



## Dreadbox NYX 2 €539

It may look like other semi-modular desktop synths but, as **Si Truss** finds out, this dual-filtered module is a unique and fascinating beast...

**CONTACT** WHO: Dreadbox TEL: +44 (0)1447 765765 WEB: [dreadbox-fx.com](http://dreadbox-fx.com) **KEY FEATURES** Paraphonic analogue synth module with 30-point patchbay. Features two oscillators, dual 12dB filters, 3x modulators and modulated reverb effect





### THE PROS & CONS



Tons of filter routing and modulation possibilities

**Expanded patchbay is great for experimentation**

A great machine for drones and out-there FX



**The reverb isn't the most flexible of effects**

**N**YX 2 is a compact semi-modular monosynth equipped with a 30-point patchbay. Desktop analogue synths aren't in short supply these days, and semi-modular patchability seems to be the height of fashion; even within Dreadbox's own range, the NYX 2 faces competition from the similarly sized and spec'd Erebus. So what has this updated NYX got that makes it stand out from the crowd?

As with the first generation NYX, the main USP is the dual analogue filters, which come with a broad range of routing options allowing for some interesting sound design possibilities. There are two oscillators feeding into these two filters and – thanks to individual pitch inputs – these can be played paraphonically, so there's scope for interesting combinations of how the oscillators are controlled and routed through the filters and the rest of the synth's audio path.

Each of the two oscillators can be set to one of two wave shapes. Both

have a saw wave mode, but Osc 1 can also be set to a pulse wave – with pulse width modulation available via the patchbay – whilst Osc 2 has a triangle as its secondary mode. Each oscillator has a three-octave selection switch, plus a good-sized tuning rotary for fine pitch adjustments of  $\pm 12$  semitones. There are individual glide controls for each oscillator, plus level sliders for each in the mixer section. A switch above the mixer can engage sync between the two oscillators.

The NYX 2 is also equipped with a white noise generator that is only

accessible via the patchbay, where it has its own small level control. This noise source is fairly loud though; dialling in just a little level results in quite dominant noise presence, even with oscillators turned up to high in the mixer. I found myself turning to an attenuator in order to dial in slightly subtler levels.

Paraphonic operation can be controlled in one of two ways. Firstly, using the DIP switches on the rear of the unit it's possible to switch between duophonic and unison modes, the former allowing the two

## THE ALTERNATIVES



### Dreadbox Erebus 3 €499

The Athenians' other desktop semi-modular packs a third oscillator and lo-fi delay.

[dreadbox-fx.com](http://dreadbox-fx.com)



### Arturia MiniBrute 2 £399

The second generation MiniBrute boasts extensive patching, at a price significantly cheaper than the NYX.

[arturia.com](http://arturia.com)



### Behringer Neutron £299

Behringer's well-equipped semi-modular monosynth is a bargain for less than £300.

[behringer.com](http://behringer.com)

oscillators to be fed individual notes via the standard MIDI input. In this mode, if a single note is played via a MIDI keyboard or sequencer it will set the pitch of both oscillators and trigger the envelopes. If a second note is played whilst the first is still held, this will affect the pitch of the second oscillator without retriggering the envelopes or altering the pitch of Oscillator 1. If two notes are played at the same time, the lower note takes priority (ie sets Oscillator 1's pitch).

The second method for paraphonic control is to use the individual CV inputs for each oscillator's pitch in the patchbay. There's a separate gate input here for triggering the envelopes independently of any incoming notes, and the VCA can be set to an always-open 'drone' mode, giving more flexibility when it comes to creating weird paraphonic textures and two-note chords.

The dual filters are both 12dB/oct. They share a single cutoff and single resonance rotary between

them, but there's a bi-directional offset dial for adjusting the cutoff point of the second filter relative to the first. The relationship between these two filters, and where they sit in the signal flow, is dictated by a trio of routing controls. First up, VCO routing has four options dictating where the signal from each oscillator ends up. These are Normal, whereby both oscillators are fed into filter 1, Split, which has Osc 1 and 2 feeding separately into Filter 1 and 2 respectively, VCA mode, which makes the oscillators bypass the filters, and Half, which bypasses Filter 1 and routes both oscillators into Filter 2.

The next routing control sets the arrangement of the filters. There are four options: both filters in low-pass mode; Filter 1 low-pass and Filter 2 high-pass, creating a band-pass filter; both filters in high-pass mode; and parallel low-pass mode.

