XDCAM HD422 Family

SONY
make.believe

PDW-F800/PDW-700
XDCAM HD422 Camcorder

PDW-F1600/PDW-HD1500
XDCAM HD422 Recording Deck

PDW-HR1
XDCAM HD422 Field Station

PDW-U2/PDW-U1
XDCAM Drive Unit

XDCAM HD MPEG HD422 CINEALTA Professional Disc DL Professional Disc XL-QD

Setting a New Benchmark: XDCAM HD422 Takes the Lead in File-based Production

Since its introduction in 2003, Sony's XDCAM™ Series has been embraced around the world for its file-based recording capability utilizing high-capacity and reliable Professional Disc™ media. Within this series, top-of-the-line XDCAM HD422 products were introduced in 2008; today, they represent an ever-expanding range that delivers a brilliant image resolution of 1920 x 1080 and eight-channel 24-bit uncompressed audio. With fast file-based operation and outstanding picture quality, XDCAM HD422 products are ideal for applications such as news gathering, when speed is a key concern, and invaluable when a high-quality impression is crucial, for example in the production of TV dramas, documentaries, and mainstream entertainment programs. In 2010, file-based operation was further enhanced with SxS Pro and SxS-1 memory media, while file interoperability was also maintained.

XDCAM HD422 Series

PDW-F800
PDW-700
Professional Disc Camcorder

PDW-HR1
Field Station

PDW-F1600
PDW-HD1500
Recording Deck

XDCAM Archive

PMW-500
SxS Memory Camcorder

PDW-U2
PDW-U1
Drive Unit

XDS-PD2000
XDS-PD1000
XDS-1000
Professional Media Station

PDJ-A640
PDJ-C1080
Cart

PFD50DLA/PFD23A
Professional Disc

PFD128QLW
Professional Disc Write Once

Acquisition → Ingest → Edit → Playout → Archive

XDCAM HD422 - At the Top of the XDCAM Series

Sony is proud to introduce the XDCAM HD422 lineup as its top-of-the-line products in the XDCAM Series. These powerful tools provide stunning, high-quality recording in both image and audio, as well as versatile operation enabled by a range of interfaces.

HD 1920 x 1080 and 1280 x 720 Recording Using the MPEG HD422 Codec

XDCAM HD422 products record and play back high-definition video with 1920 x 1080 and 1280 x 720 resolutions using MPEG HD422 compression, which employs MPEG-2 4:2:2P@HL compression technology. Data rates of up to 50 Mbps are used for recording, providing the highest picture quality in the XDCAM Series while keeping data size as low as possible for easy transfer and transmission. Moreover, the MPEG HD422 codec is based on industry-standard MPEG compression, offering high compatibility with many other devices such as nonlinear editing systems.

Wide Choice of Video Formats: Interlace and Progressive

XDCAM HD422 products offer a wide choice of video formats for different frame rates and scanning modes. They include 59.94i, 50i, 29.97p, 25p, and 23.98p*1 in a resolution of 1920 x 1080, and 59.94p and 50p in 1280 x 720.

*1: The PDW-700 requires the CBKZ-FC02 key. The PDW-HD1500 requires the PDBK-F1500 hardware key.

A Variety of Selectable Recording Modes and Video Formats

In addition to high-quality MPEG HD422 50-Mbps mode, the XDCAM HD422 lineup can record and play back videos at different bit rates and in a variety of video formats. In terms of the common system frequency, clips recorded in different formats can be recorded on a single disc*1.

*1: When playing back across clips recorded in different recording formats, video and audio playback may stop and then restart at the point where formats change.

High-quality Uncompressed Audio Recording

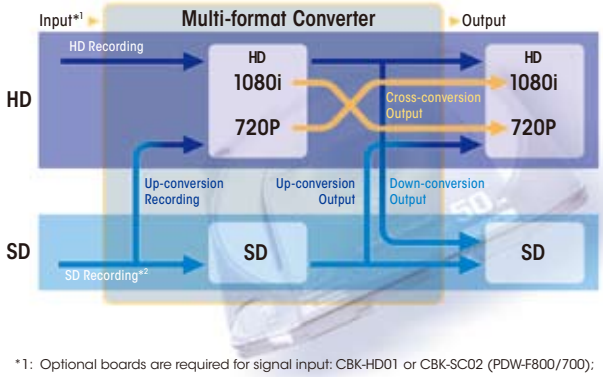
In addition to HD video recording, eight-channel high-quality audio is an equally significant feature in the XDCAM HD422 system. The PDW-F1600/HD1500 has eight audio channels (HD-SDI), while the PDW-F800/700 camcorder has four audio channels. Both can record 24-bit, 48 kHz uncompressed audio on each channel.

Up/down- and Cross-conversion Capability

XDCAM HD422 products come equipped with powerful up/down- and cross-conversion systems, which provide great operational flexibility. Conversions can be done via HD-SDI input*1/output, SD-SDI input*2/output and composite input*2/output.

*1: The PDW-F800/700 requires an optional CBK-HD01 board.
*2: The PDW-F800/700 requires an optional CBK-SC02 board.
*1 *2: The PMW-500 requires an optional CBK-HD02 board.

XDCAM HD422 Format Conversion Capability on PDW-F800/700/F1600/HD1500, and HR1



*1: Optional boards are required for signal input: CBK-HD01 or CBK-SC02 (PDW-F800/700); CBK-HD02 (PMW-500). Please refer to P12: Pool-feed Operation.
*2: Optional hardware keys are required: CBKZ-MD01 (PDW-700); PDBK-S1500 or PDBK-F1500 (PDW-HD1500); CBK-MD01 (PMW-500).
*1 *2: The PMW-500 can record the cross-converted or HD up-converted signal after it is processed at input stage. Yet, there is no cross-conversion nor HD up-conversion at output stage. The SD down-conversion is provided at output stage.

XDCAM HD 422 Recording/Playback Specifications

Mode (Codec)	Number of Pixels	Bit Rate (Mbps)	Audio Bits	Audio Channels	Y/C Sampling	Frame Frequency	Recording Time (Unit: Minutes)		
							PFD23A 23.3 GB	PFD50DLA 50 GB	SxS-1 *8 64 GB
MPEG HD422 (MPEG-2 4:2:2P@HL)	1920 x 1080	50	24	8*3	4:2:2	59.94i, 50i, 29.97p, 25p, 23.98p*4	Approx. 43	Approx. 95	Approx. 120
	1280 x 720					59.94p, 50p, 29.97p*6, 25p*6, 23.98p (Pull-down)*7			
MPEG HD (MPEG-2 MP@HL)	1920 x 1080*6	35	16	4	4:2:0	59.94i, 50i, 29.97p, 25p, 23.98p*4	-	-	Approx. 200
	1440 x 1080			2*2*5			more than 65	more than 145	Approx. 180
		25		4			more than 68	more than 150	-
				2*2*5			Approx. 85	Approx. 190	Approx. 280
		18*2*5		4			Approx. 90	Approx. 200	-
				2			more than 112	more than 248	-
	1280 x 720	35	16	4		59.94p, 50p, 29.97p*6, 25p*6, 23.98p (Pull-down)	more than 122	more than 265	-
		25*5					more than 65	more than 145	Approx. 180
MPEG IMX*1 (MPEG-2 4:2:2P@ML)	720 x 480 (NTSC) 720 x 576 (PAL)	50	24	4	4:2:2	59.94i, 50i, 29.97p*6, 25p*6	Approx. 85	Approx. 190	-
			16	8*3			Approx. 45	Approx. 100	Approx. 120
		40*5	24	4			Approx. 55	Approx. 120	-
			16	8*3					-
		30*5	24	4			Approx. 68	Approx. 150	-
			16	8*3					-
DVCAM*1	720 x 480 (NTSC) 720 x 576 (PAL)	25	16	4	4:1:1 (NTSC) 4:2:0 (PAL)	59.94i, 50i, 29.97p*6, 25p*6	Approx. 85	Approx. 185	Approx. 220

*1: Optional hardware keys are required: CBKZ-MD01 (PDW-700); PDBK-S1500 or PDBK-F1500 (PDW-HD1500); CBK-MD01 (PMW-500).
*2: For the PDW-700/F800, playback is only available.
*3: Up to four-channel with the PDW-F800/700 and PMW-500.
*4: Optional hardware keys are required: CBKZ-FC02 (PDW-700); PDBK-F1500 (PDW-HD1500).
*5: Only in the PDW-700/F800 (not available in the PMW-500).
*6: Only in the PMW-500 (not available in the PDW-700/F800).
*7: Pull-down recording is only in the PDW-700/F800. The PMW-500 has 23.98p recording.
*8: The PMW-500 has two recording modes (UDF and FAT), and recording times may vary.

Powerful Nonlinear Recording - Professional Disc Media


PFD128QLW


PFD50DLA


PFD23A

Media characteristics are critical to video production workflow. Sony's Professional Disc media are highly reliable yet cost effective, and specifically developed with utmost consideration for professional recording applications.

- PFD50DLA 50 GB disc and PFD23A 23 GB disc
  PFD128QLW*1 128 GB disc (Write Once)
- Split-second random access
- No need to cue up when starting recording
- Long recording times: in MPEG HD422, up to 95 minutes (50 Mbps) with the PFD50DLA, up to 240 minutes (50 Mbps) with the PFD128QLW*2
- Outstanding archival life
- No mechanical contact between disc and optical pickup - achieving high durability for rewriting
- Phase change recording - effective against erosion caused by ultraviolet rays
- Robust against any degradation caused by ultraviolet rays or ambient storage conditions
- Packaged in an extremely durable, dust-resistant and Easy-to-handle cartridge

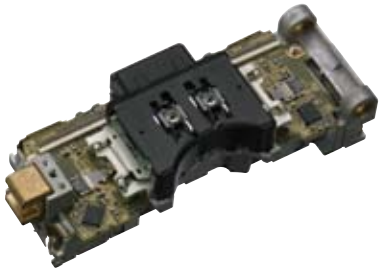
Professional Disc Specifications

	PFD128QLW	PFD50DLA	PFD23A
Dimension	129 x 131 x 9 mm (5 1/8 x 5 1/4 x 3/8 inches)		
Mass	90 g (3 oz)		
Media type	Write Once	Rewritable	
Capacity*3	128 GB	50 GB	23.3 GB
Transfer rate*4 (with a single pickup)	max.144 Mbps	max. 86 Mbps	
Read cycles	more than 1,000,000		
Rewrite cycles	1*5	more than 1,000	
Recording format	Phase-change recording		
Estimated archival life*6	50 years		

*1: The PFD128QLW can only be used with the PDW-U2 and XDCAM Station Series (XDS-1000/PD1000/PD2000).
*2: Recordable time may vary according to the total number of recorded files, and recording conditions.
*3: A portion of the user data area will be used for data management. This total user area may vary.
*4: Transfer rate varies according to product and recording format.
*5: Additional recording is supported prior to finalizing the disc.
*6: Estimated from Sony's accelerated test.

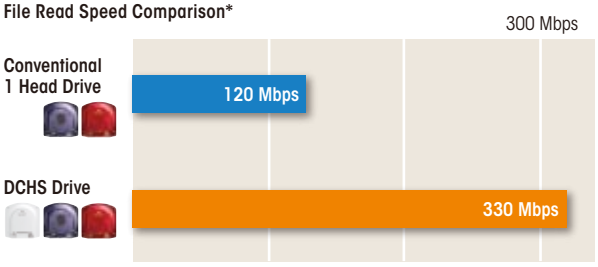
Dual-channel Head System (DCHS) Drive

The PDW-U2 and XDCAM Station Series (XDS-1000/PD1000/PD2000) adopt the Dual-channel Head System (DCHS) for their Professional Disc drive. The DCHS drive is equipped with two optics on one head. This realizes higher transfer speeds in a more compact size and with lower power consumption compared with a drive with two optical heads.



High transfer speeds give a significant boost to ingest, edit, and archive workflows.

File Read Speed Comparison*



* Drive performance.

