.014 Vrms
86 Ohms
0.00 mW
-31 dBr

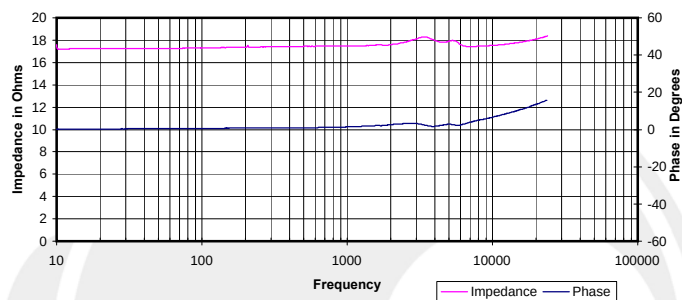
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



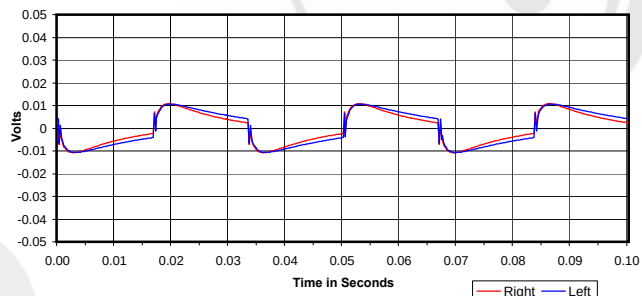
Isolation
Attenuation of External Sound vs. Frequency



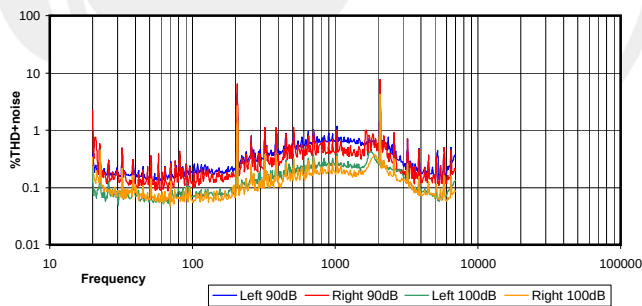
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



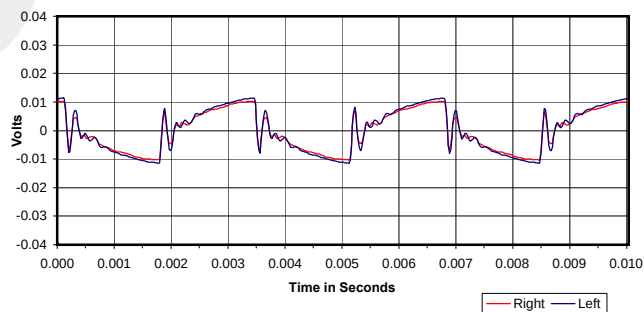
30 Hz Square Wave



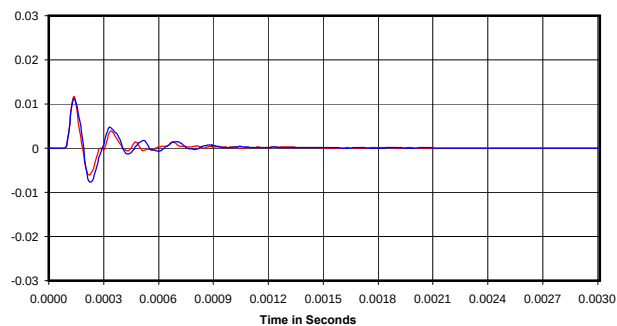
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



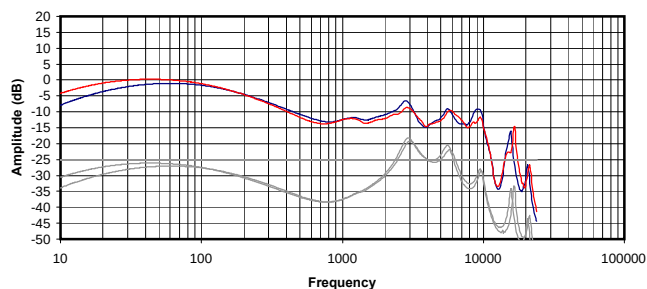
Impulse Response



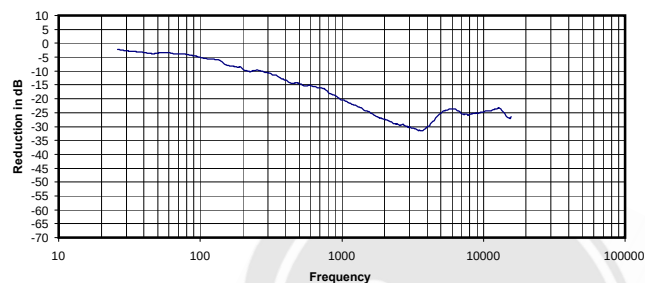
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.036 Vrms
17 Ohms
0.08 mW
-25 dBr

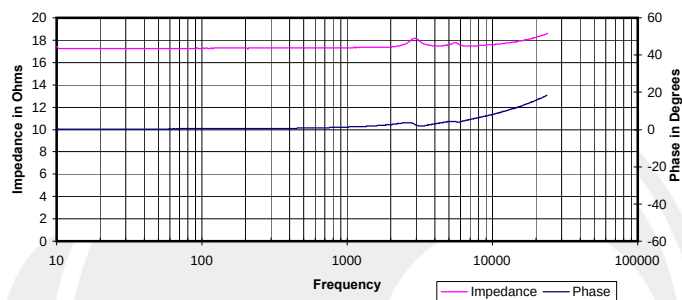
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



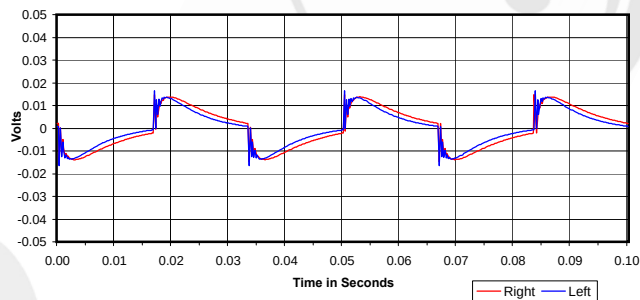
Isolation
Attenuation of External Sound vs. Frequency



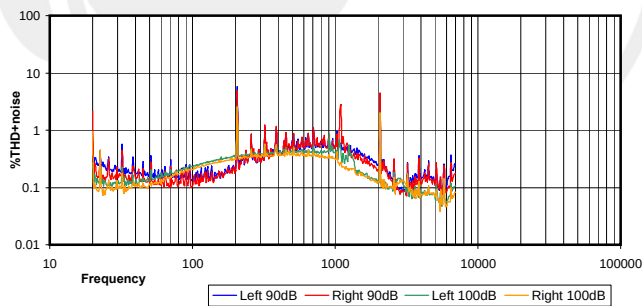
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



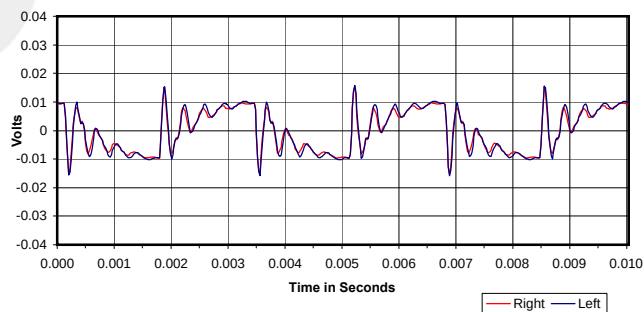
30 Hz Square Wave



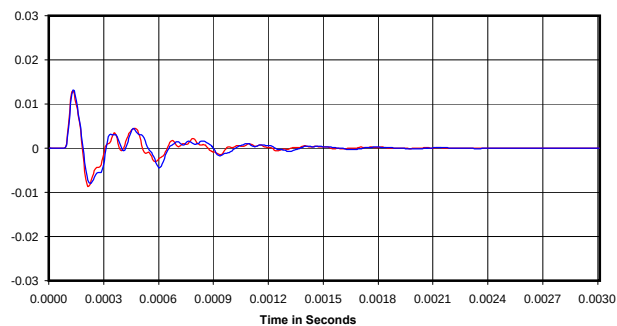
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



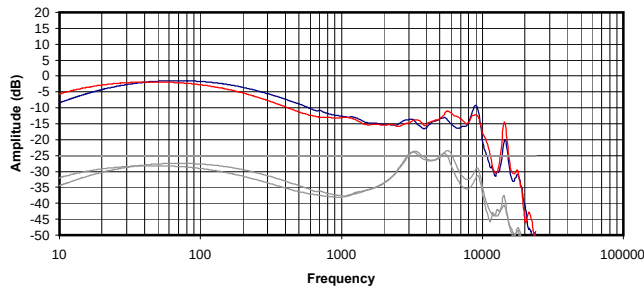
Impulse Response



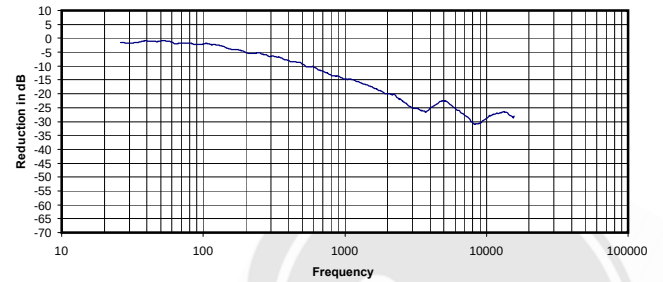
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.045 Vrms
17 Ohms
0.12 mW
-18 dBr

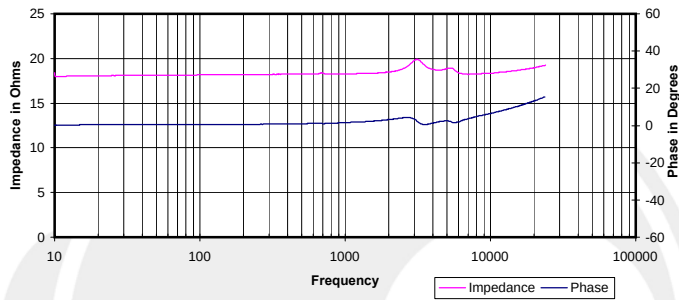
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



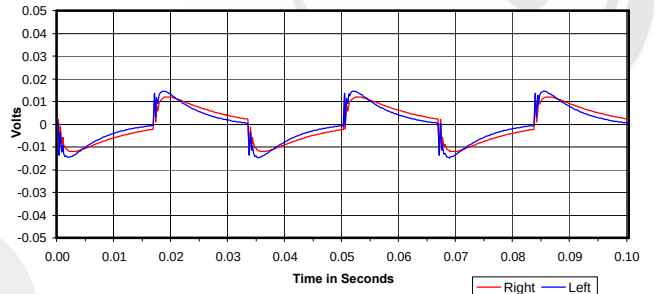
Isolation
Attenuation of External Sound vs. Frequency



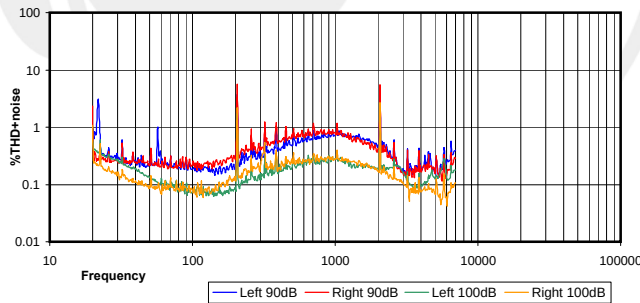
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



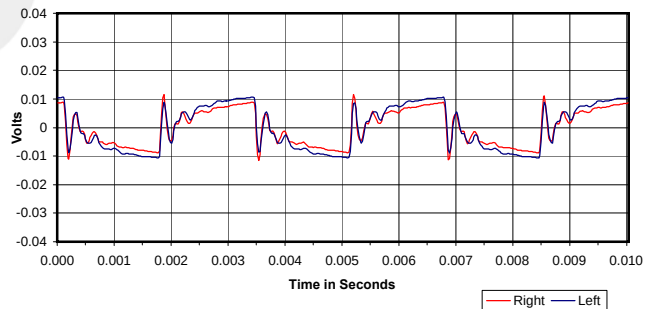
30 Hz Square Wave



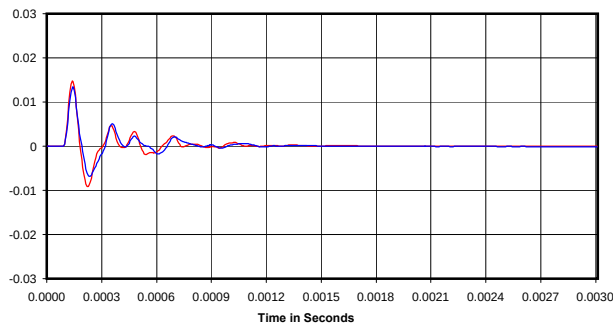
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



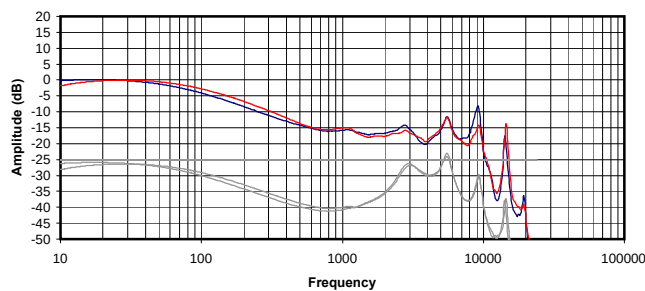
Impulse Response



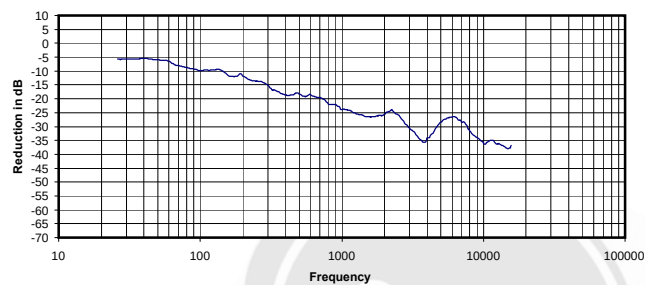
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.027 Vrms
18 Ohms
0.04 mW
-13 dB

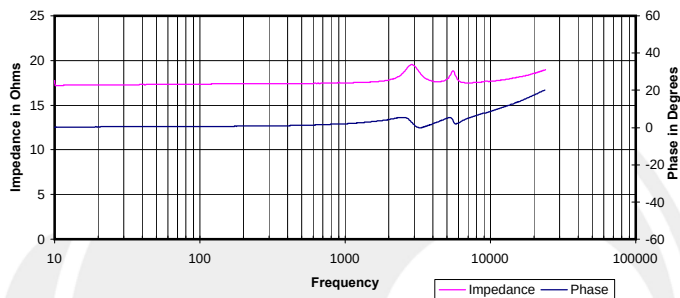
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



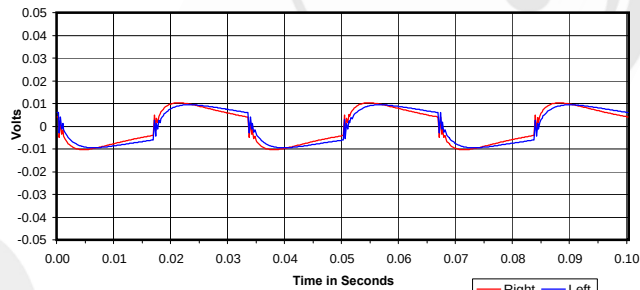
Isolation
Attenuation of External Sound vs. Frequency



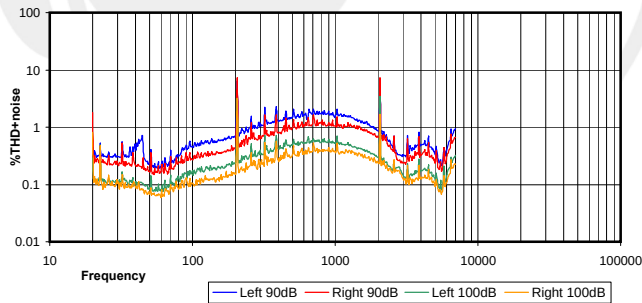
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



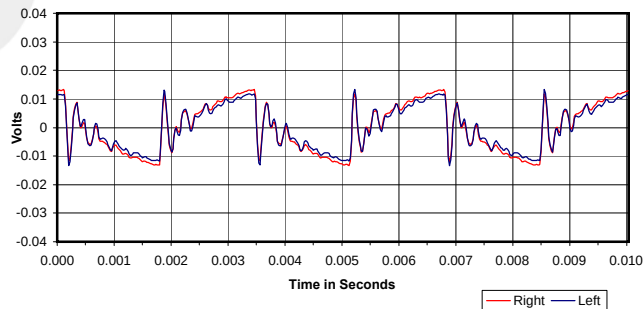
30 Hz Square Wave



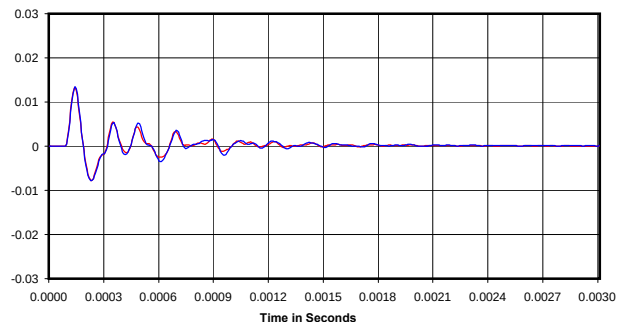
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



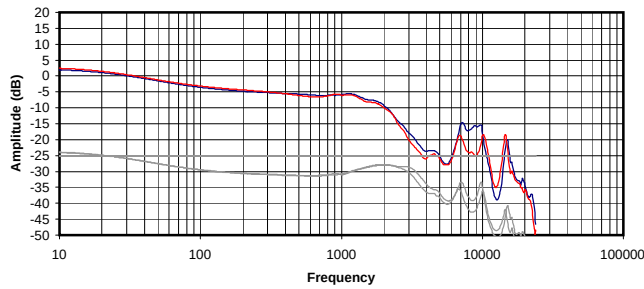
Impulse Response



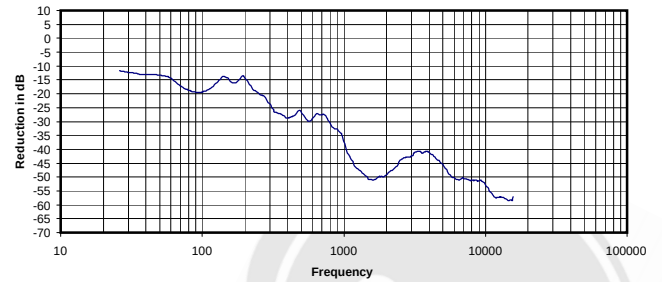
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.024 Vrms
17 Ohms
0.03 mW
-21 dBr

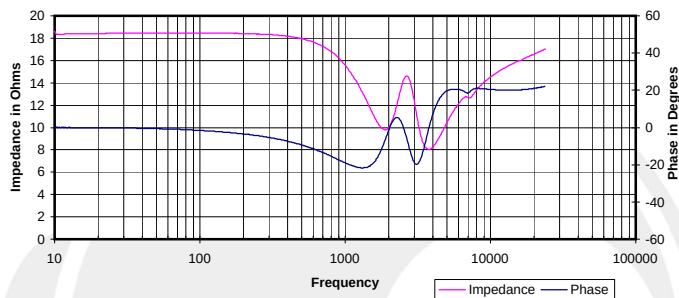
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



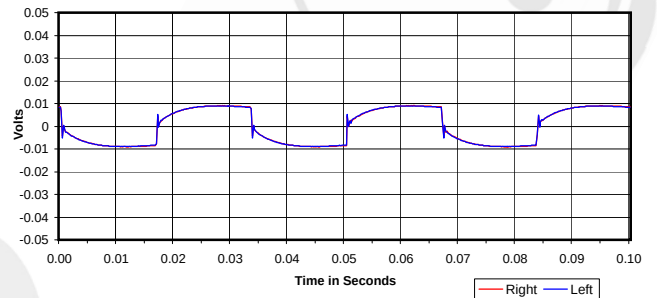
Isolation
Attenuation of External Sound vs. Frequency



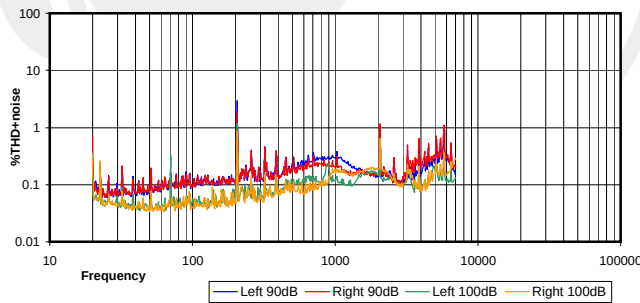
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



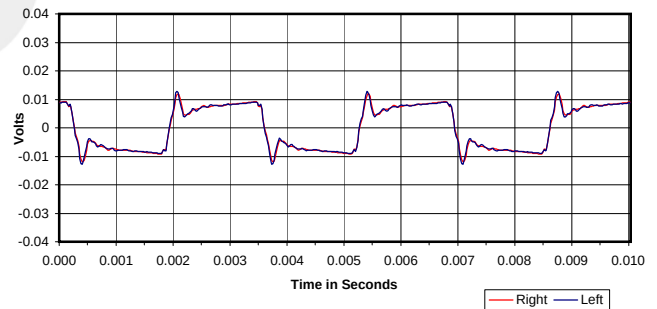
30 Hz Square Wave



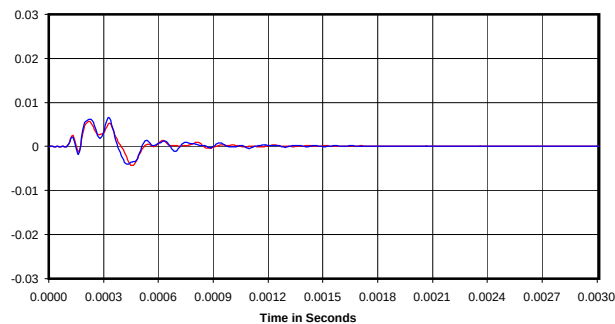
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



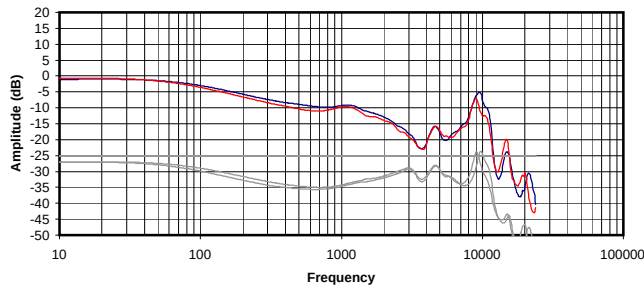
Impulse Response



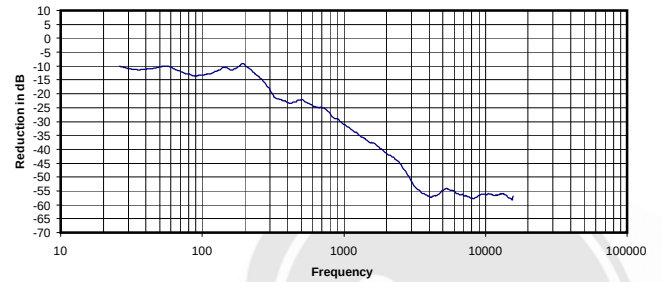
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.012 Vrms
16 Ohms
0.01 mW
-33 dBr

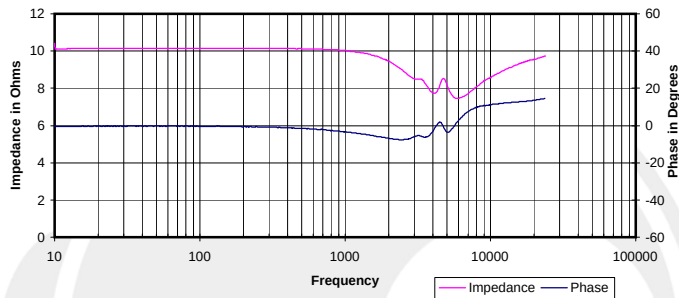
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



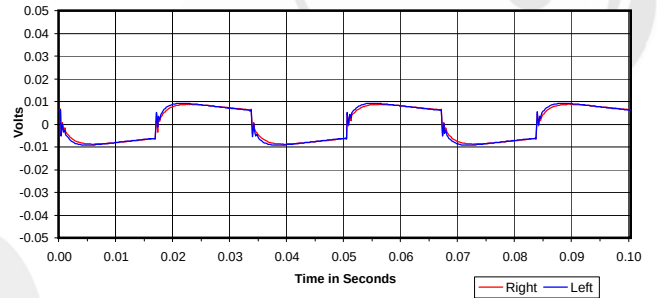
Isolation
Attenuation of External Sound vs. Frequency



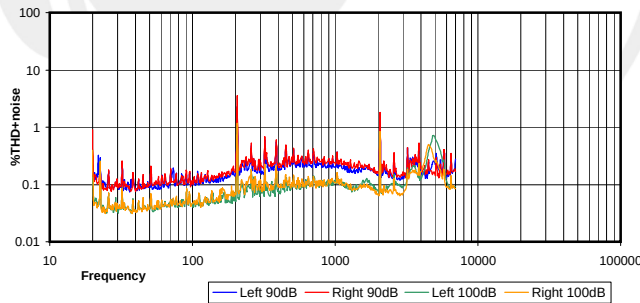
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



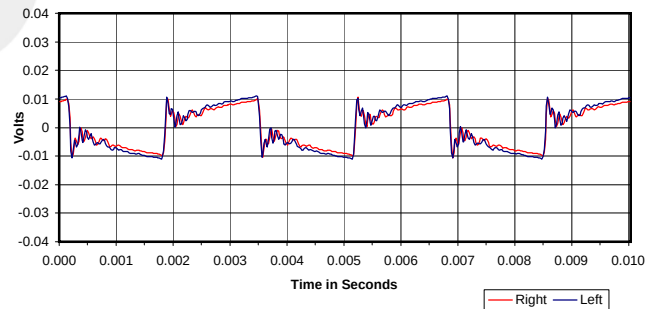
30 Hz Square Wave



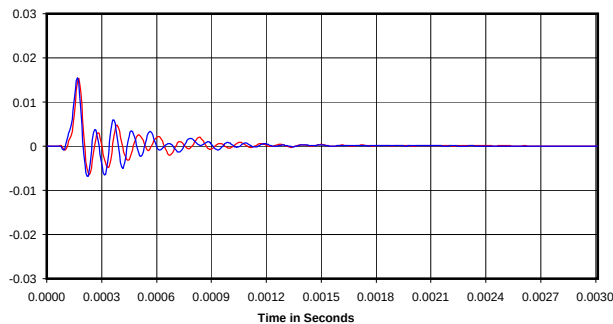
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



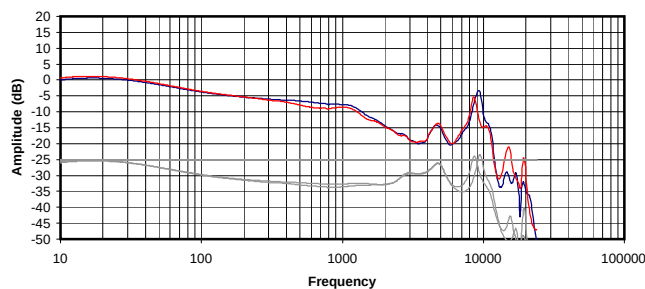
Impulse Response



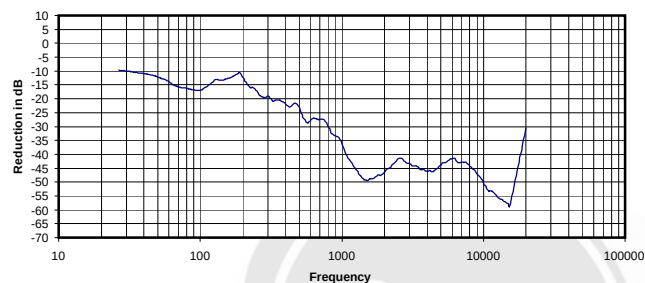
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.023 Vrms
10 Ohms
0.05 mW
-30 dBr

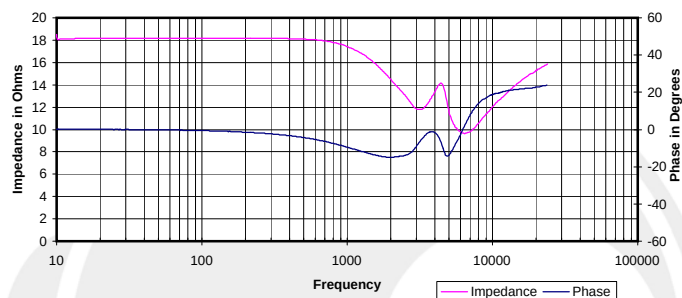
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



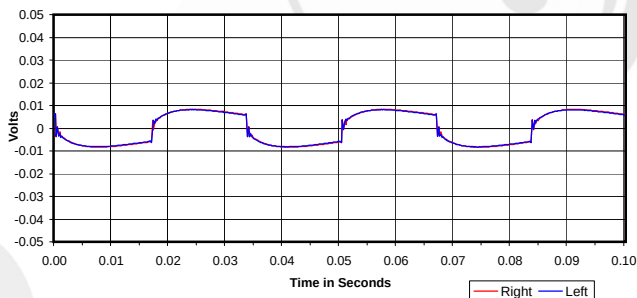
Isolation
Attenuation of External Sound vs. Frequency



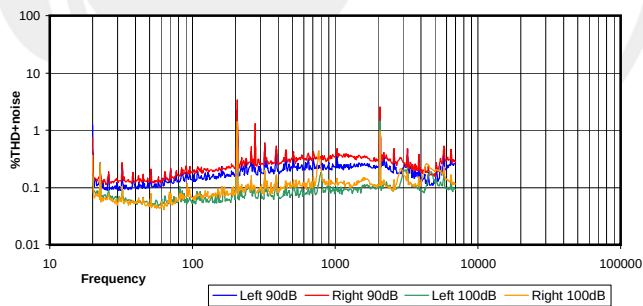
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



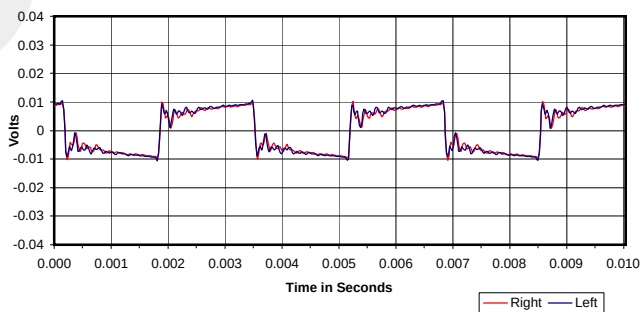
30 Hz Square Wave



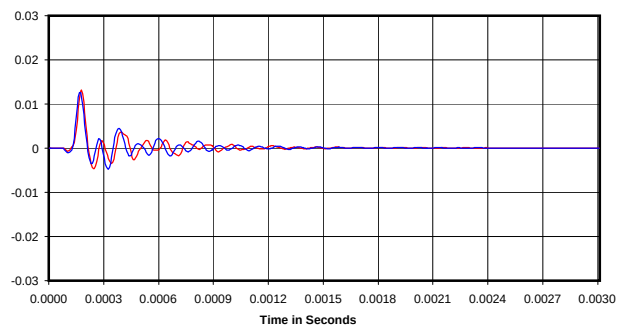
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



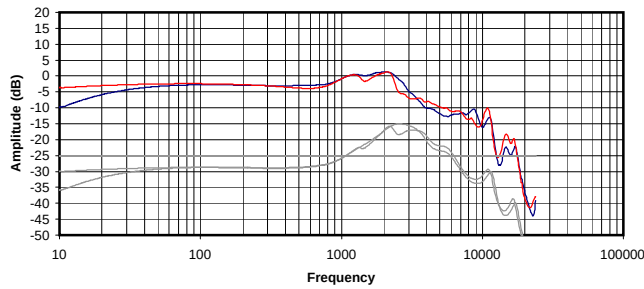
Impulse Response



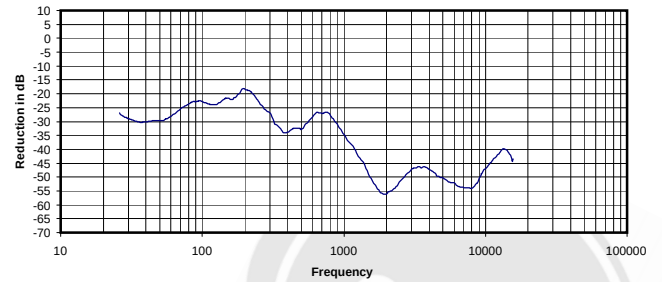
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.015 Vrms
17 Ohms
0.01 mW
-33 dBr

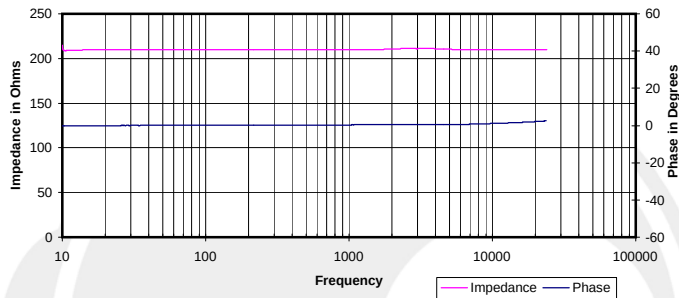
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



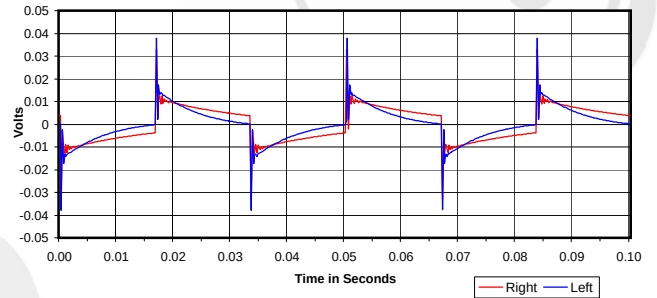
Isolation
Attenuation of External Sound vs. Frequency



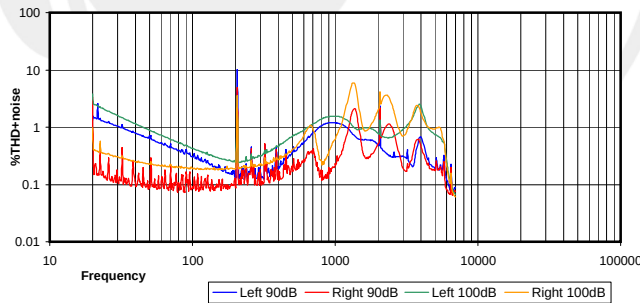
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



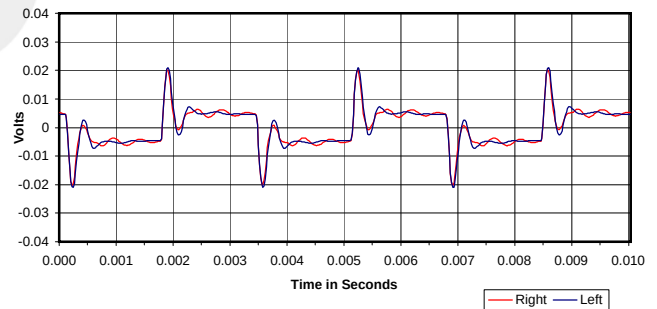
30 Hz Square Wave



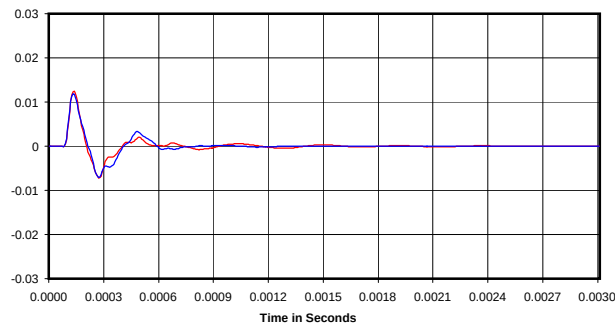
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



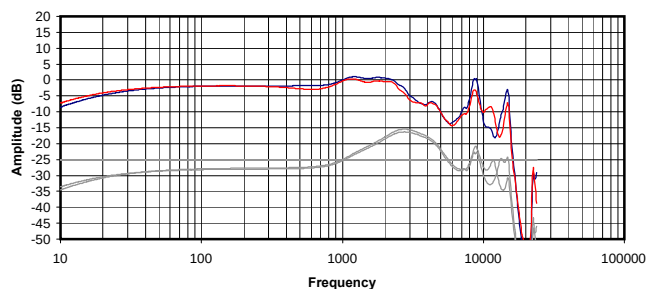
Impulse Response



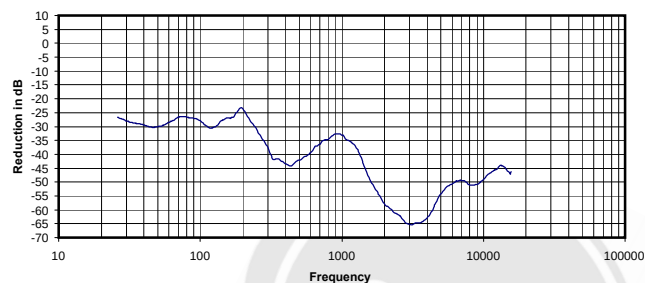
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.425 Vrms
210 Ohms
0.86 mW
-36 dBr

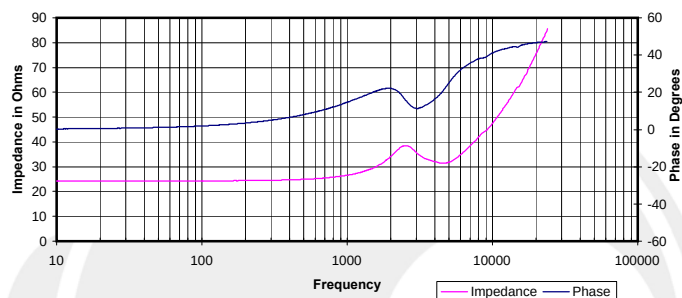
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



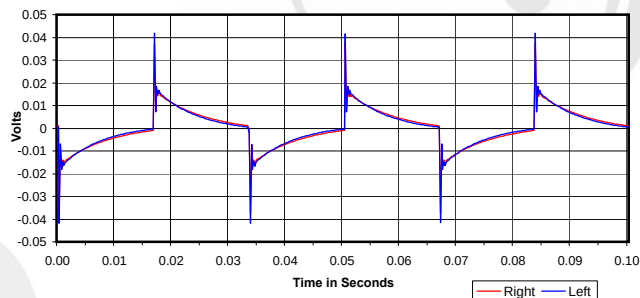
Isolation
Attenuation of External Sound vs. Frequency



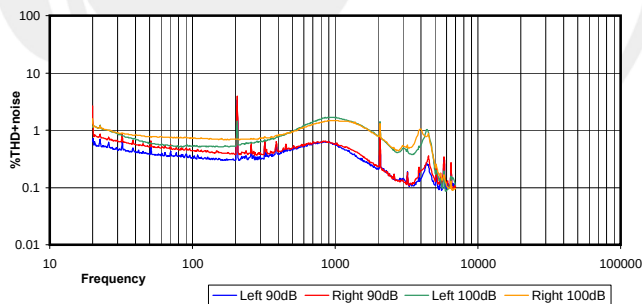
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



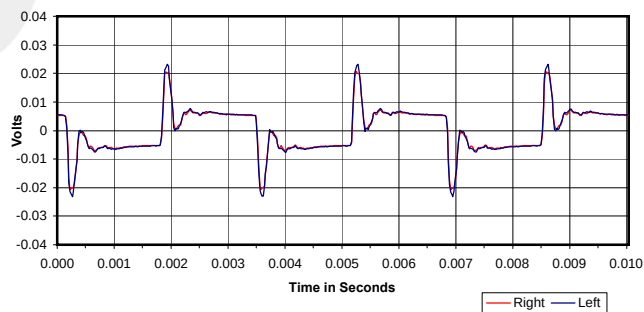
30 Hz Square Wave



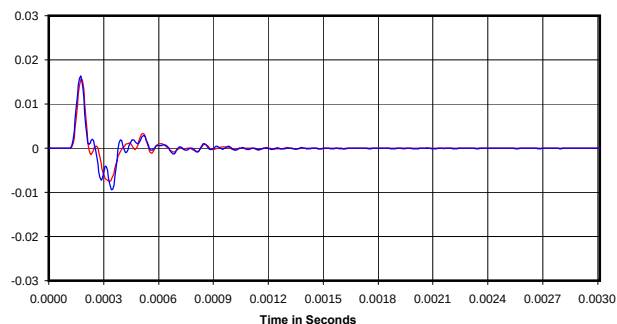
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



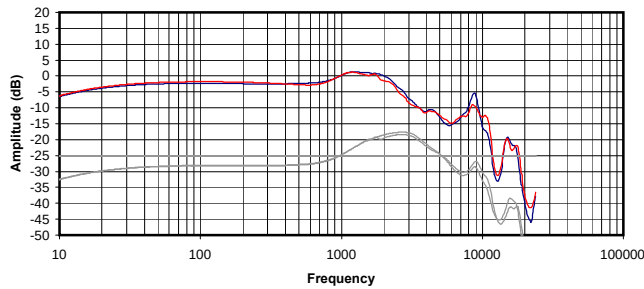
Impulse Response



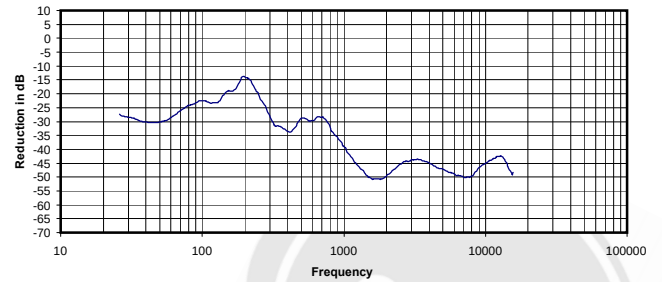
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.027 Vrms
27 Ohms
0.03 mW
-43 dBr

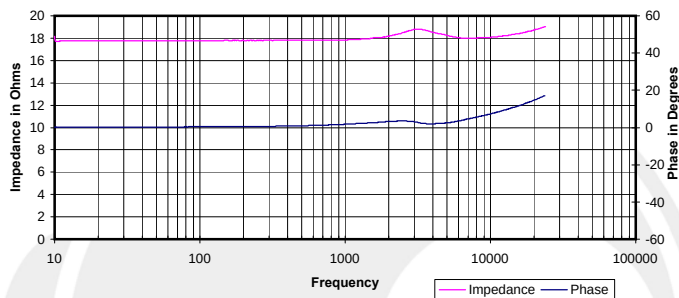
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



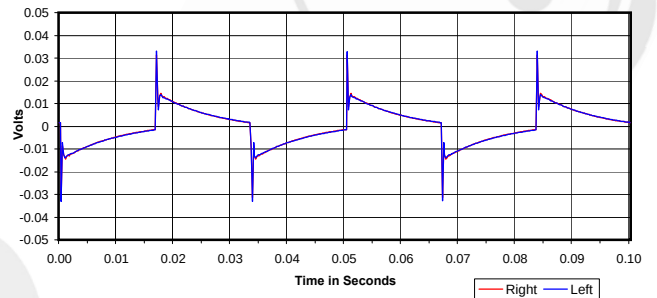
Isolation
Attenuation of External Sound vs. Frequency



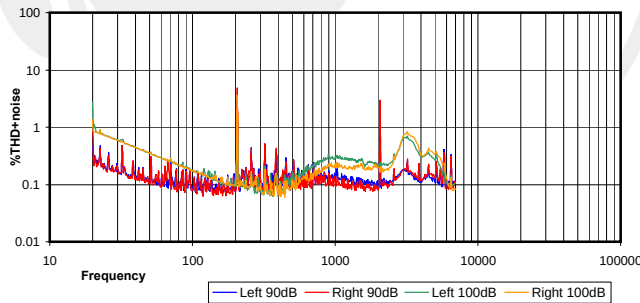
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



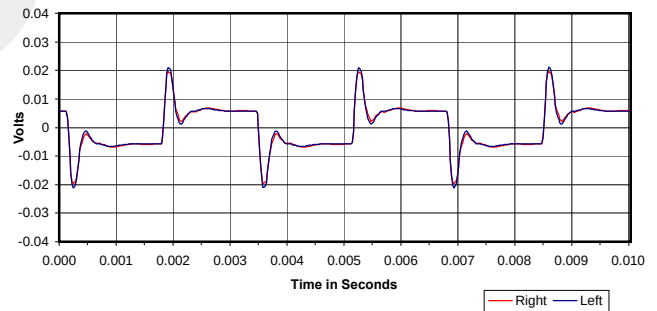
30 Hz Square Wave



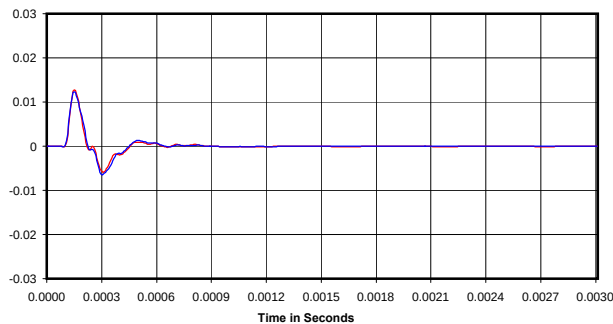
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



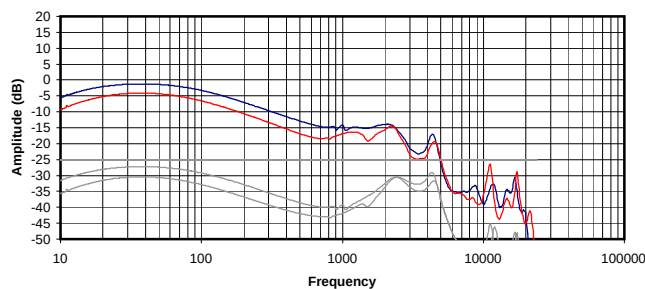
Impulse Response



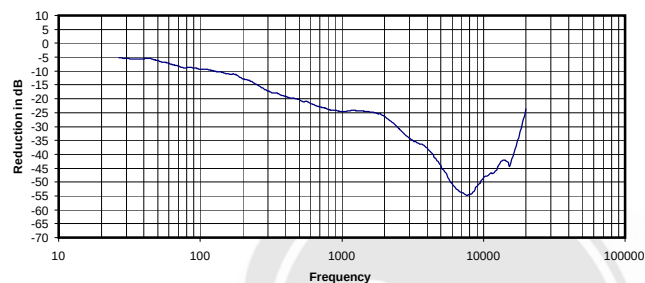
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90dB BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.042 Vrms
18 Ohms
0.10 mW
-35 dB

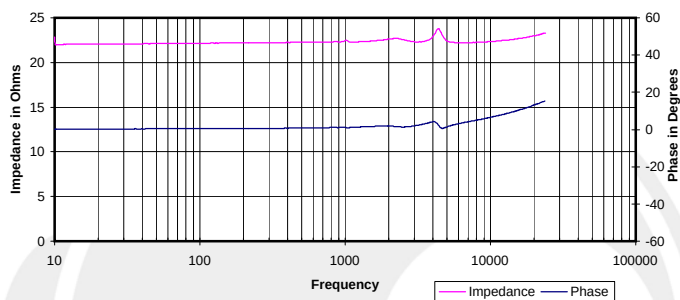
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



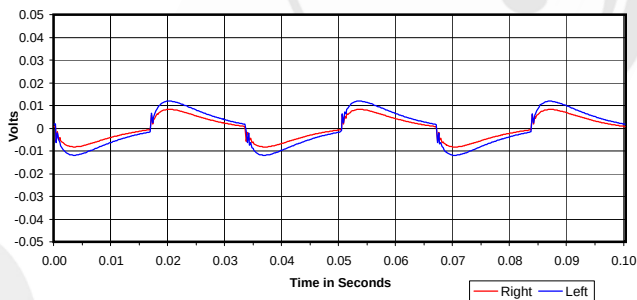
Isolation
Attenuation of External Sound vs. Frequency



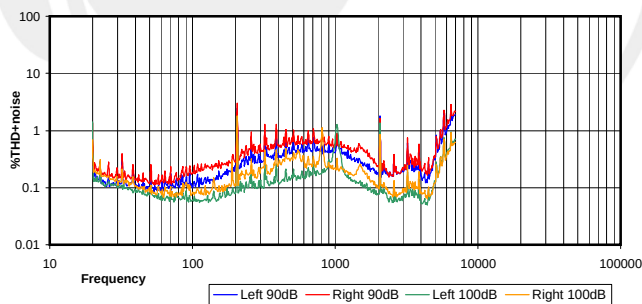
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



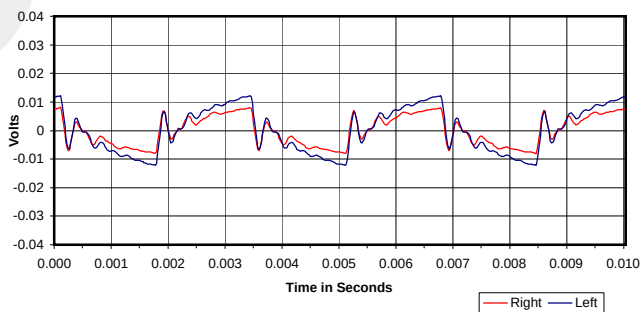
30 Hz Square Wave



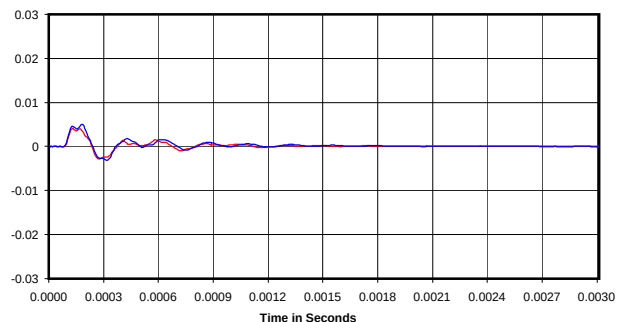
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



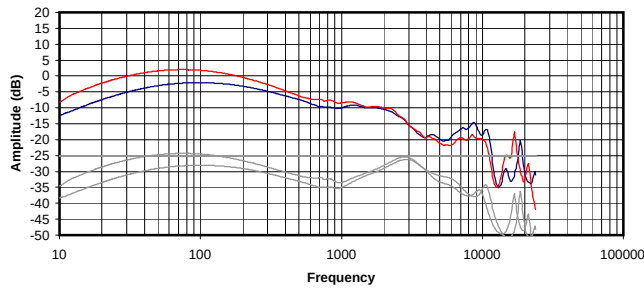
Impulse Response



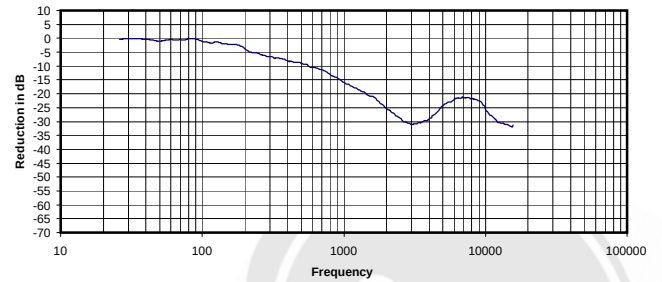
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.030 Vrms
22 Ohms
0.04 mW
-27 dB

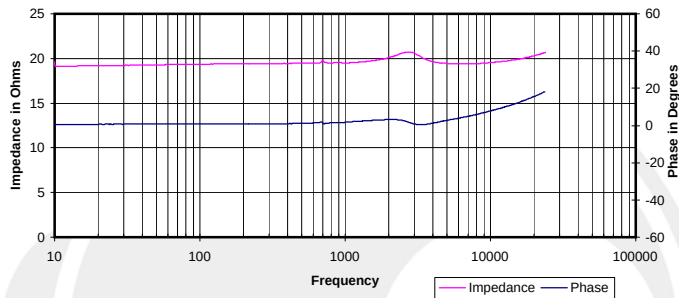
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



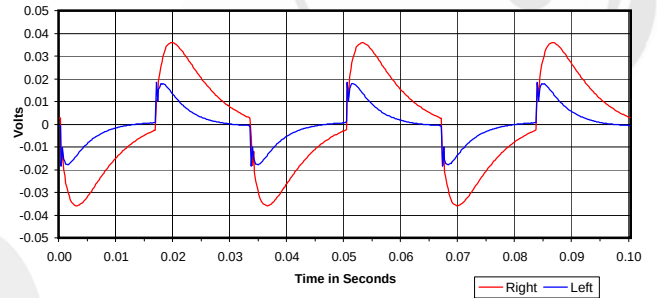
Isolation
Attenuation of External Sound vs. Frequency



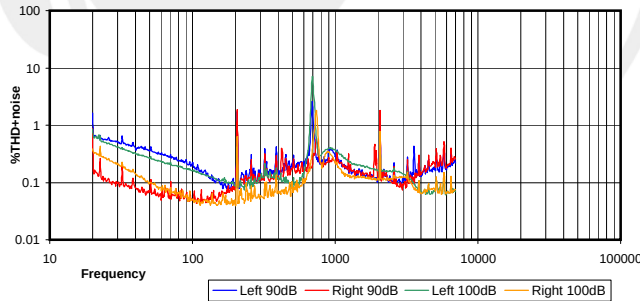
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



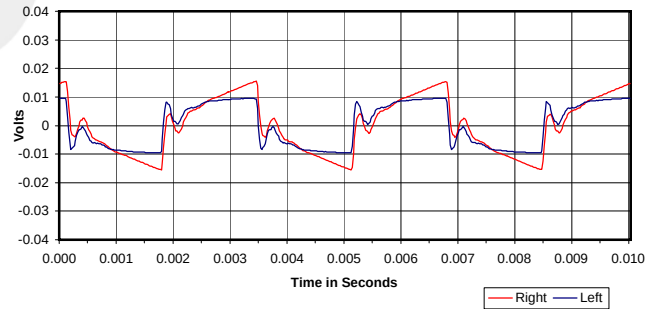
30 Hz Square Wave



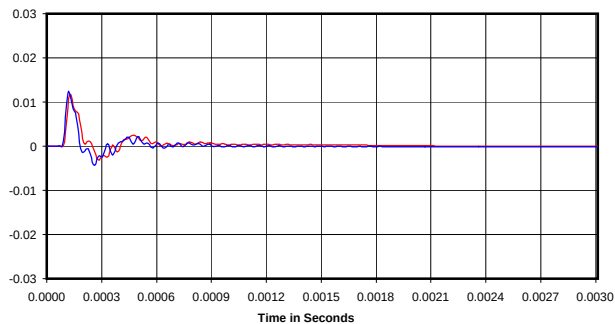
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



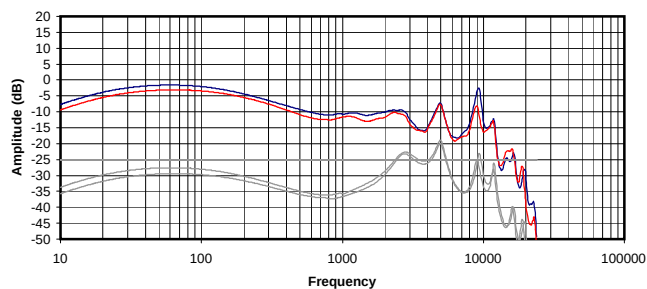
Impulse Response



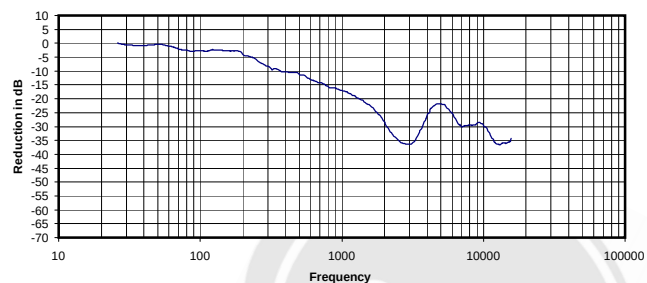
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.040 Vrms
20 Ohms
0.08 mW
-14 dBr

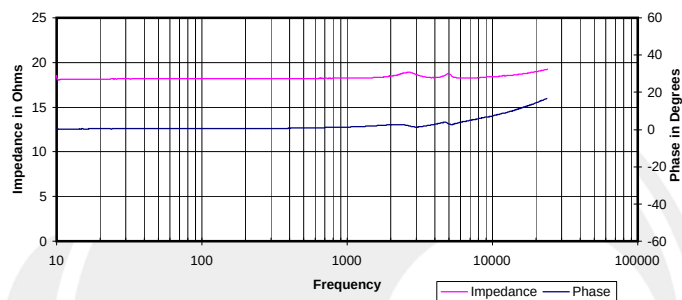
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



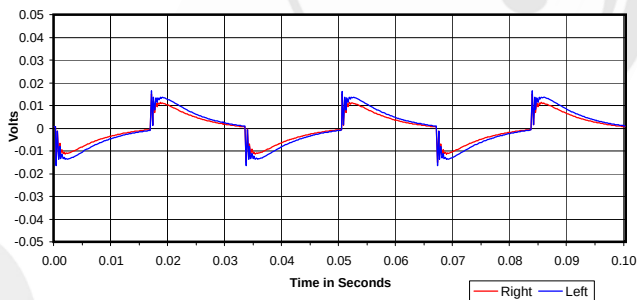
Isolation
Attenuation of External Sound vs. Frequency



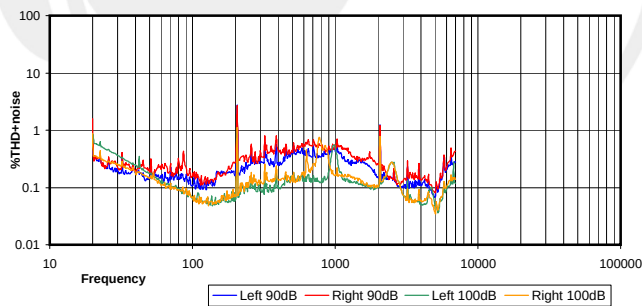
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



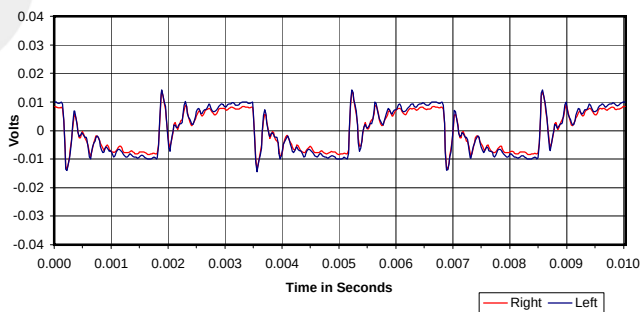
30 Hz Square Wave



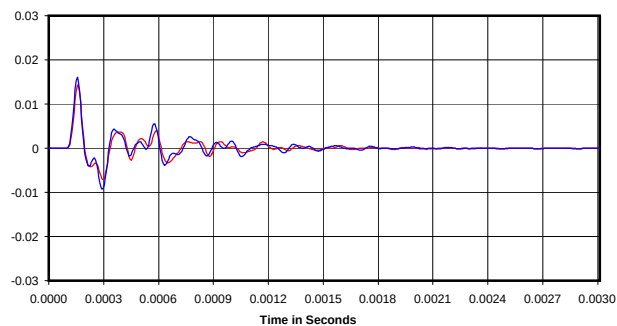
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



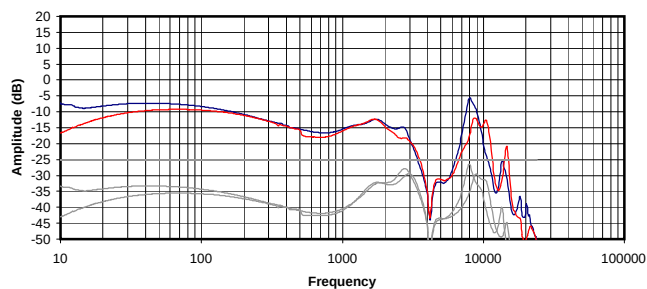
Impulse Response



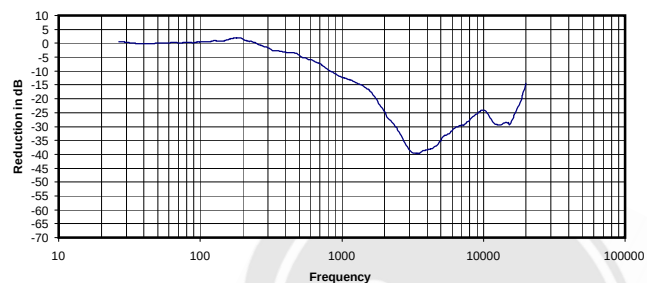
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.037 Vrms
18 Ohms
0.07 mW
-16 dBr

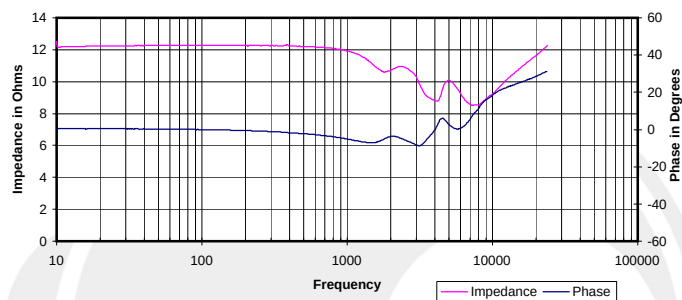
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



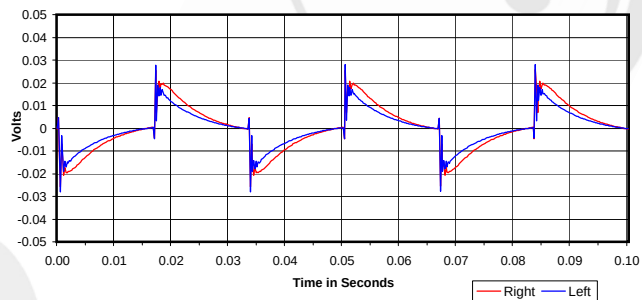
Isolation
Attenuation of External Sound vs. Frequency



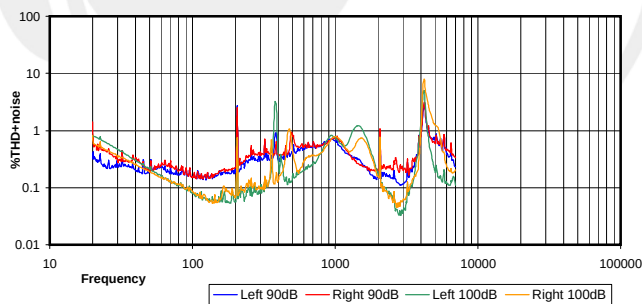
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



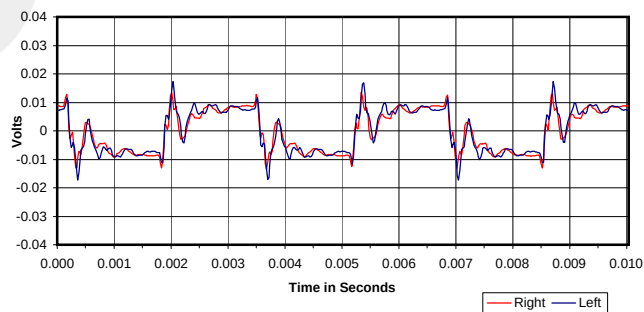
30 Hz Square Wave



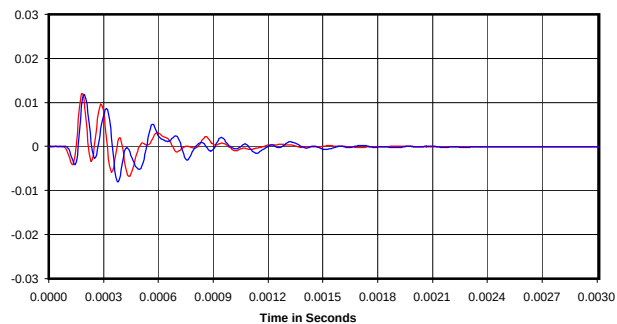
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



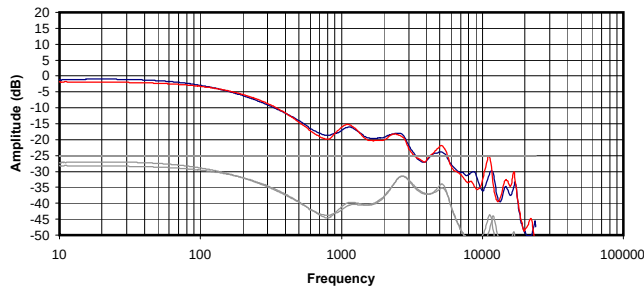
Impulse Response



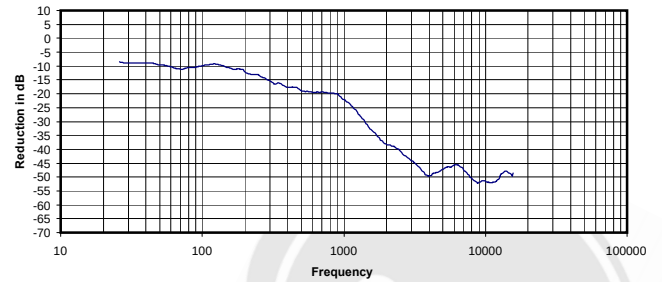
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.019 Vrms
12 Ohms
0.03 mW
-15 dB

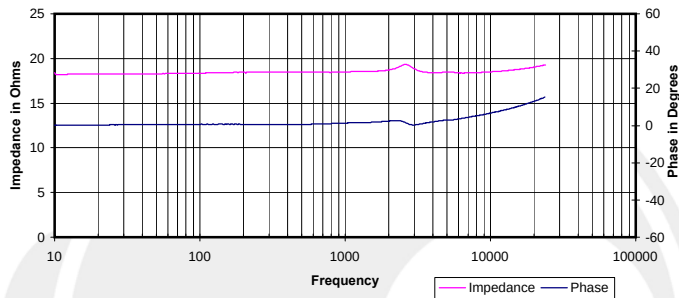
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



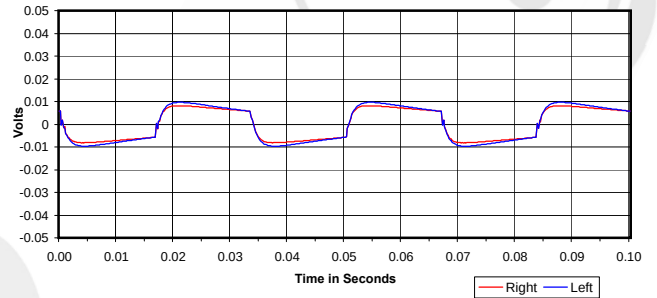
Isolation
Attenuation of External Sound vs. Frequency



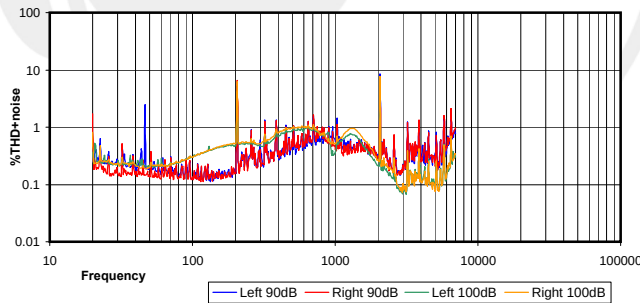
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



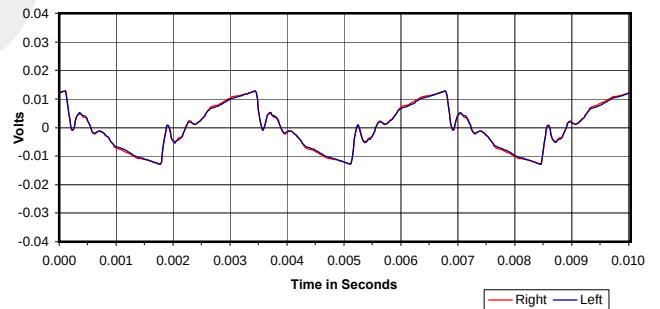
30 Hz Square Wave



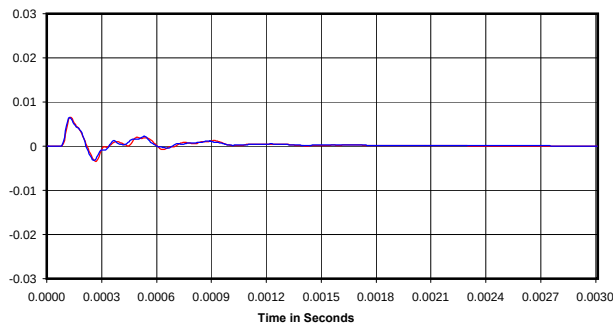
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



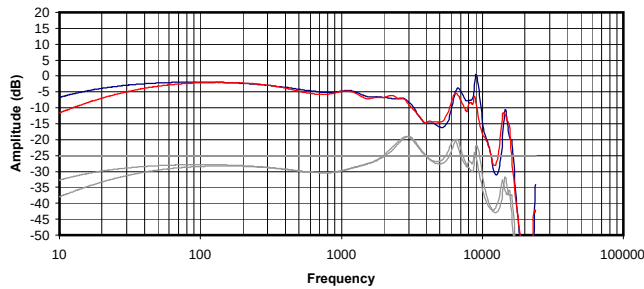
Impulse Response



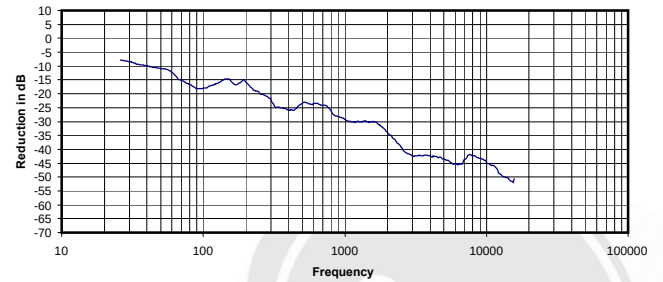
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.026 Vrms
18 Ohms
0.04 mW
-26 dBr

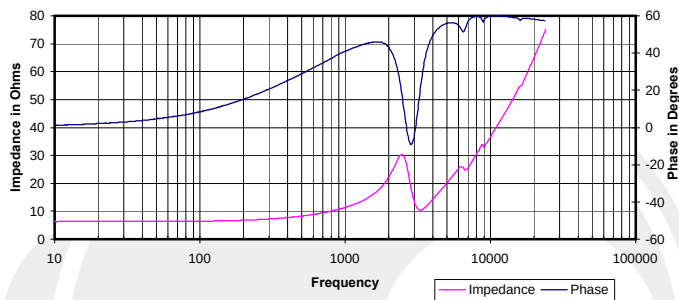
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



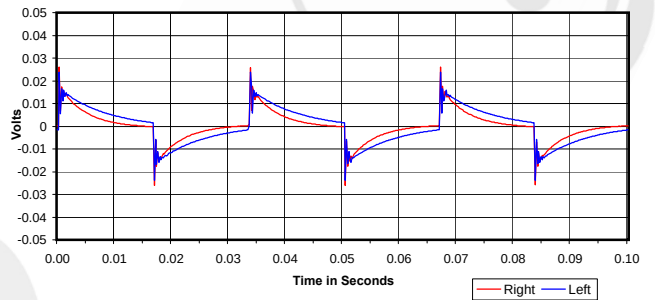
Isolation
Attenuation of External Sound vs. Frequency



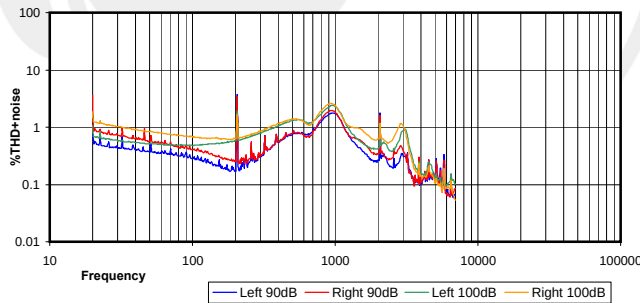
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



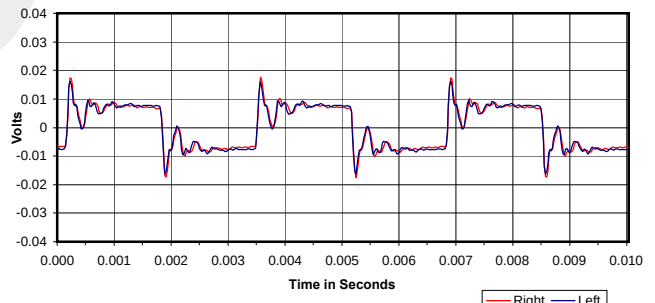
30 Hz Square Wave



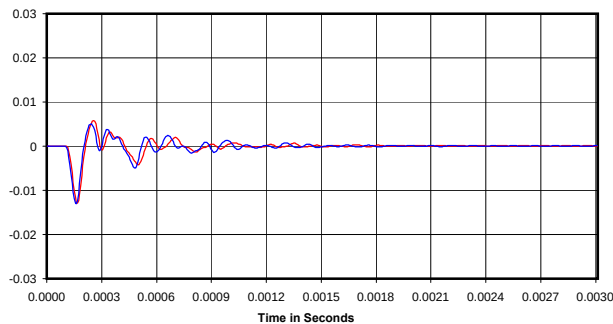
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



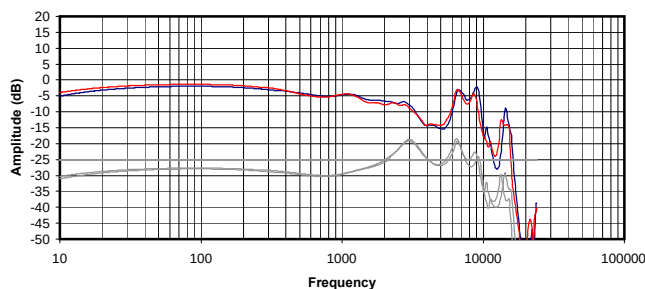
Impulse Response



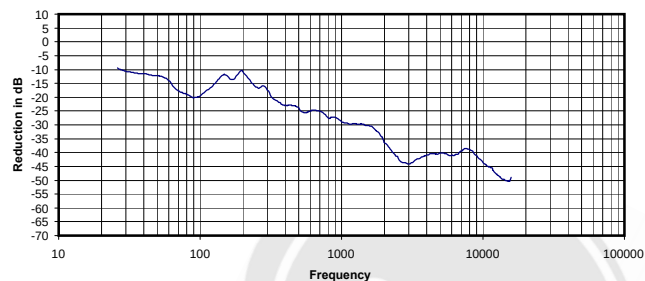
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.012 Vrms
11 Ohms
0.01 mW
-28 dBr

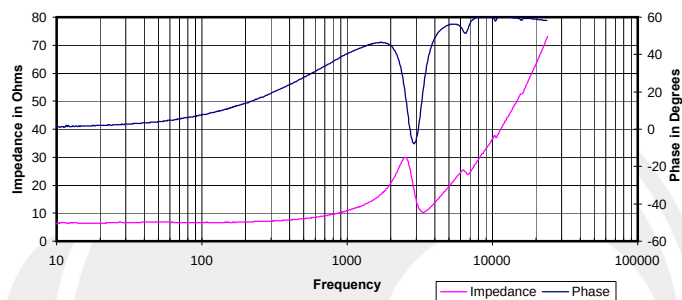
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



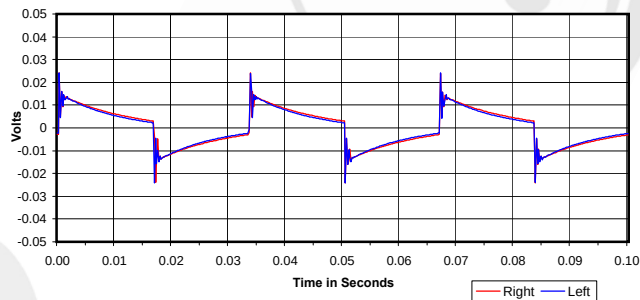
Isolation
Attenuation of External Sound vs. Frequency



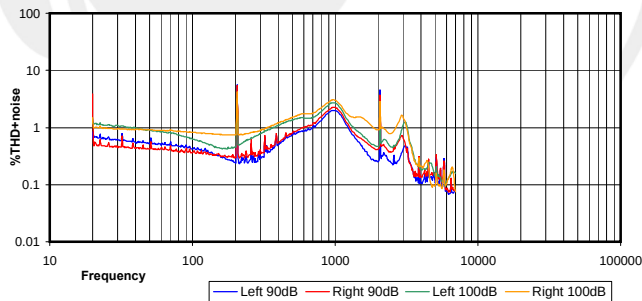
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



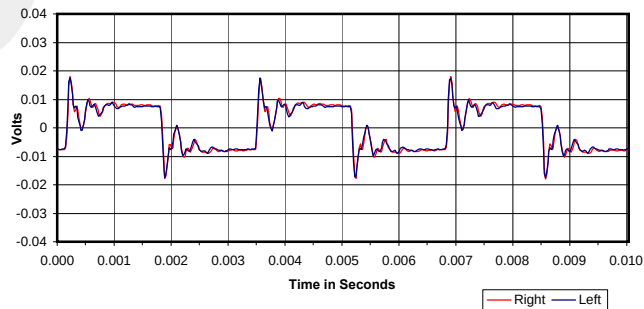
30 Hz Square Wave



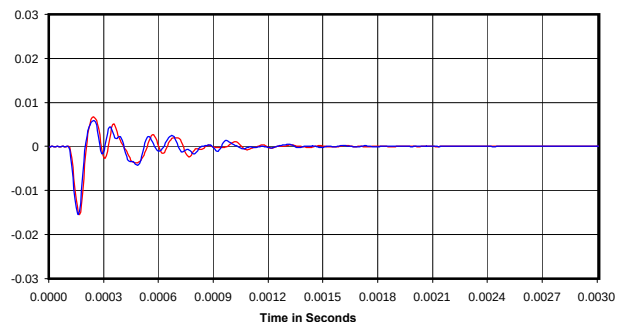
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



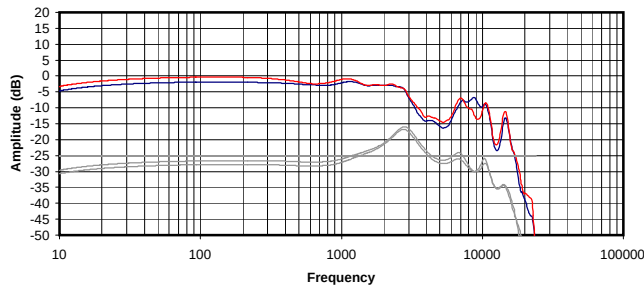
Impulse Response



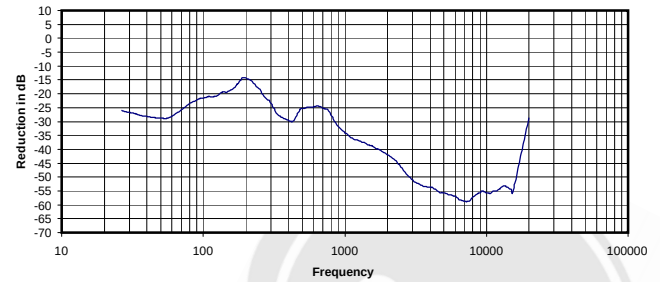
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.013 Vrms
11 Ohms
0.01 mW
-27 dB

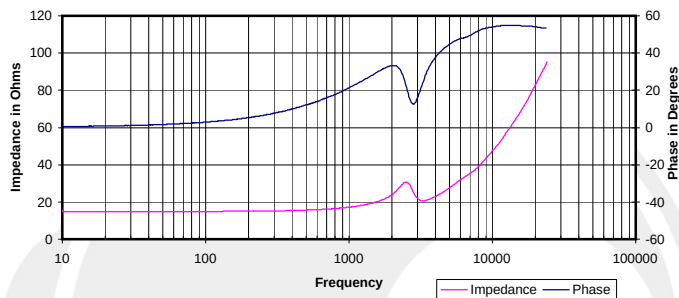
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



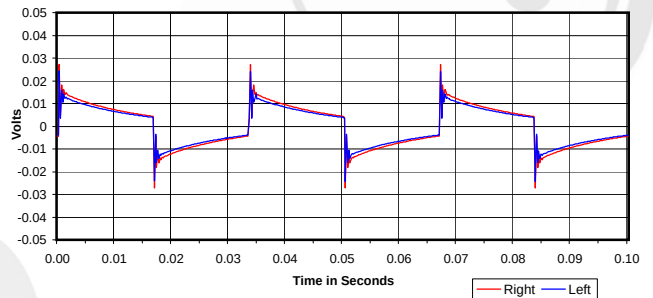
Isolation
Attenuation of External Sound vs. Frequency



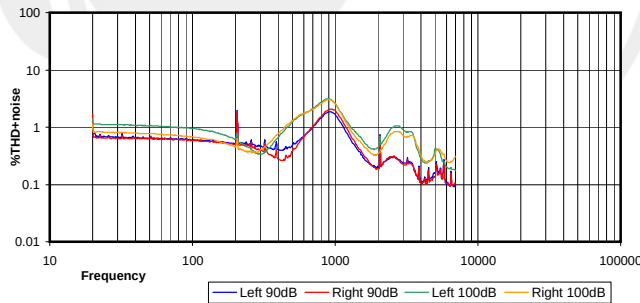
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



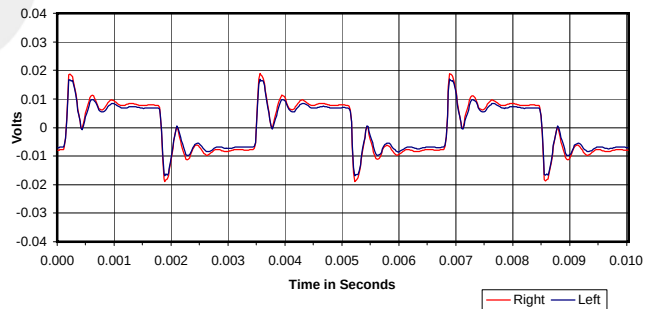
30 Hz Square Wave



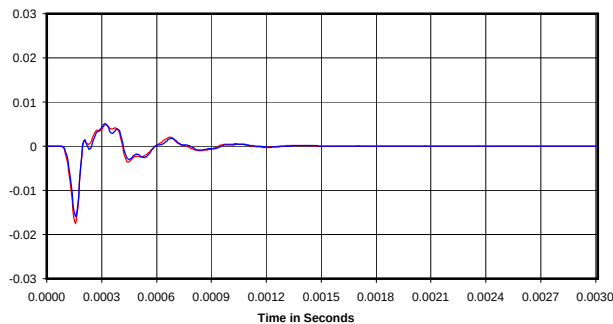
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



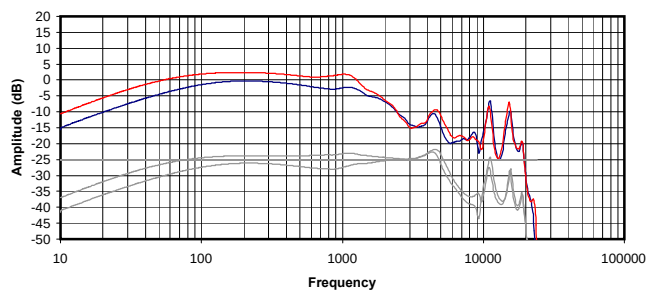
Impulse Response



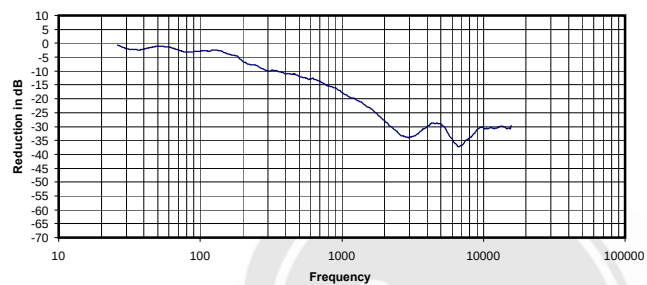
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.022 Vrms
17 Ohms
0.03 mW
-36 dBr

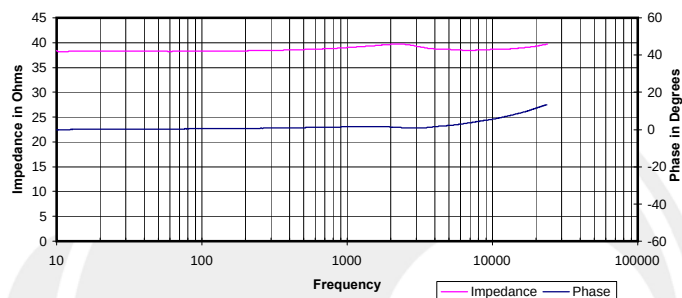
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



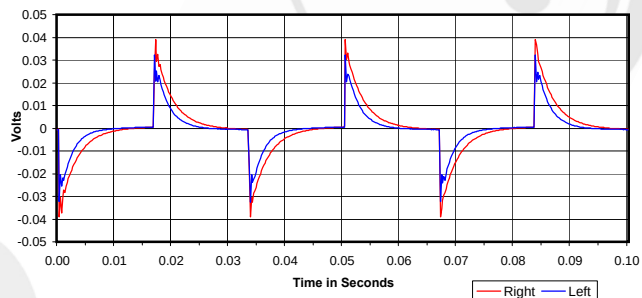
Isolation
Attenuation of External Sound vs. Frequency



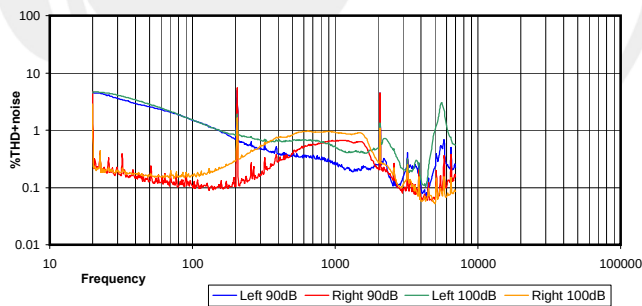
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



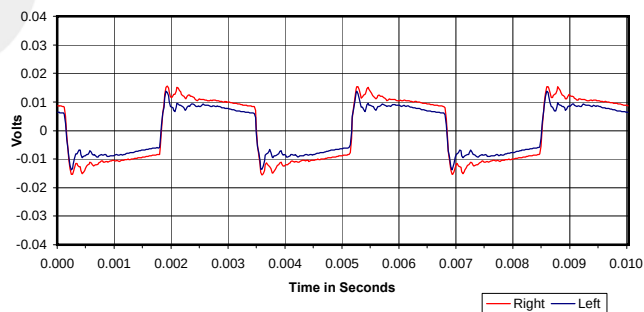
30 Hz Square Wave



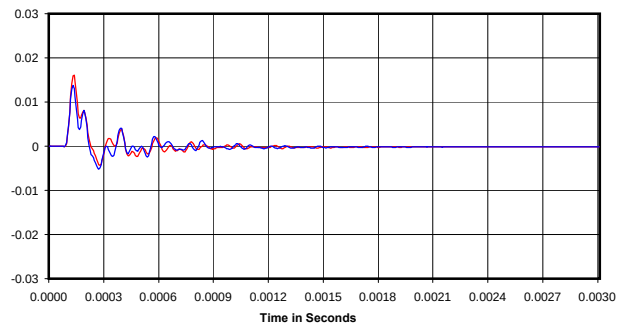
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



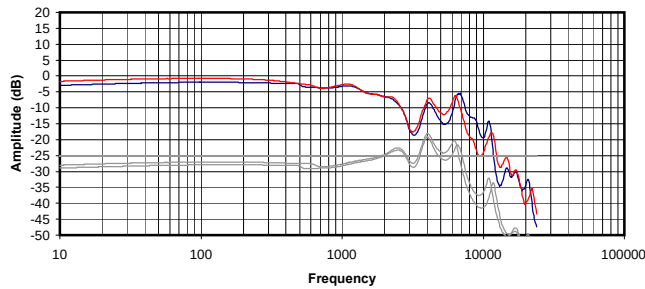
Impulse Response



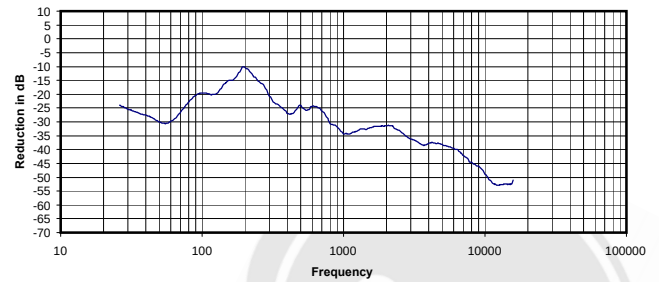
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.035 Vrms
39 Ohms
0.03 mW
-17 dB

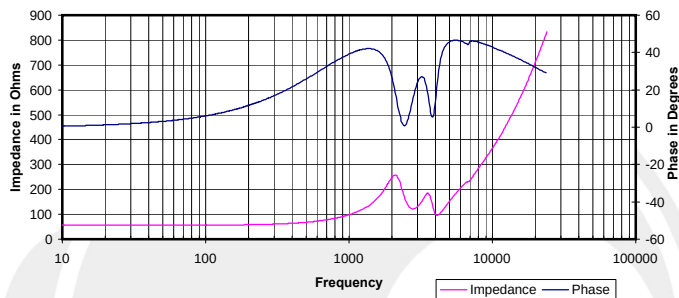
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



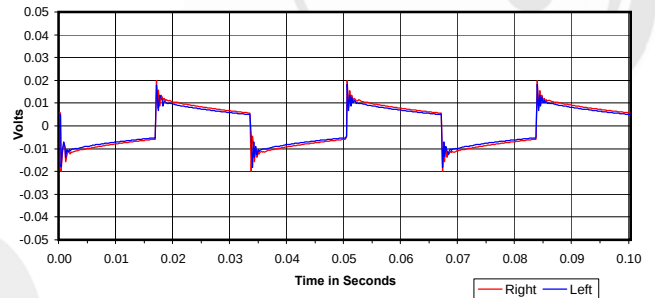
Isolation
Attenuation of External Sound vs. Frequency



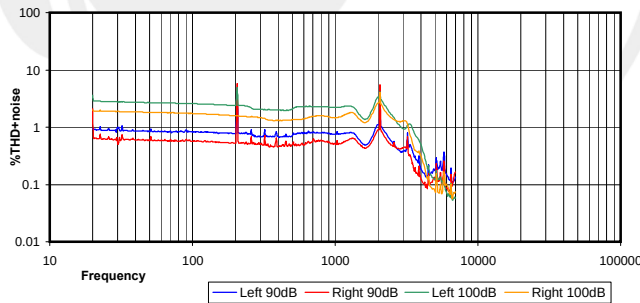
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



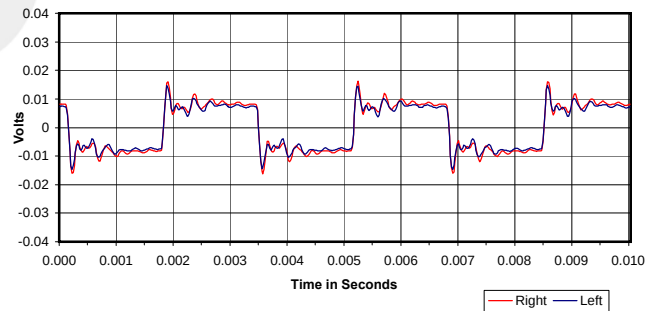
30 Hz Square Wave



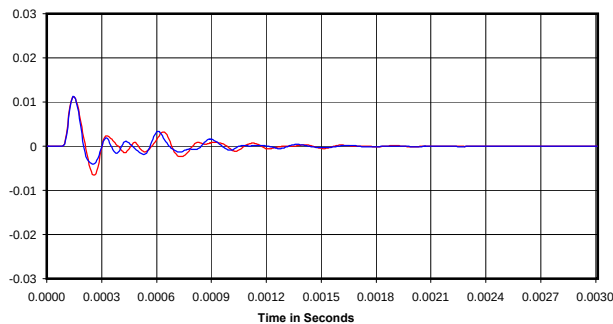
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



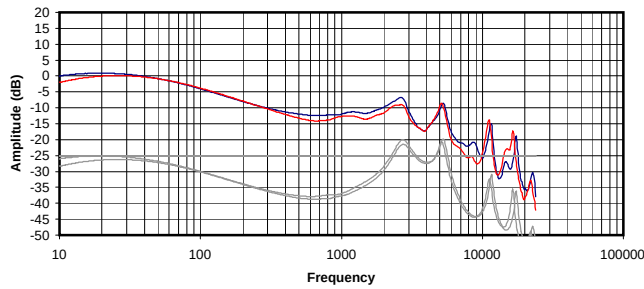
Impulse Response



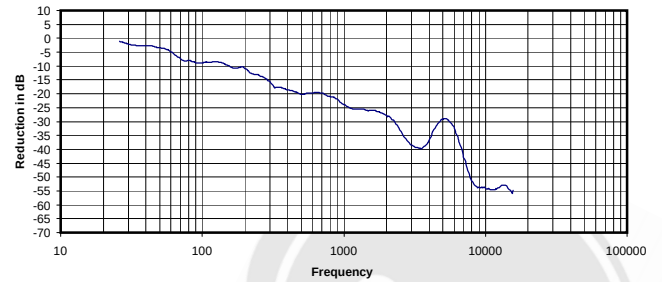
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.025 Vrms
99 Ohms
0.01 mW
-27 dBr

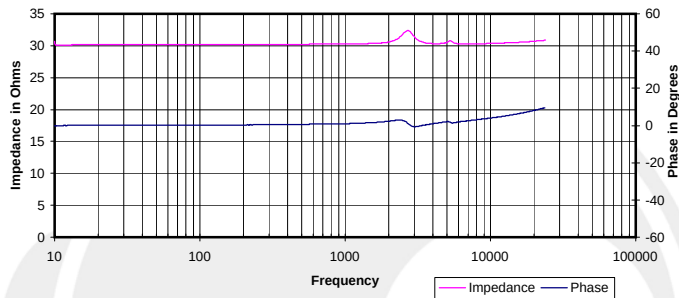
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



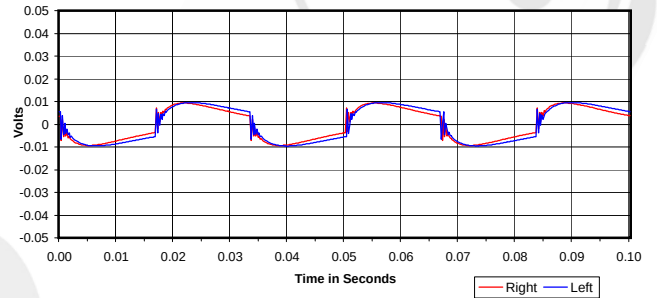
Isolation
Attenuation of External Sound vs. Frequency



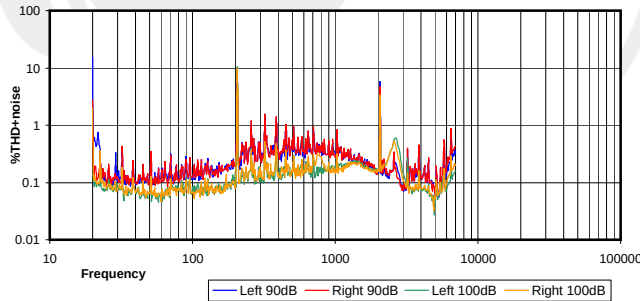
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



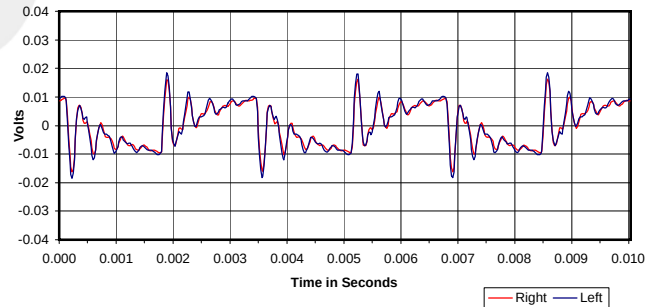
30 Hz Square Wave



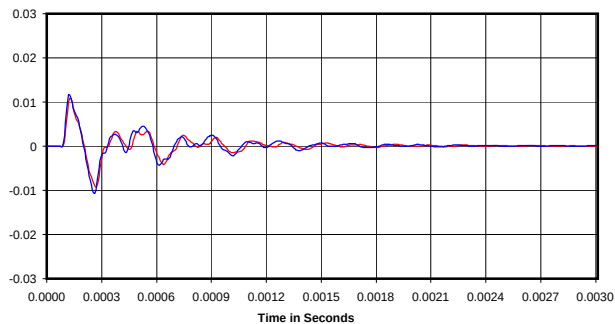
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



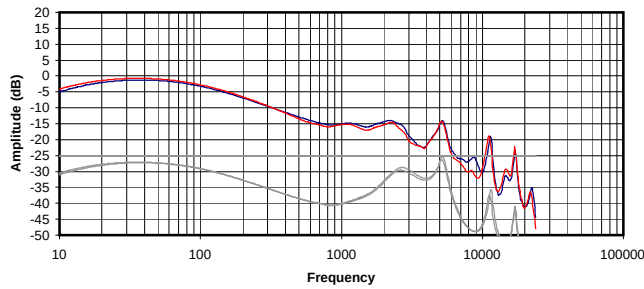
Impulse Response



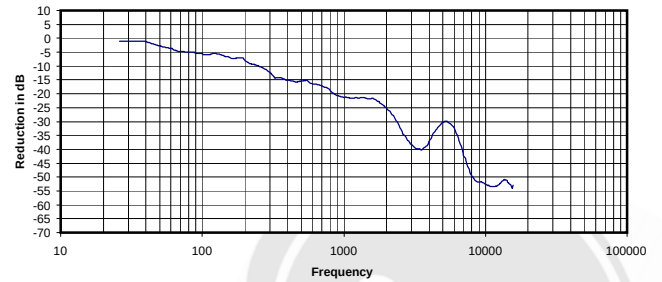
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.054 Vrms
30 Ohms
0.09 mW
-22 dBr

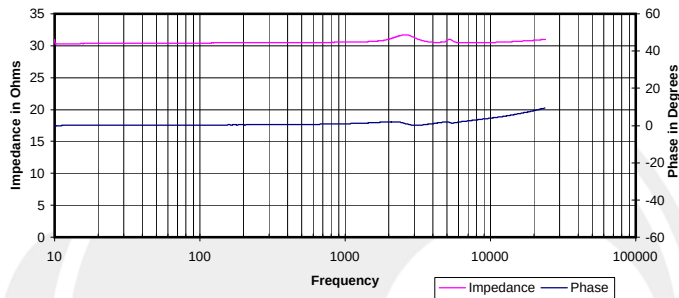
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



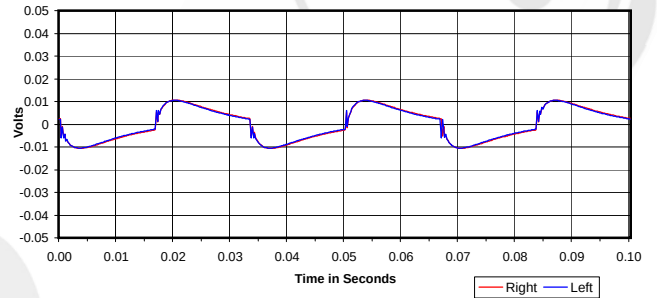
Isolation
Attenuation of External Sound vs. Frequency



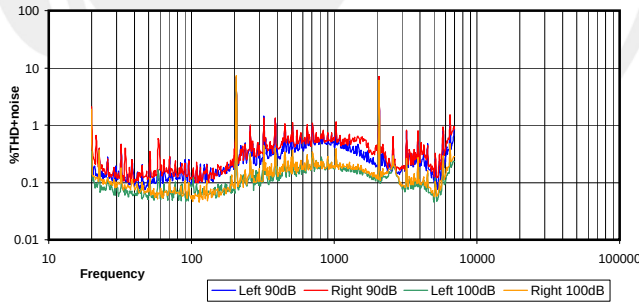
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



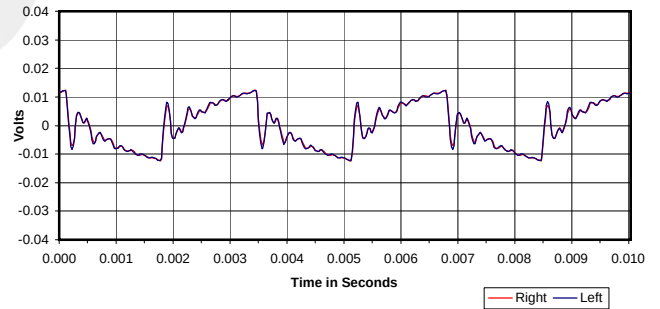
30 Hz Square Wave



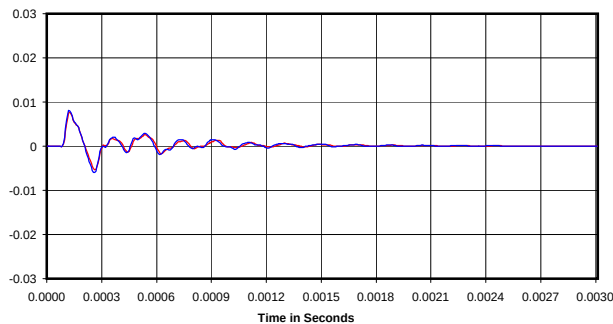
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



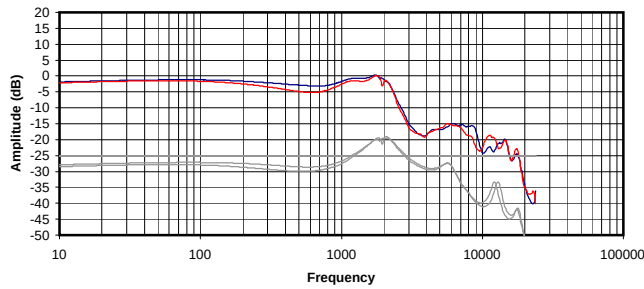
Impulse Response



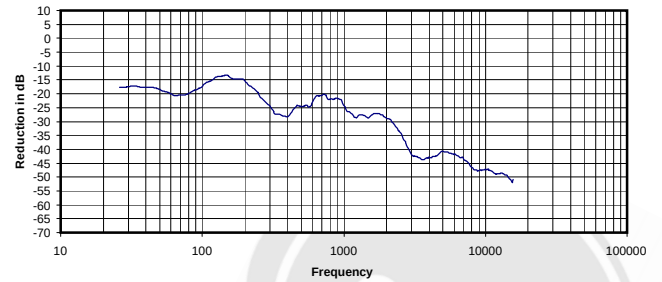
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.043 Vrms
31 Ohms
0.06 mW
-19 dBr

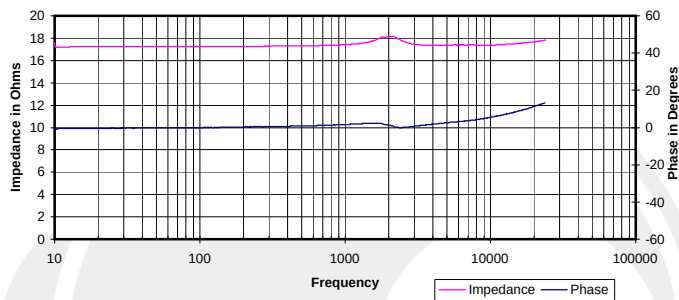
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



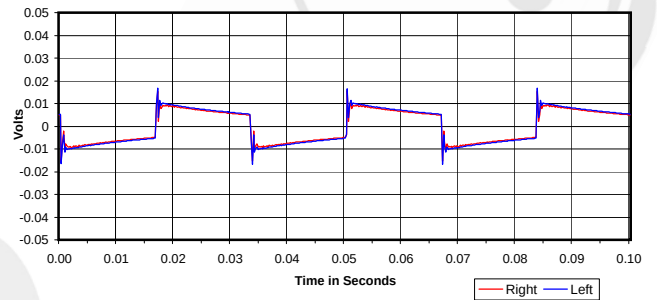
Isolation
Attenuation of External Sound vs. Frequency



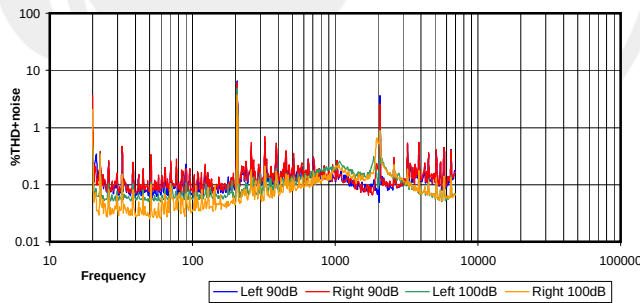
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



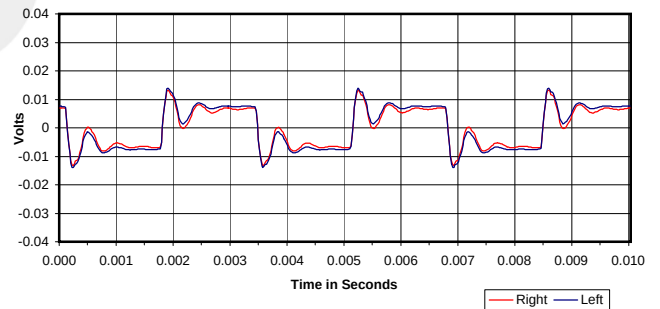
30 Hz Square Wave



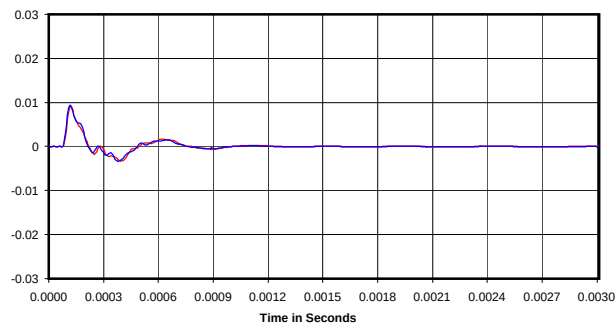
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



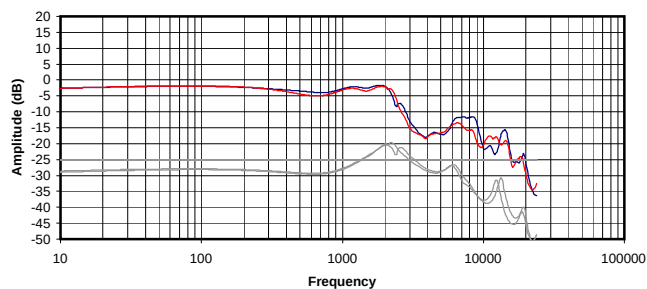
Impulse Response



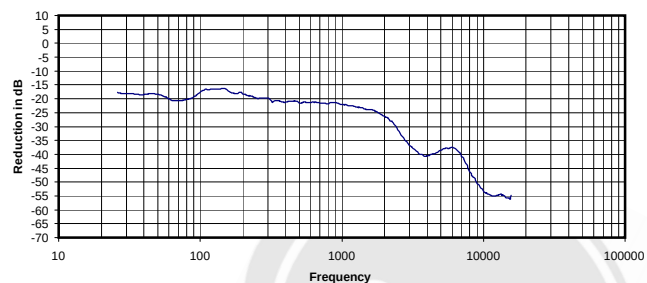
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.018 Vrms
17 Ohms
0.02 mW
-27 dBr

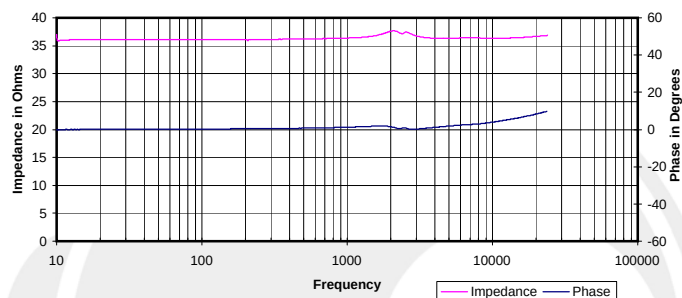
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



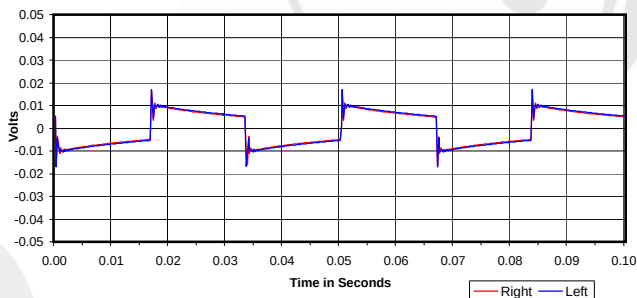
Isolation
Attenuation of External Sound vs. Frequency



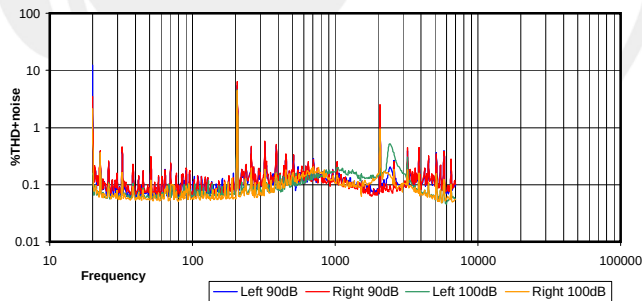
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



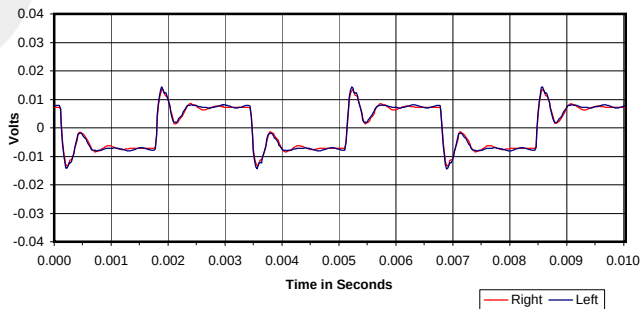
30 Hz Square Wave



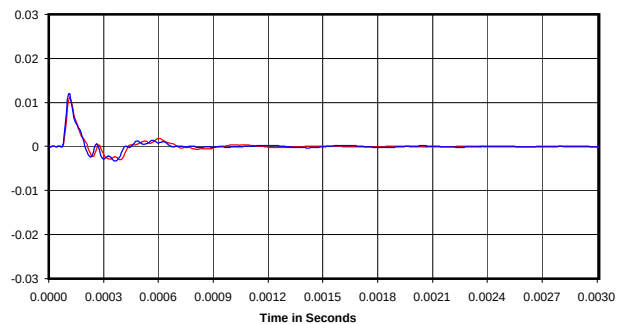
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



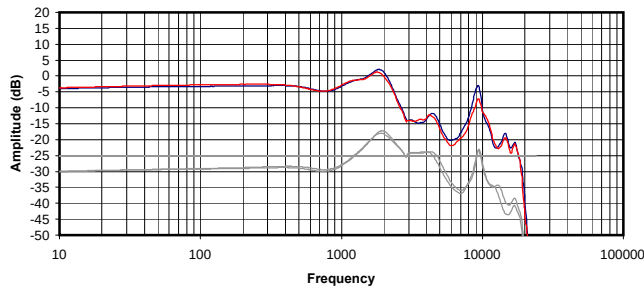
Impulse Response



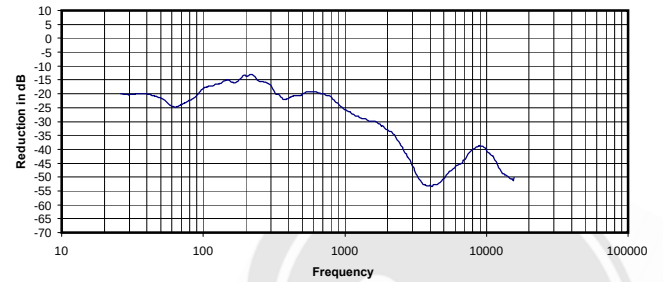
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.029 Vrms
36 Ohms
0.02 mW
-25 dB

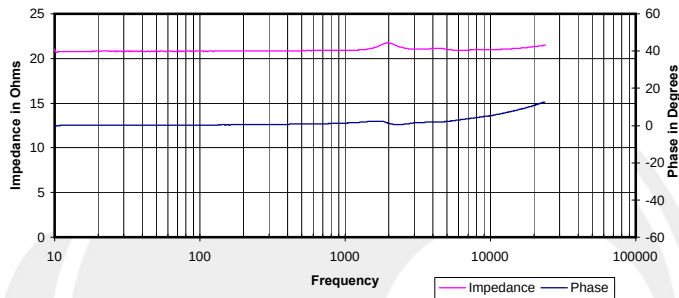
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



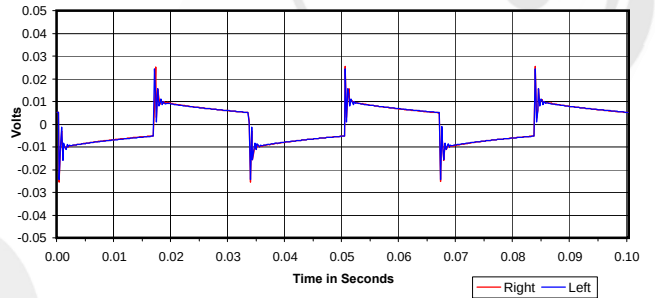
Isolation
Attenuation of External Sound vs. Frequency



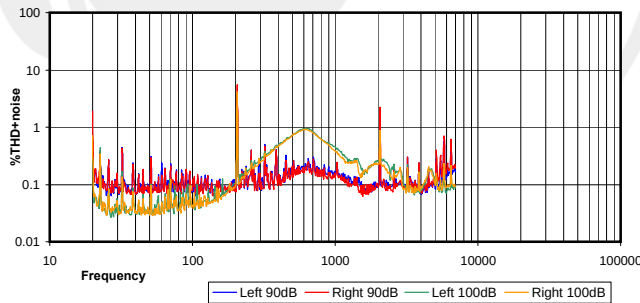
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



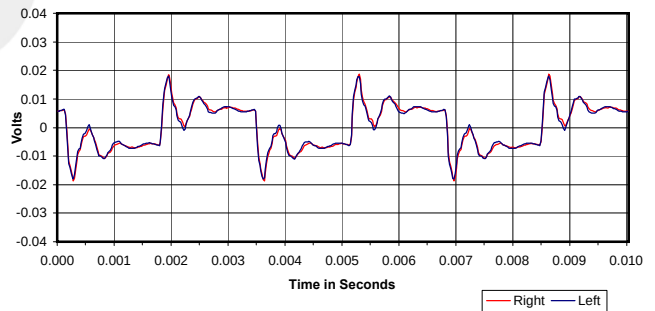
30 Hz Square Wave



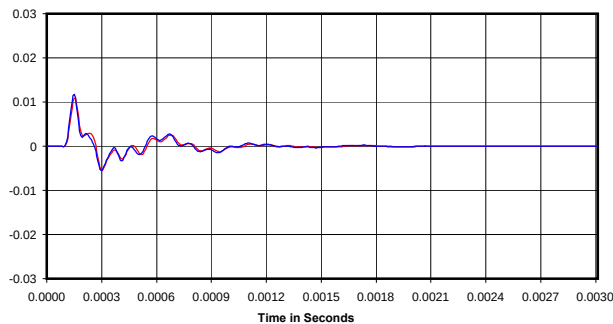
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



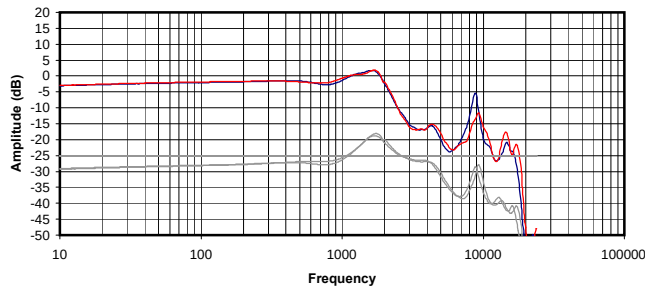
Impulse Response



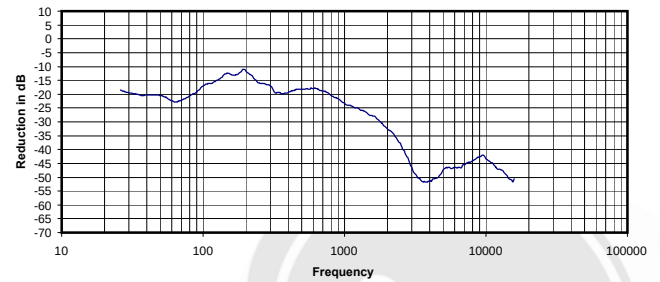
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.029 Vrms
21 Ohms
0.04 mW
-28 dBr

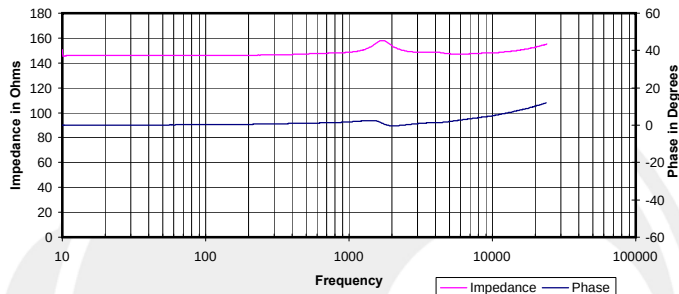
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



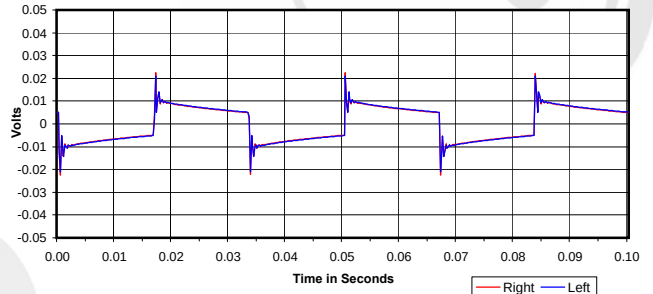
Isolation
Attenuation of External Sound vs. Frequency



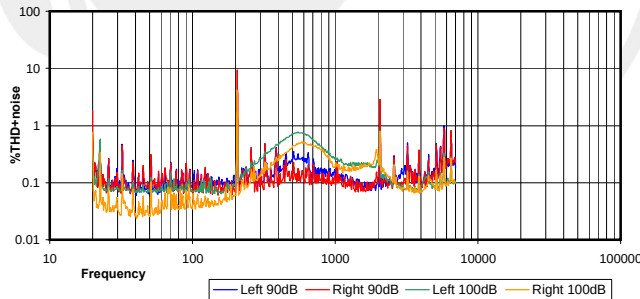
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



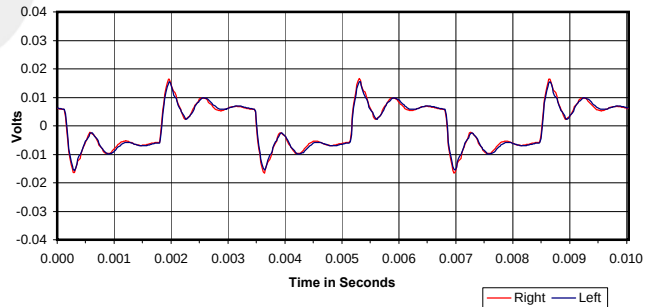
30 Hz Square Wave



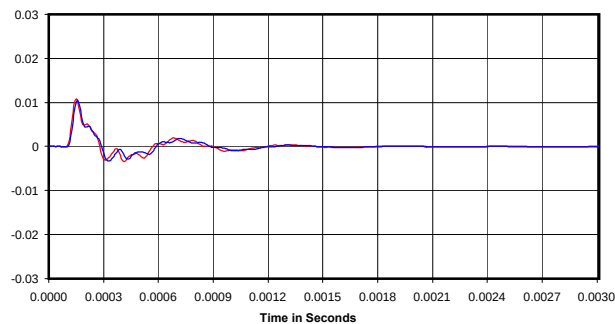
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



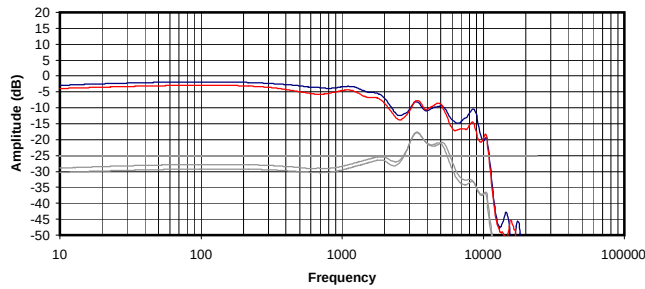
Impulse Response



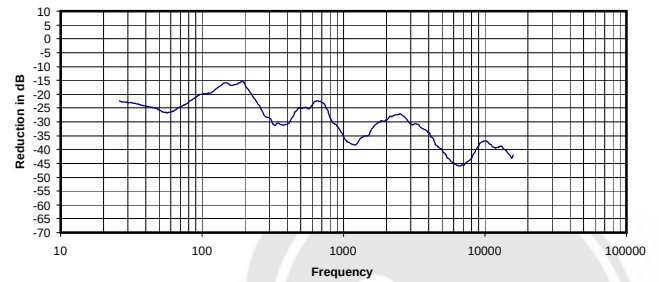
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90dB BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.043 Vrms
149 Ohms
0.01 mW
-26 dBr

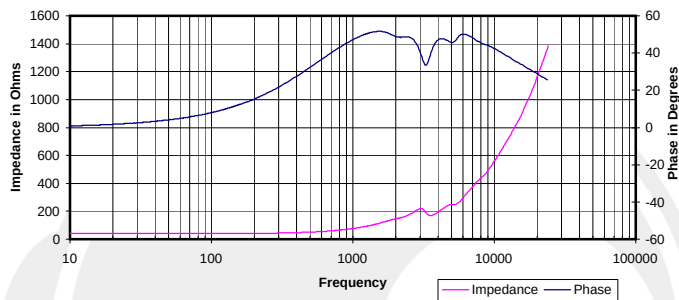
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



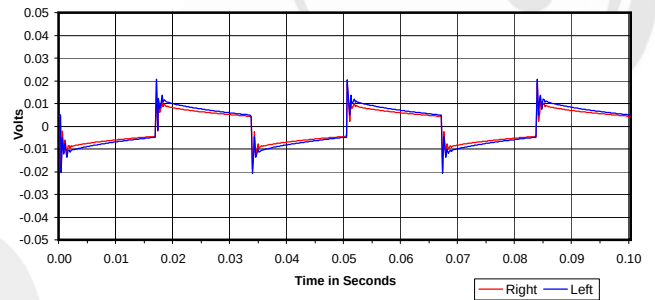
Isolation
Attenuation of External Sound vs. Frequency



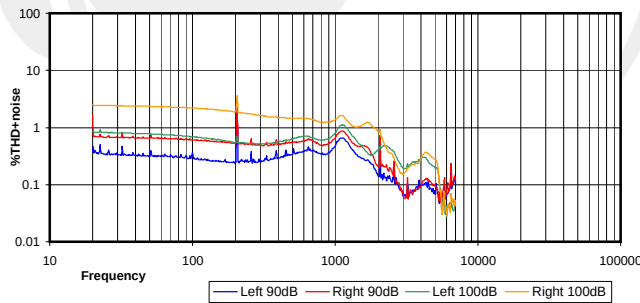
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



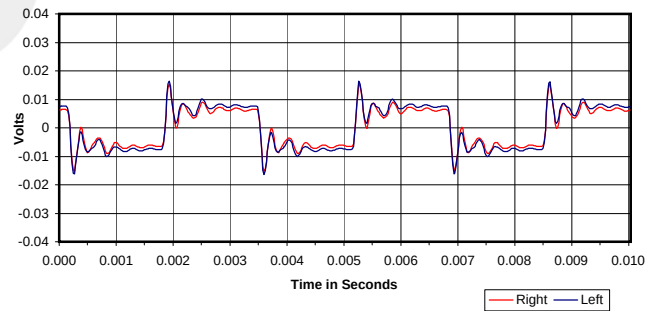
30 Hz Square Wave



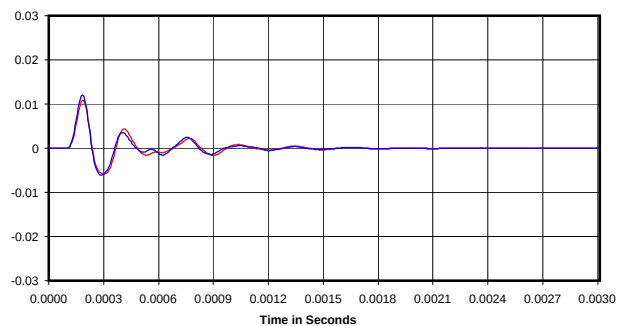
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



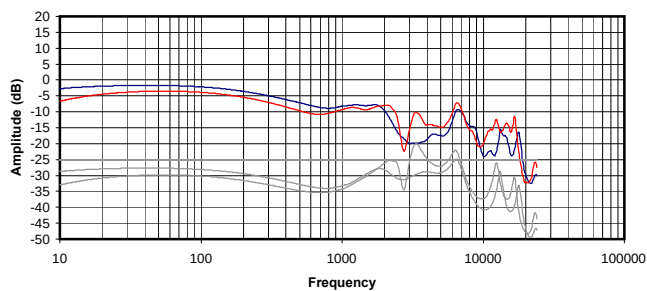
Impulse Response



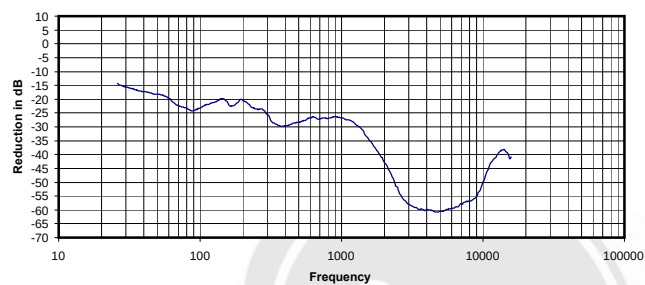
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.044 Vrms
76 Ohms
0.03 mW
-28 dBr

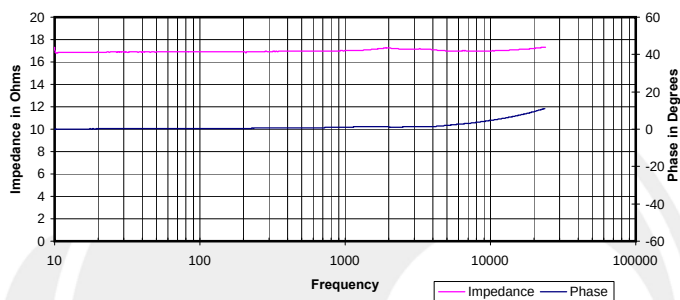
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



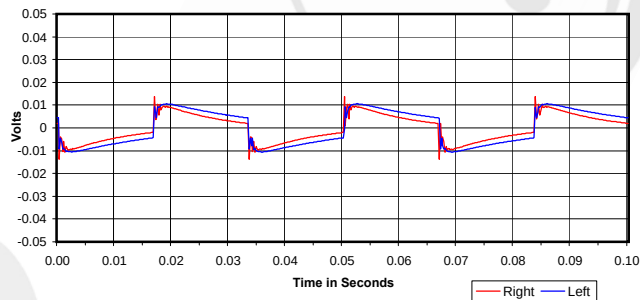
Isolation
Attenuation of External Sound vs. Frequency



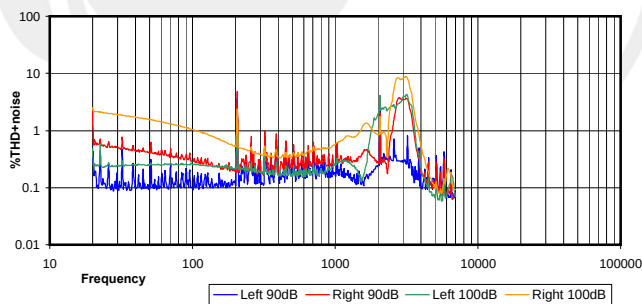
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



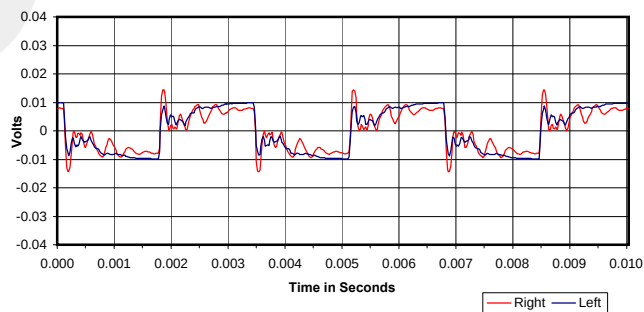
30 Hz Square Wave



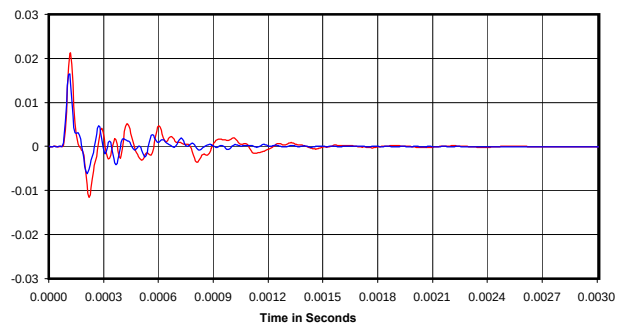
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



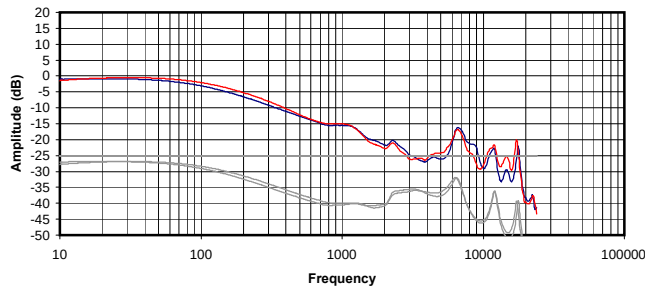
Impulse Response



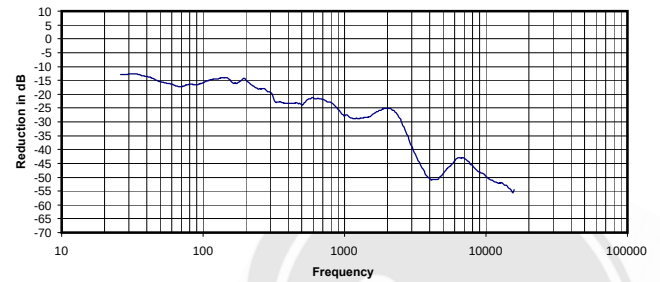
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.062 Vrms
17 Ohms
0.23 mW
-35 dBr

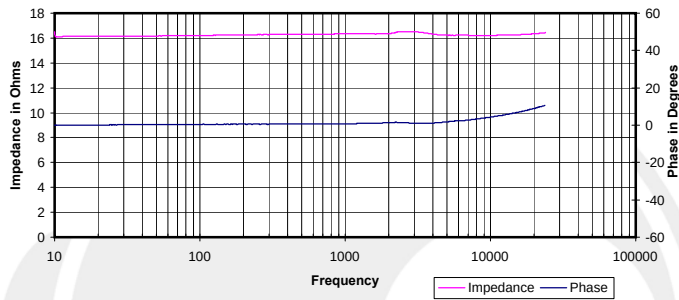
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



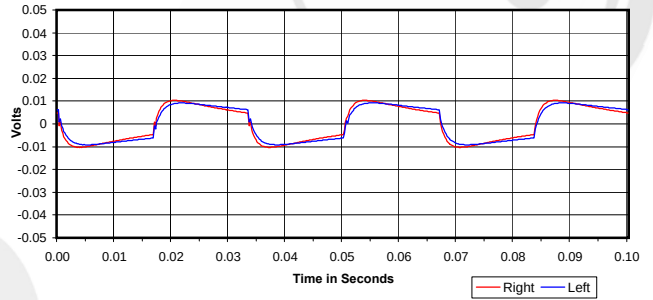
Isolation
Attenuation of External Sound vs. Frequency



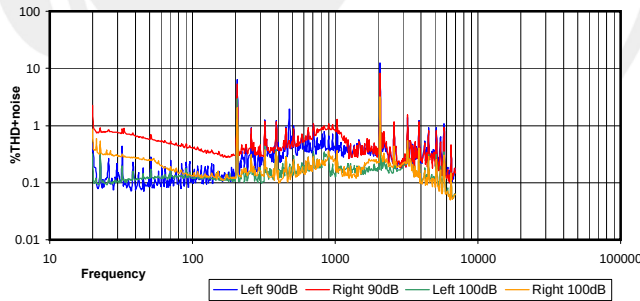
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



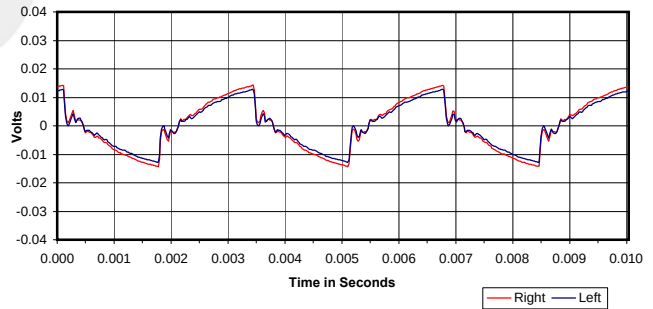
30 Hz Square Wave



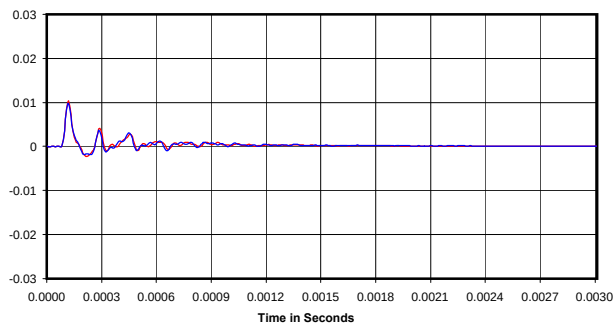
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



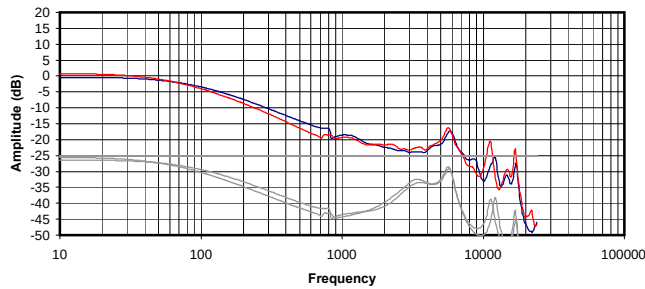
Impulse Response



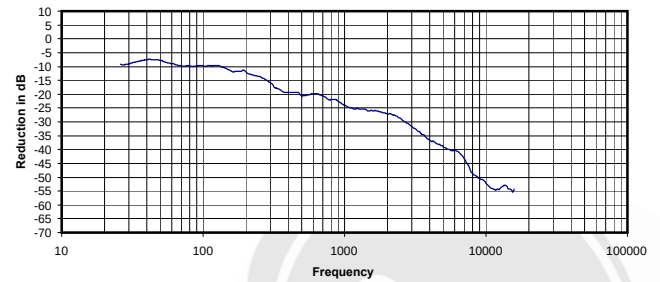
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.041 Vrms
16 Ohms
0.10 mW
-27 dBr

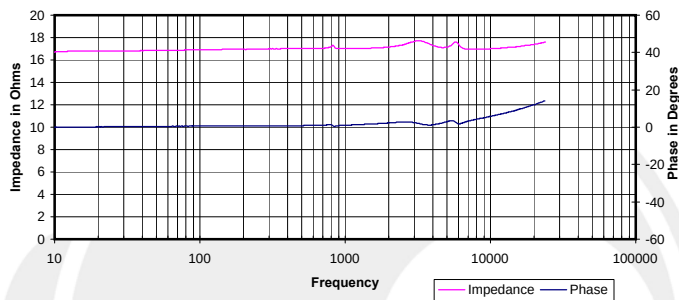
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



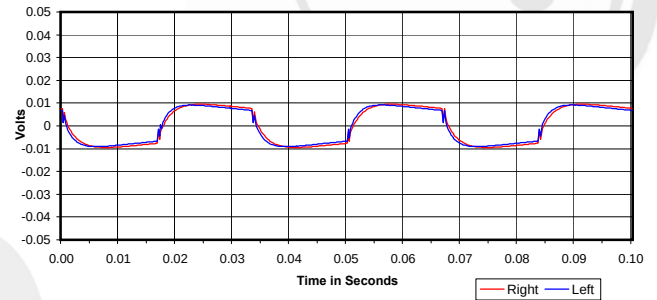
Isolation
Attenuation of External Sound vs. Frequency



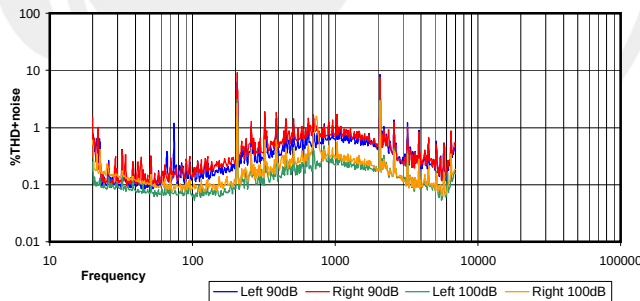
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



