DS_Optional Audio cards for Ext. Amp on YEs-MEC-201

Index:

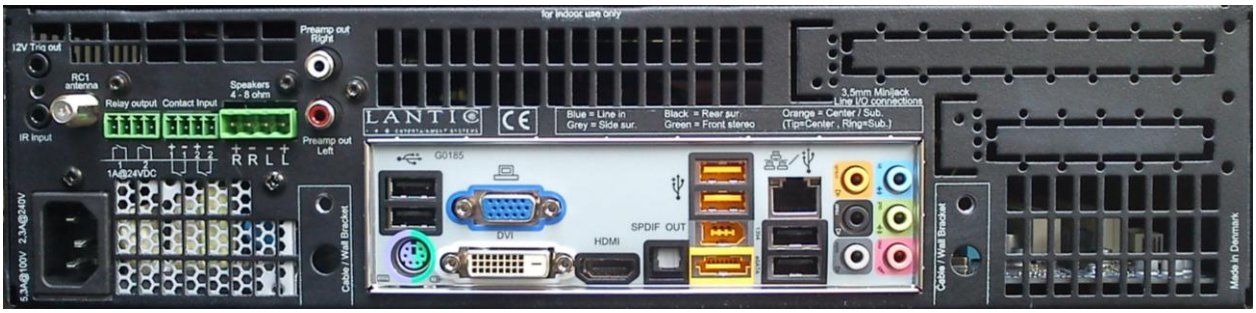
Front view: 2
Rear view: 2
Technical specifications: 2
Audio: 2
Video: 2
Network: 2
Wireless control inputs: 3
Controls: 3
Data storrage: 3
Power consumption: 3
Temperature: 3
Weight: 3
Mechanical dimensions: 3
App.4: Optional PCI Soundboard. Surround (5.1 or 7.1) + slave audio installation example: 4
App.5: Optional PCI Soundboard. Type: Auzentech X-Fi™ Forte 7.1 Low Profile PCI Express Sound Card 5
App.6: Optional PCI Soundboard. Type: Lynx Two model B. PCI Sound Card 7

* all specifications subject to change without notice

DS_Optional Audio cards for Ext. Amp on YEs-MEC-201

Front view:

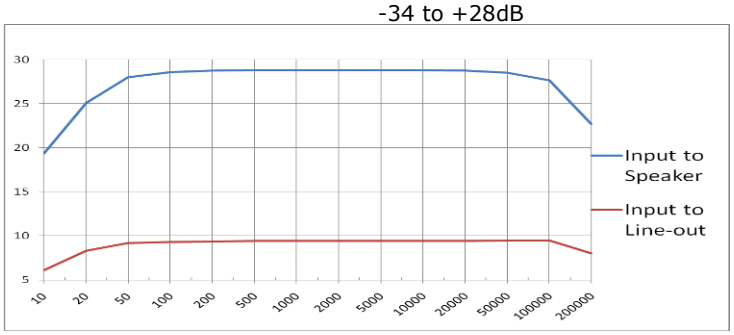
Rear view:



Technical specifications:

Audio:

- Built in Stereo amplifier	2 x 10W into 4 ohm Sin/Rms	4 way Terminal block
Frequency response	20Hz – 20 kHz +- 3dB	
Variable gain	-34 to +28dB	



- Line-out stereo	20Hz – 20kHz +-3dB	2 x RCA connector
variable gain	-53 to +9dB	
- Line-in stereo		Stereo Mini Jack (Blue)
- Built-in 5.1 & 7.1 Audio outputs		4 x Minijack stereo
Supports Dolby® Home Theater, High Definition Audio.		
- Optional PCI soundboard		

Video:

- Analog (VGA) output for LCD & Plasma monitor	"SXGA" (max length 15 m.)	(Sub-D15)
- Digital (DVI-D) output for LCD & Plasma monitor	"DVI-D" (max length 5 m.)	
- High Definition Multimedia Interface HDMI	"HDMI" (max length 5m.)	

