

Lynx
**STUDIO
TECHNOLOGY**

**PROFESSIONAL
AUDIO
INTERFACES**



Lynx Studio Technology – The Leader in Innovative Professional Audio

LYNX STUDIO TECHNOLOGY was founded ten years ago with a specific goal – a goal that is still with us today. Our mission is to provide very high quality, innovative audio products that link computers and audio equipment at a fair price. During the last ten years computer-based recording has grown from a small percentage to being the dominant method of recording, mastering and production. Lynx has been an important part of that evolution. Lynx interfaces are now used in small home studios to world-class recording studios, low power AM radio stations to entire national broadcasting networks, and anywhere reliability and pristine audio quality are required.

Lynx was founded in 1998 by two engineers, Bob Bauman and David A. Hoatson, who brought decades of audio design experience to the table. Still intimately involved in all hardware and software development, they have maintained their standards to develop products that are innovative, reliable, powerful and fairly priced. From the LynxONE to the Aurora converter to the AES16e PCI Express card, Lynx offers a variety of audio products, computer-based and standalone, for your studio, broadcast facility or production house – all designed and manufactured in the USA.



1998

1999

2000

2001

2002

2003

1998

Introduced in 1998, LynxONE was the first professional level PCI audio card offering analog and digital I/O and MIDI for Windows and Mac computers. Thousands of LynxONES have been utilized for radio, production and recording and also brought pro level audio to the video production market as the audio interface for the classic Video Toaster.

2000

LynxTWO was the first PCI card to provide 192 kHz sample rates and mastering quality audio. Among LynxTWO's innovations are its video genlock capabilities, very high quality sample clock and 3:1 sample rate conversion. Available in three configurations, the LynxTWO-B model was the first pro level sound card capable of 5.1 audio playback making it the choice for 5.1 mastering and today's high end home media centers.

2003

At Lynx, if we can't be highly innovative, we don't bother. The AES16 was the first PCI card that offered 16 channels of 192 kHz AES/EBU input and output. We're still the only company who offers this in a single PCI slot. SynchroLock was first available on the AES16. This powerful sample clock generator acts as a stable, low-jitter clock source and fact provides up to 3000:1 attenuation of jitter on external clock sources. SynchroLock's jitter level is even lower than expensive standalone word clock generators.

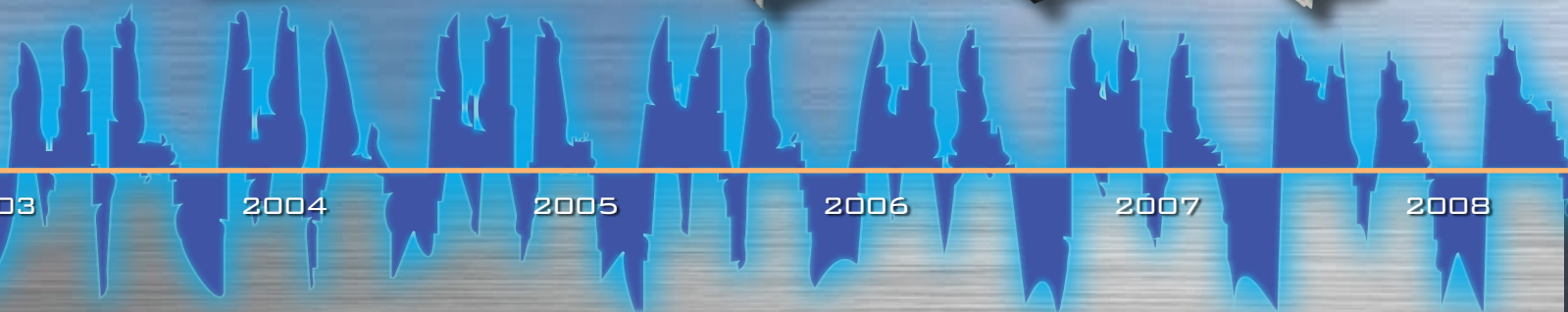
Interfaces



At Lynx, we do not subscribe to the “This Year’s Model” of business. In ten years we have designed sixteen products, with fifteen of them still in the line. That is amazing longevity in the computer audio market. We maintain this track record by continuously improving every product, through new software and hardware enhancements.

