Tilt EQ

Rack Extension User Manual

dustydevices

Introduction

Tilt EQ is a Rack Extension effect device by Dusty Devices. It is a filter that neutrally shifts the tonal balance of the signal toward either the low or high end without coloring the sound. This is useful for brightening up a sound or adding more weight to the low end.

Front Panel

Bypass/On/Off
Standard Reason feature. Bypass lets the signal through without applying any processing, On is the normal processing mode, Off doesn't process the signal and silences the outputs.

Display
Visualizes the tilting slope and the change in dB, and optionally the frequency analysis of the signal after the filtering. The frequency analysis is auto-fitted to the display, and the dB values are a relative reference point, not actual dB Full Scale values. Out Gain doesn't affect the tilting slope graphic.

Pivot
Controls the frequency which stays at unity gain when tilting is applied.

Tilt
The filter slope in decibels per octave. Positive values boost frequencies above the Pivot frequency and attenuate frequencies below the Pivot frequency. Negative values do the opposite.

Out Gain
Gain of the outgoing signal. Can be used to compensate for any changes in the signal gain caused by the filtering.

Level Meter
Displays the signal peak level.

Monitor Switch
Located to the right of the level meter, this button cycles the Level Meter display between the Input signal peak level, the Output signal peak level, or display off, in case you are easily distracted by pretty flashing lights.

Rear Panel

Audio In & Out   Stereo input, stereo output. Tilt EQ processes the channels independently.

Modulation In   CV inputs and corresponding scaling knobs for modulating the device parameters. Pivot and Tilt modulation is limited to their knob extreme values. Gain can be modulated past its knob extremes.

Latency

Tilt EQ introduces a short latency of 2 samples at all sample rates. The following table lists the latency in milliseconds for each sample rate. Spoiler: it's not noticeable unless used in a parallel chain that is being mixed with the original signal without latency compensation.

44 100 Hz	0.045 ms
48 000 Hz	0.042 ms
88 200 Hz	0.023 ms
96 000 Hz	0.021 ms
192 000 Hz	0.010 ms

Thanks

All the beta testers.
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