

# TASCAM®

## SX-1LE Digital Production Environment

SX-1LE Digital Production Environment

- ▶ 40-input, 32 x 8 digital mixer with 100mm motorized, touch-sensitive faders and dynamic automation of all parameters
- ▶ 48kHz, 24-bit, 16-channel hard disk recorder
- ▶ Complete 5.1 surround mixing capabilities: 16-track recording...plus 6 tracks for mixing
- ▶ 16 premium mic preamps with phantom power
- ▶ Built-in CD-RW drive for creating audio CDs, data backup, archiving and importing sounds
- ▶ Highly integrated and intuitive waveform, MIDI, and automation data editing
- ▶ Onboard LCD screen displays editing and automation information including waveforms
- ▶ XVGA output to optional monitor
- ▶ 128-track MIDI sequencer with advanced editing modes available on the fly, standard and step record modes and highly accurate timing
- ▶ 16 balanced XLR inputs, 16 1/4" TRS line inputs, 16 TRS inserts, onboard speaker switcher, 8 channels of ADAT® digital interface, 2 stereo S/PDIF inputs (with sample rate conversion) and outputs, 2 MIDI inputs (for MIDI controllers and MTC), 4 MIDI outputs, separate studio/control room monitoring and more
- ▶ MTC synchronization and LTC chase
- ▶ Expansion slots for 24 more channels of AES/EBU, TDIF, ADAT Optical digital I/O or extra analog I/O

The only digital workstation in its price range with professional features like 100mm touch-sensitive moving faders, full dynamic automation, simultaneous 16-track, 24-bit hard disk recording, and built-in 128-track MIDI sequencer.



40-channel  
automated  
mixer

16-channel  
24-bit / 48kHz  
HD recorder

128-channel  
MIDI  
sequencer

DAW-style editing  
CD-RW recorder

# SX-1LE Digital Production Environment

## The affordable dream machine

**B**ased on our landmark SX-1, the new SX-1LE represents an incredible value for economy minded songwriters, studio B-rooms, large churches and broadcast production rooms who want professional sound quality and features.

**A greater creative tool than the sum of its parts.**

You couldn't *begin* to assemble comparable individual components (or fit them into the same compact space) for the price of an SX-1LE.

And, unlike a component-based system, all of the SX-1LE's features were purposefully designed to work as a single integrated unit. The intuitive user interface was custom-built to perfectly complement the digital mixer and recording tools – for example, you can begin recording by pressing just four buttons.

The MIDI sequencer and hard disk recorder offer editing features that seamlessly unite these two technologies so there's no separation of processes that could hamper your creativity.

Unlike less advanced workstation-type "sketchpads," the SX-1LE is more than capable of delivering the creative tools, functional features and audio quality which places it in a class that's comparable to the highest end of music and audio production gear.

**The equivalent of 256 faders and 640 channel control knobs in a console just over three feet long.**

The SX-1LE's 40-input, 8-bus digital mixer offers 17 touch-sensitive motorized faders with sixteen fader layers. Layers one through eight control inputs 1-16, 17-32, aux returns, group busses, mix busses, aux sends and 64 channels of MIDI. The remaining layers are user-definable, and can be set to control a variety of other functions.

Each of the SX-1LE's 40 channels features 3-band, fully-parametric EQ, a dynamics processor with compression,



CD-RW drive.

Integrated multi-function display.

Transport controls.

10-key pad for entering MIDI note values, alphanumeric info and screen navigation.

PS/2 Keyboard and mouse ports.

LED time code display (or bars, beats, ticks) and channel displays.

Master LED meters.

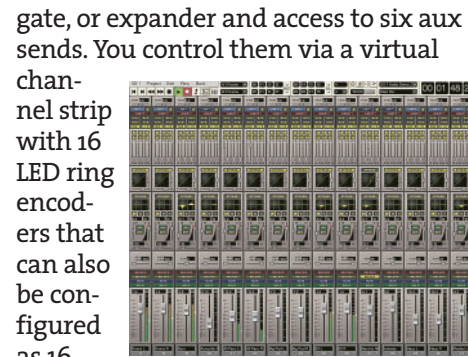
Mode, sync & status indicator section.

Automation and short-cut keys.

17 motorized faders.

