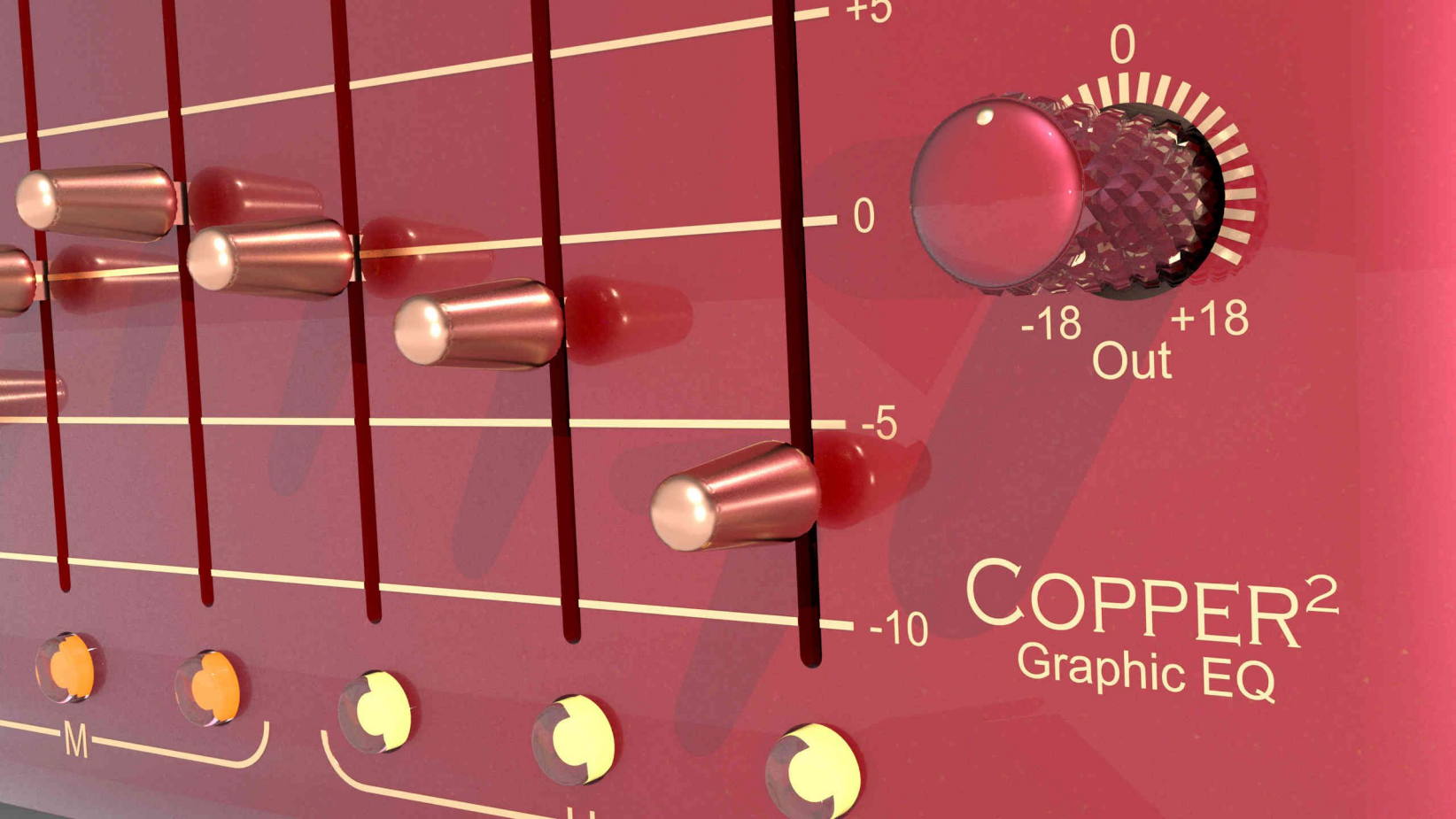

+5
0
-5
-10
M
0
-18
+18
Out
COPPER2
Graphic EQ

DiBiQuadro

COPPER²

Graphic EQ

Version 1.0

Thanks for purchasing DiBiQuadro Copper². Please take your time to read carefully the content of this manual before using the plugin.

Overview

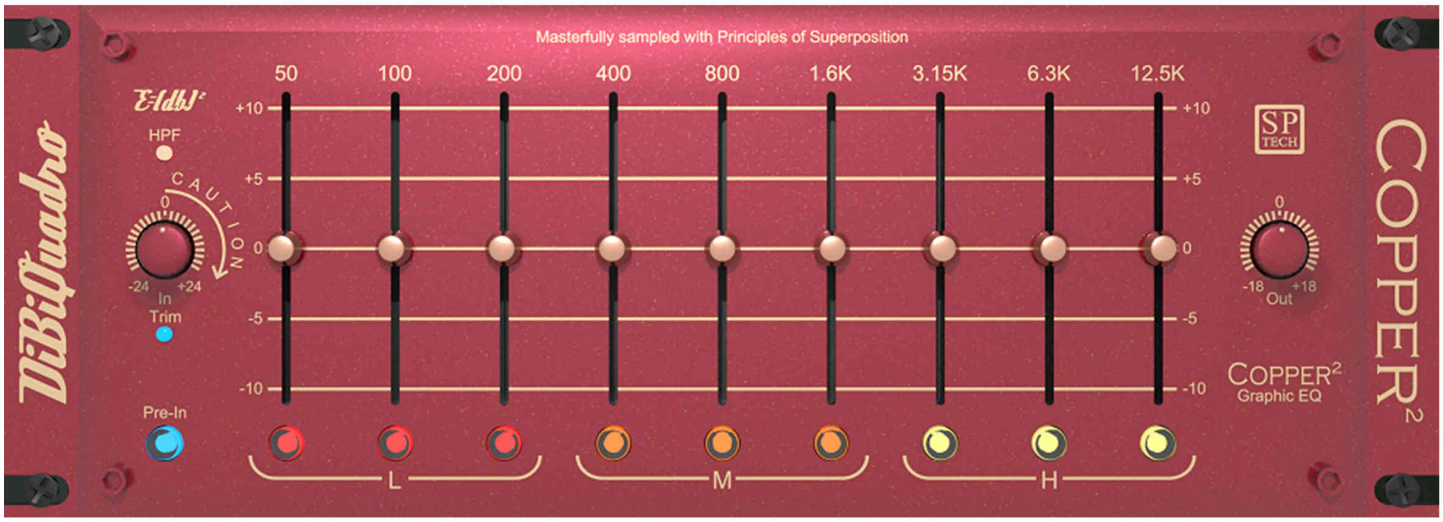
Copper² is a vintage classic graphic EQ plug-in based on Acustica Audio technology. It provides colored, dense, gluing textures to your mixes. It captures all the nuances of a highly appreciated octave graphic EQ and represents, among many applications, the ideal choice for electric guitars.

