SONY

XDCAM HD422 Family

XDCAM HD422 Camcorder
PDW-700

XDCAM HD422 Recording Deck
PDW-HD1500

XDCAM Drive Unit
PDW-U1

XDCAM HD Professional Disc System MPEG HD422 Power HAD FX Professional Disc DL

Setting a New Benchmark: XDCAM HD422 Takes the Lead in the New HD Era

Since its introduction in 2003, the Sony XDCAM™ series of optical disc based acquisition systems has been delivering tremendous benefits to various types of video productions, particularly by enhancing the workflow with revolutionary file-based operations. The XDCAM series comprises both a standard-definition (SD) lineup, with 2/3-inch CCD camcorders and decks, and a high-definition (HD) lineup with 1/2-inch CCD camcorders and decks. Now, Sony further expands this powerful series by introducing two new HD products the PDW-700 2/3-inch CCD camcorder and the PDW-HD1500 recording deck. These premium products offer striking-quality HD recording at a data rate of up to 50 Mb/s using an MPEG-2 4:2:2P@HL compression technology called MPEG HD422. They also provide multi-format recording flexibility, including 1080i, 720P and SD, which comes with HD/SD conversion and cross conversion between 1080i and 720P. What's more, they support existing XDCAM HD/SD formats, MPEG HD*, MPEG IMX™** and DVCAM™**, for recording*** and playback.

The PDW-700 camcorder is equipped with three 2/3-inch type CCDs a newly developed Power HAD™ FX progressive CCD with 1920 x 1080 effective pixels. Stunning-quality HD images can be captured by this high-resolution CCD in conjunction with the 14-bit A/D converter and advanced digital signal processing incorporated in the PDW-700.

Power HAD FX™ MPEG HD422

The PDW-HD1500 is a half-rack-wide recording deck equipped with a range of AV and IT interfaces including HD-SDI, SD-SDI, i.LINK™**** and Ethernet. One of the distinctive features of this product is its powerful dual-optical head, offering fast file transfer.

The PDW-U1 is another powerful product in the lineup, it offers a compact, mobile and highly cost-effective solution for various applications. It serves as an external PC drive, connected via the Hi-Speed USB (USB 2.0) interface, and allows users to instantly view material recorded to Professional Disc™ media on their PC. It can also be used as a source feeder to nonlinear editing systems.

With fast file-based operations and outstanding picture quality, the XDCAM HD422 lineup provides invaluable tools for applications such as news gathering, where speed is a key concern, and for production of TV dramas, documentaries and mainstream entertainment programs, where a high-quality impression is crucial.

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

**PDW-700 requires optional CBKZ-MD01 software planned to be available in autumn 2008. PDW-HD1500 requires optional PDBZ-S1500 software planned to be available in autumn 2008.

***Recording capability is not supported for MPEG HD 18 Mb/s mode.

****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.

PDW-700 Camcorder

PDW-HD1500 Recording Deck

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 stunningly high-quality recording in both image and audio, as well as versatile operations enabled by a range of interfaces . All of which are capabilities essential to broadcasters today.

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

XDCAM HD422 products record and play back high-definition videos 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 Mb/s are used for recording, providing the highest picture quality in the XDCAM series while keeping the data size as low as possible to easily transfer and transmit. Moreover, the MPEG HD422 codec is based on industry standard MPEG compression, offering high compatibility with many other devices such as nonlinear editing systems.

MPEG HD422

Wide Choice of Video Formats Interlace and Progressive

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

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

A Variety of Selectable Recording Modes and Video Format*

In addition to the high-quality MPEG HD422 50 Mb/s mode, the XDCAM HD422 lineup can record and play back videos in a variety of bit rates and video formats.

MPEG HD MPEG IMX DVCAM

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-HD1500 has eight audio channels (HD-SDI), while the PDW-700 camcorder has four audio channels. Both can record 24-bit, 48 kHz uncompressed audio on each channel.