Network:

- Ethernet port (Wake on LAN from sleep mode)	10/100/1000 Mbps.	(RJ45)
- USB Ver. 2.0 (for optional Ext. DVD) max 5.0 m	480 Mbps.	(USB Type A)

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Wireless control inputs:

- Input from external RF Ant. — 868,4 Mhz. (EU) — (F-Con)
  - for Lantic remote control (RC1-Z) — Lantic no. 2307
  - & Keyboard (KB2-Z) — Lantic no. 2309

- Input via Lantic IR aluminium housing receiver eye — Lantic no. 1575 — (Minijack stereo max 5m)
  - from Lantic RC10 — Lantic no. 1647
  - & IR keyboard — Lantic no. 2344

Controls:

- Inputs:
  - 2x potential free contact inputs (See application example below) (4way TB)
- Relay outputs: (max 48V) (4way TB)
  - 2x NO contact outputs:
    - 5VDC max 0.1 A
    - 24VDC max 1.0 A
- 12V trigger output for switching external Power amplifier ON (Minijack mono)

Data storrage:

- Intel Solid State Drive (ensures full operation after sleep in less than 3 seconds).

Power consumption:

- Supply range: @ 90-264VAC , 47-63Hz.
- Sleep: ~13W.
- Typical use: ~80W.
- Max power @ full audio output and optional soundboard ~130W.

Temperature:

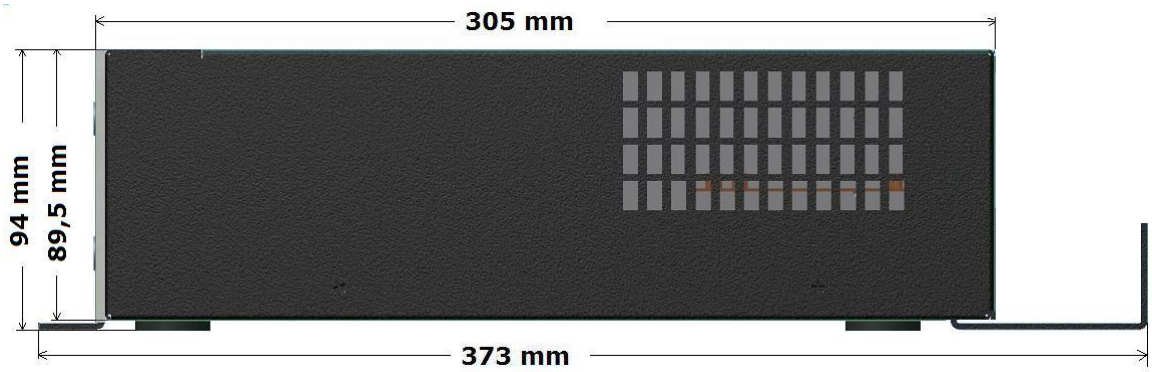
- Maximum ambient temperature: <40°C/104°F
- Closed loop fan speed control with "blocked fan" detection <25°C ~ low speed >38°C ~ full speed
- Typical Heat generation: ~ 70 W.
- **IMPORTANT**: Don't block the right side ventilation grid, ensure min. 30mm clearance.

Weight:

Net Weight: ~ 5,5 kg
Shipping weight including accessories & packing material: ~ 6,8 kg

Mechanical dimensions:

Free standing (WxHxD) 368 x 94 x 305 mm
Required mounting space (WxHxD) 400 x 95 x 354 mm
Required mounting space with wall mount brackets (WxHxD) 368 x 94 x 373 mm
With optional 19" Rack-mount 3U Front panel (WxHxD) 482,6 x 132,56 x 354 mm