Fader bank select for channels 1-16 & 17-32, buses, aux sends and returns, MIDI, etc.

Flexible monitoring and solo mode selection section.



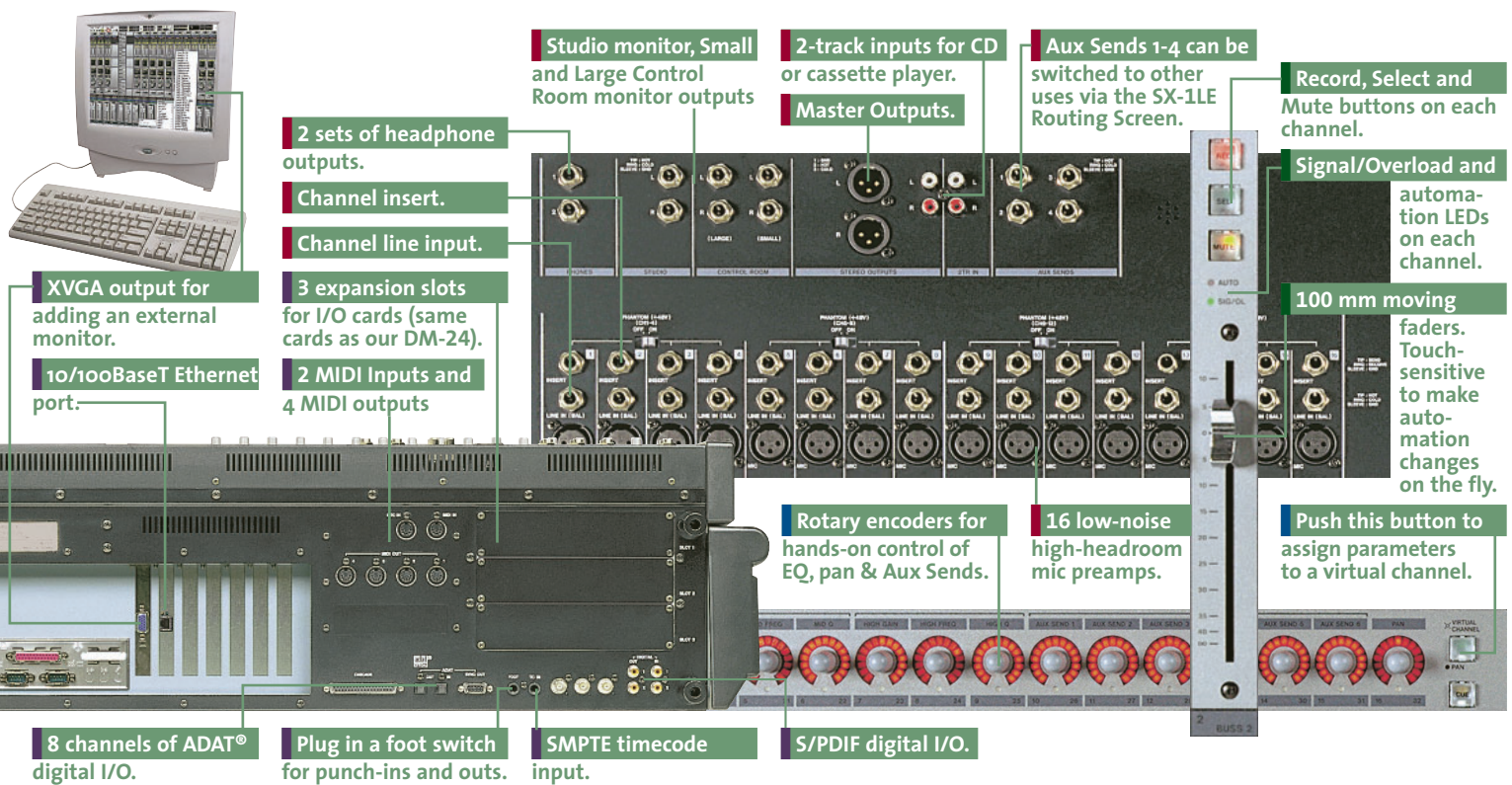
gate, or expander and access to six aux sends. You control them via a virtual channel strip with 16 LED ring encoders that can also be configured as 16 channel strip pan controls or as cue pans. Thirty-two channels also have insert points for internal or external processors.