Up/down- and Cross-conversion Capability

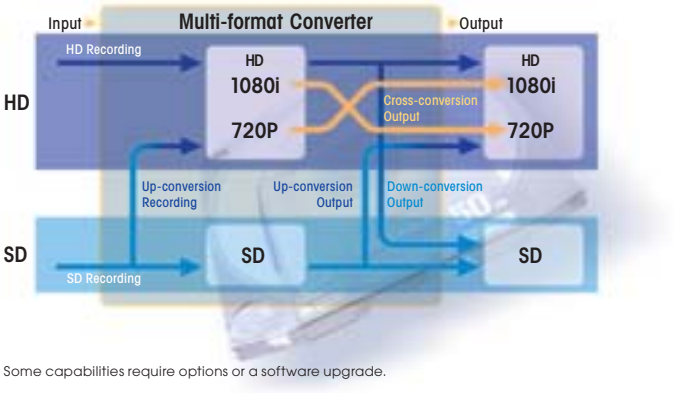
XDCAM HD422 products come equipped with powerful up/down- and cross-conversion systems, which provide great operational flexibility. Conversions can be done via HD-SDI input*/output, SD-SDI input**/output and composite input***/output.

*PDW-700 requires optional CBK-HD01 planned to be available in autumn 2008.

**PDW-700 requires optional CBK-HD01 planned to be available in autumn 2008. PDW-HD1500 requires a software upgrade planned to be available in autumn 2008.

***PDW-700 requires the optional CBK-SC02 planned to be available in autumn 2008.

XDCAM HD422 Format Conversion Capability on PDW-700/PDW-HD1500



Some capabilities require options or a software upgrade.

XDCAM HD422 Recording/Playback Specifications

Mode (Codec)	Number of Pixels, Interlace or Progressive	Bit Rate (Mb/s)	Audio Bits	Audio Channels	Y/C Sampling	Frame Frequency	Unit: Minutes	
							PFD23A 23.3 GB	PFD50DLA 50 GB
MPEG HD422 (MPEG-2 4:2:2P@HL)	1920 x 1080	50	24	8****	4:2:2	59.94i, 50i, 29.97P*, 25P	Approx. 43	Approx. 95
	1280 x 720*					59.94P*, 50P*	Approx. 43	Approx. 95
MPEG HD* (MPEG-2 MP@HL)	1440 x 1080	35	16	4	4:2:0	59.94i, 50i, 29.97P, 25P	more than 65	more than 145
				2***			more than 68	more than 150
		25		4			Approx. 85	Approx. 190
				2***			Approx. 90	Approx. 200
		18***		4***			more than 112	more than 248
				2***			more than 122	more than 265
	1280 x 720	35	16	4	4:2:0	59.94P, 50P	more than 65	more than 145
		25					Approx. 85	Approx. 190
MPEG IMX** (MPEG-2 4:2:2P@ML)	720 x 512 (NTSC) /720 x 576 (PAL)	50	24	4	4:2:2	59.94i, 50i	Approx. 45	Approx. 100
			16	8****				
		40	24	4			Approx. 55	Approx. 120
			16	8****				
		30	24	4			Approx. 68	Approx. 150
			16	8****				
DVCAM**	720 x 512 (NTSC) /720 x 576 (PAL)	25	16	4	4:2:0 (NTSC)/ 4:1:1 (PAL)	59.94i, 50i	Approx. 85	Approx. 185

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

**PDW-700 requires optional CBKZ-MD01 software planned to be available in autumn 2008. PDW-HD1500 requires optional PDBZ-S1500 software planned to be available in autumn 2008.

***Playback only.

****Up to 4 ch with PDW-700.

File-based Disc Recording

In addition to its impressive HD picture quality, what makes the XDCAM HD422 system so distinguished is its file-based disc recording capability. This brings huge benefits such as instant random access and IT connectivity, to name just two.

PFD50DLA

PFD23A

Powerful Nonlinear Recording – The Professional Disc Media

The XDCAM HD422 products use a large-capacity nonlinear optical disc for recording, called the Professional Disc media, which Sony has developed specifically for professional recording applications. The PFD50DLA and PFD23A are 12-cm, reusable optical discs. The PFD50DLA is a dual-layer disc with an overwhelming capacity of 50 GB, while the PFD23A is a single-layer, 23-GB disc. The large capacity of the PFD50DLA makes it possible to record up to approximately 95 minutes of high-quality MPEG HD422 material.

The Professional Disc is highly reliable and durable because it experiences no mechanical contact during recording or playback, and is packaged into an extremely durable and dust-resistant disc cartridge. Non-contact recording and playback also makes it an ideal medium for long-term storage of AV assets. Whereas traditional tape archive systems must be rewound on a periodic basis to remove magnetic powder debris, the Professional Disc completely eliminates this process.