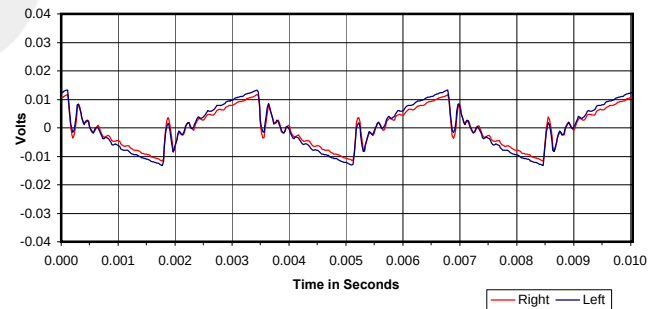
30 Hz Square Wave



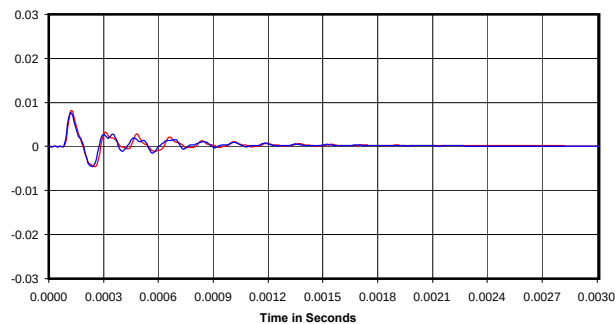
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



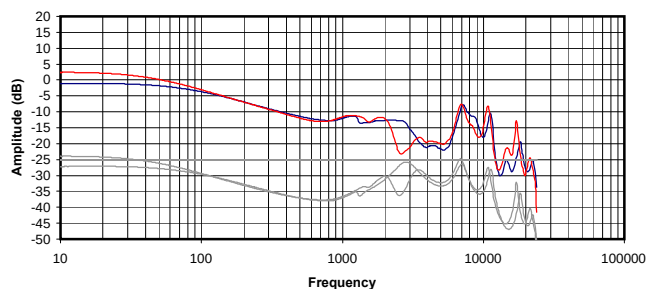
Impulse Response



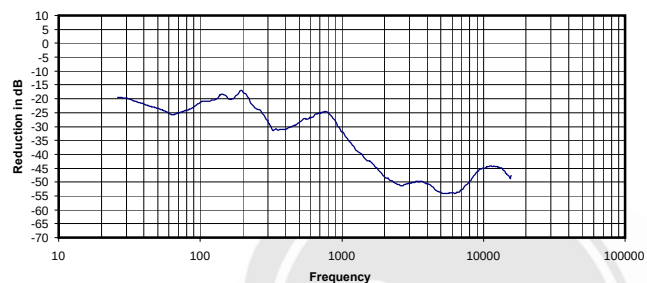
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.028 Vrms
17 Ohms
0.05 mW
-22 dBr

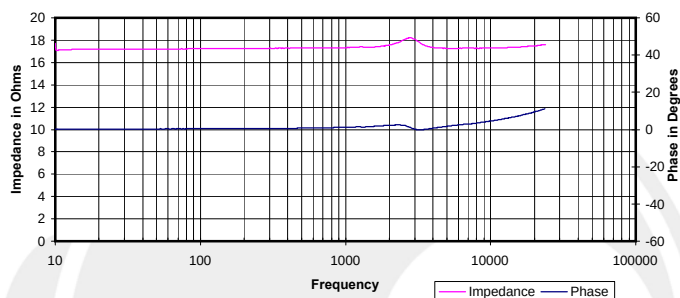
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



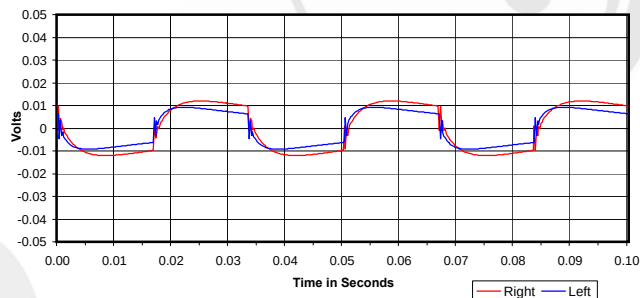
Isolation
Attenuation of External Sound vs. Frequency



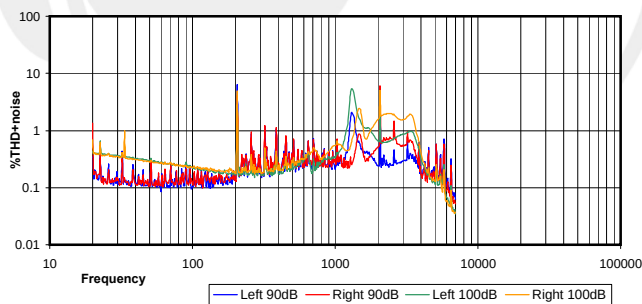
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



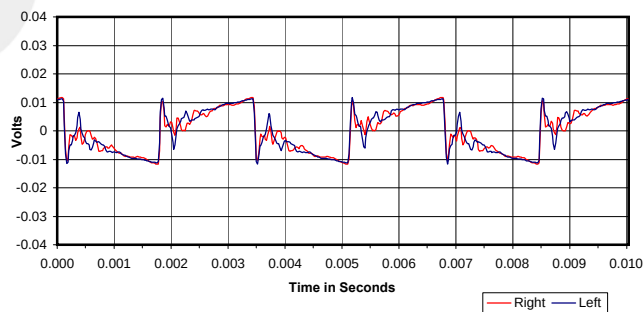
30 Hz Square Wave



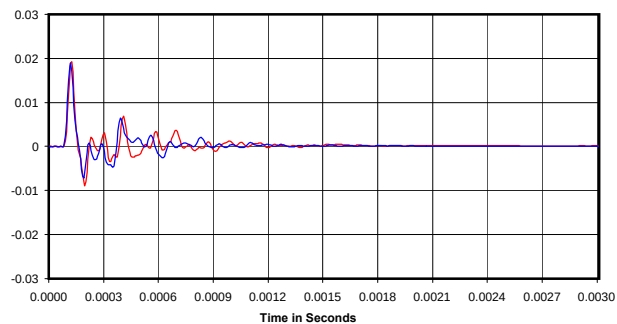
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



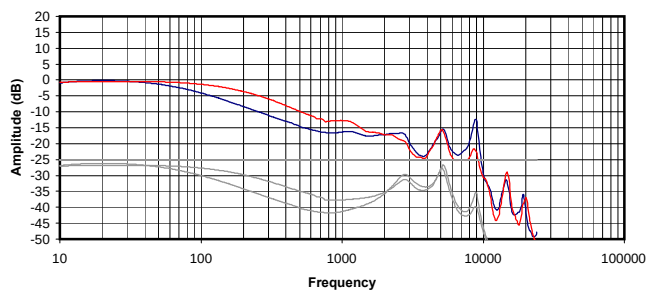
Impulse Response



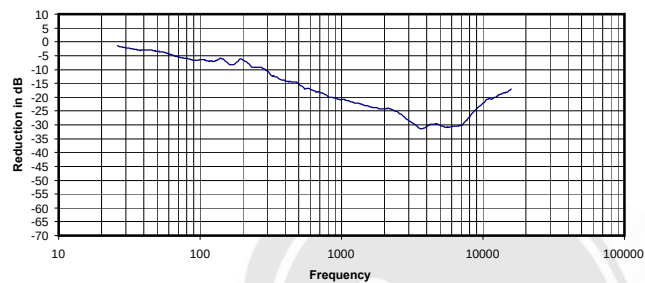
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.062 Vrms
17 Ohms
0.22 mW
-34 dBr

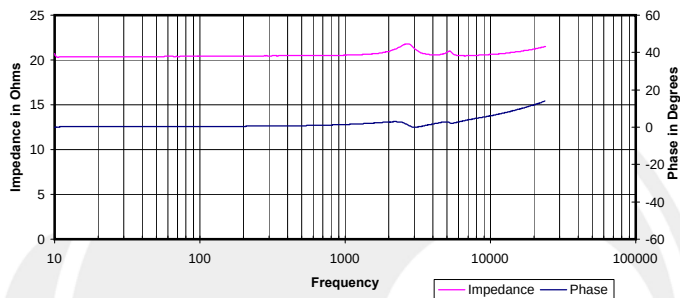
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



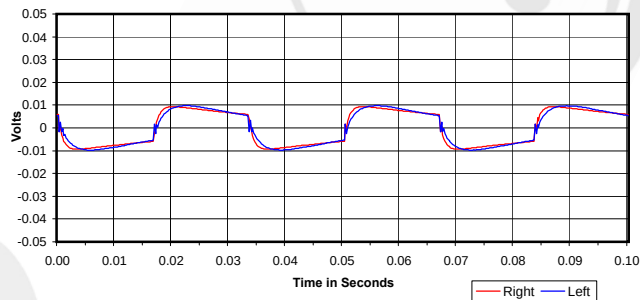
Isolation
Attenuation of External Sound vs. Frequency



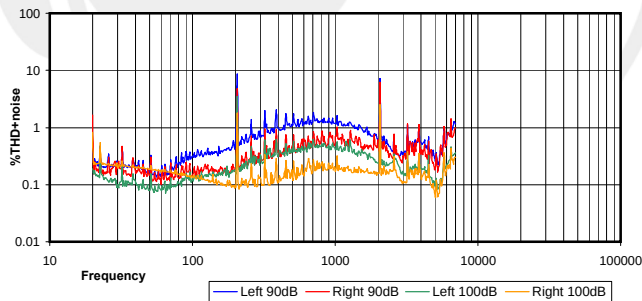
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



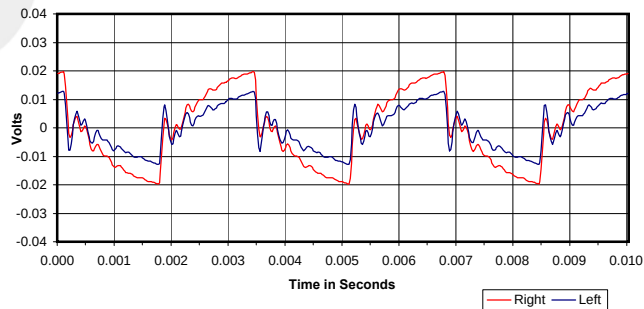
30 Hz Square Wave



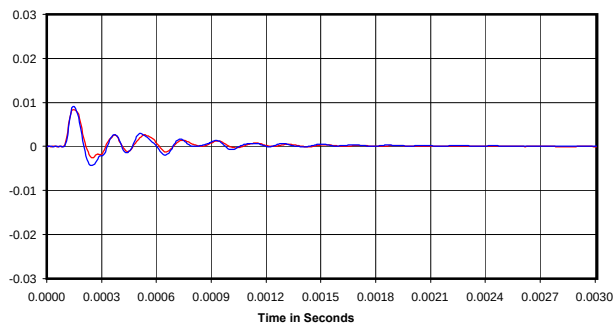
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



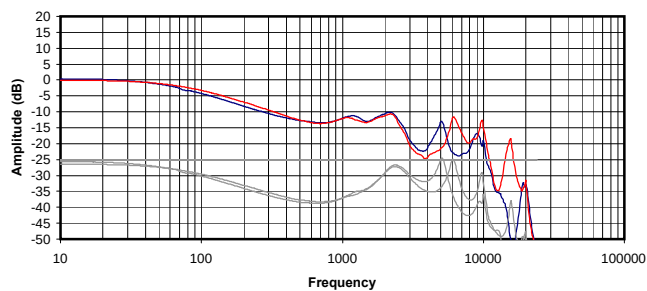
Impulse Response



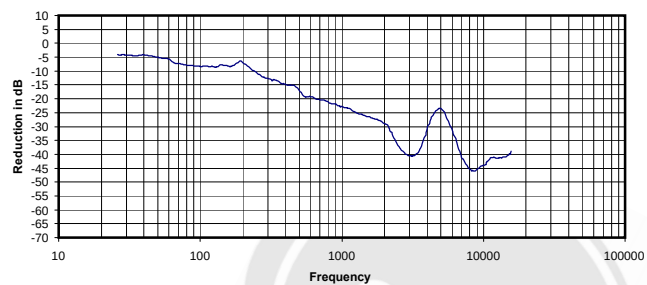
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.030 Vrms
21 Ohms
0.04 mW
-18 dBr

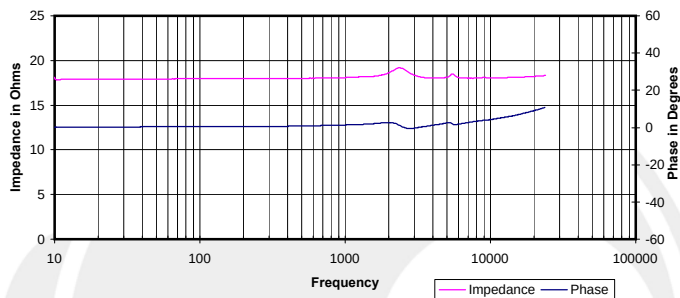
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



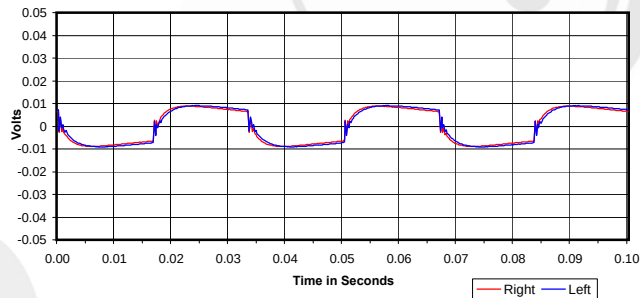
Isolation
Attenuation of External Sound vs. Frequency



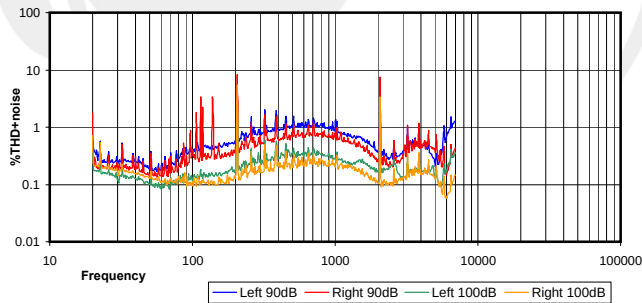
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



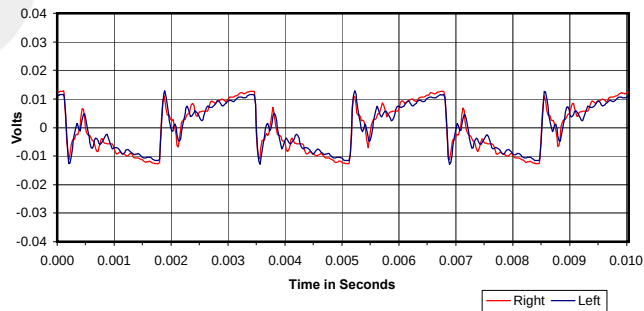
30 Hz Square Wave



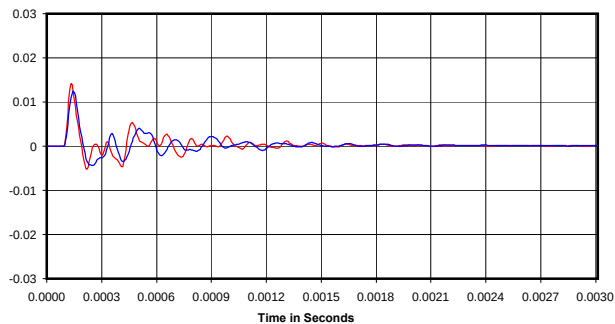
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



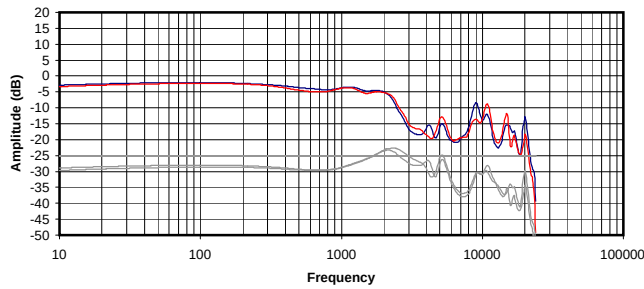
Impulse Response



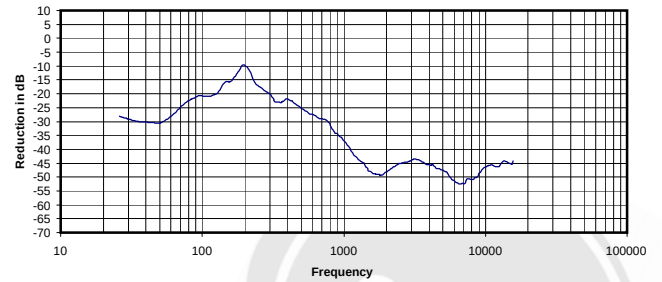
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.021 Vrms
18 Ohms
0.02 mW
-20 dBr

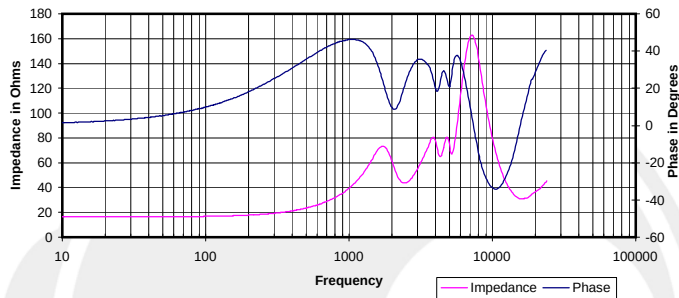
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



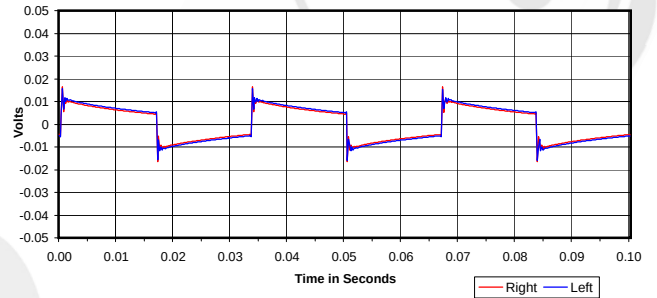
Isolation
Attenuation of External Sound vs. Frequency



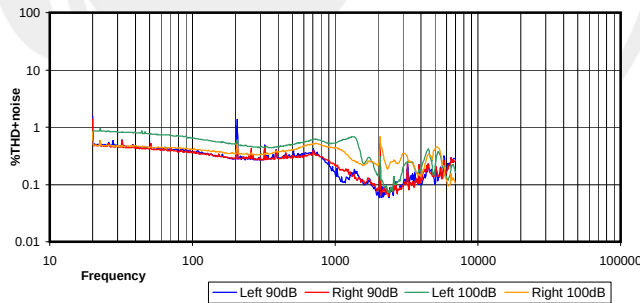
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



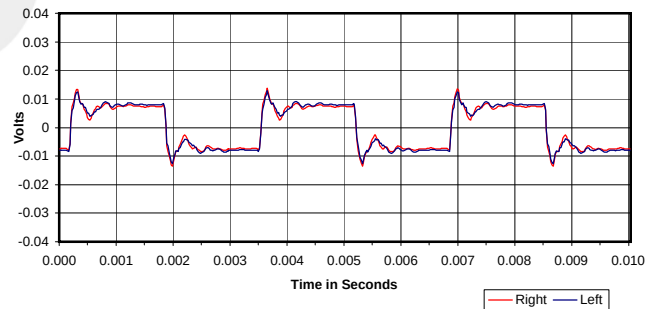
30 Hz Square Wave



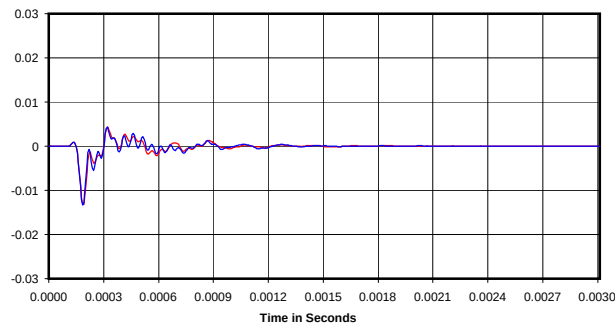
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



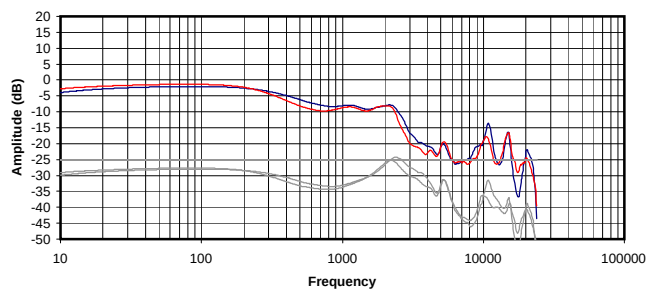
Impulse Response



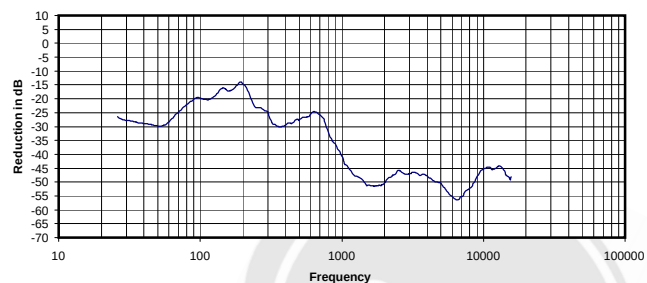
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.015 Vrms
40 Ohms
0.01 mW
-32 dB

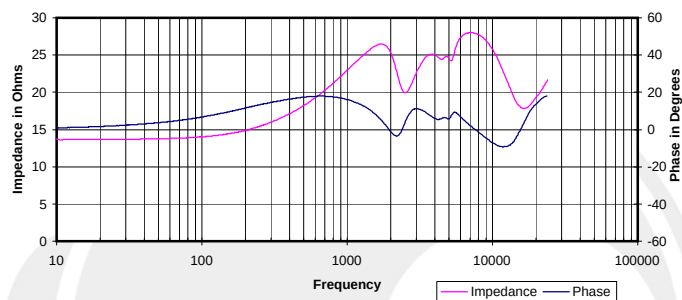
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



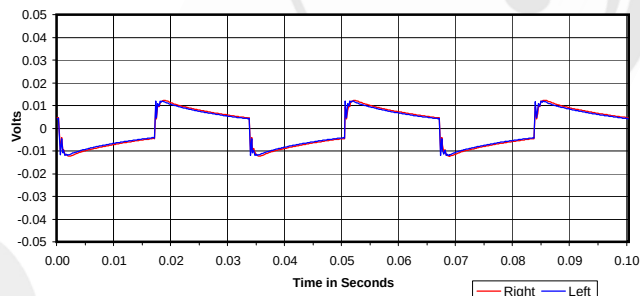
Isolation
Attenuation of External Sound vs. Frequency



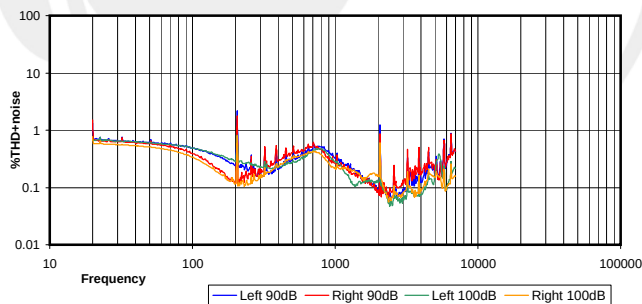
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



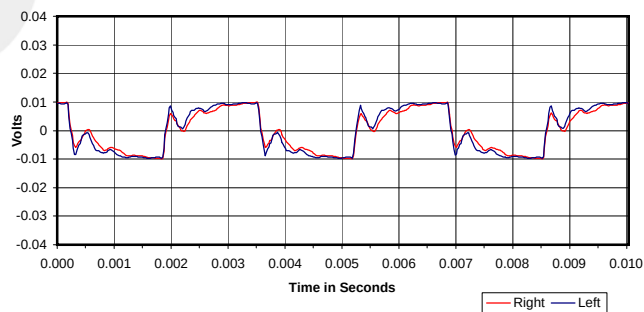
30 Hz Square Wave



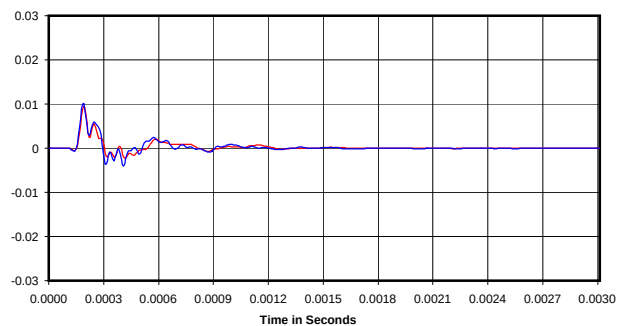
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



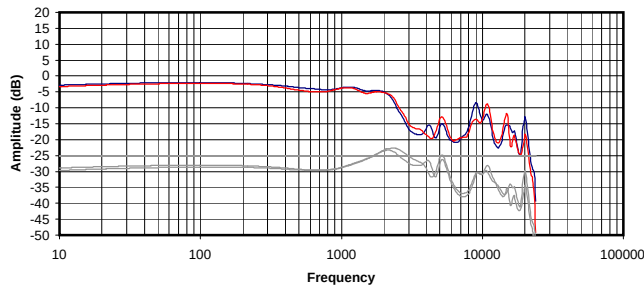
Impulse Response



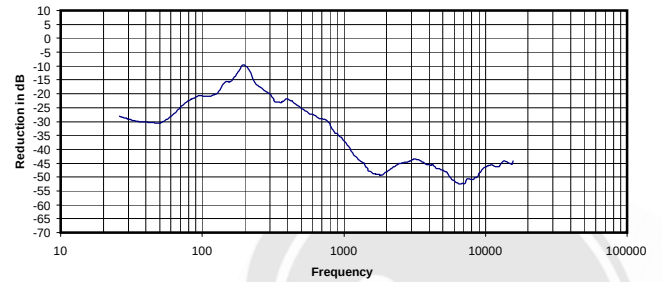
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.018 Vrms
23 Ohms
0.01 mW
-35 dB

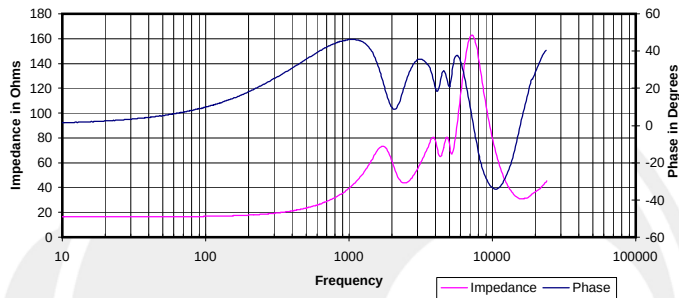
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



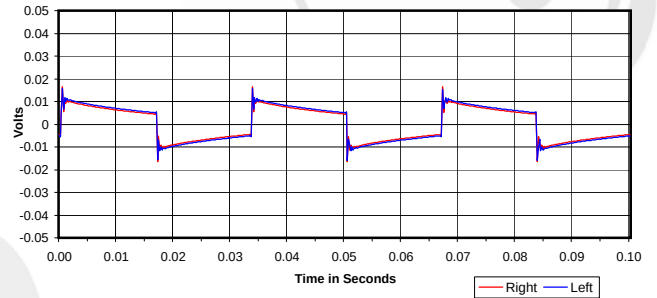
Isolation
Attenuation of External Sound vs. Frequency



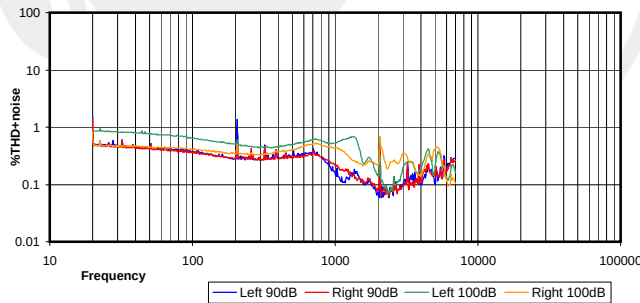
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



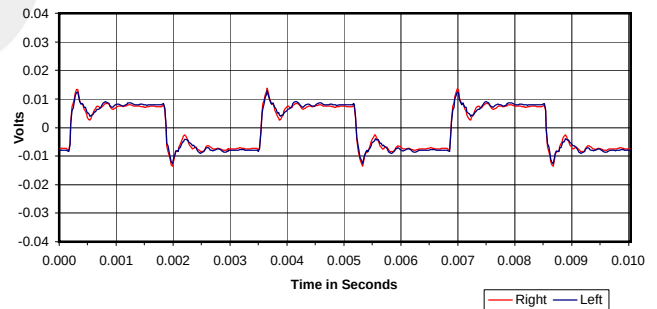
30 Hz Square Wave



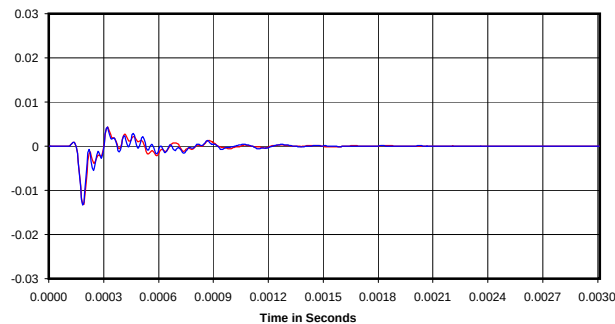
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



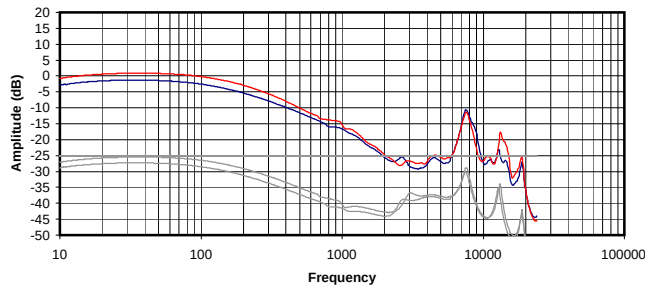
Impulse Response



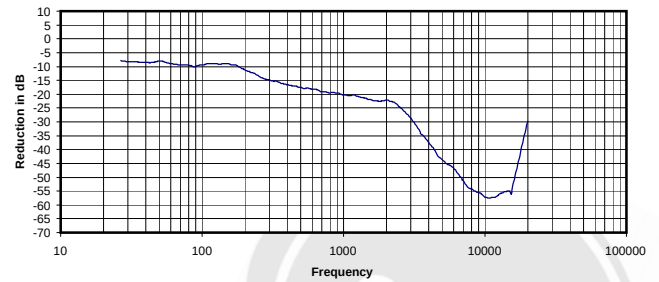
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.015 Vrms
40 Ohms
0.01 mW
-32 dB

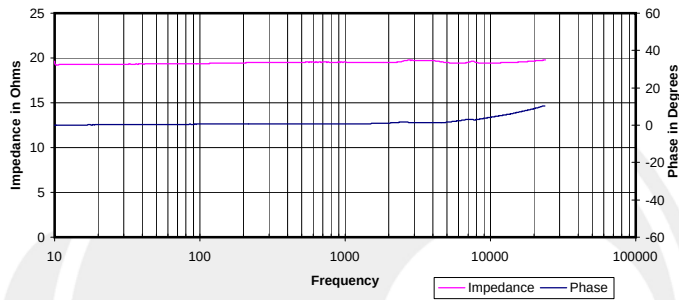
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



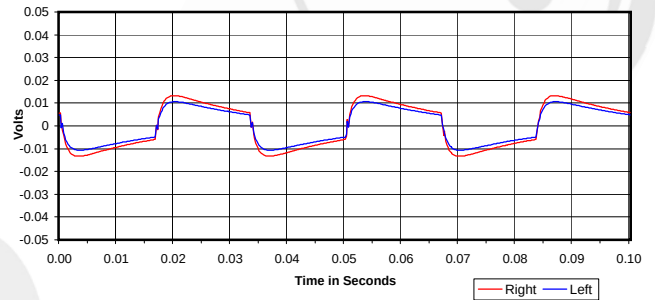
Isolation
Attenuation of External Sound vs. Frequency



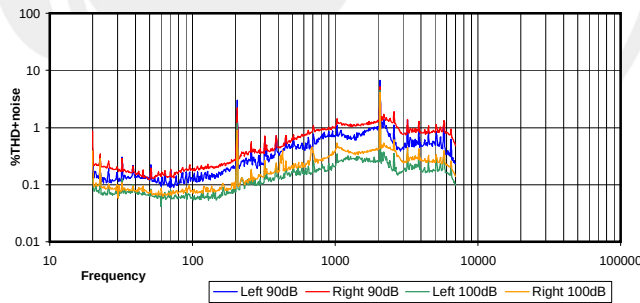
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



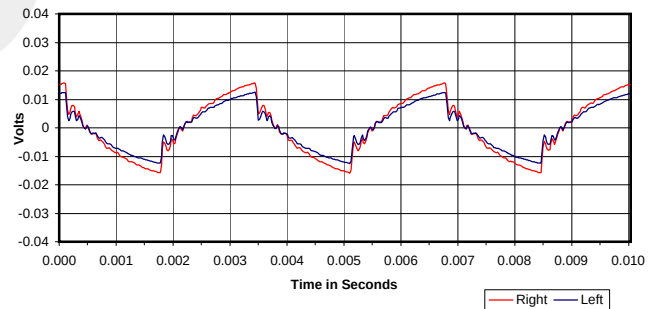
30 Hz Square Wave



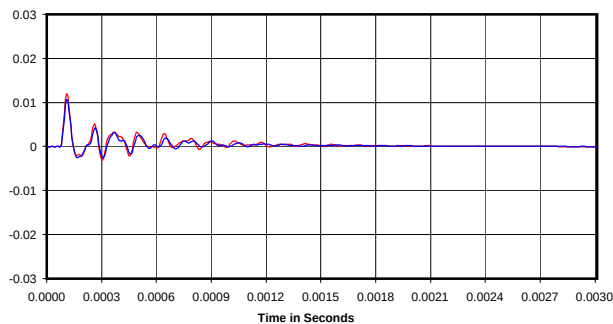
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



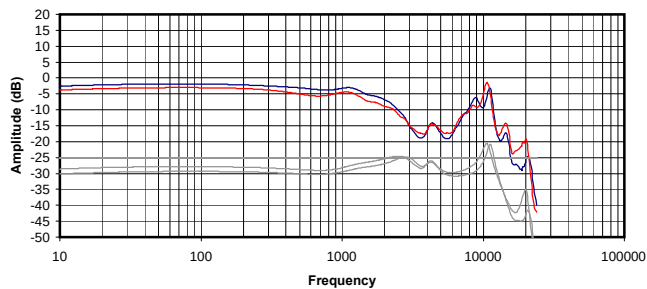
Impulse Response



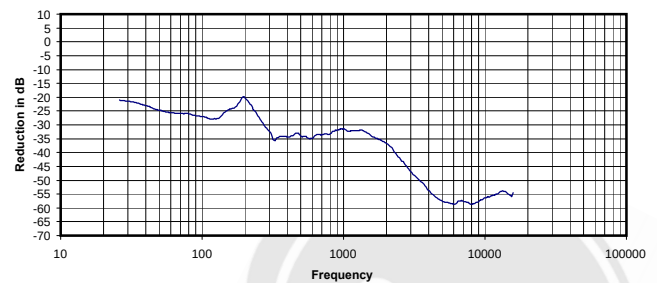
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.030 Vrms
20 Ohms
0.05 mW
-25 dBr

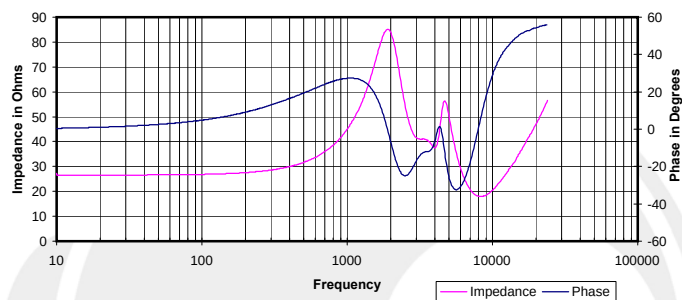
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



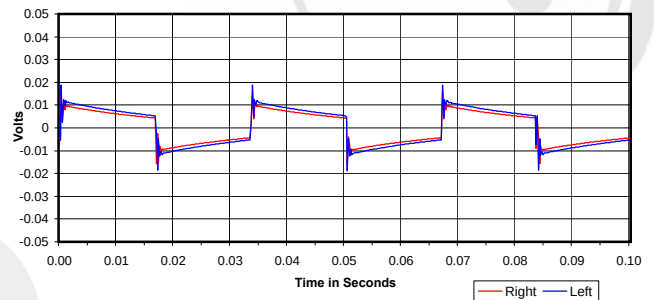
Isolation
Attenuation of External Sound vs. Frequency



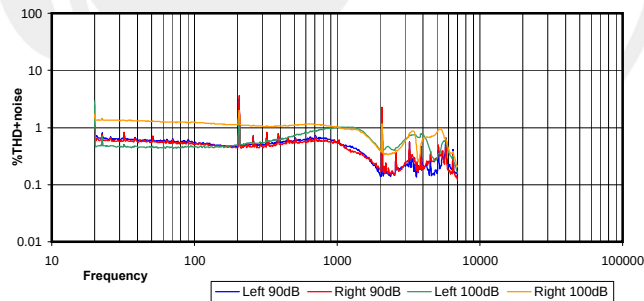
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



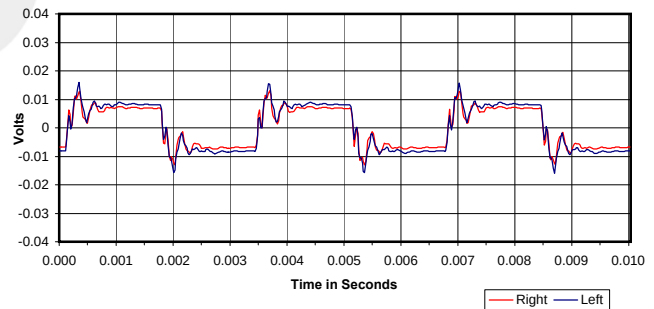
30 Hz Square Wave



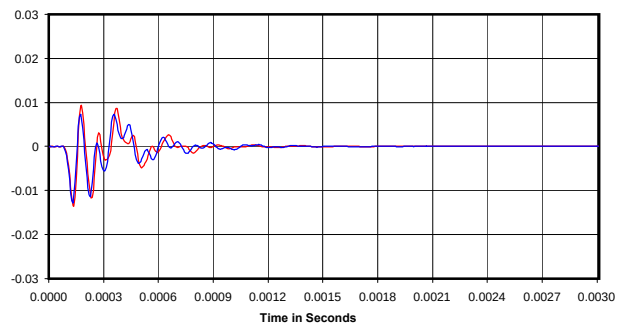
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



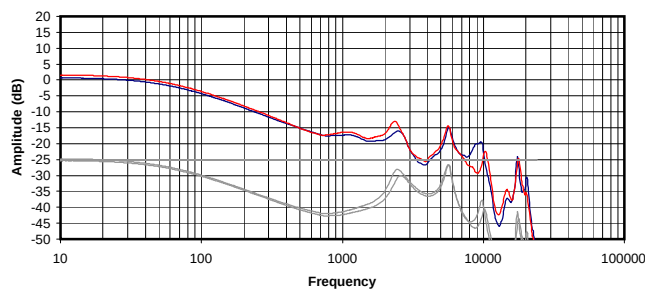
Impulse Response



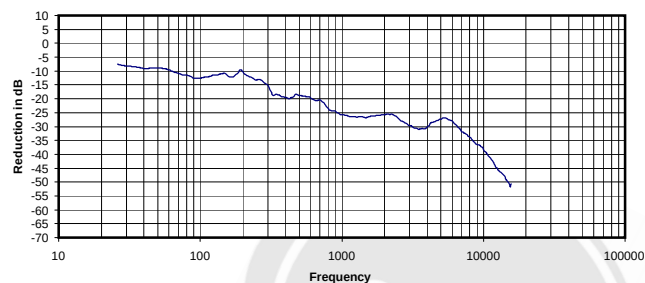
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.031 Vrms
45 Ohms
0.02 mW
-36 dBr

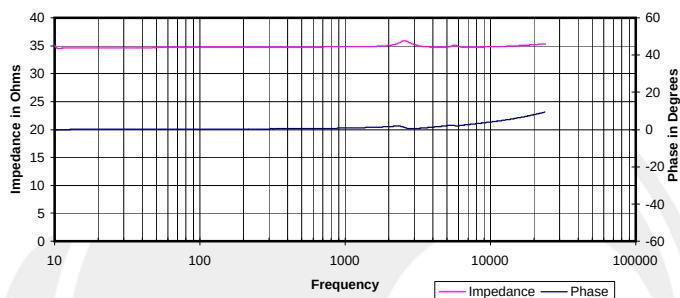
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



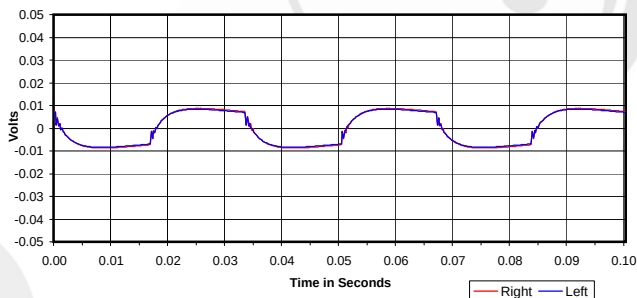
Isolation
Attenuation of External Sound vs. Frequency



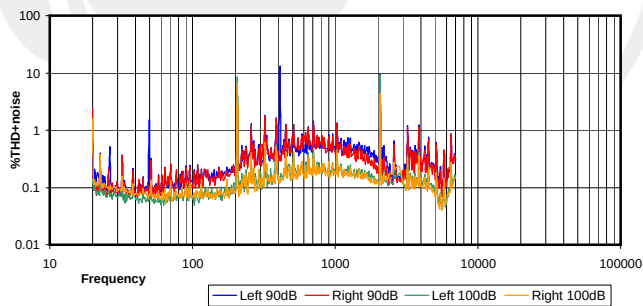
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



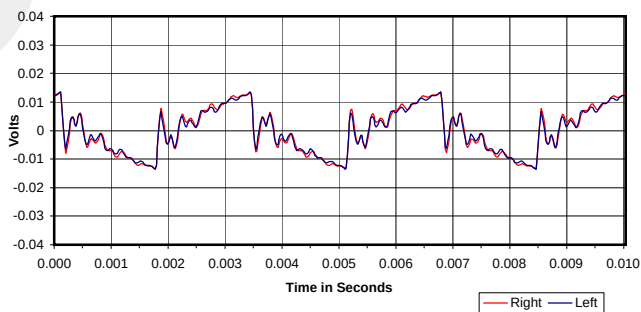
30 Hz Square Wave



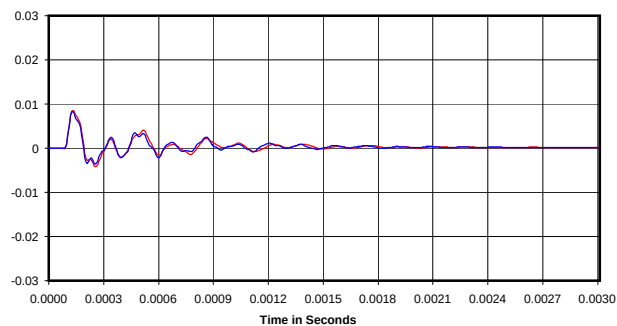
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



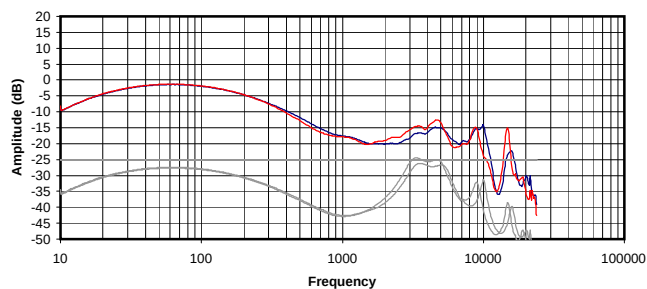
Impulse Response



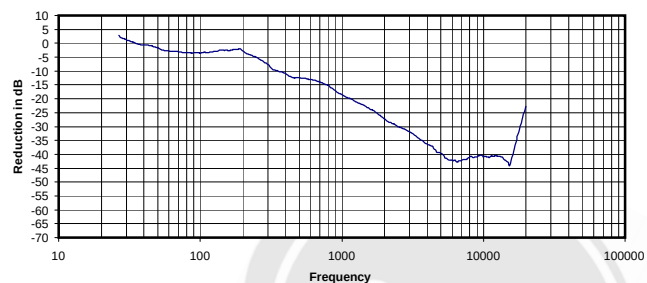
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.063 Vrms
35 Ohms
0.12 mW
-21 dBr

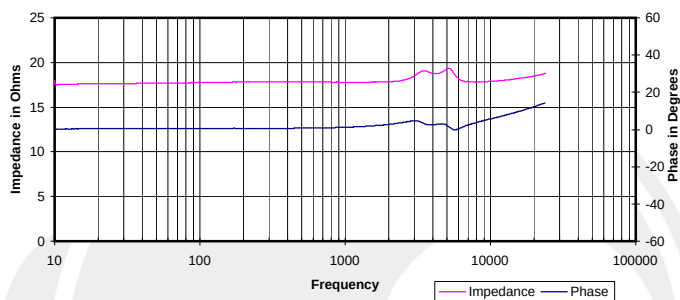
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



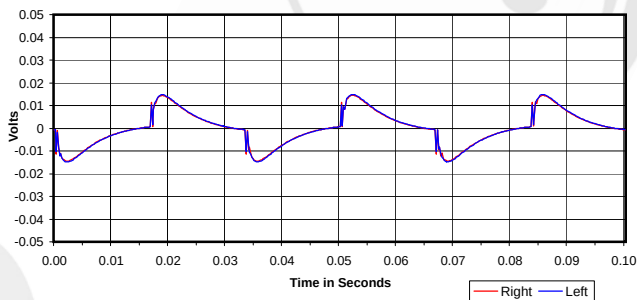
Isolation
Attenuation of External Sound vs. Frequency



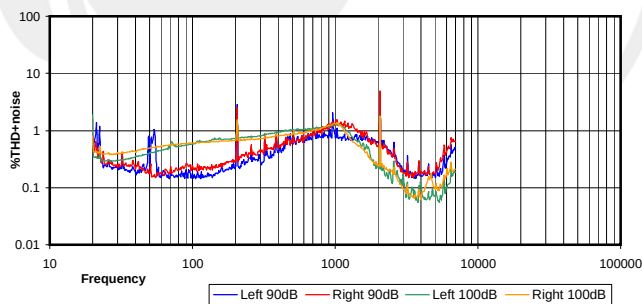
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



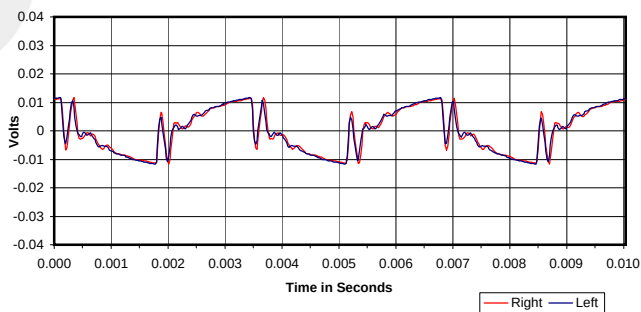
30 Hz Square Wave



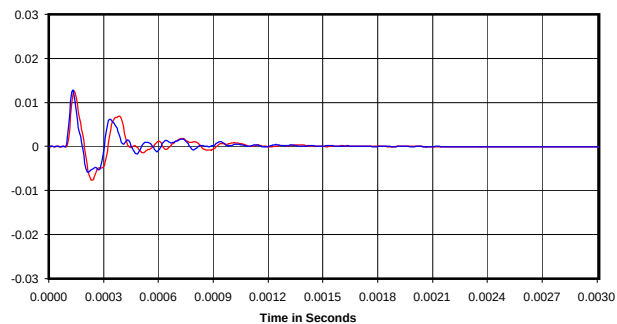
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



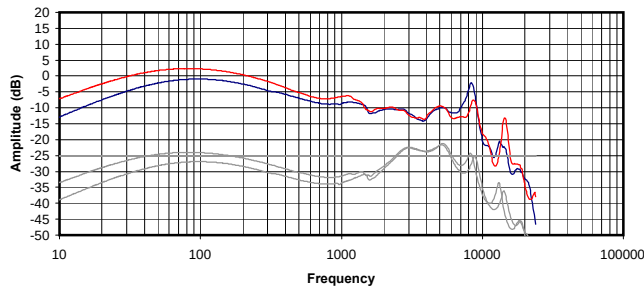
Impulse Response



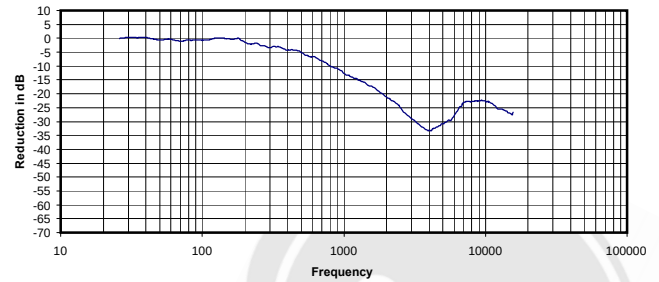
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.035 Vrms
18 Ohms
0.07 mW
-20 dB

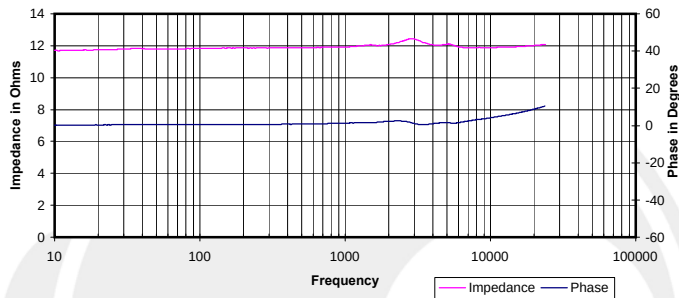
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



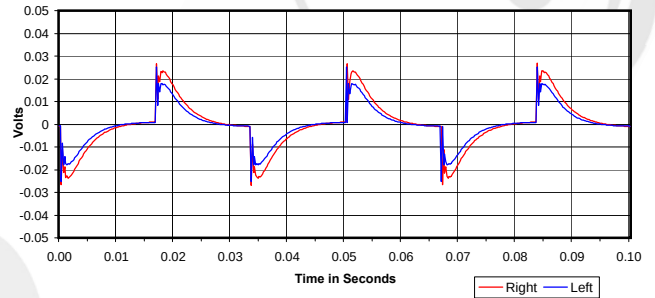
Isolation
Attenuation of External Sound vs. Frequency



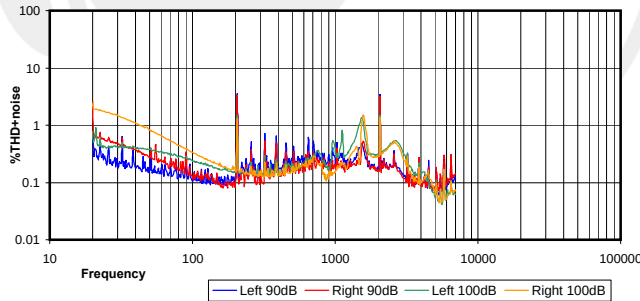
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



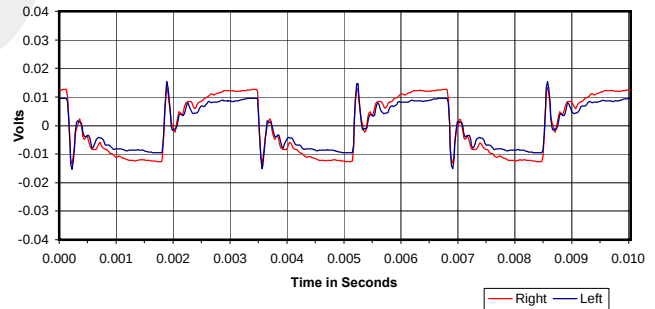
30 Hz Square Wave



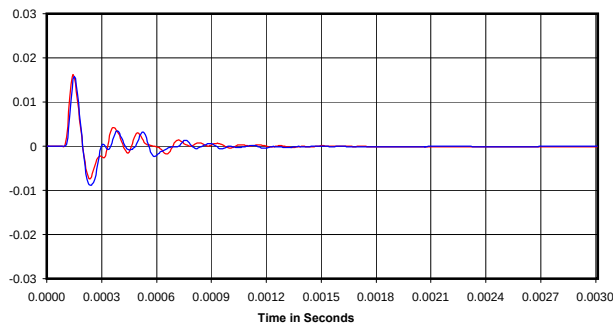
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



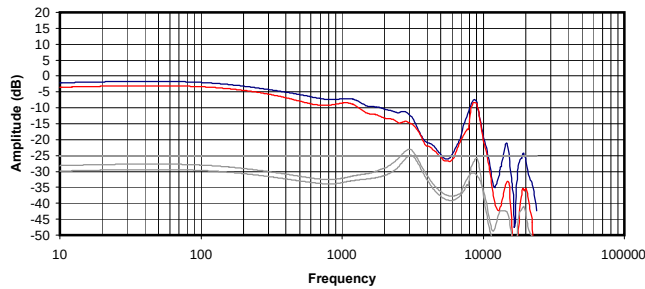
Impulse Response



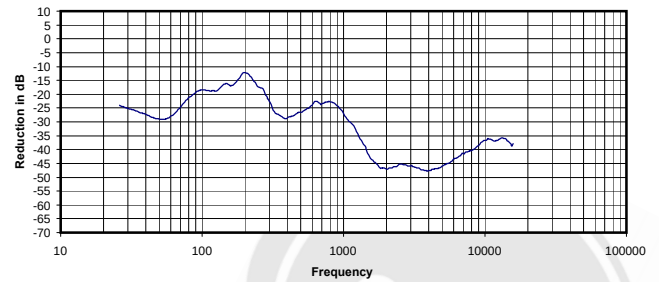
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.033 Vrms
12 Ohms
0.09 mW
-13 dBr

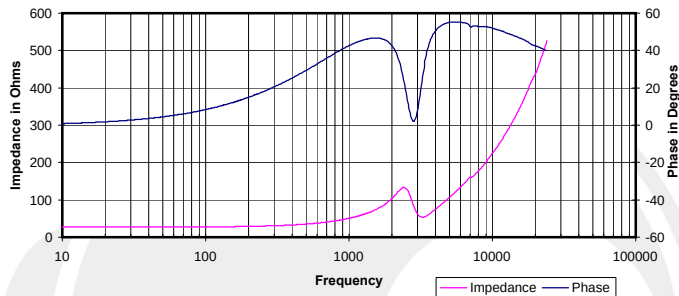
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



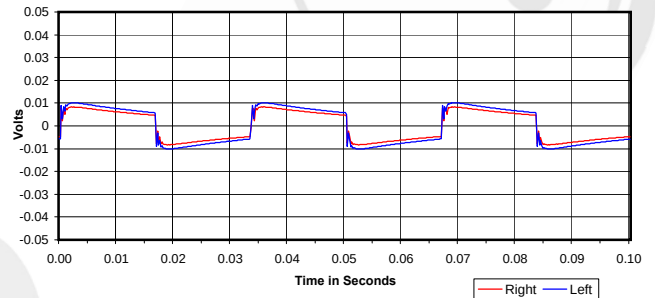
Isolation
Attenuation of External Sound vs. Frequency



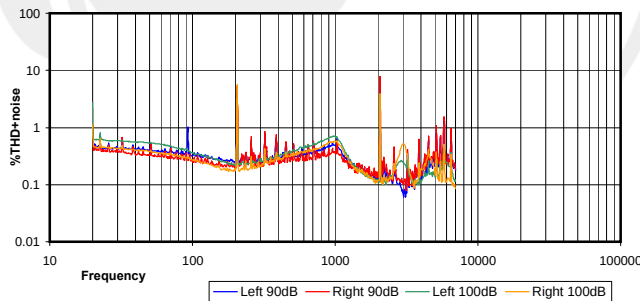
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



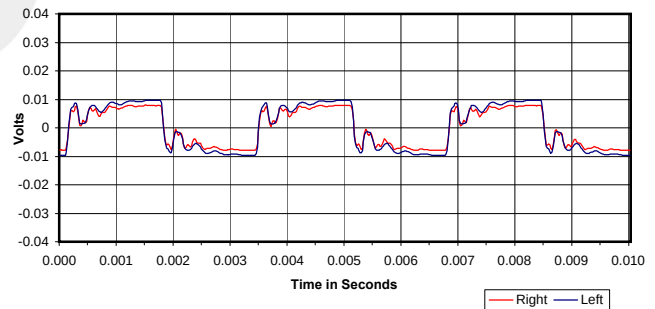
30 Hz Square Wave



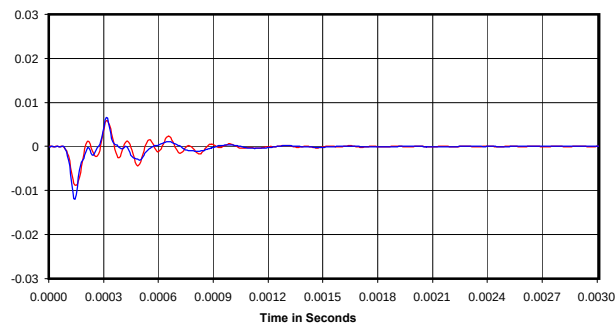
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



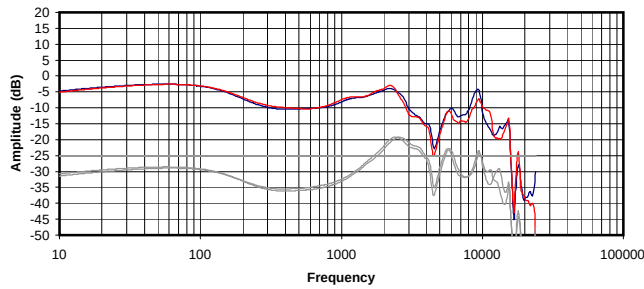
Impulse Response



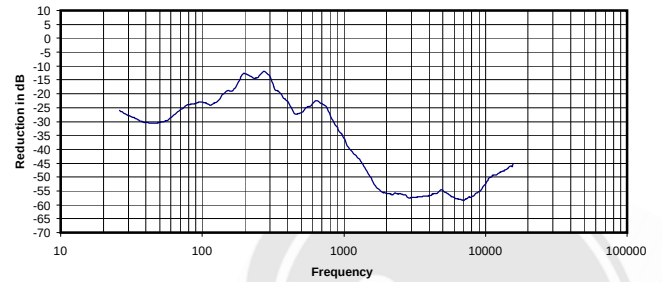
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.033 Vrms
50 Ohms
0.02 mW
-31 dBr

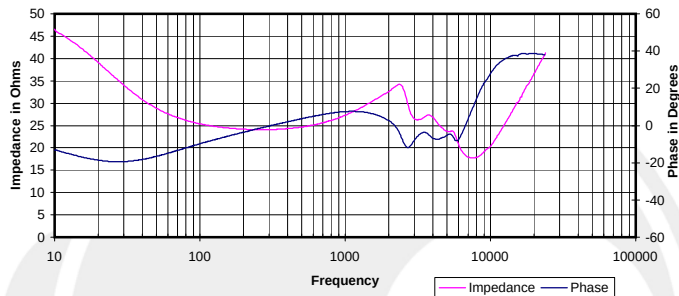
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



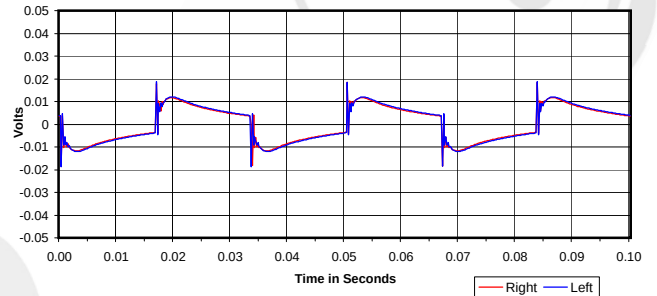
Isolation
Attenuation of External Sound vs. Frequency



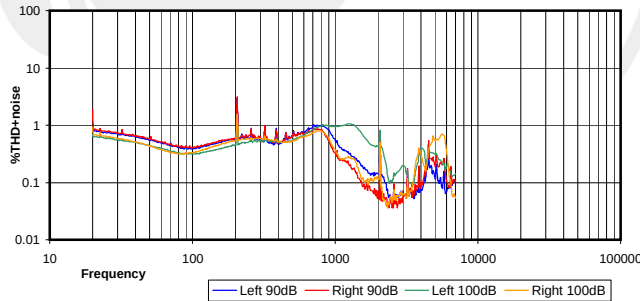
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



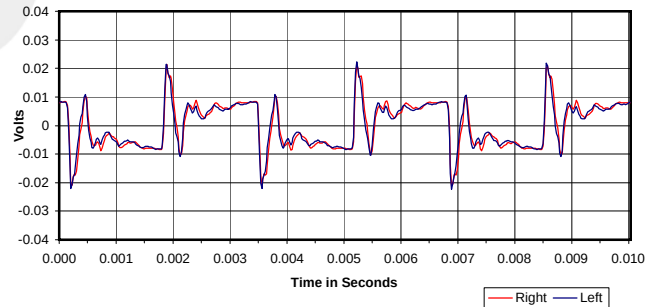
30 Hz Square Wave



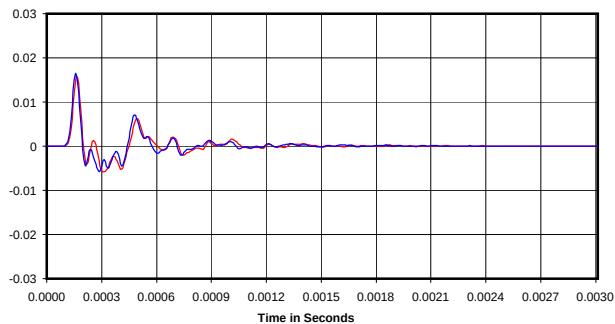
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



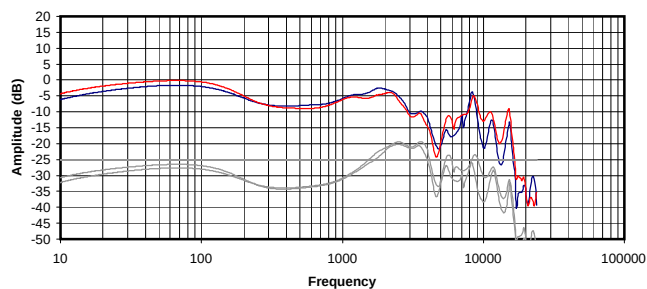
Impulse Response



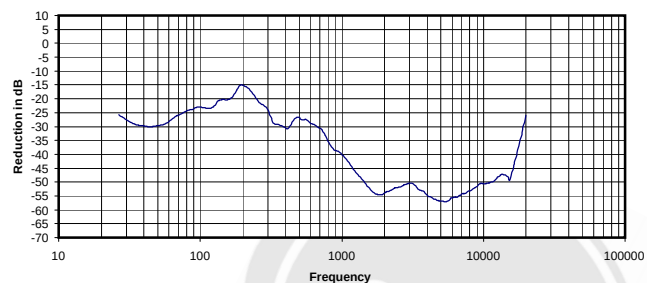
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.032 Vrms
27 Ohms
0.04 mW
-35 dBr

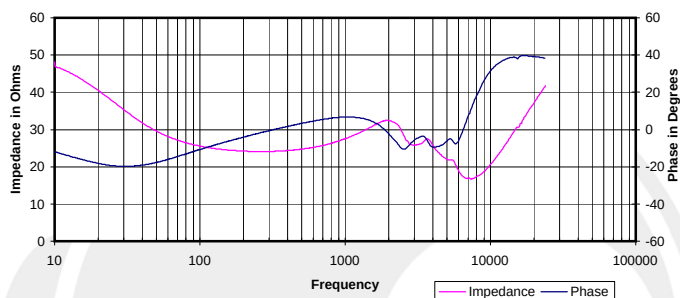
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



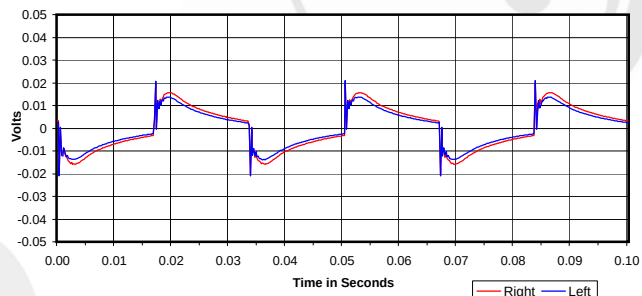
Isolation
Attenuation of External Sound vs. Frequency



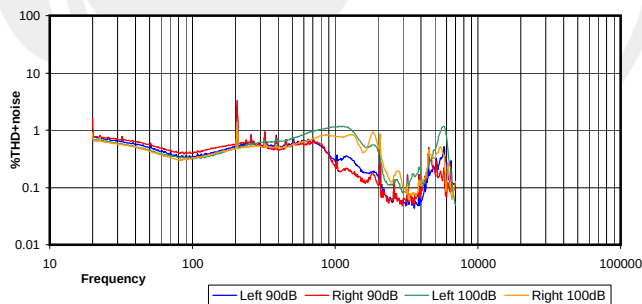
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



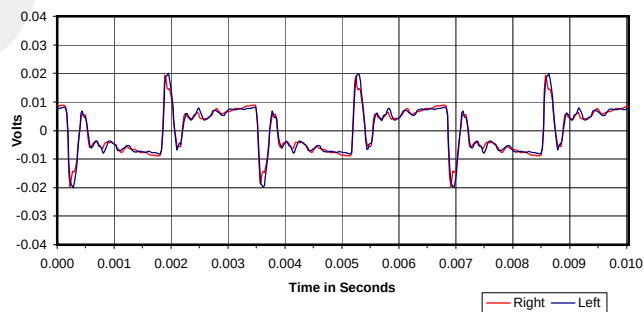
30 Hz Square Wave



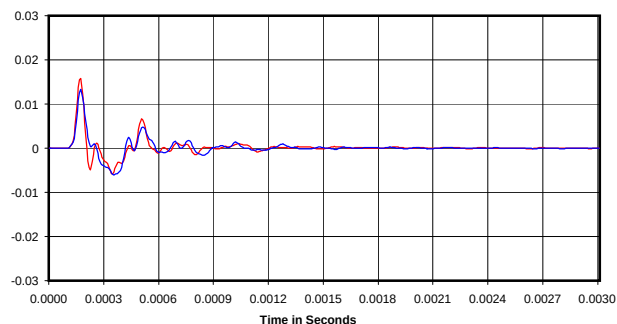
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



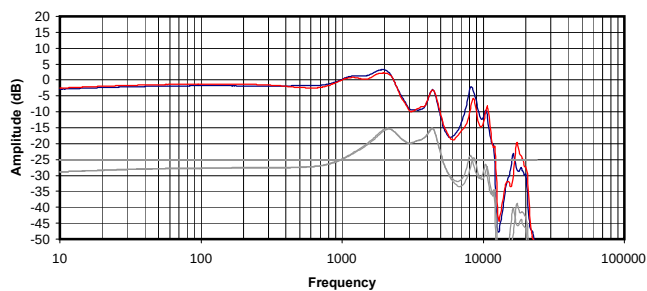
Impulse Response



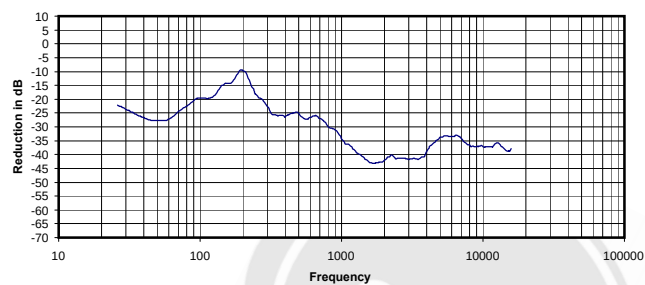
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.027 Vrms
28 Ohms
0.03 mW
-39 dBr

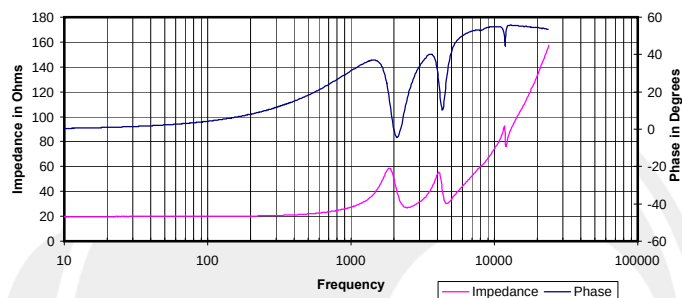
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



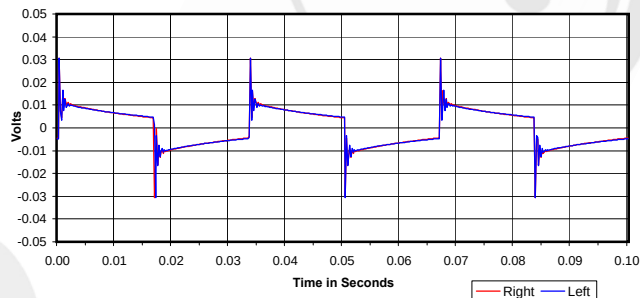
Isolation
Attenuation of External Sound vs. Frequency



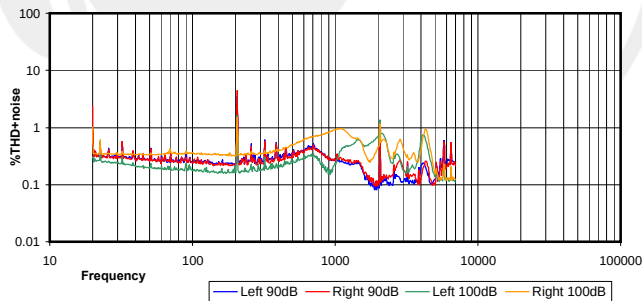
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



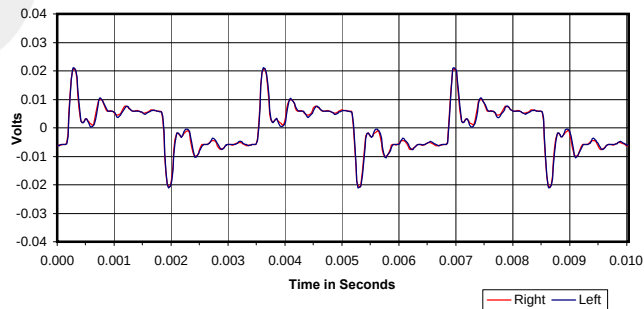
30 Hz Square Wave



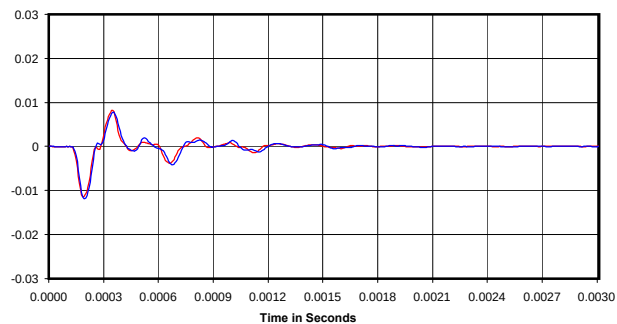
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



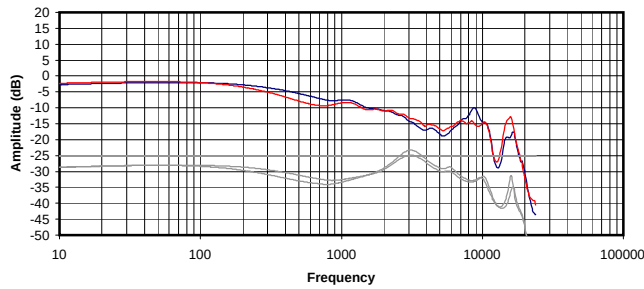
Impulse Response



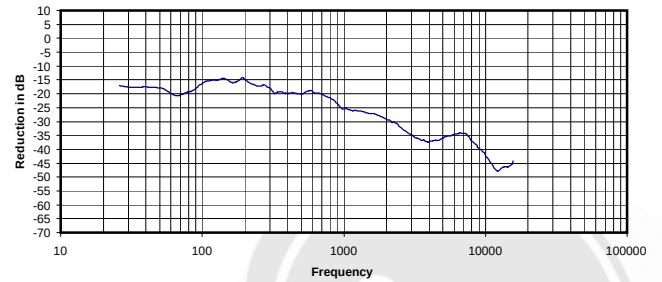
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.012 Vrms
27 Ohms
0.01 mW
-29 dBr

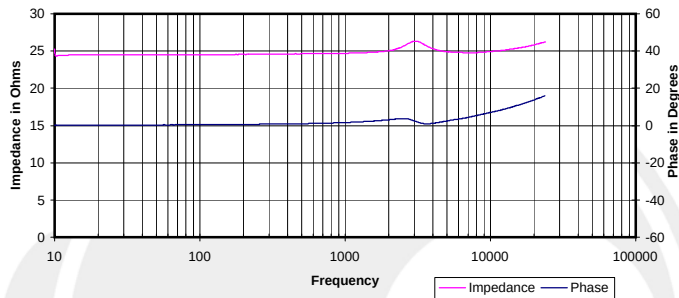
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



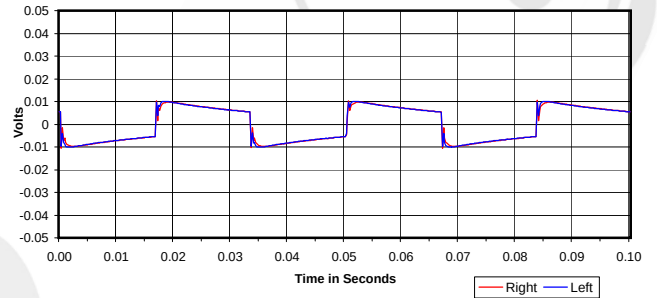
Isolation
Attenuation of External Sound vs. Frequency



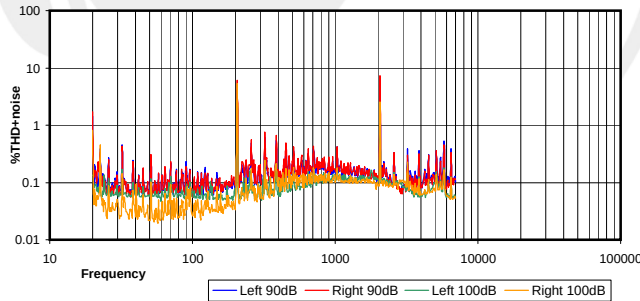
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



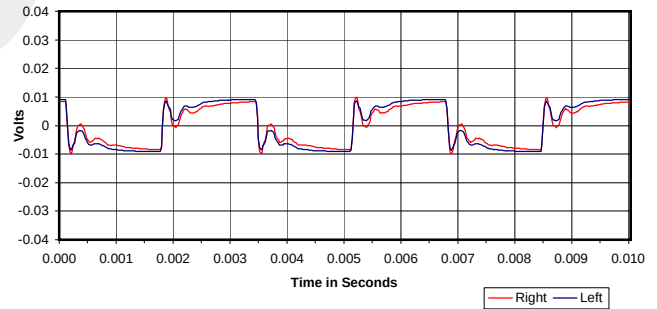
30 Hz Square Wave



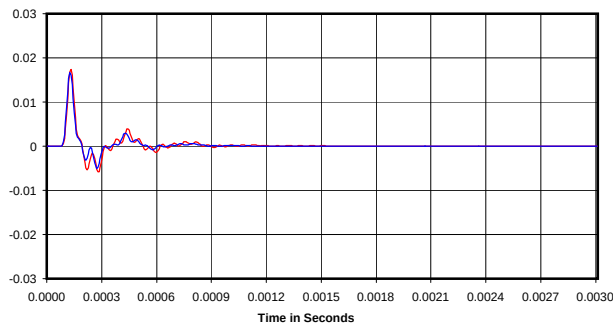
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



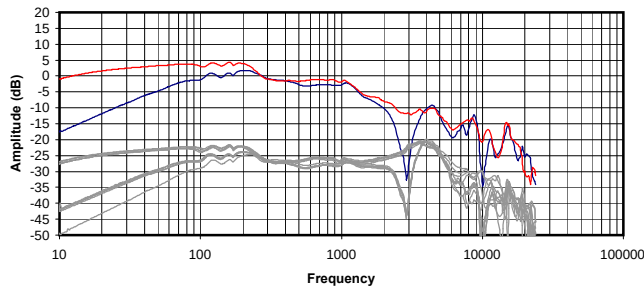
Impulse Response



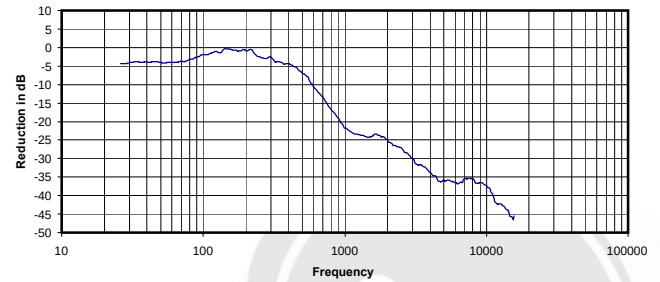
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.032 Vrms
25 Ohms
0.04 mW
-24 dB

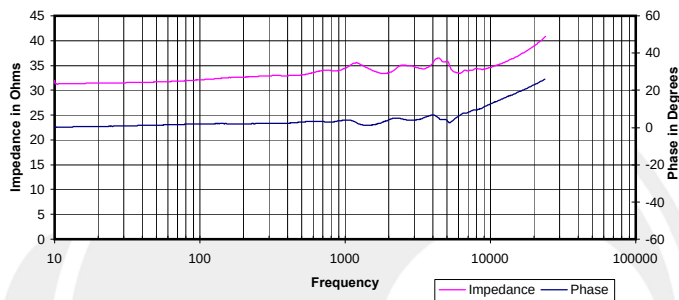
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



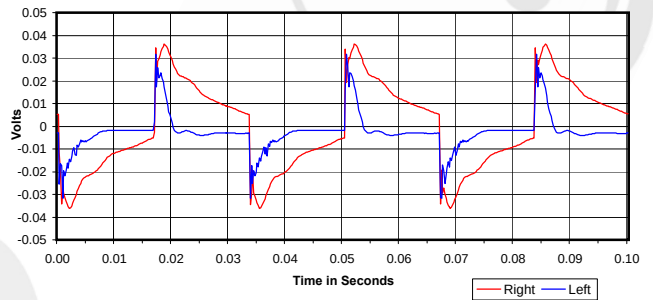
Isolation
Attenuation of External Sound vs. Frequency



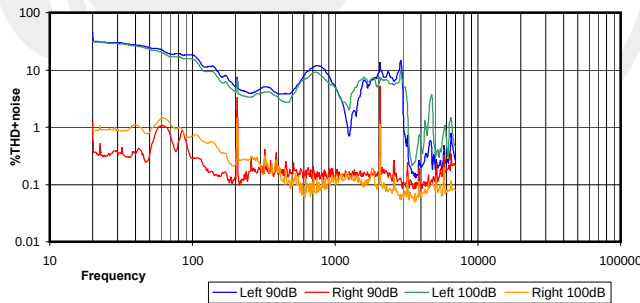
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



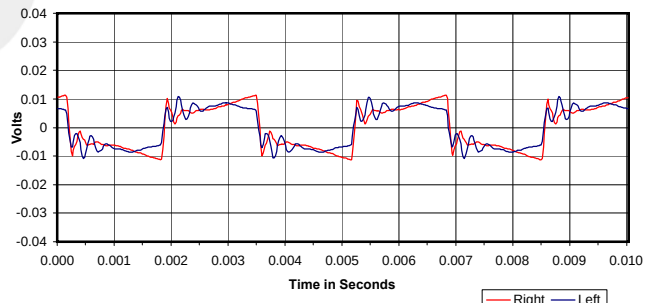
30 Hz Square Wave



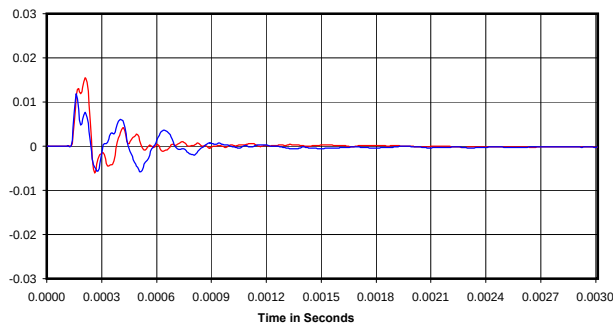
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



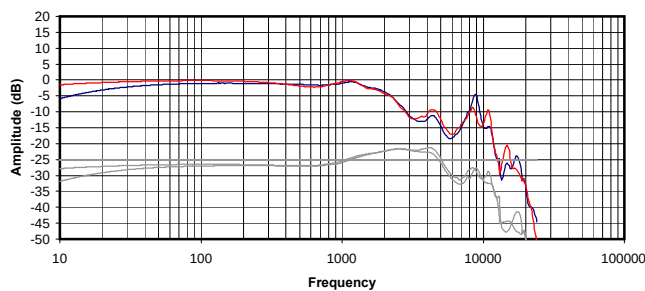
Impulse Response



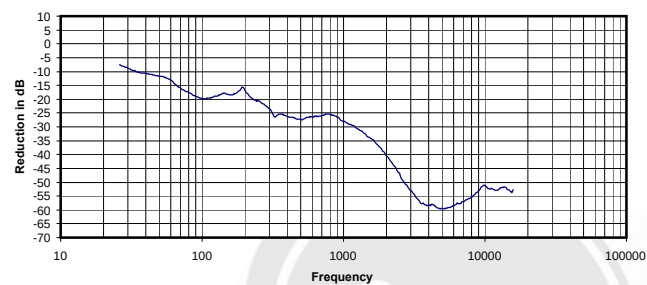
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.043 Vrms
34 Ohms
0.05 mW
-16 dBr

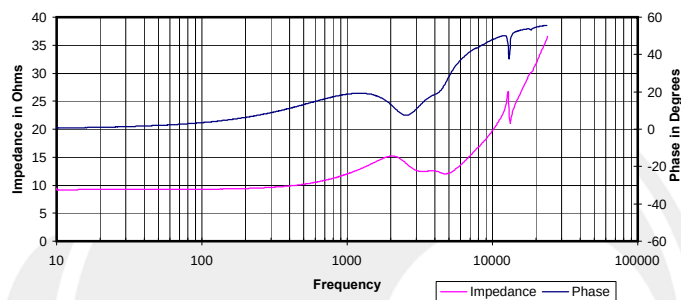
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



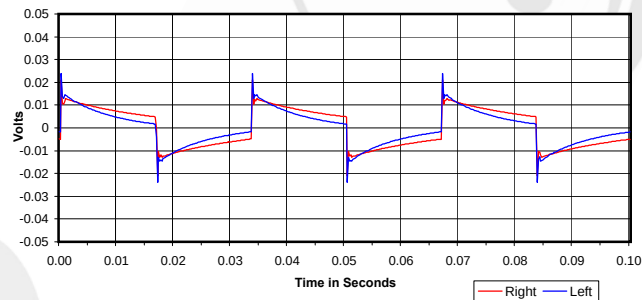
Isolation
Attenuation of External Sound vs. Frequency



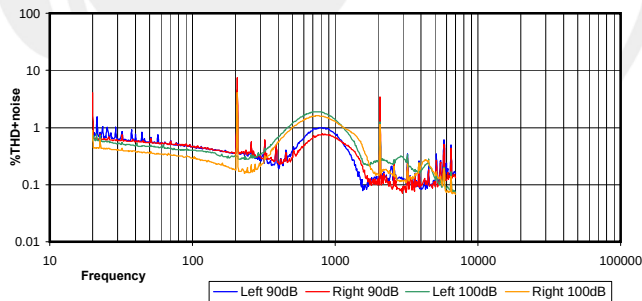
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



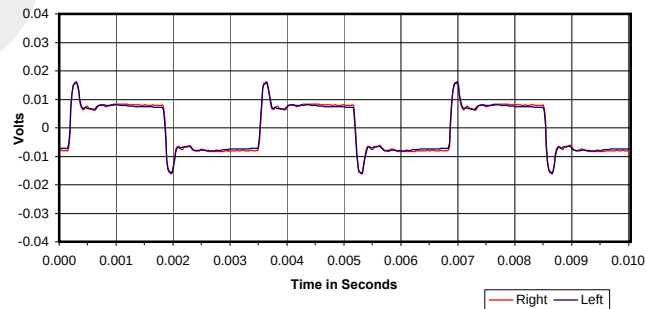
30 Hz Square Wave



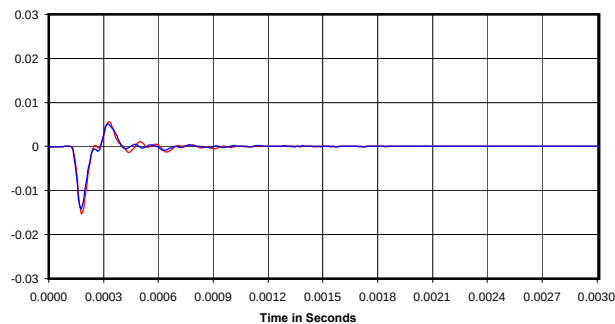
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



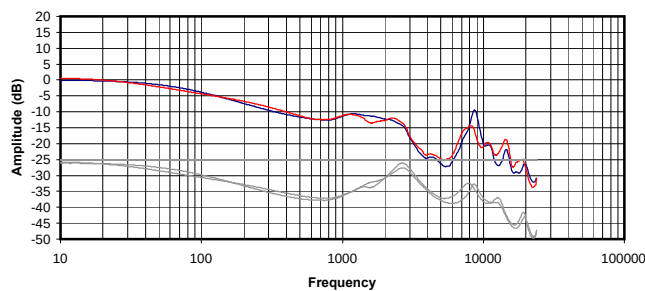
Impulse Response



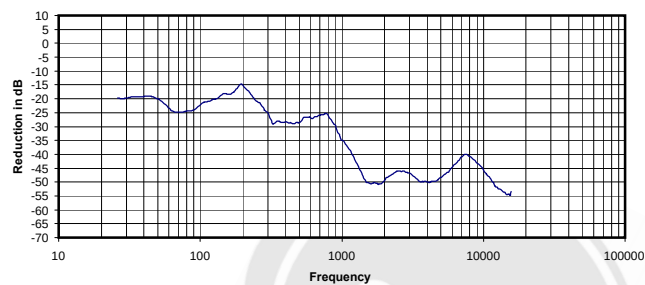
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.010 Vrms
12 Ohms
0.01 mW
-33 dBr

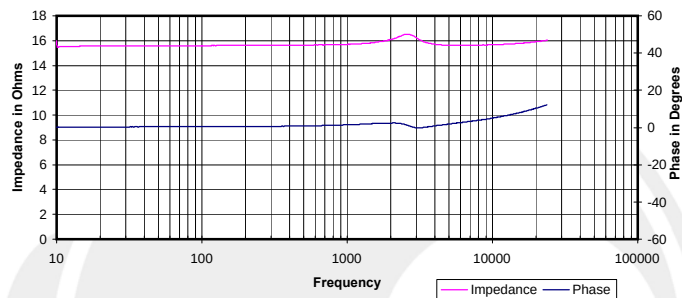
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



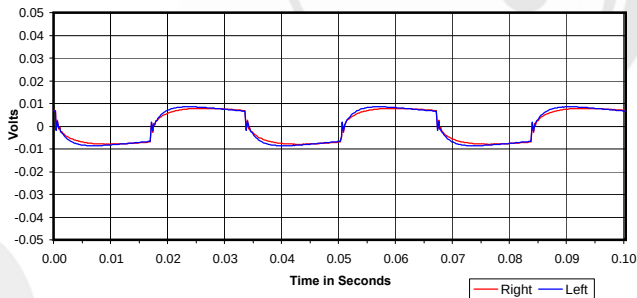
Isolation
Attenuation of External Sound vs. Frequency



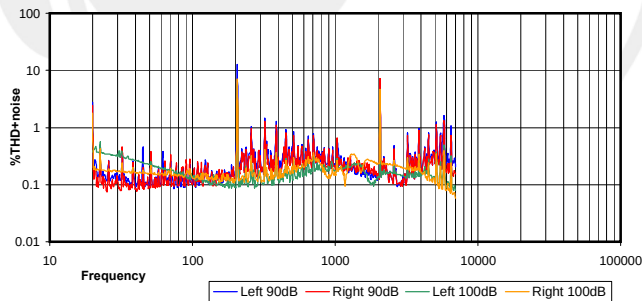
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



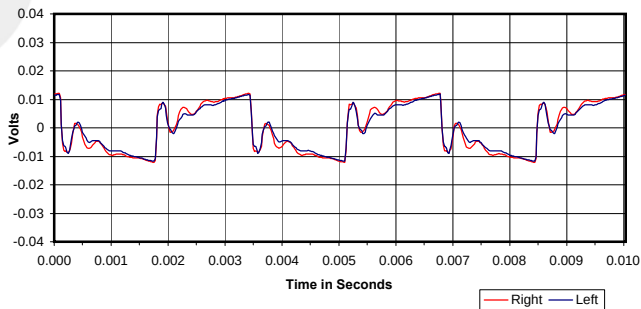
30 Hz Square Wave



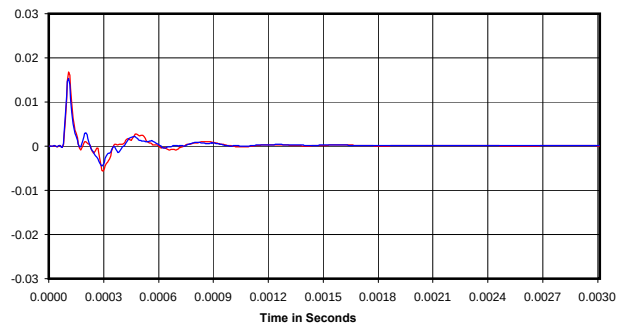
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



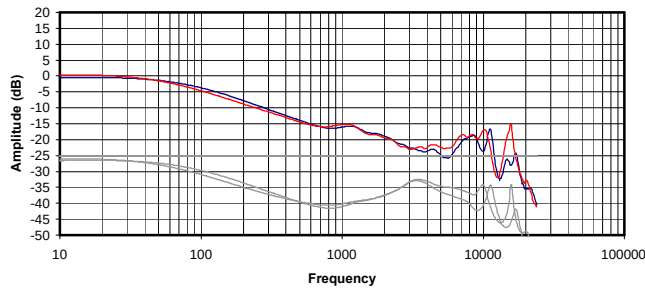
Impulse Response



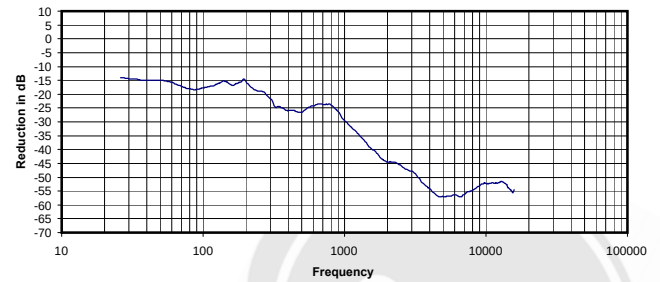
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.041 Vrms
16 Ohms
0.11 mW
-34 dBr

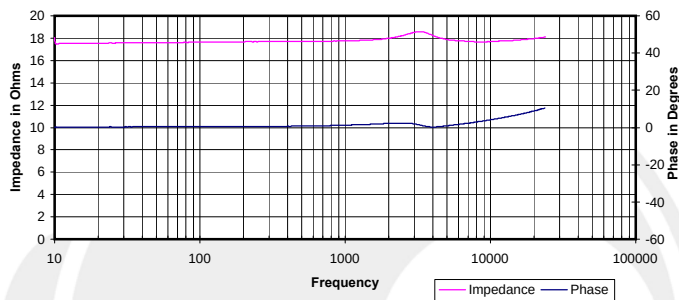
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



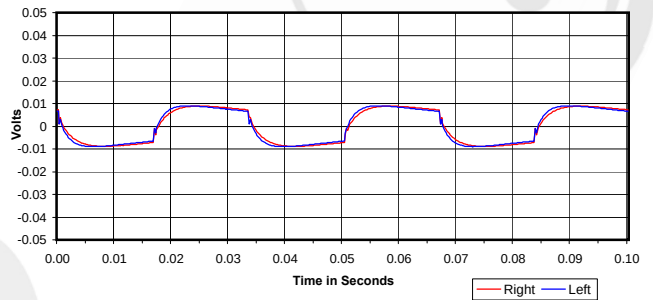
Isolation
Attenuation of External Sound vs. Frequency



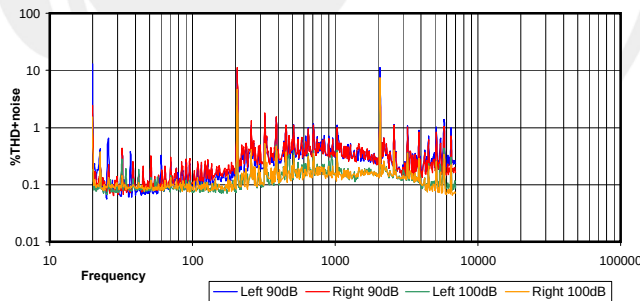
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



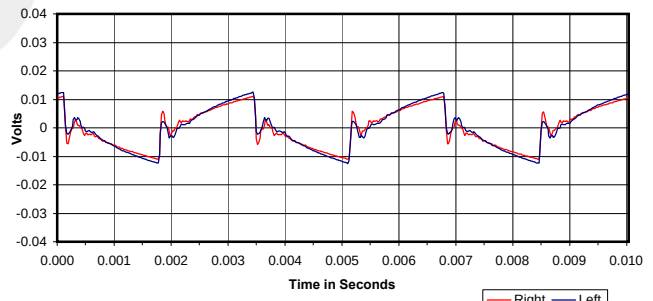
30 Hz Square Wave



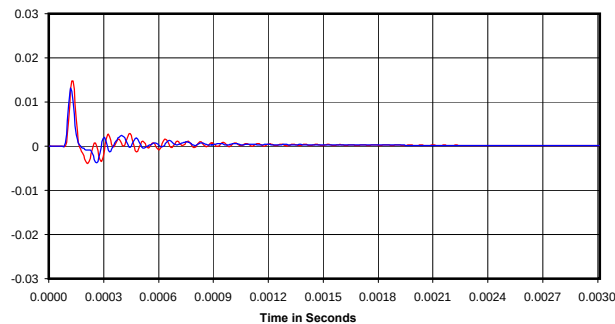
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



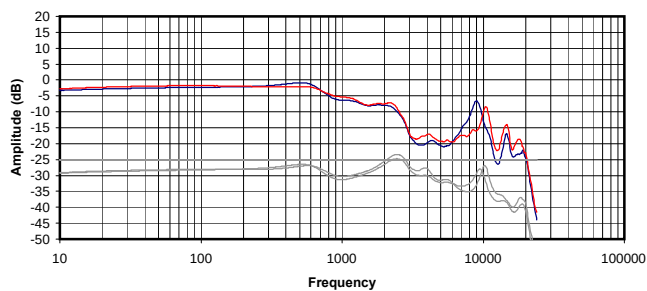
Impulse Response



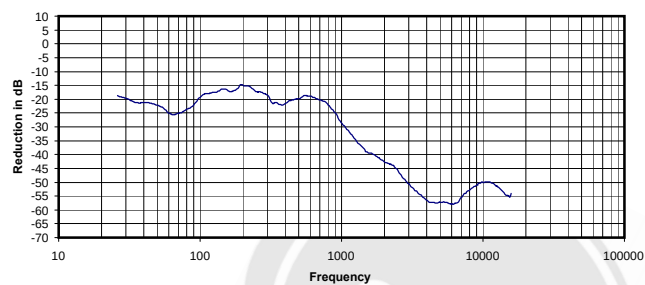
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.037 Vrms
18 Ohms
0.08 mW
-32 dBr

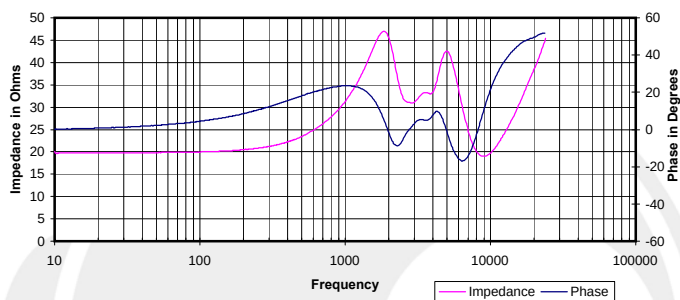
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



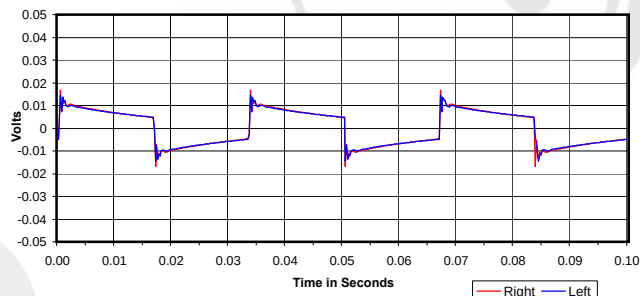
Isolation
Attenuation of External Sound vs. Frequency



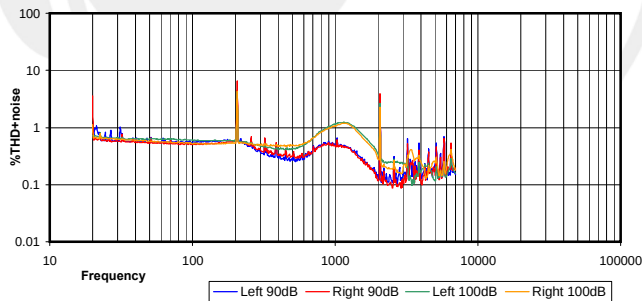
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



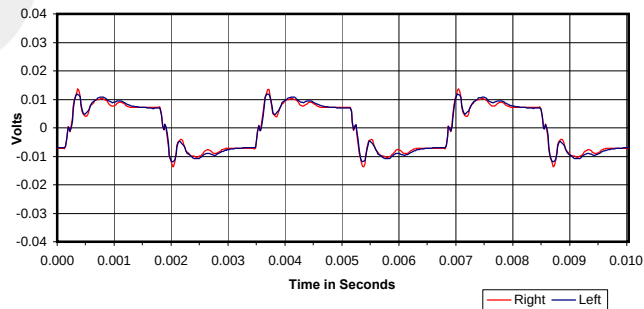
30 Hz Square Wave



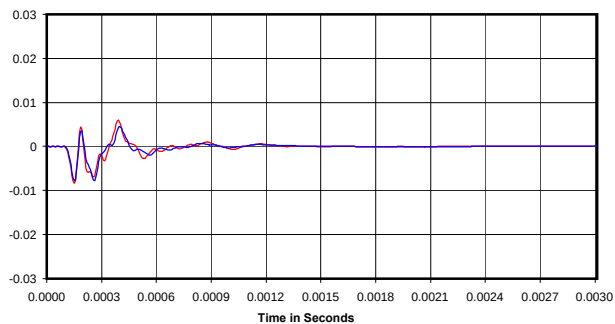
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



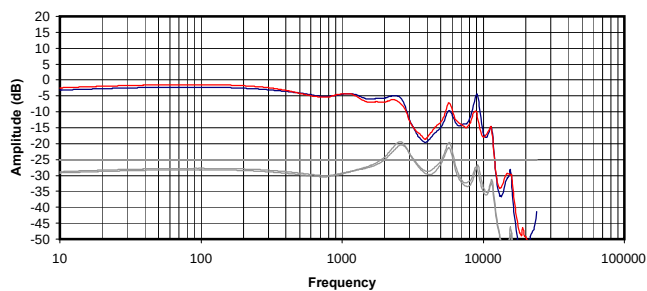
Impulse Response



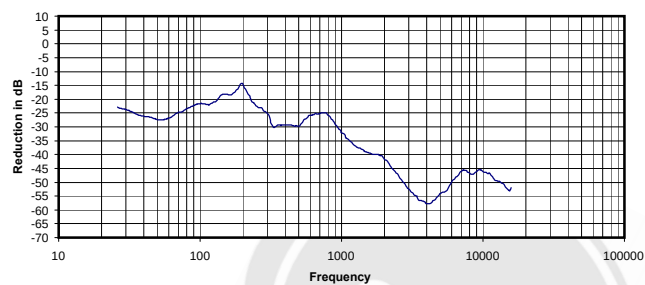
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.022 Vrms
31 Ohms
0.02 mW
-31 dBr

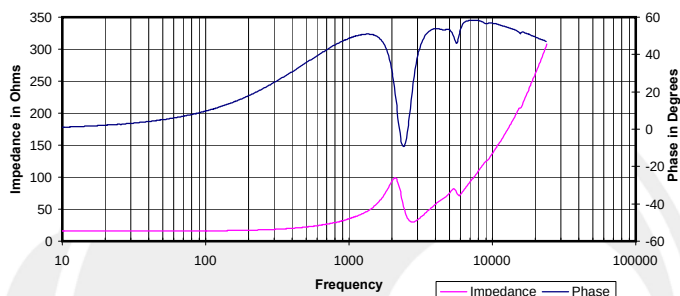
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



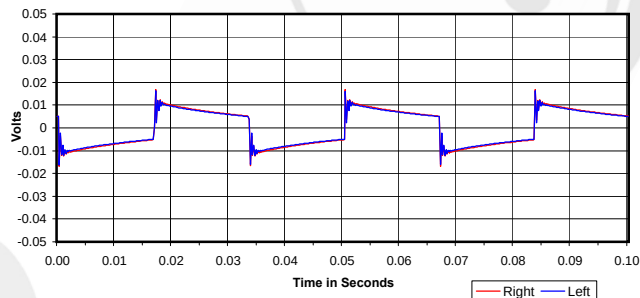
Isolation
Attenuation of External Sound vs. Frequency



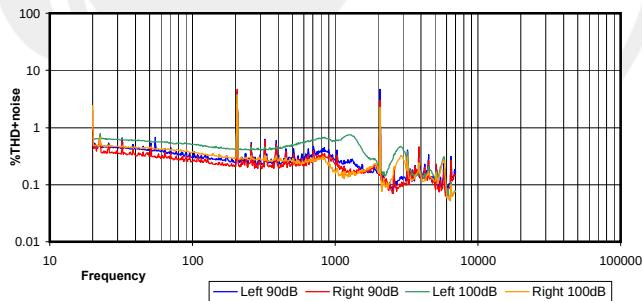
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



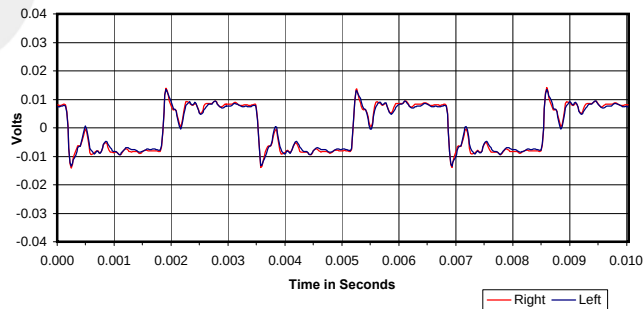
30 Hz Square Wave



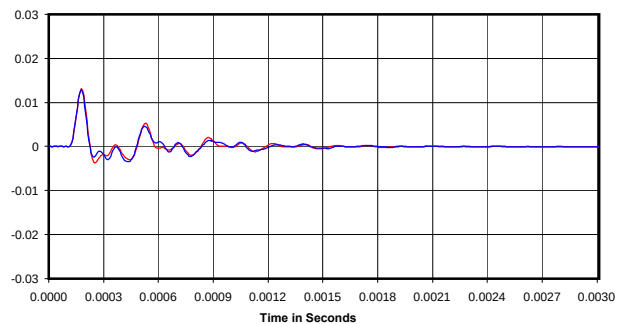
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



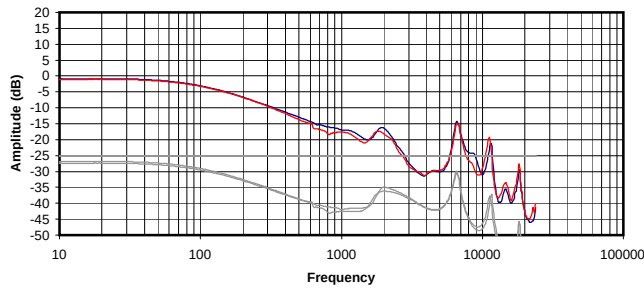
Impulse Response



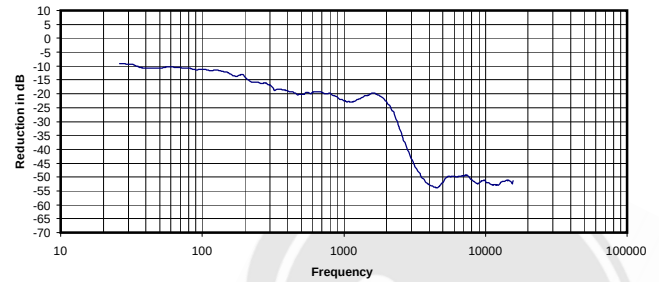
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.017 Vrms
35 Ohms
0.01 mW
-34 dBr

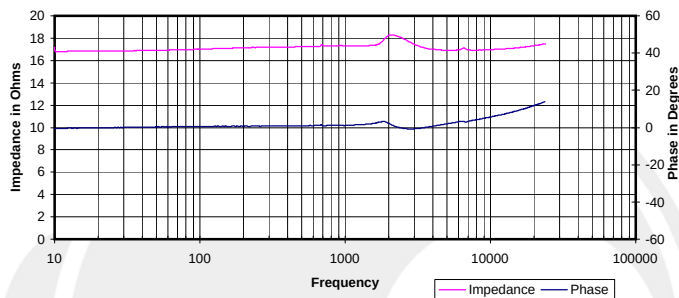
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



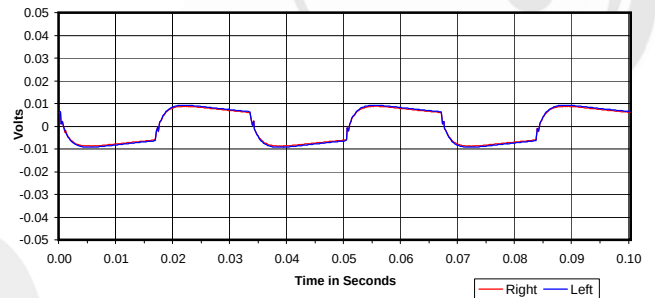
Isolation
Attenuation of External Sound vs. Frequency



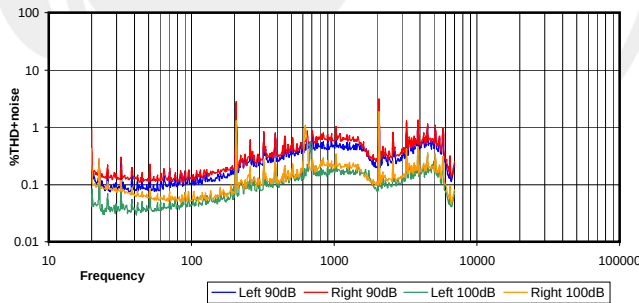
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



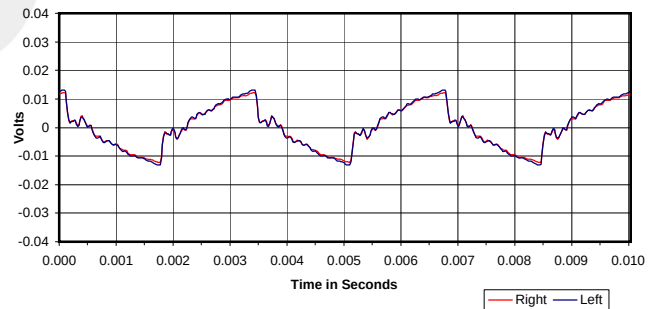
30 Hz Square Wave



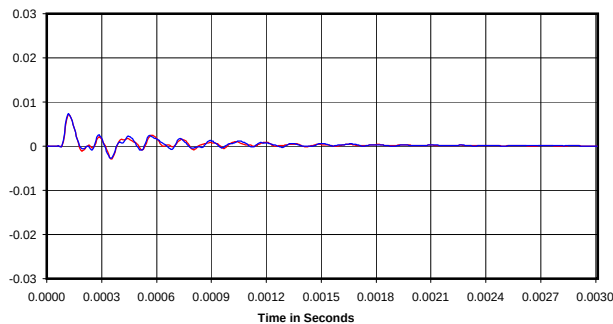
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



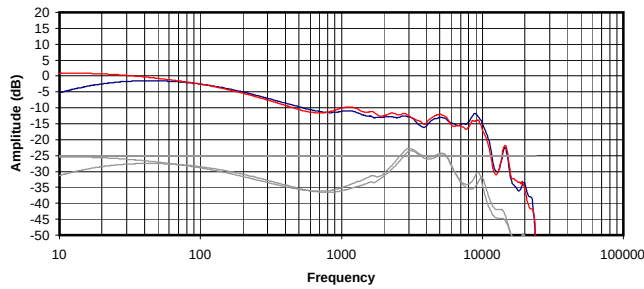
Impulse Response



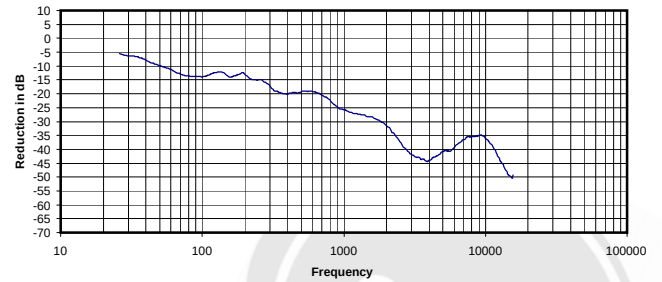
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.021 Vrms
17 Ohms
0.03 mW
-25 dBr

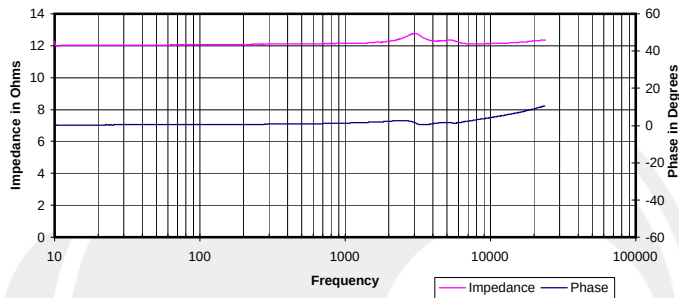
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



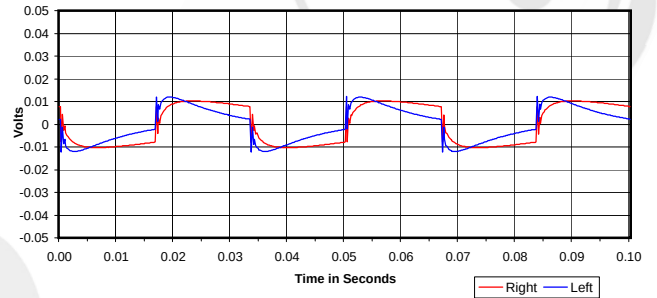
Isolation
Attenuation of External Sound vs. Frequency



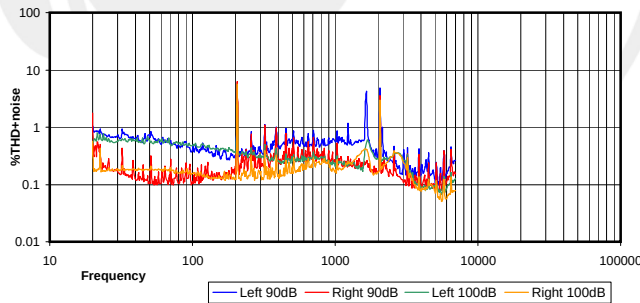
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



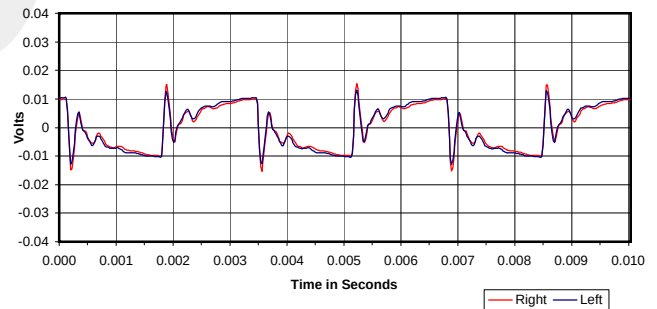
30 Hz Square Wave



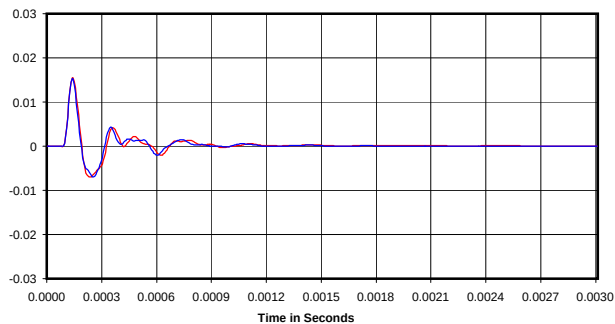
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



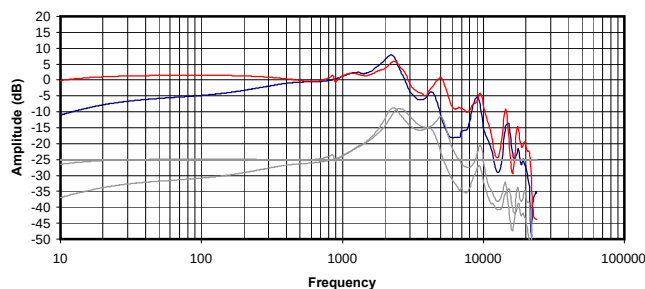
Impulse Response



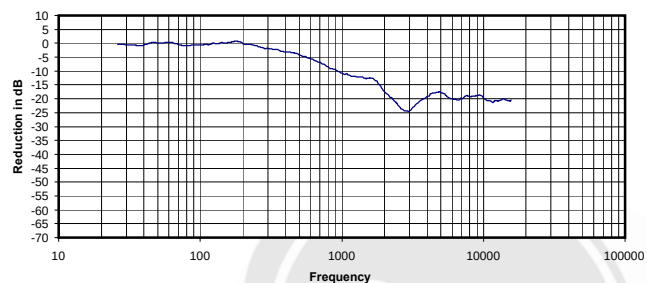
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.033 Vrms
12 Ohms
0.09 mW
-25 dBr

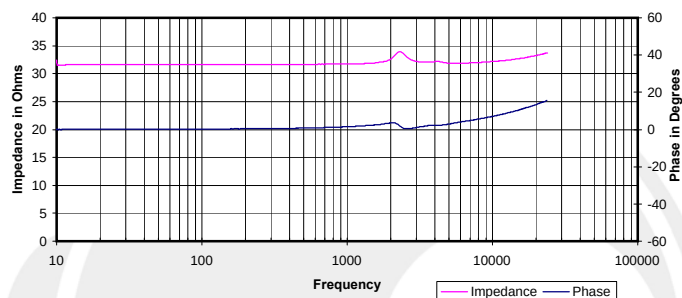
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



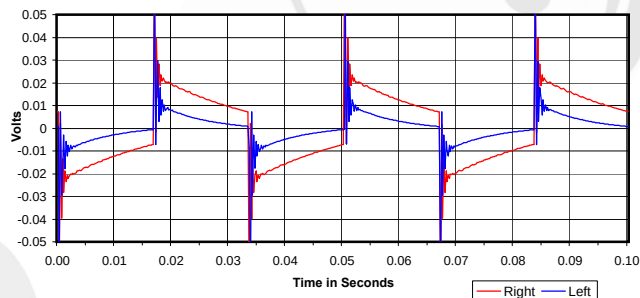
Isolation
Attenuation of External Sound vs. Frequency



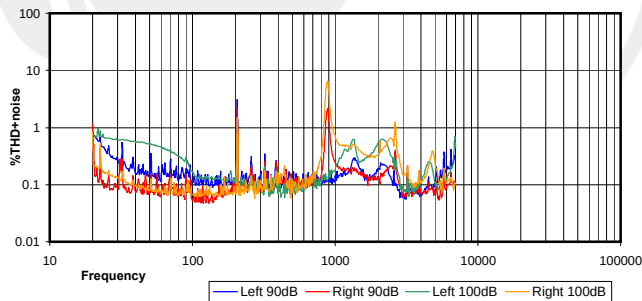
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



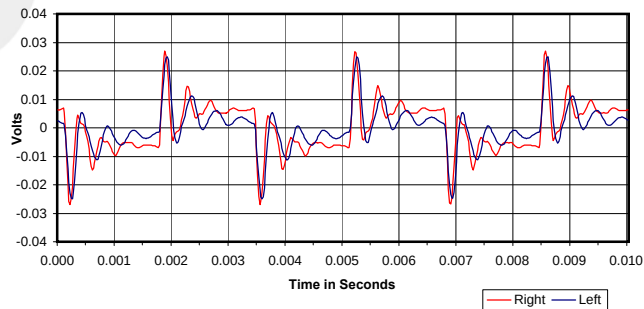
30 Hz Square Wave



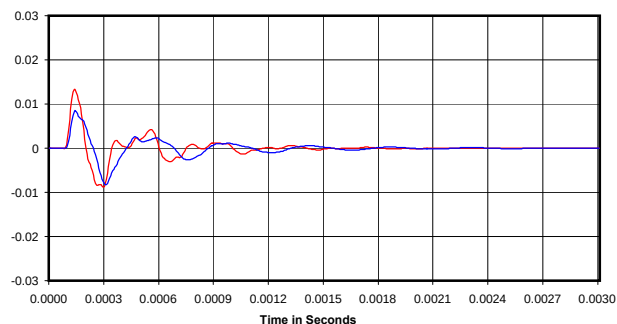
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



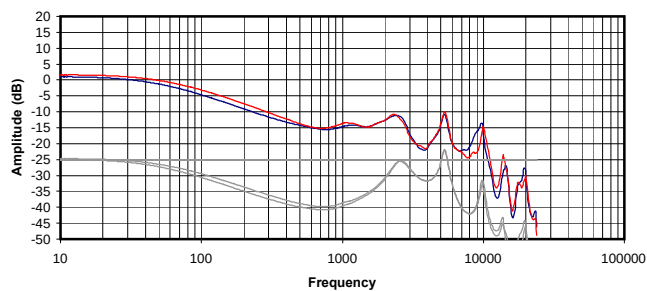
Impulse Response



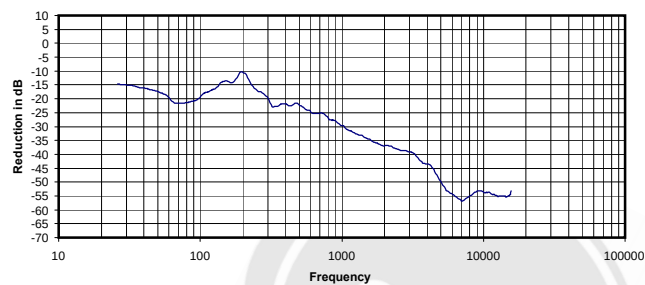
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.038 Vrms
32 Ohms
0.05 mW
-9 dB

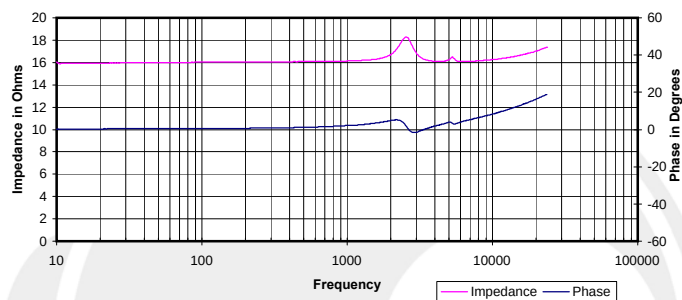
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



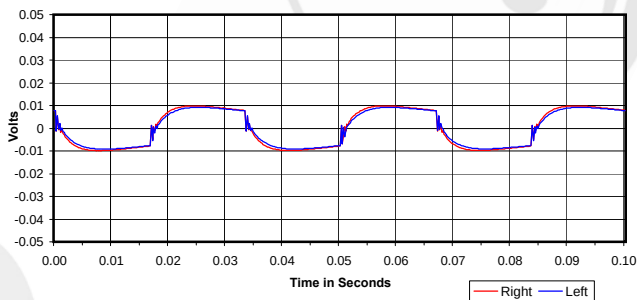
Isolation
Attenuation of External Sound vs. Frequency



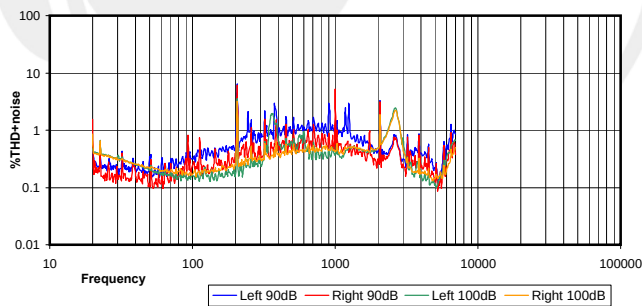
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



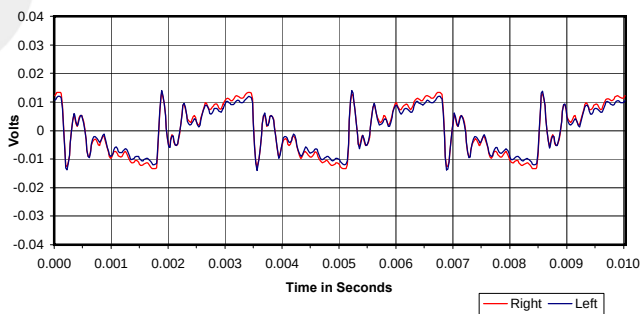
30 Hz Square Wave



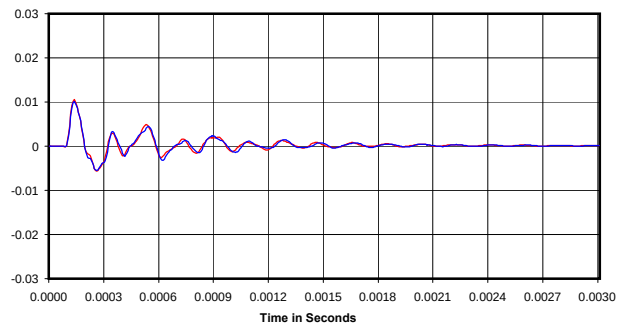
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



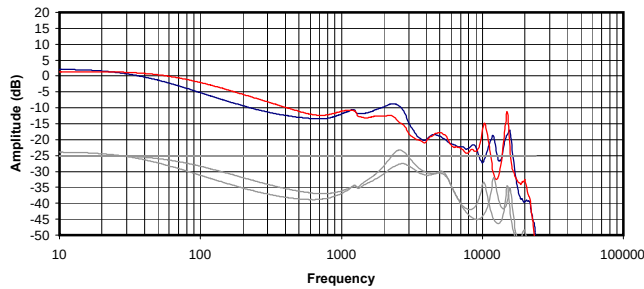
Impulse Response



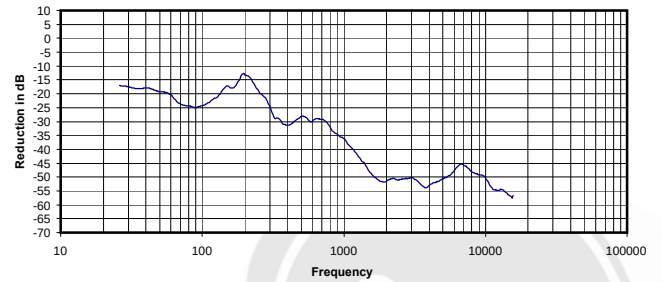
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.037 Vrms
16 Ohms
0.08 mW
-29 dBr

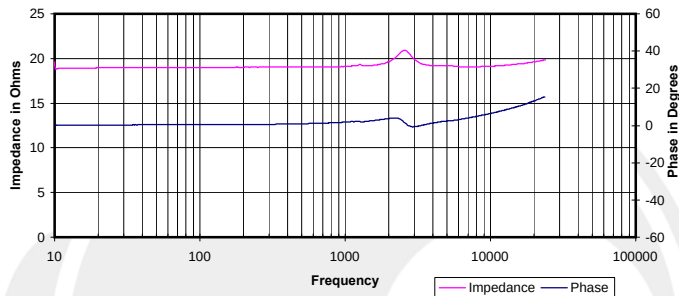
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



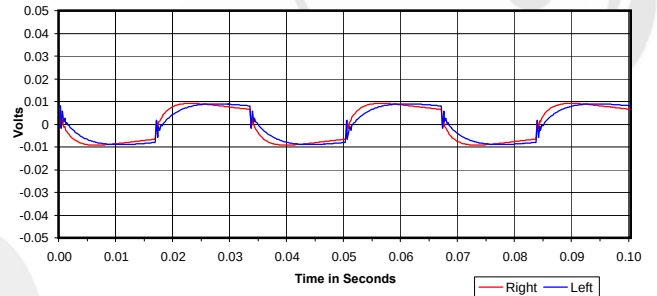
Isolation
Attenuation of External Sound vs. Frequency



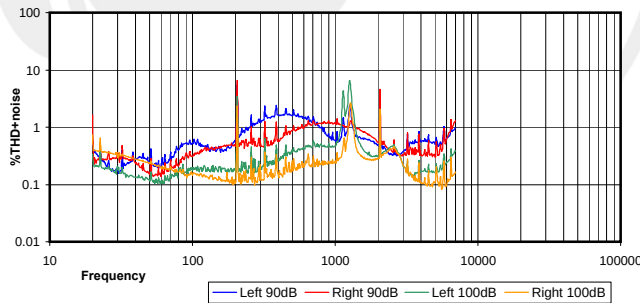
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



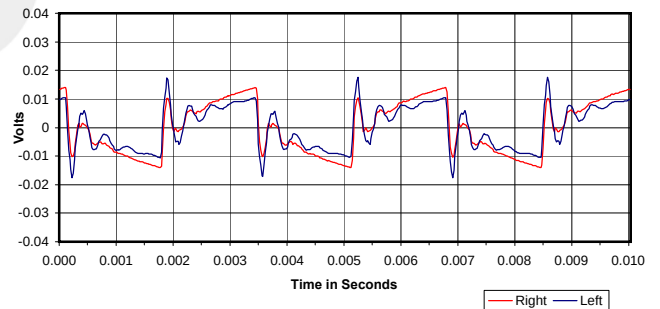
30 Hz Square Wave



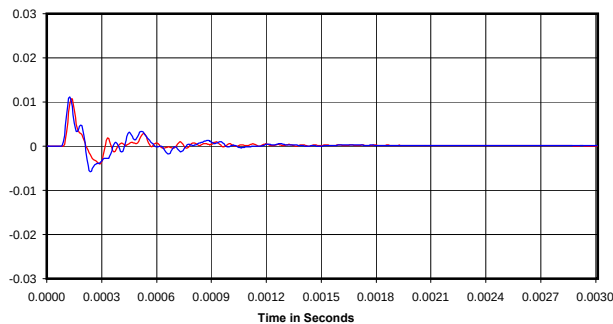
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



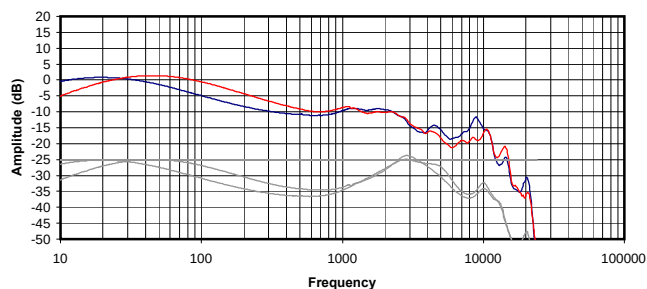
Impulse Response



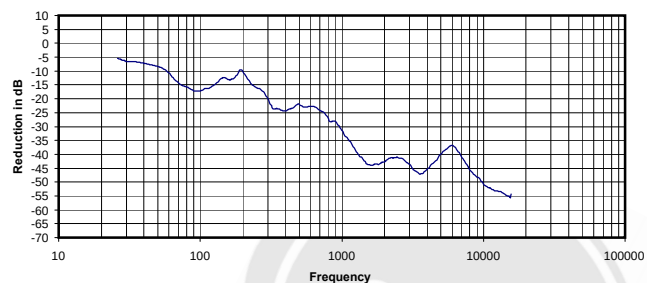
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.036 Vrms
19 Ohms
0.07 mW
-35 dB

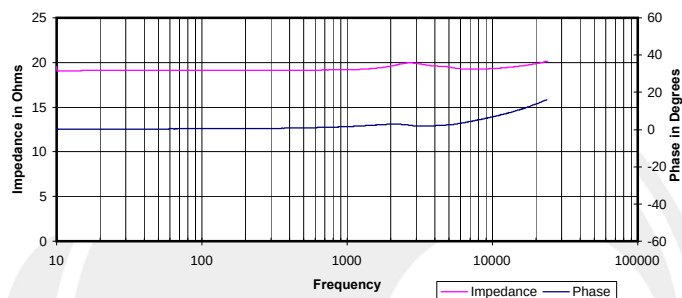
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



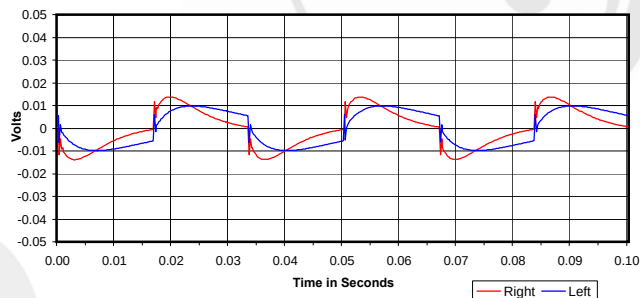
Isolation
Attenuation of External Sound vs. Frequency



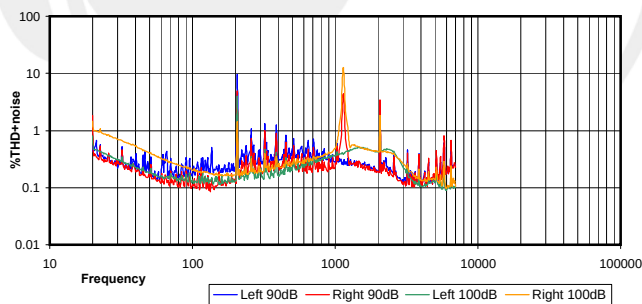
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



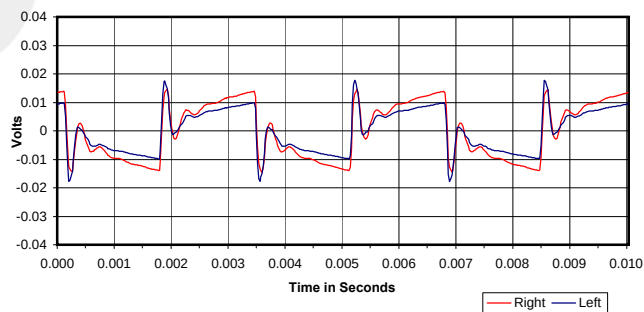
30 Hz Square Wave



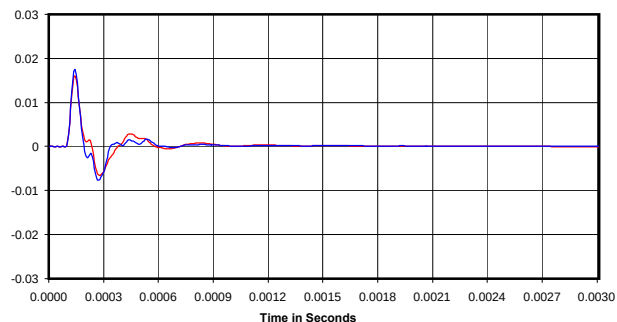
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



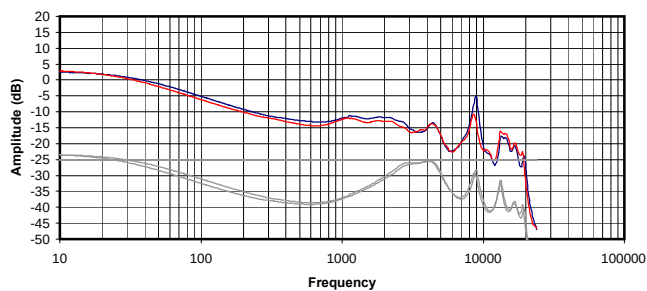
Impulse Response



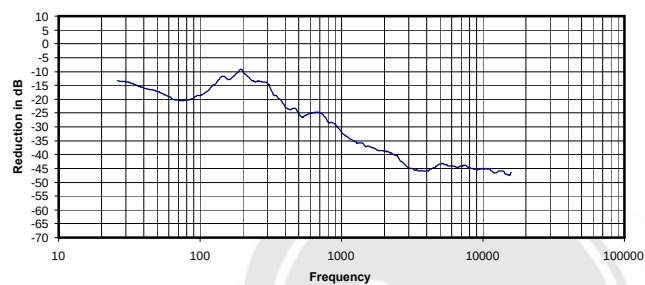
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.052 Vrms
19 Ohms
0.14 mW
-29 dB

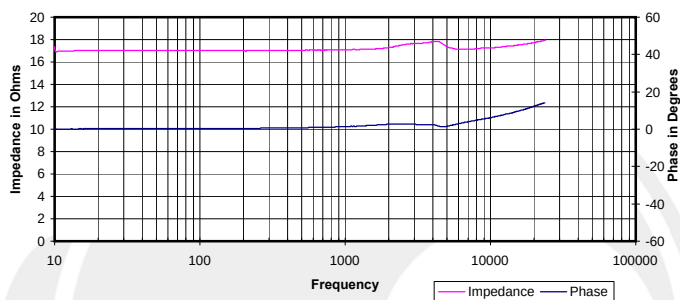
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



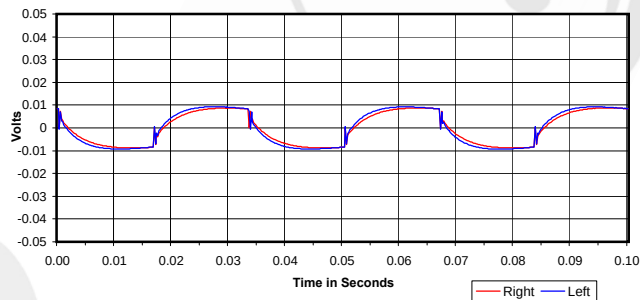
Isolation
Attenuation of External Sound vs. Frequency



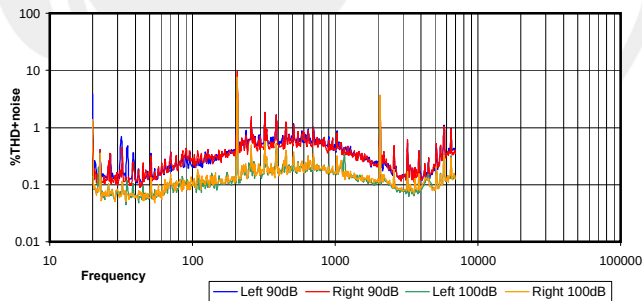
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



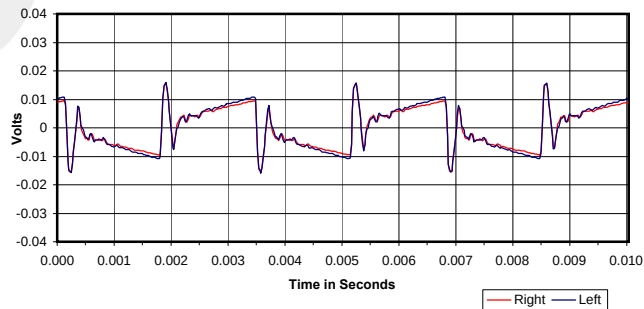
30 Hz Square Wave



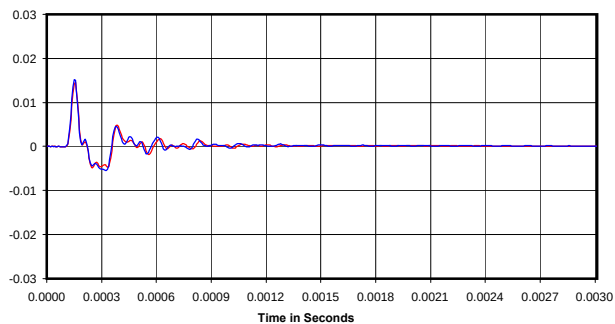
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



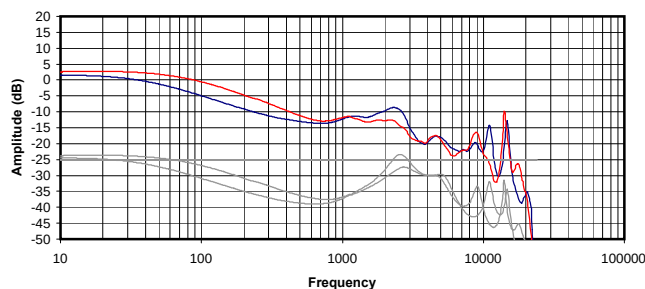
Impulse Response



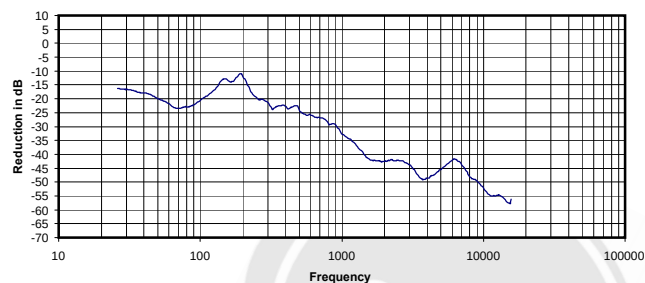
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.042 Vrms
17 Ohms
0.11 mW
-28 dBr

