Lynx Studio Technology Aurora 8/16

While we've looked at the Aurora in the past (*Resolution* V5.4), the list of interface options has increased to the point where it warrants a slight return. ROB JAMES flips off the lid.

*I*n an audio world where increasingly the lowest common denominator prevails it is heartening to see at least a flicker of interest in high fidelity. I seriously doubt we will ever see a return to the heady days when a lot of people had some understanding of and aspiration towards true hifi. MP3 and the idiot phones have seen to that. However, it is interesting to note that, just as in the heyday of hifi, there is a noticeable overlap in high-end equipment between the producers and consumers.

If the nascent HD home audio market takes off in any meaningful way then high quality convertors with some street cred in professional circles are going to be in demand. Once bit-for-bit accuracy is established in the digital domain and jitter is reduced to a minimum, the D-A convertor is the only remaining step on the path to audio nirvana before you get into the analogue reproduction chain. One highly credible contender to bridge the divide between 'professional' and 'hifi' convertors is the Lynx Aurora. In the five years since it became available the Aurora has established a good reputation as a studio convertor. One of the attractions is the number of digital interface options that have been added during this time. Although there are no Thunderbolt, AVB or Dante options, AES-EBU, USB2, FireWire 400, MADI, Pro Tools HD and ADAT are all possible. I believe that we are moving inexorably towards standard digital audio connections over Cat5/6 cabling using Ethernet and IP protocols but this is still in its infancy. No doubt, when the mists clear, Aurora interface boards will be developed to support the popular options.

The Lynx Aurora is available in two basic versions which, as the names imply, differ only in channel count. The Aurora 8 has 8 channels of A-D and D-A conversion plus 8 digital I-Os and the Aurora 16 unsurprisingly has 16 of each. Further variants have been added; the Aurora 16 VT which has variable trims on all analogue inputs and outputs, Aurora 8 and 16 HD, which have the LT-HD Pro Tools option card preinstalled, and the Aurora 8/FW which is the 8-channel version with the LT-FW option card preinstalled.

Fitting or changing an option card is a small engineering exercise, not just plug and play. First the lid has to come off the unit, something we are not usually encouraged to do. This requires the removal of eight screws, one of which is small and delicate. Once exposed, a screw must be removed from the Aurora main board and a stand-off substituted. Antistatic precautions are required to avoid damaging components. Depending on the type of card, connection is either made directly via pins on the bottom plugged into a jumper block or by a small jumper cable between a jumper block and the board. The screw removed previously is then used to secure the board along with the screws from the blanking plate.

All analogue and AES-EBU digital connections are on 25-pin Sub-D sockets. 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 unless or until it is populated.

Sync can be internal or derived from Word clock input, Word clock at half sample rate, AES A or B or the LSlot. Lynx uses a concept it calls SynchroLock to filter noisy and jittery external references to provide a stable lock and a low-jitter clock output. The claimed levels of stability are very good. Without the kit to measure digital audio performance with precision any judgement is necessarily subjective, however I could not detect any jitter artefacts by ear even on critical material. The SynchroLock process takes a while to get its act together but, once the LED is lit, the lock is solid. SynchroLock can be disabled using the external control software but, except for those with the attention span of a mayfly, I cannot see any good reason for so doing.

Front panel control is via six orange buttons and plenty of indicator LEDs and multiple key presses cycle through the available options. However, the control application for Mac, PC or Pocket PC, which can be downloaded from the Lynx website, is a much better option. Aurora also has an infrared transceiver that enables control from suitably equipped PDAs and I'm sure smart phones and tablets in the fullness of time.

While it is perfectly possible to operate the Aurora from the front panel, the control application makes everything clearer and offers extensive metering, individual channel patching and level controls.

The Lynx Aurora is undoubtedly in the audiophile class -- the quality of conversion is such that it sounds just fine in any normal context. Adequate and objective analysis beyond this would require extensive blind listening tests against other contenders in optimum conditions.

This is a highly versatile studio interface thanks to the variety of interface card options, the mixing and routing capabilities, and because it can be used 'standalone' as a digital format convertor. At the price point it also has considerable promise as a domestic HD audio convertor for a media server for stereo or multichannel reproduction. ■

PROS Audio conversion quality; versatile interfacing; the control application.

CONS No audio over IP options — yet; control via front panel is a bit fiddly; option card fitting is not trivial.

EXTRAS The Hilo Reference A-D/D-A convertor system provides two channels of mastering quality analogue to digital conversion, up to eight channels of digital to analogue conversion, a secondary monitor output, and an independent headphone amplifier in a half-rack size. Hilo's 480 x 272 touchscreen interface adapts to applications and can be upgraded with enhancements and new features. Initial front panel controls support signal routing and mixing, sample rate selection, clock source options, levels, metering and diagnostic features.

The digital or analogue inputs can be routed to three separate outputs, Line Output (with eight trim settings), Monitor Output, and Headphone Output. The Monitor and Headphone Outputs have volume controls, accessible via faders on the touchscreen or the single knob on the front (offering control in 0.5dB increments).

The Headphone section has its own dedicated D-AC and this supports the creation of 32-channel headphone mixes independent of the main and monitor outputs. The digital section offers a wide range of inputs. AES-EBU I-Os have transformer isolated balanced XLR connectors. SPDIF input and output are available via transformer-coupled coax or optical (Toslink) connections. The Optical ports can also be used for up to eight ADAT channels. The ADAT input and output channels are completely independent from the AES-EBU or SPDIF coax channels. The Lynx LT-USB LSlot accessory is also included, for computer connectivity. Lynx's SynchroLock Word clock is also included, with Word clock in and out connections. In total, Hilo has 12 inputs, 16 outputs plus 32 channels possible via its LSlot port.

OPTIONS

LT-ADAT— This features two Toslink optical ADAT inputs and outputs for a maximum of 16 SD channels in and out. SMUX is also supported for higher sample rates with the usual concomitant reduction in channels — i.e. 8 channels each way at 96kHz and 4 at 192kHz.

LT-MADI — Includes optical and coaxial ports for up to 64 channels of I-O at conventional sampling rates or 32 at 96kHz, 16 at 192kHz. Up to four Aurora 16s can be daisy-chained to give access to the full 64 channels.
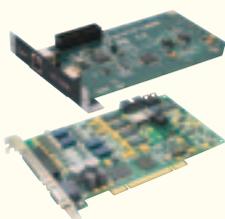
LT-USB — USB 2 interface adds 16 channels at 48kHz and 96kHz; 8 channels at 192kHz. Connects via a USB B socket.

LynxTwo kit — The kit adds a 6-foot cable connecting a LynxTwo or L22 PCI card 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 input and output at 96kHz, 4 channels at 192kHz (Aurora 8) and 16 channels of I-O (using Aurora 16) at 48kHz.

LT-HD —— Provides Pro Tools HD expansion ports. Pro Tools recognises Aurora as an Avid 192 I-O and controls it directly. Most of the front panel controls are locked out until the Pro Tools application is closed.

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