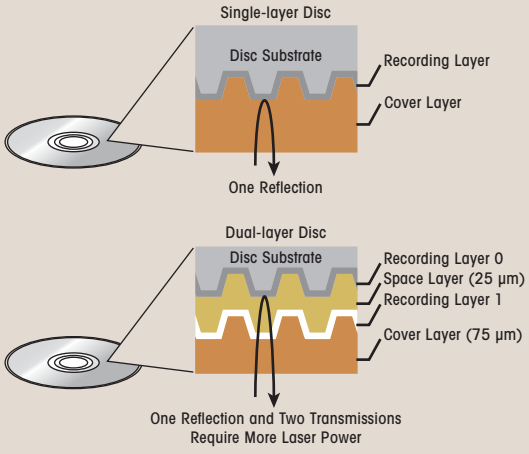
Its reliability has already been demonstrated by the huge number of XDCAM products deployed worldwide since 2003.

The Key Technologies Enabling Dual-layer Recording

The development of the new dual-layer disc, PFD50DLA has been long-awaited by users who want to achieve a much longer recording time on the XDCAM HD422 system. This large-capacity dual-layer disc with compatible disc drive, provide four technological advances:

1. Increased recording density and the dual-layer disc structure offer more than twice the capacity of the single-layer disc.
2. The new substrate and production method enhance the stable reflection and transmission of the laser.
3. The new pickup uses much higher laser power – enough to record on a dual-layer disc, while maintaining a long life equivalent to the pickup used for single-layer disc recording.
4. The newly developed servo-control mechanism – which is resistant to the noises that occur at laser reflections and transmissions at each layer – enables fewer access errors, even in unstable situations.

In addition to these new advances, the dual-layer disc provides superb robustness and reliability equivalent to those of the single-layer disc.



IT/Network Friendly

In the Sony XDCAM series of products, recordings are made as data files in the industry-standard MXF (Material eXchange Format) file format. This allows material to be handled with great flexibility in an IT-based environment easily available for copying, transferring, sharing and archiving. All these operations are accomplished without the need for a digitizing process. File-based data copying allows for degradation-free dubbing of AV content, which can be performed easily on a PC. The file-based recording system also allows for material to be viewed directly on a PC, simply by linking it to the XDCAM unit via an i.LINK connection. This works in just the same way as a PC reading files on an external drive.
The XDCAM HD422 camcorder and deck come equipped with IT-friendly, computer-based interfaces. These include an i.LINK interface supporting File Access Mode as standard, and the Ethernet interface*. Connecting the XDCAM HD422 system to an Ethernet network offers users a new style of network-based operations that can dramatically improve workflow efficiency.

*The PDW-HD1500 supports Giga-bit Ethernet, and the PDW-700 supports 100Base-TX Ethernet.

No Overwriting of Footage and Immediate Recording

By virtue of recording on optical disc media, the XDCAM HD422 system makes each new recording on an empty area of disc. This is extremely useful, especially when shooting with camcorders, as it relieves the concerns of camera operators about accidentally recording over good takes, and eliminates the burden of searching for the correct position to start the next recording. In short, it means the camera is always ready for the next shot.

Instant-access Thumbnail Search with Expand Function

With all XDCAM HD422 products, video and audio signals are recorded as one clip file each time a recording is started and stopped. During playback, cue-up to the next or previous clip is possible simply by pressing the Next or Previous button, as if operating a CD or DVD player.
Furthermore, thumbnails are automatically generated for each clip as a visual reference, allowing operators to cue-up to a desired scene simply by guiding the cursor to a thumbnail and pressing the Play button. For further convenience, the Expand function allows one selected clip in the thumbnail display to be divided into 12 evenly timed intervals, each with their own thumbnail identifier. This is useful if the user wants to quickly search for a particular scene within a lengthy clip.

