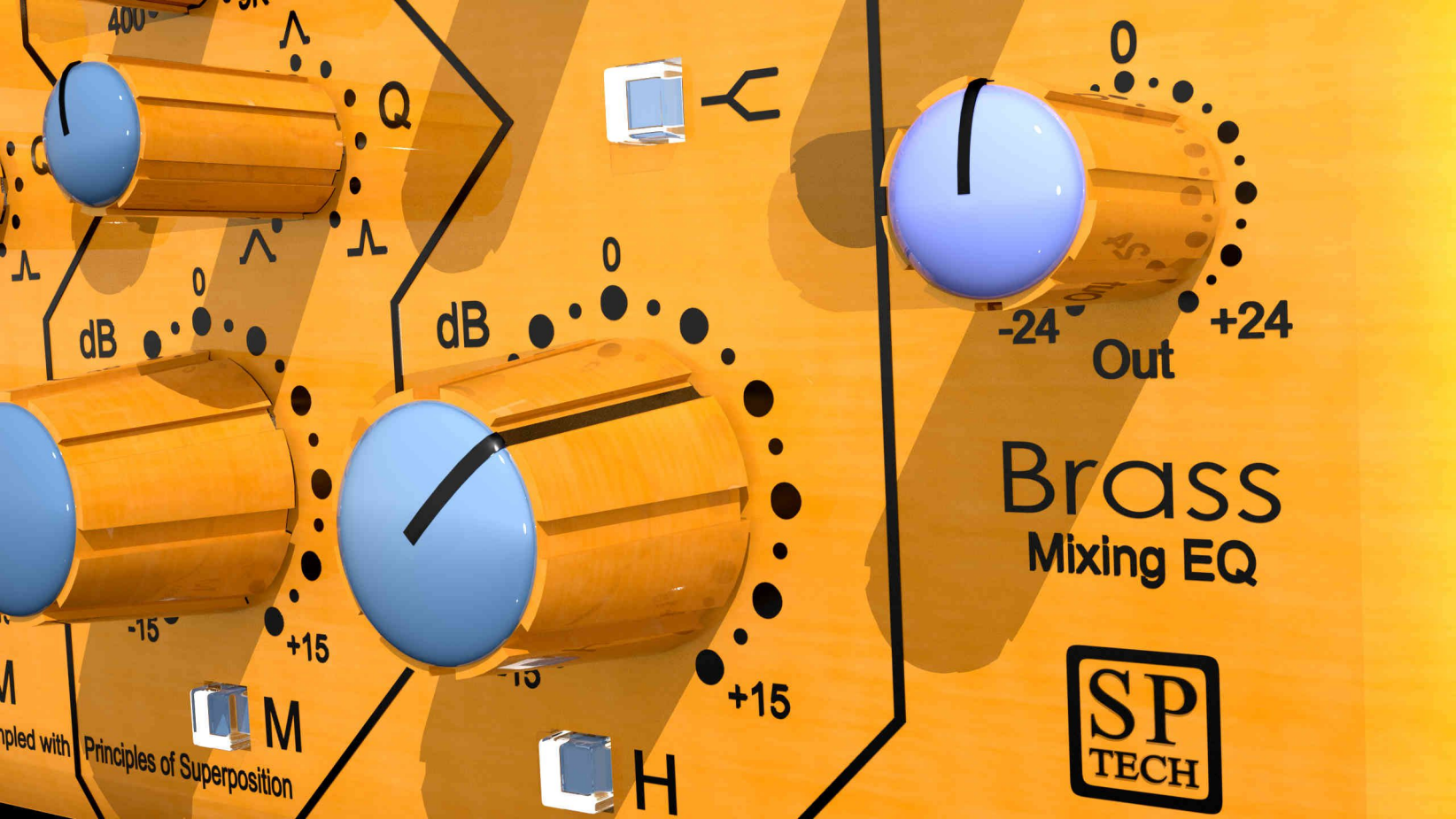

400
Q
0
dB
-15
+15
M
Principles of Superposition
0
dB
+15
H
0
-24
Out
+24
Brass
Mixing EQ
SP
TECH

DiBiQuadro

Brass

Mixing EQ

Version 1.0

Thanks for purchasing DiBiQuadro Brass. Please take your time to read carefully the content of this manual before using the plugin.

Overview

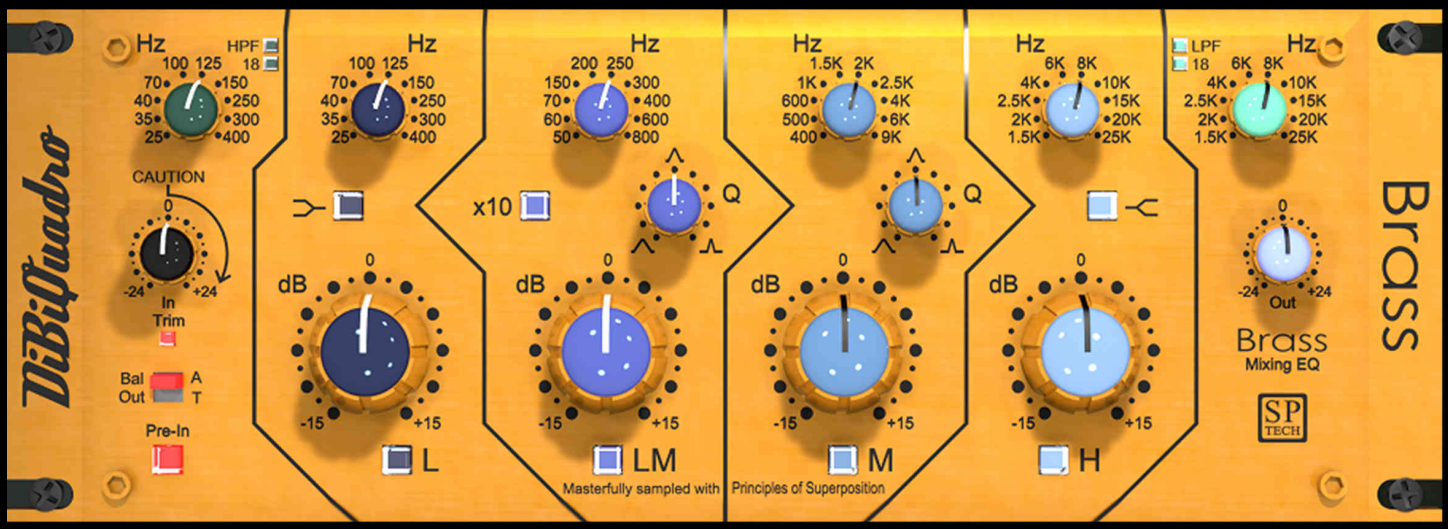
Brass is an extremely powerful mixing EQ for Nebula 4 / Nebula 4 Player delivering full bottom end, smooth midrange and beautiful top end. Middle bands provide bell shapes from surgical and narrow to wide and extensive. Low and high bands add wide bells and shelving curves for exceptional flexibility. Brass is a careful sampling of both active and transformer balanced outputs of a vintage reminiscent hardware unit acclaimed for its great musicality. Dual mode (12/18 dB/octave) High-Pass and Low-Pass filters complete the definitive arsenal of shaping tools.

Each band and preamp has been sampled without any converter / "calibration bias" phase distortion. This allows to overlap the effect of more bands without adding unwanted coloration, reaching a new level of match with hardware for unparalleled results, even compared to hardware itself. This methodology is named SP Tech.

Specifications

"Q" range on LM and M bands	0.5 to 3.8 (1.6 circa in the center)
"Q" on L and H bands (fixed)	1.0
EQ full range [dB]	±15 with 201 steps (±12 on shelves)
HPF [Hz]	25 to 400 with 46 steps – Dual mode 12/18 dB/octave switch selectable
LPF [Hz]	1.5K to 25K with 46 steps – Dual mode 12/18 dB/octave switch selectable
Low Frequency Band L [Hz] (stepped)	25, 35, 40, 70, 100, 125, 150, 250, 300, 400, shelf switch selectable
Low/Mid Frequency Band LM [Hz] (stepped)	50, 60, 70, 150, 200, 250, 300, 400, 600, 800, x10 switch selectable
Mid Frequency Band M [Hz] (stepped)	400, 500, 600, 1K, 1.5K, 2K, 2.5K, 4K, 6K, 9K
High Frequency Band H [Hz] (stepped)	1.5K, 2K, 2.5K, 4K, 6K, 8K, 10K, 15K, 20K, 25K shelf switch selectable
Preamplifier (switch selectable)	10 harmonics
In Trim range [dB]	±24
Balanced Output (switch selectable)	A – Active, T – Transformer
Out range [dB]	±24
Sample rates	Brass is designed to provide **the same sound quality** at each of the following sample rates: 44.1KHz, 48KHz, 88.2KHz, 96KHz
SP Tech	Implemented

User Interface



In Trim: when Pre-In is activated it adjusts the amount of harmonic distortion without affecting overall output level; hardware best match is achieved by keeping In Trim set to zero; avoid settings that may cause unwanted harmonic distortion or digital clipping.

CAUTION: be careful when setting In Trim higher than zero and driving this plugin with very hot sources: this may cause unpleasant loud digital clipping!

Out: it adjusts the overall output of the plugin.

Pre-In: it activates the preamplifier section, introducing harmonic content to the sound.

Bal Out: it selects the balanced output type; when set on A (Active) Brass shows a cleaner response, while T (Transformer) has a more pronounced character, particularly on the low end.

HPF: it activates the High-Pass filter; please note that, when Bal Out T is selected, the amount of harmonic distortion influences its action. In this case, decreasing the In Trim knob will make the HPF more effective; consider also switching to Bal Out A.

LPF: it activates the Low-Pass filter.

Slope buttons (18) for HPF and LPF: when deactivated, slope is set to 12 dB/octave, 18 dB/octave otherwise.

L, LM, M, H: buttons to active Low, Low/Mid, Mid and High bands respectively.

L Shelf: it switches from bell mode with fixed Q (1.0) to shelving mode on Low band.

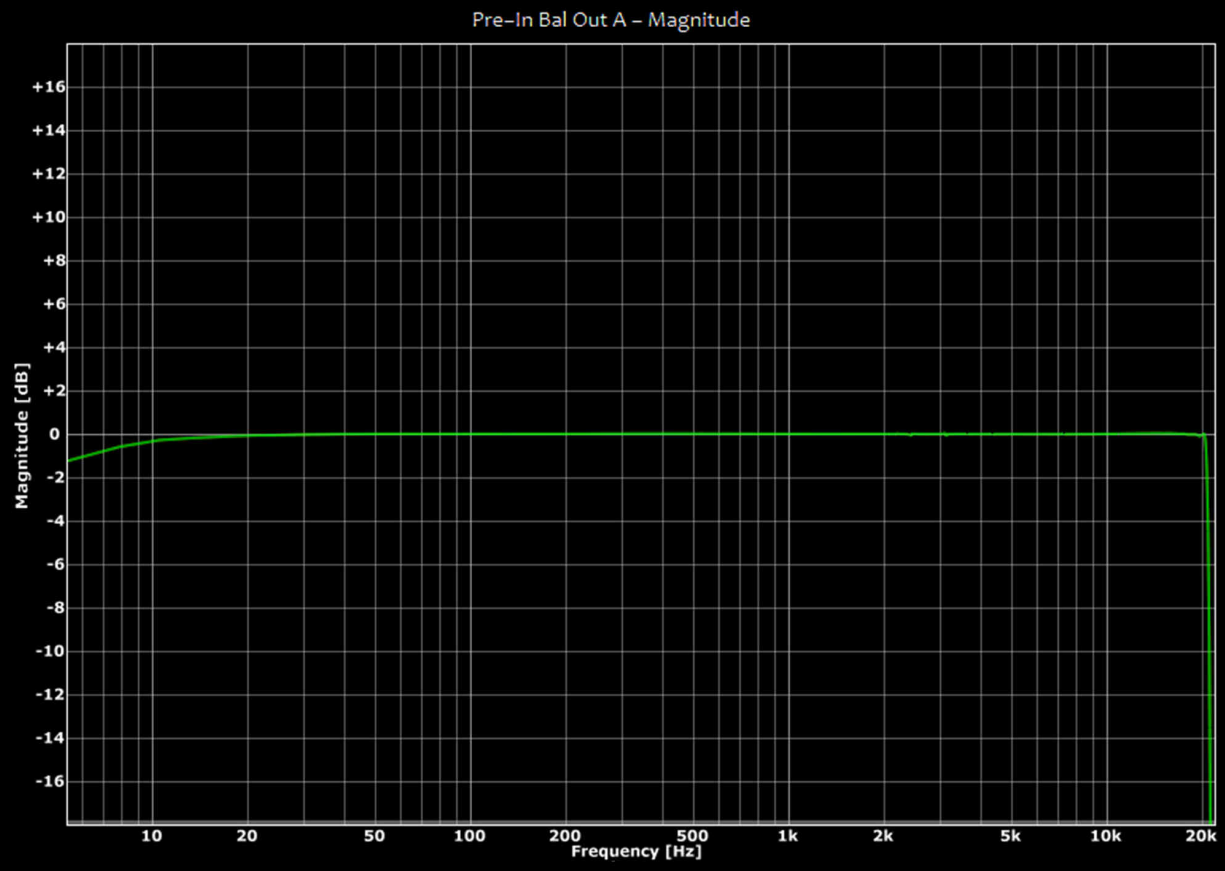
H Shelf: it switches from bell mode with fixed Q (1.0) to shelving mode on High band.

