SONY

PDW-HD1500

XDCAM HD422 Professional Disc recorder
up to 50 Mb/s

Краткое содержание

The XDCAM production system was first introduced in 2003, offering revolutionary file-based acquisition onto optical Professional Disc. In 2005, XDCAM HD was launched with camcorders and decks recording high definition pictures at up to 35 Mb/s onto the same 23 GB Professional Discs.

At IBC 2007, Sony demonstrated the latest development of products to expand of the XDCAM HD line up - the PDW-700 camcorder and the PDW-HD1500 deck.

The PDW-HD1500 will record and replay XDCAM HD 50 Mb/s 4:2:2 data onto 50 GB Dual-layer Professional Disc. With interfaces including i.LINK and Ethernet, the PDW-HD1500 can operate at the heart of small or large scale file-based networked systems. VTR-like JOG/shuttle operation and video interfaces including HD-SDI and SD-SDI also makes the PDW-HD1500 ideal for operation in more traditional vide-based installations.

The PDW-HD1500 has been designed to increase the appeal of XDCAM HD for high-end applications such as drama, documentary and natural history and for mainstream entertainment programmes that required a prestige quality look.

File-based acquisition onto Professional Disc, with thumbnail and proxy operation will also make the PDW-HDW-1500 ideal for networked applications where speed of production is a critical.

Характеристики

High definition recording using MPEG-2 422P@HL compression at 50Mb/s data rate

Support for existing XDCAM HD and XDCAM SD formats

8 channels of digital audio

Dual-layer Disc (50GB) and Single-layer Disc (23.3GB) support

Dual optical pick-up for higher speed file transfer

4.3-inch colour LCD

VTR-like JOG/SHUTTLE operation

TBC control (via front panel and remote)

Compact and lightweight at 6.3kg and half-rack width

AC, DC or battery powered

Built-in up/down converter and 1080/720 cross converter

HD up-conversion from SDI input (recording)

HD/SD conversion and cross conversion output between 1080 and 720 (playback)

Ethernet interface (100Base-T)

i.LINK interface
The PDW-HD1500 will be the most highly specified recorder within the XDCAM HD line up. The main features announced at IBC 2007 are as follows:

Характеристики

General	
Power Requirements	AC 100 V to 240 V, 50/60 Hz, DC 12 V
Power Consumption	AC: 80 W, DC: 65 W, SAVEMODE (DC): 55 W
Operating Temperature	5°C to 40°C
Operating Temperature	42°F to 104°F
Storage Temperature	-4°F to +140°F
Storage Temperature	'-20°C to +60°C
Humidity	25% to 90% (relative humidity)
Mass	6.5 kg
Mass	14 lb 5 oz
Dimensions (W x H x D) *[1]	8 3/8 x 5 1/4 x 15 5/8 inches (excluding protrusions)
Dimensions (W x H x D) *[1]	210 x 132 x 396 mm (excluding protrusions)
Recording/Playback Format (Video)	- LP mode (VBR, maximum bit rate: 18 Mbps) (Playback only.)
Recording/Playback Format (Video)	DVCAM (Optional PDBK-S1500 hardware key is required for DVCAM and MPEG IMX recording.) (CBR, 25 Mbps)
Recording/Playback Format (Video)	MPEG IMX (Optional PDBK-S1500 hardware key is required for DVCAM and MPEG IMX recording.) (CBR, 50/40/30 Mbps)
Recording/Playback Format (Video)	MPEG HD422 (CBR, 50 Mbps)
Recording/Playback Format (Video)	MPEG HD:
Recording/Playback Format (Video)	- SP mode (CBR, 25 Mbps)
Recording/Playback Format (Video)	- HQ mode (VBR, maximum bit rate: 35 Mbps)
Recording/Playback Format (Audio)	DVCAM (Optional PDBK-S1500 hardware key is required for DVCAM and MPEG IMX recording.): 4 ch/16 bits/48 kHz