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	Fixed
EQ full range [dB] (continuous)	±10 with 81 steps (0.25dB circa)
Low Frequency Sliders [Hz]	50, 100, 200
Mid Frequency Sliders [Hz]	400, 800, 1.6K
High Frequency Sliders [Hz]	3.15K, 6.3K, 12.5K
HPF	Fixed Butterworth high pass filter can be activated to tame low end below 30Hz (not present in the original hardware unit)
Preamplifier (switch selectable)	10 harmonics
In Trim range [dB]	±24
Out range [dB]	±18
Sample rates	Copper^2 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: at this value Copper² shows a very colored low end; to get a cleaner response we suggest to decrease the In Trim to the desired level.

⚠ **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.

Low Frequency Buttons (Red): they activate all the 3 low frequency sliders 50, 100, 200.

Mid Frequency Buttons (Orange): they activate all the 3 mid frequency sliders 400, 800, 1.6K.

High Frequency Buttons (Yellow): they activate all the 3 high frequency sliders 3.15, 6.3, 12.5K.

HPF: it engages the fixed Butterworth high pass filter; best match with sampled unit is achieved by keeping HPF disabled.

Gain Sliders: EQ boost/cut.

To reset knobs to default position use **CTRL + "mouse left click"**. Use **"mouse scroll wheel"** for precise tuning and **SHIFT + "mouse scroll wheel"** for ultra-precise tuning on Gain Sliders, In Trim and Out knobs.

New Revisions - Backward Compatibility

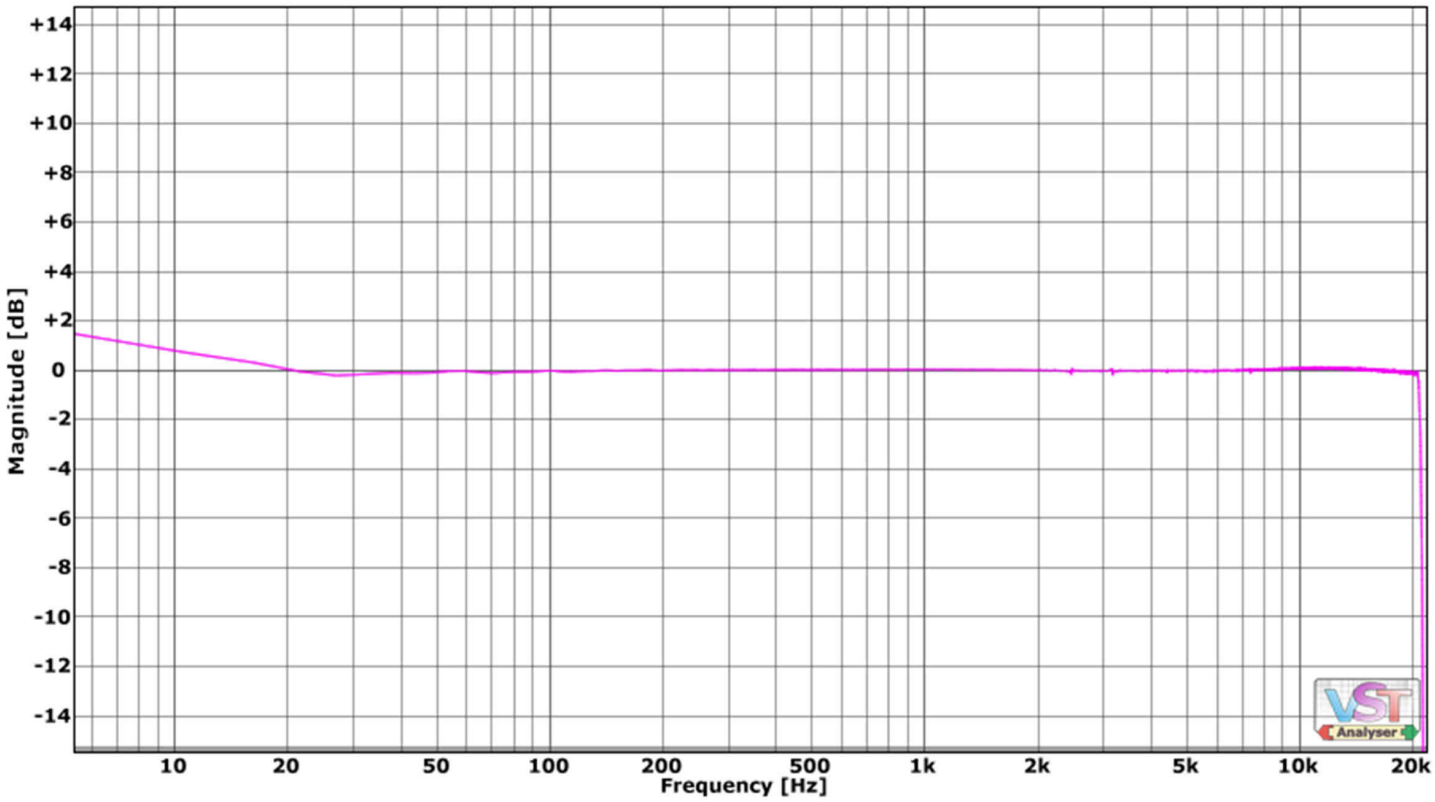
Since Copper^2 is a new plugin, it can co-exist with Copper in the same DAW.

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.

