Frequency Response Modeler

Version 3.0 12/1/2009 by Jeff Bagby

Minimum Phase Equalization Modules: Enter Fc, Gain, and Q

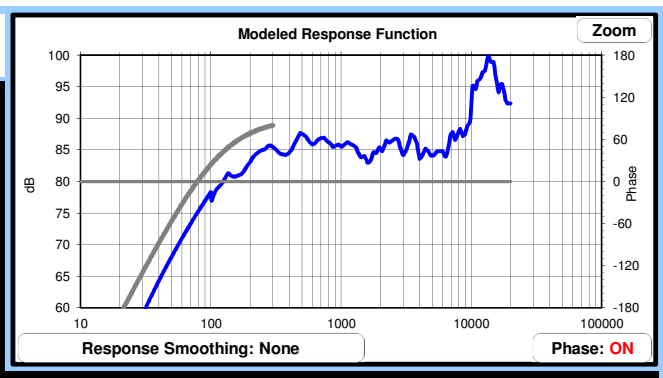
Module#	#1	#2	#3	#4	#5
Fc	100 Hz	500 Hz	2,000 Hz	5,000 Hz	10,000 Hz
Gain (dB)	0.0	0.0	0.0	0.0	0.0
Q	1	1	1	1	1

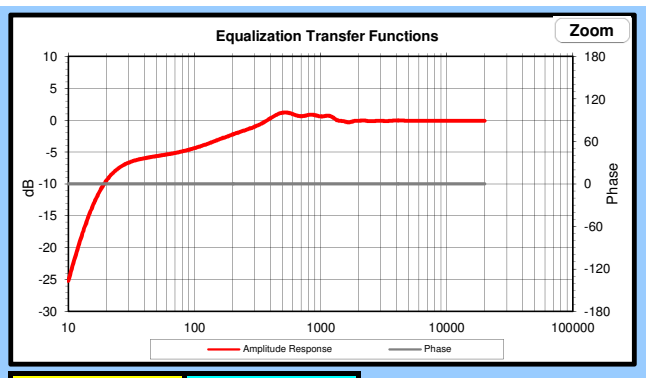
User Adjustable:

dB Level	Delay
0.0 dB	0.000 mS

Baffle Step: Simple Step or from Below

Width (in)	% Step	Step (dB)
10.00 in	40%	.00 dB





Box Plot Splicing: Overlay Plot, Adjust Level, Then Splice

Overlay Box Plot: 90.0 dB | Splice Box Plot 100Hz | 200Hz | 300Hz

Equalization Register Tools:

High Pass : Enter Value or "Spin" to Desired Coefficients or Select Response and Press "Load Coefficient Values" Button

Fc	C_0	C_1	C_2	C_3	C_4	Selected Textbook Response
30 Hz	1.000	0.0000	0.0000	0.0000	0.1000	No High Pass

Low Pass : Enter Value or "Spin" to Desired Coefficients or Select Response and Press "Load Coefficient Values" Button

Fc	C_0	C_1	C_2	C_3	C_4	Selected Textbook Response
500 Hz	1.000	0.0000	0.0000	0.0000	0.0000	No Low Pass

Adjustable Frequency Response Extension:

Select Fc and Slope
40 Hz High Pass
0.0 dB/Oct Slope
4,000 Hz Low Pass
0.0 dB/Oct Slope

FRD Data File Options

EQ Response File Options

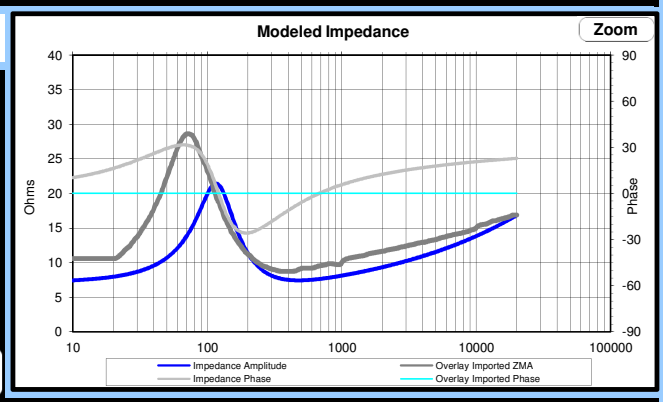
Impedance Model

Minimum Phase Equalization Modules: Enter Fc, Gain, and Q

Module#	#1	#2	#3	#4	#5
Fz	120 Hz	375 Hz	1,500 Hz	2,500 Hz	11,791 Hz
Ohms	0.0	0.0	0.0	0.0	0.0
Q	1	0.3	0.3	0.3	1