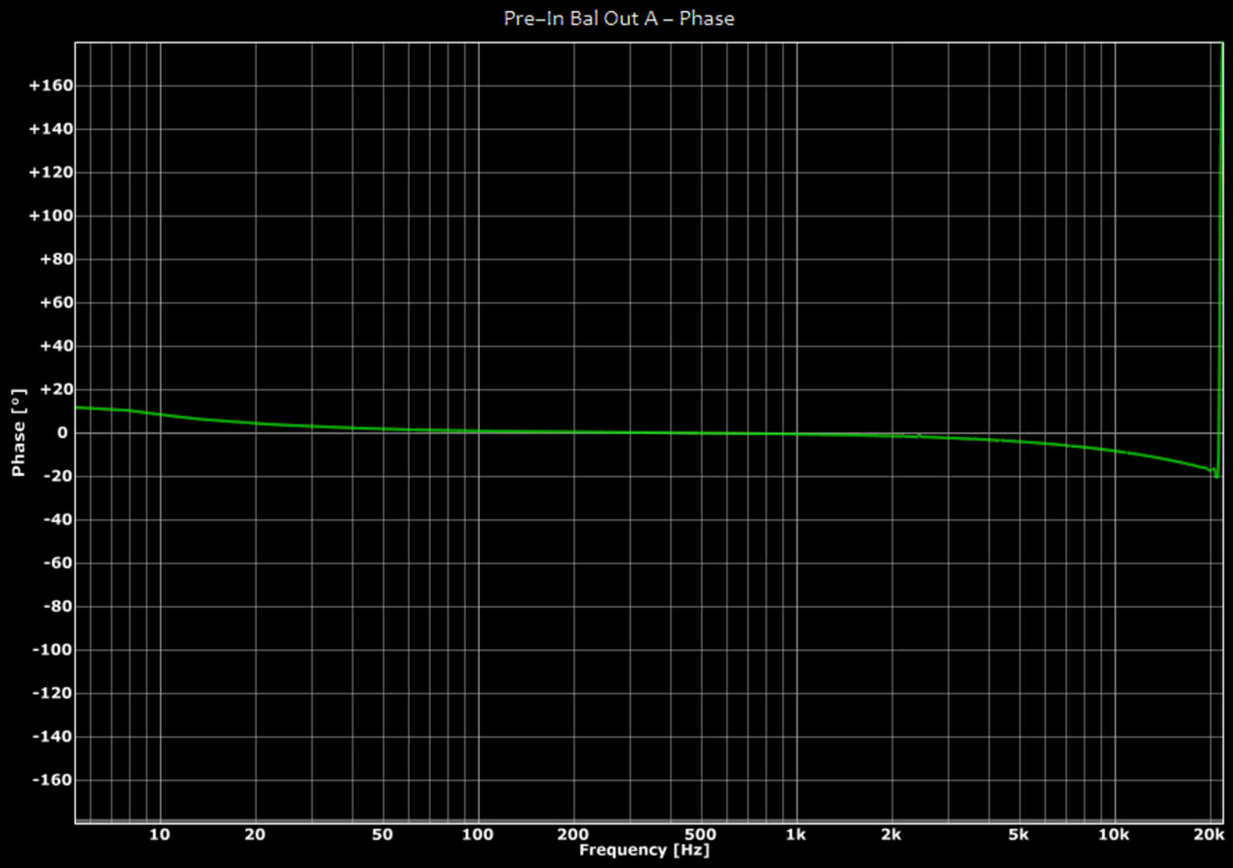
Gain: EQ boost/cut; "mouse scroll wheel" to select one of the 201 steps; SHIFT + "mouse scroll wheel" for ultra-precise adjustments.

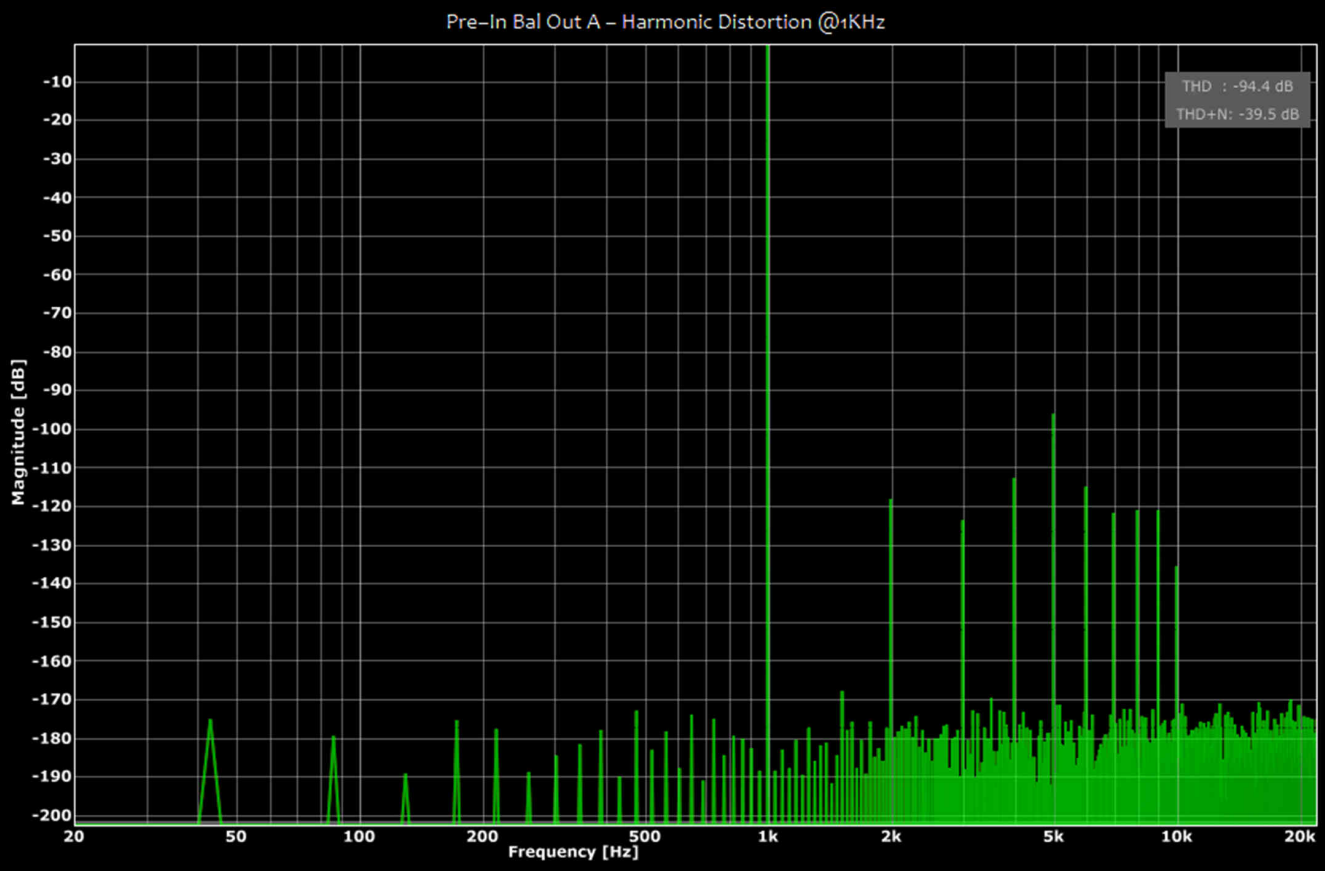
New Revisions - Backward Compatibility

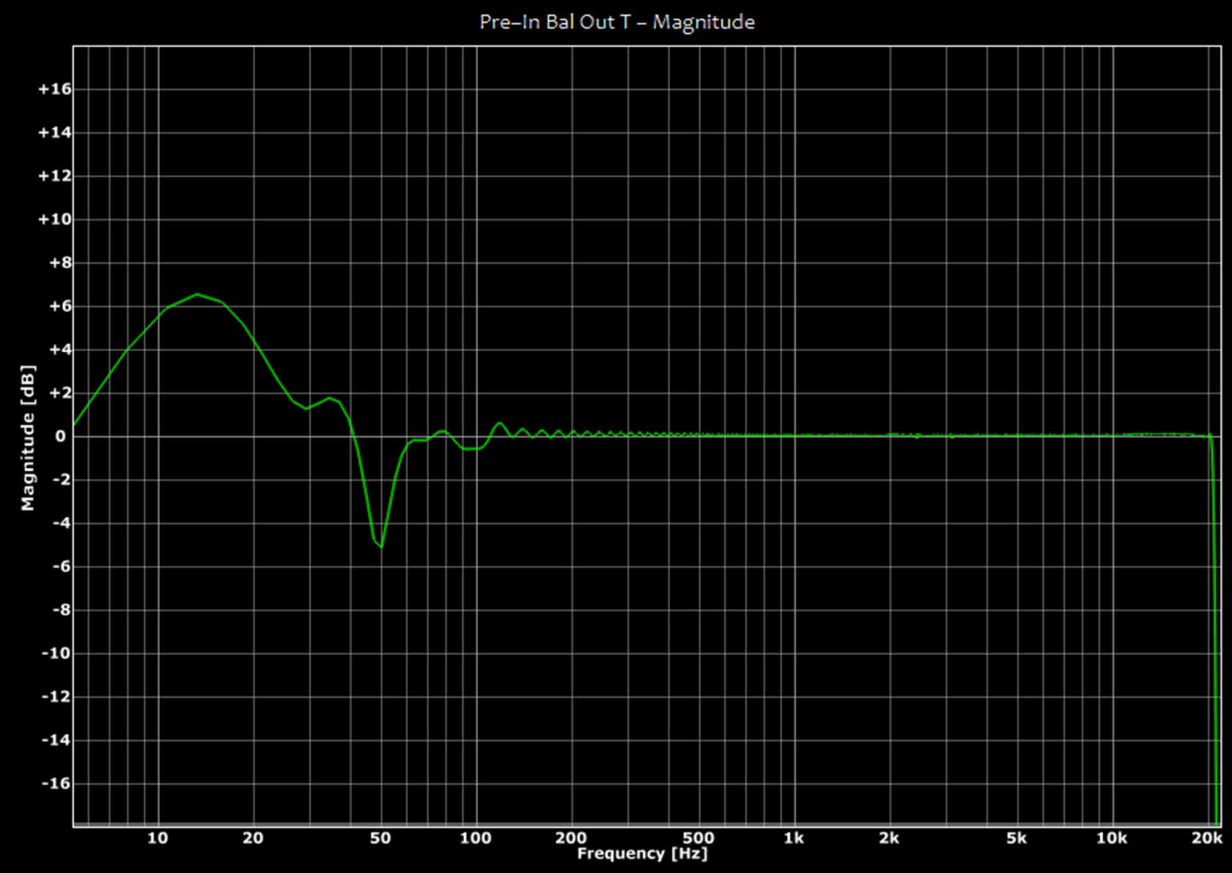
We cannot assure compatibility between new revisions and previous ones. Even presets are specific for a particular revision and not applicable to another. Anyway, before doing any upgrade we recommend making a copy of the settings by using Presets functionality on Nebula or a visual copy (e.g. Print Screen and save image file). In case of issues after upgrade it is possible to downgrade by selecting the desired revision on Aquarius and eventually restore old presets.