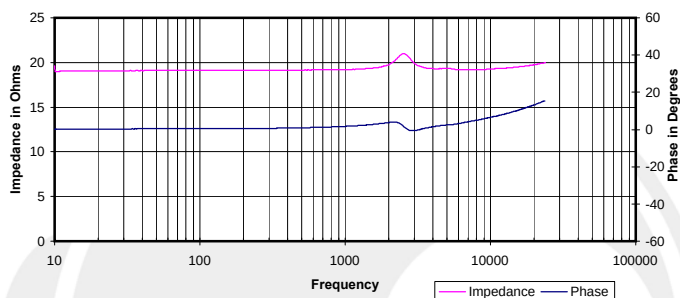
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



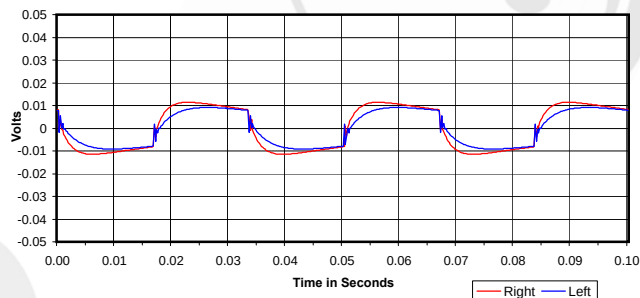
Isolation
Attenuation of External Sound vs. Frequency



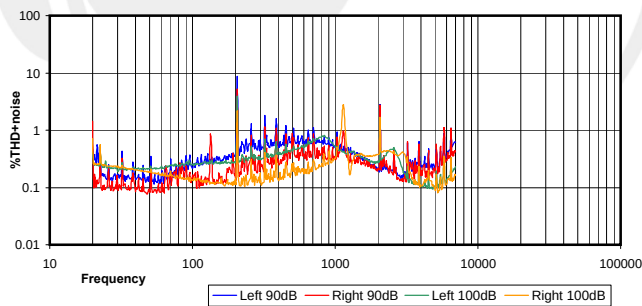
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



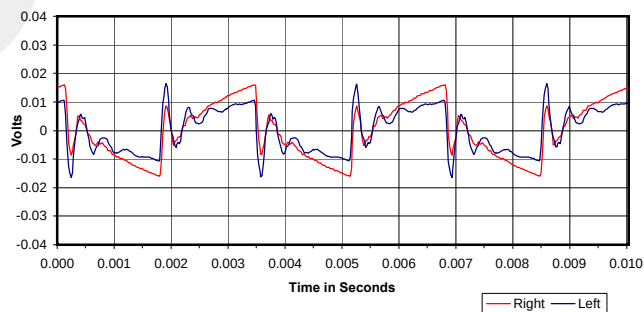
30 Hz Square Wave



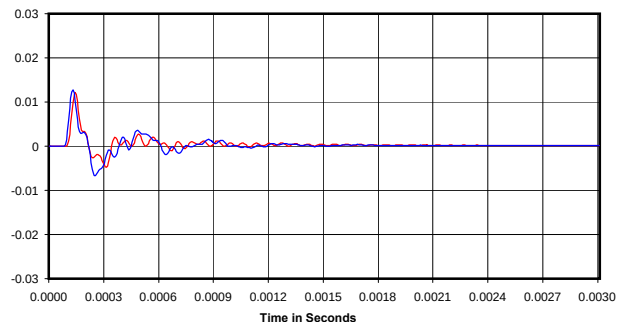
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



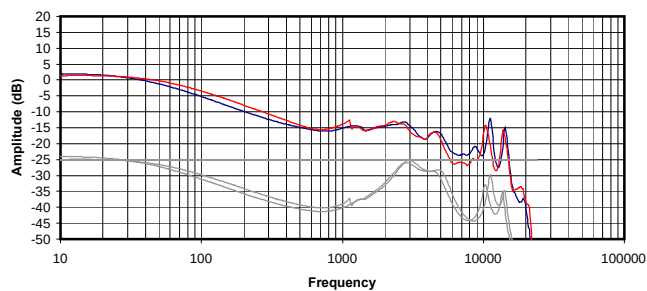
Impulse Response



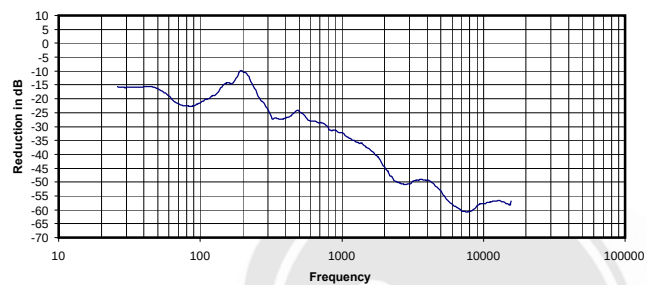
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.039 Vrms
19 Ohms
0.08 mW
-30 dBr

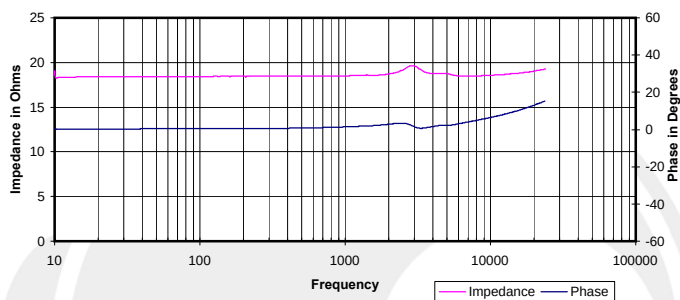
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



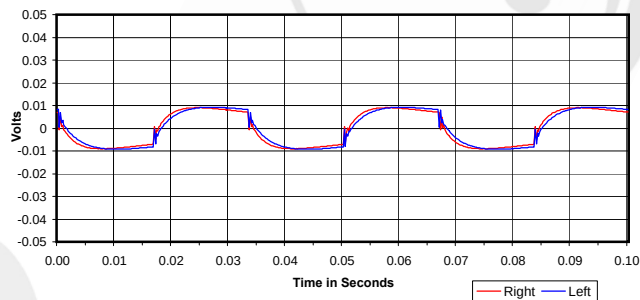
Isolation
Attenuation of External Sound vs. Frequency



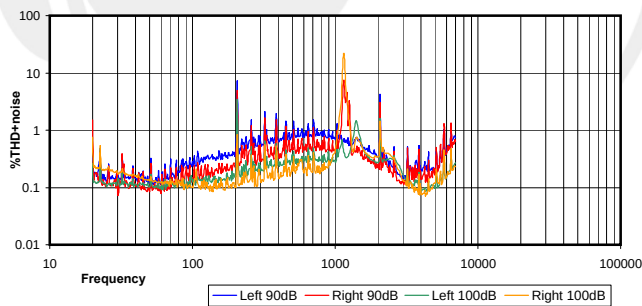
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



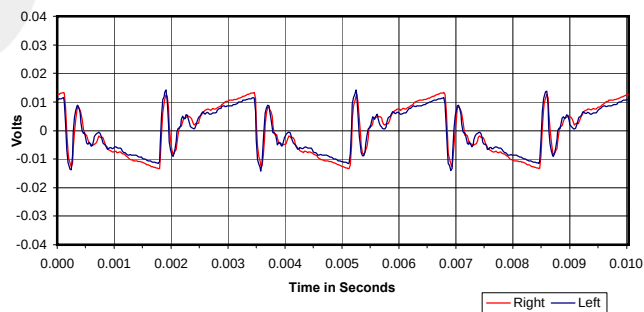
30 Hz Square Wave



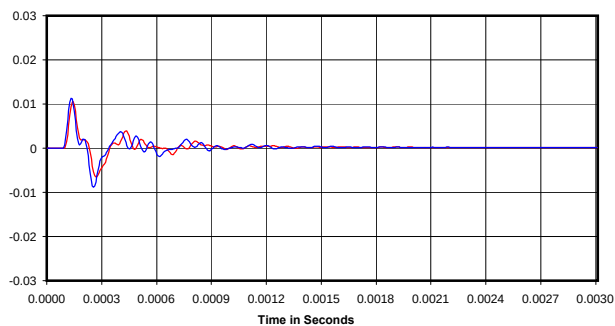
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



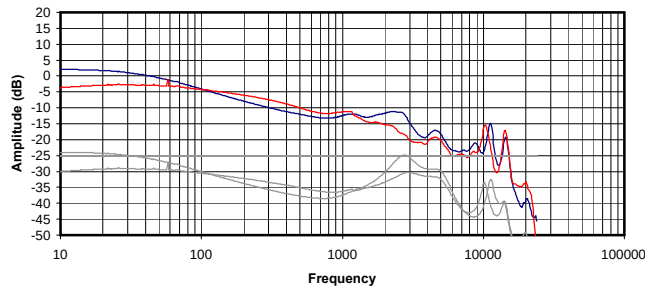
Impulse Response



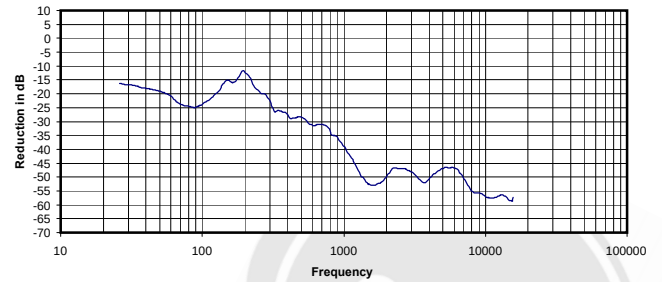
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.049 Vrms
19 Ohms
0.13 mW
-32 dB

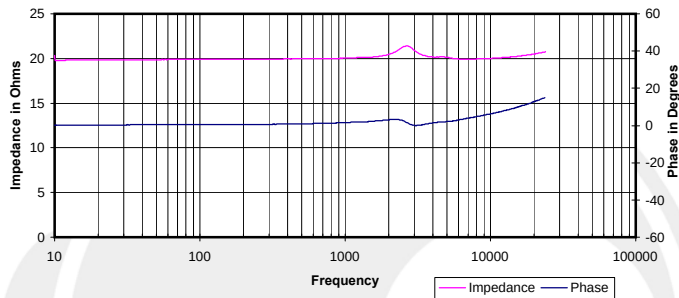
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



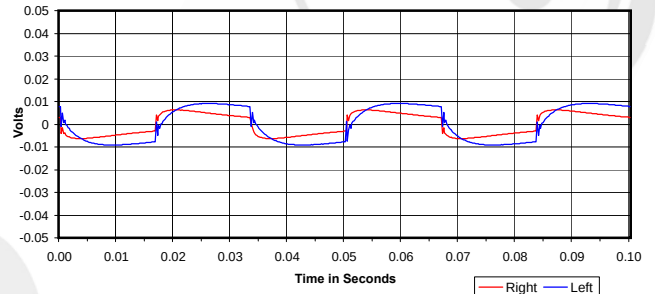
Isolation
Attenuation of External Sound vs. Frequency



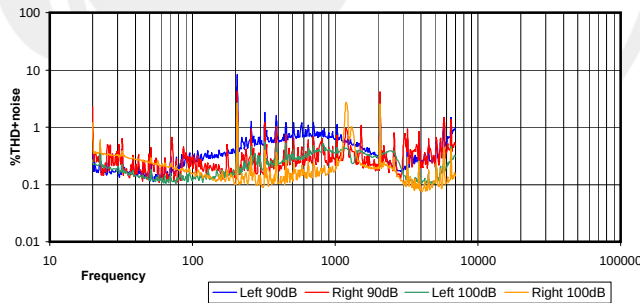
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



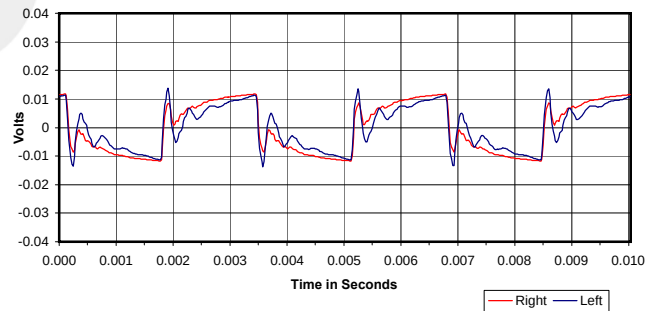
30 Hz Square Wave



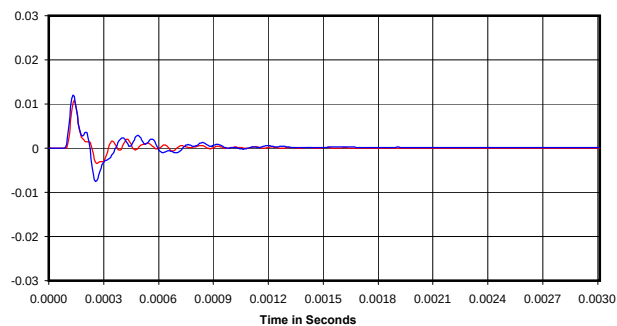
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



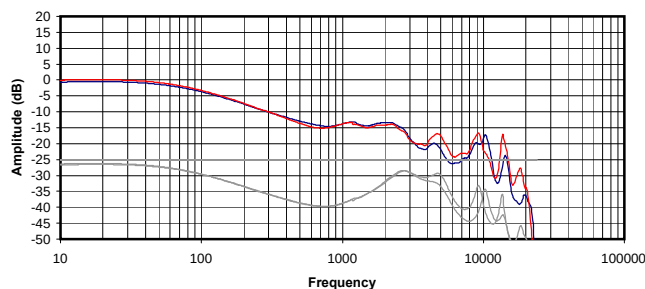
Impulse Response



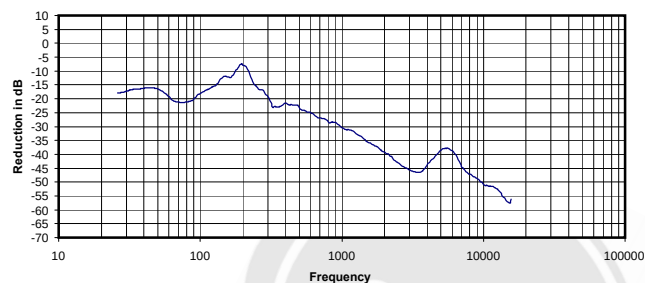
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.039 Vrms
20 Ohms
0.08 mW
-35 dBr

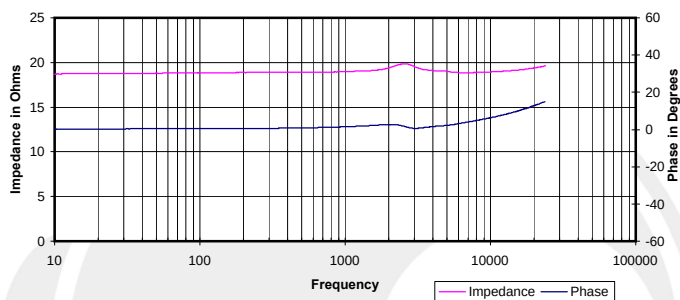
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



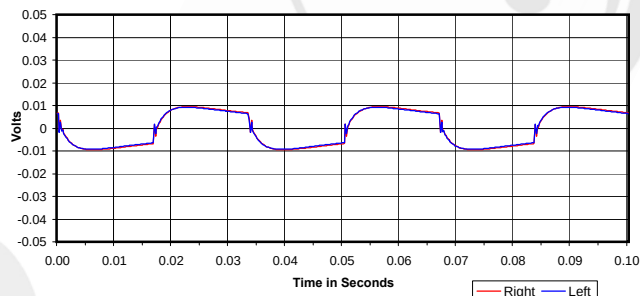
Isolation
Attenuation of External Sound vs. Frequency



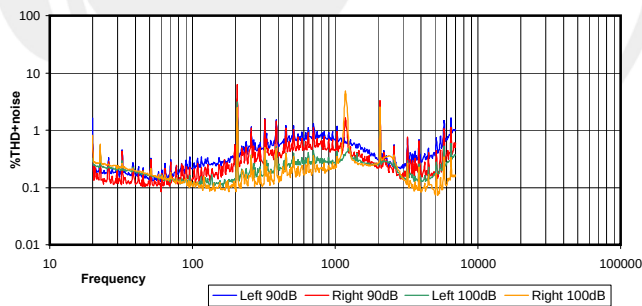
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



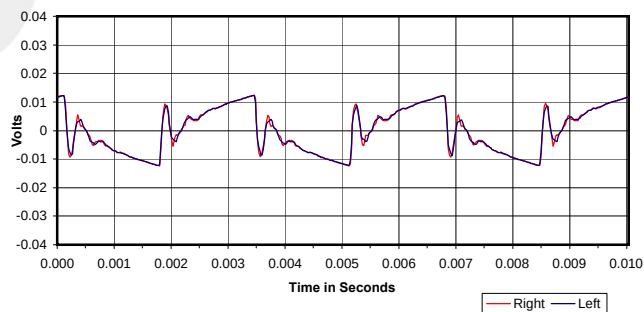
30 Hz Square Wave



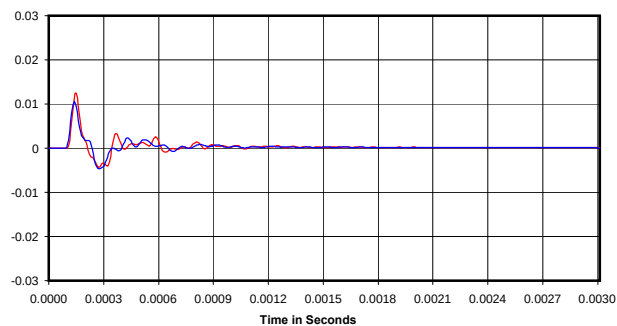
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



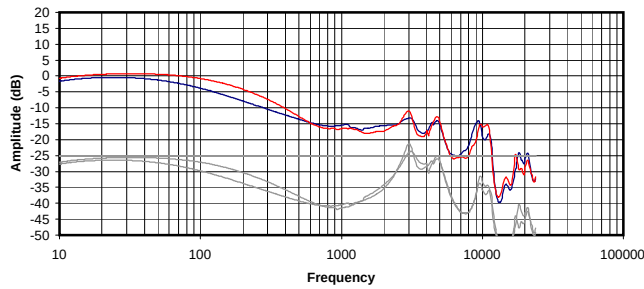
Impulse Response



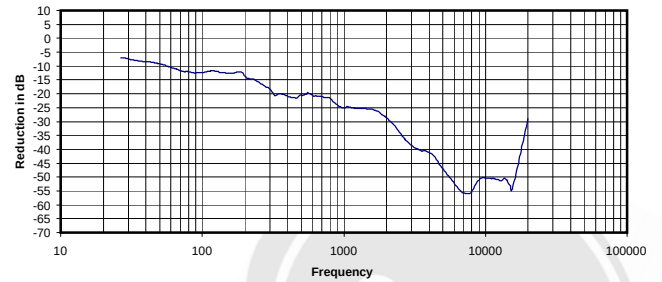
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.041 Vrms
19 Ohms
0.09 mW
-28 dBr

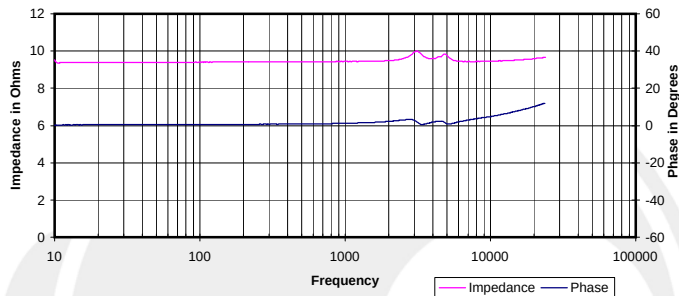
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



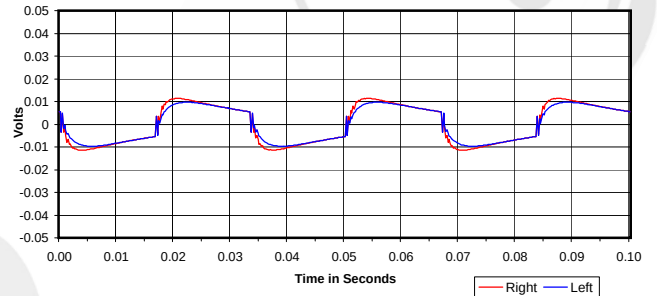
Isolation
Attenuation of External Sound vs. Frequency



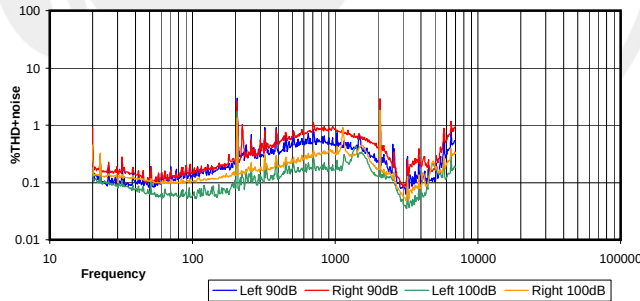
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



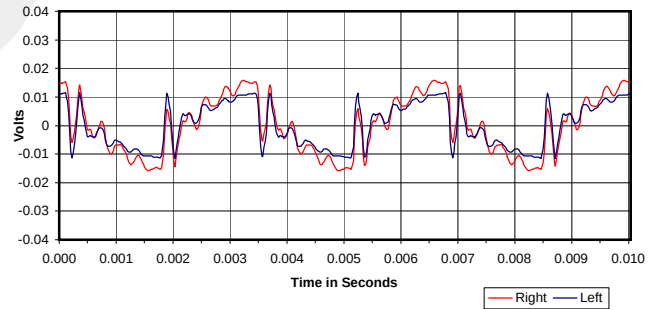
30 Hz Square Wave



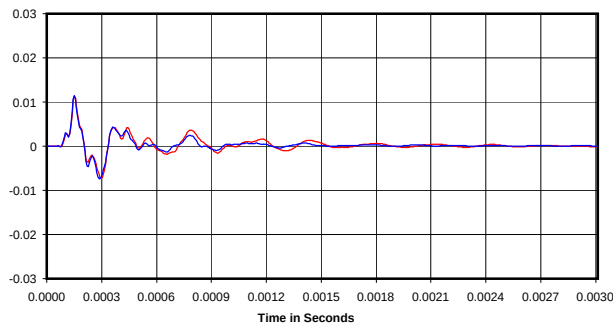
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



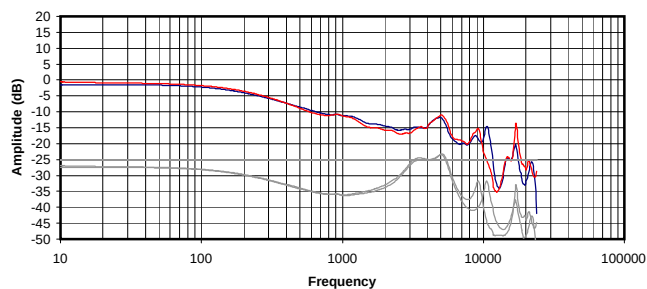
Impulse Response



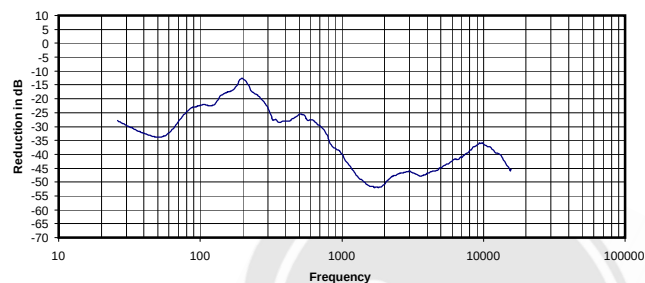
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.036 Vrms
9 Ohms
0.13 mW
-28 dB

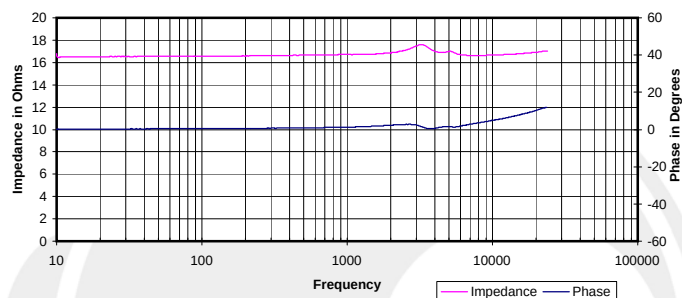
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



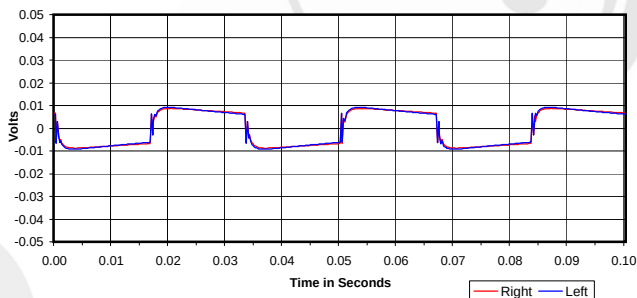
Isolation
Attenuation of External Sound vs. Frequency



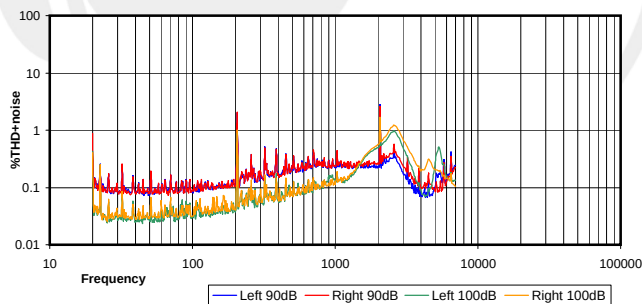
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



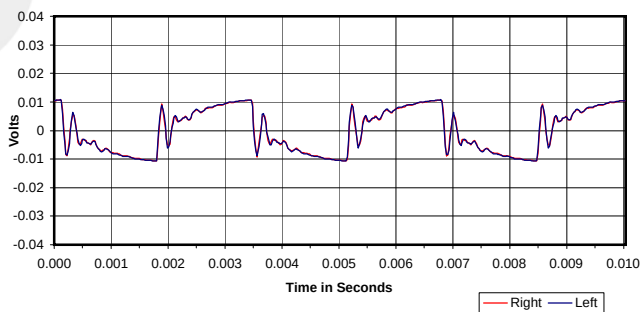
30 Hz Square Wave



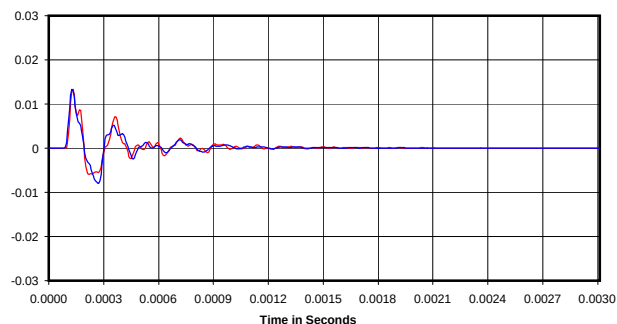
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



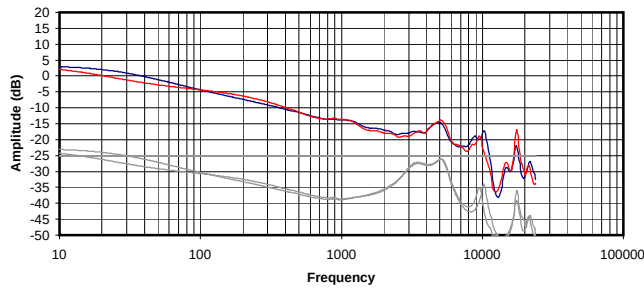
Impulse Response



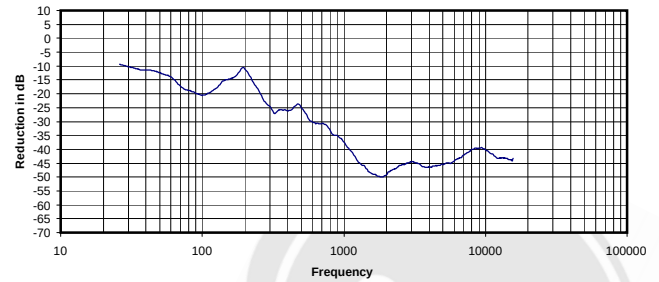
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.033 Vrms
17 Ohms
0.06 mW
-34 dBr

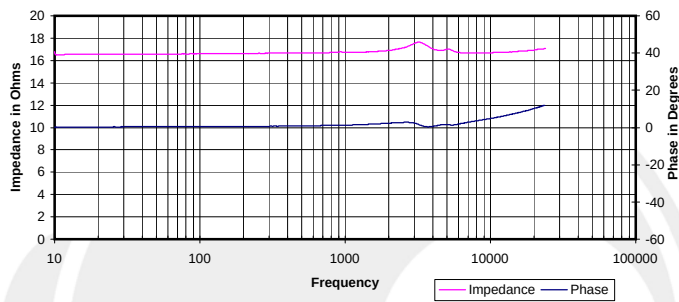
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



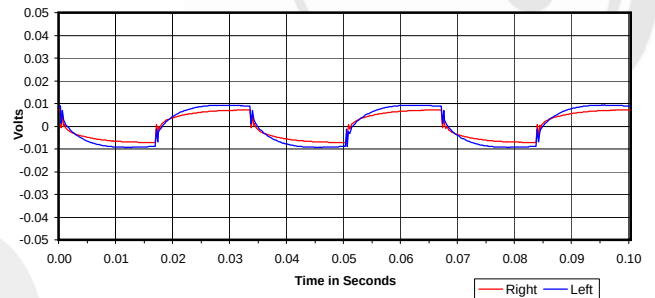
Isolation
Attenuation of External Sound vs. Frequency



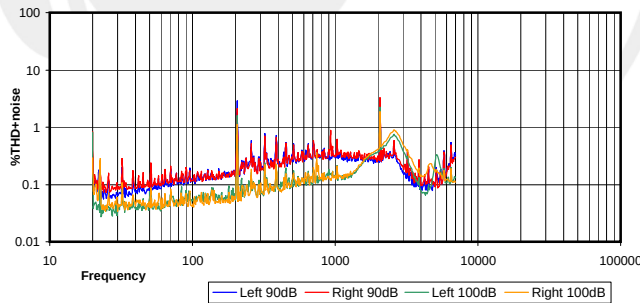
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



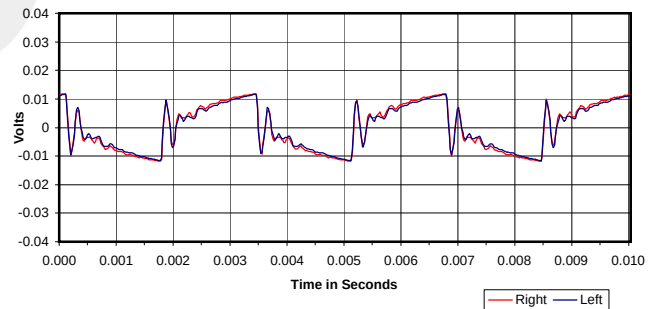
30 Hz Square Wave



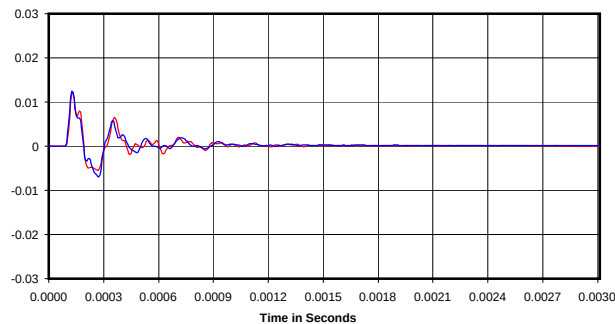
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

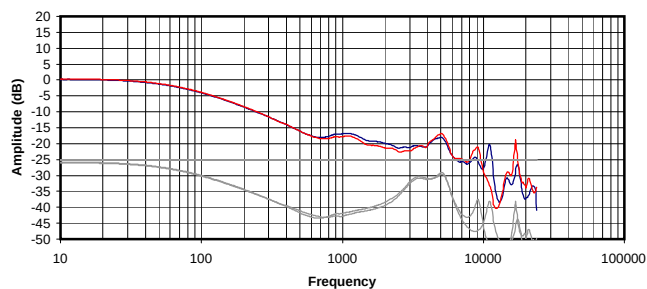
0.034 Vrms
17 Ohms
0.07 mW
-33 dBr



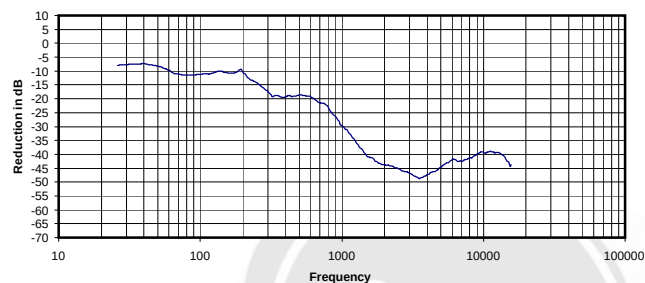
Headphone Measurements:

NarMoo R1M Black Ports

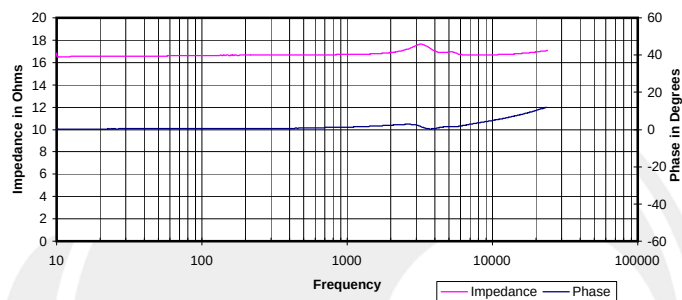
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



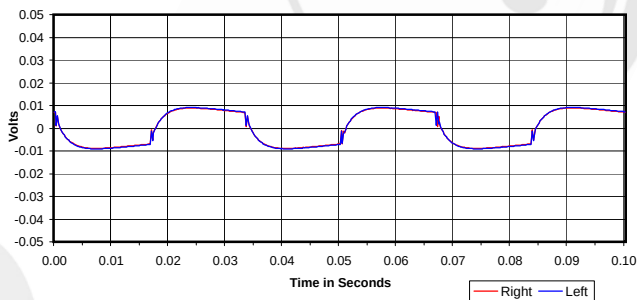
Isolation
Attenuation of External Sound vs. Frequency



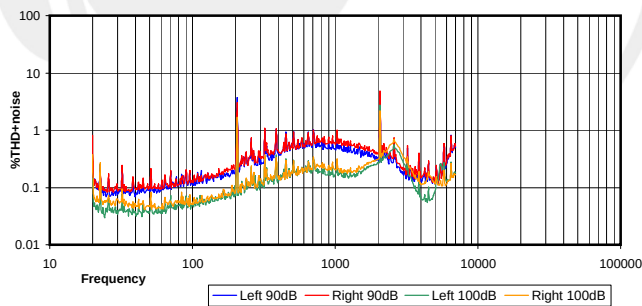
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



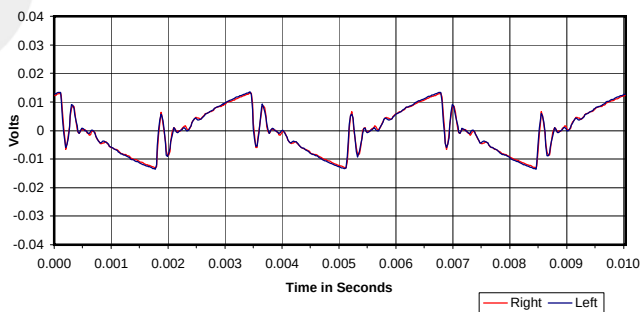
30 Hz Square Wave



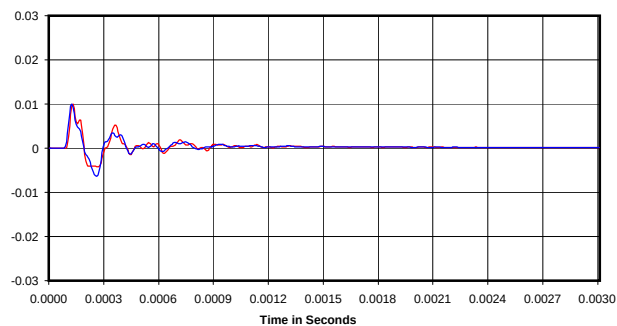
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



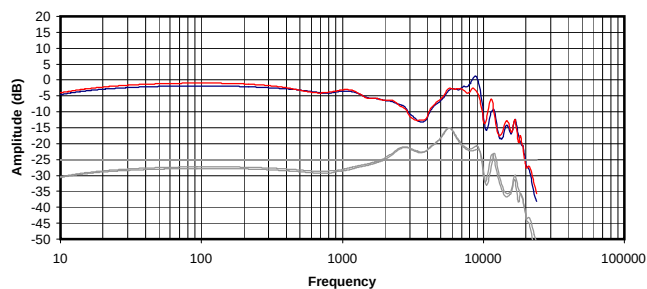
Impulse Response



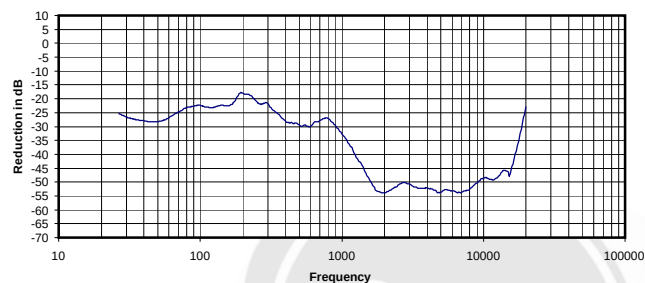
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.033 Vrms
17 Ohms
0.06 mW
-28 dBr

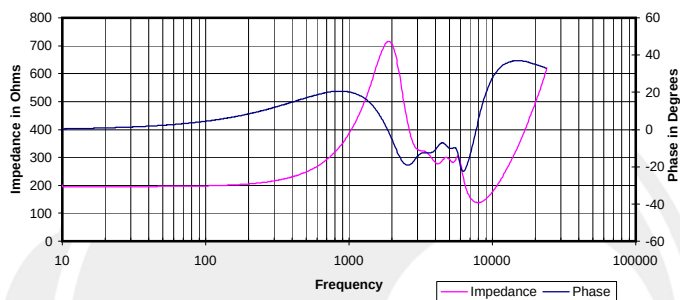
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



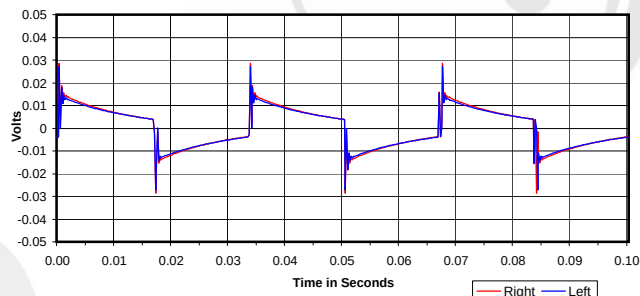
Isolation
Attenuation of External Sound vs. Frequency



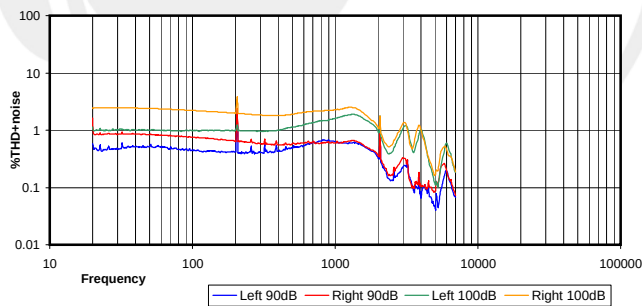
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



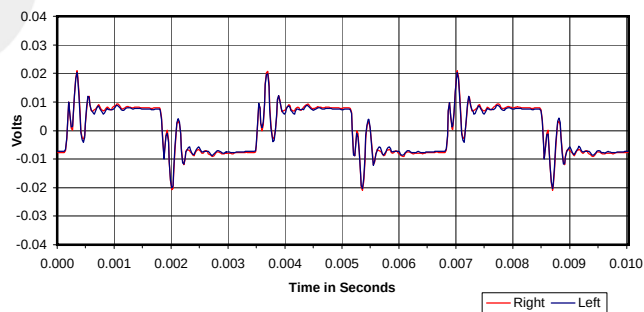
30 Hz Square Wave



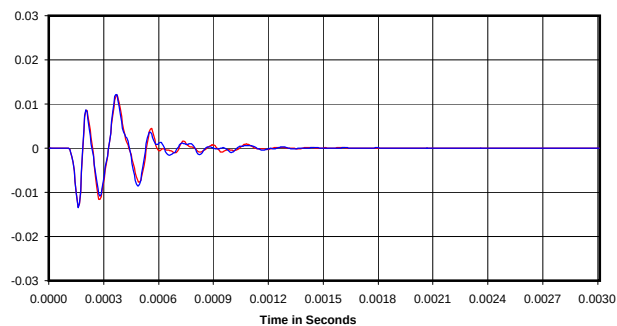
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



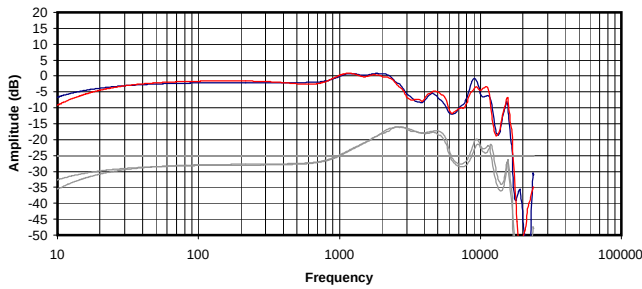
Impulse Response



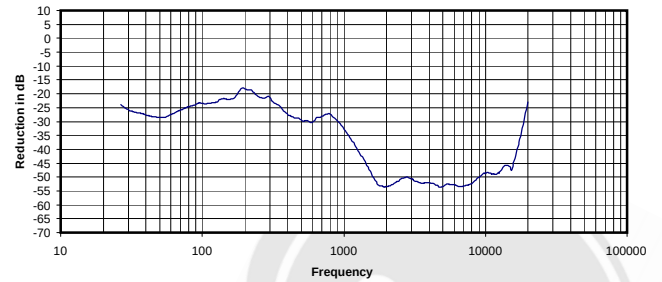
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.084 Vrms
387 Ohms
0.02 mW
-37 dBr

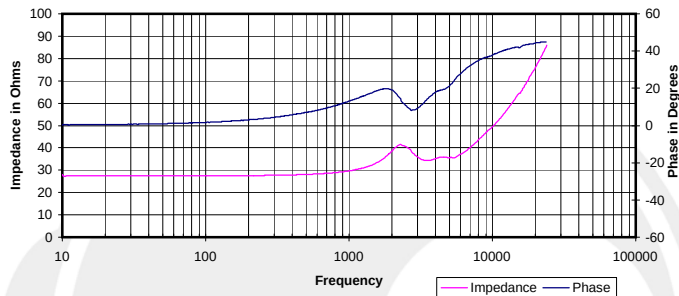
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



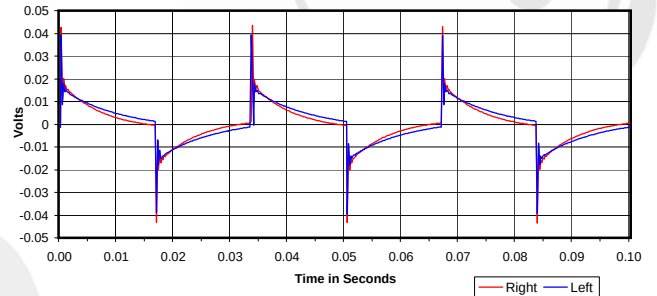
Isolation
Attenuation of External Sound vs. Frequency



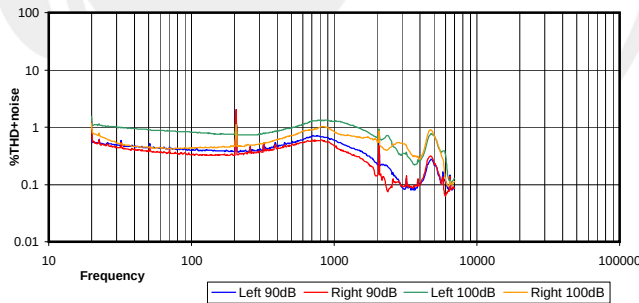
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



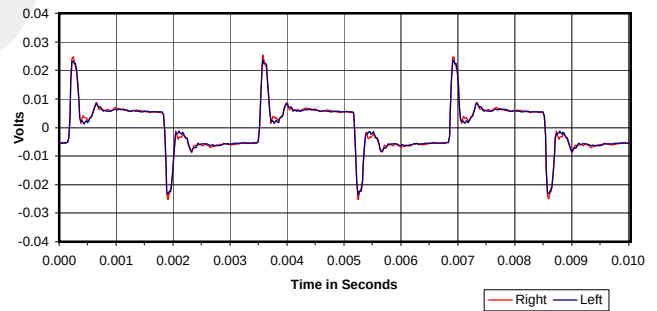
30 Hz Square Wave



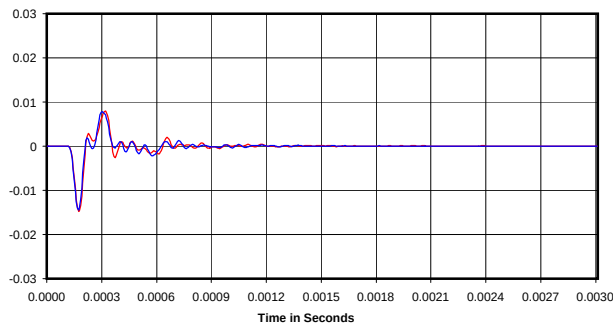
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



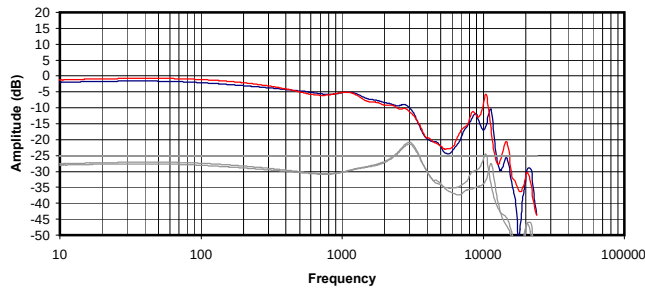
Impulse Response



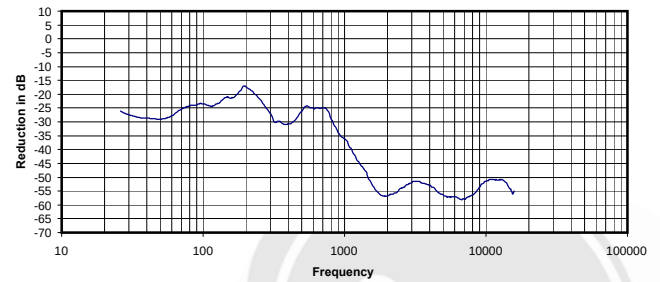
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.029 Vrms
30 Ohms
0.03 mW
-37 dBr

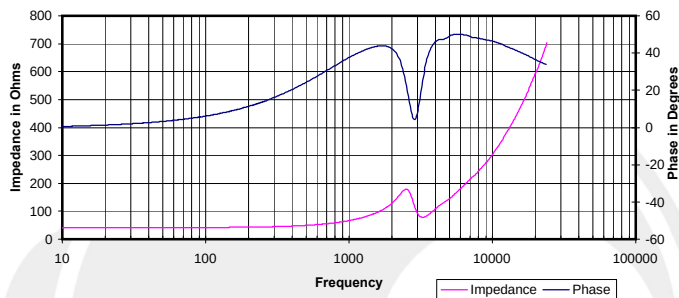
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



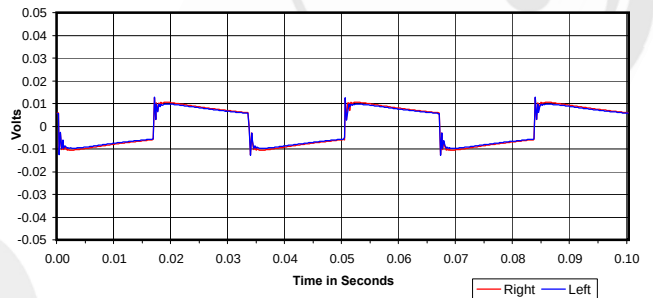
Isolation
Attenuation of External Sound vs. Frequency



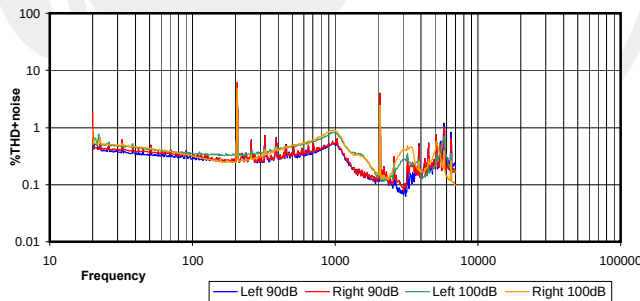
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



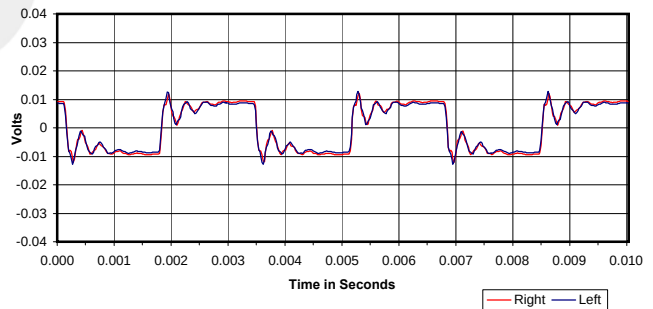
30 Hz Square Wave



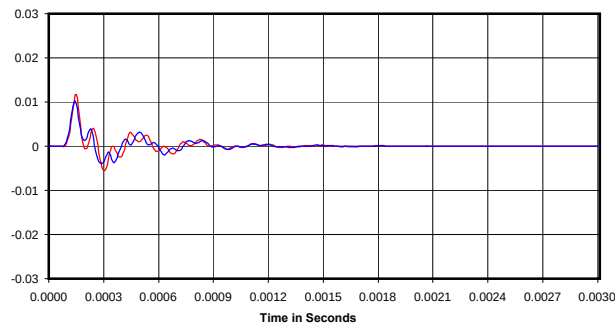
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



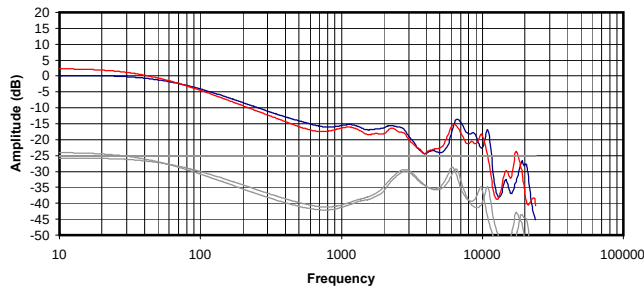
Impulse Response



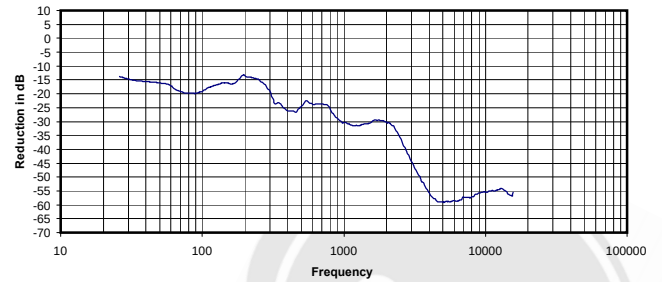
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.042 Vrms
67 Ohms
0.03 mW
-37 dBr

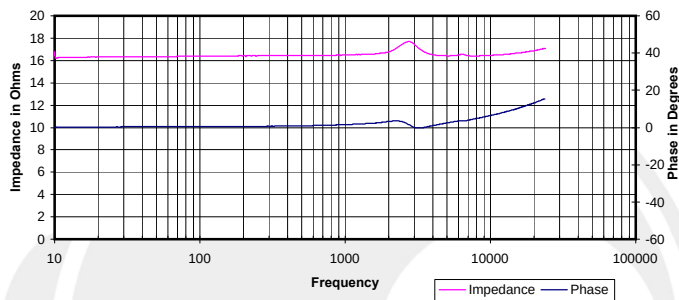
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



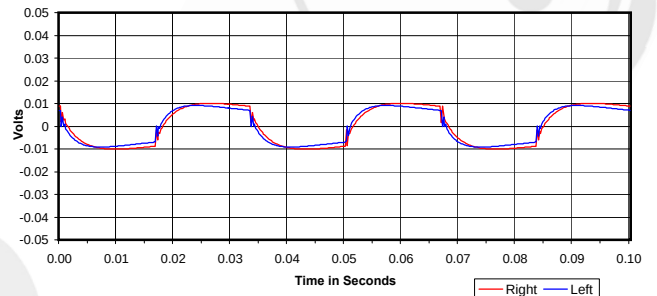
Isolation
Attenuation of External Sound vs. Frequency



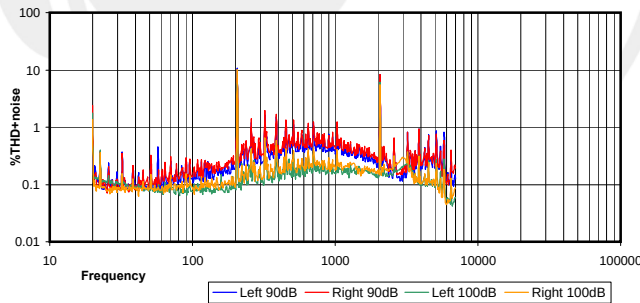
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



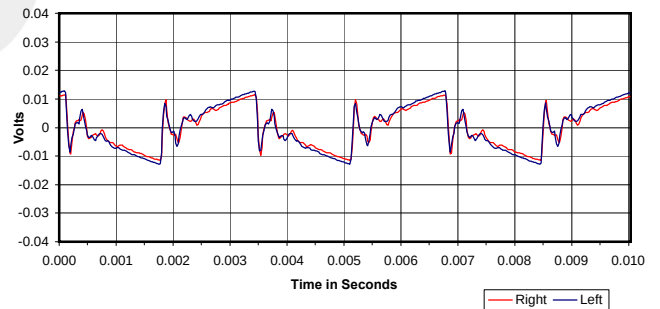
30 Hz Square Wave



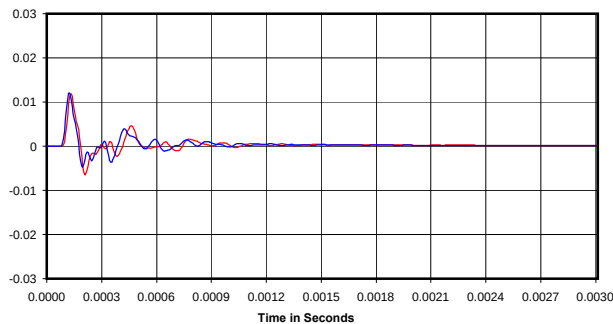
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



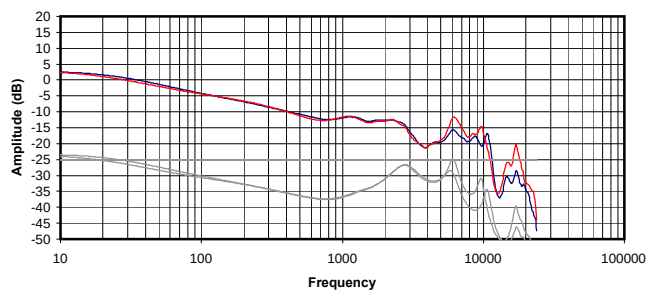
Impulse Response



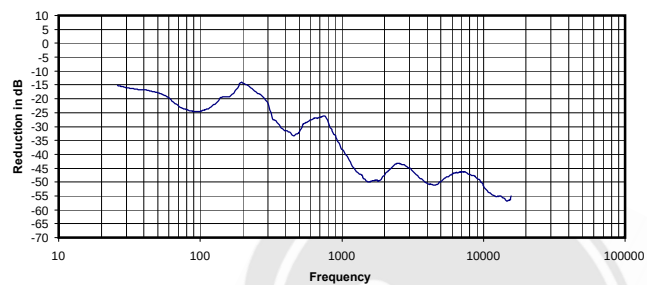
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.036 Vrms
16 Ohms
0.08 mW
-30 dBr

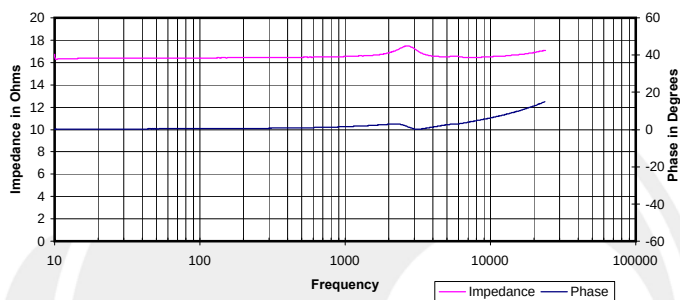
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



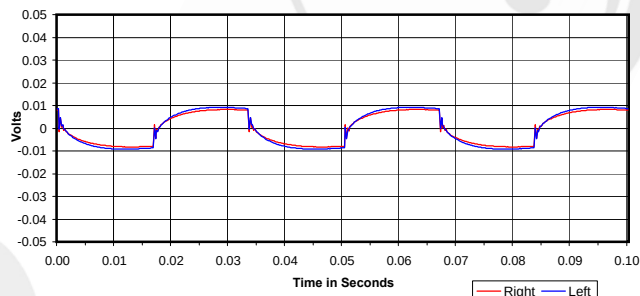
Isolation
Attenuation of External Sound vs. Frequency



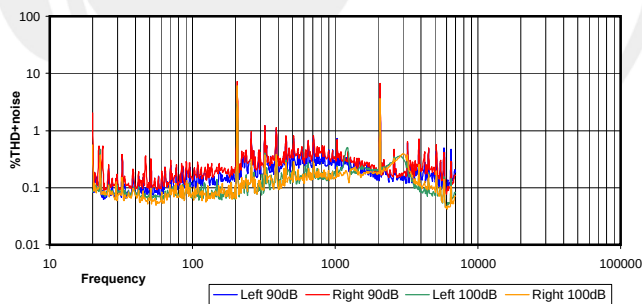
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



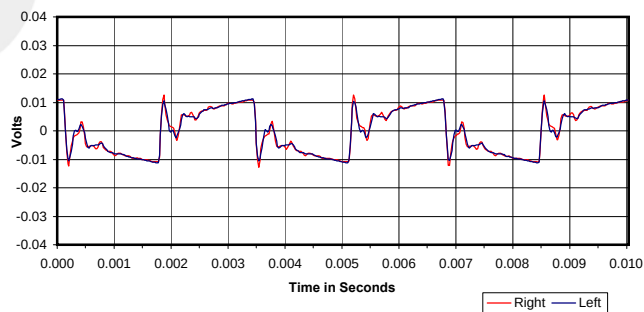
30 Hz Square Wave



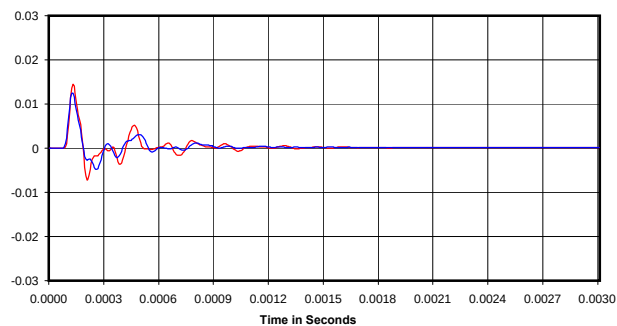
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



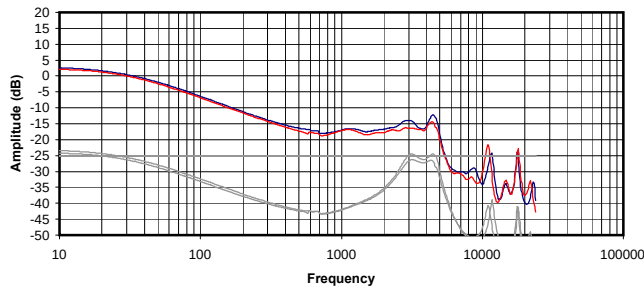
Impulse Response



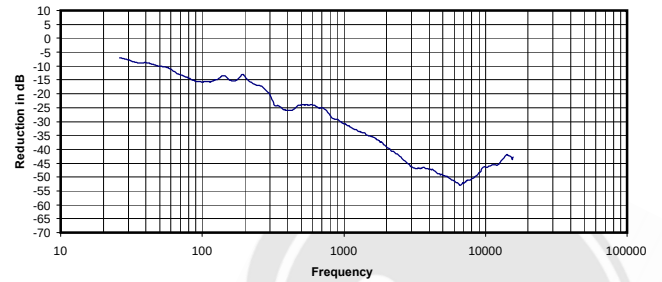
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.036 Vrms
17 Ohms
0.08 mW
-34 dBr

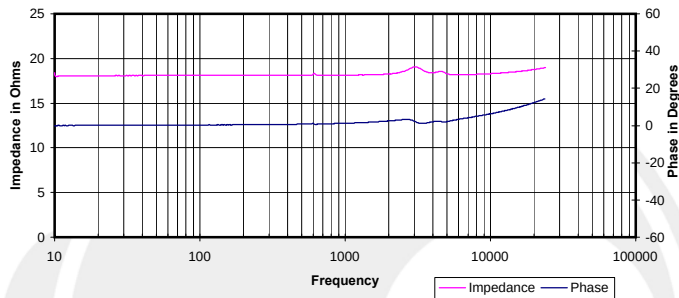
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



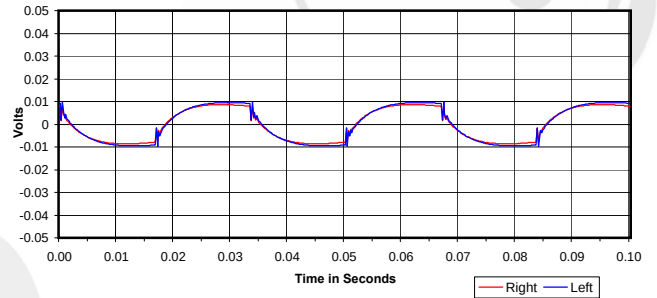
Isolation
Attenuation of External Sound vs. Frequency



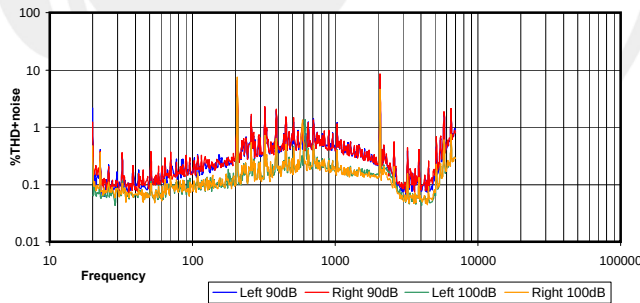
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



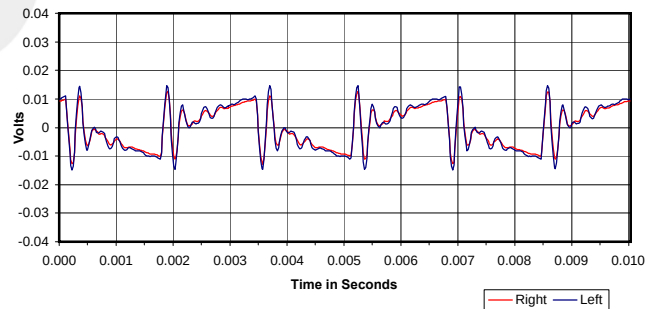
30 Hz Square Wave



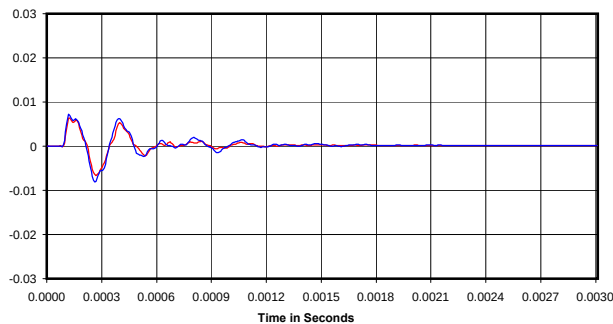
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



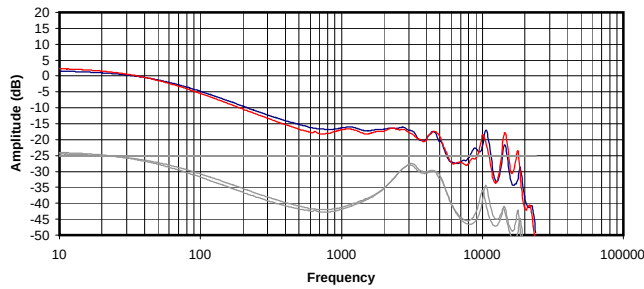
Impulse Response



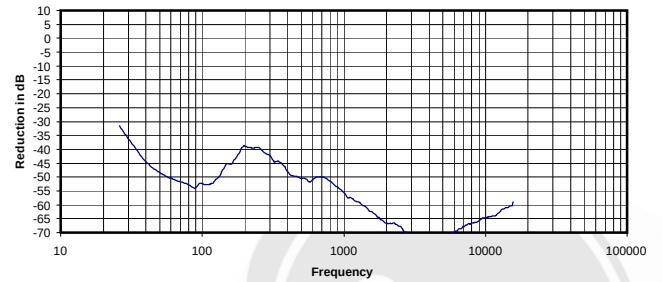
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.046 Vrms
18 Ohms
0.12 mW
-30 dBr

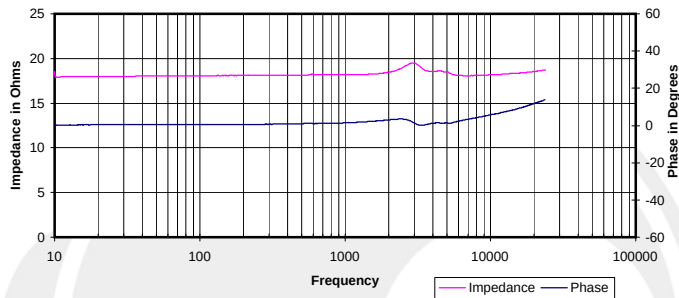
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



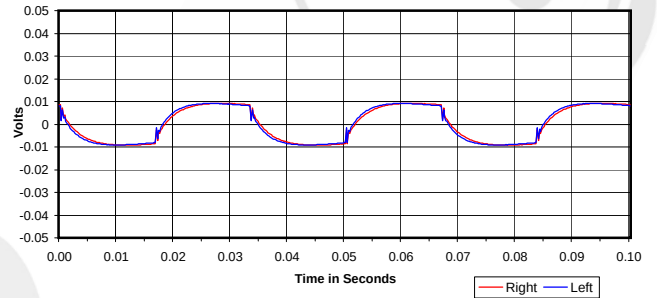
Isolation
Attenuation of External Sound vs. Frequency



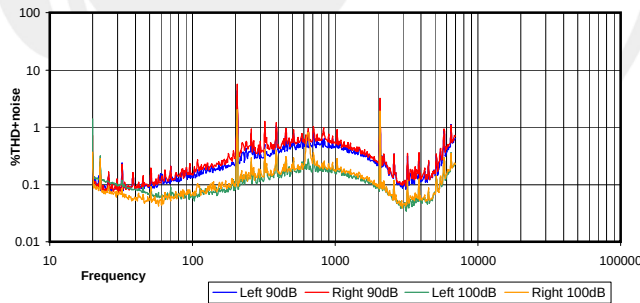
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



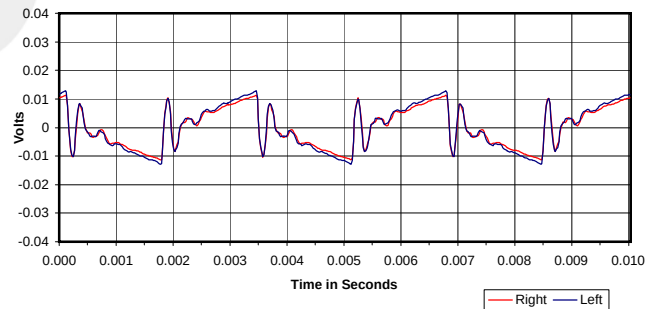
30 Hz Square Wave



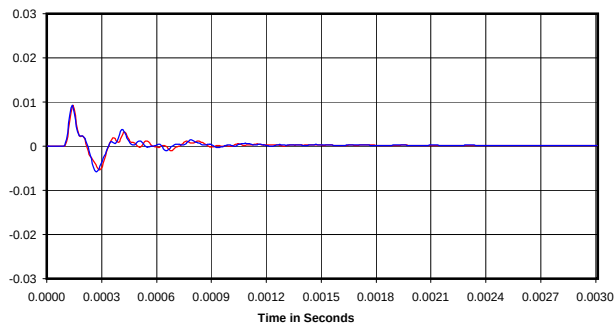
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



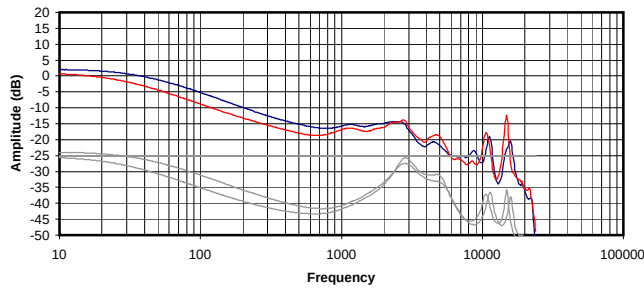
Impulse Response



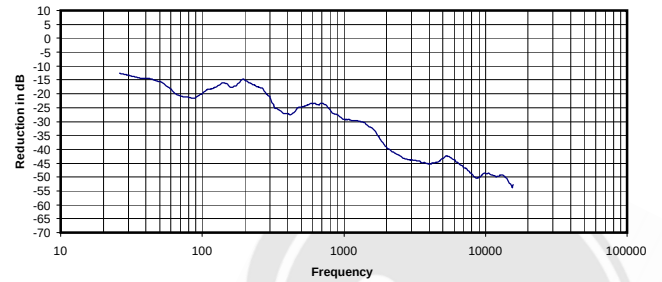
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.026 Vrms
18 Ohms
0.04 mW
-56 dBr

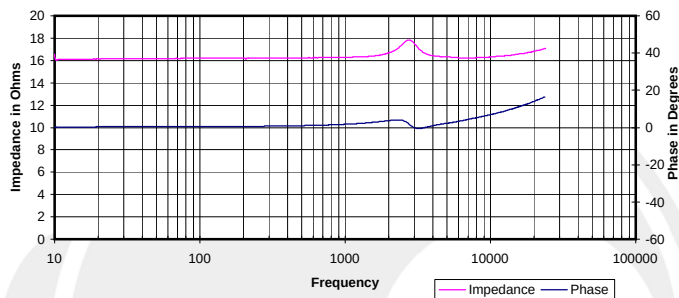
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



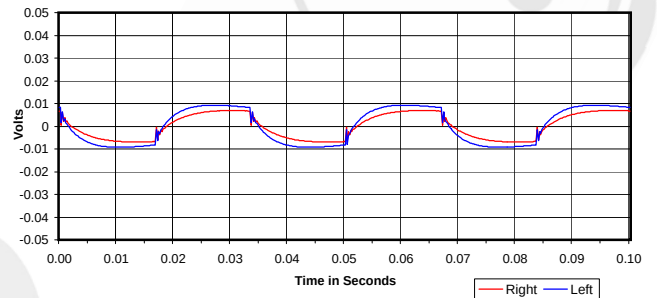
Isolation
Attenuation of External Sound vs. Frequency



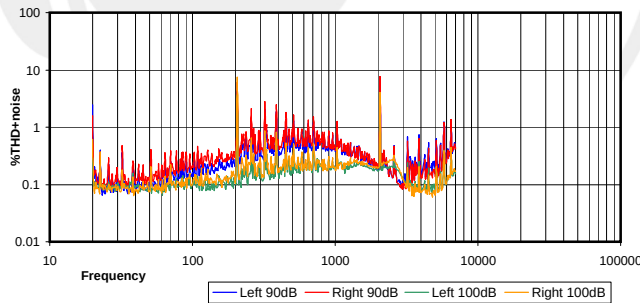
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



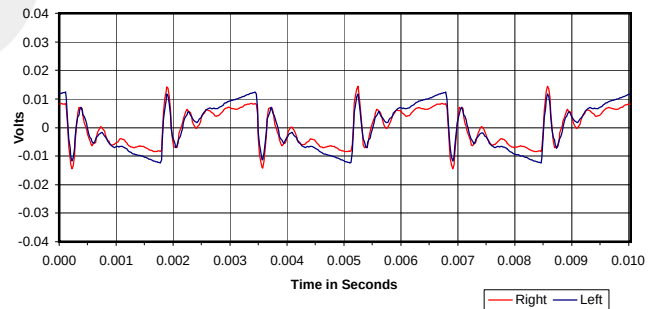
30 Hz Square Wave



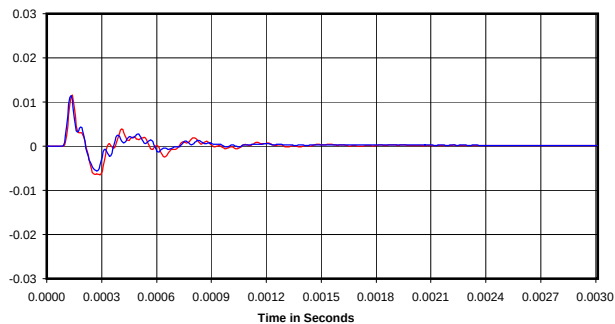
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



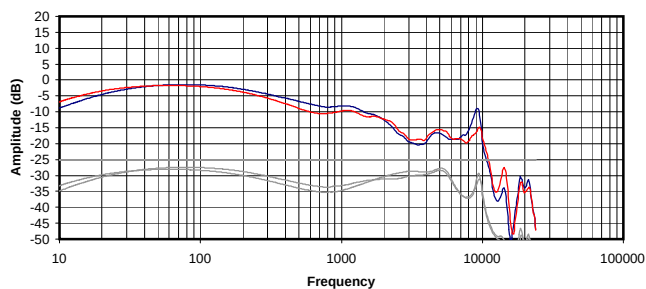
Impulse Response



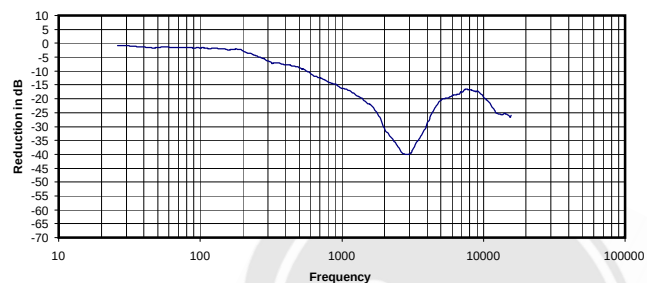
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.037 Vrms
16 Ohms
0.08 mW
-29 dBr

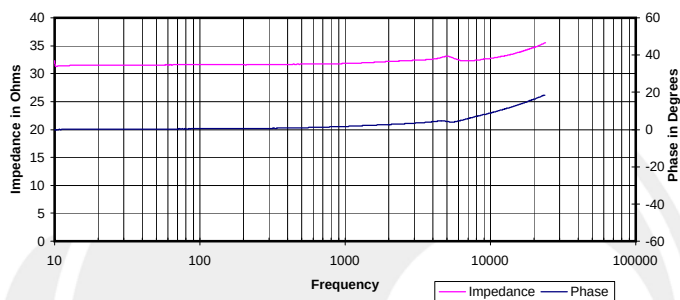
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



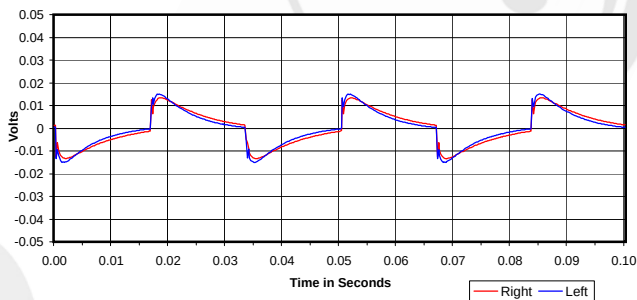
Isolation
Attenuation of External Sound vs. Frequency



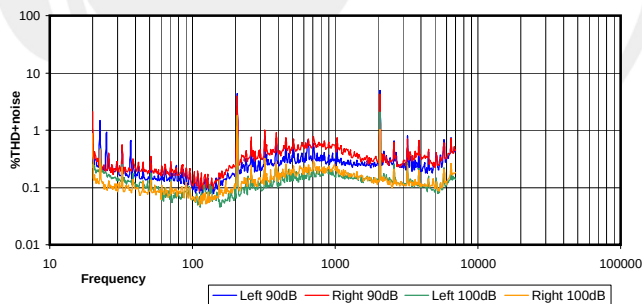
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



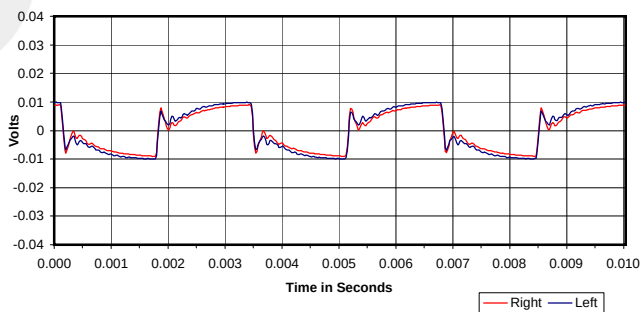
30 Hz Square Wave



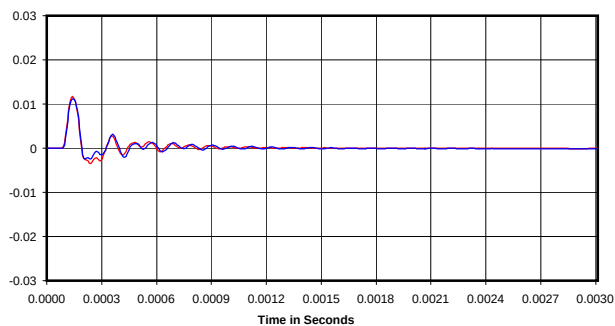
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



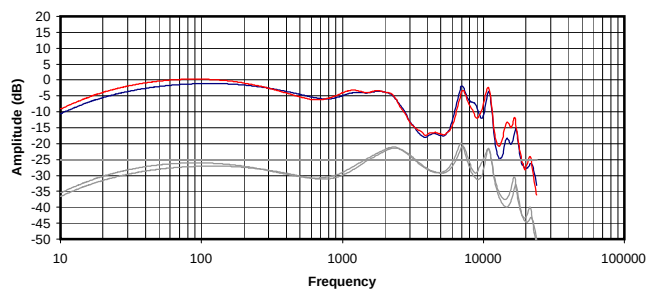
Impulse Response



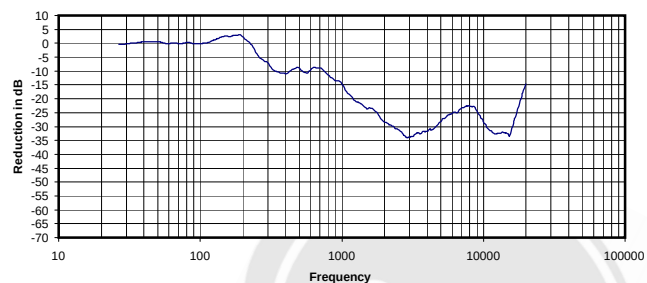
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.029 Vrms
32 Ohms
0.03 mW
-15 dB

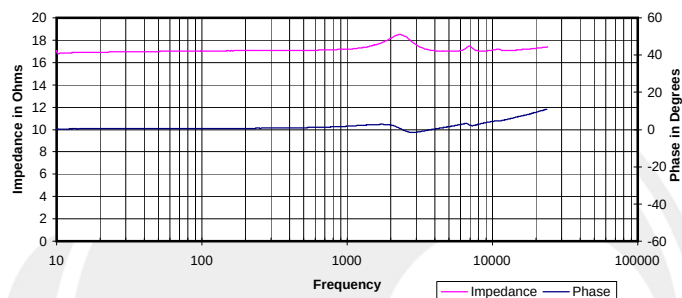
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



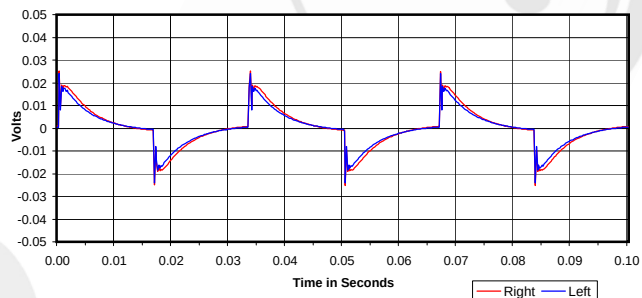
Isolation
Attenuation of External Sound vs. Frequency



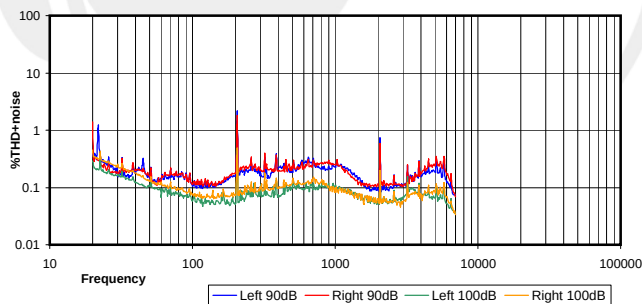
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



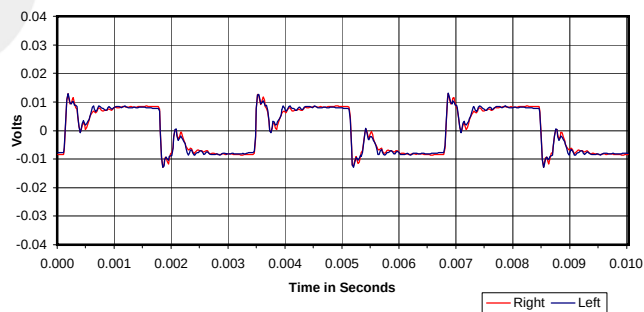
30 Hz Square Wave



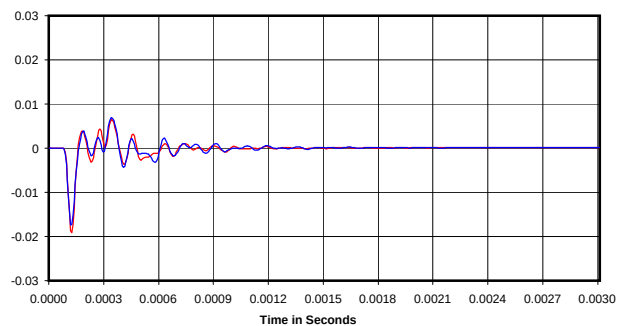
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



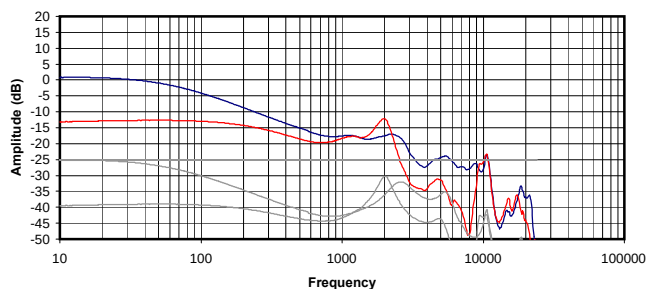
Impulse Response



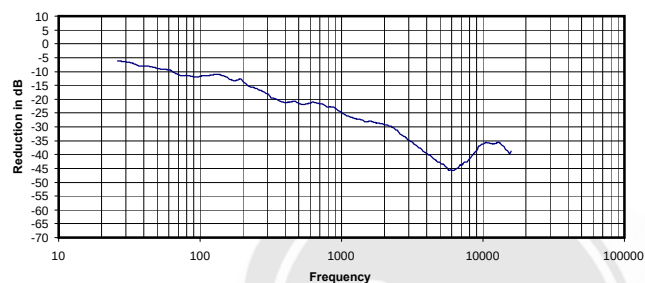
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.016 Vrms
17 Ohms
0.01 mW
-16 dB

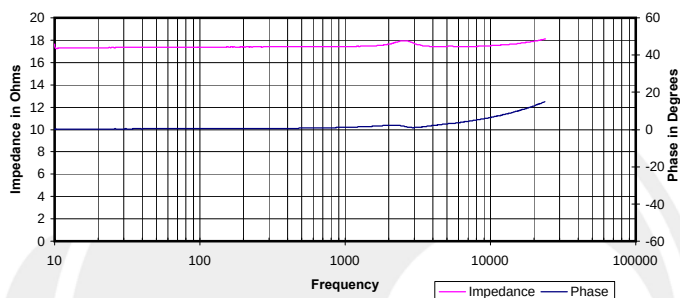
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



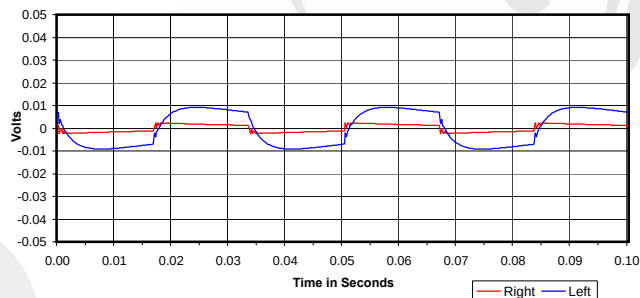
Isolation
Attenuation of External Sound vs. Frequency



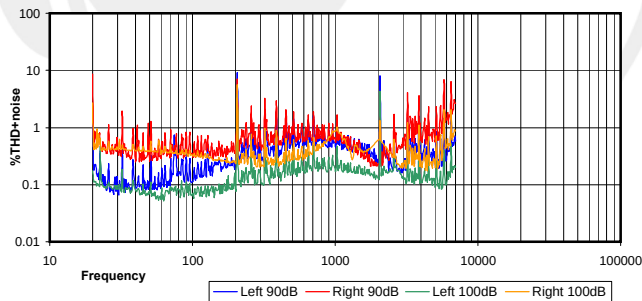
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



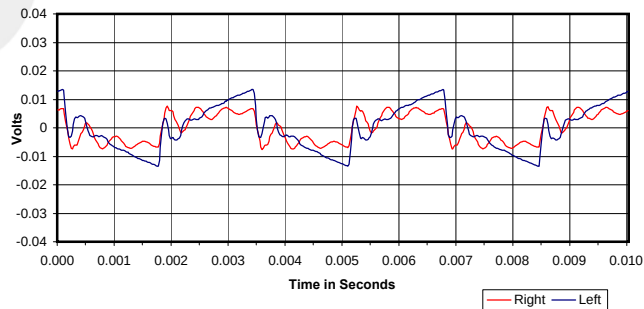
30 Hz Square Wave



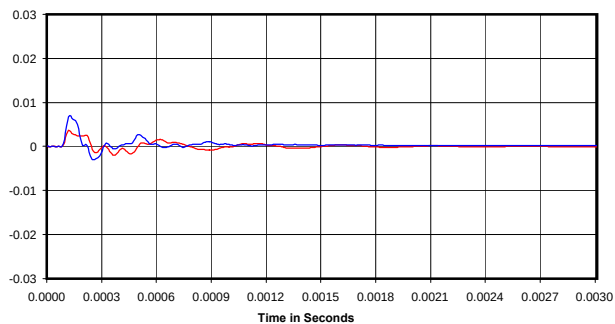
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



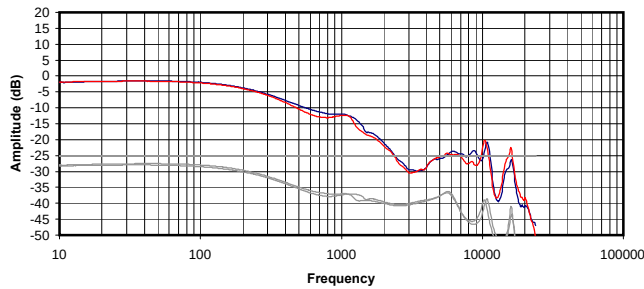
Impulse Response



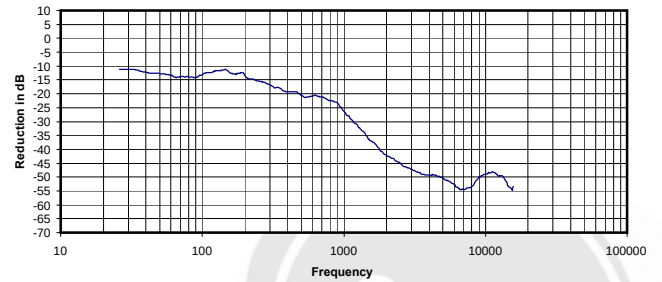
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.043 Vrms
17 Ohms
0.10 mW
-25 dBr

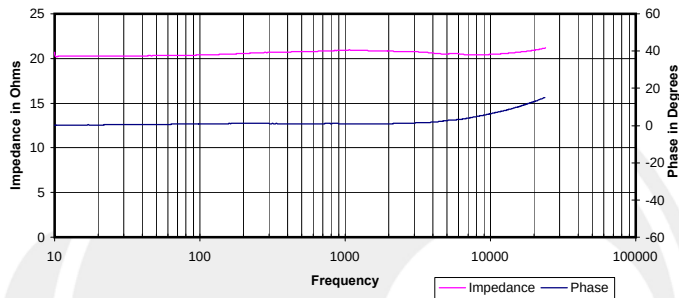
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



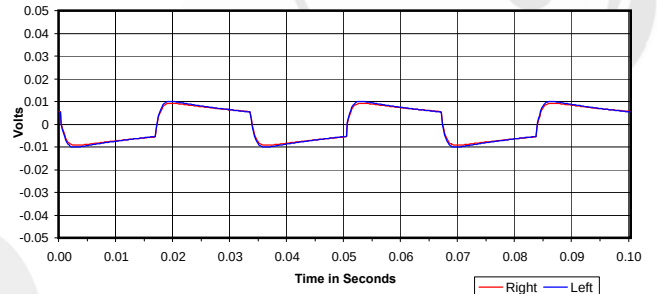
Isolation
Attenuation of External Sound vs. Frequency



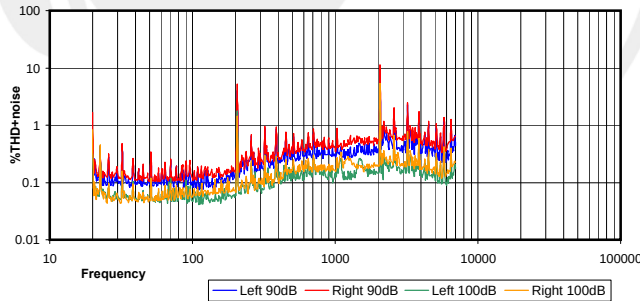
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



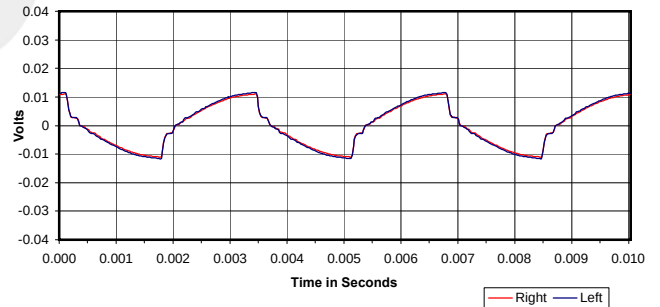
30 Hz Square Wave



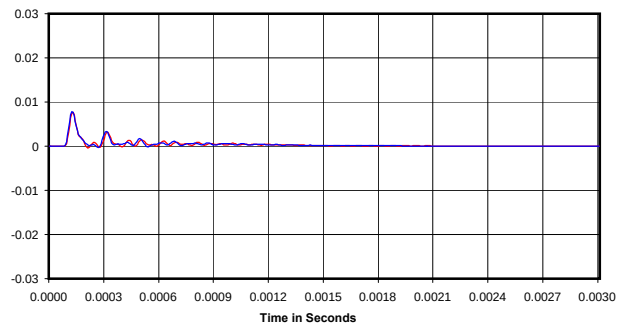
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



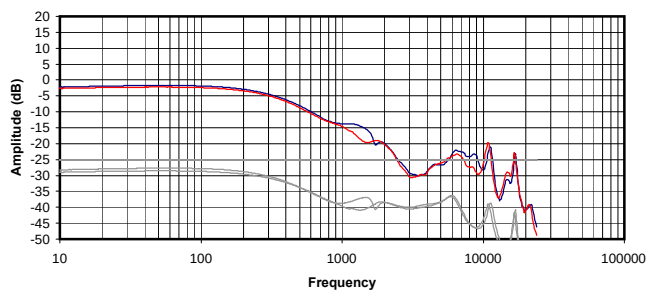
Impulse Response



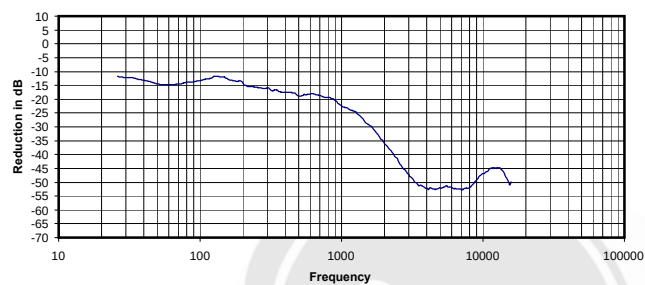
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.019 Vrms
21 Ohms
0.02 mW
-28 dBr

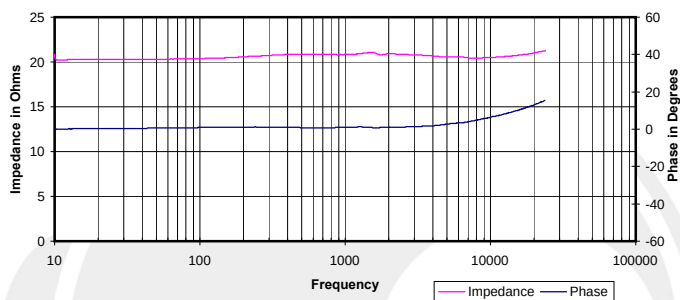
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



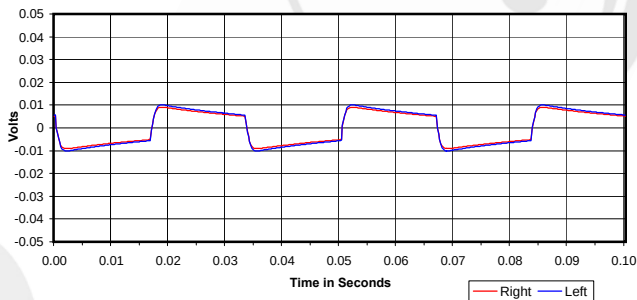
Isolation
Attenuation of External Sound vs. Frequency



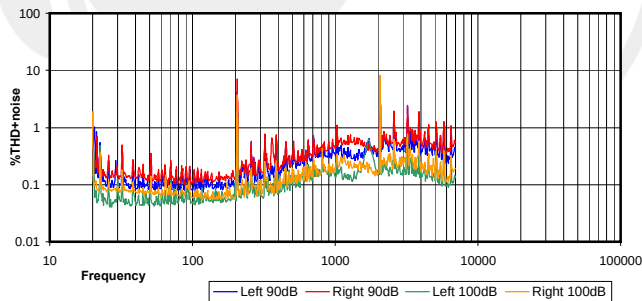
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



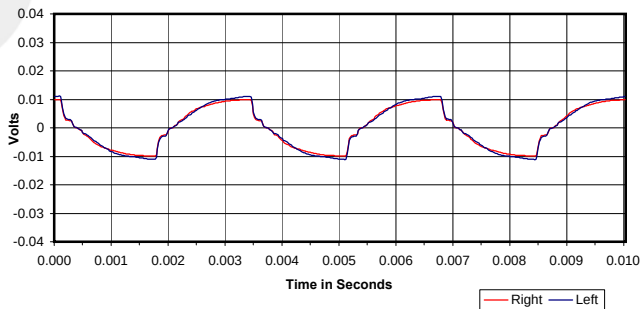
30 Hz Square Wave



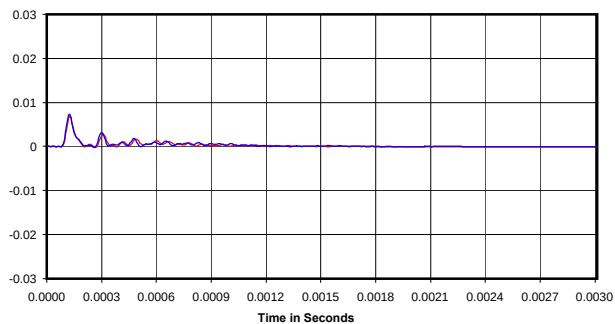
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



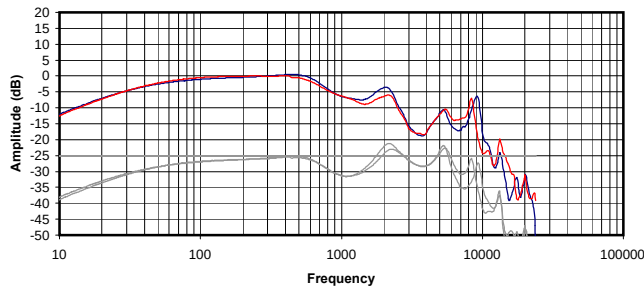
Impulse Response



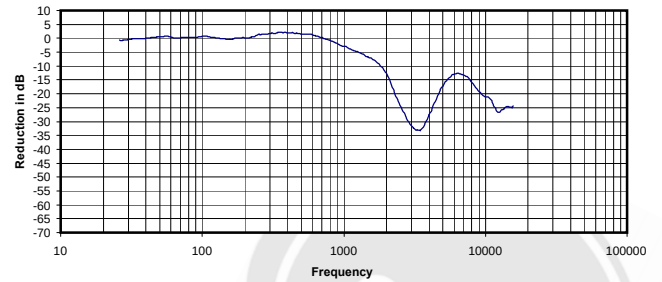
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.024 Vrms
21 Ohms
0.03 mW
-27 dBr

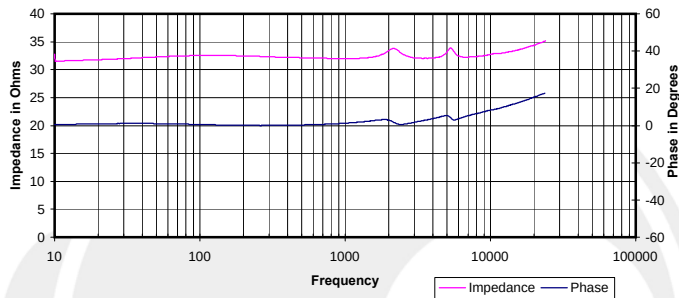
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



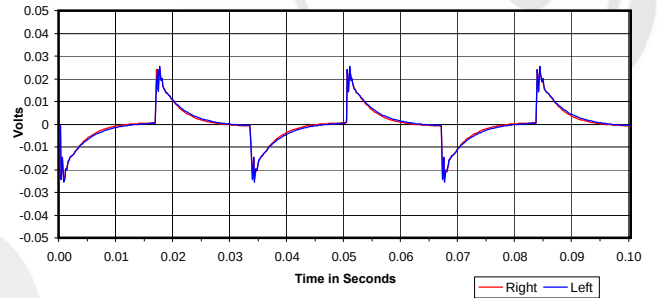
Isolation
Attenuation of External Sound vs. Frequency



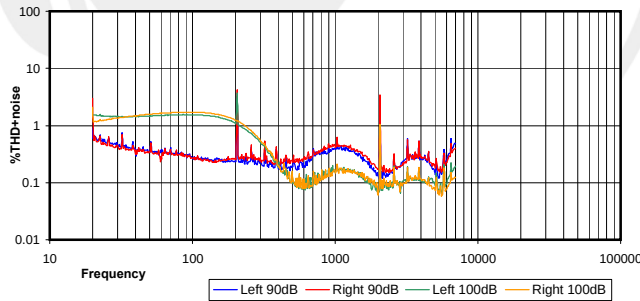
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



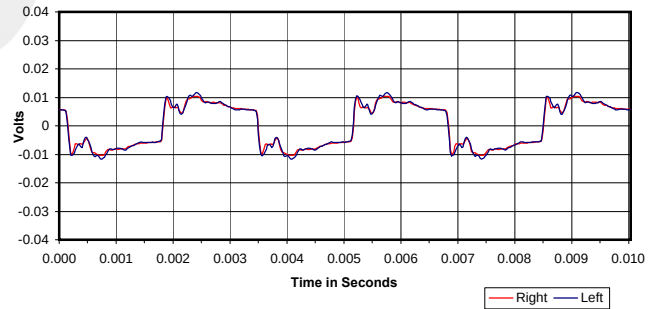
30 Hz Square Wave



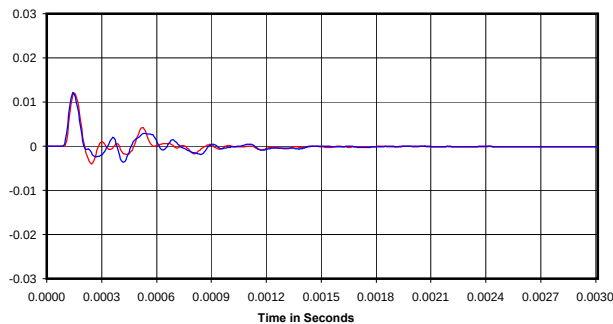
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



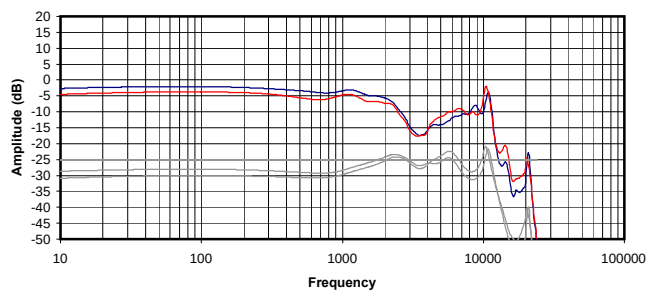
Impulse Response



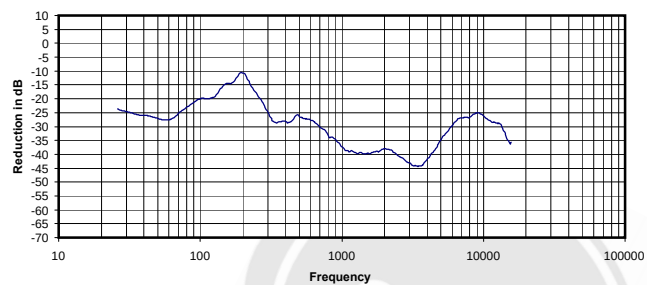
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.022 Vrms
32 Ohms
0.02 mW
-7 dB

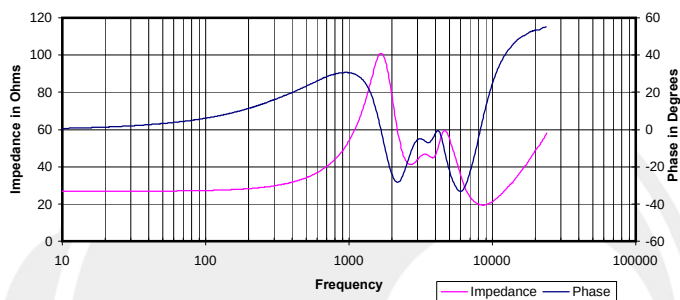
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



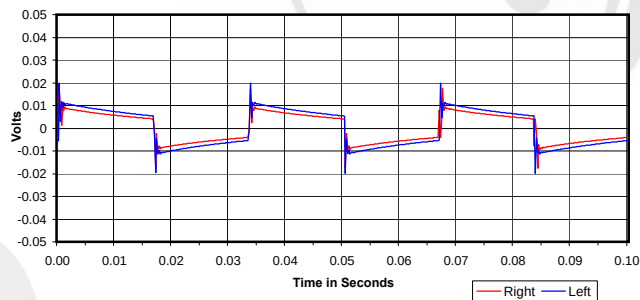
Isolation
Attenuation of External Sound vs. Frequency



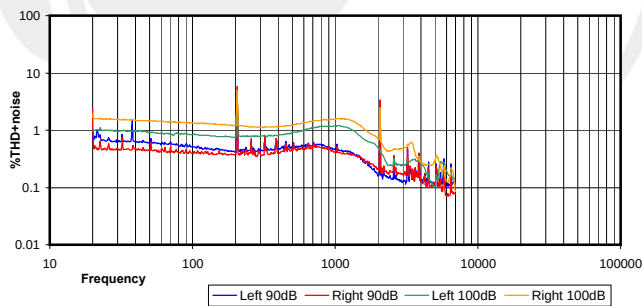
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



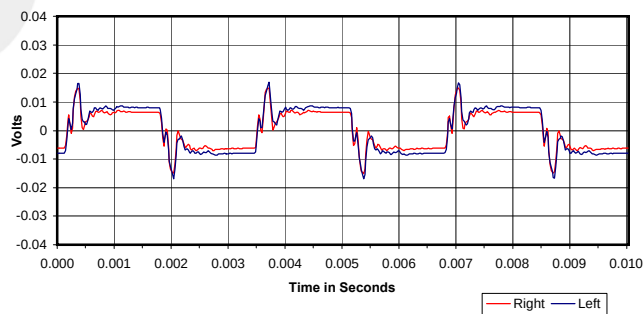
30 Hz Square Wave



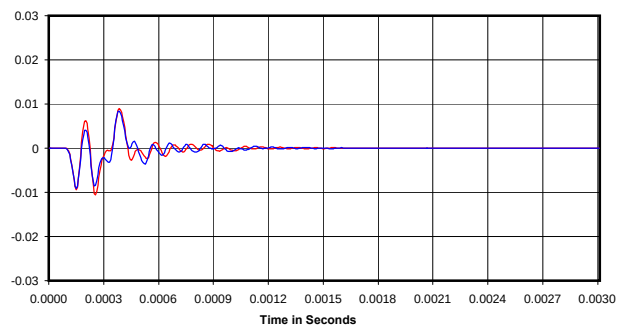
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



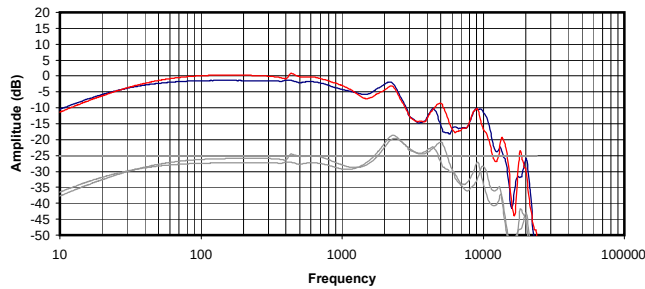
Impulse Response



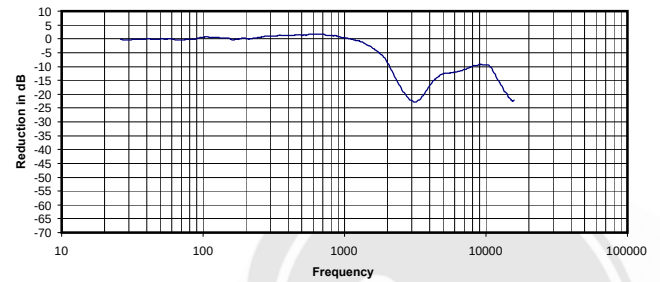
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.023 Vrms
54 Ohms
0.01 mW
-30 dB

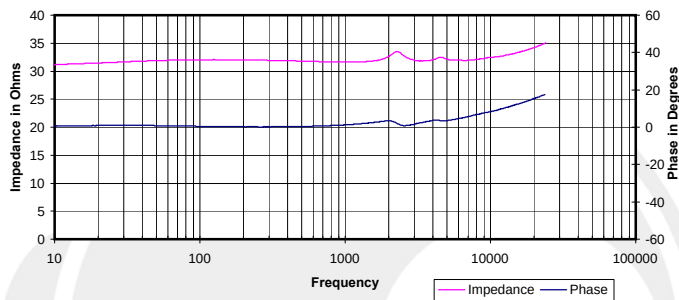
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



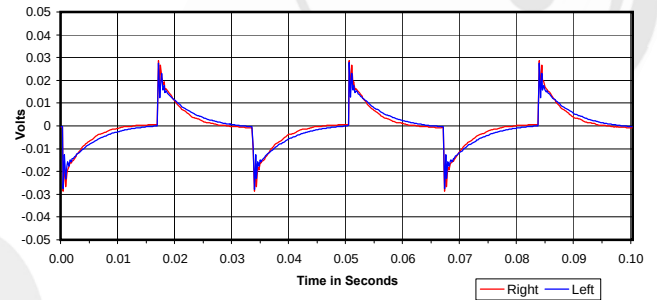
Isolation
Attenuation of External Sound vs. Frequency



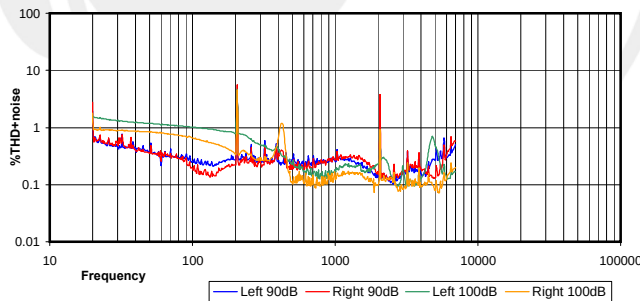
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



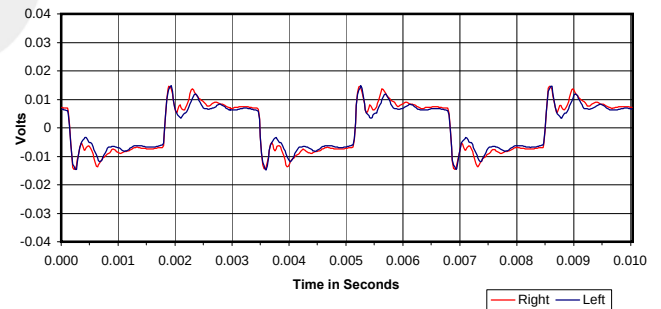
30 Hz Square Wave



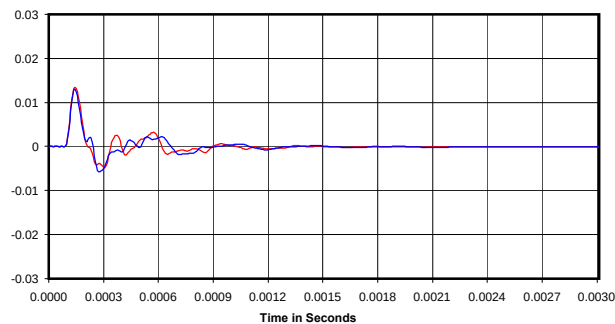
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



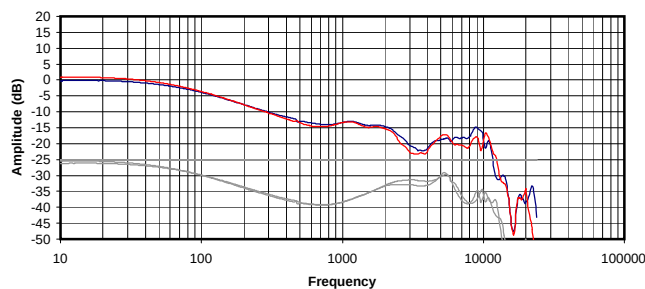
Impulse Response



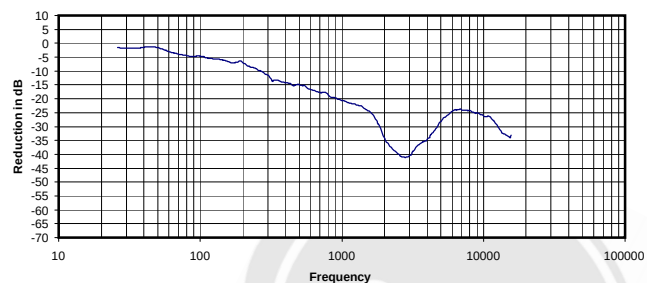
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.034 Vrms
32 Ohms
0.04 mW
-4 dBr

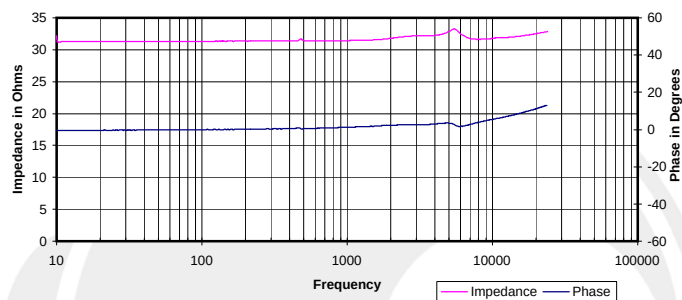
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



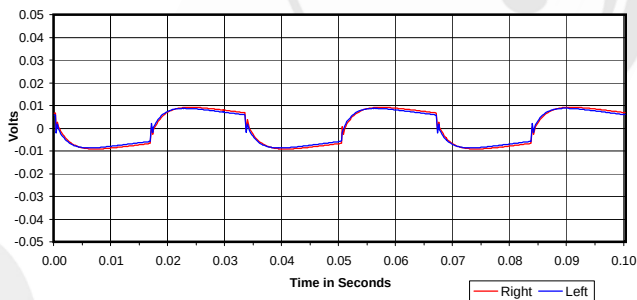
Isolation
Attenuation of External Sound vs. Frequency



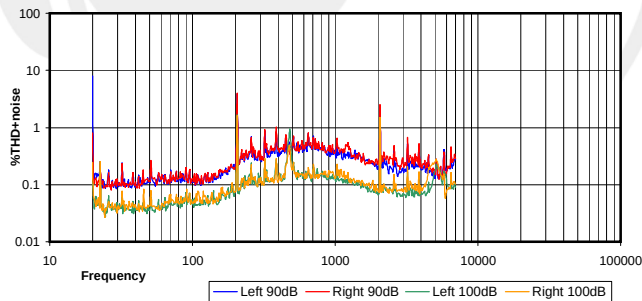
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



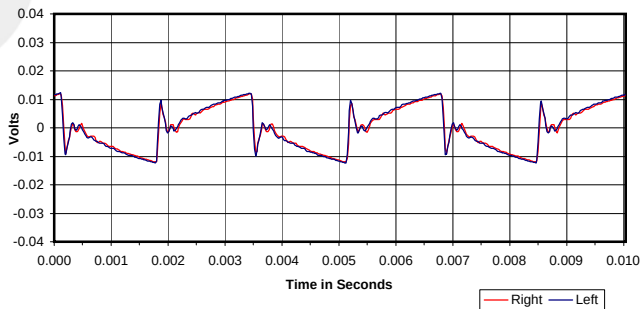
30 Hz Square Wave



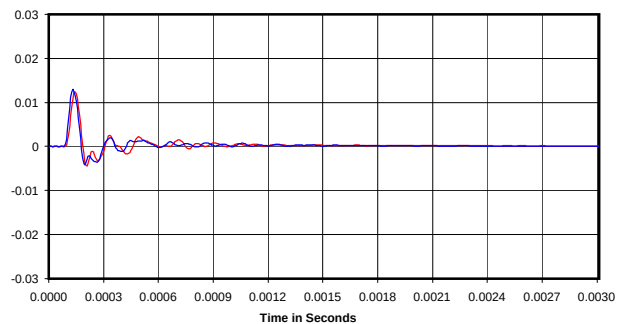
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



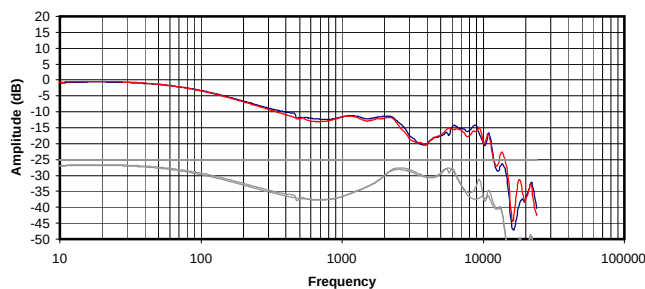
Impulse Response



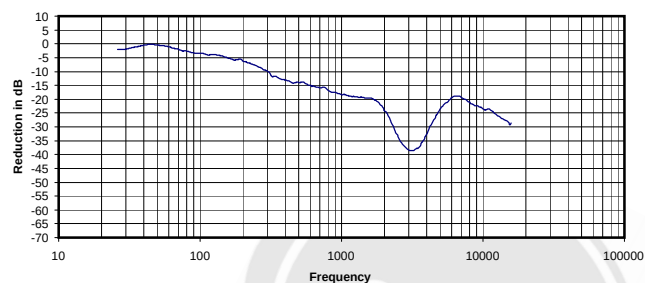
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.038 Vrms
31 Ohms
0.05 mW
-20 dBr

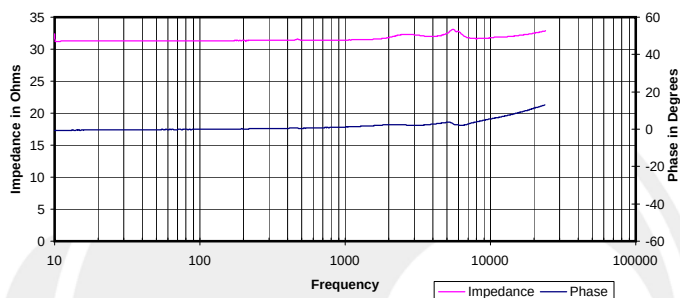
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



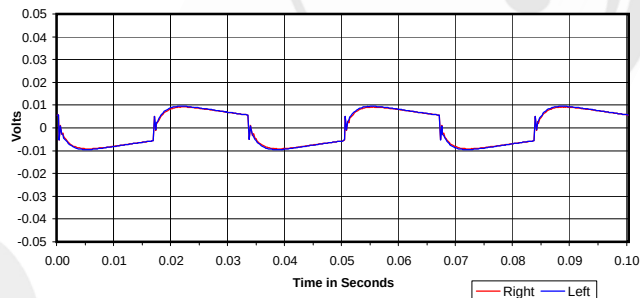
Isolation
Attenuation of External Sound vs. Frequency



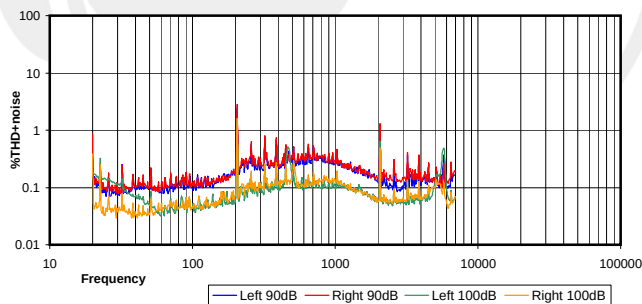
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



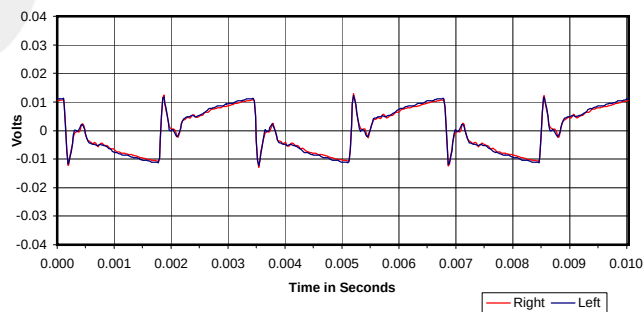
30 Hz Square Wave



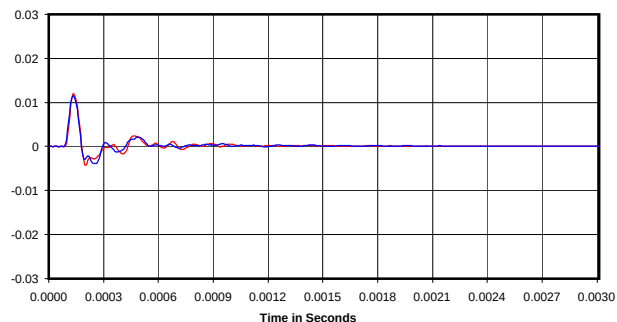
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



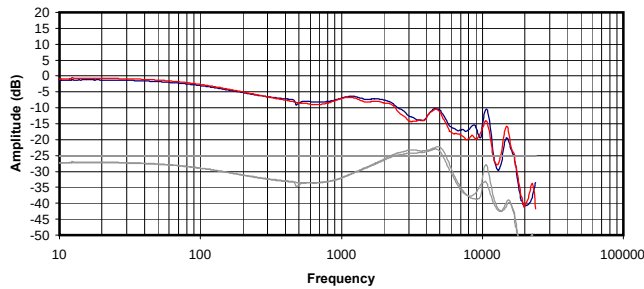
Impulse Response



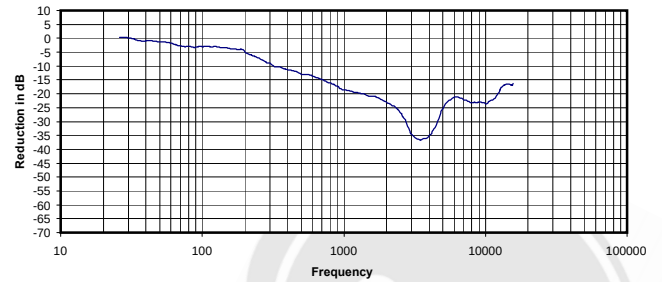
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.036 Vrms
31 Ohms
0.04 mW
-17 dBr

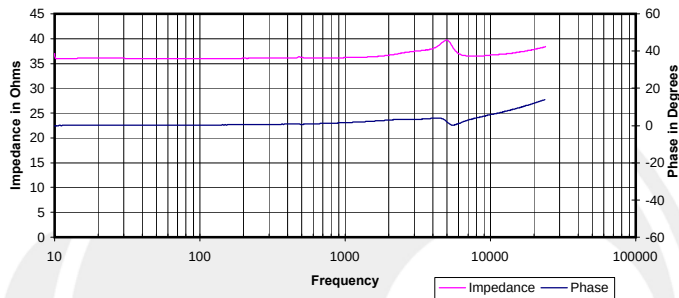
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



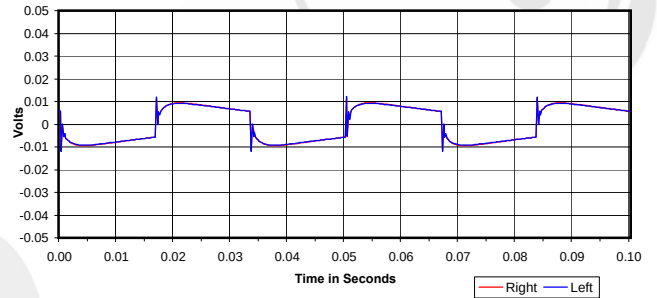
Isolation
Attenuation of External Sound vs. Frequency



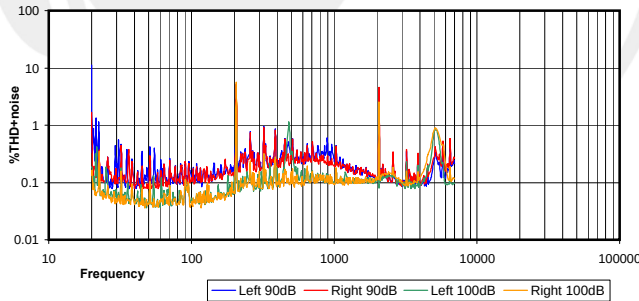
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



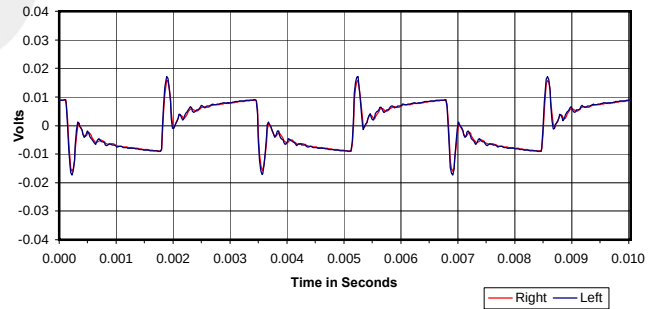
30 Hz Square Wave



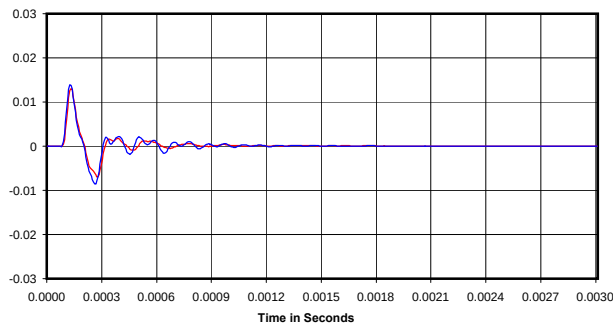
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



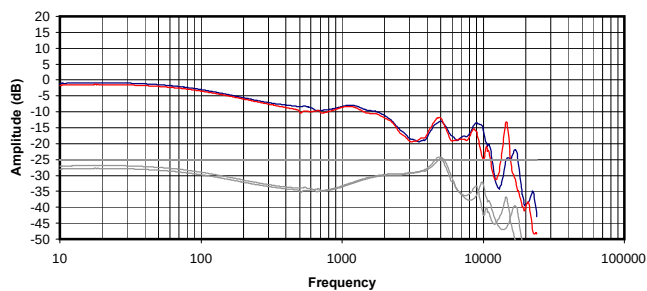
Impulse Response



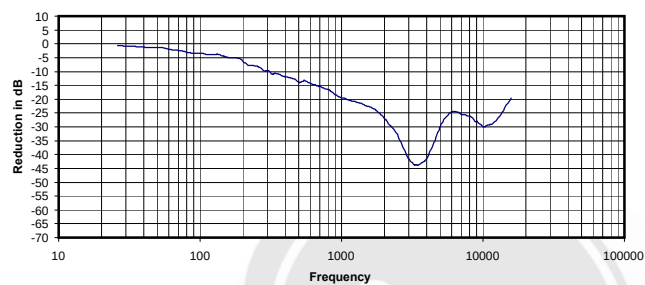
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.039 Vrms
36 Ohms
0.04 mW
-16 dB

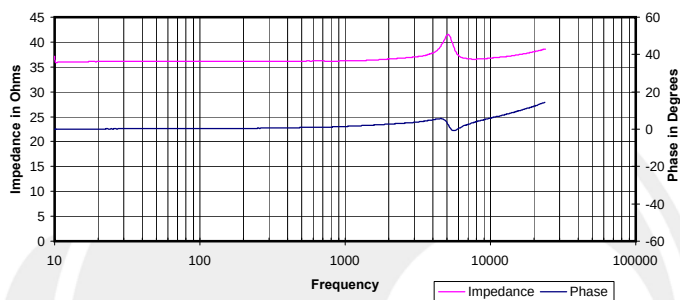
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



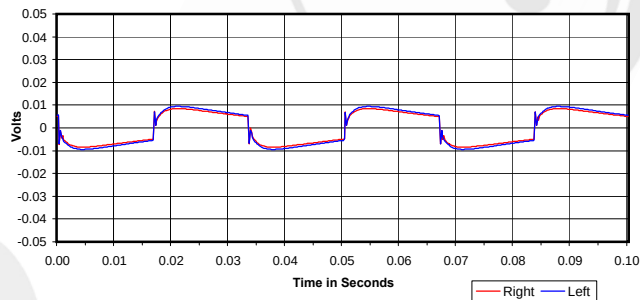
Isolation
Attenuation of External Sound vs. Frequency



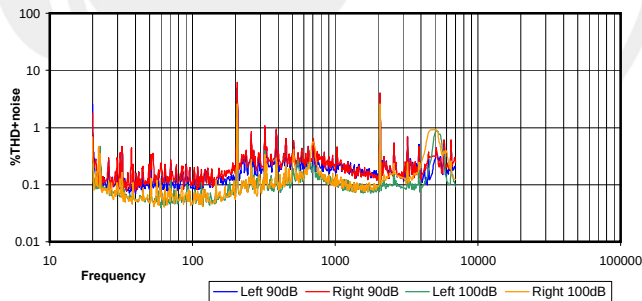
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



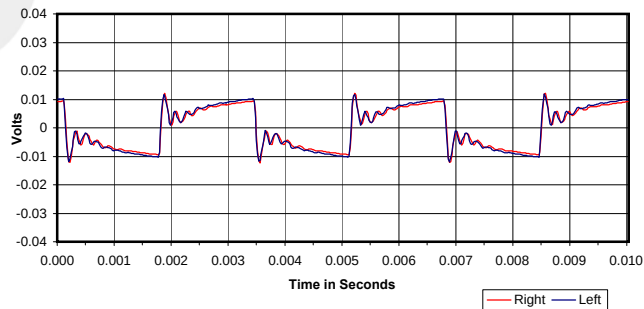
30 Hz Square Wave



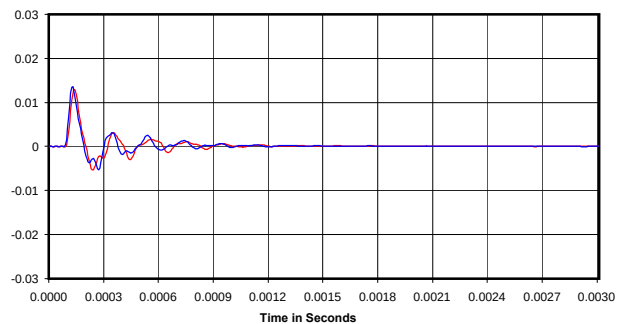
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



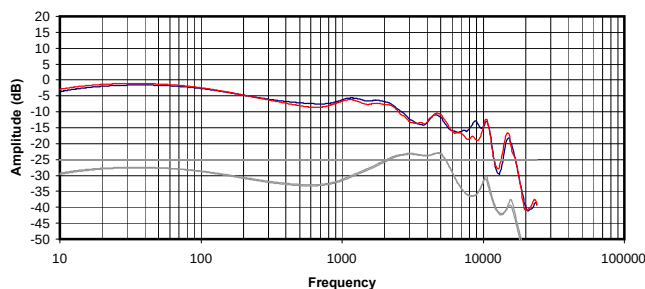
Impulse Response



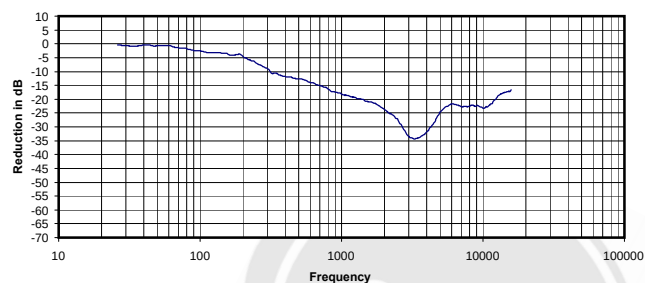
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.046 Vrms
36 Ohms
0.06 mW
-19 dBr

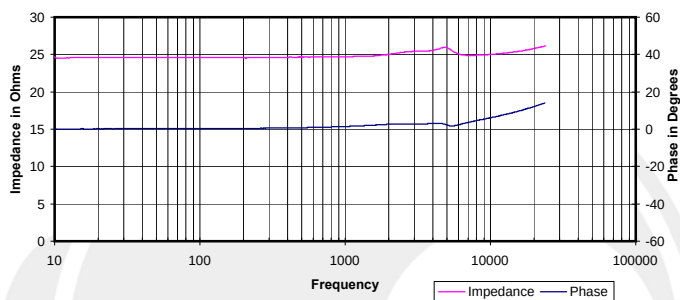
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



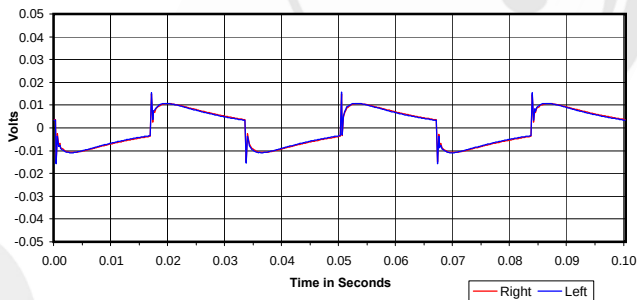
Isolation
Attenuation of External Sound vs. Frequency



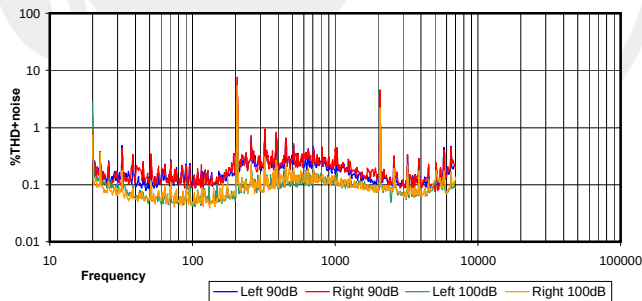
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



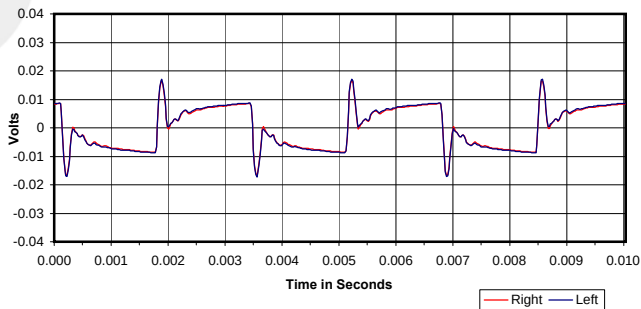
30 Hz Square Wave



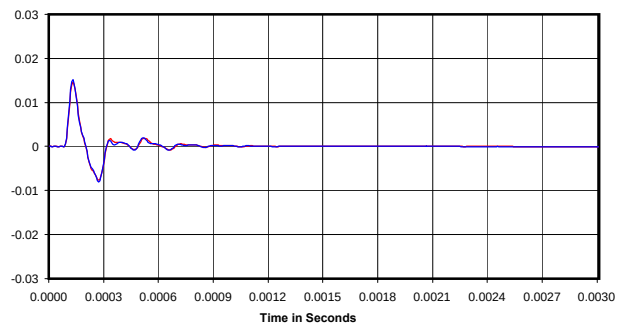
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



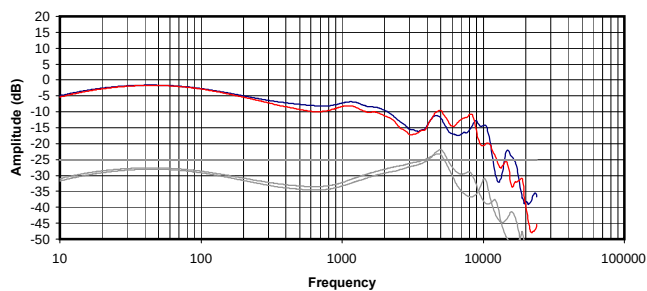
Impulse Response



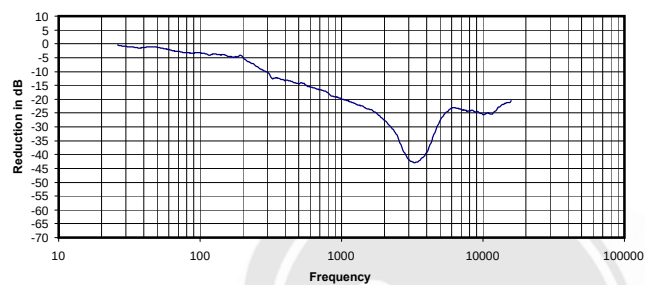
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.034 Vrms
25 Ohms
0.05 mW
-16 dBr

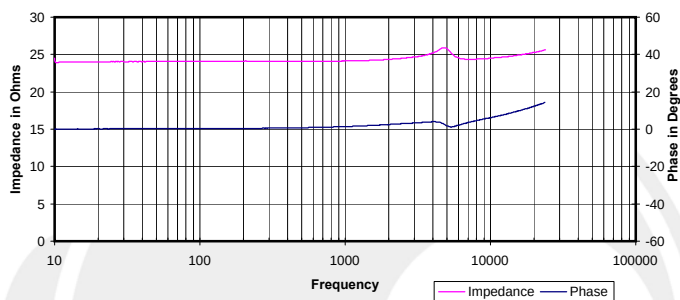
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



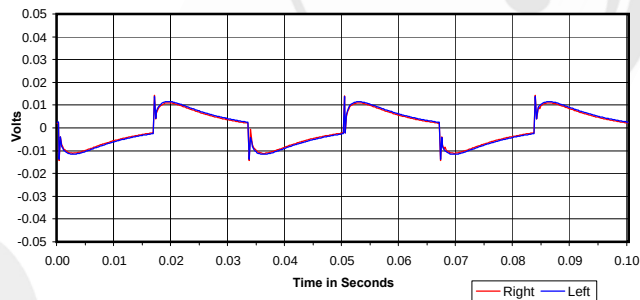
Isolation
Attenuation of External Sound vs. Frequency



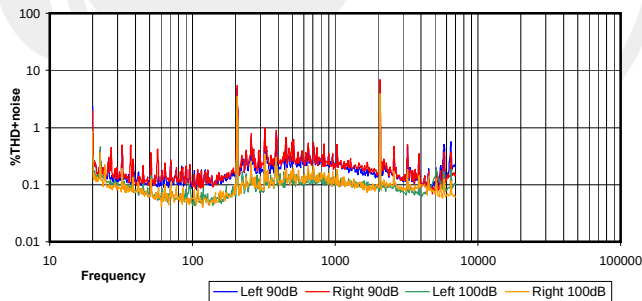
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



