

# PIX240i

**SOUND**  **DEVICES**

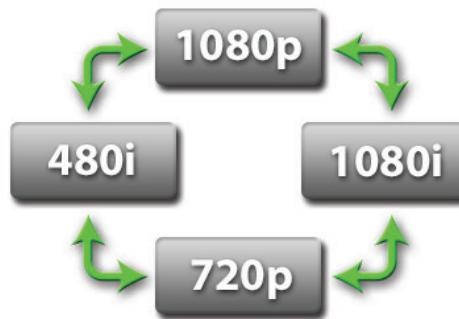


## Simplifying Production

The portable PIX 240i is an essential companion for any production environment. It simplifies production and post-production environments, bringing edit-ready Apple ProRes or Avid DNxHD recording to SD/HD/3G-SDI (12-bit 4:4:4) or HDMI-equipped video cameras. The portable PIX 240i records Quicktime files to CompactFlash cards or removable 2.5-inch solid-state drives.

### Record Apple ProRes 4444 and Avid DNxHD

The PIX 240i records Quicktime files in either Apple ProRes or Avid DNxHD video formats. Files recorded in these intra-frame codecs are ready-for-editing directly from the recorder. For color-critical applications recording to Apple ProRes 4444 provides uncompressed alpha-channel transparency for superb chroma keying and grading performance.



### Scaler and Frame Rate Converter

The PIX 240i features a powerful hardware scaler and frame rate converter. Up, down, cross-conversion and pulldown removal give users the ability to record files in a customer-requested rate, even rates not supported by the camera. The PIX 240i also supports aspect ratio conversion, HD to SD and SD to HD, including anamorphic conversion.



### Accurate Field Monitor

With its 5-inch, IPS display, the PIX 240i is a flexible field monitor. Accurate color representation and excellent off-axis visibility assist in framing, exposure evaluation, and focus evaluation with 12-step false color and two-level zebra, peaking, and 1:1 pixel viewing.

Defeatable detail overlayed on the picture includes audio metering, timecode, file type, record status, and frame rate information. The display also doubles as a fast, simple menu interface.



### Serious Audio Performance

With deep expertise in production audio and hard drive-based audio recorders, Sound Devices built the PIX 240i with the highest audio performance. Its low-noise (-128 dBu equivalent input noise), high-bandwidth inputs are mic/line switchable and include limiters, high-pass filters, and 48V phantom power.

## File Storage and Transfer

The PIX 240i records and plays back Quicktime files to either removable CompactFlash cards or removable 2.5-inch solid-state drives (drives and PIX-CADDY 2 are optional accessories). Both CompactFlash and SSD media are directly mountable, readable, and writable in Mac OS and Windows.



## Mechanical Construction

The PIX 240i is designed and built for the rigors of field production with a durable chassis made of light weight, molded, metalized-carbon-fiber. Its four 1/4-20 thread mounts offer countless mounting options. All important connections on the PIX 240i use full-sized, locking connectors, including BNC, XLR, and the hot-swappable PIX-CADDY mount.



## Specifications

### SDI Input & Output

SMpte 12M-1, 12M-2, 125M, 259M, 272M, 291M, 292, 296M, 299, 352M (not available on PIX 220i)

### 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, 720p23.976/24/25/29.97/30/50/59.94/60, 576i50 (PAL), 480i59.94 (NTSC)

### Video Codecs and Files

Apple ProRes 4444 330 Mb/s, 12-bit  
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), UDF File System  
WAV poly, contains Broadcast WAV metadata

### 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

8 channel max record/playback, simultaneous with video (4 channels PIX 220i)

### LCD Display

5-inch LCD; 800 x 480 resolution, IPS

### Analog Audio

two balanced, mic/line inputs on XLR-3  
two channel line-level output on XLR-5  
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, 3.5mm with level control

### Digital Audio

HDMI: four channels embedded HDMI input and output  
SDI: 8 channels embedded SDI input and output, 48k sample rate (not available on PIX 220i)  
Sampling rate / bit depth: 48 kHz, 24-bit  
Accepts 32k, 44.1k, 48k, 96k, 192k sample rates with SRC at input.

AES/EBU: two channels on XLR, 110 ohm, 2 V p-p (not available on PIX 220i)

### File Storage

XL-CADDY2 mounted drive: Sound Devices approved 2.5-inch drive  
eSATAp-connected drives: for Sound Devices approved drives, in place of XL-CADDY2  
CompactFlash slot for Sound Devices approved cards

## Time Code Generator

The on-board high-accuracy Ambient timecode generator makes the PIX 240i right at home on any production from simple single camera shoots, to complex multi-camera sync-sound productions. All common timecode frame rates and modes are supported. Embedded timecode over SDI and HDMI is also supported.



## PIX 220i

For cameras with HDMI I/O only, the PIX 220i is a great choice. It records the same Apple ProRes and Avid DNxHD files as the PIX 240i. The PIX 220i is perfect for smaller-format high-definition cameras where time code workflows are not required.

### Timecode

Modes Supported: Freerun, Record run, External  
Frame Rates: 23.976, 24, 25, 29.97DF, 29.97ND, 30DF, 30ND  
Accuracy: +/- 0.2ppm, holds accurate time code for two 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)

### Control

SDI start/stop flags from Panasonic, Sony, RED, Arri, and Canon cameras  
LANC  
Switch contact closure on LANC connector

### Keyboard

Front-panel USB host. Keyboards without hubs acceptable.

### Power

4-pin XLR (pin1 = ground, pin4 = +), 10-18 VDC

### Physical

Size (H x W x D): 5.5" x 4.0" x 2.4" (14 cm x 10.2 cm x 6.1 cm)

Weight: 2.0 lbs

Operating Temperature: -10C to +40C