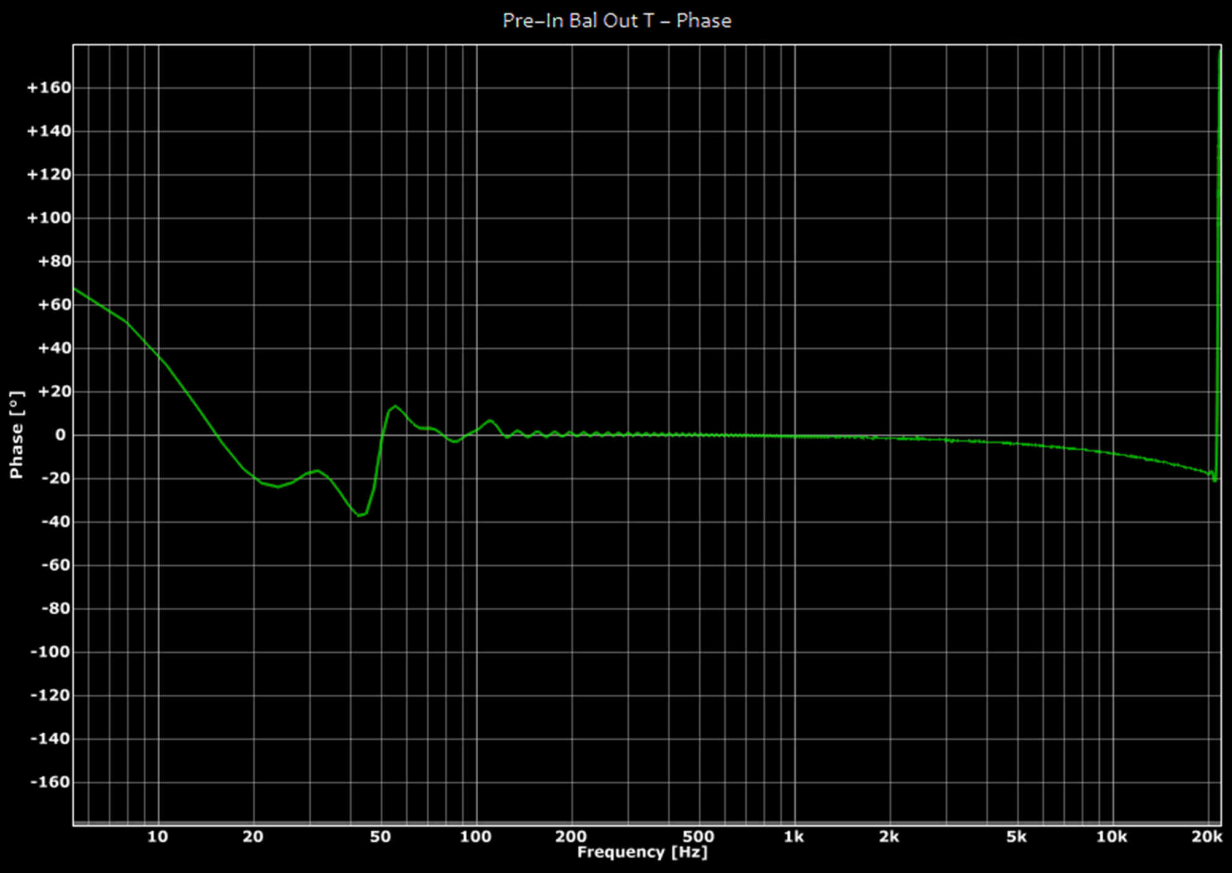
Frequency Responses @44.1 KHz

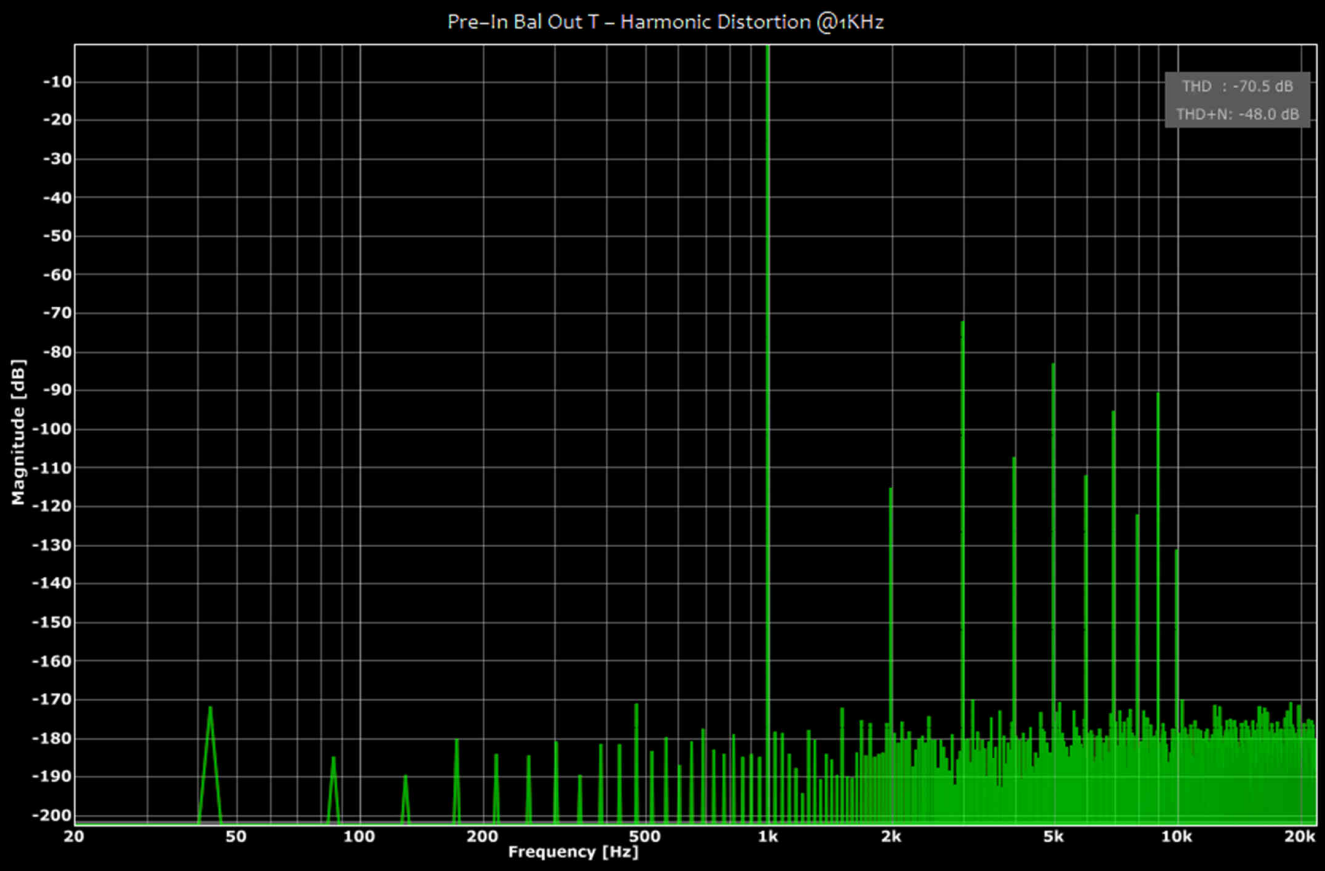


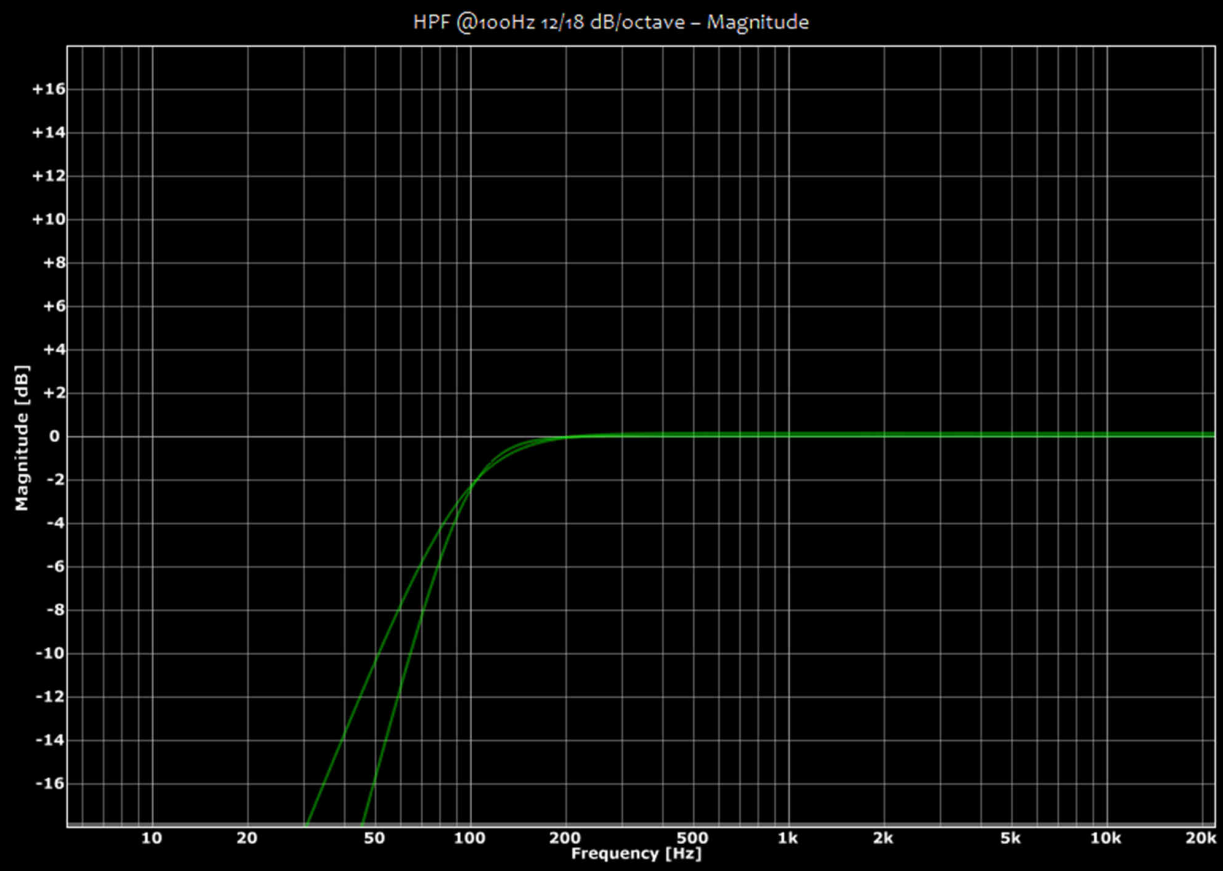


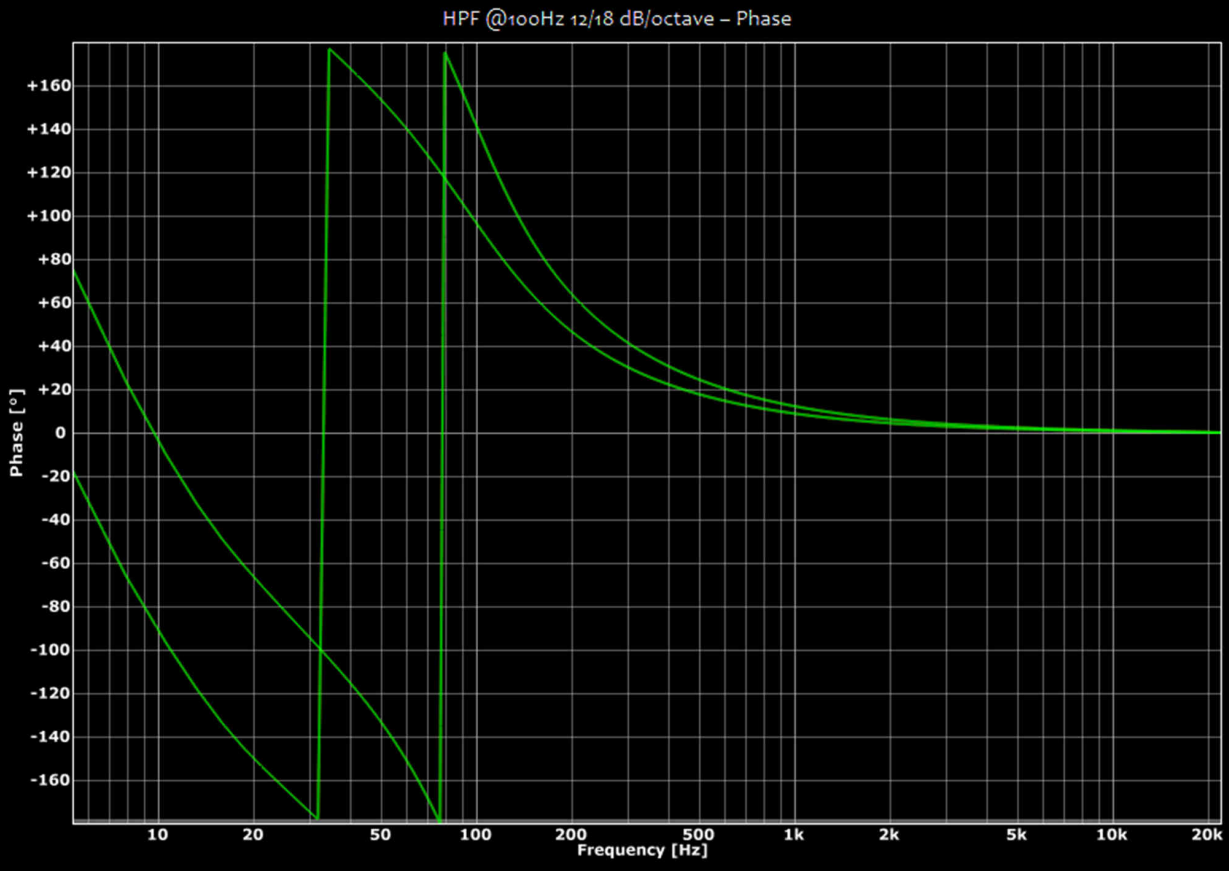

Pre–In Bal Out A – Harmonic Distortion @1KHz
THD : -94.4 dB
THD+N: -39.5 dB
Magnitude [dB]
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
-160
-170
-180
-190
-200
20
50
100
200
500
1k
2k
5k
10k
20k
Frequency [Hz]

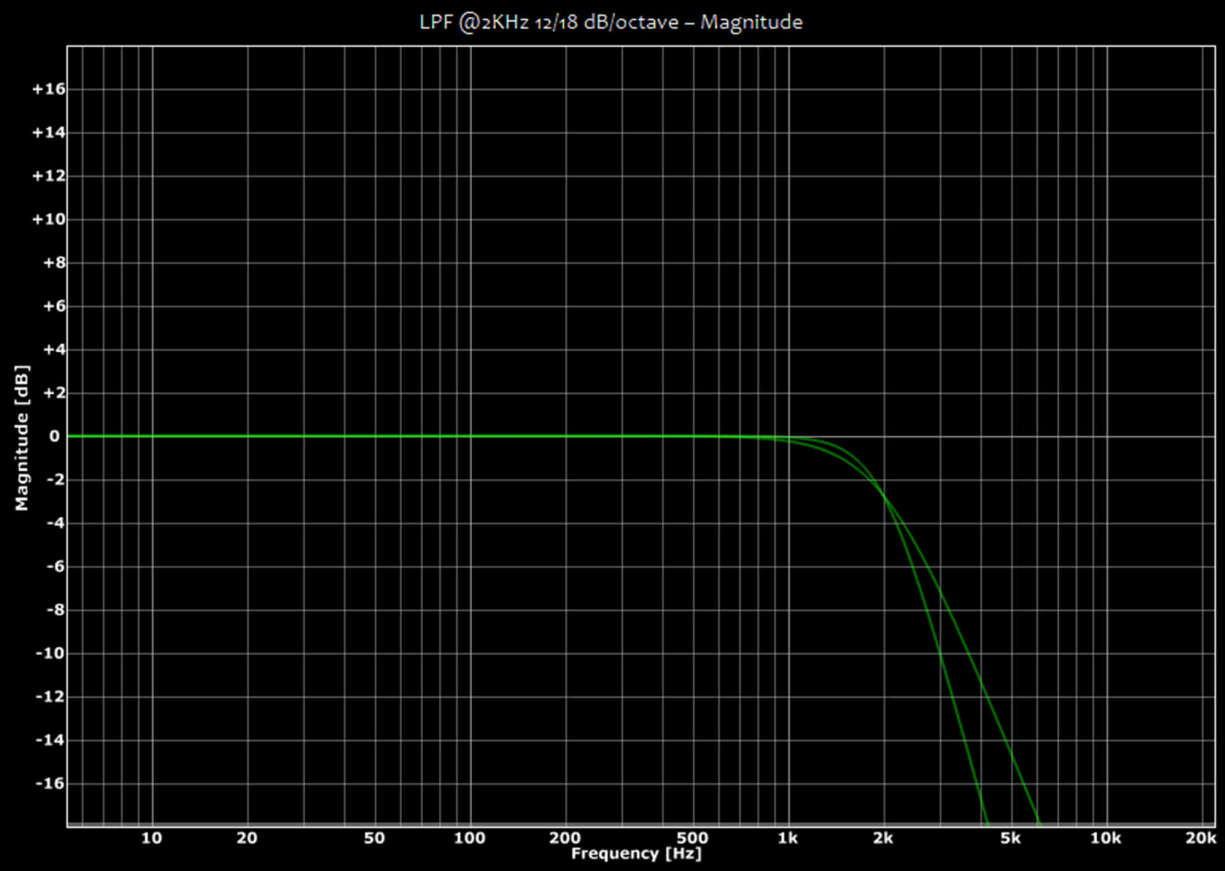

Pre–In Bal Out T – Magnitude
+16
+14
+12
+10
+8
+6
+4
+2
0
-2
-4
-6
-8
-10
-12