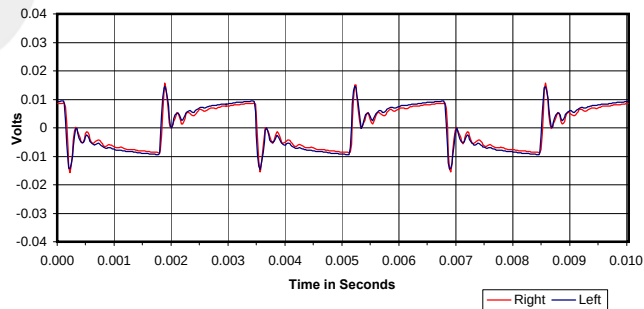
30 Hz Square Wave



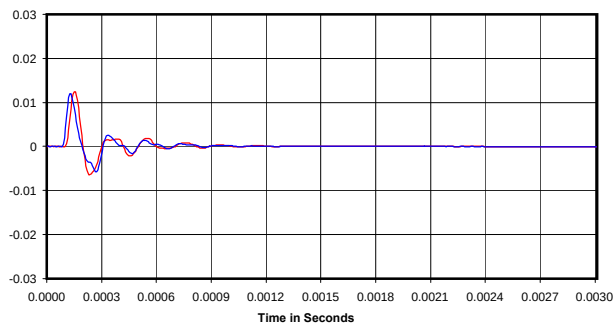
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



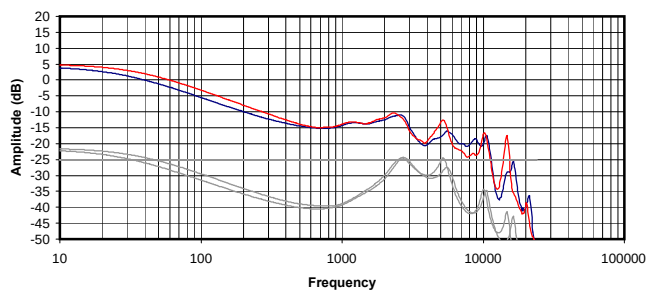
Impulse Response



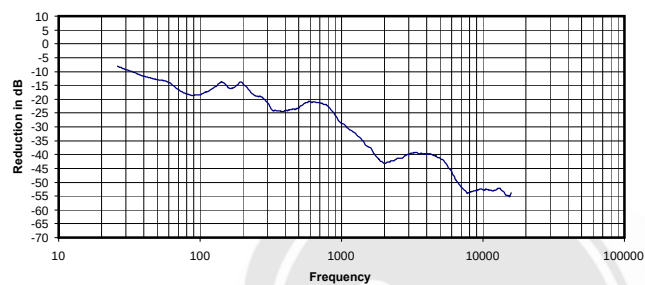
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.044 Vrms
24 Ohms
0.08 mW
-19 dBr

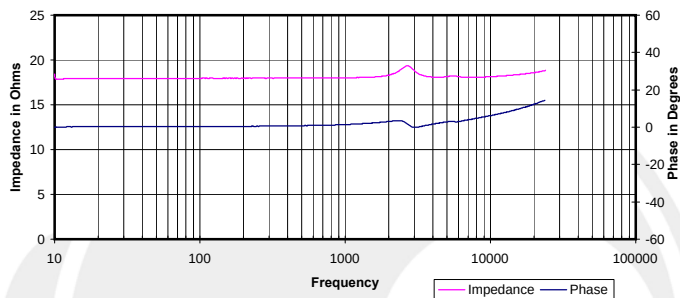
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



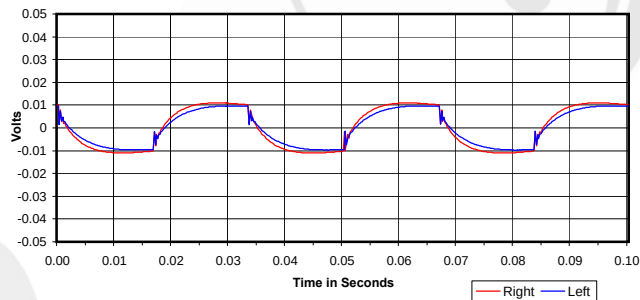
Isolation
Attenuation of External Sound vs. Frequency



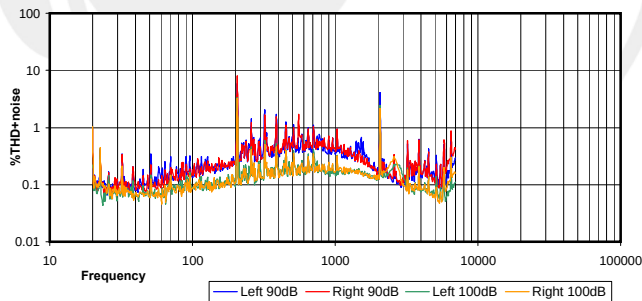
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



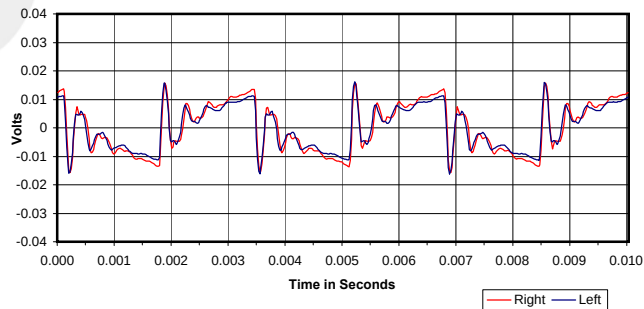
30 Hz Square Wave



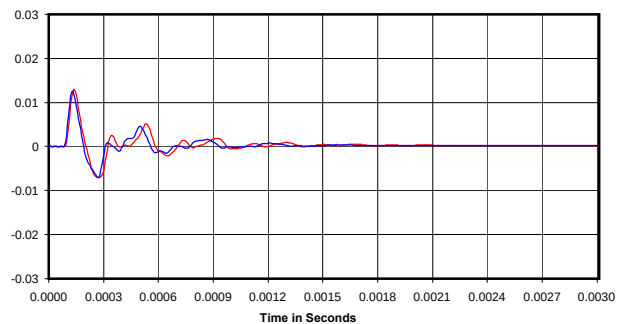
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



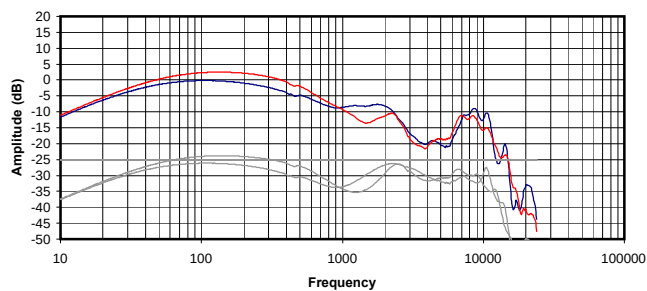
Impulse Response



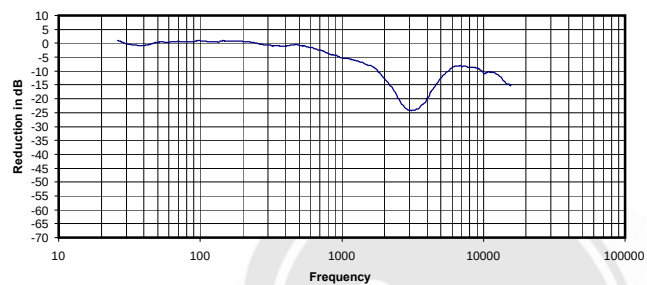
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.038 Vrms
18 Ohms
0.08 mW
-28 dBr

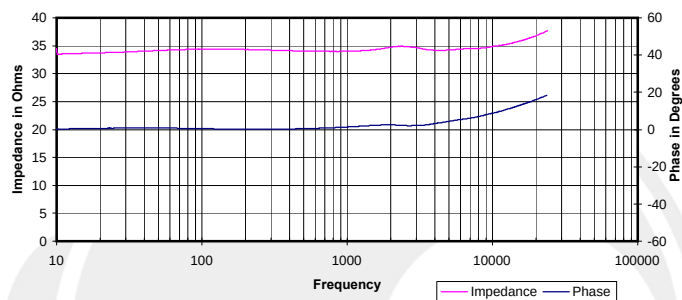
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



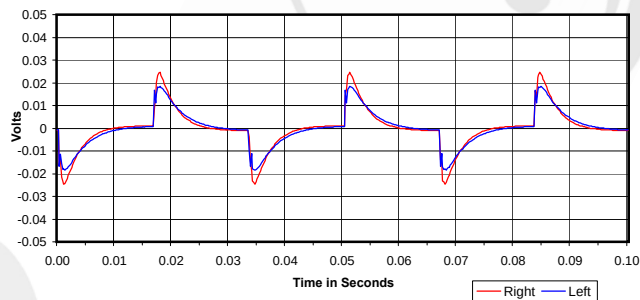
Isolation
Attenuation of External Sound vs. Frequency



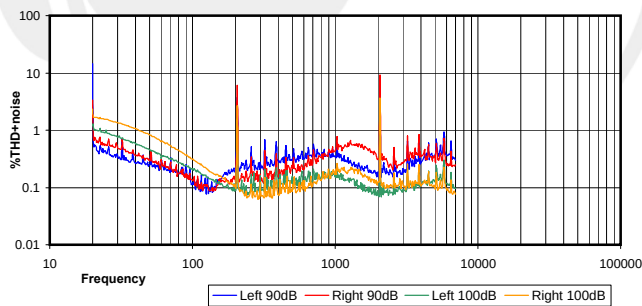
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



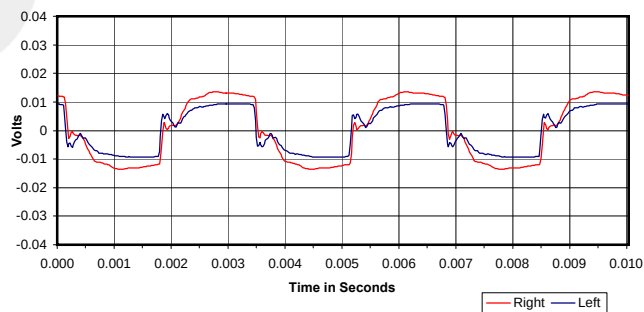
30 Hz Square Wave



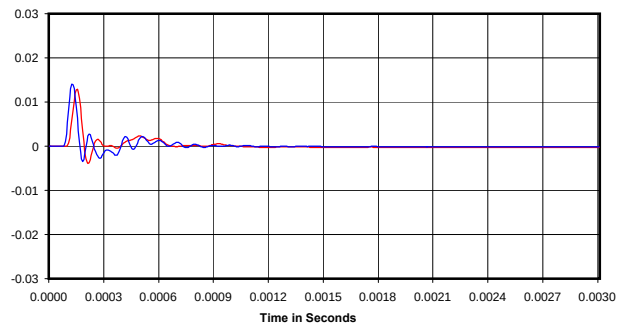
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



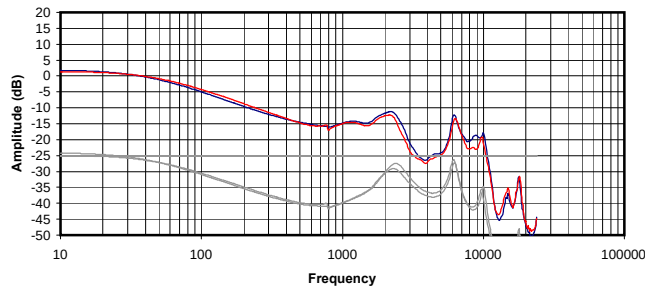
Impulse Response



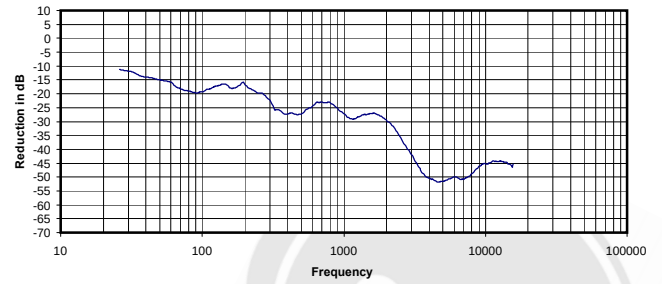
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.047 Vrms
34 Ohms
0.07 mW
-6 dBr

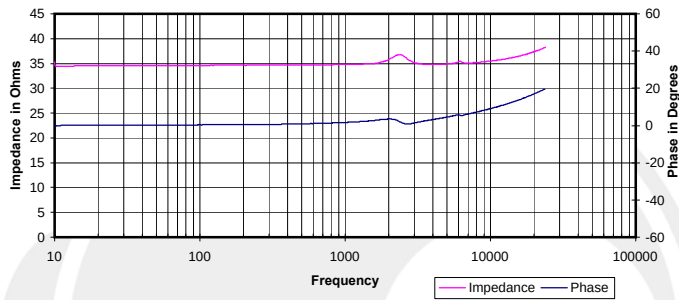
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



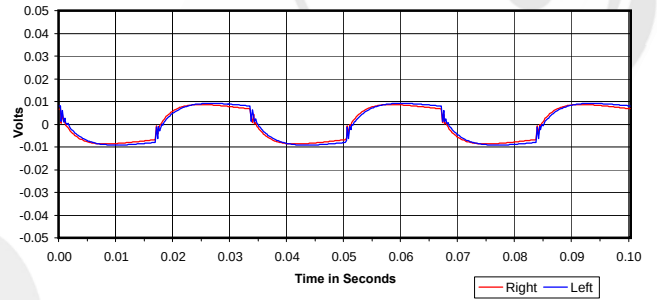
Isolation
Attenuation of External Sound vs. Frequency



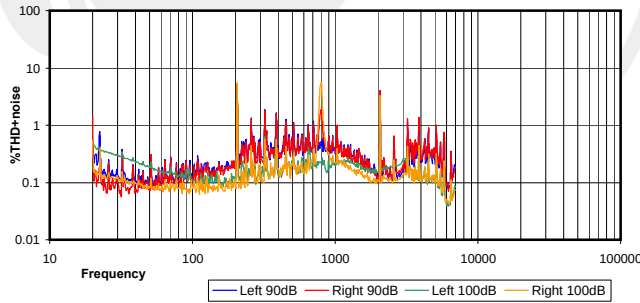
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



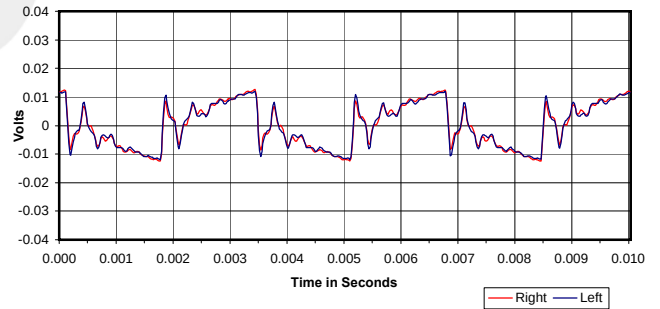
30 Hz Square Wave



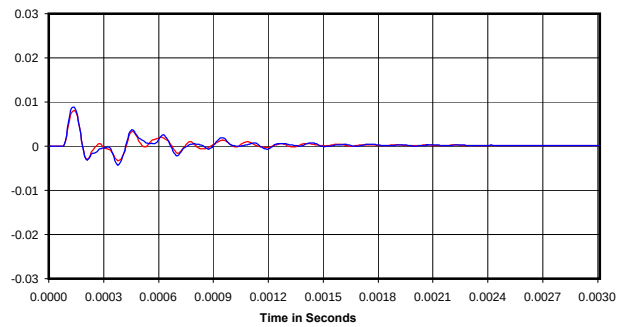
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



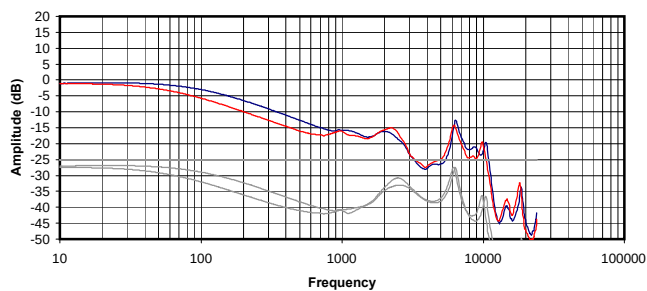
Impulse Response



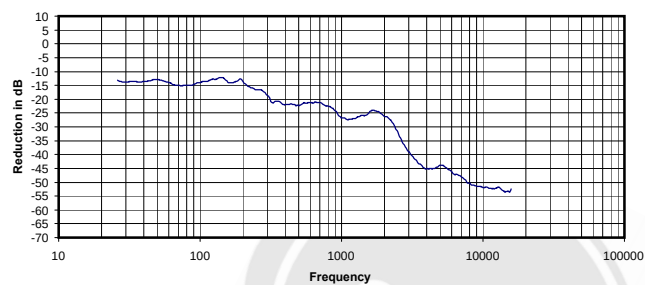
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.057 Vrms
35 Ohms
0.09 mW
-29 dBr

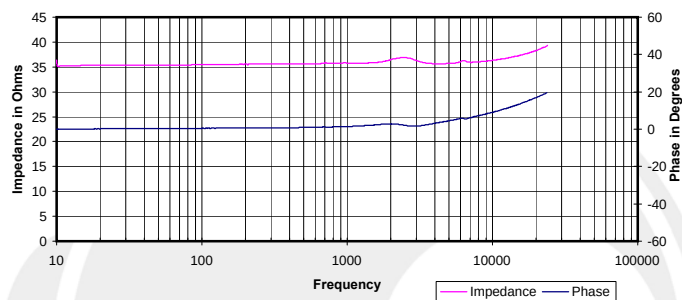
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



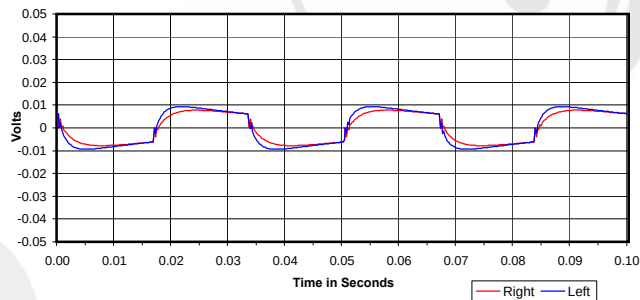
Isolation
Attenuation of External Sound vs. Frequency



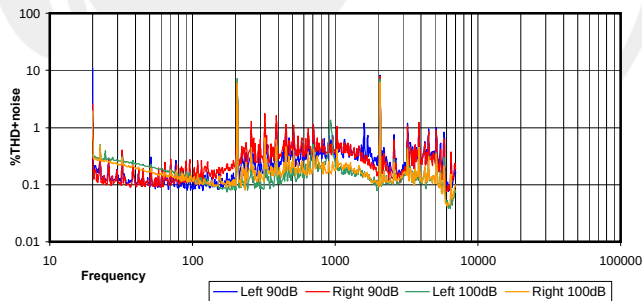
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



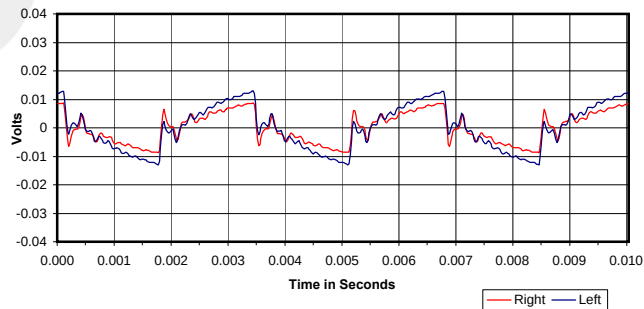
30 Hz Square Wave



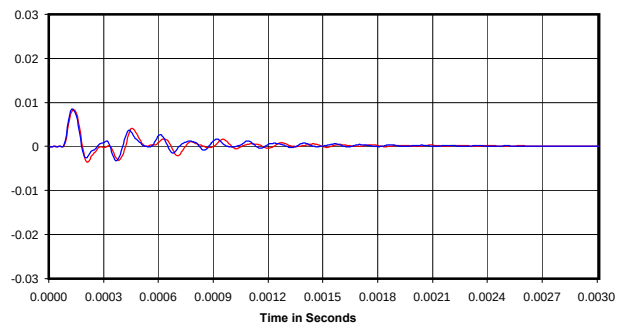
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



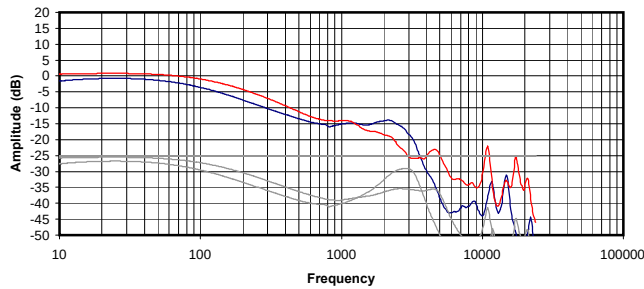
Impulse Response



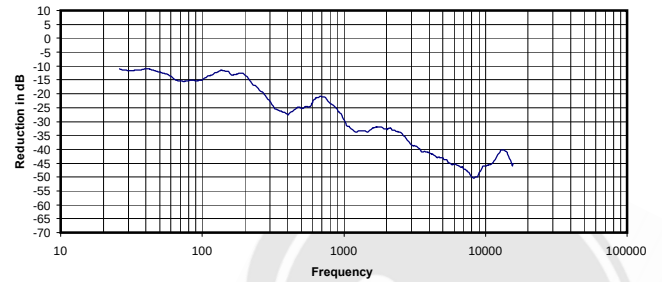
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.050 Vrms
36 Ohms
0.07 mW
-25 dBr

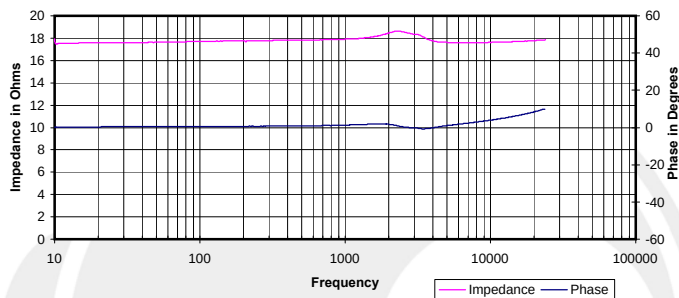
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



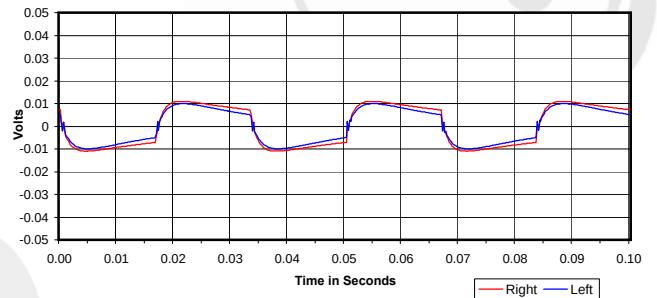
Isolation
Attenuation of External Sound vs. Frequency



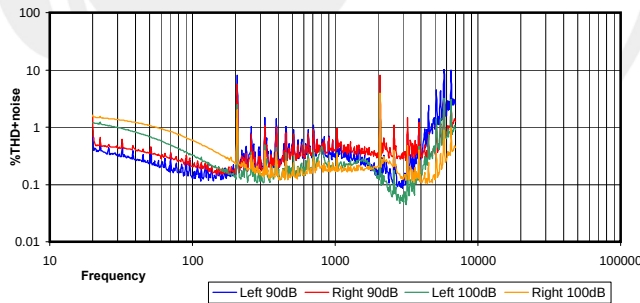
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



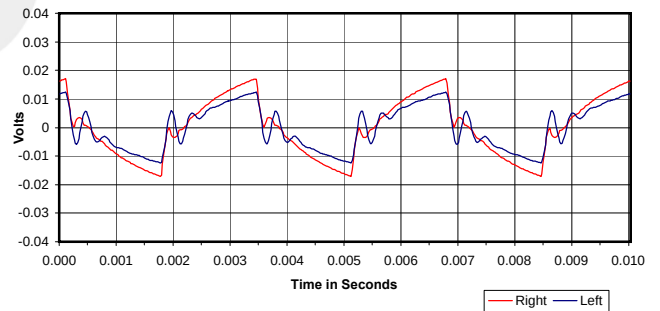
30 Hz Square Wave



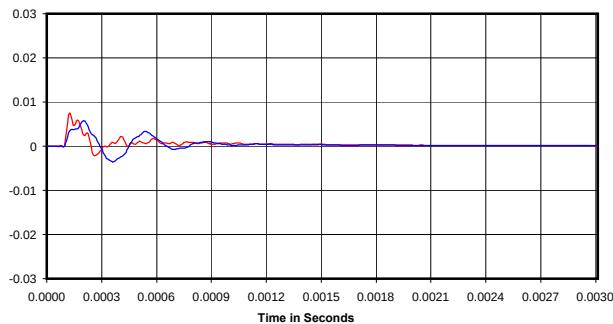
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



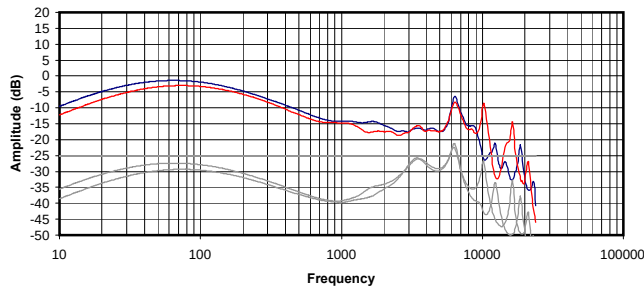
Impulse Response



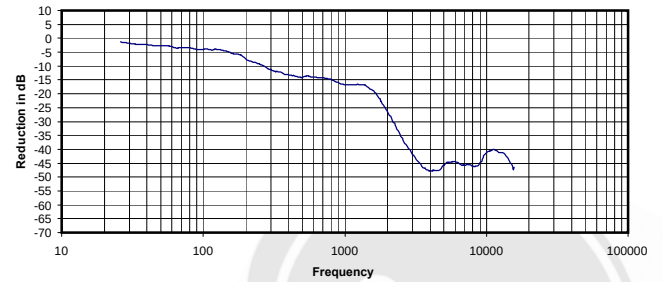
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.032 Vrms
18 Ohms
0.06 mW
-27 dBr

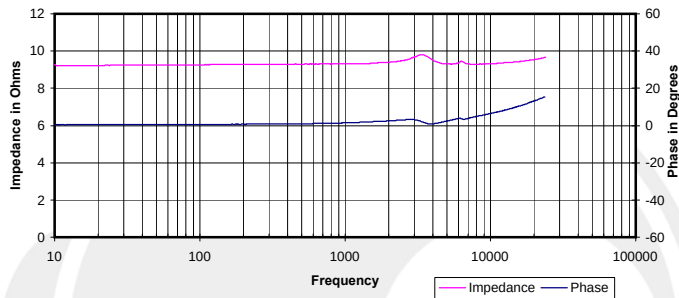
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



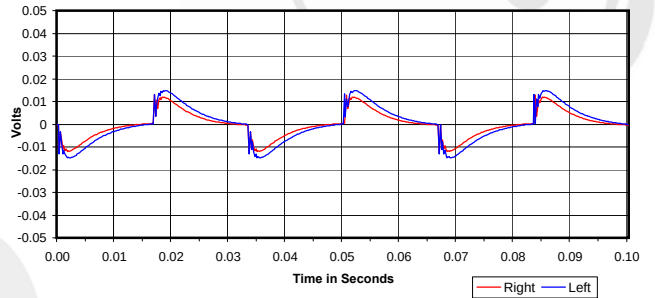
Isolation
Attenuation of External Sound vs. Frequency



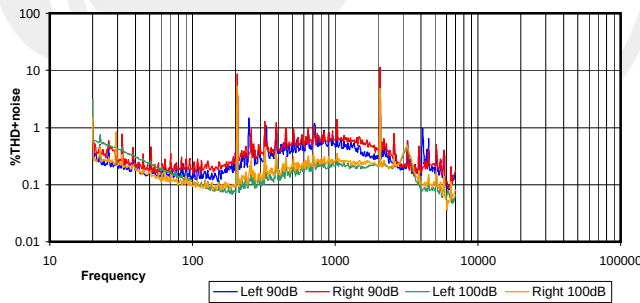
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



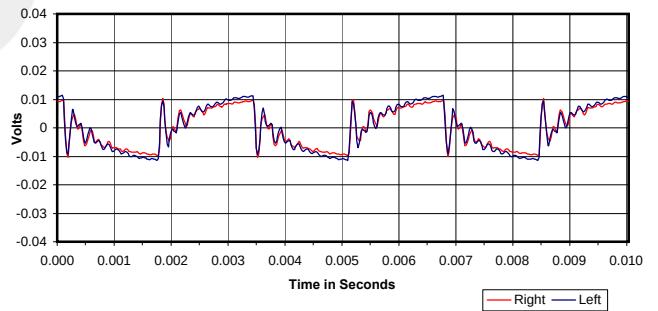
30 Hz Square Wave



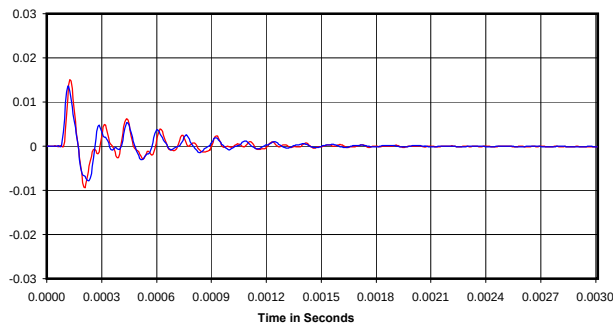
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



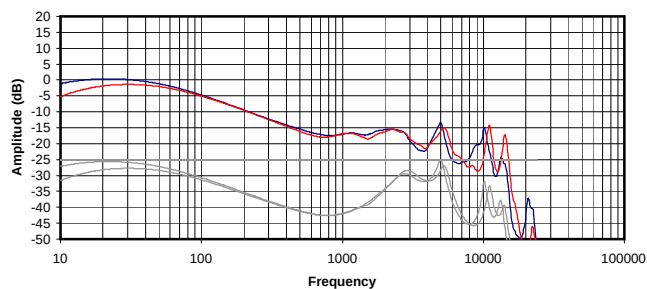
Impulse Response



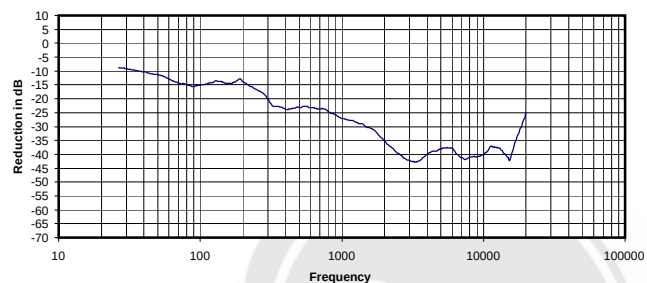
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.032 Vrms
9 Ohms
0.11 mW
-20 dBr

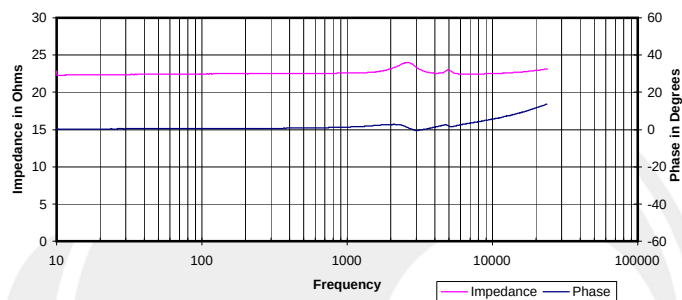
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



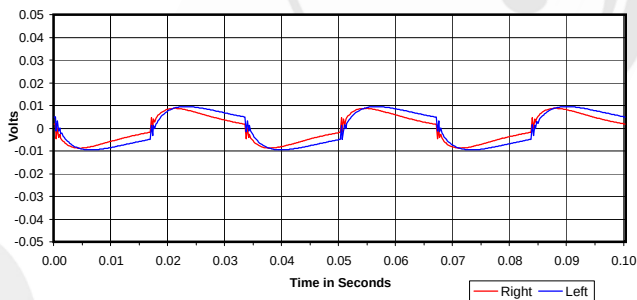
Isolation
Attenuation of External Sound vs. Frequency



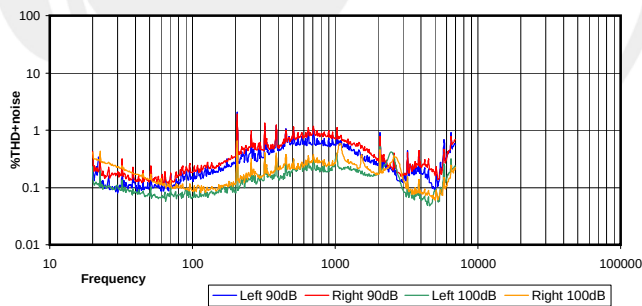
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



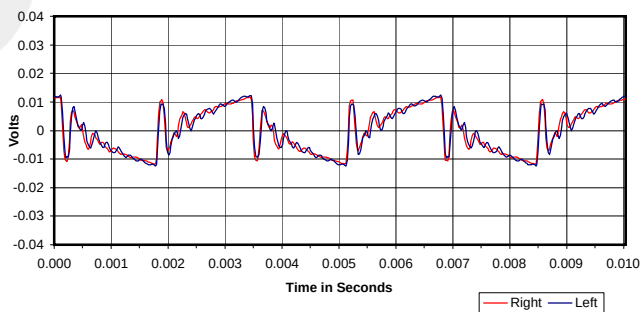
30 Hz Square Wave



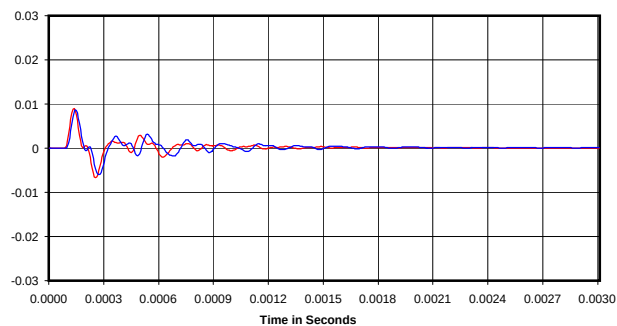
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

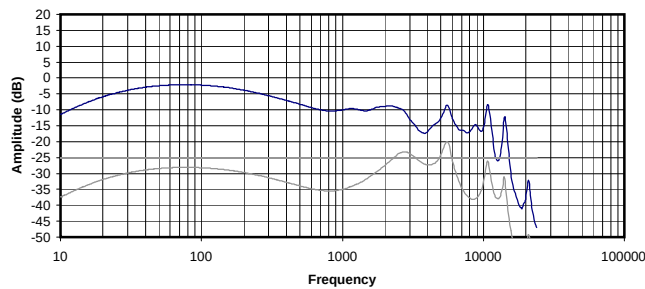
0.042 Vrms
23 Ohms
0.08 mW
-28 dBr



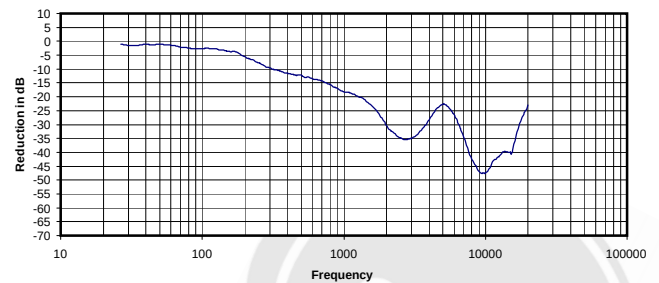
Headphone Measurements:

Rock Jaw Alpha Genus Black Filter (Left Channel Only, black filter in right ear faulty)

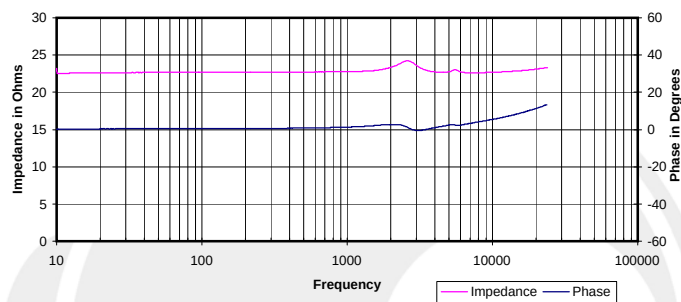
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



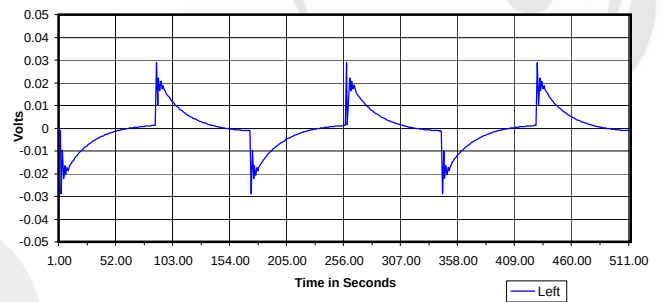
Isolation
Attenuation of External Sound vs. Frequency



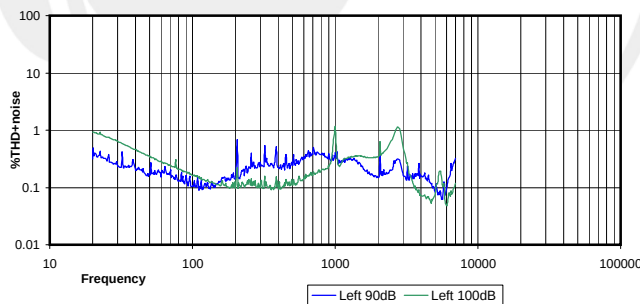
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



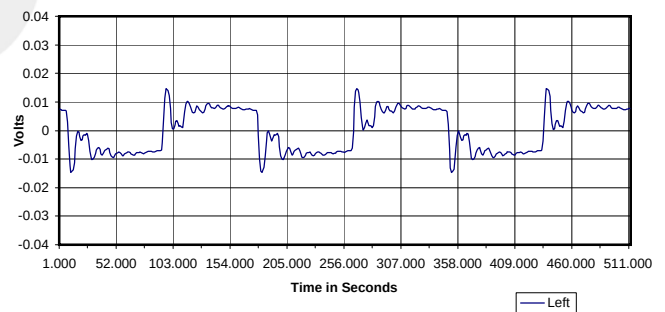
30 Hz Square Wave



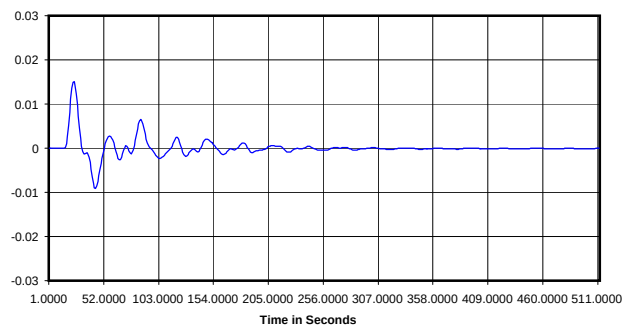
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



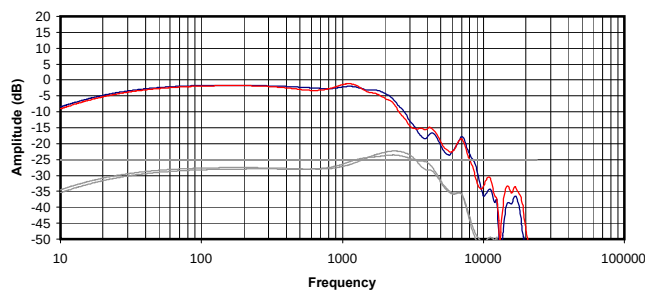
Impulse Response



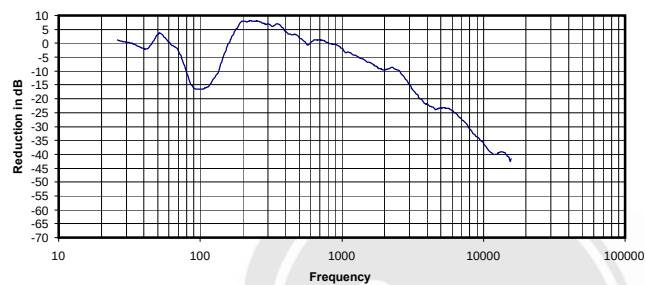
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.042 Vrms
23 Ohms
0.08 mW
-20 dBr

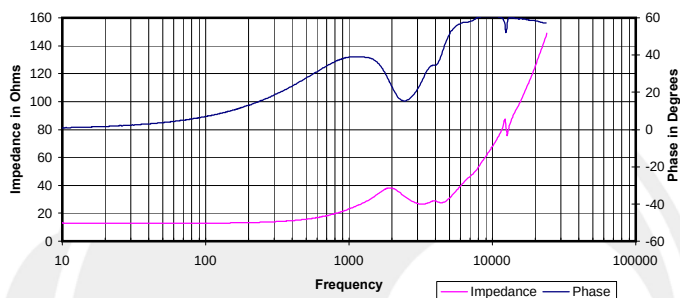
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



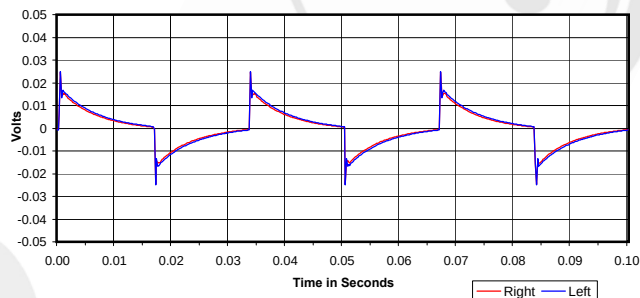
Isolation
Attenuation of External Sound vs. Frequency



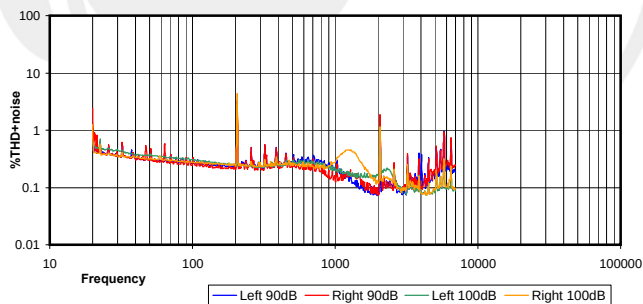
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



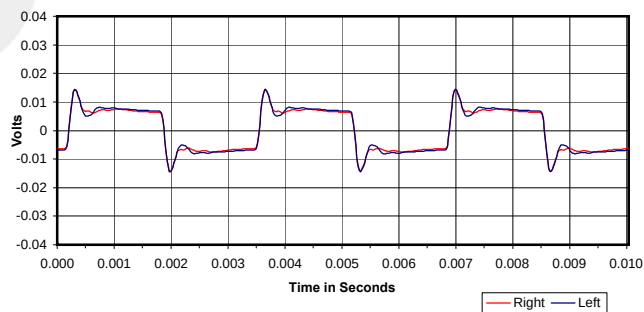
30 Hz Square Wave



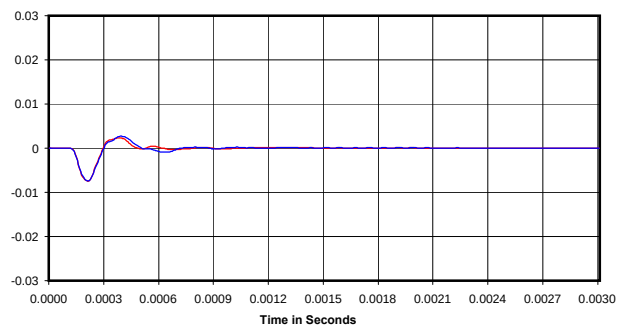
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



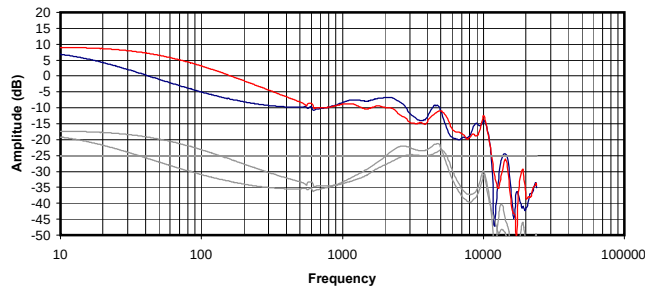
Impulse Response



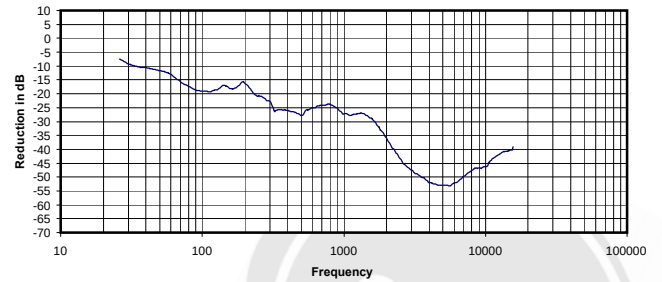
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.011 Vrms
23 Ohms
0.00 mW
-6 dBr

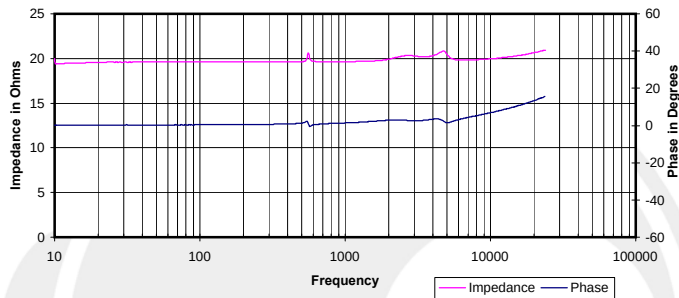
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



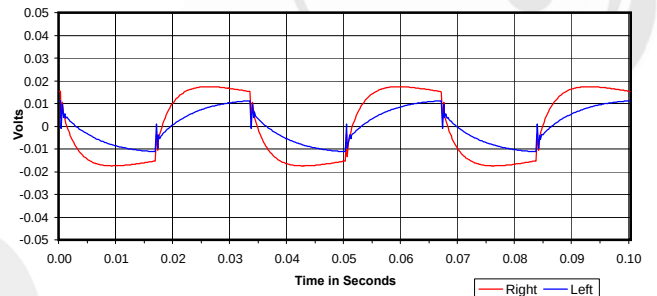
Isolation
Attenuation of External Sound vs. Frequency



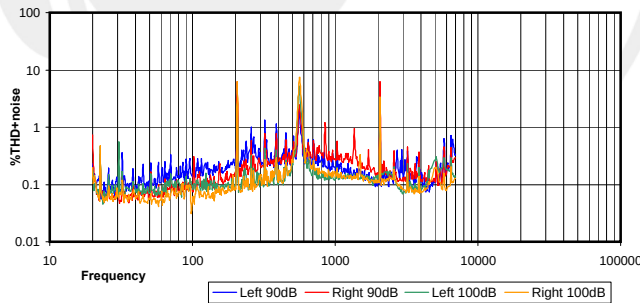
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



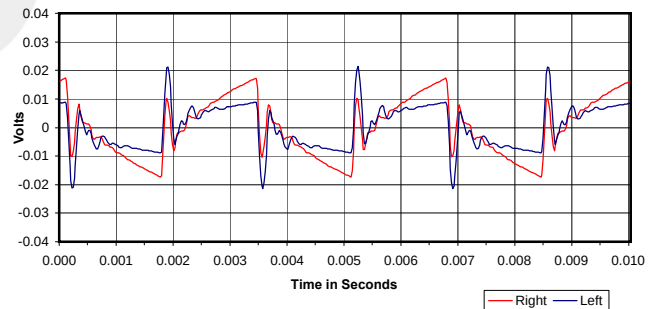
30 Hz Square Wave



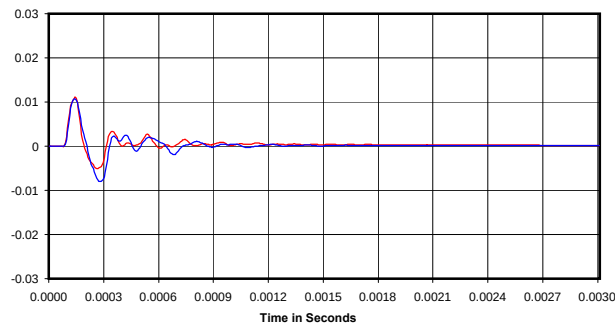
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



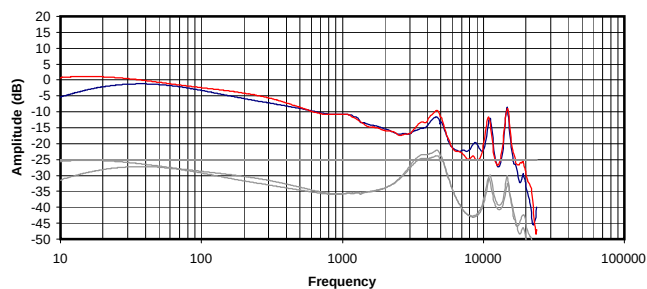
Impulse Response



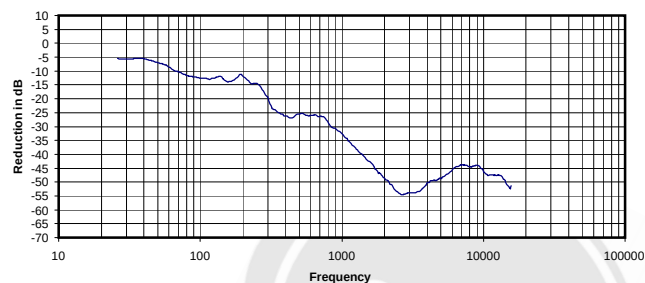
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.031 Vrms
20 Ohms
0.05 mW
-31 dB

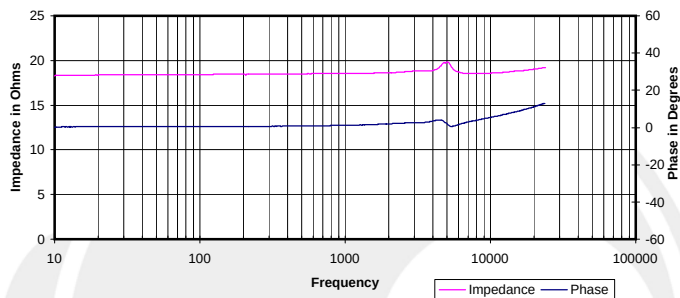
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



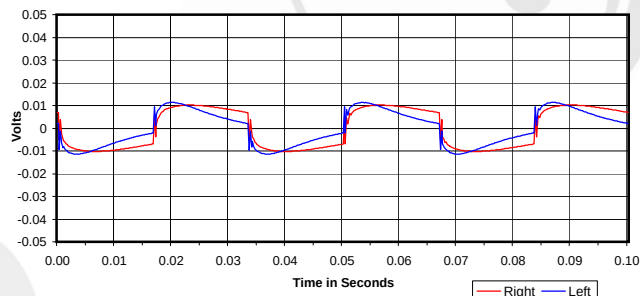
Isolation
Attenuation of External Sound vs. Frequency



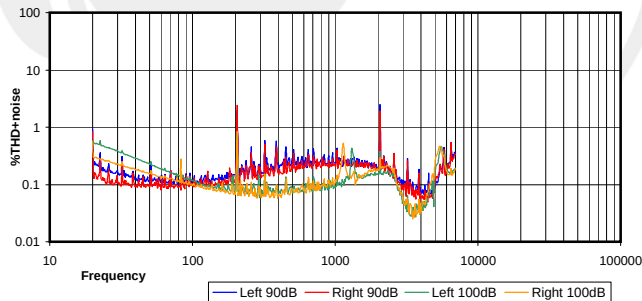
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



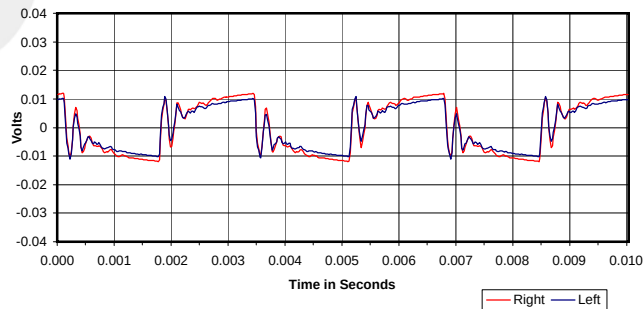
30 Hz Square Wave



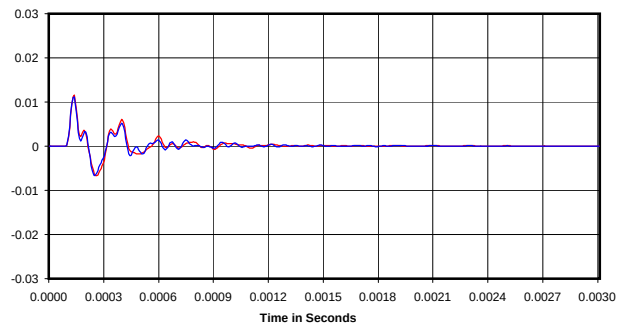
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



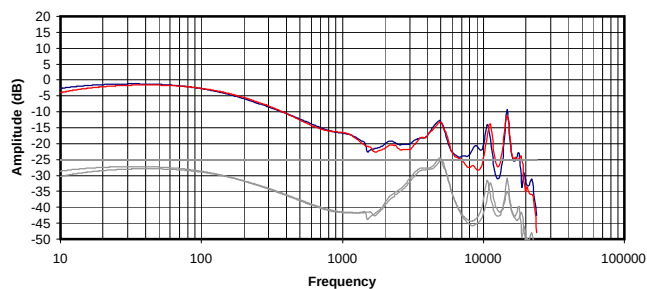
Impulse Response



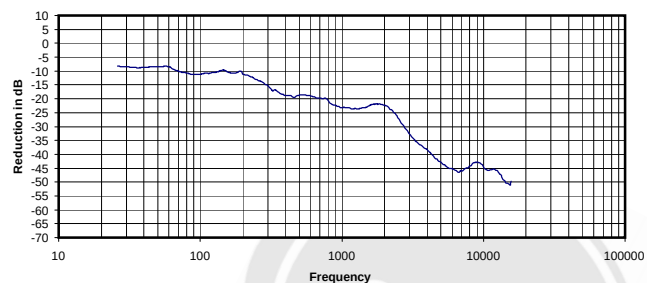
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.032 Vrms
19 Ohms
0.06 mW
-32 dB

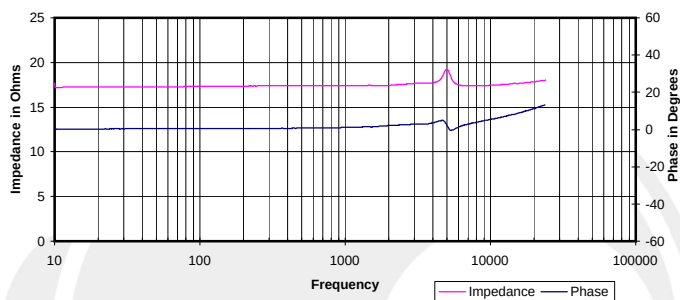
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



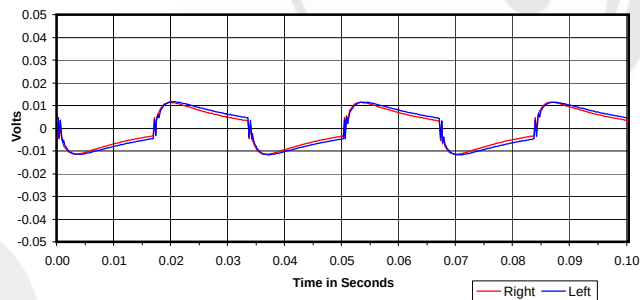
Isolation
Attenuation of External Sound vs. Frequency



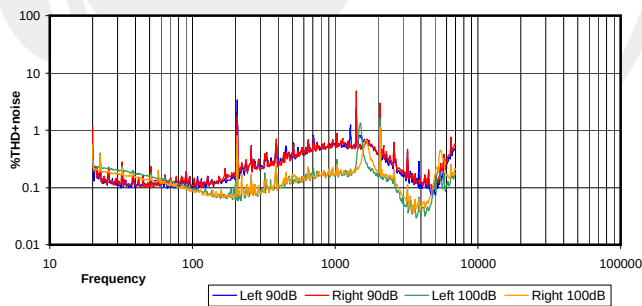
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



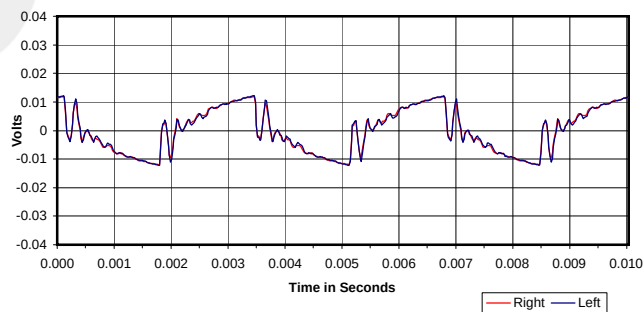
30 Hz Square Wave



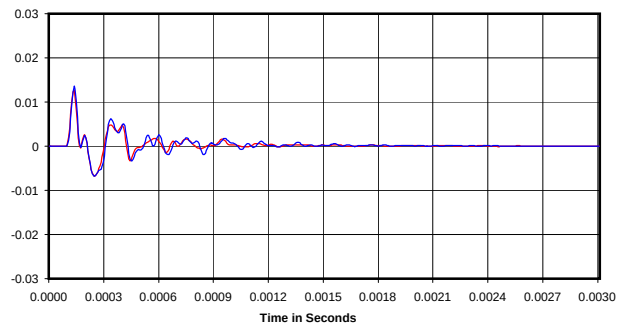
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



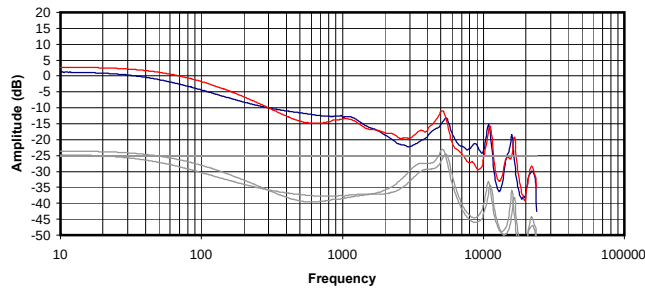
Impulse Response



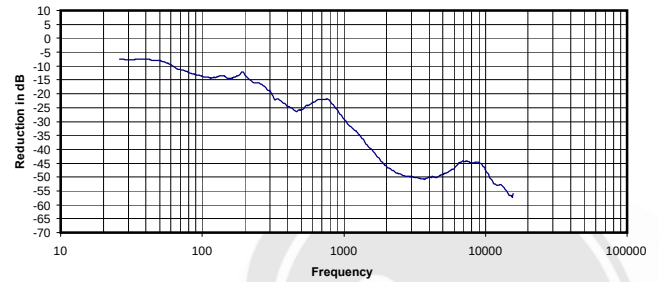
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.041 Vrms
17 Ohms
0.10 mW
-22 dBr

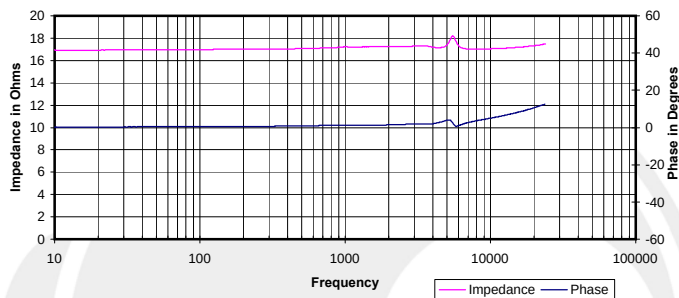
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



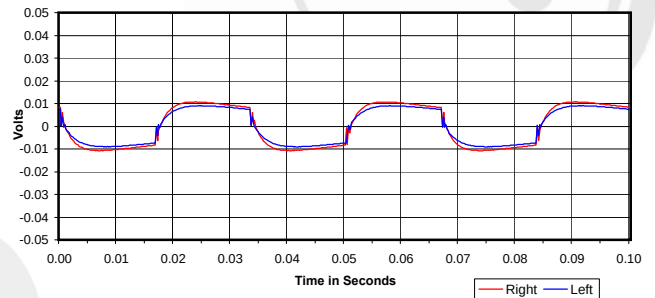
Isolation
Attenuation of External Sound vs. Frequency



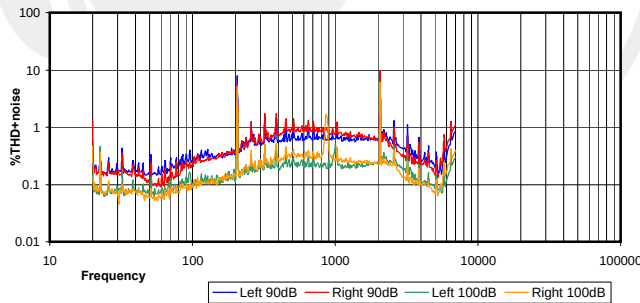
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



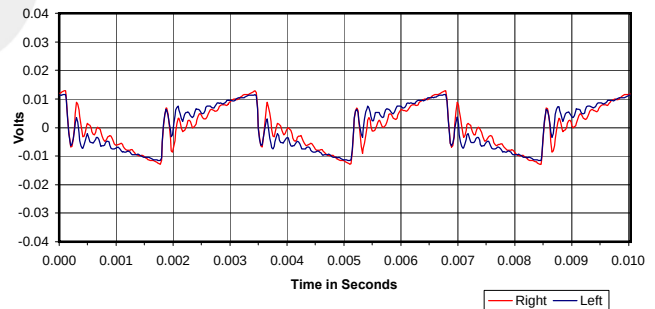
30 Hz Square Wave



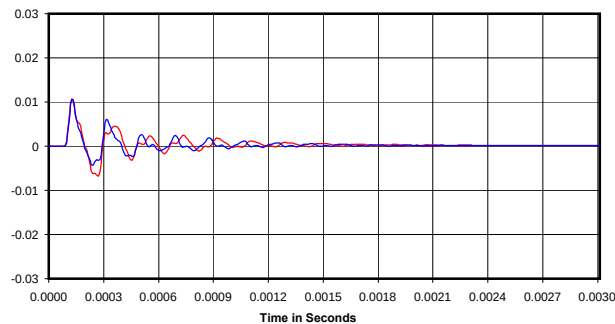
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



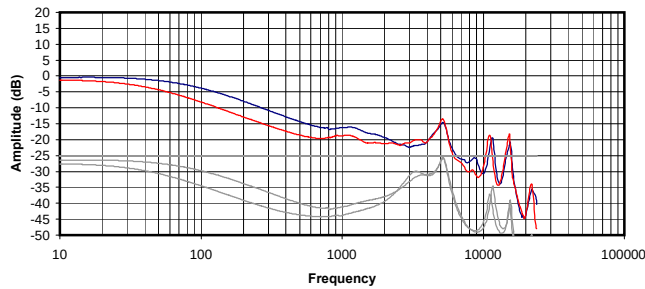
Impulse Response



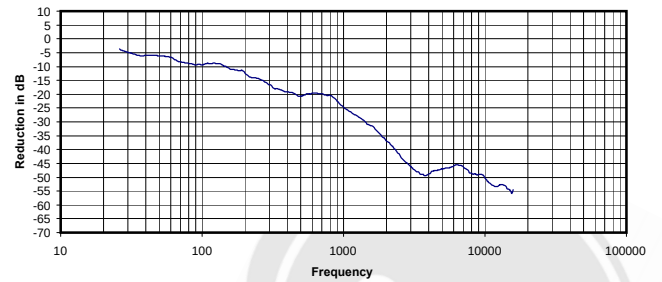
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.020 Vrms
17 Ohms
0.02 mW
-30 dBr

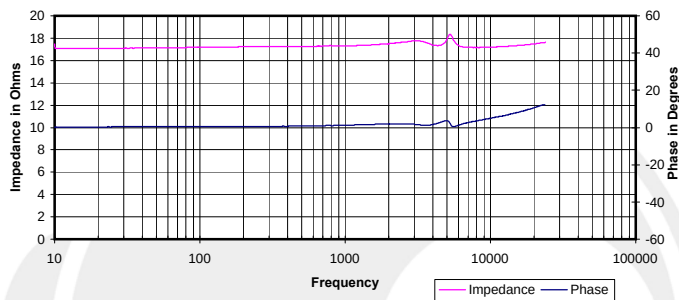
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



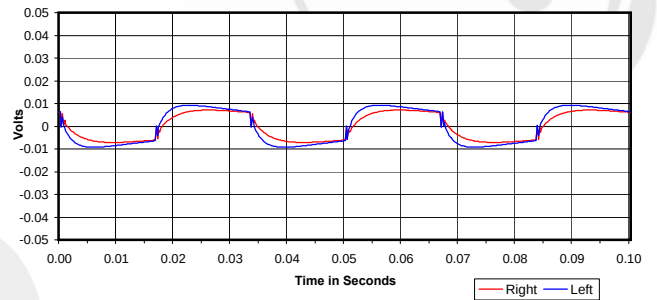
Isolation
Attenuation of External Sound vs. Frequency



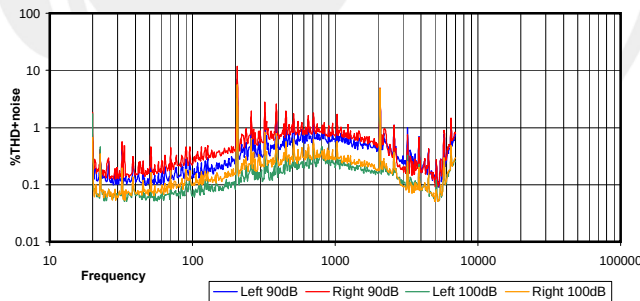
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



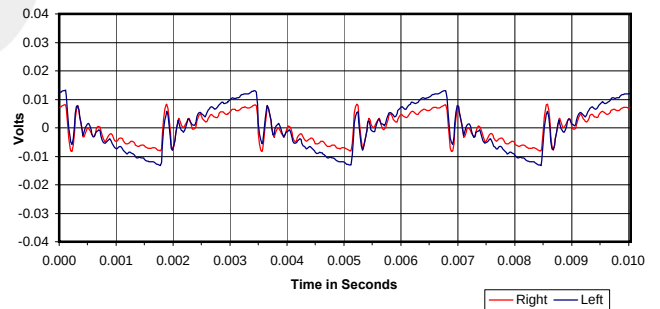
30 Hz Square Wave



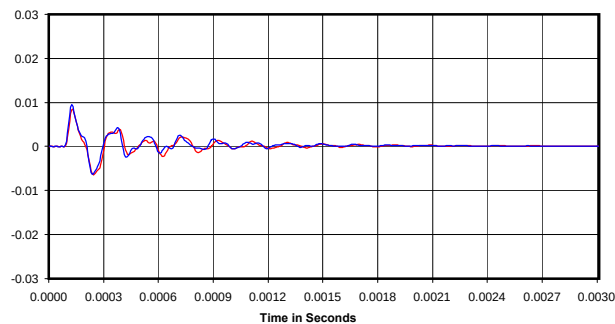
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



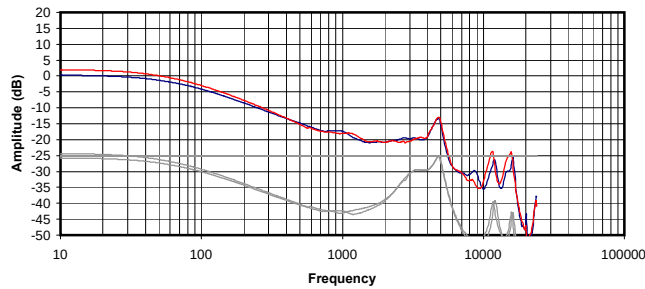
Impulse Response



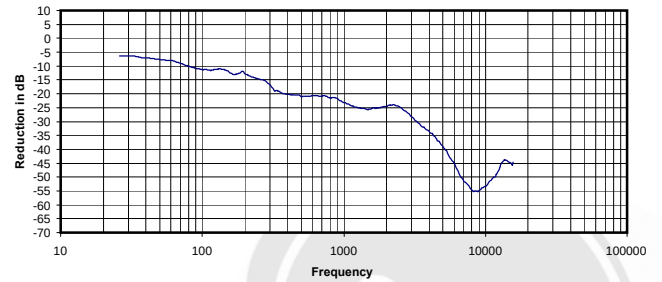
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.022 Vrms
17 Ohms
0.03 mW
-26 dBr

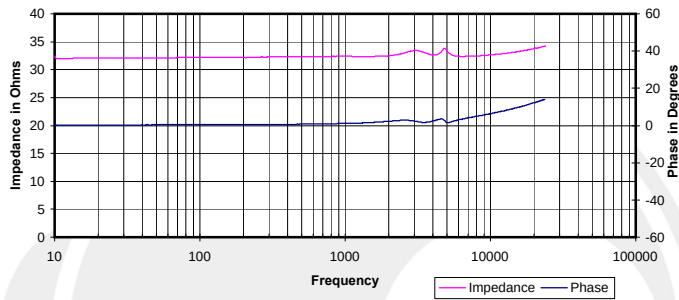
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



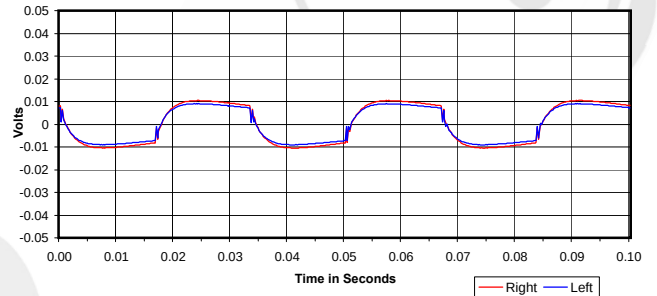
Isolation
Attenuation of External Sound vs. Frequency



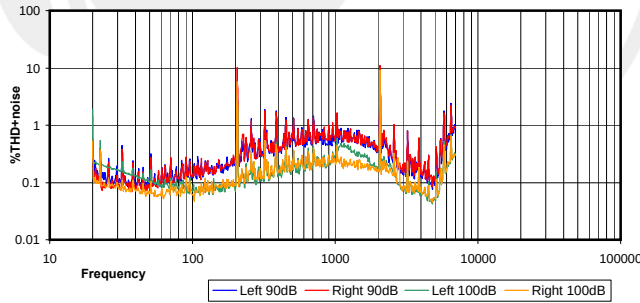
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



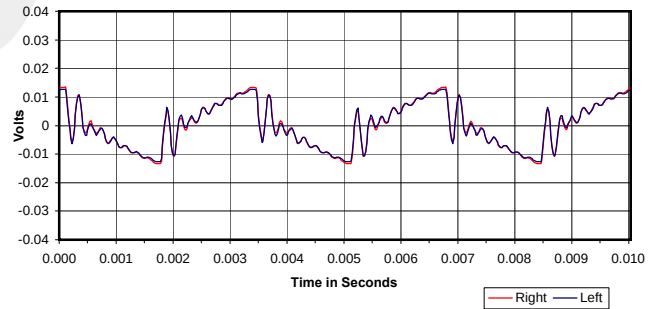
30 Hz Square Wave



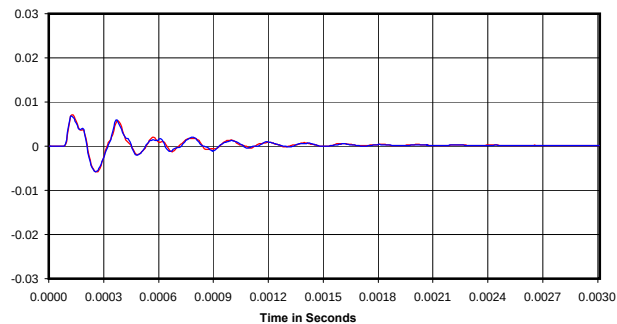
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



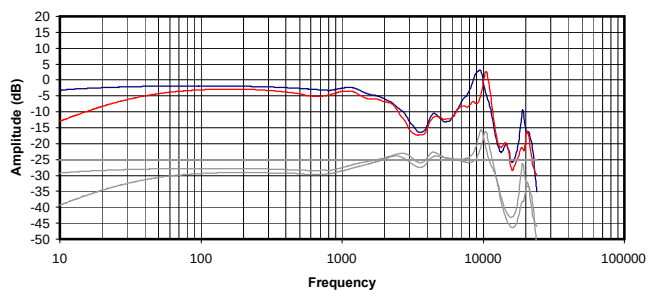
Impulse Response



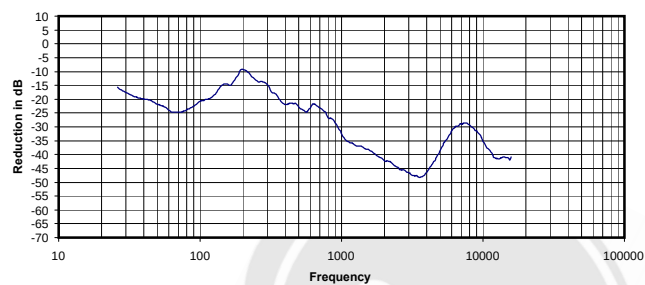
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.045 Vrms
32 Ohms
0.06 mW
-22 dB

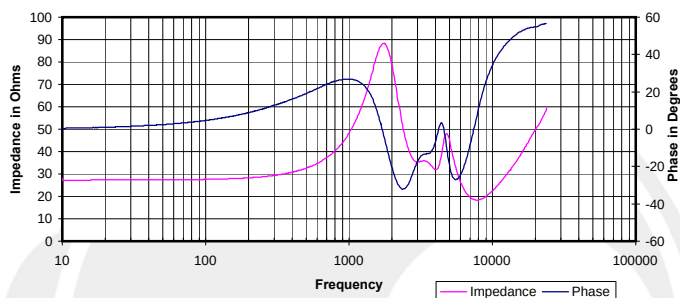
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



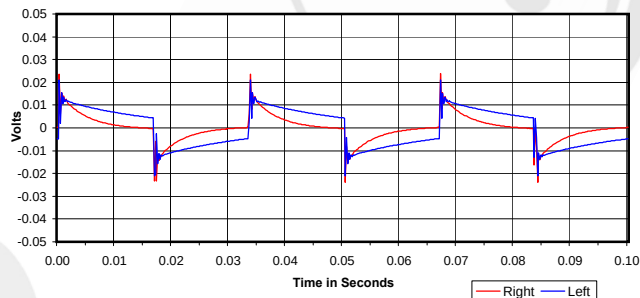
Isolation
Attenuation of External Sound vs. Frequency



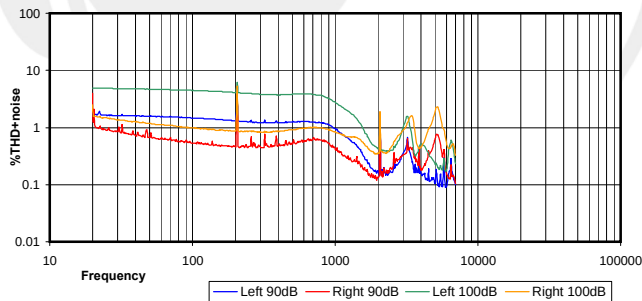
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



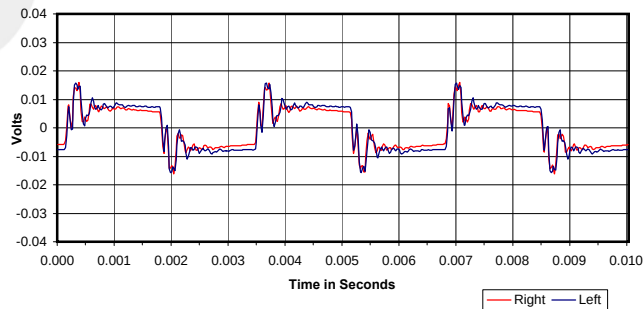
30 Hz Square Wave



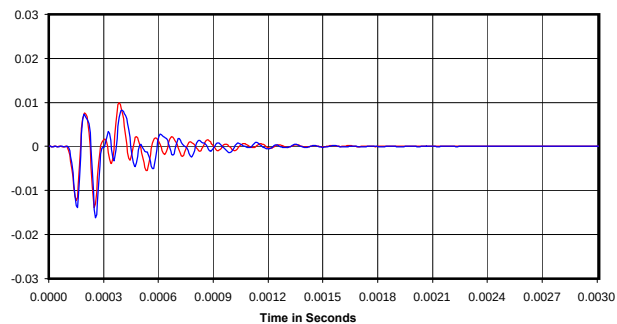
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



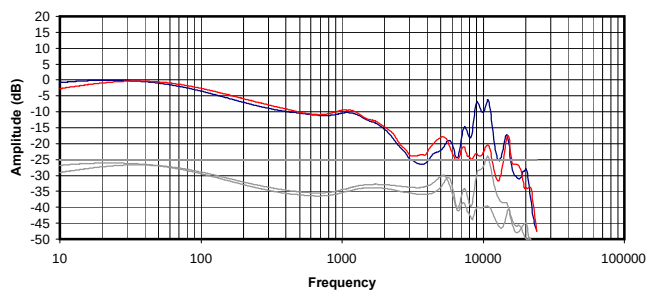
Impulse Response



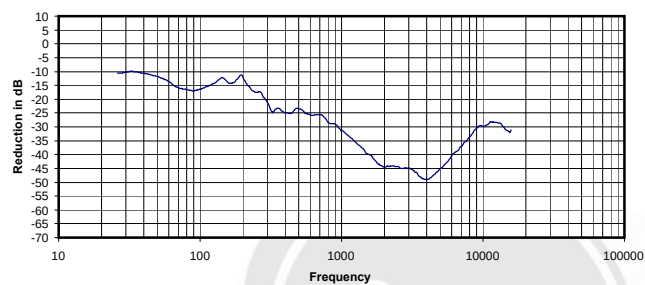
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.031 Vrms
48 Ohms
0.02 mW
-29 dBr

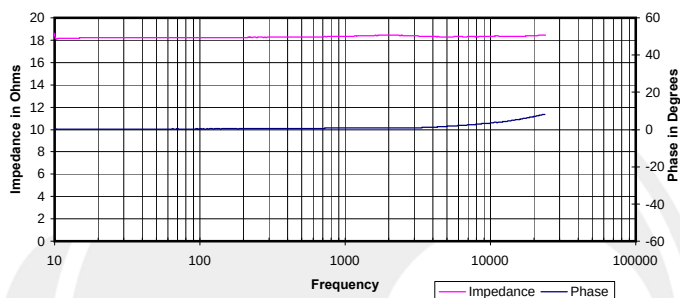
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



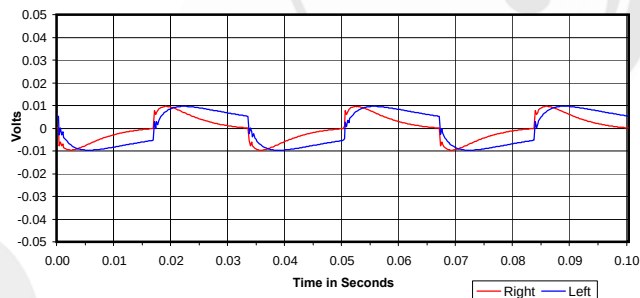
Isolation
Attenuation of External Sound vs. Frequency



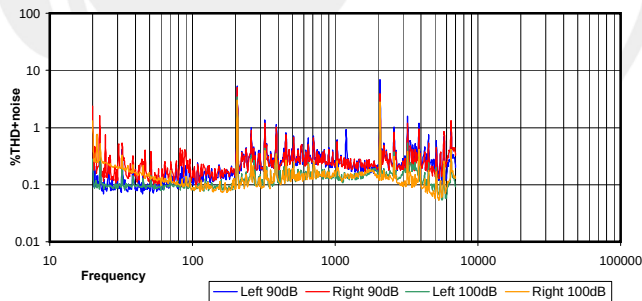
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



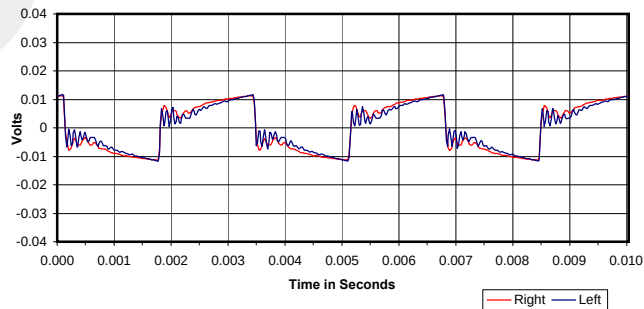
30 Hz Square Wave



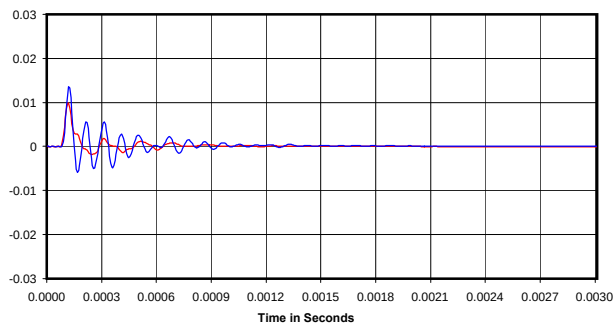
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



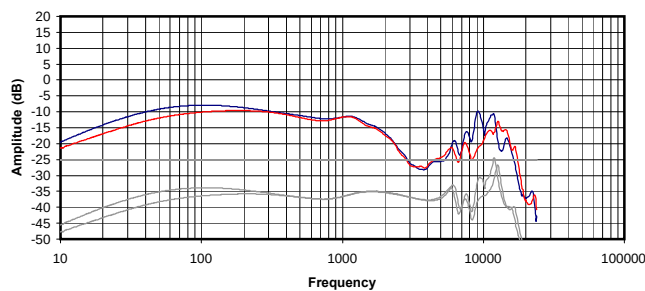
Impulse Response



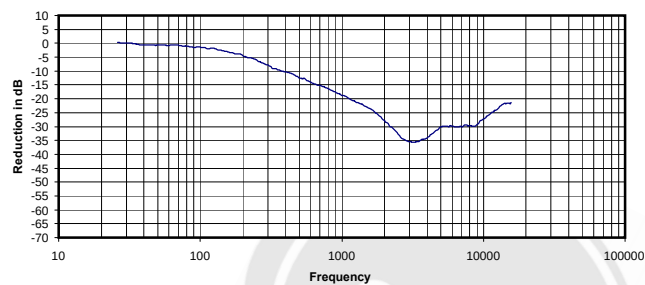
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.036 Vrms
18 Ohms
0.07 mW
-30 dBr

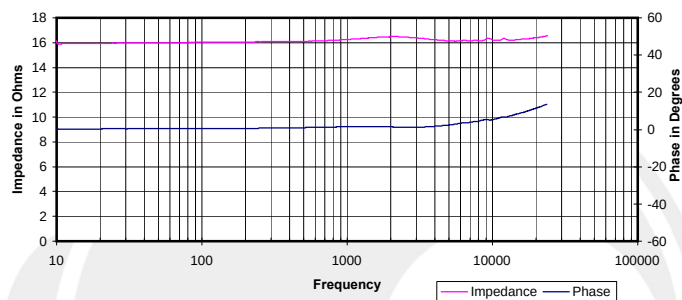
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



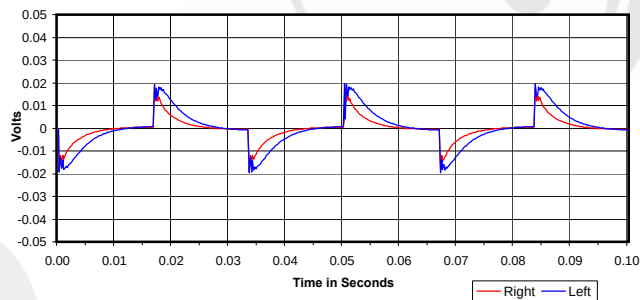
Isolation
Attenuation of External Sound vs. Frequency



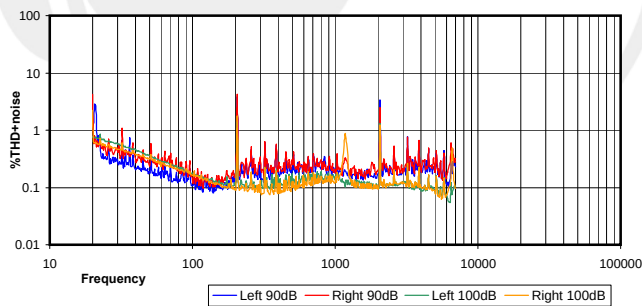
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



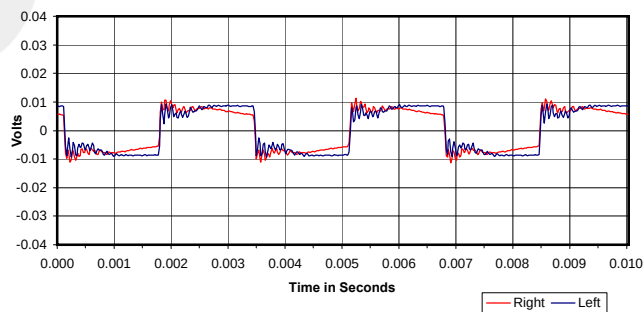
30 Hz Square Wave



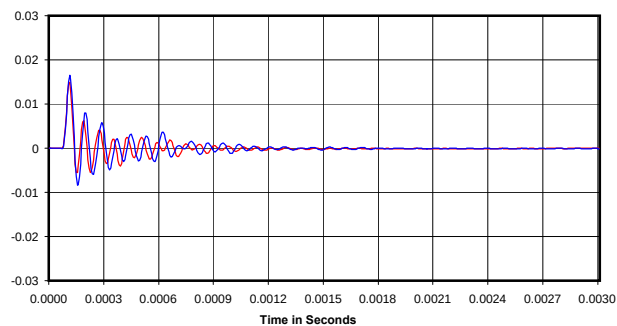
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



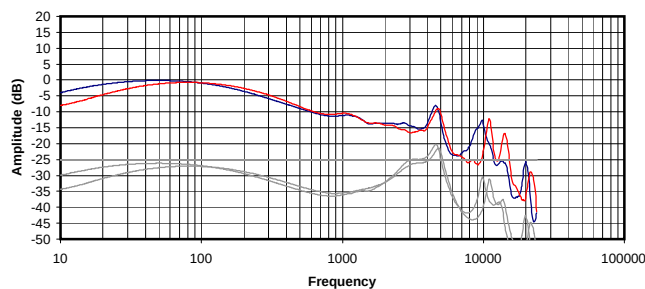
Impulse Response



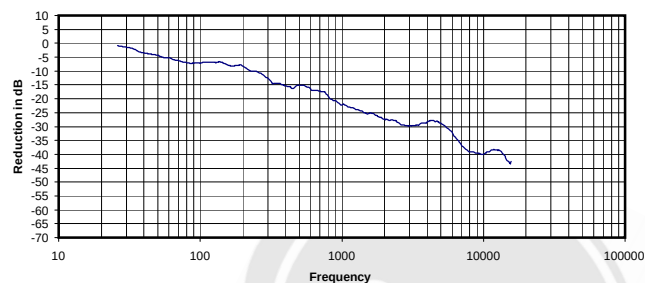
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.020 Vrms
16 Ohms
0.03 mW
-17 dB

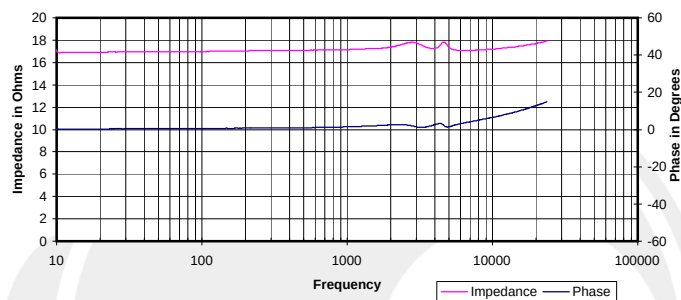
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



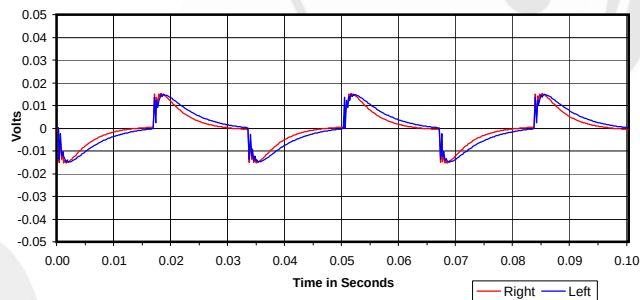
Isolation
Attenuation of External Sound vs. Frequency



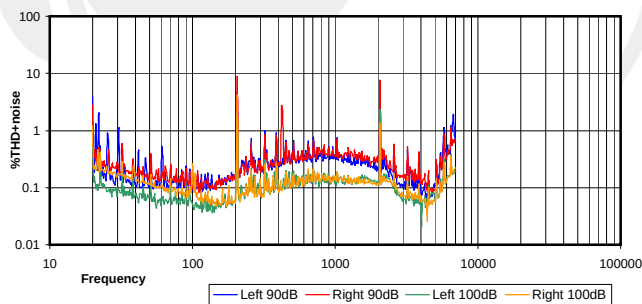
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



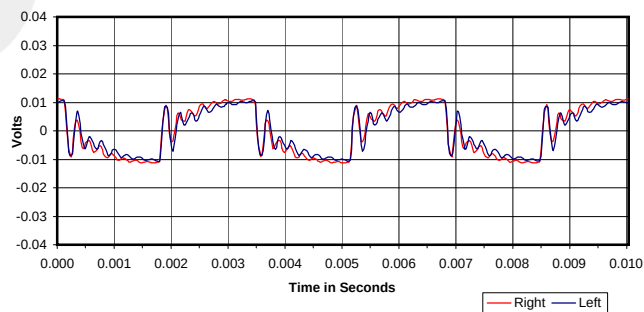
30 Hz Square Wave



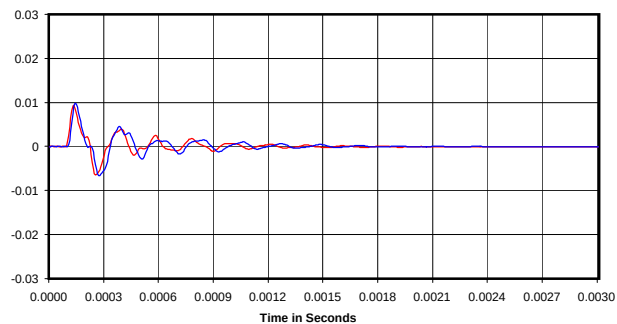
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



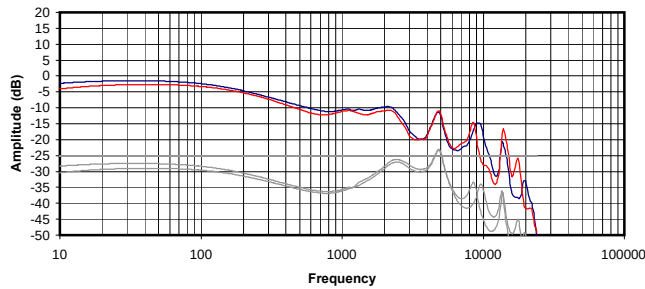
Impulse Response



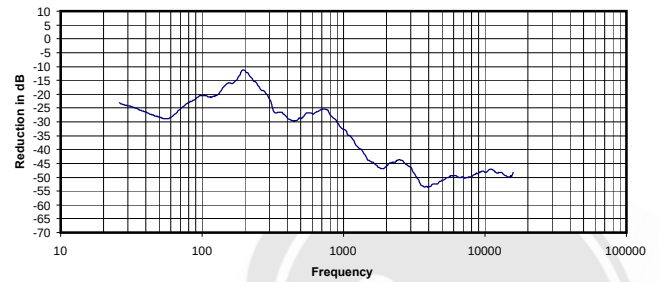
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.027 Vrms
17 Ohms
0.04 mW
-19 dB

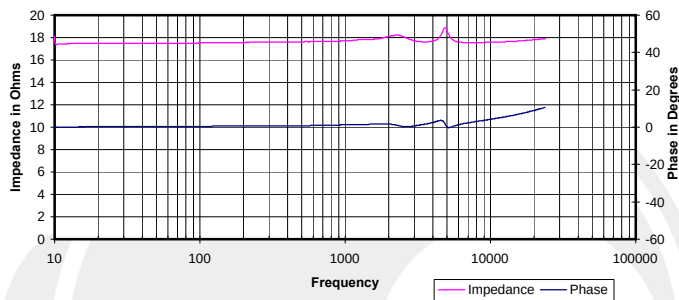
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



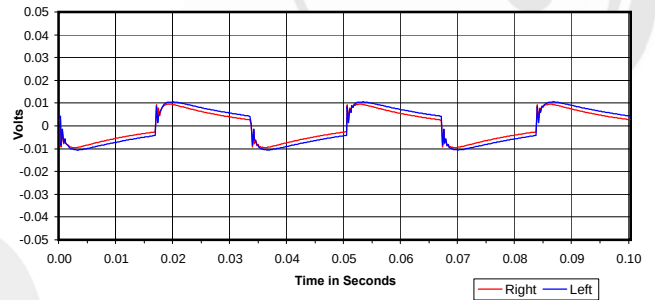
Isolation
Attenuation of External Sound vs. Frequency



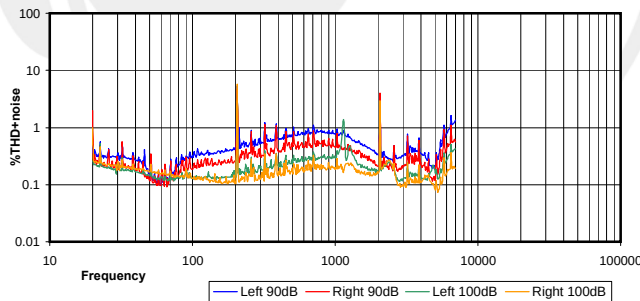
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



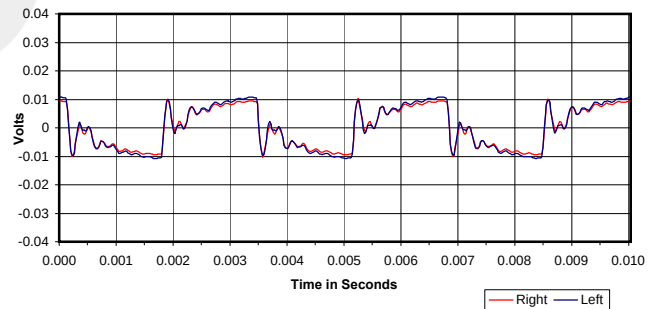
30 Hz Square Wave



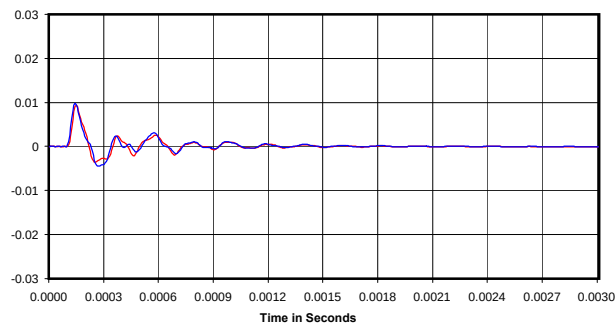
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



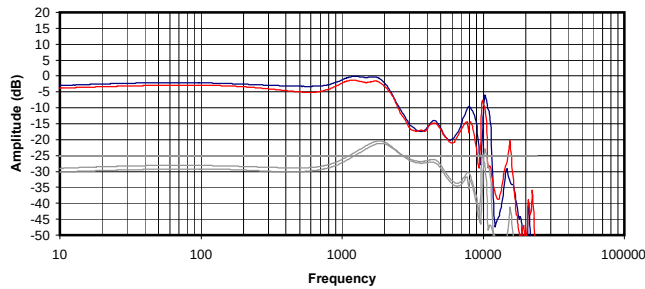
Impulse Response



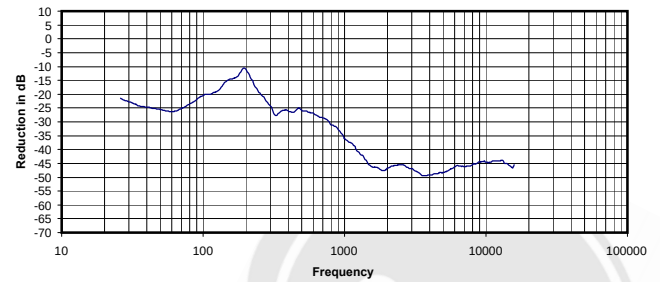
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.032 Vrms
18 Ohms
0.06 mW
-33 dBr

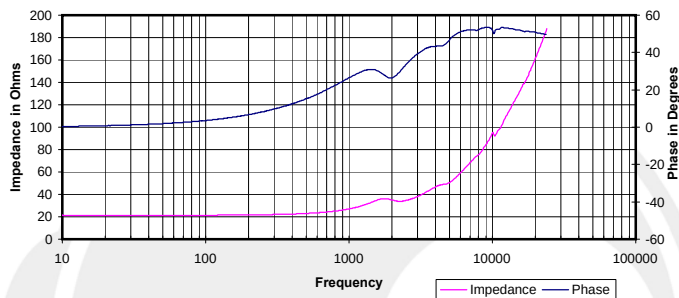
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



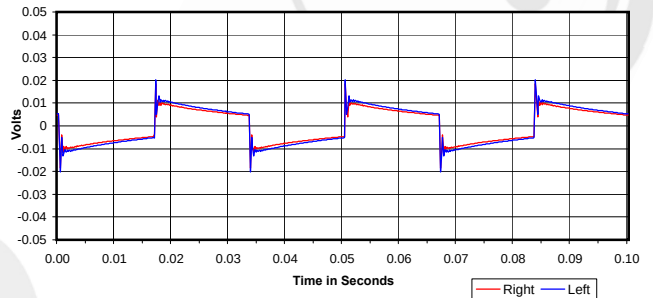
Isolation
Attenuation of External Sound vs. Frequency



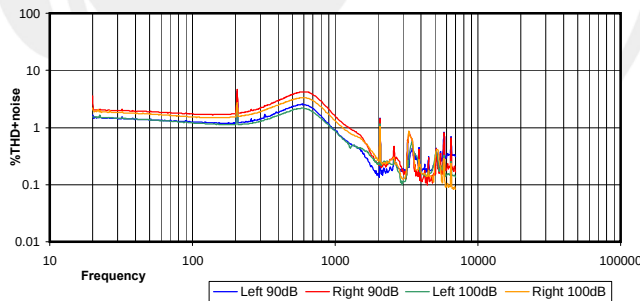
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



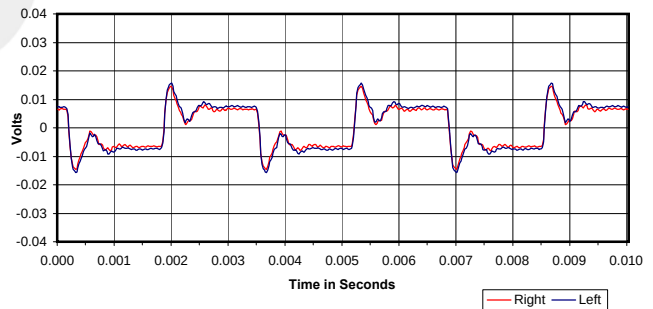
30 Hz Square Wave



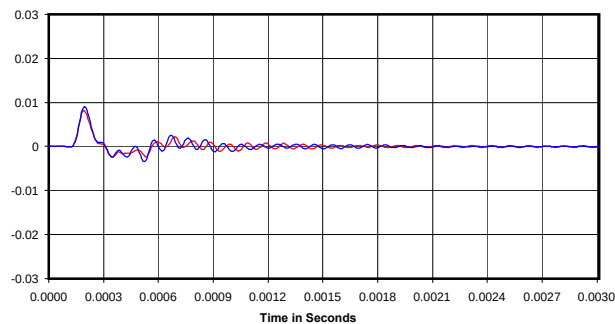
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



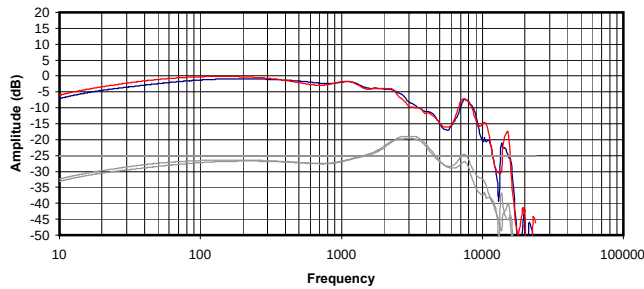
Impulse Response



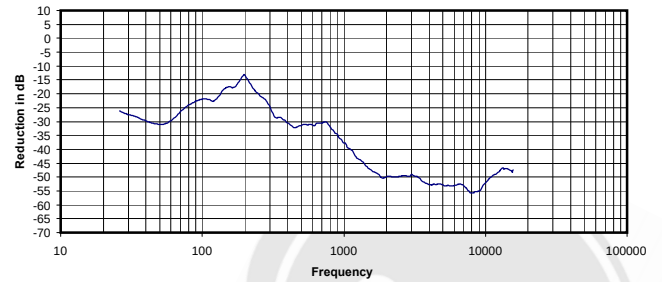
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.013 Vrms
27 Ohms
0.01 mW
-33 dBr

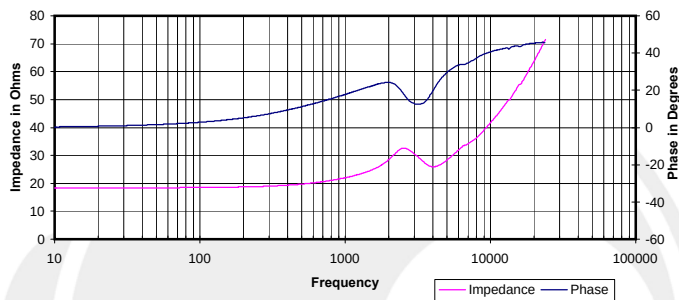
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



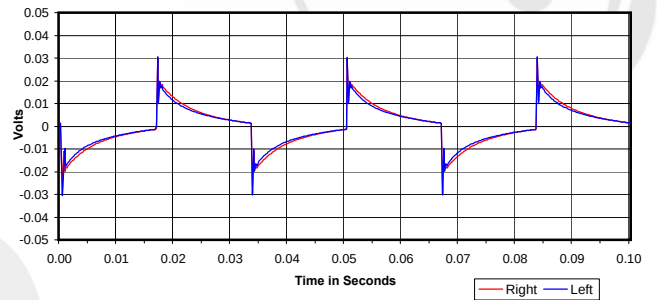
Isolation
Attenuation of External Sound vs. Frequency



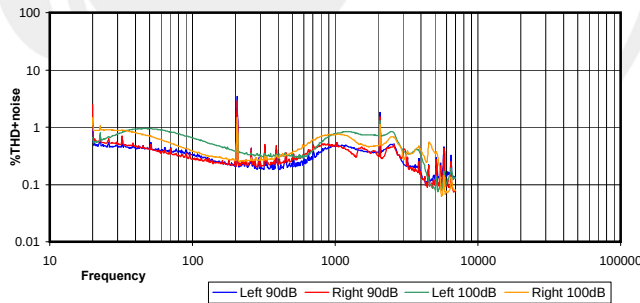
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



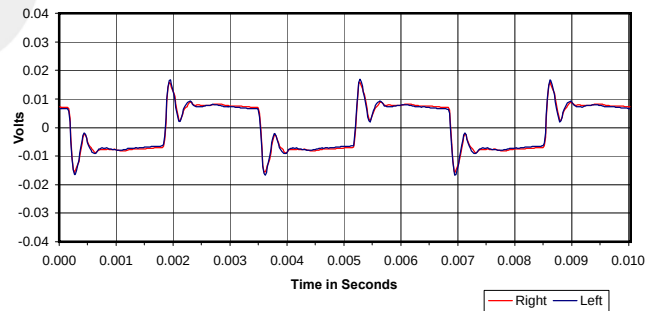
30 Hz Square Wave



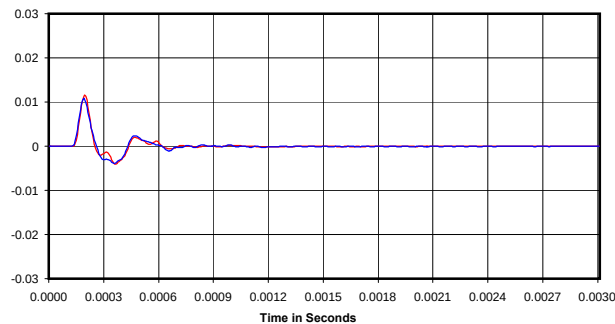
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



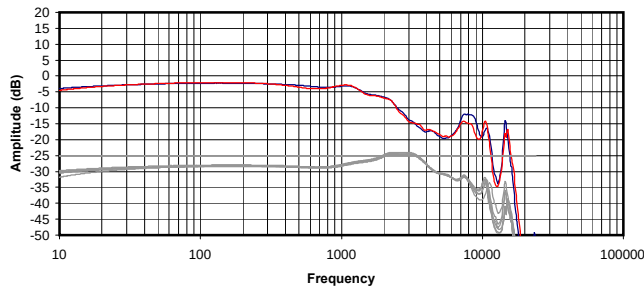
Impulse Response



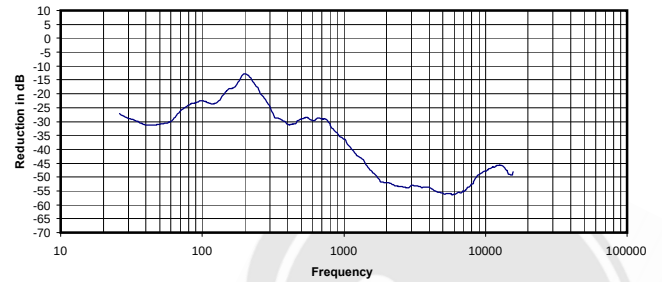
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.020 Vrms
22 Ohms
0.02 mW
-36 dBr

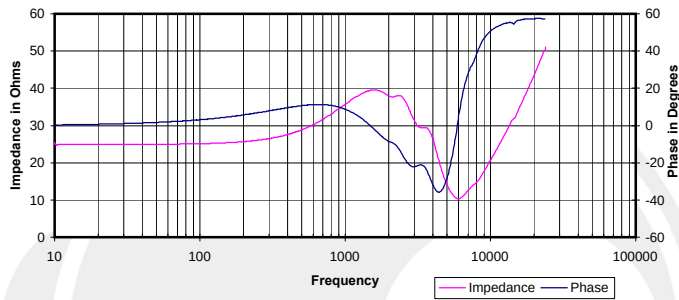
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



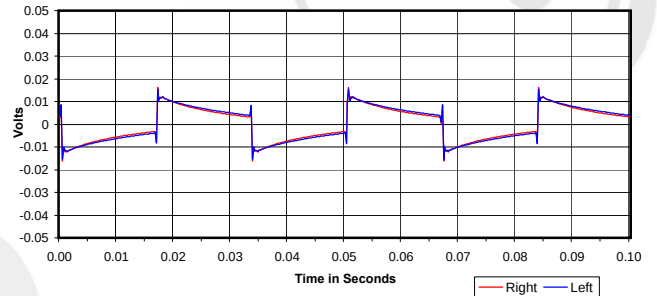
Isolation
Attenuation of External Sound vs. Frequency



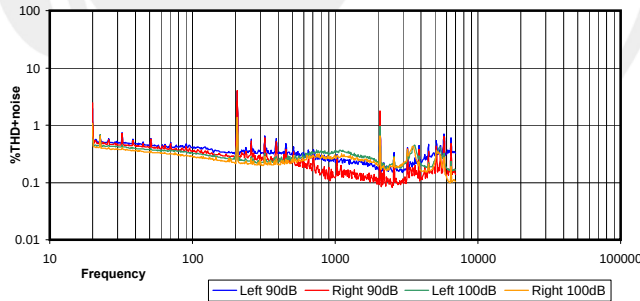
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



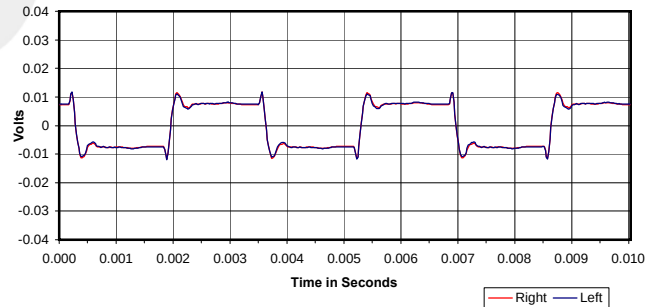
30 Hz Square Wave



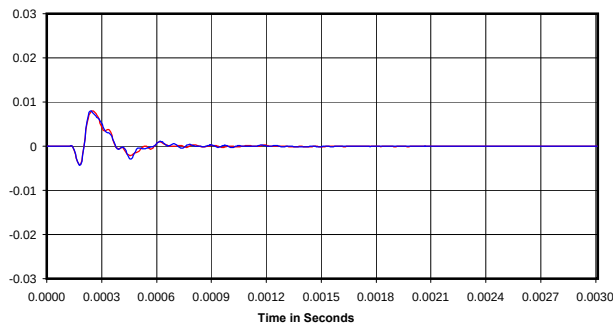
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



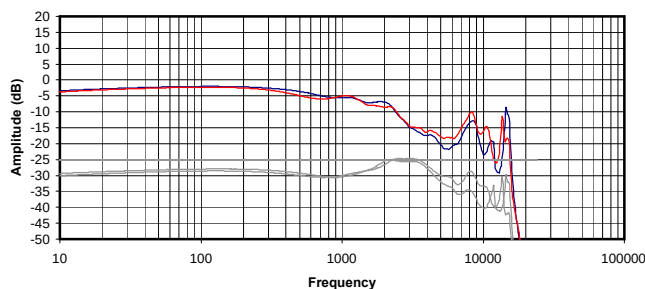
Impulse Response



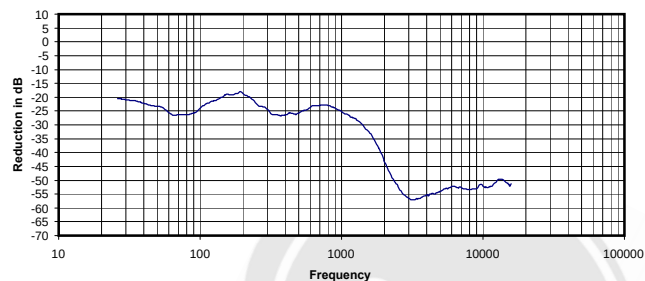
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.012 Vrms
36 Ohms
0.00 mW
-36 dBr

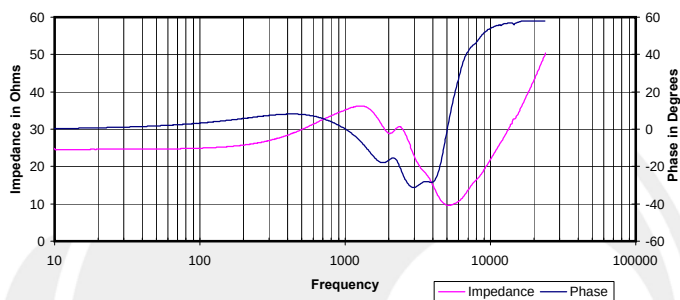
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



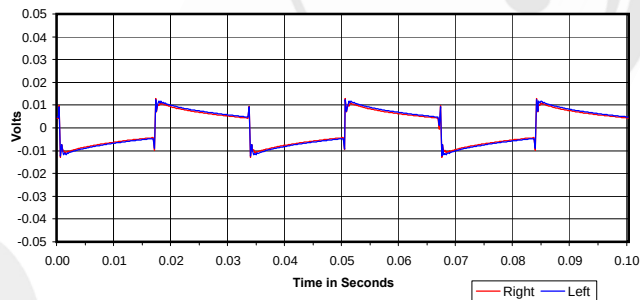
Isolation
Attenuation of External Sound vs. Frequency



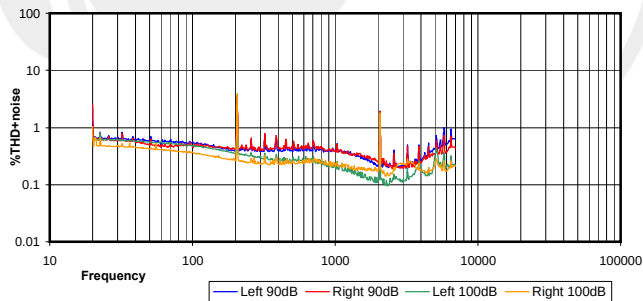
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



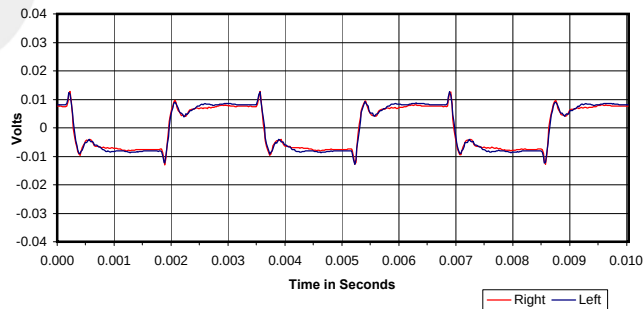
30 Hz Square Wave



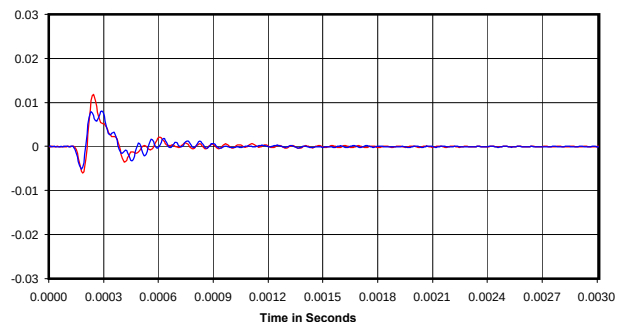
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



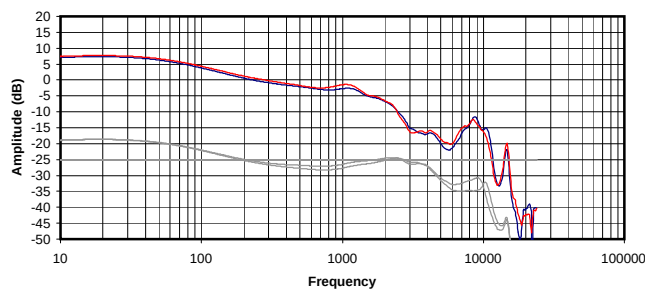
Impulse Response



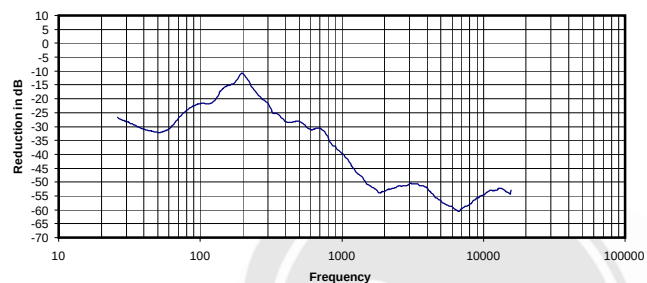
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.011 Vrms
35 Ohms
0.00 mW
-33 dBr

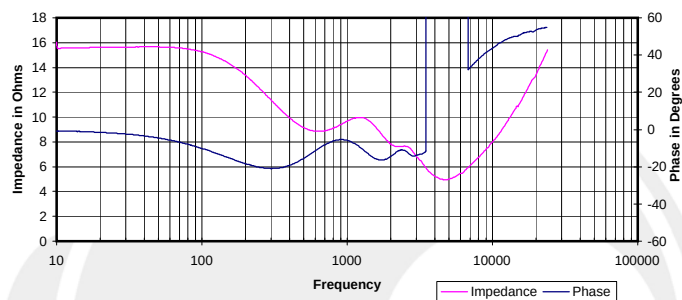
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



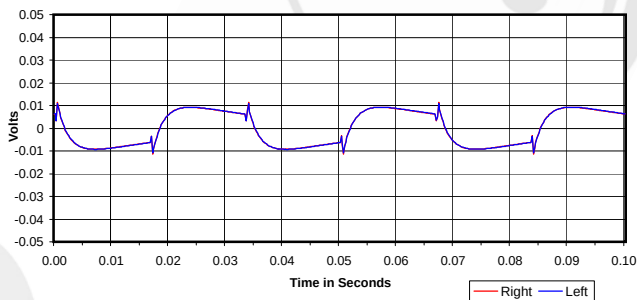
Isolation
Attenuation of External Sound vs. Frequency



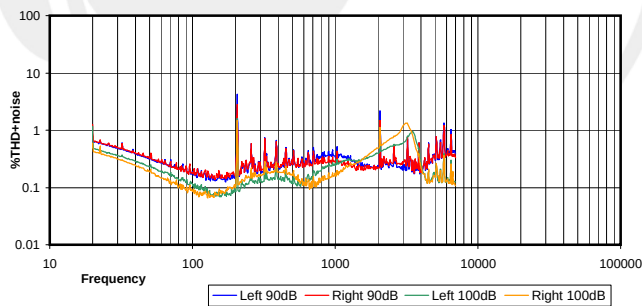
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



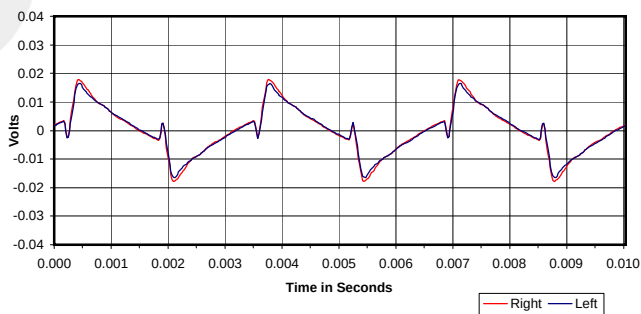
30 Hz Square Wave



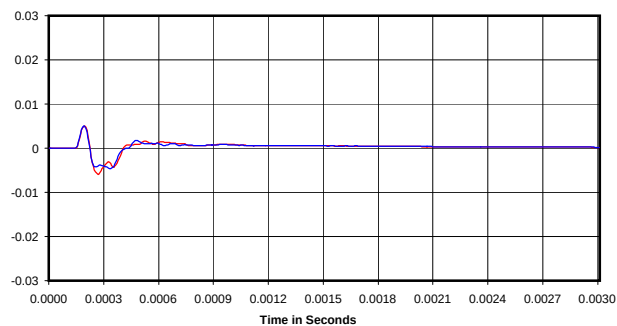
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



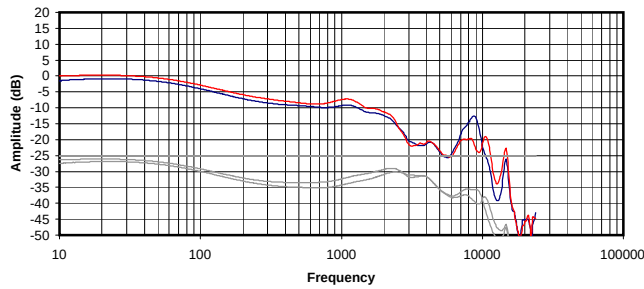
Impulse Response



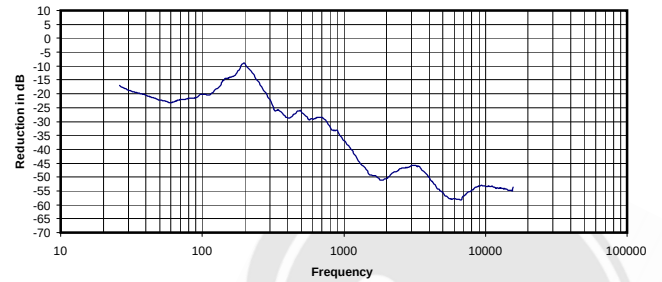
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.015 Vrms
10 Ohms
0.02 mW
-36 dBr

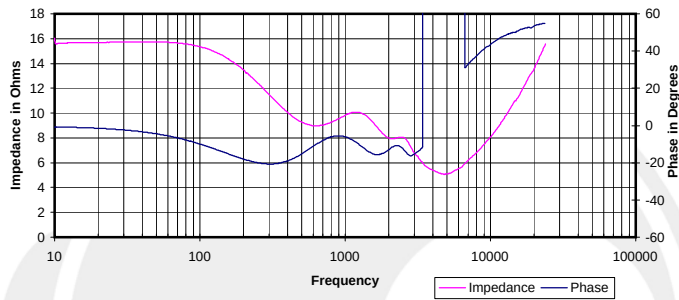
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



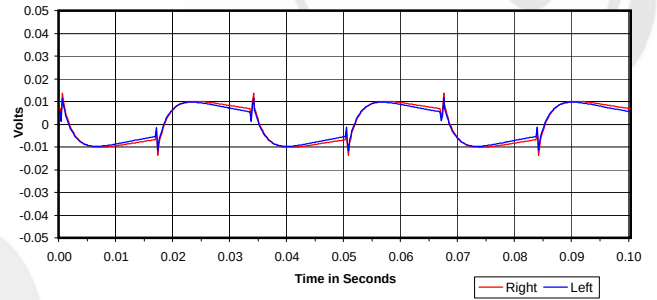
Isolation
Attenuation of External Sound vs. Frequency



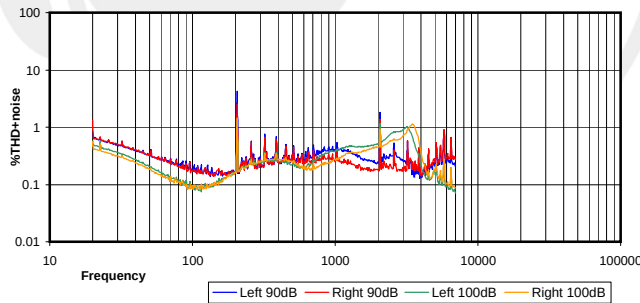
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



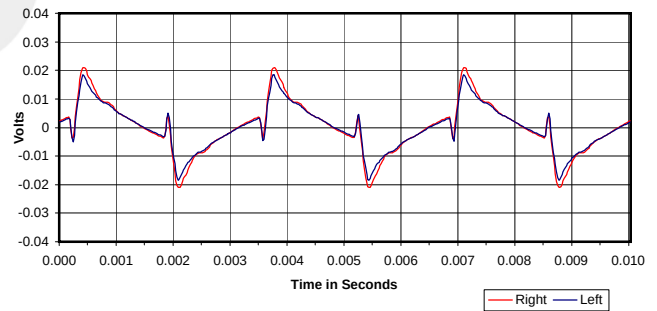
30 Hz Square Wave



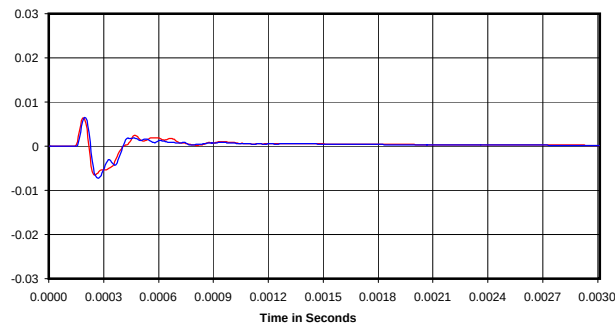
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



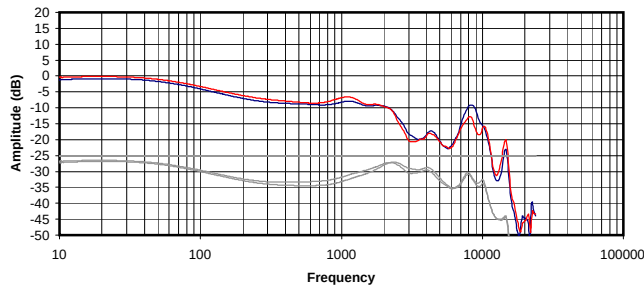
Impulse Response



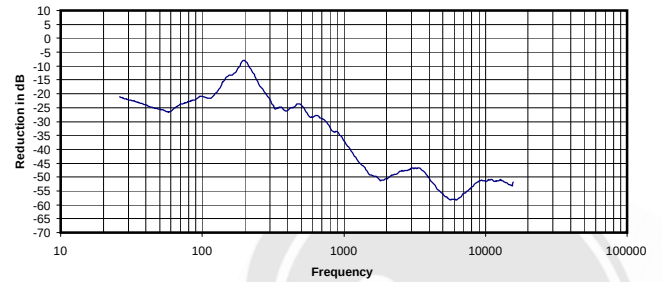
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.014 Vrms
10 Ohms
0.02 mW
-34 dBr

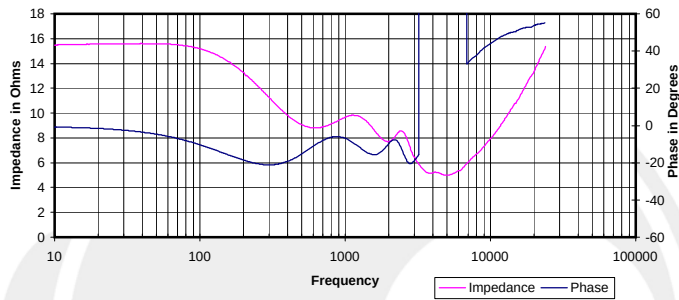
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



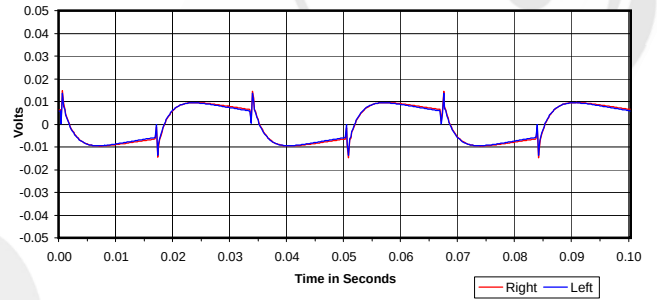
Isolation
Attenuation of External Sound vs. Frequency



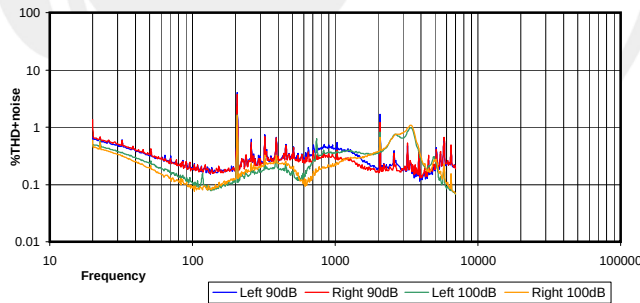
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



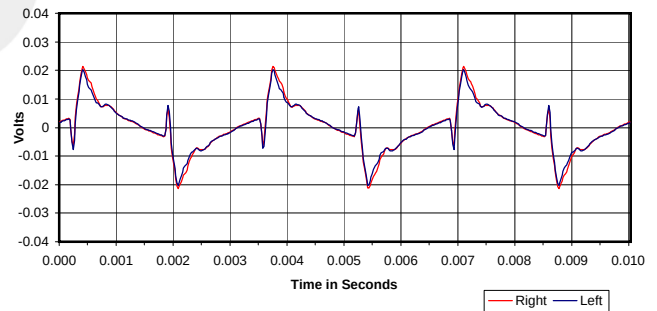
30 Hz Square Wave



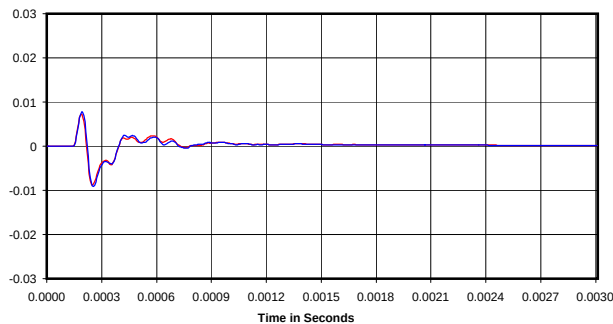
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



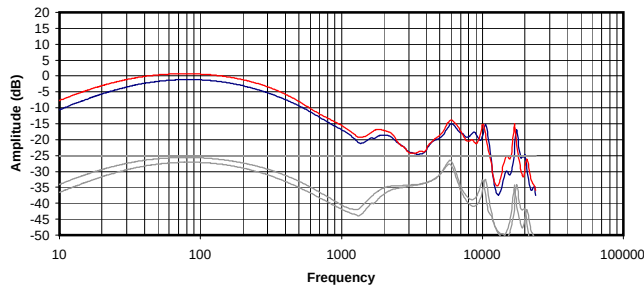
Impulse Response



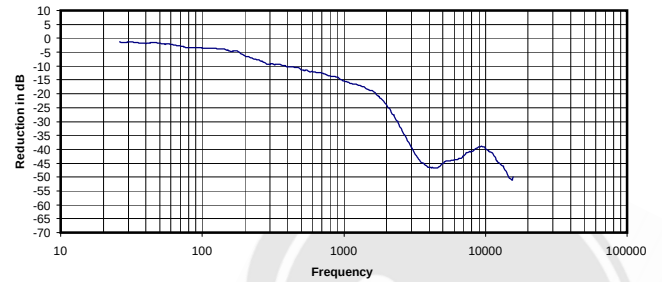
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.012 Vrms
10 Ohms
0.01 mW
-34 dBr

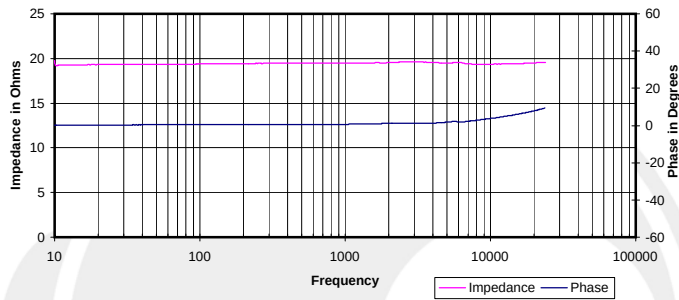
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



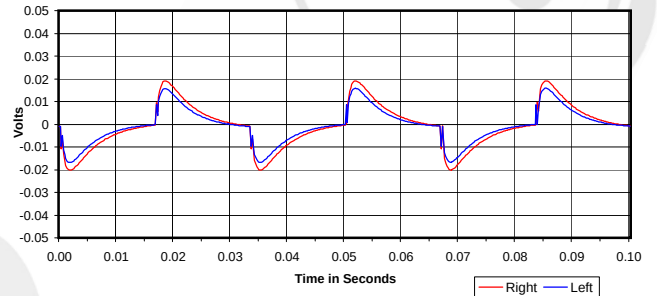
Isolation
Attenuation of External Sound vs. Frequency



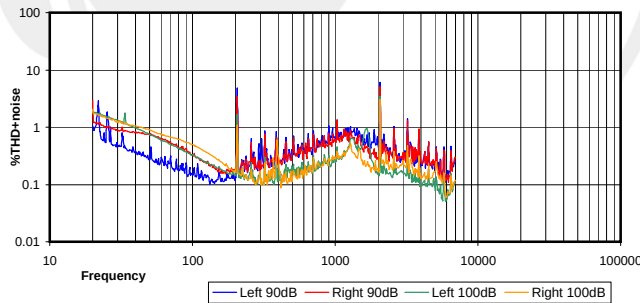
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



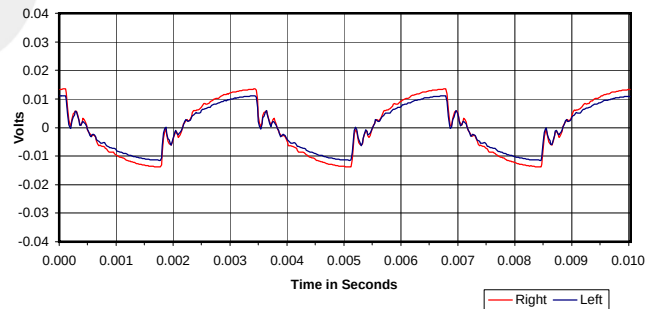
30 Hz Square Wave



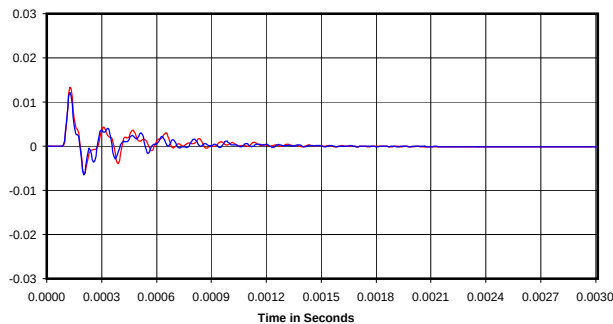
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



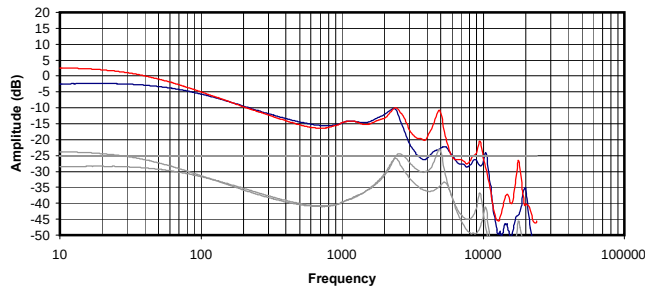
Impulse Response



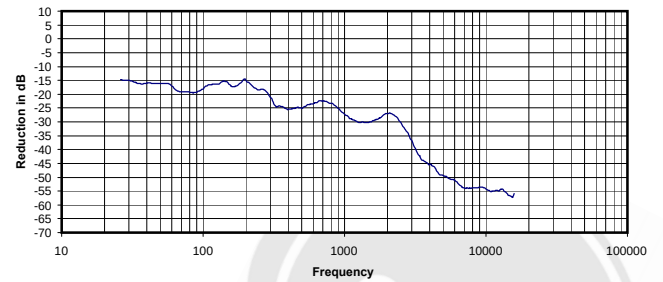
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90dB BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.058 Vrms
19 Ohms
0.17 mW
-19 dB

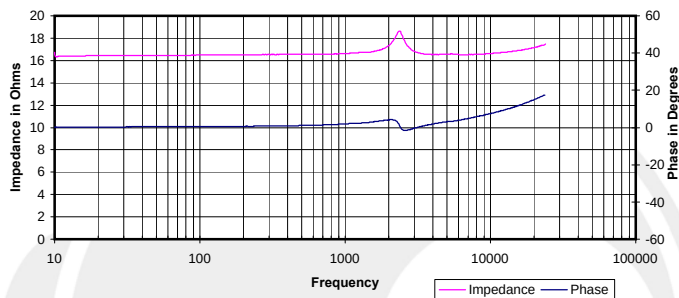
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



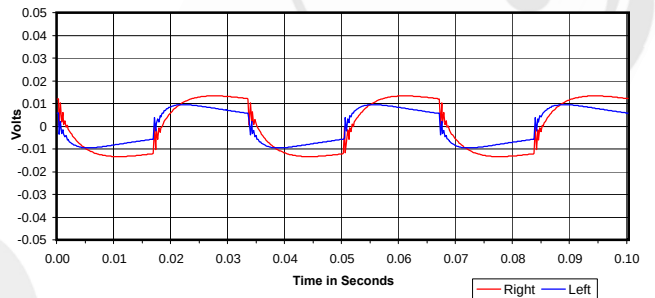
Isolation
Attenuation of External Sound vs. Frequency



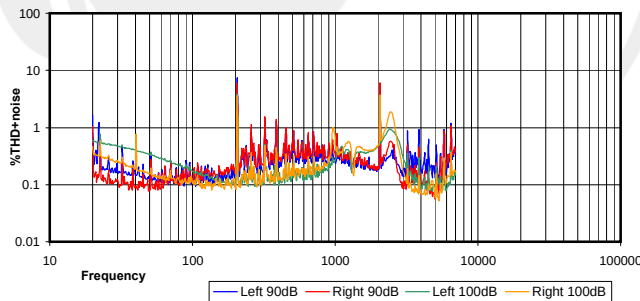
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



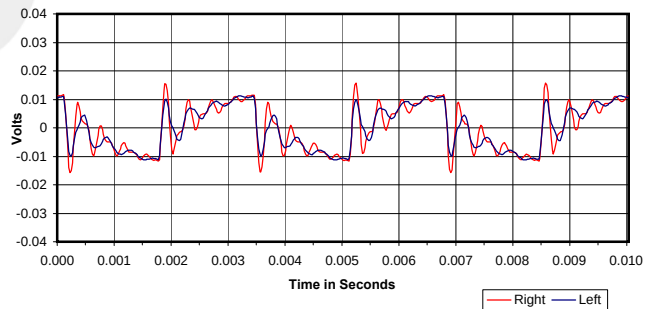
30 Hz Square Wave



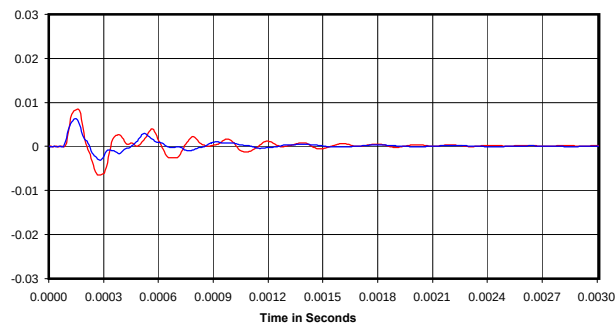
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



