Lynx HiLo

It's a product that encapsulates a step up in the ambitions of this manufacturer of interfaces. ROB JAMES is confronted with a reference A-D/D-A convertor system that reveals a lot more besides.

*I*n a philistine world dominated by MP3 with smart phones as primary sources of audio for many consumers it is heartening to see a glimmer of light. A few manufacturers are finding it worth their while to target their wares at professionals and high-end hifi enthusiasts. Lynx Technologies is one such and has previous form in this area with the Aurora series. Now there is the Hilo, (which is, according to Lynx, pronounced He-low!) as an interesting blend of A-D and D-A convertors with a USB computer audio interface, digital format conversion and a routing/summing matrix and headphone amplifier.

Professional convertors and summing matrixes are not generally the prettiest devices but Hilo is a notable exception to the rule. The box is a 2U high half rack width equipped with hifi type feet. The smart alloy front panel is dominated by the central 480 x 272 pixel LCD touchscreen display. To the left, the soft power button glows blue and to the right a smooth shaft encoder/pushbutton and recessed ¼-inch headphone jack complete the picture. At the rear things are a little busier with six XLRs for stereo analogue line I-O and stereo AES-EBU I-O. Above the analogue XLRs is a single USB2 B type socket. Monitor out is on two balanced ¼-inch jacks, SPDIF I-Os are on phonos and two Toslink sockets deal with optical SPDIF or ADAT I-O. Word clock in and out are BNCs and power is connected either to a combined IEC mains socket/switch or 9-18V DC, for example from a camera battery, to a standard four-pin XLR.

In the default meter screen the encoder knob controls the monitor out volume. Pressing the knob switches to controlling headphone volume, this is adequate but could be more generous.

Hilo supports sampling rates up to 192kHz with clock derived from an input signal or internally. One minor annoyance is that when connected to a computer via USB, the sync source can only be changed by removing the USB connection. Two USB modes are available, either 16 input and output channels at sampling rates up to 96kHz or 8 input

and output channels at sampling rates up to 192kHz.

To provide stable clock from potentially jittery external signals the Hilo is equipped with Lynx SynchroLock. This uses the internal crystal oscillator to generate a clock signal phase-locked to the external clock in a two-stage process. An analogue PLL is used for immediate clock synchronisation when a sync source or sample rate is selected. This is followed by a digitally controlled crystal-based secondary stage. It can take SynchroLock anything up to a couple of minutes to achieve full lock. Line Inputs and Line Outputs can be set to Trim values of +18dBu, +20dBu, +22dBu, +24dBu, +0dBV, +2dBV, +4dBV, and +6dBV. For matching external equipment and for calibration purposes 25-turn trim pots are provided. These are accessible by removing a plate from the bottom of the unit. Plus/minus 0.5dB of adjustment from the spot trim levels is available. The monitor outputs are set to the common default for powered speakers, -10dBu maximum. If required this can be changed to +24dBu via jumpers on the main board after removing the bottom panel.

An expansion slot supports Lynx LSlot cards, familiar from the Aurora series, such as FireWire, ADAT and MADI for a total of up to 32 simultaneous

inputs and outputs.

There are three metering display options currently, horizontal bar, all I-O and 'analogue' VU. The All I-O Meters screen displays the signal activity for all the Hilo digital and analogue inputs and outputs apart from Toslink ADAT. The type of meter displayed can be changed by simply touching the screen. This pops-up the Meter Type menu where you just touch the required display type in the list. Similarly, once the meter display type is chosen a touch on the labels, e.g. Line In, Line Out, pops-up a menu with all the available meter source options.

The return symbol at the bottom right-hand corner of each meter page goes to the menu page accessed most recently. Five round buttons at the bottom of the screen — Meters, Display, Information, Tools and Home — access the menu pages. When a button is touched, it illuminates. The last button touched or changed is illuminated when that Menu page is selected. Most buttons are dual purpose. They display the current setting and, when touched, pop-up a menu with the available setting choices. The on-screen faders can be moved on the touchscreen but I found it easier to use the encoder since touch and drag seems less positive to me on a screen.

Although at a glance you might think that the Hilo is a fairly simple two channel A-D/D-A convertor, it is in reality a great deal more. The Output Mix Routing allows any combination of inputs to be routed to any combination of outputs. This is not just simple patching, Hilo has a 32 X 32 internal mixer. Multiple inputs are summed to the relevant outputs. Levels for all input sources and outputs are individually adjustable and sources and outputs can be muted individually.

It's worth noting that the USB Play devices can be routed to USB record devices. One obvious use for this is as an easy way of recording audio streamed from the web. The AES and SPDIF digital inputs are equipped with sample rate convertors and when the SRCs are active ratios of up to 16:1 up or down are supported. Up to six presets or 'scenes' can be stored and recalled. Given the number of variable parameters available this is of considerable benefit.

Hilo already provides an interesting mix of high quality conversion, routing and metering. Since, like other Lynx products, it is based on programmable FPGAs it can be upgraded with further desirable features in the future. Diagnostic screens, such as a real-time analyzer, phase meter and loudness meter are in development. The current firmware does not support ADAT and is missing a couple of minor features. These will arrive with the first update download.

Needless to say, the sound is excellent. It would require extended listening tests to comment further. Hilo is one of the new breed, a device equally at home in a high-end domestic system or in a professional environment. The routing and mixing capabilities make it eminently suitable for a wide variety of applications ranging from location recording through voice-overs and overdubs to monitor controller and it has future potential built in. ■

PROS First of a new breed; versatility; elegance; sound.

CONS Headphone output could be more generous; touchscreen less convincing with faders for me.