

AUDIO FOR BROADCAST,  
POST, RECORDING AND  
MULTIMEDIA PRODUCTION

# resolution

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### Antelope Audio: The ultimate Cambridge

Antelope Audio's Cambridge, MA, headquarters is a hub of activity, with a focus on high-quality audio equipment. The company's commitment to precision and performance is evident in every product they release. From their iconic Trinity series to their latest OX-V series, Antelope Audio continues to push the boundaries of what's possible in digital audio processing.

The company's success is a testament to the expertise of its engineering team, led by founder and CEO, Bob Katz. Katz's deep understanding of audio theory and his passion for creating the best possible listening experience have made Antelope Audio a leader in the industry.

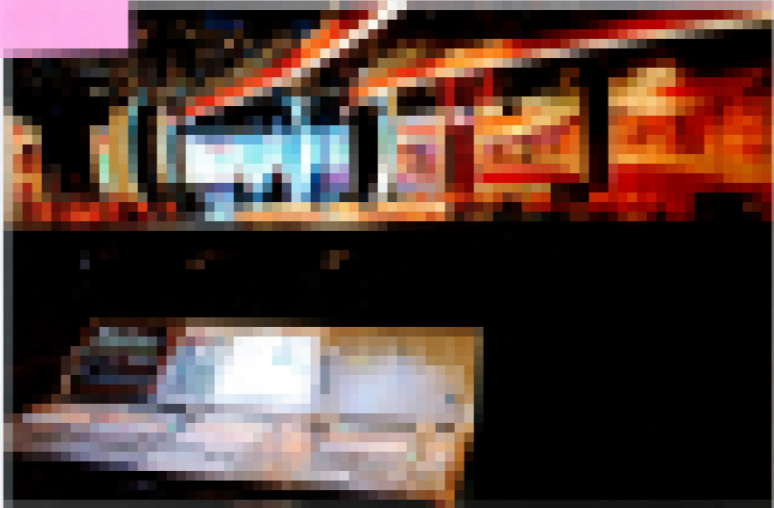
As the company grows, it remains committed to its core values of quality, innovation, and customer service. Antelope Audio's products are designed to meet the needs of professional audio engineers and enthusiasts alike, ensuring that every user can achieve the highest level of audio fidelity.

### Expanding Horizons: Antelope Audio's Global Reach

Antelope Audio's global reach is expanding rapidly, with a strong presence in Europe, Asia, and Australia. The company's products are now being used by top-tier recording studios and live performance venues around the world. This international success is a result of Antelope Audio's dedication to providing exceptional customer support and technical assistance to users in every corner of the globe.

The company's commitment to quality and performance has earned it a reputation as a trusted partner for audio professionals. Antelope Audio's products are not just tools; they are investments in the future of audio production. As the industry continues to evolve, Antelope Audio remains at the forefront, always ready to meet the challenges and opportunities of tomorrow.

### Smackin' with OLS



The image shows a professional recording studio control room. Several large computer monitors are visible, displaying various software interfaces. The room is dimly lit, with the primary light source coming from the screens. The overall atmosphere is one of focused technical work.

### Lower latencies

Lower latencies are a critical factor in digital audio processing. They ensure that the audio signal is processed and outputted in real-time, without any noticeable delay. This is essential for live performance and recording, where timing is everything. Antelope Audio's OX-V series is designed to provide the lowest possible latency, ensuring that every note is captured and reproduced accurately.

The OX-V series achieves this through its advanced atomic clock technology, which provides a highly stable and precise timing reference. This results in a more accurate and consistent audio signal, free from the jitter and timing errors that can occur with standard digital clocks. The result is a cleaner, more professional sound that is truly audible.

### Rafa is clock watching

Producer/mixer/engineer Rafa Sardina uses Antelope Audio's clocks as a core 'building block' of his After Hours studio in Santa Monica. 'I was doing some movie scoring sessions and needed to use different sampling rates on the same clock because some of the composers had started the project using different sampling rates. The Antelope OX-V was the only box I could find that could simultaneously provide different sampling rates,' said Rafa. 'I was blown away and purchased it right away.'



He then began experimenting with Antelope's atomic clocking technology and bought the Trinity/10M combination and says the difference it has made in his studio is 'absolutely audible.' 'People tend to concentrate too much on preamps and EQs when upgrading their studios, but for me, great clocking makes all the difference,' he said. 'Acoustics, speakers and clocking are the three most important ingredients in getting a great sound. Make these the number one investment in a studio, and it will completely change your world.'

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# Antelope Audio Orion32

This clever box sits at an attractive price point and offers a stack of functionality — 32 A-D/D-A converters, USB, MADI, ADAT, SPDIF and master clock — that can sit at the centre of many systems. **ROB JAMES**

The multichannel convertor scene is usually rather sleepy but recently has been waking up with some exciting high-end releases. The good news is that even lower priced examples have improved out of all recognition compared with a few years ago. At the top end prices are high to stratospheric and separating the virtues and vices is a quasi religious experience. It is in the middle ground that some of the most interesting developments are happening, which is where the Antelope Audio Orion32 comes in. The manufacturer is the brainchild of Igor Levin, best known for creating the AardSync for Aardvark, and now has a considerable reputation for audio veracity thanks to its high-end atomic clocking technologies and converters. The Orion32 sits at an attractive price point (UK£1745 + VAT) with a lot of functionality — 32 A-D/D-A converters, USB, MADI, ADAT, SPDIF and master clock.

