

## XDS-PD2000/A

XDCAM Deck / IT Server with two SxS memory slots, Professional Disc drive and 960GB SSD



### Overview

The XDS-PD2000/A supports the operation of all SxS card types, including Memory Stick and SDHC cards, using MEAD adaptors. It also supports all XDCAM Professional Disc models in all recording formats and modes. The internal 960GB Solid State Drive (SSD) and the 1Gigabit Ethernet connection allow a total of about 30 hours of continuous recording in HD422 50Mbps and multi-user simultaneous access to the AV content.

#### Hybrid XDCAM workflow

The XDCAM Station is a professional media station with a built-in storage and interfaces for both Professional Disc media and SxS memory cards, enabling hybrid operation in an XDCAM workflow. It features better support for multi-task operations, networking, and other IT functions. Adding the XDCAM Station to an XDCAM workflow makes file-based operation much more convenient and efficient.

#### Increases functionality with Professional Disc drive

The XDS-PD2000/A's internal 4th generation 4G Professional Disc drive allows partial transfer of materials or full backup from the Professional Disc to the internal 960GB SSD. Furthermore, materials from the internal SSD can be partially copied to the

Professional Disc. Simultaneous operation of baseband recording and playback or slow-motion is possible. Editing while recording (growing file editing) is also possible.

## Features

### **Supports all XDCAM storage formats**

The XDS-PD2000/A brings the XDCAM Professional Disc optical memory and XDCAM EX SxS solid state memory workflows together in a powerful "bridge" solution. The XDS-PD2000/A supports all XDCAM and XDCAM EX file formats, codecs and metadata, effectively offering complete format transparency. It also supports industry-standard VDCP, ftp and CIFS protocols.

### **Supports 4th generation 4G Professional Disc drive and Quad Layer discs**

The XDS-PD2000/A supports the new high-speed DCHS optical drive. It handles following all types of Professional Discs; PFD23A (Single Layer, 23.3GB), PFD50DLA (Dual Layer, 50GB), PFD100TLA (Triple Layer, 100GB) and PFD128QLW (Quad Layer, 128GB). Handles SxS Pro, SxS-1 and card adaptors for memory sticks and SDHCs. The 4G drive and Quad Layer discs offer larger storage volumes and higher access speeds. They are ideal for archiving large quantities of material.

### **Multi-tasking internal storage operations**

The 960GB Solid State Drive (SSD) internal storage is capable of multi-tasking when carrying out certain tasks. This increases interoperability and overall efficiency when working with Network Production systems.

### **Familiar VTR-like user interface**

The layout of controls on the XDS deck follows industry-standard conventions already familiar to most users. This makes it easy to use, configure and integrate into the overall workflow.

### **Enhances network functionality**

The XDS-PD2000/A allows users to access growing volumes of files from non-linear editors without file transfer, offering high-speed file transfer and multiple access via a network. The XDS-PD2000/A offers 8 clients for file transfer and 8 clients for network control.

### **SD / HD cross-conversion**

The XDS-PD2000/A supports SD and HD as standard with up-conversion record, and up/down/cross-conversion playback.

### **Supports writing\* to SxS**

The XDS-PD2000/A supports reading, writing\* and formatting function to SxS[UDF/exFAT].

\* File copy and Simultaneous recording only

## Specifications

General	
Power Requirements	AC 100 V to 240 V, 50/60 Hz
Power Consumption	210 W
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	16 kg 35 lb 9 oz
	424 x 132 x 460 mm (excluding

Dimensions (W x H x D) *1	protrusions) 16 3/4 x 5 1/4 x 18 1/8 inches (excluding protrusions)
Recording/Playback Format (Video)	MPEG HD422 (CBR, 50 Mbps) MPEG HD: - HQ mode (VBR, maximum bit rate: 35 Mbps), - SP mode *2 (CBR, 25 Mbps), - LP mode *2 (VBR, maximum bit rate: 18 Mbps), MPEG IMX (CBR, 50/40 *2 /30 *2 Mbps) DVCAM (CBR, 25 Mbps)
Recording/Playback Format (Audio)	MPEG HD422: 8 ch/24 bits/48kHz, MPEG HD: 4/2 ch/16bits/48kHz, MPEG IMX: 8 ch/16 bits/48 kHz, or 4 ch/24 bits/48 kHz, DVCAM: 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)

35 Mbps, 2-ch audio (playback only): More than 150 min (PFD50DLA), More than 68 min (PFD23A)

25 Mbps, 4-ch audio: Approx. 190 min (PFD50DLA), Approx. 85 min (PFD23A)

25 Mbps, 2-ch audio (playback only): Approx. 200 min (PFD50DLA), Approx. 90 min (PFD23A)

18 Mbps, 4-ch audio (playback only): More than 248 min (PFD50DLA), More than 112 min (PFD23A)

18 Mbps, 2-ch audio (playback only): More than 265 min (PFD50DLA), More than 122 min (PFD23A)

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Recording/Playback Time (MPEG IMX)