General	
Recording/Playback Format (Audio)	MPEG IMX (Optional PDBK-S1500 hardware key is required for DVCAM and MPEG IMX recording.): 4 ch/24 bits/48 kHz or 8 ch/16 bits/48 kHz
Recording/Playback Format (Audio)	MPEG HD422: 8 ch/24 bits/48 kHz
Recording/Playback Format (Audio)	MPEG HD: 4 ch/16 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)	50 Mbps: Approx. 95 min (PFD50DLA), Approx. 43 min (PFD23A)
Recording/Playback Time (MPEG HD)	35 Mbps, 4-ch audio: More than 145 min (PFD50DLA), More than 65 min (PFD23A)
Recording/Playback Time (MPEG HD)	35 Mbps, 2-ch audio (playback only): More than 150 min (PFD50DLA), More than 68 min (PFD23A)
Recording/Playback Time (MPEG HD)	25 Mbps, 4-ch audio: Approx. 190 min (PFD50DLA), Approx. 85 min (PFD23A)
Recording/Playback Time (MPEG HD)	25 Mbps, 2-ch audio (playback only): Approx. 200 min (PFD50DLA), Approx. 90 min (PFD23A)
Recording/Playback Time (MPEG HD)	18 Mbps, 4-ch audio (playback only): More than 248 min (PFD50DLA), More than 112 min (PFD23A)
Recording/Playback Time (MPEG HD)	18 Mbps, 2-ch audio (playback only): More than 265 min (PFD50DLA), More than 122 min (PFD23A)
Recording/Playback Time (MPEG IMX)	Optional PDBK-S1500 hardware key is required for MPEG IMX recording.
Recording/Playback Time (MPEG IMX)	50 Mbps: Approx. 100 min (PFD50DLA), Approx. 45 min (PFD23A)
Recording/Playback Time (MPEG IMX)	40 Mbps: Approx. 120 min (PFD50DLA), Approx. 55 min (PFD23A)
Recording/Playback Time (MPEG IMX)	30 Mbps: Approx. 150 min (PFD50DLA), Approx. 68 min (PFD23A)
Recording/Playback Time (DVCAM)	25 Mbps: Approx. 185 min (PFD50DLA), Approx. 85 min (PFD23A) (Optional PDBK-S1500 hardware key is required for DVCAM and MPEG IMX recording.)
Search Speed Range (Shuttle Mode)	-20 times to +20 times normal speed

General	
Search Speed Range (Variable Mode)	-2 times to +2 times normal speed
Search Speed Range (Jog Mode)	-1 time to +1 time normal speed
Search Speed Range (Fast Forward/Reverse)	-35/+35 times normal speed

Media Drive	
Media Type	Professional Disc Drive (x1)

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	SD-SDI: SMPTE 259M (w/embedded audio)
HD-SDI Input	HD-SDI: SMPTE 292M (w/embedded audio)
HD-SDI Input	BNC (x1)
HD-SDI Input	(HD/SD switchable)
Analog Audio Input	XLR-type 3-pin (female) (x2) (channel selectable), +4/0/-3/-6 dBu (selectable), 10 kΩ, balanced
Digital Audio Input (AES/EBU)	BNC (x2), 4 ch (2 ch each, 1/2 ch and 3/4 ch), AES-3id-1995
Timecode Input	BNC (x1), SMPTE timecode, 0.5 Vp-p to 18 Vp-p/3.3 kΩ/unbalanced
Analog Composite Output	BNC (x2),
Analog Composite Output	2: 1.0 Vp-p/75 Ω/negative, SMPTE 170M, character On/Off
Analog Composite Output	1: 1.0 Vp-p/75 Ω/negative, SMPTE 170M
HD-SDI Output	BNC (x2),
HD-SDI Output	2: SMPTE 292M (w/embedded audio), character on/off
HD-SDI Output	1: SMPTE 292M (w/embedded audio)
SD-SDI Output	BNC (x2),
SD-SDI Output	2: SMPTE 259M (w/embedded audio), character on/off
SD-SDI Output	1: SMPTE 259M (w/embedded audio)

Input/Output	
Analog Audio Output	XLR-type 3-pin (male) (x2) (channel selectable), +4/0/-3/-6 dBu (selectable), 600 Ω, Lo-z, balanced
Analog Audio Monitor	XLR-type 3-pin (male) (x2), +4 dBu, 600 Ω, Lo-Z, balanced
Digital Audio Output (AES/EBU)	BNC (x2), 4 ch (2 ch each, 1/2 ch and 3/4 ch), AES-3id-1995
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
Video Control	D-sub 9-pin (female) (x1), EIA RS-423
i.LINK	IEEE 1394 6-pin (x1)*
i.LINK	File Access Mode or HDV TS*(1080i/720p) (selectable)
i.LINK	*Optional PDBK-201 is required for HDV IN/OUT.
Ethernet	RJ-45 (x1)
Ethernet	10BASE-T: IEEE 802.3
Ethernet	100BASE-TX: IEEE 802.3u
Ethernet	1000BASE-T: IEEE 802.3ab
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	USB (x2)
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	8 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

Processor Adjustment Range

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 dB (selectable)

Other Equipment

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

Supplied Accessories

Supplied Accessories	XDCAM Application Software CD-ROM (1)
Supplied Accessories	Operation manual (1)
Supplied Accessories	Installation manual (1)

Notes

Note	*[1] The values for dimensions are approximate.

Галерея