



Engineering Standard

Date Effective

Number

Engineering Design
Specification

5/10/2004

Date Revised

A

4338

Acoustical and Electrical Specifications

System:

<i>Sensitivity:</i>	93 dB for 2.83V @ 1M
<i>Rated Impedance:</i>	8 ohm
<i>Minimum Impedance:</i>	6.8 Ohms @ 93 Hz, 3.1 Ohms @ 30 kHz
<i>Impedance Curve:</i>	See Page 5
<i>Frequency Response (-6 dB):</i>	35 Hz to 40 kHz (Anechoic)
<i>f3 (-3 dB):</i>	60 Hz
<i>Sound Power:</i>	See Page 8
<i>Harmonic Distortion, 96dB:</i>	See Page 6
<i>Power Compression:</i>	Less than 0.5 dB @ 100dB SPL
<i>Crossover Frequencies:</i>	750 Hz, 9000 Hz
<i>System Polarity:</i>	E.I.A.

System Component Specifications

Driver(s)	Size	Supplier	Model #
<i>Bass Transducers:</i>	15"	JBL Pro	1500FE
<i>High Frequency Transducer:</i>	3"	JBL Pro	435AI
<i>UHF Transducer:</i>	1"	JBL Pro	045Ti

Network:

<i>Voltage Drive:</i>	See Page 7
<i>Schematic:</i>	See Page 9

Engineering Design Specification

Date Effective

5/10/2004

Number

0

Rev Number

A

4338

System Physical Specifications

*may be superceded by information on the drawings***Cabinet:**

<i>HWD, inches</i>	36.25' x 21.63' x 13.13', 14.75' Total depth including horns
<i>Enclosure Volume</i>	4.1 Cubic Feet
<i>Material</i>	MDF
<i>Panel Thickness</i>	1" MDF
<i>Finish</i>	Man made Walnut veneer
<i>Sub Enclosure</i>	None
<i>Bracing</i>	Side to side and front to back stiffeners
<i>Grille</i>	Wood Frame, metal pins
<i>Grille Cup</i>	6, molded rubber inside metal baffle fasteners
<i>Port</i>	2 - 3" diameter by 4" long, 35 Hz tuning
<i>Lining</i>	1" Fiberglass
<i>Terminals</i>	Metal Plate, Dual 5-Way Binding Posts, Gold Plated
<i>Network Controls</i>	HF and UHF L-Pads
<i>Badging</i>	Metal name plate on UHF Bezel
<i>Foicals</i>	Input Plate silkscreen
<i>Feet</i>	None
<i>Weight</i>	140 lb
<i>Accessories</i>	None

Engineering Test Specification

Date Effective

5/10/2004

Number

0

Rev Number

A

4338

System Test Specifications

production testing quantities per JBL QA AQL

System:

Frequency Response:	Window	Averaging	Slope
+/- 1.5 dB, 50 Hz to 6 kHz		1/3 Octave	36dB/Octave
+/- 2.0 dB, 6 kHz to 20 kHz		1 Octave	36dB/Octave

Microphone Position: On HF @ 1 meter.

Dynamic Test:	Sine Sweep Voltage:	6 V
	Frequency Range:	20 Hz to 20000 Hz
	Sweep Duration:	5 seconds

Power Test:	Input Signal:	20 V, IEC Shaped Noise
	Duration:	8 + 92 Hours
	Control Settings:	N/A

Polarity Test: EIA for LF and UHF, HF - Reverse

Environmental Test: HCG/JBL Spec #

Transit Test: A.S.T.M. **DC-4**

Visual Criteria: HCG/JBL QA Spec #

Network:

Voltage Drive:	Window	Averaging	Slope
<i>LF, 8 Ohm</i>	+/- 0.5 dB, 20 Hz to 200 Hz	1/6 Octave	36dB/Octave
	+/- 0.7 dB, 200 Hz to 800 Hz	1/6 Octave	36dB/Octave
	+/- 1.0 dB, 800 Hz to 1600 Hz	1/6 Octave	36dB/Octave
	+/- 1.5 dB, 1600 Hz to 8000 Hz	1/3 Octave	36dB/Octave
<i>HF, 8 Ohm</i>	+/- 1.5 dB, 100 Hz to 400 Hz	1/3 Octave	36dB/Octave
	+/- 1.0 dB, 400 Hz to 800 Hz	1/6 Octave	36dB/Octave
	+/- 0.5 dB, 800 Hz to 6000 Hz	1/6 Octave	36dB/Octave
	+/- 1.0 dB, 6000Hz to 12000 Hz	1/6 Octave	36dB/Octave
	+/- 1.5 dB, 12000 Hz to 20000 Hz	1/6 Octave	36dB/Octave
<i>UHF, 8 Ohm</i>	+/- 1.5 dB, 200 Hz to 4000 Hz	1/3 Octave	36dB/Octave
	+/- 1.0 dB, 4000 Hz to 12000 Hz	1/6 Octave	36dB/Octave
	+/- 0.7 dB, 12000 Hz to 40000 Hz	1/6 Octave	36dB/Octave

