With the introduction of the world's first digital processor in 1971, Lexicon became the world leader in digital audio. Since that time, Lexicon has continuously introduced ground-breaking technology to the audio industry. Today, Lexicon processing is heard on over 80% of all recordings, broadcast and film soundtracks and, in the home theater market, Lexicon sound is the acknowledged measure of excellence.

The Lexicon Studio line of products continues this tradition of innovation with a new generation of production tools: high-quality analog conversion, digital connectivity, format conversion, signal routing, synchronization, system acceleration and audio DSP — hardware solutions that work with your favorite software.

Focused on the fundamentals — superb sound and flawless DSP, the Lexicon Studio line is designed to power your computer system into the future.

Core2 System Specifications

Core2

Analog Inputs

Connectors:	Unbalanced TS 1/4" Phone Jack
Impedance:	> 25kΩ
A/D Dynamic Range:	105dB typ, 20kHz bandwidth: 107dB typ, A-weighted
Levels:	-18dBV to +14dBV full scale, adjustable
Sample Rates:	44.1kHz, 48kHz
Freq. Response:	20Hz-20kHz ±0.5dB, ref 1kHz
Crosstalk:	-96dB @1kHz
THD:	< 0.005%, 20Hz-20kHz
Resolution:	24 Bits Delta-Sigma Conversion

Analog Outputs

Connectors:	Unbalanced TS 1/4" Phone Jack
Impedance:	150Ω nominal
D/A Dynamic Range:	100dB typ, 20kHz bandwidth: 102dB typ, A-weighted
Levels:	+ 8dBV, full scale
Freq. Response:	20Hz-20kHz ±1dB, ref 1kHz
Crosstalk:	< -96 dB @1kHz
THD:	< 0.005%, 20Hz-20kHz
Resolution:	24 Bits Delta-Sigma Conversion

Digital Audio Interface

Input Connectors:	Coaxial RCA (24-bit S/PDIF or TTL Word Clock): Optical (24-bit S/PDIF or 24-bit ADAT)
Output Connectors:	Coaxial RCA (24-bit S/PDIF): Optical (24-bit S/PDIF or 24-bit ADAT)
Sample Rates:	44.1 kHz, 48 kHz
Word Clock Sources:	ADAT, S/PDIF, external TTL Word Clock or Internal
Computer Interface:	33 MHz/32-bit PCI Master/Slave Interface
Internal Interface:	Option board connector
Power Requirements:	+5v ± 5%
Clock Range:	44.1 kHz ±2%, 48 kHz ±2%
Bundled Software:	Lexicon Drivers and Control Panel, Syntrillium Cool Edit Pro SE™

MP-100

Connections:	Multipin connection to Core2 card
Processing:	24-bit
Sample Rates:	44.1kHz, 48kHz
Inputs:	Stereo pair to the Core2 routing matrix
Outputs:	Stereo pair to the Core2 routing matrix

Core-32 System Specifications

LDI-12T

Audio Inputs

Audio Inputs:	(2)
Connectors:	Balanced: female XLR-3 type Unbalanced: RCA type (software selectable)
Impedance:	100kΩ, balanced: 50kΩ, unbalanced
Levels:	-14 to +18dBu full-scale, balanced: -20 to +12dBu full-scale, unbalanced

A/D Performance

Freq. Response:	20Hz-20kHz, ±0.5dB ref 1kHz
Crosstalk:	<-76dB, 20Hz-20kHz
THD:	<0.005%, 20Hz-20kHz
Dynamic Range:	104dB typ, 20kHz bandwidth: 106dB typ, A-weighted
Resolution:	24 bits
Audio Outputs:	(2)
Connectors:	Balanced: male XLR-3 type
Impedance:	600Ω nominal, each side
Levels:	+22dBu full-scale, balanced: +16dBu full-scale, unbalanced

D/A Performance

Freq. Response:	20Hz-20kHz, ±0.5dB ref1kHz
Crosstalk:	<-86dB, 20Hz-20kHz
THD:	<0.01%, 20Hz-20kHz
Dynamic Range:	94dB typ, 20kHz bandwidth: 97dB typ, A-weighted
Resolution:	20 bits

Digital Audio Interface

Input Connectors:	Coaxial RCA type (1): Optical TOSLINK (1), assignable as S/PDIF or TOSLINK
Output Connectors:	Coaxial RCA type (1): Optical TOSLINK (1), assignable as S/PDIF or TOSLINK
Format:	S/PDIF (IEC-958, CP-340) consumer audio inter-face
System Sample Rates:	44.1kHz, 48kHz

