



Antelope Audio Orion Studio

Hardware-hosted low latency plug-ins impress **RUSSELL COTTIER**

Antelope's Orion (generation 3) Synergy Core is the latest incarnation of the Studio series, visually it resembles the 2017 version, but with the addition of a Thunderbolt 3 port as well as USB 2.0 High-Speed. However, this time things are a little different inside.

There are four front panel XLR/TRS combo-sockets which can be set to Mic input, Line, Direct or Hi-Z. The Orion Studio preamps sound great with a low noise-floor that measured exactly as specified. The mic pres offer an EIN of -128dBu and handle clipping rather nicely. Especially if you track with one of the AFX preamp models.

It's not quite the same as having a rack full of vintage pres but it is surprisingly close, without the hassle of maintenance and the inherent noise-floor of vintage gear. I would have had no qualms about running a full band recording session with the 12 preamps, printing the AFX chains on the way in. Guitars sounded clear and defined, the pres managed to capture the transients of my drum kit well. There was plenty of gain for ribbon mic overheads and my favourite chain of 1073 into a Blackface 1176 for vocals was easily achievable in the AFX rack.

Latency-free amp simulator

The four front panel inputs sounded great for DI instruments, they seem to offer enough impedance to not get too spiky with transients, getting a phat sound even with my Stratocaster when playing heavily distorted guitar. The reamp outputs on the front panel are particularly useful as it allowed me to capture a nice clean DI as well as an amp. I chained from the reamp output, through a Marshall Jackhammer and then back into the Orion Studio. The AFX amp sims and cabinet models from Overloud offered latency-free performance and this could be printed alongside the DI in the DAW. It would be nice to see the option of loading

impulse responses into the AFX cabinet modeller for a more realistic (yet less adjustable) sound. However the routing is so flexible you could combine almost any combination of hardware and software into your signal chain.

The line inputs are as expected, but there is also the option to bypass the preamp circuit and go 'direct' offering lower noise-floor and a DC coupled input. Combined with the DC coupled outputs this will put the Orion Studio firmly into the wish list of many analogue-modular synth users. This will work nicely with Ableton's recent implementation of CV/Gate controls.

The rear of the unit offers eight combo-sockets, two inserts and a pair of monitor outputs on TRS. There are 16 line outputs on two DB25 connectors, ideal for modern studio gear. You could theoretically forego a patch bay, instead opting for one of these at a fairly similar cost. The monitor outputs offer a dynamic range of 130dB and sound great, there seemed to be a little more high end compared to my current converter, which I think is closer to a flat response.

The unit offers an array of digital I/O with 2/2 ADAT Toslink ports and S/PDIF connectors. Antelope have of course included Word Clock BNC connectors and it's worth saying that the clocking in Antelope products is something special. Whether it is the OVEN clock source, the AFC jitter management or simply the support circuitry in these units that is creating the sound quality I cannot definitively say, but I have found the recordings I make on Antelope gear to have something special in terms of clarity and realism about them.

Synergy Core for Auto-Tune

So finally we must talk about the Synergy Core, a 2-FPGA and 6-ARM DSP array of processors targeted to offering 'near latency-free' processing with a maximum of 256 FX instances. Antelope has stepped up the game and included 50 AFX plug-ins with the unit, a really welcome return to the ethos that makes the company stand out against other hardware accelerated systems. The included effects are very



/ Antares Auto-Tune Synergy, a hardware accelerated pitch corrector

realistic and usable. They will run in the Antelope control panel and as inserts if you have the AFX2DAW plug-in.

So what are the DSP chips for? Well it seems Antelope has decided to start working with 3rd party plug-in developers and has kicked off the movement with Antares Auto-Tune Synergy, a hardware accelerated pitch corrector that runs live — this came bundled with the system and was very useful during tracking.

I've said it before but I can't help but think that this kind of gear could not only find a place in the studio, but also on the road as a touring mixer rig. With amp modelling, live vocal tuning, flexible routing and enough I/O to run a studio (or stage) the Orion Studio is definitely worth considering if you are in the market for a new converter. The Synergy Core promises future-proofing in terms of offloading processing from your CPU, and as such Antelope is really giving the other two popular hardware accelerated systems a run for their money.

The Orion Studio 3rd Generation Synergy Core retails at €2495 so it is a little more expensive than some other 1U interfaces, but there is a whole lot more packed into this unit than many of its competitors. 1

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PROS Direct mode offers CV/Gate connectivity. The 50 AFX effects bundled for free with the unit — a promising future for the Synergy Core and 3rd party developers.

CONS The control panel software could be a little more intuitive. AFX2DAW is currently only available for Thunderbolt connected devices and OS X.

www.antelopeaudio.com