PIX VIDEO

VIDEO DEVICES

PIX 250i

Network Connected Video Deck

The PIX 250i file-based video recorder delivers the performance, quality, and reliability required for fast-paced studio, live sports, event, and mobile production. This cost-effective and networkable recorder seamlessly replaces tape-and disc-based video decks.

The PIX 250i records and plays Apple ProRes and Avid DNxHD QuickTime video files through its 12-bit 4:4:4 3G-SDI at data rates from 330 Mb/s (ProRes 4444) down to 36 Mb/s (ProRes and DNxHD proxy files). Files recorded on a PIX 250i can be directly imported by leading editing systems including Avid Media Composer, Apple Final Cut Pro, and Adobe Premiere Pro. QuickTime masters made in an editing system are ready for playback on the PIX 250i.

Extensive network connectivity supports grouping multiple PIX recorders over Ethernet for simultaneous recording and playback. The PIX 250i can group with other PIX 250i recorders, as well as PIX 260i, and PIX 270i units. Additionally, SSD drives and files can be accessed over Ethernet as network-attached SMB volumes. An embedded web server provides browser-based control and setup-menu access.

Two front-panel drive bays hold SSD drives in removable PIX-CADDY carriers. The PIX 250i can record to the drives simultaneously for redundancy or sequentially long-form programs. In addition to browser-based control, the PIX 250i can be controlled via external RS-422 (Sony 9-pin compatible) signals. Machine transport and setup menu selections are fully controllable.

Comprehensive audio capabilities include support for 16 tracks of audio with two channels of analog audio, eight channels of AES digital audio, and 16 channels of embedded SDI audio.

Description continues on back.

PRODUCT HIGHLIGHTS

Critical Live Production Reliability

- Dedicated video hardware records to standard removable solid-state drives
- PowerSafe circuitry provides 10-second power reserve and safe file shutdown during external power loss
- Simultaneous multi-drive recording on two SSD drives enables redundancy and backup

Time-Saving Efficiency

- Tapeless file-based recording, playback, and file transfer
- Recording on two SSD drives provides immediate file copies, backup, as well as long-form recording
- Access and transfer files over Ethernet
- Edit-ready Apple ProRes and Avid DNxHD files

Expandable and Networkable

- Create and control groups of multiple PIX recorders, including PIX 260i and PIX 270i units

High-Quality HD Video

- 12-bit 4:4:4 video over 3G-SDI
- Apple ProRes and Avid DNxHD codecs from 36 Mb/s proxies up to 330 Mb/s ProRes 4444

The PIX 250i includes a precision 5-inch 800 x 480-pixel IPS display for menu access and video monitoring. The highly accurate display provides peaking, false color, and zoom features to facilitate framing, exposure, and focus evaluation.

A built-in Ambient Lockit time-code generator/reader ensures accurate sync for multi-camera and double-system sound applications. In addition to generating ultra-stable time code, the PIX 250i reads time code embedded in SDI and HDMI streams, and from external sources.

The high-quality hardware scaler and converter in the PIX 250i powers real-time up, down, and cross-conversion during ingest. It converts between all supported SD and HD resolutions and frame rates, and includes 3:2 pull-down removal.

PowerSafe circuitry provides a constant 10-second power reserve. In the event of power loss, the PIX 250i continues to operate for up to 10 seconds, then cleanly stops any file operation and safely shuts down. The PIX 250i draws 10-27 VDC power through a four-pin XLR connector.

ACCESSORIES

PIX-CADDY 2.5" SSD caddy required to insert SSDs into the front-panel drive bays of PIX Video Recorders. Includes FireWire 800, USB 3.0, and eSATAp interfaces.

PIX-SSD 6 2.5" SSD approved for use with all PIX Recorders. 240 GB capacity. Preformatted to exFAT.

PIX-RACK Rack-mount kit for all PIX rack-mount Recorders. Accommodates (2) PIX 250i Recorders. Supports single and dual-unit mounting. 2 RU height

PIX-DOCK
Thunderbolt adapter holds a PIX-CADDY, providing high-speed file transfer to and from Thunderbolt-enabled computers.