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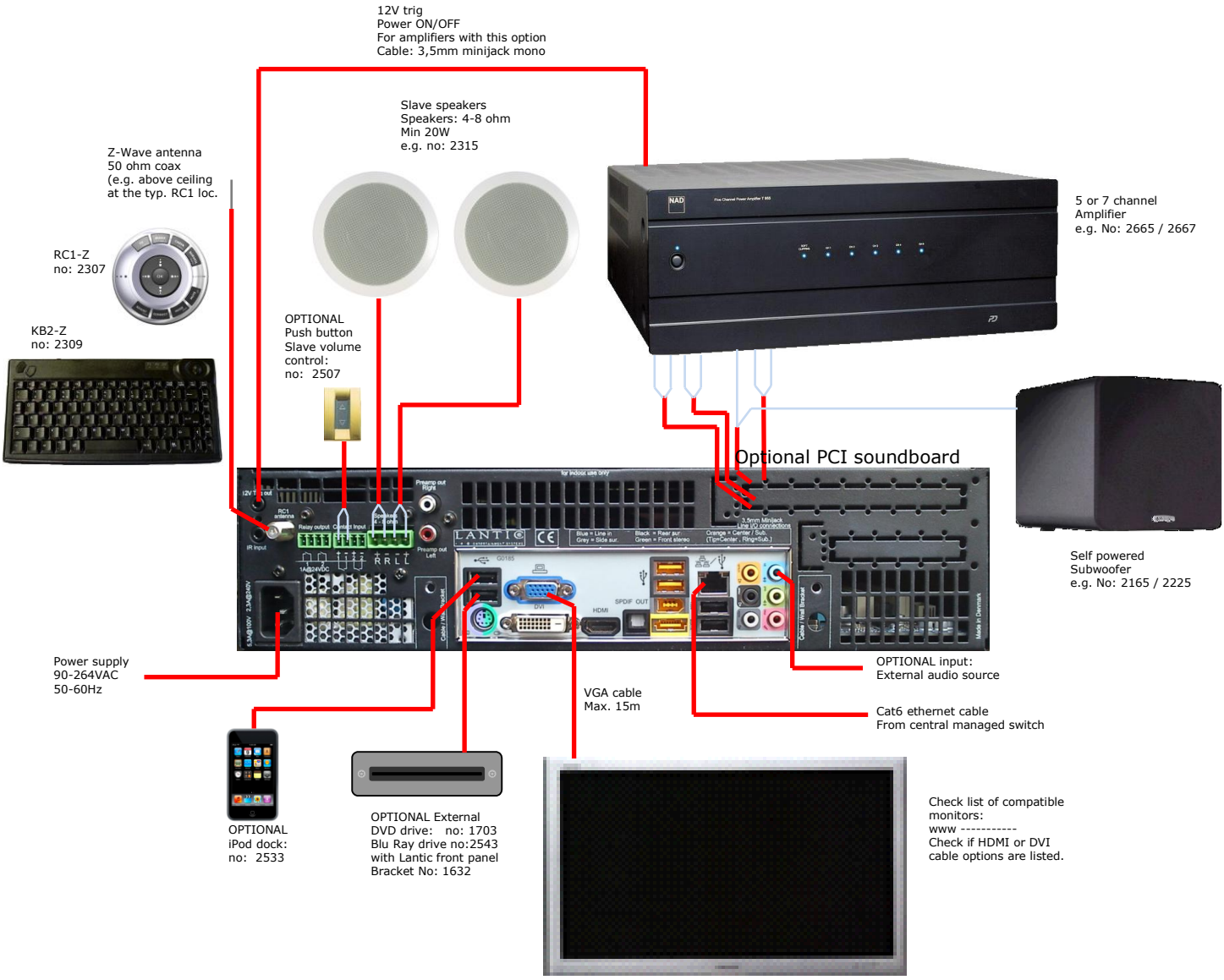
App.4: Optional PCI Soundboard.
Surround (5.1 or 7.1) + slave audio installation example:
Typical application: Cabins with slave audio in bathroom, Saloon with terrace.



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App.5: Optional PCI Soundboard.
Type: Auzentech X-Fi™ Forte 7.1 Low Profile PCI Express Sound Card

Overview: (for more details see manufacture website: http://www.auzentech.com/site/products/x-fi_forte.php)

PCI Express: PCI Express™ (PCIe) is a serial bus standard that provides a higher throughput than the older, parallel PCI bus standard. Unlike PCI Express™ sound cards built with PCI processors adapted for the PCIe slot, the X-Fi™ Forte is built around Creative Labs' PCI Express™ processor. As a native-PCI Express™ sound card, the X-Fi™ Forte can take full advantage of the higher-throughput of the PCIe bus.

Sound: With a D/A converter of 120dB level, high end audio components, and an analog design tuned for peak performance, the X-Fi™ Forte is designed to provide the best audio possible for Music, Games and Movies. End-users can further tune the audio via the replaceable OPAMP for the front audio (L/R).

