

SONY



PDW-HR1

XDCAM HD422 Field Station

Sony's top-of-the-line XDCAM HD422 Series is being embraced around the world for its file-based recording capability utilizing high-capacity and highly reliable Professional Disc media. Thanks to its newly developed MPEG HD422 codec, the XDCAM HD422 Series provides high-quality video and audio recording capabilities, with an image resolution of 1920 x 1080 and eight-channel 24-bit uncompressed audio.

The newly developed PDW-HR1 XDCAM HD422 Field Station further enhances the operational capability of this series. The PDW-HR1 packs a large number of functions into its compact yet robust body. With a large 9-inch* WVGA LCD, material can be checked on the spot and a wide variety of GUIs offers superb operational efficiency.

It provides multi-format recording capability as standard, including a frame rate of 23.98P in 1080 mode and SD recording. A wide range of signal interfaces, including baseband video (composite, HD/SD-SDI), Gigabit Ethernet, MPEG TS**, DVB-ASI**, and HDMI are also provided. What's more, an FTP client capability*** allows the PDW-HR1 to transfer files via its Ethernet connection without the need for a PC.

With its great operational versatility, the PDW-HR1 further expands the operational applications of the XDCAM HD422 Series.

* Viewable area measured diagonally.

** Requires optional PDBK-202 board.

*** Requires a software upgrade, planned to be available in the second half of 2009

Features

The PDW-HR1 XDCAM HD422 Field Station further enhances the operational capability of the XDCAM family and packs a large number of functions into its compact yet robust body.

- With a large 9-inch WVGA LCD, material can be checked on the spot and a wide variety of GUIs

offers superb operational efficiency.

- Multi-format recording capability as standard, including a frame rate of 23.98P in 1080 mode and SD recording.

- A wide range of signal interfaces, including baseband video (composite, HD/SD-SDI), Gigabit Ethernet, optional MPEG TS, DVB-ASI, and HDMI are also provided.

- FTP client capability allows the PDW-HR1 to transfer files via its Ethernet connection without the need for a PC.

- Picture Cache Recording and Disc Exchange Cache.

Benefits

Highly portable, compact, light weight. Easy to carry and transport meaning lower freight and storage costs

Multi-format recording including 24P (23.98P) progressive and SD as standard so the PDW-HR1 now caters for productions intended for cinema release in the USA

Wide range of signal interfaces. Can operate in either baseband video or File Access Mode (FAM) offering a wide range of connectivity options. Cross conversions, up-res and down-res can be done within the PDW-F1600 negating the need for additional external equipment

Large 9-inch WVGA LCD screen. A wide variety of GUIs offers superb operational efficiency which allows material recorded to be checked on the spot

Technical Specifications

--General--

Power requirements	AC 100 to 240V, 50/60 Hz, DC +12V, Battery
Power consumption	AC: 65 W, DC: 55 W
Operating temperature	-5 to +45°C (+23 to 113°F)
Storage temperature	-20 to +60°C (-4 to +140°F)
Humidity	20 to 90% (relative humidity)
Mass	7.4 kg (16 lb 5 oz)
Dimensions (W x H x D) (excluding protrusions)	300 x 129 x 400 mm (11 7/8 x 5 1/8 x 15 3/4 inches)
Recording/Playback format	Video: MPEG HD422 (CBR: 50 Mb/s) MPEG HD: HQ mode (VBR, maximum bit rate: 35 Mb/s) SP mode (CBR, 25 Mb/s) LP mode (VBR, maximum bit rate: 18 Mb/s) (Playback only) MPEG IMX (CBR, 50/40/30 Mb/s) DVCAM (CBR, 25 Mb/s) Proxy Video: J MPEG-4 Audio: MPEG HD422: 8 ch/24 bits/48 kHz MPEG HD: 4 ch/16 bits/48 kHz MPEG IMX: 4 ch/24 bits/48 kHz or 8 ch/16 bits/48 kHz DVCAM: 4 ch/16 bits/48 kHz Proxy Audio: A-law (8 ch/8 bits/8 kHz)
Recording/Playback time	MPEG HD422: 50 Mb/s: Approx. 95 min. (PFD50DLA), Approx. 43 min. (PFD23A) MPEG HD: 35 Mb/s, 4-ch audio: More than 145 min. (PFD50DLA), More than 65 min. (PFD23A) 35 Mb/s, 2-ch audio (playback only): More than 150 min. (PFD50DLA), More than 68 min. (PFD23A) 25 Mb/s, 4-ch audio: Approx. 190 min. (PFD50DLA), Approx. 85 min. (PFD23A) 25 Mb/s, 2-ch audio (playback only): Approx. 200 min. (PFD50DLA), Approx. 90 min. (PFD23A) 18 Mb/s, 4-ch audio (playback only): More than 248 min. (PFD50DLA), More than 112 min. (PFD23A) 18 Mb/s, 2-ch audio (playback only): More than 265 min. (PFD50DLA), More than 122 min. (PFD23A) MPEG IMX: 50 Mb/s: Approx. 100 min. (PFD50DLA), Approx. 45 min. (PFD23A) 40 Mb/s: Approx. 120 min. (PFD50DLA), Approx. 55 min. (PFD23A) 30 Mb/s: Approx. 150 min. (PFD50DLA), Approx. 68 min. (PFD23A) DVCAM: 25 Mb/s: Approx. 185 min. (PFD50DLA), Approx. 85 min. (PFD23A)
Search speed range	Jog mode: -1 to +1 time normal speed Variable mode: -1 to +1 times normal speed Shuttle mode: -20 to +20 times normal speed F.Fwd/Rev: -20/+20 times normal speed