Central to the design of every Lynx product is the inclusion of a Field Programmable Gate Array (FPGA). The FPGA allows any Lynx owner to upgrade their hardware whenever new features or interface options are offered. So the LynxTWO bought in 2001 can be easily upgraded to have the same features as a Lynx-TWO shipping today.

We build everything possible into Lynx products except the obsolescence.



2005

Aurora is Lynx’s first non-PCI card product, offering 8 or 16 channels of 24-bit 192 kHz A/D and D/A conversion in a single rack space. Using the best quality components and years of design expertise, Lynx’s team of hardware and software engineers designed Aurora to provide industry-leading performance, transparent conversion, ease of use, and versatility. Now with connectivity to all major recording protocols, Aurora has found its place into the top recording studios and production facilities worldwide.

2008

The AES16e PCI Express card opens yet another outlet for Lynx innovation. The advances and advantages of the PCI Express bus over the older PCI format present many new options in high-end audio product design. With the AES16e, PCI Express computers now have a professional level interface for recording and broadcast. The AES16e is also the first computer audio interface to incorporate the AES50 standard, which transmits up to 48 input and output channels via CAT5 cable.



Aurora DA/AD Converters redefine the high-end conversion interface options and high-channel count set Aurora

The Aurora 16 and Aurora 8 AD/DA converters provide world-class analog to digital and digital to analog conversion in a compact one-rack space format. With sample rates up to 192 kHz, Aurora offers superior transparency and imaging for studios, mastering facilities, remote recording, broadcast and production. Lynx's exclusive SynchroLock sample clock generator acts as a stable, low-jitter clock source for Aurora and other studio devices, while providing up to 3000:1 attenuation of jitter on external clock inputs.

Aurora also avoids some of the limitations inherent in other pro level converters. Aurora does not have a noisy fan, does not lose channel count at higher sample rates and does not require costly expansion modules to achieve the unit's full channel count.

AURORA 16



Aurora 16 Mastering
AD/DA Converter

Sixteen Channel 24-bit / 192 kHz analog to digital and digital to analog converter

AURORA 8



Aurora 8 Mastering
AD/DA Converter

Eight Channel 24-bit / 192 kHz analog to digital and digital to analog converter

Aurora 16 and Aurora 8 Key Specifications:

Sample Rate	Up to 192 kHz
Analog In Dynamic Range	117 dB, A-weighted
Analog In THD + N	-108 dB (0.0004%) @ -1 dBFS; -104 dB (0.0006%) @ -8 dBFS
Analog Out Dynamic Range	117 dB, A-weighted
Analog Out THD + N	-107 dB (0.00045%) @ -1 dBFS; -106 dB (0.0005%) @ -8 dBFS

rtter market. Pristine audio quality, versatile apart from the competition

Expansion Cards for Aurora Converters

LT-HD



LT-HD Expansion Card for ProTools|HD® Systems

LT-HD provides digital input and output in a format that can be recognized by Digidesign® ProTools|HD® Core or Accel cards. Using standard DigiLink cables, all Aurora's settings can be controlled within ProTools for seamless integration. The Lynx exclusive "32-channel mode" in the Aurora 16 allows 32 channels (16 analog and 16 digital) to be accessed simultaneously from a single HD card.

Key Specifications:

Connections	One Primary and one Expansion DigiLink port with built-in delay compensation to match Digidesign I/O hardware
Channel Count	Supports full Channel Count at sample rates up to 192 kHz
Control	Responds to standard ProTools hardware controls, such as sync source, sample rate, routing

LT-FW



LT-FW FireWire 400 Expansion Card

The LT-FW is a FireWire 400 interface that allows up to 32 channels of analog and digital input and output for Windows and Macintosh computer-based workstations.