XL-WP4 Universal 66 W in-line AC-to-DC power supply with XLR 4-pin DC connector and detachable IEC power cord. 100–240V, 50/60 Hz. Included.

SPECIFICATIONS

SDI Input & Output
- 3G SDI 4:4:4, HD-SDI, SDI 4:2:2 conforming to SMPTE 12M-1, 12M-2, 125M, 259M, 272M, 291M, 292, 296M, 299, 352M, 424, 425

HDMI I/O
- Version 1.4a input, Version 1.3a output, HDCP enabled on input

Video Input Resolutions / Rates
- 1080p23.976/24/25/29.97/30, 1080i50/59.94/60, 1080PsF23.976/24/25/29.97/30, 720p 23.976/24/25/29.97/30/50/59.94/60, 576i50 (PAL), 480i59.94 (NTSC)

Video Codecs and Files
- Apple ProRes 4444 12-bit, 330 Mb/s
- Apple ProRes 36, 100, 145, 220 Mb/s, 8- and 10-bit
- Avid DNxHD 36, 100, 145, 220 Mb/s, 8- and 10-bit
- QuickTime wrapper (.MOV), exFAT File System

Up/Down/Cross Conversion
- 480i, 576i, 720p, 1080i, 1080p to any 480i, 576i, 720p, 1080i, 1080p, anamorphic conversion

Frame Rate Conversion
- 24, 25, 30, 50, 60 to 24, 25, 30, 50,60, 23.976, 29.97, 59.94 to 23.976, 29.97, 59.94, automatic 3:2 pull-down removal in 23.976 and 24 frame modes, other pull-down cadences include 2:2:2:4, 2:3:3:2, 3:2:3:2:2, and 2:2

Audio Recording
- 16 channels record/playback, simultaneous with video
- Analog, HDMI / SDI, and AES3, selectable per channel

LCD Display
- 5-inch LCD; 800 x 480 resolution, IPS, flip-down for drive access

Analog Audio
- Two balanced, line-level inputs and outputs on XLR
- Frequency Response: 10 Hz-20 kHz, +/- 0.5 dB re 1 kHz;
- 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
- Output attenuation 0-20 dB, 1 dB increments
- Front-panel headphone port, 1/4" with gain control

Digital Audio
- Sampling rate / bit depth: 48 kHz, 24-bit
- Accepts 32k, 44.1k, 48k, 96k, 192k sample rates with SRC at input.
- AES/EBU: 8 channels in and out via DB-25, 110 ohm, 2 V p-p
- HDMI: 8 channels embedded HDMI input, 8 channels embedded HDMI output
- Accepts 32k, 44.1k, 48k, 96k, 192k sample rates

File Storage
- XL-CADDY mounted drives: two, front-mounted Sound Devices approved 2.5-inch drives
- Ethernet file transfer via SMB/CIFS volume

Timecode
- Modes Supported: Freerun, Record run, External, 24 hr
- Frame Rates: 23.976, 24, 25, 29.97DF, 29.97, 30DF, 30
- Accuracy: +/- 0.2ppm, holds accurate time code for 2 hours after power is removed
- Inputs / Outputs: BNC (LTC input and output), SDI, or HDMI (Sony protocol)

Sync Output
- Analog bi-, tri-level sync / genlock
- Wordclock (square wave, 48 kHz sampling rate, 3.3 vp-p, 75 ohm)

Sync Input
- Analog bi-, tri-level sync / genlock
- Wordclock (square wave, 48 kHz sampling rate, 3.3 vp-p, 75 ohm)

Control
- RS-422 Machine control
- Ethernet Web-based control of settings and transport
- GPIO on 3 pins, Phoenix connector

Keyboard
- Front-panel USB host. Keyboards without hubs acceptable.

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

Physical
- 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 (3.4 kg)
- Operating Temperature: -10C to +40C

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