

# Rupert Neve Designs 5042

It's a box that does duties as a line amp but also has the constituent electronics (apart from the tape) to simulate a tape recorder. **JON THORNTON** doesn't miss having to do the line up.



**THE 5042 IS ONE** of the additions to the very useful Portico range of audio building blocks.

These half-width units can be mounted in a variety of ways — two abreast in a 19-inch rack or vertically in a custom chassis that accepts up to eight units in a 6U frame. The range currently includes a two-channel mic pre, a single channel mic pre with EQ, and a two-channel compressor/limiter. Emphatically analogue in design and construction, all units in the current range employ transformer balanced and isolated I-Os and a reassuringly rugged build.

Entering this audio pick 'n' mix, the 5042 (US\$1795) is a somewhat unusual addition. Billed as a line amplifier and Tape FX, it may not be something that immediately springs to mind as an overwhelming need, but the description belies a fair degree of flexibility in application.

At its simplest, the unit is a two-channel line amplifier. Inputs and outputs are transformer balanced and appear on XLR connectors on the rear, and a front panel trim control for each channel allows 12dB of boost or attenuation to the signal. In common with all the other Portico units, each channel can also be independently routed to an unbalanced bus output that appears on the rear panel on a pair of paralleled 1/4-inch jacks. These are designed to let multiple units share a common pair of buses, allowing you to define a channel strip or busing architecture as required.

A combination of all that iron on the I-O stages and the discrete componentry employed within means that even in this mode there is a slight, not unpleasant, colouration to the sound. This is largely evident in the lows and low mids, which sound a little more contained and rounded. The 5042 is very quiet in this application, and with a maximum output level of +25dBu, there's plenty of headroom. Which is all very worthy, but not hugely exciting.

And that's where the 5042 pulls out its party piece, in the form of a tape simulation mode. Internally this is achieved by actually building a real record and replay head assembly into the unit with the associated drive circuitry for the record head and equalisation

on the playback head. This allows for many of the inherently non-linear aspects of frequency response and distortion components associated with analogue tape recording to be applied to the incoming signal. Clearly, there is a crucial bit of the signal chain missing here, in that the record head's output is picked up directly by the replay head, rather than being printed to magnetic tape in the interim, but it's an interesting approach (*Yet another take on the 'tapeless' term. Ed*).

A single button engages this process, which brings into play a single control labelled Saturation. This effectively sets the record level going to 'tape', while simultaneously keeping the overall signal level constant by adjusting the 'tape' playback level to compensate. This obviously has some relationship to the signal level coming in to start with, which is adjusted via the trim control as usual.

To help with keeping track of gain structure, each channel has an eight-segment LED bargraph meter that can be switched to show input level (post trim control, so effectively output level as well), or the level that is presented to the record head, which will increase as the Saturation control is turned up. The meter starts indicating at 0dBu, and then runs up to a peak indication at +22dBu. One slight niggle here is that the peak indicator LED has quite a long hold time, which I found a little distracting at times. The folks at Rupert Neve Designs suggested that for best results I set nominal signal level coming in to be about +4dBu, and then adjust the saturation control to taste — so thus gained up, it was time for battle.

You might be expecting at this point to be on the receiving end of the usual adjectives so often rolled out when harking back to analogue tape, but you're going to be disappointed. In fact, the best adjective to describe the 5042 is 'subtle'. Engaging tape simulation and increasing the Saturation level — even to its maximum level — isn't about mauling the sound, but rather about introducing subtle artefacts that vary considerably depending on the source material. In addition to the saturation level, a switch selects the characteristics of either 15ips or 7.5ips tape speed.

This effectively starts to roll off high frequencies a little earlier at the lower speed setting, but also seems to have an effect on low frequency harmonics, making them appear a little more 'lumpy' at the lower speed setting. This is, to my ears, the most dominant artefact introduced by the process, resulting in a gentle rounding or tightening of sources like kick drums or bass guitars. At extreme levels of saturation, this morphs into that slightly 'squelchy' sound caused by tape overload, which with careful adjustment can actually yield some useful sounding results.

Higher up the registers, the process has the effect of just taking the edge off mid and high frequency harshness, although again high levels of saturation tend to move this towards being a slight 'smearing' of the sound. I liked this effect a lot when applied to electric guitar, and some instances of acoustic guitar. I was a little less convinced when it was applied to whole mixes or drum stems, and I can't help thinking that this is because of the missing link mentioned earlier (*No tape hiss either then. Ed*). Because, although the 5042 no doubt accurately introduces those harmonic distortion and equalisation artefacts, without the actual printing to tape, it's not going to properly emulate that tape compression effect found when working close to the MOL of a reel. And for pushing drum stems out of a DAW, given the choice I'd pick the real thing over the 5042 for just that reason.

All of which doesn't make this box any less impressive — in fact it was its subtlety that impressed me most. It's not a tool for radically altering a sound, but rather one for gently polishing it. Think of it as a well specified line amplifier with a touch of seasoning thrown in for free, and you won't be disappointed. ■

## PROS

Quiet, clean line amplification in a compact package; solidly built; tape effect subtle but effective at reducing perceived harshness.

## CONS

Maybe not as dramatic a process as some might like; peak LED hold time a little annoying.

## EXTRAS

Rupert Neve Designs' Portico 5043 Limiter-Compressor Duo delivers two channels of dynamics and a brickwall limiter in a half-rack. It features fully controllable dual mono or stereo operation plus feedforward/feedback detection switching.



Each channel has individually controllable threshold, makeup gain from -6dB to +20dB, ratio and VCA detection mode (feedforward/feedback). The channels may be used independently or connected in sequence to provide two separate control slopes on a single source. The DC control circuits may be linked via a front panel pushbutton so the level of each channel may be held in a constant relationship for stereo operation. With the compressor inactive, the 5043 may be used as a transformer-coupled, high-performance line amplifier.

## Contact

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