

SONY

PDW-700

Top-of-the-range XDCAM HD Camcorder recording HD material at up to 50Mb/s onto Dual Layer Disc



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-700 will take XDCAM HD performance to a new level. It will record stunning quality HD images at up to 50 Mb/s onto 50GB Dual Layer Professional Discs. The PDW-700 will use three 2/3-inch progressive CCD sensors each with full 1920 x 1080 resolution. 14 bit A/D conversion, 4:2:2 sampling and recording, and advanced digital signal processing will ensure superb picture quality. The PDW-700 will also support recording in both 1080 and 720-line formats.

The PDW-700 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-700 ideal for applications where speed of production is a critical.

The PDW-700 will be the most highly specified camcorder within the XDCAM HD line up.

Features

The PDW-700 will be the most highly specified camcorder within the XDCAM HD line up. The main features announced at IBC 2007 are as follows:

Three 2/3-inch CCDs for RGB image capture, each with 2.2Mpixel resolution

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

Support for existing XDCAM HD and XDCAM SD formats

4 channels of digital audio

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

3.5-inch colour LCD

Thumbnail operation

Proxy recording and metadata

Compact and lightweight at 4.2kg (without viewfinder, lens, microphone and battery)

Dual HD/SD-SDI output and composite/HD-Y output

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

Pool-feed input (HD/SD-SDI and composite) option

HD up-conversion from SDI input (recording)

Ethernet interface

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

i.LINK interface

Technical Specifications

--General--

Mass	Approx. 4.3 kg (9 lb 8 oz) (w/o options) Approx. 6.0 kg (w/VF, Mic, Disc, BP-GL95 battery) (13 lb 4 oz)
Power requirements	DC 12 V +5.0 V/-1.0 V
Power Consumption	Approx. 40 W (while recording, w/o options, color LCD On) Approx. 44 W (while recording, w/viewfinder, color LCD On, manual lense, microphone)
Operating temperature	-5 to +40°C (+32 to 104°F)
Storage temperature	-20 to +60°C (-4 to +140°F)
Humidity	10 to 90% (relative humidity)
Continuous operating time	Approx. 120 min. w/BP-GL95 battery
Recording format	Video MPEG HD422 (CBR: 50 Mb/s) MPEG HD(*1) -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(*2) (CBR, 50/40/30 Mb/s) DVCAM(*2) (CBR, 25 Mb/s) Proxy Video MPEG-4 Audio MPEG HD422: 4 ch/24 bits/48 kHz MPEG HD(*1): 4 ch/16 bits/48 kHz MPEG IMX(*2): 4 ch/24 bits/48 kHz or 4 ch/16 bits/48 kHz DVCAM(*2): 4 ch/16 bits/48 kHz Proxy Audio A-law (4ch/8 bits/8 kHz) Recording/Playback time MPEG HD422, 50 Mb/s: Approx. 95 min. (PFD50DLA), Approx. 43 min. (PFD23A) MPEG HD(*1), 35 Mb/s: More than 145 min. (PFD50DLA), More than 65 min. (PFD23A) MPEG HD(*1), 25 Mb/s: Approx. 190 min. (PFD50DLA), Approx. 85 min. (PFD23A) MPEG IMX(*2), 50 Mb/s: Approx. 100 min. (PFD50DLA), Approx. 45 min. (PFD23A) MPEG IMX(*2), 40 Mb/s: Approx. 120 min. (PFD50DLA), Approx. 55 min. (PFD23A) MPEG IMX(*2), 30 Mb/s: Approx. 150 min. (PFD50DLA), Approx. 68 min. (PFD23A) DVCAM(*2), 25 Mb/s: Approx. 185 min. (PFD50DLA), Approx. 85 min. (PFD23A)
--Signal Inputs--	SDI (HD/SD switchable) (Option)(*3) BNC x 1 -HD-SDI: SMPTE 292M (w/embedded audio) -SD-SDI: SMPTE 259M (w/embedded audio) SD Composite (Option)(*4) BNC x 1, 1.0 Vp-p, 75ohms, unbalanced

--Signal Outputs--

Genlock video

BNC x 1, 1.0 Vp-p, 75ohms, unbalanced

Audio

XLR 3-pin (female) x 2, Line / Mic / Mic+48V / ASE/EBU selectable

Mic

XLR 5-pin (female, stereo) x 1

Time code

BNC x 1, 0.5 to 18 Vp-p, 10 ohms

SDI (HD/SD switchable)

BNC x 2

(Ch-1)

-HD-SDI: SMPTE 292M (w/embedded audio)

-SD-SDI: SMPTE 259M (w/embedded audio)

(Ch-2 (character On/Off))