-14
-16
Magnitude [dB]
10
20
50
100
200
500
1k
2k
5k
10k
20k
Frequency [Hz]

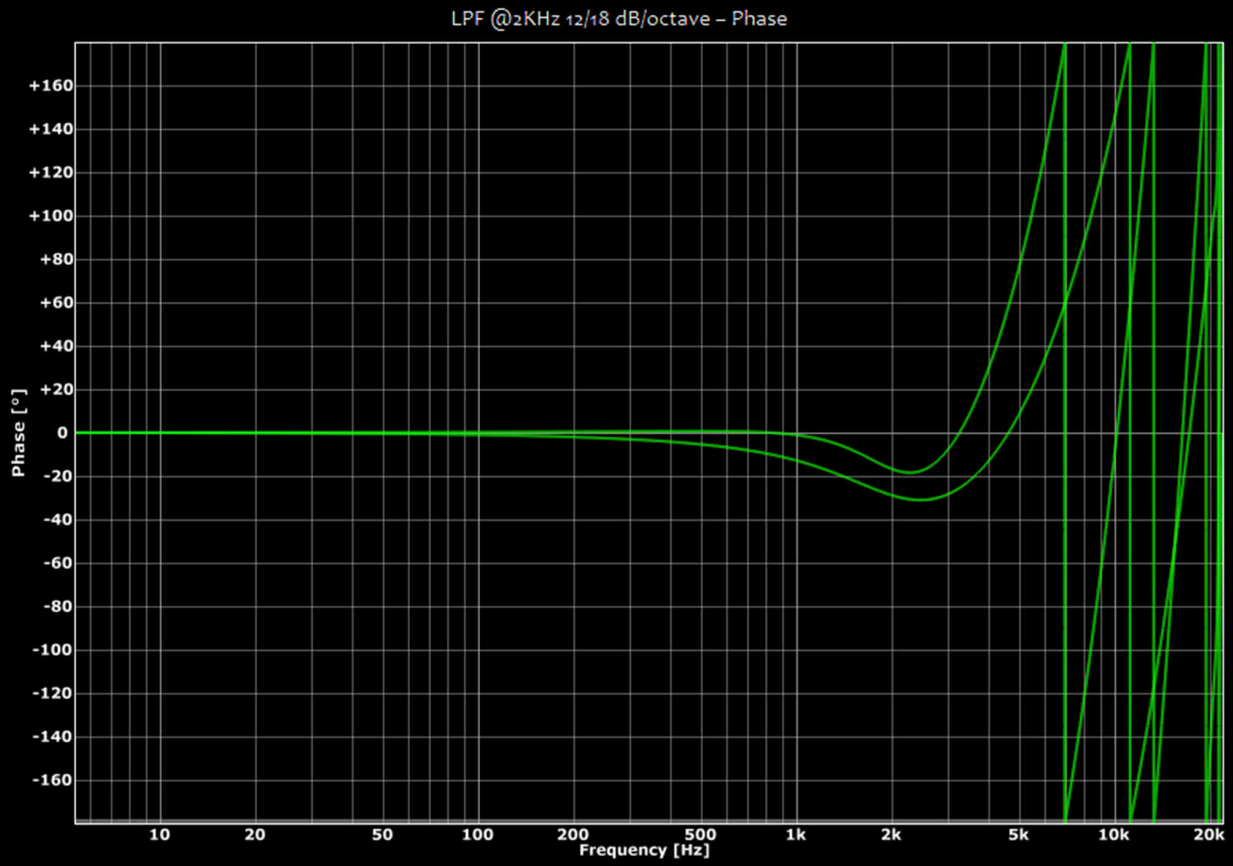

Pre–In Bal Out T – Phase
+160
+140
+120
+100
+80
+60
+40
+20
0
-20
-40
-60
-80
-100
-120
-140
-160
Phase [°]
10
20
50
100
200
500
1k
2k
5k
10k
20k
Frequency [Hz]

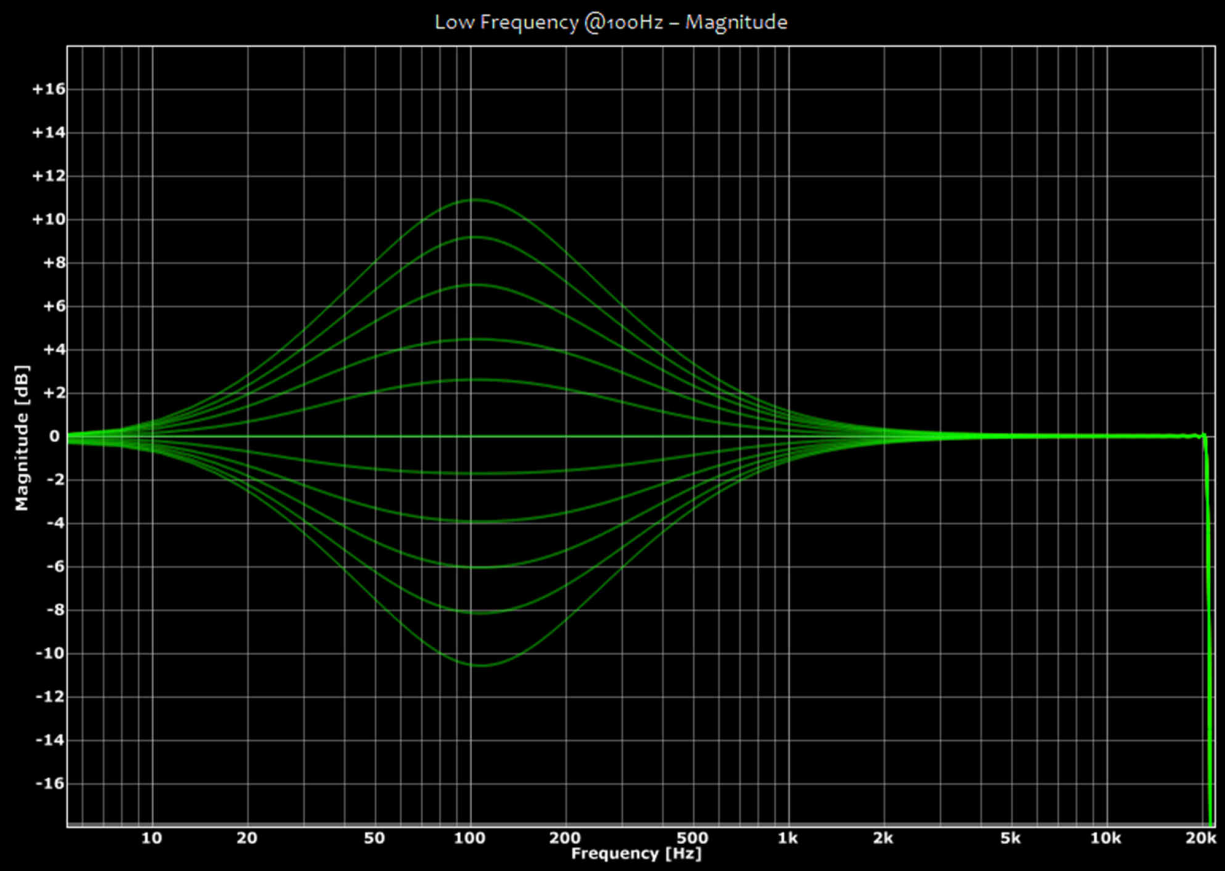

Pre-In Bal Out T – Harmonic Distortion @1KHz
THD : -70.5 dB
THD+N: -48.0 dB
Magnitude [dB]
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
-160
-170
-180
-190
-200
20
50
100
200
500
1k
2k
5k
10k
20k
Frequency [Hz]