SxS Memory Cards Combine High Transfer Speeds and High Reliability

The PMW-500, XDCAM Station Series, and PDW-HR1with the PDBK-MK1 all accept the SxS memory card. These products can handle the same files as current Professional Disc products and XDCAM EX products. Both SxS PRO™ and SxS-1™*1 memory cards use the PCI Express interface to achieve an extremely high data-transfer speed of 1.2 Gbps via SBS-64G1A/32G1A and 800 Mbps via the other SxS memory cards.
These cards can resist considerable shock (1500 G) and vibration (15 G). Also, a unique Salvage function serves to restore content damaged by power loss or memory disconnection during recording*2.

*1: SxS-1 memory cards support fewer re-writes than SxS PRO memory cards. Notification is given when an SxS-1 memory card approaches its end of life.
*2: In some cases, images recorded just before an accident may not be restored (several seconds). No warranty is given on always achieving content restoration.

Data File Recording via User Data Folder

Professional Disc media formatted by XDCAM HD422 products*1 can be used for data storage. As well as XDCAM AV files, every type of PC file can be recorded onto the disc's User Data folder, allowing users to deliver and archive precious AV content with related materials.

*1: This capacity is up to 21.5 GB (PFD23A) or 46.4 GB (PFD50DLA). Discs formatted by XDCAM SD and XDCAM HD products do not support this capability but include 500 MB of general data area.

File Format for Content Exchange and Sharing: Material eXchange Format (MXF)

In Sony's XDCAM Series, recordings are made as data files in the industry-standard MXF (Material eXchange Format) file format, which is compliant with SMPTE 378M (OP-1a). This allows material to be handled with great flexibility in an IT-based environment - it is easily available for copying, transferring, sharing, and archiving.

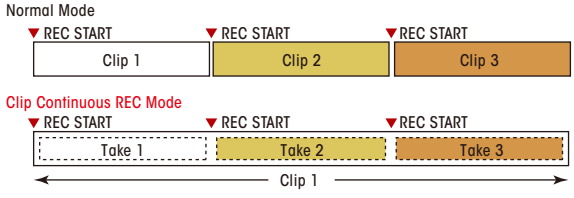
IT/Network Friendly

XDCAM HD422 Professional Disc camcorders and decks come equipped with IT-friendly, computer-based interfaces for transferring material. These include an i.LINK™*1 interface supporting File Access mode and an Ethernet interface. Equipped with a Direct FTP function, XDCAM HD422 camcorders and decks can transfer files via Ethernet without a PC.

*1: i.LINK is a Sony trademark used only to designate that a product is equipped with an IEEE 1394 connector. Not all products with an i.LINK connector may communicate with each other. Please refer to the documentation that comes with any device having an i.LINK connector for information on compatibility, operating conditions, and proper connection.

Selectable Modes of File Recording

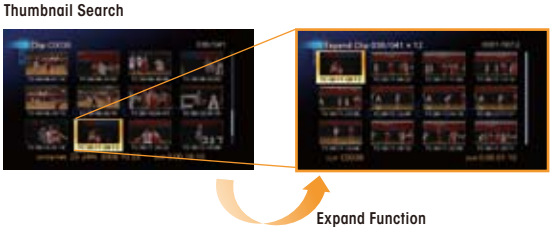
XDCAM HD422 products provide two types of file recording mode. In standard operation, one clip file is created each time recording is started and stopped. In the other mode, called Clip Continuous REC mode, one clip file can be created at the user's discretion. Although it is a single clip, Thumbnail Search operation and the Expand function are available just as if individual clips were created. Users can choose the most suitable mode depending on the type of application.



File-based Search Operation

The XDCAM HD422 Series comes with the following functions which further facilitate the search process:

- Thumbnail Search operation and an Expand function, allowing users to search for materials using thumbnails as a visual reference.



- Clip Filtering*1: can use Clipflag, Planning Metadata, and the AV format to sort desired clips.

*1: Clip Filtering is not available in the XDCAM Station. Sorting by metadata and format is not available in the PMW-500.

Local Language Support*1

A number of fonts for local languages can be used in Clip/Disc Properties. Supported languages include: Chinese, German, French, Korean, Spanish, Russian, Japanese, and more.

*1: The applicable language depends on the products. These languages are only available in the PDW-700/F800/HD1500/F1600.
Japanese and Korean are not available in the PMW-500.

EDL-based Editing - Scene Selection Function

The Scene Selection function allows simple cuts-only editing*1 to be performed within the camcorder or deck itself. The result of these edits can be saved as an XDCAM EDL (also called a Clip List), which can be written back to the original disc so as to stay with the material.

*1: The video and audio of a clip cannot be edited independently.

Proxy Data

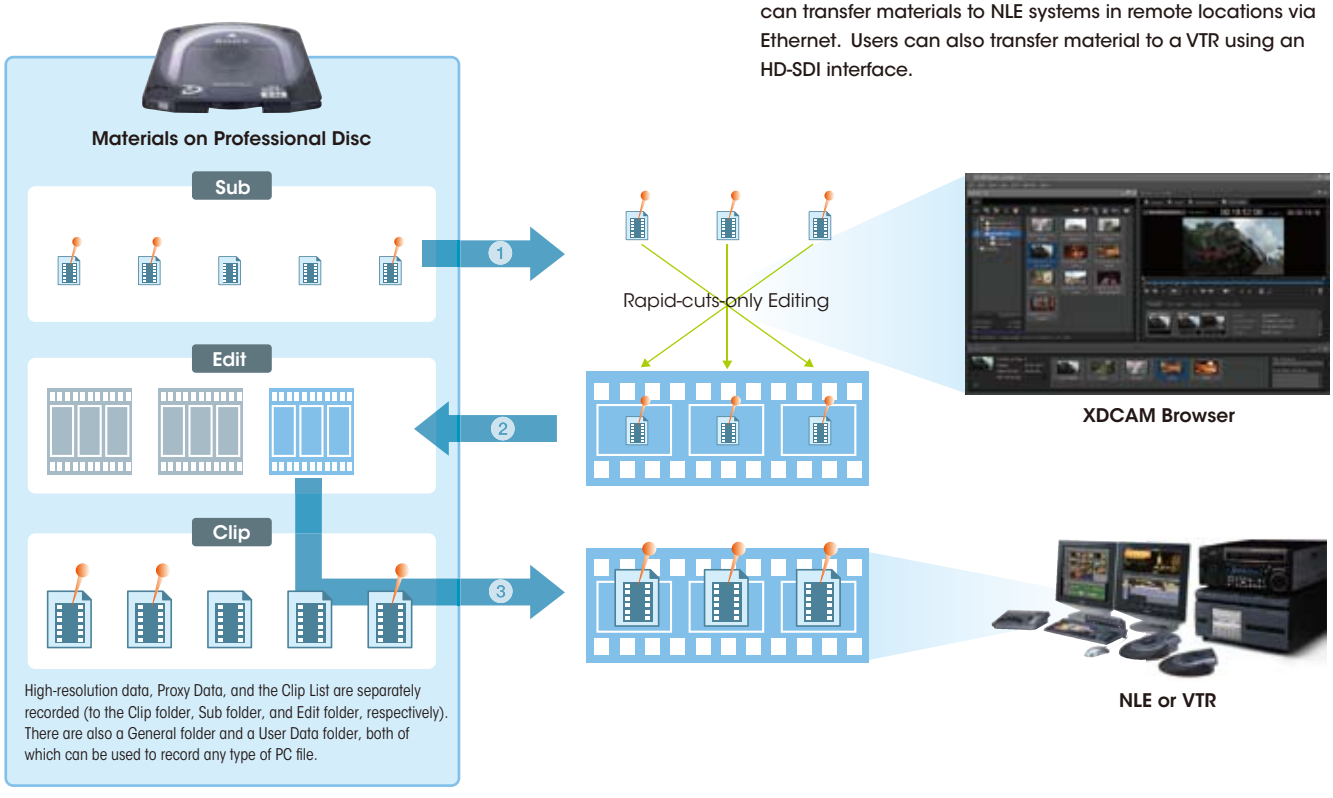
At the same time as recording high-resolution video and audio data, a low-resolution version of this AV data (called Proxy Data) is recorded on the same disc. Proxy Data is much smaller in size, can be transferred at an amazingly high speed, easily browsed and simply edited using the XDCAM Browser (or compatible editing software offered by many other industry-leading manufacturers).

Metadata

All XDCAM HD422 products are capable of recording a variety of metadata, which provides a huge advantage when searching for specific data after an initial recording has been made. Information such as production dates, creator names, and camera setup parameters can be saved together with the AV material. This makes it possible to organize and search through all recordings effectively. One particular metadata, called EssenceMark™ (Shot Mark), is a convenient reference that can be added to desired frames to make them easy to recall in subsequent editing processes. Clipflag is another convenient metadata which users can add to their desired clips as "OK", "NG" (No Good) or "KP" (Keep). This simplifies efficient clip management, enabling for example batch ingesting of OK clips or deletion of all NG clips.

XDCAM Workflow: Rapid Cuts-only Editing and Partial Transfer

1. Proxy Data can be downloaded at an amazingly high speed. Users can easily find required material by referring to metadata.
2. Users can quickly make a storyboard using the XDCAM Browser. Storyboarding can now be performed in the field with just a mid-specification notebook computer, because Proxy Data is so light in size. Storyboard data (the Clip List) is recorded back to Professional Disc media.
3. If required, only the parts necessary for the storyboard are transferred to the editing system. XDCAM HD422 products can transfer materials to NLE systems in remote locations via Ethernet. Users can also transfer material to a VTR using an HD-SDI interface.



XMPilot:
Workflow Empowered by XDCAM Metadata

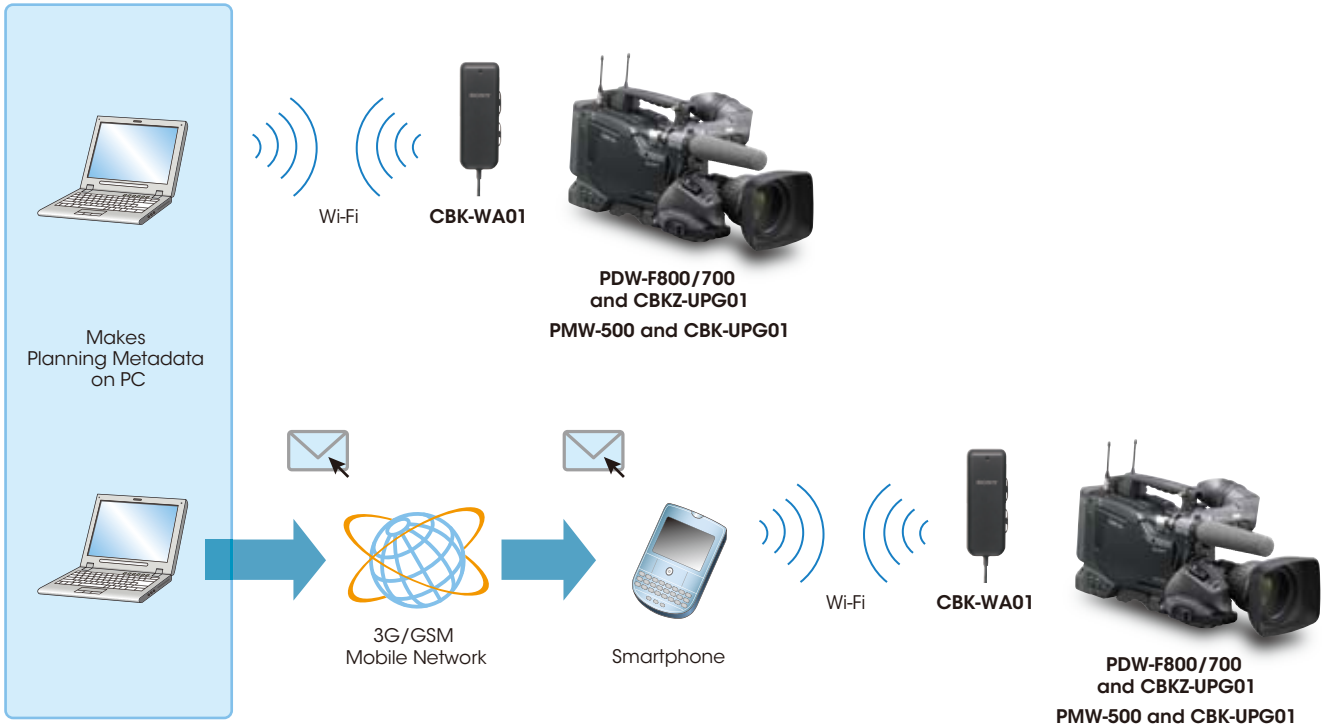
Before shooting starts, users can import the metadata that will be used. This type of metadata is named Planning Metadata, and it includes information about the clips to be shot. It diminishes the time and effort of inputting metadata at a location, thus achieving a smooth interface with post-production and archiving.