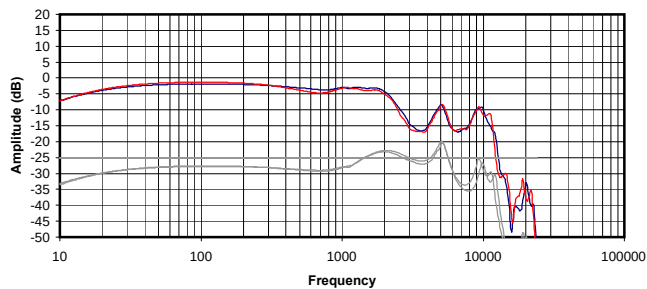
Impulse Response



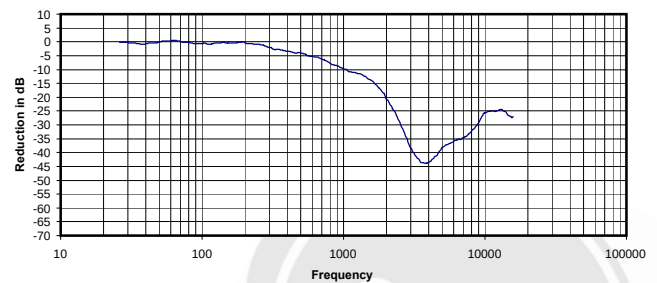
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.035 Vrms
17 Ohms
0.08 mW
-28 dBr

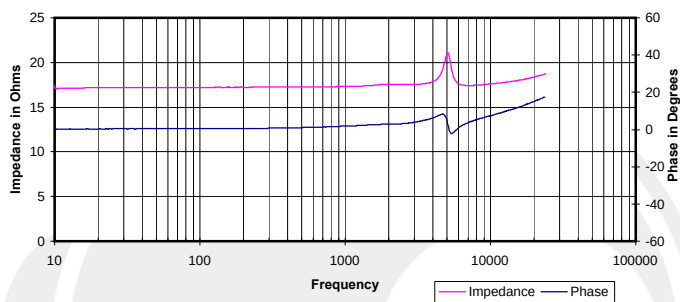
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



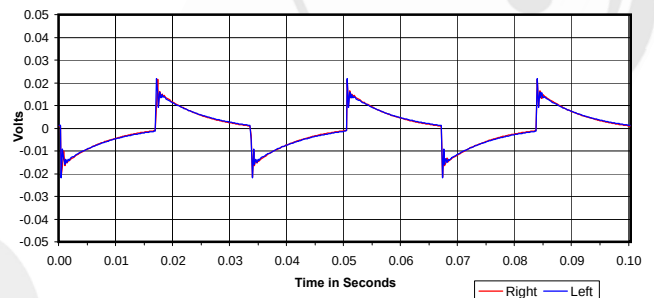
Isolation
Attenuation of External Sound vs. Frequency



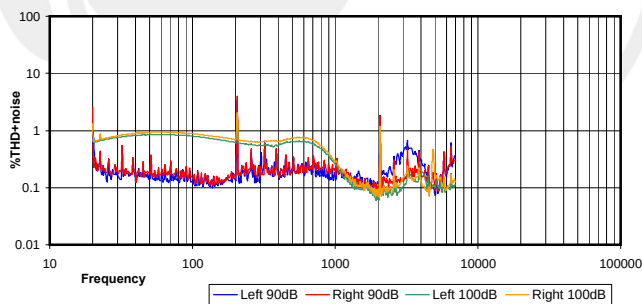
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



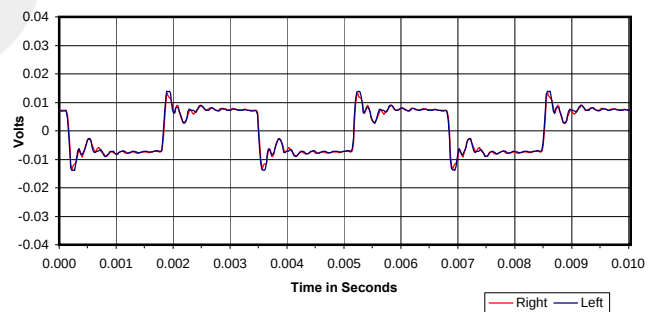
30 Hz Square Wave



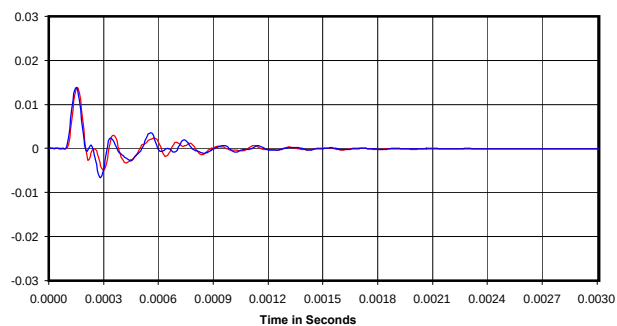
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



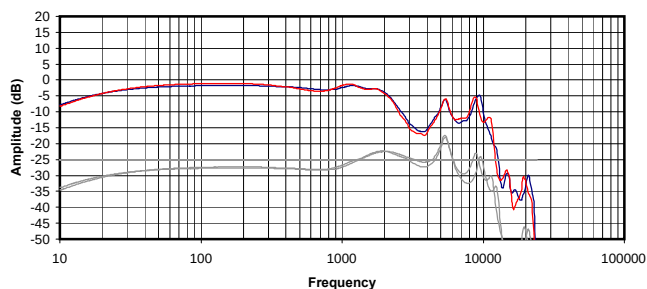
Impulse Response



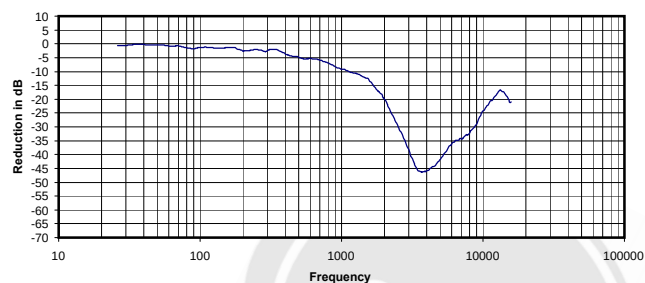
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.018 Vrms
17 Ohms
0.02 mW
-14 dBr

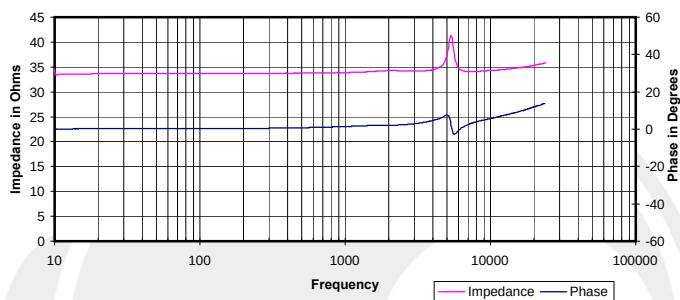
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



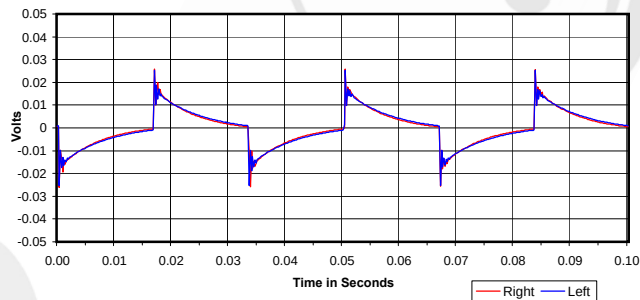
Isolation
Attenuation of External Sound vs. Frequency



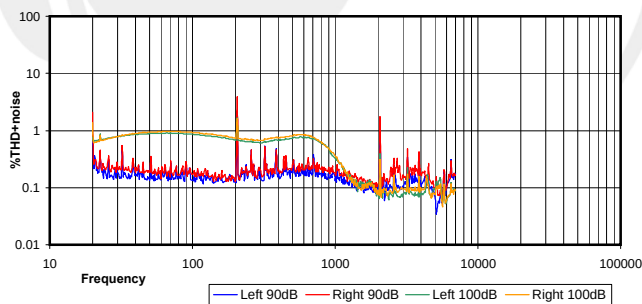
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



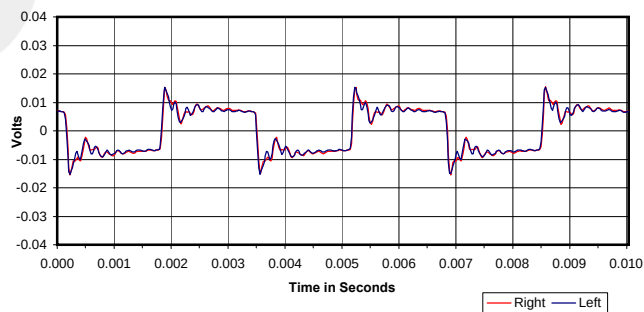
30 Hz Square Wave



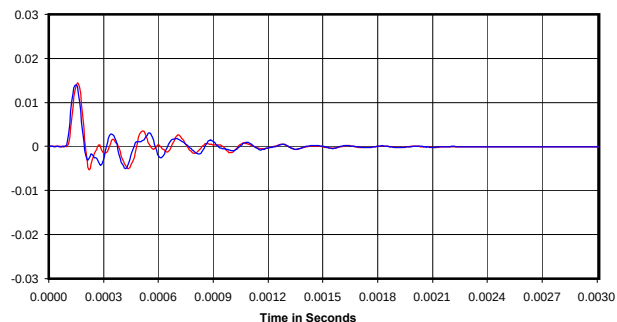
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



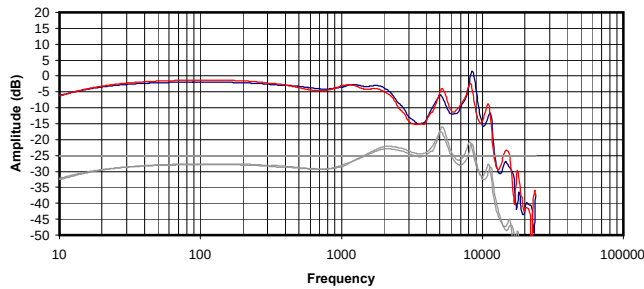
Impulse Response



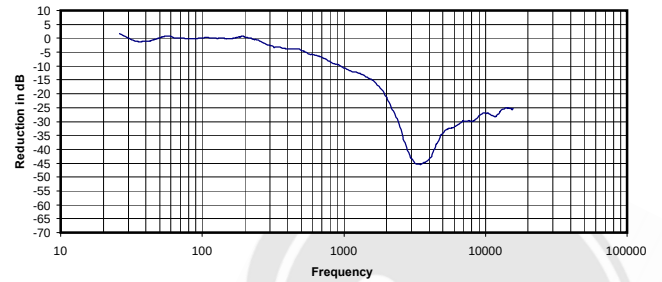
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.027 Vrms
34 Ohms
0.02 mW
-14 dBr

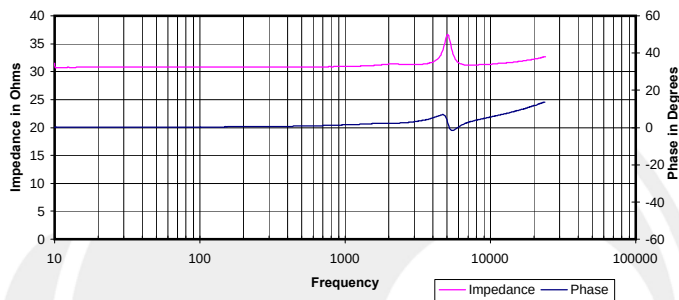
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



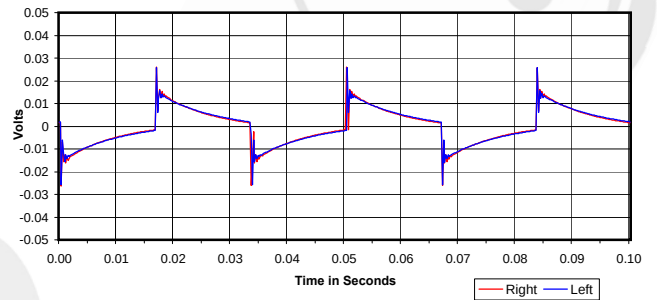
Isolation
Attenuation of External Sound vs. Frequency



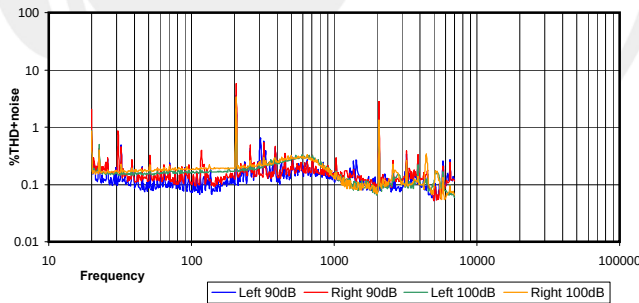
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



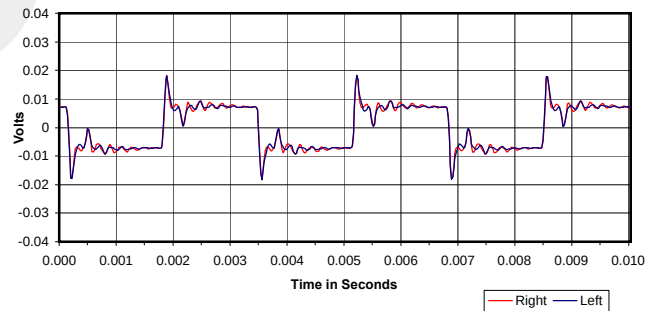
30 Hz Square Wave



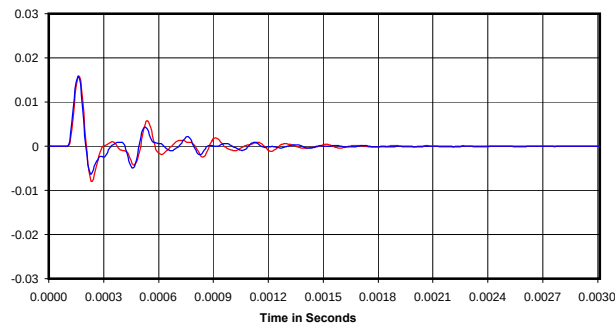
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



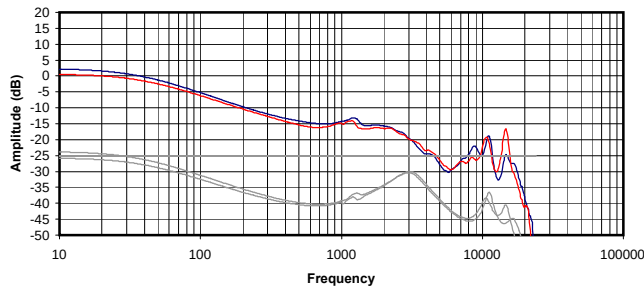
Impulse Response



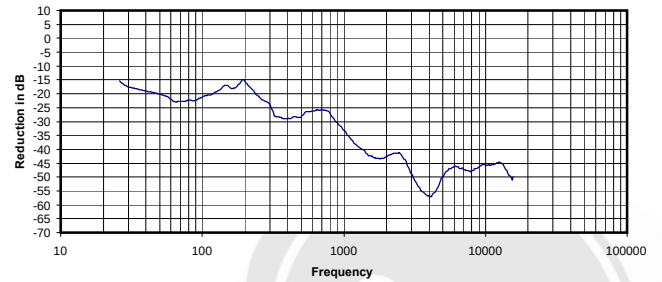
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.032 Vrms
31 Ohms
0.03 mW
-14 dBr

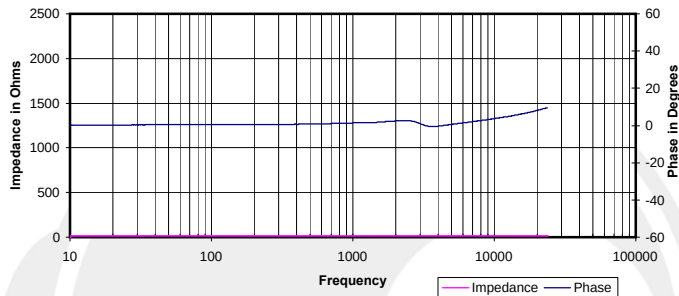
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



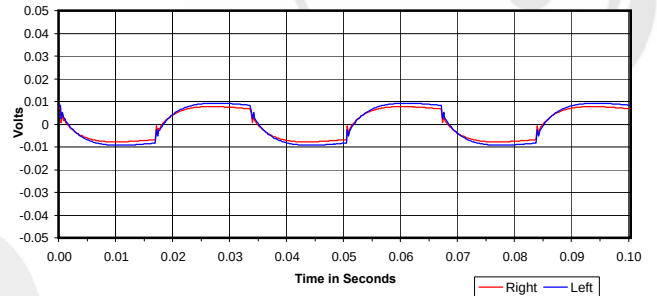
Isolation
Attenuation of External Sound vs. Frequency



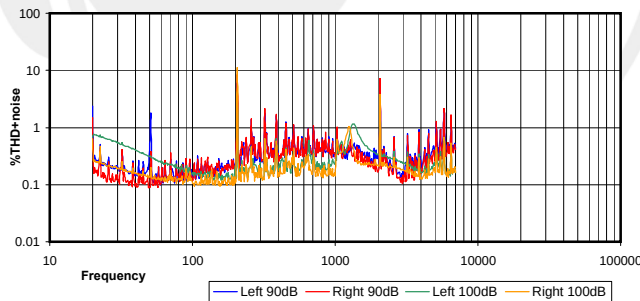
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



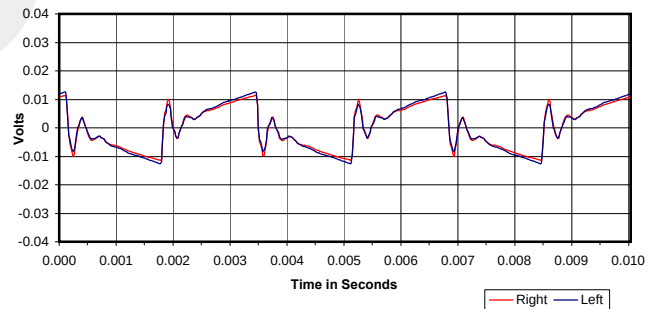
30 Hz Square Wave



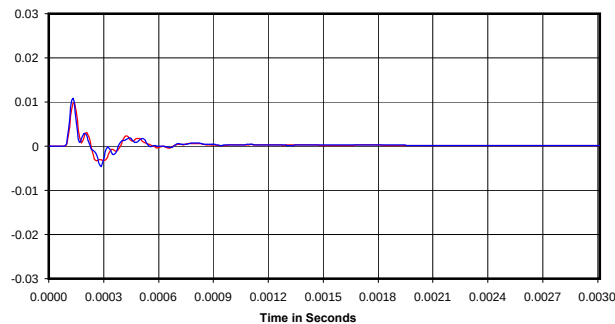
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



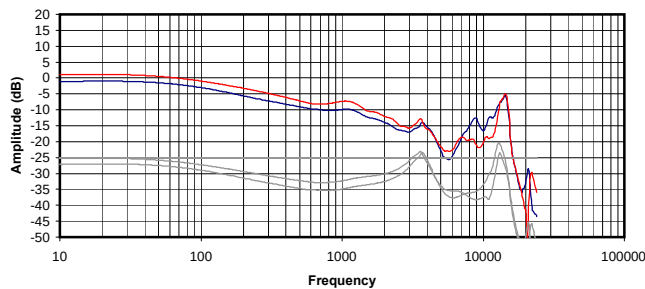
Impulse Response



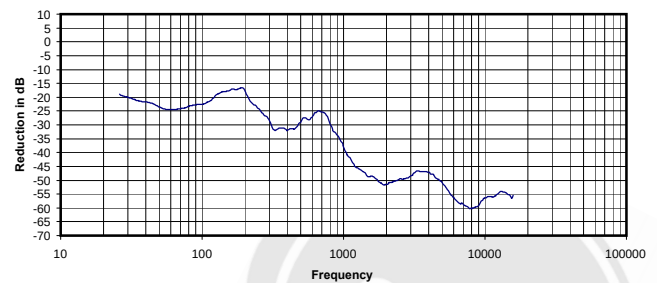
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.047 Vrms
16 Ohms
0.14 mW
-33 dBr

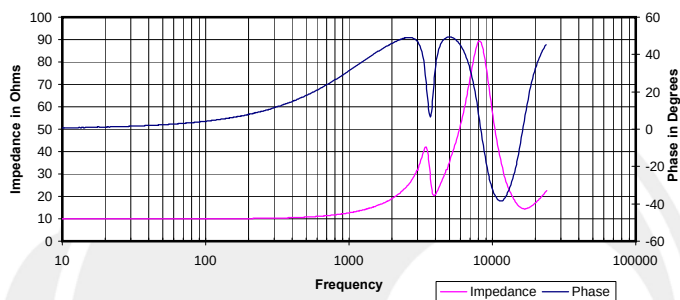
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



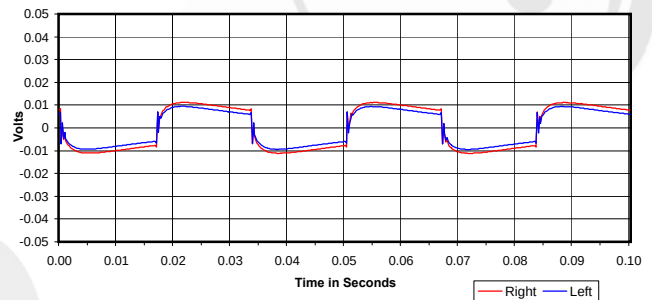
Isolation
Attenuation of External Sound vs. Frequency



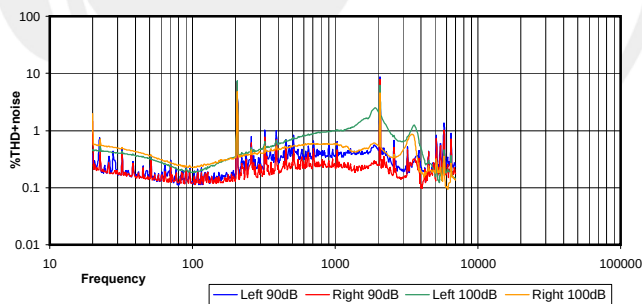
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



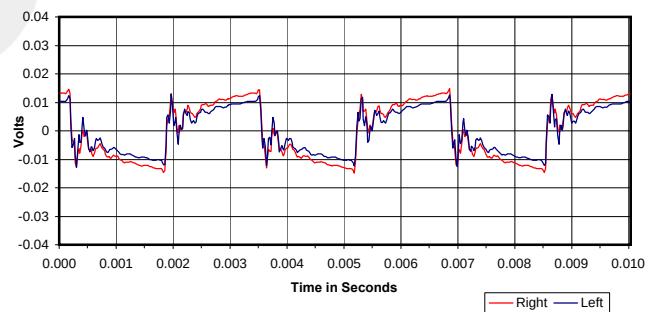
30 Hz Square Wave



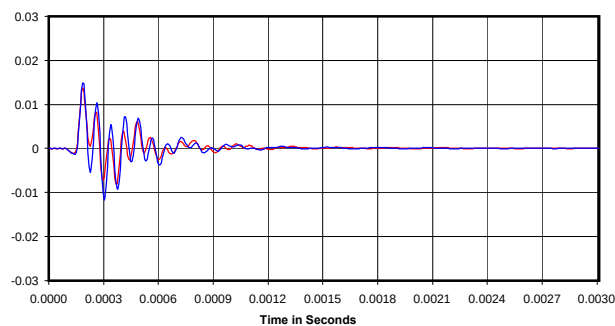
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



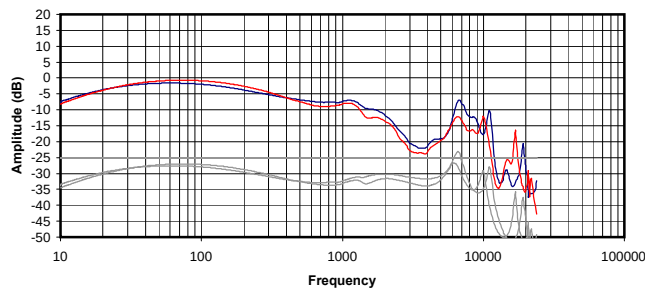
Impulse Response



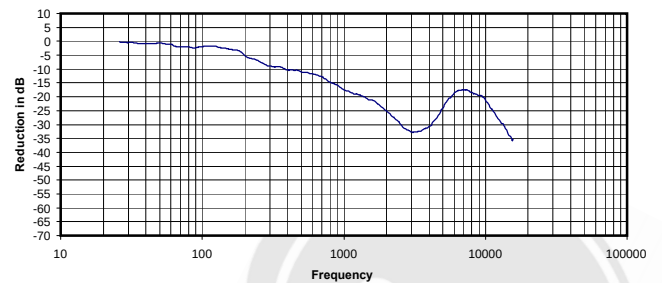
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.058 Vrms
13 Ohms
0.27 mW
-36 dBr

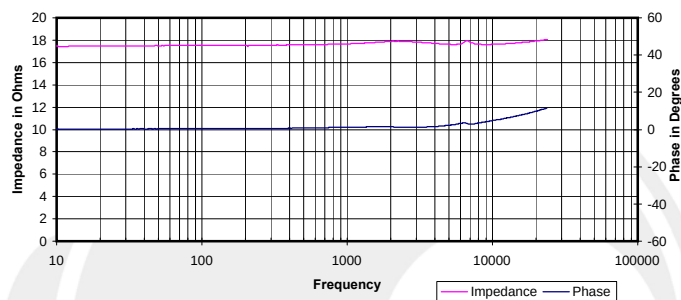
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



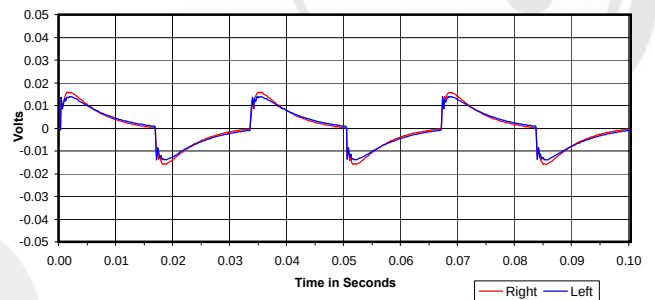
Isolation
Attenuation of External Sound vs. Frequency



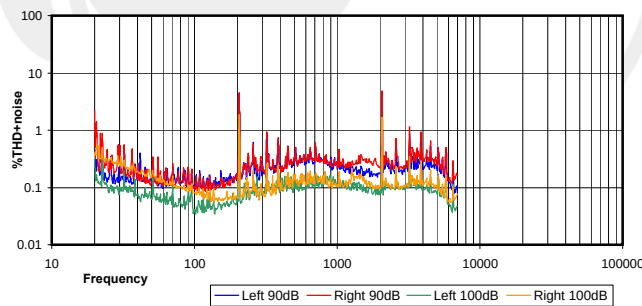
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



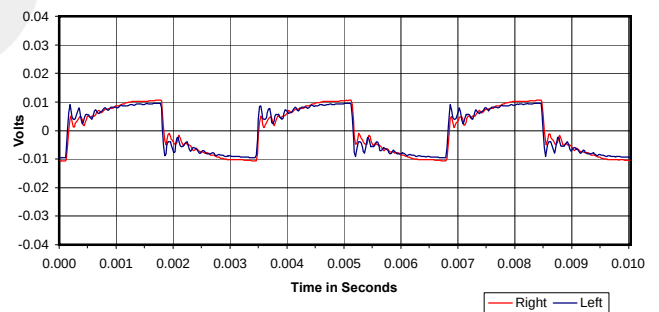
30 Hz Square Wave



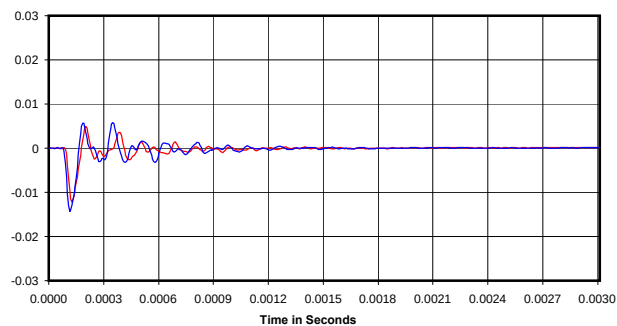
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



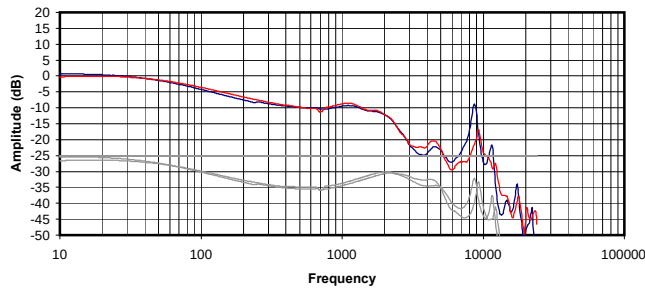
Impulse Response



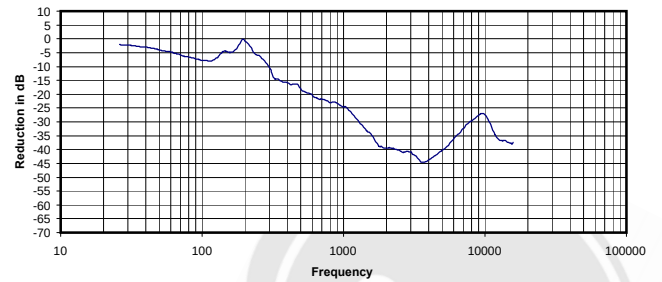
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.019 Vrms
18 Ohms
0.02 mW
-15 dBr

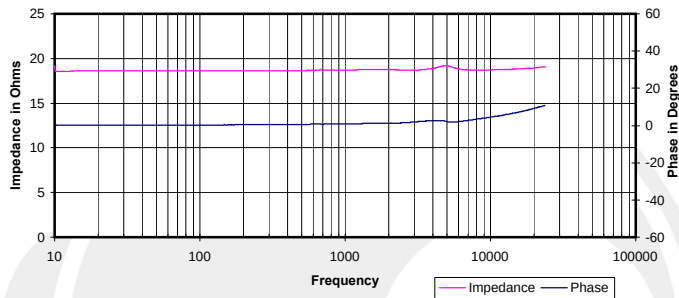
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



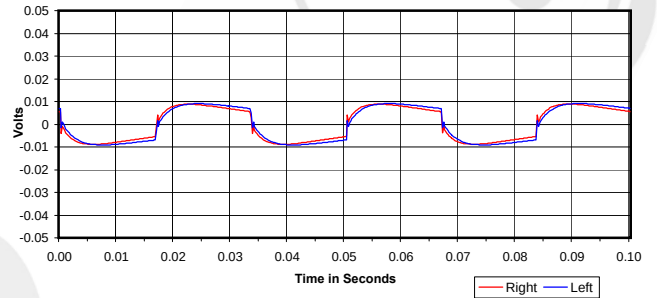
Isolation
Attenuation of External Sound vs. Frequency



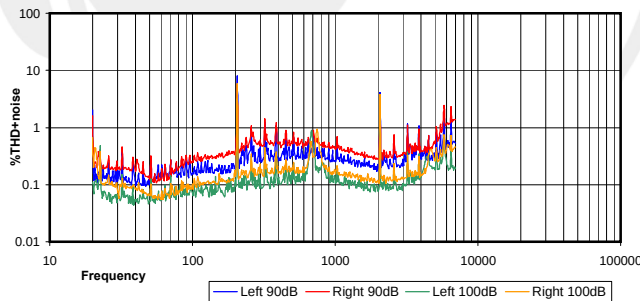
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



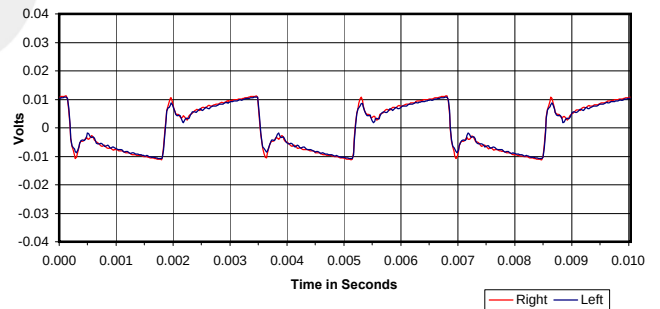
30 Hz Square Wave



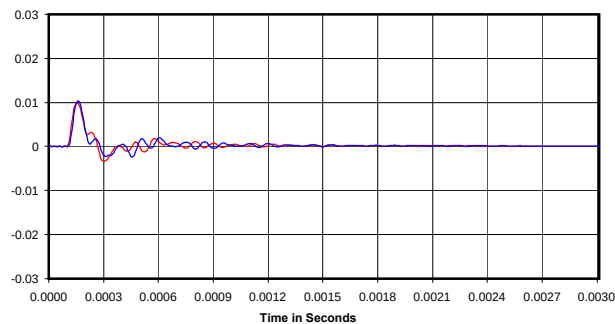
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



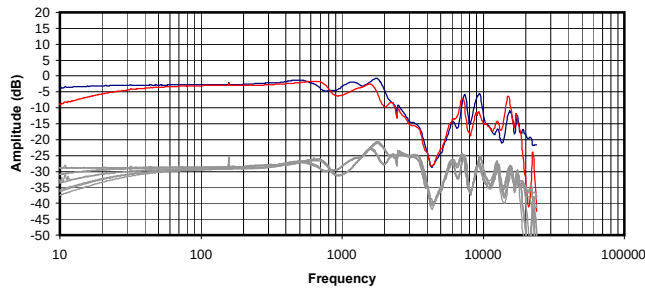
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

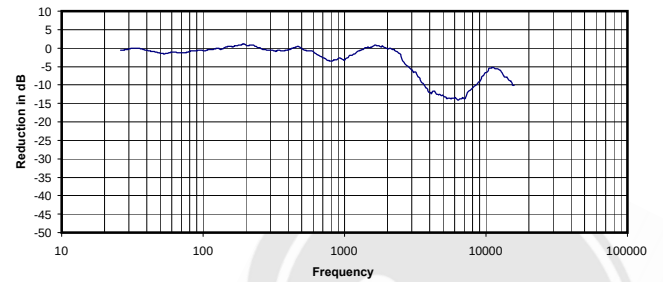
0.024 Vrms
19 Ohms
0.03 mW
-23 dBr

Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions

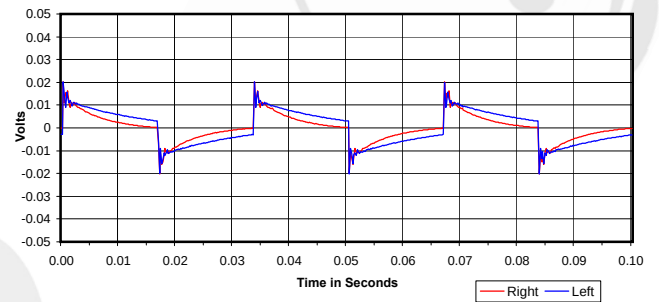


Electrical Impedance and phase measurements unavailable for Electrostatic headphones.

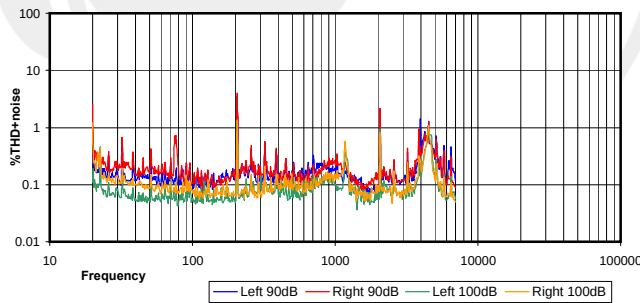
Isolation
Attenuation of External Sound vs. Frequency



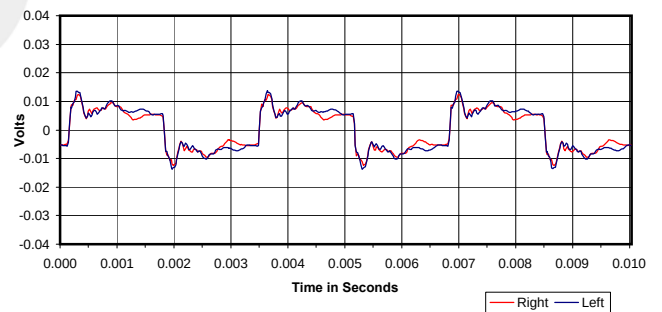
30 Hz Square Wave



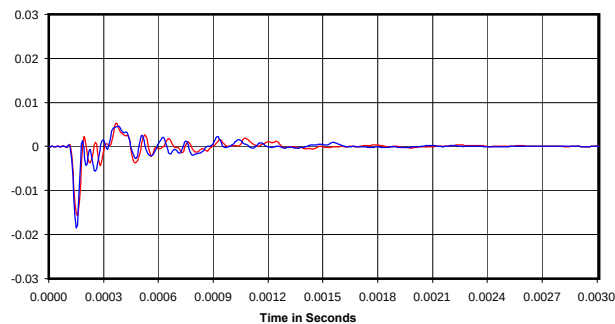
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



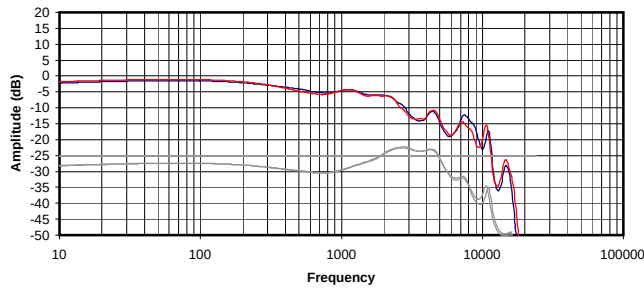
Impulse Response



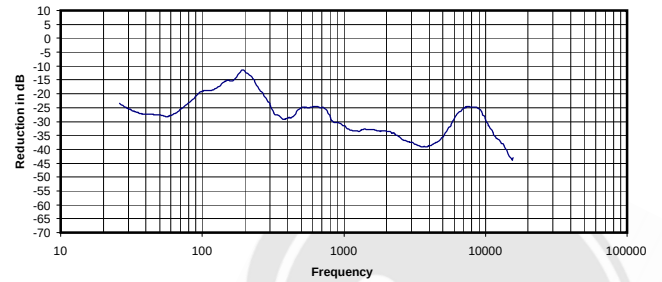
Broadband Isolation in dB (100Hz to 10kHz):

-3 dB

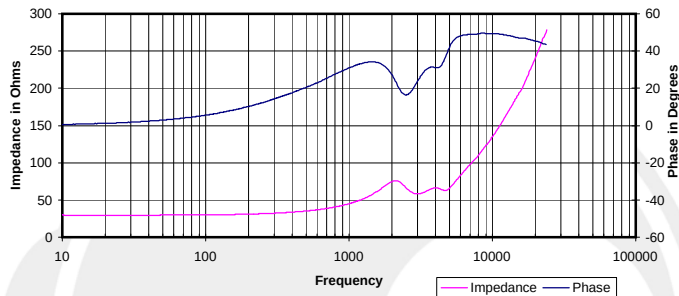
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



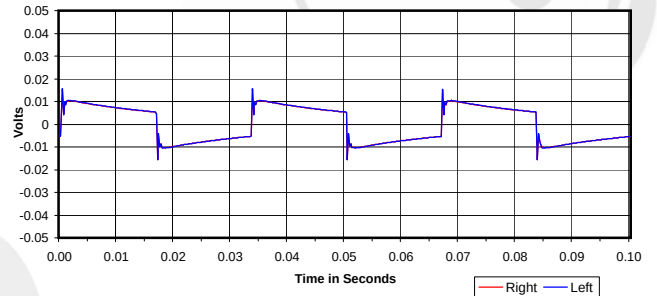
Isolation
Attenuation of External Sound vs. Frequency



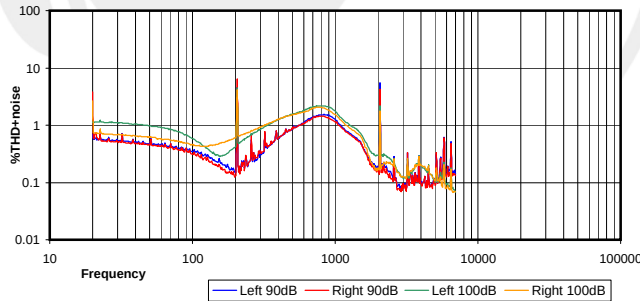
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



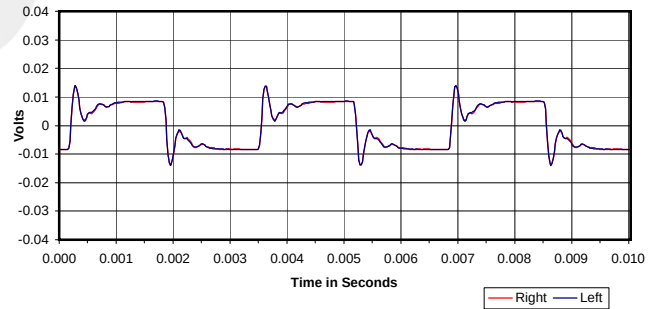
30 Hz Square Wave



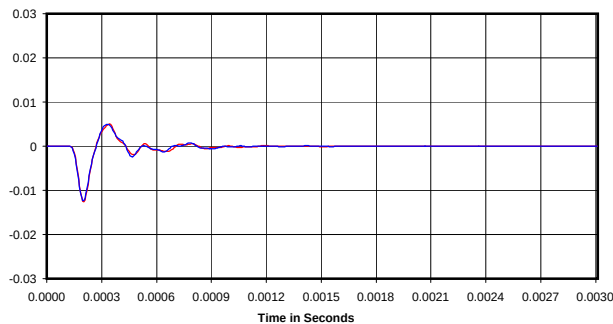
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



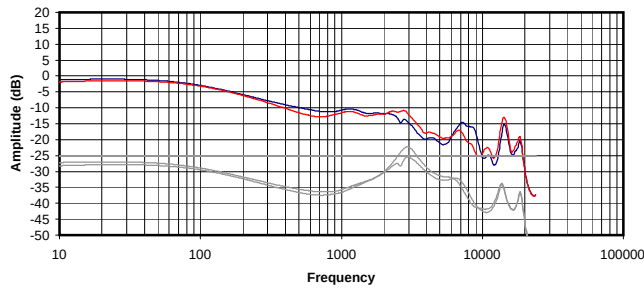
Impulse Response



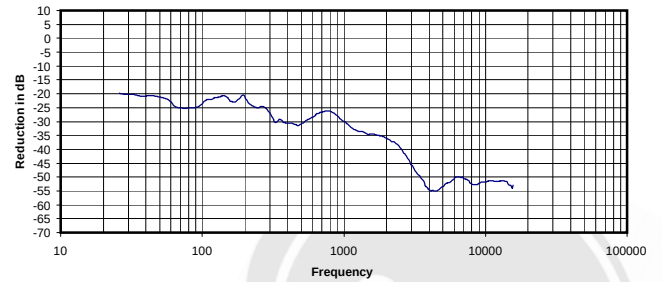
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.023 Vrms
45 Ohms
0.01 mW
-28 dBr

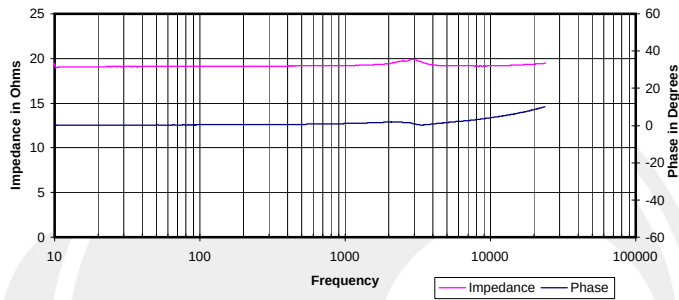
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



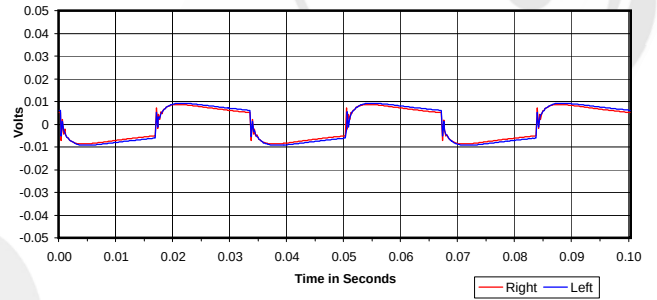
Isolation
Attenuation of External Sound vs. Frequency



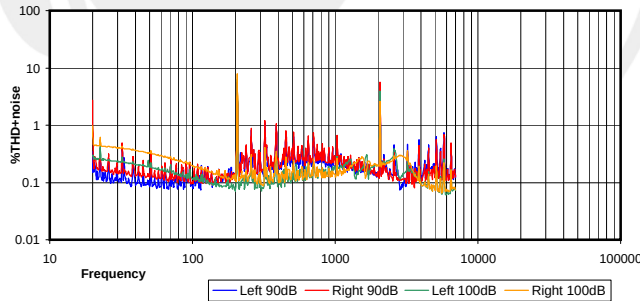
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



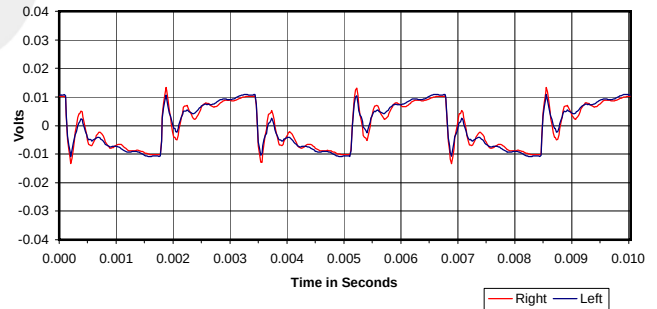
30 Hz Square Wave



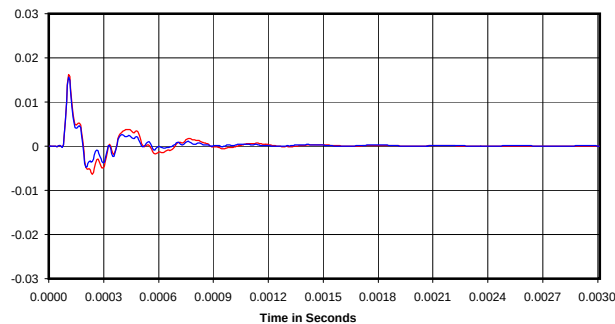
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



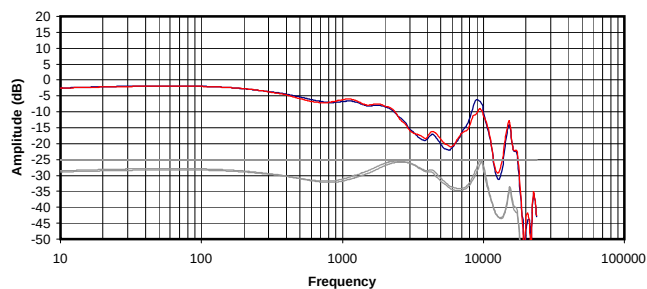
Impulse Response



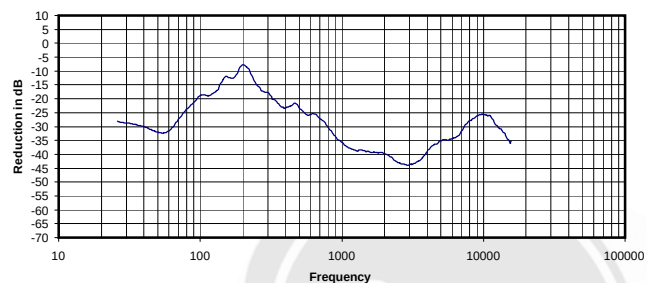
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.052 Vrms
19 Ohms
0.14 mW
-33 dBr

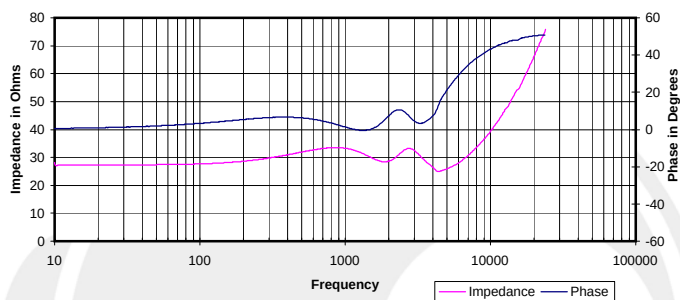
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



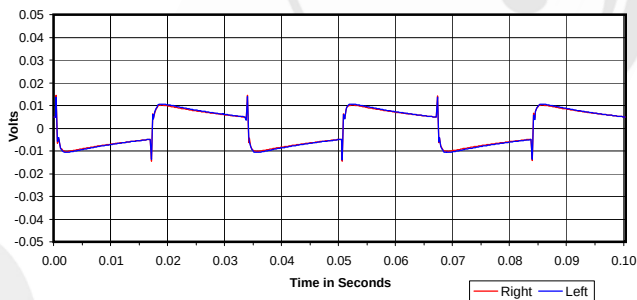
Isolation
Attenuation of External Sound vs. Frequency



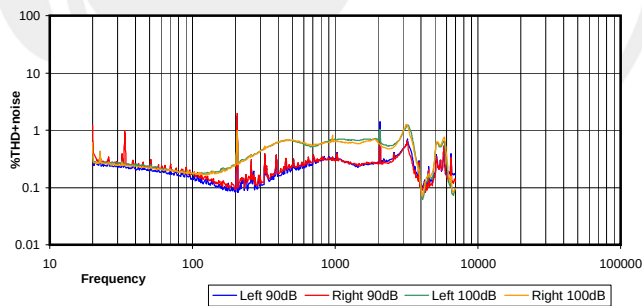
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



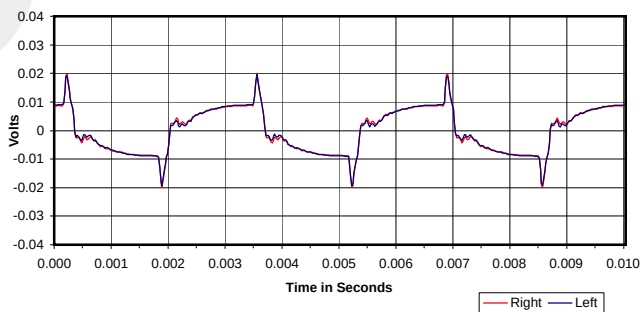
30 Hz Square Wave



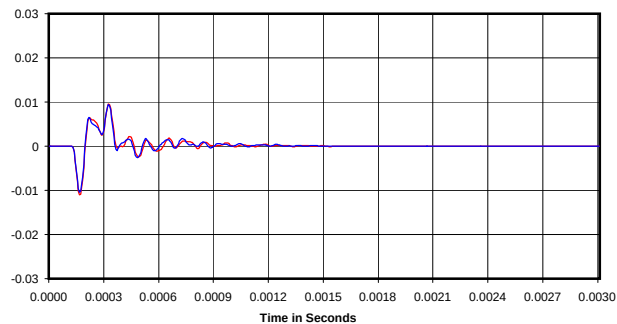
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



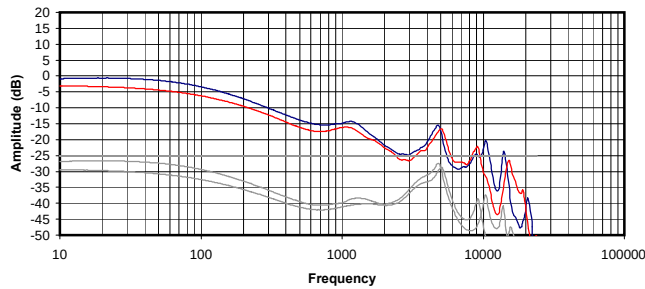
Impulse Response



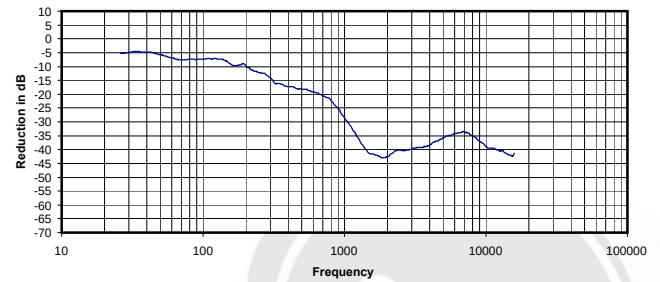
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.036 Vrms
33 Ohms
0.04 mW
-28 dBr

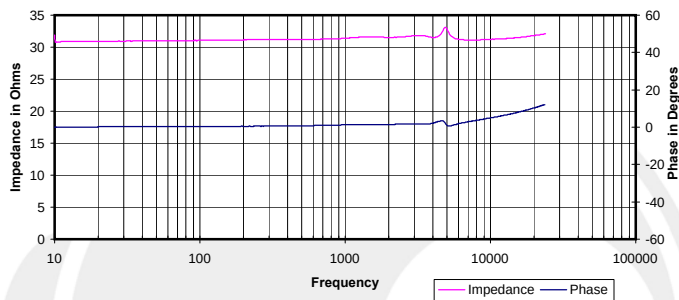
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



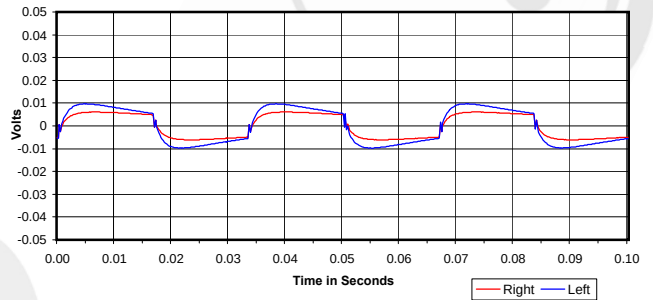
Isolation
Attenuation of External Sound vs. Frequency



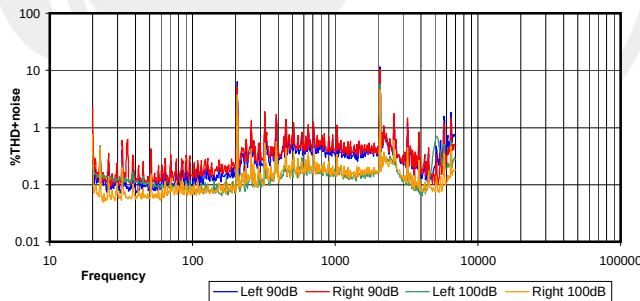
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



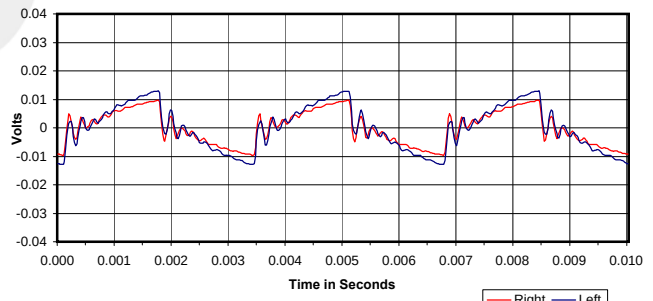
30 Hz Square Wave



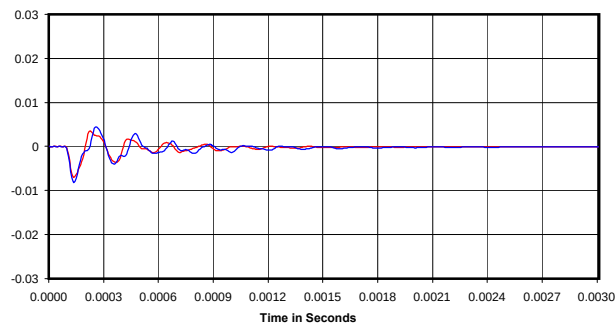
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



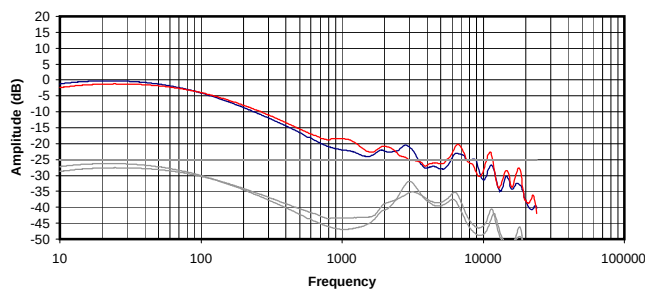
Impulse Response



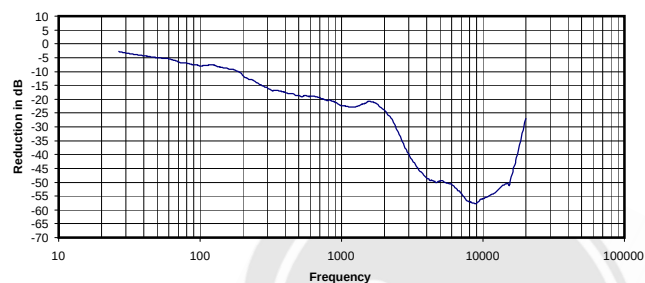
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.031 Vrms
31 Ohms
0.03 mW
-25 dBr

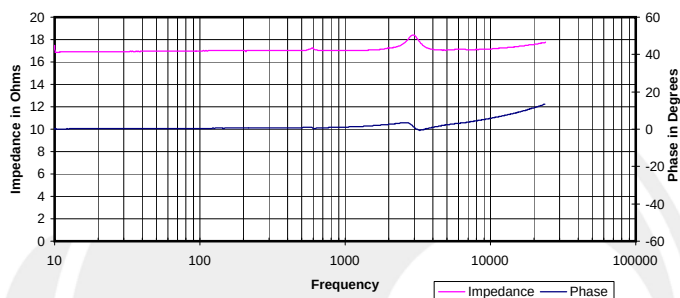
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



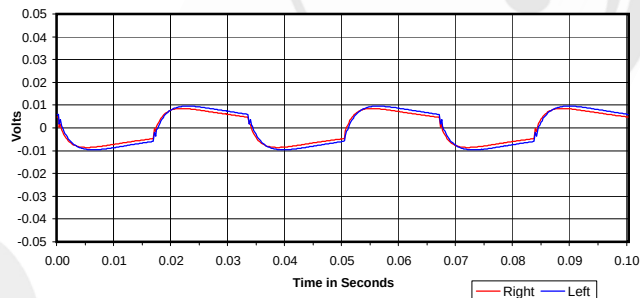
Isolation
Attenuation of External Sound vs. Frequency



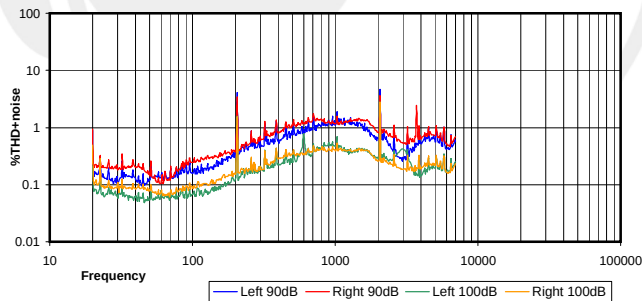
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



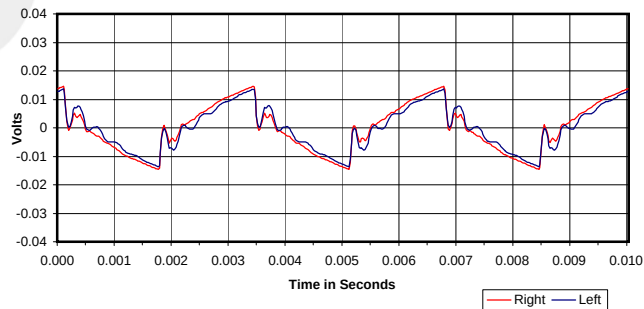
30 Hz Square Wave



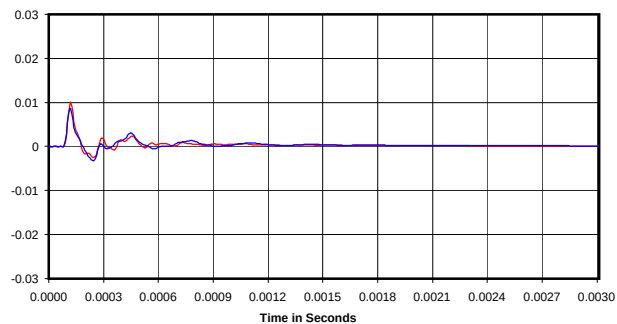
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



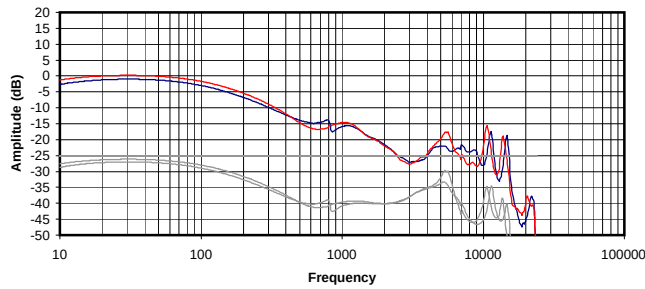
Impulse Response



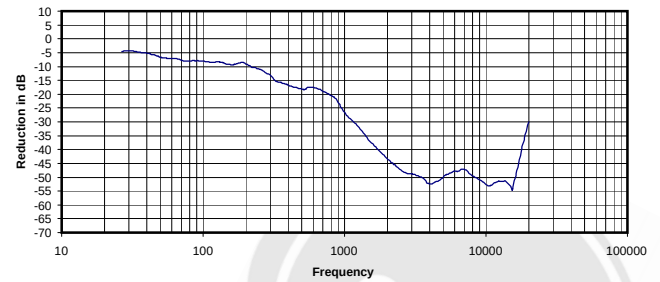
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.044 Vrms
17 Ohms
0.12 mW
-27 dBr

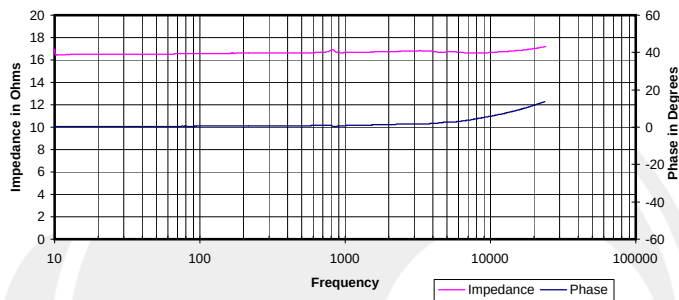
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



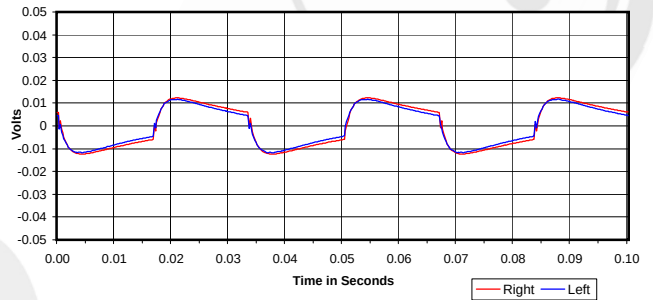
Isolation
Attenuation of External Sound vs. Frequency



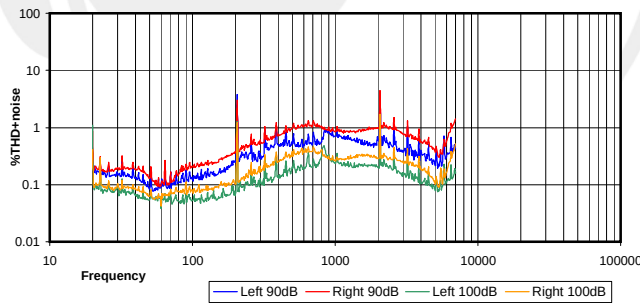
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



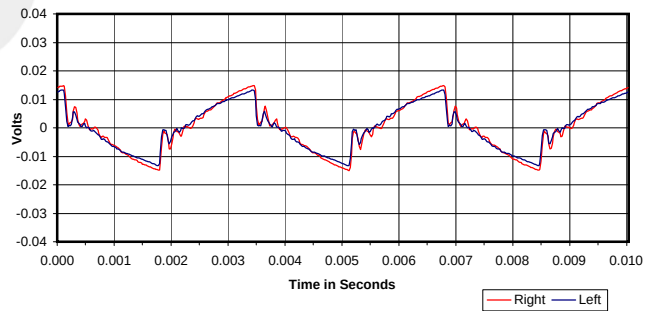
30 Hz Square Wave



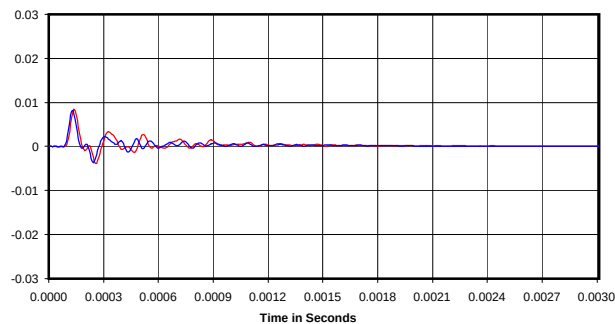
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



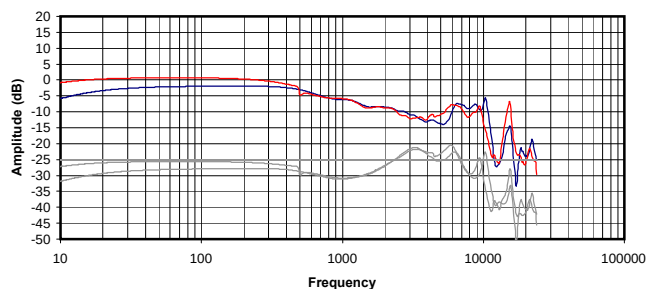
Impulse Response



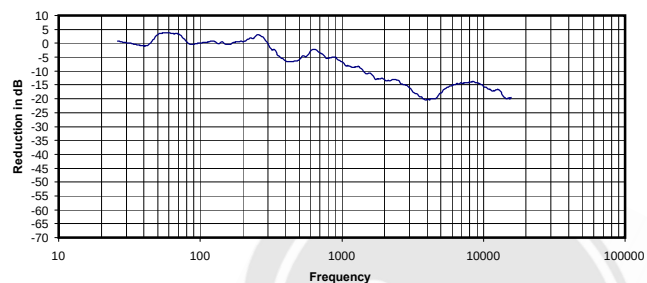
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.026 Vrms
17 Ohms
0.04 mW
-30 dBr

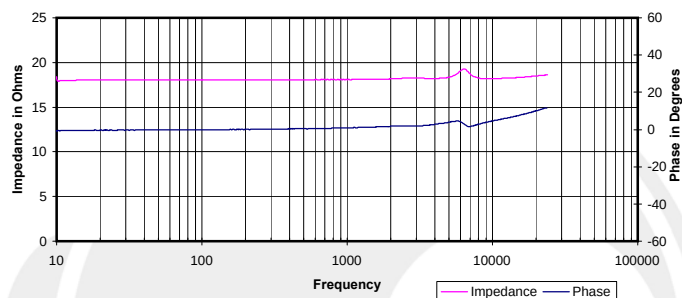
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



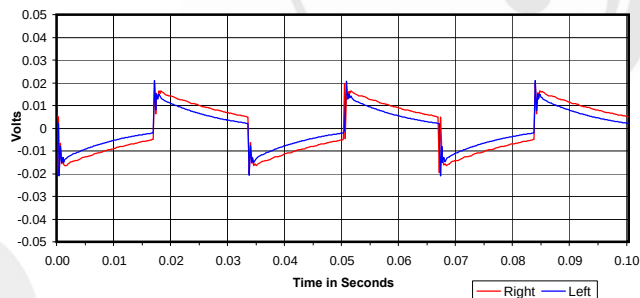
Isolation
Attenuation of External Sound vs. Frequency



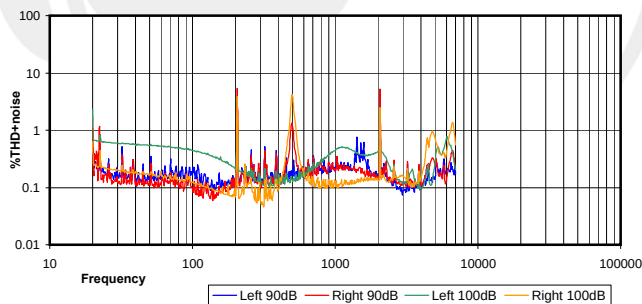
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



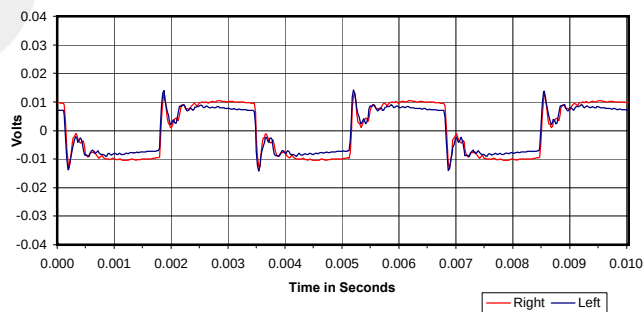
30 Hz Square Wave



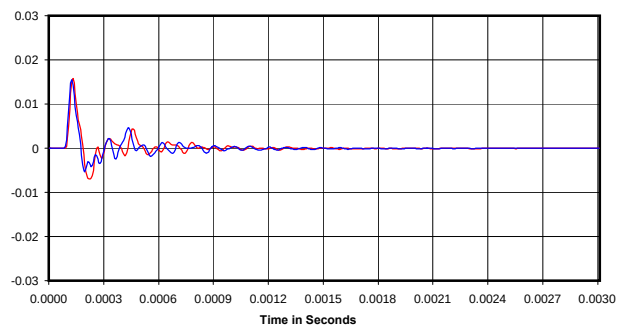
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



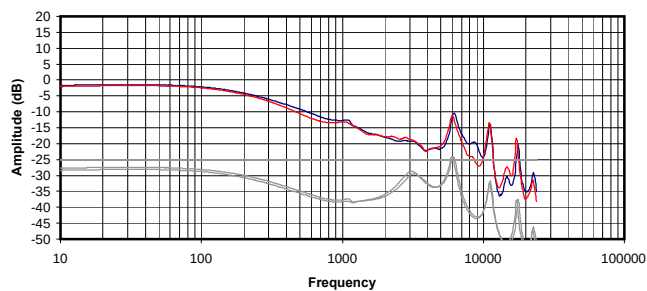
Impulse Response



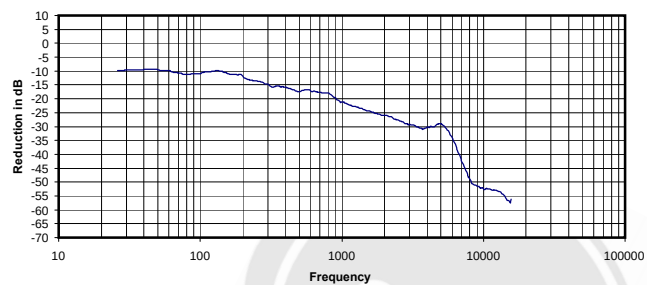
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.034 Vrms
18 Ohms
0.06 mW
-7 dB

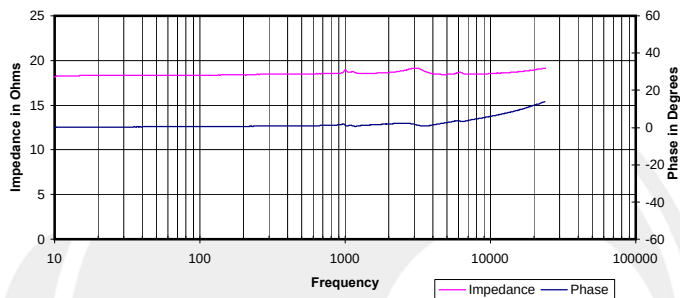
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



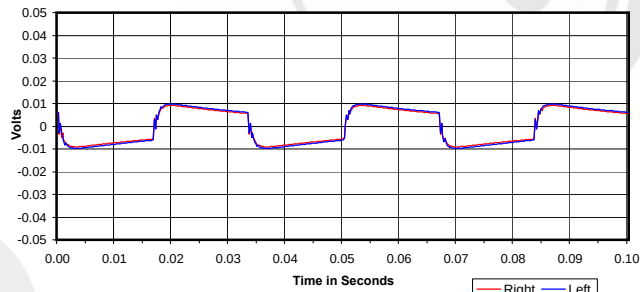
Isolation
Attenuation of External Sound vs. Frequency



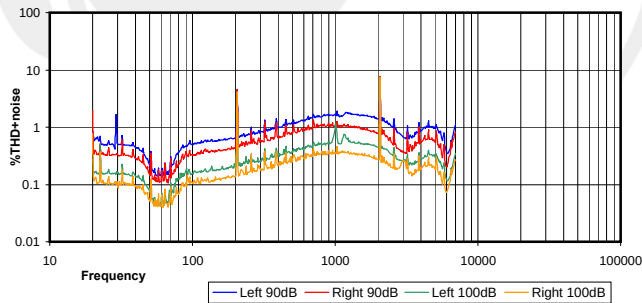
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



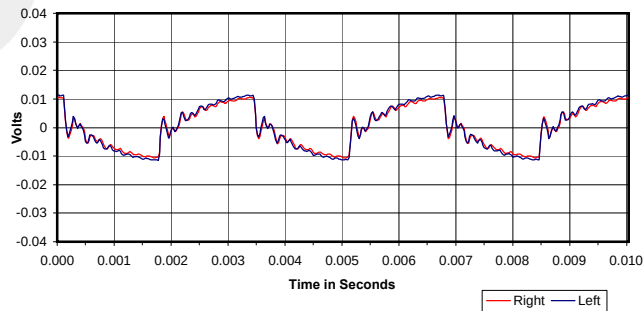
30 Hz Square Wave



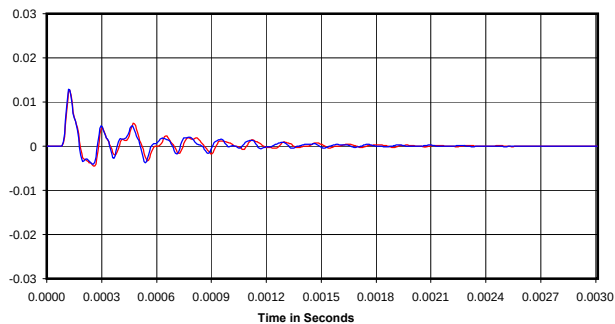
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



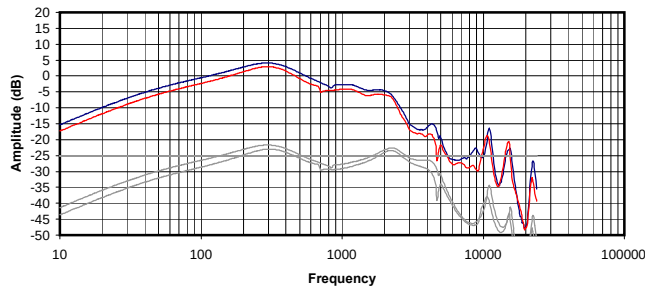
Impulse Response



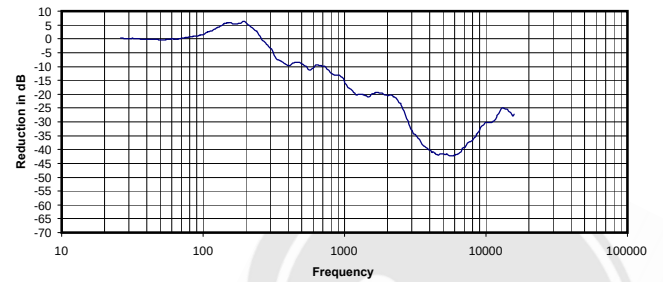
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.026 Vrms
19 Ohms
0.04 mW
-20 dBr

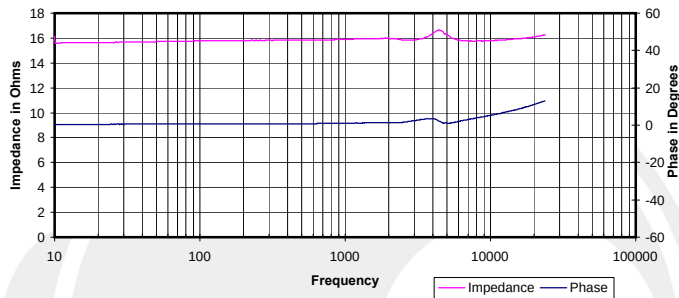
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



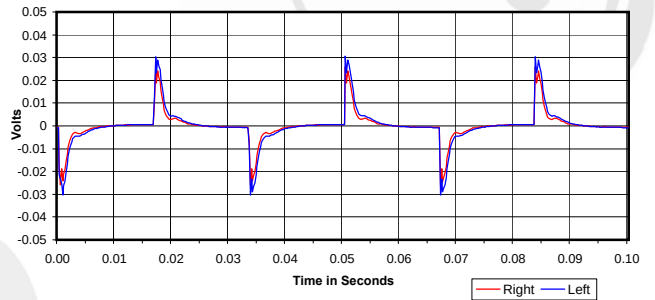
Isolation
Attenuation of External Sound vs. Frequency



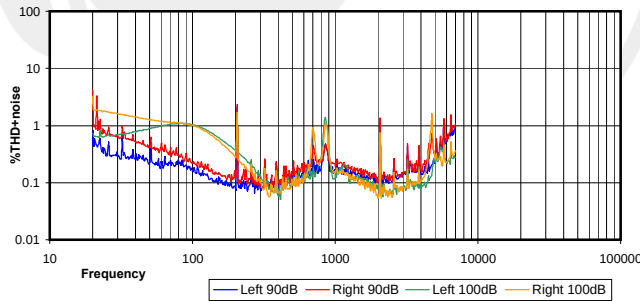
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



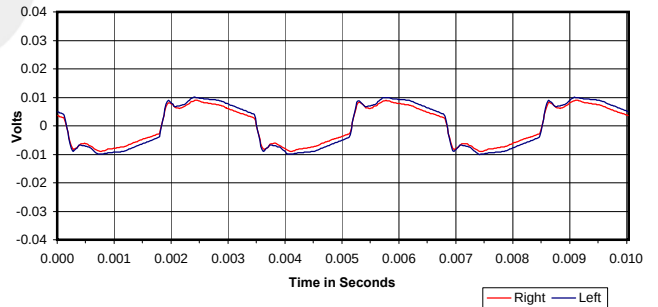
30 Hz Square Wave



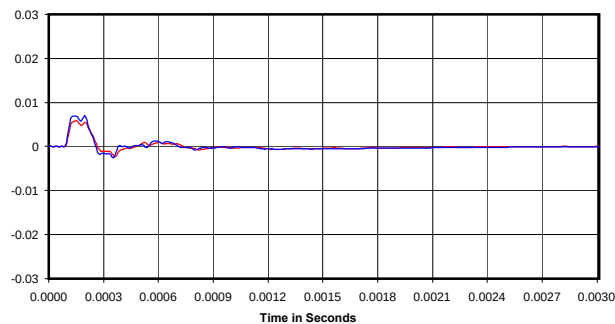
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



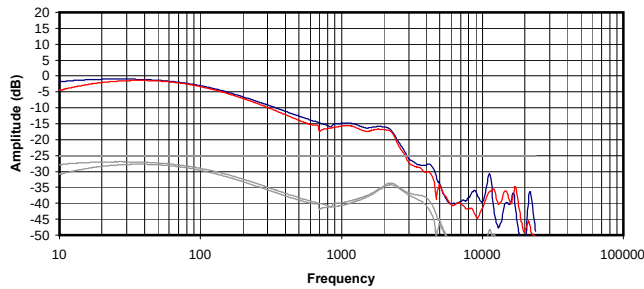
Impulse Response



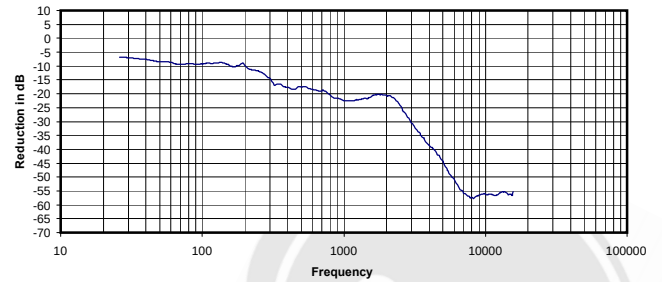
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.022 Vrms
16 Ohms
0.03 mW
-15 dBr

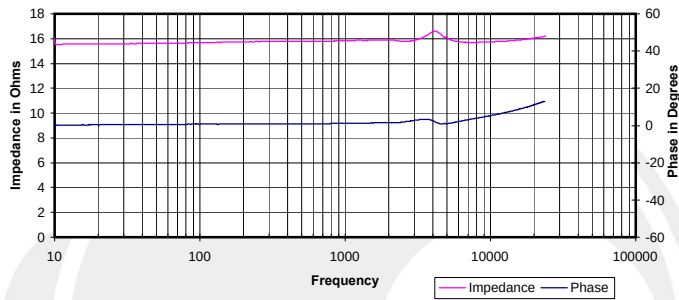
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



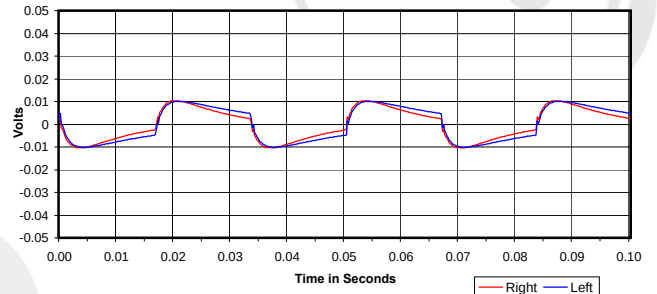
Isolation
Attenuation of External Sound vs. Frequency



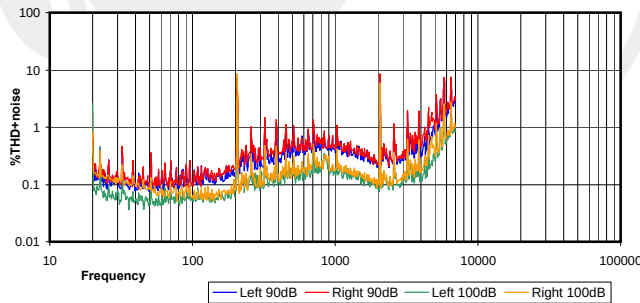
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



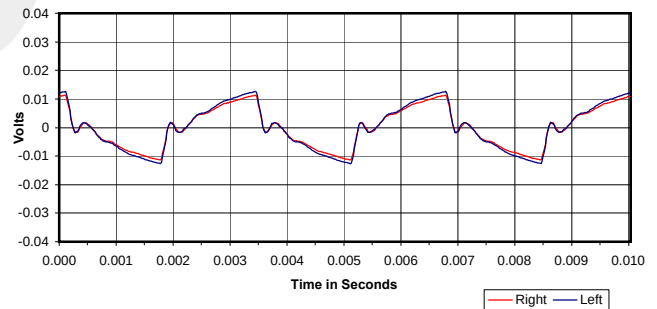
30 Hz Square Wave



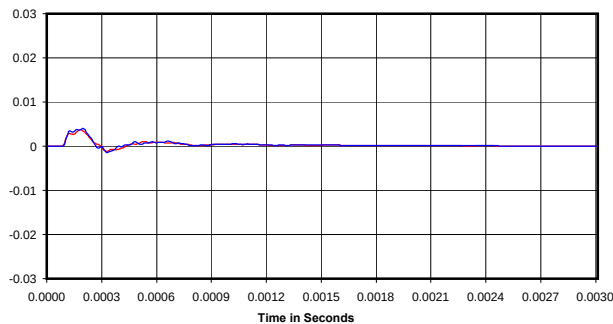
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



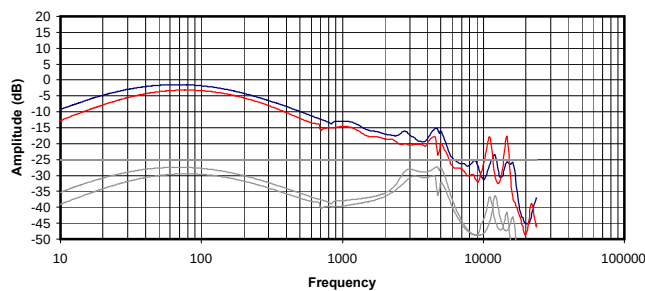
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.021 Vrms
16 Ohms
0.03 mW
-21 dBr

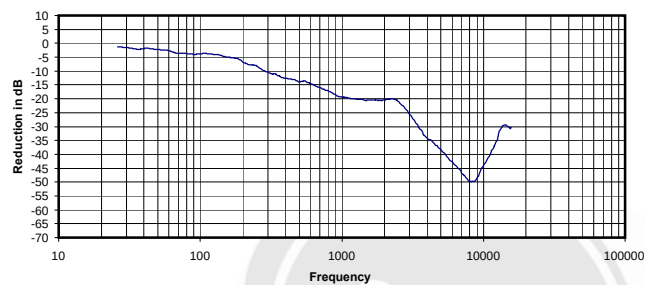


Headphone Measurements: Torque t103z Clear

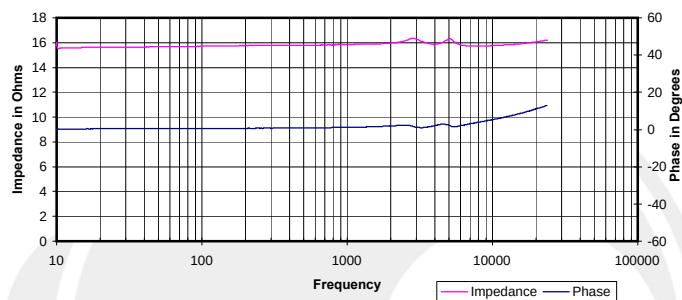
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



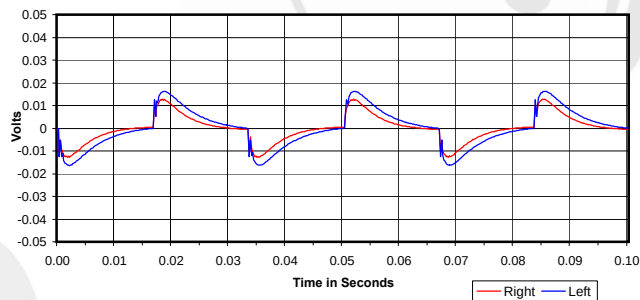
Isolation
Attenuation of External Sound vs. Frequency



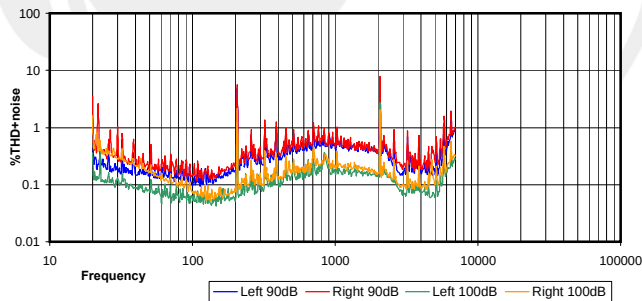
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



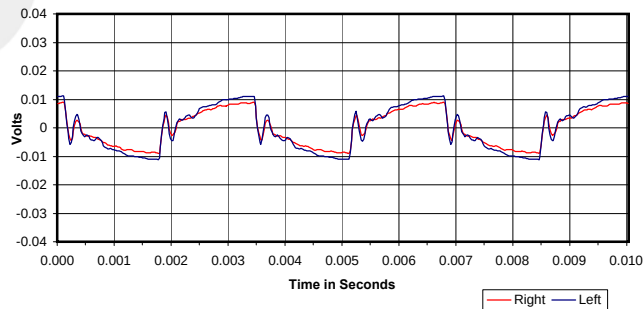
30 Hz Square Wave



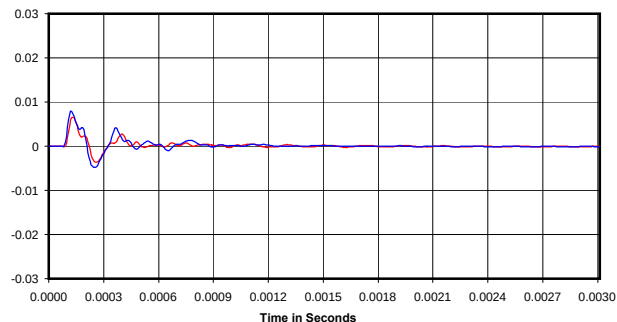
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



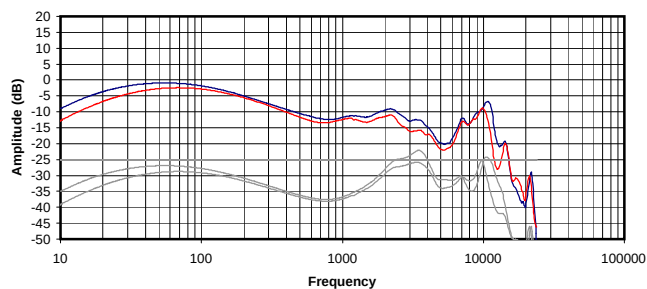
Impulse Response



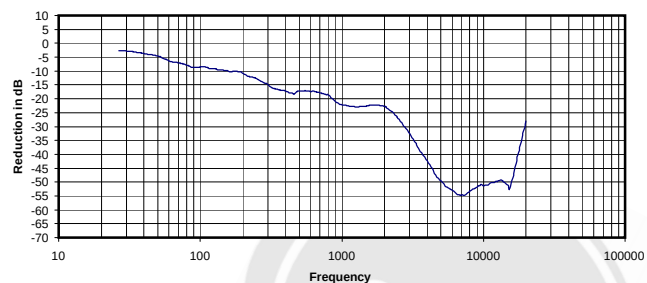
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.023 Vrms
16 Ohms
0.03 mW
-17 dB

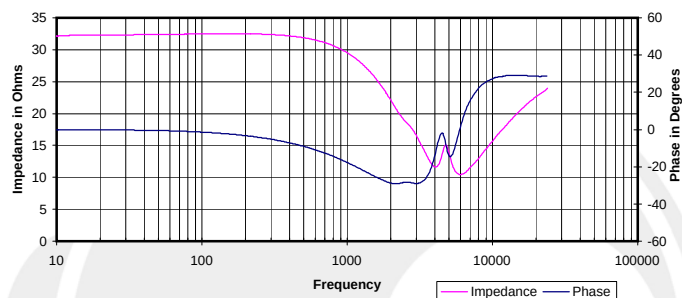
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



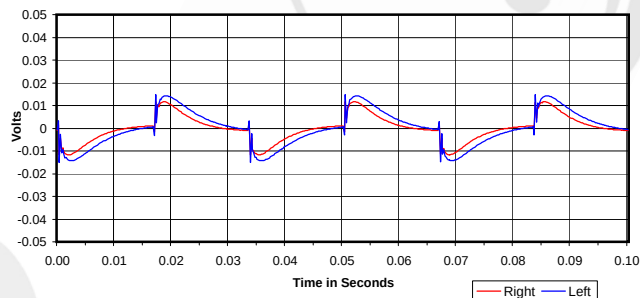
Isolation
Attenuation of External Sound vs. Frequency



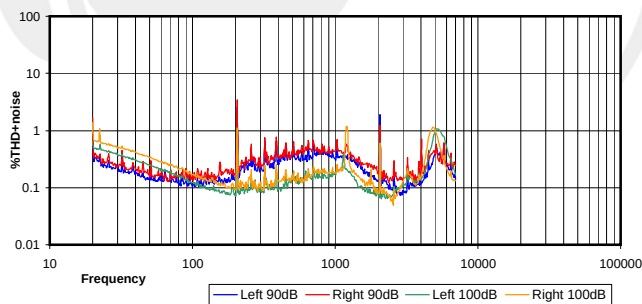
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



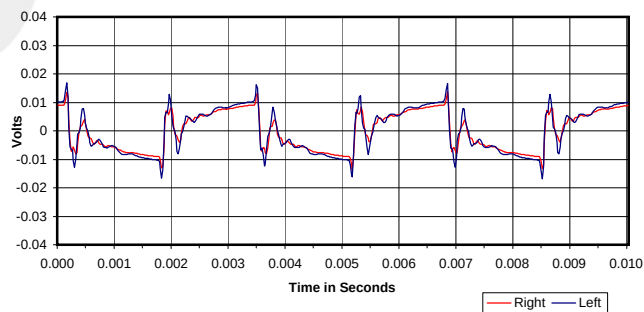
30 Hz Square Wave



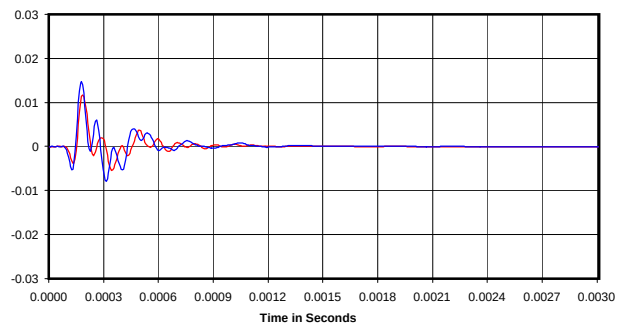
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



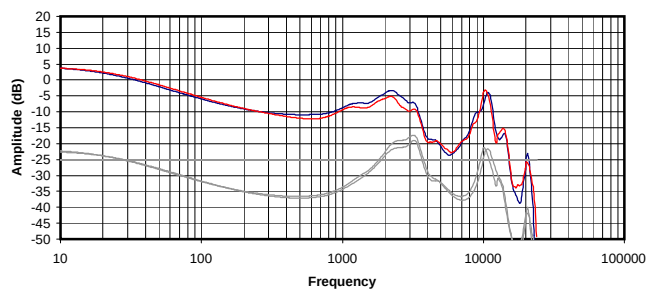
Impulse Response



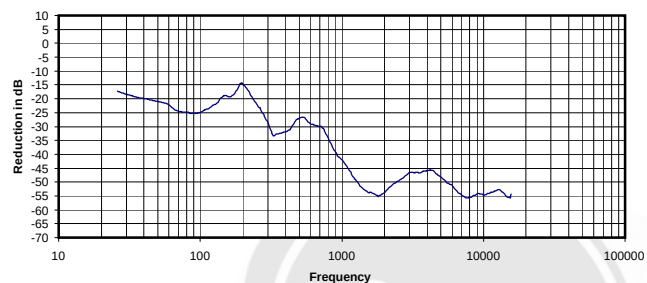
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.034 Vrms
30 Ohms
0.04 mW
-26 dBr

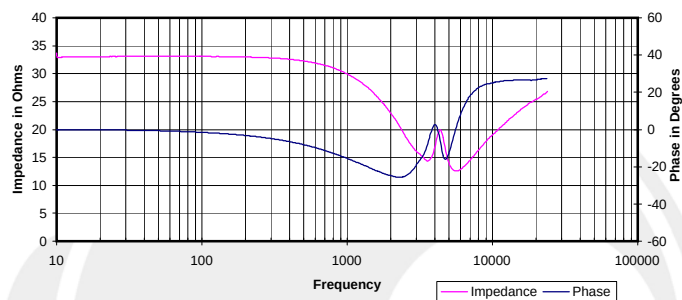
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



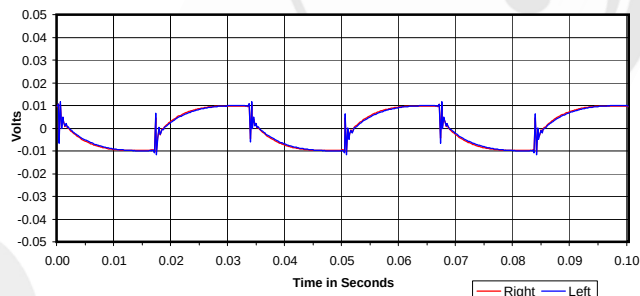
Isolation
Attenuation of External Sound vs. Frequency



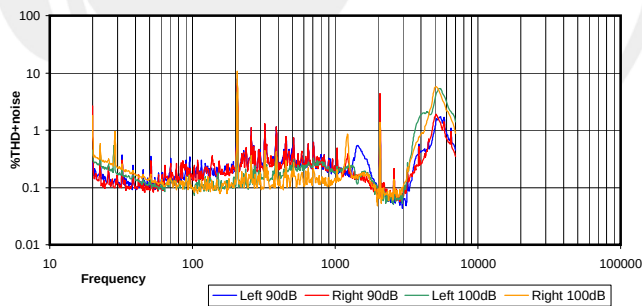
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



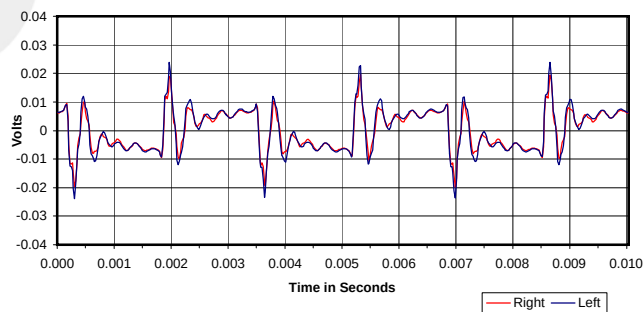
30 Hz Square Wave



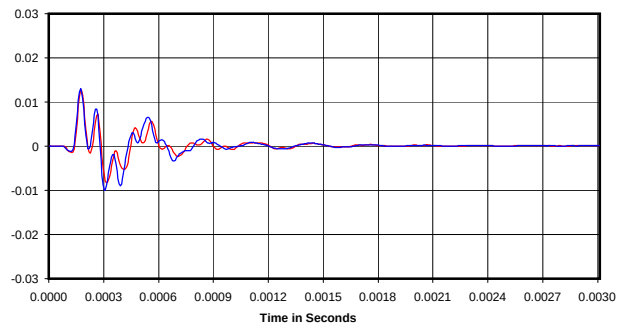
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



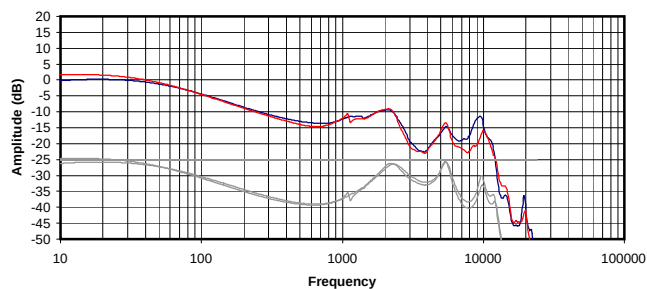
Impulse Response



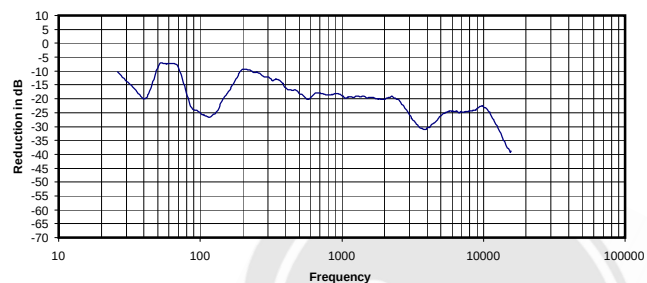
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.037 Vrms
30 Ohms
0.05 mW
-36 dBr

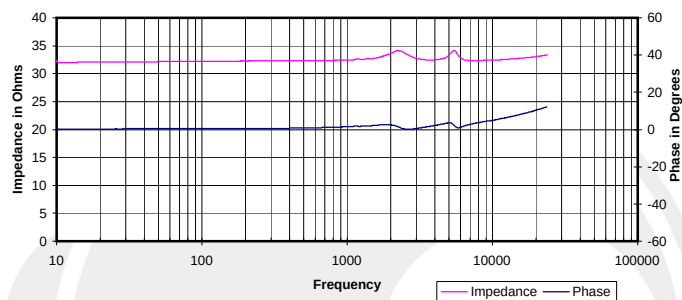
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



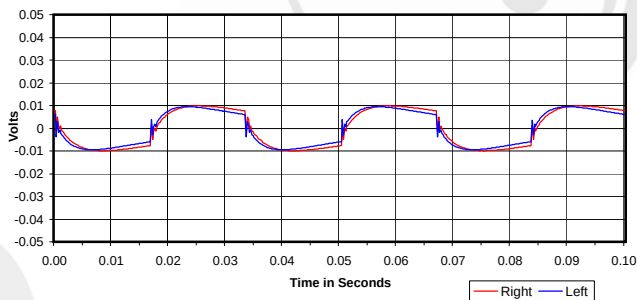
Isolation
Attenuation of External Sound vs. Frequency



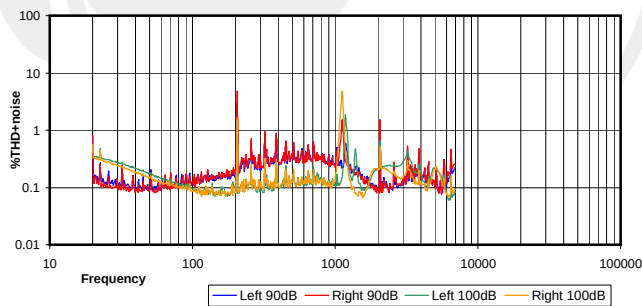
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



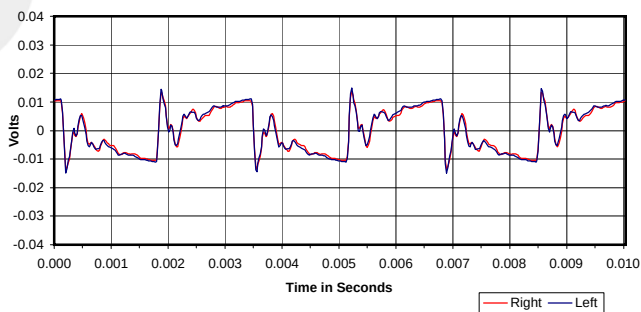
30 Hz Square Wave



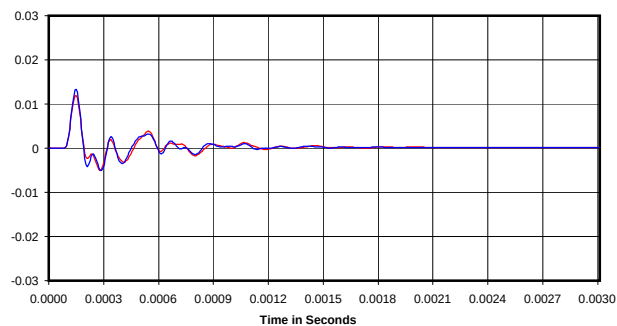
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



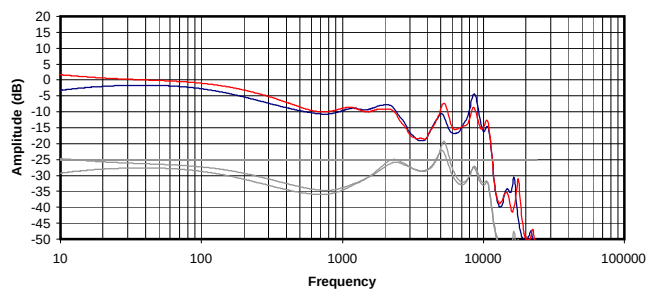
Impulse Response



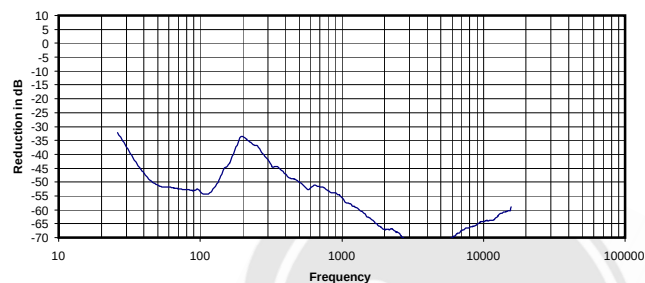
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.042 Vrms
32 Ohms
0.06 mW
-20 dBr

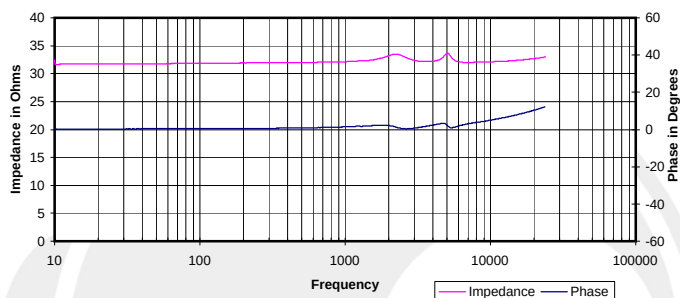
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



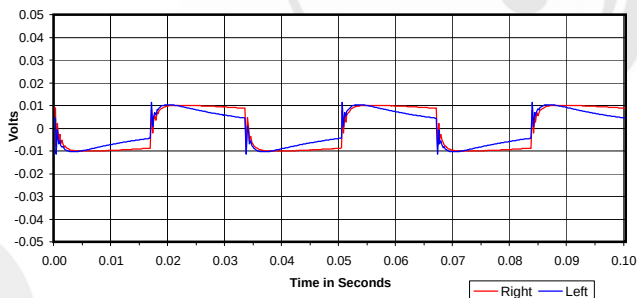
Isolation
Attenuation of External Sound vs. Frequency



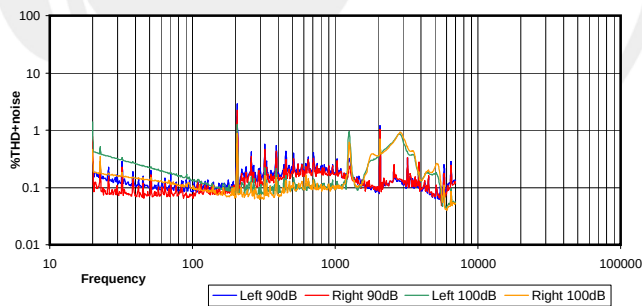
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



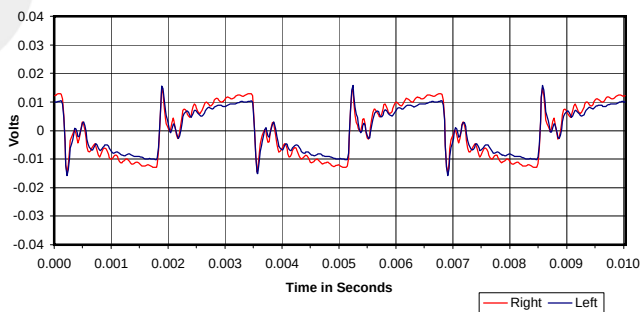
30 Hz Square Wave



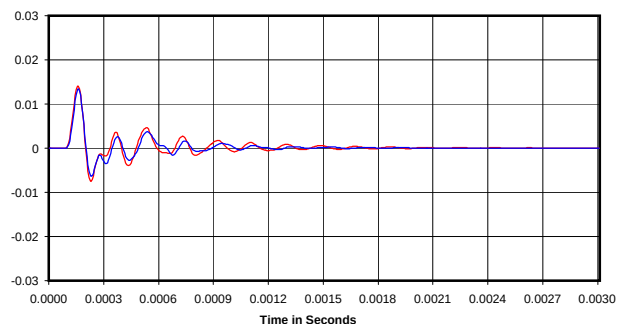
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



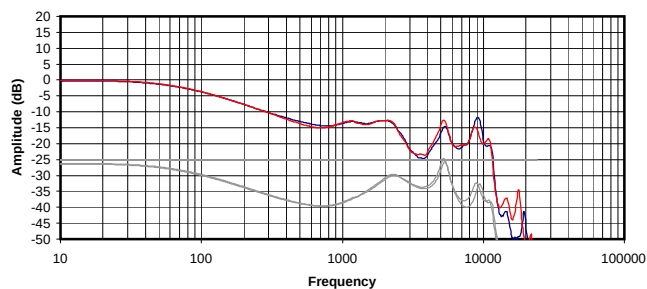
Impulse Response



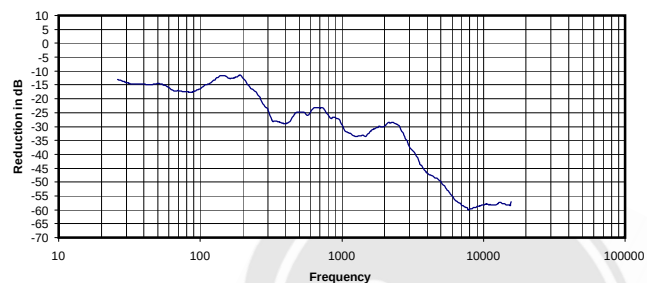
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.043 Vrms
32 Ohms
0.06 mW
-56 dBr

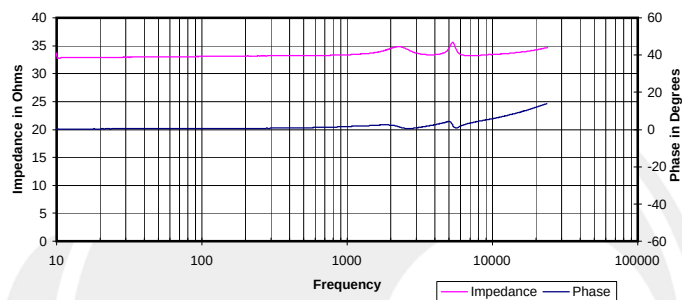
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



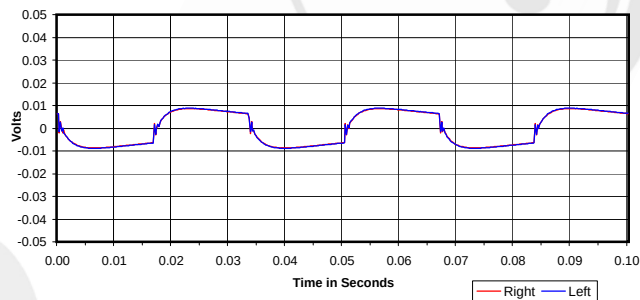
Isolation
Attenuation of External Sound vs. Frequency



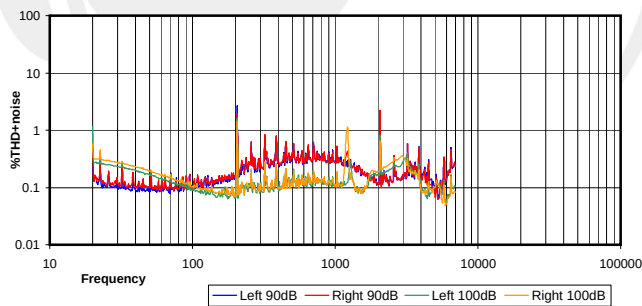
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



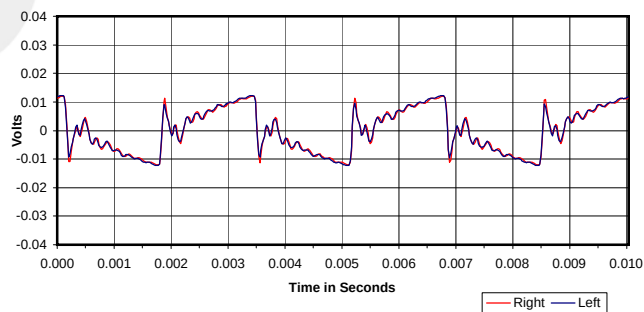
30 Hz Square Wave



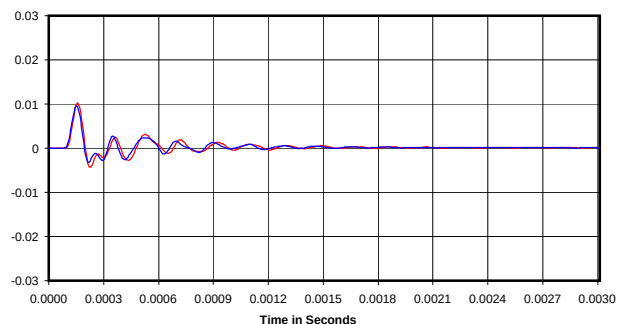
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



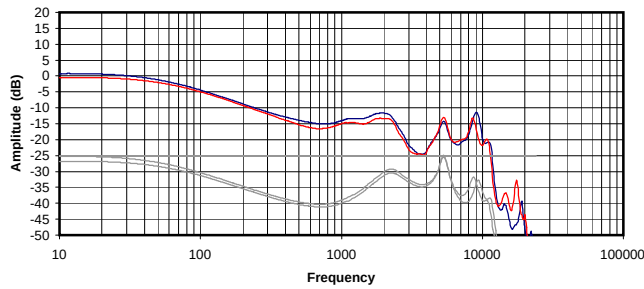
Impulse Response



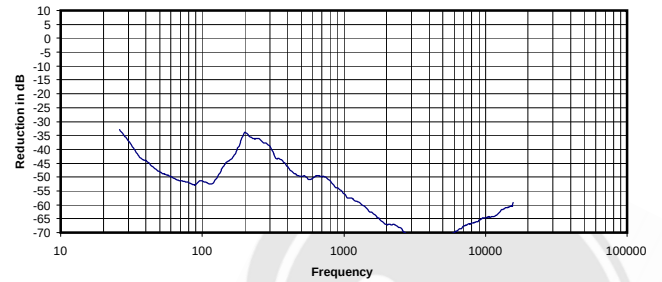
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.039 Vrms
33 Ohms
0.05 mW
-28 dBr

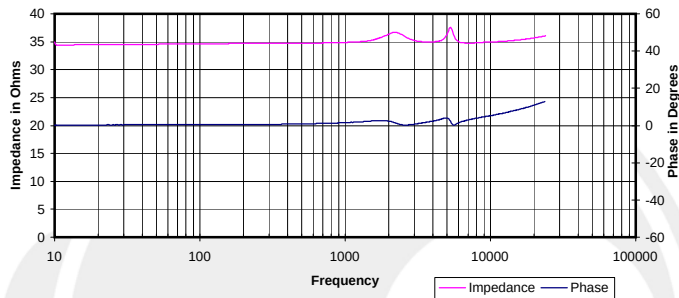
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



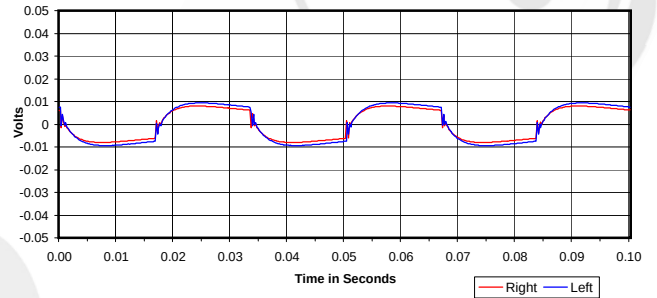
Isolation
Attenuation of External Sound vs. Frequency



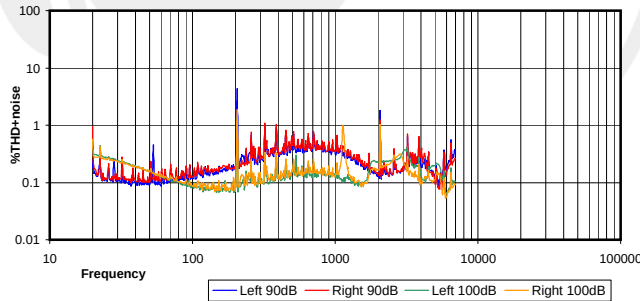
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



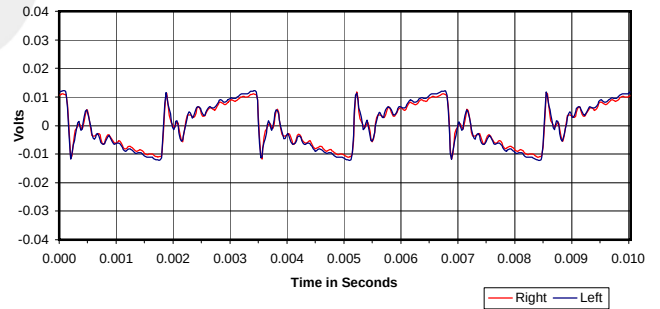
30 Hz Square Wave



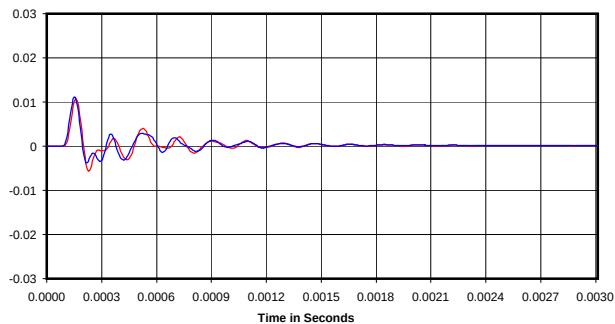
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



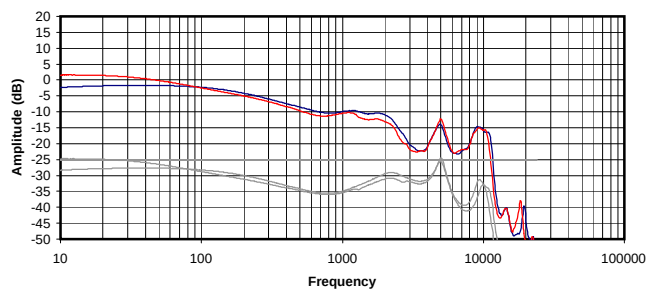
Impulse Response



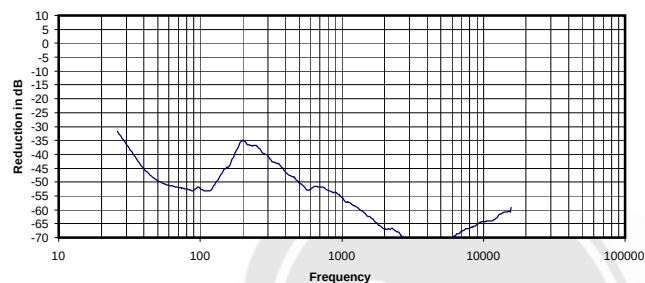
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.041 Vrms
35 Ohms
0.05 mW
-56 dBr

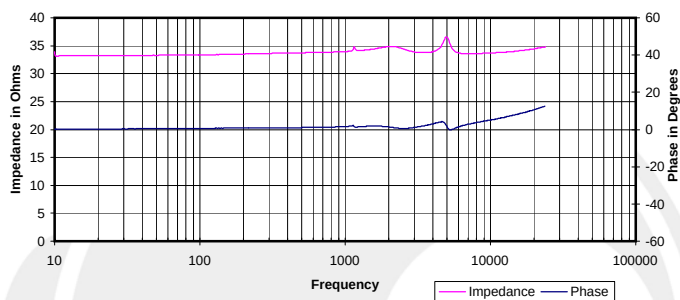
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



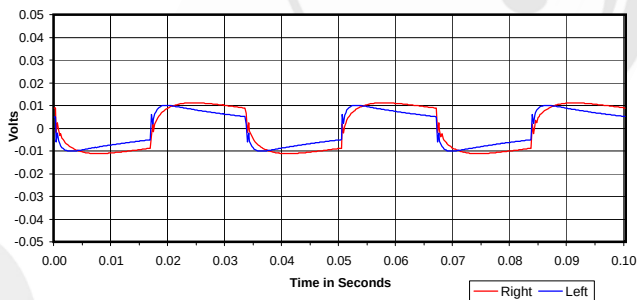
Isolation
Attenuation of External Sound vs. Frequency



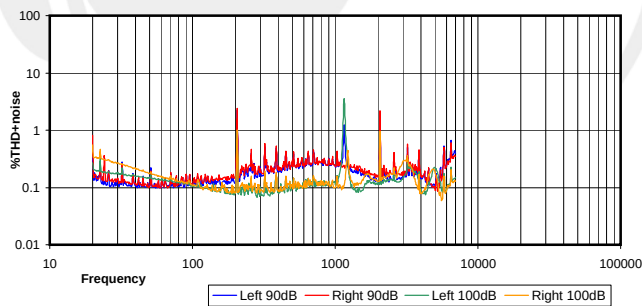
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



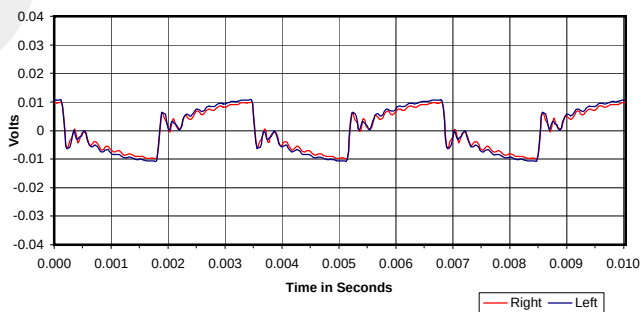
30 Hz Square Wave



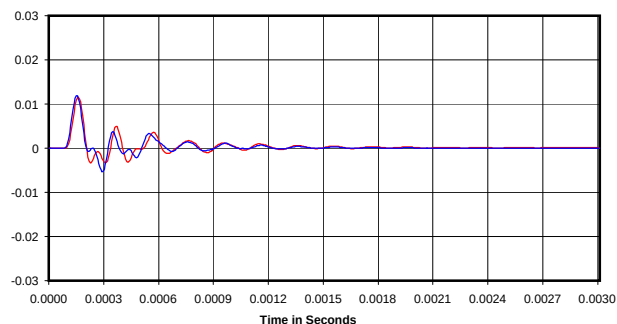
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

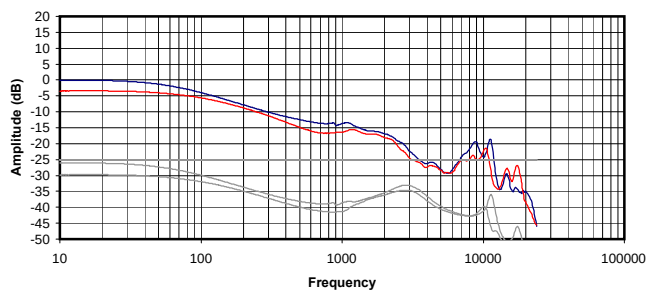
0.032 Vrms
34 Ohms
0.03 mW
-56 dBr



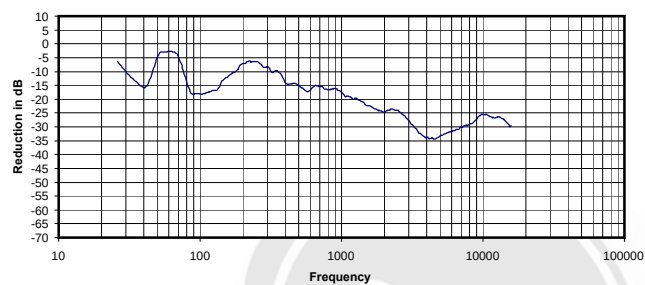
Headphone Measurements:

Ultimate Ears U350

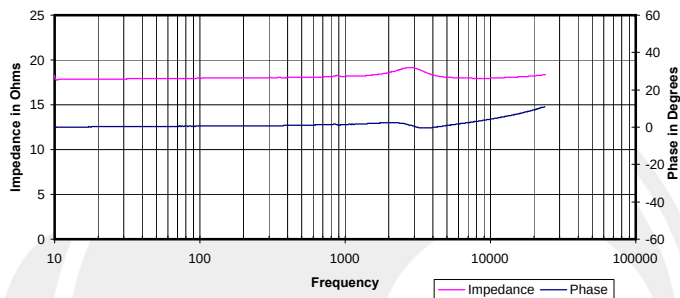
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



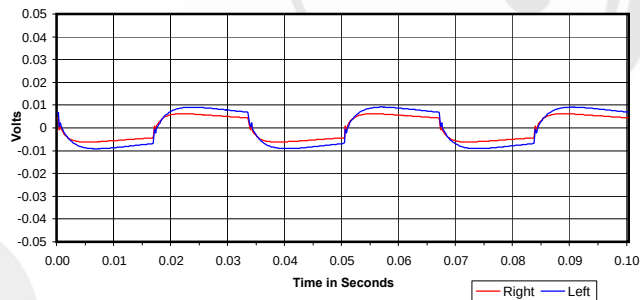
Isolation
Attenuation of External Sound vs. Frequency



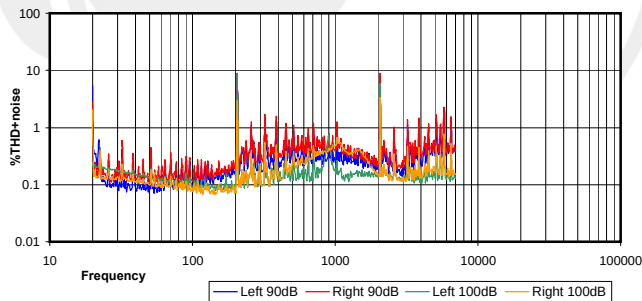
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



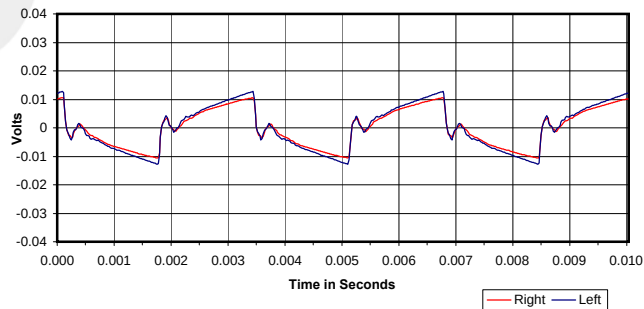
30 Hz Square Wave



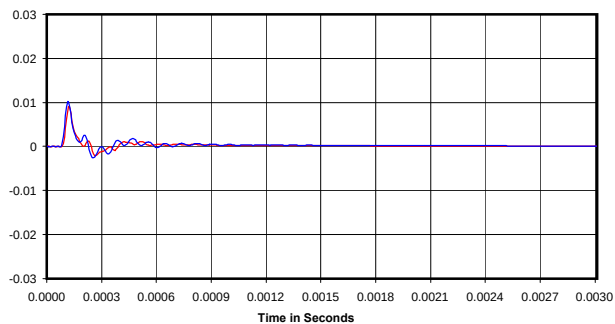
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



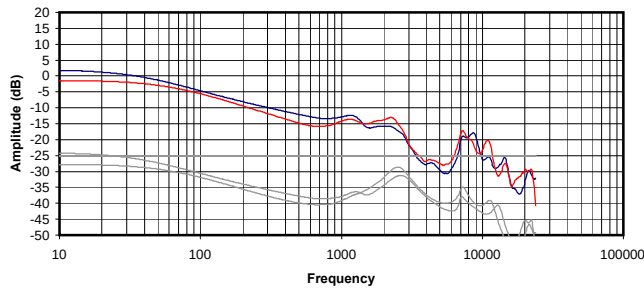
Impulse Response



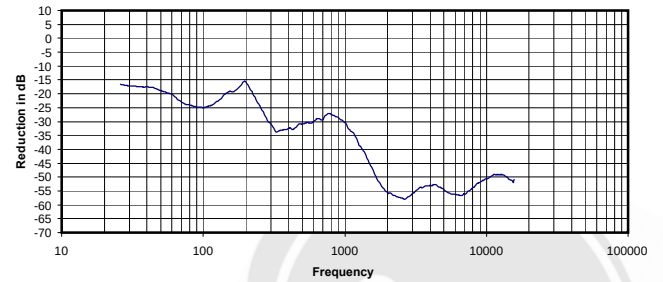
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.027 Vrms
18 Ohms
0.04 mW
-19 dBr

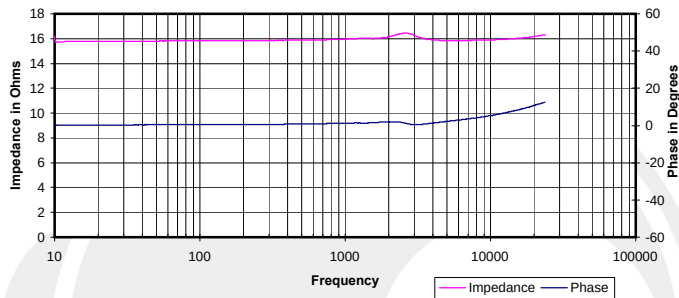
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



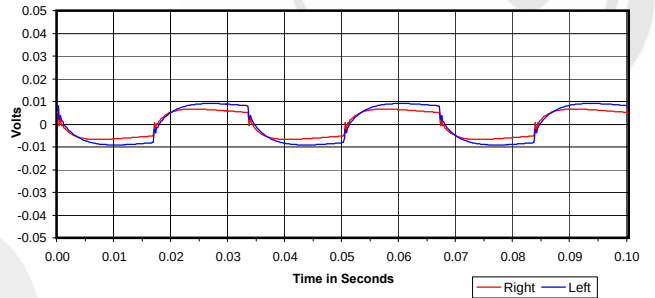
Isolation
Attenuation of External Sound vs. Frequency



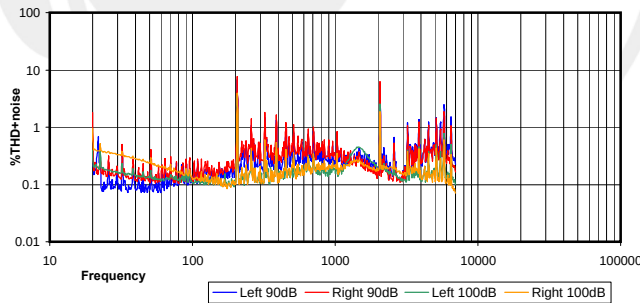
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



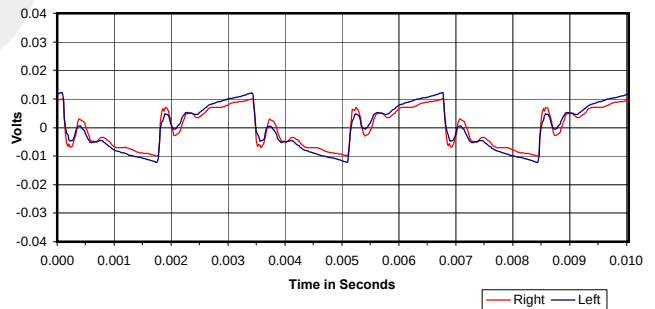
30 Hz Square Wave



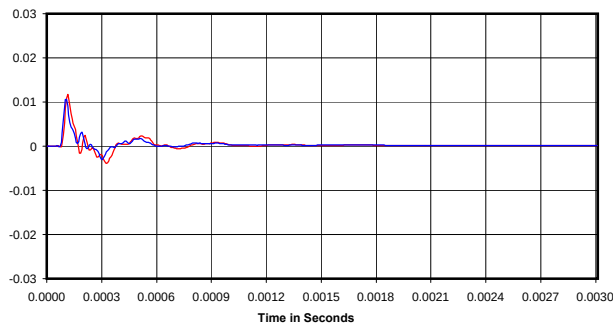
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



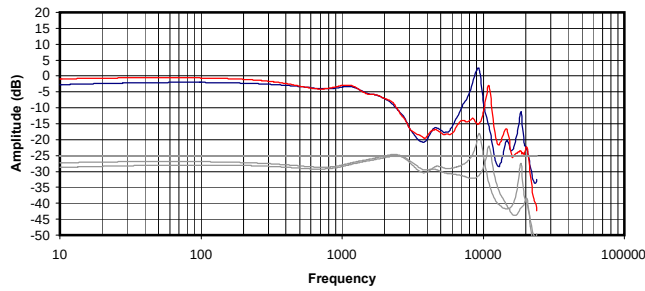
Impulse Response



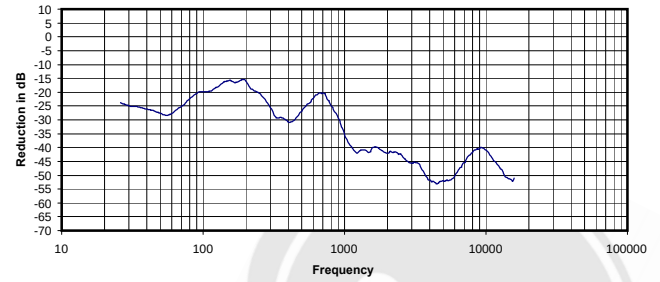
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.037 Vrms
16 Ohms
0.09 mW
-37 dBr

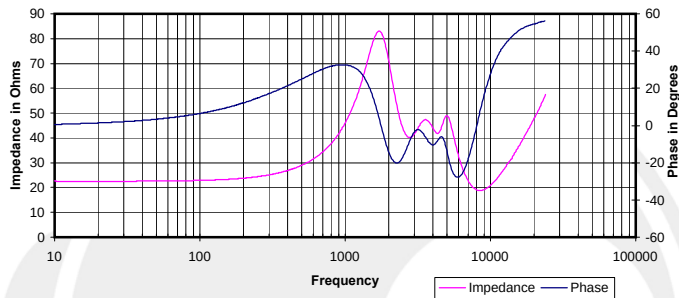
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



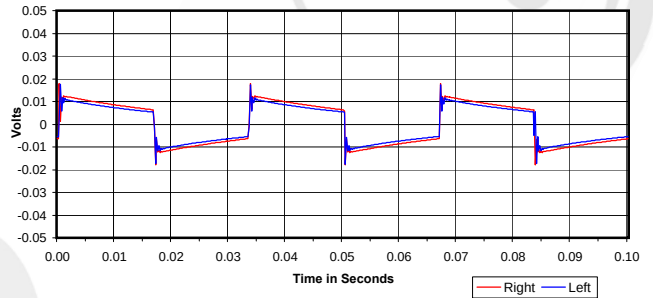
Isolation
Attenuation of External Sound vs. Frequency



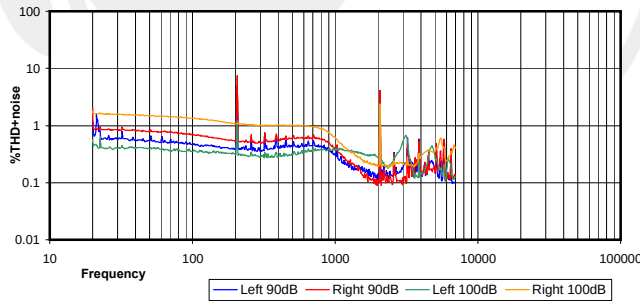
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



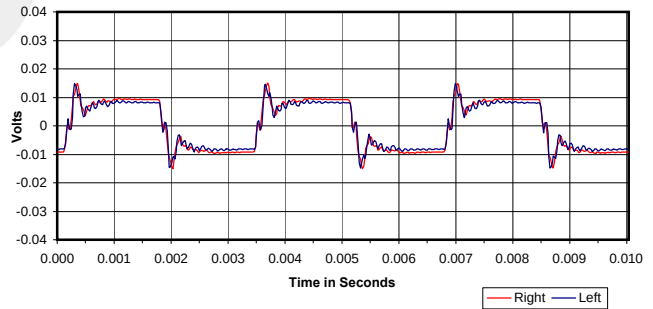
30 Hz Square Wave



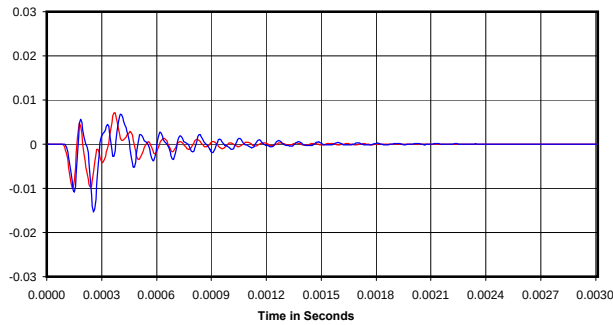
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



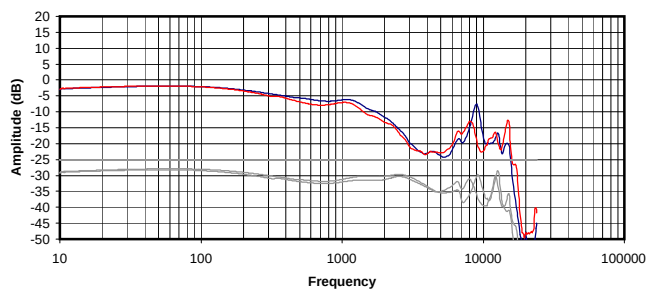
Impulse Response



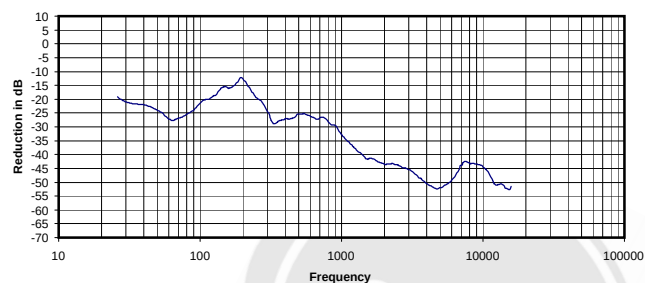
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.024 Vrms
46 Ohms
0.01 mW
-32 dB

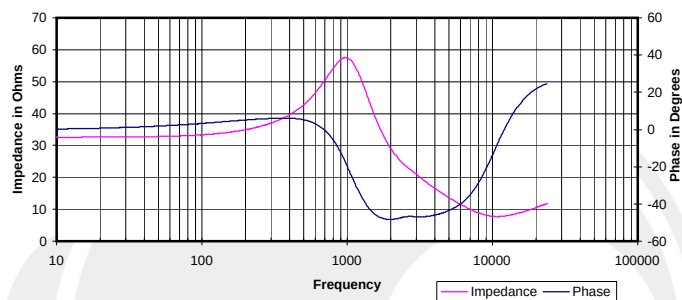
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



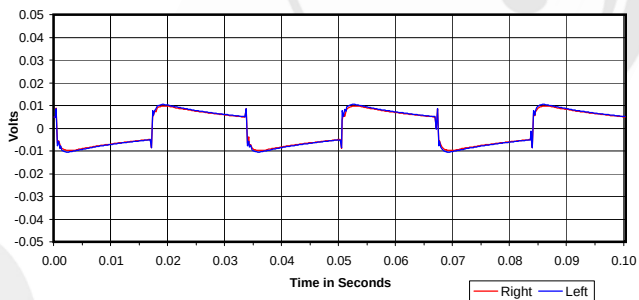
Isolation
Attenuation of External Sound vs. Frequency



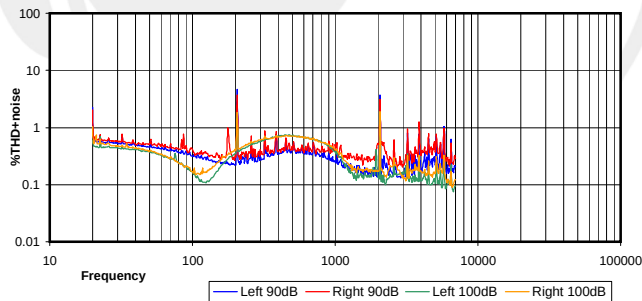
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