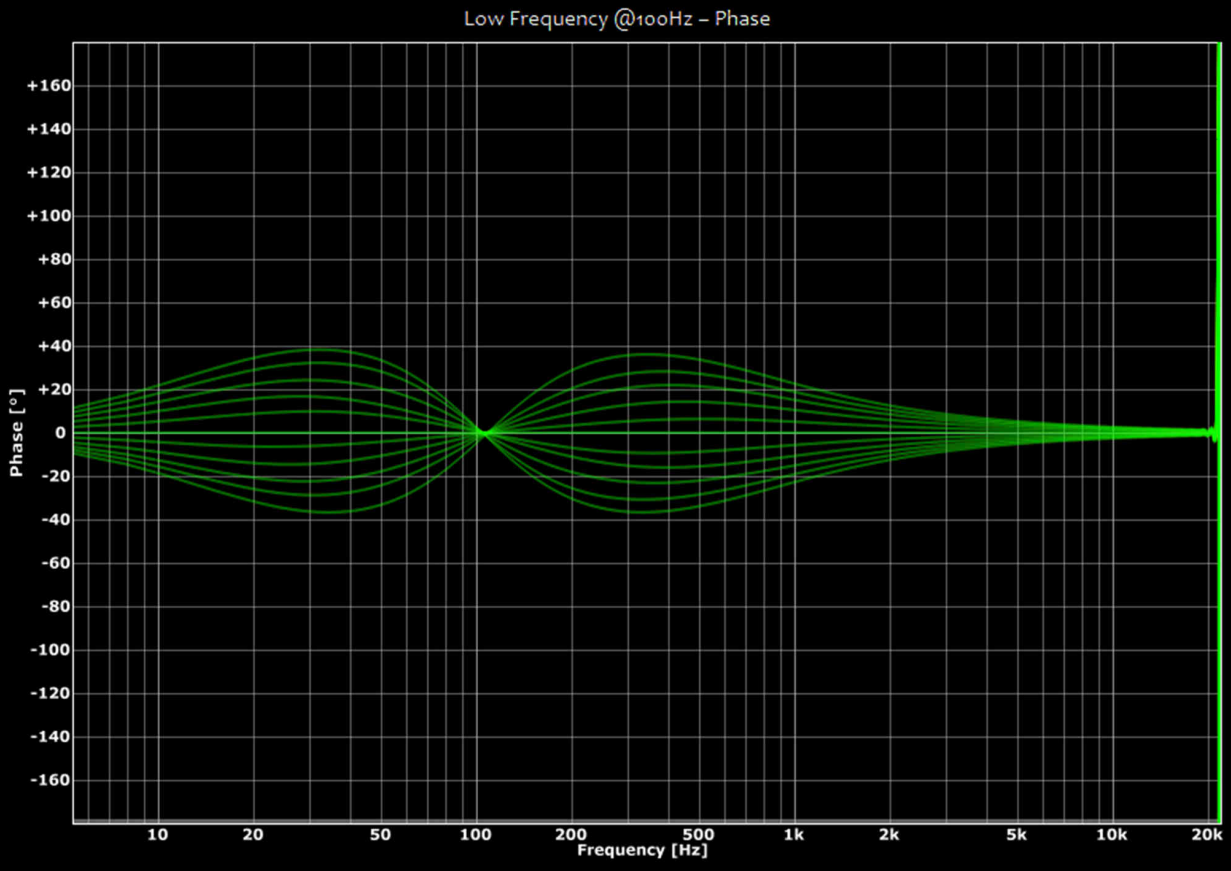

HPF @100Hz 12/18 dB/octave – Magnitude
Magnitude [dB]
+16
+14
+12
+10
+8
+6
+4
+2
0
-2
-4
-6
-8
-10
-12
-14
-16
10
20
50
100
200
500
1k
2k
5k
10k
20k
Frequency [Hz]

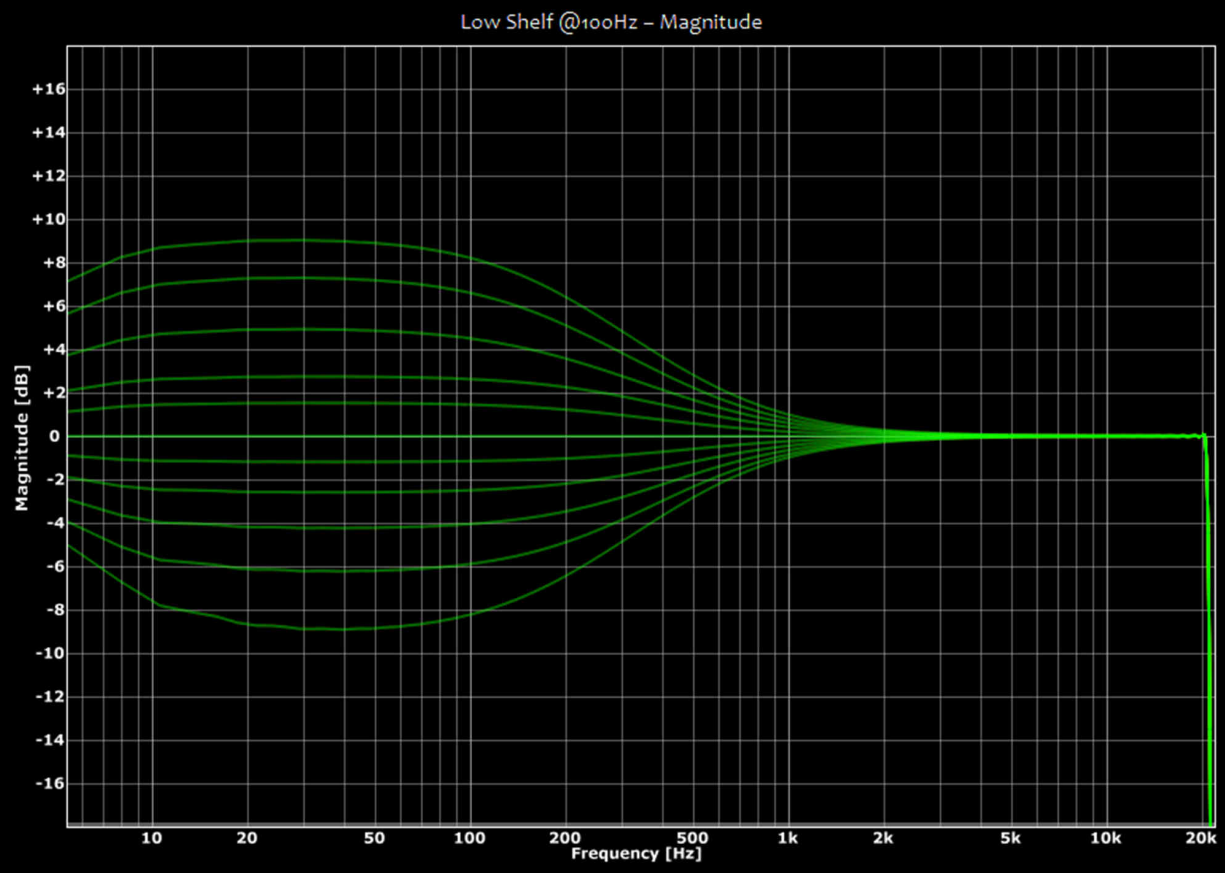

HPF @100Hz 12/18 dB/octave – Phase
Phase [°]
+160
+140
+120
+100
+80
+60
+40
+20
0
-20
-40
-60
-80
-100
-120
-140
-160
10
20
50
100
200
500
1k
2k
5k
10k
20k
Frequency [Hz]

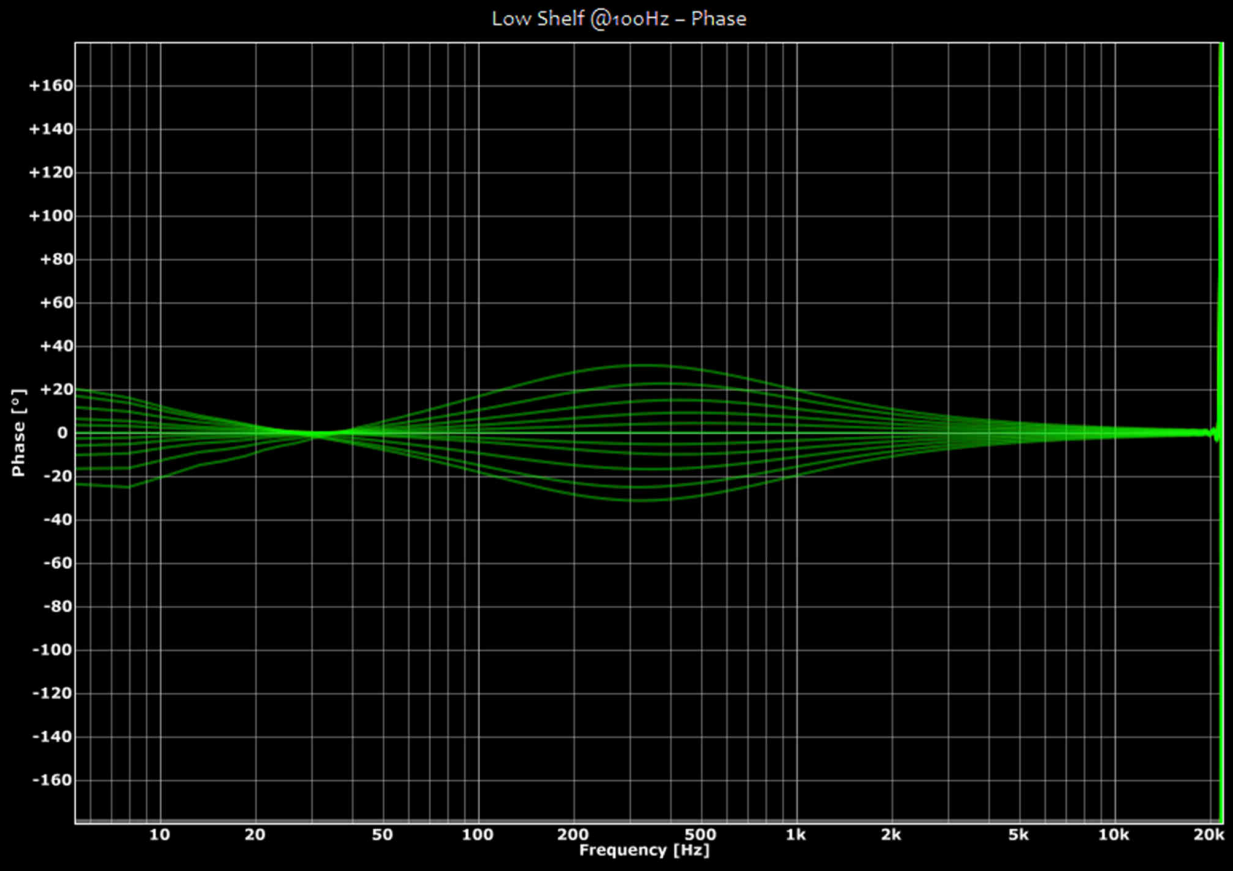

LPF @2KHz 12/18 dB/octave – Magnitude
Magnitude [dB]
+16
+14
+12
+10
+8
+6
+4
+2
0
-2
-4
-6
-8
-10
-12
-14
-16
10
20
50
100
200
500
1k
2k
5k
10k
20k
Frequency [Hz]