Key Specifications:

Connections	Two FireWire 400 (IEEE-1394a) ports
Channel Count	Up to 32 channels of analog and digital I/O at 96 kHz Up to 16 channels of analog and digital I/O at 192 kHz
Control	All relevant settings, such as sample rate selection, sync source selection, channel routing, latency, are enabled, controlled and monitored from the host computer

LT-ADAT



LT-ADAT LightPipe Expansion Card

LT-ADAT adds up to 16 channels of high-performance ADAT Lightpipe input and output.

The LT-ADAT is a full-function ADAT interface that provides two ADAT LightPipe inputs and two outputs. Sample rates above 48 kHz are supported with on-board S/MUX technology.

Key Specifications:

Connections	Two LightPipe Input and two LightPipe Output ports
Channel Count	Up to 16 channels of analog and digital I/O at 48 kHz Up to 8 channels of analog and digital I/O at 96 kHz Up to 4 channels of analog and digital I/O at 192 kHz
Control	By Aurora front panel or by computer via Aurora remote control software

AES16 and AES16e multi-channel AES/EBU Interface Card leading performance, stability and low latency

Lynx **AES16**



Since its introduction in 2004, the AES16 has been the leading PCI card for integrating computers, digital mixers and external converters with computer-based workstations.

The AES16 offers unprecedented AES/EBU channel capacity and routing flexibility in a single PCI card format. With support for up to 16 channels of input and output at sample rates up to 192 kHz, the AES16 turns your computer into a powerful digital router or patchbay with extensive flexibility and minimal cabling. The AES16 supports sample rates to 192 kHz via single-wire or dual-wire. Up to eight AES16's can be installed in a single computer.

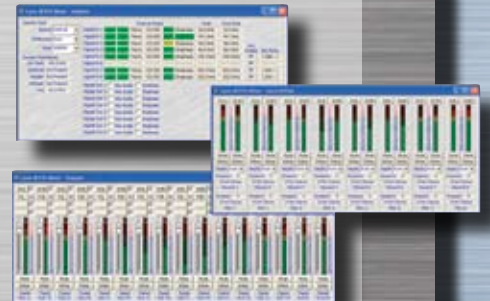
All AES16 models include Lynx's exclusive SynchroLock sample clock generator for ultra-low jitter performance. All AES16 models can also be used with the LS-ADAT expansion card, providing up to 16 ADAT inputs and outputs. Drivers and mixer software are available for the latest Windows and Macintosh operating systems.

Models:

AES16	AES16 PCI Card - no cables
AES16-XLR	AES16 plus two CBL-AES1604 (dsusb to XLR) six-foot cables
AES16-SRC	AES16 with eight channels of sample rate conversion plus two CBL-AES1604 cables

Key Specifications:

Digital I/O	Eight stereo inputs and eight stereo outputs 24-bit AES/EBU format, transformer coupled
Channels	16 In/Out single-wire; 8 In/Out dual-wire
Sample Rates	All standard and variable rates up to 192 kHz in both single wire and dual wire modes
Sample Rate Conversion	Eight channels with conversion ratios up to 16:1 in AES16-SRC only



Lynx mixer software

ards provide industry-



The AES16e provides all of the power of the AES16 for PCI Express computer owners.

The AES16e builds on the capabilities of the industry-standard AES16 with an improved feature set and takes full advantage of the bi-directional capabilities of the 2.5 Gbit/second PCI Express bus. Its optimized DMA engine supports simultaneous bus read and write transactions and integrates tightly with ASIO and WDM drivers. The onboard digital mixer provides more than six times the processing power of its predecessor.

Compatible with Windows and Macintosh operating systems, the AES16e features a new 32-channel digital mixer. Cables are not included with the AES16e models. Optional cables are the CBL-AES1604 and CBL-AES1605.

