

970

64-Track Dante and MADI Audio Recorder



The Sound Devices 970 simplifies production that requires high-quality, high-track-count audio recording. This comprehensive 64-track Dante and MADI-equipped multi-track audio recorder provides performance, quality, and reliability.

The 970 records up to 64 channels of monophonic or polyphonic 24-bit WAV files from any of its 144 audio inputs. Connections include 64 channels of Ethernet-based Dante, 64 channels of optical and coaxial MADI, eight channels of line-level analog, and eight channels of AES digital. Any input can be assigned to any track. The recorder also supports 32-track recording at 96 kHz.

The 970 records audio on up to four SSD drives, two in removable drive caddies held in front-panel drive bays and two connected through back-panel eSATA ports. With four available

drives, the 970 can record material simultaneously to multiple drives, creating backups and eliminating time-consuming post-record copying.

With its built-in rock-steady Ambient Lockit timecode technology, the 970 operates as a master clock and also accepts jammed timecode from cameras and other sources. The 970 supports all common production time-code rates and modes, and offers word-clock synchronization from external word clock, video sync, MADI, and AES. Sample rate converters on each input simplify connecting multiple digital channels.

If all external power sources deplete or fail, PowerSafe circuitry keeps the 970 operating for up to 10 seconds, cleanly closes all file operations, and then safely shuts down the recorder.

KEY FEATURES

- Up to 64-track WAV mono or WAV poly recording to removable solid-state drives
- 64 channel Dante audio I/O
- 64 channel MADI optical and coaxial I/O (32 channels at 96 kHz SR)
- 8 line-level analog inputs and outputs
- 8 channel AES3 digital audio I/O
- PowerSafe circuitry provides complete file protection from power loss. Ten second internal power reserve safely closes files and shuts down unit
- Rock-steady Ambient Lockit time code master clock built in
- Format conversion between analog, AES digital, MADI, and Dante
- Simultaneous recording to four drives, two in internal removable drive caddies and two via eSATA
- Fast file transfer over SMB Ethernet
- Large 5-inch screen provides metering and intuitive menu control
- External RS-422 control
- Embedded web-server control panel allows machine control through web browsers over Ethernet-based networks
- Compact half-rack, 2RU chassis
- Dual DC power connections, 4-pin XLR @ 10-27 VDC



Back Panel

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SPECIFICATIONS

Analog Audio

Inputs: 8 Balanced, line-level inputs on DB-25. Ch1,2 also on XLR
 Analog Outputs: Eight Balanced, line-level outputs on DB-25. Ch1,2 also on XLR
 Frequency Response: 10 Hz-20 kHz, +/- 0.5 dB re 1 kHz, -3db@ 65kHz (96k SR)
 THD + Noise: 0.004% max (1 kHz, 22 Hz-22 kHz)
 Input and Output Topology: Fully electronically balanced, line-level, RF, ESD, short, and overload protected; pin-2 hot, pin-3 cold
 Line Output Clipping Level: +18dBu
 Front-panel headphone, 1/4" with gain control
 Line Input Clipping Level: +26dBu
 Input Impedance: 10k

Digital Audio

Sampling Rate / Bit Depth: 44.1 kHz, 47.952 kHz, 47.952 kF, 48.048 kHz, 48 kHz, 48.048 kF, 96k (32 tracks), 16-bit and 24-bit
 AES/EBU: Eight channels in and out via DB-25, 110 ohm, 2 V p-p
 Accepts 32 kHz, 44.1 kHz, 48 kHz, 96 kHz, 192 kHz sample rates with SRC at input.
 Accepts 32 kHz, 44.1 kHz, 48 kHz, 96 kHz, 192 kHz sample rates
 Dante - 64 channels, 48 kHz input and output

File Formats

WAV, monophonic or polyphonic.

Sample/Timecode Accuracy

± 0.2 ppm (0.5 frames per 24 hours)

Sync Output

Wordclock (square wave, 48 kHz sampling rate, 3.3 vp-p, 75 ohm)

Sync Input

Wordclock (square wave, 48 kHz sampling rate, 3.3 vp-p, 75 ohm)

Timecode

Modes Supported: Off, Rec Run, Free Run, 24h Run, External Frame Rates: 23.976, 24, 25, 29.97DF, 29.97ND, 30DF, 30ND
 Accuracy: Ambient generator, 0.5 frame in 24 hr
 Time Code Input: 20k ohm impedance, 0.3 V - 3.0 V p-p (-17 dBu - +3 dBu)
 Time Code Output: 1k ohm impedance, 3.0V p-p (+12 dBu)

Control

RS422 Machine control
 Ethernet Web-based control of setup menu and transport, auto assignment or IP address or manual fixed IP address
 GPIO on 3 pins, Phoenix connector
 Keyboard
 Front-panel USB host. Keyboards without hubs acceptable.

Powering

Dual DC power supply 4-pin XLR (pin1 = ground, pin4 = +), 10-27 VDC, 30 watts
 PowerSafe circuitry with 10 second power reserve with power removed

Dimensions and Weight

Size (H x W x D): 3.3" x 8.6" x 10.3" (8.4 cm x 21.8 cm x 26.2 cm)
 Weight: 7.5 lbs
 Operating Temperature: -10C to +40C

SOUND DEVICES

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Features, nomenclature, and specifications subject to change.
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