Noise Engineering Lapsus Os

Quad-channel attenuverter/attenuator and offset with faders

Overview

Type	Attenuverter/Offset
Size	10HP Eurorack
Depth	.8 Inches
Power	2x5 Eurorack
+12 mA	60 mA
-12 mA	50 mA

Lapsus Os is a four channel attenuator/attenuverter and offset. Designed with performance in mind, each channel can be set to either attenuate or attenuate/invert an incoming signal, adjust offset of an incoming signal, or with nothing patched to its input, generate a 0–5v or ±5v offset. Switches on the back of the module invert the fader behavior, allowing for the module to be mounted in either direction, for further customization and ease of use.

Etymology

Lapsus -- from latin lapsus : 'sliding’
Os -- from latin os 'bones’

“Translation: Dancing Corpse”

Input & output voltages

Inputs: ±10v
Outputs:
Without voltage applied
Unipolar: 0–5v
Bipolar: ±5v
With voltage applied
Unipolar: 0–10v
Bipolar: ±10v

Interface

Faders 1-4: The main controls of LO. The LEDs in the faders show the CV that is being passed through. When in attenuverter mode, the LED will be off at 0, allowing each fader to easily be set near 0.

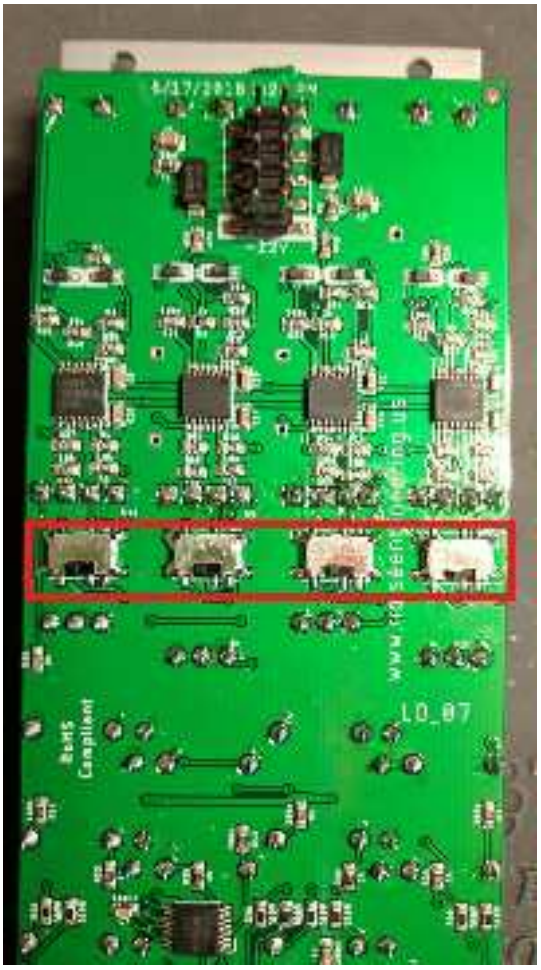
Uni/Bi Switches 1-4: In the Unipolar position (left), the corresponding channel attenuates the input signal. In the Bipolar position (right), the upper half of the corresponding channel fader attenuates the input signal, the lower half of the fader inverts and attenuates the signal.

Offset inputs 1-4 (+): Sending a signal to these inputs adds an offset to the input, controlled by the fader and the mode switch.

Attenuating/attenuverting inputs 1-4 (x): Sending a signal to these inputs attenuates/attenuverts the signal, depending on the position of the channel fader and switch.

Outputs: Each channel has a pair of identical outputs. If nothing is sent to either input of a channel, an offset will be generated and output here, useful for controlling parameters on other modules with a single fader.

Rear-board switches: Below, in red. Inverts the corresponding channel, allowing for creative mounting in either direction. Note that each channel must be switched independently to fully reverse the functionality.



Patch Tutorial

Patch 1: Set a channel switch to the left position and patch the outputs to CV inputs on another module (for instance, Loquelic Iteritas). The fader becomes an easy-to-use controller for those parameters. Patch the rest of the LO channels to other parameters in your system to create an expressive and intuitive interface.

Patch 2: Patch a CV signal (such as an LFO) into the attenuverting input of a channel. Set the channel switch to the right position, and patch the output to a bipolar CV input in your system. Tweak the fader to attenuvert and dial in the perfect amount of modulation on the fly.

Patch 3: In a case with four voices route each LO channel to the decay control for each voice. Use for centralized control over voicing.

Design Notes

This module was simple a module stephen wanted for his case for playing live. He wanted a simple centralized control panel that could map neighboring sliders to the knobs throughout the case so that they could be played simultaneously. The original LO was remarkably simple, but a few versions in, we decided that rather than four outputs per channel (16 outputs? Does anyone really need 16?), we could add inputs that would give all sorts of crazy control. We agreed it should be reversible early on but it wasn't until we got it in the hands of Markus Cancilla who immediately pointed out that Uni/Bi switches should be mid-panel. On that version, they were at the top, and completely in the way. It was so obvious! Markus was hired shortly after giving us that feedback...