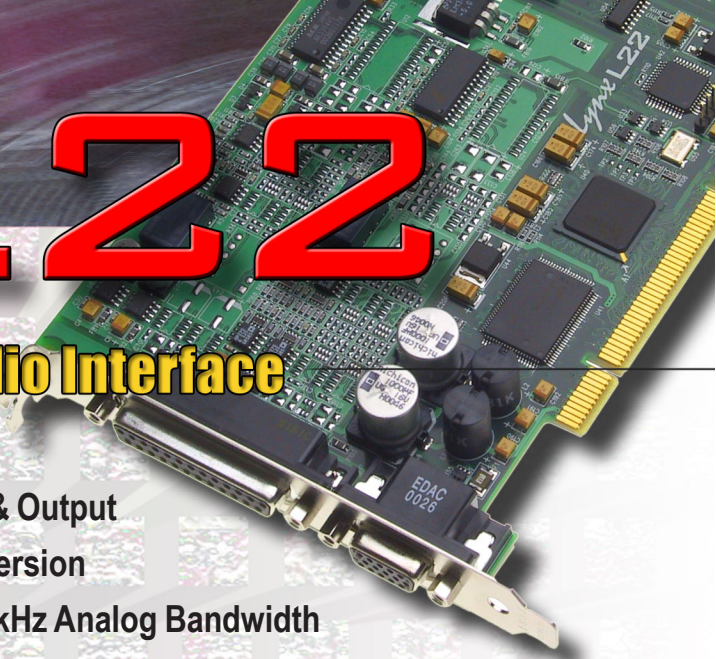


Lynx L22

192 kHz PCI Digital Audio Interface



PRODUCT DATA

- Two-channel Balanced Analog Input & Output
- Mastering-quality 24-bit Analog Conversion
- 200 kHz Maximum Sample Rate / 100 kHz Analog Bandwidth
- 24-bit AES/EBU or S/PDIF Digital I/O with 3:1 Sample Rate Conversion
- Flexible External Clock Synchronozation
- Extremely Low-jitter 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, analog and digital broadcast, measurement, and audiophile systems.

The Lynx L22 is a professional audio interface card intended for use in the most demanding audio recording, post-production, broadcast, measurement and playback applications. Based on LynxTWO technology, the L22 can capture or generate signals beyond the audio band up to 100 kHz with extreme accuracy.

Using proprietary circuit topologies and custom components in the analog stages, coupled with the latest converter technology, the L22 achieves a 117 dB dynamic range. Most importantly, advanced noise-rejection design techniques are incorporated to maintain this performance in real world use from computer to computer.

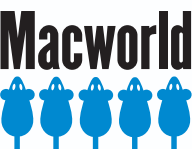
Glitch-free recording and playback are assured due to the L22's large on-board buffers and extremely efficient zero-wait state DMA engine. These features provide tolerance to system latencies and significantly reduce load on the host CPU.

The on-board digital mixer is extremely flexible, allowing the L22 to adapt to any studio or workstation configuration. Each of the mixer's 16 outputs is capable of mixing signals from 16 physical inputs or 16 playback tracks with 32-bit precision. A choice of dither algorithms is available on each input to mask low-level artifacts while reducing word widths to 8, 16, or 20 bits.

The L22 provides I/O expansion via its two LStream™ ports. Combined, these ports allow 16 channels of additional I/O from external ADAT or AES/EBU devices.* The ports can also be used to route data and synchronize to other L22s, LynxTWOs or Aurora A/D D/A converters to create high channel-count systems.

As with other Lynx products, the L22 provides unprecedented compatibility with a wide range of platforms and operating systems, including excellent stability with PCs and G5 Macintosh. Lynx device drivers are developed in-house to insure quality and robustness.

*Requires LS-ADAT or LS-AES interface module.



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LYNX L22 SPECIFICATIONS

ANALOG I/O

Number	Two inputs and two outputs
Type	Electronically balanced or unbalanced, XLR connectors on L22Audio cable
Level	+4 dBu nominal / +20 dBu max. or -10 dBV nominal / +6 dBV max
Bandwidth	<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)
Input Impedance	Balanced mode: 24 Ω Unbalanced mode: 12 Ω
Output Impedance	Balanced mode: 100 Ω Unbalanced mode: 50 Ω
Output Drive	600 Ω impedance, 0.2 μ F capacitance
A/D and D/A Type	24-bit multi-level, delta-sigma
Sample Rates	8 kHz to 200 kHz, including all standard rates with variable adjustment
Bit Depth	8, 16, 24, or 32 bit file types
On-board	16 Kbytes per input and output stream
Buffer Size	(mono or stereo)

ANALOG IN PERFORMANCE

(24-BIT MODE WITH CARD INSTALLED IN COMPUTER)

Frequency Response	20 Hz - 20 kHz, +0/-0.1 dB at 44.1 kHz sample rate
Dynamic Range	117 dB, A-weighted
Signal-to-Noise	116 dB, A-weighted
Channel Crosstalk	-120 dB maximum, 1 kHz signal, -1 dBFS
THD + N	-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)

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

DIGITAL I/O

Number / Type	One input and one output - AES/EBU or S/PDIF format, transformer coupled, XLR connectors on L22Sync Cable
Sample Rates	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz
Sample Rate Conversion	Supports conversion ratios up to 3:1 on digital input, 128 dB dynamic range
Bit Depth	8, 16, 24, or 32 bit file types
Control / Status	Complete subcode/channel status support
On-board Buffer Size	16 Kbytes per input and output stream (mono or stereo)

LSTREAM™ EXPANSION PORT

Number	One internal and one external
Compatibility	Supports Lynx LStream LS-ADAT and LS-AES multichannel expansion modules
Type	High-speed serial, up to 16 channels @ 24-bits on 14-pin internal connector, 96 kHz max rate

CLOCK I/O

Number	External: one input and output BNC connectors on L22Sync cable Internal: one input and output on board-mounted headers
Level / Impedance	TTL / 75 Ω
Type	Input: word clock, 256X word clock, 13.5 and 27 MHz video clocks Output: Word clock

ON-BOARD DIGITAL MIXER

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

CONNECTIONS

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

CABLES (INCLUDED)

L22Audio Cable	25-pin male D-sub to male and female XLR connectors on six-foot shielded twisted pair cabling
L22Sync Cable	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 (2) female BNC connectors on two-foot 75 Ω coaxial cabling

SOFTWARE

Windows Drivers	For Windows 2000 / XP platforms: MME, ASIO 2.0, WDM, GSIF, DirectSound, Direct Kernel Streaming
Macintosh Drivers	ASIO 2.0 for OS9 and Core Audio for OSX
L22 Mixer Application	Provides complete control of digital mixer and all hardware settings

GENERAL

PCI Bus	Version 2.2 compliant
Data Transfers	Up to 132 Mbytes/sec using custom 16-channel zero-wait state, scatter-gather DMA engine; Bus mastering supported
Size	5.0" H X 7.4" W X 0.75" D (standard half-size PCI card)
Shipping Weight	3 pounds with cables
Certifications	CE and FCC Class B

OPTIONAL LSTREAM INTERFACE MODULES

(FOR LSTREAM PORTS)

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



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