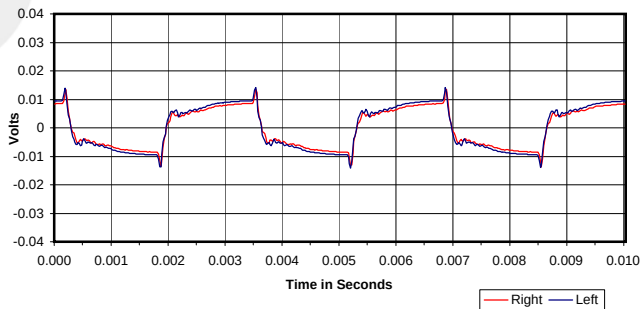
30 Hz Square Wave



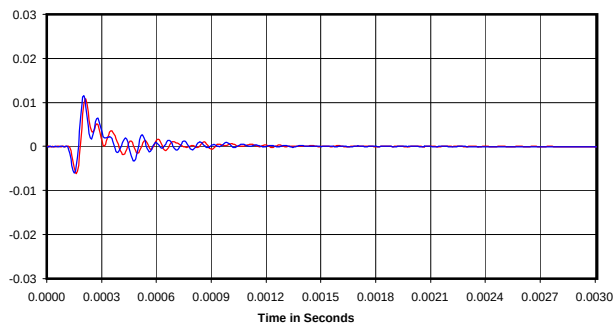
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



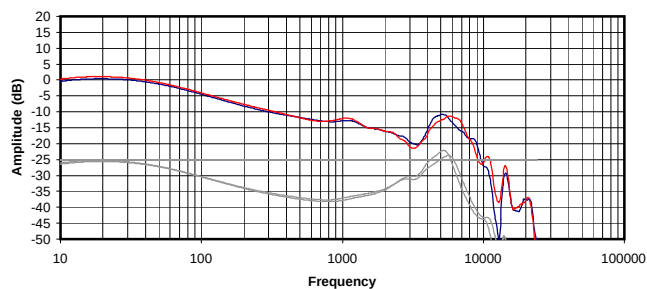
Impulse Response



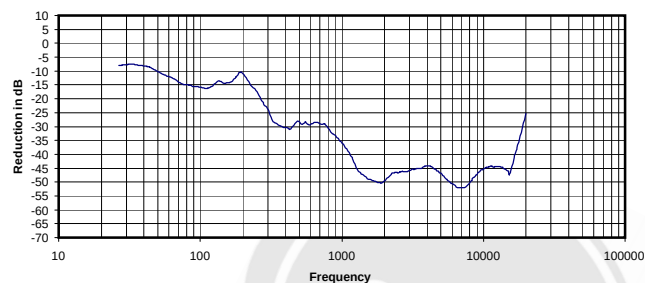
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.015 Vrms
57 Ohms
0.00 mW
-32 dBr

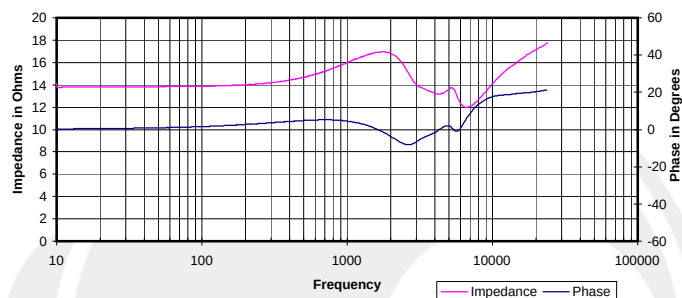
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



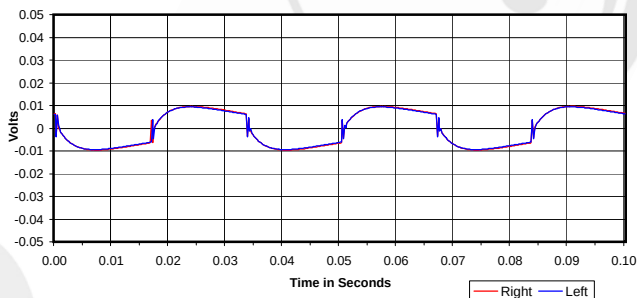
Isolation
Attenuation of External Sound vs. Frequency



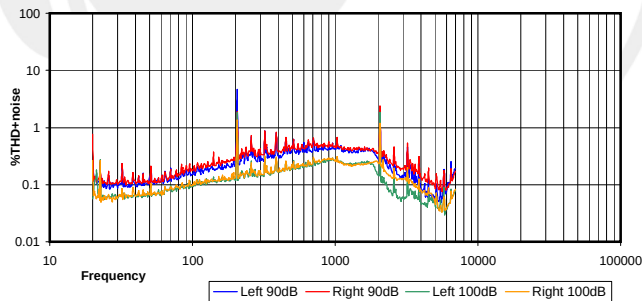
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



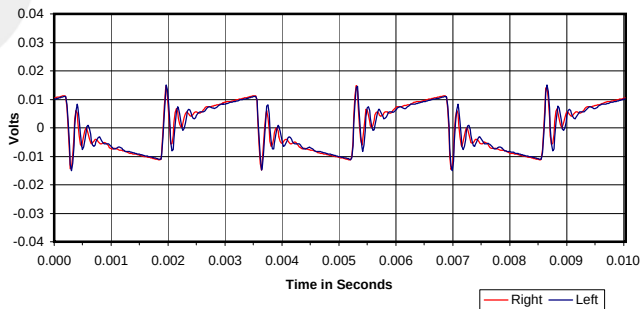
30 Hz Square Wave



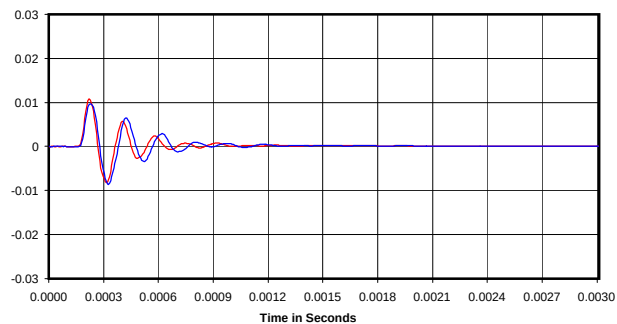
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



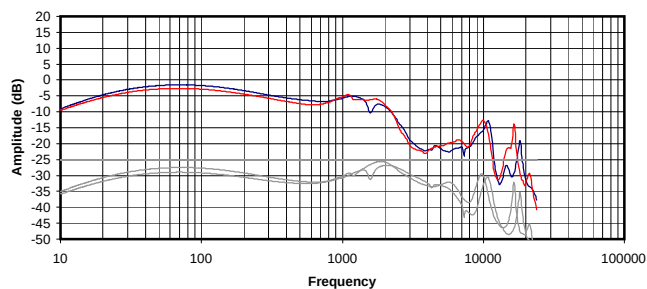
Impulse Response



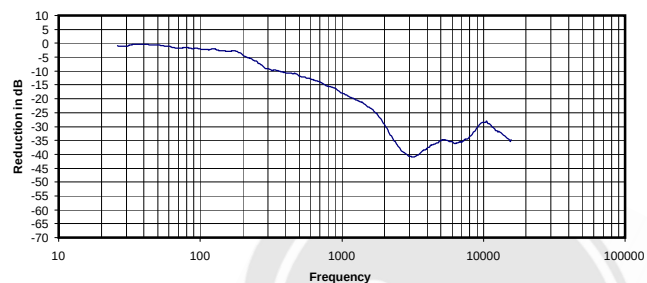
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.029 Vrms
16 Ohms
0.05 mW
-35 dB

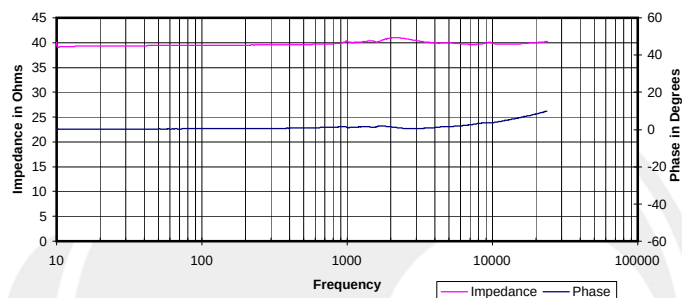
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



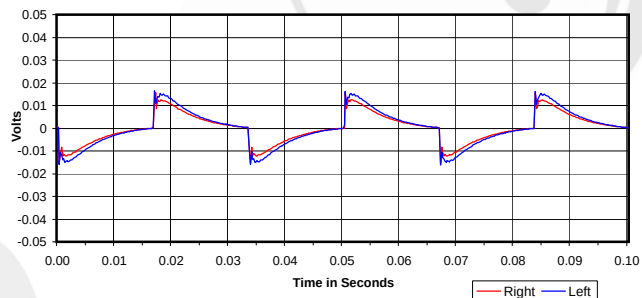
Isolation
Attenuation of External Sound vs. Frequency



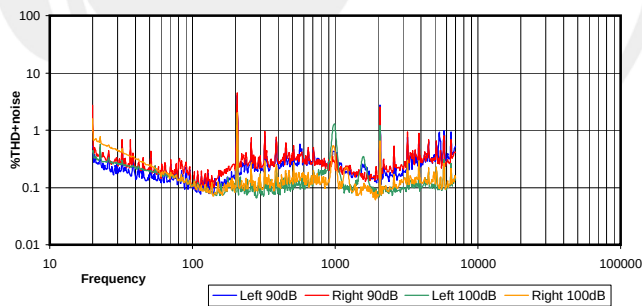
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



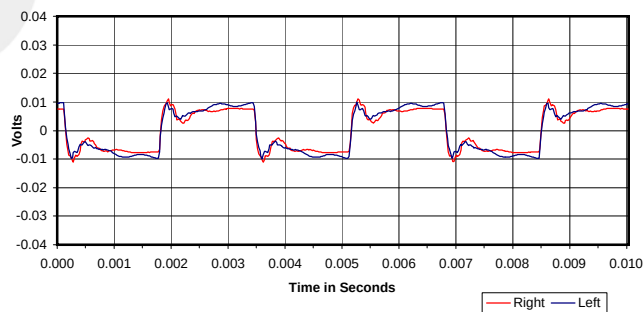
30 Hz Square Wave



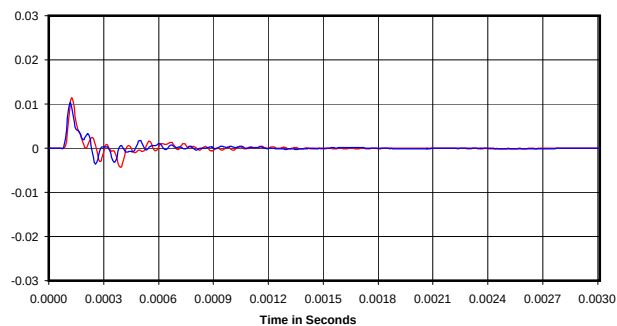
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



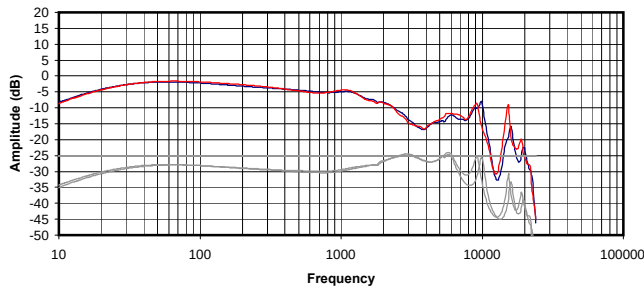
Impulse Response



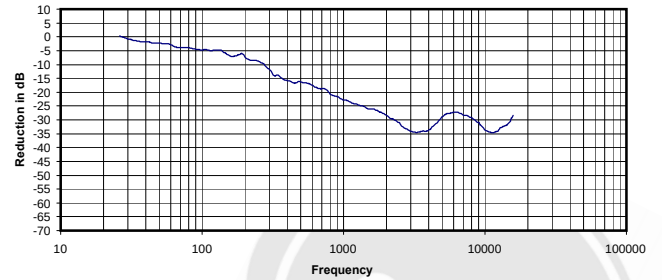
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.021 Vrms
40 Ohms
0.01 mW
-18 dBr

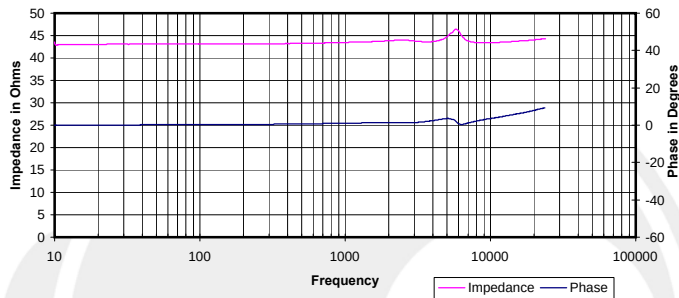
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



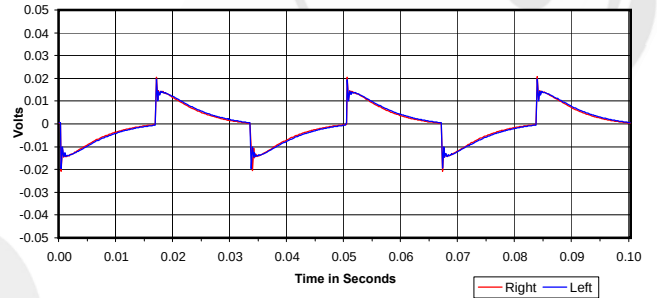
Isolation
Attenuation of External Sound vs. Frequency



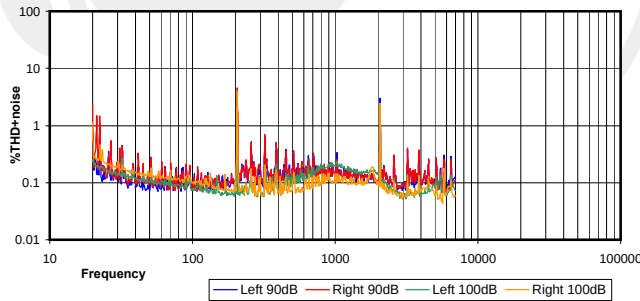
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



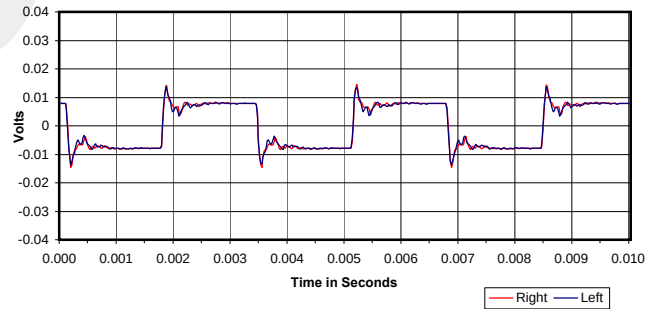
30 Hz Square Wave



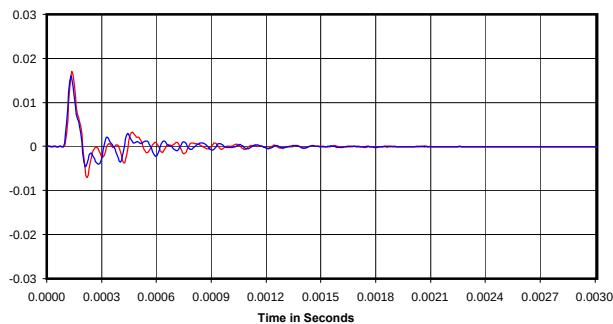
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



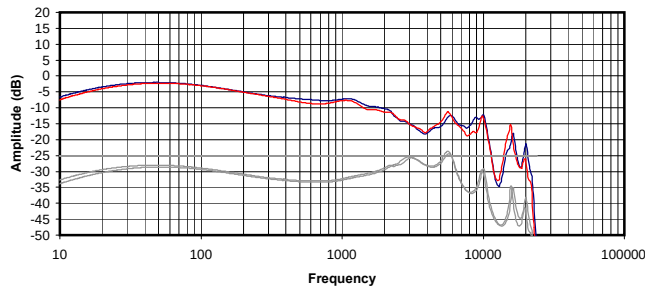
Impulse Response



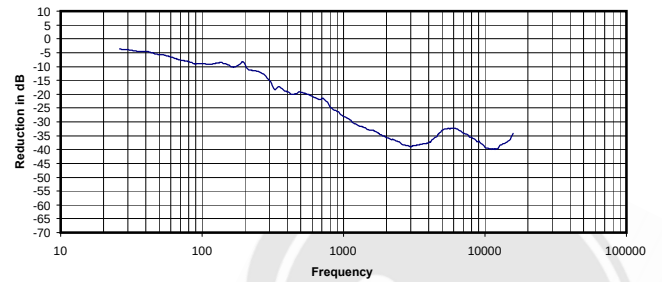
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.033 Vrms
43 Ohms
0.03 mW
-19 dBr

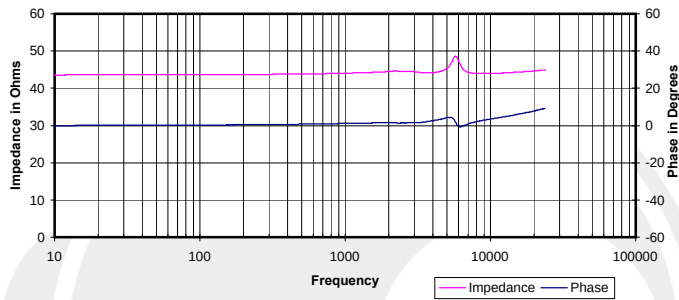
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



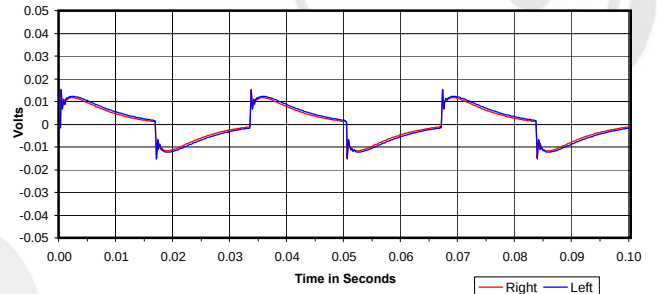
Isolation
Attenuation of External Sound vs. Frequency



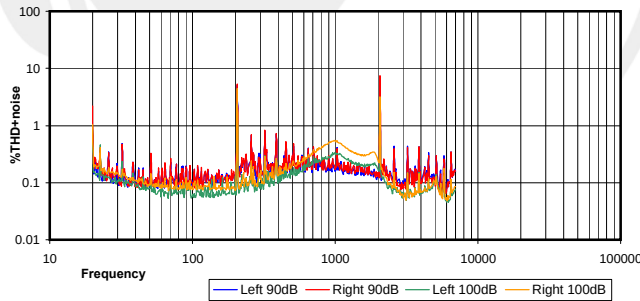
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



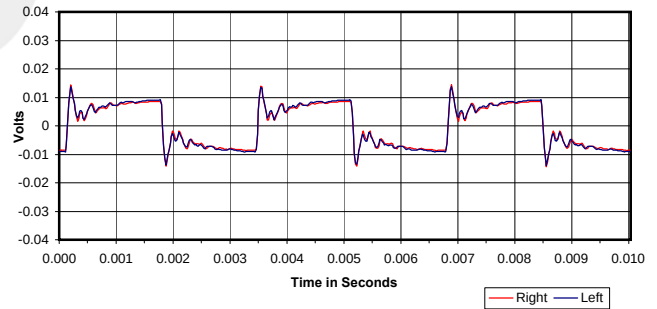
30 Hz Square Wave



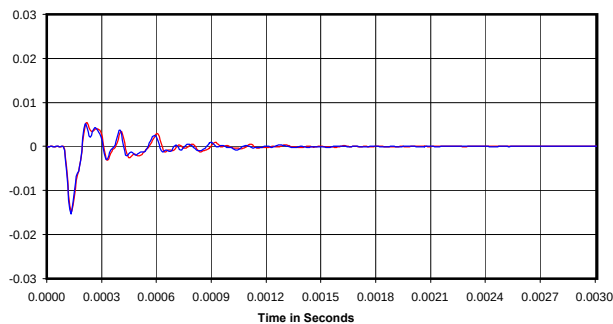
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



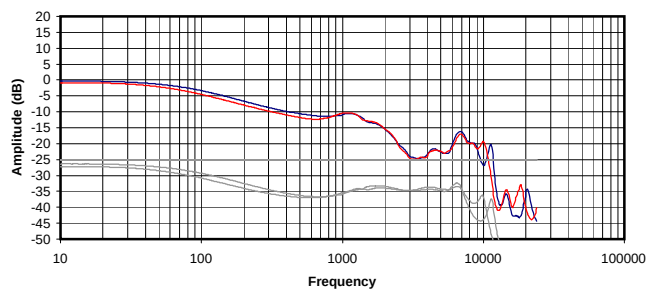
Impulse Response



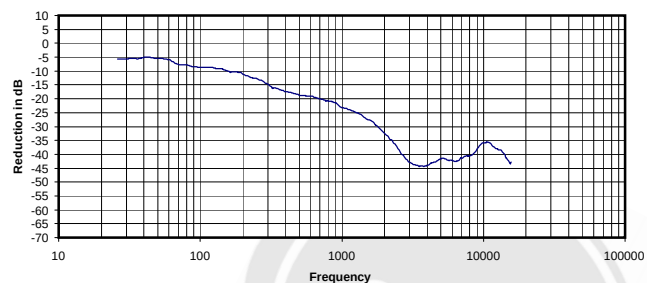
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.034 Vrms
44 Ohms
0.03 mW
-24 dBr

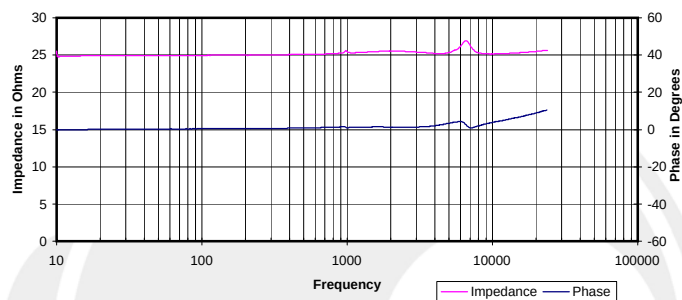
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



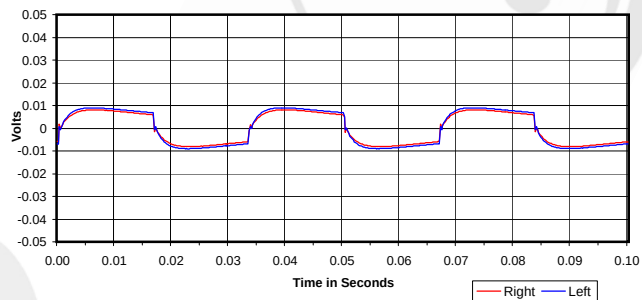
Isolation
Attenuation of External Sound vs. Frequency



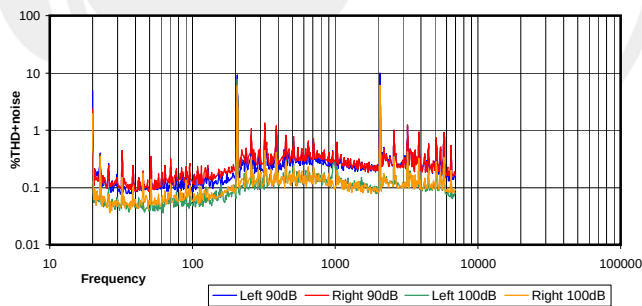
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



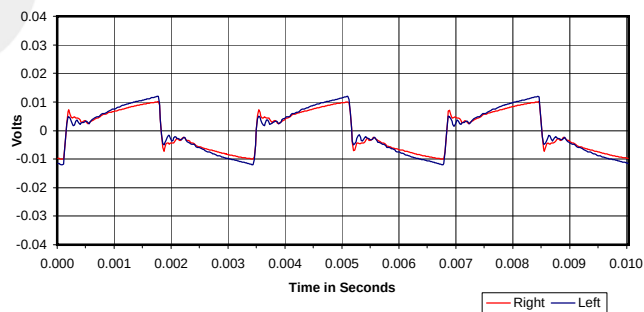
30 Hz Square Wave



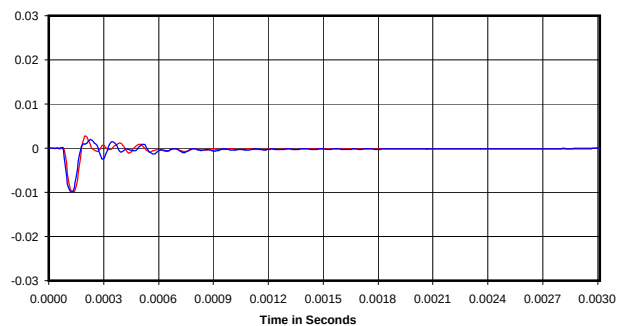
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



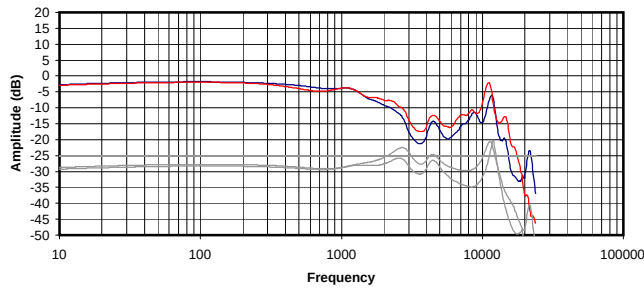
Impulse Response



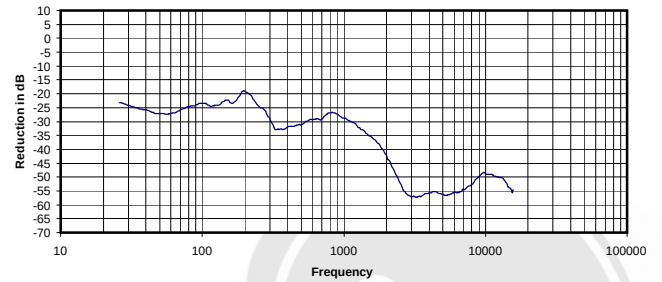
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90dB BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.017 Vrms
25 Ohms
0.01 mW
-24 dBr

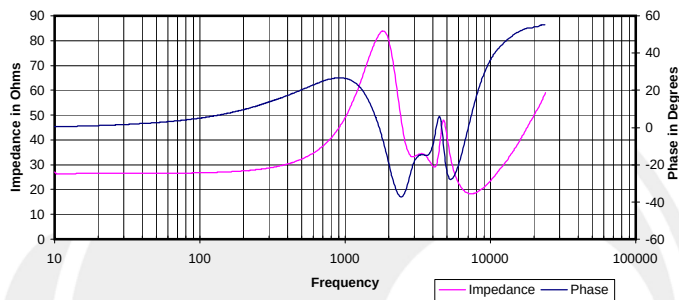
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



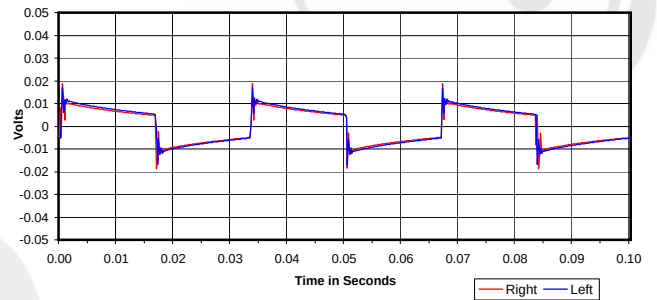
Isolation
Attenuation of External Sound vs. Frequency



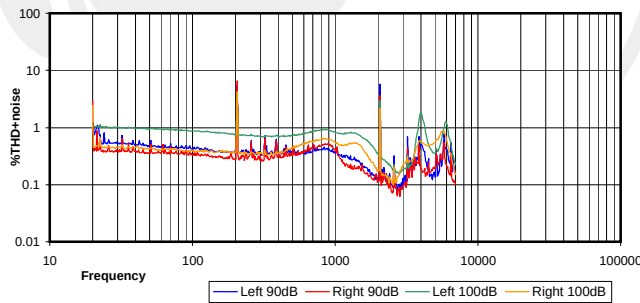
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



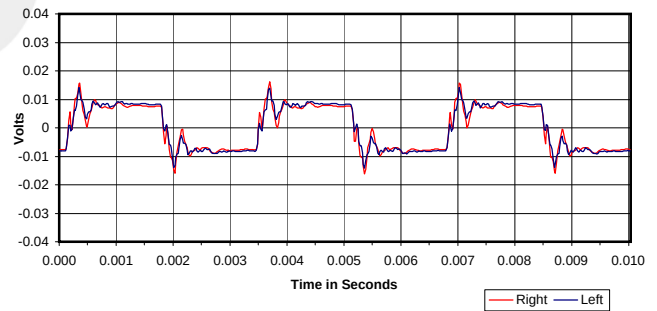
30 Hz Square Wave



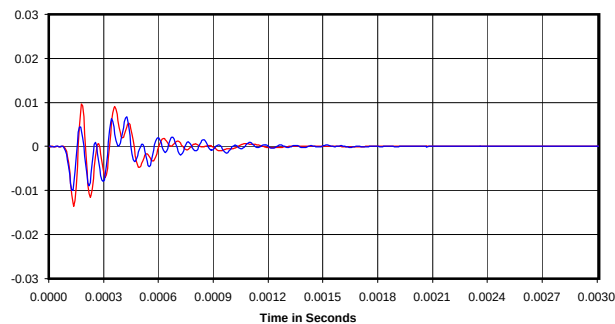
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



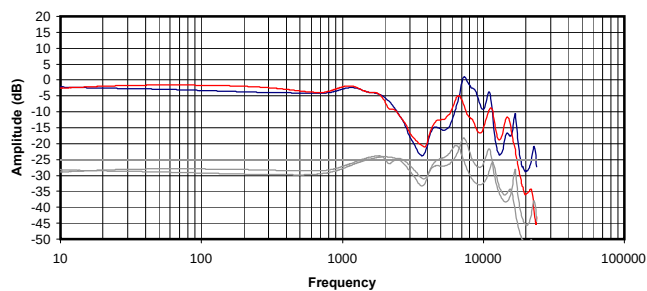
Impulse Response



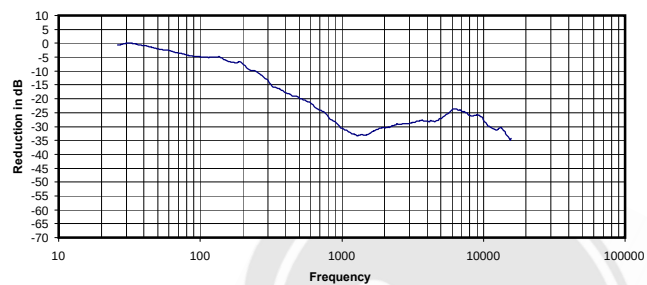
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.031 Vrms
49 Ohms
0.02 mW
-35 dB

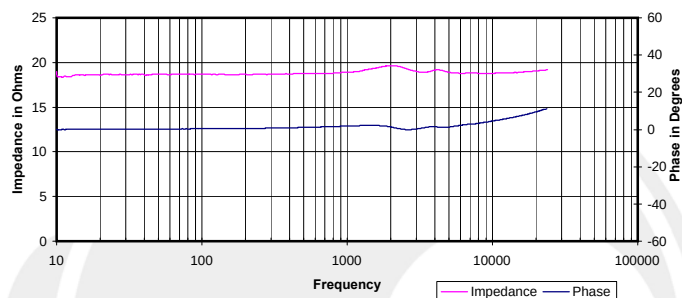
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



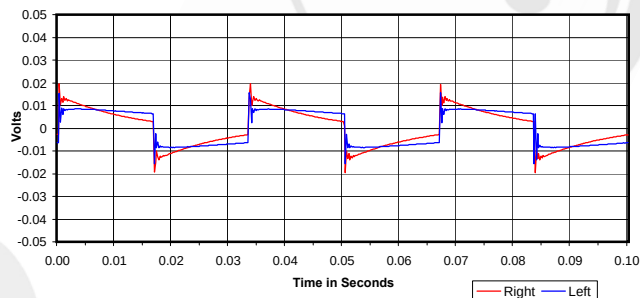
Isolation
Attenuation of External Sound vs. Frequency



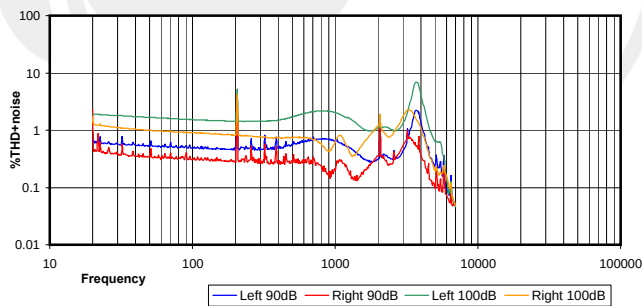
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



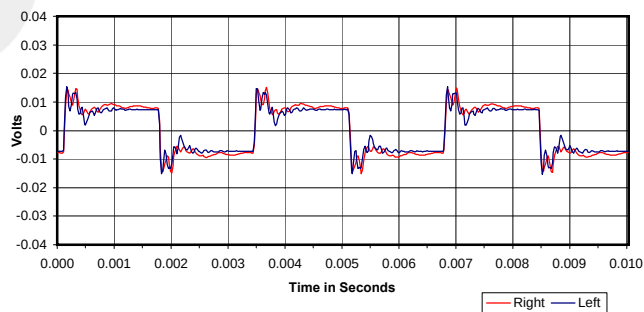
30 Hz Square Wave



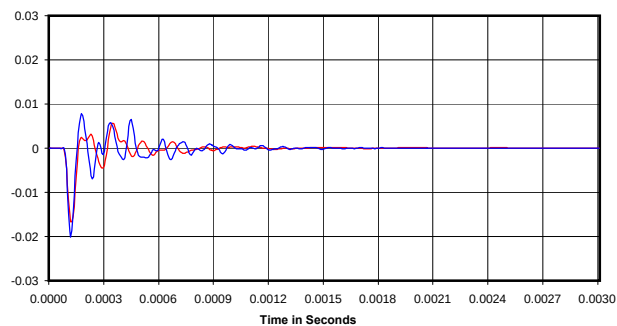
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



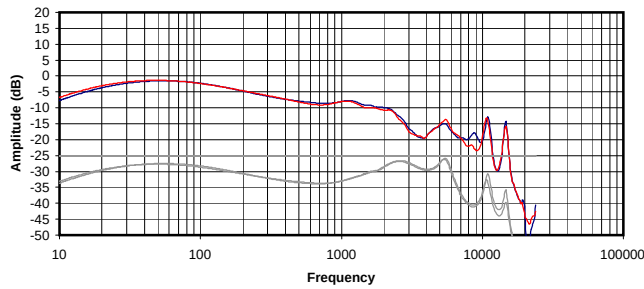
Impulse Response



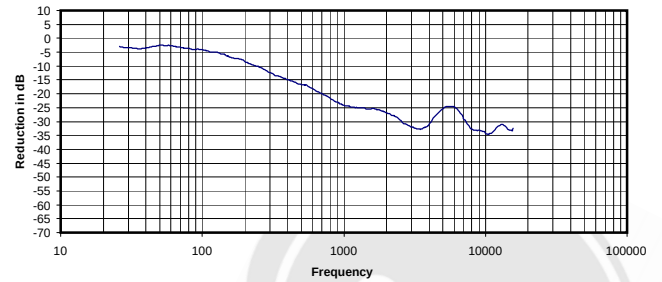
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.036 Vrms
19 Ohms
0.07 mW
-21 dBr

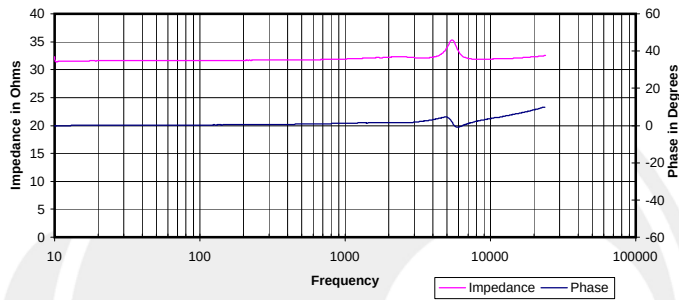
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



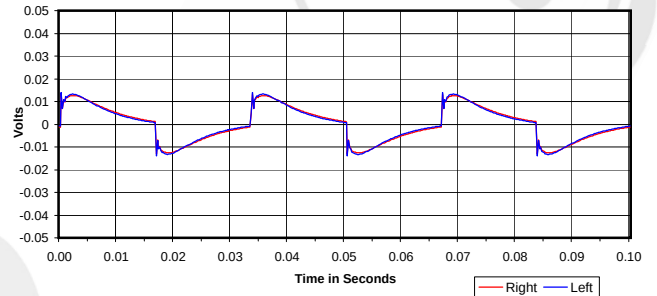
Isolation
Attenuation of External Sound vs. Frequency



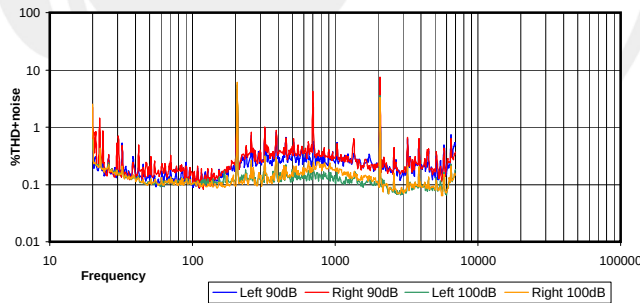
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



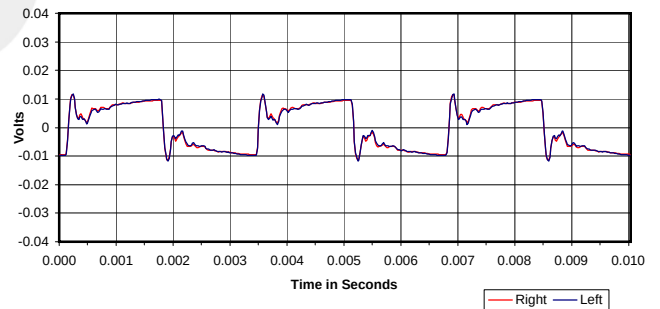
30 Hz Square Wave



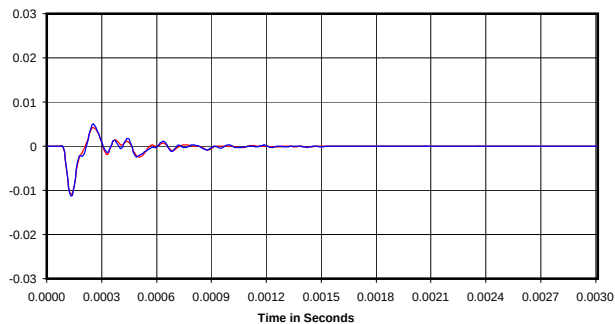
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



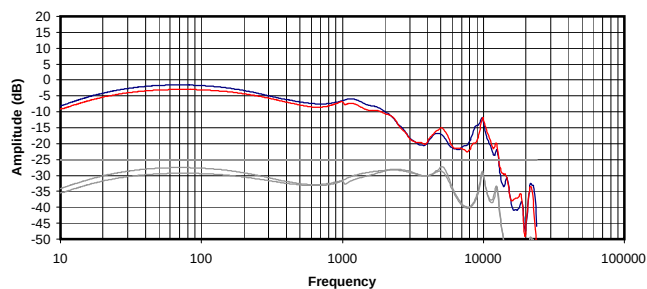
Impulse Response



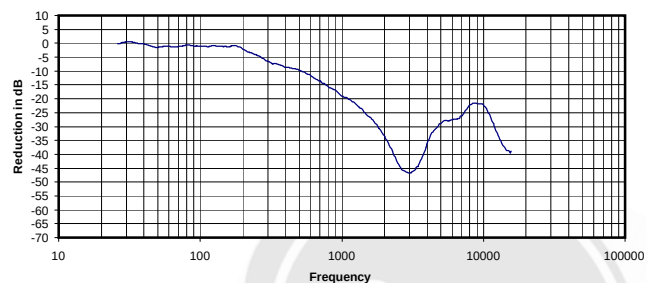
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.025 Vrms
32 Ohms
0.02 mW
-19 dBr

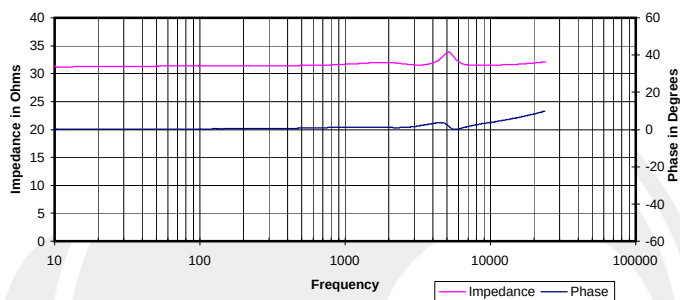
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



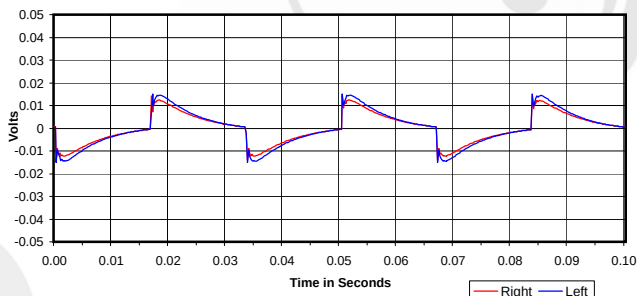
Isolation
Attenuation of External Sound vs. Frequency



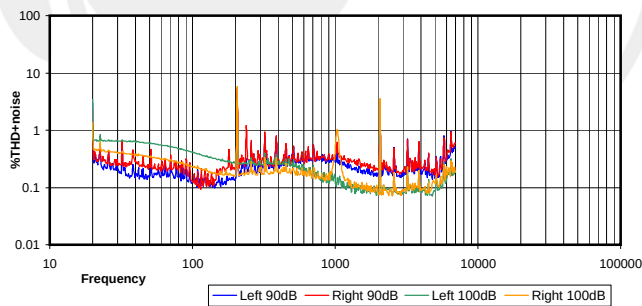
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



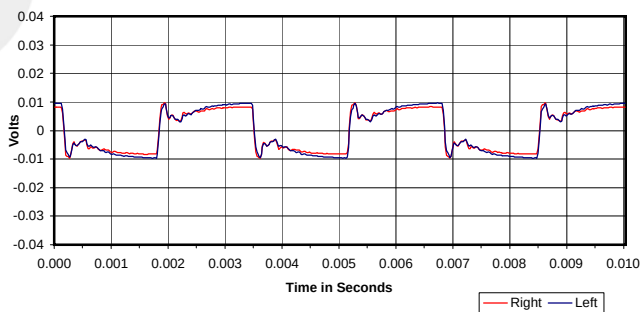
30 Hz Square Wave



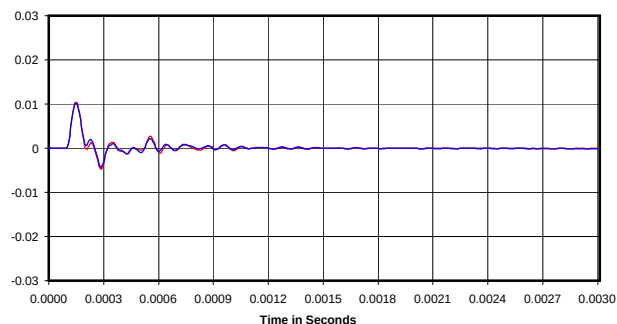
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



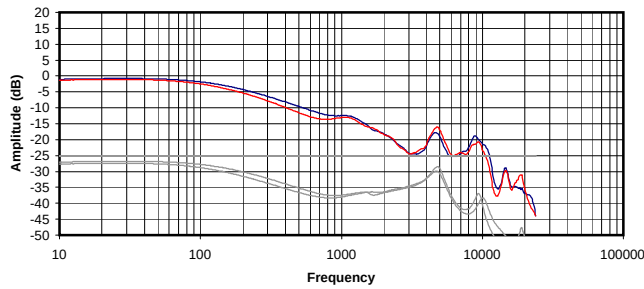
Impulse Response



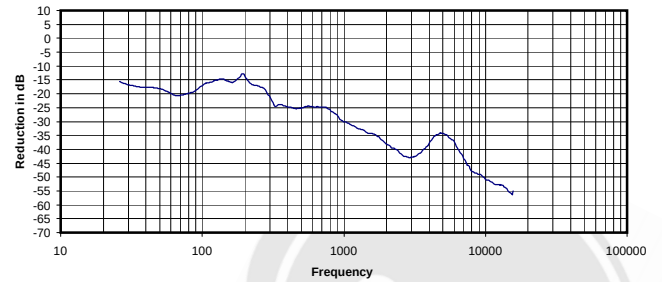
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.020 Vrms
32 Ohms
0.01 mW
-18 dB

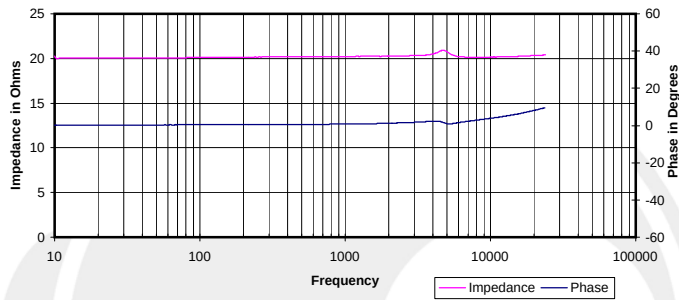
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



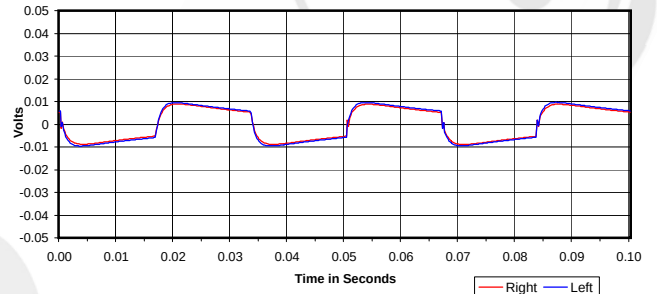
Isolation
Attenuation of External Sound vs. Frequency



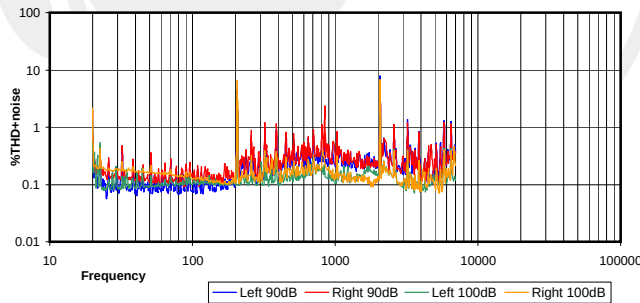
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



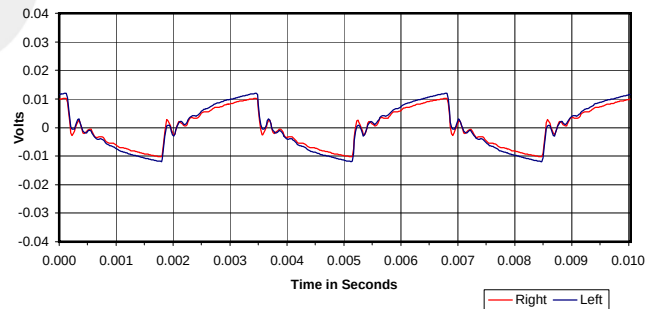
30 Hz Square Wave



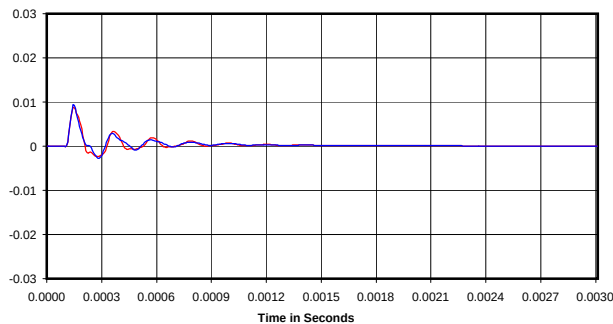
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



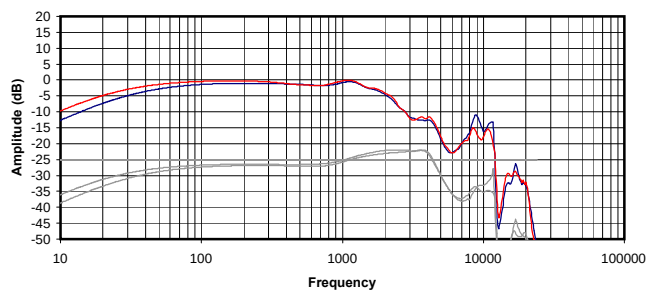
Impulse Response



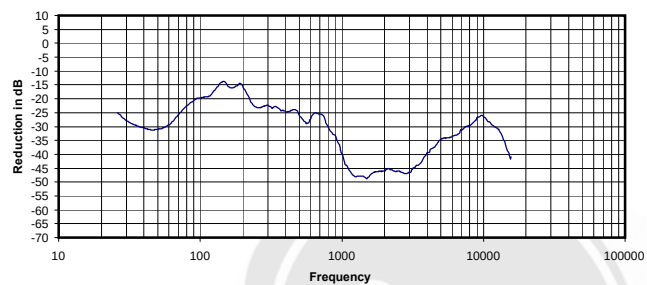
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.054 Vrms
20 Ohms
0.14 mW
-28 dBr

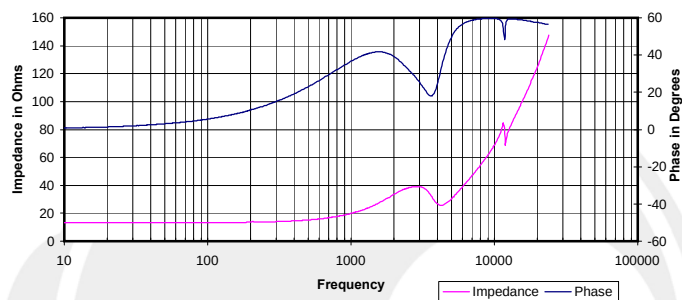
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



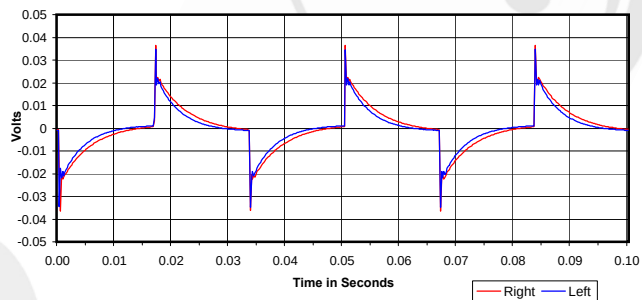
Isolation
Attenuation of External Sound vs. Frequency



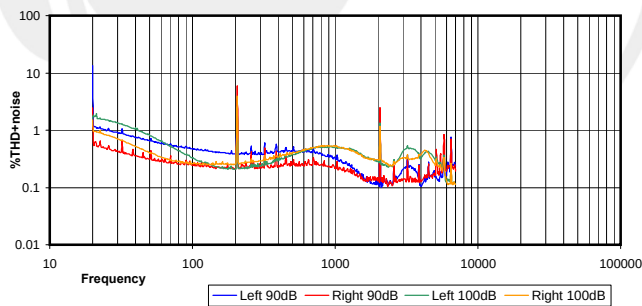
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



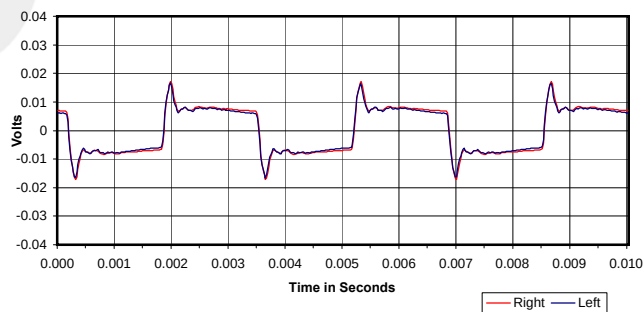
30 Hz Square Wave



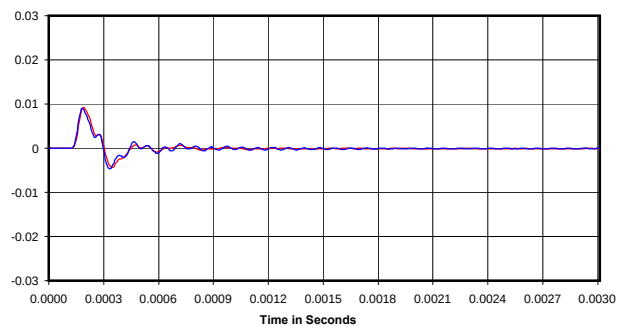
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



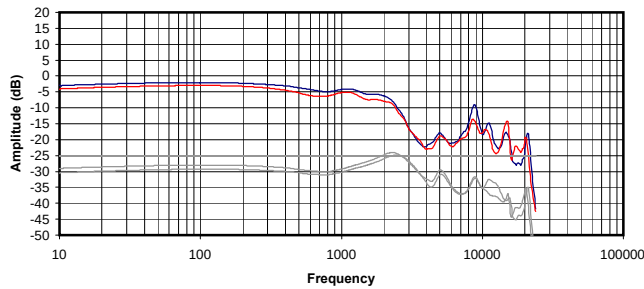
Impulse Response



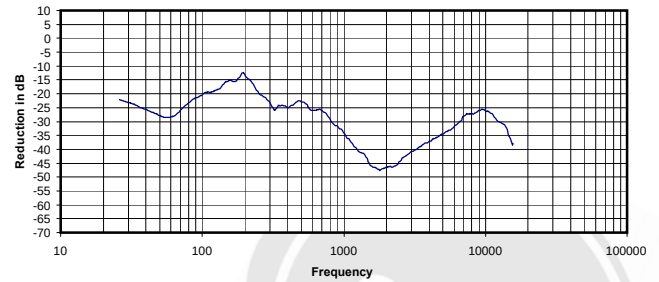
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.013 Vrms
20 Ohms
0.01 mW
-32 dBr

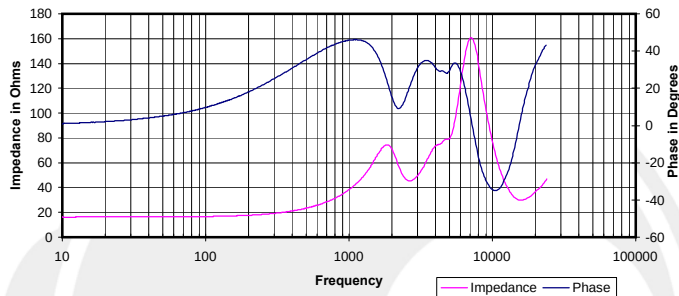
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



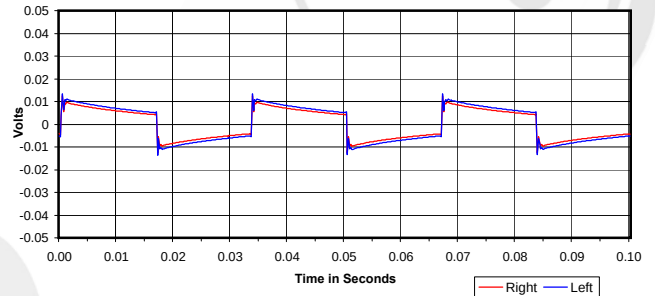
Isolation
Attenuation of External Sound vs. Frequency



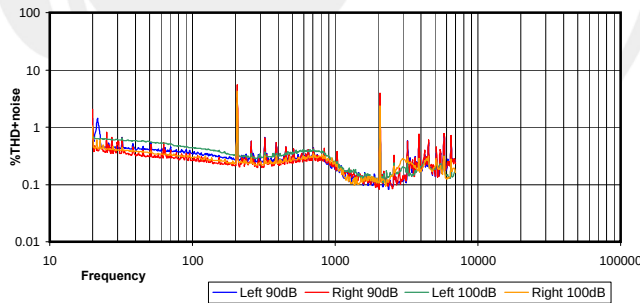
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



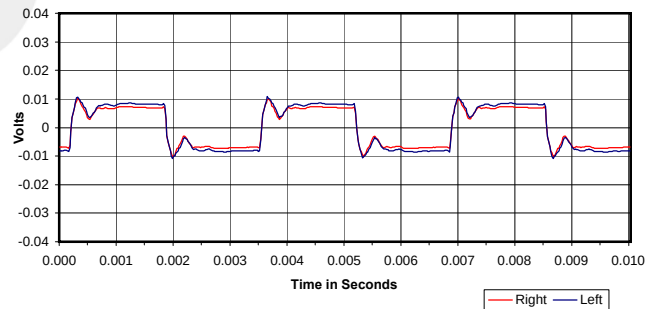
30 Hz Square Wave



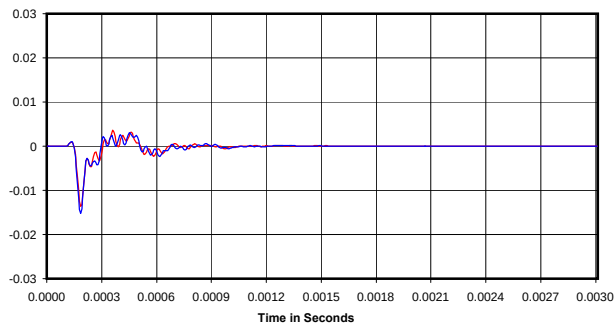
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



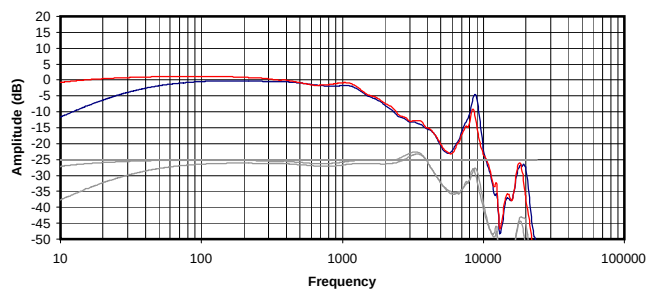
Impulse Response



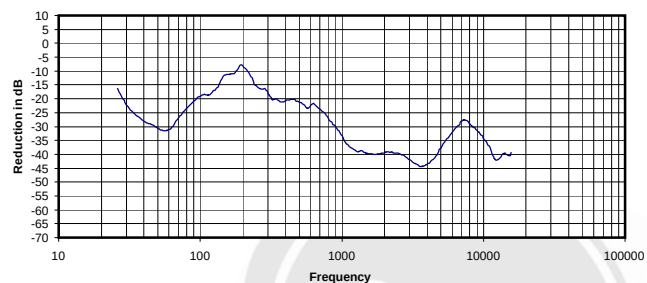
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.015 Vrms
38 Ohms
0.01 mW
-30 dBr

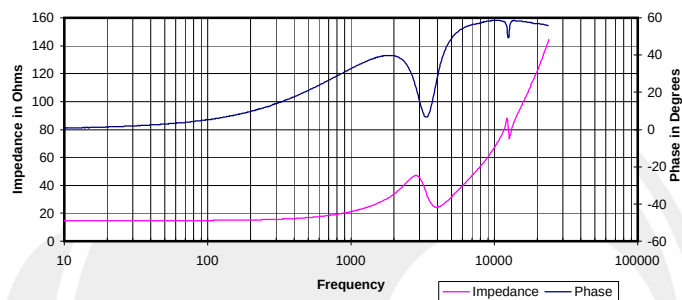
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



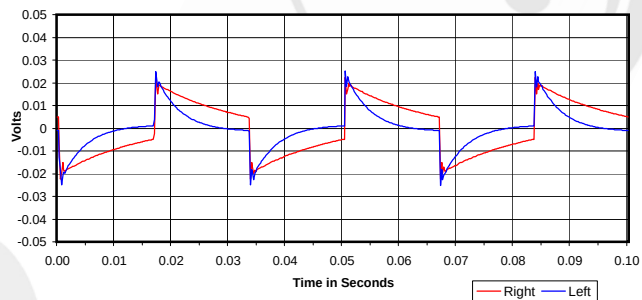
Isolation
Attenuation of External Sound vs. Frequency



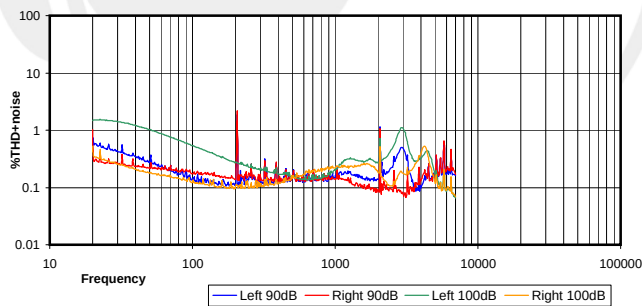
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



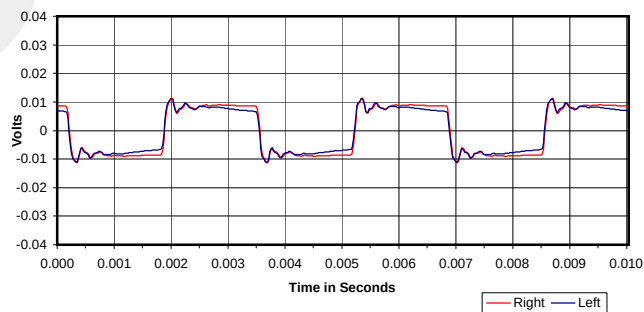
30 Hz Square Wave



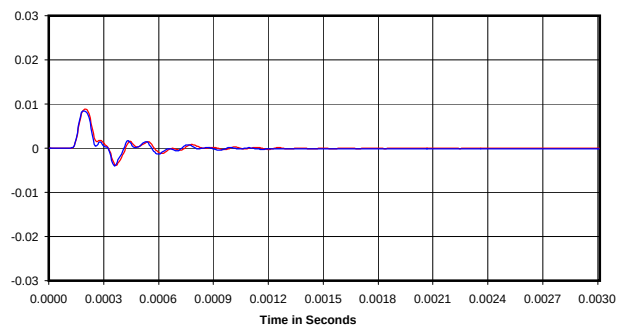
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



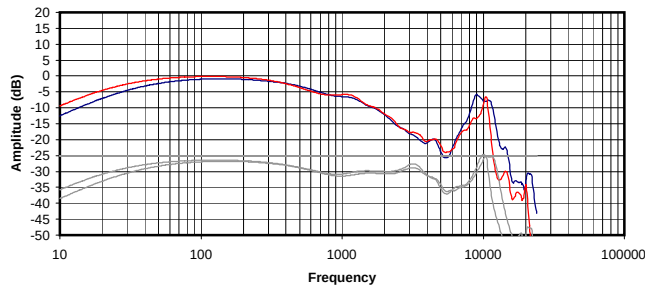
Impulse Response



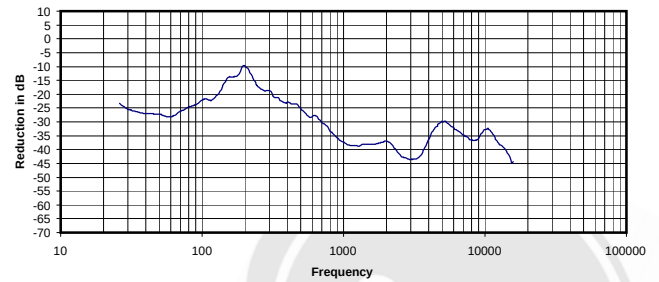
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.018 Vrms
21 Ohms
0.02 mW
-28 dBr

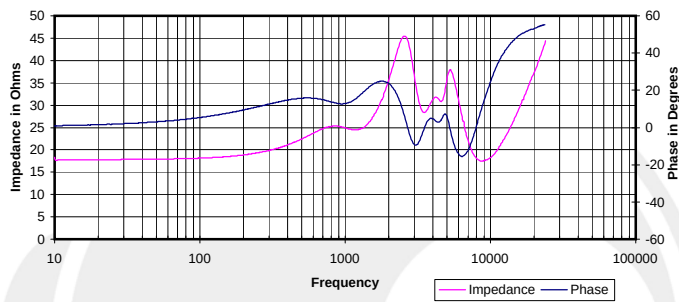
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



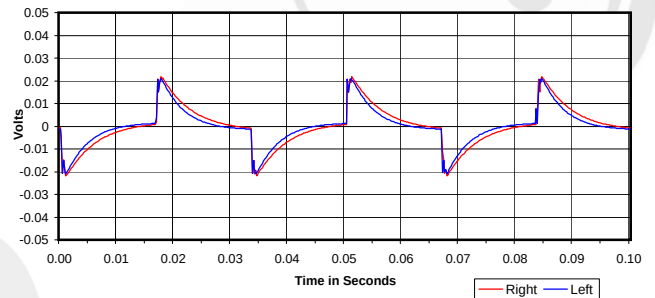
Isolation
Attenuation of External Sound vs. Frequency



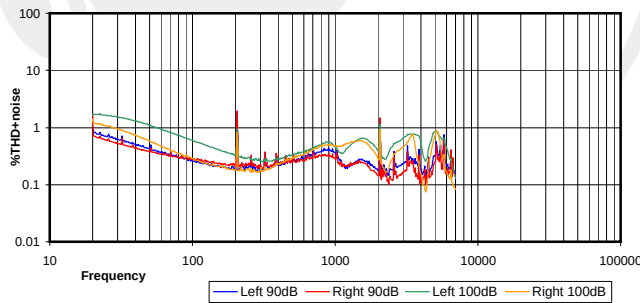
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



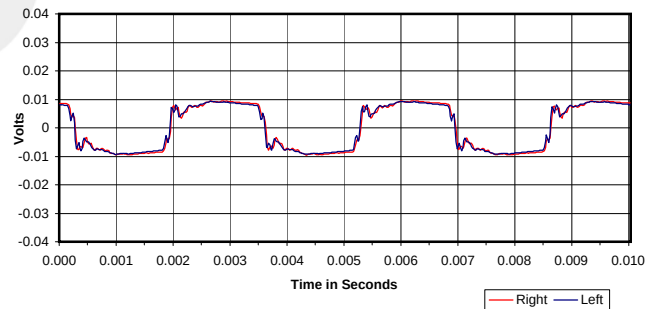
30 Hz Square Wave



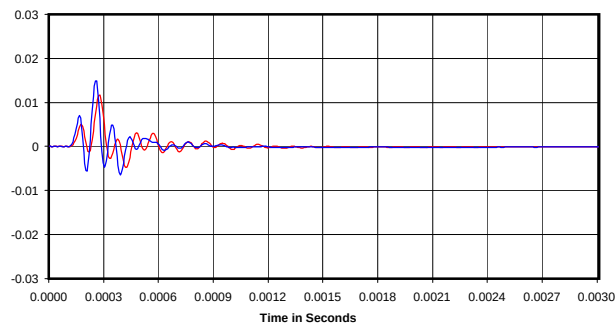
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



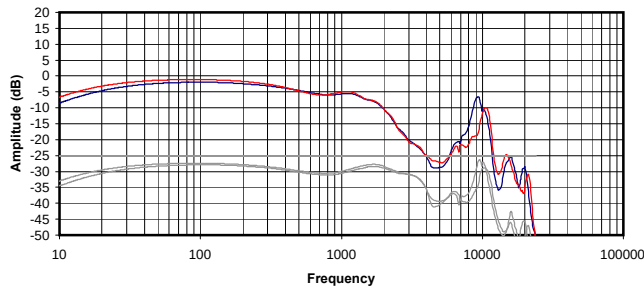
Impulse Response



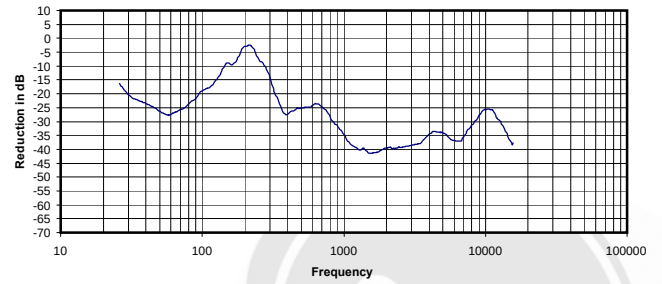
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.022 Vrms
25 Ohms
0.02 mW
-29 dBr

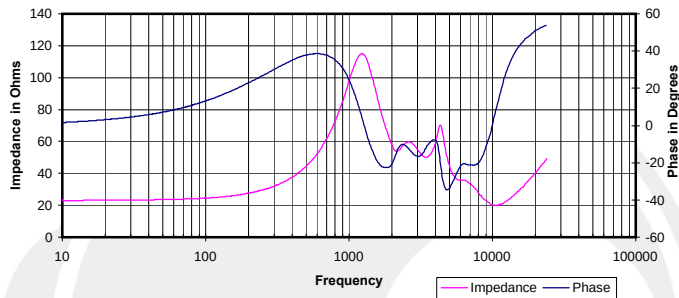
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



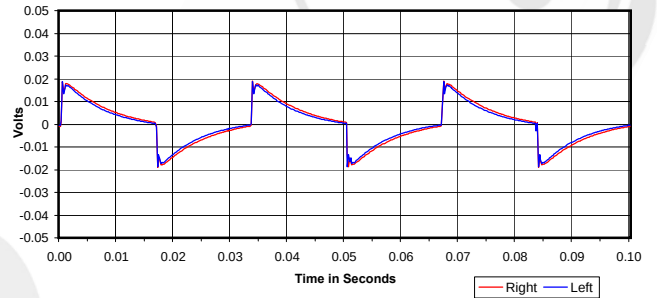
Isolation
Attenuation of External Sound vs. Frequency



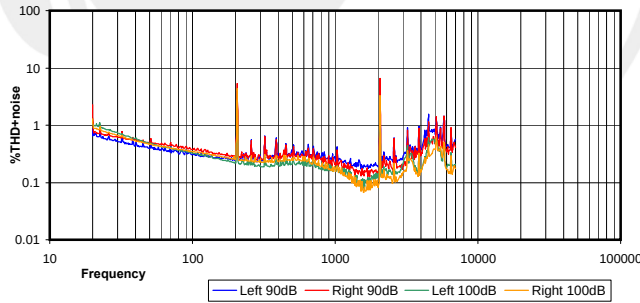
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



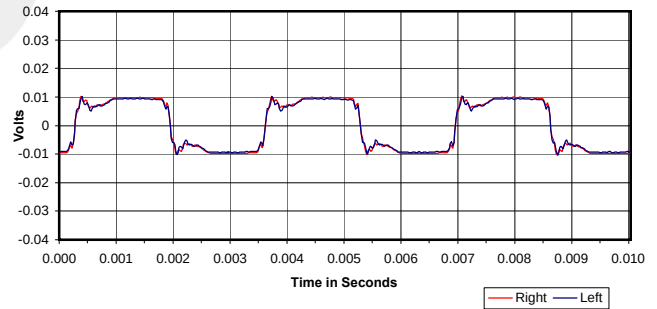
30 Hz Square Wave



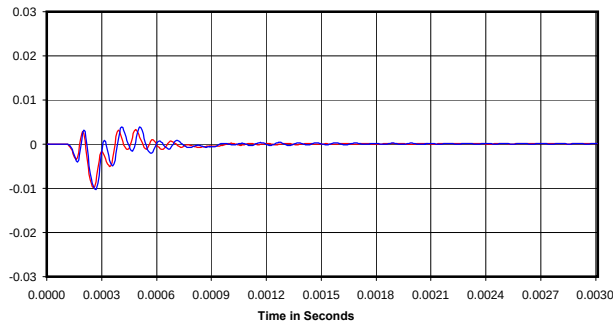
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



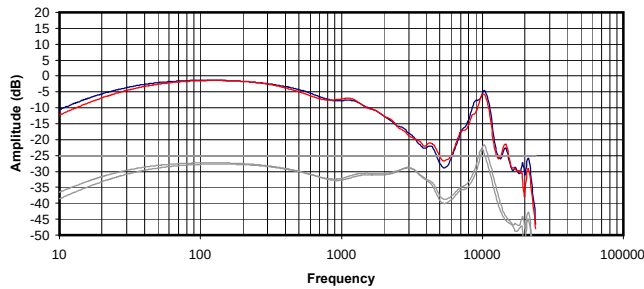
Impulse Response



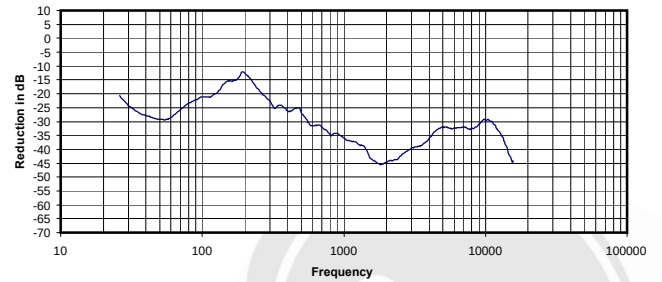
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.011 Vrms
98 Ohms
0.00 mW
-27 dBr

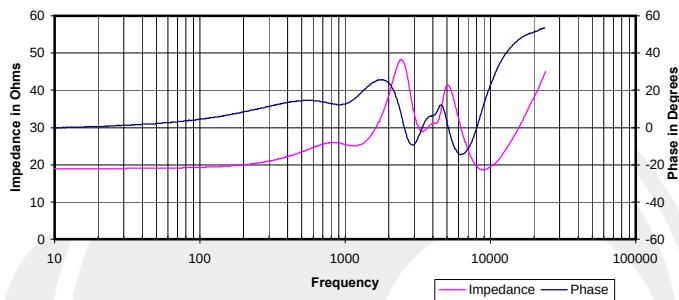
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



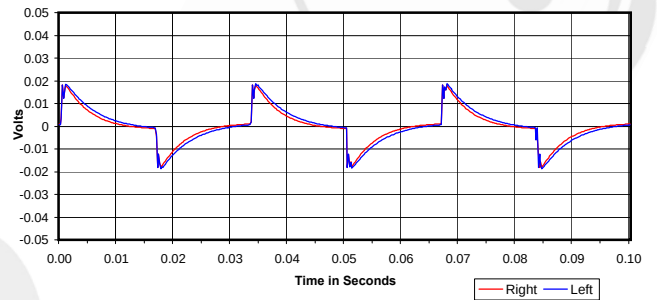
Isolation
Attenuation of External Sound vs. Frequency



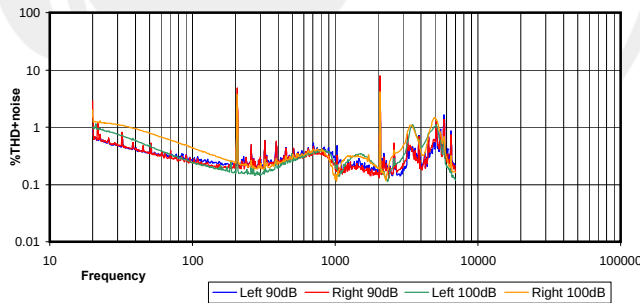
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



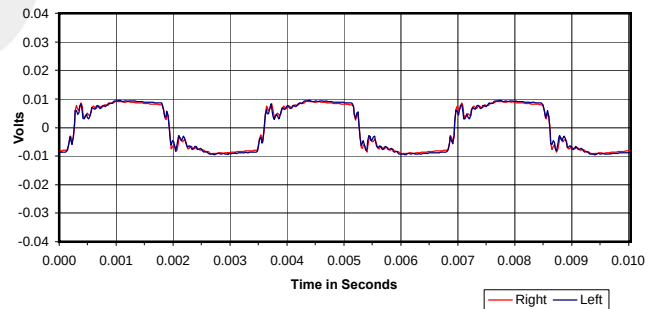
30 Hz Square Wave



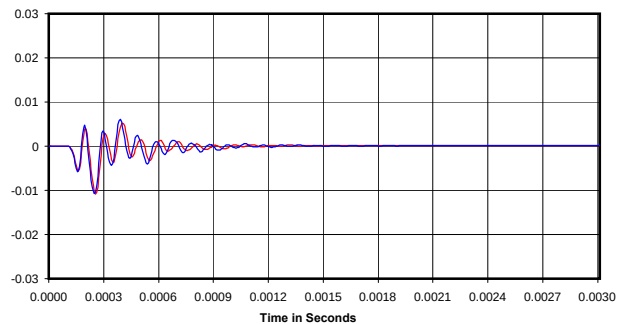
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



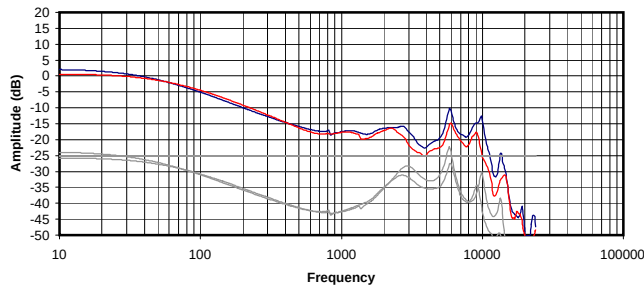
Impulse Response



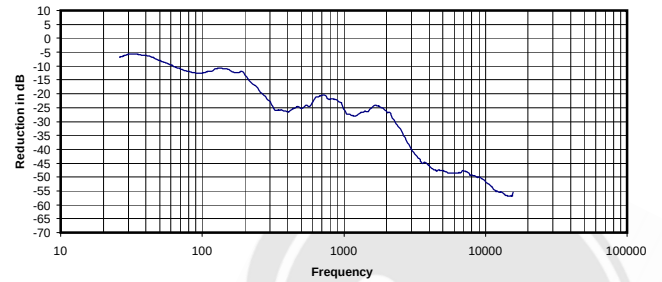
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.024 Vrms
25 Ohms
0.02 mW
-30 dB

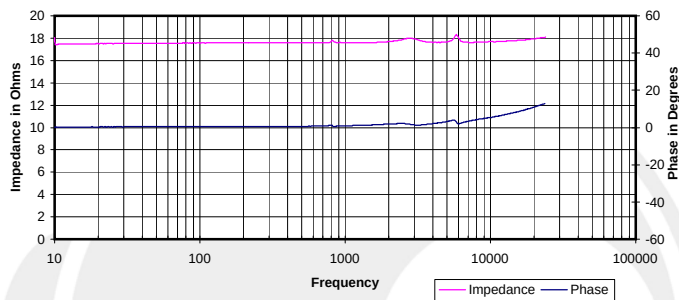
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



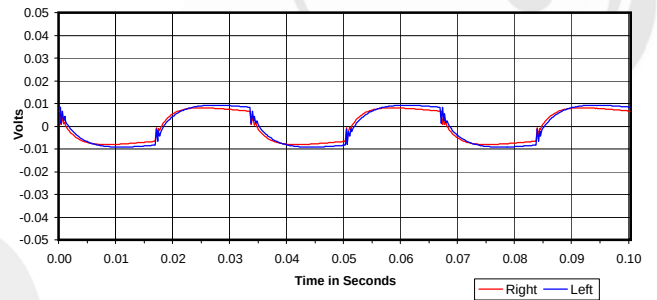
Isolation
Attenuation of External Sound vs. Frequency



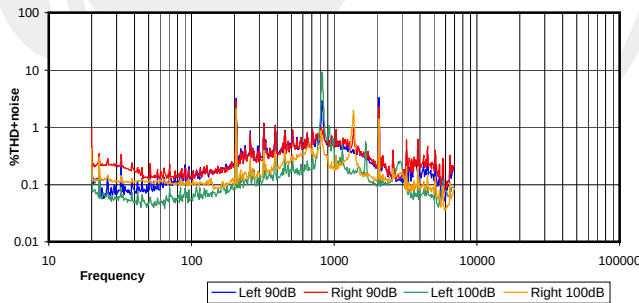
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



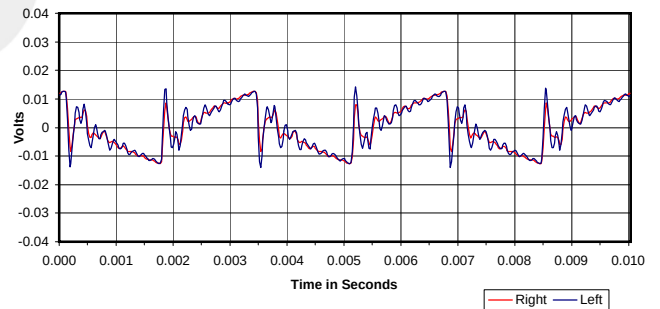
30 Hz Square Wave



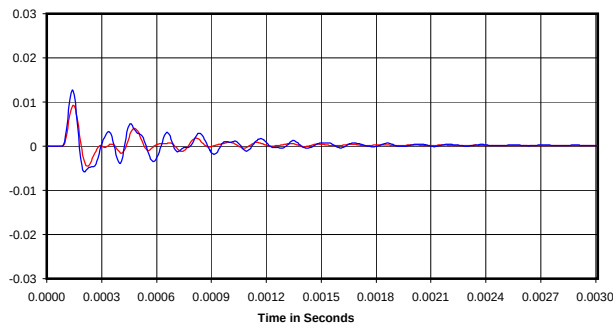
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



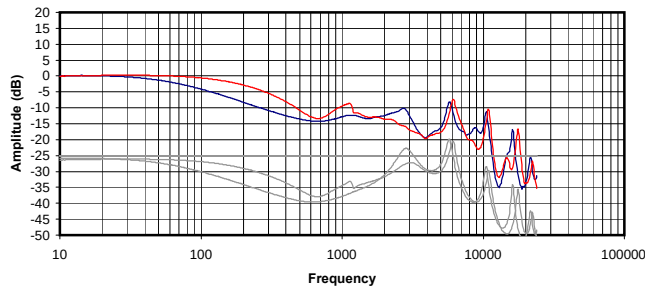
Impulse Response



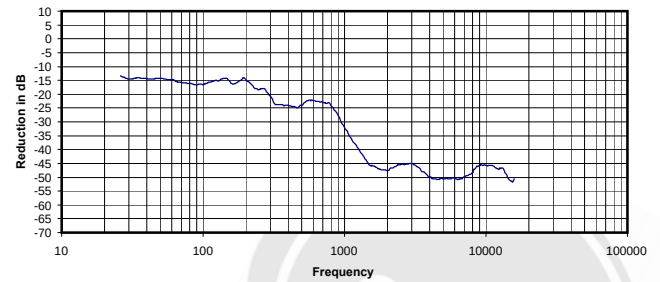
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.051 Vrms
18 Ohms
0.15 mW
-26 dBr

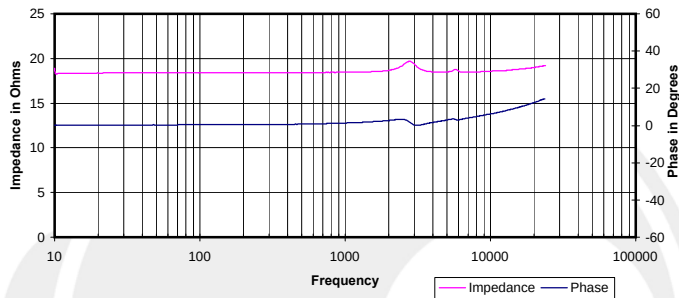
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



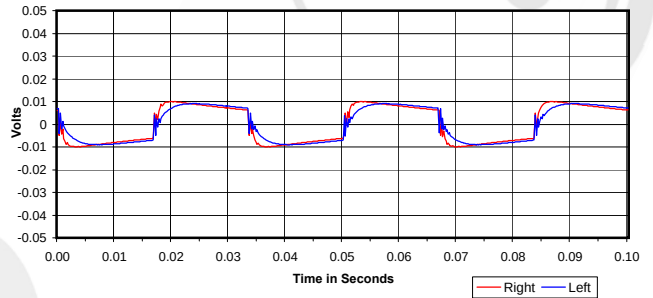
Isolation
Attenuation of External Sound vs. Frequency



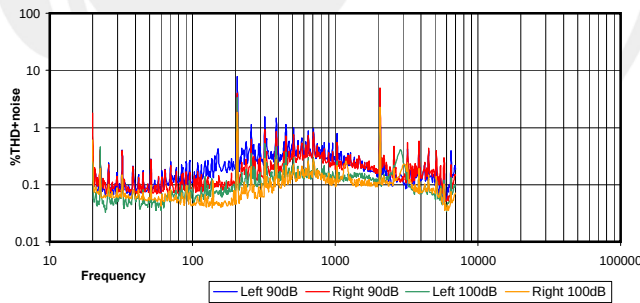
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



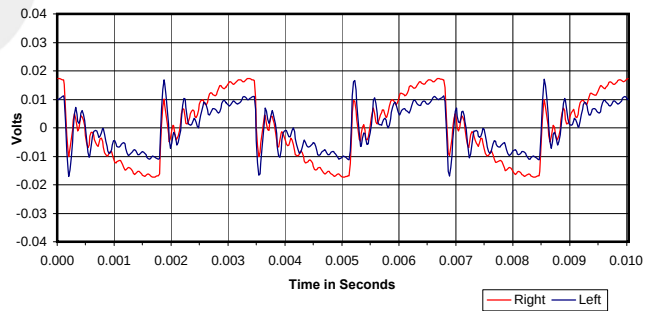
30 Hz Square Wave



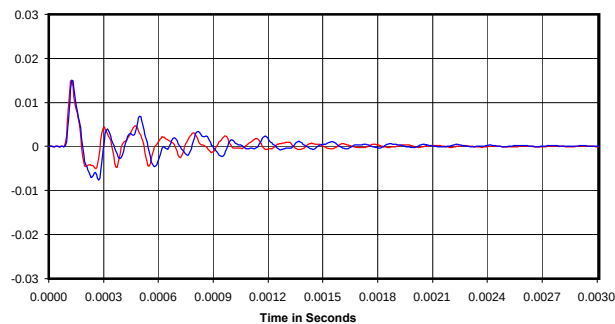
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



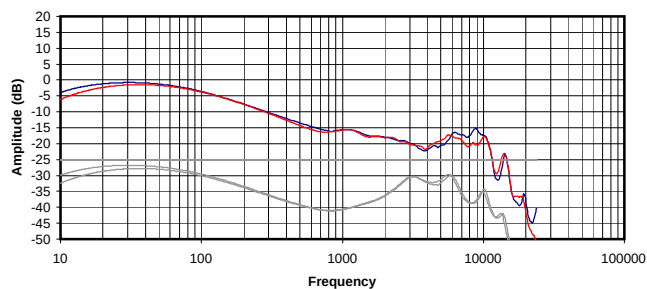
Impulse Response



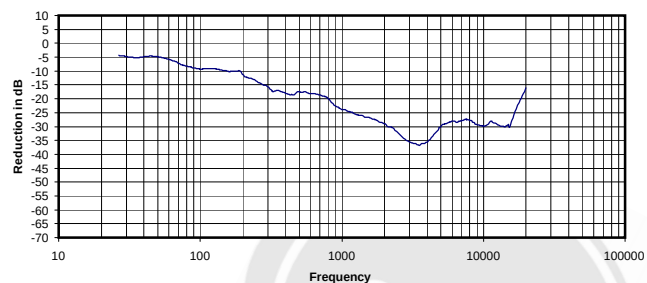
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.036 Vrms
18 Ohms
0.07 mW
-31 dBr

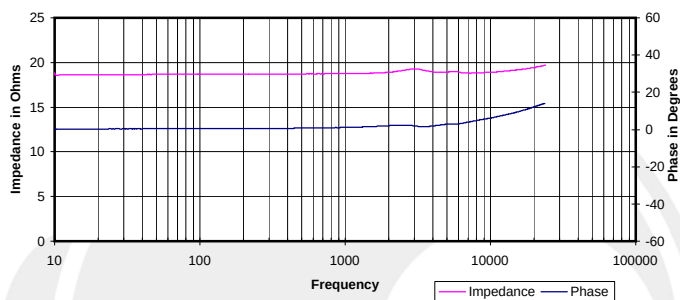
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



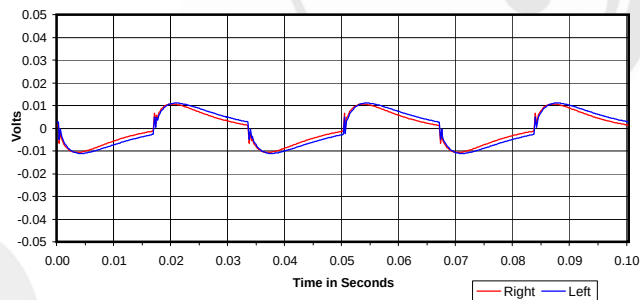
Isolation
Attenuation of External Sound vs. Frequency



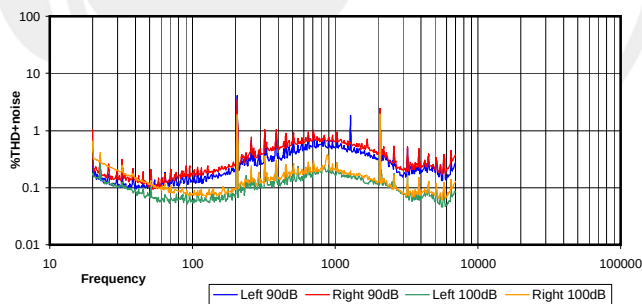
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



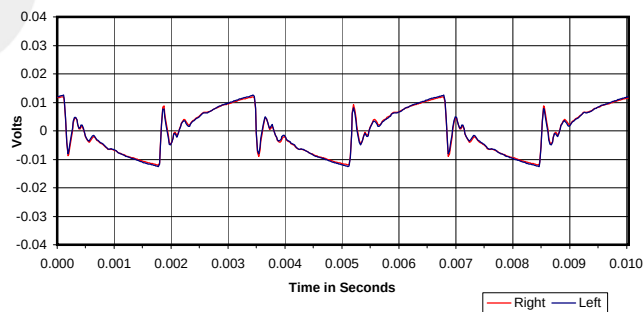
30 Hz Square Wave



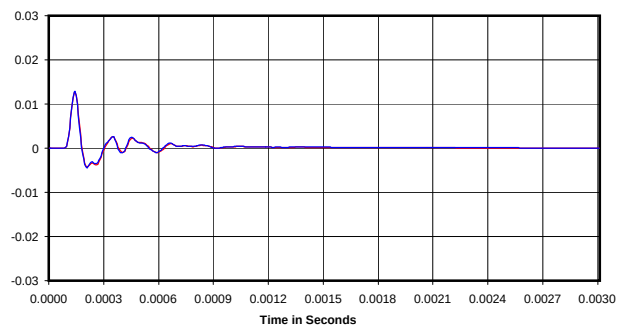
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



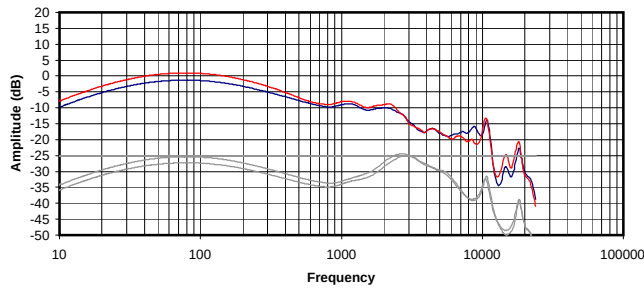
Impulse Response



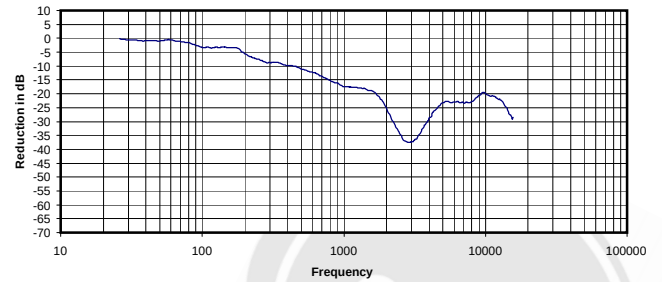
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.041 Vrms
19 Ohms
0.09 mW
-22 dB

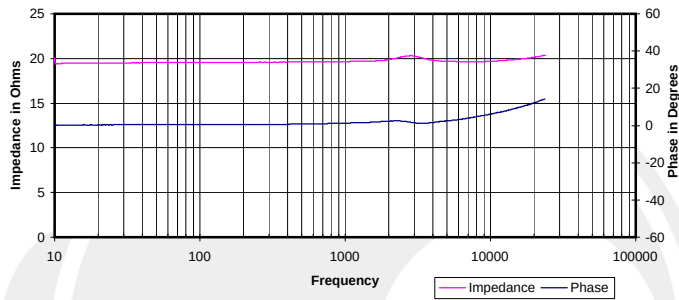
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



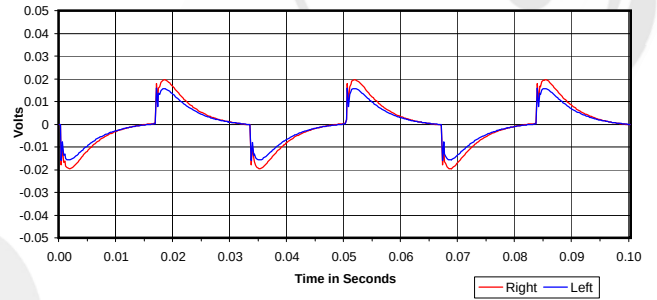
Isolation
Attenuation of External Sound vs. Frequency



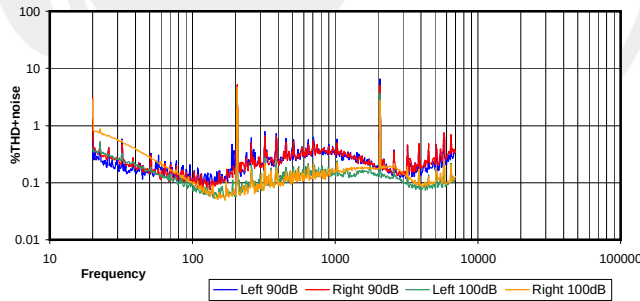
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



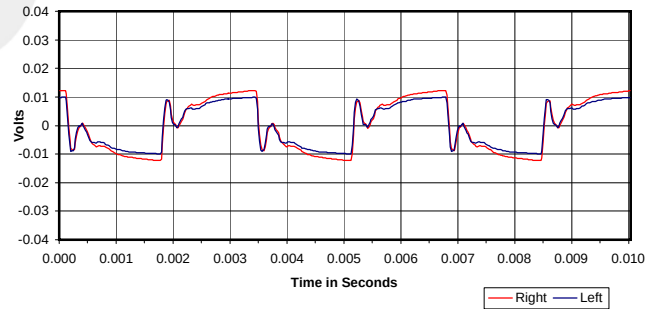
30 Hz Square Wave



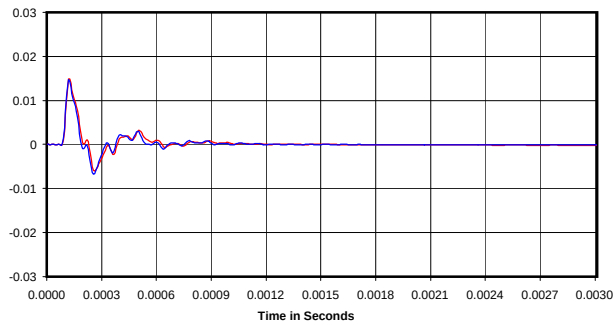
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.045 Vrms
20 Ohms
0.10 mW
-16 dBr

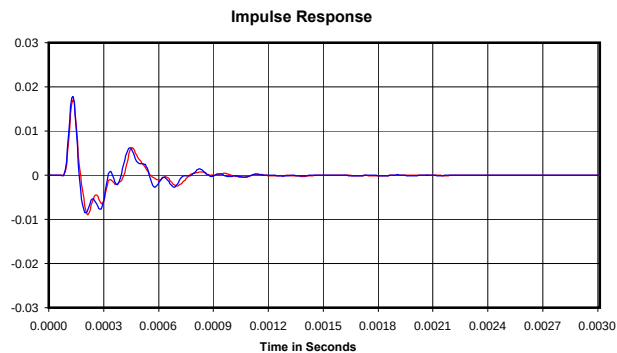
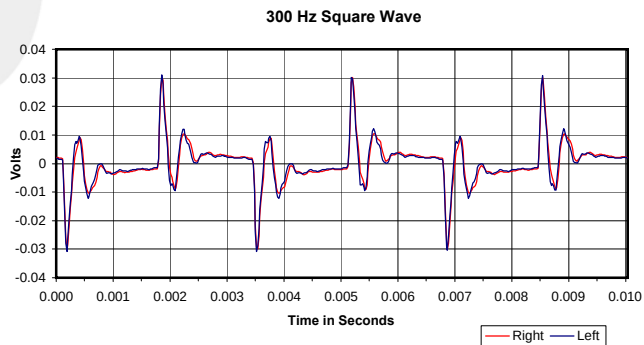
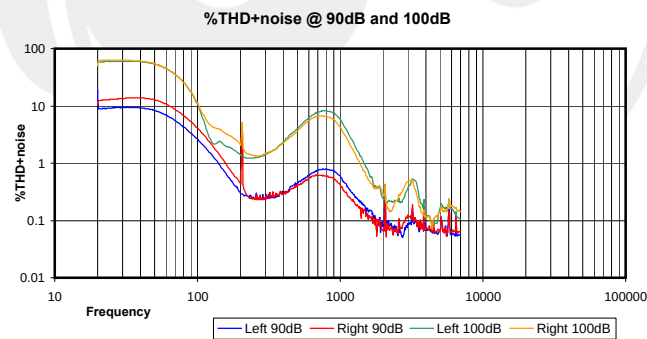
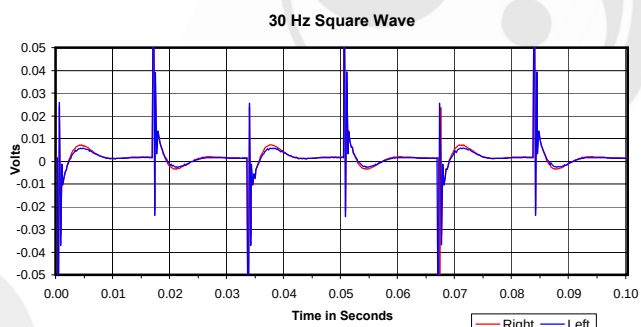
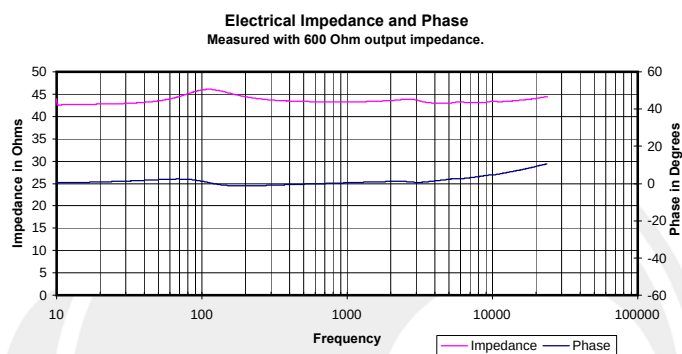
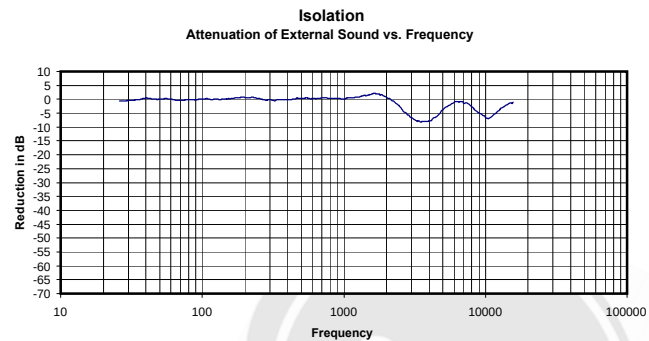
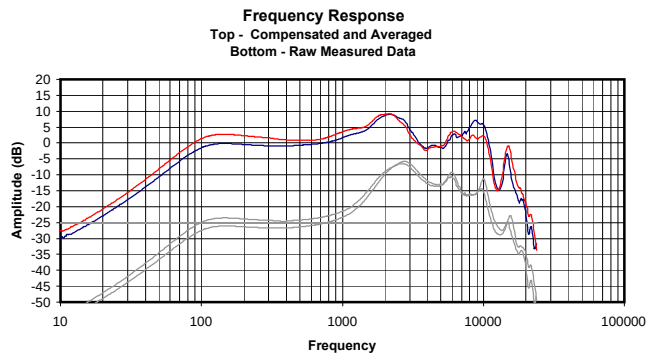
Headphone Measurement Datasheets

Ear-buds





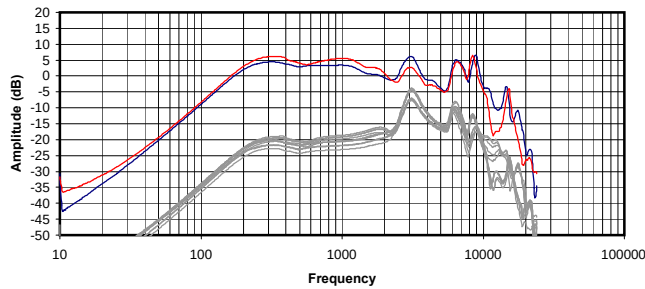
Headphone Measurements: Apple EarPods



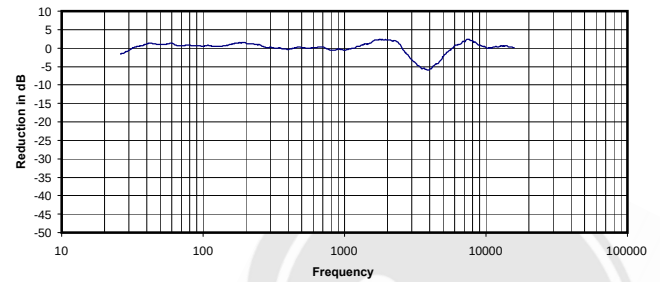
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.091 Vrms
43 Ohms
0.19 mW
-1 dB

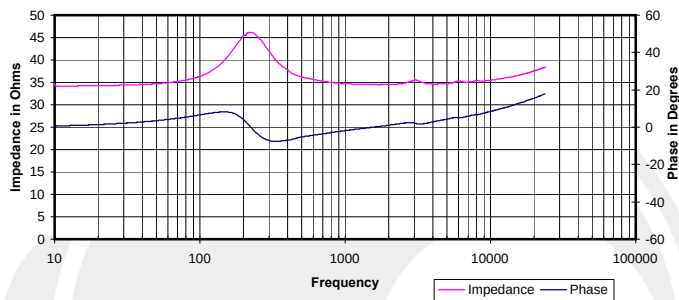
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



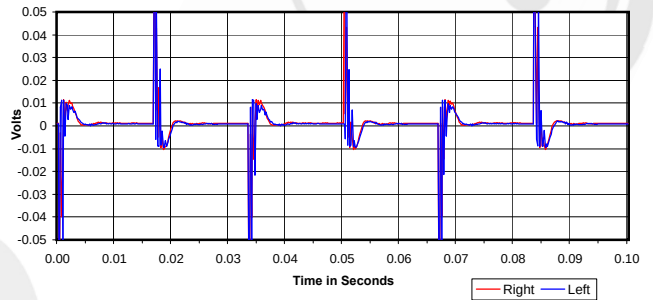
Isolation
Attenuation of External Sound vs. Frequency



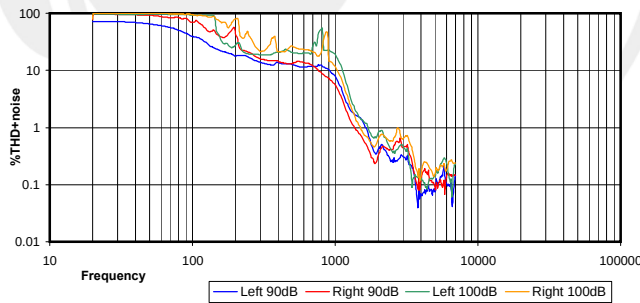
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



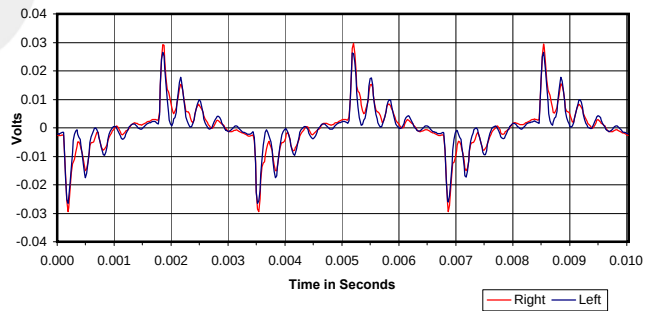
30 Hz Square Wave



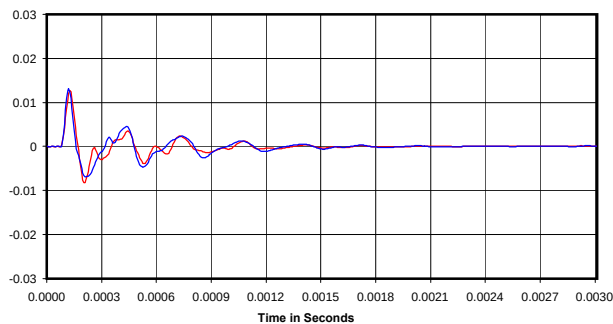
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



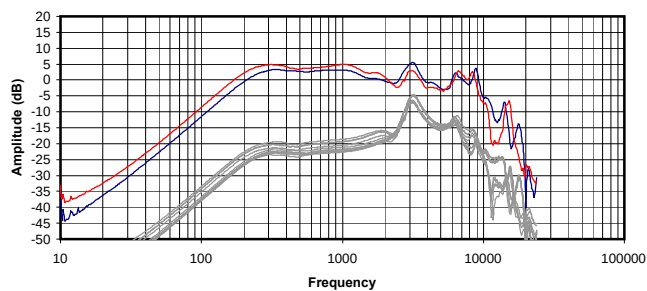
Impulse Response



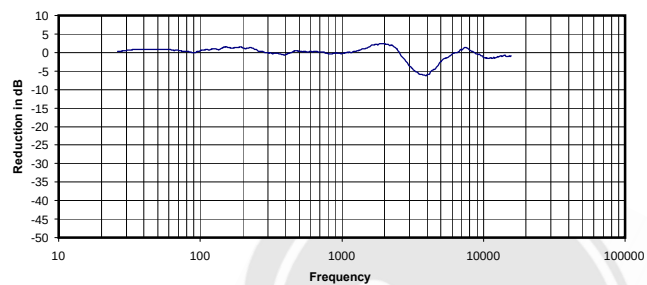
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.086 Vrms
35 Ohms
0.21 mW
0 dB

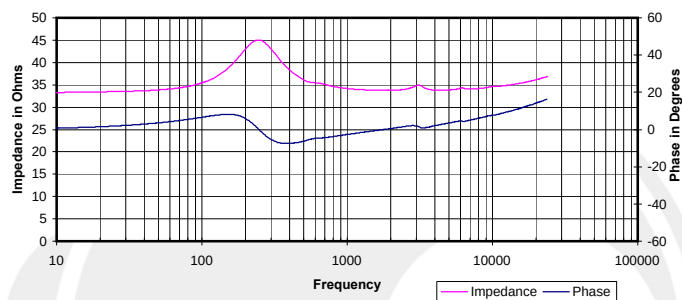
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



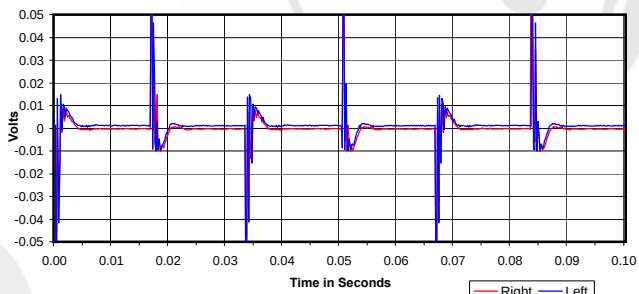
Isolation
Attenuation of External Sound vs. Frequency



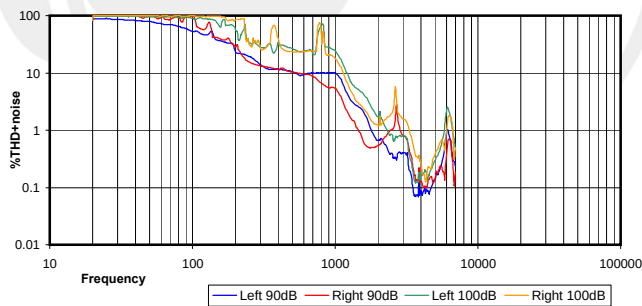
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



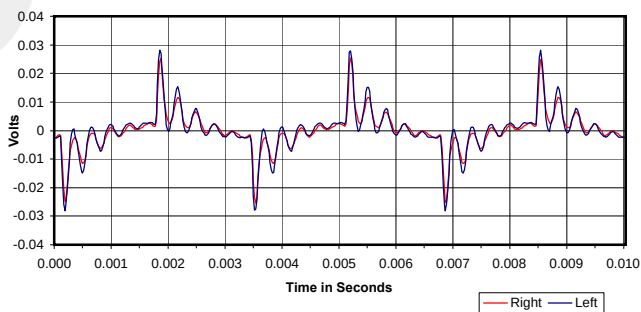
30 Hz Square Wave



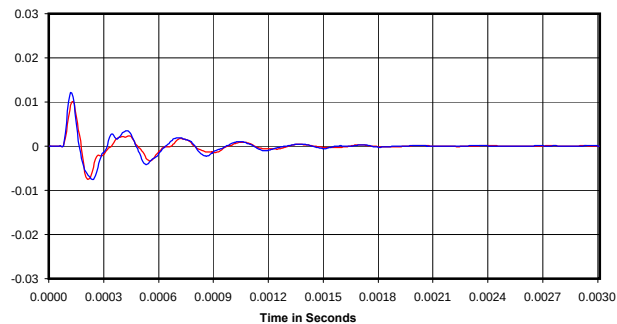
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



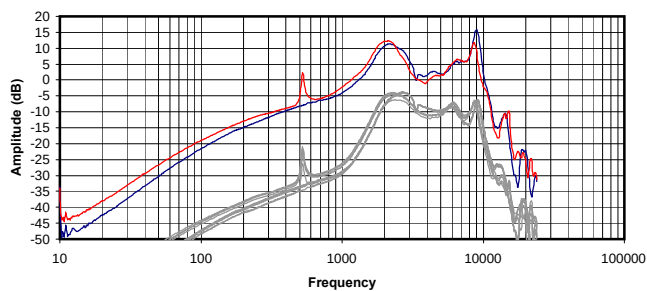
Impulse Response



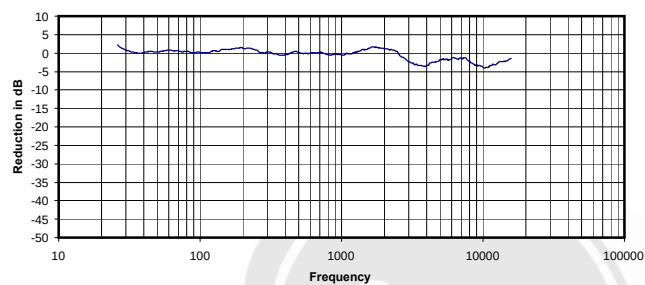
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.077 Vrms
34 Ohms
0.17 mW
0 dBr

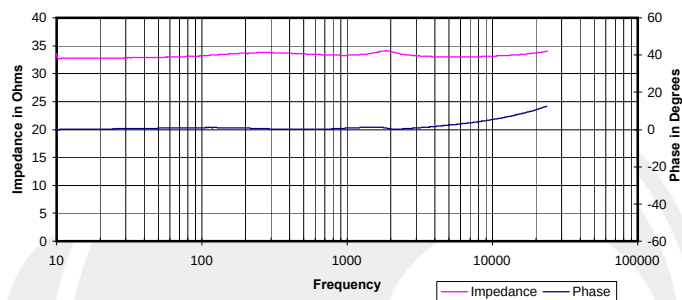
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



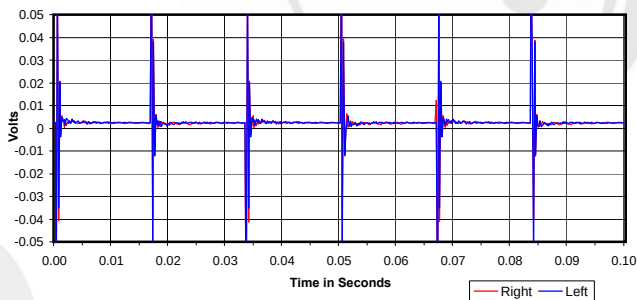
Isolation
Attenuation of External Sound vs. Frequency



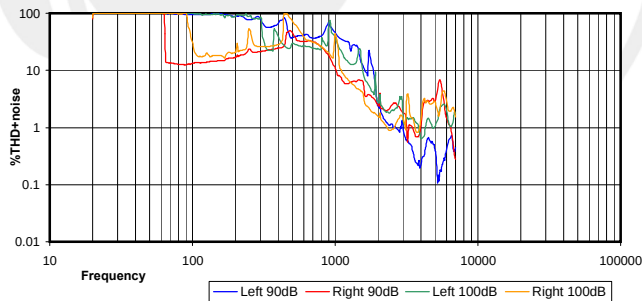
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



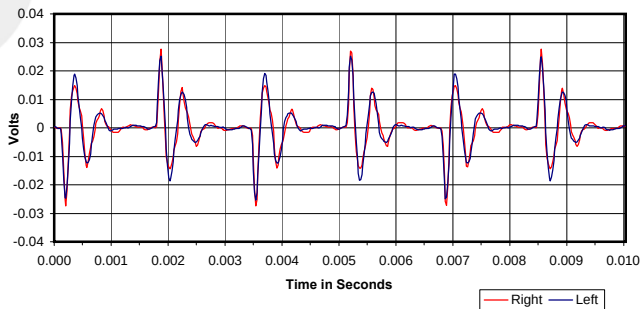
30 Hz Square Wave



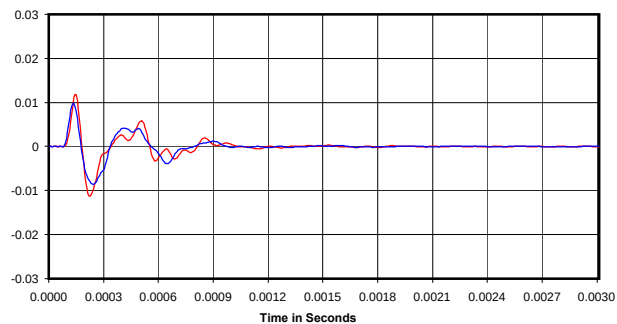
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



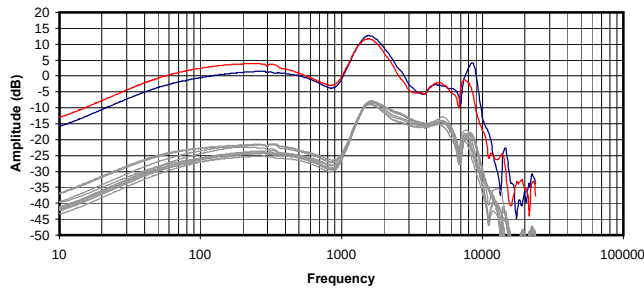
Impulse Response



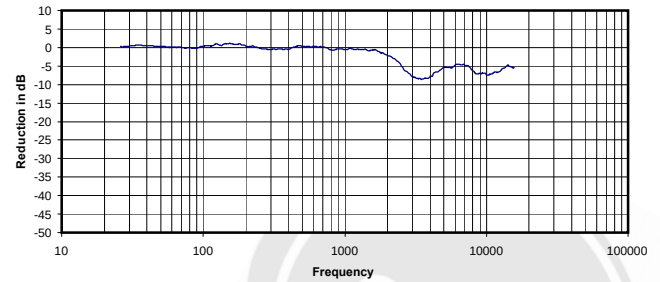
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.298 Vrms
33 Ohms
2.66 mW
0 dBr

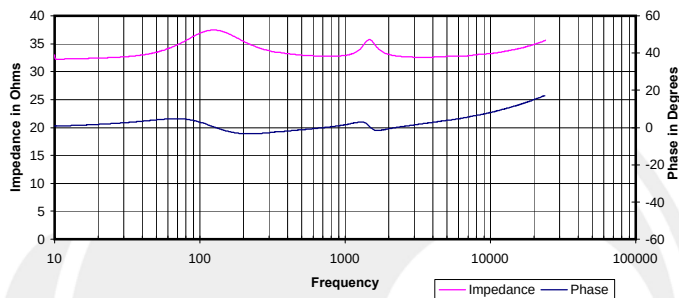
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



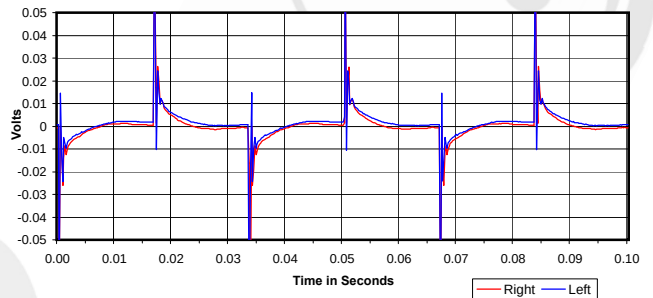
Isolation
Attenuation of External Sound vs. Frequency



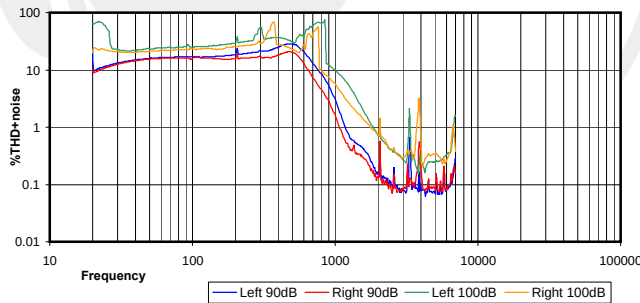
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



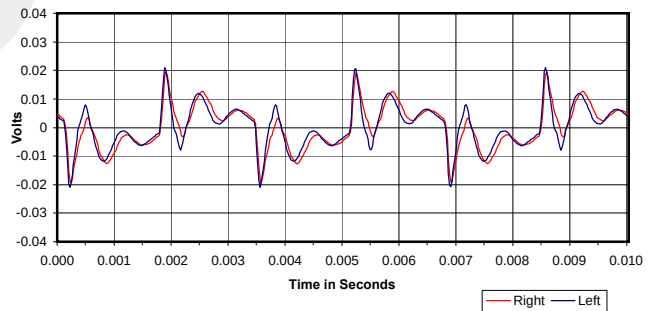
30 Hz Square Wave



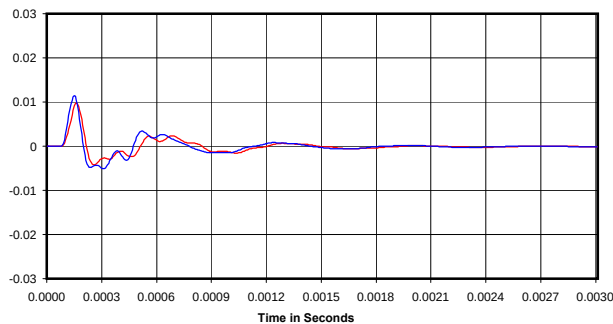
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



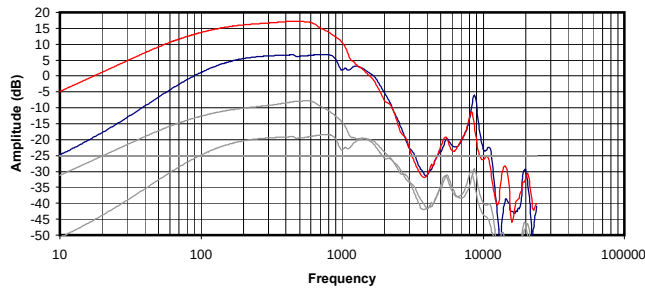
Impulse Response



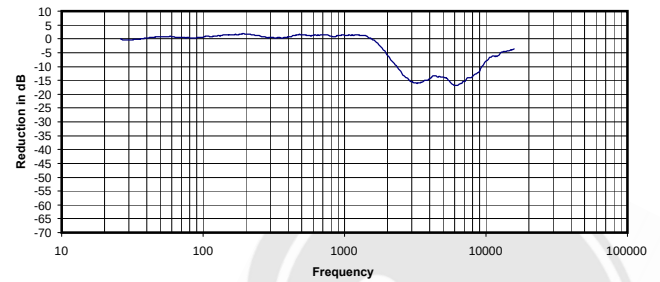
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.121 Vrms
33 Ohms
0.44 mW
-2 dBr

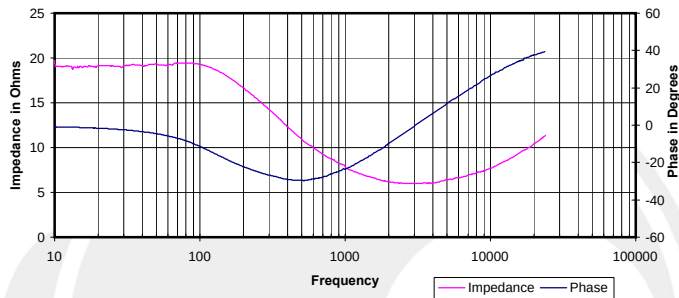
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



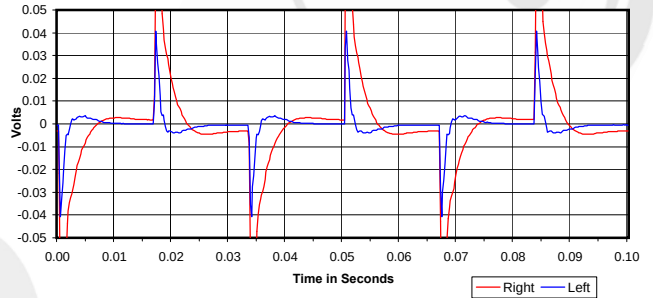
Isolation
Attenuation of External Sound vs. Frequency



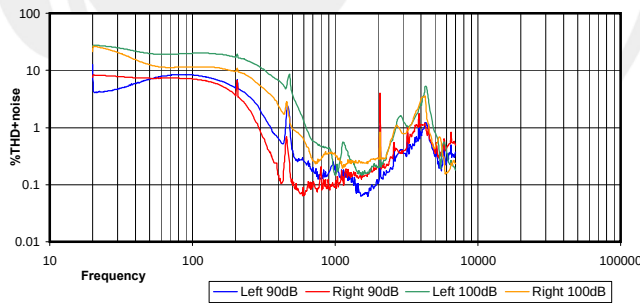
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



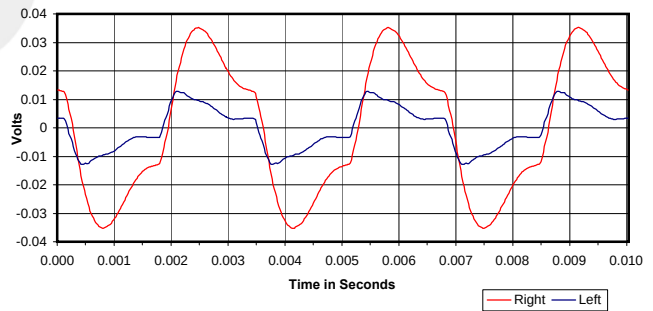
30 Hz Square Wave



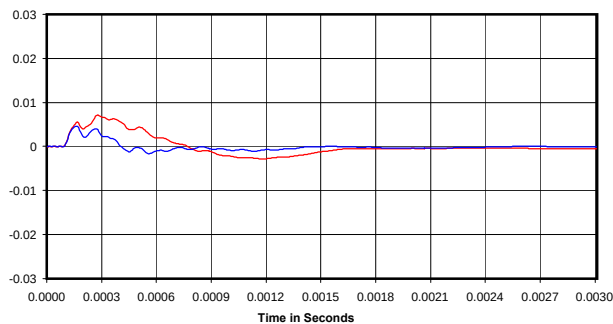
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



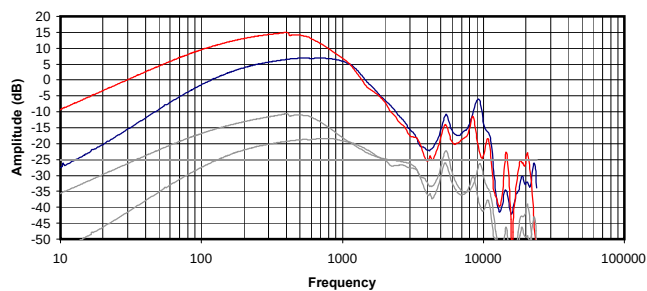
Impulse Response



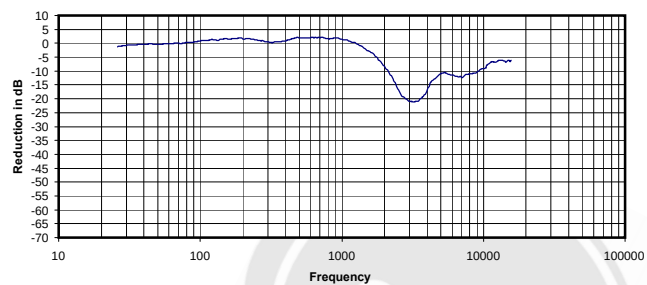
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.033 Vrms
8 Ohms
0.14 mW
-3 dBr

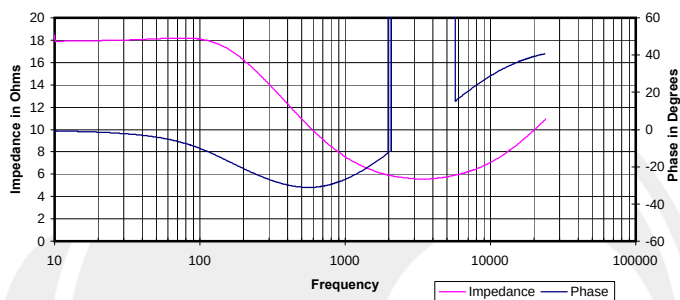
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



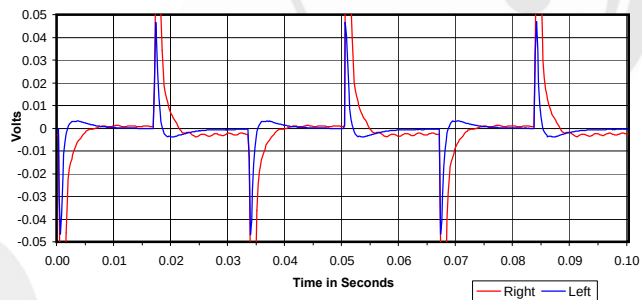
Isolation
Attenuation of External Sound vs. Frequency



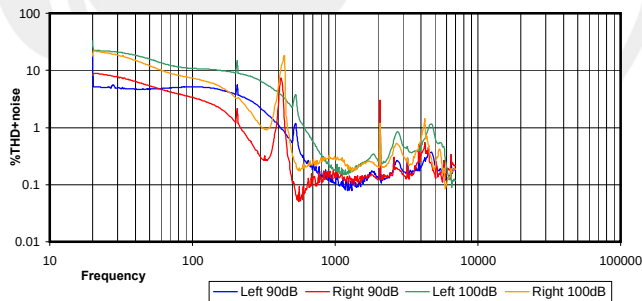
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



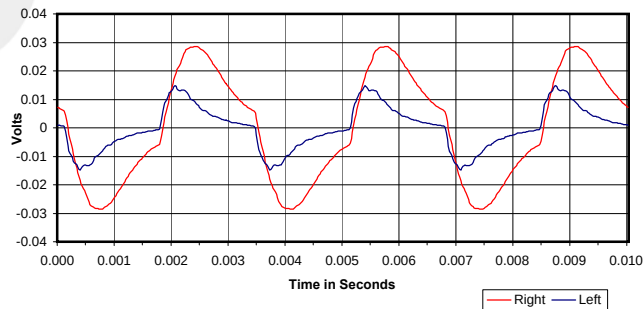
30 Hz Square Wave



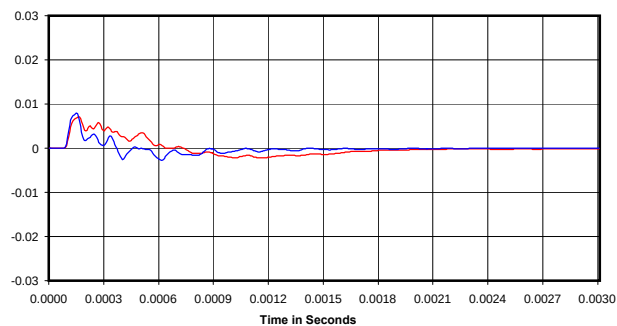
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



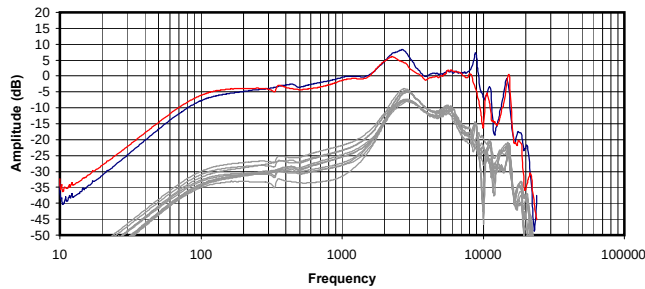
Impulse Response



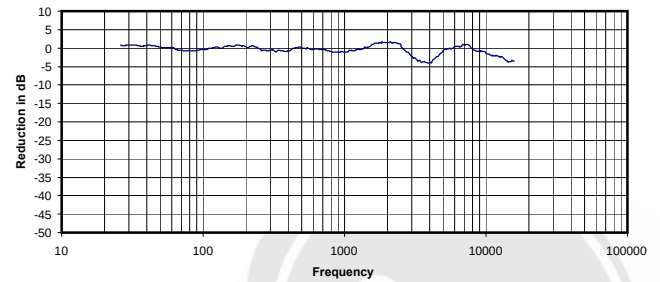
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.013 Vrms
8 Ohms
0.02 mW
-4 dBr

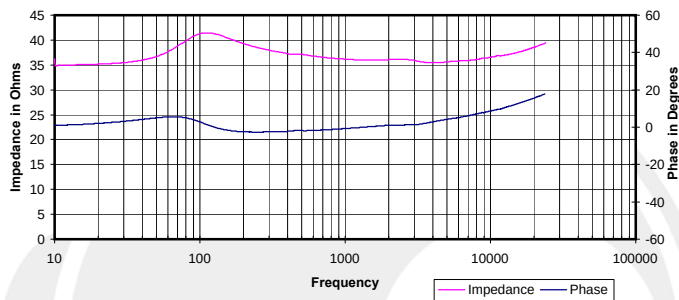
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



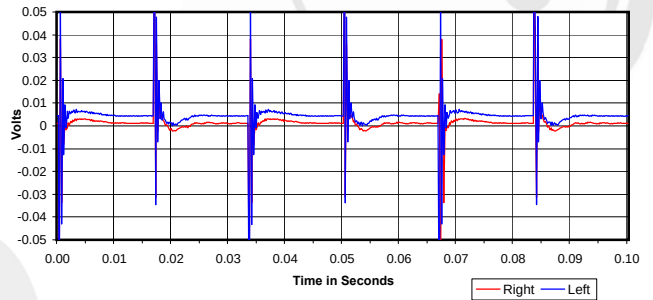
Isolation
Attenuation of External Sound vs. Frequency



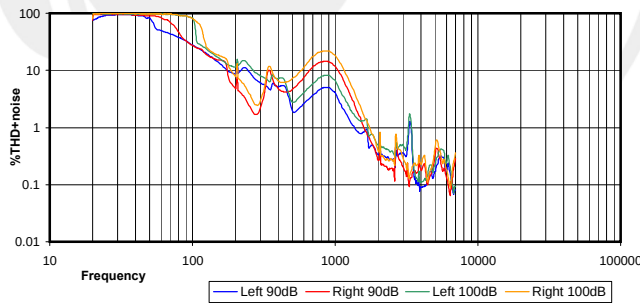
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



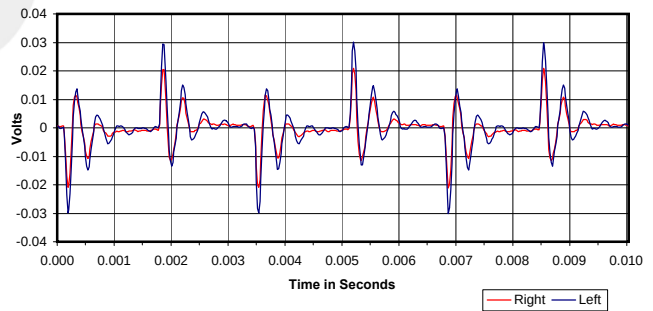
30 Hz Square Wave



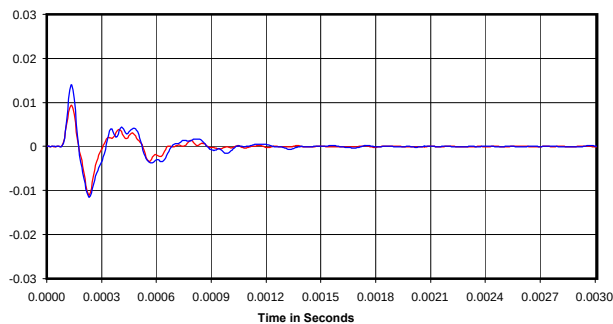
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



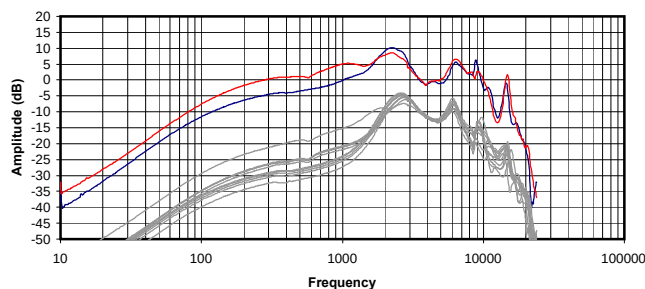
Impulse Response



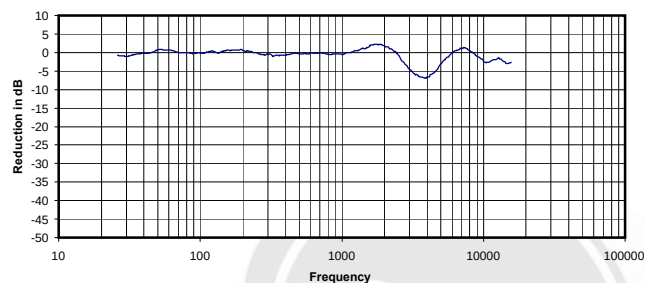
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.140 Vrms
36 Ohms
0.54 mW
0 dBr

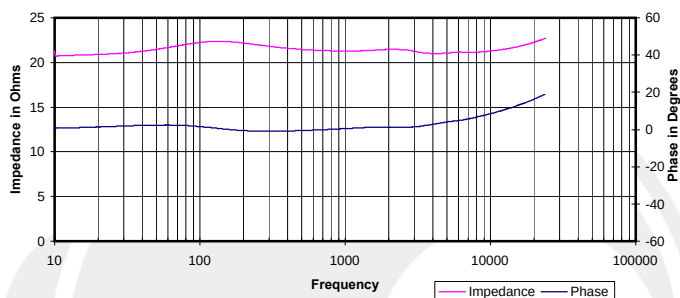
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



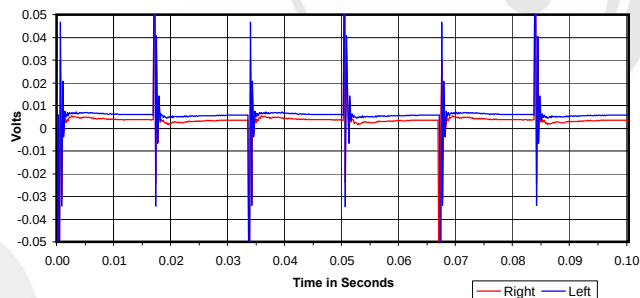
Isolation
Attenuation of External Sound vs. Frequency



Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



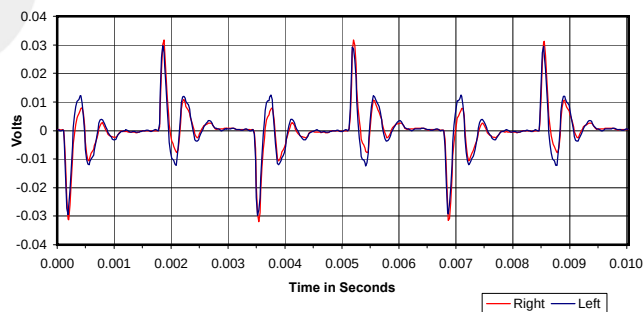
30 Hz Square Wave



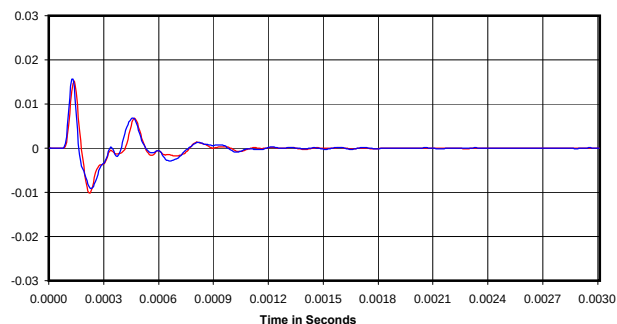
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