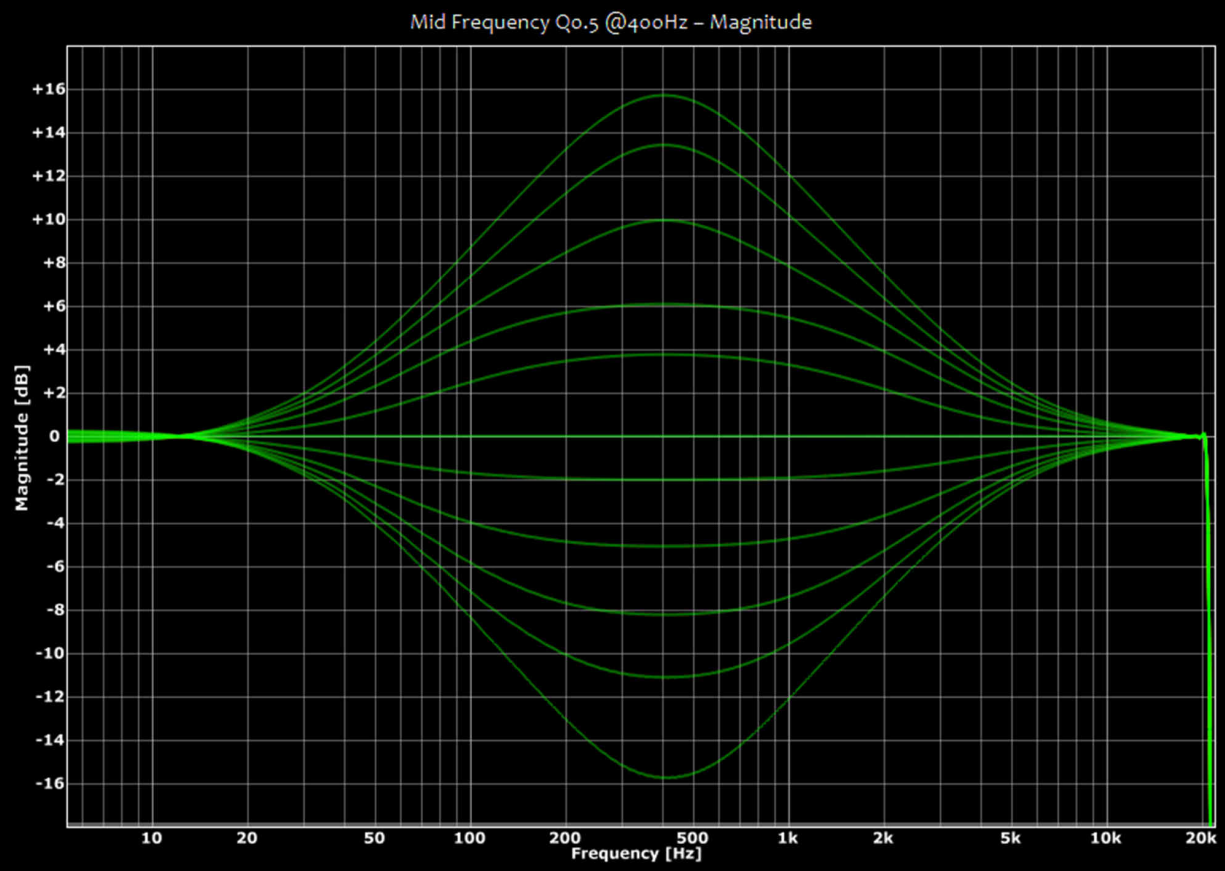

LPF @2KHz 12/18 dB/octave – Phase
Phase [°]
+160
+140
+120
+100
+80
+60
+40
+20
0
-20
-40
-60
-80
-100
-120
-140
-160
10
20
50
100
200
500
1k
2k
5k
10k
20k
Frequency [Hz]

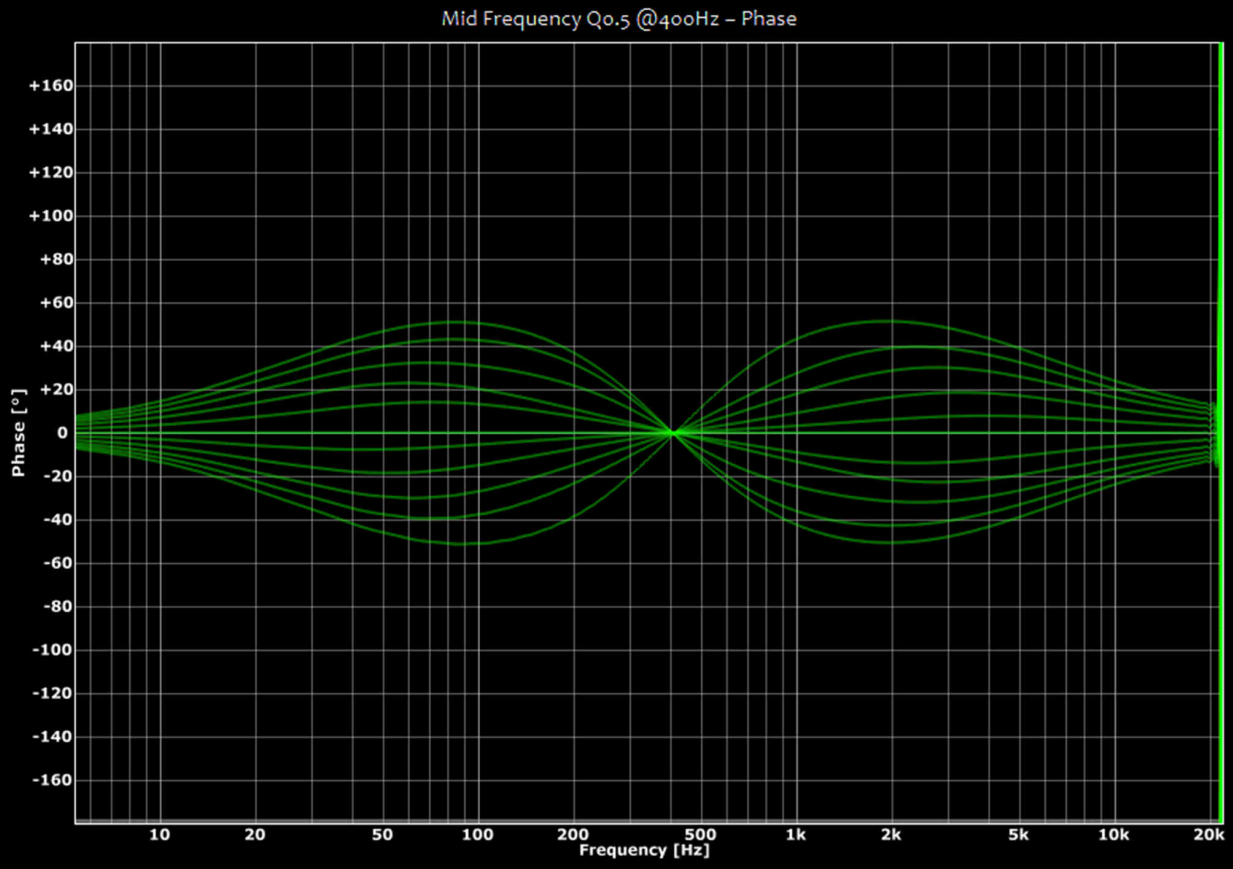

Low Frequency @100Hz – Magnitude
+16
+14
+12
+10
+8
+6
+4
+2
0
-2
-4
-6
-8
-10
-12
-14
-16
Magnitude [dB]
10
20
50
100
200
500
1k
2k
5k
10k
20k
Frequency [Hz]

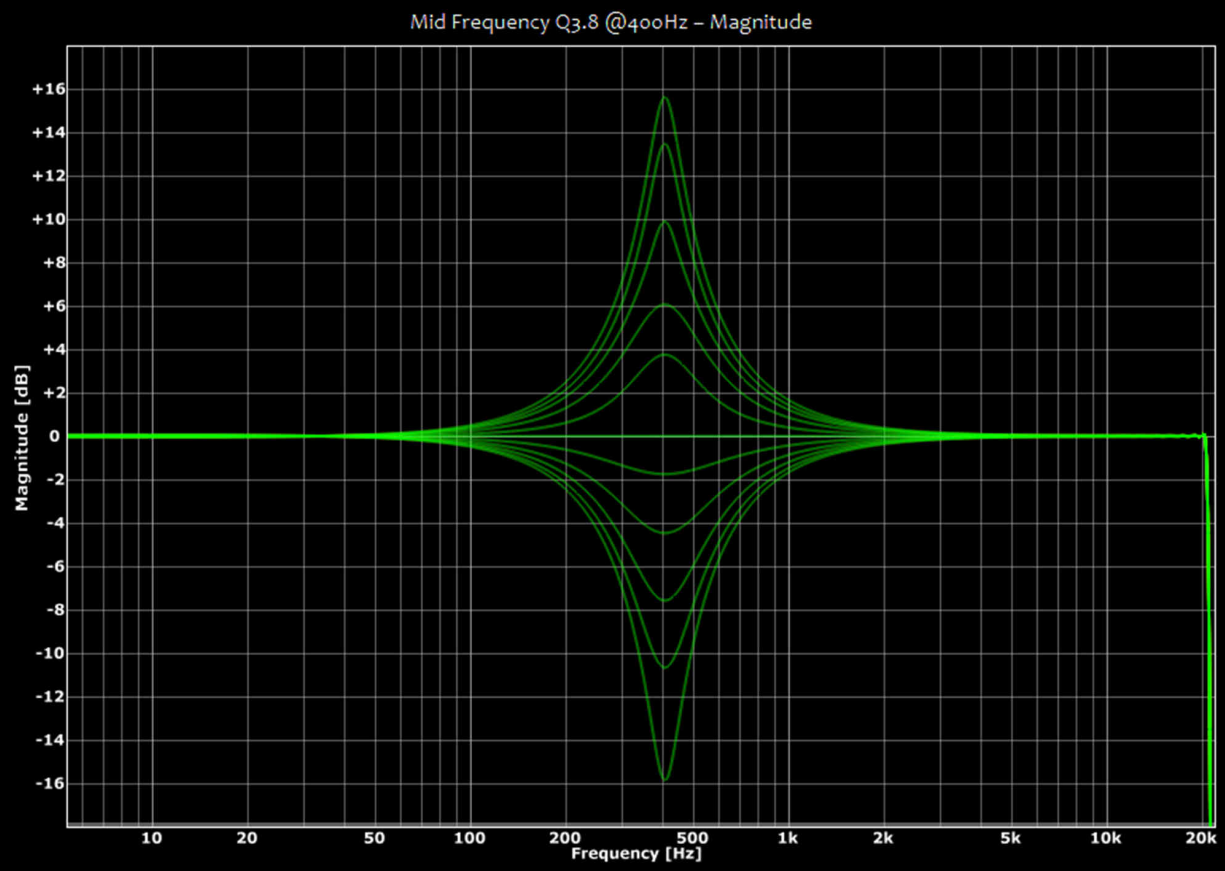

Low Frequency @100Hz – Phase
+160
+140
+120
+100
+80
+60
+40
+20
0
-20
-40
-60
-80
-100
-120
-140
-160
Phase [°]
10
20
50
100
200
500
1k
2k
5k
10k
20k
Frequency [Hz]