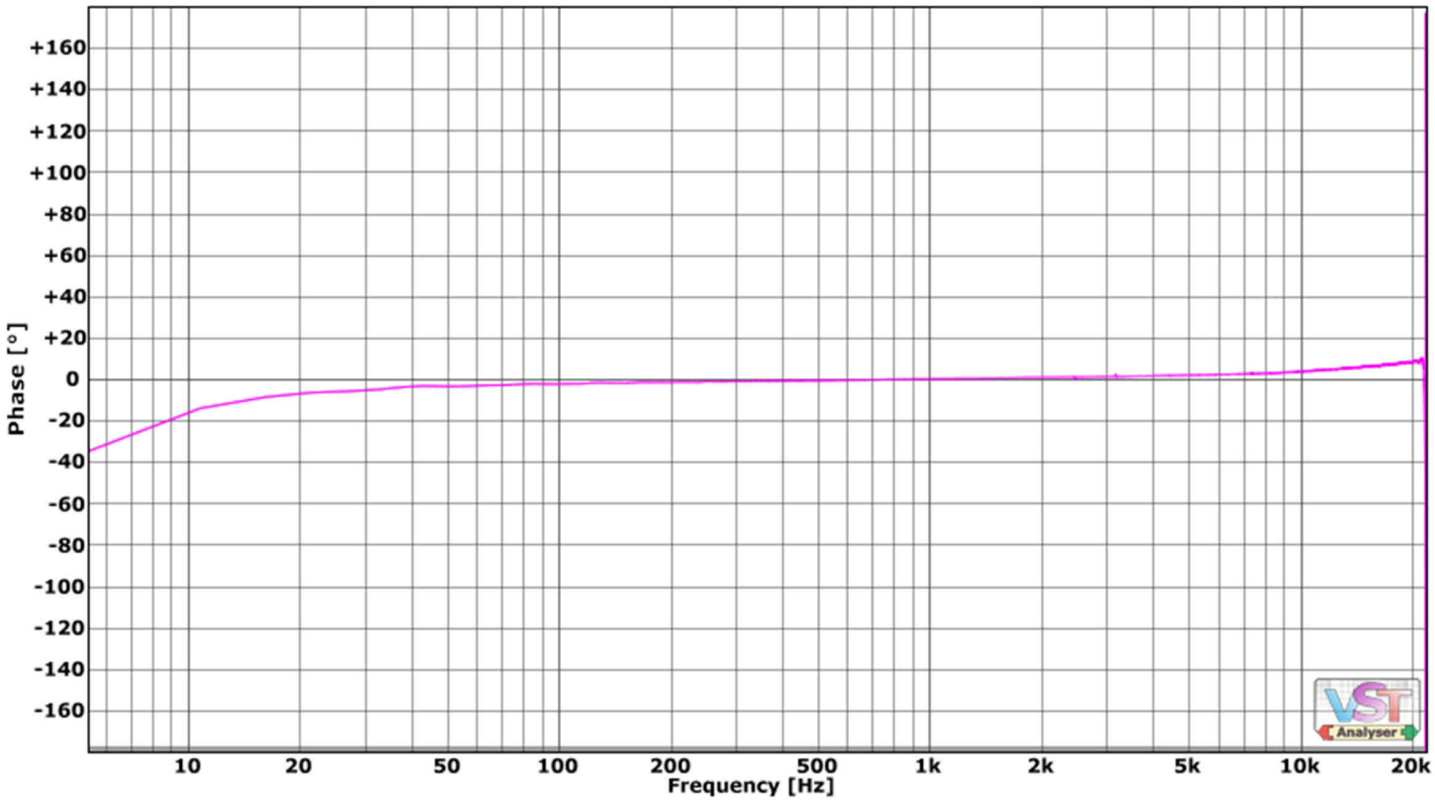
Copper and Copper^2 show the same frequency response in the audible spectrum and the same harmonic distortion. Differences regard CPU performances, disk and RAM usage and minor graphic enhancements.

Frequency Responses @ 44.1 KHz

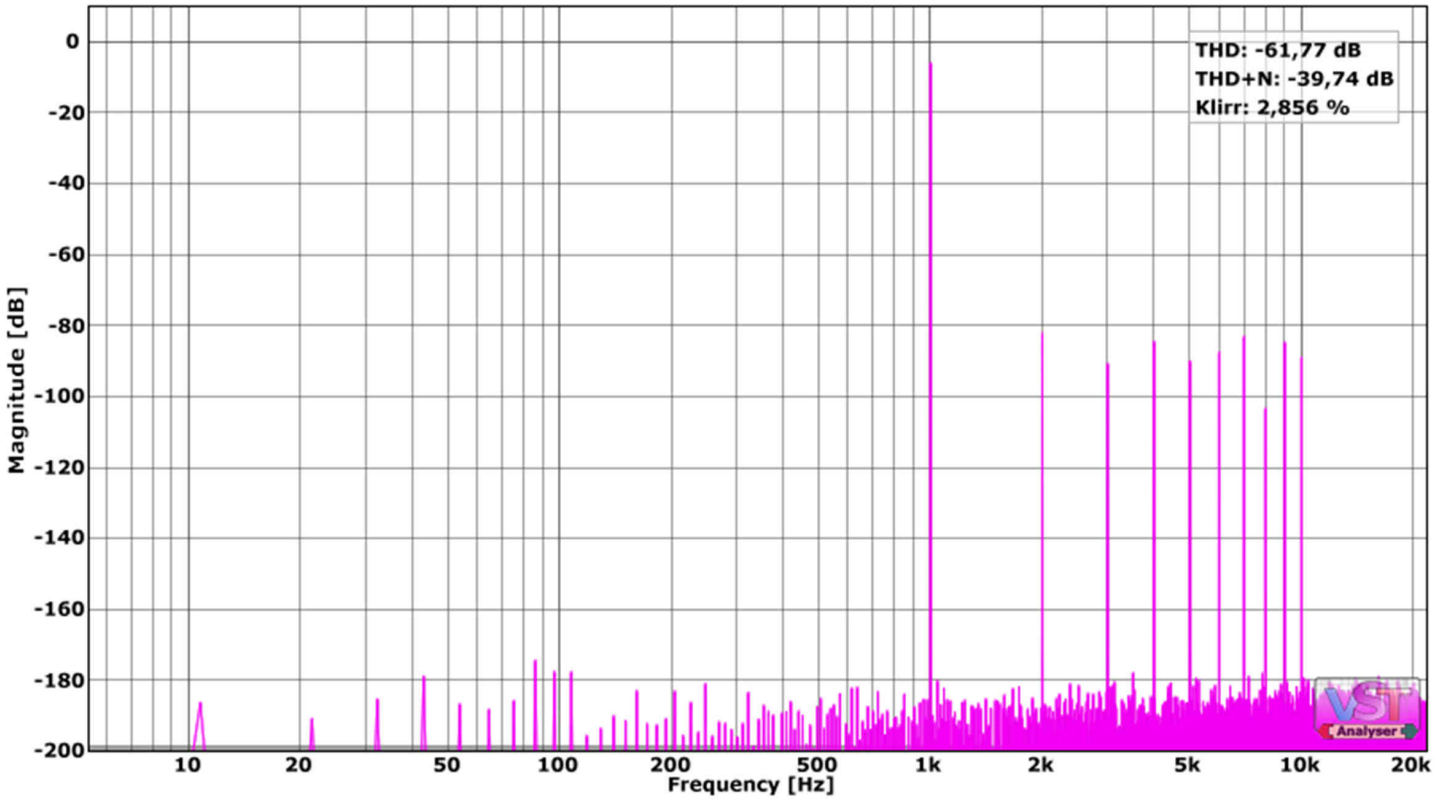
Pre-In (In Trim set to about ¼) – Magnitude



