

MQ55 v1.5

PARAMETRIC MIXING EQUALIZER



INTRODUCTION

MQ55 is parametric equalizer designed for mixing stage. It is based on MQ57 and shares most of its functions. Main difference is that MQ55 doesn't support separate channel processing, i.e, it only works in standard stereo mode. Other differences are: 1) cut filters have much greater operating ranges and milder slopes; 2) maximum filter gain is increased in default state ($\pm 9\text{dB}$); 3) ratio control to boost or reduce overall equalization curve.

- 7 parametric minimum-phase stereo filters, 5 of them are peak, 2 are shelf;
- LCF and HCF filters with two selectable slopes ($1^{\text{st}}/2^{\text{nd}}$ order for LCF, $2^{\text{nd}}/3^{\text{rd}}$ for HCF filter);
- Ratio knob that serves as a overall gain multiplier;
- Band-pass frequency monitoring for each peak filter;
- 32-bit internal precision with zero latency and low CPU consumption;
- No introduced harmonic or dynamic distortion;

FUNCTIONS

The larger part of interface consists of seven modules (labeled LSF, LF, LMF, etc.). The first and the last are low-shelf and high-shelf, while inner five are peak filters. They all have $\pm 9\text{dB}$ operating range when ratio knob is in default position. Frequency controls are divided into seven overlapping zones that cover every useful part of spectrum. Above them are located displays with numerical readouts showing current frequency or filter gain amount. Shelf and peak filters have Q factors that do not act the same, although they share the same principle of higher Q meaning steeper curve. Ratio knob controls gain multiplying factor for all filters (except LCF and HCF, because they don't have gain!). For example, when it's at maximum position (3:2) every gain is multiplied by 1.5, so $+6\text{dB}$ becomes $+9\text{dB}$, -8dB becomes -12dB and so on. You should use it after you've set all other parameters to adjust overall amount of equalization (kind of dry/wet control). Monitoring button (MON) activates isolation of each peak filter while you adjust its frequency. On the bottom there are on/off switches for each filter. Use CTRL+mouse for precise adjustment of each knob and double-click to reset them to default position.