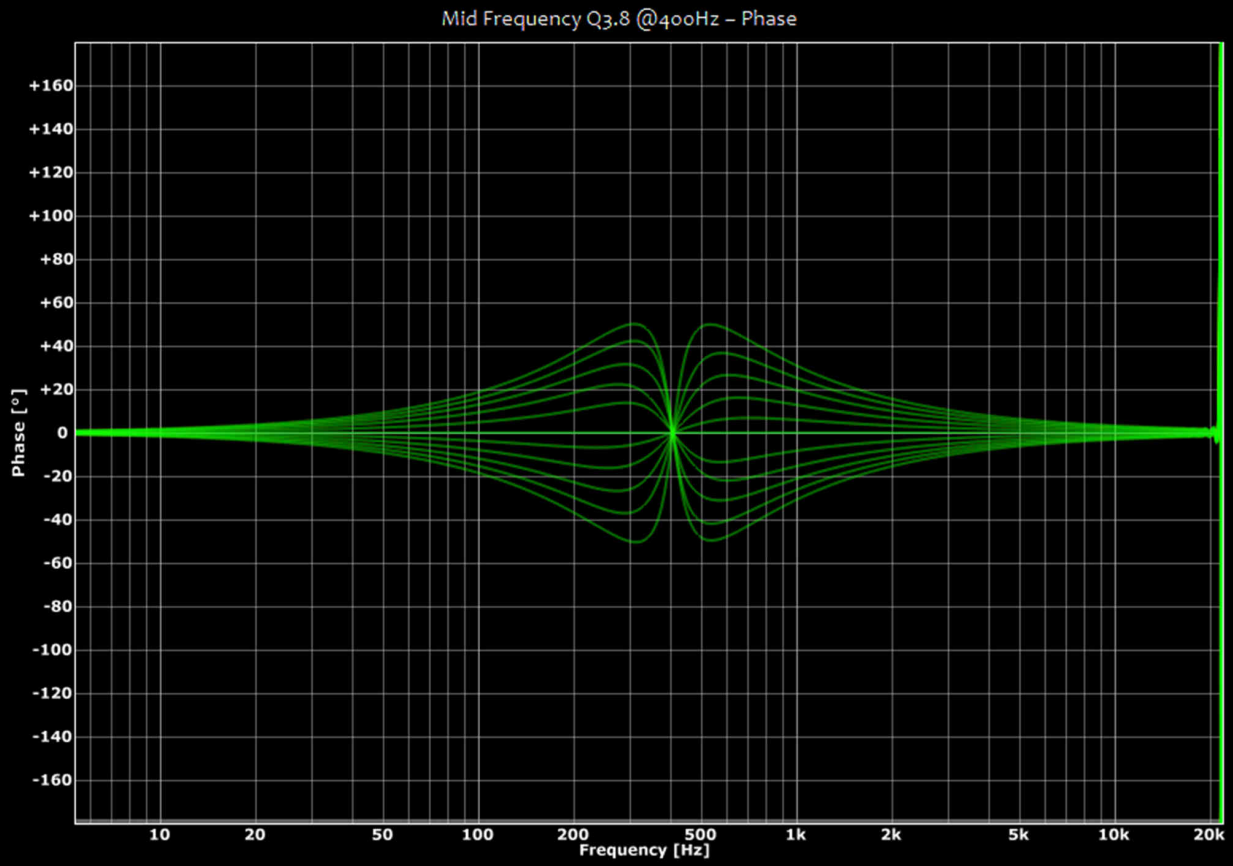

Low Shelf @100Hz – Magnitude
+16
+14
+12
+10
+8
+6
+4
+2
0
-2
-4
-6
-8
-10
-12
-14
-16
Magnitude [dB]
10
20
50
100
200
500
1k
2k
5k
10k
20k
Frequency [Hz]

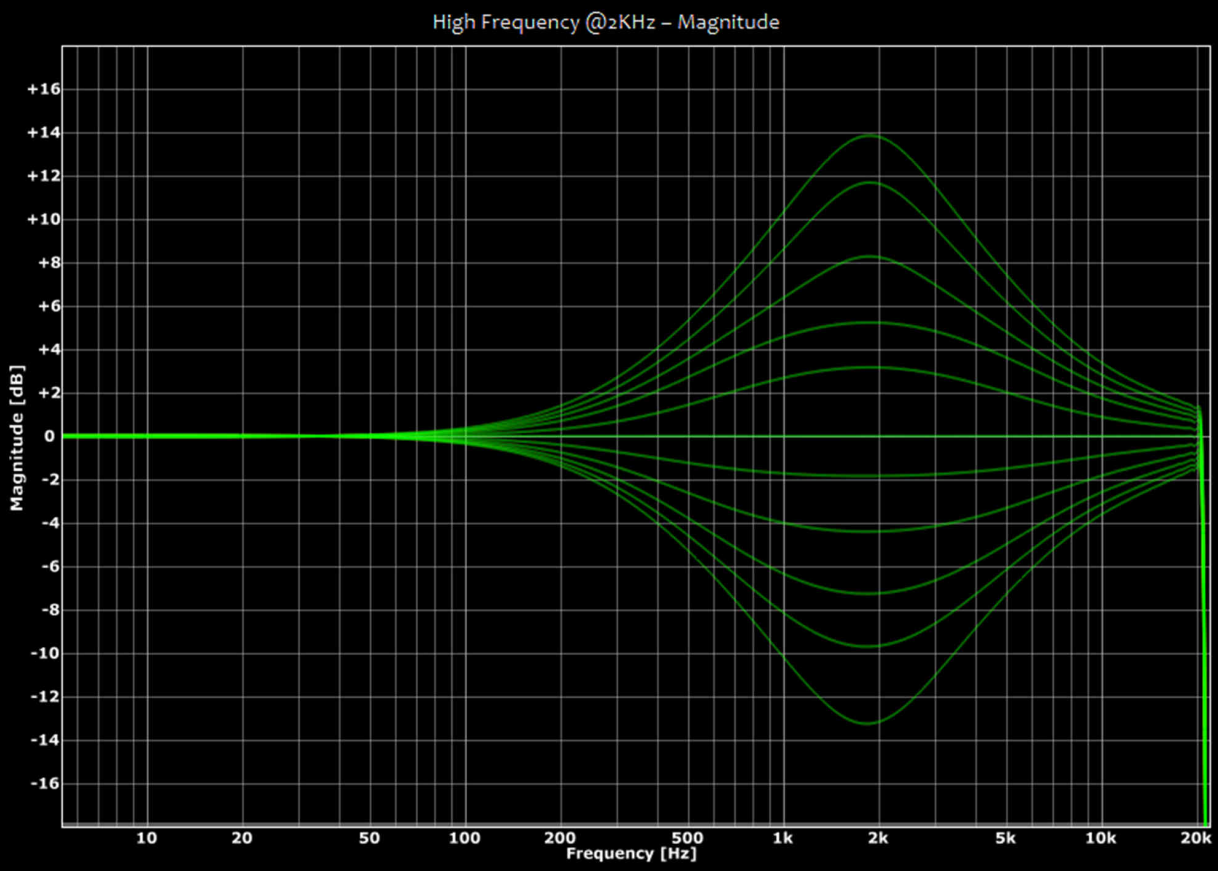

Low Shelf @100Hz – Phase
+160
+140
+120
+100
+80
+60
+40
+20
0
-20
-40
-60
-80
-100
-120
-140
-160
Phase [°]
10
20
50
100
200
500
1k
2k
5k
10k
20k
Frequency [Hz]

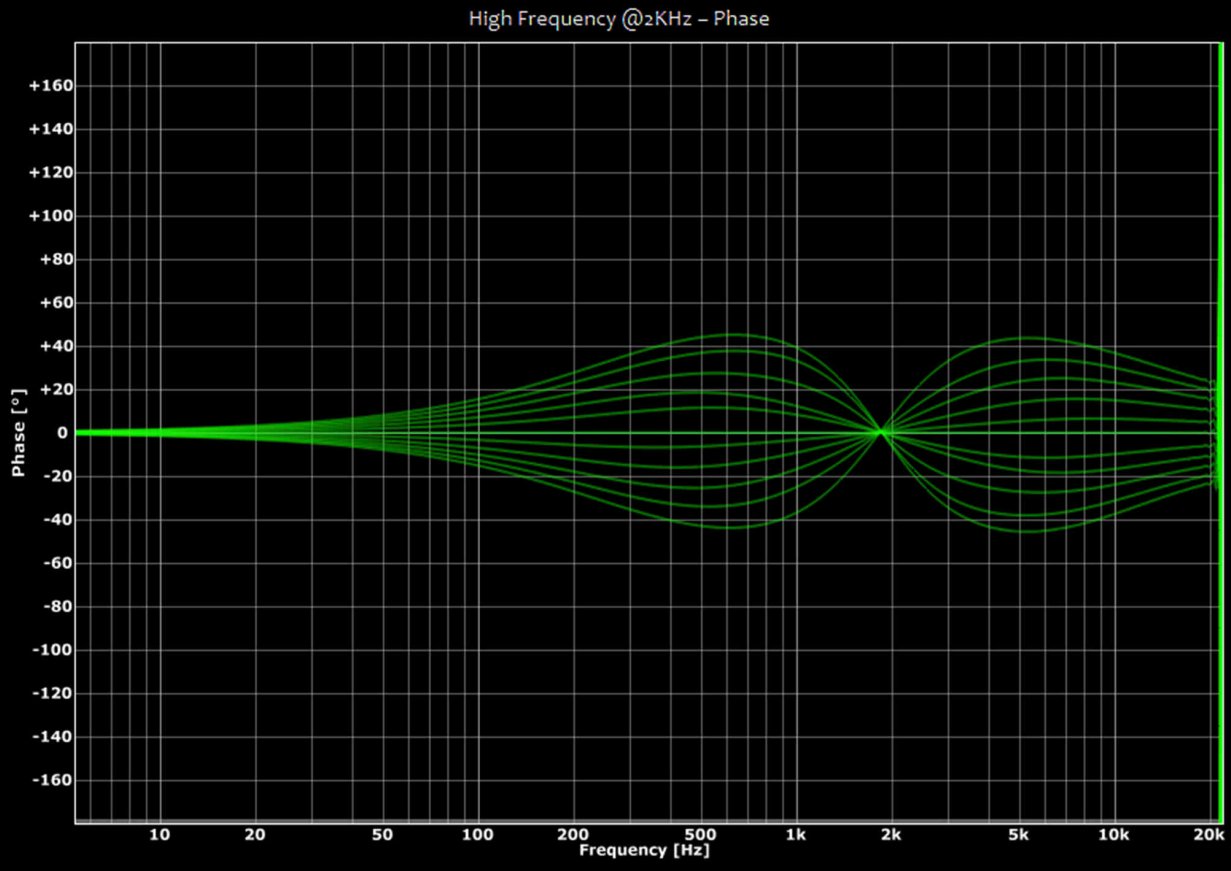

Mid Frequency Q0.5 @400Hz – Magnitude
+16
+14
+12
+10
+8
+6
+4
+2
0
-2
-4
-6
-8
-10
-12
-14
-16
Magnitude [dB]
10
20
50
100
200
500
1k
2k
5k
10k
20k
Frequency [Hz]

