# Analogue Solutions Telemark v2 [£899

# **Bruce Aisher** goes cable crazy and patches up an analogue feast of beautiful electronic noise with Analogue Solutions' latest baby

### WHAT IS IT?

A homegrown MIDI-equipped patchable analogue synth using the classic Oberheim SEM architecture as its starting point

#### CONTACT

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HIGHLIGHTS 1 It sounds great 2 Extremely flexible 3 Plenty of connectivity

ust over four years ago I took a look at the first incarnation of Analogue Solutions' Telemark synth module. In the intervening time we've seen no abatement in the fascination. love and sales of analogue synths both new and old. In fact, despite the proliferation of virtual software variants, the price of original 'vintage' hardware has been rising steadily. Not only that, but there has been a rebirth in remakes and reinventions of some old classics including those from synth legends Tom Oberheim and Dave Smith (father of both MIDI and Sequential Circuits). And last year Arturia (who up until then had dedicated themselves to the creation of emulative software) introduced a standalone synth with a completely analogue signal path that sported CV/ Gate connectivity (see *Ins and Outs*).

It is in this landscape that I now find myself staring at the spacious cream livery of the Telemark v2. The most noticeable aspect of the v2 is that on first glance it is substantially similar to the original. In fact there is little to indicate that this is an updated version unless you really know what to look for. In this case it means the replacing of two 'MULTIPLE' patch points with 'SUB-OSC/DIVIDER' and 'RING MOD' sections.

#### **Analogue legacy**

The Telemark was originally conceived as being a more feature-rich variation on Tom Oberheim's SEM (Synthesizer Expander Module) design from 1974. The Oberheim SEM achieved legendary status and went on to be the basis of some of the earliest polyphonic synth systems. Despite the similarities though, Analogue Solutions make very clear in the manual that it is "not intended to be and is not a clone of the SEM. If you want a true SEM sound, buy a SEM!". So you've been told.

In basic hard-routed terms Telemark v2 features two oscillators fed into a 12db/octave multimode filter (VCF) and amplifier (VCA). All these can then be controlled or modulated via two simple envelope generators, an LFO or MIDI. Each oscillator has independent tuning and modulation controls and can generate saw or square waveshapes (with sync) - there's also a white noise source. So not a vast feature set when compared to many virtual instrument monsters of today, but even in this configuration it is more than capable of some fantastic leads, basses and drum sounds. Where things get interesting is



with the patch panel to the right. Here you can access pretty much all aspects of the synth in terms of control and routing. For example, you can derive all the generated LFO waveforms separately and simultaneously, and feed each to a different destination. The multimode filter also provides separate outputs for the low-pass, band-pass, high-pass and notch sections.

Things get especially interesting in the v2 when you start to explore the new sub-oscillator/divider. By taking the sawtooth waveform from VCO1 and patching it into this section you get a sawtooth waveform an octave or two below (or both if you are feeling adventurous). The output here can then be routed back into the mixer section via another of the patching points. As all this section really does is divide the frequency of the input it can also be applied to the LFO. In fact half the fun of modular synthesis comes with the unexpected results of random patching.

## Lord of the rings

The v2 introduces a ring modulator section, which takes the synth into more clangorous territory. It's also worth remembering that the Telemark has rear panel input jacks for feeding external sources into the synth so that they can then be processed by all the available filtering and sound-processing sections



# Ins and Outs

Unlike modern digital hardware that relies on MIDI (or MIDI over USB) to send and receive control information. analogue gear exists in a universe of continuous voltages rather then an encoded binary one. In effect, pretty much everything is

centred on generating and manipulating voltages. This means that

interconnectivity in the pre-MIDI days was one of simple patch cables carrying audio or control signals. This led to an (almost) standardised system of CV/Gate control for playing notes across a

range of hardware. However, these signals can also be routed in all other kinds of interesting ways. In the Telemark, this might mean sticking

to the hardwired routing, making your own variations using the patch panel, or even processing external audio The beauty of this

system of voltage patching is that it enables you to go beyond the more obvious ways of using synthesis and to enjoy the options that serendipity plays in the creative process.

> reservations about internal buildquality (which happened to be a loose screw), closer inspection revealed the high-quality

innards. Spending a tenth of this will get you a pretty good software emulation of an Oberheim SEM, though it will most definitely lack the charm, sound, flexibility and physical presence of this very usable and individual hardware. FM

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The Telemark v2 builds on a solid heritage to deliver a great piece of truly analogue hardware.

### SPECS

VC01: Fine Tune, Tune, PW Mod. FM. manual PW. Mod Source controls, Saw out, Pulse out, Sync VC02: Fine Tune, Tune, PW Mod, FM, manual PW, Mod Source controls. Saw out. Pulse out, Sync VCF: Low pass, High pass, Band pass, Notch, Variable Notch. Cut-off, Resonance, Modulation Amount, Mod Source, MIDI Mod Mixer: Audio source mixer VCA: Mode switch. Output volume EG1: ASR envelope with trigger LED EG2: ASR envelope with trigger LED LFO: Speed, Output Mode (Square, Triangle, Gate, External CV) Noise Generator: White noise Sample and Hold: For random modulation effects MIDI to CV Converter: 16-bit high resolution with auxiliary controller CV2 output MIDI: IN, THRU Channels 1-16, MIDI controller or Velocity

#### ALTERNATIVES



£89 Arturia's software recreation of the

Oberheim SEM module.

#### www.arturia.com

#### Studio Electronics Boomstar SEM £799

A desktop analogue synth that's available in a range of filter 'flavours' including the Oberheim-influenced SEM model.

www.studioelectronics. com



Tom Oberheim SEM-Pro

£1.100

Produced by the daddy of the original SEM, but this time with MIDI to CV and a patch panel.

www.tomoberheim.com



# Things get especially interesting in the v2 when you start to explore the new sub-oscillator/divider

or even used as modulators themselves. I have to admit that initially I did miss the two 'MULTIPLE' splitter/mixer sections on the v1, even though they can be replicated by a purchasing few splitter cables. However, the addition of the sub/divider and ring mod sections more than makes up for this.

MIDI is well catered for with the Telemark v2, with the onboard MIDI to CV converter capable of controlling the pitch of the VCOs and filter cutoff (mapped to MIDI velocity) directly. The front panel also sports CV/Gate outputs allowing you to control other synths as well. There is also now a dedicated 'Clock' output derived from any incoming MIDI clock signal. I tested the Telemark under direct MIDI control and successfully hooked it up to an Arturia MiniBrute via the CV/Gate patch points.

It was also pretty straightforward (and lots of fun) to get the MiniBrute's arpeggiator to drive the Telemark.

The final addition to the v2 is Poly Mode, which allows you to chain two Telemarks to create a two-note polyphonic system. I'm reliably informed that a four-voice mode can added on request - now there's a system I could live with!

The Telemark is a flexible, very capable and fine sounding synth, especially when hooked up to an analogue sequencer or used in conjunction with software such as MOTU's Volta or Expert Sleepers' Silent Way (which allow some audio interfaces to double as multi-output CV/Gate sources). However, at £899 it is certainly not cheap, though it is by no means overpriced. Despite my initial