Control Interface

Timecode Input:	Balanced, female XLR-3 type connector, EIA-422: Formats supported @±15%: SMPTE non-drop/drop frame

External Word Clock

Input:	BNC connector, TTL compatible, unterminated
Alesis ADAT™ Sync:	9-pin D-sub female I/O
Machine Control:	9-pin D-sub female connector
Host Computer:	68-pin high-density connector
Power Requirements:	9 VAC, 1A wall transformer
Dimensions:	19.0 x 1.75 x 4.0 in (438 x 45 x 102mm), 19-inch 1U rack mount
Weight:	2 .5 lbs

Core-32

External Interfaces
60-pin proprietary multi-pin connector and/or 50-pin proprietary multi-pin connector

Internal Interfaces
PCI Interface: TBUS daughterboard interface (not on all models):
PC-90 daughterboard interface

Data Resolution:	24-bit architecture
Power Requirements:	+5v± 5%
Clock Range:	44.1 kHz -5% to 48 kHz +5%
FCC Rating:	Class A
Dimensions:	12.25 x 3.875 x .0625 in "full length" (PCI)

LX3 Multi-Interface Adapter (for connection of multiple LDI-10T's)

Connections:	Multipin connection to LDI-10T via proprietary Lexicon LDI-10T cable
Dimensions:	5.25 x 2.5 x 1.0 in
Weight:	7.8 oz

PC-90

Connections:	Multipin connection to Core-32 card
Processing:	20-bit
Sample Rates:	44.1kHz, 48kHz
Inputs:	2 Stereo pairs to the Core-32 routing matrix
Outputs:	2 Stereo pairs to the Core-32 routing matrix

LDI-10T

Analog Audio Interface

Audio Inputs:	(8)
Connectors:	Balanced TRS Phone Jacks
Impedance:	50kΩ balanced: 25kΩ unbalanced
Levels:	Balanced +4 mode, +20dBu full scale Unbalanced -10 mode, +6dBV full scale

A/D Performance

Freq. Response:	20Hz-20kHz ±0.5dB, ref 1kHz
Crosstalk:	-96dB @ 1kHz
THD:	<0.005%, 20Hz-20kHz
Dynamic Range:	102dB typical, A-weighted
Resolution:	24 Bits Delta-Sigma Conversion
Audio Outputs:	(8)
Connectors:	Balanced TRS Phone Jacks
Impedance:	600Ω each side, balanced
Levels:	+26dBu full scale, balanced

D/A Performance

Freq. Response:	20Hz=20kHz ±0.5dB, ref 1kHz
Crosstalk:	-96dB @ 1kHz
THD:	<0.005%, 20Hz-20kHz
Dynamic Range:	105dB typical, A-weighted
Resolution:	24 Bits Delta-Sigma Conversion

Digital Audio Interface

Input Connector:	Coaxial RCA type (1)
Output Connector:	Coaxial RCA type (1)
Format:	S/PDIF (IEC-958, CP-340) consumer audio inter-face
System Sample Rates:	44.1kHz, 48kHz

Control Interfaces

Time Code Input:	Balanced TRS Phone Jack, EIA-422: Formats supported: 24, 25, 30 drop/non-drop
Power Requirements:	100-240 VAC, 50-60Hz,15W, 3-pin IEC connector
Dimensions:	19.0 x 1.75 x 6.6 in (483 x 45 x 165mm) 19-inch 1U rack mount
Weight:	4.5 lbs

Core2 Desktop Audio System
Core2 • MP-100

Core-32 Desktop Audio System
Core-32 • LDI-12T • LDI-10T • LX3 • PC-90

Lexicon Studio Desktop Products

Run more tracks, more plug-ins AND the world's best reverb and effects — all without impacting your computer's performance

Desktop audio production requires computing power. Semi-pro cards not only sacrifice audio quality, they consume the power your CPU needs for optimal performance — leaving you with a power-starved computer that can't keep up with the demands of professional recording. Lexicon Studio hardware solves this problem by taking over the most CPU-intensive tasks — giving you superior audio and more processing power. Whether you're just getting started, or investing in a system that will grow along with your production needs, Lexicon Studio offers the I/O you need and the audio quality you can only get from Lexicon.

