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# PLParEQ

10-Band Phase-Linear  
 Parametric Equalizer



Get the Refined Audiometrics Advantage -  
 - The Smoothness of Analog in a Superb Digital Implementation

## Available Filter Types:

- 2-Pole Resonant LowPass, HighPass, BandPass, Band Reject, and AllPass
- 1-Pole LowPass and HighPass
- 4-Pole Resonant LowPass and HighPass
- Classic Low and High Shelving
- Type 1, 2, and 3 Oxford-style Peaking Filters
- 3 dB/octave LowPass and HighPass
- 1/F, A-Weighted, B-Weighted, and C-Weighted Filters
- 6-Pole Notch Filter

- Highest Quality Parametric Equalization
- Selectable Phase-Linear or Traditional Filtering
- 10 Bands + 22 Classic Filter Types
- Selectable Stereo, Left, Right, Left+Right-, Middle, Side, or Middle+Side- Filtering
- Output Stereo, Left, Right, Middle, or Side
- Frequencies from 10 Hz to 30 kHz
- Gains from -20 dB to +20 dB
- Q's from 0.20 to 20
- Choice of K-20, K-18, K-17, K-14, or K-12 RMS-Wide Metering
- 7 Different Quality Levels
- Group Enable/Disable for Instant A/B
- Filter Table displays settings in effect for all filters
- Live Graph permits mouse dragging of Frequency, Gain, and Q
- Global Attenuation/Gain control for -20 dB to +20 dB
- Low Rate Audio is Upsampled by 2x, Filtered, and then Downsampled again.
- Uses the Highest Quality Data Windowing
- Sinc Interpolation on Upsampling
- Performs 8-fold Temporal Overlap Processing
- Sample Rates from 44.1 kHz to 192 kHz
- Internal 64-bit Processing Throughout
- Samples are Dithered back to 32-bits on Output
- 64-bit Capable for Sonar 5
- Uses 2-bit TPDF Dither
- All Parameters are Fully Automatable
- Measured IMD and Noise Floor Below -150 dBFS
- PC/Windows VST Plugin

Phase Linear Operation is achieved by processing your sound in both the forward-time and reverse-time directions through classic filters - all in realtime.

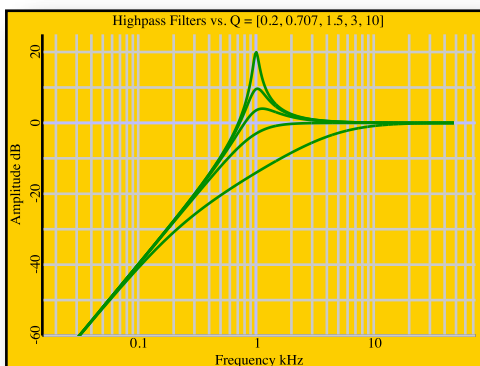
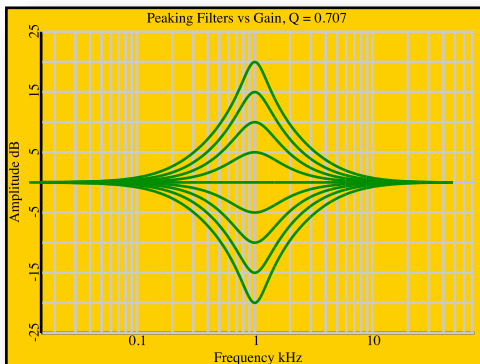
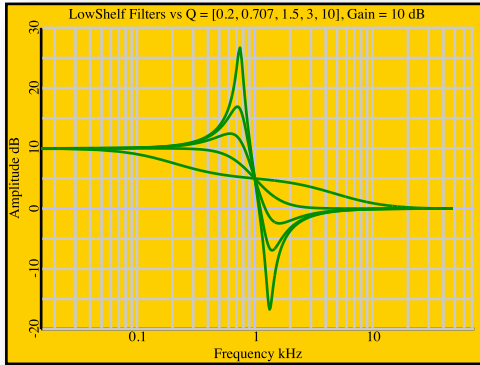
This completely removes the phase warping caused by IIR filtering, and applies their roll-off twice. So each filter type becomes two: one for classic IIR filtering, and the other for Phase-Linear operation.

*"...PLParEQ is the only Equalizer with which you can clearly hear a 0.5 dB boost - very very sweet soft smooth sound like no other!" R.P., Sao Paulo*



## PLParEQ

10-Band Phase-Linear  
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Here are just a few of the different filters that PLParEQ provides.

### Algorithm Performance

- Autosenses CPU capabilities and utilizes the highest possible performance code
- Carefully crafted to maximize speed
- Uses advanced SSE and SSE2 instruction sets
- Optimized Individually for Intel and AMD Processors
- Typically requires 5% of processor + 2% per active band
- Unparalleled speed for its class of processing
- Permits multiple instances to run simultaneously on different tracks.

Quality Settings Range from 512 samples/block to 32768 samples/block. Highest Quality settings intended for track bouncing, printing, and mastering. Lower Quality settings for tracking and mixing where low processing latency is desirable at the expense of filtering quality. For consistent processing quality, the Quality Setting should be chosen on the basis of filtering bandwidth. Narrowband filtering benefits from increased Quality levels.

Upsampling of low SR audio provides faithful filter shapes all the way to Nyquist frequencies.

Autosenses insertion into Stereo or Mono tracks, as permitted by your VST host.

Manual Mono override for those hosts that do not advertise.

Mono mode processing is less than half the full Stereo processing load.

Quiet channel output with dither is measured at -184 dBFS/Root(Hz) IMD products and Temporal Aliasing Distortion (TAD) are below -150 dBFS at QL 5 and higher.

Processing algorithms are adapted from space flight processing systems, and represent the very state of the art in audio processing.

Never before has the audio community experienced such high levels of sonic quality from digital signal processing.

PLParEQ utilizes the same high quality DSP core algorithms that all of our other products utilize.

Contact us at: [info@refined-audiometrics.com](mailto:info@refined-audiometrics.com) for further information, or visit our Web site at: <http://refined-audiometrics.com>