-HD-SDI: SMPTE 292M (w/embedded audio)

-SD-SDI: SMPTE 259M (w/embedded audio)

HD Y/SD Composite (switchable)

BNC x 1

-HD Y

-SD Composite (character On/Off)

Audio

XLR 5-pin (male, stereo) x 1

Time code

BNC x 1, 1.0 Vp-p, 75ohms

Earphone

--Other Inputs/outputs--

Mini-jack x 2 (front: manual, rear: stereo/monoral)

i.LINK

x 1, 6 pin, File Access Mode

Ethernet

RJ-45 x 1, 100Base-Tx: IEEE802.3u, 10Base-T: IEEE802.3

Lens

12-pin

Remote

8-pin

Light

2-pin, DC 12 V, max. 50 W

DC input

XLR 4-pin (male) x 1, 11 to 17 V

DC output 4-pin x 1, 0.5 A max (for wireless microphone receiver)

Memory Stick x 1 (for camera setup files)

USB

--Audio performance--

x 1 (for version-up)
 Frequency response
 20 Hz to 20 kHz, +0.5 dB/-1.0 dB

Dynamic range
 More than 93dB

Distortion
 Less than 0.08% (at 1 kHz, reference level)

Crosstalk
 Less than -70 dB (at 1kHz, reference level)

Wow & flutter
 Below measurable limit

Headroom

--Camera section--

-12/-16/-18/-20 dB (selectable)
 Pickup device
 3-chip 2/3-inch type HD Power HAD FX CCDs

Total picture elements
 1920 x 1080

Optical system
 F1.4 prism

Built-in optical filters
 1: Clear, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND

Shutter speed 59.94i: 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000, ECS, SLS(*1)
 50i: 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000, ECS, SLS(*1)
 25P: 1/33, 1/50, 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000, ECS, SLS(*1)

Lens mount
 2/3-inch-type 48 bayonet mount

Sensitivity (2000 lx, 89.9% reflectance)
 59.94i: F11
 50i: F12

Minimum illumination
 0.016 lx (F1.4 lens: +42 dB, with 16-frame accumulation)

Gain selection
 +42, +36, +32, +24, +18, +12, +9, +6, +3, +0, -3, -6 dB(*5)

Smear level
 -135 dB

S/N ratio
 59 dB (54 dB w/o Noise Suppression (NS) mode)

Modulation depth (center of view)

--Viewfinder--
 --Built-in LCD monitor--
 Notes

45% or more

Geometric distortion

Below measurable level (w/o lens)

Option

3.5-inch type color LCD monitor

(*1)Requires a software upgrade planned to be available in autumn 2008.

(*2)Requires optional CBKZ-MD01 software planned to be available in autumn 2008.

(*3)Requires an optional CBK-HD01 board planned to be available in autumn 2008.

(*4)Requires an optional CBK-SC02 board planned to be available in autumn 2008.

(*5)Dynamic range becomes half when -6 dB is selected.

Accessories

Viewfinders and Hoods



HDVF-20A

HD Electronic Viewfinder (2IN)

Viewfinders



HDVF-C35W

HD Colour LCD Viewfinder

BKW-401

Viewfinder Rotation Bracket

Batteries and Power Supplies



BP-GL95

Rechargeable Lithium-ion Battery Pack



BC-M150

Battery Charger



BP-GL65

Battery Pack



BC-L500

Li-ion Battery Charger



BP-L80S

Rechargeable Lithium-ion Battery Pack



AC-DN10

AC Adaptor/Charger



BC-L70

Li-ion Battery Charger



AC-DN2B

AC Adapter (150W output) and Lithium-ion battery charger

Control Systems



RCP-920
Remote Control Panel



RCP-921
Remote Control Panel



RCP-750
New Joystick-type full-function remote control panel for use with all BVP and HDC systems cameras



RCP-751
New Dial-type full-function remote control panel for use with all BVP and HDC systems cameras



MSU-900
Master Set-Up Unit for BVP and HDC series cameras. Provides centralised control for a multi camera system in any studio or OB van, in a compact, horizontal panel format



MSU-950
Master Set-Up Unit for BVP and HDC series cameras. Provides centralised control for a multi camera system in any studio or OB van, in a compact, vertical panel format

Lapel (ECM-series)



ECM-674
Electret Condenser Microphone



ECM-678
Electret Condenser Shotgun Microphone



ECM-680S
Shotgun electret condenser microphone

Tripods



VCT-14
TRIPOD ADAPTOR FOR PORT. CAMERAS/CAMC.

Cases

LC-777
Hard shell carrying case for Digital Betacam camcorders



LC-DS300SFT
Soft Carr.case For Dsr-300p/500wsp