Users can make a PC file of Planning Metadata, including clip names and EssenceMarks™, and import this file to camcorders via Ethernet, USB memory, or smartphones *1.

*1: Requires the optional CBK-WA01 adapter and CBKZ-UPG01 software key.

XMPilot™

Planning Metadata Upload Using CBK-WA01 Wi-Fi Adapter



Live Viewing and Logging

View live video on a PC or smartphone. Users can set the EssenceMark™ to OK, KP (Keep), or NG (No Good) during shooting.

Planning Metadata Add-in software
- Create Planning Metadata via Microsoft Outlook
- Transfers Planning Metadata directly to a camcorder via wi-fi
- Transfers Planning Metadata to smartphones or other devices on email

XDCAM Browser (support planned later in 2011)
- Create Planning Metadata
- Transfers Planning Metadata directly to a camcorder via wi-fi
- Live viewing with the ability to set the EssenceMark™ during shooting

XMPilot Toolkit (SDK) For XMPilot Application Developers

Sony supplies the XMPilot Toolkit for XMPilot application software development.

The XDCAM Toolkit covers the following functions:
- Metadata creation and transfer
- Mobile applications for smartphones
- Ingest software

For information about Sony's XMPilot Toolkit license contract, please contact:
xdcam_xmpilot_promo@jp.sony.com

XDCAM HD422 Camcorder

Multi-format
Production Camcorder
PDW-F800

EFP/ENG-oriented yet
Versatile Camcorder
PDW-700

PDW-F800 Features

1080/23.98p and SD Recording as Standard

CINEALTA

The PDW-F800 is a multi-format and versatile camcorder that is ideal for cinema and TV drama production as well as ENG applications.

Slow & Quick Motion Function

The PDW-F800 offers a powerful Slow & Quick Motion function that enables users to create elegant fast- and slow-motion footage - commonly known in film shooting as over- and under-cranking.

PDW-F800 Slow & Quick Motion

Format	Capturing	Slow & Quick Motion
1080/23.98p	1p to 48p in 1p increments	1/2x (slow) to 24x (quick)
1080/25p	1p to 50p in 1p increments	1/2x (slow) to 25x (quick)
1080/29.97p	1p to 59.94p in 1p increments	1/2x (slow) to 30x (quick)

The Slow & Quick Motion function is available in MPEG HD422 mode only. Audio recording is not supported with the Slow & Quick Motion function. The following features cannot function with Slow & Quick Motion:

1. Picture Cache Recording
2. Interval Recording
3. Disc Exchange Cache
4. Clip Continuous Recording
5. Live logging

User Gamma

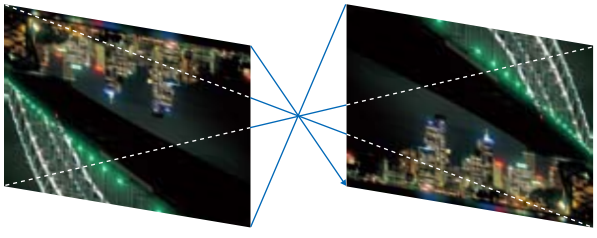
The PDW-F800 allows users to customize gamma curves with the supplied CvpFileEditor software for Windows PCs. An easy GUI enables users to change the shape of the gamma curve; they can then load this curve into the camcorder via Memory Stick™, Memory Stick PRO™, or Memory Stick PRO Duo™ media.

Focus Assist Function

A Focus Assist Indicator is a helpful tool for manual focus adjustments. A bar graph indicator is displayed at the bottom or in other positions of the viewfinder frame, enabling users to make more accurate and fine focus adjustments.

Image Inverter Function

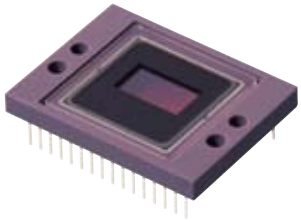
The Image Inverter function allows the use of a variety of image-inverting lenses, anamorphic lens adaptors, and cinema lenses with 2/3-inch adaptors.



PDW-F800 and PDW-700 Common Features

2/3-inch-type Three HD Power HAD FX CCDs

The PDW-F800/700 is equipped with three 2/3-inch type 2.2-megapixel full HD progressive CCDs, which are also used in the well-proven HDC-1500 Sony Multi-format HD Camera. Based on Sony's Power HAD™ FX sensor technology and the latest on-chip lens structure, this CCD offers a high sensitivity of F11 at 59.94 Hz (F12 at 50 Hz) and an excellent signal-to-noise ratio of 59 dB in Noise Suppression (NS) mode, which helps to reduce the high-frequency noise elements of video signals using Sony's advanced digital processing technology.



14-bit A/D Conversion

The PDW-F800/700 incorporates a high-performance 14-bit A/D converter that enables images captured by the high-performance CCDs to be processed with maximum precision. In particular, this high-resolution A/D conversion allows the gradation in mid-to-dark-tone areas of the picture to be faithfully reproduced. Thanks to the 14-bit A/D converter, pre-knee signal compression in highlighted areas can be eliminated, and the camera can clearly reproduce a high-luminance subject at a 600% dynamic range.

State-of-the-art DSP LSI

The newly developed DSP (Digital Signal Processing) LSI is the heart of the image-processing device of the PDW-F800/700 camcorder. In conjunction with the 14-bit A/D converter, it reproduces images captured by the CCD at maximum quality. In addition, on its large-scale logic circuits, this DSP comes with a variety of image-correction capabilities, some of which used to be on analog circuits, allowing for stable image correction. Moreover, a newly incorporated function - Automatic Lens Aberration Compensation*1 - can optimize lens performance to provide stunning picture quality.

*1: Works only with applicable lenses. Please contact lens manufacturers for details.

Supported Recording Formats - HD/SD and Interlace/Progressive

One of the big appeals of the PDW-F800/700 is its highly flexible multi-format recording capability. Users can select a recording format from HD (MPEG HD422 and MPEG HD) and SD (MPEG IMX™*1 and DVCAM™*1), in a variety of frame frequencies (as shown in the table on page 4).

*1: The PDW-700 requires an optional CBKZ-MD01 key.

High-quality 24-bit Audio Recording

The PDW-F800/700 records uncompressed four-channel, 24-bit audio (MPEG HD422 mode). It is also equipped with a range of audio interfaces.

Well-balanced Compact Body

The PDW-F800/700 is designed to be very compact and ergonomically well balanced, providing a high level of mobility and comfort in various shooting situations. It weighs only 6.0 kg (13 lb 4 oz) including the HDVF-20A viewfinder, the ECM-680S microphone, the PFD50DLA disc and the BP-GL95A battery pack.

Shock- and Dust-resistant Disc Drive

To minimize errors caused by shock or dust entering the disc drive, the PDW-F800/700 has several unique ways of providing operational resistance to such factors. The disc drive entrance is concealed by two lids, helping to prevent any dust from entering the drive. In addition, four rubber dampers are used to hold the disc drive block in place and to absorb shocks that would otherwise go into the disc drive.

Viewfinders*1

Two types of optional viewfinder are available for users: HDVF-20A and HDVF-200 2.0-inch*2 monochrome viewfinders and HDVF-C30WR 2.7-inch*2 and HDVF-C35W 3.5-inch*2 color viewfinders.

*1: No viewfinder is supplied with the PDW-F800/700.
*2: Viewable area measured diagonally.

HDVF-C30WR

HDVF-C35W

HDVF-20A

HDVF-200

Wide Choice of Audio Options*1

The PDW-F800/700 is compatible with a variety of microphones. Three shotgun-type microphones, the ECM-680S, ECM-678, and ECM-674, are available as options. The ECM-680S can operate in either stereo or monaural (uni-directional) mode, allowing it to be used in both EFP and ENG applications. Stereo mode is ideal for capturing environmental sound with a natural quality, while monaural mode is ideal for capturing clear voice and sound from a distance. These modes can be selected from the switch on the microphone or from the PDW-F800/700 itself. The camcorder is also equipped with a slot to accommodate the DWR-S01D*2 digital wireless microphone receiver, which provides two-channel audio with stable and secure transmission that's tolerant to interference waves. The WRR-855 series microphone receiver can also be used within this slot.

*1: No microphone is supplied with the PDW-F800/700.
*2: The digital wireless microphone system is not available in some countries where prohibited by local radio law.

DWT-B01
Digital Wireless Transmitter

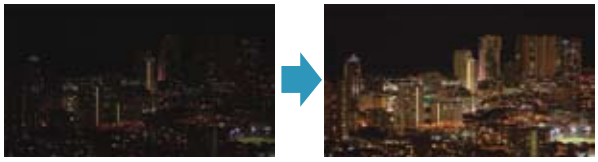
DWR-S01D
Digital Wireless Receiver

Slow Shutter

The shutter speed of the PDW-F800/700 is selectable down to a 16-frame period (in 2-, 3-, 4-, 5-, 6-, 7-, 8- and 16-frame periods*1). During such a long frame period, electrical charges accumulate on the CCDs, which dramatically increase sensitivity. This helps camera operators to shoot in extremely dark environments. The Slow Shutter function also allows operators to use shutter speeds longer than the frame rate and to intentionally blur images when shooting a moving object, for increased shooting creativity.

*1: Only even numbers of frame settings are available in 720 mode. Slow Shutter cannot function with the Digital Extender.

Low-light Shooting



Normal　　Slow Shutter

Interval Recording

The PDW-F800/700 offers an Interval Recording function which intermittently records signals at pre-determined intervals. This is convenient for shooting over long periods of time, and also when creating pictures with special effects that include extremely quick motion.

Picture Cache Recording and Disc Exchange Cache

The PDW-F800/700 offers a Picture Cache Recording function that is especially useful in ENG applications. Up to 30 seconds of audio and video signals are buffered into the camcorder's internal memory before the Rec start button is even pressed (when in Standby mode). This means that everything that happened 30 seconds before the Rec start button was pressed will still be recorded on to the disc, helping to prevent the loss of any unexpected, yet important events. The caching period can be adjusted by a menu setting. This camcorder cache memory also allows users to exchange discs while recording. By removing a disc from the drive and inserting a new disc within 30 seconds, video, audio and time code can be recorded seamlessly onto the new disc.

Creating an Intentional Blur Image

Normal　　Slow Shutter

Live & Play Function*1

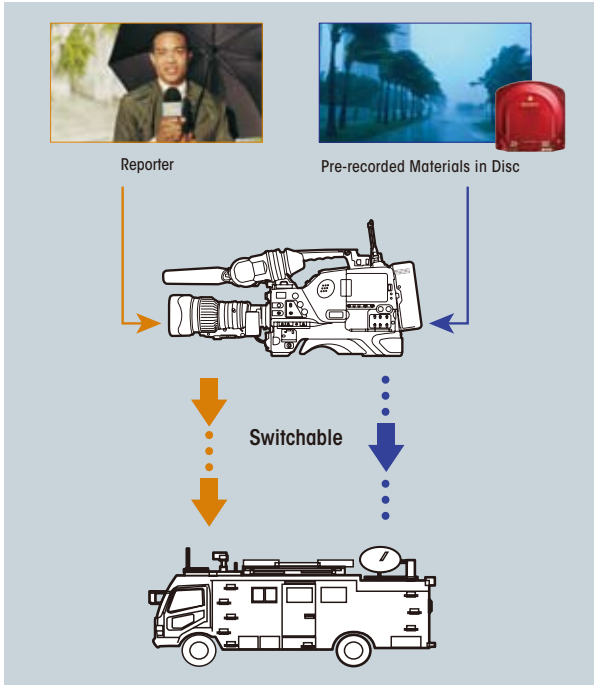
The PDW-F800/700 camcorder has a Live & Play function that allows users to check both playback signals (images already recorded) and incoming camera signals (images seen through the viewfinder) simultaneously, and sequentially output them without any switching noise. Both signals are fed to their respective output and viewfinder connectors independently, and can be viewed at the same time. This allows users to frame the next shot, adjust the exposure, and then focus the lens while the camcorder is playing back the pre-recordings from the disc. For instance, the camcorder can be used to perform the following three stages of a news broadcast:

1. The introduction to a news report (Output of incoming camera signals)
2. Pre-recorded clips (Output of playback signals)
3. The conclusion of the report (Output of incoming camera signals)

*1: Only one of the following functions can work at any one time:

1. Live & Play function
2. Focus Magnification
3. Letter Box mode in SD down-conversion
4. In-phase output between HD and SD.