Headphone & Microphone Amplifiers: X-Fi Forte includes an Integrated Headphone Amplifier and Microphone Pre-Amplifier. You can now listen to your Hi-Fi Headphone and use your professional Mic on your desktop PC, as well as enjoying audiophile-quality audio.

Performance: By using the latest Creative native PCI express chipset, the Auzentech X-Fi™ Forte provides high performance audio processing on-board while freeing system resources for other tasks. With 64MB X-Ram, it processes complicated 3D sound effects with ease.

Security: The PCI-Express independent data transfer structure provides secure performance, important because audio requires continuous-secure data processing.

Key Features:

- Low Profile Audio Card
- Developed around Creative X-Fi Native PCI Express audio processor
- Support for Dolby Digital Live for Microsoft Windows® 7, Windows Vista® and Windows XP®
- Support for DTS Neo:PC & DTS Interactive on Microsoft Windows Vista® and Windows® 7 (DTS™ for Win 7 and Vista via Download)
- Low-profile and standard-profile brackets included.
- Headphone Amplifier
- Microphone Pre-Amp

:

Interface Core

Audio Processor	• X-RAM 64M bytes of DDR-SDRAM for audio processing
PC Interface	• PCI Express 1.1 Compliant Interface
Supported audio resolution and sampling rate	• 16/24-bit / up to 192kHz (Stereo playback) • 16/24-bit / up to 96.0khz (Multi channel playback) • 16/24-bit / up to 96kHz (Recording)
API Supports	• WDM, ASIO2.0 • EAX® 5.0, Direct Sound®, Direct Sound 3D®, OpenAL
Supported Operating Systems	• Microsoft® Windows Vista™ • Microsoft® Windows XP™

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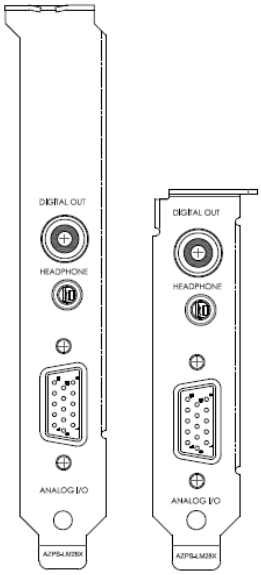
Analog Audio

Level	• 3.0Vrms, +12.0dBu max, deviatio+/- 0.1dB
Dynamic Range	• 109.0 dB A-weighted (1kHz @ -60dBFS, 24-bit/48kHz) for Analog outputs • 98.0 dB A-weighted (1kHz @ -60dBFS, 24-bit/48kHz) for Analog inputs
Total Harmonic Distortion + Noise	• 115.0 dB A-weighted (1kHz @ -60dBFS, 24-bit/48kHz) for Stereo analog outputs • 109.0 dB A-weighted (1kHz @ -60dBFS, 24-bit/48kHz) for Multi channel analog outputs
Frequency Response	• 10Hz to 22kHz, +/- 0.02 dB @ 48kHz • 10Hz to 42kHz, +/- 0.02 dB @ 96kHz • 10Hz to 94kHz, +/- 3dB @ 192kHz, Stereo
Impedance	• Headphone load impedance 16Ω ~ 600Ω • Line output impedance 330Ω • Line/Aux input impedance 10KΩ

Connectivity

Analog Multi I/O Cable (D-SUB)	• 4 x 1/8" Stereo mini phone jack for Line outputs • 1 x 1/8" TRS mini phone jack for MIC input • 1 x 1/8" Stereo mini phone jack for Line input
Headphone	• 1 x 1/8" Stereo mini Phone jack for Headphone output
Front Audio	• 1 x 10-pin(5x2) Front audio header with Intel® HD Audio Compatible
Digital I/O	• 1 x RCA/TOSLINK Combo jack for S/PDIF transmission • 1 x 2-piS/PDIF input connector
Extension	• Creative proprietary AND_EXT, DID_EXE connector for X-Fi I/O driver

Rear Panel



Rear Panel Brackets

The X-Fi™ Forte includes two rear panel brackets, a Standard bracket and a Low Profile bracket. Use the appropriate bracket for your PC.