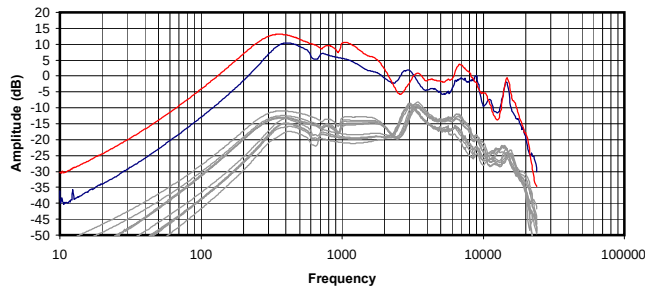
Impulse Response



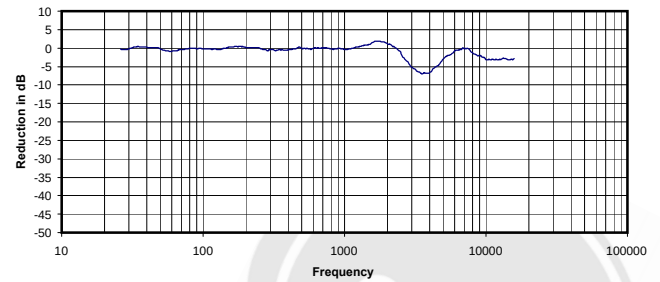
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.105 Vrms
21 Ohms
0.52 mW
-1 dB

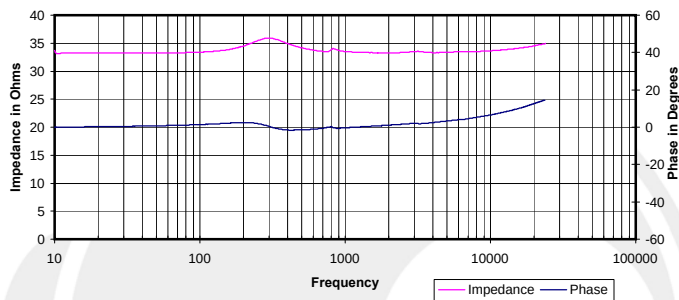
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



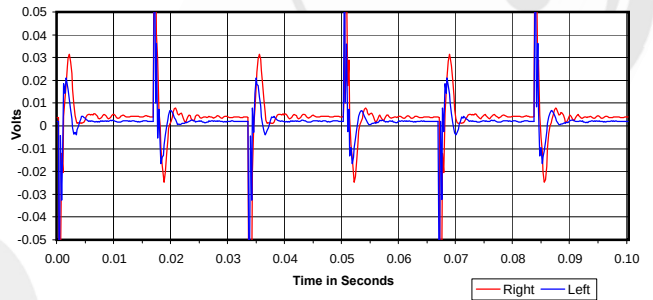
Isolation
Attenuation of External Sound vs. Frequency



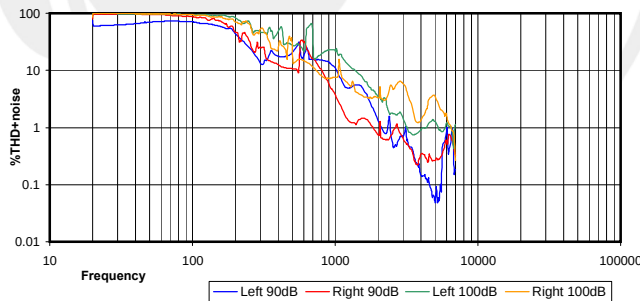
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



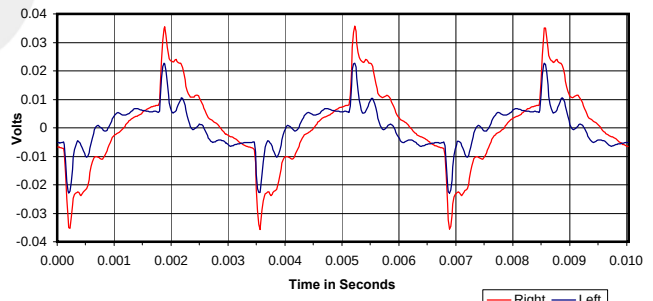
30 Hz Square Wave



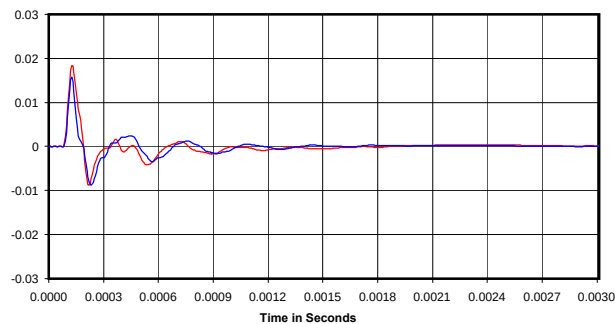
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



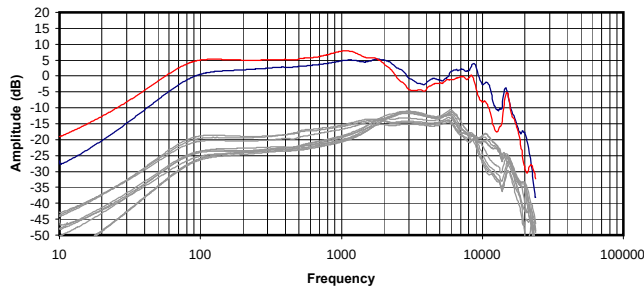
Impulse Response



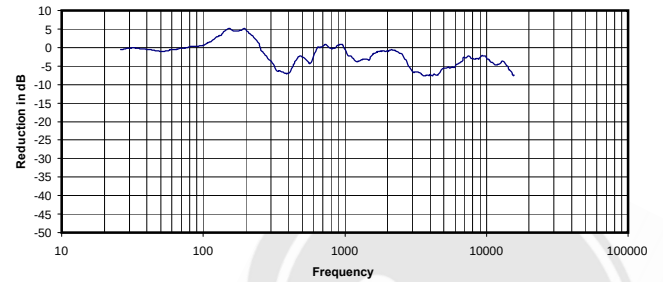
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.130 Vrms
34 Ohms
0.50 mW
-1 dBr

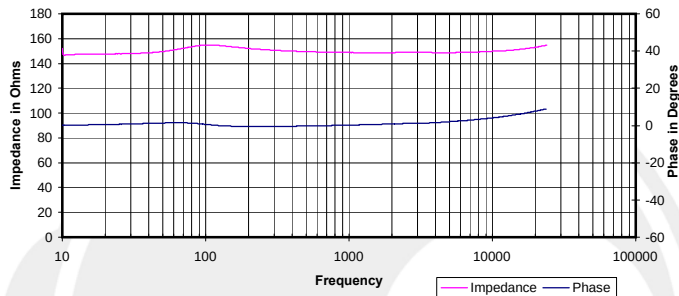
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



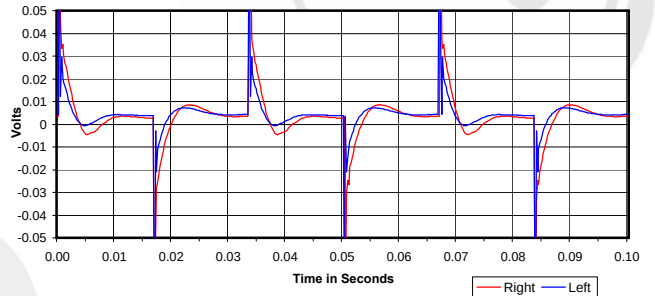
Isolation
Attenuation of External Sound vs. Frequency



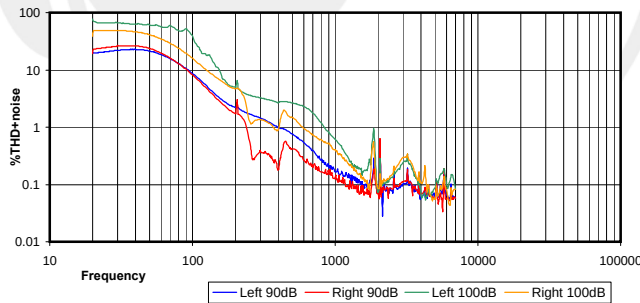
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



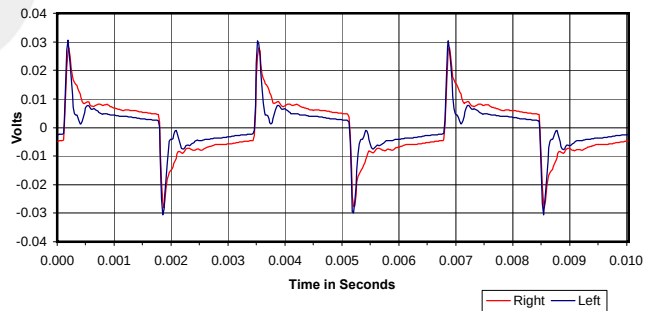
30 Hz Square Wave



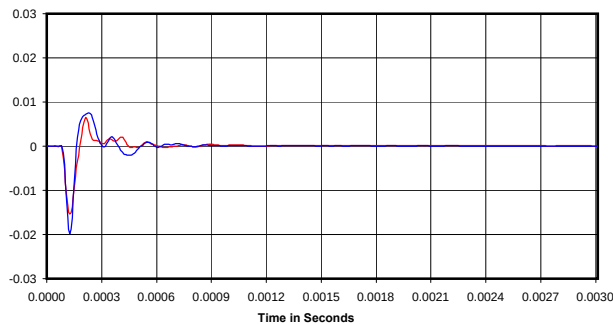
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



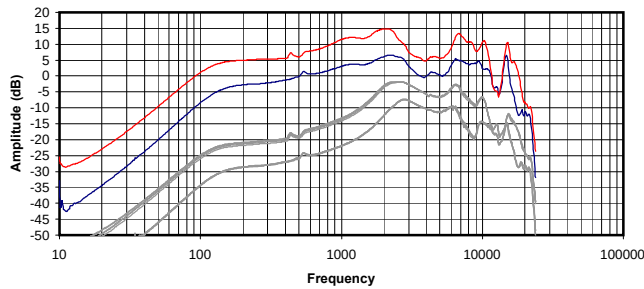
Impulse Response



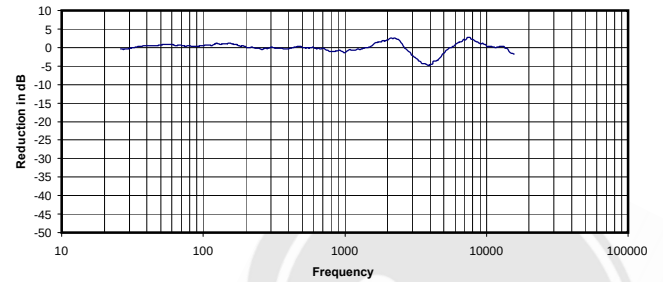
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.167 Vrms
149 Ohms
0.19 mW
-2 dBr

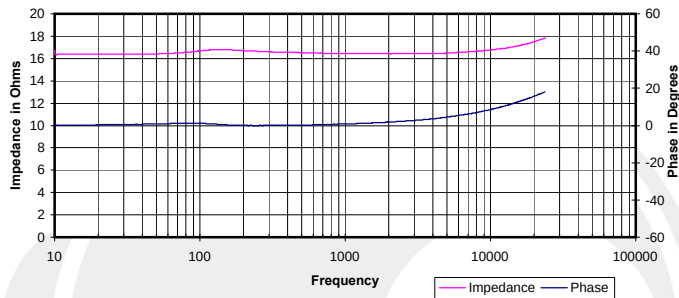
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



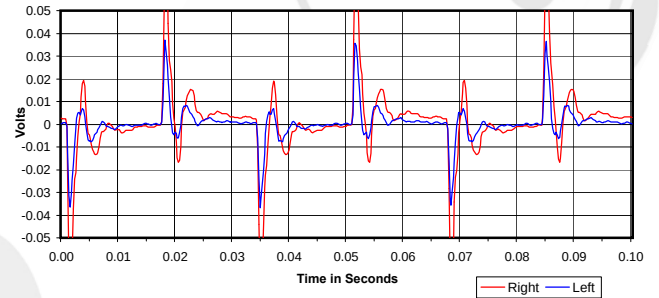
Isolation
Attenuation of External Sound vs. Frequency



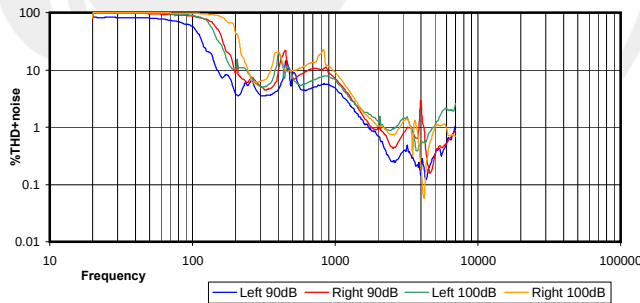
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



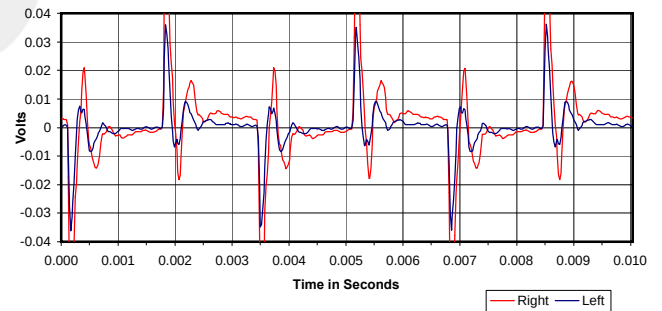
30 Hz Square Wave



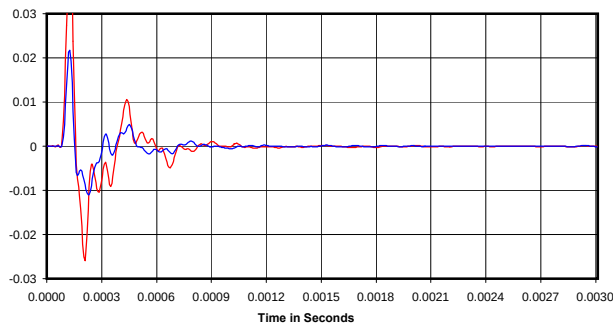
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.144 Vrms
16 Ohms
1.25 mW
0 dB

Headphone Measurement Datasheets

Noise-Cancelling

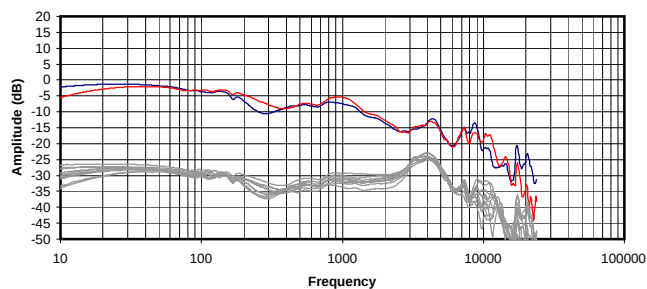




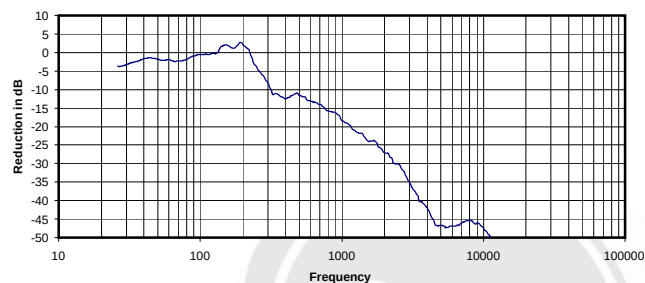
Headphone Measurements:

A Audio Elite Passive

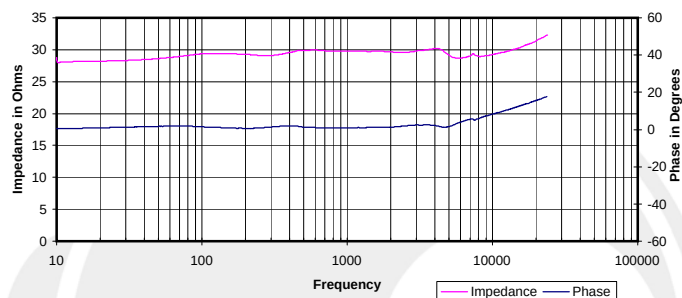
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



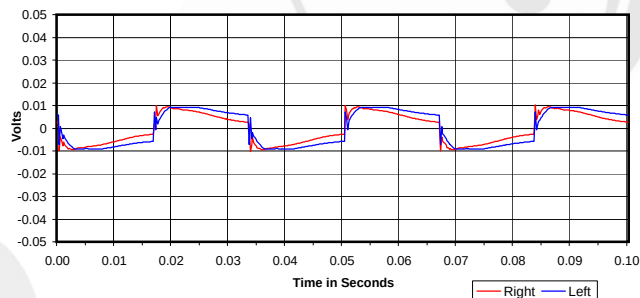
Isolation
Attenuation of External Sound vs. Frequency



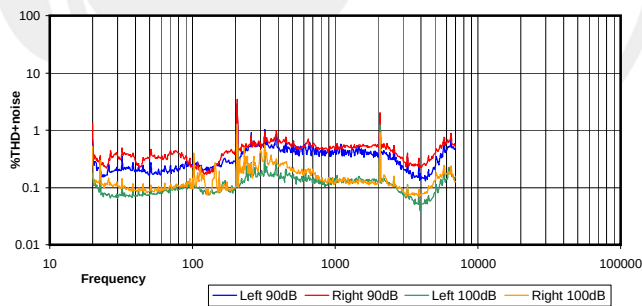
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



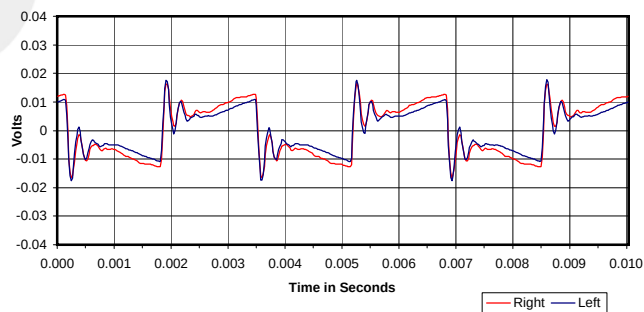
30 Hz Square Wave



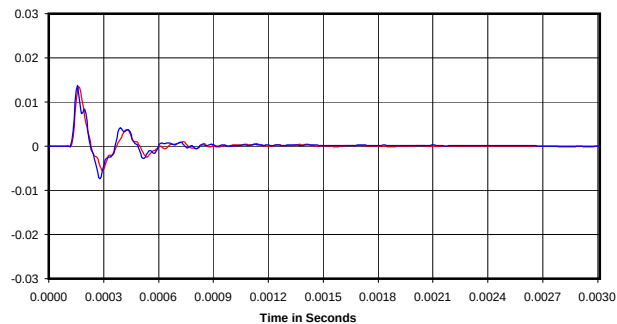
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

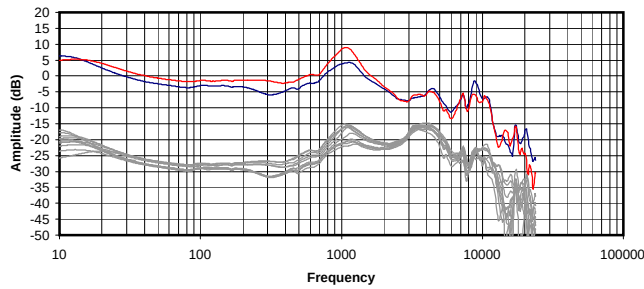
0.035 Vrms
30 Ohms
0.04 mW
-18 dBr



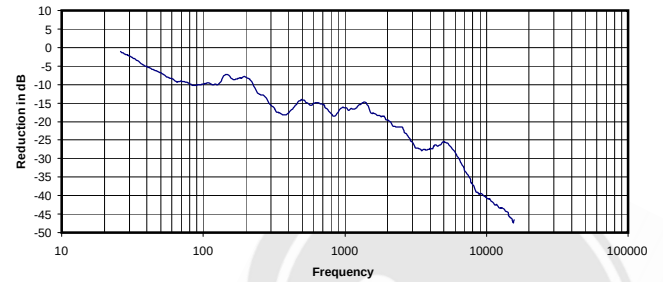
Headphone Measurements:

A Audio Elite NC Active

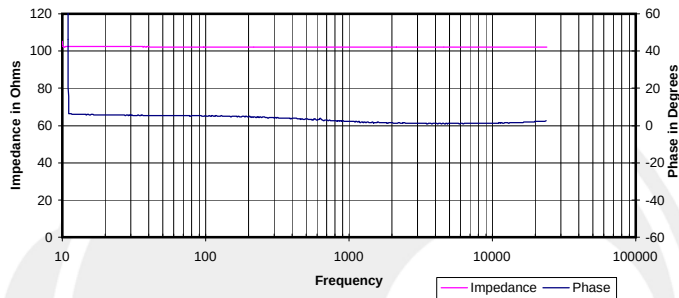
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



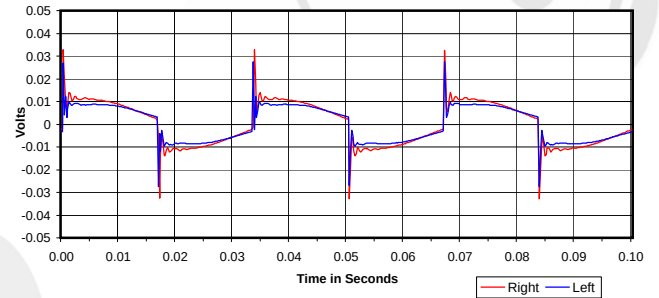
Isolation
Attenuation of External Sound vs. Frequency



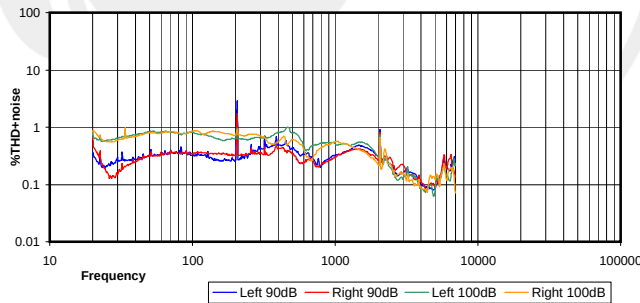
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



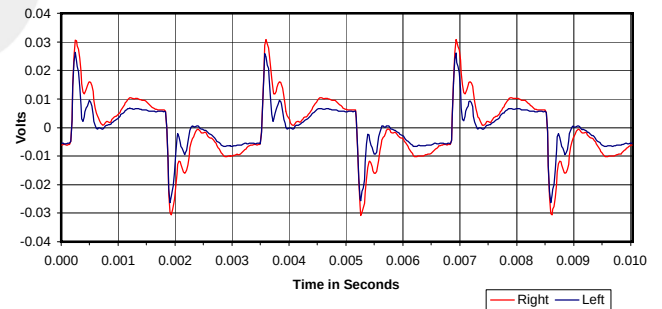
30 Hz Square Wave



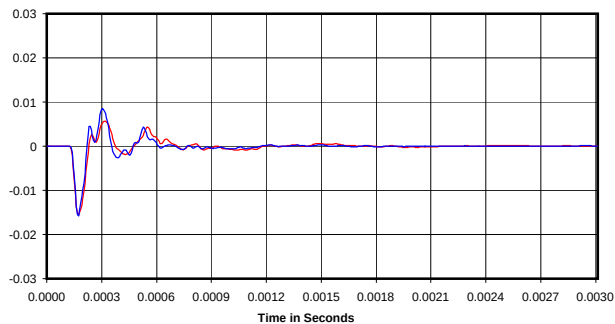
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

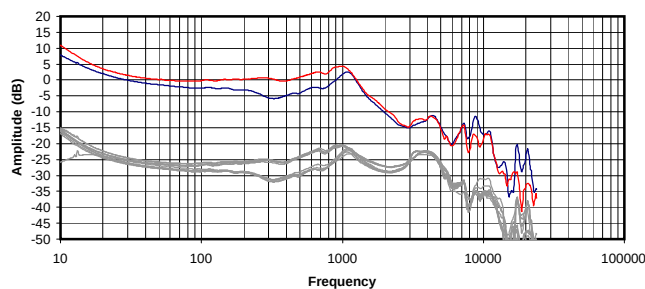
0.019 Vrms
102 Ohms
0.00 mW
-17 dBr



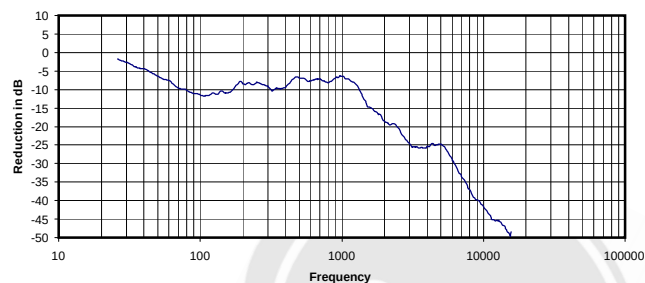
Headphone Measurements:

A Audio Elite Bass Mode

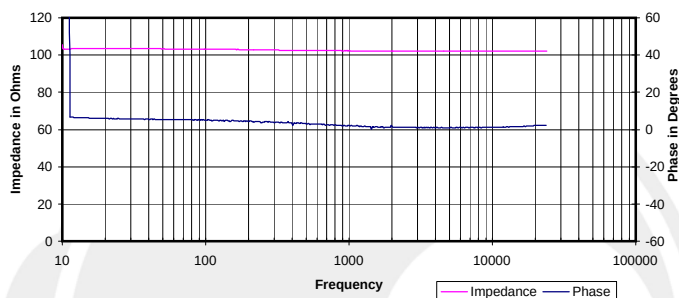
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



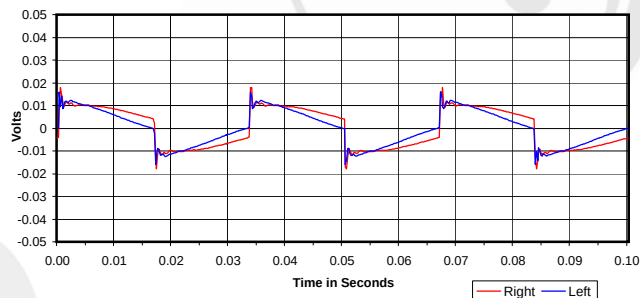
Isolation
Attenuation of External Sound vs. Frequency



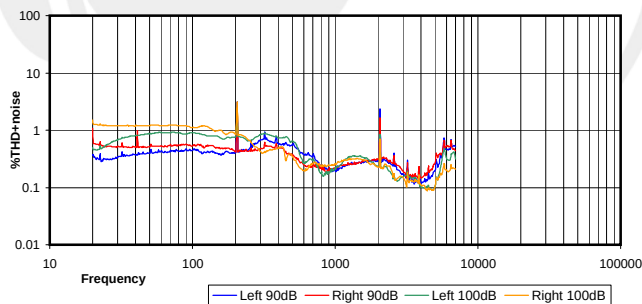
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



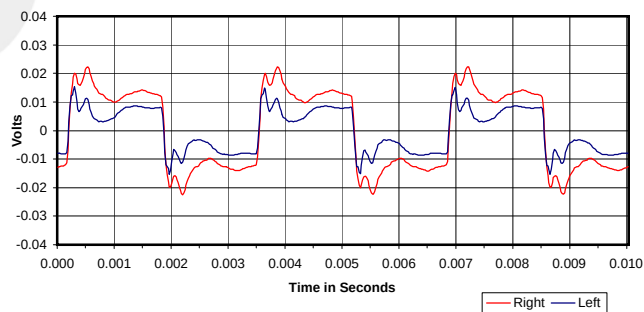
30 Hz Square Wave



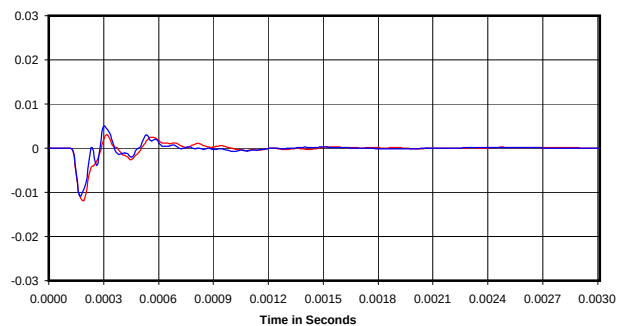
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



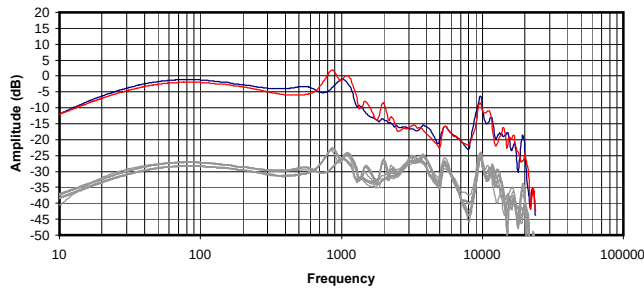
Impulse Response



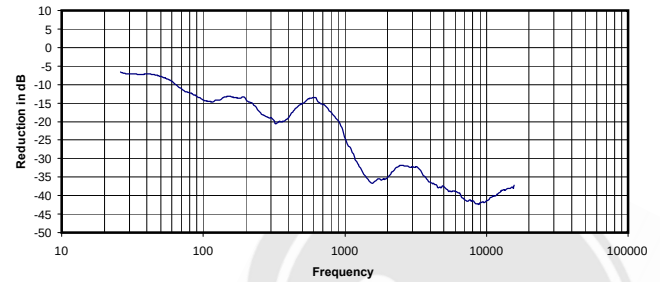
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.010 Vrms
102 Ohms
0.00 mW
-13 dBr

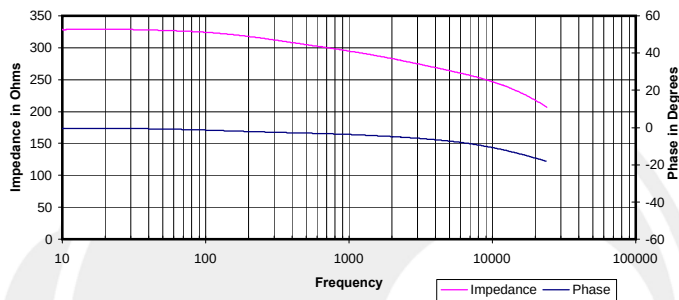
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



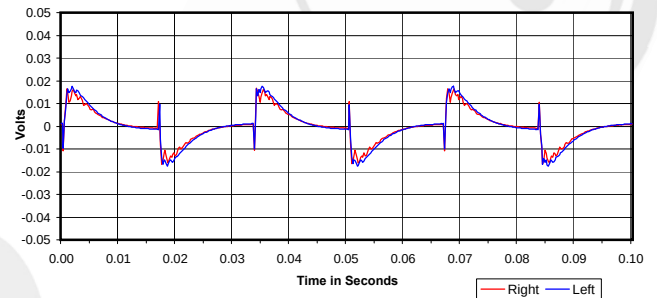
Isolation
Attenuation of External Sound vs. Frequency



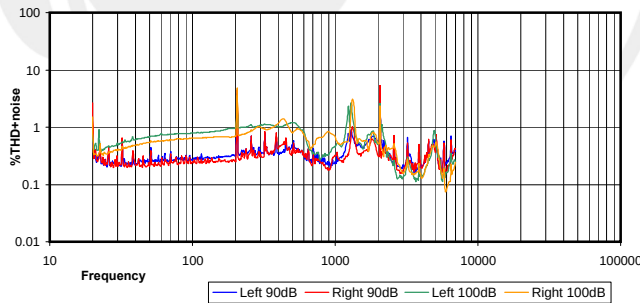
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



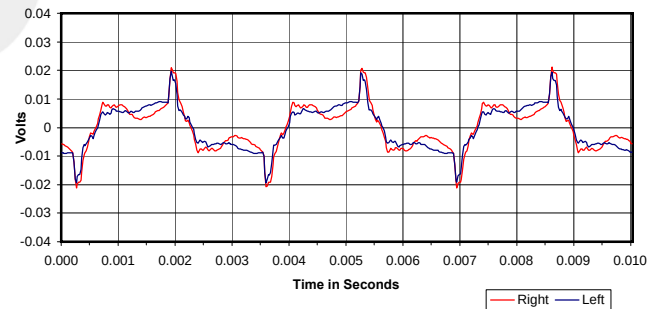
30 Hz Square Wave



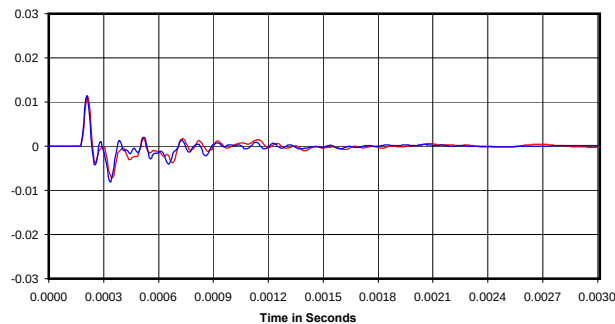
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



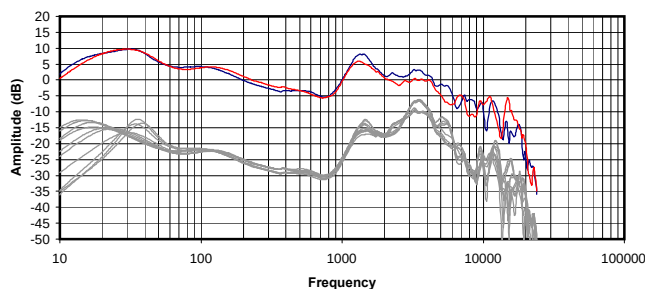
Impulse Response



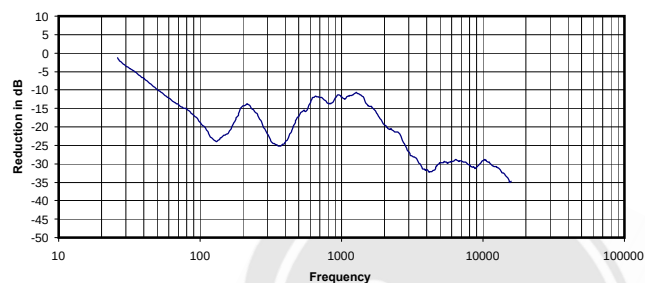
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.025 Vrms
295 Ohms
0.00 mW
-24 dBr

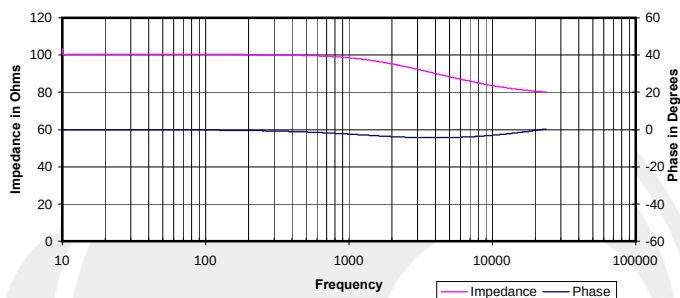
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



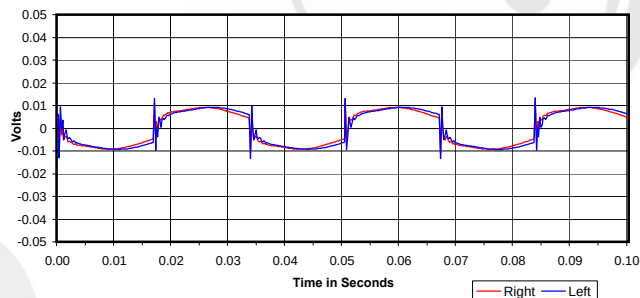
Isolation
Attenuation of External Sound vs. Frequency



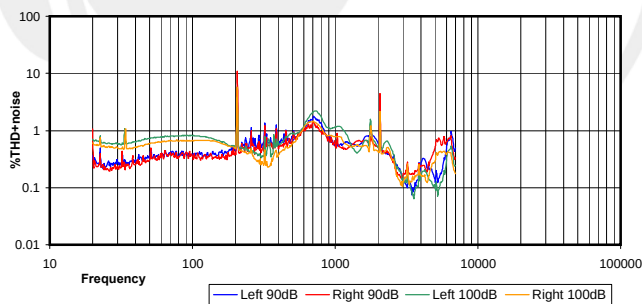
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



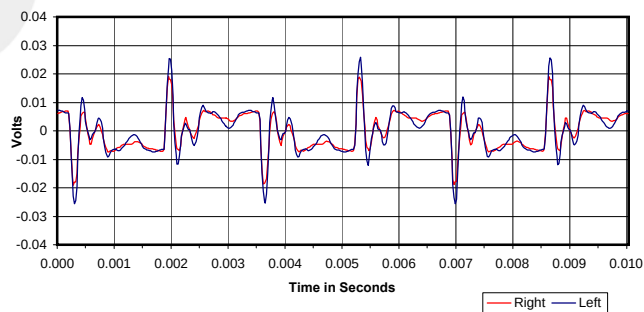
30 Hz Square Wave



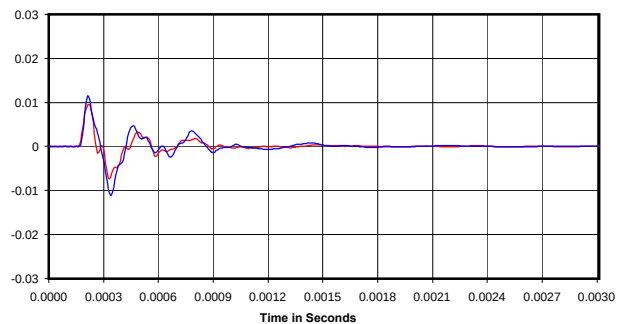
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



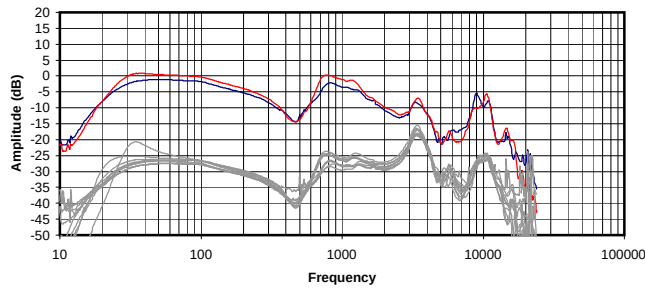
Impulse Response



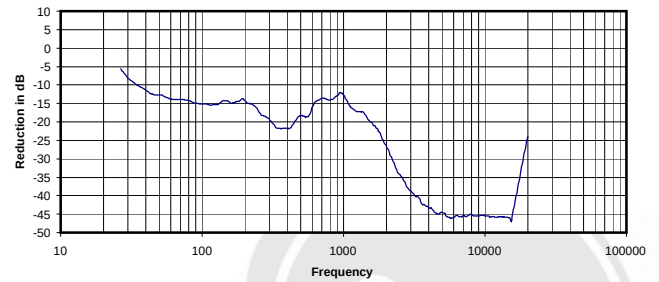
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.072 Vrms
99 Ohms
0.05 mW
-20 dBr

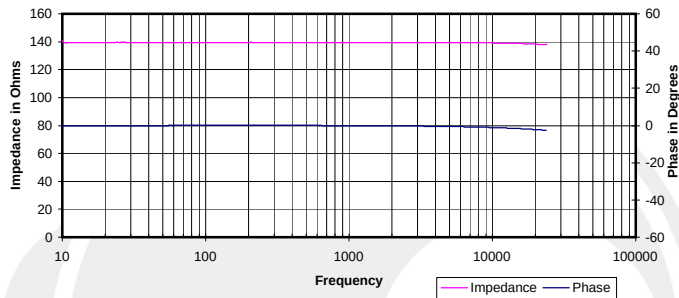
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



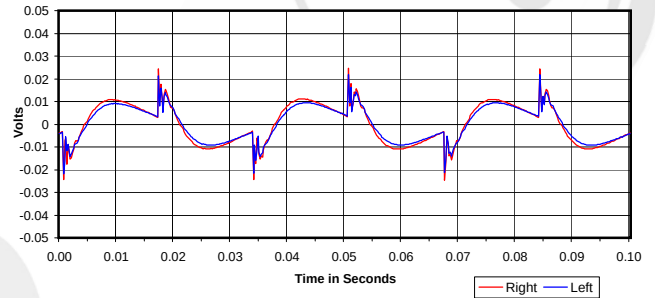
Isolation
Attenuation of External Sound vs. Frequency



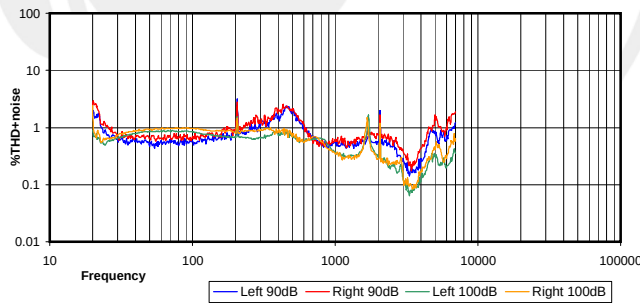
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



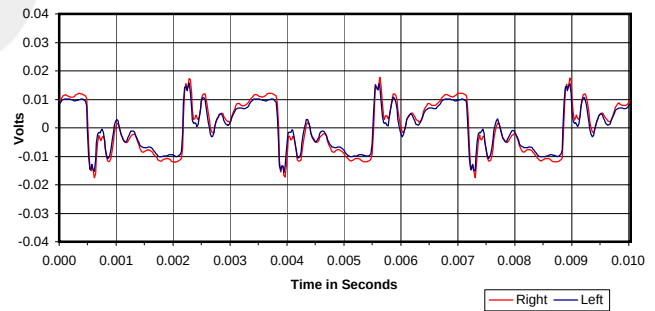
30 Hz Square Wave



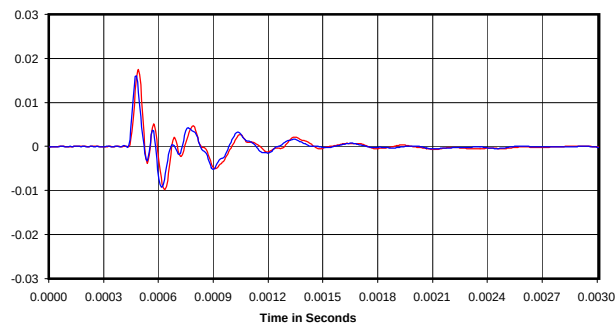
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



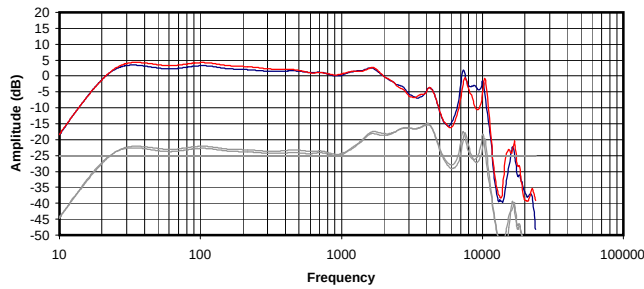
Impulse Response



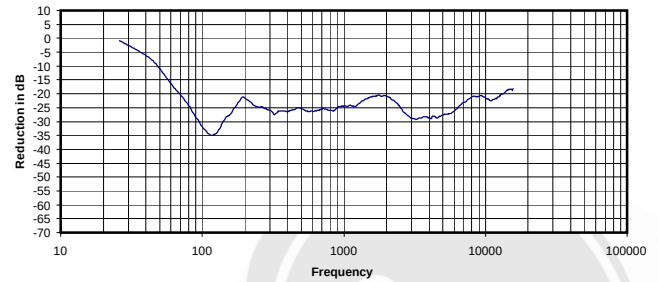
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.024 Vrms
139 Ohms
0.00 mW
-26 dBr

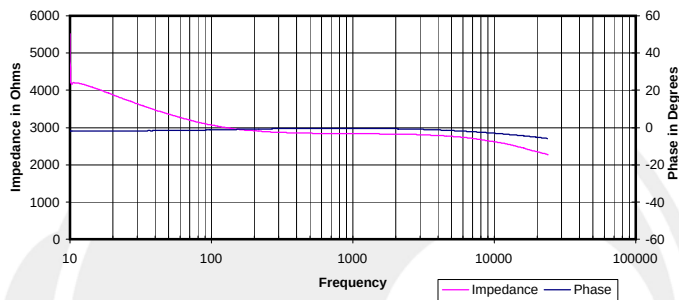
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



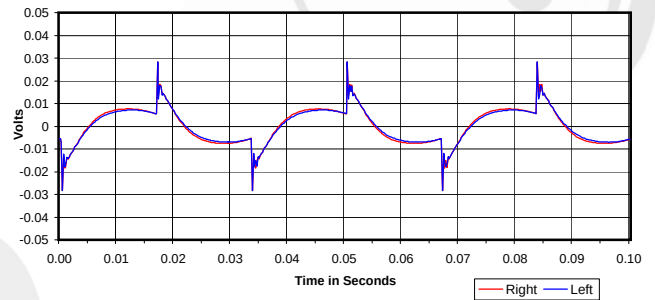
Isolation
Attenuation of External Sound vs. Frequency



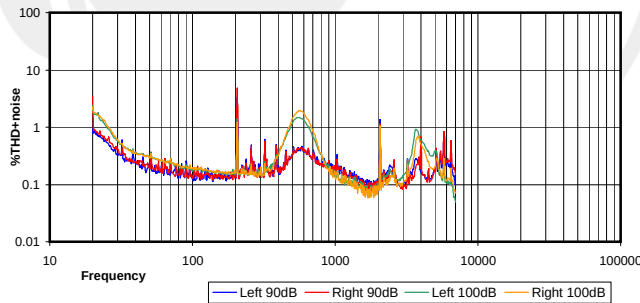
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



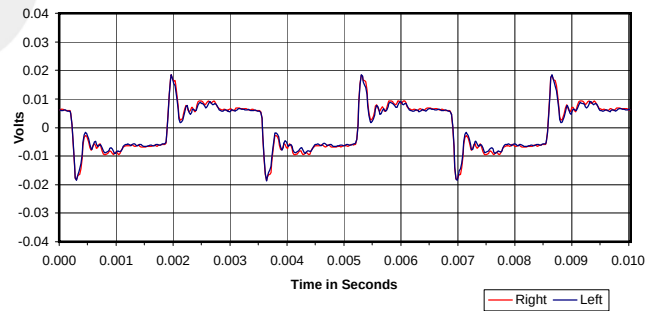
30 Hz Square Wave



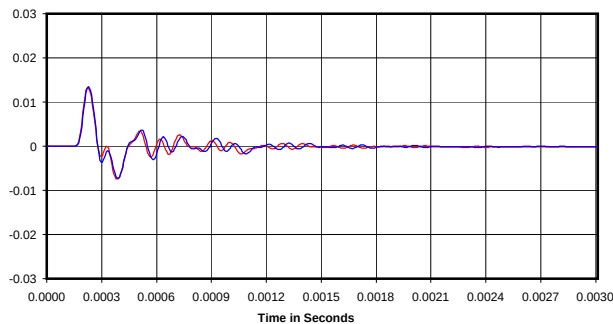
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



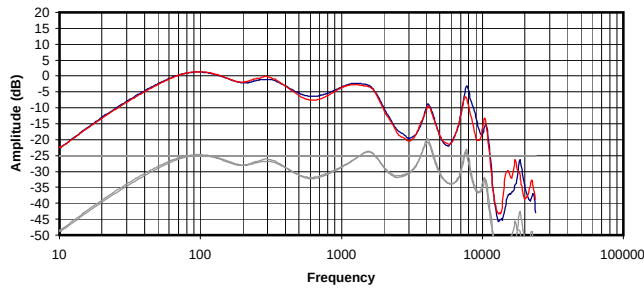
Impulse Response



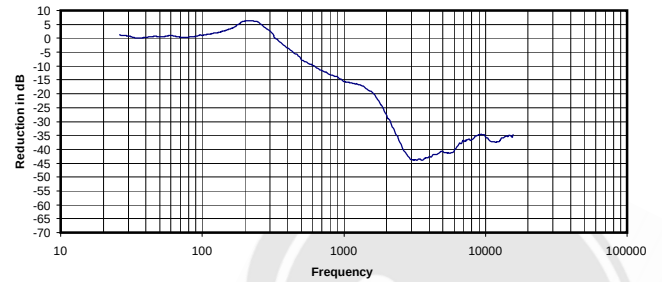
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.093 Vrms
2834 Ohms
0.00 mW
-26 dB

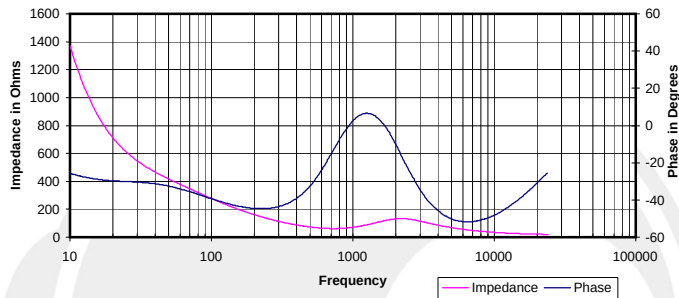
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



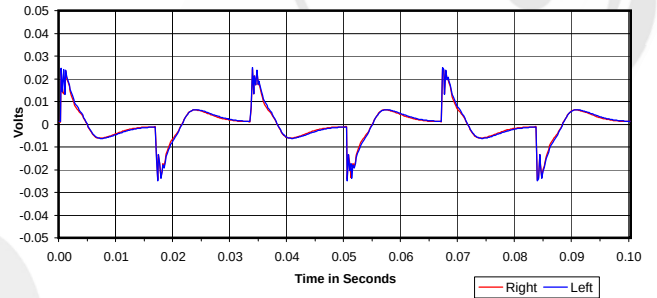
Isolation
Attenuation of External Sound vs. Frequency



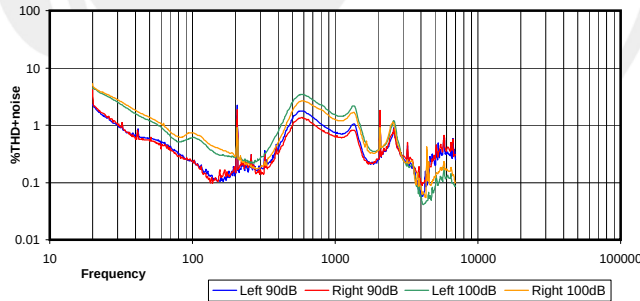
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



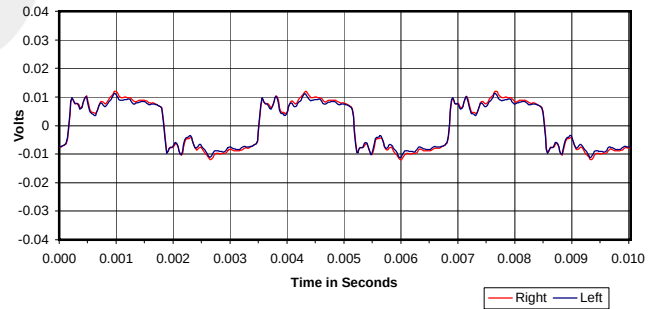
30 Hz Square Wave



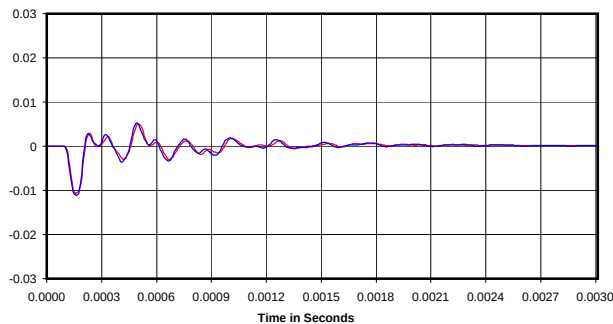
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



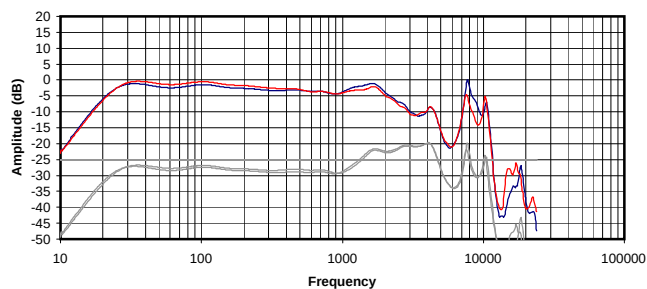
Impulse Response



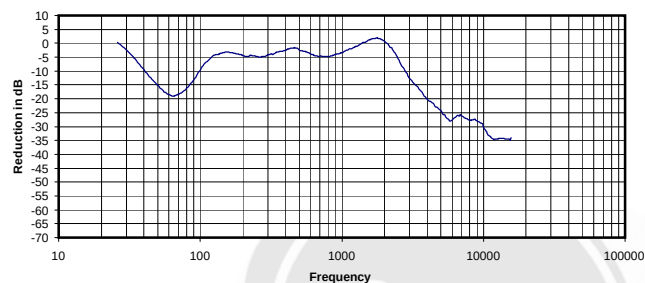
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.090 Vrms
71 Ohms
0.11 mW
-15 dB

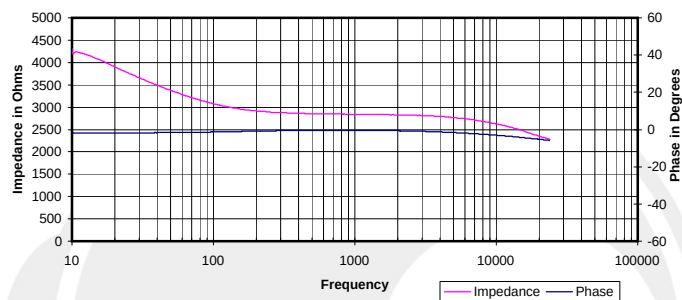
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



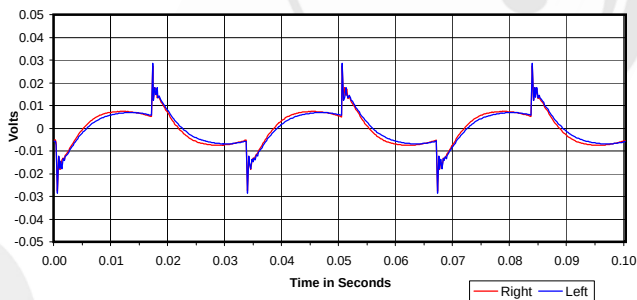
Isolation
Attenuation of External Sound vs. Frequency



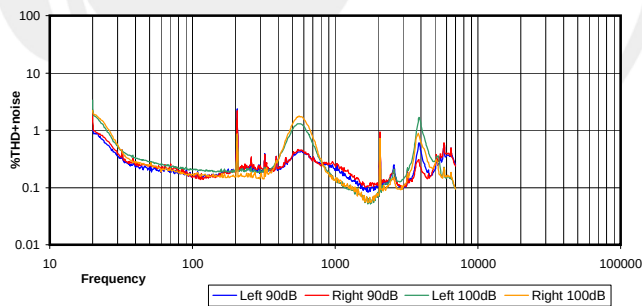
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



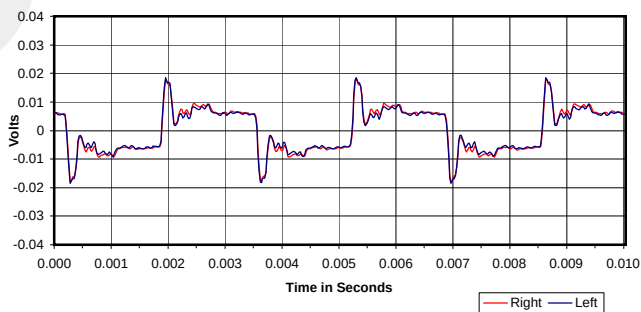
30 Hz Square Wave



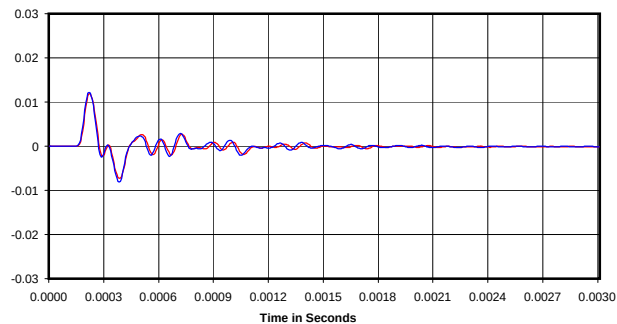
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



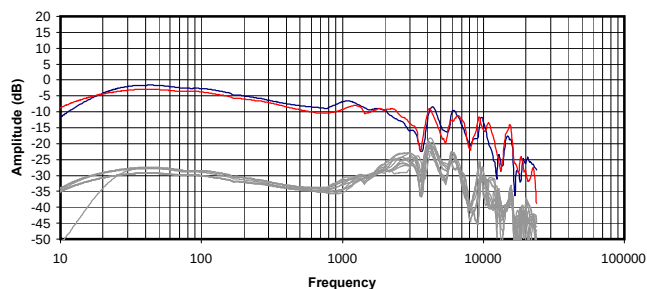
Impulse Response



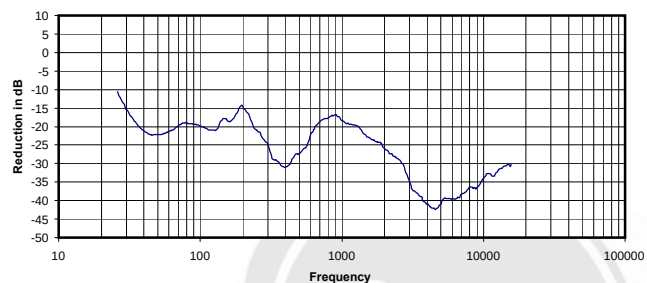
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.078 Vrms
2841 Ohms
0.00 mW
-7 dBr

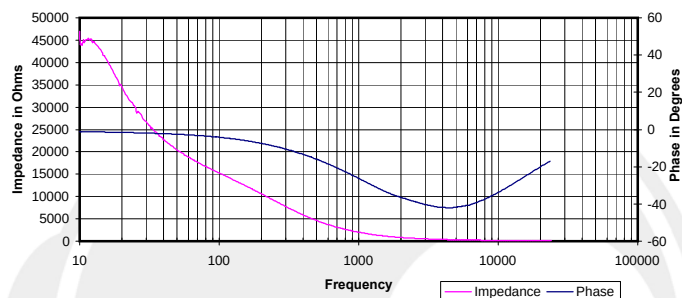
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



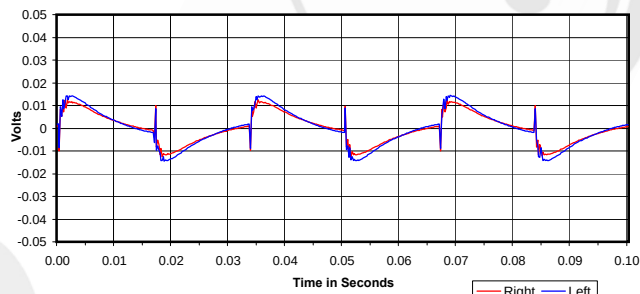
Isolation
Attenuation of External Sound vs. Frequency



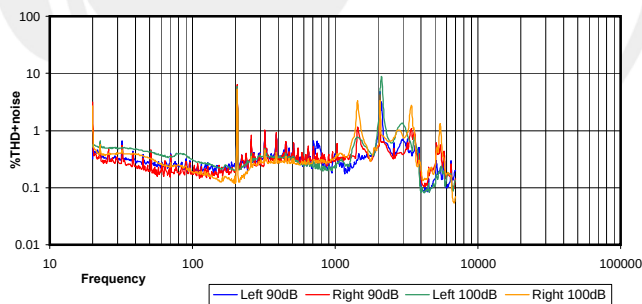
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



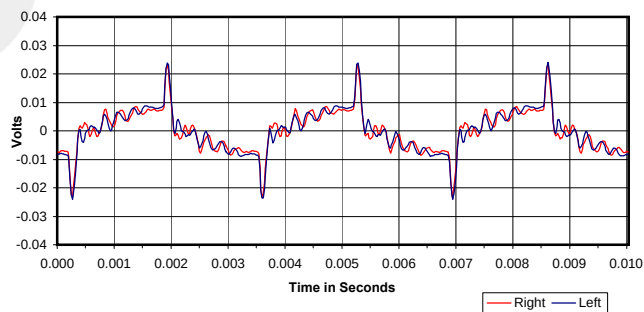
30 Hz Square Wave



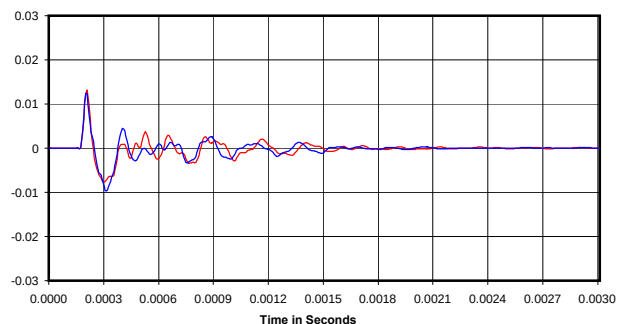
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



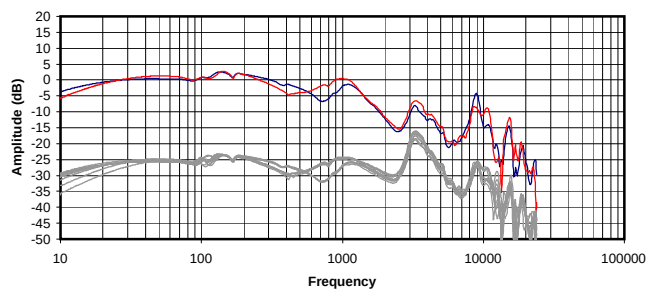
Impulse Response



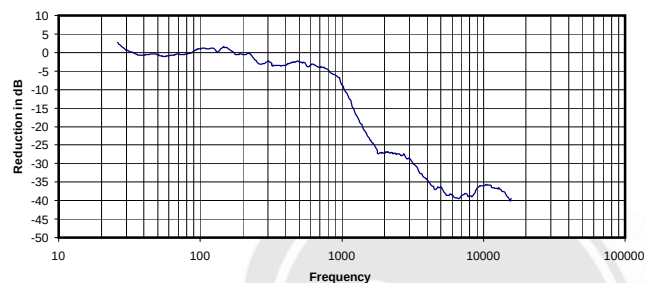
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.074 Vrms
2001 Ohms
0.00 mW
-26 dBr

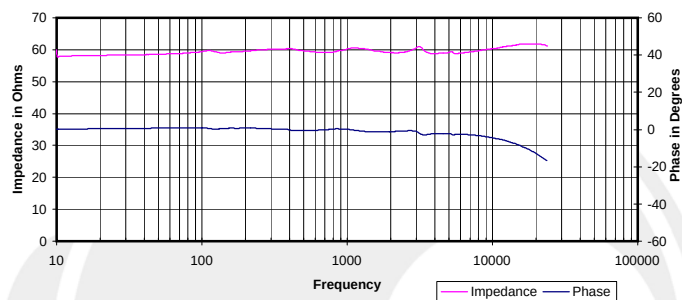
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



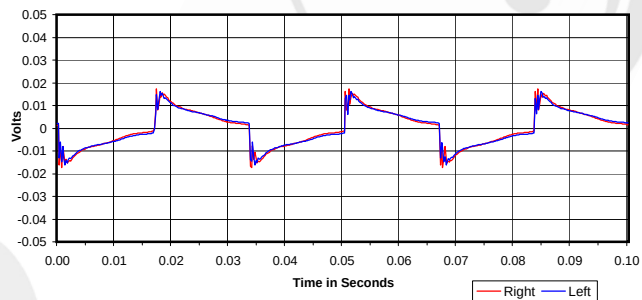
Isolation
Attenuation of External Sound vs. Frequency



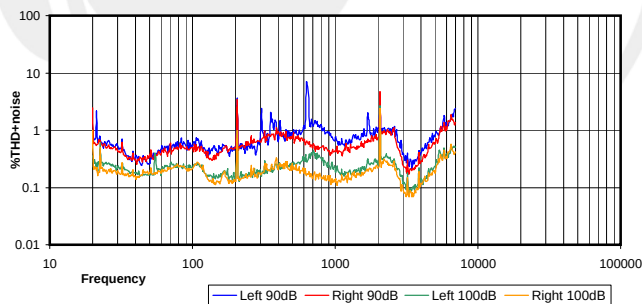
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



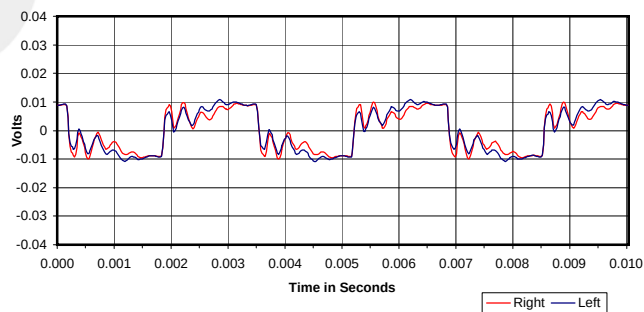
30 Hz Square Wave



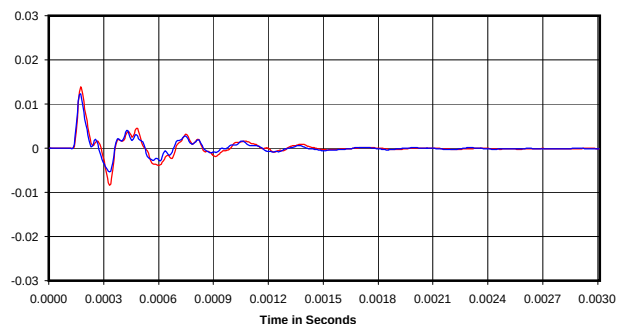
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



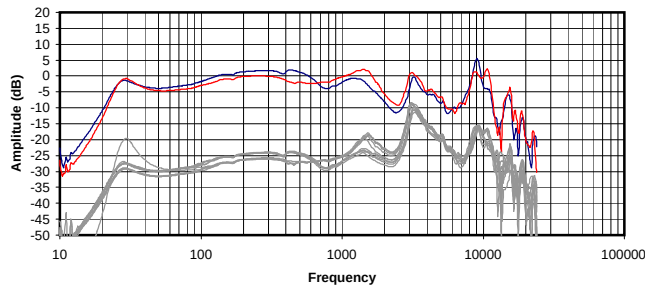
Impulse Response



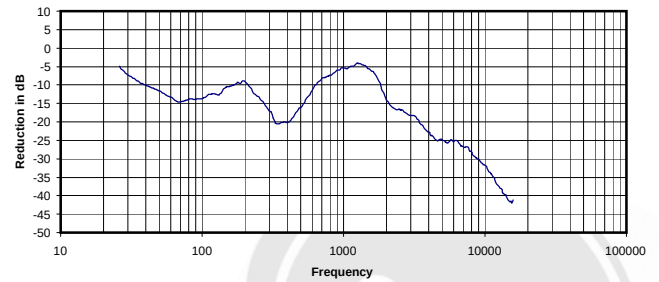
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.057 Vrms
60 Ohms
0.05 mW
-13 dBr

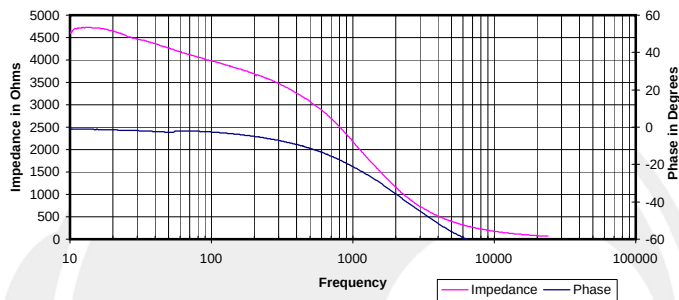
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



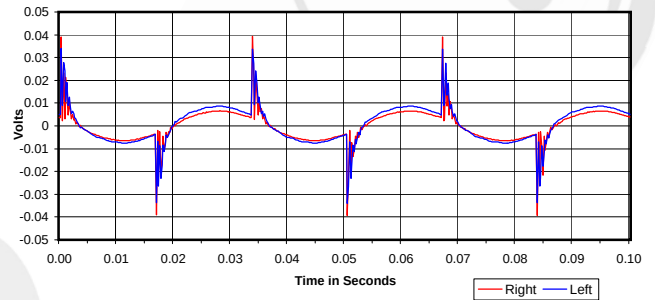
Isolation
Attenuation of External Sound vs. Frequency



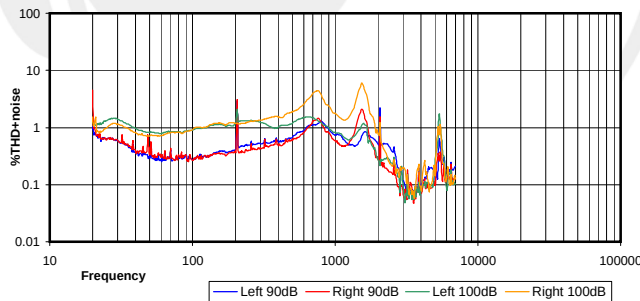
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



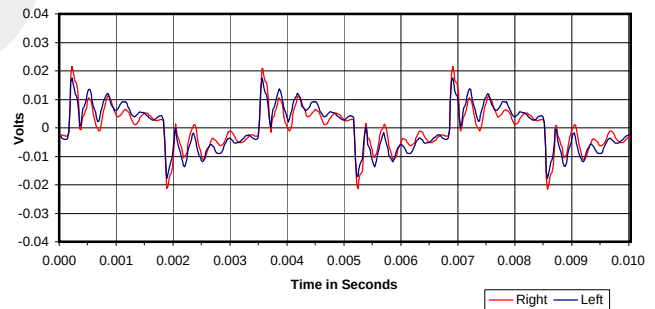
30 Hz Square Wave



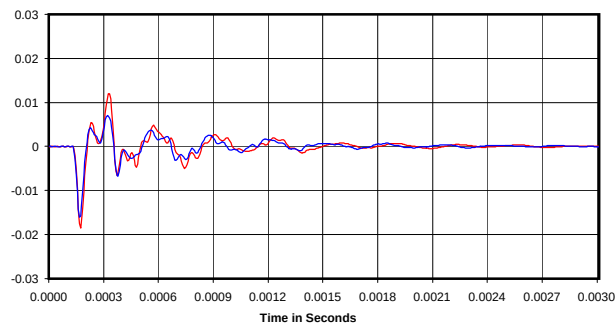
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



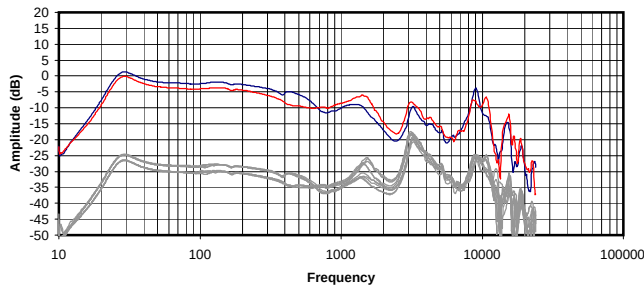
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.049 Vrms
2175 Ohms
0.00 mW
-14 dBr

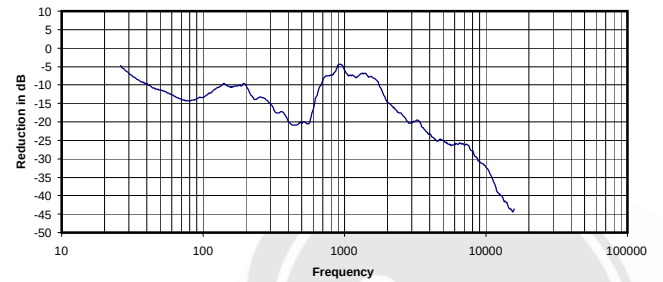


Headphone Measurements: **Fanny Wang Custom 3000 Bass Boost On**

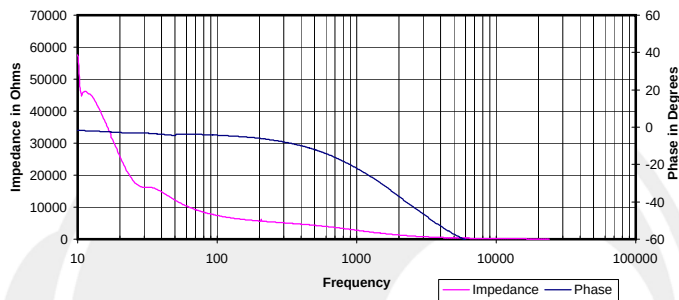
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



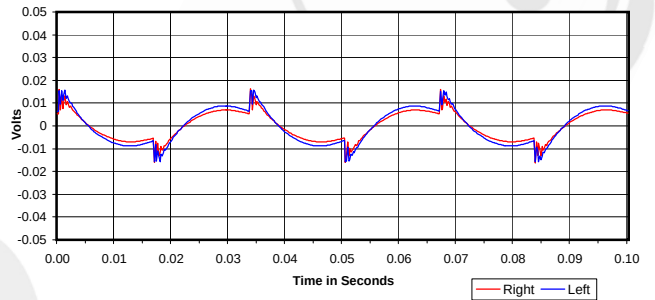
Isolation
Attenuation of External Sound vs. Frequency



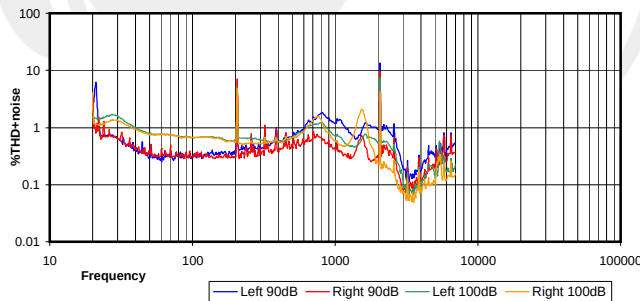
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



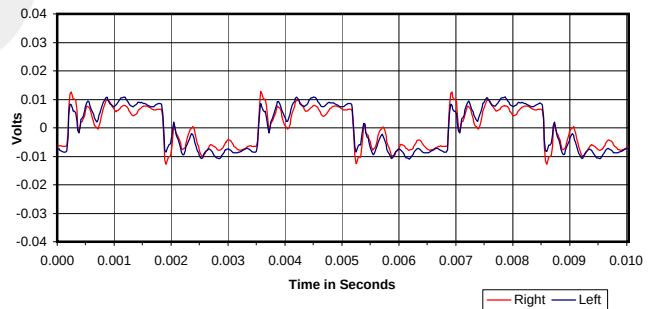
30 Hz Square Wave



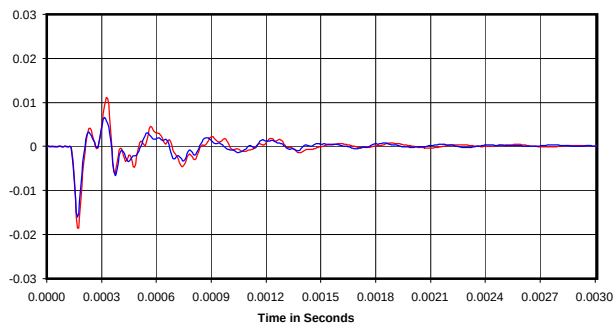
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



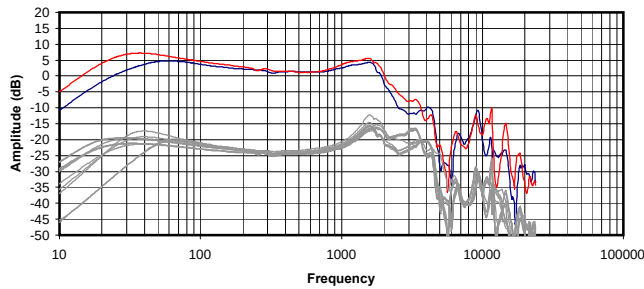
Impulse Response



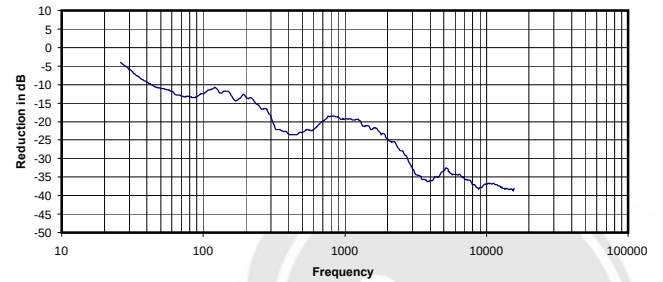
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.045 Vrms
2772 Ohms
0.00 mW
-15 dBr

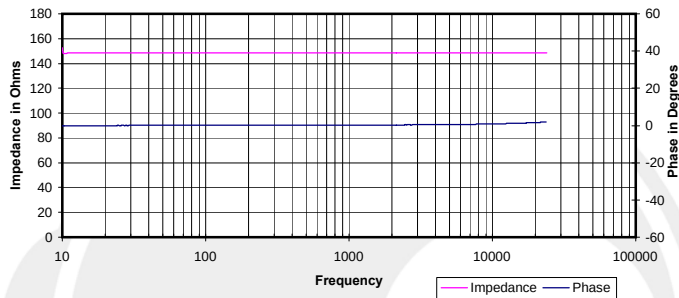
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



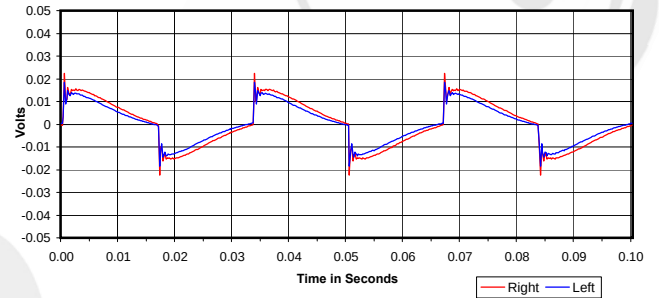
Isolation
Attenuation of External Sound vs. Frequency



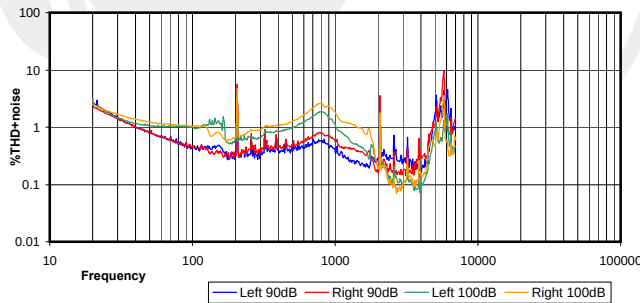
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



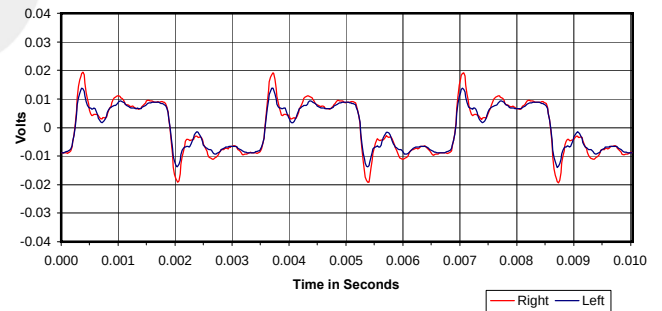
30 Hz Square Wave



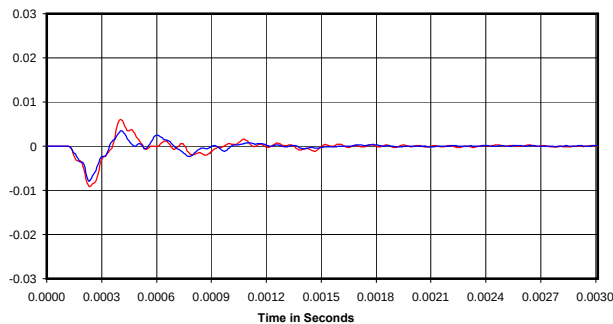
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



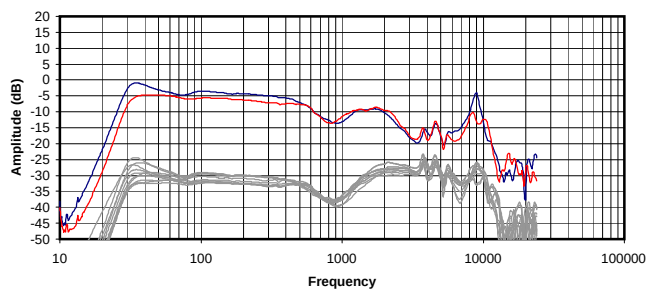
Impulse Response



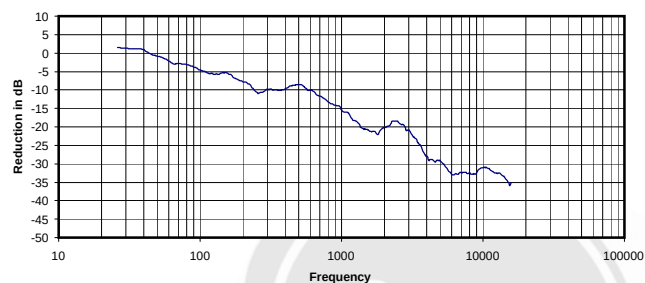
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.018 Vrms
149 Ohms
0.00 mW
-22 dBr

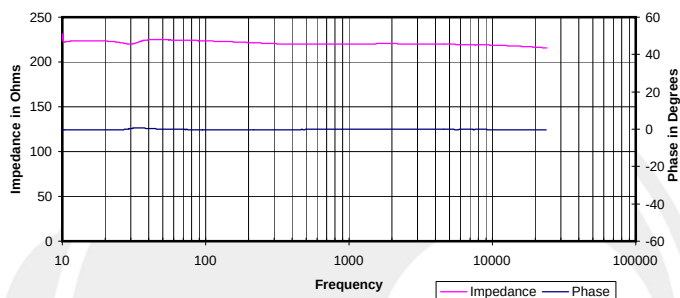
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



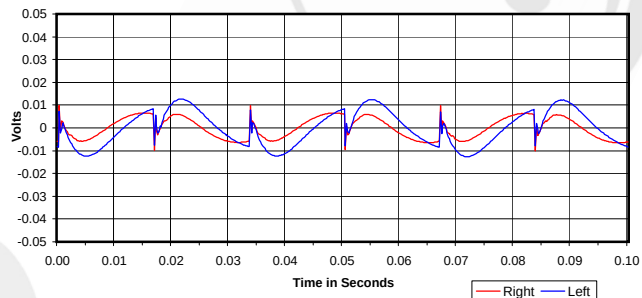
Isolation
Attenuation of External Sound vs. Frequency



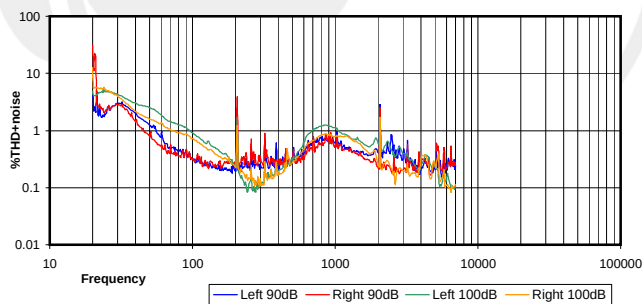
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



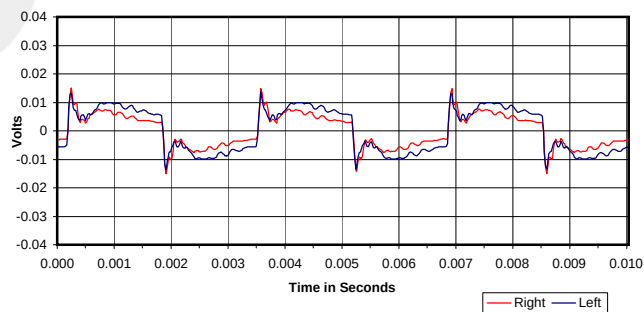
30 Hz Square Wave



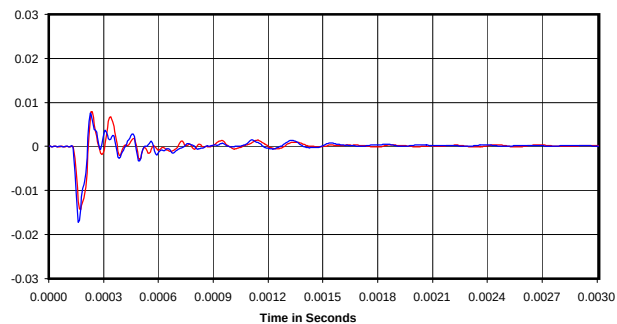
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



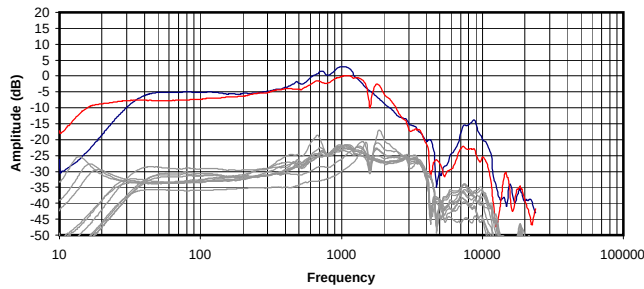
Impulse Response



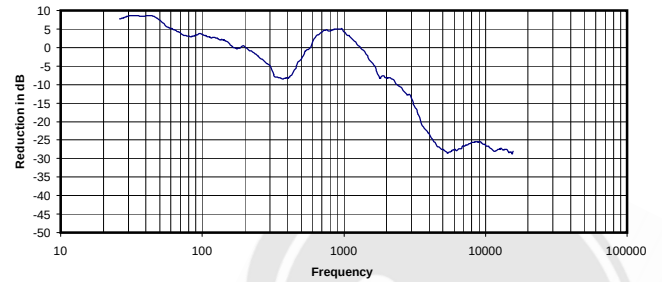
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.047 Vrms
220 Ohms
0.01 mW
-15 dBr

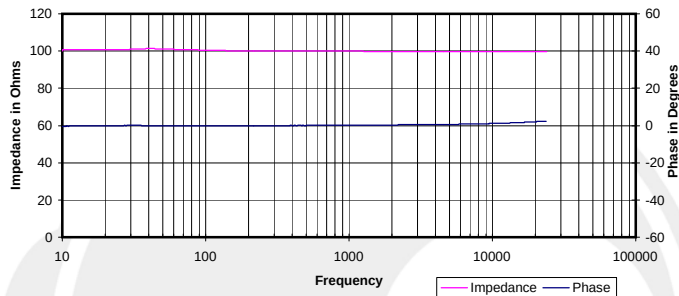
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



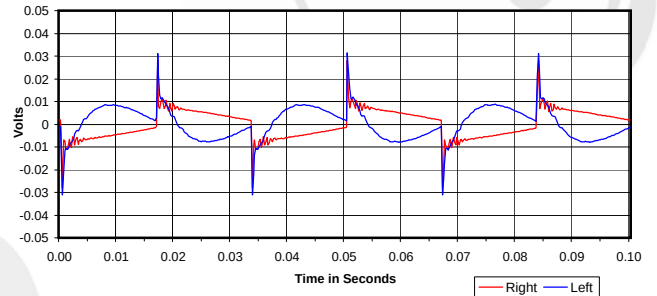
Isolation
Attenuation of External Sound vs. Frequency



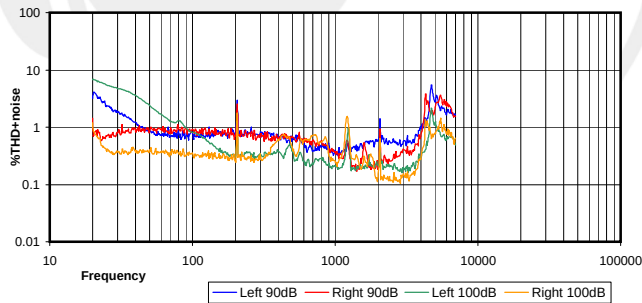
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



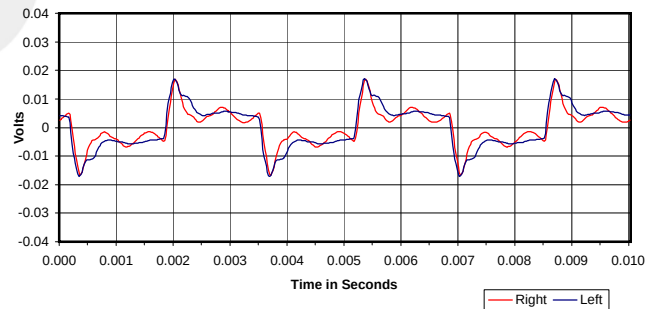
30 Hz Square Wave



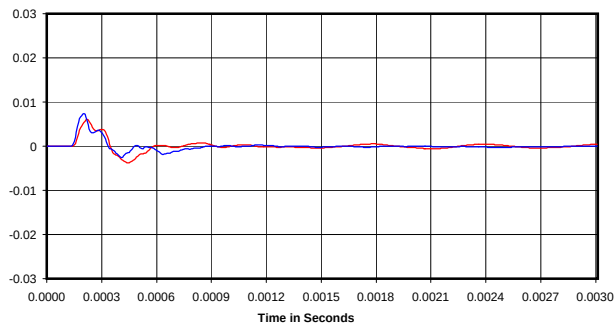
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



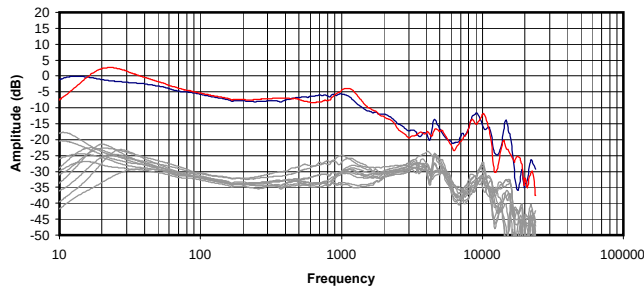
Impulse Response



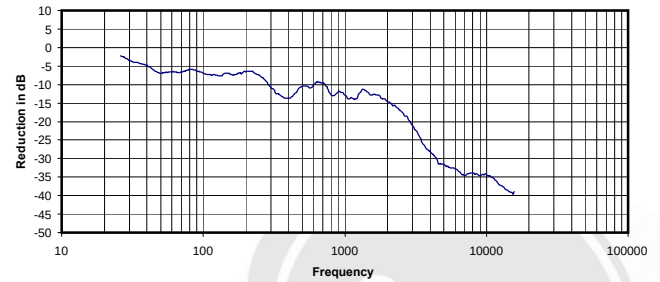
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.011 Vrms
100 Ohms
0.00 mW
-6 dBr

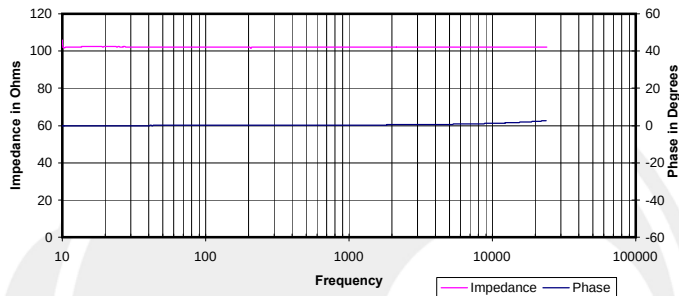
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



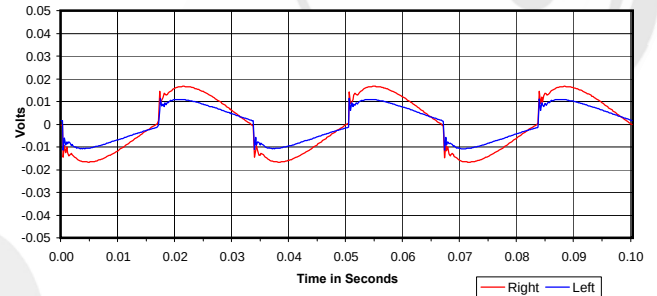
Isolation
Attenuation of External Sound vs. Frequency



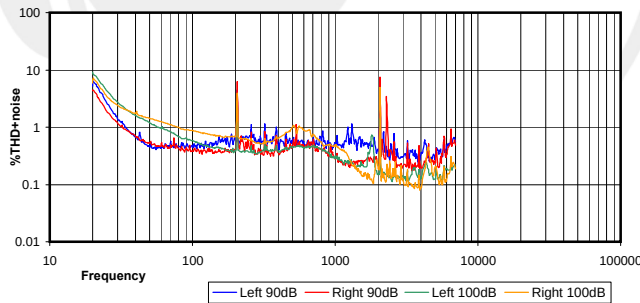
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



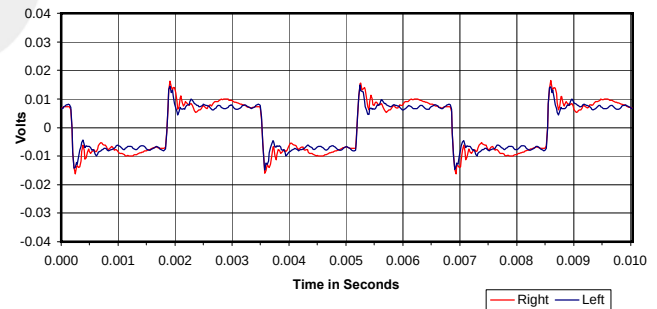
30 Hz Square Wave



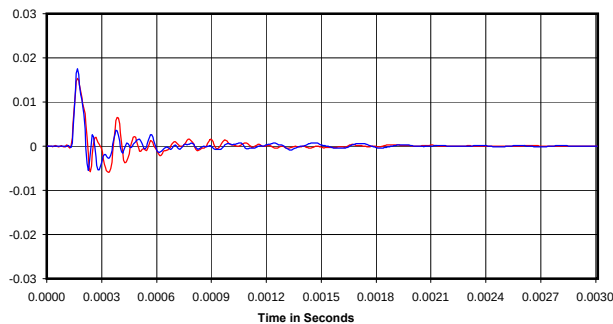
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



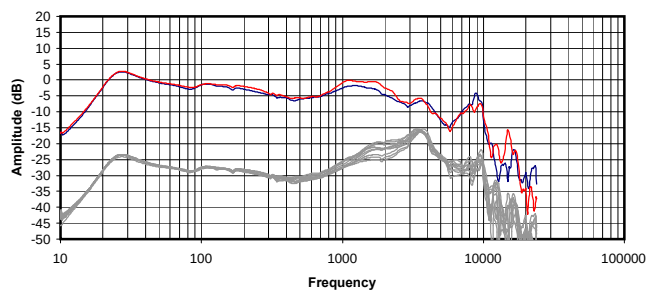
Impulse Response



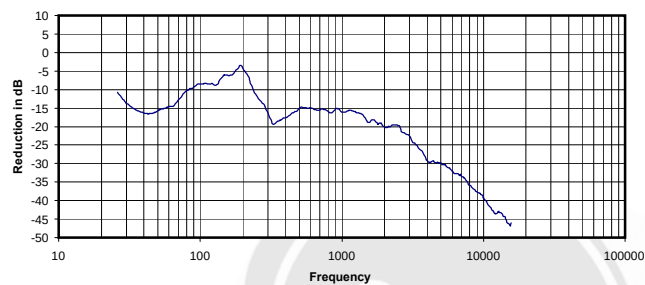
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.041 Vrms
102 Ohms
0.02 mW
-14 dBr

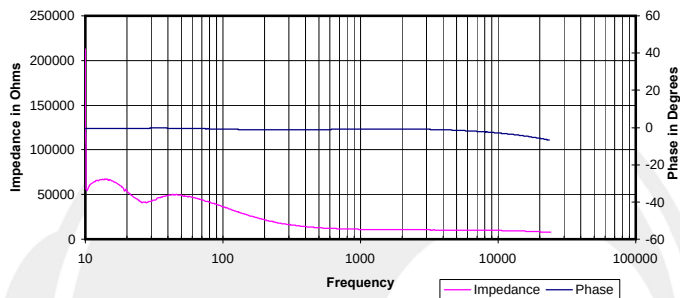
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



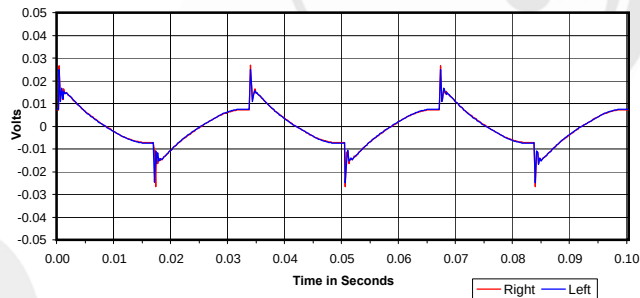
Isolation
Attenuation of External Sound vs. Frequency



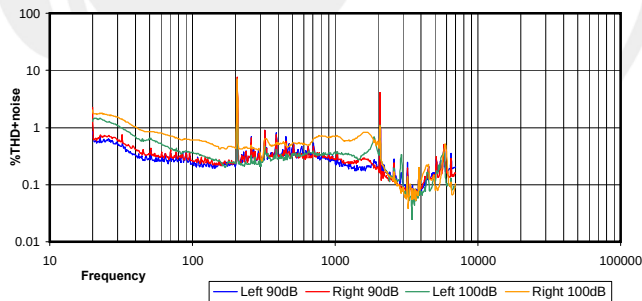
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



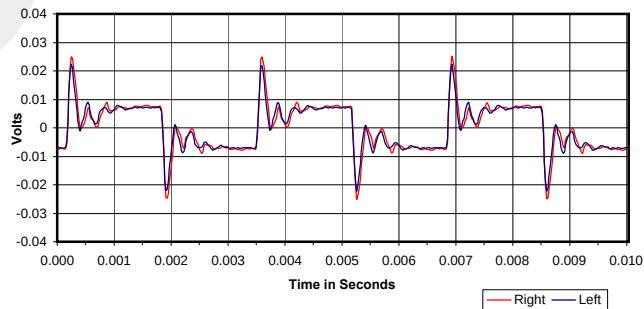
30 Hz Square Wave



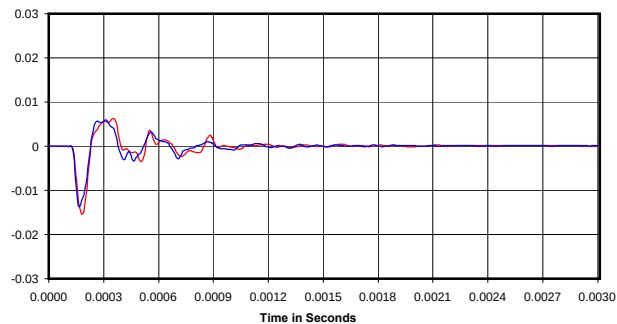
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



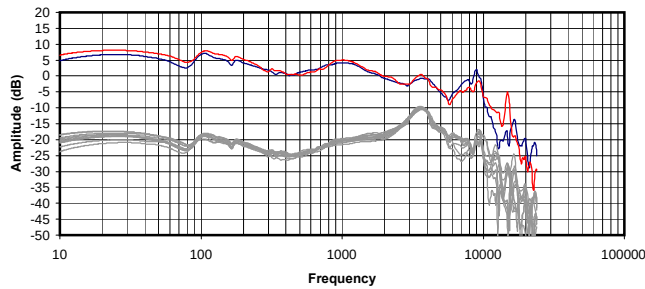
Impulse Response



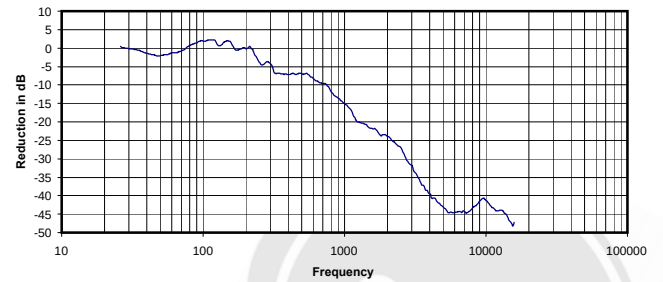
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.021 Vrms
11061 Ohms
0.00 mW
-17 dBr

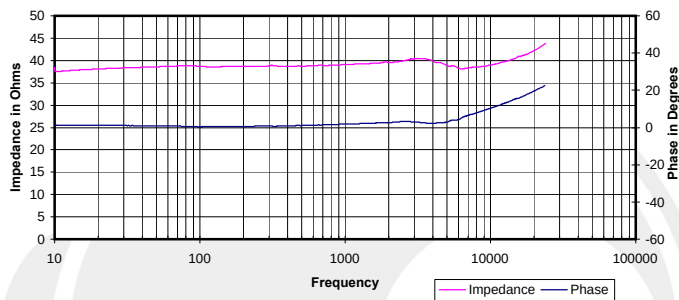
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



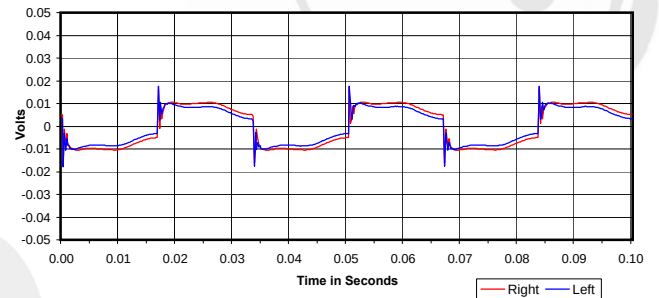
Isolation
Attenuation of External Sound vs. Frequency



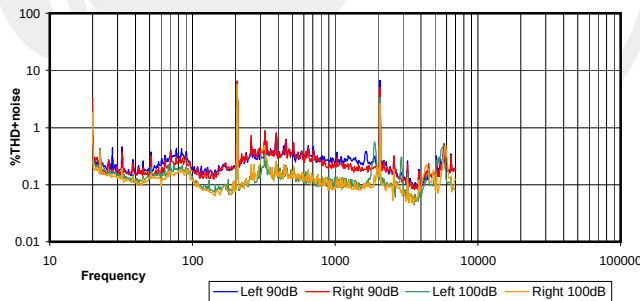
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



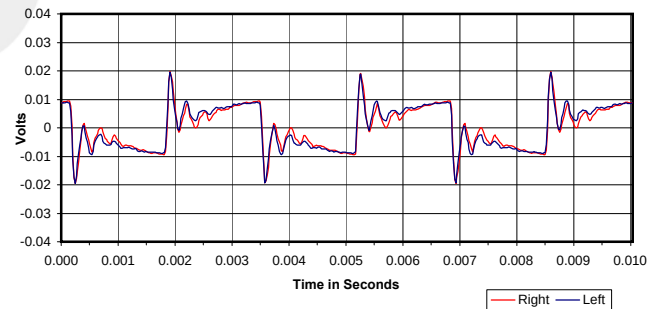
30 Hz Square Wave



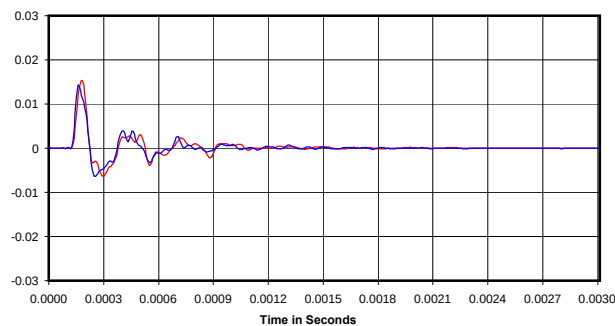
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



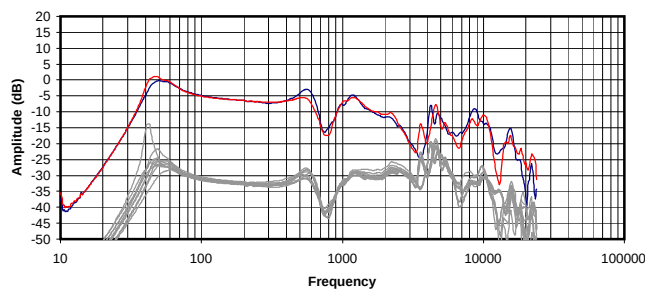
Impulse Response



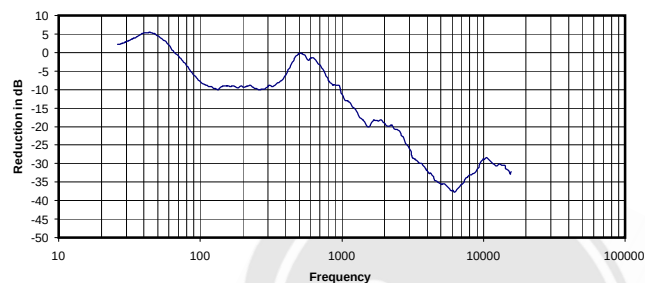
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.040 Vrms
39 Ohms
0.04 mW
-16 dBr

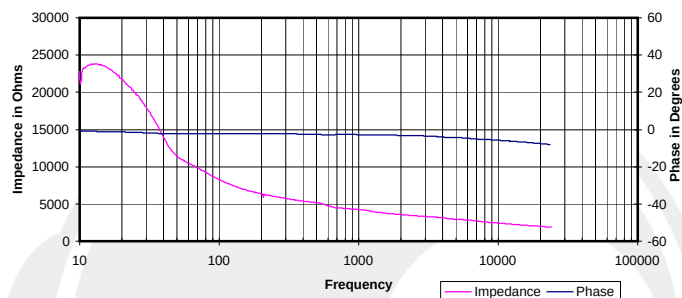
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



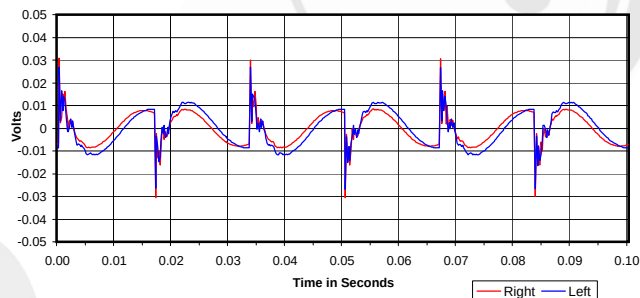
Isolation
Attenuation of External Sound vs. Frequency



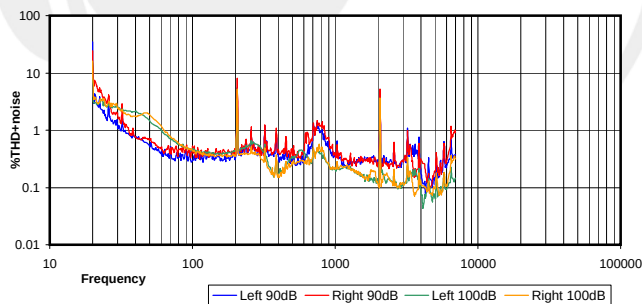
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



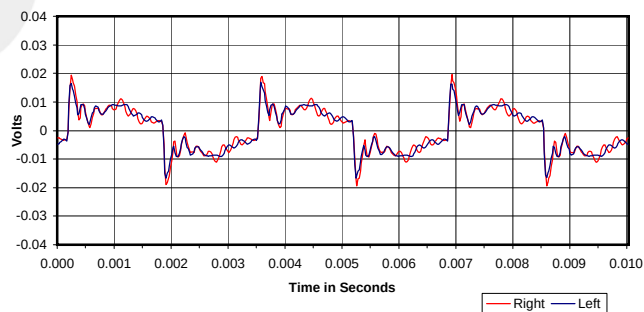
30 Hz Square Wave



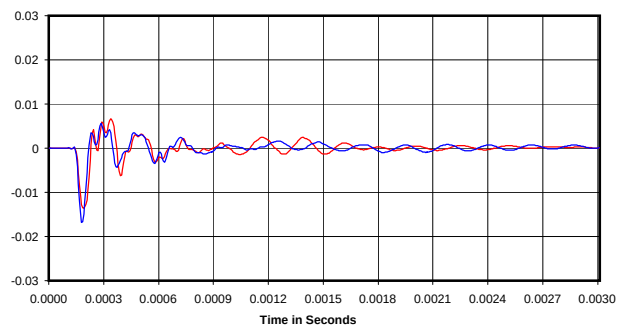
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

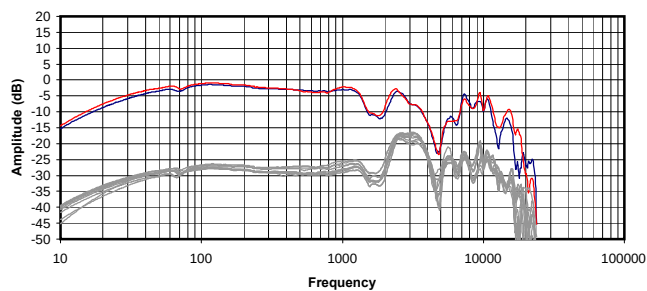
0.032 Vrms
4230 Ohms
0.00 mW
-15 dB

Headphone Measurement Datasheets

Wireless

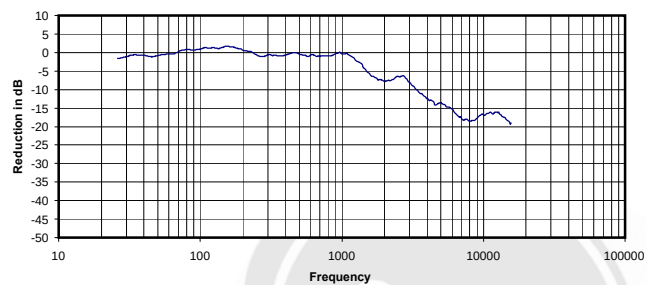


Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions

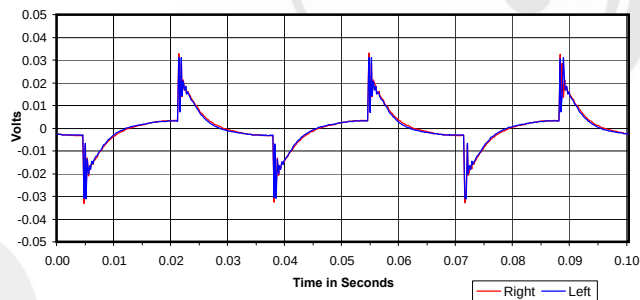


Electrical Impedance and phase measurements unavailable for Electrostatic and Wireless headphones.

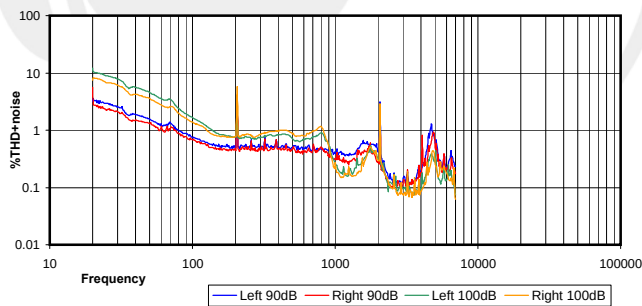
Isolation
Attenuation of External Sound vs. Frequency



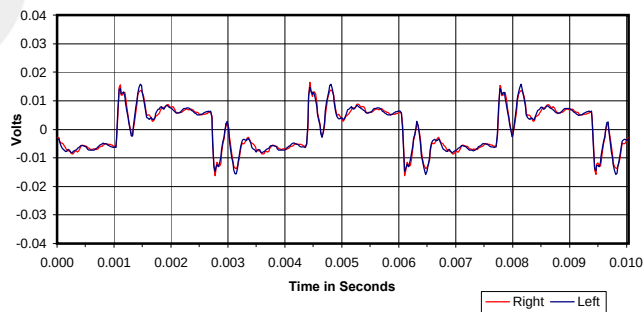
30 Hz Square Wave



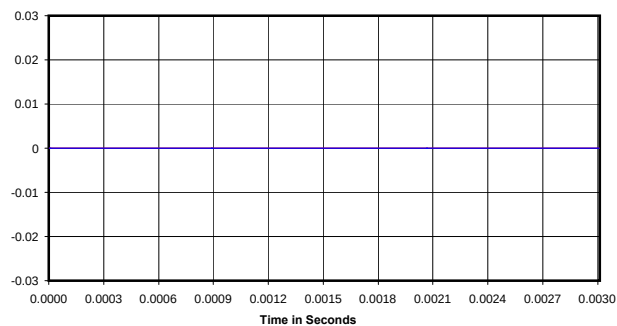
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



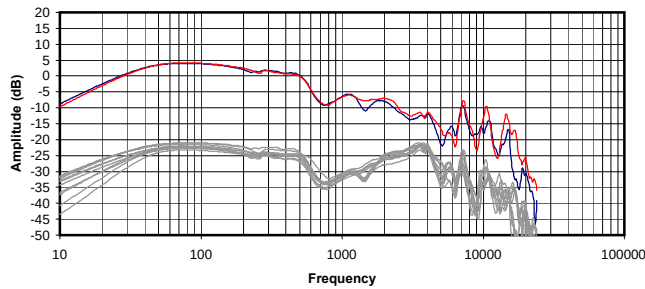
Impulse Response



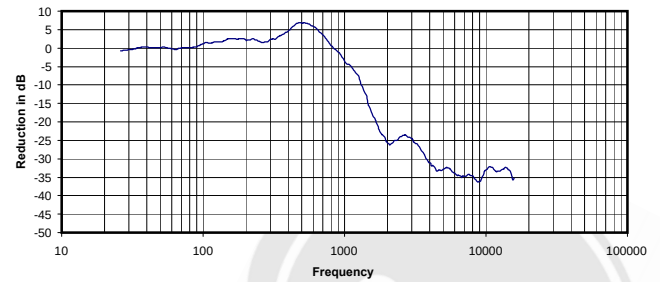
Broadband Isolation in dB (100Hz to 10kHz):

-3 dB

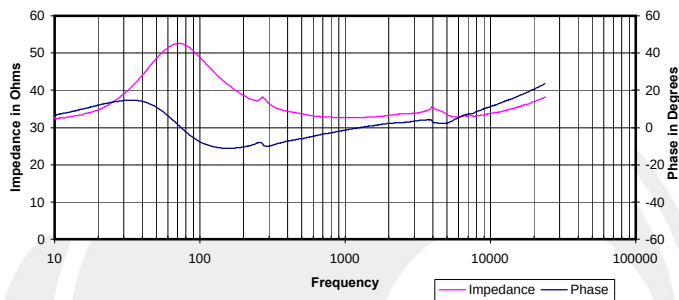
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



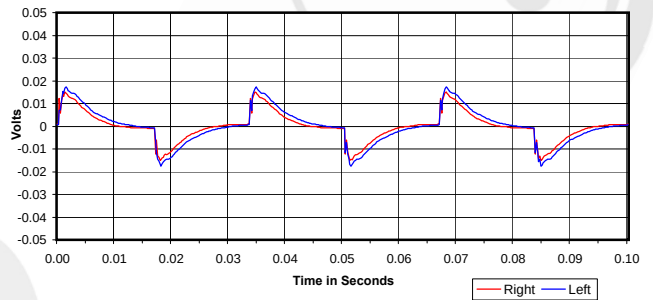
Isolation
Attenuation of External Sound vs. Frequency



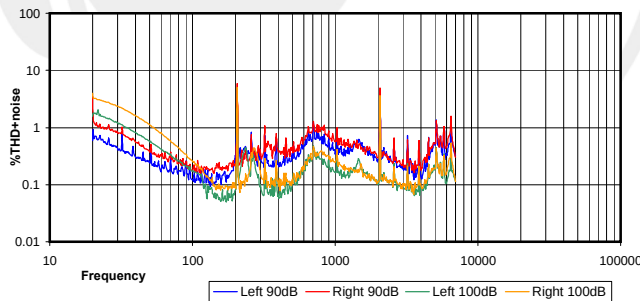
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



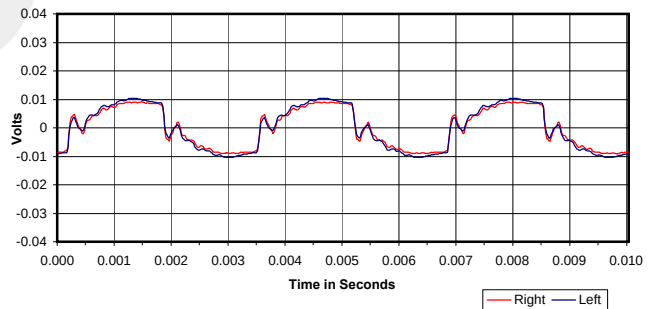
30 Hz Square Wave



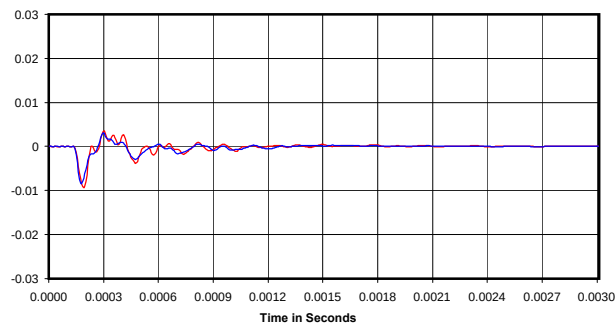
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



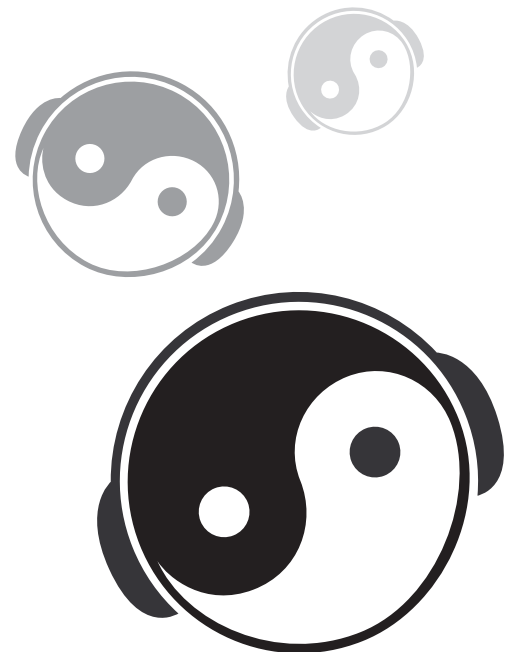
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.047 Vrms
33 Ohms
0.07 mW
-9 dBr

inner | fidelity

Headphone Measurement Datasheets

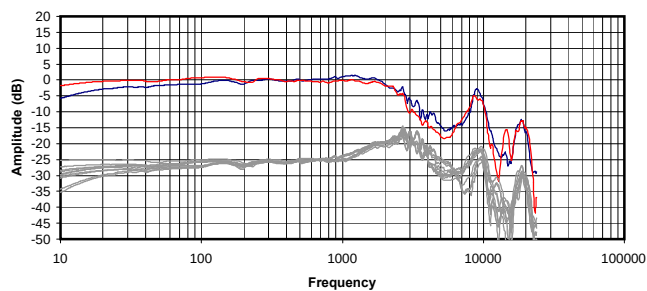
DIY Headphones



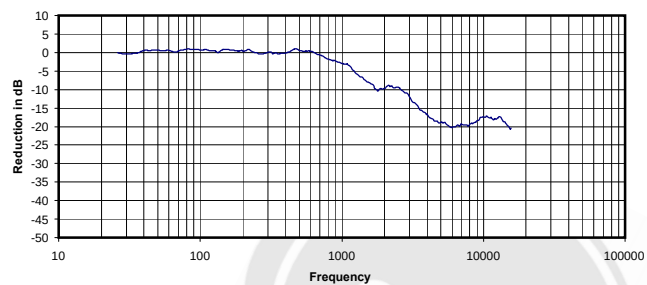
<http://www.innerfidelity.com>

Copyright © SOURCE INTERLINK MEDIA All rights reserved.

