

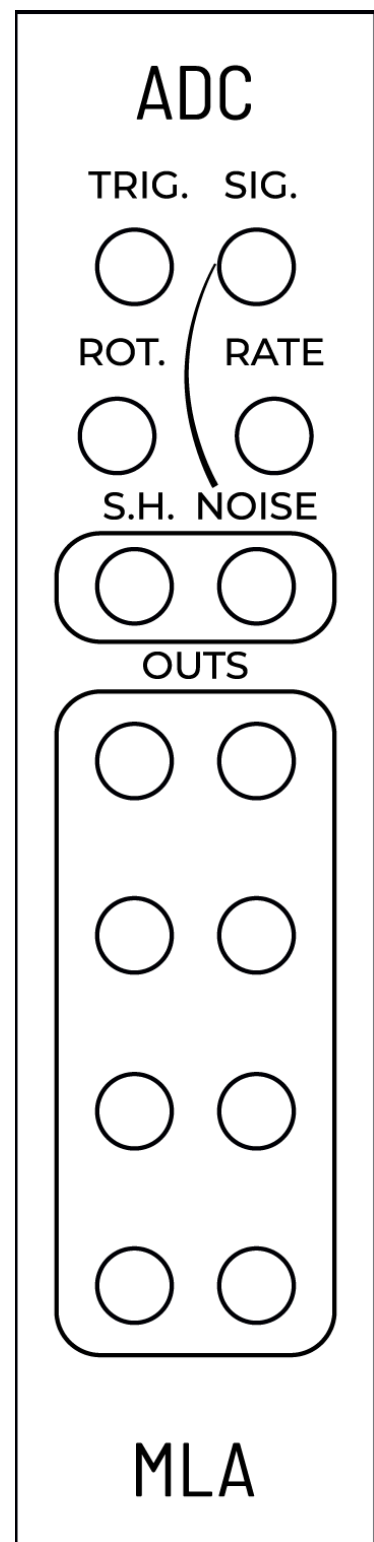
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ADC is a Swiss army knife in Eurorack format, based on the concept of a sample and hold module, enhanced with advantages from the digital world. It serves as an analog sample and hold, gate randomizer, gate proto-sequencer, digital and analog noise generator, and more functions depending on its patching.

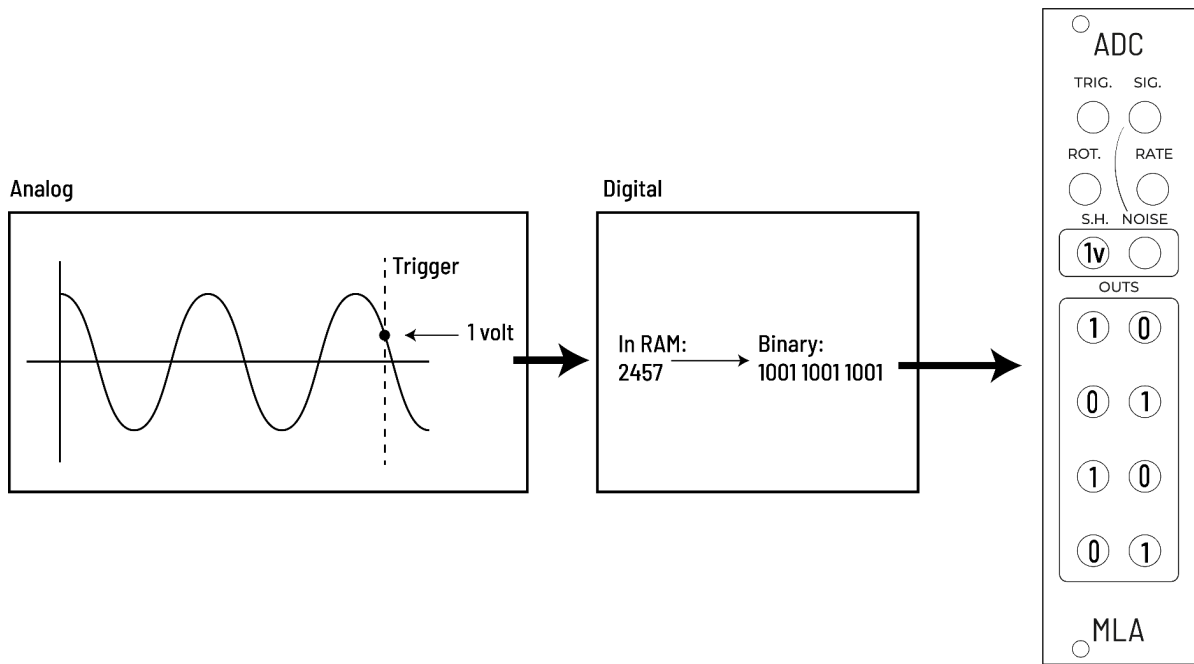
It operates in two modes:

-Triggered Mode: A signal is introduced into the Sig input (by default normalized to an internal white noise source, which can be used via the Noise output) and a trigger signal into the Trig input. The module samples the input signal every time a trigger occurs and reduces it to a 12-bit digital representation. The result of this sampling, re-analogized, is obtained at the S.H. output. Additionally, the 8 most significant bits (1 to 8) are available as gate outputs in the Outs section. Circular permutation (i.e., rotating the sampled bits) can be performed by introducing CV from 0V to 5V into the Rot (Rotate) input.

-Free-Running Mode: When nothing is connected to the Trig input, the module automatically switches to this operation mode, where each bit of the input is sampled at a different sampling frequency and represented in binary form in the Outs section. Sampling frequencies start very slow on the first outputs and end in very high ranges on the last outputs (equivalent to digital noise when using the Sig normalization). Sampling frequencies can be reduced via the Rate CV input, expecting signals from 0V to 5V.



Basic Operation Diagram



Settings

On the back of the module, on the black PCB, there are two jumpers:

Left Jumper: When this jumper is set to the top position, the OUTs section is OFF whenever the trigger signal at the input is in an OFF state. Additionally, it quantizes CV changes in Rotate to apply only at the moment of a new trigger. Both options are useful when the module is primarily used to trigger percussive elements.

Right Jumper: When this jumper is set to the top position, it inverts the order of the hold and rotate operations in Free-Running mode. This results in the sampling frequency ranges for each bit remaining unaffected by rotate, leading to more homogeneous or varied results when the module is used to process external audible frequency signals.

Some Common Uses

- A common way to use the module is to connect a constant clock signal to the Trig input, producing 8 random triggers in the output section that can randomize drums or events in a patch.
- Alternatively, a sequencer can be connected to the signal input to create an 8-gate proto-sequencer.
- Free-Running mode can be used to generate various harmonic or inharmonic digital noises.
- By using the Rate control in Free-Running mode, chaotic CV can be generated from the internal noise source or external sources, or gates at different speeds can be achieved.
- Using output 1 of the Outs section without applying rotate provides a band-limited polarity detector.
- A fast oscillator used as a trigger can create a sample rate reducer. Using CV on Rotate simultaneously produces waveform folding effects.

Specifications

Width: 6HP

Depth: 44mm

Standard 10-pin power connection

Input impedance: Approx. 100k Ω

Output impedance: 1k Ω