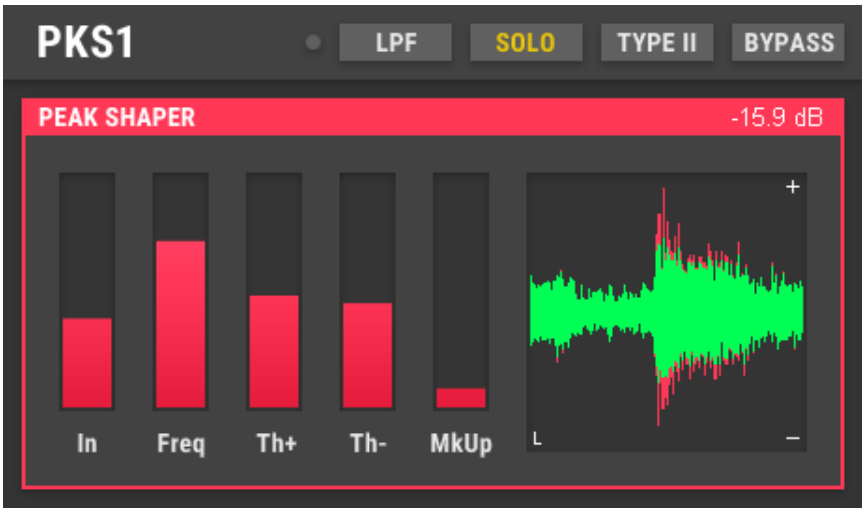
PKS1 v1.0

PEAK SHAPER



INTRODUCTION

PKS1 is basically a waveshaper with threshold. When signal passes threshold it instantly starts being shaped according to the selected curve. Positive and negative phase have separate thresholds. There are three modes of operation: Full (entire signal), LPF and HPF (only low or high frequencies). This kind of signal processing is suitable for peaks that are too short for compressor to catch without creating pumping effect. Those peaks usually occur with instruments that have very short attack/decay times, such as drums and other percussion instruments, bells, plucks, mallets etc. Waveshaping can introduce audible distortion when pushed hard, so it should be used moderately, desirably after a compressor.

- Three modes of operation: Full, Low-passed (LPF) and High-passed (HPF);
- 2nd order crossover (12dB/Oct) for LPF and HPF modes;
- Independent threshold for positive and negative phase of audio signal;
- Three types of shaping curve: I (mild), II (medium), III (strong);
- Double waveform scope for comparison of dry and wet signals;
- Automatic anti-aliasing filtration on higher sample rates (88.2 kHz, 96 kHz);
- 32-bit internal precision with zero latency and very low CPU consumption;

FUNCTIONS

Controls are arranged that you should adjust them from left to right. First, you can boost the input so that waveform fills the display, but doesn't clip audio on the output (clip indicator is red dot located on the title bar). Second, you should select operating mode (Full, LPF or HPF). For critical operations LPF is the most safe mode, because distortion is usually inaudible. Next, adjust the crossover frequency. Use Solo button to hear only the filtered signal. In Full mode Solo button and Freq slider are disabled. Sliders labeled Th+ and Th- adjust threshold levels (-30 to 0dBFS) where shaping starts. Below those levels signal remains unaltered. In most cases Th+ and Th- should be set at similar levels. The type of shaping is selected with Type button (I, II or III). Finally, use MkUp slider to boost processed signal. In PKS1 shaping always reduces dynamic range and loudness, so you should usually compensate for that difference with MkUp. Bypass button disables all processing except input boost and crossover. Use Ctrl+Slider for precise control and double-click to reset them to default position.