

## 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<br>42°F to 104°F     |
| Storage Temperature   | -20°C to +60°C<br>-4°F to +140°F |
| Humidity              | 20% to 90% (relative humidity)   |
| Mass                  | 16 kg<br>35 lb 9 oz              |
|                       | 424 x 132 x 460 mm (excluding    |

|  |   |
|--|---|
| Dimensions (W x H x D)<br>*1               | protrusions)<br>16 3/4 x 5 1/4 x 18 1/8 inches<br>(excluding protrusions)   |
| Recording/Playback<br>Format (Video)       | MPEG HD422 (CBR, 50 Mbps)<br>MPEG HD:<br>- HQ mode (VBR, maximum bit<br>rate: 35 Mbps),<br>- SP mode *2 (CBR, 25 Mbps),<br>- LP mode *2 (VBR, maximum bit<br>rate: 18 Mbps),<br>MPEG IMX (CBR, 50/40 *2 /30 *2<br>Mbps)<br>DVCAM (CBR, 25 Mbps) |
| Recording/Playback<br>Format (Audio)       | MPEG HD422: 8 ch/24 bits/48kHz,<br>MPEG HD: 4/2 ch/16bits/48kHz,<br>MPEG IMX: 8 ch/16 bits/48 kHz, or 4<br>ch/24 bits/48 kHz,<br>DVCAM: 4 ch/16 bits/48 kHz   |
| Recording/Playback<br>Format (Proxy Video) | MPEG-4  |
| Recording/Playback<br>Format (Proxy Audio) | A-law (8 ch/8 bits/8 kHz)   |
| Recording/Playback<br>Time (MPEG HD422)    | 50 Mbps: Approx. 95 min<br>(PFD50DLA), Approx. 43 min<br>(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<br>(PFD50DLA), Approx. 68 min<br>(PFD23A) |
| Recording/Playback Time (DVCAM)           | 25 Mbps: Approx. 185 min<br>(PFD50DLA), Approx. 85 min<br>(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)<br>SxS Memory Card Drive,<br>ExpressCard/34 (x2) |
|------------|---|

## 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:<br/>           50Mbps: Approx. 30 hours</p> <p>MPEG HD:<br/>           35 Mbps, 4-ch audio: More than 45 hours<br/>           35 Mbps, 2-ch audio: More than 46 hours *2<br/>           25 Mbps, 4-ch audio: Approx. 58 hours *2<br/>           25 Mbps, 2-ch audio: Approx. 62 hours *2<br/>           18 Mbps, 4-ch audio: More than 76 hours *2<br/>           18 Mbps, 2-ch audio: More than 82 hours *2</p> <p>MPEG IMX:<br/>           50 Mbps: Approx. 30 hours<br/>           40 Mbps: Approx. 38 hours *2<br/>           30 Mbps: Approx. 47 hours *2</p> <p>DVCAM:<br/>           25 Mbps: Approx. 56 hours</p> |

## 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                  | BNC (x1)<br>(HD/SD switchable)<br>HD-SDI: SMPTE 292M<br>(w/embedded audio)<br>SD-SDI: SMPTE 259M<br>(w/embedded audio)                   |
| Analog Audio Input            | XLR-type 3-pin (female) (x2)<br>(channel selectable), +4/0/-3/-6 dBu (selectable), 10 kΩ, 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 kΩ/unbalanced   |
| System Timecode Input         | BNC (x1), SMPTE timecode, 0.5 Vp-p to 18 Vp-p/10 kΩ/unbalanced   |
| Analog Composite Output       | BNC (x1), 1.0 Vp-p/75 Ω/negative, SMPTE 170M   |



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|--------------------------|--|
| HD-SDI Output            | BNC (x2),<br>1: SMPTE 292M (w/embedded audio)<br>2: SMPTE 292M (w/embedded audio), character on/off  |
| SD-SDI Output            | BNC (x2),<br>1: SMPTE 259M (w/embedded audio)<br>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<br>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<br>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)<br>1000BASE-T: IEEE 802.3ab<br>100BASE-TX: IEEE 802.3u<br>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 |
|--------------------|--------------------------------|

|              |               |
|--------------|---------------|
| Quantization | 8 bits/sample |
|--------------|---------------|

|                  |                   |
|------------------|-------------------|
| Error Correction | Reed Solomon Code |
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## Processor Adjustment Range

|             |                    |
|-------------|--------------------|
| Video Level | $-\infty$ to +3 dB |
|-------------|--------------------|

|              |                    |
|--------------|--------------------|
| Chroma Level | $-\infty$ to +3 dB |
|--------------|--------------------|

|                    |                                       |
|--------------------|---------------------------------------|
| Set Up/Black Level | -30 IRE to +30 IRE/-210 mV to +210 mV |
|--------------------|---------------------------------------|

|              |                            |
|--------------|----------------------------|
| Chroma Phase | $-30^\circ$ to $+30^\circ$ |
|--------------|----------------------------|

|                   |  |
|-------------------|--|
| System Sync Phase | $-15 \mu\text{s}$ to $+15 \mu\text{s}$ |
|-------------------|--|

|                 |                |
|-----------------|----------------|
| 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 | 20/18/16/12/9 dB (selectable) |
|----------|-------------------------------|

## Other Equipment

|                  |                                 |
|------------------|---------------------------------|
| Built-in Display | 4.3-inch type color LCD monitor |
|------------------|---------------------------------|

|                |                          |
|----------------|--------------------------|
| Expansion Slot | PCI Express (x2), 8-lane |
|----------------|--------------------------|

## Supplied Accessories

|                      |  |
|----------------------|--|
| Supplied Accessories | Operation Guide (1)<br>Operation Manual (1 CD-ROM) |
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## Notes

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



### **PDW-U4**

XDCAM Professional  
Disc Drive Unit

## Gallery