Driver Voice Coil Impedance Parameters

Re	Le	Le Coeff.	Le Expon.	Rs
6.80 Ohm	0.43 mH	50.00	0.347	0.00 Ohm



Hilbert-Bode FFT Transform

Minimum Phase Extraction From External FRD and ZMA File

Percent Completed:

Special Thanks to Paul Verdone

Impedance Mode: | Driver Wiring: | Selected Design:

Driver T/S Parameters

Fs	Qes	Qms	Vas
84.6 Hz	0.490	1.51	4.9 L

Box Parameters

Qb	Vab (L)	Fb
7	5.0 L	

ZMA Data File Options

Box Response Model

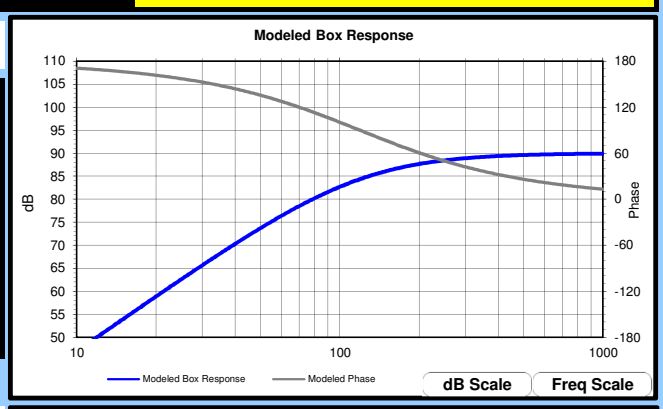
Calculated Box and System Parameters

Vab (L)	Vab (ft)	Qts'	Rs Loss	dB/2.83V/M	No %
5.0 L	0.18 ft	0.370	.00 dB	90.4 dB	0.58%

Alignment	h	Alpha	EBP	Fc	Qtc
7.52	0.97		173	118.8 Hz	0.52

Desired Qtc	Optimum Vab (L) and Fb	Dv	# of Vents	Lv
0.707	1.83 L			

To Splice Box Plot To Response Click Here



Baffle Diffraction Response Model

Baffle Dimensions

Width (in) 11.80 in

Height (in) 49.20 in

Speaker Position (From bottom left baffle corner)

X (in) 5.90 in

y (in) 34.25 in

Baffle Edge Geometry

Radius (in) 2.00 in

Speaker Directivity

Diameter (in) 3.35 in

Observation Point Settings

Distance 8.00 ft

96.0 (in)

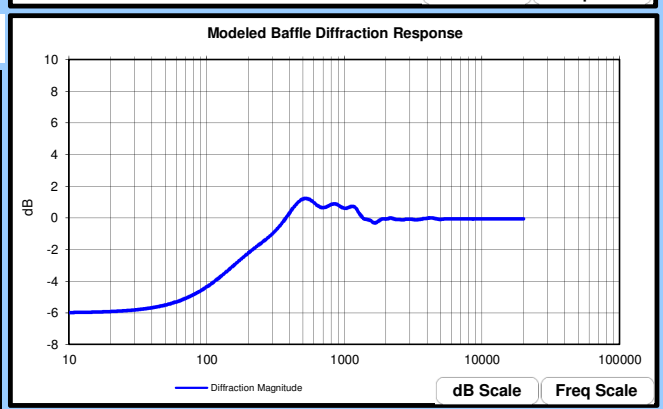
Vertical Axial Control

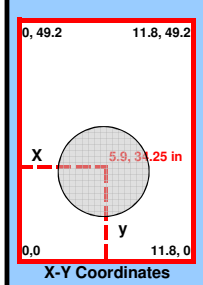
Off-Axis 0.0 deg

Horizontal Axial Control

Off-Axis 15.0 deg

25.7 (in) to the Right





X-Y Coordinates

Baffle Mode: Closed

Diffraction Modeled As: