

Focusrite ISA428

The rise and rise of the DAW has brought with it a number of outboard units to cater for the needs of those who wish to eschew the traditional mixing console, but still have a need for decent microphone preamps to feed their DAW habit. **JON THORNTON** finds four.

WHILE THERE ARE MANY extremely good single and dual channel mic preamp units around, these can prove an expensive option for those needing a large number of simultaneous inputs. On the other side of the coin, there are units that offer eight or more channels of preamp, often with some dynamics processing thrown in for good measure. Unfortunately, economics and the need to hit manufacturing price-points mean that even the best of these units suffer from some compromises in their design, often using electronically balanced input stages rather than transformers, and with less than ideal circuit topologies.

The ISA428 then, is a welcome addition to the fold, offering 4 channels of high quality amplification in a 2U. Focusrite has also managed to squeeze in some rather nifty features and a very well thought out digital option.

There are four identically configured input stages. A button toggles the input source for each channel between mic, line and instrument level inputs. Mic inputs are transformer balanced and accessed via the rear panel on XLRs, while the line level inputs come into the rear panel on balanced jacks. Four



additional, unbalanced jack inputs on the front panel allow for easy DIing.

Mic and line level inputs have a stepped, coarse gain switch, which allows gain to be added in 10dB increments. When a mic level input is selected, this can toggle between one of two ranges, selected by an illuminated button immediately below it and allowing a maximum of 60dB of gain. A fine gain control follows and when an instrument level signal is selected the coarse gain control has no effect and this pot gives +10dB to +40dB of gain.

A high pass filter with a variable corner frequency and an 18dB/octave slope can be switched into the channel, and there are the usual illuminated switches for applying Phantom power and phase reverse. A post-gain balanced insert point, accessible by TRS

jacks on the rear panel, can also be switched in and out. So far, so good and pretty standard fare.

Two features stand out. The first is the inclusion of a button that allows you to toggle through four different input impedances for the preamp. The available impedances – labelled as low, medium and high – correspond to 600ohm, 2.4kohm and 6.8kohm. In addition, a setting labelled ISA110 corresponds to the input impedance of that classic Focusrite device.

In use, flicking between these settings produces the expected results. The highest setting generally yielded the most signal from the microphone, which then dropped as the input impedance was lowered. There were some slight variations in tonality – most notably with cheap and cheerful dynamic microphones on the

lowest setting, making this an interesting extra option for getting the best match between microphone and amplifier. I suspect that most units will remain on the high setting.

The second unusual feature is the mechanical metering on the four input channels. Scaled from -24dB to +2dB, these meters read peak level. The ballistics are very quick on rise time, with a longish decay, with 0dB correlating to 0dBFS on the optional A-DC card. Although they take some getting used to, as you instinctively expect them to act like a VU meter, they are easy to use and easy on the eye. An overload LED in the meter window also indicates the onset of clipping in the analogue stage, and the two combined give a useful indication of headroom.

Sonically, the ISA428 behaves exactly as you would expect of a unit of this pedigree, with circuitry that is essentially identical to that found in the acclaimed ISA430 Producer Pack. The preamps have a very open and transparent sound, managing to just err on the side of characterful rather than clinical, and cope well with all manner of programme material.

Balanced analogue outputs allow the unit to work very competently as a straightforward analogue device, but the addition of the optional digital card is more than a gesture in the direction of its intended market.

Once fitted, the 8-channel A-DC card bestows the ISA428 with digital outputs capable of working at up to 24-bit and 192kHz. Front panel switches allow the user to select sample rate and to dither the output to 20 or 16 bits. A back panel external Word-clock input is also selectable, and this can also accept 256x clock for interfacing to Pro Tools systems. Digital outputs appear on 9-pin D-sub connectors, for AES and SPDIF

formats, and on ADAT lightpipe. The AES outputs can output all 8 channels or split the 8 channels into two blocks of four when operating at higher sample rates.

By incorporating a 'standard' block of 8 channels of conversion on the card, there are clearly four A-DC channels going spare. The first four channels are fed directly by the outputs of the preamps, but Focusrite has allowed users to access the remaining channels via four additional, balanced line level inputs on the rear. This effectively provides you with an 8-channel A-D unit, but by investing in a second ISA428, it becomes a simple task to hook up its analogue outputs to these spare inputs, giving you a full 8 channels of preamp feeding the A-DC. And all 8 channels that feed the A-DC can be metered on short LED bargraphs at the extreme right hand side of the unit.

It's always easy to jump to the conclusion that onboard A-DC cards offered on analogue outboard are cut price in features and performance – but this simply isn't the case here. Not only can I not imagine a digital scenario (other than MADI) that this unit would not easily interface to, but the quality of the conversion is

extremely good, and at least the equal of any unit out there that retails for the same money for just a convertor.

The icing on the cake, then, is the provision of a proprietary soft-limiter that can act just before the A-DC stage. This applies compression progressively from very low ratios up to hard limiting as signals reach the top 6dB of the convertor's range. It works very transparently, even when it is forced to stomp all over absurdly high peaks, and certainly deals well with rogue transients. My only criticism is that it can only be switched on or off globally – if you want it on one channel then you get it on all.

And really, there isn't a great deal else to fault here. The ISA428 works very well, is easy to use, sounds great – and in my view represents tremendous value for money. ■

Contact

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PROS	Good sounding; interesting impedance switching option; very good and flexible A-DC options; well priced.
CONS	Globally switched soft-limit; not a lot else really...
EXTRAS	Focusrite has dropped the price of its Platinum Compounder from UK£499 to £299, making this Editor's Choice compressor exceptional value for money.