Core2 Desktop Audio System

Core2 • MP-100

Complete, powerful and affordable interfacing for your computer

Core2

The Core2 system provides connections for four channels of analog in, eight channels of analog out, eight channels of ADAT™ digital I/O, and a stereo S/PDIF pair. TOSLINK connectors (mounted directly on the Core2 card) can also be used for S/PDIF connections which require an optical I/O, allowing simultaneous format conversion between, for example, two DATs, one with coaxial (RCA) and one with optical connections.

Beyond powerful I/O, audio performance is the highest quality, with ultra wide-range 24-bit A/D and D/A converters with selectable dbx Type IV™ soft-knee limiting on every input channel to simulate tape compression and provide 4dB of improved headroom.

MP-100

The MP-100 incorporates all of the effects and controls from Lexicon's MPX 100 Dual Channel Effects Processor on a snap-on card. This option gives you true stereo dual-channel processing with hundreds of presets with classic reverb programs such as Ambience, Plate, Chamber and Inverse, as well as Tremolo, Rotary, Chorus, Flange, Pitch, Detune, 5.7 second Delay and Echo. Dual-channel processing gives you two independent effects in a variety of configurations: Dual Stereo (Parallel), Cascade, Mono Split and Dual Mono.

Core-32 Desktop Audio System

Core-32 • LDI-12T • LDI-10T • LX3 • PC-90

Designed around the Core-32 PCI card, this system gives you I/O options, DSP signal routing and synchronization for your software and world-class reverb – without burdening computer performance

Core-32

The Core-32 is an expandable hard-disk recording system on a full-size PCI card. It has a full 24-bit audio path, capable of supporting up to 32 simultaneous voices as sources or destinations from the host system – with the I/O to do it the way you want. Select the LDI-12T *and/or* up to three LDI-10T interfaces, and an effects card that brings the classic PCM 90 reverbs to your desktop.

LDI-12T

The LDI-12T interface provides superior A/D conversion at both professional and consumer input levels. TOSLINK™ optical input and output connections for any ADAT™-compatible device provide eight channels of digital I/O. ADAT sync connectors ensure accurate system clocking, synchronization and machine control. A pair of coaxial RCA connectors provide two channels of S/PDIF digital I/O.

The TOSLINK connectors can also be used for S/PDIF connections which require an optical I/O, allowing simultaneous format conversion between, for example, two DATs, one with coaxial (RCA) and one with optical connections.

XLR balanced Time Code inputs, in conjunction with the Core-32 on-board variable oscillator (VSO), lock to incoming Time Code and maintain sync. A dedicated BNC input allows clock synchronization to popular digital mixers.

S/PDIF or ADAT connections can be used for either clock master or slave. A 9-pin connector on the rear panel lets you connect to video and audio devices capable of Sony 9-pin serial control.

LDI-10T

The LDI-10T interface features ten simultaneous input/output channels: eight analog (TRS balanced 1/4") and two digital S/PDIF (Coaxial); switchable input gain; 24-bit A/D and D/A conversion and a 1/4" Time Code Input.

An optional LX3 allows connection of as many as three LDI-10Ts, for 24 analog and 6 S/PDIF channels — all from a single Core-32 card.

PC-90

The PC-90 Reverb Card uses the core processing engine of Lexicon's award-winning PCM 91 to add uncompromised reverb and processing power to the Core-32 system. This option gives you two stereo hardware reverbs with all of the sonic quality you expect from Lexicon, controllable from your software interface.

Five classic algorithms: Chamber, Inverse, Room, Ambience and Concert Hall can be loaded into either of two reverb engines — each with its own stereo in/stereo out routing. One hundred presets exploit the full dynamic power of the PC-90.

The LDI-12T interface provides digital and analog I/O with on-board Time Code and synchronization

- Time Code LTC
- PC or Mac
- PC-90 Reverb Daughterboard
- Core-32™ 32-Channel I/O
- ADAT™ 8x8 TOSLINK I/O
- Sony 9-pin Serial Time Code Machine Control
- LDI-12T

Each LDI-10T provides eight channels of 24-bit analog I/O, an S/PDIF pair, and Time Code input.

- LX3
- LDI-10T

The LX3 Multi-Interface Adapter allows connection of as many as three LDI-10Ts — for 24 channels of 24-bit analog I/O and three S/PDIF pairs.

LDI-10T — POWER — 8 Channel 24-Bit A/D/A + S/PDIF — lexicon

LDI-12T — POWER — TIME CODE IN — S/PDIF IN OUT — ANALOG OUT L R — ANALOG IN L R — lexicon