Application Example at News Gathering



Affordable MPEG TS Option for Field and Satellite Transmission

The HDCA-702 MPEG TS Adaptor, which can be docked onto the PDW-F800/700 camcorder, transmits an MPEG Transport Stream (TS) of MPEG-2 MP@HL via DVB-ASI output. Transmission can be simultaneous with the PDW-F800/700 recording to disc. The bit rate is selectable from 15 Mbps to 43.25 Mbps in 10-kbps steps, which is suitable for material transmission via microwave and satellite modulators. The frame pixel size is 1440 x 1080 or 1280 x 720. When the bit rate is 35 Mbps or higher, 1920 x 1080 mode can be selected instead of 1440 x 1080. In addition, the HDCA-702 can output MPEG-2 MP@H-14 (HDV 1080) at a rate of 25 Mbps over the i.LINK connector.

PDW-700 with HDCA-702

Shockless Gain Control

A wide choice of gain and an easy-to-use control system are remarkable features of the PDW-700 camcorder. By setting gain to the gain selector or assignable switches, the user can easily access the desired gain.
And the transition to each gain value is extremely smooth thus eliminating undesirable abrupt changes to the overall image.

ND and CC Filters

- Optical ND Filters and Optical CC Filters: PDW-F800
  The PDW-F800 comes equipped with wheel-type optical ND (Neutral Density) and CC (Color Correction) filters.

- Optical ND Filters and Electrical CC Filters: PDW-700
  The PDW-700 camcorder comes equipped with optical ND filters and electrical CC filters. With electrical CC filters, users can easily select a color temperature - 3200K/4300K/5600K/6300K - by rotation using a camcorder-assignable switch. Users can also obtain the specific value with just a single click, which is useful when there's a sudden change in the shooting environment and a quick setting is required.

Auto Tracing White Balance

The Auto Tracing White Balance function of the PDW-F800/700 automatically adjusts the camera's color temperature according to changes in the lighting conditions. This function is useful when recording outside for long periods, and the lighting changes gradually over time. If required, the user can hold the auto tracing at a desirable color balance via an assignable switch.

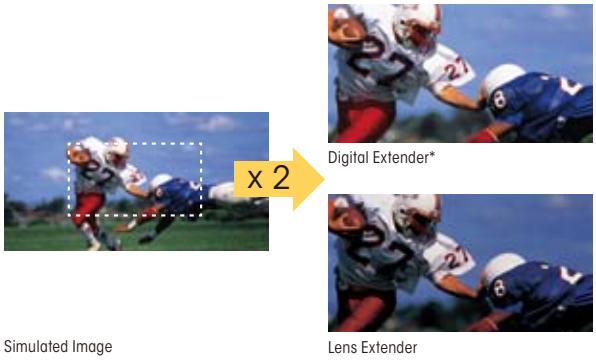
HyperGamma

HyperGamma is a powerful feature, which is inherited from Sony's CineAlta™ camcorders. The PDW-F800/700 provides four types of HyperGamma curve. Operators can select the best-suited preset gamma curve depending on the scene being shot and their desired 'look' for the image. All HyperGamma are quickly accessible via the set-up menu.

Digital Extender*1

The Digital Extender function of the PDW-F800/700 enables images to be digitally doubled in size. Unlike lens extenders, the Digital Extender function performs this capability without any loss of image sensitivity, which is often referred to as the F-drop phenomenon.

*1: Use of the Digital Extender function reduces image resolution by half. The Digital Extender function cannot operate with Slow Shutter.



Simulated Image

Digital Extender*

Lens Extender

Pool-feed Operation

For pool-feed operations, the optional CBK-HD01 and CBK-SC02 boards provide HD- and SD-SDI inputs, and SD composite input respectively.

Trigger REC Function

The PDW-F800/700 camcorder has a Trigger REC function that enables synchronized recording with PDW-F1600/HD1500/HR1/F75 XDCAM decks or HDCAM™ portable decks connected via the HD-SDI interface - a convenient feature for backup recording.

Planning Metadata Import via a Wi-Fi Adapter

With the optional CBK-WA01*1 Wi-Fi Adapter, users can import Planning Metadata via smartphones equipped with a wi-fi interface. Using metadata ensures a smooth workflow. Remote Live Logging operation is also possible with a smartphone or with PDZ-1 software on a PC.

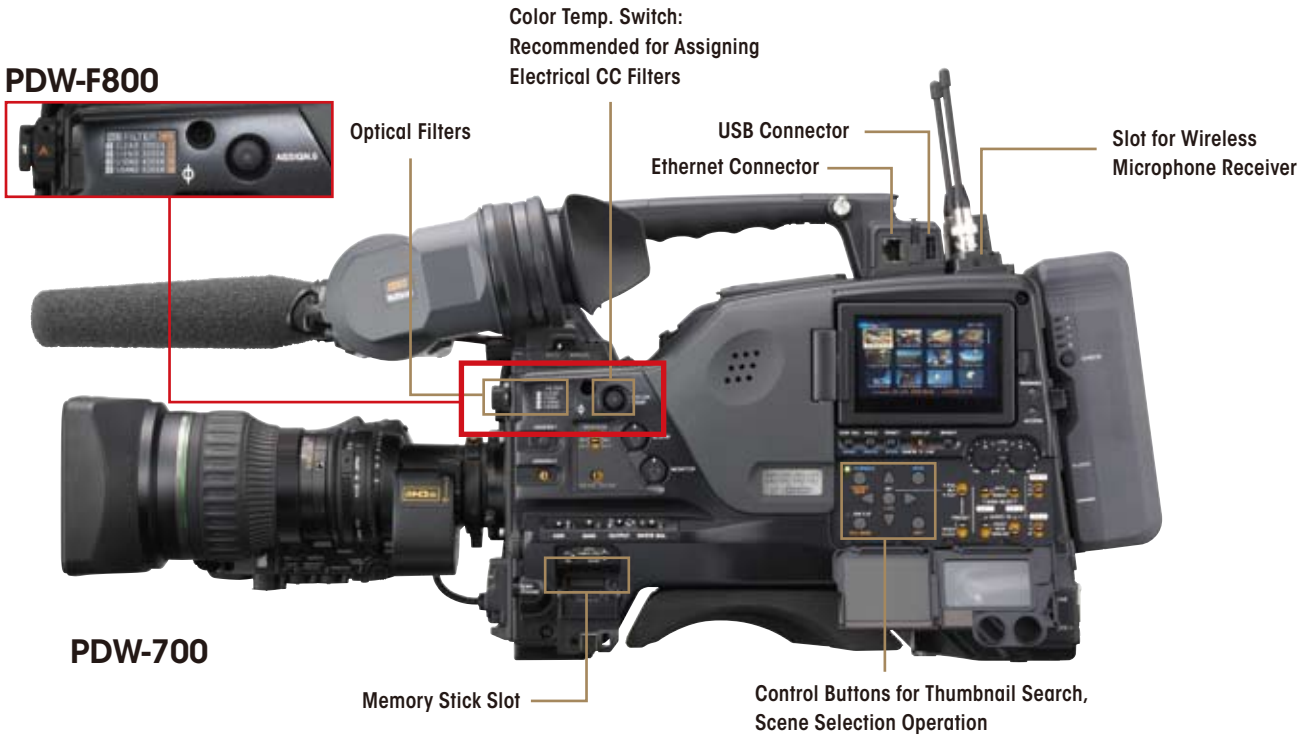
*1: An optional CBKZ-UPG01 key is required to operate the CBK-WA01 adapter.

Other Camcorder Features

- Compatible with a variety of remote control units*1: RM-B750/B150, MSU-1500/1000, and RCP-1530/1501/1500/1001/1000
- Two HD/SD-SDI outputs and a composite/HD-Y output
- Ethernet interface (100BASE-TX) and i.LINK (File Access Mode) interface
- Freeze Mix function: superimposes a previously recorded image on the viewfinder; this allows users to quickly and easily frame or reposition a subject when a shot must be taken from the same position or in the same framework as a previous take
- Focus Magnification function: magnifies the center of the screen on the viewfinder to twice its size, making it easier to confirm focus settings during manual focusing
- Single Clip Playback: allows users to play back just one selected clip
- Proxy Data recording on USB memory*2: provides two ways to record - in simultaneous recording mode with Professional Disc media, or (after clip selection) copy required clips from the recorded clips onto Professional Disc media
- Easy metadata input via a USB keyboard or software keyboard
- Direct FTP function: allows file transfer via Ethernet without a PC
- Customizable user menu: users can change the names of user menu files
- Six assignable buttons enable users to assign frequently used functions; there are two buttons on the camera handle, three on the inside panel (including a Color Temperature button) and an RET button on the lens
- Turbo Gain function: boosts camera gain up to +42 dB, which helps reproduce images in very low-light environments
- Memory Stick™, Memory Stick Pro™, and Memory Stick Pro Duo™ media (up to 4-GB) enable storage of camcorder setup files
- 3.5-inch*3-type color LCD to instantly review recorded footage
- Clip title indication on the viewfinder and LCD: allows users to see the clip file name when playing back and recording; users can also see the file name of the next shot while in standby
- Monochrome LCD: shows the time code and remaining recording time of the disc, even when power is off
- Extended Clear Scan (ECS)
- Intelligent light system synchronizes strobe on/off to the Rec start button
- Output markers such as SkinG, Safety, Aspect, and Center on HD-SDI OUTPUT
- CBKZ-UPG01 Software Upgrade Key
  - Live logging via Ethernet or Wi-Fi*4 connection: enables users, while recording, to register EssenceMark metadata with a real-time view of content
  - Planning Metadata upload via a Web browser
  - Enables CBK-WA01 Wi-Fi Adapter connection

*1: The operable distance (cable length) depends on cable characteristics. Please refer to the supplied operational manual.
*2: May not function properly with some USB flash memories, depending on their characteristics. Please refer to the supplied operation manual.
*3: Viewable area measured diagonally.
*4: The PDW-F800/700 requires an optional CBK-WA01 adapter.