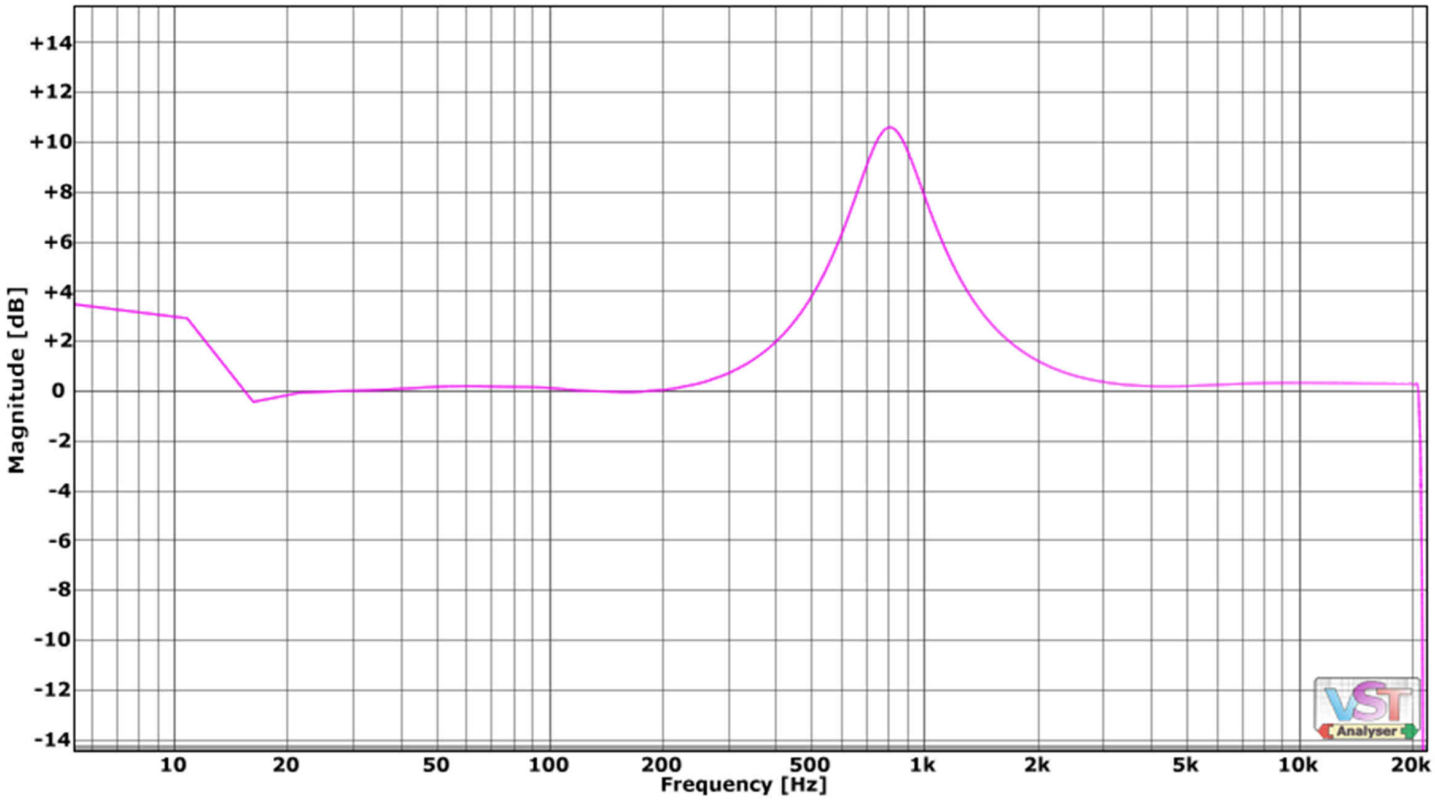
Pre-In (In Trim set to about ¼) – Phase



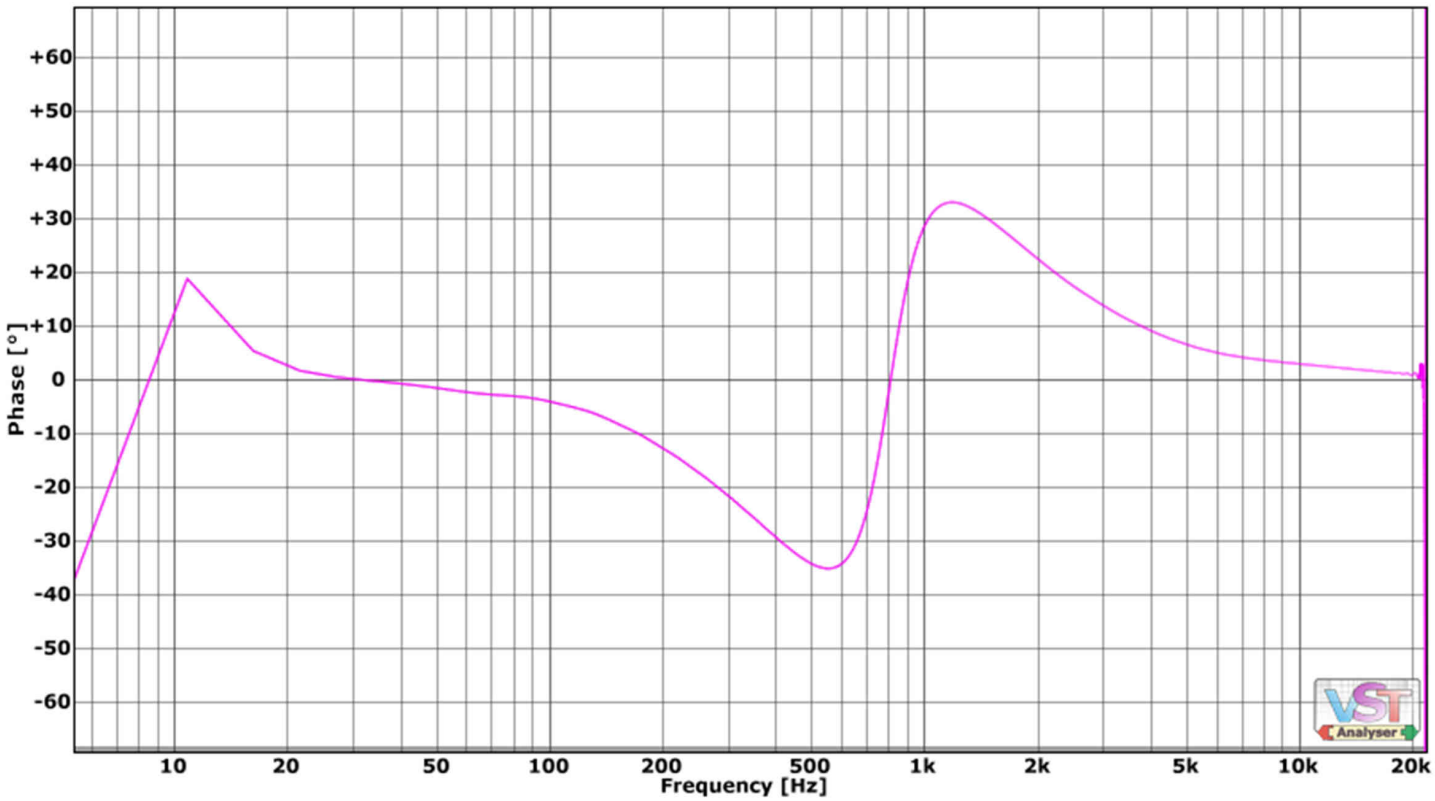
Pre-In – Harmonic Distortion