Models:

- AES16e AES16e PCI ExpressCard
- AES16e-SRC AES16e with sixteen channels of sample rate conversion
- AES16e-50 AES16e with AES50 standard, offering up to 48 channels of digital I/O

Key Specifications:

- Interface x1 PCI Express
- Digital I/O Eight stereo inputs and eight stereo outputs.
24-bit AES/EBU format, transformer coupled
- Channels 16 In/Out in single wire; 8 In/Out in dual wire modes
- Sample Rates All standard and variable rates up to 192 kHz in both single wire and dual wire modes
- Sample Rate Conversion In AES16e-SRC model only. Sixteen channels with conversion ratios up to 16:1
- AES50 In AES16e-50 model only. Provides up to 48 I/O channels at 48 kHz via CAT5 or CAT6 cable

LynxTWO and L22 – The leaders in 192 kHz PCI Audio

The logo for LynxTWO, featuring the word "Lynx" in a stylized, cursive font and "TWO" in a bold, red, sans-serif font, all contained within a white oval.

The LynxTWO family of PCI cards are Lynx's first 192 kHz audio products and the industry's first 192 kHz audio card. Three versatile LynxTWO models offer 192 kHz analog I/O and 96 kHz digital I/O with world-class converters and versatile time code synchronization on board. With performance that exceeds many stand-alone converters, LynxTWO sets the standard for signal purity, powerful hardware mixing, and extensibility to support a variety of multichannel formats.

LynxTWO's powerful 16 channel mixer allows extensive routing, control and metering with excellent visual reference. Multiple inputs can be mixed to any of 16 outputs. In addition to the inputs and outputs on the LynxTWO, the mixer incorporates program material from the optional LS-ADAT or LS-AES daughter cards.

With a design very similar to that of Lynx's highly acclaimed Aurora converters, LynxTWO delivers near Aurora-quality specs. With the optional LynxTWO/Aurora Interface Kit, the LynxTWO can act as the computer interface and front end for the Aurora converter.

Lynx is also known for our extremely low-jitter sample clock generator, making the LynxTWO or L22 ideal as the master clock of your audio system. LynxTWO ships with current drivers for Windows and Macintosh computers and all audio and synchronization cables. LynxTWO is ideal for recording, mastering, DVD Audio, post-production, broadcast, synchronization and audio measurement.

Models:

LynxTWO-A	Four analog inputs and four analog outputs
LynxTWO-B	Two analog inputs and six analog outputs
LynxTWO-C	Six analog inputs and two analog outputs

Key Specifications:

Sample Rate	Up to 200 kHz
Analog Bandwidth	100 kHz
Analog In Signal-to-Noise	117 dB, A-weighted
Analog In THD + N	-108 dB (0.0004%) @ -1 dBFS; -104 dB (0.0006%) @ -8 dBFS
Analog Out Signal-to-Noise	117 dB, A-weighted
Analog Out THD + N	-97 dB (0.0014%) @ -1 dBFS; -104 dB (0.0006%) @ -8 dBFS
SMPTE Time Code I/O	LTC receiver (in) and generator (out) with automatic conversion to MIDI Time Code

Interfaces

Lynx L22

L22 – 192 kHz PCI Digital Audio Interface



The L22 PCI card provides the audio performance of a LynxTWO in a two-channel format.

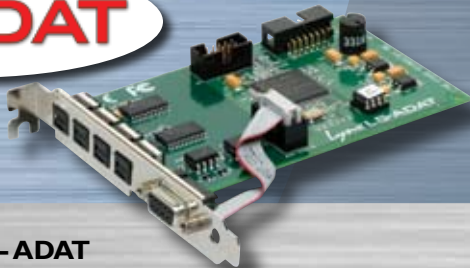
L22 has two 192 kHz analog channels and two 96 kHz digital channels with the same audio engine as LynxTWO. The L22 is an excellent choice for mastering and broadcast facilities where quality and stability are crucial. This professional audio interface card is also intended for use in the most demanding audio recording, post-production, and measurement applications.