The 1U Orion32 front panel is finished in matt silver with a smoked, angled display section in the centre. A 'soft' Power pushbutton is on the left-hand side with an Oven clock LED next in line. This lights up when the internal clock is the reference. Lock lights when the unit is locked to an external digital audio signal (not USB.) 10M illuminates when an external atomic clock reference signal is plugged into the rear panel socket. Up and down arrow buttons increase and decrease the sample rate with a choice of 32kHz, 44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4kHz and 192kHz — the current sampling rate is shown in the adjacent red LED alphanumeric display. The right-hand side of the display is occupied by two rows of 32 OLED bargraph meters, small but perfectly formed. To the right of this the Antelope button is used in conjunction with the first three of the five Preset buttons and LEDs to restore factory defaults, to enter calibration mode when an atomic clock is connected, and to display information about the Orion32 — serial number, hardware revision and firmware revision.

The rear panel is quite busy with an unswitched IEC mains socket, BNCs for Word clock and 10M atomic clock inputs and four Word clock outputs on the left, followed by coaxial SPDIF I-Os on phonos,

four Toslink connectors for 16 channels of ADAT I-O (at 1fs, commensurately fewer channels at sampling rates up to 4fs), a double optical MADI connector for 64 channels of I-O and a High Speed USB 2.0 B type socket. The right-hand side of the rear panel is populated with 8 25-pin D-Sub connectors for 32 channels of analogue input and output using Tascam pin outs.

This is essentially a 32 input, 32 output device — that is the maximum number of concurrent channels that you can get into and out of a computer via USB and also the number of analogue I-Os. Note that the number of USB I-Os at 176.4kHz and 196kHz is reduced to 24 on Macs thanks to the way Apple has chosen to implement USB. While 32 analogue I-Os will be more than adequate for many purposes — and there is the bonus of 16 channels of ADAT I-O and two of SPDIF — it is also possible to daisy chain two units via MADI and thence to a MADI card in the host computer thus giving access to the full 64 MADI channels. In this configuration all 64 analogue inputs and outputs across the two units are available to the host.

Setup and the computer user interface is taken care of by the Orion Software control panel running on a Mac or PC. Control panel and driver software needs to be downloaded and thus means you can be sure of getting the latest versions. Installation is pretty straightforward but you have to register to activate the control panel. Orion 32 is supported on Windows 7, Windows 8 and Vista but not on XP; for Mac users OSX is *de rigueur* and the driver is qualified for 10.6.8 and 10.8.2. Once installed the control panel is impressive with nice 3D graphics, not the horrible flat ones so popular these days, and a well designed user interface.

The top half of the window shows the meters and the bottom switches between the routing matrix and mixer. A 'gear' icon alongside the help, minimise and close icons opens the settings dialog. This has controls for the two line-up oscillators, frequency (1kHz or 440Hz) level and individual mutes along with switches for sample rate conversion on SPDIF, S-MUX

on the MADI input and output and A-DC/D-AC trims. It is worth noting that analogue inputs and outputs are +20dBu maximum and the trims are digital in 1dB increments between 14dBu and 20dBu. At the bottom of the dialog a large button initiates a check for firmware updates; I used this and was led through the painless update process step by step.

The main control panel screen is intuitive with drop-down selection of meter sources for both banks. Routing is drag and drop of single sources or ranges if the Shift key is used. Sources can of course be routed to multiple destinations including the mixer and this is a big deal because it makes it easy to set up a monitor mix for foldback purposes. The 32 mixer input strips have Mute, Solo, fader and pan controls and the master has a mute. Latency, an important issue for some, is commendably low but depends a lot on the DAW you are using it with.

The Orion32 front panel is unusual in that it only has two rack screw holes — one top left, the other bottom right. This is fine and dandy for the unit itself, which is quite shallow at 220mm depth and light at 3kg, but some thought will be required if even half the 25-pin D-Subs are in use. It is good practice to use cable supports in the rack anyway but in this case it's essential.

Antelope has a considerable reputation for audiophile sound and the Orion32 does not disappoint. In the absence of extended double-blind listening tests the sound is as neutral as I could wish for and will give many of the high-end dedicated convertors a run for their money. The clever part is having the 32 analogue I-O channels available over USB. This is sufficient for some serious recording and also for multiple outputs for foldback, monitoring and even multiple surround outputs and with two units you have access to the full 64 MADI channels.

As with all converters, when considering a purchase, you should do two things — listen to it properly (obvious, but so many people don't do it) and make sure it will fit into your workflow, or that you are prepared to make any changes necessary. If it passes these two tests the Orion will not disappoint. ■

**PROS** A lot of bang for the buck; neutral conversion; very versatile.

**CONS** +20dBu maximum analogue levels in and out; level trims are digital rather than digitally controlled analogue; coax MADI would have been a nice addition.

## Contact

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