Thumbnail Search

Scene Selection Function

The Scene Selection function of XDCAM HD422 products allows simple cuts-only editing* to be performed within the camcorder or deck itself. The results of the edits can be saved as an XDCAM EDL (called "Clip List"), which can be written back to the original disc so as to stay with the material. The disc can then be played back according to the Clip List so that only selected portions are played out in the desired order. The Scene Selection function presents dramatic improvements to conventional workflows, such as when transferring material to a nonlinear editor and/ or server, or when searching for material and/or edit points in linear editing systems.
A multi-control dial is provided on XDCAM HD422 products, providing intuitive and quick scene searches. When GUI-based operation is preferred, the Scene Selection operation can also be performed on a PC running the PDZ-1 Proxy Browsing Software supplied with all XDCAM products, providing a visually familiar working environment.

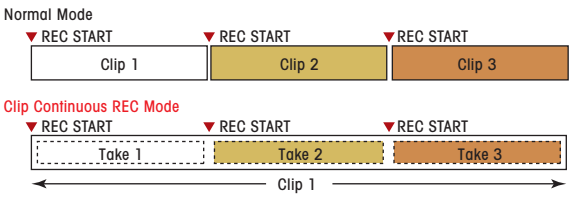
*The video and audio of a clip cannot be edited independently.

Selectable Modes of File Recording

XDCAM HD422 camcorder and deck provide two types of file recording modes. 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 users 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.

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

**Each take needs to be longer than two seconds.



Other Features

Power of Proxy Data – Highly Streamlined Workflows

At the same time as recording its high-resolution video and audio data, the XDCAM HD422 products also record a low-resolution version of this AV data on the same disc. Called "Proxy Data", this is much smaller in size than the high-resolution data (1.5 Mb/s for video and 0.5 Mb/s for audio).
Because of its lower resolution, Proxy Data can be transferred to a standard PC at an amazingly high speed, and easily browsed and edited using the PDZ-1 Proxy Browsing Software (or other compatible editing software offered by many industry-leading manufacturers). What's more, with the PDZ-1 software, it can be converted to the popular ASF format for playback on Windows Media Player, providing dramatic improvements in production workflows. Proxy Data can also be viewed directly on a PC without data transfer using an i.LINK (File Access Mode) connection, and can even be sent over a standard Ethernet network.
The overall flexibility of Proxy Data means that it can be used for a variety of applications, such as immediate logging on location, off-line editing, daily rushes of shooting on location, client approvals, and more.

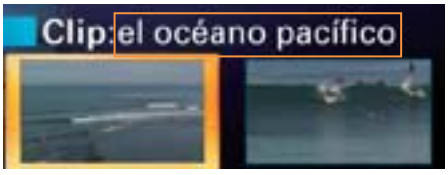
Metadata

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, on the same disc using the supplied PDZ-1 software. 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" or "Keep".

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

Local Language Support

A number of fonts for local languages can be used in Clip/Disc Properties in the PDW-700 and the PDW-HD1500.



Supported Languages
- German, French, Spanish, Russian, Japanese and more.

Easy Maintenance and High Reliability

XDCAM HD422 products use the same platform as the XDCAM products in wide use around the world. They share the advantage of no mechanical contact between the equipment and the recording media, achieving both a high level of durability and a long media life. XDCAM HD422 products also offer the same high resistance to shock and vibration as other XDCAM products.

XDCAM HD422 Camcorder **PDW-700**

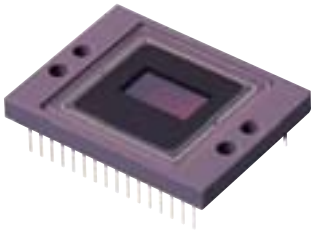
The PDW-700 is a new camcorder equipped with newly developed Power HAD FX CCDs, which are 1920 x 1080 pixels, bringing strikingly high picture quality.
It provides recording capabilities in both 1080i and 720P*, an S/N ratio of 59 dB with Noise Suppression mode and sensitivity of F11 at 59.94 Hz (F12 at 50 Hz).
It can record four-channel 24-bit audio of uncompromised quality.

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

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

The PDW-700 is equipped with three 2/3-inch type 2.2-megapixel HD CCDs, which are also used in the well-proven HDC-1500 Sony Multi-format HD Camera. Based on Sony 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 50Hz) and an excellent signal-to-noise ratio of 59dB in Noise Suppression (NS) mode, which helps to reduce the high-frequency noise elements of video signals using Sony's advanced digital processing technology.
In addition to this performance, a wide variety of capturing modes including 1080/50i, 1080/59.94i, 1080/25P and 1080/29.97P* are available.