Digital Output

RCA/TOSLINK Combo Jack: Can connect to external DAC, AV Receiver, and Decoder through a 75Ω Coaxial cable or optical mini cable. Can play S/PDIF Stereo PCM and Dolby Digital AC-3, DTS bit-stream content.

Headphone Output

3.5mm(1/8 ") stereo mini-phone jack: Includes an independent Headphone amp and can activate an impedance 16Ω ~ 600Ω headphone or earphone. Also, can be used, when configuring a Stereo system, not using the Analog I/O cable, as an Front Line Output.

Note If you connect a Passive Speaker (with lower than 16Ω) to this Headphone output, it can cause this audio card to not function correctly.

Analog I/O Multi Connector

D-SUB 15 pin connector: Connect the Analog I/O cable bundled in this package and use for Mic input, Line input and 8-channel line output Jack.

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App.6: Optional PCI Soundboard.
Type: Lynx Two model B. PCI Sound Card

Overview: (for more details see manufacture website: http://www.lynxstudio.com/product_detail.asp?i=12)

LynxTWO-B Two Analog Inputs and Six Analog Outputs

The LynxTWO family of PCI cards were Lynx's first 192 kHz audio products. Introduced in 2000, these three versatile cards offered 192 kHz analog audio and 96 kHz digital audio with world-class converters and time code synchronization on board. With performance that exceeds many stand-alone converters, LynxTWO has set the standard for signal purity, versatile synchronization, powerful hardware mixing, and extensibility to support a variety of multichannel formats including ADAT and multiple AES/EBU or SPDIF.

The three models offer different analog I/O configurations for versatility and ease of use. The basic LynxTWO-A model, with four analog inputs and outputs, is intended for general usage. LynxTWO-B, with two analog inputs and six analog outputs, is an excellent choice for playback of 5.1 audio or any application where six outputs are necessary, often precluding the need for a second or third card. With its six analog inputs and two analog outputs, the LynxTWO-C is an excellent choice for remote recording systems.

LynxTWO's powerful 16-channel mixer allows extensive routing, control and metering with excellent visual reference. With the latest software, you can mix up to four inputs 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 or from Aurora converters.

With a design very similar to that of Lynx's highly acclaimed Aurora converters, LynxTWO delivers near Aurora-quality specs and performance in the compact PCI card format. In fact, using the optional LynxTWO/Aurora Interface Kit, your LynxTWO can act as the computer interface and front end for the Aurora converter.

If you want the same audio quality of the LynxTWO, but only need two channels and do not need SMTPE capabilities, check out the L22.

- 200kHz sample rate / 100kHz analog bandwidth (Supported with all drivers)
- +4dBu or -10dBV line levels selectable per channel pair
- 24-bit AES3 or S/PDIF I/O with full status and subcode support
- Up to 8 LynxTWOs can be installed in one Windows computer; up to three in Macintosh computers
- Sample rate conversion on digital input
- Non-audio digital I/O support for Dolby Digital® and HDCD
- 32-channel / 32-bit digital mixer with 16 sub outputs
- Multiple dither algorithms per channel
- SMPTE time code reader and generator with MTC conversion
- Composite video genlock
- Word, 256 Word, 13.5MHz or 27MHz clock sync
- Extremely low-jitter tunable sample clock generator
- Dedicated clock frequency diagnostic hardware
- Multiple-board audio data routing and sync
- Two LStream™ ports support up to 16 additional I/O channels
- Compatible with LStream modules for ADAT and AES/EBU standards
- Zero-wait state, 16-channel, scatter-gather DMA engine
- Windows 2000/XP/XPx64/Vista/Vista x64: MME, ASIO 2.0, WDM, DirectSound, Direct Kernel Streaming and GSIF
- Macintosh OSX: CoreAudio (10.4)
- Linux, FreeBSD: OSS