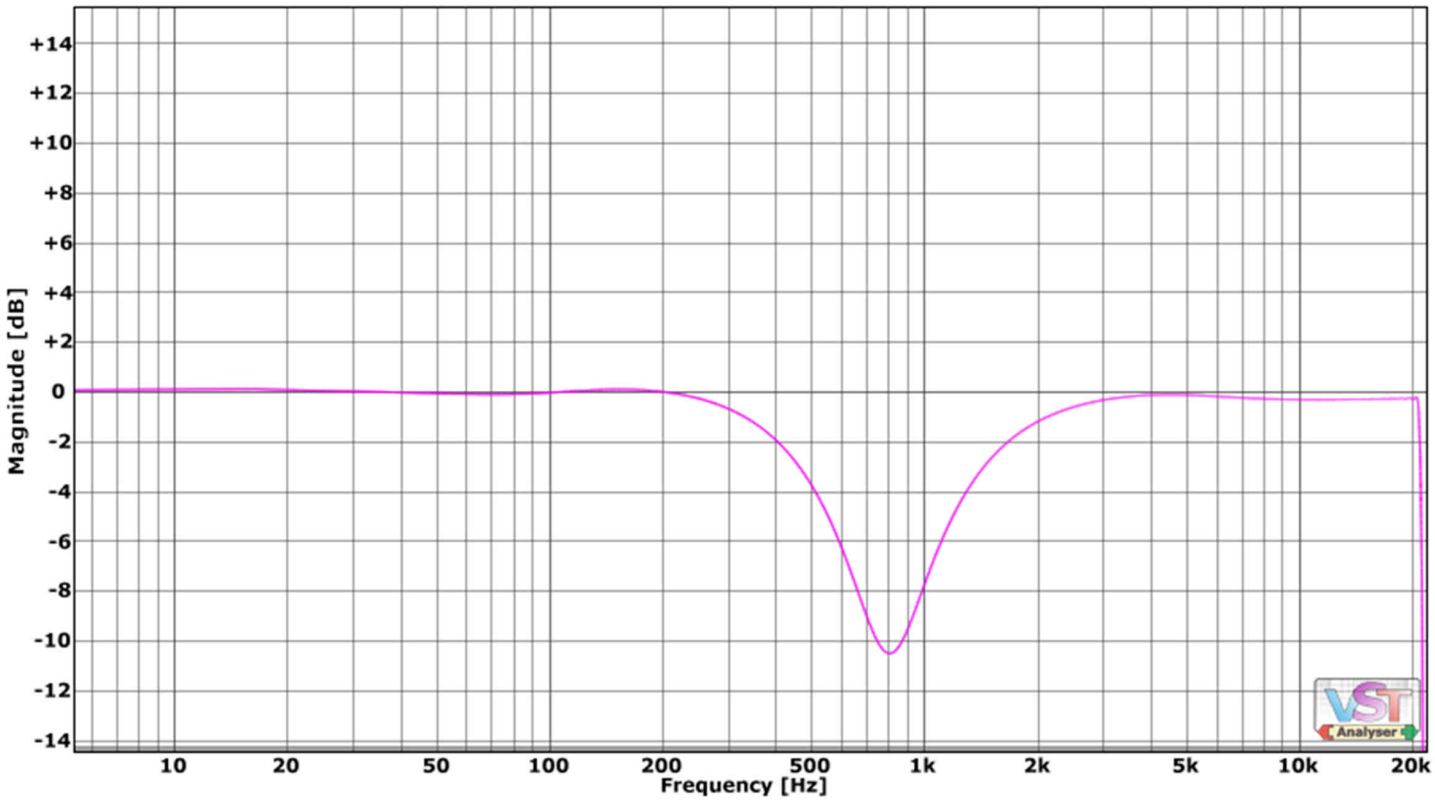
Mid Frequency +10dB @800Hz – Magnitude



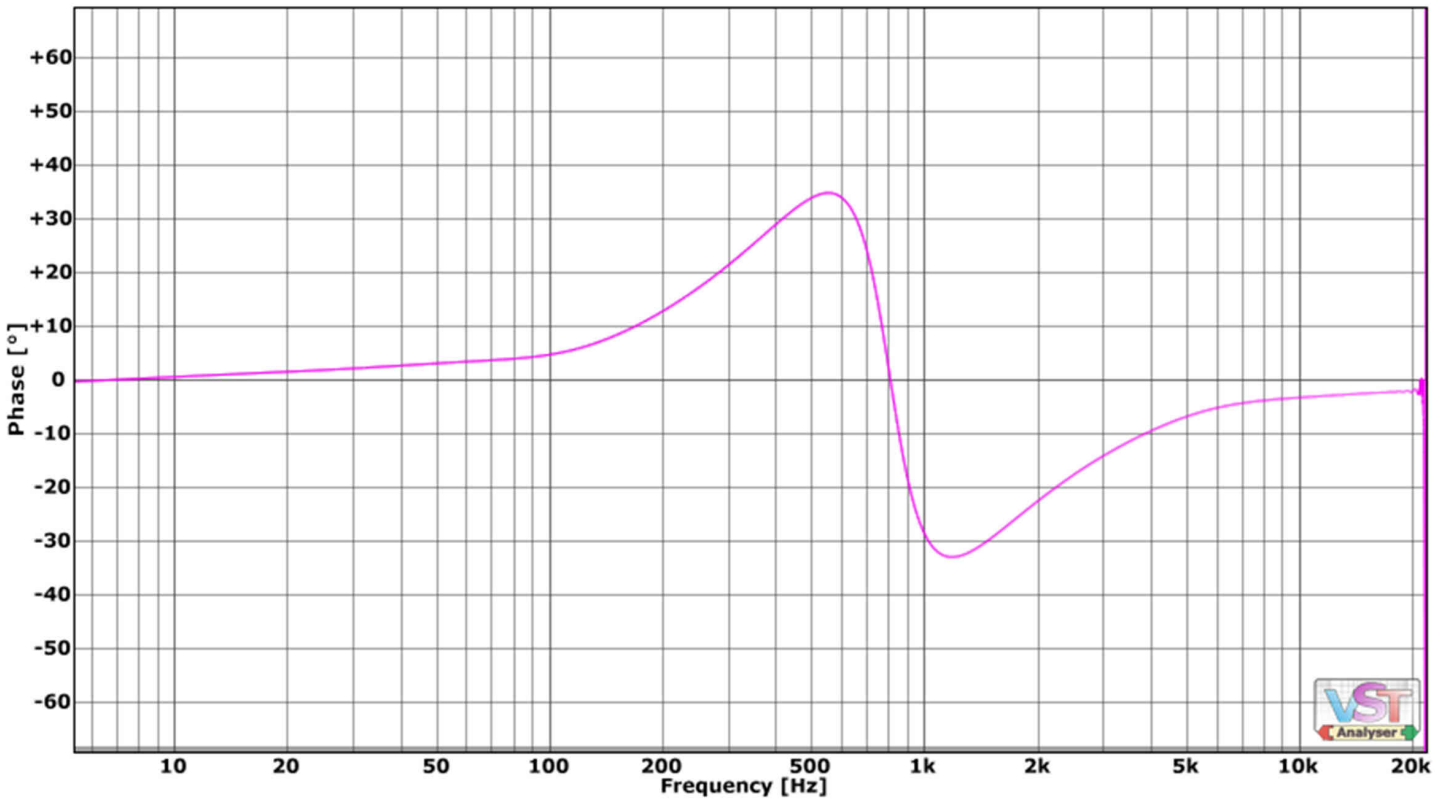
Mid Frequency +10dB @800Hz – Phase



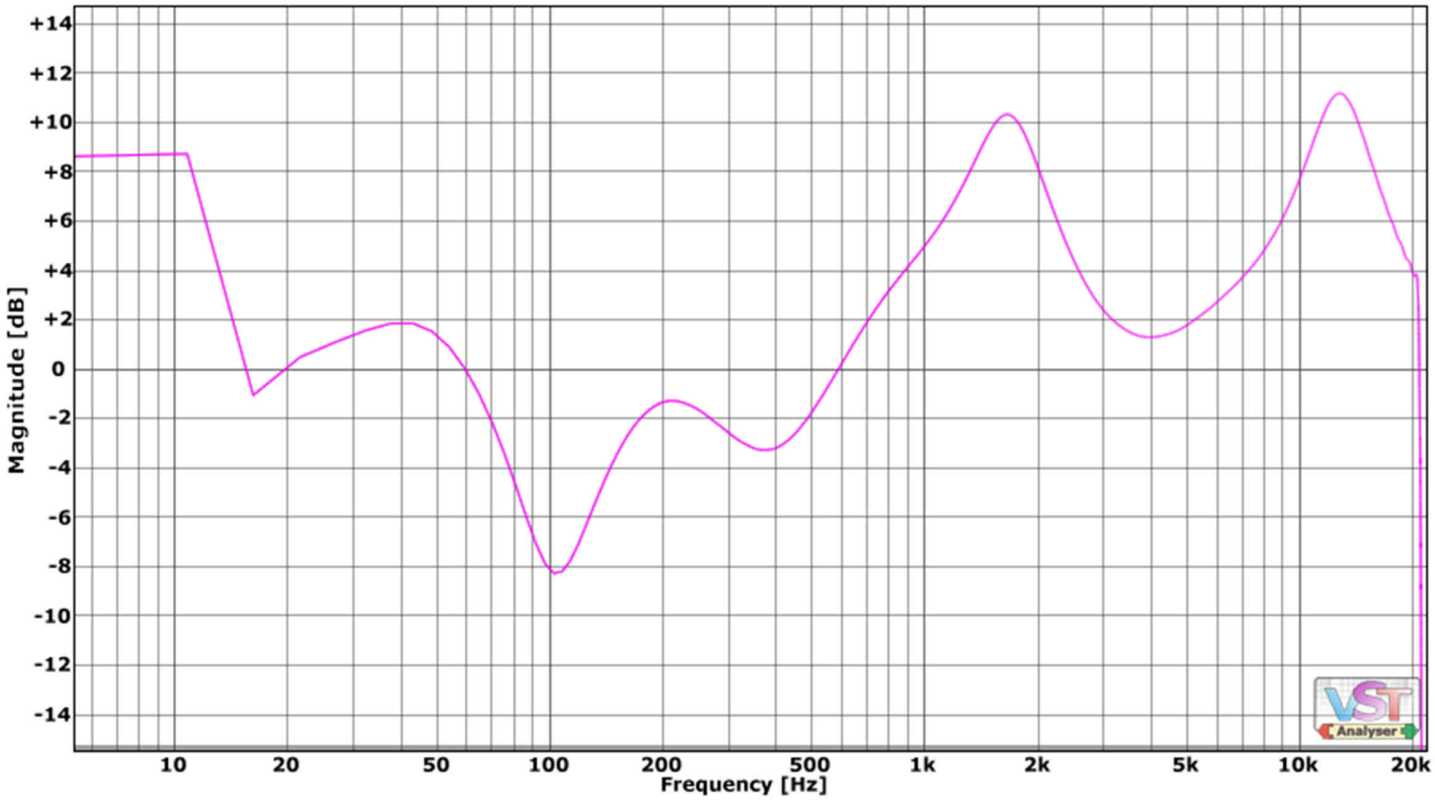