50 Mbps: Approx. 100 min (PFD50DLA), Approx. 45 min (PFD23A)

40 Mbps: Approx. 120 min (PFD50DLA), Approx. 55 min (PFD23A)

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	30 Mbps: Approx. 150 min (PFD50DLA), Approx. 68 min (PFD23A)
Recording/Playback Time (DVCAM)	25 Mbps: Approx. 185 min (PFD50DLA), Approx. 85 min (PFD23A)
Search Speed Range (Shuttle Mode)	-20 times to +20 times normal speed
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) SxS Memory Card Drive, ExpressCard/34 (x2)
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## Internal Storage

Storage Type	SSD, SATA, 480 GB, (x2, max x3 (*3))
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Total Capacity (For Recording)	960 GB
Raid	Raid-4 (option)
Recording/Playback Time (Internal Storage)	<p>MPEG HD422:            50Mbps: Approx. 30 hours</p> <p>MPEG HD:            35 Mbps, 4-ch audio: More than 45 hours            35 Mbps, 2-ch audio: More than 46 hours *2            25 Mbps, 4-ch audio: Approx. 58 hours *2            25 Mbps, 2-ch audio: Approx. 62 hours *2            18 Mbps, 4-ch audio: More than 76 hours *2            18 Mbps, 2-ch audio: More than 82 hours *2</p> <p>MPEG IMX:            50 Mbps: Approx. 30 hours            40 Mbps: Approx. 38 hours *2            30 Mbps: Approx. 47 hours *2</p> <p>DVCAM:            25 Mbps: Approx. 56 hours</p>

## Input/Output

Reference Input	BNC (x2) (including loop-through), HD Tri-level sync (0.6 Vp-p/75 $\Omega$ /negative) or SD blackburst/composite sync (0.286 Vp-p/75 $\Omega$ /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 k $\Omega$ , balanced
Digital Audio Input (AES/EBU)	BNC (x4), 8 ch (2 ch each, 1/2 ch, 3/4 ch, 5/6 ch and 7/8 ch), AES-3id- 1995
Timecode Input	BNC (x1), SMPTE timecode, 0.5 Vp- p to 18 Vp-p/10 k $\Omega$ /unbalanced
System Timecode Input	BNC (x1), SMPTE timecode, 0.5 Vp- p to 18 Vp-p/10 k $\Omega$ /unbalanced
Analog Composite Output	BNC (x1), 1.0 Vp-p/75 $\Omega$ /negative, SMPTE 170M



HD-SDI Output	BNC (x2), 1: SMPTE 292M (w/embedded audio) 2: SMPTE 292M (w/embedded audio), character on/off
SD-SDI Output	BNC (x2), 1: SMPTE 259M (w/embedded audio) 2: SMPTE 259M (w/embedded audio), character on/off
Monitor	DE-15 (x1), VGA
HD-SDI Monitor	BNC (x1), SMPTE 292M (w/embedded audio), character on/off BNC (x1), SMPTE 259M (w/embedded audio), character on/off
Analog Composite Monitor	BNC (x1), 1.0 Vp-p/75 Ω/negative, SMPTE 170M, character on/off
HDMI Monitor	Type-A (x1), 19 pin
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,

Analog Audio Monitor	600 $\Omega$ , Lo-Z, balanced
Digital Audio Output (AES/EBU)	BNC (x4), 8 ch (2 ch each, 1/2 ch, 3/4 ch, 5/6 ch and 7/8 ch), AES-3id-1995
Headphone Output	JM-60 Stereo phone jack (x1), -13 dBu, 8 $\Omega$ , unbalanced
Timecode Output	BNC (x1), SMPTE timecode, 1.0 V <sub>p-p</sub> /75 $\Omega$ /unbalanced
Video Control	D-sub 9-pin (female) (x1), EIA RS-423
Ethernet	RJ-45 (x1) 1000BASE-T: IEEE 802.3ab 100BASE-TX: IEEE 802.3u 10BASE-T: IEEE 802.3
Remote Input (9-pin)	D-sub 9-pin (female) (x2), RS-422A
Remote (GPIO)	D-sub 15-pin (female) (x1), Input: CMOS, Output: open-collector
Maintenance	USB (x5)
AC Input	AC Input (x1), 100 V to 240 V, 50/60Hz

## Video Performance

Sampling Frequency	Y: 74.25 MHz, Pb/Pr: 37.125MHz
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Quantization	8 bits/sample
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Error Correction	Reed Solomon Code
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## Processor Adjustment Range

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	$-30^\circ$ 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

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

Built-in Display	4.3-inch type color LCD monitor
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Expansion Slot	PCI Express (x2), 8-lane
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## Supplied Accessories

Supplied Accessories	Operation Guide (1) Operation Manual (1 CD-ROM)
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## Notes

Note	*1 The values for dimensions are approximate. *2 Playback and copy only. *3 XDBK-113
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## Related products



### **PDW-U4**

XDCAM Professional  
Disc Drive Unit

## Gallery

