

# LynxTWO

## 192 kHz Multichannel Audio Reference Interface

PRODUCT DATA

- Up to 200 kHz Sample Rate / 100 kHz Analog Bandwidth
- Three Models with up to 6 Analog Inputs or 6 Analog Outputs (Balanced)
- 24-bit AES/EBU or S/PDIF I/O with Full Status
- 3:1 Sample Rate Conversion
- SMPTE Time Code Reader and Generator / Composite Video Genlock
- Extremely Low-jitter Tunable Sample Clock Generator
- Two LStream Ports Support 8-16 Additional I/O Channels
- Windows and Macintosh Drivers / PCI-X Compatible

*For recording, mastering, DVD-audio, post-production, audio for video, synchronization, analog and digital broadcast, measurement.*

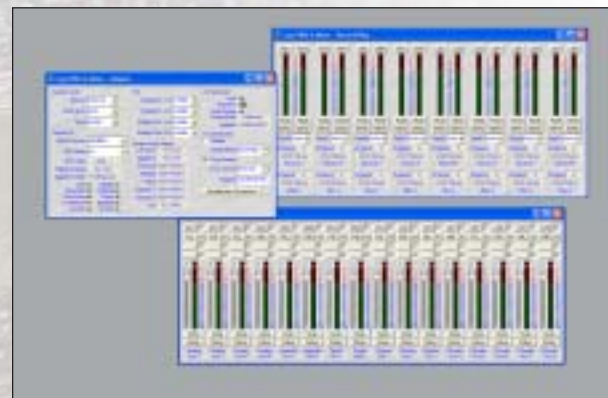
The LynxTWO incorporates the latest generation converter technology to create an interface capable of precision never before achieved in a PCI audio card. With performance that exceeds popular stand-alone converters many times its price, the three LynxTWO models set new standards for signal purity, versatile synchronization, powerful hardware mixing, and support for a variety of multichannel formats including AES/EBU, S/PDIF and ADAT.

The three LynxTWO models are identical with the exception of their analog input output configurations. The **LynxTWO-A** model has four analog inputs and four analog outputs, accessible via a custom cable with balanced XLR connections. The **LynxTWO-B**, with two inputs and six outputs, is an ideal choice for mixing and post-production, including 5.1 or 7.1 Surround audio. With six high quality inputs and two outputs, the **LynxTWO-C** is a powerhouse that is ideal for location recording and multitracking of small ensembles.

Designed with video and film post-production in mind, the LynxTWO offers extensive SMPTE longitudinal time code implementation. The LynxTWO also supports Dolby® AC-3 and DTS through the Digital In and Digital Out ports.

The LynxTWO Mixer provides software control and visual reference for all aspects of the LynxTWO. Powerful routing capabilities of all inputs and outputs are controlled from this application, which also shows realtime level indicators on inputs and outputs.

Up to four LynxTWO's can be installed and synchronized in Windows computers. Optional LStream cards also provide up to 16 additional digital inputs and outputs in AES/EBU and ADAT formats.



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# LYNX TWO SPECIFICATIONS

## ANALOG I/O

<b>A Model</b>	Four inputs and four outputs
<b>B Model</b>	Two inputs and six outputs
<b>C Model</b>	Six inputs and two outputs
<b>Type</b>	Electronically balanced or unbalanced, XLR connectors on L2Audio cable
<b>Level</b>	+4 dBu nominal / +20 dBu max. or -10 dBV nominal / +6 dBV max
<b>Bandwidth</b>	<10 Hz - 92 kHz @ 200 kHz sample rate <10 Hz - 46 kHz @ 96 kHz sample rate <10 Hz - 23 kHz @ 48 kHz sample rate (Analog input to analog output)
<b>Input Impedance</b>	Balanced mode: 24 $\Omega$ Unbalanced mode: 12 $\Omega$
<b>Output Impedance</b>	Balanced mode: 100 $\Omega$ Unbalanced mode: 50 $\Omega$
<b>Output Drive</b>	600 $\Omega$ impedance, 0.2 $\mu$ F capacitance
<b>A/D and D/A Type</b>	24-bit multi-level, delta-sigma
<b>Bit Depth</b>	8, 16, 24, or 32 bit file types
<b>On-board</b>	16 Kbytes per input and output stream
<b>Buffer Size</b>	(mono or stereo)

## ANALOG IN PERFORMANCE

(24-BIT MODE WITH CARD INSTALLED IN COMPUTER)

<b>Frequency</b>	20 Hz - 20 kHz, +0/-0.1 dB
<b>Response</b>	at 44.1 kHz sample rate
<b>Dynamic Range</b>	117 dB, A-weighted
<b>Signal-to-Noise</b>	116 dB, A-weighted
<b>Channel Crosstalk</b>	-120 dB maximum, 1 kHz signal, -1 dBFS
<b>THD + N</b>	-108 dB (0.0004%) @ -1 DBFS -104 dB (0.0006%) @ -8 DBFS 1 kHz signal, 22 Hz - 22 kHz BW