Mid Frequency -10dB @800Hz – Magnitude



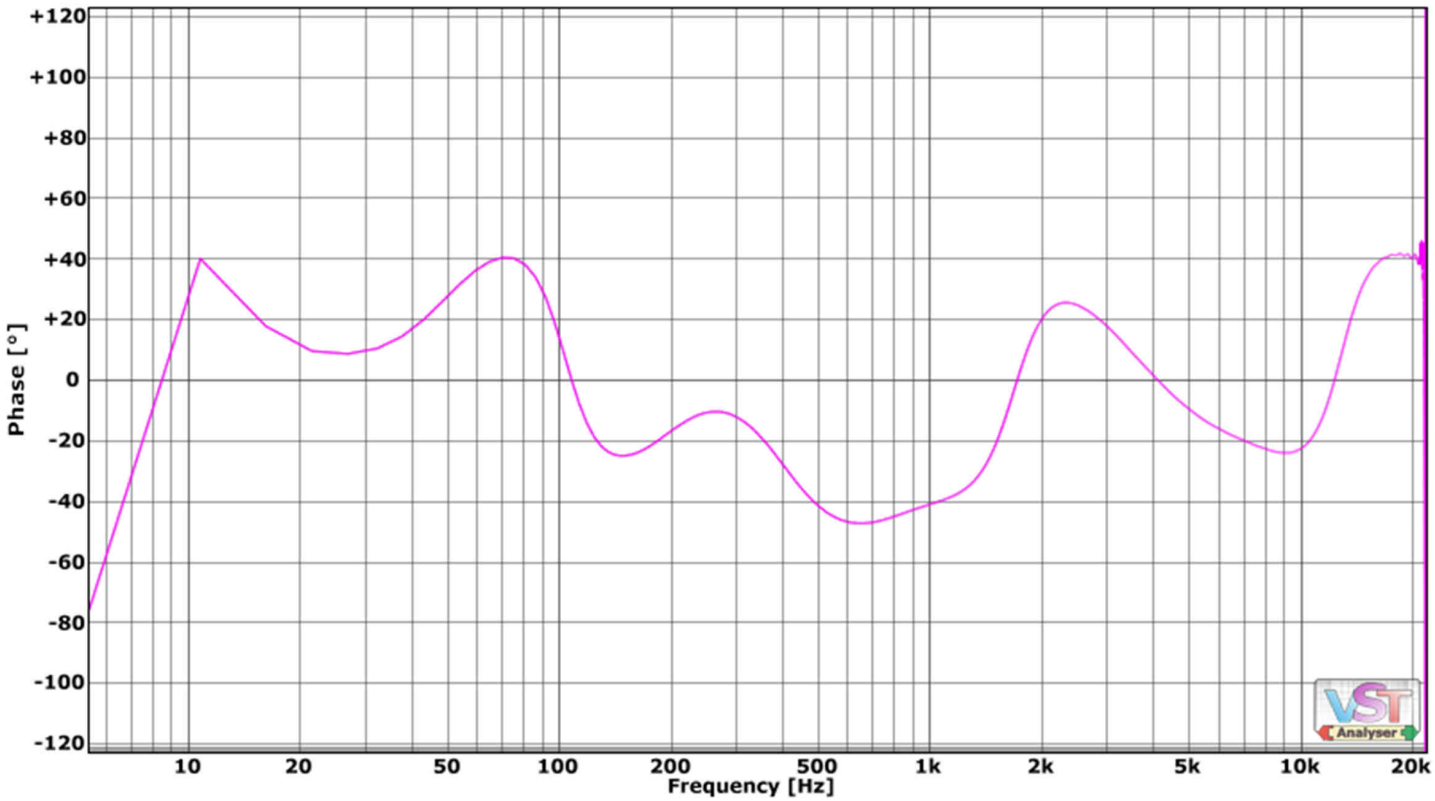
Mid Frequency -10dB @800Hz – Phase



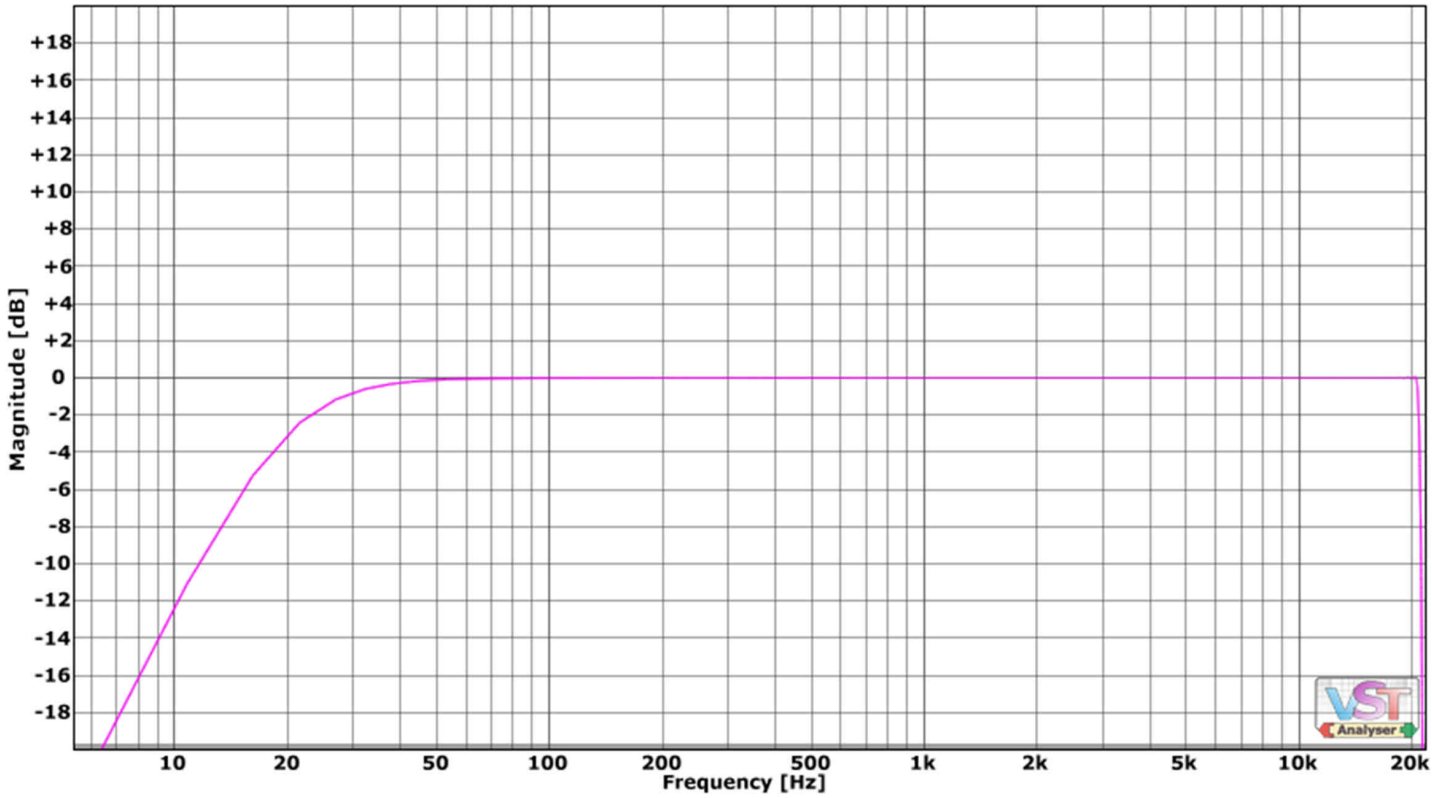