**Intuitive automation,**

The SX-1LE's internal automation combines the best aspects of large-format consoles and DAW-inspired features. Automation data can be manipulated by any of the faders or encoders, or drawn as volume curves using the graphic



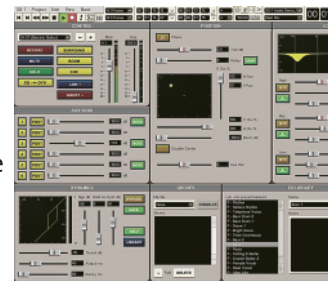
# for songwriters, project studios, churches, schools and broadcast production.



connection to external MIDI sound modules or samplers. The sequencer's playback offset feature, lets you move the playback of a MIDI track forward or backward in time relative to the playhead – on a per-track basis so that a slow-triggering sample can now play in time with faster ones.

**The only work-station in its price range with serious surround mixing**

With dedicated 6-channel stem recorder, extensive monitoring capabilities and intuitive interface, the SX-1LE is perfect for capturing and manipulating surround audio. The comprehensive GUI lets you drag a dot around a 360° field to set the levels/panning for your surround playback. Controls for setting divergence, LFE, and the ability to cancel the center channel are also included.



**Get your hands on an SX-1LE at a TASCAM dealer today.**

You merely have to try it to appreciate how seamlessly we've integrated the SX-1LE's powerful, professional tools. We believe that if you compare it to other similarly-priced Digital Production Environments, you agree that nothing beats the TASCAM SX-1LE for features, sound quality or quality construction. ■

interface. Multiple mixes can be stored in the same project file, making recall of alternate mixes of the same source material (stereo, surround recording and so on) easy and intuitive.

dynamically allocatable, so you can actually record hundreds of takes without worrying about eating up tracks. Then, simply select the best material for the final tracks you print to disk.

**Internal hard disk recorder and more.**

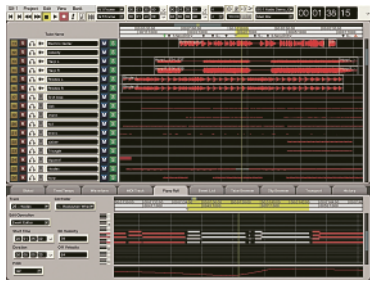
**Advanced, fully-integrated editing**

Audio, MIDI and automation data can be edited simultaneously with standard cut/copy/paste commands. Nearly all editing features (including the ability to load or unload virtual tracks) can be done in real-time. And you can select regions on separate tracks at different times for editing without selecting the surrounding regions — great for any type of editing with a large number of regions to sift through.

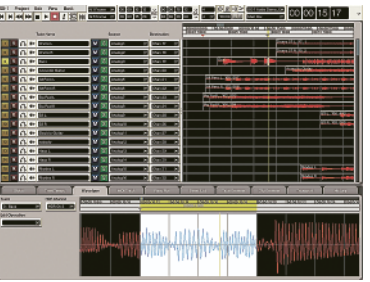
**128-track MIDI sequencer with powerful compositional tools.**

Specially designed for our SX-1 and the new SX-1LE, the on-board sequencer features a *step recording mode* for inputting MIDI data one note at a time, specifying every attribute of a note including timing values, pitch, dynamics, modulation, etc..

You also get non-destructive quantize/diatonic transposition, MIDI reverse play, event list editing and graphic (piano roll) editing. A built-in 64 channel MIDI router and four MIDI outputs allow for



Along with a 16-track, 24-bit, 48kHz hard disk recorder and separate 6-track surround stem recorder, the SX-1LE also has 999 virtual tracks per project that are