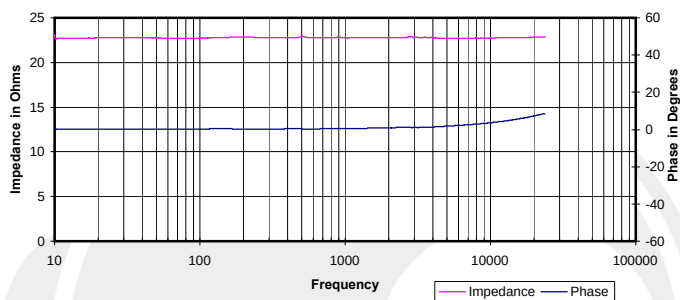
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



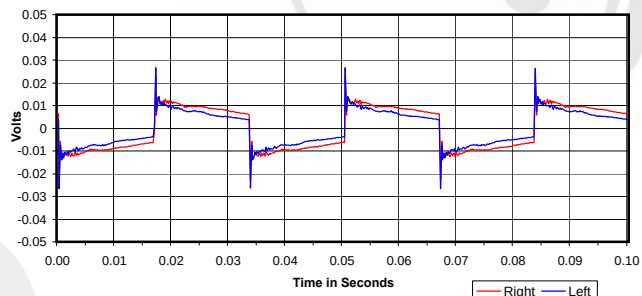
Isolation
Attenuation of External Sound vs. Frequency



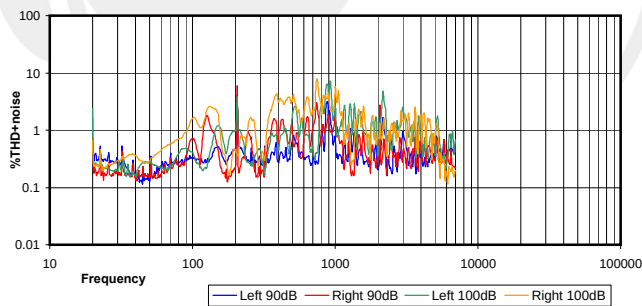
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



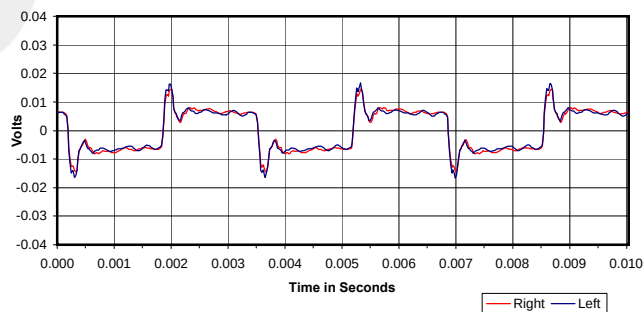
30 Hz Square Wave



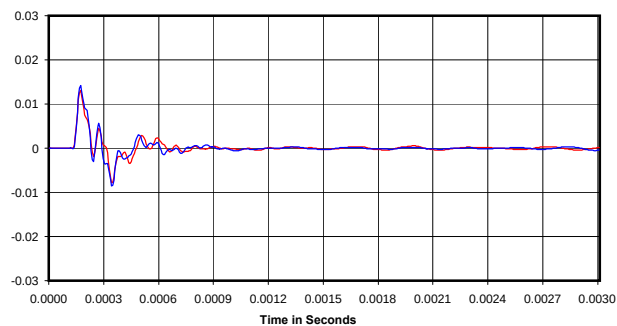
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



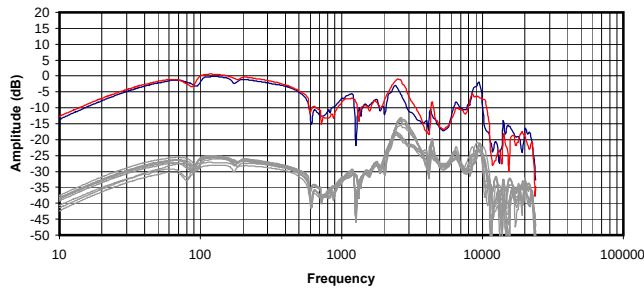
Impulse Response



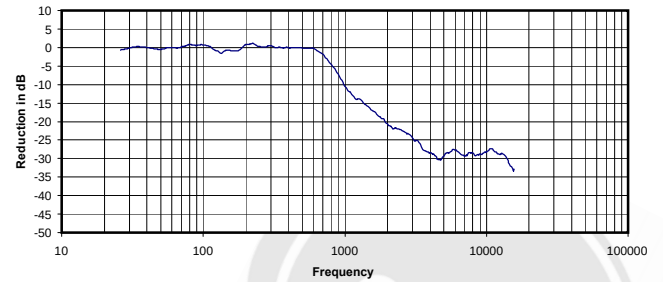
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.154 Vrms
23 Ohms
1.04 mW
-5 dBr

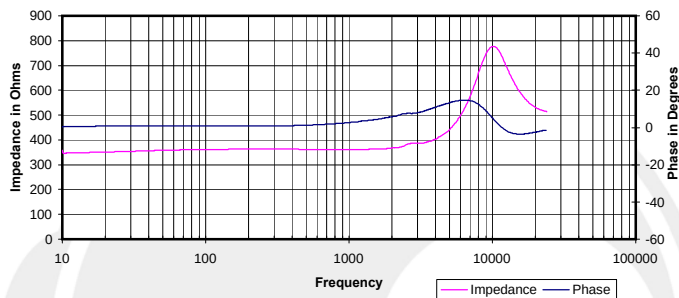
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



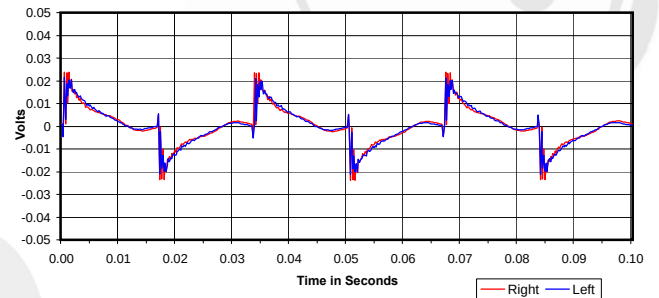
Isolation
Attenuation of External Sound vs. Frequency



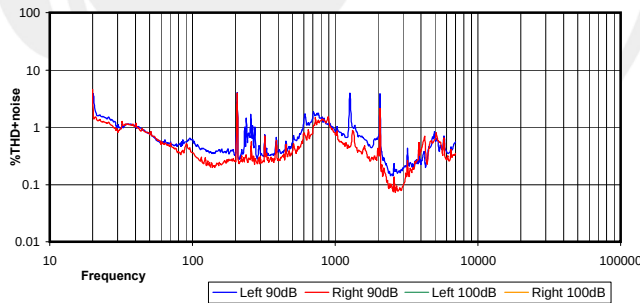
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



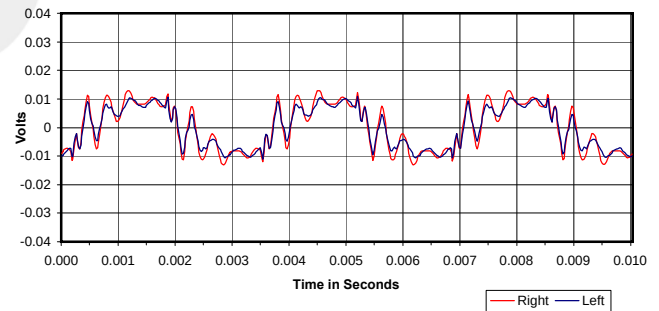
30 Hz Square Wave



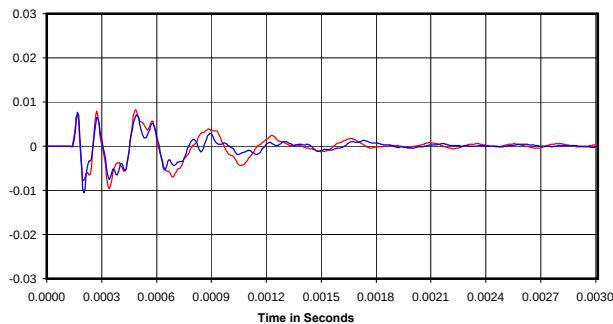
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



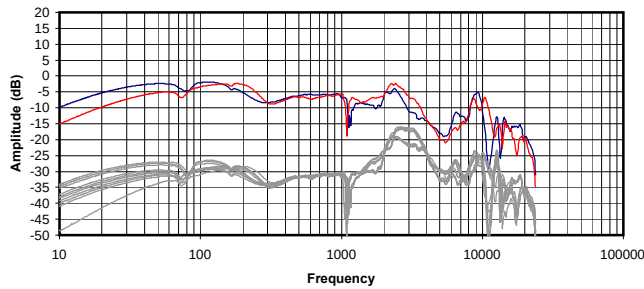
Impulse Response



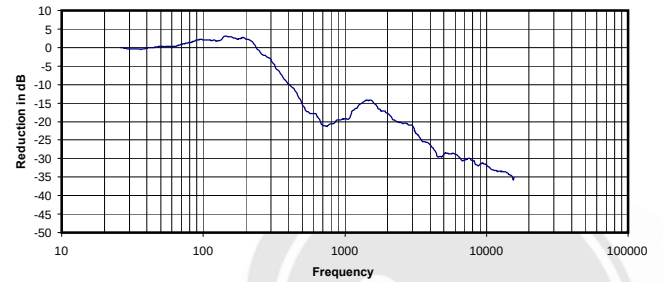
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.850 Vrms
361 Ohms
2.00 mW
-10 dBr

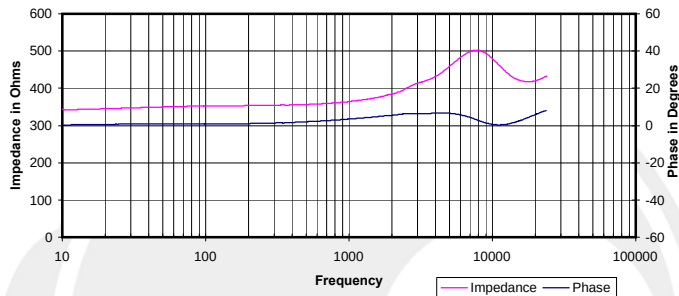
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



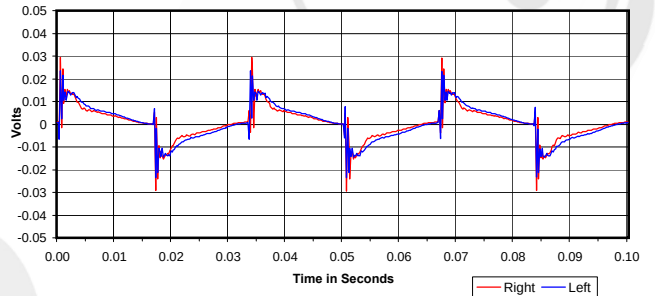
Isolation
Attenuation of External Sound vs. Frequency



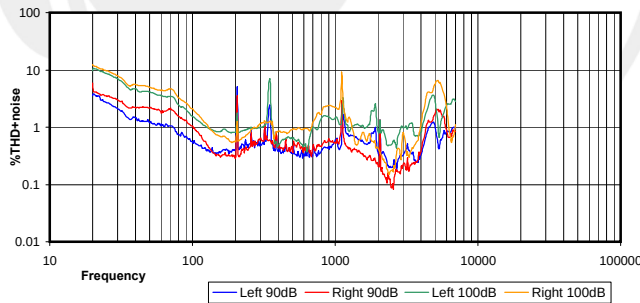
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



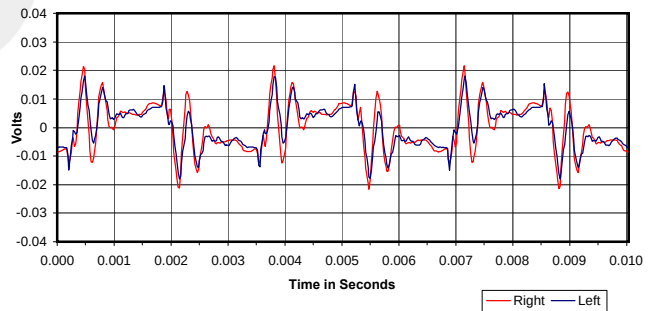
30 Hz Square Wave



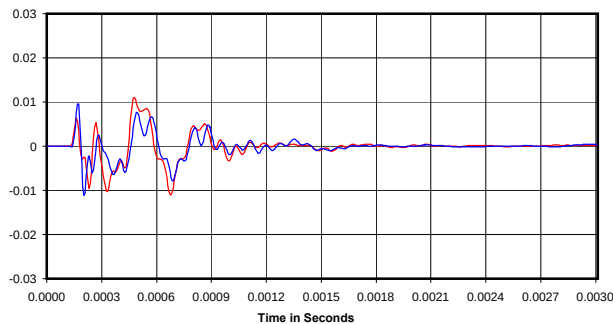
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



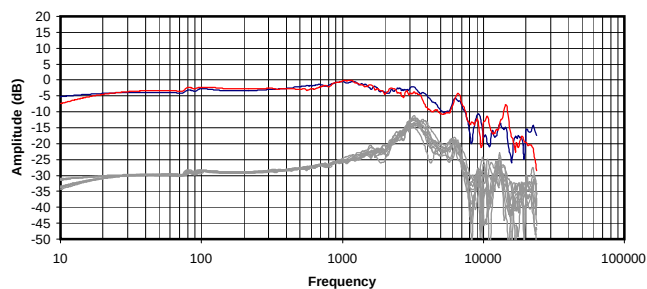
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

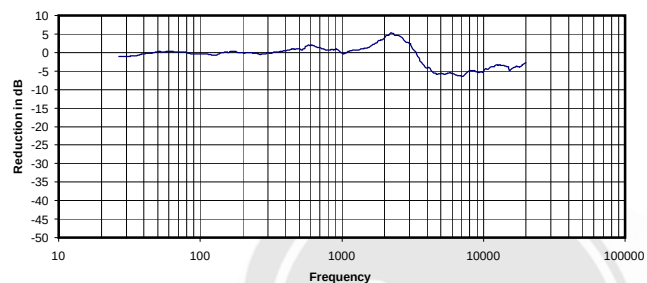
1.072 Vrms
364 Ohms
3.16 mW
-13 dBr

Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions

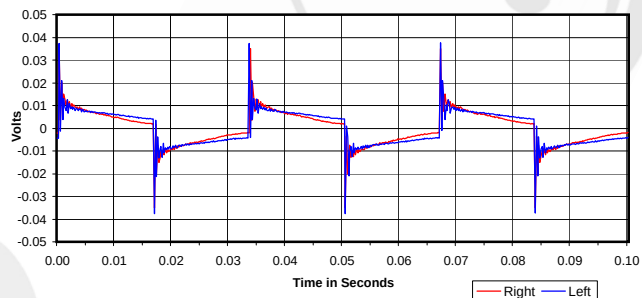


Electrical Impedance and phase measurements
unavailable for electrostatic and wireless headphones

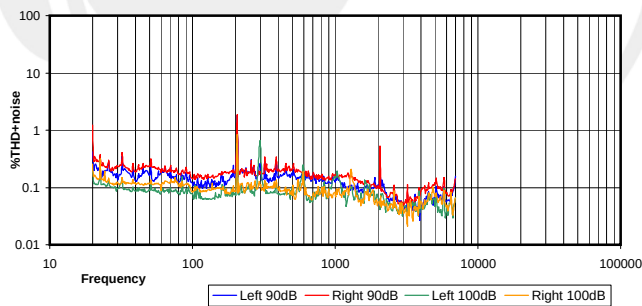
Isolation
Attenuation of External Sound vs. Frequency



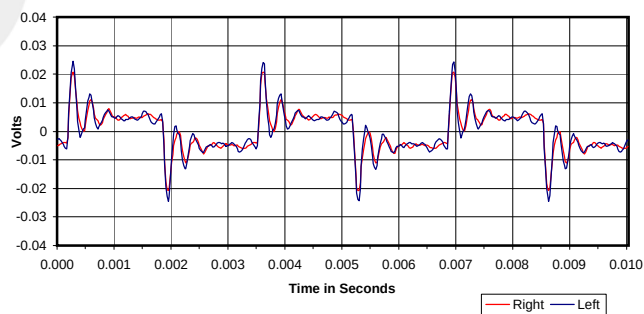
30 Hz Square Wave



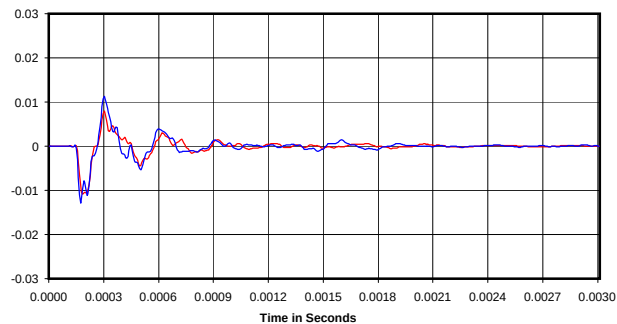
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



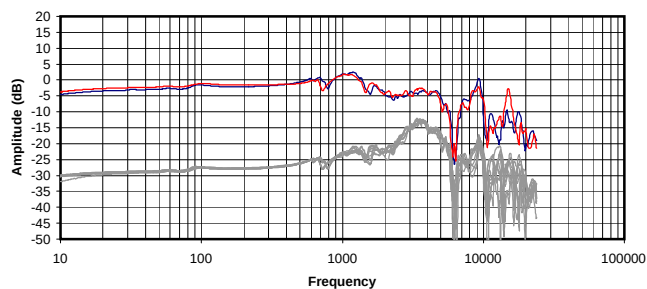
Impulse Response



Broadband Isolation in dB (100Hz to 10kHz):

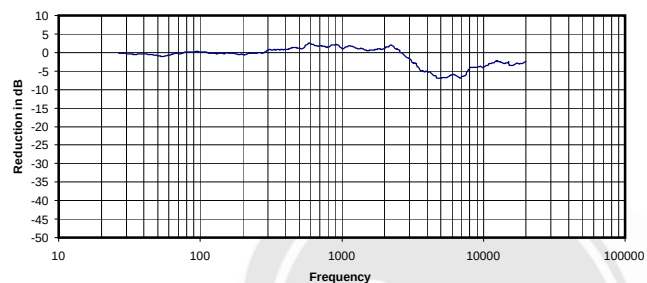
-1 dBr

Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions

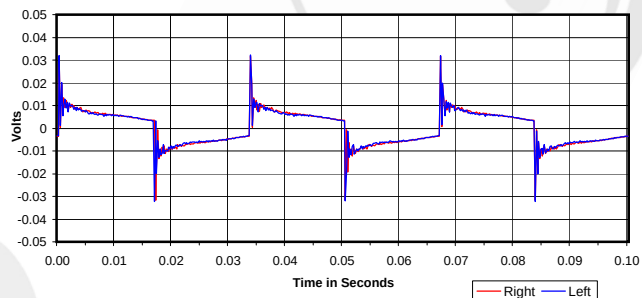


Electrical Impedance and phase measurements
unavailable for electrostatic and wireless headphones

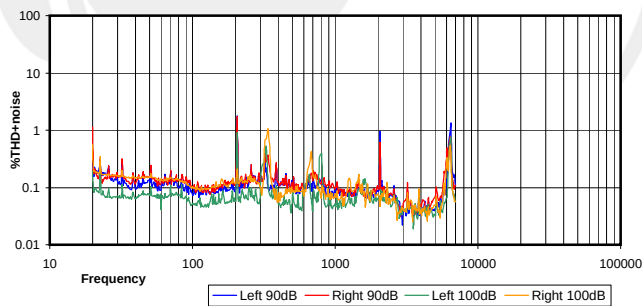
Isolation
Attenuation of External Sound vs. Frequency



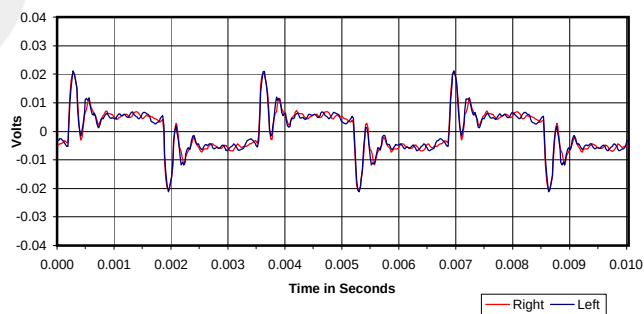
30 Hz Square Wave



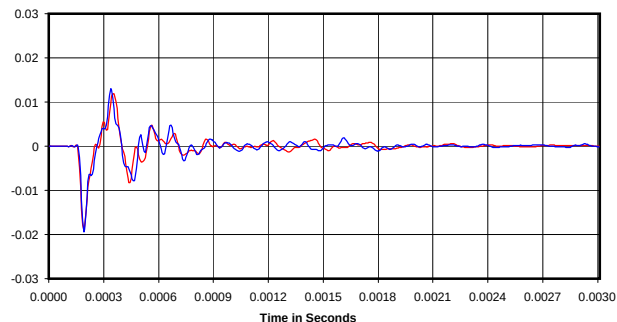
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



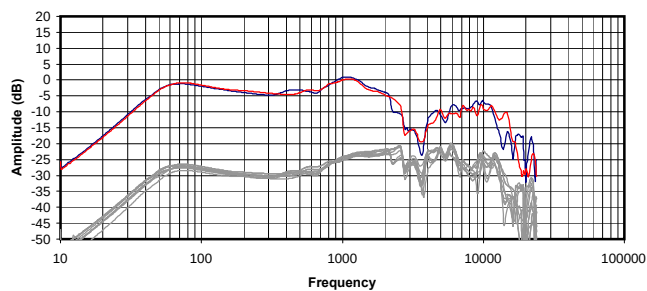
Impulse Response



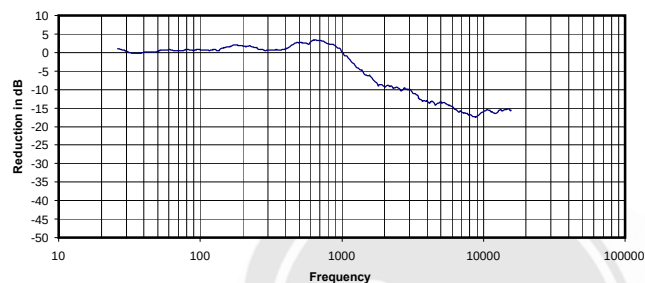
Broadband Isolation in dB (100Hz to 10kHz):

-1 dBr

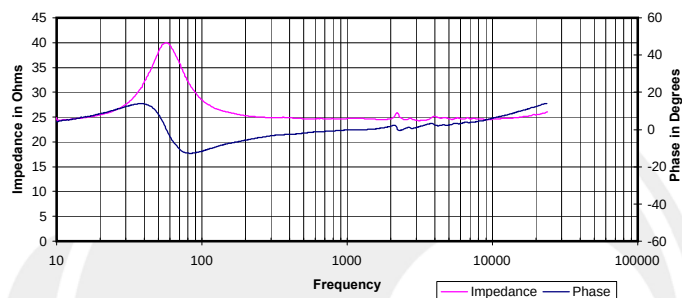
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



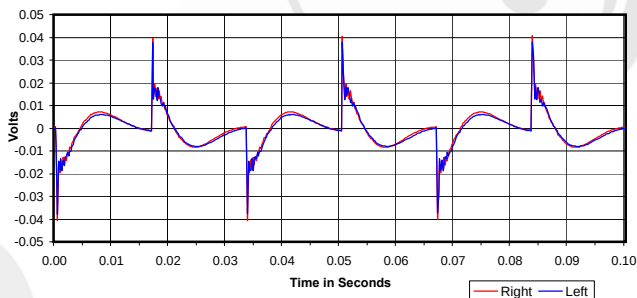
Isolation
Attenuation of External Sound vs. Frequency



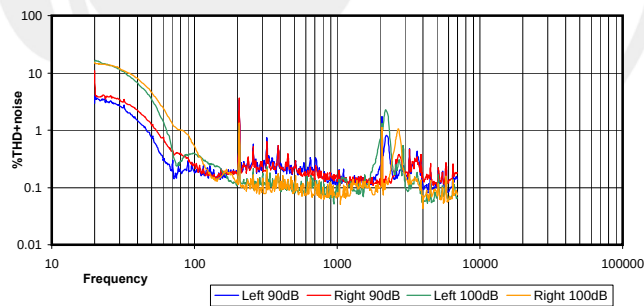
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



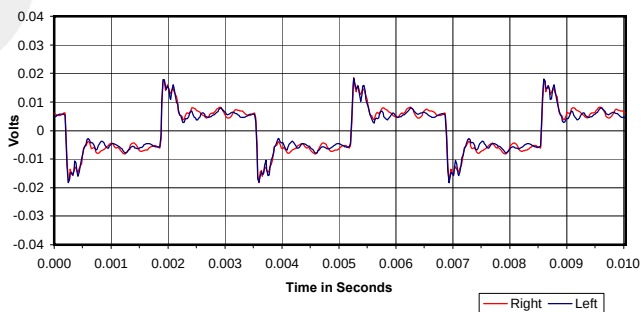
30 Hz Square Wave



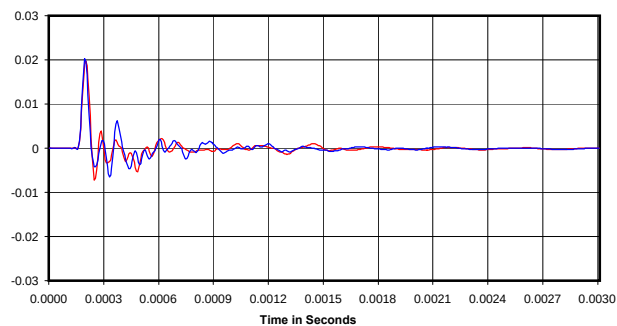
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



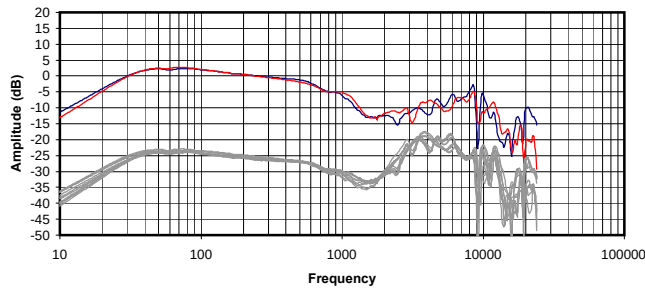
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.048 Vrms
25 Ohms
0.09 mW
-3 dBr

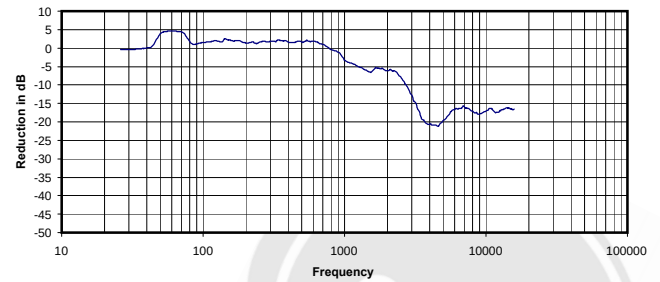


Headphone Measurements: Denon D7000 - DIY Modified - lmswjm

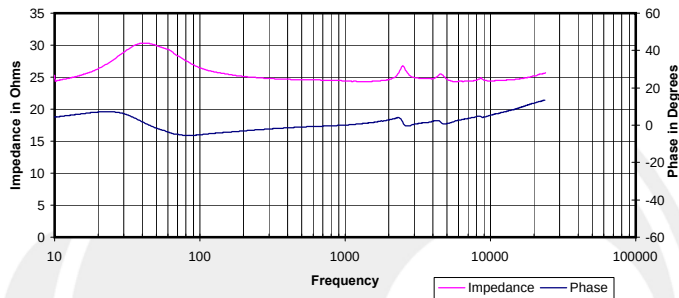
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



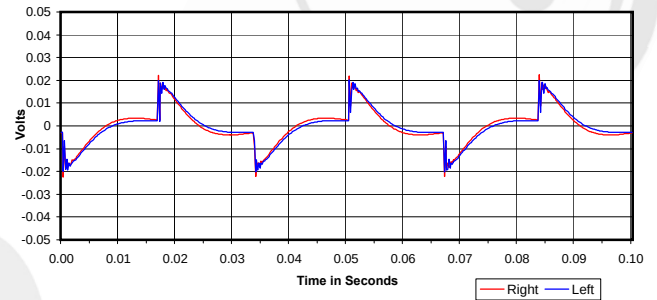
Isolation
Attenuation of External Sound vs. Frequency



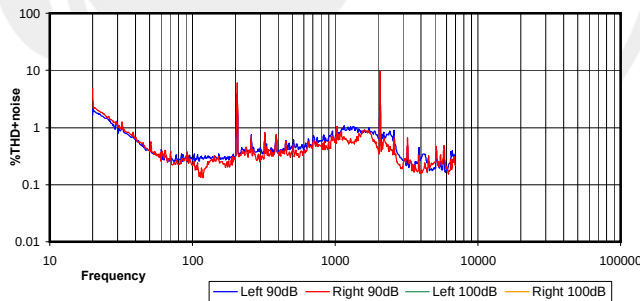
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



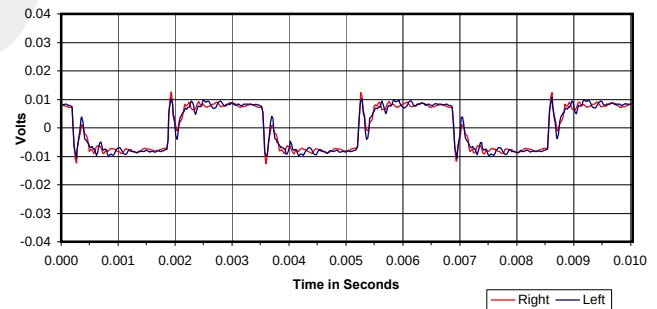
30 Hz Square Wave



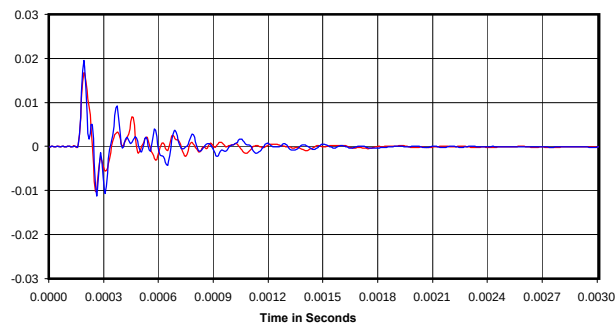
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



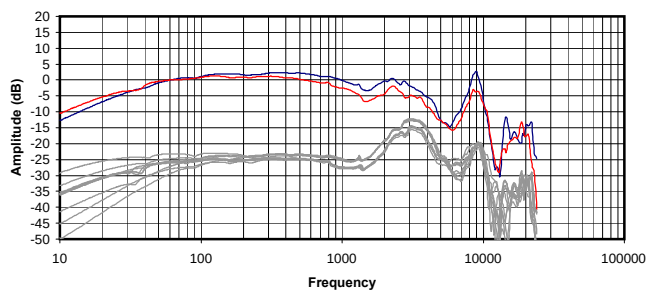
Impulse Response



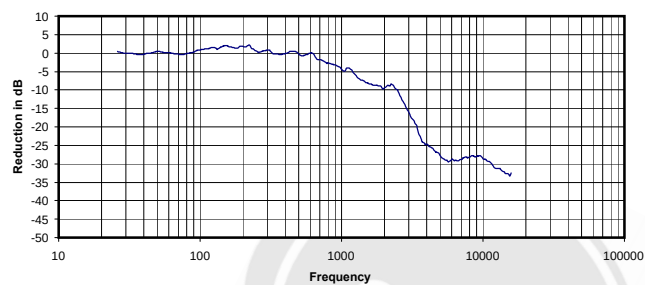
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.082 Vrms
24 Ohms
0.27 mW
-4 dBr

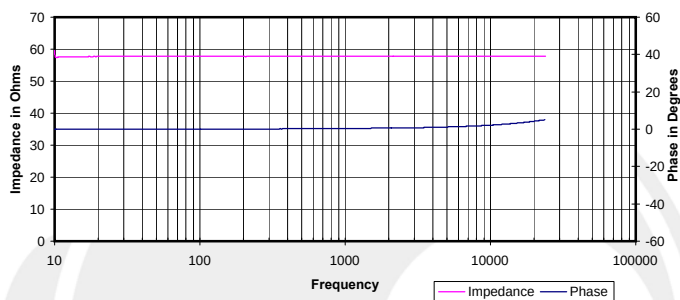
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



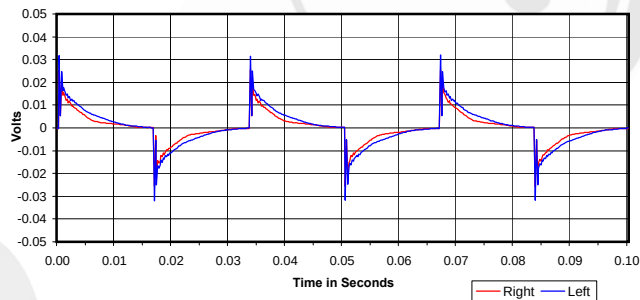
Isolation
Attenuation of External Sound vs. Frequency



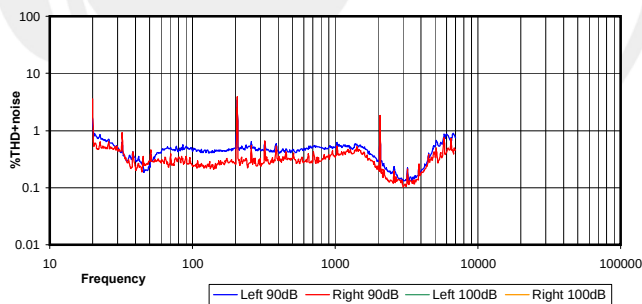
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



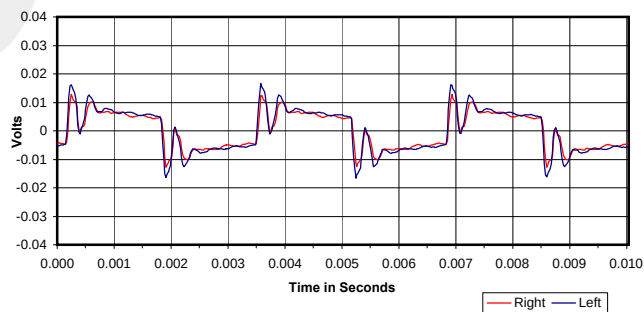
30 Hz Square Wave



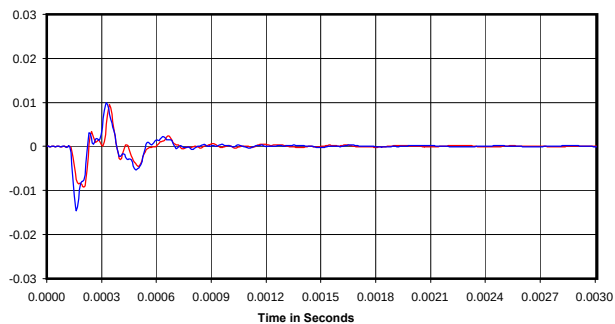
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



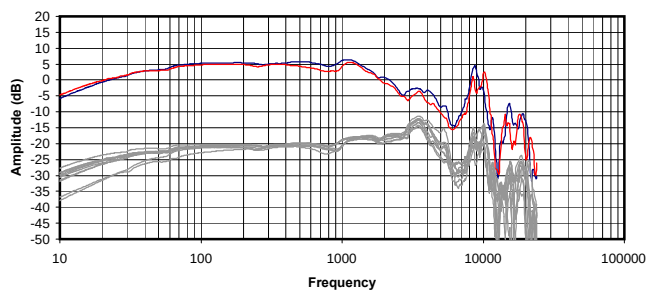
Impulse Response



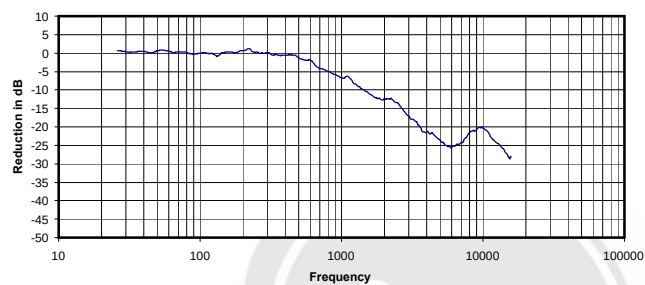
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.271 Vrms
58 Ohms
1.27 mW
-7 dBr

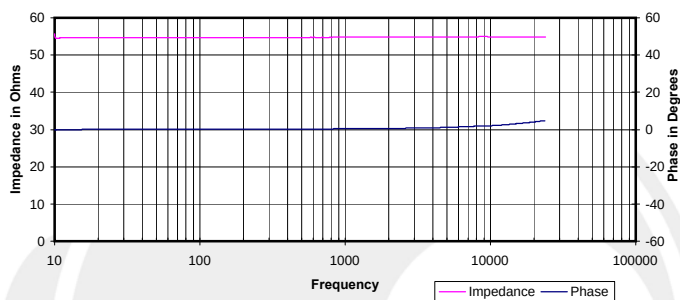
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



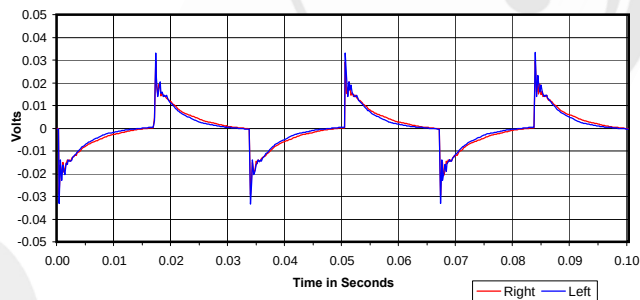
Isolation
Attenuation of External Sound vs. Frequency



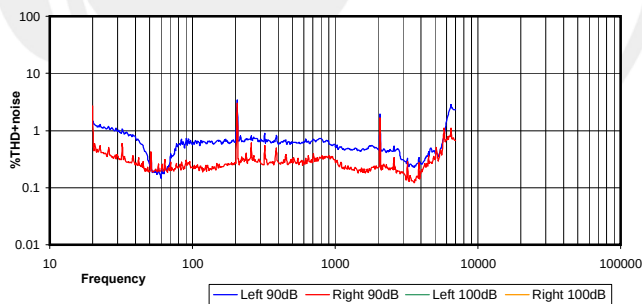
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



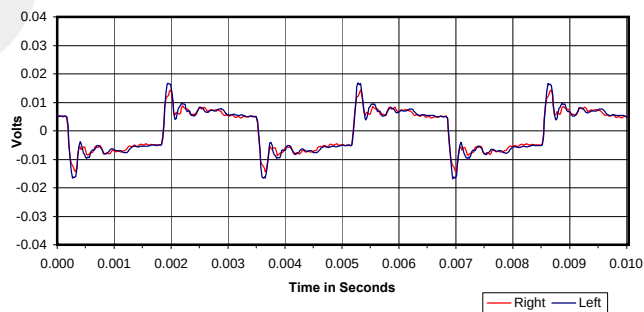
30 Hz Square Wave



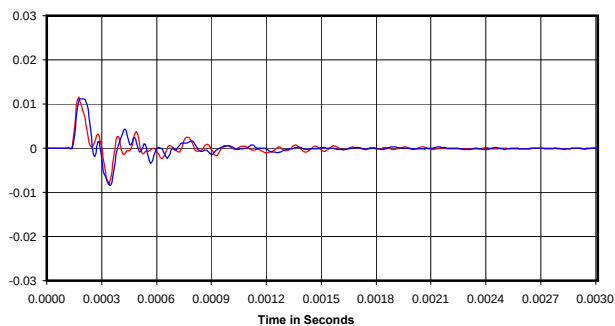
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



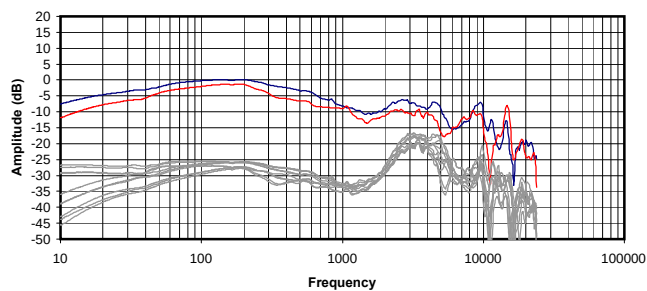
Impulse Response



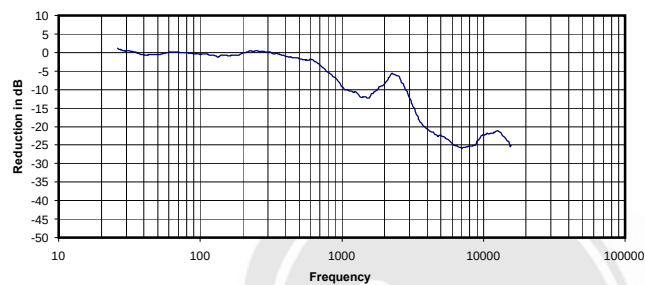
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.130 Vrms
55 Ohms
0.31 mW
-8 dBr

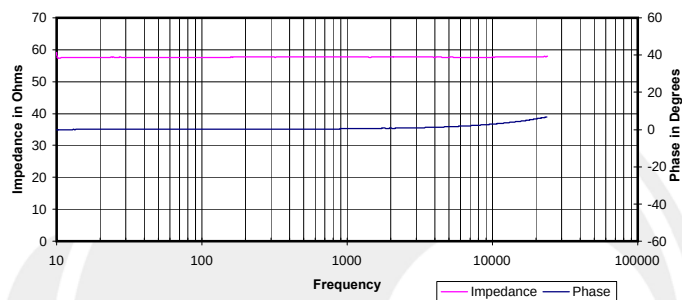
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



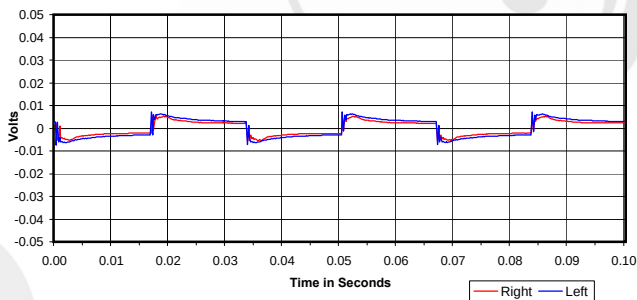
Isolation
Attenuation of External Sound vs. Frequency



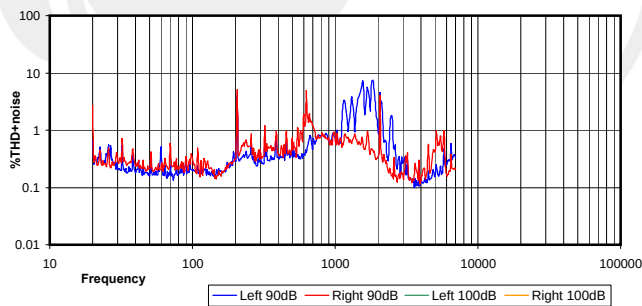
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



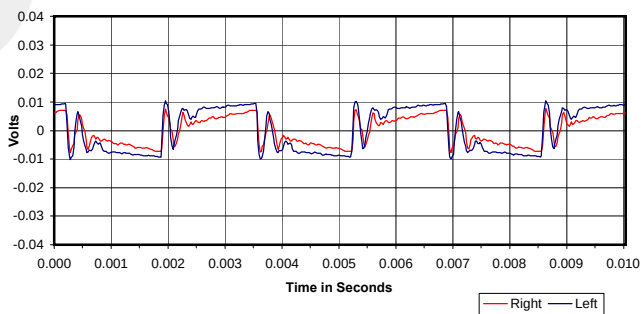
30 Hz Square Wave



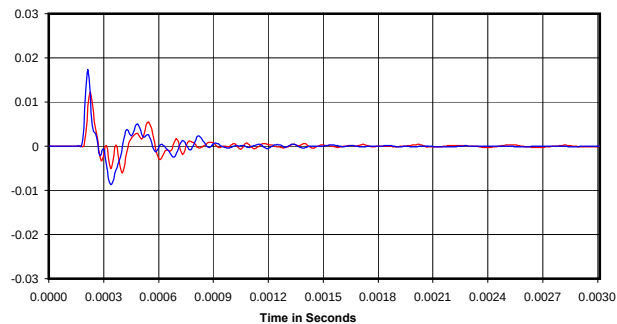
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



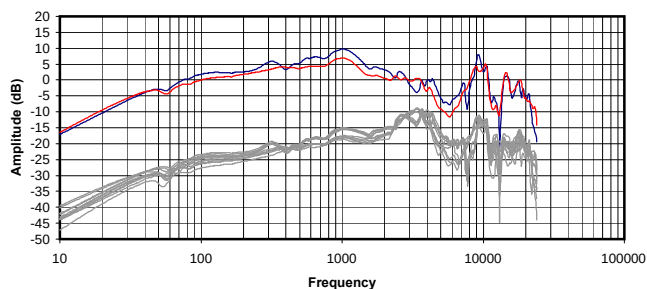
Impulse Response



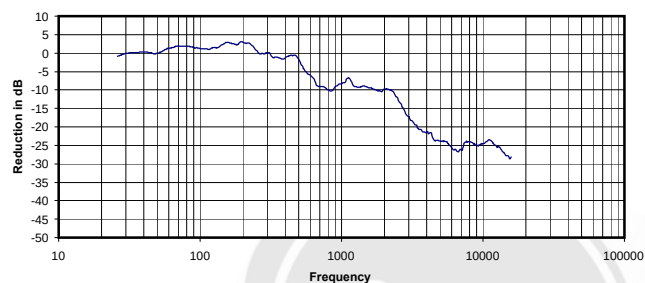
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.572 Vrms
58 Ohms
5.67 mW
-7 dBr

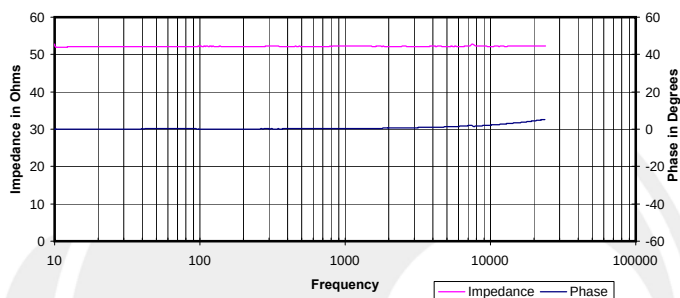
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



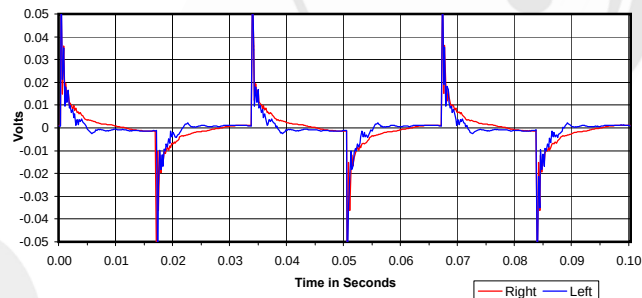
Isolation
Attenuation of External Sound vs. Frequency



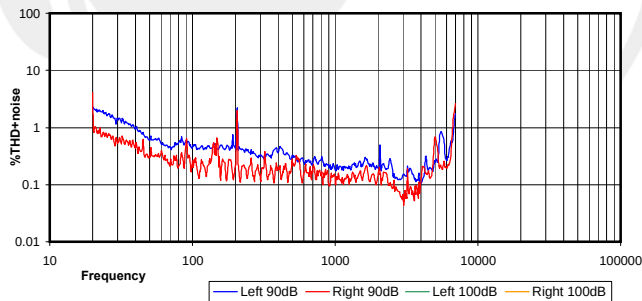
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



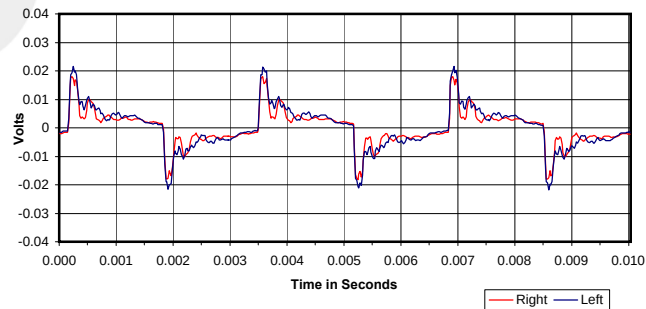
30 Hz Square Wave



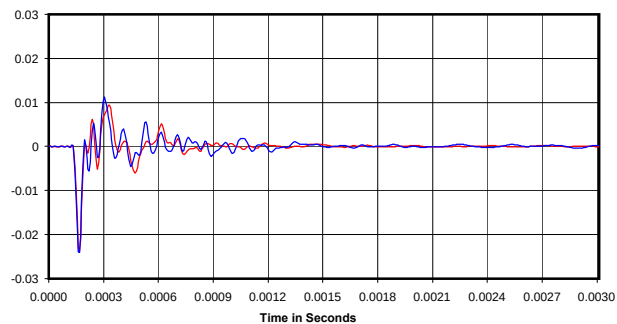
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



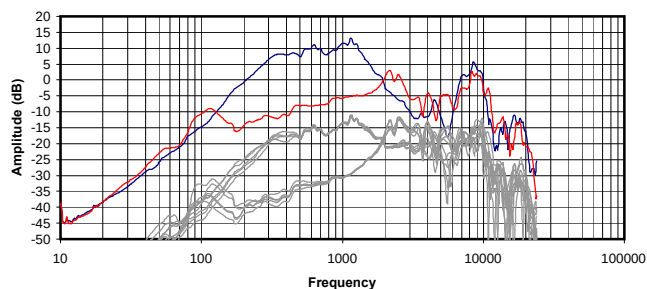
Impulse Response



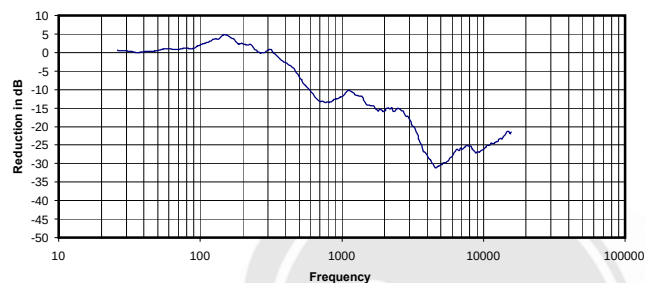
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.172 Vrms
52 Ohms
0.57 mW
-8 dBr

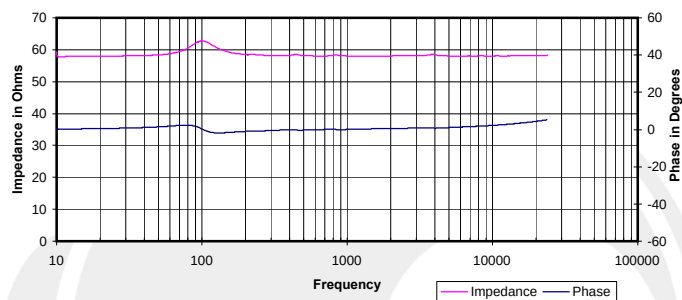
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



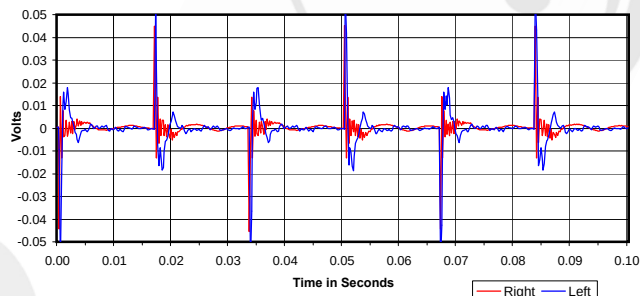
Isolation
Attenuation of External Sound vs. Frequency



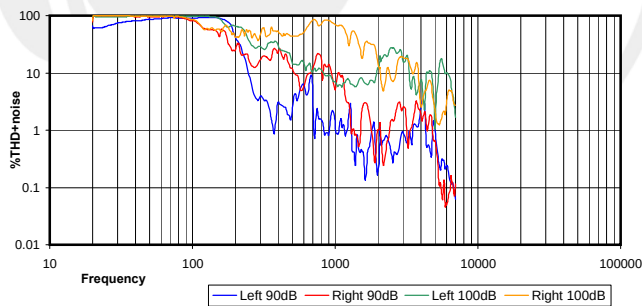
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



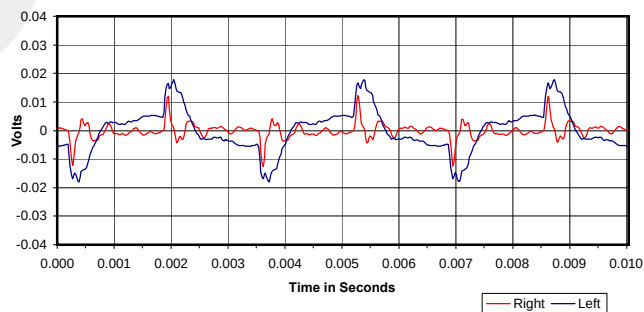
30 Hz Square Wave



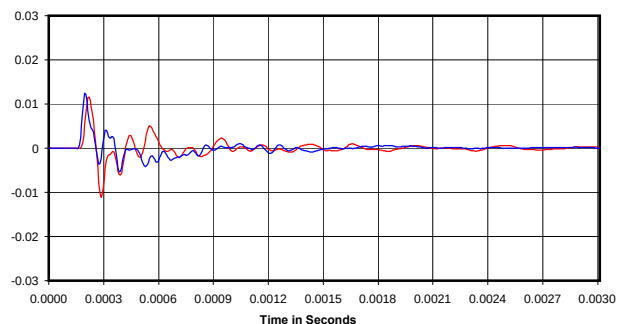
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



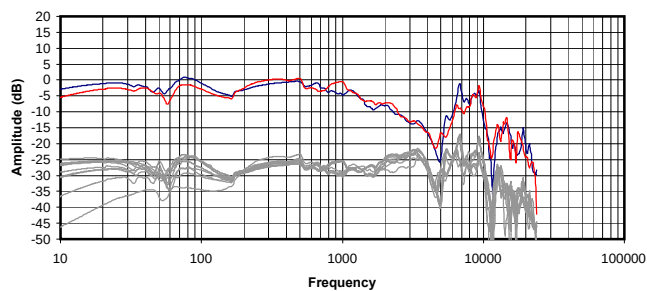
Impulse Response



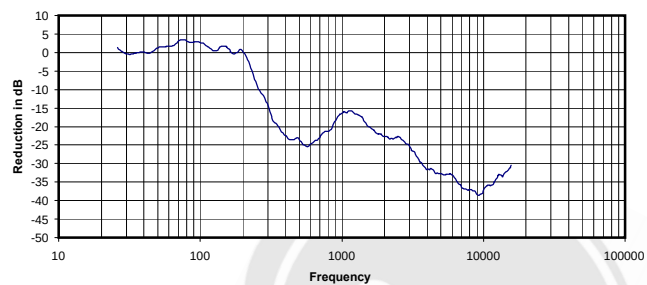
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.001 Vrms
58 Ohms
0.00 mW
-10 dBr

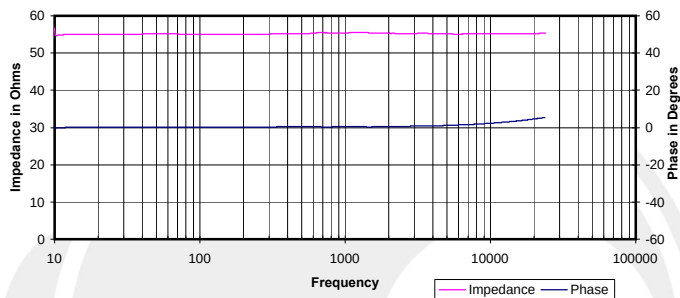
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



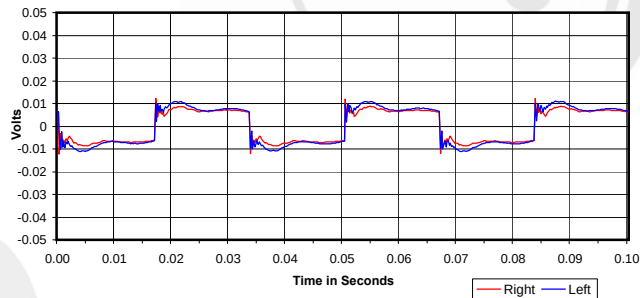
Isolation
Attenuation of External Sound vs. Frequency



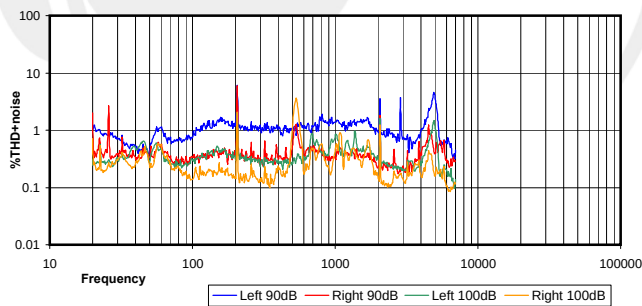
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



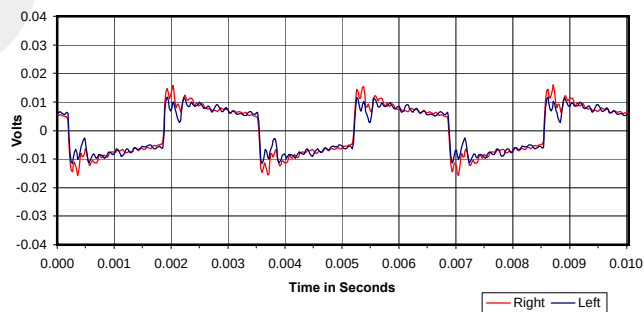
30 Hz Square Wave



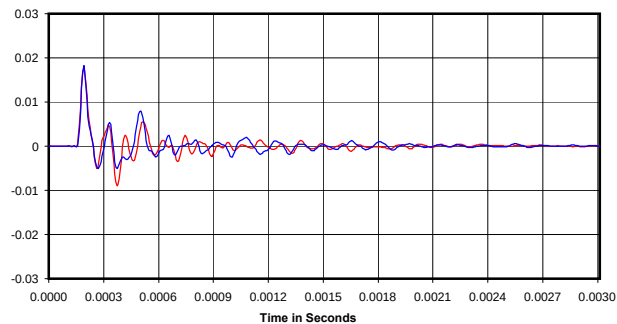
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



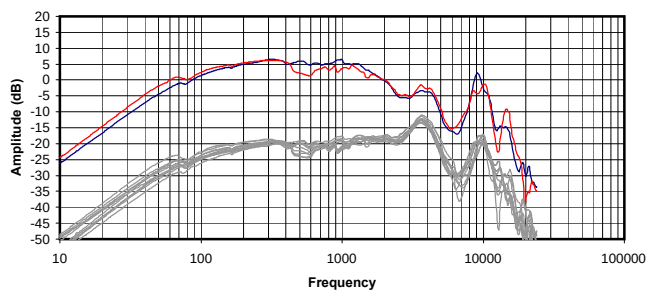
Impulse Response



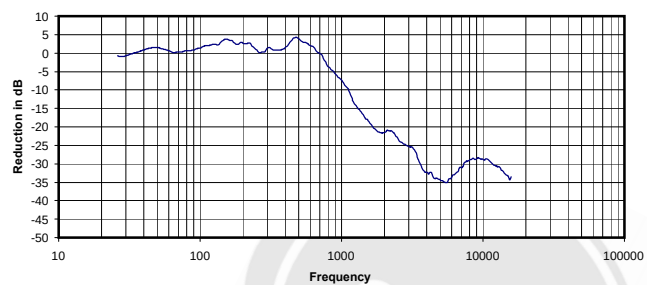
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.261 Vrms
55 Ohms
1.23 mW
-17 dBr

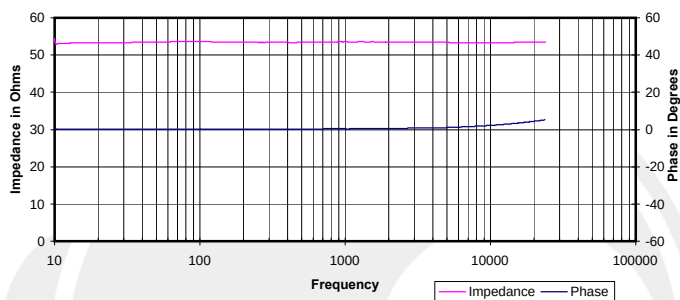
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



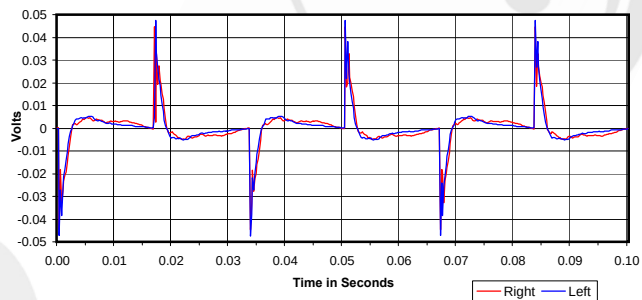
Isolation
Attenuation of External Sound vs. Frequency



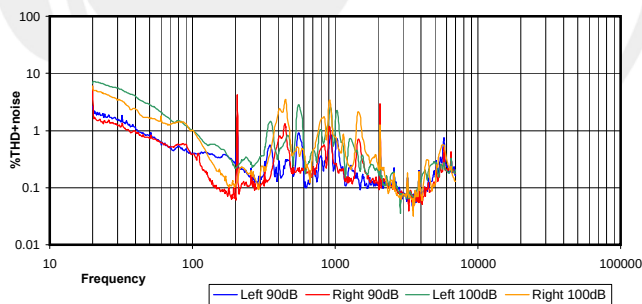
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



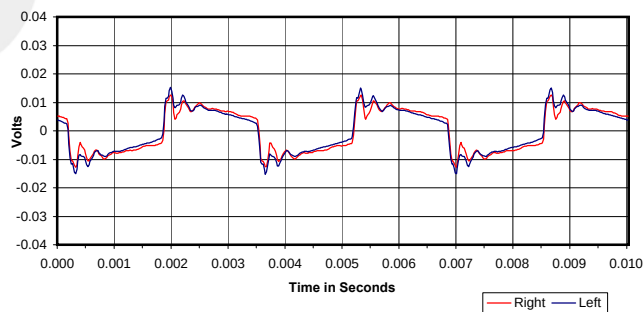
30 Hz Square Wave



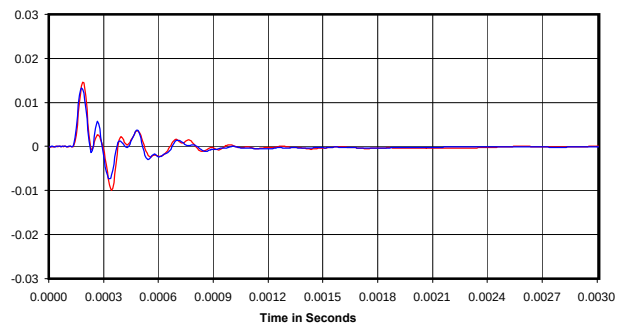
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



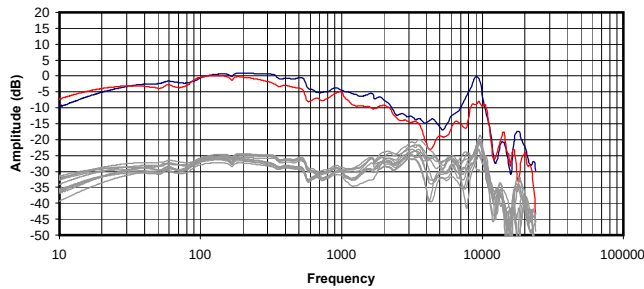
Impulse Response



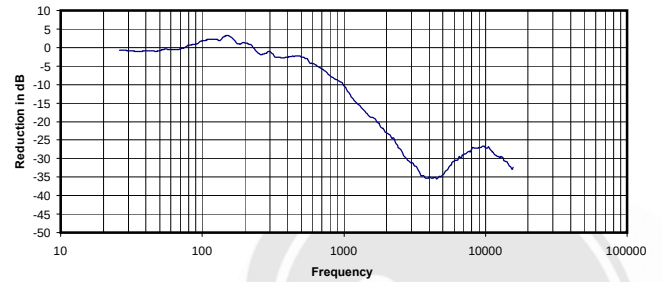
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.098 Vrms
54 Ohms
0.18 mW
-10 dBr

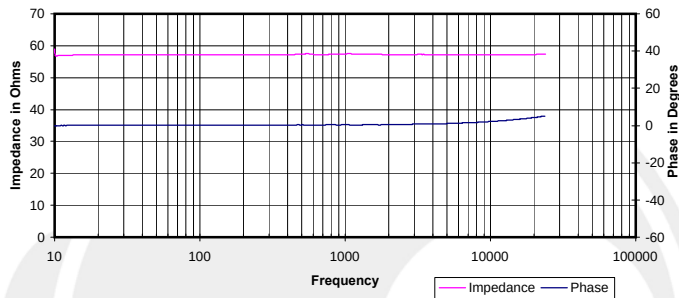
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



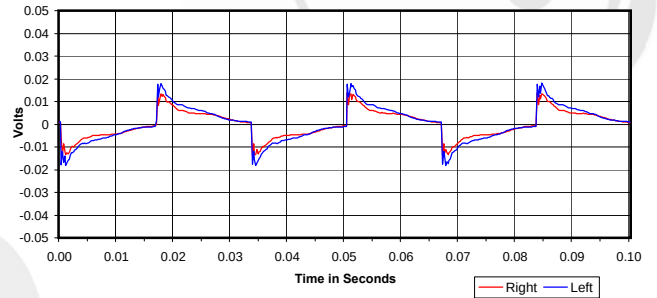
Isolation
Attenuation of External Sound vs. Frequency



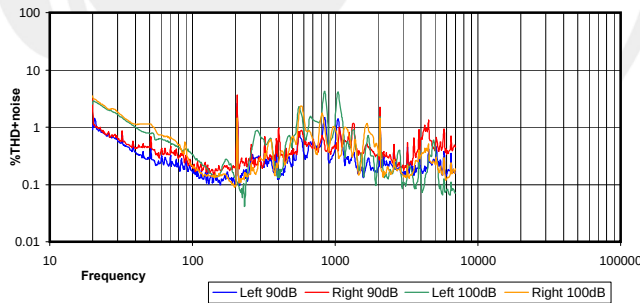
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



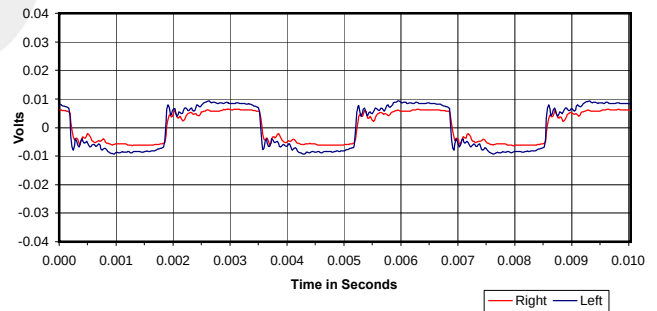
30 Hz Square Wave



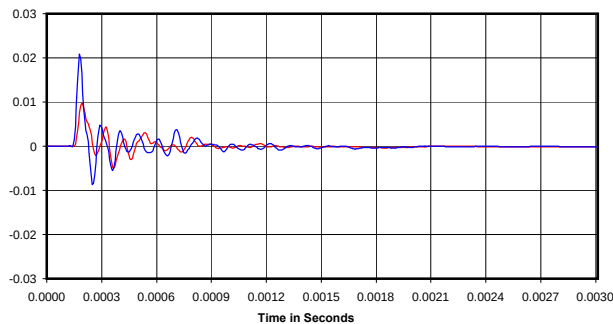
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



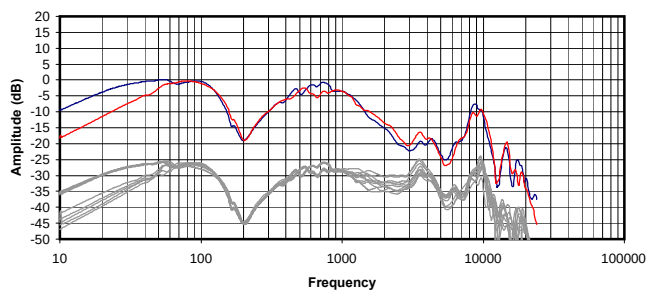
Impulse Response



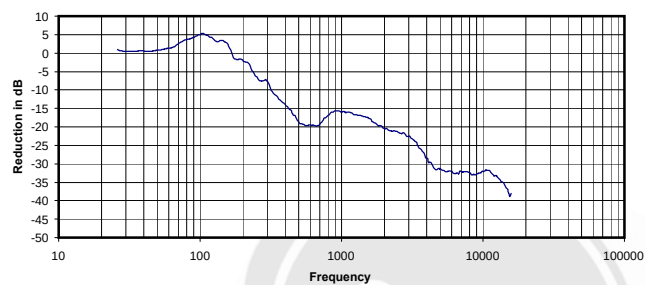
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.260 Vrms
57 Ohms
1.17 mW
-12 dBr

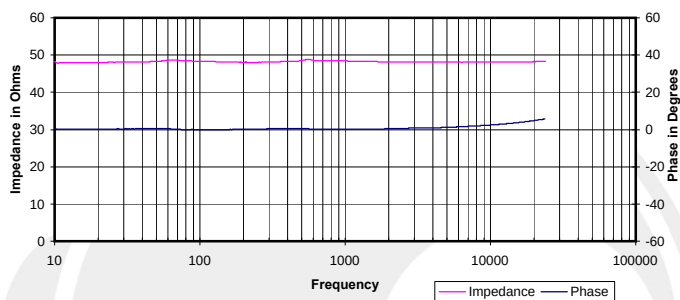
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



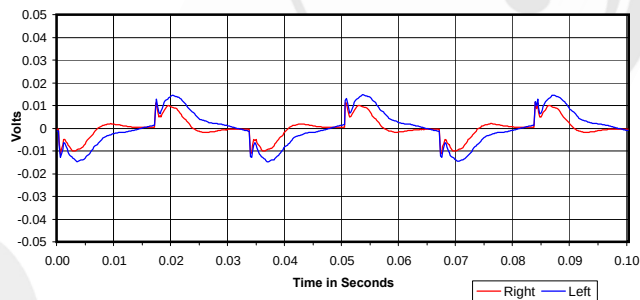
Isolation
Attenuation of External Sound vs. Frequency



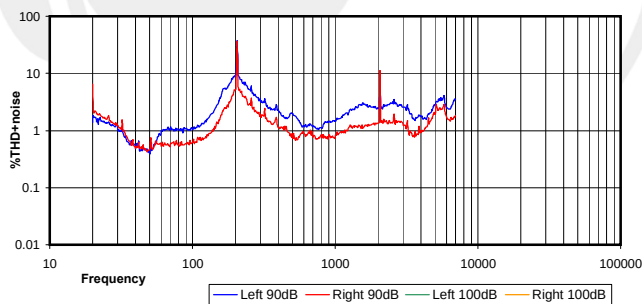
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



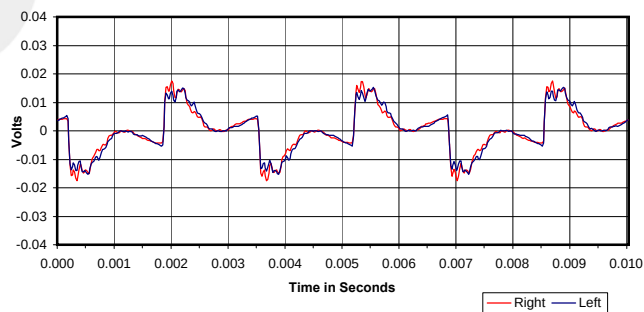
30 Hz Square Wave



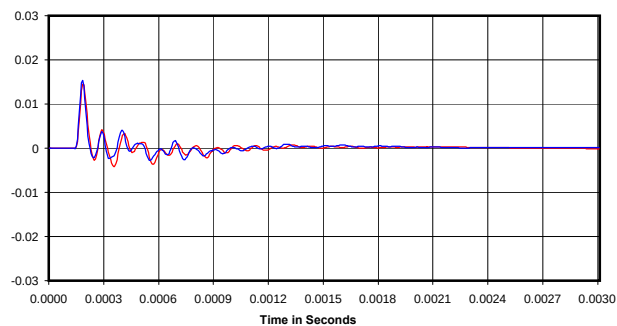
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



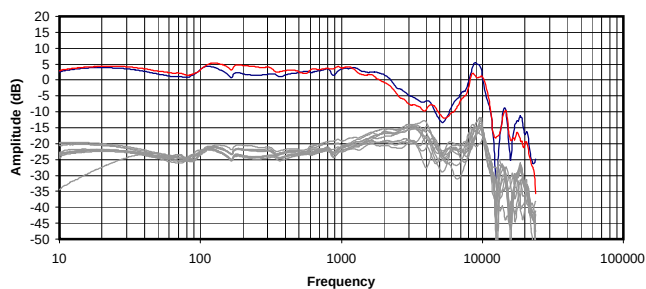
Impulse Response



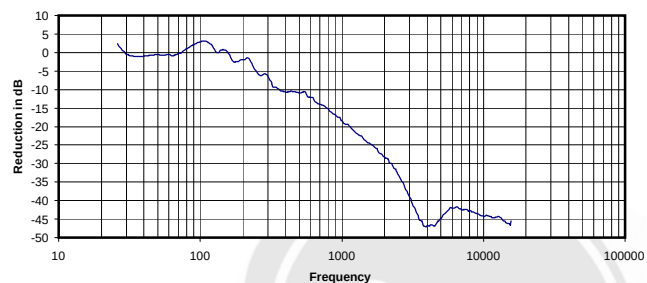
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.105 Vrms
48 Ohms
0.23 mW
-15 dBr

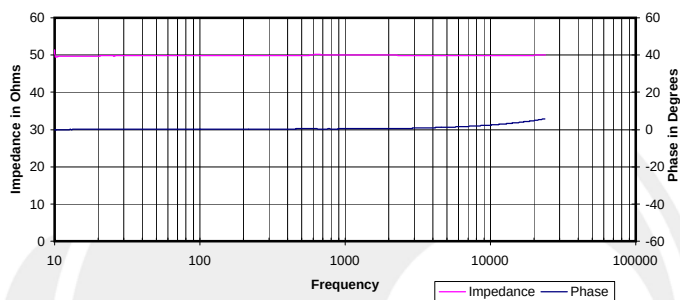
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



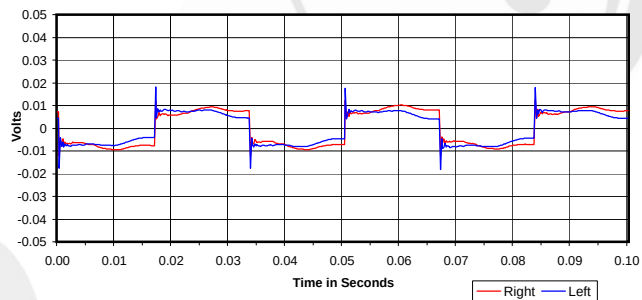
Isolation
Attenuation of External Sound vs. Frequency



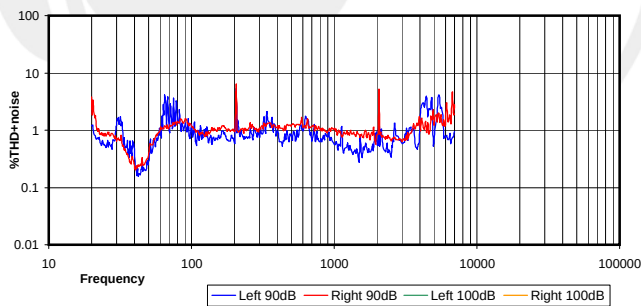
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



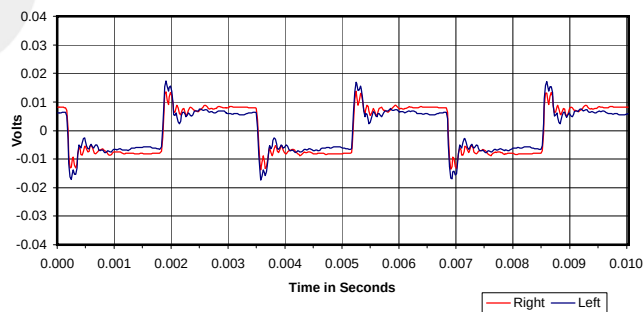
30 Hz Square Wave



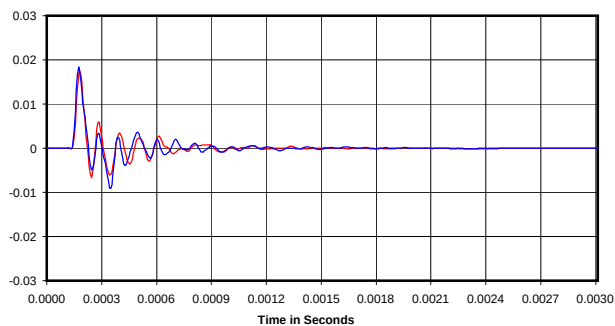
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



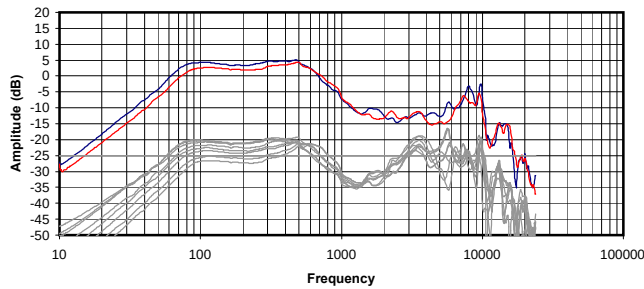
Impulse Response



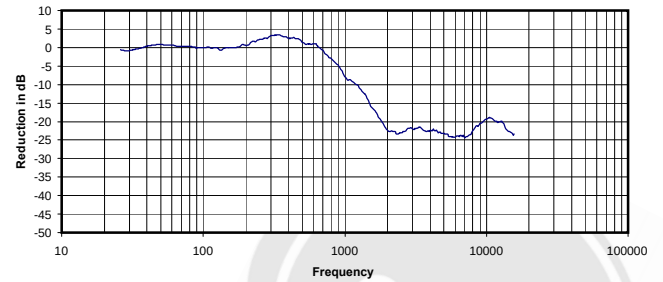
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.164 Vrms
50 Ohms
0.54 mW
-18 dBr

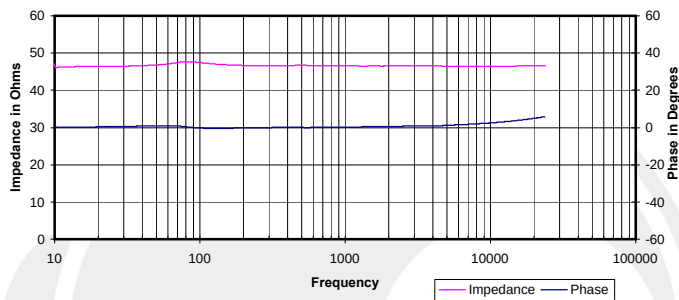
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



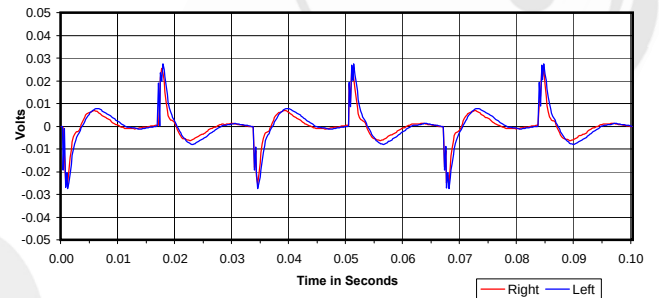
Isolation
Attenuation of External Sound vs. Frequency



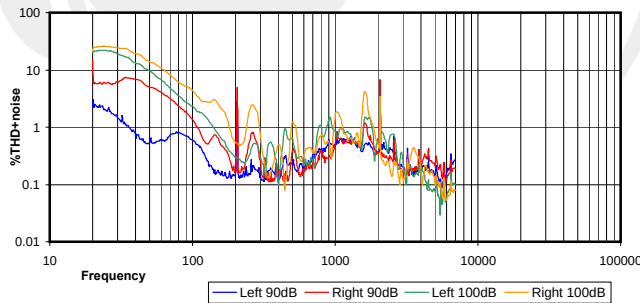
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



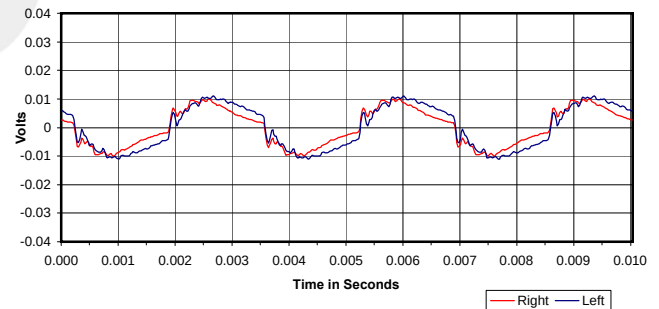
30 Hz Square Wave



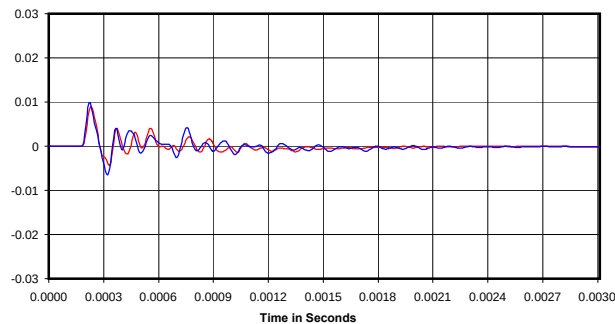
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



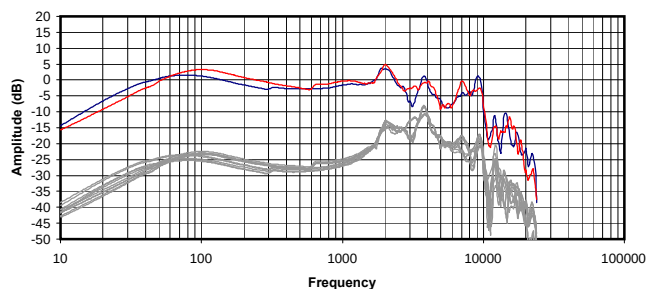
Impulse Response



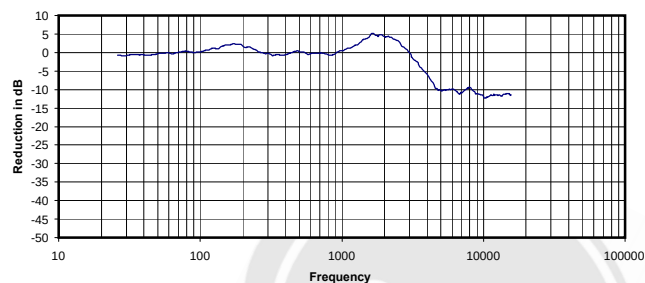
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.405 Vrms
47 Ohms
3.53 mW
-8 dBr

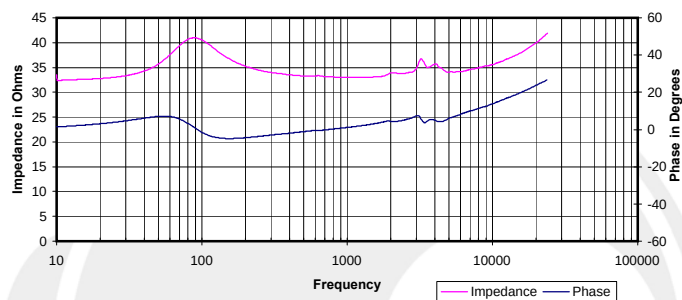
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



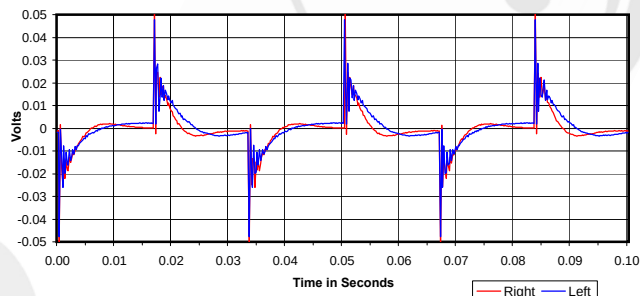
Isolation
Attenuation of External Sound vs. Frequency



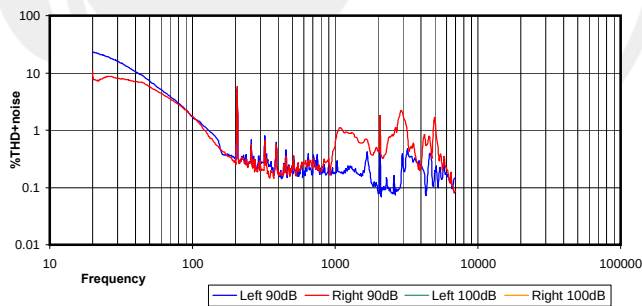
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



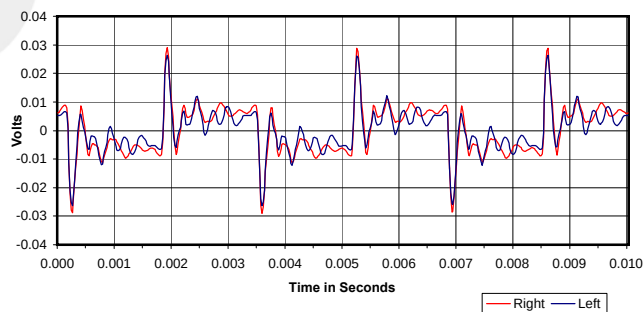
30 Hz Square Wave



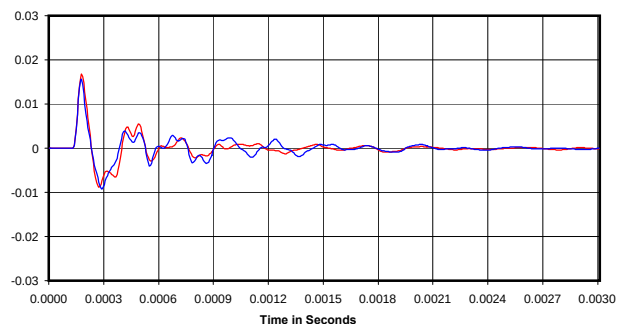
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

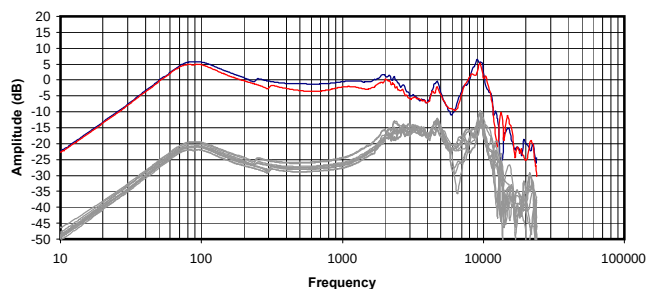
0.109 Vrms
33 Ohms
0.36 mW
0 dBr



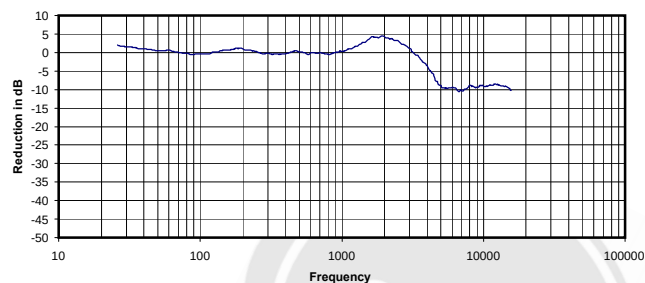
Headphone Measurements:

Grado Magnum V3 - Marty
Cocobolo cups -
pbandstephanwich

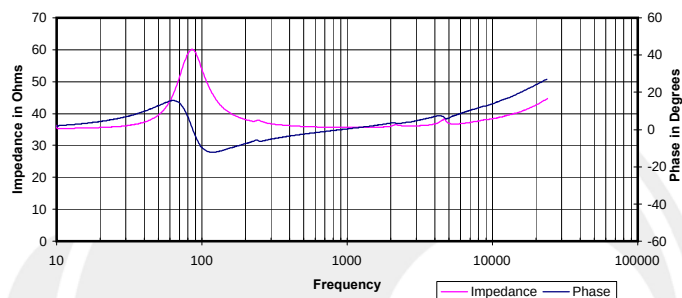
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



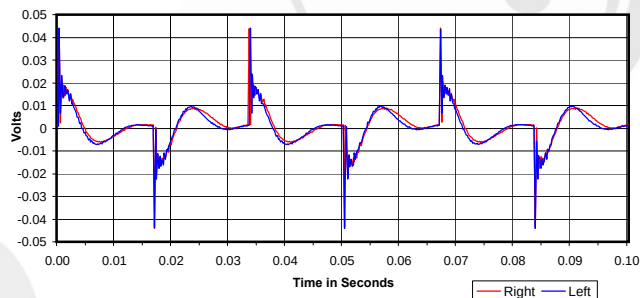
Isolation
Attenuation of External Sound vs. Frequency



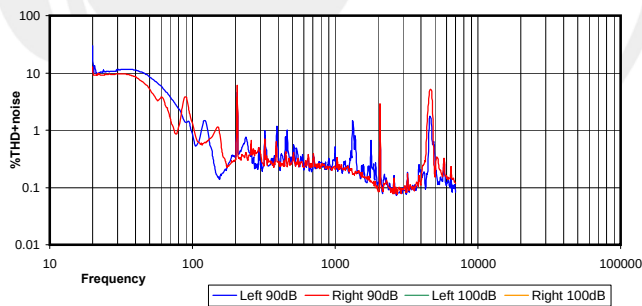
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



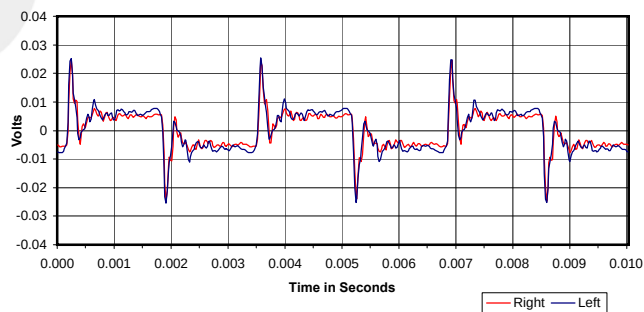
30 Hz Square Wave



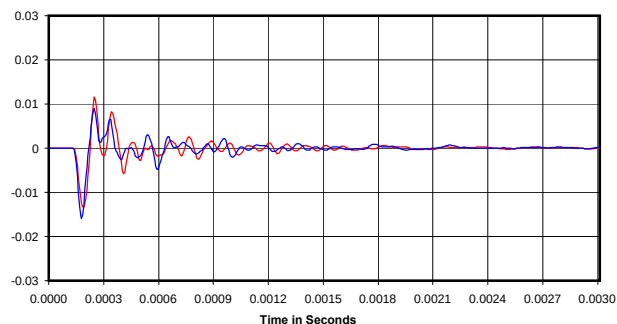
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



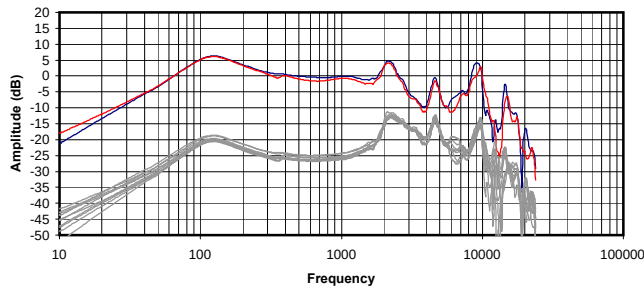
Impulse Response



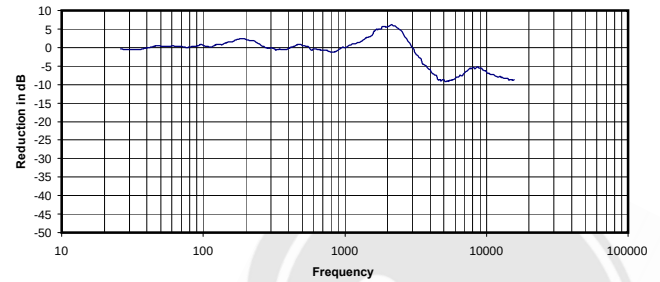
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.120 Vrms
36 Ohms
0.41 mW
0 dBr

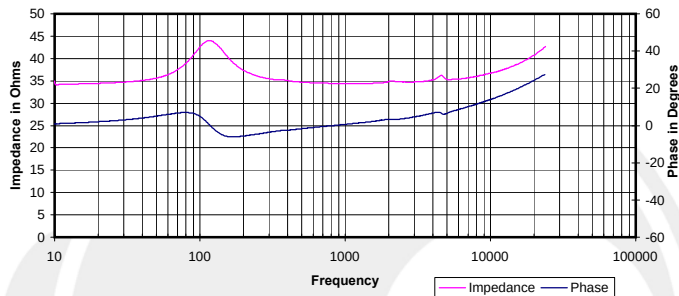
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



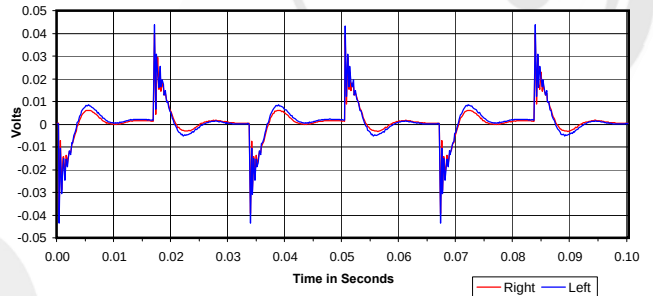
Isolation
Attenuation of External Sound vs. Frequency



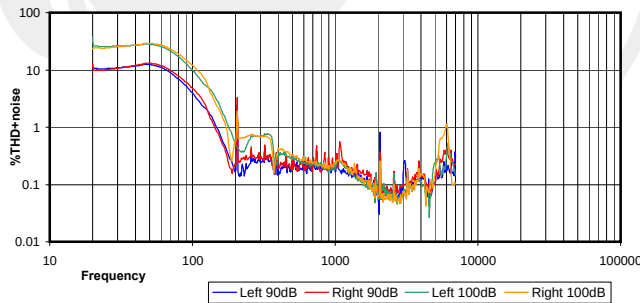
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



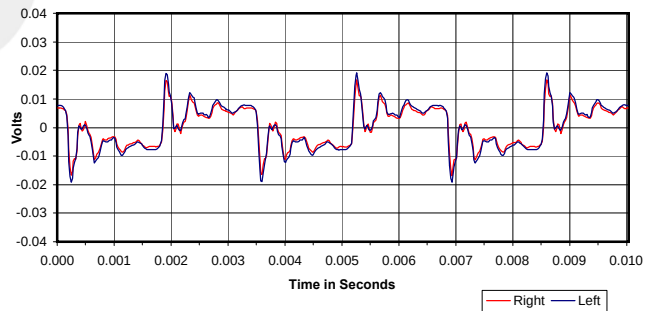
30 Hz Square Wave



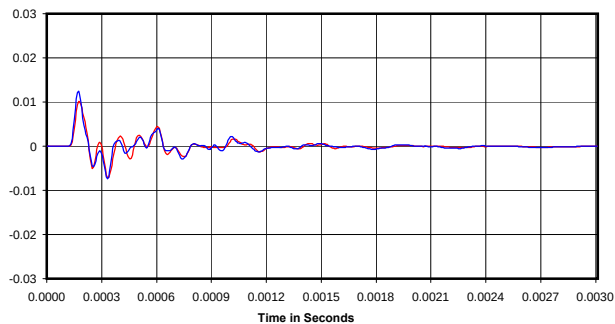
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



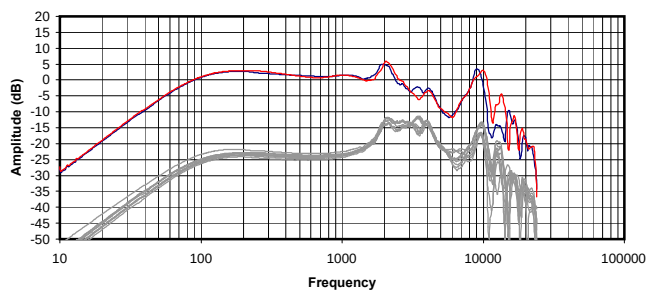
Impulse Response



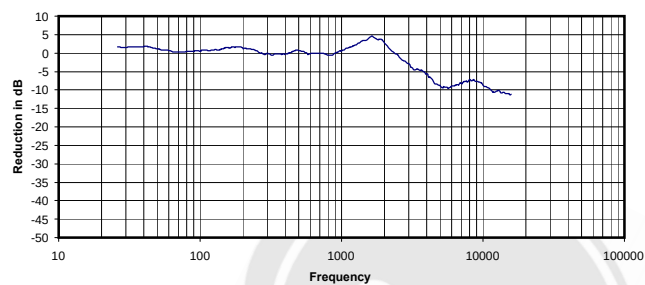
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.094 Vrms
34 Ohms
0.25 mW
0 dBr

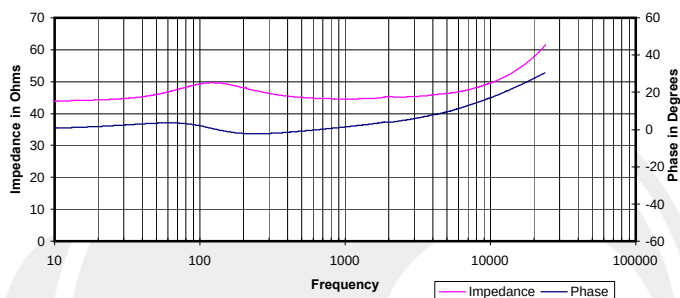
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



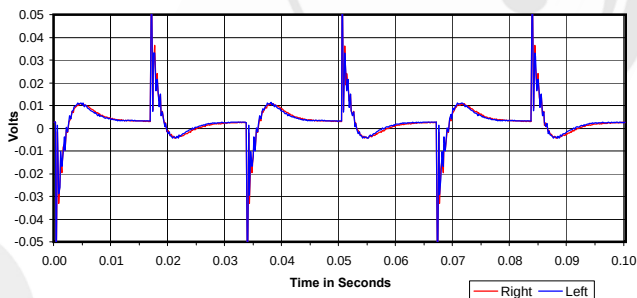
Isolation
Attenuation of External Sound vs. Frequency



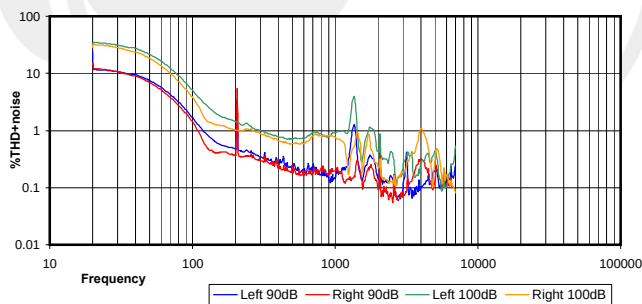
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



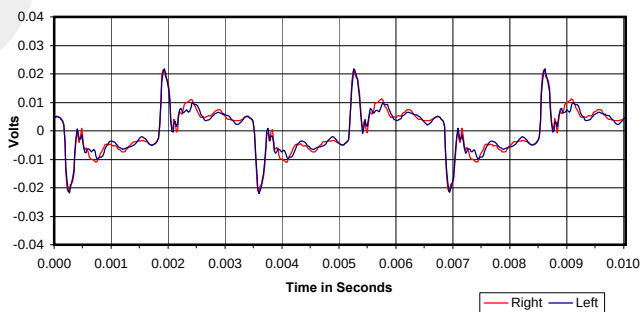
30 Hz Square Wave



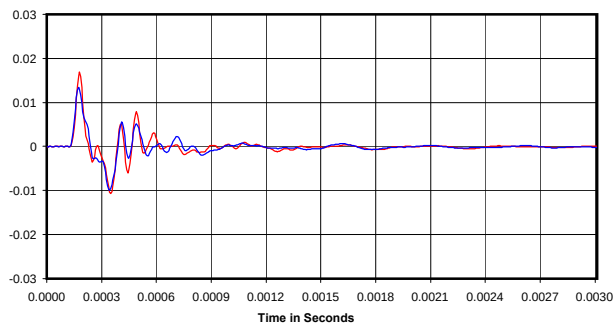
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



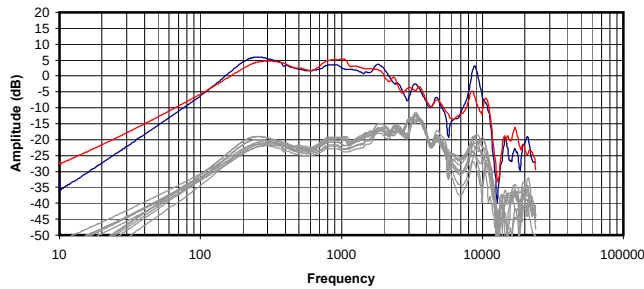
Impulse Response



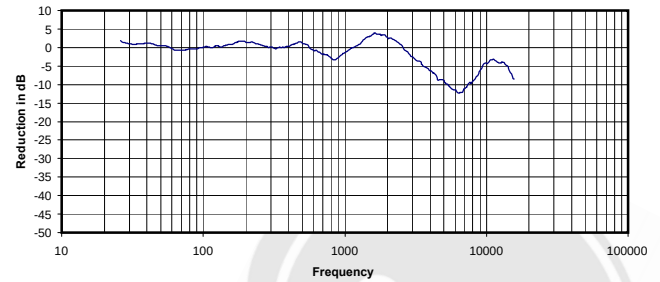
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.142 Vrms
45 Ohms
0.45 mW
-1 dBr

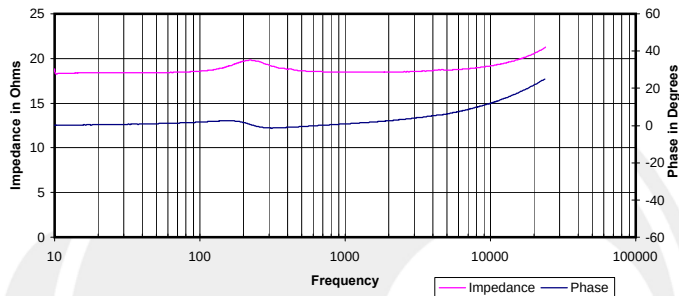
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



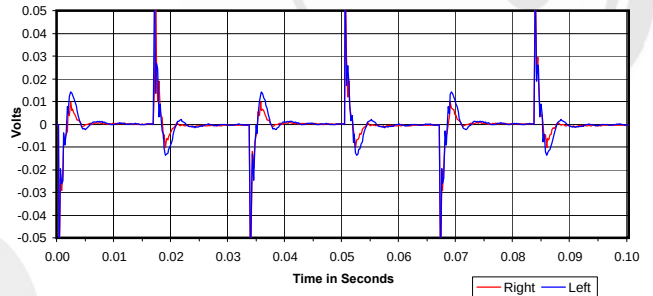
Isolation
Attenuation of External Sound vs. Frequency



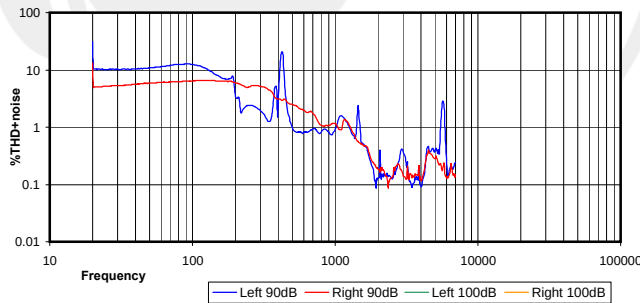
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



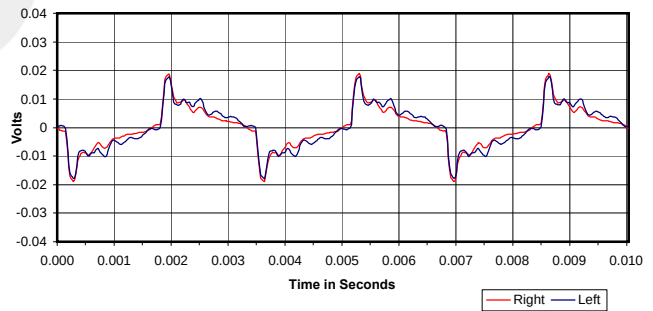
30 Hz Square Wave



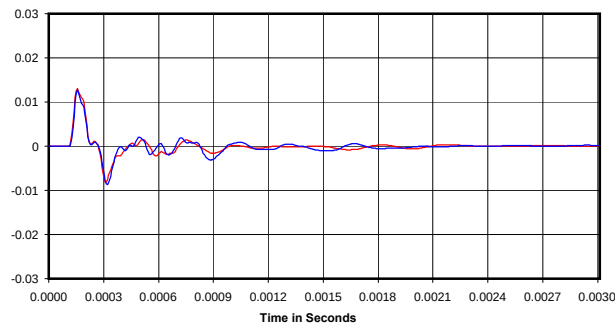
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



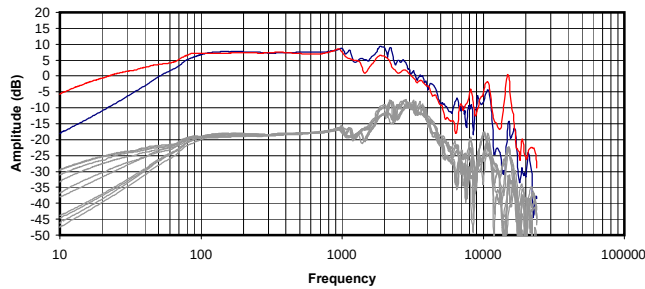
Impulse Response



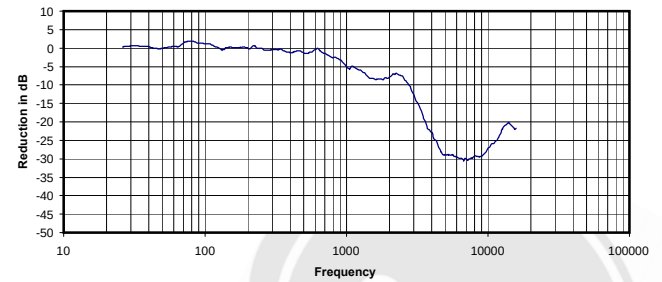
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.149 Vrms
18 Ohms
1.19 mW
-1 dBr

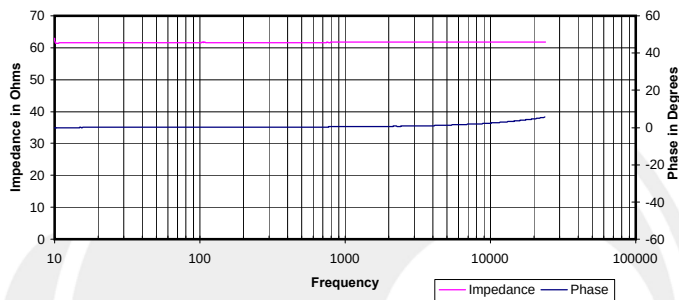
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



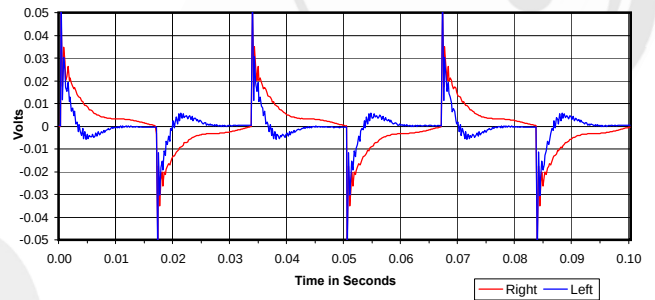
Isolation
Attenuation of External Sound vs. Frequency



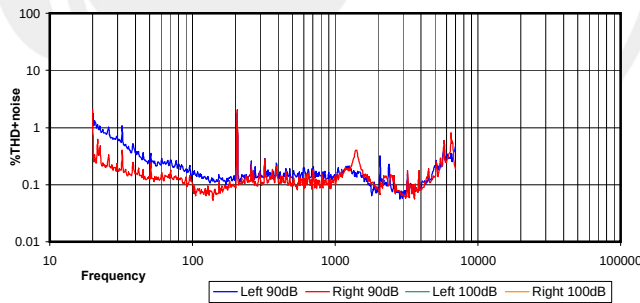
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



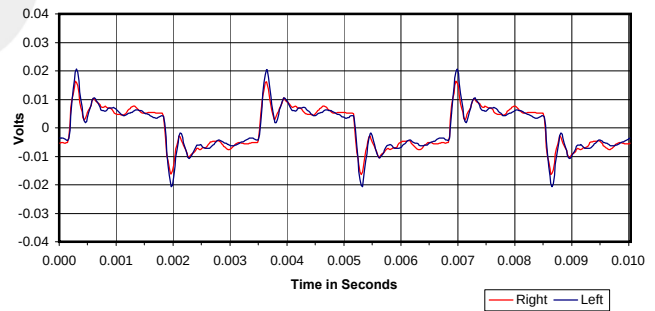
30 Hz Square Wave



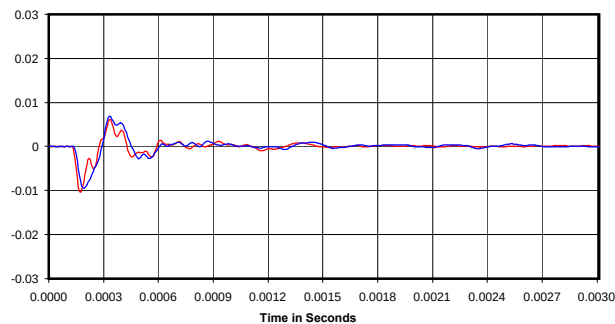
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



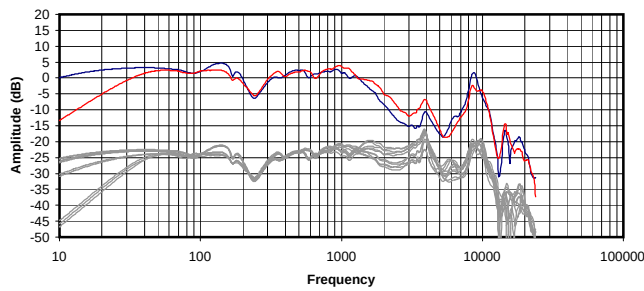
Impulse Response



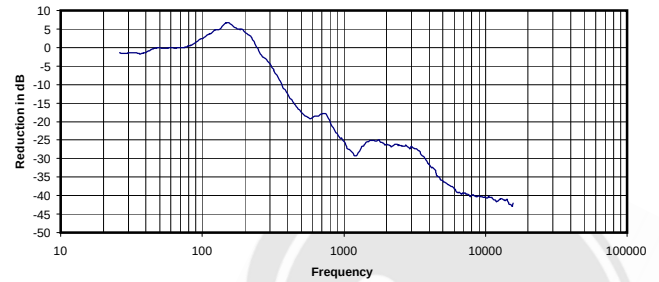
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.160 Vrms
62 Ohms
0.42 mW
-7 dBr

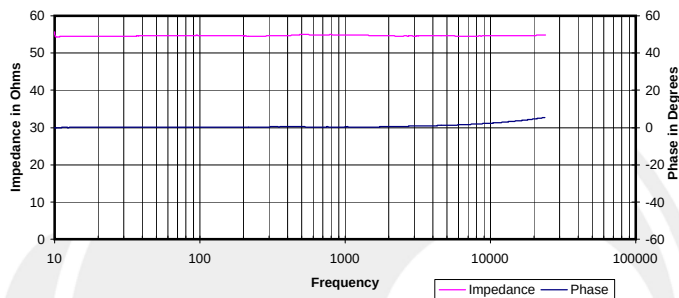
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



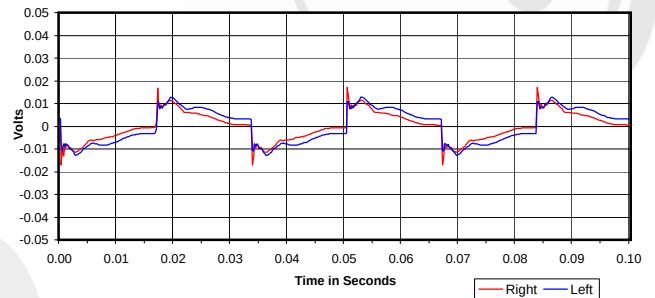
Isolation
Attenuation of External Sound vs. Frequency



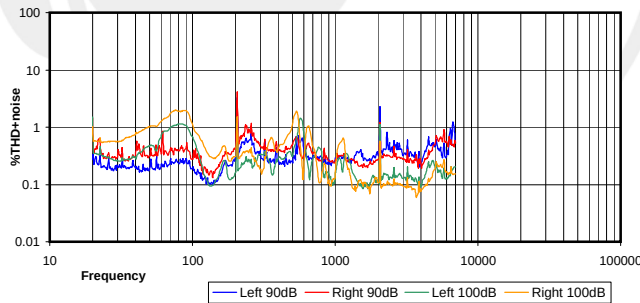
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



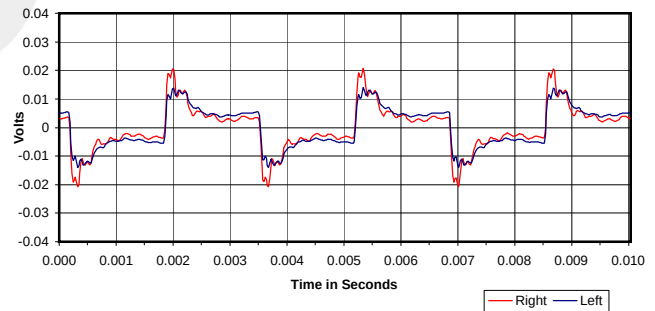
30 Hz Square Wave



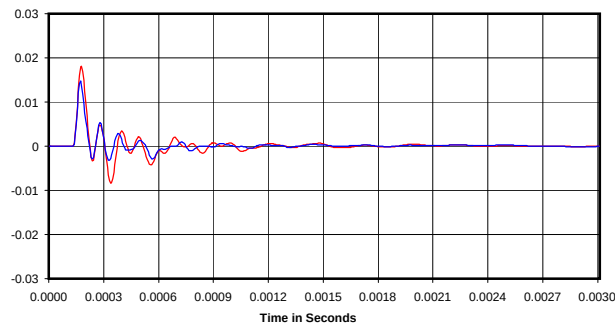
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



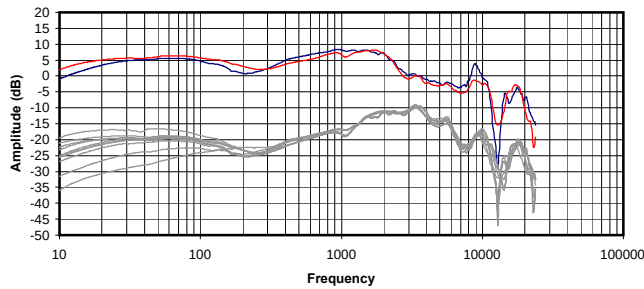
Impulse Response



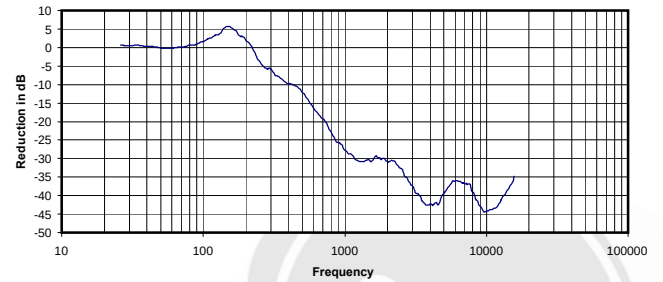
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.128 Vrms
55 Ohms
0.30 mW
-16 dBr

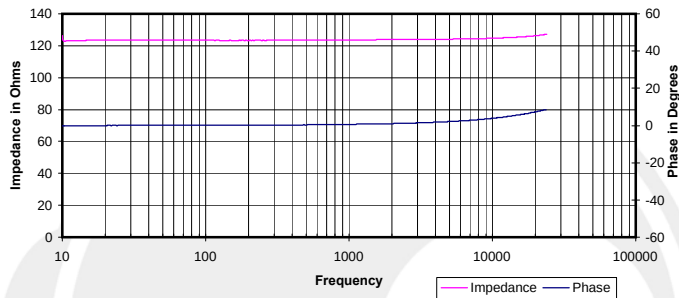
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



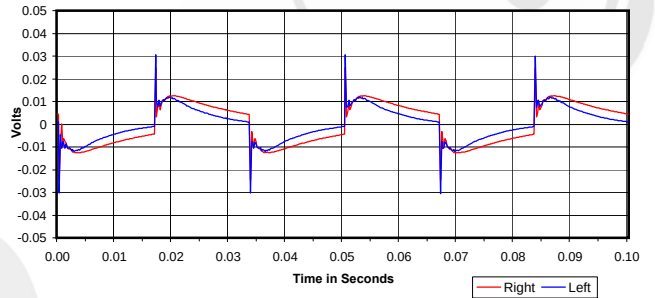
Isolation
Attenuation of External Sound vs. Frequency



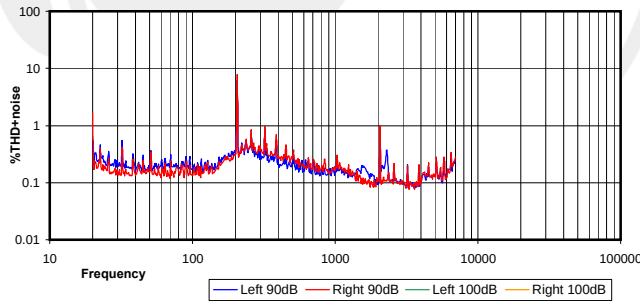
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



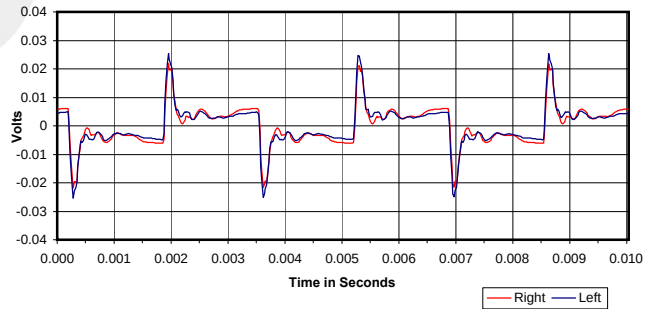
30 Hz Square Wave



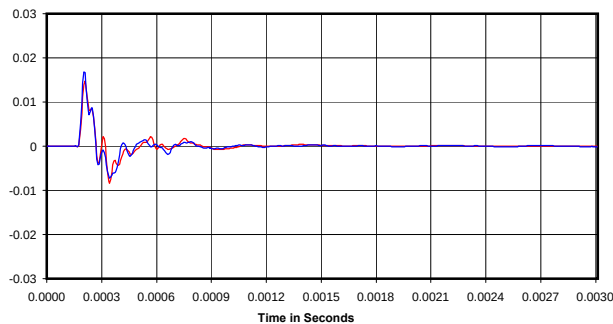
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



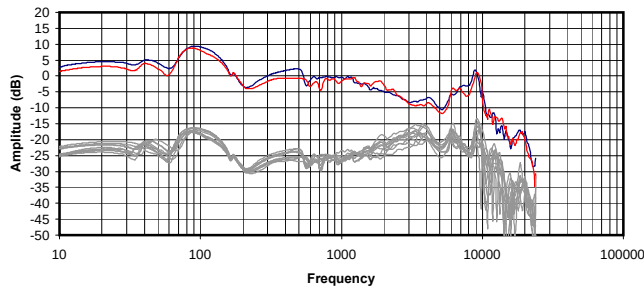
Impulse Response



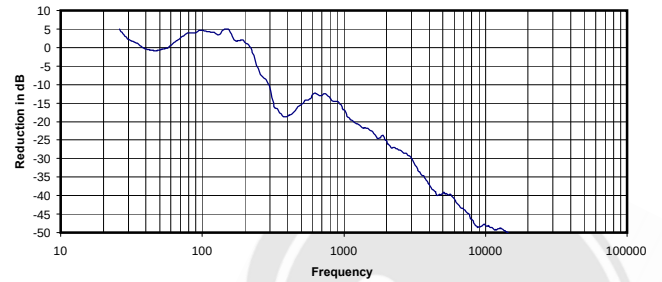
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.426 Vrms
123 Ohms
1.47 mW
-19 dBr

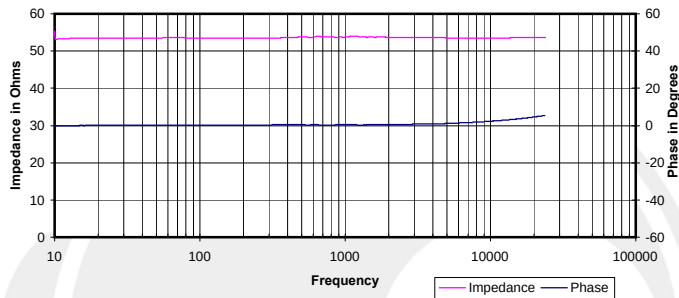
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



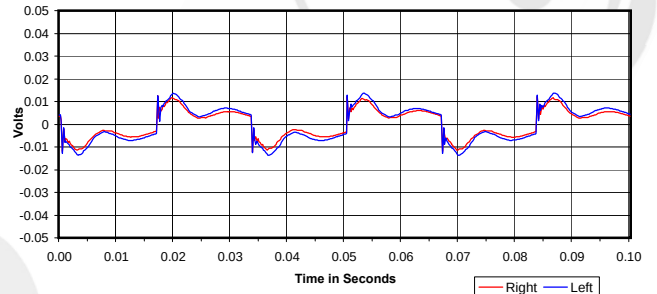
Isolation
Attenuation of External Sound vs. Frequency



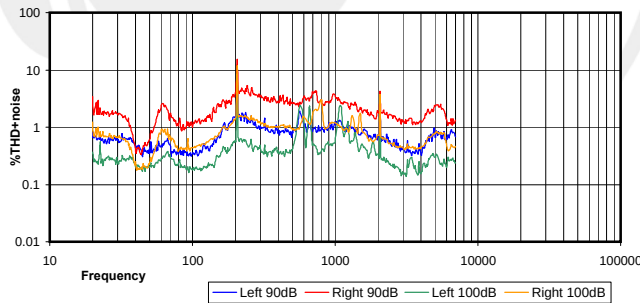
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



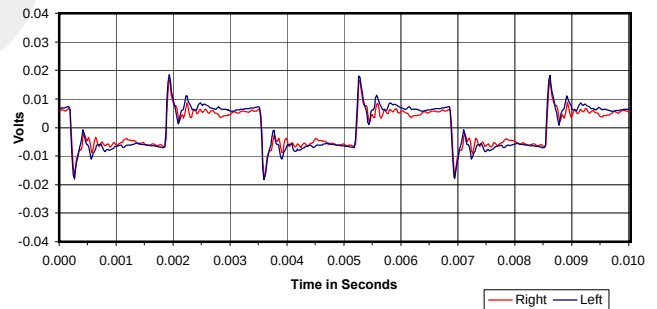
30 Hz Square Wave



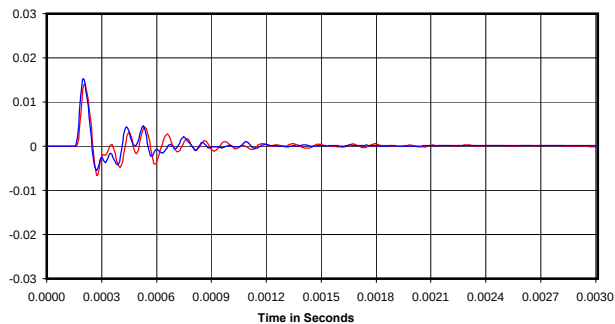
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



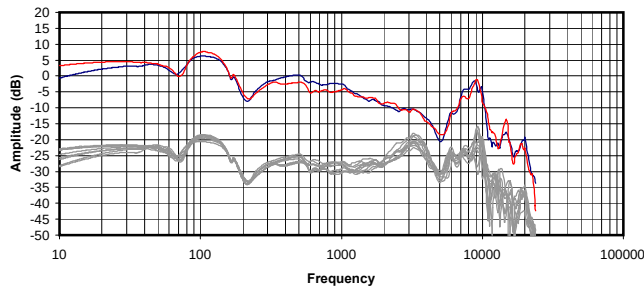
Impulse Response



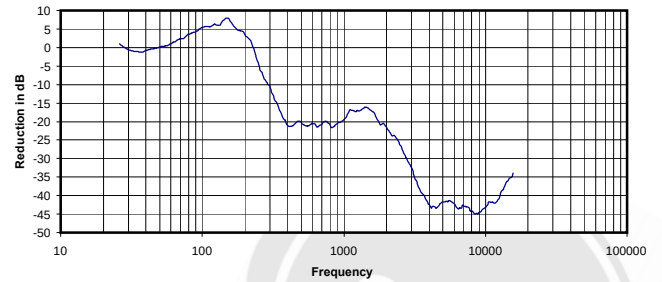
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.333 Vrms
54 Ohms
2.06 mW
-17 dBr

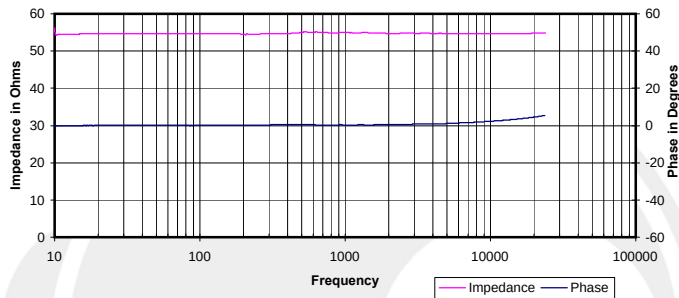
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



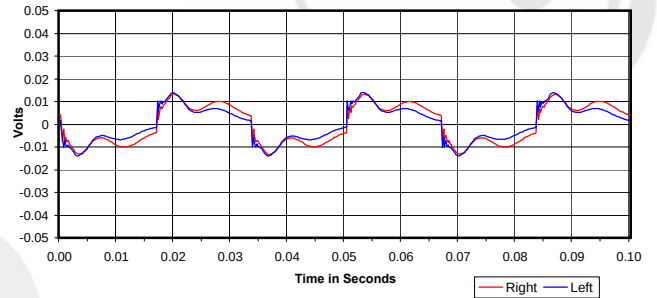
Isolation
Attenuation of External Sound vs. Frequency



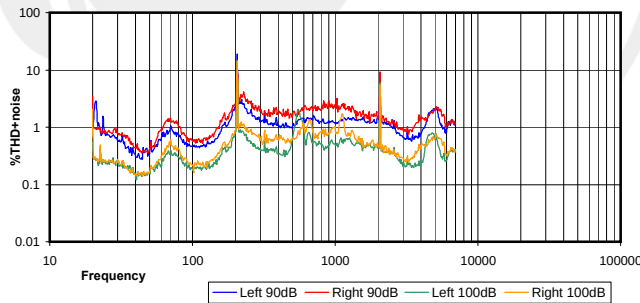
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



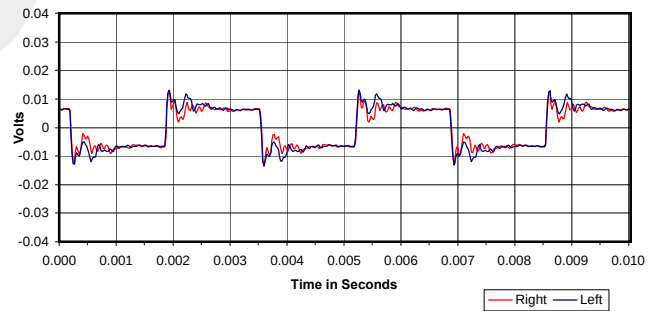
30 Hz Square Wave



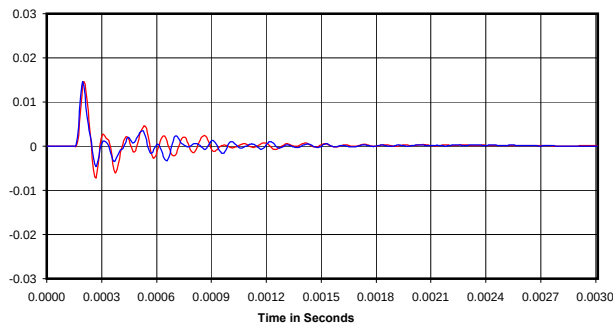
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



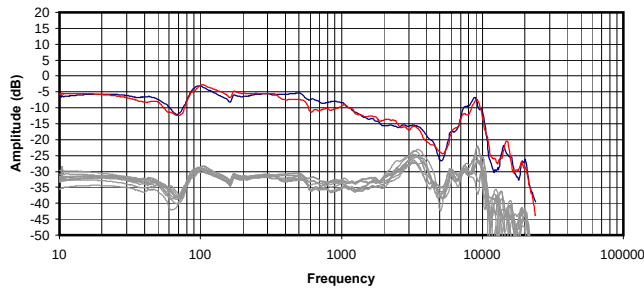
Impulse Response



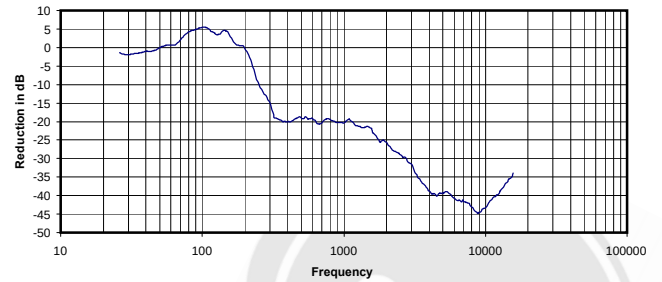
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.242 Vrms
55 Ohms
1.07 mW
-17 dBr

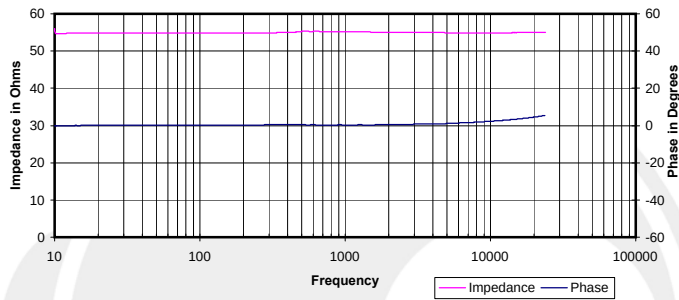
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



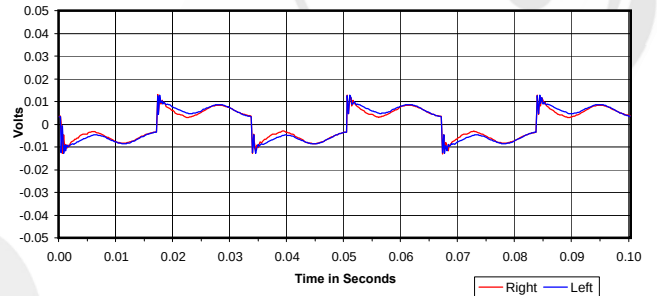
Isolation
Attenuation of External Sound vs. Frequency



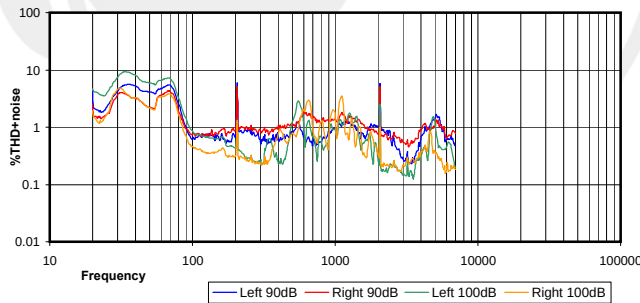
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



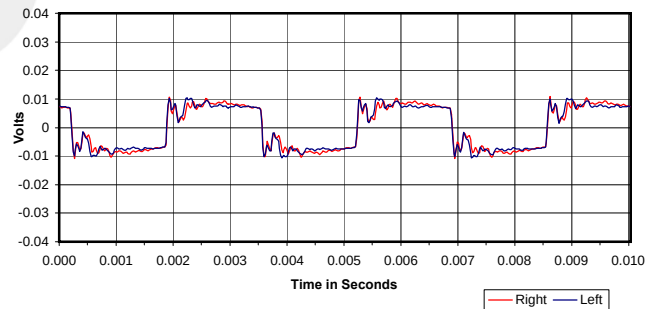
30 Hz Square Wave



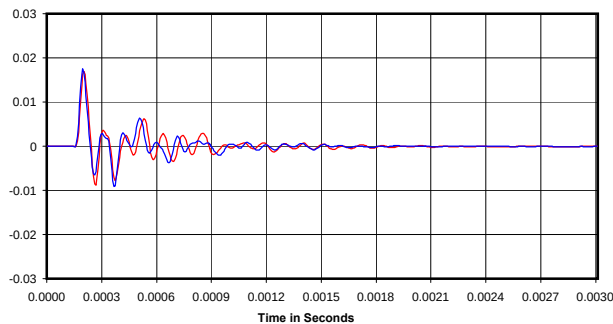
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



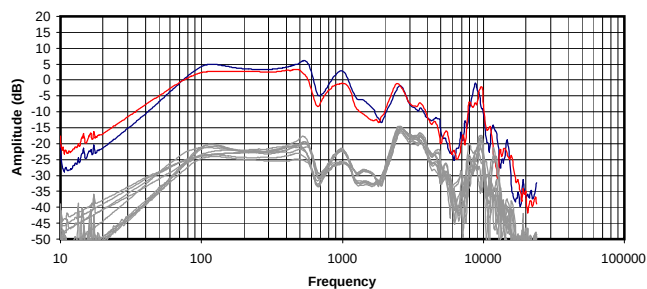
Impulse Response



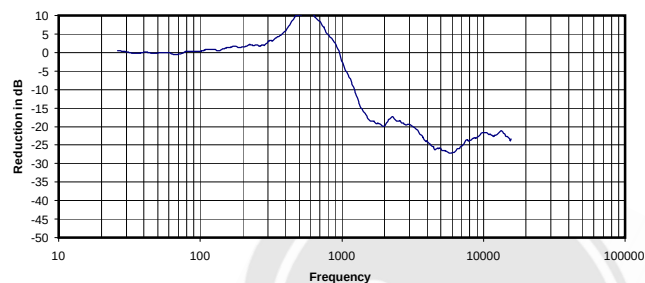
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.269 Vrms
55 Ohms
1.31 mW
-19 dB

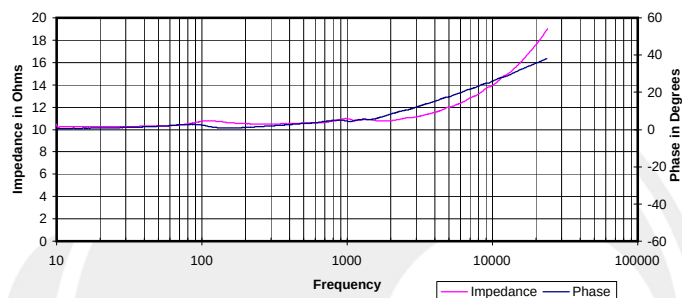
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



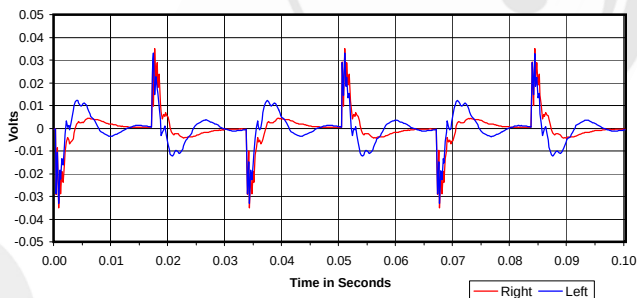
Isolation
Attenuation of External Sound vs. Frequency



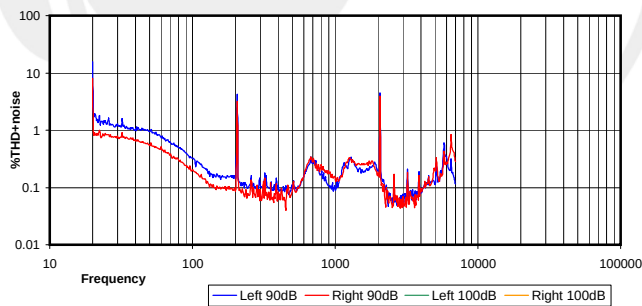
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



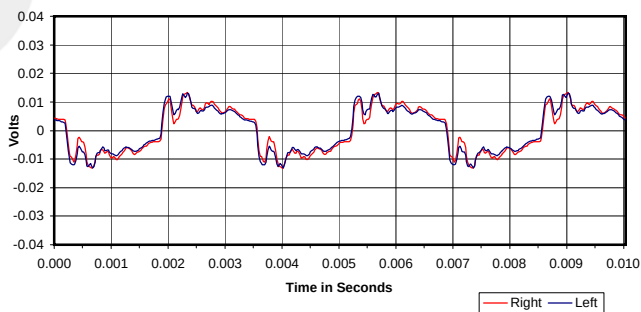
30 Hz Square Wave



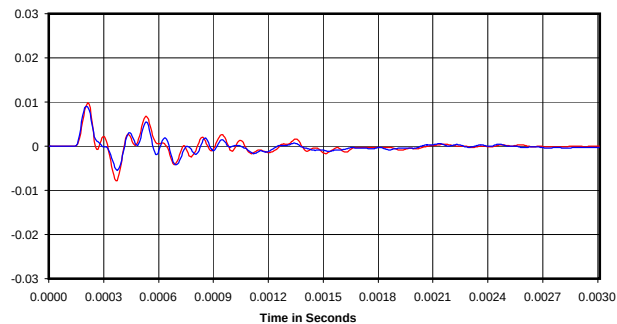
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



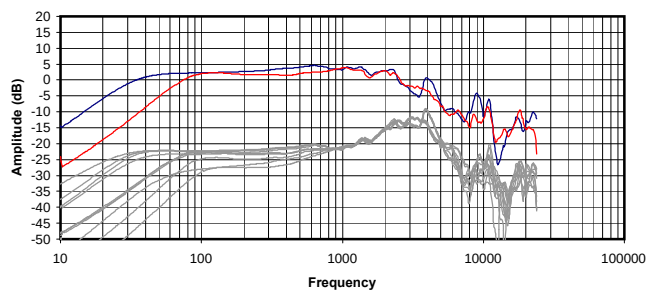
Impulse Response



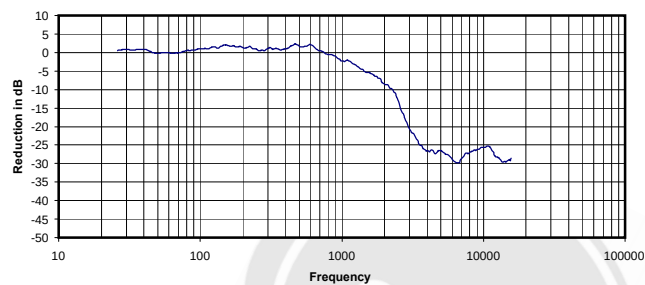
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.024 Vrms
11 Ohms
0.05 mW
-6 dBr

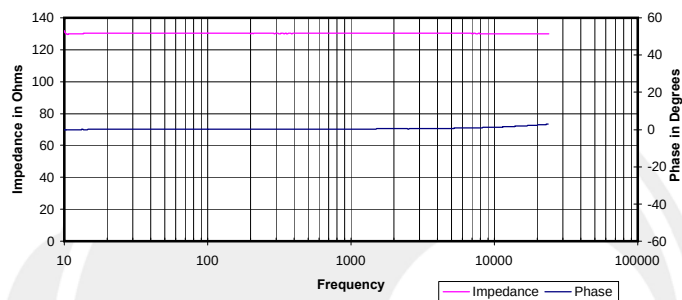
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



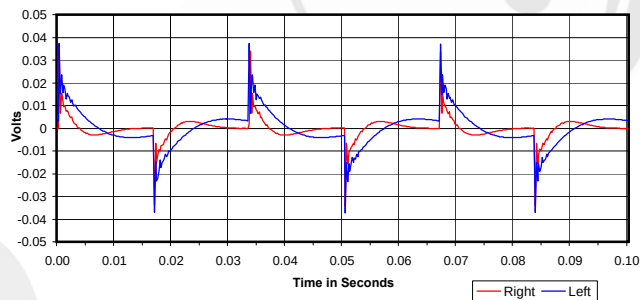
Isolation
Attenuation of External Sound vs. Frequency



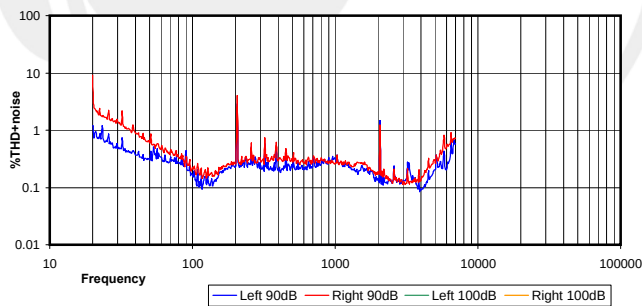
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



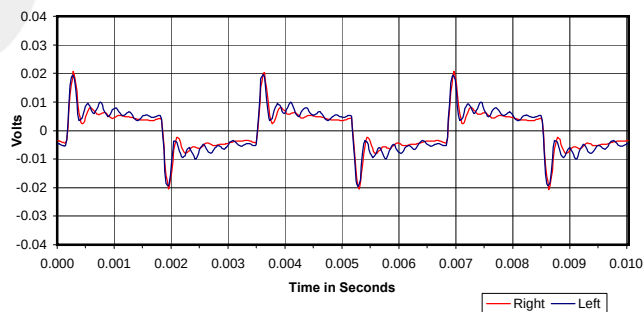
30 Hz Square Wave



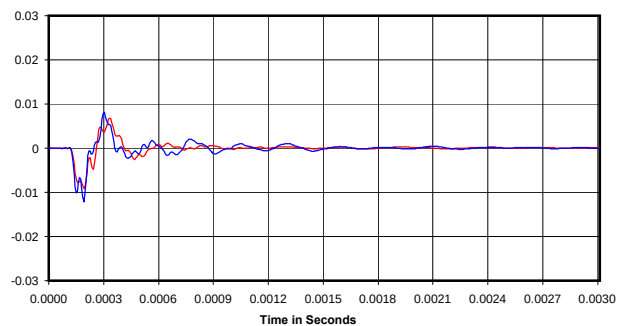
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



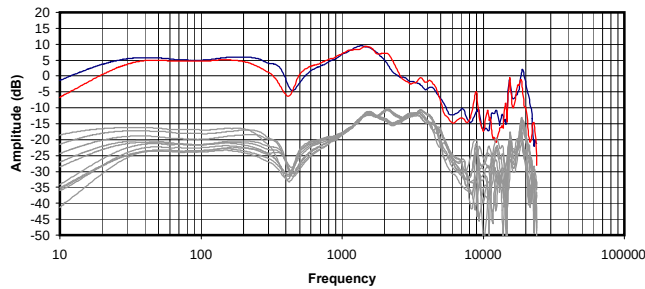
Impulse Response



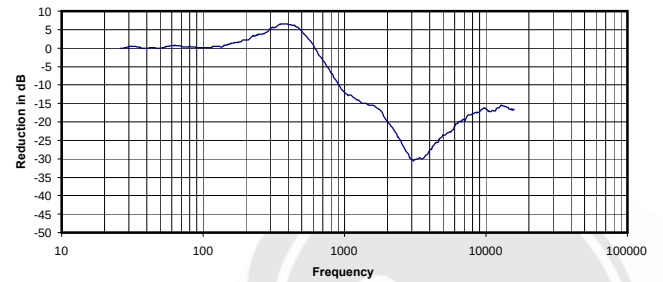
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.346 Vrms
130 Ohms
0.92 mW
-6 dBr

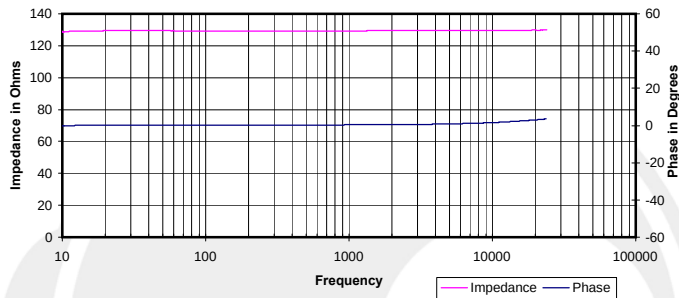
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



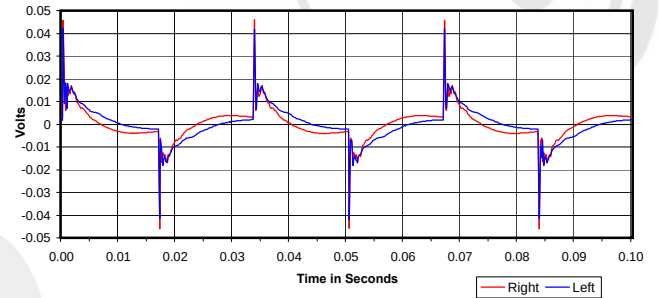
Isolation
Attenuation of External Sound vs. Frequency



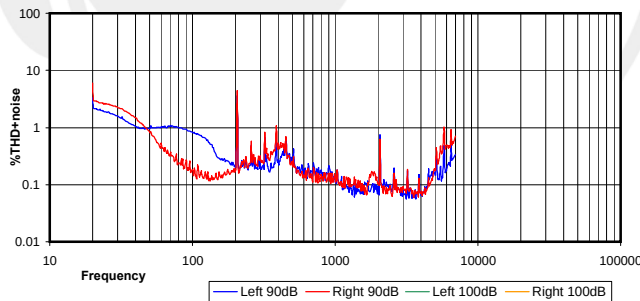
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



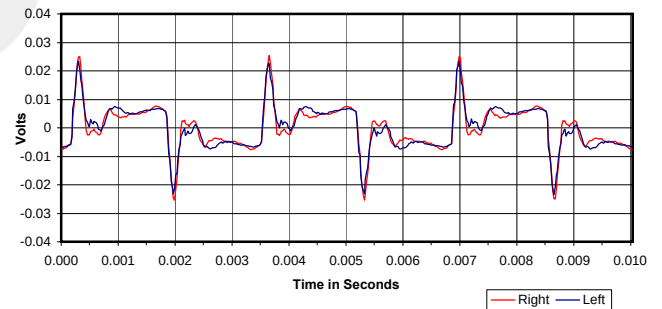
30 Hz Square Wave



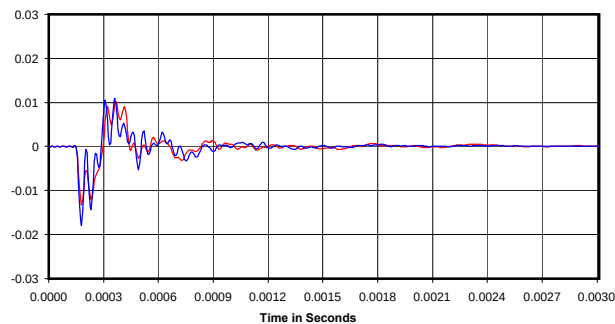
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



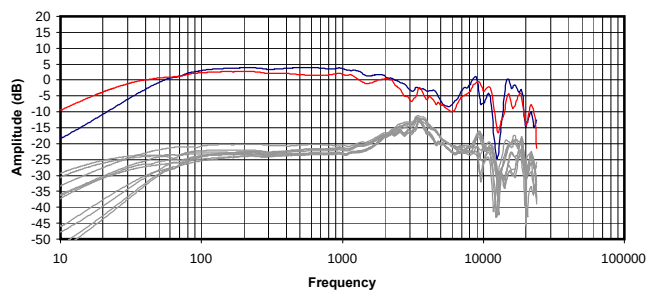
Impulse Response



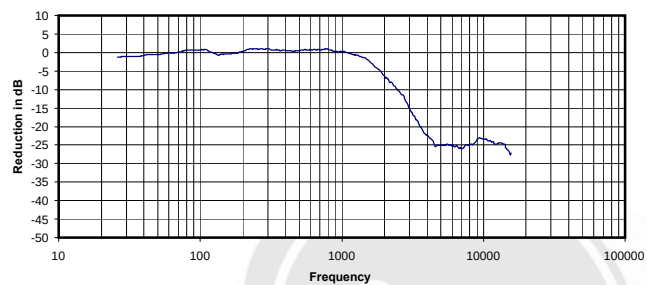
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.233 Vrms
129 Ohms
0.42 mW
-9 dBr

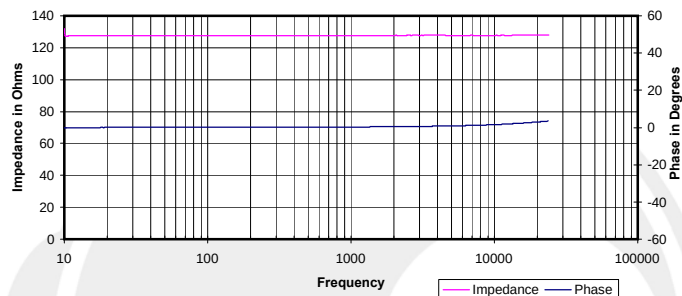
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



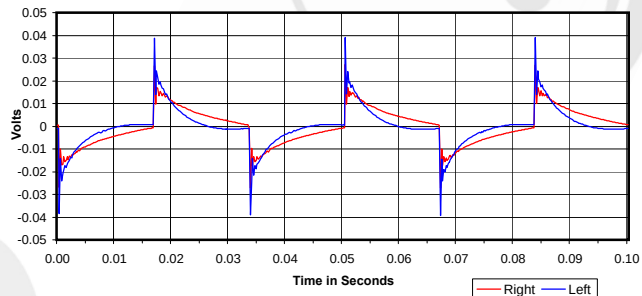
Isolation
Attenuation of External Sound vs. Frequency



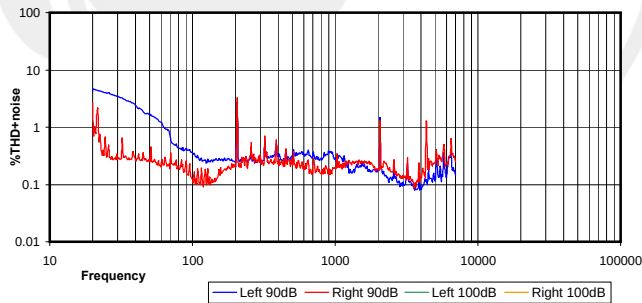
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



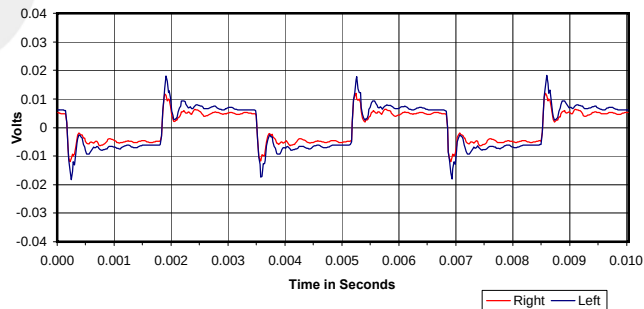
30 Hz Square Wave



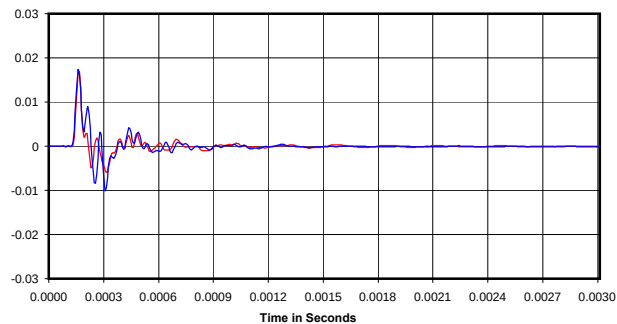
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



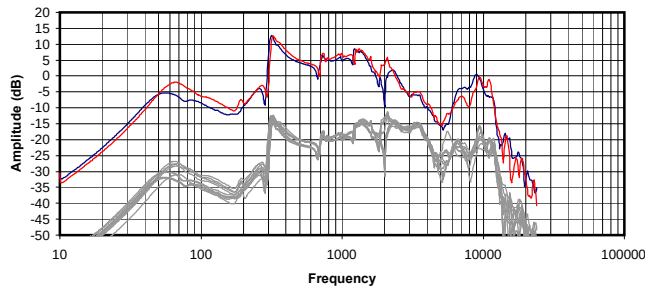
Impulse Response



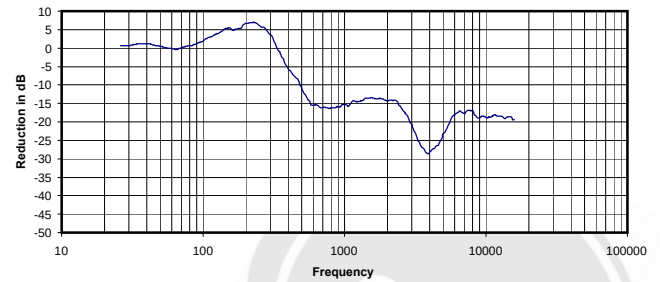
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.440 Vrms
128 Ohms
1.52 mW
-5 dBr

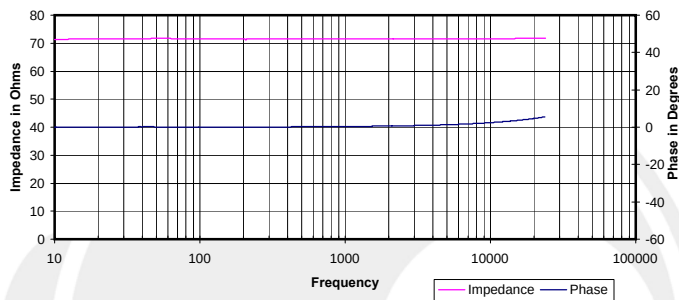
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



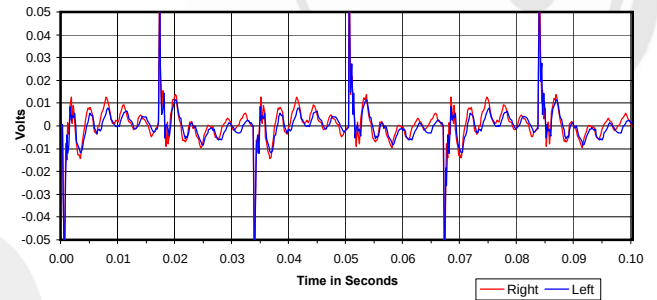
Isolation
Attenuation of External Sound vs. Frequency



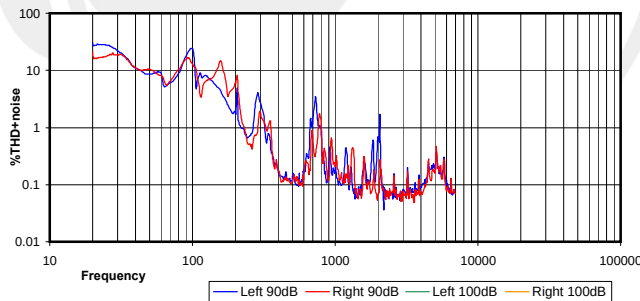
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



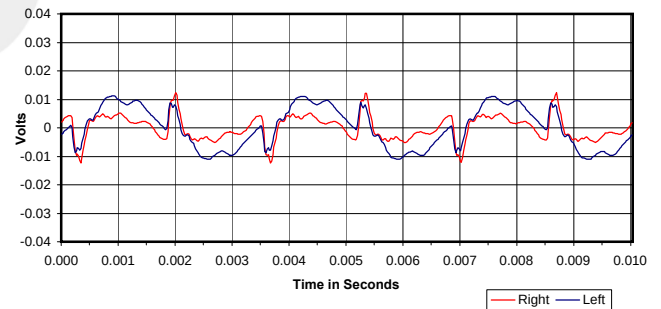
30 Hz Square Wave



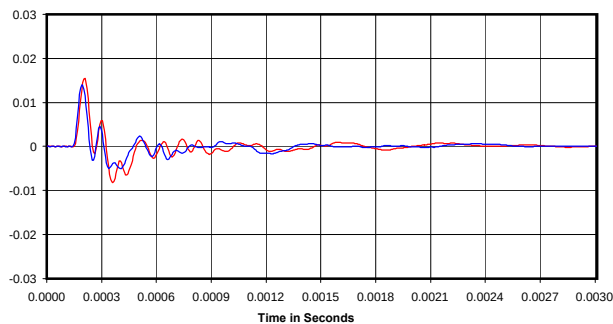
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.894 Vrms
71 Ohms
11.19 mW
-10 dBr