LynxTWO Specifications

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Analog I/O	
A Model	Four inputs / four outputs
B Model	Two inputs / six outputs
C Model	Six inputs / two outputs
Type	Electronically balanced or unbalanced, XLR connectors on L2Audio Cable
Level	+4 dBu nominal /+20dBu max. or -10dBV nominal / +6dBV max., software selectable in channel pairs
Bandwidth	< 10Hz - 92 kHz @ 200 kHz sample rate < 10Hz - 46 kHz @ 96 kHz sample rate < 10Hz - 23 kHz @ 48 kHz sample rate (analog input to analog output)
Input Impedance	Balanced mode: 24 k , Unbalanced mode: 12 k
Output Impedance	Balanced mode: 100 , Unbalanced mode: 50
Output Drive Capability	600 impedance, 0.2 µF 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 Buffer Size	16 Kbytes per input and output stream (mono or stereo)
Analog In Performance	(Analog performance specs measured at 44.1 kHz sample rate, 24-bit, card installed in computer)
Frequency Response	20 - 20 kHz, ± 0.05 dB at 44.1 kHz sample rate
Dynamic Range	117 dB, A-wtd.
Signal-to-Noise	116 dB, A-wtd.
Channel Crosstalk	<-120 dB, 1 kHz signal @ -1dBFS
THD+N	-108 dB (0.0004%) @ -1 dBFS -104 dB (0.0006%) @ -8 dBFS 1 kHz signal, 22Hz - 22kHz BW
Analog Out Performance	(Analog performance specs measured at 44.1 kHz sample rate, 24-bit, card installed in computer)
Frequency Response	20 - 20 kHz, ± 0.05 dB at 44.1 kHz sample rate
Dynamic Range	117 dB, A-wtd.
Signal-to-Noise	117 dB, A-wtd.
Channel Crosstalk	<-120 dB, 1 kHz signal @ -1dBFS
THD+N	-97 dB (0.0014%) @ -1 dBFS -104 dB (0.0006%) @ -8 dBFS 1kHz signal, 22Hz - 22kHz BW
Digital I/O	
Number / Type	One input and one output AES/EBU or S/P DIF format, transformer coupled, XLR connectors on L2Sync 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 and channel status support
On-board Buffer Size	16 Kbytes per input and output stream (mono or stereo)
LStream Expansion Ports	
Number	One external and one internal
Compatibility	Supports Lynx ADAT, AES/EBU, and other multi-channel expansion modules

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Type	High-speed serial, eight channel input and output (each port) or sixteen channel input and output (single port), 24-bit data, 96kHz rate
SMPTE Time Code I/O	
Type	LTC receiver (in) and generator (out) , BNC connectors on L2Sync Cable
Frame Rates	24, 25, 29.97, 30 Hz - drop and non-drop
Input Sync Rate	1/30 to 80 times nominal frame rate
Input Levels	200 mV to 10V / 10K
Output Level	1V / 75
Clock I/O	
Number	External: one input and output, BNC connectors on L2Sync Cable Internal: one input and output on board-mounted headers
Level / Impedance	TTL (clock signals) / 1Vpp (video) 75
Type	Input: word clock, 256X word clock, 13.5 and 27 MHz video clocks, NTSC or PAL composite video; Output: word clock
On-board Digital Mixer	
Channel Capacity	32 input channels, 16 sub outputs
Resolution / Dither	32-bit / TPDF, Shaped TPDF, or RPDF
Monitor Mixing	Any input to multiple outputs
Metering	Peak levels to -120 dB on all inputs and outputs
Connections	
Audio Port	Bracket-mounted 25-pin female D-sub connector for analog audio 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)	
L2Audio Cable	25-pin male D-sub to male and female XLR connectors on six-foot shielded twisted pair cabling
L2Sync Cable	15-pin high-density male D-sub to (1) male and (1) female XLR on six-foot shielded twisted pair cabling and (4) female BNC connectors on two-foot 75 coaxial cabling
Software	
Windows Drivers	Windows 98 / ME / NT/ 2000 / XP: MME, ASIO 2.0, and DirectSound
Macintosh Drivers	ASIO 2.0 for OS 9
LynxTWO 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
Power	LynxTWO-A: +5V @ 600 mA, +12V @ 500 mA, -12V @ 150 mA
Size	5.0" H X 7.4" W X 0.75" D (half-size PCI card)
Shipping Weight	3.25 lbs. with cables
Certifications	CE and FCC Class B

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