

Gotharman's Anamono



Analogue feedback synthesizer with build in granular processor

Monophonic analogue feedback synthesizer with build in fully programable and controlable granular effects processor, 2 analogue filters, an analogue output stage with VCA and overdrive, a unique newly engineered g-RAY analogue feedback synthesis system, 2 oscillators, a ringmodulator and many modulation sources, including 2 newly engineered and very flexible step-modulators. All of this packed in a small and compact box, that can be used everywhere. User-storage of 256 sound presets is possible.

THE OSCILLATORS

Anamono has 2 oscillators. Their waveforms are continuously variable from sine to triangle to saw to square to noise. The wave-shaping can be modulated from all of the 16 modulation sources. All waveforms can be pulsewidth and pitch-modulated. Oscillator 2 can be detuned to create thick sounds, and oscillator 2 can also be synced to oscillator 1. Oscillator 2 keyboard pitch control can be switched off.

THE ANALOGUE FILTERS

Anamono has 2 analogue filters which are independently programable. Filter 1 can be in either lo-pass, band-pass or hi-pass mode, while filter 2 are always in bandpass mode. The 2 filters are connected in parallel to each other. Cutoff, resonance and output levels can be modulated from all of the 16 modulation sources.

THE DIGITAL FILTER

The digital filter can be in lo-pass, band-pass, hi-pass, sharp band-pass or add mode. Cutoff, resonance and output levels can be modulated. It has a built in boost circuit, that can create clipping. It can be placed in 4 possible positions: Serial - In serial connection with the analogue filters, before the analogue filters, Parallel - In parallel connection with the

analogue filters, Feed - Inside the g-RAY feedback loop, Gran - On the granulator/delay output - only the effected signal is filtered, not the clean signal.

THE g-RAY FEEDBACK CIRCUIT

A new GotharMusic invention! It is actually a traditional feedback loop, with input taken from the analogue filters output or the granulator/delay output, and then fed back into the analogue filters. The new thing is our g-RAY circuit. It has 4 different positions. In position zero, it lets the feedback signal pass thru, and act like a traditional feedback circuit. In position 1, 2 and 3 it creates more and more intermodulation of the feedback signal. In position 3, it creates sounds that could remind of FM, but not exactly the same. It is also possible to place the digital filter inside the feedback loop, to create filtered feedback sounds, and it's possible to boost, invert and delay the feedback signal, to create even more unusual sounds. Feedback level and delay can be modulated.

THE GRANULATOR/DELAY

Anamono has a very flexible and fully programable granulator/delay section. In granulator mode, it cuts the input signal up in a number of small fragments (from 1-128). It is then possible to program a fragment re-arrange sequence on up to 16 steps. Very useful for different sounding delay effects and for rearranging a beat or another kind of sequence in realtime. Each granulator step can also be either time-stretched or pitch-shifted in realtime.

In delay mode, it acts as a traditional tape echo.

In both granulator and delay mode, it is possible to select the effect playback direction (forward / reverse), and it is also possible to freeze the effected signal. When freezing, it stops recording the input signal, and plays back the content of it's audio memory in a repeated loop. Can be used as a kind of loop-recorder. Maximum granulator/delay time are 1.5 second. Playback direction, freeze, time and mix can be modulated.

THE RING MODULATOR

Has a selection of 4 different input sources for each input, and 3 different output destinations. Input1 sources are: Oscillator 1, external audio input, analogue filters and granulator/delay. Input2 sources are: Oscillator 2, LFO1, analogue filters and granulator/delay. Output destinations are: Digital filter, analogue filters and VCA. Ringmodulator output level can be modulated.

THE ANALOGUE VCA AND OVERDRIVE CIRCUIT

Anamono has a genuine analogue output stage VCA with added overdrive. The VCA (amp) output level is usually controlled by the amp envelope, but a drone level is also included, to keep the output constantly open. An envelope follower is also included, to make it possible for the signal present on the external audio input, to control the output level. Any other modulation source can also be routed for additional output level control. The drive level of the crunchy analogue overdrive circuit can likewise be controlled by any modulation source.

