SONY

PMW-1000

Compact HD/SD SxS memory recording deck

Overview

Enhanced XDCAM HD422 workflow for linear and non-linear operations

The compact, affordable PMW-1000 SxS memory recording deck has two SxSExpressCard™ memory card slots providing a wide variety of HD and SD recordings and playback, including 50 Mbps XDCAM HD422. The half-rack size recorder has SD / HD-SDI interfaces and Gigabit Ethernet (1000BASE-T) interfaces for non-linear network operations, as well as an RS-422 interface and jog/shuttle control to allow “linear like” ingest and editing.

XAVC HD support for PMW-F55 and PMW-F5 cameras

The PMW-1000 also supports 100 Mbps XAVC (1080/29.97p/25p/23.98p/59.94i/50i)* recordings on SxS media and allows easy XAVC HD playback and monitoring, making it an ideal recorder/player to work with the PMW-F55 and PMW-F5 CineAlta cameras. It also allows high-speed recorded content from both cameras to be played back in slow motion.

* 4K is not supported.

Smooth SD to HD migration

The deck supports a variety of SD record and playback standards,

including DVCAM record and playback and MPEG IMX and DV playback to make the smooth migration from SD to HD as easy as possible.

Features

Record and playback on SxS memory cards

The PMW-1000 is equipped with two SxSExpressCard™ memory card slots, offering approximately 280 minutes recording/playback time at 50 Mbps MPEG HD422 with 128GB capacity memory.

Enhanced XDCAM HD422 workflow even in linear operation

The PMW-1000 has a front control panel and features an RS-422 interface for linear ingest with an ingest controller. A jog/shuttle control allows linear editing. Even if non-linear editing is mainly used, the linear edit is still useful if only a small portion of the content needs to be edited.

Supports network and non-linear operations

The deck has SD / HD-SDI interfaces, Gigabit Ethernet (1000BASE-T) for full network operations. A standard HDMI interface allows easy monitoring capabilities.

Records XDCAM HD422 and HD420 at 50/35/25 Mbps

The deck supports a wide variety HD recordings, including 50 Mbps MPEG HD422 at 1920 x 1080 and 1280 x 720, and MPEG HD HQ/SP/LP modes at 1920 x 1080, 1440 x 1080 and 1280 x 720. It also provides HD420 (MP4) playback. Recording speeds include 50i/59.94i/25p/29.97p/23.98p/59.94p/50p.

XAVC HD recordings support PMW-F55 and PMW-F5 cameras

In addition, the PMW-1000 supports 100 Mbps XAVC (1080/29.97p/25p/23.98p/59.94i/50i)* recordings and allows

easy XAVC HD playback and monitoring, making it an ideal recorder/player to work with the PMW-F55 and PMW-F5 CineAlta cameras.

* 4K is not supported.

Smooth SD to HD migration
The deck also supports a variety of SD record and playback standards, including DVCAM record and playback and MPEG IMX and DV playback to make the smooth migration from SD to HD as easy as possible.

Reduction of storage costs
The deck allows clip copying to commodity storage such as a HDD using the USB 3.0 interface, with no need for a PC.

Compact size unit
The 3U half-rack deck weighs only 5.2 kg and has dimensions of 210 x 132 x 418 mm (8 3/8 x 5 1/4 x 16 1/2 inches).

Battery powered operation
The PMW-1000 provides AC or DC operation, working with the BKP-L551 Litium-ion battery adaptor.

Lower power consumption means long operating time
The deck requires 75 W for AC operation and 65 W for DC operation,

Specifications

General	
Power Requirements	AC 100 V to 240 V, 50/60 Hz, DC 12 V
Power Consumption	AC: 75 W, DC: 65 W (TBA)

Operating Temperature	5°C to 40°C 42°F to 104°F
Storage Temperature	-20°C to +60°C -4°F to +140°F
Humidity	20% to 90% (relative humidity)
Mass	5.2 kg 11 lb 7 oz
Dimensions (W x H x D)*1	210 x 132 x 418 mm (excluding protrusions) 8 3/8 x 5 1/4 x 16 1/2 inches (excluding protrusions)
Recording/Playback Format (Video)	MPEG HD422 (CBR, 50 Mbps)
Recording/Playback Format (Video)	MPEG HD: - HQ mode (VBR, maximum bit rate: 35 Mbps) - SP mode (CBR, 25 Mbps) *2 - LP mode (VBR, maximum bit rate: 18 Mbps)*2 MPEG IMX (CBR, 50/40/30 Mbps) *2 DVCAM (CBR, 25 Mbps) XAVC (CBR, 100 Mbps)
Recording/Playback	MPEG HD422: 8 ch/24 bits/48 kHz MPEG HD: 4 ch/16 bits/48 kHz MPEG IMX: 8 ch/16 bits/48 kHz or 4