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



14-bit A/D Conversion

The PDW-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 for the PDW-700 camcorder. In conjunction with the 14-bit A/D converter, it reproduces images captured by the CCD at maximum quality. In addition, white balance, white shading, and flare are digitally corrected, allowing for stable image correction.

Supported Recording Formats – HD/SD and Interlace/Progressive

One of the big appeals of the PDW-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** and DVCAM**), 59.94i/50i interlace mode, or 29.97P*/25P progressive mode.

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

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

High-quality 24-bit Audio Recording

The PDW-700 records uncompressed four-channel, 24-bit audio. It is also equipped with a range of audio interfaces.

Well-balanced Compact Body

The PDW-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-GL95 battery pack.

Shock- and Dust-resistant Disc Drive

To minimize errors caused by shock or dust entering the disc drive, the PDW-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

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

*Viewable area measured diagonally.

HDVF-20A

HDVF-C35W

HDVF-200

Wide Choice of Optional Microphones

The PDW-700 is compatible with a variety of microphones. It is equipped with a slot to accommodate the DWR-S01D* digital wireless microphone receiver, which provides two-channel audio with stable and secure transmission tolerant to interference waves. The WRR-855 series microphone receiver can also be used within this slot. Shotgun-type microphones, ECM-680S/678/674, are also available as options.

*This product may not be available in some areas.

3.5-inch* LCD

A large, easy-to-view, color LCD screen on the PDW-700 camcorder's side panel enables operators to instantly review recorded footage, as well as access the camera's set-up menus and view status indications such as four-channel audio meters, and the remaining time available on the disc and battery. It also enables advanced operations such as Thumbnail Search and Scene Selection.

*Viewable area measured diagonally.

Slow Shutter*

The shutter speed of the PDW-700 is selectable down to a 16-frame period (in 2-, 3-, 4-, 5-, 6-, 7-, 8- and 16-frame periods). During such a long frame period, electrical charges accumulate on the CCDs which dramatically increases 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.

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

Interval Recording*

The PDW-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 of extremely quick motion.

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

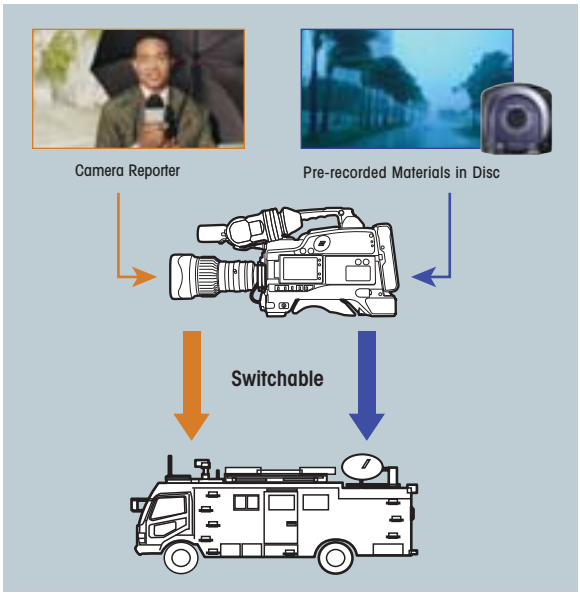
Picture Cache Recording

The PDW-700 offers a Picture Cache Recording function that is especially useful during ENG applications. Up to 30 seconds of audio and video signals are buffered into the camcorder's 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 onto the disc. What's more, this function works even before the disc is inserted in the drive – thereby helping to prevent the loss of any unexpected, yet important events.

Live & Play Function

The PDW-700 camcorder has a Live & Play function that can simultaneously output both playback signals (images already recorded) and incoming camera signals (images seen through the viewfinder). 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 even focus the lens while the camcorder is playing back recordings from the disc.

Application Example at News Gathering



DVB-ASI Video Stream: For Field and Satellite Transmission

The PDW-700 with the HDCA-702* MPEG TS Adaptor provides a MPEG Transport Stream output capability via a DVB-ASI connector. The HDCA-702 encodes signals to MPEG TS and output via its DVB-ASI connector, concurrently with the PDW-700 recording onto disc. The bit rate is selectable from 17.5 Mb/s to 43 Mb/s, which is suitable for material transmissions using microwave and satellite modulators.

*Planned to be available in summer 2008.

