

Analogue Solutions Nyborg Modules | £599

Bruce Aisher dials up an analogue storm with two of the latest modules from Analogue Solutions

INCLUDES AUDIO

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WHAT IS IT?

A British analogue monosynth with a choice of classic Oberheim or Moog influenced filters

CONTACT

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HIGHLIGHTS

- 1 Characterful, real analogue oscillators
- 2 The wide-ranging modulation options
- 3 Great filters

Analogue Solutions have been purveyors of home-grown and well-regarded analogue synths for over ten years.

The key thing that connects all their gear is the heavy reliance on discrete electronics in their synth designs. This means they eschew the use of digital circuitry in all but the necessary nod to the modern world in the form of MIDI interfacing. This also means no CPU control of envelopes or LFOs, and not a DCO in sight. It's old-school analogue.

The two units up for testing here are the Nyborg 12 and Nyborg 24, one white, the other black, and each with a different filter design. This colour coding is a clear nod to Oberheim's early white-faced SEM modules, and Moog's more imposing black-panel house style. The units arrive in a market that is seeing an ever growing number of 'real' analogue synths, from Korg's large-scale resurrections to boutique modular units – so competition is fierce. According to Tom Carpenter, the man

behind Analogue Solutions, they were created in response to the demand for smaller, lower-budget instruments, but that didn't compromise on sound. So, in many respects the Nyborg 12 is very much a trimmed-down Telemark. You lose the patching sockets and Ring Modulation option, which of course makes for less flexibility, but there are some gains, as we'll see.

The Nyborgs employ two multi-waveform, independently tunable oscillators combined with a square wave sub-oscillator and noise source. The Audio Mixer section allows you to adjust oscillator level and waveform selection (sawtooth of pulse) for each oscillator, and add the sub or noise into the mix, but sadly not both at the same time – this is perhaps an inevitable compromise on such an instrument.

There is plenty of flexibility in the VCO tuning department, including the option of turning either oscillator into an LFO-like mod source. The reasons become clearer when you turn to the modulation switches, which allow one



VCO to modulate the other (and vice versa) and for them also to come under the control of an external audio source or the built-in envelopes. In each case you can choose the modulation source to be routed to changing oscillator frequency or pulse width. Oscillator Sync is equally flexible, and even includes the possibility of VCO2 slaving to the LFO. Besides the PWM option, oscillator pulse-width can be dialled in manually for each VCO.

The filters section is where the two Nyborgs part company and, though VCOs play a massive role in any synth's overall character, it is here that you find two different classic approaches to tonal shaping. The Nyborg 24 has a four-pole 24dB/octave resonant low-pass filter, similar in design to the AS Leipzig's Moog-style transistor ladder filter. Here you get something that can dig quite heavily into the raw oscillator output, for recognisably ballsy sweeps, and a bucketful of resonance, if required.

The Nyborg 12 instead employs a two-pole 12dB/octave multi-mode filter.



resonance front, the Nyborg 12 features a Q Boost switch which pushes things into somewhat nastier territory. AS mention that this is worth trying with VCO2 as a mod source (a form of cross-modulation) – nice! The modulation possibilities in the filter section are again quite extensive. It's worth noting that the simpler Nyborg 24 uses the extra panel estate for additional modulation source and

changes). One nice feature in the VCA section is the possibility of having the VCA triggered by a note-on or gate signal (with or without the full envelope shaping) or re-triggered by the LFO.

The final part of the sonic equation is the LFO which has triangle and square wave modulation signals. You can also route Sample and Hold or CV2 (velocity) signals to the VCF and VCOs. See below for more on MIDI and

other connectivity.

I found both Nyborgs a lot of fun to use. I was instinctively drawn to the Nyborg 12 and its multimode filter, but this is in many ways merely

a personal choice. While these synths are not especially cheap, both are more flexible than they perhaps first appear – and you're getting a well-made, hand-built 'true VCO' synth that should last a lifetime. The Telemark offers more scope for experimentation, but is therefore more complex (and more expensive), and there is a lot to be said for keeping things patch-free.

If I was in the market for a grown-up analogue monosynth, I would certainly put the Analogue Solutions Nyborg units on my short list. **FM**

The Nyborg 12 features a Q Boost switch which pushes things into somewhat nastier territory

This means that on paper it should have a more polite tone, but with the flexibility afforded by the possibility of switching between four different filter configurations – low-pass, high-pass, band-pass and notch (with a dedicated control for adjusting the relative mix of low and high-pass filters that contribute to this shape). As many 12dB/octave filters tend to be quite tame on the

amount selectors that include routing possibilities not available on the 12.

The Nyborgs have two, three-stage (Attack, Decay/Release and Sustain) envelope generators. Although available for other modulation duties, EG1 is primarily intended for controlling the filter (in the 12 it's the only EG available for this) and EG2 for controlling the VCA (for amplitude

MIDI And Other Connectivity

The rear panel of the Nyborg includes the expected audio output and MIDI In, but you also get two audio inputs that patch external signals directly into the internal mixer. By switching the VCA to 'Bypass' you can use the built-in filter as an effects processor.

The top of the front-panel has five 3.5mm jack sockets which allow you to avoid MIDI completely and

interface the synth with other analogue gear. Pitch 1 and 2 offer 1V/Octave pitch CV control of each oscillator, with further CV input routed to filter cutoff. The Gate input is used for triggering the two internal envelopes. However, you also get an additional CV input that appears as a modulation source in various areas of the synth.

The MIDI input is closely aligned to these

inputs, as it has to turn MIDI note and controller messages into control voltages for them to be useful to the synth. MIDI notes are routed to pitch (as you would expect), and velocity is sent to 'CV2' available as a source in the LFO section. The Function button on the front panel allows you to change MIDI channel and remap CV2 to MIDI CC message control.

SPECS

VCO1: Tune, Octave, PW Mod, FM Mod, Manual PW, Mod Source, Saw out, Pulse out, Sync, Free Run

VCO2: Tune, Octave, PW Mod, FM Mod, Manual PW, Mod Source, Saw out, Pulse out, Sync, Wide Range

VCF: filter, Variable Notch filter. Cut-off, Resonance, Modulation Amount, Mod Source, MIDI Mod, Resonance Boost

EG1 and 2: ASR envelope with trigger LED

LFO: Speed, Output Mode (Square, Triangle, Velocity CV, S+H)

Noise generator: White noise

Sub OSC: Minus one octave, taken from VCO1

MIDI to CV: 16-bit high resolution with auxiliary controller CV2 output

MIDI: In, Thru

I/Os: Audio Out, Ext1 (CV or Audio), Ext2 (CV or Audio), AC power in, MIDI IN, MIDI THRU

Nyborg 12 filter: Oberheim SEM style filter

Nyborg 24 filter: Moog style filter

ALTERNATIVES



Studio Electronics Boomstars (Various)
£700

More plentiful on the modulation and parameter front, but more expensive.

www.studioelectronics.com



Doepfer Dark Energy II
£369

Only a single VCO here, but it does have quite a range of control and patching options.

www.doepfer.de

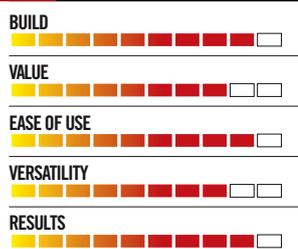


ARP Odyssey
£759

Korg's latest reincarnation of the twin VCO classic from yesteryear.

www.arpynth.com

FutureMusic VERDICT



Two well-built analogue rack synths with plenty of character and ample modulation possibilities.