As with other Lynx products, the L22 provides unprecedented compatibility with a wide range of platforms and operating systems. Lynx device drivers are developed in-house to insure quality and robust operation.

Key Specifications:

Sample Rate	Up to 200 kHz
Analog Bandwidth	100 kHz
Analog In Signal-to-Noise	117 dB, A-weighted
Analog In THD + N	-108 dB (0.0004%) @ -1 dBFS; -104 dB (0.0006%) @ -8 dBFS
Analog Out Signal-to-Noise	117 dB, A-weighted
Analog Out THD + N	-97 dB (0.0014%) @ -1 dBFS; -104 dB (0.0006%) @ -8 dBFS

LS-ADAT



LS-ADAT – ADAT Expansion Card for LynxTWO, AES16, AES16e, L22

The LS-ADAT provides 16 channels of ADAT LightPipe I/O to Lynx cards. Connected with a ribbon cable to the primary card, the LS-ADAT is controlled from the Lynx Mixer Application that is already present. With four Lightpipe ports on the front (two for input and two for output), 16 input and 16 output channels are available at sample rates up to 48 kHz. Eight channels at 96 kHz and four channels at 192 kHz are available using S/MUX technology.

Key Specifications:

ADAT Optical I/O	Two inputs and two outputs, compatible with Alesis ADAT type I and II Optical Digital Interface Protocol, up to 24-bit data
Channels	16 @ 44.1 kHz / 48 kHz sample rates 8 @ 88.2 kHz / 96 kHz sample rates, S/MUX 4 @ 176.4 kHz / 192 kHz sample rates, S/MUX
ADAT Sync I/O	One 9-pin Sync In port compatible with Alesis Synchronization Protocol

LS-AES



LS-AES – AES/EBU Expansion Card for LynxTWO, L22

The LS-AES provides an additional four AES/EBU inputs and outputs (eight channels) at sample rates up to 96 kHz, 24-bit, when used with the LynxTWO and L22 cards. Using the Lynx Mixer Application, the LS-AES's inputs and outputs are easily and seamlessly incorporated.

LS-AES can operate in single wire mode, or in dual wire mode, where it provides four I/O channels at 192 kHz. LS-AES can handle either synchronous or asynchronous audio. The built-in Sample Rate Converter can be enabled independently on each digital input for asynchronous signals from multiple digital devices.

Key Specifications:

Digital I/O	Four inputs and four outputs, transformer coupled
Sample Rates	Eight channels, single wire at 32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz and 96 kHz sampling rates Four channels, dual wire at 88.2 kHz, 96 kHz, 176.4 kHz and 192 kHz sampling rates
Sample Rate Conv.	Support for conversion ratios of 3:1 on any input or output