The NYX 2 has two routable rise/fall modulation generators, plus an additional generator for the VCA. The final routing control dictates how these mod sources interact with the cutoff of each filter. There are three options here, along with the ability to disengage modulation completely. The first mode has the two generators modulating the filters separately – ie

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## It can do meaty analogue monosynth sounds but it's best in unusual territory

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## SPACE MODULATIONS

As with the original, the synth comes equipped with an onboard reverb effect. Here that's updated with a new algorithm and additional controls allowing for modulation of the effect itself. This modulation is provided by a random voltage generator, which has a Rate slider to dictate the speed at which it produces new values and a Wave control for smoothing the modulation waveform. The reverb itself can be shaped by controls for Feed (ie decay) and Size. There are also sliders controlling overall wet/dry mix and modulation amount.

The effect in general is quite washy and feels pitched at ambient patches. With the Mix control very low it is possible to create a room-like reverb effect to add subtle space to



sounds, but anything more than this quickly gets into cavernous territory. As with a lot of the NYX's features, it works particularly well for drones and FX. The reverb will distort fairly easily too – having the oscillators up in the mix or a decent amount of resonance is enough to hear audible breakup from the reverb. This is far from unpleasant though and, again, works particularly well on modulated drones and ambient sounds.



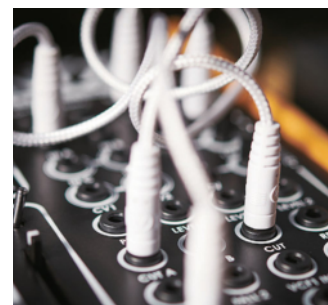
Mod 1 modulates Filter 1, Mod 2 controls Filter 2. The second routes both modulators to both filters simultaneously, whilst the third has just mod 1 routed to the two filters.

If this all sounds a little complicated, that's because it is; between these three routing selectors, there's a hefty assortment of signal path and modulation combinations. As a result, there's a lot you can do with the NYX 2 – from arranging the two filters in serial LPF to combine the 12dB filters into a single 24dB filter, to routing the oscillators and filters independently for weird, modulated paraphonic fun. The filter resonance can be pushed up into self oscillation too, and combined with the offset control this means it's possible to get two pitched tones from the dual filters simultaneously. Doing this with the oscillators routed to bypass the filters is a seriously fun tool for creating weird effects and glitchy rhythms, allowing up to four pitched elements tuned and modulated separately.

The modulators themselves are loopable three stage envelopes with slides to control Rise, Fall and Hold stages, plus another to set the overall level. Engaging the 'LFO' switch on each of these will cause the envelope to loop and act, as the labelling implies, more like a shapeable LFO. The NYX 2 also has a dedicated LFO with rate and depth controls, which is primarily used for applying vibrato to the oscillators. It can be routed elsewhere via the patchbay.

The one slight variation with the modulators is in the case of the VCA envelope, where the 'LFO' switch is labelled 'Drone'. In fact, this functions the same as the other modulators, causing the envelope to loop without retriggering – raising the Hold parameter will create a true drone without any amplitude modulation at all. There's also a further Drone Mode feature available for the NYX 2 available via the back panel switches, which turns the Glide sliders into course tuning controls, for better hands-on pitch control without the use of an external MIDI or CV input.

Beyond a few minor control panel changes, the main differences between this NYX and its predecessor are the updated reverb (see left) and the expanded patchbay. This latter element doubles the original's 15 points to 30, adding some interesting new features in the process. The most



**DUAL FILTERS:** These provide the heart of the NYX's personality – great with plenty of modulation applied

**MODULATORS:** The three-stage, loopable envelopes have a bit of a West Coast modular character to them

**REVERB:** Best for washed out ambient patches, and can be pushed into a pleasant distortion

**PATCHBAY:** The original's 15 patch points are doubled to 30, adding a mixer/attenuator too

noticeable of these is a new mixer/attenuator, which can sum up to four inputs with an overall output level control. There are also now individual CV inputs for the cutoff of each of the dual filters. The audio input has been moved from the rear panel (swapped for an additional headphone output), and instead the patchbay has two inputs allowing audio to be fed into Filter 1 and Filter 2 separately. These inputs open up some fun creative possibilities; feeding static or found sounds into one of the filters can create great results and, as outlined in the manual, it's possible to re-route the second oscillator to create really meaty, thunderous bass sounds.

In all, the NYX 2 is a pleasantly weird and creative instrument. It can do meaty analogue monosynth sounds but it's best when pushed into more unusual territory. Applying the wealth of modulation tools to the filters and oscillators is fantastic for creating odd, rhythmically complex loops and, for my money, the NYX 2 is at its best as a tool for drones and unique FX. Particularly coupled with the onboard reverb, there are some great atmospheric sounds available here.

This isn't the cheapest synth in its category. However, since it can do both straightforward synth sounds and more esoteric experiments, it is a good buy – and has the makings of a

synth that you'll be finding new uses for for years to come. **FM**

## FM VERDICT

# 9.2

**Dual filters and some great routing, modulation and patching possibilities make this more than just another semi-modular**