Camcorder View



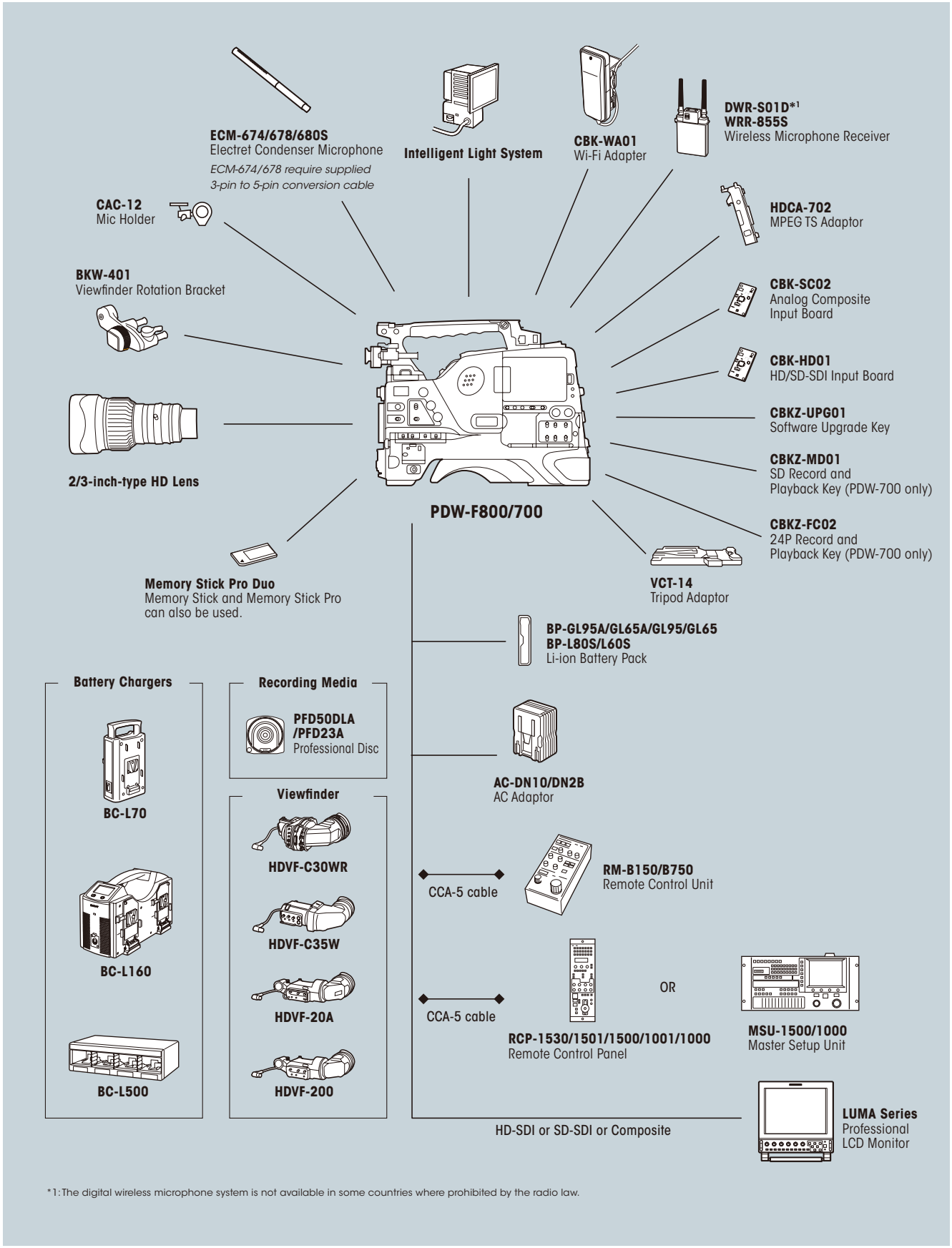
Top View

Connector Panel

Side

Rear

Camcorder System Diagrams



*1: The digital wireless microphone system is not available in some countries where prohibited by the radio law.

XDCAM HD422 Recording Deck

Full-HD/SD Standard
Compact Recorder
With Linear Editing Capability

PDW-F1600

Full-HD Standard
Compact Recorder

PDW-HD1500

PDW-F1600 Features

- Linear Editing*1 using RS-422A control
  - Assemble
  - Audio/Video insert
  - A/V split
  - Pre-read edit
  - Audio Punch IN/OUT

- 1080/23.98p format recording and playback capability as standard

CINEALTA

- Supports SD (MPEG IMX/DVCAM) recording modes as standard

*1: Files generated by some NLE systems may not be edited.

PDW-F1600 and PDW-HD1500 Common Features

- High-performance dual-optical head
- Multi-format HD/SD recording/playback capability
  - HD recording at up to 50 Mbps using MPEG HD422 (MPEG-2 4:2:2P@HL compression)
  - Recording and playback in the MPEG HD format (MPEG-2 MP@HL compression)
  - 1080i and 720p recording and playback
  - Up/down-conversion and cross-conversion between 1080i and 720p
  - Three types of picture output mode are supported for down-conversion: Edge Crop, Squeeze, and Letterbox (16:9/14:9/13:9)
- High-quality eight-channel (HD-SDI) 24-bit audio recording
- High-speed file transfer
  - i.LINK File Access Mode (FAM)
  - Gigabit Ethernet (1000BASE-T)
- Direct FTP function: allows file transfer via Ethernet without a PC
- RS-422A 9-pin remote control interface
- A wide variety of video and audio inputs and outputs, including two HD-SDI outputs
- Compatible with XDCAM carts: the PDJ-C1080 and PDJ-A640
- Compact and lightweight: half-rack size and 6.5 kg (14 lb 5 oz)
- AC, DC, or battery powered

- Built-in audio speaker
- Low power consumption: 65 W (DC powered) and 55 W (in power save mode, DC powered)
- Tilt-up front panel

Tilt-up

- A large easy-to-see 4.3-inch*1-type color LCD display
- Trigger REC function (synchronized recording with compatible camcorders*2)
- Video process control, by front panel operation or remote control panel via RS-422A
- Easy-to-use Jog/Shuttle dial
  - Jog: -1 to +1 times normal speed
  - Variable: -2 to +2 times normal speed
  - Shuttle: -20 to +20 times normal speed
  - Fast forward/rewind: -35/+35 times normal speed
  - A faster search mode can be used (approx. -50/50 times) in shuttle and fast forward/rewind
- Single Clip Playback for playout operation: allows users to play back just one selected clip
- Easy metadata input via USB keyboard*3 or software keyboard
- VANC (Vertical Ancillary) metadata recording and playback
  - Multiple VANC packets: handles nine packets per three lines (up to four packets in one line) and 18 packets per one frame
  - Closed-caption recording and playback via SDI input and output: SD (EIA-608), HD (EIA-708)
  - Closed-caption conversion recording: SD (EIA-608) closed-caption signals on SD-SDI input can be recorded as HD (EIA-708) closed captions
  - Optional PDBZ-UPG02 key expands functionality
- Disc Exchange Cache (up to 30 seconds)

PDW-F1600/HD1500 VANC Metadata (Closed Caption) Recording and Playback

Functions	Standard	PDBZ-UPG02
E to E output and recording		
HD-SDI (EIA708) input => HD-SDI output (EIA708)	●	●
HD-SDI (EIA708) input => SD-SDI output (EIA608)	-	●
HD-SDI (EIA708) input => HD recording (EIA708)	●	●
SD-SDI (EIA608) input => SD-SDI output (EIA608)	●	●
SD-SDI (EIA608) input => HD-SDI output (EIA708)	-	●
SD-SDI (EIA608) input => SD recording*1 (EIA608)	●	●
SD-SDI (EIA608) input => HD recording (EIA708 with "wrapped EIA608")	●	●
Playback		
HD recording (EIA708) => HD-SDI output (EIA708)	●	●
HD recording (EIA708 with "wrapped EIA608") => HD-SDI output (EIA708)	●	●
HD recording (EIA708 with "wrapped EIA608") => SD-SDI output (EIA608)	-	●
SD recording*1 (EIA608) => SD-SDI output (EIA608)	●	●
SD recording (EIA608) => HD-SDI output (EIA708)	-	●
HD cross conversion playback: 1080 (EIA-708) <=> 720 (EIA-708)	-	●

*1: The PDW-HD1500 requires an optional PDBK-S1500 or PDBK-F1500 hardware key.

- Clip Continuous REC function via RS-422A or HD-SDI using a Trigger REC function
- Optional accessories that enhance operational features:
  - PDBK-201 MPEG TS IN/OUT Board: allows users to input and output an HDV™ compatible stream in 1080i/720p format
  - PDBZ-UPG02 Software Upgrade Key
    - Expands functionality for closed-caption handling
    - User Bit Insert
  - PDBK-F1500*4 24P Record and Playback Key: includes an SD (MPEG IMX/DVCAM) recording/playback capability
  - PDBK-S1500*4 (MPEG IMX/DVCAM) Recording and Playback Key

*1: Viewable area measured diagonally.
*2: PDW-F800/700, HDW-650 Series, HDW-790, and HDW-F900R camcorders.
*3: Some keyboards cannot be used. Please refer to the supplied manual.
*4: For the PDW-HD1500 only. The PDW-F1600 has this capability as standard.

Inputs/Outputs

PDW-F1600/HD1500 Inputs/Outputs

		PDW-F1600/HD1500
Signal input	SDI (HD/SD switchable)	BNC x 1
	Reference	BNC x 1
	Reference/Through	BNC x 1
	Analog Audio (Line)	XLR x 2
	Digital Audio, AES/EBU	BNC x 2, 4 Ch (2 Ch each, 1/2 Ch and 3/4 Ch)
	Time Code	BNC x 1
Signal output	HD-SDI	BNC x 1
	HD-SDI	BNC x 1 (Character On/Off)
	SD-SDI	BNC x 1
	SD-SDI	BNC x 1 (Character On/Off)
	SD Composite	BNC x 1
	SD Composite	BNC x 1 (Character On/Off)
	Analog Audio Line	XLR x 2
	Analog Audio Monitor	XLR x 2
	Digital Audio, AES/EBU	BNC x 2, 4 Ch (2 Ch each, 1/2 Ch and 3/4 Ch)
	Time Code	BNC x 1
IT	i.LINK	6-pin x 1*1, File Access Mode or HDV*2 1080i/720P
	Ethernet	1000Base-T/100Base-TX/10Base-T x 1
Others	Phones	Stereophone-jack x 1
	Remote	D-sub 9-pin x 1, RS-422A
	Video Control	D-sub 9-pin x 1, EIA RS-423
	USB	x 2 (for maintenance)
Power	AC IN	x 1
	DC IN	XLR x 1
	DC OUT (12 V)	4-pin x 1

*1: An AV/C (DV) interface is NOT supported.
*2: Requires an optional PDBK-201 board.

PDW-F1600/HD1500 Rear Panel

XDCAM HD422 Field Station

HD/SD Field/In-house
Multi-purpose Recording Device

PDW-HR1

PDW-HR1 Features

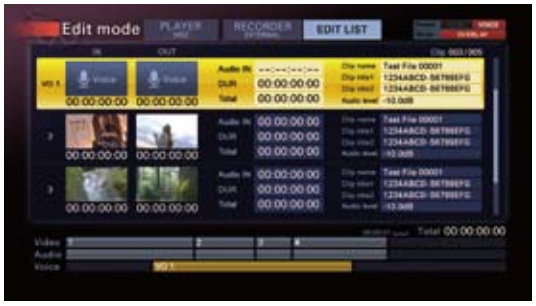
- Multi-format HD/SD recording/playback capability
  - HD recording at up to 50 Mbps using MPEG HD422 (MPEG-2 4:2:2P@HL compression)
  - Recording and playback in MPEG HD format (MPEG-2 MP@HL compression)
  - 1080i and 720p recording and playback
  - Up/down-conversion and cross-conversion between 1080i and 720p
  - Three types of picture output mode are supported for down-conversion: Edge Crop, Squeeze, and Letterbox (16:9/14:9/13:9)
- 1080/23.98p format recording and playback capability as standard

CINEALTA

- Supports SD (MPEG IMX/DVCAM) recording modes as standard
- 9-inch*3-type WVGA LCD
- Built-in stereo speaker
- AC, DC, or battery powered

- Easy-to-use Jog/Shuttle dial
  - Jog: -1 to +1 times normal speed
  - Shuttle: -20 to +20 times normal speed
- Disc Exchange Cache (up to 30 seconds)
- Trigger REC function (synchronized recording with compatible camcorders*4)

- Excellent user interface for EDL-based (non-destructive) editing
  - Intuitively operable key panel
  - VTR-editing-like GUIs
  - External-player device control (eg, a VTR/XDCAM deck) via the RS-422A interface



- Key panel illumination light for use in low-light environments

- Video process control via front panel operation
- Phantom powered stereo microphone input
- Audio level control
- Audio channel mix monitor output
- Direct FTP function: allows file transfer via Ethernet without a PC
- EDL-based voice over: video over and audio over*5 (option: PDBZ-UPG03 or PDBK-MK1)

- EDL-based audio split and audio level editing
- Clip Continuous REC function
- Easy metadata input via USB keyboard*6 or software keyboard
- Composite input
- HDMI output for viewing
- IT interfaces for file transfer
  - i.LINK File Access Mode (FAM)
  - Gigabit Ethernet (1000BASE-T)
- Input and output of an HDV-compatible stream in 1080i/720p format (option: PDBK-202)
- DVB-ASI output (option: PDBK-202)

- SxS Memory Card Adaptor (option: PDBK-MK1)
  - Two slots for SxS™ PRO™ Memory Card
  - Simultaneous recording on Professional Disc media and SxS Pro Memory Card
  - File copying or baseband copying*7 between Professional Disc media and SxS Pro Memory Card
  - Material copying from Professional Disc media to SxS Pro Memory Card based on a Clip List
  - EDL-based voice over: video over and audio over*5 (the PDBK-MK1 adaptor includes the function of the PDBZ-UPG03 key)

*1: Audio specifications vary according to recording mode.
*2: 18-Mbps mode is playback only.
*3: Viewable area measured diagonally.
*4: PDW-F800/700, HDW-650 Series, HDW-790, and HDW-F900R camcorders.
*5: Audio track must be less than three minutes.
*6: Some keyboards cannot be used. Please refer to the supplied manual.
*7: Capabilities depend on recording formats.

