

AM Module v2.0 by NOISS COKO

DESCRIPTION

AM Module is a versatile and useful device that can be used to create auto panning, tremolo or amplitude modulation effects. It offers four different modulation waveforms and several ways to determine its frequency, covering a wide range that extends from 0.01 Hz to 12.500 Hz.

Medium-high rate values will add overtones and harmonic richness to the signal, creating a classic AM effect that could be applied to percussions, synths, or any desired instrument.

While working on sync mode, rate values will be synchronized with Live's global tempo, allowing to generate rhythmic modulation patterns from pad or string sounds. A chain of two, three or more modules with different configurations, could be used to create polyrhythmic patterns and more complex results.



FEATURES AND FUNCTIONS

Modulation Section

AM Synthesis is based on a carrier or main signal, which amplitude is affected and modified by another source, also called the modulator. This device offers one oscillator with four different waveforms that can be used to modulate the incoming signal amplitude.

Amount

Sets the intensity of the modulation that is affecting the amplitude of the incoming signal. This parameter determines the gain of the oscillator that works as a modulation source. A value of 0% will generate no amplitude modulation. Higher values will proportionally increment the way in which the main signal is affected by the oscillator. This parameter establishes the amplitude of the sidebands that are generated by this process and added to the spectrum.

Rate

Determines the modulation speed or frequency. Three different modes are available. **Low** rates will produce the classic tremolo effect, while **Mid** and **High** values will generate overtones, resulting from the amplitude modulation process. This parameter establishes the frequency of the sidebands that are generated by this process and added to the spectrum.



Rate Mode

This tab determines the unit style that will be used to express rate values, according to different needs.

- **Note:** Rate values will be represented by musical notes. In most of the cases, this will produce a clear tone over the signal. For instance, for A notes, rate values will correspond to 220Hz, 440Hz, 880Hz and so on.
- **Sync:** Rate values will be selected by beat divisions, synchronized with Live's global transport. In this case, the modulation won't have effect unless Live's transport is running.
- **Free:** Rate values will be set within a range that extends from 0.01 to 127. Frequencies corresponding to each one of this numbers will depend on the Free Mode currently selected.

Free Range

This tab determines the frequency range, only while the Free Rate Mode is selected. Otherwise it has no effect over the Rate parameter and its function will remain disabled.

- **Slow:** Range from 0.01 Hz to 32 Hz.

- **Mid:** Range from 32 Hz to 1.000 Hz.
- **Fast:** Range from 1.000 Hz to 12.500 Hz.

Lag

Every time a new rate value is defined, Lag produces a smooth transition between this value and the previous one. How long the transition takes is determined by this parameter.

Phase

Allows to offset by a certain degree the modulation waveform phase, but only for the right channel. In that case, the amplitude will be affected differently on each side, thus creating a stereo signal. Setting different values on each side will create auto panning effects.

Source Section

Wave

Selects the oscillator waveform that modulates the incoming signal amplitude. Four waveforms are available: **Sine**, **Sawtooth**, **Triangle** and **Square**.

Pulse Width Modulation

Modulates the square waveform pulse width, creating different relations between the only two possible states of the signal. This parameter has no effect over any of the other waveforms.

Smooth

Smooths out the waveform that modulates the amplitude of the incoming signal. This allows to avoid clicks, specially when using sawtooth or square waveforms. High values will create soft transitions, while low numbers will produce percussive results.



CREDITS

ABOUT

DEVICES

AM Module v2.0

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