PDW-700 with HDCA-702

Smooth Gain Control

A wide choice of gain and its easy-to-use control system is one remarkable feature of the PDW-700 camcorder. By setting the gain to the 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.

Optical ND Filters and Electrical CC Filters

The PDW-700 camcorder comes equipped with optical ND (Neutral Density) filters and electrical CC (Color Correction) filters. The optical ND filter is controlled via a built-in ND filter wheel – Clear, 1/4ND, 1/16ND/ and 1/64ND. And with the electrical CC filter, the user can easily obtain the desired color temperature by setting the mode - 3200K/4300K/5600K/6300K - on a camcorder-assignable switch.

Digital Extender*

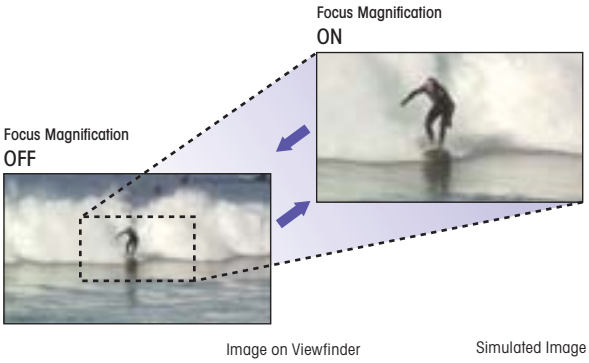
The Digital Extender function of the PDW-700 enables images to be digitally doubled in size. Unlike lens extenders, the Digital Extender function performs this capability without any loss of image sensitivity, which is often referred to as the F-drop phenomenon.

*Use of the Digital Extender function reduces image resolution by half. Requires a software upgrade planned to be available in autumn 2008.

Focus Magnification*

At the touch of a button, the center of the screen on the viewfinder of the PDW-700 camcorder can be magnified to about twice the size, making it easier to confirm focus settings during manual focusing.

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



Wide Variety of Interfaces

The PDW-700 camcorder comes equipped with a wide range of interfaces.

PDW-700 Inputs/Outputs

		PDW-700
Signal input	SDI (HD/SD Switchable)	BNC x 1*
	SD Composite	BNC x 1**
	Genlock video	BNC x 1
	Audio	XLR-3pin (female) x 2, Line / Mic / Mic+48V / ASE/EBU selectable
	Mic	XLR-5pin (female, stereo) x 1
	Timecode input	BNC x 1
Signal output	SDI (HD/SD Switchable)	BNC x 1
	SDI (HD/SD Switchable)	BNC x 1, Character ON/OFF
	HD Y/Composite (Swichable)	BNC x 1
	Audio	XLR-5pin (male, stereo) x 1
	Earphone	Mini-jack x 2 (front: manaural, rear: stereo/monoral)
	Timecode output	BNC x 1
IT	i.LINK	x 1, 6 pin, File Access Mode
	Ethernet	100Base-Tx/10 Base-T x 1
Others	Remote	8-pin x 1
	Light	2-pin x 1 (max 12 V, 50 W)
	Lens	12-pin x 1
	Memory Stick	x 1 (for camera setup files)
	USB	x 1 (for maintenance)
Power	DC IN	XLR x 1
	DC OUT (12 V)	4-pin x 1 (for wireless microphone receiver)

*Requires optional CBK-HD01 board planned to be available in autumn 2008.

**Requires optional CBK-SC02 board planned to be available in autumn 2008.

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.

*Planned to be available in autumn 2008.

Trigger REC Function

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

Other Camcorder Features

- Compatible with a variety of remote control units: RM-B750/B150, MSU*-950/900 and RCP*-920/921/750/751
- Freeze Mix function* superimposes a previously recorded image on the viewfinder; this allows the operator 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
- Thumbnail Search function
- Expand function
- Scene Selection function for in-camera cuts-only editing**
- Ability to write EDL (the result of the Scene Selection) back onto disc
- Proxy Data recording
- Four assignable buttons: two on the camera handle and two on the inside panel, which enable operators to assign frequently used functions
- Auto Tracing White Balance for automatic adjustments in camera color temperature according to lighting changes
- Memory Stick™, Memory Stick Pro™ and Memory Stick Pro Duo™ media (up to 4 GB) function for storage of camcorder setup files
- Monochrome LCD to show the timecode and remaining recording time of the disc even when the power is off
- Metadata recording: UMID, Extended UMID, Essence Mark (Shot Mark), Clipflag*
- Extended Clear Scan (ECS)
- Intelligent light system synchronizes strobe on/off to the Rec start button