PDBK-MK1 Applications

Simultaneous Recording

On-location Copy and Reuse

PDW-HR1 Rear Panel

Hand Grip

XDCAM Drive Unit

- Handles files in all formats: XDCAM HD422, XDCAM HD, and XDCAM SD
- Handles both the dual-layer disc (PFD50DLA) and single-layer disc (PFD23A)
- Supports the Hi-Speed USB (USB 2.0) interface - Compatible with most PCs
- Direct access to files on Professional Disc media from a USB-connected PC
- Data file recording via User Data folder
- Highly compact and lightweight
- Can be operated either horizontally or vertically

XDCAM Drive Unit
PDW-U1

- Handles files in all formats: XDCAM HD422, XDCAM HD, and XDCAM SD
- Handles quad-layer write-once (PFD128QLW) in addition to dual-layer disc (PFD50DLA) and single-layer disc (PFD23A)
- High capacity and a new workflow via quad-layer write-once media support
  - Over four hours of recording with HD422 50Mb/s
  - Reduce cost-per-media-capacity
  - Utilize memory media material as storage media
- High-speed read/write with the newly developed 2-channel 1-head DCHS drive
  - x2.6 (read) / x1.5 (write) faster than the PDW-U1 (single/dual-layer disc)
- Direct access to files on Professional Disc media from a USB-connected PC
- Support Super Speed USB (USB3.0) interface/Hi-Speed USB 2.0 interface
- Small and light, inheriting the concept of the PDW-U1
- Data file recording using a User Data folder
- Can be operated either horizontally or vertically

XDCAM Drive Unit
PDW-U2

PDW-U1/PDW-U2 Specifications

		PDW-U1	PDW-U2
Power requirements		DC 12 V	DC 12 V
Power consumption		10 W	19 W
Operating temperature		5 to 40°C (+41 to +104 °F)	5 to 40°C (+41 to +104 °F)
Storage temperature		-20 to +60°C (-4 to +140 °F)	-20 to +60°C (-4 to +140 °F)
Humidity		20 to 90% (relative humidity)	20 to 90% (relative humidity)
Mass		1.4 kg (3 lb 1 oz)	1.7 kg (3 lb 12 oz)
Dimensions		59 x 164 x 226 mm (2 3/8 x 6 1/2 x 9 inches)	67.4 x 164 x 219 mm (2 3/4 x 6 1/2 x 8 5/8 inches)
Recording/playback format	Video	MPEG HD422 (50 Mb/s)	
		MPEG HD (35/25/18 Mb/s)	
		MPEG IMX (50/40/30 Mb/s)	
		DVCAM (25 Mb/s)	
	Proxy Video	MPEG-4	
	Audio	MPEG HD422: 8 ch/24 bits/48kHz	
		MPEG HD: 4/2 ch/16bits/48kHz	
		MPEG IMX: 8 ch/16 bit/48 kHz, or 4 ch/24 bit/48 kHz	
		DVCAM: 4 ch/16 bit/48 kHz	
	Proxy Audio	A-law (8/4/2 ch/8 bit/8 kHz)	
Interfaces		Hi-Speed USB (USB 2.0)	Super Speed USB (USB 3.0) Hi-Speed USB (USB 2.0)
Connector		USB2.0 Standard B x 1	USB3.0 Standard B x 1
Supplied accessories		Operation manual (x1)	Operation manual (x1)
		XDCAM Drive Software (x1)	
		XDCAM Browser Software (x1)	

XDCAM Solid-state Memory Camcorder

PMW-500

The PMW-500 is the first Sony 2/3-inch Power HAD FX CCD-based shoulder-mount memory camcorder which records high-quality MPEG HD422 video as MXF files on SxS memory cards.
Designed to be compact and ergonomically well-balanced, the PMW-500, with a main body weight of only 3.4 kg (just over 7 lb) and low power consumption (only 27 W), provides a high level of mobility and comfort in a wide variety of shooting situations.

- 2/3-inch-type Full HD Power HAD FX CCD
- MPEG-2 HD 4:2:2 50 Mbps Long GOP CODEC recording
- Two SxS memory card slots
- Record up to four hours of 50 Mbps MPEG HD422 using two 64-GB SxS-1A memory cards
- UDF (Professional Disc-compatible) or FAT (XDCAM EX-compatible) file format mode shooting
- SD recording and playback with optional hardware key
- Low power consumption: 27 W (body only)
- Compact and lightweight: 3.4 kg (body only)

Professional Media Station: XDCAM Station

The XDCAM Station is a professional media station with 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 operation, networking, and other IT functions. Adding the XDCAM Station to an XDCAM workflow makes file-based operation much more convenient and efficient.

XDS-1000

XDS-PD1000

XDS-PD2000

- Handles files in all format: XDCAM HD422, XDCAM HD/SD, and XDCAM EX
- Supports HDD or SSD drives as internal storage to offers multi-task, multi-access functions
- Offers bridge functions for Professional Discs and SxS memory cards
  - Supports the new high-speed DCHS optical drive
  - Handles the dual-layer disc (PFD50DLA), single-layer disc (PFD23A) and quad-layer disc (PFD128QLW)
  - Handles SxS Pro, SxS-1 and card adaptors for memory sticks and SDHCs
- Enhances network functionality
  - Access growing volumes of files from nonlinear editors without file transfer
  - High-speed file transfer and multiple access via the network
- Supports SD and HD as standard with up-conversion Record, and up/down/cross-conversion playback
- Supports industry-standard protocols (VDCP, ftp, CIFS)
- VTR-like user interface with front control panel

	XDS-1000	XDS-PD1000	XDS-PD2000
Input and output	1 input channel and 1 output channel		
Disk Storage System	500 GB SATA HDD, 3 Drives, Raid-4		256 GB, SATA SSD , 2 Drives, Raid-4 (option)
Recording Time, 50 Mbps Video	30 H		16 H
Media Drive	2 SxS Memory Slots	2 SxS memory slots and a Professional Disc Drive	
Network Interface	GbE, ftp and CIFS		
Control Protocol	RS422A (Protocol: VTR, VDCP), Video Process Control, API/Ethernet control, GPI (4in/4out)		
Power requirement	AC 100 V to 240 V, 50 Hz/60 Hz, 190 W	AC 100 V to 240 V, 50 Hz/60 Hz, 250 W	
Dimension / Mass	424 x 132 x 460 mm (16 3/4 x 5 1/4 x 18 1/8 inches) / 17 kg (37 lb 8 oz)		

XDCAM Cart

- Accommodates XDCAM decks
- Ideal for multi-disc ingesting, nearline archiving and on-air playout applications
- Equipped with the VCC protocol (RS-422A or RS-232C)
- File-based content management using metadata
- Equipped with a barcode reader unit
- Optional PDJ-CS10 application software allows third-party applications to transfer files from the cart over a network, without controlling the cart's robotics or decks
- High reliability with low-cost maintenance
- Data file recording with a Professional Disc user data folder


PDJ-C1080


PDJ-A640

Robotic disc library with 640-disc capacity
PDJ-A640

Robotic disc library with 80-disc capacity
PDJ-C1080

XDCAM Cart Main Specifications

	PDJ-A640	PDJ-C1080
Max. number of discs	640	80
Total storage capacity	32 Terabytes (50-GB disc x 640) 15 Terabytes (23-GB disc x 640)	4.0 Terabytes (50-GB disc x 80) 1.8 Terabytes (23-GB disc x 80)
Max. number of decks installed	4	4
Compatible decks	PDW-F1600, PDW-HD1500, PDW-F75*1, PDW-1500 in any combination	PDW-F1600, PDW-HD1500, PDW-1500 in any combination

*1: Requires an optional PDBK-A640 XDCAM Cart Mount Kit for the PDW-F75.

XDCAM Archive

- Selectable and upgradeable hardware configuration
- Online HDD-based storage
- Offline Professional Disc media management capability for archiving using shelves
- Generates proxy data for browsing and cataloging via the network
- Web-based application allows users access to the system using web browsers with easy-to-use GUIs
- Supports XDCAM HD422, XDCAM HD, XDCAM SD, and XDCAM EX video files
- Every type of PC file can be imported and managed with metadata
- Video materials on tapes can be ingested via the HD/SD-SDI interface
- Storyboarding capability

Turnkey file-based content archiving system
XDCAM Archive

Hardware Configuration and Specifications

	3 Servers	2 Servers	1 Server
Streaming Proxy Capacity (TB)	18	12	8
Streaming Proxy Capacity (hours)	85,000	54,000	36,000
High-Res Capacity (TB)	18	12	8
Hi-Res Capacity (hours)	800*1	500*1	300*1
Concurrent Streaming Client	100	50	10
Concurrent XDCAM Decks/Drives	6	4	2

*1: Approximate hours, based on 50-Mbps material.

XDCAM Browser (Application Software)

All XDCAM HD422 products come with XDCAM Browser application software that maximizes the benefits of XDCAM file-based operations. This software not only allows users to browse video clips on MS Windows PCs and Macintosh computers, but also to register and edit metadata, and to convert file formats.

Features :

- Browse video clips recorded by XDCAM HD422, XDCAM HD/SD, and XDCAM EX
- Copy video clips from SxS memory card or Professional Disc to hard disc drives
- Register and edit metadata (Title, Creator, or Description)
- Format SxS memory cards and Professional Discs
- Import video clips to Apple Final Cut Pro editing system
- Cut editing to create Clip List (XDCAM EDL) on storyboard*1
- Convert video clips to WMV format (for viewing)*2
- Remote control for XDCAM Station (control Rec / Play, copy video clips)
- Live viewing and logging with wi-fi connection to XDCAM camcorders*3
- XMPilot (Planning Metadata) support to allow assignment-based content management*4

*1: MXF video clips only.
*2: Requires optional plug-in software from MainConcept AG (www.mainconcept.com/plugin4xdcambrowser).
*3: Support planned for later in 2011.
*4: Creating, editing, and customizing Planning Metadata support planned for later in 2011.