Format (Audio)	ch/24 bits/48 kHz *2 DVCAM: 4 ch/16 bits/48 kHz XAVC: 8 ch/24 bits/48 kHz
Recording/Playback Format (Proxy Video)	MPEG-4
Recording/Playback Format (Proxy Audio)	A-law (8 ch/8 bits/8 kHz)
Recording/Playback Time (MPEG HD422)	"UDF/MXF (50 Mbps CBR): "UDF/MXF (50 Mbps CBR): Approx. 280 min (128GB), Approx. 140 min (64GB), Approx. 70 min (32GB), Approx. 35 min (16GB), Approx. 17 min (8GB)"
Recording/Playback Time (MPEG HD)	FAT/MP4 (25Mbps CBR) *2: Approx. 560 min (128GB), Approx. 280 min (64GB), Approx. 140 min (32GB), Approx. 70 min (16GB), Approx. 35 min (8GB)
Recording/Playback Time (MPEG IMX)	UDF/MXF (50Mbps Intra) *2: Approx. 280 min (128GB), Approx. 140 min (64GB), Approx. 70 min (32GB), Approx. 35 min (16GB), Approx. 17 min (8GB)*2
	UDF/MXF (25Mbps CBR) and FAT/AVI (25Mbps CBR) *2: Approx.

Recording/Playback Time (DVCAM)	560 min (128GB), Approx. 280 min (64GB), Approx. 140 min (32GB), Approx. 70 min (16GB), Approx. 35 min (8GB)
Search Speed Range (Shuttle Mode)	-20 times to +20 times normal speed (max +/-50 by Remote)
Search Speed Range (Variable Mode)	-2 times to +2 times normal speed
Search Speed Range (Jog Mode)	-1 time to +1 time normal speed (-2 to +2 by Remote)
Search Speed Range (Fast Forward/Reverse)	-35/+35 times normal speed (max +/-50 by Remote)

Media Drive

Media Type	SxS Memory Card Drive, ExpressCard/34 (x2)

Input/Output

Reference Input	BNC (x2) (including loop-through), HD Tri-level sync (0.6 Vp-p/75 Ω/negative) or SD blackburst/composite sync (0.286

	Vp-p/75 Ω/negative)
HD-SDI Input	BNC (x1) (HD/SD switchable) HD-SDI: SMPTE 292M (w/embedded audio) SD-SDI: SMPTE 259M (w/embedded audio)
Analog Audio Input	XLR-type 3-pin (female) (x2) (channel selectable), +4/0/-3/-6 dBu (selectable), 10 kΩ, balanced
Timecode Input	BNC (x1), SMPTE timecode, 0.5 Vp-p to 18 Vp-p/3.3 kΩ/unbalanced
Analog Composite Output	BNC (x2), 1: 1.0 Vp-p/75 Ω/negative, SMPTE 170M 2: 1.0 Vp-p/75 Ω/negative, SMPTE 170M, character On/Off
SD-SDI Output	HD SDI BNC (x2), 1: SMPTE 292M (w/embedded audio) 2: SMPTE 292M (w/embedded audio), character on/off SD SDI BNC (x2), 1: SMPTE 259M (w/embedded audio) 2: SMPTE 259M (w/embedded

	audio), character on/off
HDMI Monitor	"TYPE A 19-pin (x1) Video : 1080i, 720P, 480i, 480P, 576i, 576P Audio : 2 ch/16 bits/48 kHz"
Analog Audio Output	XLR-type 3-pin (male) (x2) (channel selectable), +4/0/-3/-6 dBu (selectable), 600 Ω, Lo-z, balanced XLR-type 3-pin (male) (x2), +4 dBu, 600 Ω, Lo-Z, balanced
Headphone Output	JM-60 Stereo phone jack (x1), -13 dBu, 8 Ω, unbalanced
Timecode Output	BNC (x1), SMPTE timecode, 1.0 Vp-p/75 Ω/unbalanced
Ethernet	RJ-45 (x1) 1000BASE-T: IEEE 802.3ab 100BASE-T: IEEE 802.3u 10BASE-T: IEEE 802.3
USB	Front : (x1) USB 3.0
Remote Input (9-pin)	D-sub 9-pin (female) (x1), RS-422A
DC Input (12 V)	XLR-type 4-pin (male) (x1)
DC Output (12 V)	4-pin (female) (x1), DC 12 V, 7.5 W
Maintenance	Rear : (x2) for Maintenance, USB Keyboard, USB Mouse

AC Input	AC Input (x1), 100 V to 240 V, 50/60Hz

Video Performance

Sampling Frequency	Y: 74.25 MHz, Pb/Pr: 37.125MHz
Quantization	HD422, MPEG HD, IMX, DVCAM: 8 bits/sample XAVC: 10 bits/sample
Error Correction	Reed Solomon Code

Processor Adjustment Range

Video Level	-∞ to +3 dB
Chroma Level	-∞ to +3 dB
Set Up/Black Level	-30 IRE to +30 IRE/-210 mV to +210 mV
Chroma Phase	-30° to +30°
System Sync Phase	-15 µs to +15 µs
System SC Phase	0 ns to 400 ns

Audio Performance

Sampling Frequency	48 kHz
Quantization	24 bits
Frequency Response	20 Hz to 20 kHz +0.5/-1.0 dB (0 dB at 1 kHz)
Dynamic Range	More than 90 dB
Distortion	Less than 0.05% (at 1 kHz)
Headroom	20/18/16/12/9 dB (selectable)

Other Equipment

Built-in Display	4.3-inch type color LCD monitor
Built-in Speaker	Monaural (x1)

Supplied Accessories

Operation Guide	1

Notes

*1	The values for dimensions are approximate.
*2	Playback only.

Gallery