

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 SxS ExpressCard™ 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 SxS ExpressCard™ 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

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

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| 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. |

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

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

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

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| | 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 |

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

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

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| Video Level | $-\infty$ to +3 dB |
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| Chroma Level | $-\infty$ to +3 dB |
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| Set Up/Black Level | -30 IRE to +30 IRE/-210 mV to +210 mV |
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| Chroma Phase | -30° to $+30^\circ$ |
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| System Sync Phase | $-15 \mu\text{s}$ to $+15 \mu\text{s}$ |
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| System SC Phase | 0 ns to 400 ns |
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Audio Performance

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| 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

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

Supplied Accessories

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| Operation Guide | 1 |
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Notes

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

Gallery