Codec by MAIN CONCEPT

System Requirements:

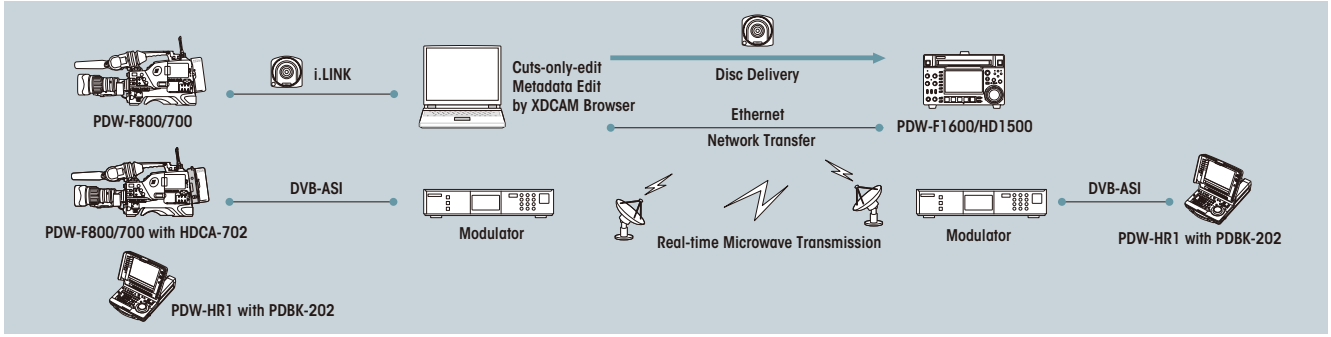
Windows OS
OS: Microsoft Windows XP SP3 or higher (32-bit version), Microsoft Windows Vista SP1 or higher (32-bit or 64-bit version), or Microsoft Windows 7 (32-bit or 64-bit version)
CPU: Intel Pentium 4 2.0 GHz or higher (Intel Core 2 Duo Processor 2.0 GHz or higher recommended)
Memory: 1 GB or more (2 GB or more recommended)

Mac OS:
OS: Mac OS X 10.5.8 or higher, or Mac OS X 10.6.4 or higher
CPU: Intel Core 2 Duo Processor 2.0 GHz or higher (Intel Core 2 Duo Processor 2.4 GHz or higher recommended)
Memory: 1 GB or more (2 GB or more recommended)

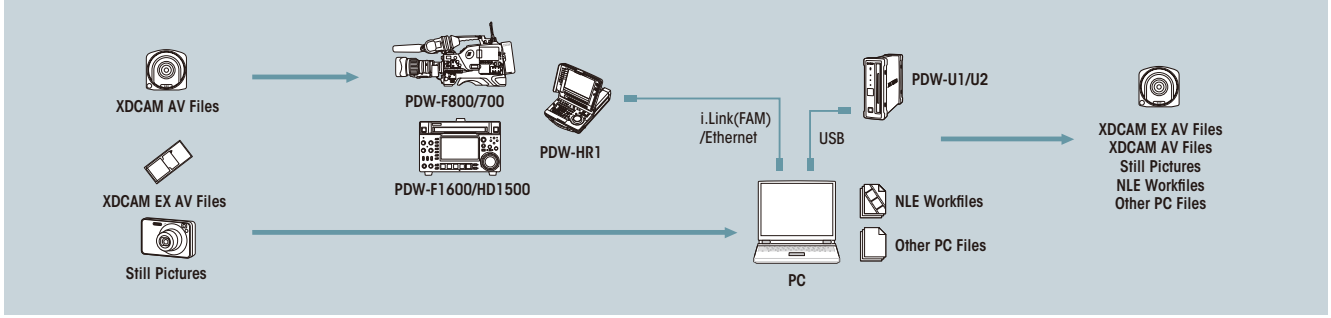
XDCAM SDK for XDCAM Application Developer

Sony supplies the XDCAM SDK for effective application software development, such as Logging, Ingest, Browsing, Editing and Playback Software.
The XDCAM SDK covers the following functions:
• Playback clips
• Copy clips
• Retrieve/edit metadata
• File transfer via FTP
• Control the XDCAM Station
For information about Sony's XDCAM SDK license contract, please contact:
xdcam_sdk_promo@jp.sony.com

XDCAM Transfer Operation



Data File Recording by User Data Folder



Optional Accessories

Professional Disc Media

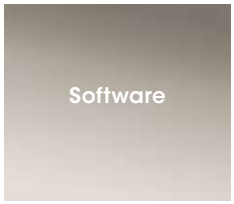
PFD50DLA
Professional Disc

PFD23A
Professional Disc

PFD128QLW
Professional Disc

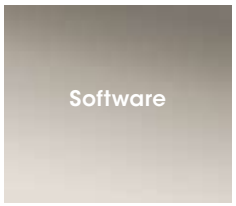
PDW-700 Camcorder Options

CBKZ-MD01
SD Record and Playback Key



CBKZ-FC02
24P Record and Playback Key

PDW-F800/700 Camcorder Common Options



CBKZ-UPG01
Software Upgrade Key

HDVF-C30WR
HD Electronic Viewfinder

HDVF-C35W
3.5-inch*1 LCD Color Viewfinder

HDVF-20A
2.0-inch*1 CRT B/W Viewfinder

HDVF-200
2.0-inch*1 CRT B/W Viewfinder

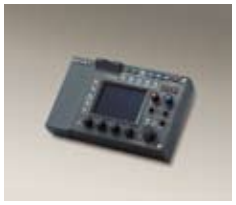
BP-GL95A/GL65A/ L80S/L60S/GL95/ GL65
Lithium-ion Battery Pack

BC-L500
Battery Charger

BC-L160
Battery Charger

BC-L70
Battery Charger

AC-DN10/DN2B
AC Adaptor
(Photo shows AC-DN10)
AC-DN10: Max. 100 W
AC-DN2B: Max. 150 W



RM-B750/B150
Remote Control Unit
(Photo shows RM-B750)

RCP-1530/1501/ 1500/1001/1000
Remote Control Unit
(Photo shows RCP-1530)

MSU-1500/1000
Master Setup Unit
(Photo shows MSU-1500)

DWR-S01D*2
Wireless Microphone Receiver

WRR-855S
Wireless Microphone Receiver

ECM-680S
Shotgun-type Electret Condenser Microphone

ECM-674/678
Shotgun-type Electret Condenser Microphone
(Requires supplied 3-pin to 5-pin conversion cable.
Photo shows ECM-674)

HDCA-702
MPEG TS Adaptor

VCT-14
Tripod Adaptor

BKW-401
Viewfinder Rotation Bracket

*1: Viewable area measured diagonally.
*2: The digital wireless microphone system is not available in some countries where prohibited by local radio law.

PDW-F800/700 Camcorder Common Options

CAC-12
Mic Holder

LC-H300
Carrying Case (Hard)

LC-DS300SFT
Carrying Case (Soft)

CBK-HD01
HD/SD-SDI Input Board

CBK-SC02
Analog Composite Input Board

PDW-F1600/HD1500 Recording Deck and PDW-HR1 Field Station Common Options

CBK-WA01
Wi-Fi Adapter

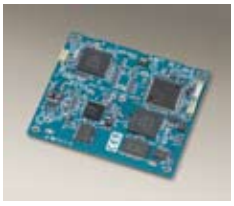
BP-GL95A/GL95/L80S
Lithium-ion Battery Pack

RM-280
Editing Controller (Ver 2.03 or later)

RCC-5G
Remote Control Cable (5 m)

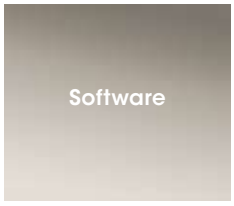
PDW-F1600/HD1500 Recording Deck Common Options

BKP-L551
Lithium-ion Battery Adaptor



PDBK-201
MPEG TS IN/OUT Board

HKDV-900
Video Control Unit (Ver 2.00 or later)