--Inputs/Outputs--

Reference input	BNC x 2 (including loop through), HD Tri-level sync (0.6 Vp-p/75 ohms/negative) or SD blackburst/composite sync (0.286 Vp-p/75 ohms/negative)
Analogue composite input	BNC x 1, 1.0 Vp-p/75 ohms/negative, SMPTE 170M
HD-SDI input	BNC x 1 (HD/SD switchable) HD-SDI: SMPTE 292M (w/embedded audio) SD-SDI: SMPTE 259M (w/embedded audio)
Analogue audio input	XLR 3-pin (female) x 4 (channel selectable), +4/0/-3/-6 dBu (selectable), 10 k ohms, balanced, CH1 and CH2: switchable phantom powered mic input
Time code input	BNC x 1, SMPTE time code, 0.5 to 18 Vp-p/3.3 k ohms/unbalanced
Analog composite output	BNC x 1, 1.0 Vp-p/75 ohms/negative, SMPTE 170M ,character On/Off
HD-SDI output	BNC x 2, 1: SMPTE 292M (w/embedded audio) 2: SMPTE 292M (w/embedded audio), character On/Off
SD-SDI output	BNC x 1, SMPTE 259M (w/embedded audio), character On/Off
HDMI	x 1, output
Analogue audio output	XLR 3-pin (male) x 42 (channel selectable), +4/0/-3/-6 dBu (selectable), 600 Ω , Lo-z, balanced, CH3 and CH4: switchable analogue audio monitor
Headphone output	JM-60 Stereo phone jack x 1, -13 dBu, 8 ohms, unbalanced
Time code output	BNC x 1, SMPTE time code, 1.0 Vp-p/75 ohms/unbalanced
i.LINK	IEEE 1394 6-pin x 2*, 1: File Access Mode, 2: (Option: PDBK-202) HDV 1080i/720P IN/OUT
Ethernet	*AV/C (DV) stream is NOT supported. RJ-45 x 1, 1000Base-T: IEEE802.3ab, 100Base-TX: IEEE802.3u, 10Base-T: IEEE802.3
DVB-ASI output	x 1, (Option: PDBK-202) ISO/IEC-13818-2
Remote (9P) input/output	D-sub 9-pin (female) x 1, RS-422A
DC input (12 V)	XLR 4-pin (male) x 1
DC output (12 V)	4-pin (female) x 1, DC 12 V, 7.5 W
Maintenance	USB x 2
AC input	x 1, 100 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	-8 to +3 dB
Chroma level	-8 to +3 dB
Set up/black level	± 30 IRE/ ± 210 mV
Chroma phase	$\pm 30^\circ$
System sync phase	± 15 us
System sync phase (fine)	0 to 400 ns
System SC phase	0 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)

--Others--

Built-in display	9-inch type color LCD monitor
Built-in audio speaker	x 2, L/R

Accessories

Batteries and Power Supplies



BP-GL95

Rechargeable Lithium-ion Battery Pack



BP-L80S

Rechargeable Lithium-ion Battery Pack