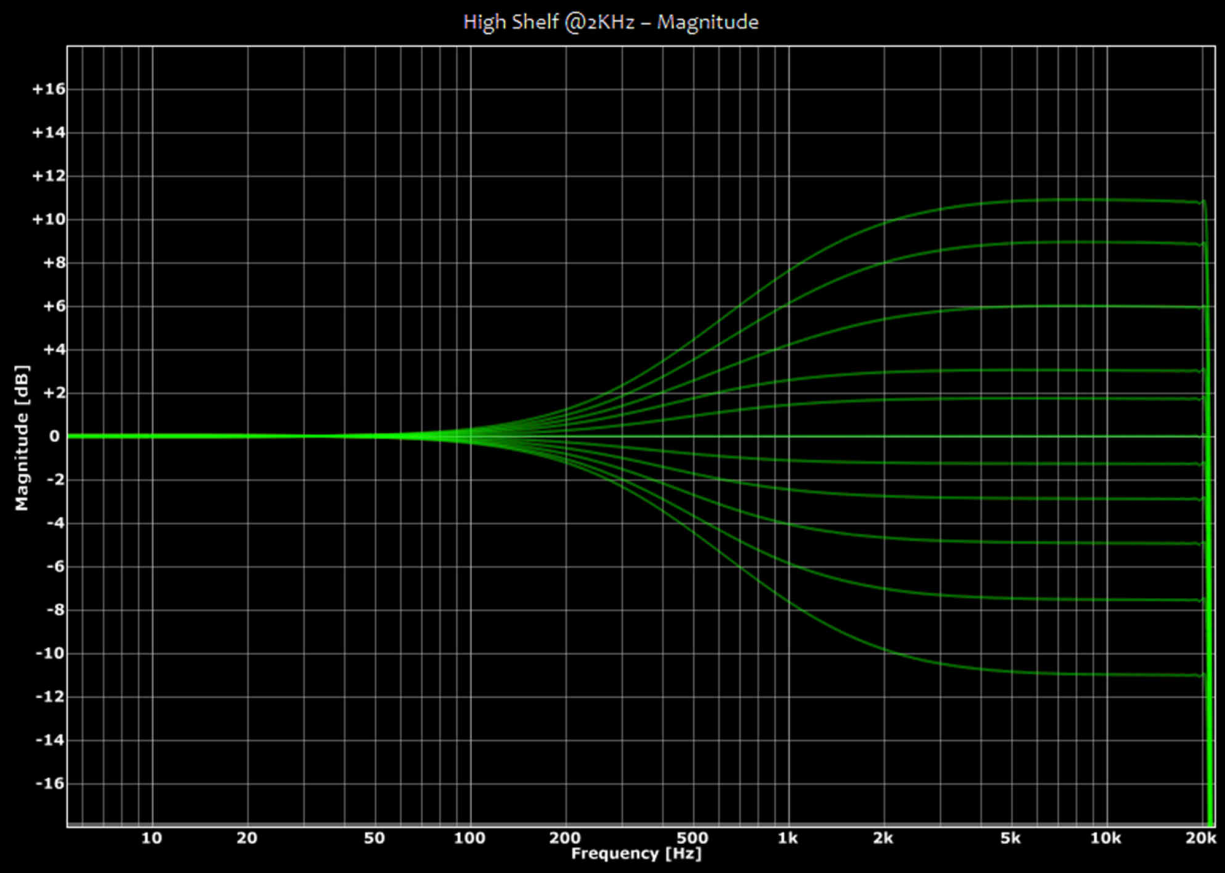

Mid Frequency Q0.5 @400Hz – Phase
+160
+140
+120
+100
+80
+60
+40
+20
0
-20
-40
-60
-80
-100
-120
-140
-160
Phase [°]
10
20
50
100
200
500
1k
2k
5k
10k
20k
Frequency [Hz]

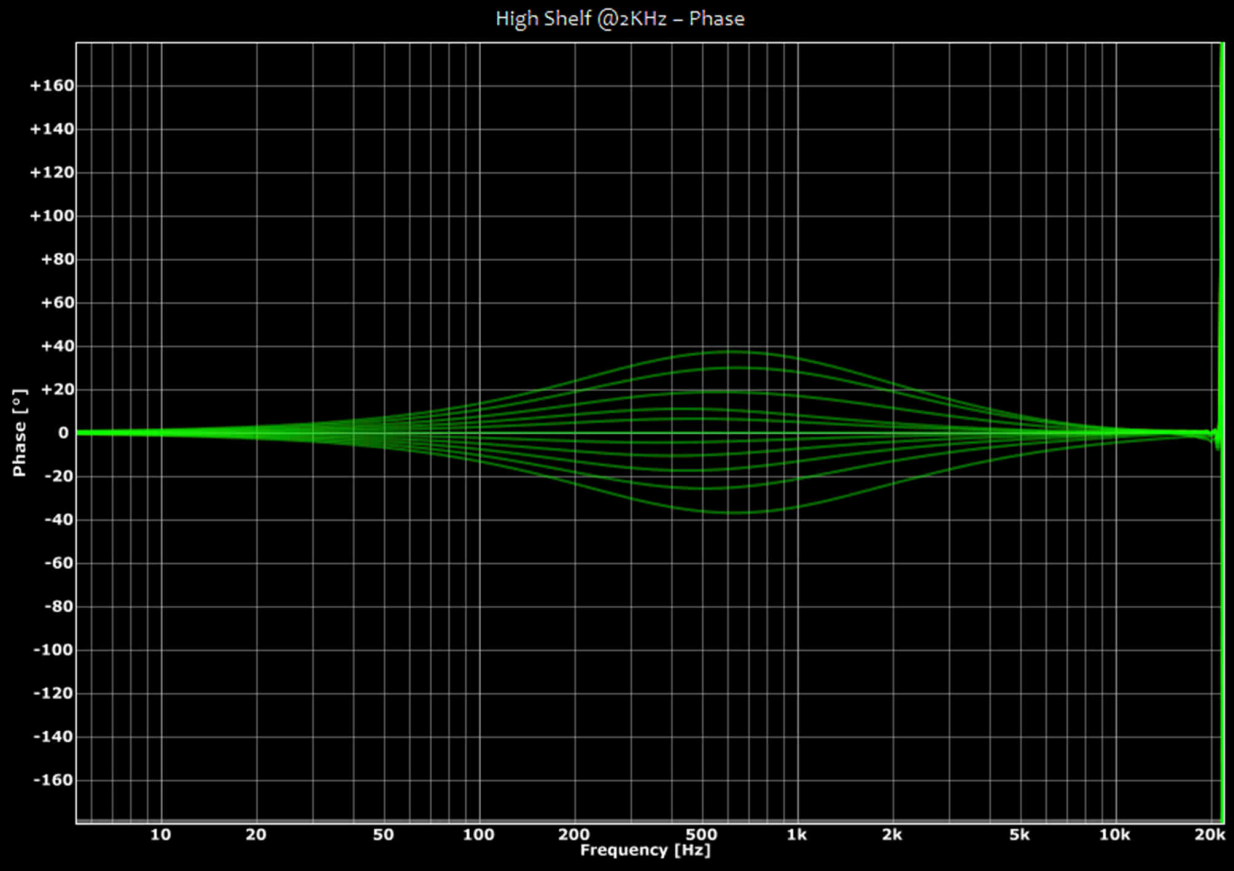

Mid Frequency Q3.8 @400Hz – Magnitude
+16
+14
+12
+10
+8
+6
+4
+2
0
-2
-4
-6
-8
-10
-12
-14
-16
Magnitude [dB]
10
20
50
100
200
500
1k
2k
5k
10k
20k
Frequency [Hz]


Mid Frequency Q3.8 @400Hz – Phase
+160
+140
+120
+100
+80
+60
+40
+20
0
-20
-40
-60
-80
-100
-120
-140
-160
Phase [°]
10
20
50
100
200
500
1k
2k
5k
10k
20k
Frequency [Hz]

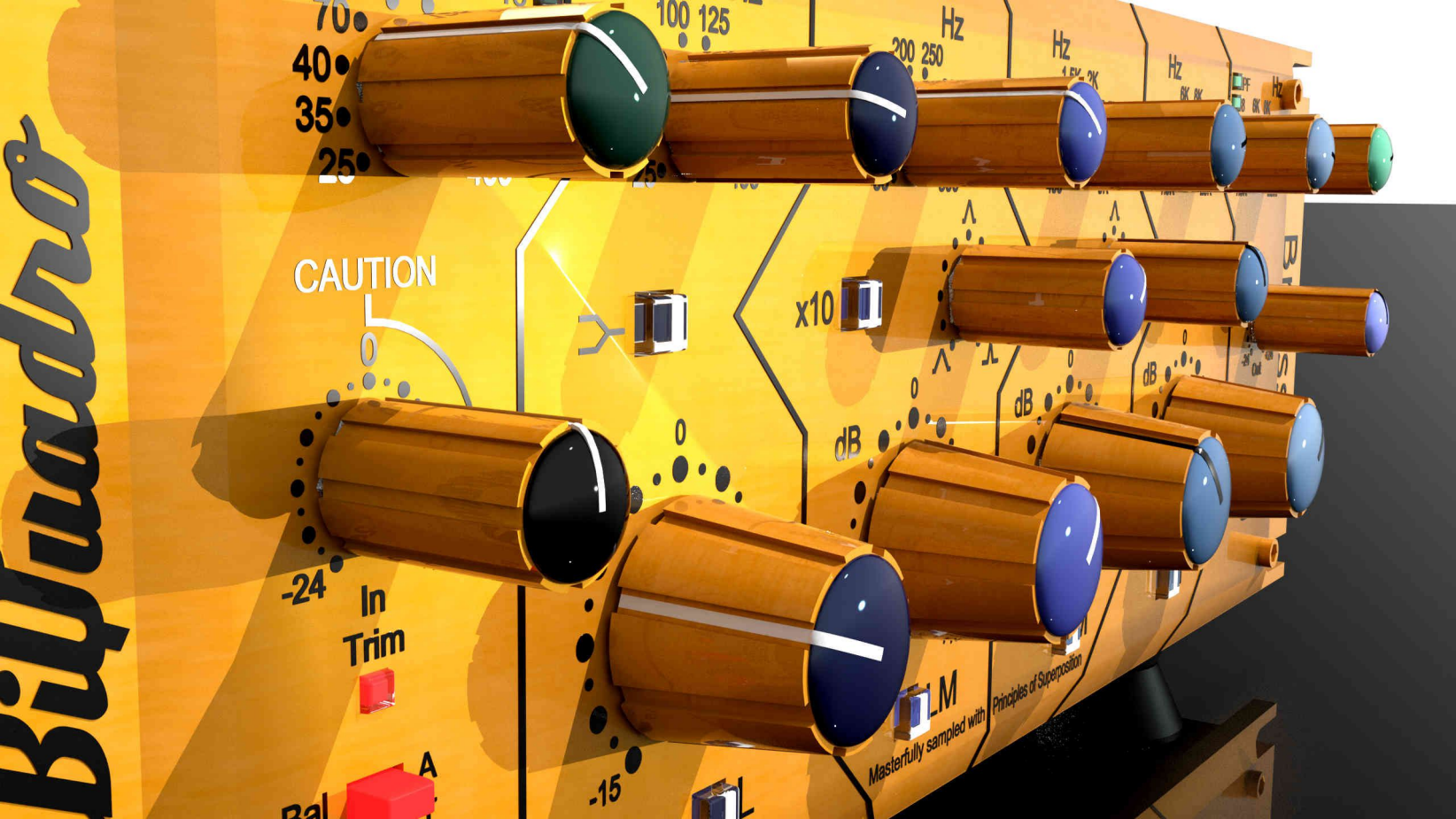

High Frequency @2KHz – Magnitude
+16
+14
+12
+10
+8
+6
+4
+2
0
-2
-4
-6
-8
-10
-12
-14
-16
Magnitude [dB]
10
20
50
100
200
500
1k
2k
5k
10k
20k
Frequency [Hz]


High Frequency @2KHz – Phase
+160
+140
+120
+100
+80
+60
+40
+20
0
-20
-40
-60
-80
-100
-120
-140
-160
Phase [°]
10
20
50
100
200
500
1k
2k
5k
10k
20k
Frequency [Hz]


High Shelf @2KHz – Magnitude
+16
+14
+12
+10
+8
+6
+4
+2
0
-2
-4
-6
-8
-10
-12
-14
-16
Magnitude [dB]
10
20
50
100
200
500
1k
2k
5k
10k
20k
Frequency [Hz]


High Shelf @2KHz – Phase
+160
+140
+120
+100
+80
+60
+40
+20
0
-20
-40
-60
-80
-100
-120
-140
-160
Phase [°]
10
20
50
100
200
500
1k
2k
5k
10k
20k
Frequency [Hz]

$$\mathcal{E} = [db]^2$$


Bilquadro
70
40
35
25
100 125
Hz
200 250
Hz
Hz
CAUTION
0
x10
dB
0
dB
0
dB
-24
In
Trim
-15
A
Masterfully sampled with
Principles of Superposition