Engineering Standard
Frequency Response

Date Effective
5/10/2004

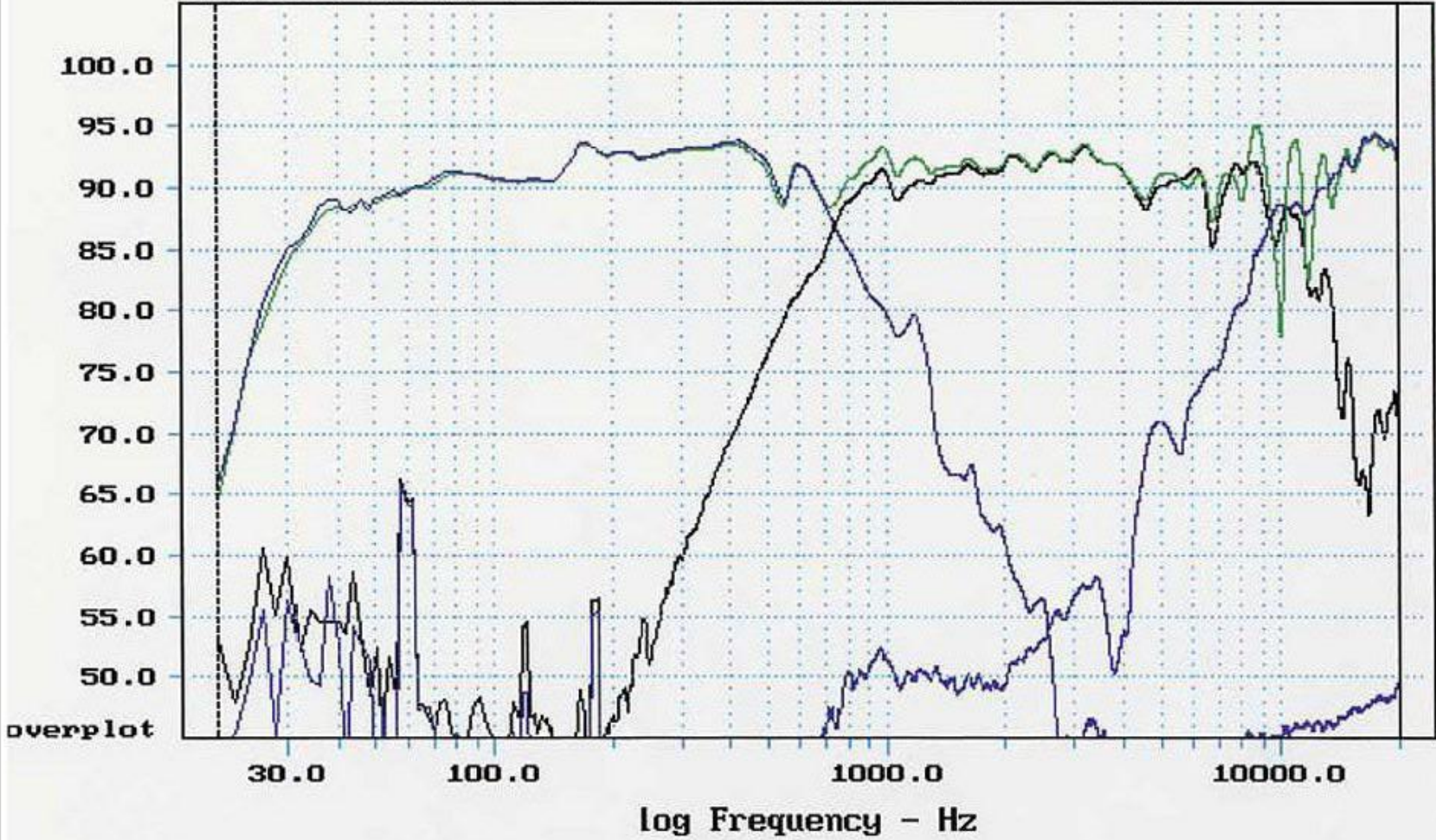
Number
0

Rev Number
A

4338

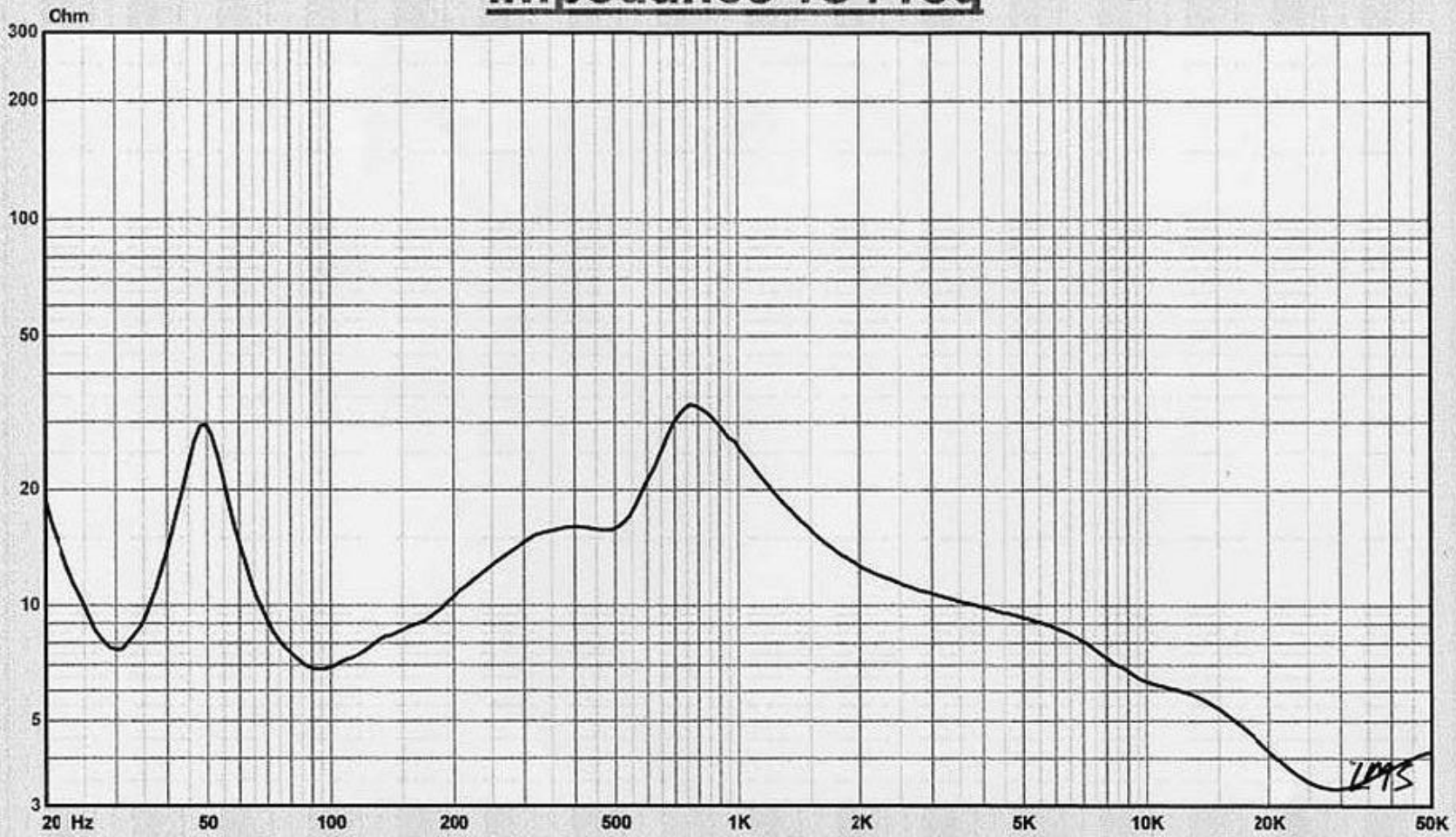
M I S S A

Transfer Function Mag - dB VOLTS/volts (0.05 oct)(eq)



4338

Impedance vs Freq



LMS

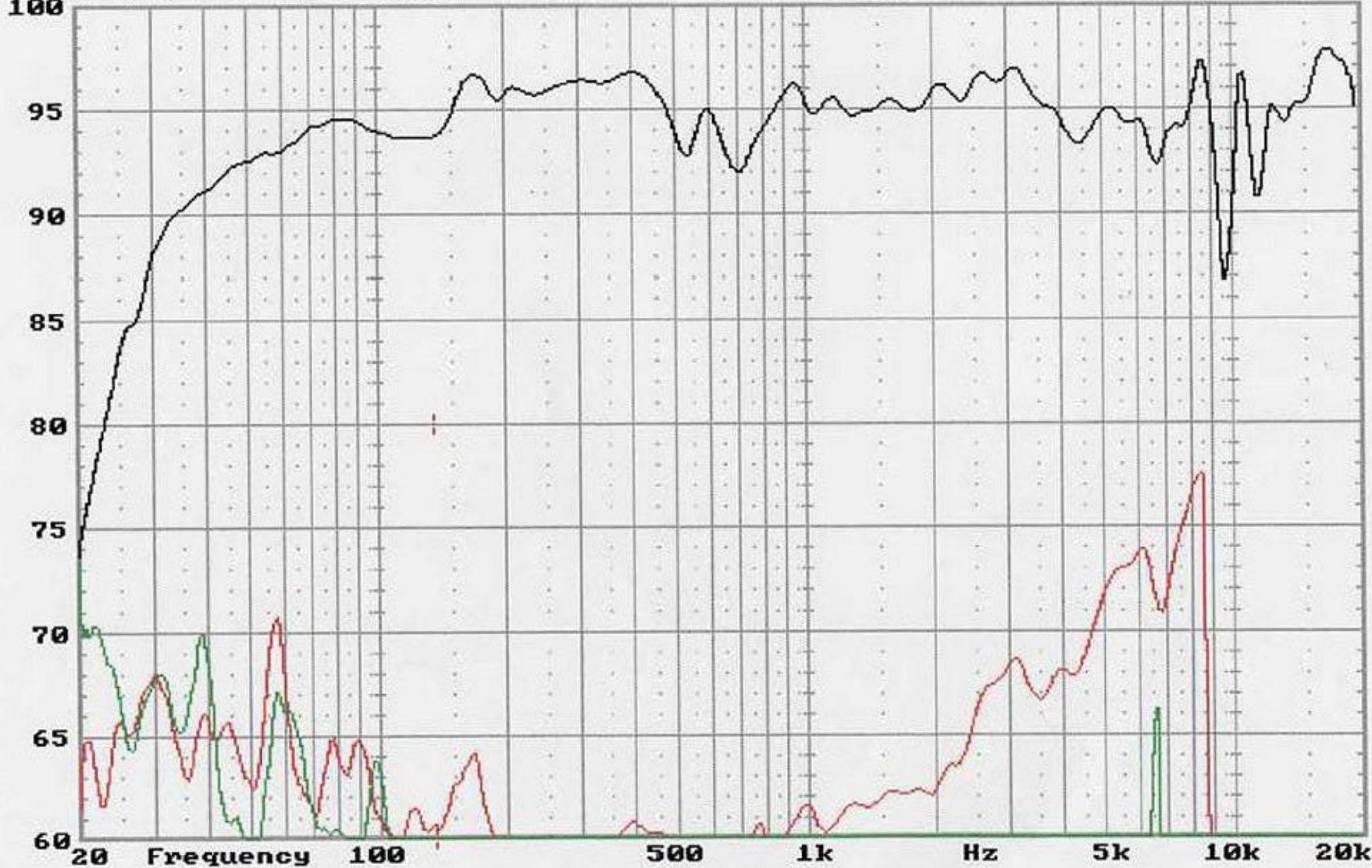
Command Menu < LMS Graphio System Display > Curve Library Listing

CURSORS
M = 58.67
P = 0.00
F = 135.69

[↑↓] Select Curve	[PuPd] Page Up/Dn
[TAB] Display	[F1] Graph [R] Run Swp
[D] Data Curve	[←→] Move Cursors
[N] Name Curve	[1-9] Cursor Step
[E] Erase Curve	[F9] Rel [F10] Abs
[INS] Osc On/Off	[I] Info [ESC] Exit

—	1: Fund	SPL
.....	2: 2nd Harm	SPL
---	3: 3rd Harm	SPL
	4:	SPL
	5:	SPL

dB spl < Magnitude > Sound Pressure Level < Phase >



Engineering Standard

Date Effective
5/10/2004

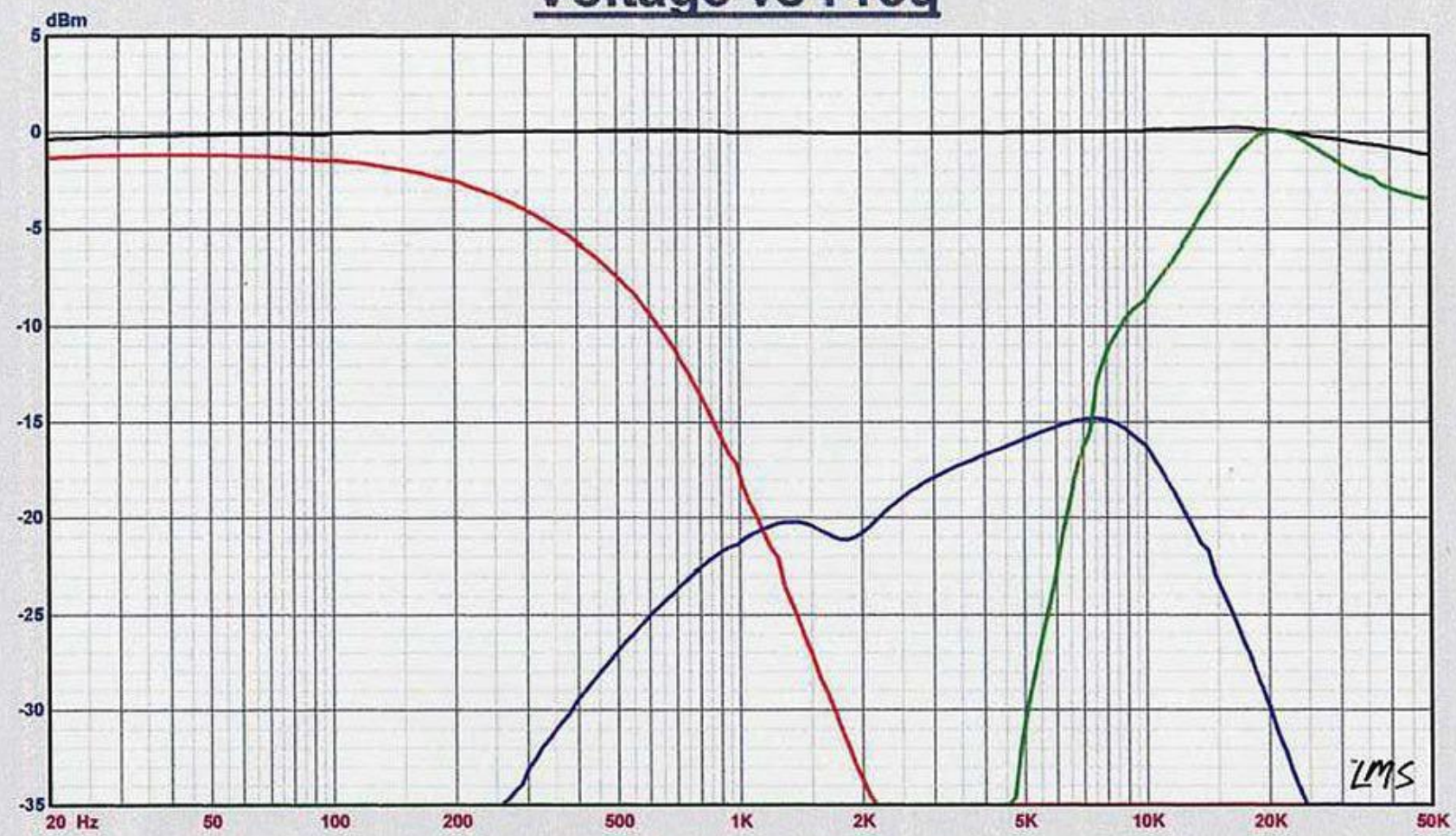
Number
0

Rev Number
A

4338