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

**The video and audio cannot be edited independently.

Camcorder View

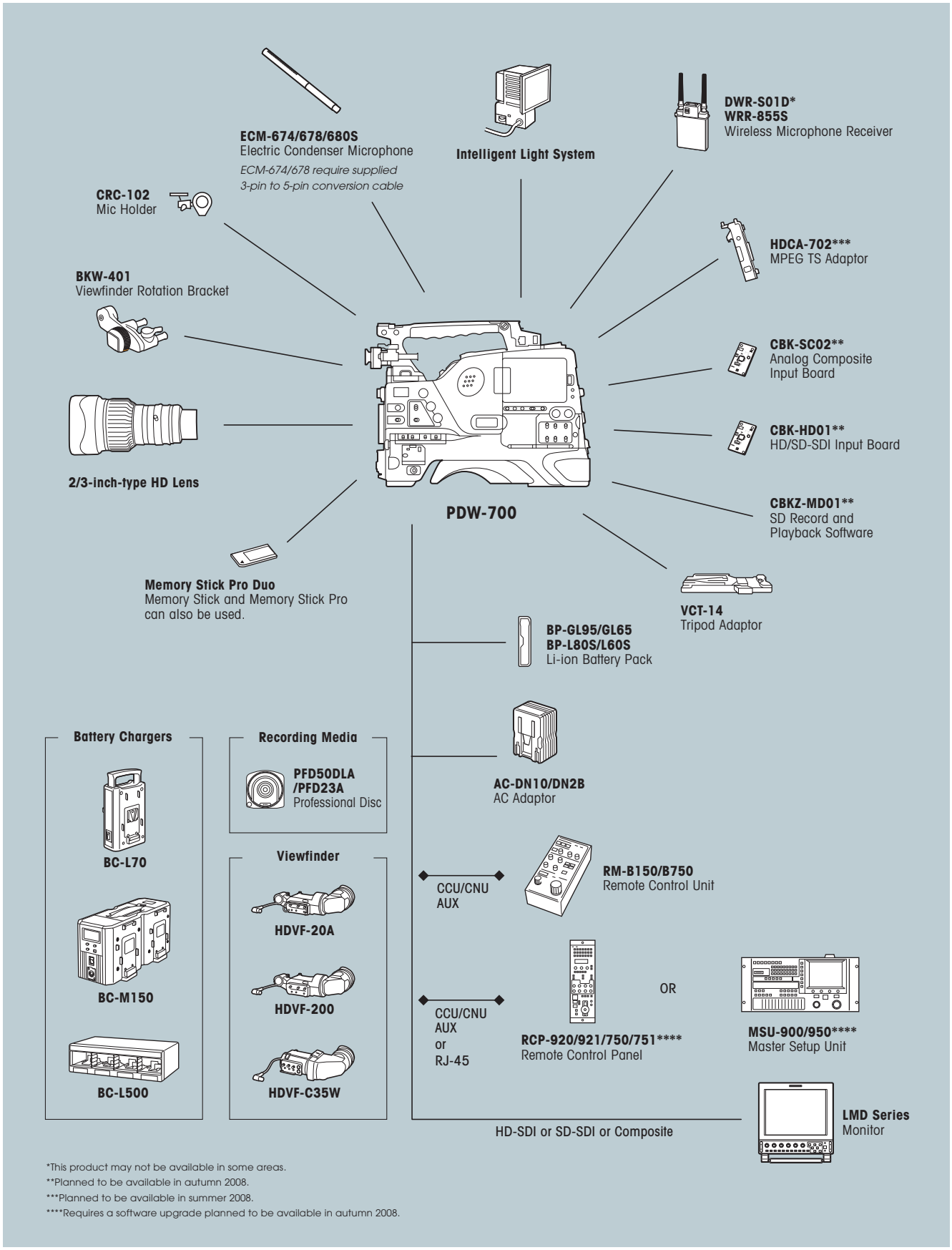
Top View

Connector Panel

Side

Rear

Camcorder System Diagrams



*This product may not be available in some areas.
**Planned to be available in autumn 2008.
***Planned to be available in summer 2008.
****Requires a software upgrade planned to be available in autumn 2008.

