SONY

PMW-EX30

An HD SxS PRO compact memory recorder for an Evolving Era of HD

XDCAM EX - New Generation HD Recording System

Offering two SxS PRO memory card slots, a 3.5inch high resolution LCD screen and a wide range of analogue and digital interfaces including HD-SDI input, the PMW-EX30 has been designed to be the ideal companion to not only the existing EX line up of camcorders, but also as a low-cost HD recorder for the live event and entry-level studio market.

With the ability to dub to other HD formats such as HDV, XDCAM HD or HDCAM and with the addition of down-conversion of HD content to SD formats including DVCAM, the PMW-EX30 offers an ideal solution for those customers wanting to integrate XDCAM EX footage into a wide range of existing SD or HD tape-based or non-linear workflows.

Along with all these features, the recorder offers the same thumbnail operation and clip access as the camcorders, including the card copy function.

The PMW-EX30 is a highly versatile and affordable compact recorder for many different applications.

Features

New Nonlinear Recording Media, "SxSPRO" - For Greater Efficiency, Operability, and Reliability

The XDCAM EX range adopts the SxS PRO memory card for its recording media, which Sony and SanDisk Corporation jointly developed specifically for professional content creation applications. The SxS PRO memory card is an ultra-compact nonlinear medium that uses flash memory with a number of key features:

- Compatible with ExpressCard3/4 interface slot which is common on modern Windows PCs and Macs
- Uses PCI Express interface and achieves an extremely high "read" speed of 800 Mb/s*
- Large storage capacity: SBP-8 (8 GB) and SBP-16 (16 GB) memory cards are available
- Can record up to 70 minutes of HD video and audio (using one 16-GB memory card)
- Compact size: approx. 75 × 34 × 5 mm (excluding the projecting parts) - half the size of the older PC Card standard
- Low power consumption
- Highly reliable: can resist shocks (up to 1500 G) and vibrations (up to 15 G)

*This data-transfer speed is a theoretical value. Actual data-transfer speed depends on the file type and the performance of the PC.

1920 x 1080 HD Recording Using the "MPEG-2 Long GOP" Codec

The PMW-EX30 deck records 1920 x 1080 HD images using the "MPEG-2 Long GOP" codec, which conforms to the MPEG-2 MP@HL compression standard. "MPEG-2 Long GOP" is a mature codec - also adopted by the

XDCAM HD and HDV 1080i series of products - which enables users to record stunning-quality HD video and audio with highly efficient, reliable data compression.

Selectable Bit Rates

The PMW-EX30 deck offers a choice of bit rates - either 35 Mb/s (HQ mode) or 25 Mb/s (SP mode) - depending on the desired picture quality and recording time. The HQ mode supports both 1920 x 1080 and 1280 x 720 resolutions. The SP mode supports 1440 x 1080 resolution at 25 Mb/s, which provides compatibility with HDV 1080i products.

Footage recorded in this SP mode can be seamlessly integrated into HDV-compatible editing systems by transferring the stream from the deck via the i.LINK™ (HDV™) interface. It can also be recorded on XDCAM HD's optical disc through the use of the supplied Clip Browser software.

Long Recording Time

Utilising a mature and highly efficient compression format together with high performance SxS memory cards, the PMW-EX30 can record superb quality HD images for an exceptional 70 minutes* on a single 16Gb SxS card. As the PMW-EX30 features two memory card slots, this recording time is easily doubled to 140 minutes (with two 16Gb cards) and when recording across two cards, the transition is seamless without any frame loss. This feature makes the PMW-EX30 an ideal recorder for a wide variety of content production applications, such as HD live events and studio operation

*When recording in HQ (35 Mb/s) mode, recording time may be more than the above specified figure depending on the actual bit rate that is adopted during VBR encoding.

Wide range of HD interfaces

HD-SDI input/output, i-link(HDV), input/output, component output and an HDMI output for low-cost monitoring. This makes the PMW-EX30 a very versatile unit for not only use as a traditional edit machine, but also as a cost effective HD-SDI recorder either on location or in the studio.

SD Downconversion

Down-converted SD outputs for interoperability with SD edit environments - SD-SDI, i.LINK (DVCAM), component, S-Video and composite. This allows footage to be acquired in HD, then downconverted for SD post production whilst retaining the HD rushes for archive purposes.

DC 12V Operation

Offers DC operation in the field. Useful for HD mini-cam and other field-based acquisition applications

Built in 3.5inch LCD Monitor Screen

The PMW-EX30 has a high resolution 1920 x 640 LCD screen for reviewing clips and thumbnails. This allows easy viewing of your content with no delay

Multiple-format Recording - 1080/720 and Interlace/Progressive Switchable Operation

The PMW-EX30 deck offers a wide array of recording formats for multiple content creation applications. Recording mode is switchable between 1920 x 1080, 1280 x 720, and 1440 x 1080 resolutions. Frame rate is also selectable from interlace and progressive - 59.94i, 50i and native 23.98P*.

In addition, 59.94P and 50P progressive recording is available in 1280 x 720 mode. The SxS PRO memory card can simultaneously hold multiple files of any of these recording formats, allowing for flexible use of the memory card.