## ANALOG OUT PERFORMANCE

(24-BIT MODE WITH CARD INSTALLED IN COMPUTER)

<b>Frequency</b>	20 Hz - 20 kHz, +0/-0.1 dB
<b>Response</b>	at 44.1 kHz sample rate
<b>Dynamic Range</b>	117 dB, A-weighted
<b>Signal-to-Noise</b>	117 dB, A-weighted
<b>Channel Crosstalk</b>	-120 dB max., 1 kHz signal, -1 dBFS
<b>THD + N</b>	-97 dB (0.0014%) @ -1 DBFS -104 dB (0.0006%) @ -8 DBFS 1 kHz signal, 22 Hz - 22 kHz BW

## DIGITAL I/O

<b>Number / Type</b>	One input and one output - AES/EBU or S/PDIF format, transformer coupled, XLR connectors on L2Sync Cable
<b>Sample Rates</b>	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz
<b>Sample Rate Conversion</b>	Supports conversion ratios up to 3:1 128 dB dynamic range
<b>Bit Depth</b>	8, 16, 24, or 32 bit file types
<b>On-board Buffer Size</b>	16 Kbytes per input and output stream (mono or stereo)

## LSTREAM™ EXPANSION PORT

<b>Number</b>	One internal and one external
<b>Compatibility</b>	Supports Lynx LStream LS-ADAT and LS-AES multichannel expansion modules
<b>Type</b>	High-speed serial, up to 16 channels @ 24-bits on 14-pin internal connector

## SMPTE TIME CODE I/O

<b>Type</b>	LTC receiver (in) and generator (out) BNC connectors on L2Sync cable
<b>Frame Rates</b>	24, 25, 29.97, 30 Hz - drop and non-drop
<b>Input Sync Rate</b>	$1/30$ to 80 times nominal frame rate
<b>Input Levels</b>	200 mV to 10 V / 10 k $\Omega$
<b>Output Level</b>	1 V / 75 $\Omega$

## CLOCK I/O

<b>Number</b>	External: one input and output BNC connectors on L2Sync cable Internal: one input and output on board-mounted headers
<b>Level / Impedance</b>	TTL / 75 $\Omega$
<b>Type</b>	Input: word clock, 256X word clock, 13.5 and 27 MHz video clocks

## ON-BOARD DIGITAL MIXER

<b>Channel Capacity</b>	32 input channels, 16 sub outputs
<b>Input Dither</b>	TPDF, Shaped TPDF, or RPDF / 32 bit
<b>Monitor Mixing</b>	Any input to multiple outputs
<b>Status / Controls</b>	Peak levels to -114 on all inputs and outputs, volume on all output signals

## CONNECTIONS

<b>Audio Port</b>	Bracket-mounted 25-pin high-density female D-sub connector for analog input and output
<b>Sync Port</b>	Bracket-mounted 15-pin high-density female D-sub connector for digital input and output, sync in and out

## CABLES (INCLUDED)

<b>L2Audio Cable</b>	25-pin male D-sub to male and female XLR connectors on six-foot shielded twisted pair cabling
<b>L2Sync Cable</b>	15-pin high-density male D-sub to (1) male and (1) female XLR for digital I/O on six-foot shielded twisted pair cabling and (4) female BNC connectors on two-foot 75 $\Omega$ coaxial cabling

## SOFTWARE

<b>Windows Drivers</b>	For Windows 2000 / XP platforms: MME, ASIO 2.0, WDM, GSIF, DirectSound, Direct Kernel Streaming
<b>Macintosh Drivers</b>	ASIO 2.0 for OS9 and Core Audio for OSX
<b>Mixer Application</b>	Provides complete control of digital mixer and all hardware settings

## GENERAL

<b>PCI Bus</b>	Version 2.2 compliant
<b>Data Transfers</b>	Up to 132 Mbytes/sec using custom 16-channel zero-wait state, scatter-gather DMA engine Bus mastering supported
<b>Size</b>	5.0" H X 7.4" W X 0.75" D (standard half-size PCI card)
<b>Shipping Weight</b>	4 pounds with cables
<b>Certifications</b>	CE and FCC Class B

## OPTIONAL LSTREAM INTERFACE MODULES

(FOR LSTREAM PORTS)

<b>LS-ADAT</b>	Provides 16-channel at 48 kHz, 8-channel at 96 kHz, 4-channel at 192 kHz ADAT Optical I/O and ADAT Sync
<b>LS-AES</b>	Provides 8-channel at 96 kHz or 4-channel at 192 kHz AES/EBU or S/PDIF digital I/O



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