## SX-1LE Audio Specifications

<b>Sampling Frequencies</b>	
Internal Clock	44.1 /48kHz
External Clock	Within 6.0% from Fs
<b>Signal Delay</b>	
LINE IN to STEREO OUTPUT(fs=48kHz)	Less than 1.7ms
<b>THD (@ nominal level)</b>	
LINE IN to INSERT SEND (20Hz-20kHz)	Less than 0.1%
LINE IN to STEREO OUTPUT (1kHz)	Less than 0.013%
<b>Frequency Response (@ nominal level):</b>	
MIC/LINE IN to INSERT SEND	20Hz-25kHz +0.5 dB / -1.5dB
LINE IN to STEREO OUTPUT	20Hz-20kHz+0.5 dB / -1.0dB
LINE IN to BUS/AUX OUTPUT	20Hz-20kHz+0.5 dB / -1.0dB
TR IN to MONITOR OUTPUTS	20Hz-20kHz+0.5 dB / -1.0dB
CD-R/W to MONITOR OUTPUTS	20Hz-20kHz+0.5 dB / -1.0dB
<b>Noise Level (20Hz-20kHz, TRIM @max, 150 ohm):</b>	
EIN, MIC IN to INSERT SEND	Less than -125 dBu
LINE IN to STEREO OUTPUT, BAL.	Less than -80 dB
LINE IN to STEREO OUTPUT, UNBAL.	Less than -80 dB
LINE IN to BUS/AUX OUTPUT	Less than -80 dB
TR IN to MONITOR OUTPUT	Less than -80 dB
<b>Crosstalk (@ 1kHz)</b>	
STEREO/BUS/AUX OUTPUTS	Greater than -80 dB
MONITOR OUTPUTS	Greater than -68 dB

## SX-1LE Interfacing Specifications

<b>Analog Inputs</b>	
Mic In	(16) XLR jacks (-56 dBu to -2 dBu)
Line In	(16) 1/4" TRS jacks (-42 dBu to +12 dBu)
2-Track In	(2) RCA jacks (-10dBV nominal, 16db headroom)
<b>Inserts</b>	
Channel Inserts	(16) 1/4" TRS jacks (-2 dBu nominal)
Output Impedance	100 ohm
Input Impedance	10k ohm
<b>Analog Outputs</b>	
Stereo Out 1	(2) XLR jacks (+4 dBu nominal, +20 dBu max)
Stereo Out 2	(2) RCA jacks (-10 dBV nominal, +6 dBV max)
Aux Out	(4) 1/4" TRS jacks (+4dBu nominal, +2 dBu max)
Large Monitor Out	(2) 1/4" TRS jacks (+4dBu nominal, +2 dBu max)
Small Monitor Out	(2) 1/4" TRS jacks (+4dBu nominal, +2 dBu max)



## Analog Outputs (continued)

Studio Monitor Out	(2) 1/4" TRS jacks (+4dBu nominal, +2 dBu max)
Headphone Out	(2) 1/4" phone jacks (50mW + 50 mW max)

## Digital Inputs

S/PDIF	(2) stereo jacks (RCA), Dual-wire and Hi-speed modes
ADAT	(1) 8-channel optical jack, 24 bits

## Digital Outputs

S/PDIF	(2) stereo jacks (RCA), Dual-wire and Hi-speed modes
ADAT	8 channels (optical jack), 24 bit

## Synchronization

MTC	(1) 5-pin DIN jack
LTC	(1) 1/4" TRS SMPTE timecode input

## MIDI

In	(1) 5-pin DIN jack
Out	(4) 5-pin DIN jacks

## Other Connections

XVGA Out	(1) High density D-sub 15-pin jack
Ethernet	(1) RJ-45 jack, 10/100 base T (10/100Mbps)

## SX-1LE Other Specifications

Optional 3 x 8-channel I/O cards	Analog, TDIF, ADAT, AES/EBU
<b>Displays</b>	
LCD Display	320 x 240 dots LCD with back light and contrast control
Stereo Meters	2 x 30 segment LED
Time Display	8 x 7 segment LED
Faders	(17) 100mm touch-sensitive motorized fader/ 256 steps
Voltage requirements	AC120V 60Hz / AC230V 50Hz
Power consumption	146W
<b>Dimensions</b>	
Metric	954mm W x 261mm H x 760mm D
Inches	37.56" W x 10.28" H x 29.92" D
Weight	40kg (88 lbs.)

All specifications measured at standard 44.1/48kHz sampling frequencies. All specifications are subject to change without notice. Visit [www.tascam.com](http://www.tascam.com) for the most up-to-date information. All trademarks are the property of their respective holders. © Copyright 2003 TASCAM. All Rights Reserved. #85839

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