*In 1440 x 1080/23.98P (SP) mode, images are handled as 23.98P and recorded as 59.94i signals through means of 2-3 pull-down.

Adjustable Audio Input Volume

Both CH1 and CH2 audio input can be simply adjusted from the rotary dials on the front panel. Two channels of analogue audio on phono connectors can be recorded along with the picture signal. In addition embedded audio is supported

Additional Information

Only SxS memory cards are guaranteed for use with the XDCAM EX. USB based memory cards cannot be used with the XDCAM EX range. USB based memory cards might work with the XDCAM EX range in some cases, but Sony does not guarantee that all the functions will operate. The performance of USB based memory cards can vary.

Benefits

The PMW-EX30 expands the XDCAM EX product range by offering a compact recorder which in many ways operates in the same way as a traditional tape-based VTR, with many analogue and digital video interfaces along with the newer IT based interfaces such as USB and i.LINK. The product therefore can operate in either video or IT mode depending the customer's requirements.

SONY

Enhanced Workflow

Innovative solid state recording and playback with SxS PRO ExpressCard memory cards offers the following benefits:

- Compatible with industry-standard ExpressCard interface available on most modern laptops
- No time lost to tape loading
- Small, high capacity recording media offering over 2 hours of continuous HD content across 2 x 16GB cards.
- Enhanced interoperability with HDV and XDCAM plus SD down-conversion, so ready to use immediately with most existing NLE, either in HD or SD
- No need to worry about accidentally overwriting precious content
- Write and Re-Writable media with no degradation in picture quality
- Thumbnail images representing key scenes can be browsed and instantly accessed using LCD colour screen
- No frantic fast-forward/rewinding to find the clips you want to review
- Non-proprietary media manufacture
- Supplied with Clip Browser Software for viewing and copying clips to HDD, DVD or Blu-ray Disc.

Wide Range of Interfaces available

The deck features a wide range of both analogue and digital interfaces including HD-SDI input offering real flexibility

- HD-SDI In/Out
- Embedded Audio & TC
- HDMI Out
- i.LINK
- HDV In/Out
- DV Out (Down-Conversion)
- USB 2.0 (operates as SxS PRO card reader/writer)
- Component Out (Y/Pb/Pr)
- HD & SD (Down-conversion) selectable
- S-Video & Composite Out
- Analogue Audio In/Out
- Headphone Out

The PMW-EX30 offers the most compact HD-SDI recorder available from Sony

- The recorder can be used either vertically or horizontally with the supplied stand
- Ideal for use in edit suites and also small OB vans/ ENG vans where space is limited
- 12v input also offers flexibility on location

Technical Specifications

--General--

Mass	Approx. 2.0 kg (4 lb 6 oz) (body) Approx. 2.4 kg (5 lb 4 oz) with AC adaptor and stand
Dimensions (W x H x D)	Approx. 210 x 88 x 200 mm (8 3/8 x 3 1/2 x 7 7/8 inches)
Power requirements	DC 12 V
Power consumption	Approx. 12 W
Operating temperature	5 to +40°C (+32 to +104°F)
Storage temperature	-20 to +60°C (-4 to +140°F)
Recording format Video	Video MPEG-2 Long GOP HQ mode: VBR, maximum bit rate: 35 Mb/s, MPEG-2 MP@HL SP mode: CBR, 25 Mb/s, MPEG-2 MP@H14 Audio Linear PCM (2ch, 16-bit, 48-kHz)
Recording frame rate	NTSC setting HQ mode: 1920 x 1080/59.94i, 23.98P(*1), 1280 x 720/59.94P SP mode: 1440 x 1080/59.94i PAL setting HQ mode: 1920 x 1080/50i, 1280 x 720/50P SP mode: 1440 x 1080/50i
Recording/Playback time	HQ mode Approx. 50 min. with SBP-16 (16 GB) memory card. Approx. 25 min. with SBP-8 (8 GB) memory card[br]SP mode Approx. 70 min. with SBP-16 (16 GB) memory card. Approx. 35 min. with SBP-8 (8 GB) memory card

--Signal inputs/outputs--

Composite output	BNC(x1), 1.0 Vp-p, 75 ohms unbalanced
S-Video output	Y: 1.0 Vp-p, 75 ohms unbalanced, sync negative
Component output	BNC (x 3), Y: 1.0 Vp-p, 75 ohms, Pb/Pr: 0.7 Vp-p, 75 ohms
Audio input	RCA type (CH-1, CH-2)
Audio output	RCA type (CH-1, CH-2), -10 dBu (reference level), 47 kohms
HD-SDI input	BNC (x 1)

SDI output	BNC (x 1), HD-SDI/SD-SDI selectable
HDMI output	Type A 19-pin (x 1)
i.LINK input/output	IEEE1394, 6pin (x 1), HDV stream input/output, DVCAM stream output, S400
USB	Mini-B (x 1), USB 2.0 High-speed
Headphone output	Stereo mini-jack (x 1), 16 O, 30 mW
DC input	DC jack

--LCD panel--

LCD panel	3.5-inch(*2) type color LCD monitor, approx. 921000 effective pixels, 640 (H) x 3 (RGB) x 480 (V), 16:9, hybrid type

--Media slot--

Type	ExpressCard/34 (x 2)
Interface	ExpressCard compatible