PDBZ-UPG02
Software Upgrade Key

PDW-HD1500 Recording Deck Options

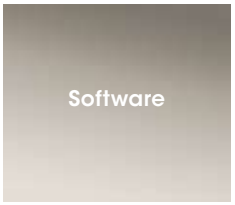
PDBK-S1500
SD Record and Playback Key

PDBK-F1500
24P Record and Playback Key

PDW-HR1 Field Station Options

PDBK-202
MPEG TS IN/OUT Board

PDBK-MK1
SxS Memory Adaptor for HR1



PDBZ-UPG03
Software Upgrade Key

XDCAM HD422 Camcorder Specifications

	PDW-700	PDW-F800	PMW-500
General			
Mass	4.3 kg (9 lb 8 oz) (body), 6.0 kg (13 lb 4 oz) (w/ VF, Mic, Disc, BP-GL95 battery)		3.4 kg (7 lb 7 oz) (body only without lens)
Power requirements	DC 12 V +5.0 V/-1.0 V		
Power consumption	40 W (while recording, w/o options, color LCD On) 44 W (while recording, w/viewfinder, color LCD On, manual lens, microphone)		Approx. 31 W (with viewfinder, lens, and microphone while recording) Approx. 27 W (body while recording)
Operating temperature	-5°C to +40°C (32°F to 104°F)		
Storage temperature	-20°C to +60°C (-4°F to +140°F)		
Humidity	10% to 90% (relative humidity)		
Continuous operating time	Approx. 120 min w/BP-GL95 battery		approx. 170 min w/BP-GL95 battery
Recording format (Video)	MPEG HD422 (CBR: 50 Mbps) MPEG HD: HQ mode (VBR, maximum bit rate: 35 Mbps), SP mode (CBR, 25 Mbps), LP mode (VBR, maximum bit rate: 18 Mbps) (playback only), MPEG IMX*4 (CBR, 50/40/30 Mbps) DVCAM*4 (CBR, 25 Mbps)		MPEG-2 Long GOP HD422 mode: CBR, maximum bit rate: 50 Mbps, MPEG-2 422P@HL HQ mode: VBR, maximum bit rate: 35 Mbps, MPEG-2 MP@HL SP mode: CBR, 25 Mbps, MPEG-2 MP@H-14 SD mode*5: IMX, DVCAM
Recording format (Audio)	MPEG HD422: 4 ch/24 bits/48 kHz MPEG HD: 4 ch/16 bits/48 kHz MPEG IMX*4: 4 ch/24 bits/48 kHz or 4 ch/16 bits/48 kHz DVCAM*4: 4 ch/16 bits/48 kHz		(UDF Mode) HD 422 50 Mode LPCM 24 bits, 48 kHz 4 channels HD 420 HQ Mode LPCM 16 bits, 48 kHz 4 channels SD IMX Mode*5 LPCM 16/24 bits, 48 kHz 4 channels SD DVCAM Mode*5 LPCM 16 bits, 48 kHz 4 channels (FAT Mode) HD Mode LPCM 16 bits, 48 kHz 4 channels SD DVCAM Mode*5 LPCM 16 bits, 48 kHz 2 channels
Headroom	20/18/16/12 dB (selectable)		
Recording format (Proxy Video)	MPEG-4		
Recording format (Proxy Audio)	A-law (4 ch/8 bits/8 kHz)		
Recording/Playback time (MPEG HD422)*1	50 Mbps: Approx. 95 min (PFD50DLA), Approx. 43 min (PFD23A)		UDF mode 50Mbps : Approx. 120 min(SBS-64G1A), Approx. 60 min(SBP-32/SBS-32G1A)
Recording/Playback time (MPEG HD)*1	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)		FAT mode 35Mbps : Approx. 200 min(SBS-64G1A), Approx. 100 min(SBP-32/SBS-32G1A) 25Mbps : Approx. 280 min(SBS-64G1A), Approx. 140 min(SBP-32/SBS-32G1A) UDF mode 35Mbps : Approx. 180 min(SBS-64G1A), Approx. 90 min(SBP-32/SBS-32G1A)
Recording/Playback time (MPEG IMX)*1	50 Mbps*4: Approx. 100 min (PFD50DLA), Approx. 45 min (PFD23A) 40 Mbps*4: Approx. 120 min (PFD50DLA), Approx. 55 min (PFD23A) 30 Mbps*4: Approx. 150 min (PFD50DLA), Approx. 68 min (PFD23A)		UDF mode 50Mbps*5 : Approx. 120 min(SBS-64G1A), Approx. 60 min(SBP-32/SBS-32G1A)
Recording/Playback time (DVCAM)*1	25 Mbps*4: Approx. 185 min (PFD50DLA), Approx. 85 min (PFD23A)		FAT mode 25Mbps*5 : Approx. 260 min(SBS-64G1A), Approx. 130 min(SBP-32/SBS-32G1A) UDF mode 35Mbps*5 : Approx. 220 min(SBS-64G1A), Approx. 110 min(SBP-32/SBS-32G1A)
Inputs/Outputs			
GENLOCK IN	BNC (x1), 1.0 Vp-p, 75Ω (Composite input (option: CBK-SC02) shares the same connector)		BNC (x1), 1.0 Vp-p, 75Ω (Composite input (option: CBK-HD02) shares the same connector)
TC IN	BNC (x1), 0.5 Vp-p to 18 Vp-p, 10 kΩ		
SDI IN	(Option: CBK-HD01) BNC (x1), (HD/SD switchable) HD-SDI: SMPTE 292M (w/embedded audio) SD-SDI: SMPTE 259M (w/embedded audio)		(Option : CBK-HD02) BNC (x1), (HD/SD switchable) HD-SDI: SMPTE 292M (w/embedded audio) SD-SDI: SMPTE 259M (w/embedded audio)
AUDIO IN	CH-1/CH-2: XLR-type 3-pin (female) (x2), Line/Mic/Mic +48V/AES/EBU selectable		CH-1/CH-2: XLR-type 3-pin (female) (x2), Line/Mic/Mic +48V
MIC IN	XLR-type 5-pin (female, stereo) (x1)		
SDI OUT	BNC (x2) 1 (HD/SD switchable) HD-SDI: SMPTE 292M (w/embedded audio) SD-SDI: SMPTE 259M (w/embedded audio) 2 (HD/SD switchable, character On/Off) HD-SDI: SMPTE 292M (w/embedded audio), SD-SDI: SMPTE 259M (w/embedded audio)		BNC (x1) (HD/SD switchable, character On/Off) HD-SDI: SMPTE 292M (w/embedded audio), SD-SDI: SMPTE 259M (w/embedded audio)
VIDEO OUT (TEST OUT)*9	BNC (x1) (switchable) HD Y/SD composite SD composite (character On/Off)		
AUDIO OUT	CH-1/CH-2: XLR-type 5-pin (male, stereo) (x1)		
TC OUT	BNC (x1), 1.0 Vp-p, 75 Ω		
EARPHONE	Mini-jack (x2) (front: manaural, rear: stereo/monoral)		Mini-jack (x1) (rear: stereo/monoral)
DC IN	XLR-type 4-pin (male) (x1), 11 V to 17 V		
DC OUT	4-pin (x1) (for wireless microphone receiver), 11 V to 17 V DC (MAX 0.5 A)		
LENS	12-pin		
REMOTE	8-pin		
LIGHT	2-pin, DC 12 V, max. 50 W		
CAMERA ADAPTOR	50-pin		50-pin (Option : CBK-HD02)
i.LINK	IEEE 1394*6, 6 pin (x1), File Access Mode		IEEE 1394, 6-pin (x1), HDV (HDV 1080i)/DVCAM stream input/output(*7)
Memory Stick	(x1) for camera setup files		
Ethernet	RJ-45 (x1), 100BASE-TX: IEEE 802.3u, 10BASE-T: IEEE 802.3		
USB	USB host A Type (x1 for version-up)		USB device B Type (x1), host A Type (x1)
Camera Section			
Pickup device	3-chip 2/3-inch type HD Power HAD FX CCDs		
Effective picture elements	1,920 x 1,080 (H x V)		
Optical system	F1.4 prism		
Built-in optical filters	1: Clear, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND	CC: A: Cross, B: 3200K, C: 4300K, D: 6300K ND: 1: Clear, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND	1: Clear, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND
Shutter speed (Time)	59.94i: 1/100, 1/125, 1/250, 1/500, 1/1000. 1/2000, ECS, SLS 50i: 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000, ECS, SLS 25p: 1/33, 1/50, 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000, ECS, SLS	59.94i: 1/100, 1/125, 1/250, 1/500, 1/1000. 1/2000, ECS, SLS 50i: 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000, ECS, SLS 29.97p: 1/40, 1/60, 1/120, 1/125, 1/250, 1/500, 1/1000, 1/2000, ECS, SLS 25p: 1/33, 1/50, 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000, ECS, SLS 23.98p: 1/32, 1/48, 1/50, 1/60, 1/96, 1/125, 1/250, 1/500, 1/1000, 1/2000, ECS, SLS 720/23.98p (Pull-down): 23.98P: 1/32, 1/48, 1/50, 1/60, 1/96, 1/125, 1/250, 1/500, 1/1000, 1/2000, ECS, SLS	59.94i: 1/60,1/100, 1/120, 1/125, 1/250, 1/500, 1/1000. 1/2000, ECS, SLS 50i: 1/60, 1/100, 1/120, 1/125, 1/250, 1/500, 1/1000, 1/2000, ECS, SLS 29.97p: 1/40,1/50, 1/60, 1/100 1/120, 1/125, 1/250, 1/500, 1/1000, 1/2000, ECS, SLS 25p: 1/33, 1/50, 1/60, 1/100, 1/120, 1/125, 1/250, 1/500, 1/1000, 1/2000, ECS, SLS 23.98p*6: 1/32, 1/48, 1/50, 1/60, 1/96, 1/100, 1/120, 1/125, 1/250, 1/500, 1/1000, 1/2000, ECS, SLS
Shutter speed (Slow shutter (SLS))*2	2-, 3-, 4-, 5-, 6-, 7-, 8-, 16-frame accumulation		
Slow & Quick Motion function		(MPEG HD422 mode only) 23.98p: Selectable from 1 to 48 frame/sec as recording frame rate 25p: Selectable from 1 to 50 frame/sec as recording frame rate 29.97p: Selectable from 1 to 59.94 frame/sec as recording frame rate	720p: Selectable from 1 fps to 60 fps as recording frame rate* (from 1 fps to 50 fps in the case of Pal Area Setting in the UDF Mode) 1080p: Selectable from 1 fps to 30 fps as recording frame rate (from 1 fps to 25 fps in the case of Pal Area Setting in the UDF Mode)
Lens mount	2/3-type SONY bayonet		
Sensitivity (2000 lx, 89.9% reflectance)	59.94i: F11, 50i: F12 (typical)		
Minimum illumination	Approx. 0.016 lx (F1.4 lens, +42 dB, with 16-frame accumulation)		
Gain selection	-6, -3, 0, 3, 6, 9, 12, 18, 24, 30, 36, 42 dB		
Smear level	-135 dB (typical)		
S/N ratio	59 dB (Y) (typical)		
Horizontal resolution	1,000 TV lines or more (1920 x 1080i mode)		
Registration	Less than 0.02%		
Modulation depth	45% or more at 27.5 MHz (typical)		
Viewfinder			
Viewfinder	Option Supplied interfaces (20-pin IF for HDVF)		Option Supplied interfaces (20-pin IF for HDVF, 26-pin IF for CBK-VF01)
Media			
	Professional Disc slot (x1)		ExpressCard slot (x2)
Others			
Built-in LCD Monitor	3.5-inch*3 type color LCD monitor		3.5-inch*3 type color LCD monitor: approx. 921,000 effective pixels, 640 (H) x 3 (RGB) x 480 (V), 16:9, hybrid type
Built-in Speaker	(x1)		
Supplied Accsesory			
	Shoulder belt (x1), Operation manual (x1), XDCAM Application Software (x1), Microphone cable (for converting 3-pin to 5-pin) (x1)		Shoulder Strap (x1), Cold Shoe Kit (x1), Operation Manual (x1), XDCAM Application software (x1), SxS device driver software (x1)

*1 Recording/Playback time may vary the according to the encoding or recording media. *2 Slow Shutter setting frames vary according to system frequency. *3 Viewable area measured diagonally. *4 The PDW-700 requires an optional CBKZ-MD01 key.
*5 The PDW-500 requires an optional CBK-MD01 key. *6 An AV/C (DV) interface is NOT supported. *7 HDV/DV stream input/output are available only in FAT mode. DVCAM stream input is only for monitoring use on a viewfinder. *8 Requires an optional CBKZ-FC02 key.
*9 The interface name of the PDW-700/F800 is "TEST OUT" (on the PMW-500, it is "VIDEO OUT").

XDCAM HD422 Deck and Field Station Specifications

	PDW-F1600	PDW-HD1500	PDW-HR1
General			
Power requirements	AC 100 V to 240 V, 50/60 Hz, DC 12 V		AC 100 V to 240 V, 50/60 Hz, DC +12 V, Battery
Power consumption	AC: 80 W, DC: 65 W, SAVEMODE (DC): 55 W		AC: 65 W, DC: 55 W
Operating temperature	5°C to 40°C (+41°F to 104°F)		0°C to 40°C (32°F to 104°F)
Storage temperature	-20°C to +60°C (-4°F to +140°F)		
Humidity	25% to 90% (relative humidity)		
Mass	6.5 kg (14 lb 5 oz)		7.4 kg (16 lb 5 oz)
Dimensions (W x H x D) (excluding protrusions)	210 x 132 x 396 mm (8 3/8 x 5 1/4 x 15 5/8 inches)		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 Mbps) MPEG HD: HQ mode (VBR, maximum bit rate: 35 Mbps), SP mode (CBR, 25 Mbps), LP mode (VBR, maximum bit rate: 18 Mbps) (playback only), MPEG IMX*1 (CBR, 50/40/30 Mbps) DVCAM*1 (CBR, 25 Mbps)		
Recording/Playback format (Audio)	MPEG HD422: 8 ch/24 bits/48 kHz MPEG HD: 4 ch/16 bits/48 kHz MPEG IMX*1: 4 ch/24 bits/48 kHz or 8 ch/16 bits/48 kHz DVCAM*1: 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)		
Recording/Playback time (MPEG IMX)	50 Mbps*1: Approx. 100 min (PFD50DLA), Approx. 45 min (PFD23A) 40 Mbps*1: Approx. 120 min (PFD50DLA), Approx. 55 min (PFD23A) 30 Mbps*1: Approx. 150 min (PFD50DLA), Approx. 68 min (PFD23A)		
Recording/Playback time (DVCAM)	25 Mbps*1: 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		-1 time to +1 time normal speed
Search speed range (Jog mode)	-1 time to +1 time normal speed		-1 time to +1 time normal speed
Search speed range (F.Fwd/Rev)	-35/+35 times normal speed		-20/+20 times normal speed
Inputs/Outputs			
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)		
Analog composite input	-		BNC (x1), 1.0 Vp-p/75 Ω/negative, SMPTE 170M
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 kΩ, balanced		XLR-type 3-pin (female) (x4) (channel selectable), +4/0/-3/-6 dBu (selectable), 10 kΩ, balanced CH1 and CH2: switchable phantom powered mic input
Digital audio input (AES/EBU)	BNC (x2), 4 ch (2 ch each, 1/2 ch and 3/4 ch), AES-3id-1995		-
Time code input	BNC (x1), SMPTE time code, 0.5 Vp-p to 18 Vp-p/3.3 kΩ/unbalanced		
Analog composite output	BNC (x2), 1: 1.0 Vp-p/75 Ω/negative, SMPTE 170M 2: 1.0 Vp-p/75 Ω/negative, SMPTE 170M, character On/Off		BNC (x1), 1.0 Vp-p/75 Ω/negative, SMPTE 170M, character On/Off
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		BNC (x1), SMPTE 259M (w/embedded audio), character On/Off
HDMI	-		(x1), output
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) (x4) (channel selectable), +4/0/-3/-6 dBu (selectable), 600 Ω, Lo-z, balanced CH3 and CH4: switchable analog audio monitor
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		
Time code output	BNC (x1), SMPTE time code, 1.0 Vp-p/75 Ω/unbalanced		
Video control	D-sub 9-pin (female) (x1), EIA RS-423		-
i.LINK	IEEE 1394*2 6-pin (x1), File Access Mode, (Option: PDBK-201) HDV 1080i/720p IN/OUT		IEEE 1394*2 6-pin (x2), 1: File Access Mode, 2: (Option: PDBK-202) HDV 1080i/720p IN/OUT
Ethernet	RJ-45 (x1), 1000BASE-T: IEEE 802.3ab, 100BASE-TX: IEEE 802.3u, 10BASE-T: IEEE 802.3		
Remote (9P) input	D-sub 9-pin (female) (x1), RS-422A		-
Remote (9P) input/output	-		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	(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/±210 mV		
Chroma phase	±30°		
System sync phase	±15 µs		
System sync phase (fine)	0 ns to 400 ns		
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)		
Others			
Built-in display	4.3-inch*3 type color LCD monitor		9-inch*3 type color LCD monitor
Built-in speaker	(x1), monaural		(x2), L/R
Supplied Accessories			
	Operation manual (x1), Installation manual (x1), XDCAM Application Software CD-ROM (x1)		

*1: The PDW-HD1500 requires an optional PDBK-S1500 or PDBK-F1500 hardware key.
*2: An AV/C (DV) interface is NOT supported.
*3: Viewable area measured diagonally.

SONY

make.believe

Distributed by

This brochure refers to software or products designed for use with an MS Windows® operating system (OS). U.S. export control regulations may require an export license for export/re-export of the Windows OS (for details, contact Microsoft Corporation).

MK10484V5OHB11MAR

The PDW-F800, PDW-700, PDW-F1600, PDW-HD1500, and PDW-HR1 are produced at Sony EMCS Corporation Kosai Tec or Sony UK Technology Centre, which have received ISO14001, the Environmental Management System certification.