4338

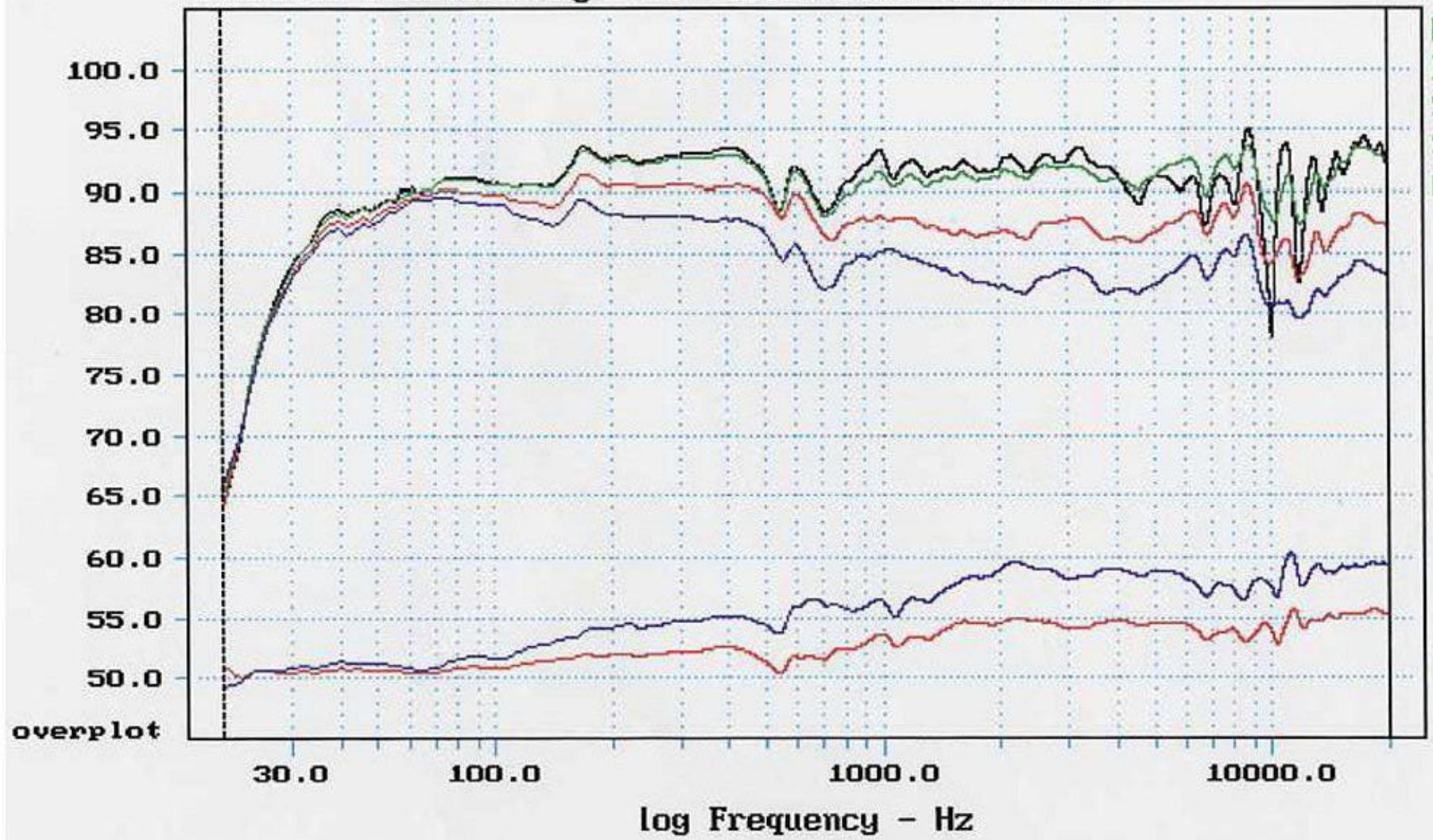
Voltage vs Freq



4338

M L S S A

File: C:\SNDPWR\DI_SND.FRQ 5-17-2004 2:44 PM (equalized)
Transfer Function Mag - dB VOLTS/volts (0.05 oct)



4338

4338
P/N 353151-001, 002

5/13/04
Rev. 3
G.T.

