

Lynx Studio Technology Aurora 16

Now accepted as a quality influencing component in the computer's add-on arsenal, convertors are still frequently locked in the box with the rest of the paraphernalia. **ROB JAMES** investigates an A-D/D-A that takes the convertors out of the computer and adds a whole lot more besides.



IT IS NOW PRETTY well understood that digital workstations demand high quality convertors to give of their best. With this understanding has come a demand for products that fit the description and manufacturers have not been slow in bringing a sometimes bewildering array of designs to the market. Many convertors have established their *bona fides* where audio veracity is concerned, but there is more than that to designing and building a successful convertor product. If we take it as read that audio quality comparisons of the better examples have become a matter of theology rather than technology then, once the dross has been eliminated, the decision making process comes down to comparing convenience, productivity and cost effectiveness.

Lynx has a great reputation for producing DAW audio interface cards with some of the quietest analogue convertors ever seen (and not heard) on an internal card. The UK£1995 (+ VAT) 1U Aurora 16 departs from this theme by taking the convertors out of the computer and adding a whole lot more.

Essentially, Aurora provides 16 channels of AES-EBU digital I-O (16 I-O in single-wire mode or 8 I-O in dual-wire mode), 16 concurrent channels of analogue I-O with 16 channels of A-D and D-A conversion. All I-Os are 24-bit at up to 192kHz. Although perhaps best suited to operation with a DAW, the device can also be operated standalone as an A-D and D-A convertor, a digital router and format convertor.

Front panel control is via six orange buttons and a forest of indicator LEDs. Multiple key presses cycle through the available options. Thus the sample rate button steps through all available sample rates when the sync source is set to internal and the sync source button goes through all possible source options. If no valid clock signal is available for the selected source its LED will flash. Similarly the To Analog and To Digital Out buttons cycle through Analog In, AES In and LSlot In. A further press lights all three indicator LEDs showing that the Aurora is under remote control. The Meter button switches between analogue and digital metering and the final button's function depends on which metering mode is selected. When in analogue metering mode it switches all analogue input and output channels between -10dBv and +4dBu modes. In Digital metering mode it steps through the AES-EBU single and dual-wire modes. Single to dual wire conversion in either direction

is possible (although obviously the channel count is reduced in dual wire mode).

The meters themselves consist of two LEDs per channel. The bottom orange ones vary in brightness according to signal strength while the upper red ones light to indicate overload.

Lynx has a nifty control application for Aurora, downloadable from its website. I installed this on a PC and used a MIDI interface for communication to test. I also used it on a PC with the Lynx AES16 Audio Interface card. In this case communication is carried over one of the AES multiway cables. Alternatively, the Aurora has an infra-red transceiver that will work with either a suitably equipped PC or Pocket PC. The software supports PC, Mac and Windows CE.

While it is perfectly possible to operate the Aurora from the front panel, the control application makes things even clearer, offering extensive metering, individual channel patching and level control. Analogue and digital inputs can be mixed for zero latency monitoring and more extensive mixing is available when used with the Lynx AES16 card.

All audio connections are on 25-pin D-sub sockets. Two connect the 16 channels of AES-EBU I-O and the other four connect the 16 channels of analogue I-O. Word clock I-O uses BNCs and MIDI in and out are on the usual DINs. Analogue I-O is electronically balanced with selectable +4dBu and -10dBv nominal levels. The AES-EBU digital I-O is transformer coupled. A blanking plate covers the Lslot expansion port.

Currently the only available option is the UK£189 (+VAT) LT-ADAT optical and a very reasonably priced LynxTwo/Aurora Interface Kit. Others are promised soon. The LynxTwo kit adds a 6-foot cable connecting a LynxTwo or L22 to a DB connector on an Lslot mounting plate. An internal ribbon cable is connected to the Aurora. This arrangement adds up to 8 channels of I-O at 96kHz, 4 channels at 192kHz (Aurora 8) and 16 channels of I-O (using Aurora 16) at 48kHz.

Sync can be internal or derived from Word clock input, Word clock at half sample rate, AES A or B, or the LSlot. Lynx employs a technology it dubs Synchrolock to filter noisy and jittery external references to provide a stable lock and a low-jitter clock output. The stability claims are impressive. In the absence of any means of objectively verifying

them I will say that I noticed no audible jitter artefacts during the review period. Synchrolock takes a minute or two to get its act together but once the LED is lit, the lock seems rock-solid. Synchrolock can be disabled using the external control software but, except for the terminally impatient, I cannot see any good reason for doing so.

In a crowded market Aurora distinguishes itself in several ways. The price point is well aimed for a box that crams this amount of quality conversion into 1U. Operation is simple and intuitive whether using the front panel or the remote software. It is this software control that makes Aurora more desirable in a DAW set-up than alternatives relying solely on buttons. For the golden eared, only a shoot-out in ideal conditions will clinch the deal. For other everyday professional audio applications, Aurora should definitely be on the shortlist wherever 16 channels of 192kHz bidirectional conversion are required. ■

PROS Sound is up there with the big boys; versatile; logical.

CONS Runs somewhat hot (but then so do most convertors); a sample rate conversion option would be nice.

EXTRAS The 8-channel version Aurora 8 is available at £1495 (+VAT). The AES 16 (pictured) card is available at £545 (+VAT).



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