THE MODULATION SOURCES

All parameters in Anamono, that can be modulated, has a possible selection of 16 different modulation sources. They are:

-Mod Envelope: A traditional ADSR envelope. It has 2 sets of settings, that can be morphed between, using any modulator.

-Squared Mod Envelope: The output of the mod envelope turned into a square - When the mod envelope has a value below half of it's max value, this will be zero. When the mod envelope reaches above it's half value, this will be at maximum value.

-Modulator 1: An 8 step very flexible modulator with a smooth output. Each step has a value parameter, a time parameter (how long it will take to reach the next steps value), and a selection of, if it will continue, sustain or loop, after this step. It has a flexible trigger system: Off (freerun, no triggering), Key-reset (key triggered without re-triggering), Key-trigger (key triggered with re-triggering), Key'ed (advances one step, every time a note-on is received), Play (the play/enter knob starts and stops the modulator) and MIDI (syncd to MIDI). It has 2 sets of settings, that can be morphed between, using any modulator.

-Stepped Modulator 1: Modulator 1 stepped output. Every time modulator 1 reaches a new step/value this is updated. This can also be set up to put out note and gate values, and used as a morphable step-sequencer.

-Modulator 2: A 5-step shapable modulator. Step 1: delay time, step 2: rise time to full value, step 3: hold time at full value, step 4: fall time to zero, step 5: hold time at zero value. Can be key-triggered, looped or key-triggered and looped. It has 2 sets of settings, that can be morphed between, using any modulator.

-LFO 1 and 2: The LFO's waveforms are continuously variable from triangle to saw to square to pulse. The LFO's can be both wave and rate-modulated, using any modulator. Both LFO's can also be key-synced, and LFO wave start-point can be adjusted.

-Random Voltage: Each time it is triggered, it outputs a new random value. Trigger sources are: LFO1, LFO2 or key.

-Random Pulse: A squared version of the random voltage with adjustable pw. When the random voltage puts out a value above the pw, the output of this will be zero. When the random voltage puts out a value below the pw, the output of this will be max.

-Mod Keyboard: The last received note on value are converted to a control level, using to parameters: Offset (at what note value, will the modulation start) and spread (makes the control curve more steep, at higher values).

-Velocity: The last received note on velocity value.

-Envelope follower: The audio signal present on the external audio input converted to a controller shape. With adjustable smoothing.

-MIDI Controller 1-4: The last received values from these four controllers or from edit knob 1 (ctrl 2) or 2 (ctrl 3). If edit knob 1 and 2 are assigned to a parameter in the assign section, MIDI controller 2 and 3 will also be assigned to these, and ignored as modulation sources.

MIDI CONTROL

Anamono receives note on's and off's and program change on the selected midi-channel. The oscillators also receives pitch-bend data. MIDI controller 32 selects program bank (0 or 1), MIDI controller 1 and 4 are routable to all parameters, that can be modulated, MIDI controller 2 and 3 are routable to any parameter (together with edit knob 1 and 2), MIDI controller 65 selects between primary and secondary controller set, and the rest of the MIDI controllers between 5 and 119 are hard assigned to a parameter (see parameter list). All parameters can be controlled using NRPN controller numbers (again: see parameter list).

THE USER INTERFACE

Anamono's user interface are very simple: One volume knob, two edit/controller knobs, an encoder with click switch and a play/enter pushbutton with blue LED. In edit mode, the two edit/controller knobs edits two parameters at a time, on the selected edit page. In sound select mode, they transmits midi-controller 2 and 3 internally to the parameters, where these controllers are selected as modulation source, or they adjusts the parameters, they are assigned to, if they are that. The encoder selects sound and navigate around in the edit pages plus it adjusts some switch-functions on some edit pages.



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