All 9 sliders example – Magnitude



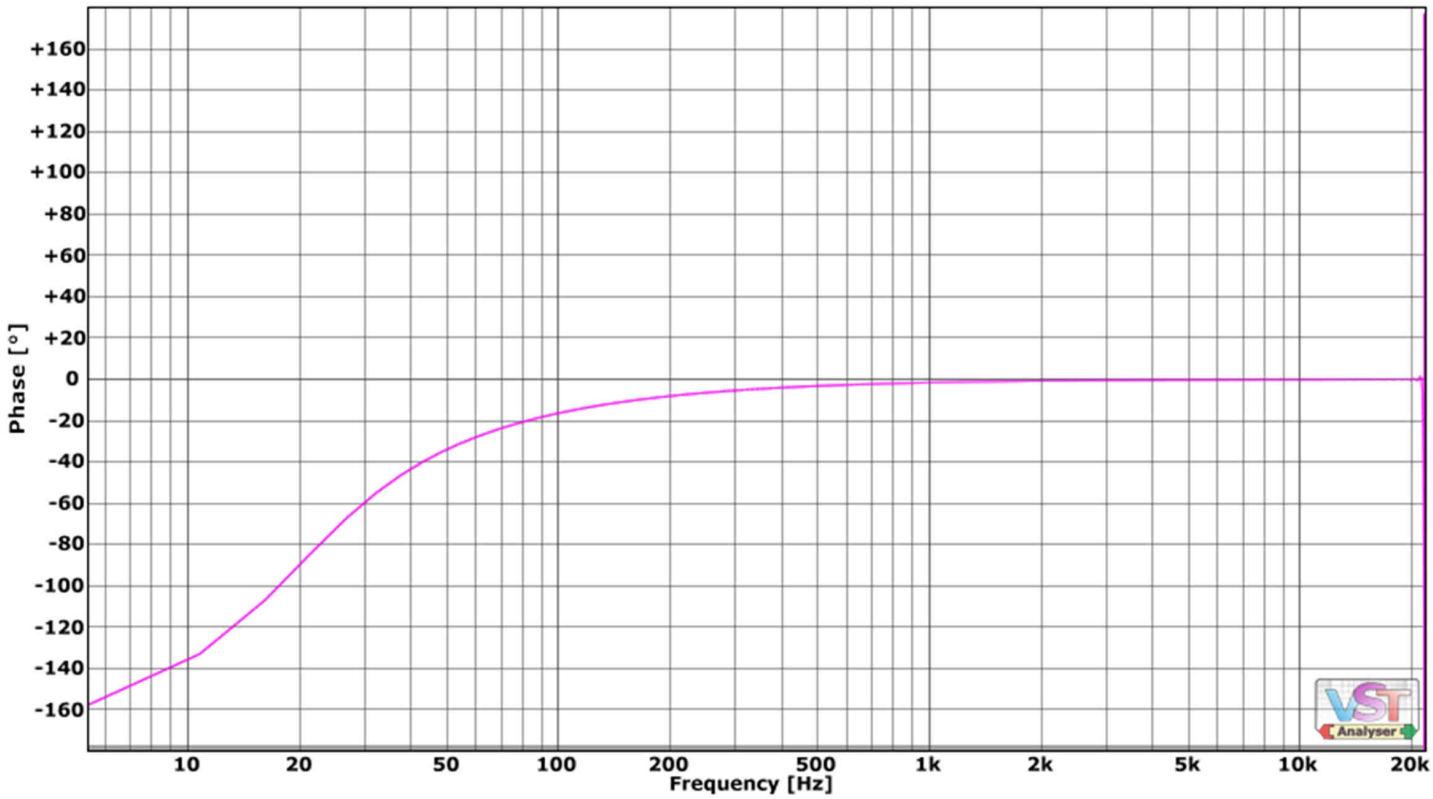
All 9 sliders example – Phase



HPF – Magnitude



HPF – Phase



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


Masterfully sampled with Principles of Superposition
50
100
200
400
800
1.6K
3.15K
6.3K
12.5K
+10
+5
-5
-10
HPF
CAUTION
0
-24
In
Trim
M
H