PRODUCT COMPARISON CHART

Analog I/O	Aurora 8	Aurora 16	Lynx L22	LynxTWO-A	LynxTWO-B	LynxTWO-C	AES16	AES16e
Number of Input Channels	8	16	2	4	2	6	Digital Only	Digital Only
Number of Output Channels	8	16	2	4	6	2	Digital Only	Digital Only
Maximum Sample Rate	192 kHz	192 kHz	205 kHz	205 kHz	205 kHz	205 kHz	Digital Only	Digital Only
Dynamic Range (Analog In or Out)	117 dB	117 dB	117 dB	117 dB	117 dB	117 dB	Digital Only	Digital Only
THD+N (In/Out)	-108dB/-107dB	-108dB/-107dB	-108dB/-97dB	-108dB/-97dB	-108dB/-97dB	-108dB/-97dB	Digital Only	Digital Only
Digital I/O	Aurora 8	Aurora 16	Lynx L22	LynxTWO-A	LynxTWO-B	LynxTWO-C	AES16	AES16e
Number of Input & Output Channels	8	16	2	2	2	2	16	16
Maximum Sample Rate	192 kHz	192 kHz	96 kHz	96 kHz	96 kHz	96 kHz	192 kHz	192 kHz
AES/EBU & S/PDIF Support	AES/EBU	AES/EBU	Both	Both	Both	Both	AES/EBU	AES/EBU
Bit Perfect Transfers	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3:1 Sample Rate Converter			Yes	Yes	Yes	Yes		
16:1 Sample Rate Converter							SRC Model	SRC Model
Driver Support	Aurora 8	Aurora 16	Lynx L22	LynxTWO-A	LynxTWO-B	LynxTWO-C	AES16	AES16e
Windows XP/Vista WDM 32-bit	Via AES16	Via AES16	Yes	Yes	Yes	Yes	Yes	Yes
Windows XP/Vista WDM 64-bit	Via AES16	Via AES16	Yes	Yes	Yes	Yes	Yes	Yes
Macintosh OSX CoreAudio	Via AES16	Via AES16	Yes	Yes	Yes	Yes	Yes	Yes
Features	Aurora 8	Aurora 16	Lynx L22	LynxTWO-A	LynxTWO-B	LynxTWO-C	AES16	AES16e
Word Clock I/O	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SynchroLock™	Yes	Yes					Yes	Yes
LTC Reader/Generator				Yes	Yes	Yes		
MIDI Ports	1 for SysEx	1 for Sysex						
Digital Mixer	16 channel	32 channel	16 channel	16 channel	16 channel	16 channel	16 channel	32 channel
Expansion ports	1	1	2	2	2	2	1	1
Format	1 Rack Space	1 Rack Space	PCI/PCI-X	PCI/PCI-X	PCI/PCI-X	PCI/PCI-X	PCI/PCI-X	PCI Express
Weight (pounds)	12	12	3	4	4	4	2 or 4	2
Cables included	Optional	Optional	Yes	Yes	Yes	Yes	Optional	Optional

LYNX CABLES

AURORA CABLES



CBL-AIN85 Analog Input Cable
Eight channels; DB25 to eight female XLR; 5 meters (16.4 feet); TASCAM standard.



CBL-AOUT85 Analog Input Cable
Eight channels; DB25 to eight male XLR; 5 meters (16.4 feet); TASCAM standard.



CBL-DIGY85 Digital Input/Output Cable
Eight channels AES/EBU I/O. DB25 with four female and four male XLR connectors; 5 meters (16.4 feet); Yamaha pinout.

PCI/PCI Express Cables



CBL-AES1604 Digital Input/Output Cable for AES16, AES16e
DB26 to four female and four male XLR (8 mono AES output channels), and BNC (word clock I/O), 6 feet.



CBL-AES1605 Digital Input/Output Cable for AES16, AES16e
DB 26 to DB25. Supports four stereo (8 mono) channels of input and output. Yamaha digital I/O pinout on DB25; 12 feet.



CBL-L2Sync AES/EBU, Word Clock and LTC Cable for all LynxTWO models
LynxTWO Sync Cable. four BNC/ two XLR to HD15.



CBL-L2AudioA Analog Audio Cable for LynxTWO-A
Four XLR-M/ four XLR-F to DB25; 6 feet.



CBL-L2AudioB Analog audio cable for LynxTWO-B
Six XLR-M/ two XLR-F to DB25; 6 feet.



CBL-L2AudioC Analog Audio Cable for LynxTWO-C
Two XLR-M/ six XLR-F to DB25; 6 feet.



CBL-L22Audio Analog Audio Cable for Lynx L22
Two XLR-M/ two XLR-F to DB25; 6 feet



CBL-L22Sync AES/EBU, Word Clock Cable for Lynx L22
Lynx L22 Sync Cable. Two BNC/ two XLR to HD15.



CBL-ICC Internal Clock Cable for all PCI/PCI Express models
Connects clock signals between Lynx cards for word clock synchronization

ADAPTER CABLES

A variety of 18-inch adapter cables are also available.

For more information on these and all Lynx cables, go to: <http://www.lynxstudio.com>

WWW.LYNXSTUDIO.COM

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