Recording Deck **PDW-HD1500**

The PDW-HD1500 is a compact HD recorder which provides outstanding picture quality of MPEG HD422 as well as an eight-channel (HD-SDI), 24-bit audio recording capability. What's unique about this deck is its ability to operate on AC, DC or power. With its large 4.3-inch** LCD and built-in speaker, it performs as a versatile and high-quality recorder which is suitable for both in-house and field operations.

It comes equipped with a multi-format up/down converter, which is highly useful when employing both HD- and SD-format materials at the same time. What's more, the RS-422 interface enables the PDW-HD1500 to be used as a player deck for linear editing.

The PDW-HD1500 deck boasts fast data transfer at approx. 220 Mb/s* through Gigabit Ethernet, thanks to newly developed dual-optical head.

*When the material is recorded in MPEG HD422 mode.

**Viewable area measured diagonally.

PDW-HD1500 Features

- Multi-format HD/SD Recording/Playback Capability
  - HD recording at up to 50 Mb/s 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
- Handles both the dual-layer disc (PFD50DLA) and single-layer disc (PFD23A)
- High-speed file transfer
  - i.LINK File Access Mode (FAM)
  - FTP via Gigabit Ethernet
- RS-422 9-pin remote control interface, which the deck to be used as a feeder for linear editing
- A wide variety of video and audio inputs and outputs, including two HD-SDI outputs
- Compatible with XDCAM Carts: the PDJ-C1080 and the 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
- A large easy-to-see 4.3-inch** type color LCD display
- Trigger REC function (synchronized recording with compatible camcorders***)
- TBC Control, by front panel operation or remote control panel via RS-422
- Easy and intuitive search operation
  - Thumbnail Search function
  - Expand function
  - Equipped with a Jog/Shuttle dial, providing VTR-like operation (Jog: -1 to +1 time normal speed, Variable: -2 to 2 times normal speed, Shuttle: -20 to +20 times normal speed)
- Clip Continuous REC function via RS-422A or HD-SDI using Trigger REC function*
- Optional accessories that enhances operational features:
  - PDBZ-S1500**** SD (MPEG IMX/DVCAM) Recording & Playback Software
  - PDBK-201**** MPEG TS IN/OUT Board: allows to input and output HDV™ compatible stream in 1080i/720P format
  - Linear Editing Software*****

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

**Viewable area measured diagonally.

***PDW-700, HDW-730/750 series, HDW-790 and HDW-F900R camcorders.

****Planned to be available in autumn 2008.

*****Planned to be available in spring 2009.

Tilt-up

Inputs/Outputs

PDW-HD1500 Inputs/Outputs

		PDW-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	x 1, 6-pin, File Access Mode
	Ethernet	1000Base-T/100 Base-Tx/10 Base-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, RS-422A
	USB	x 2 (for maintenance)
Power	AC IN	x 1
	DC IN	XLR x 1
	DC OUT (12 V)	4-pin x 1

*SD-SDI input capability requires a software upgrade planned to be available in autumn 2008.

PDW-HD1500 Rear Panel

PDW-U1 Drive Unit

The PDW-U1* is another powerful tool in the XDCAM HD422 lineup, which offers a compact, mobile and highly cost-effective solution for many different applications.

It serves as an external drive connected via a common USB interface, and enables material recorded on Professional Disc media to be viewed directly on a PC. The PDW-U1 can also be used as a source feeder for nonlinear editing systems.

One of the most distinguished features of the PDW-U1 is its ability to handle all XDCAM HD422, HD and SD discs, providing a high level of versatility and cost efficiency.

Its compact and lightweight design makes it equally ideal for field and in-house desktop uses.

- Handles files in all formats of XDCAM HD422, XDCAM HD and XDCAM SD formats
- Handles both the new 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
- High-speed file transfers with the newly developed optical drive
- Material browsing on the supplied PDZ-VX10 XDCAM Viewer software and PDZ-1 Proxy Browsing software
- Highly compact and lightweight
- Dimensions (W x H x D): 59 x 164 x 226 mm (2 3/8 x 6 1/2 x 9 inches)
- Mass: 1.4 kg (3 lb 1 oz)
- Can be operated either horizontally or vertically

*The PDW-U1 initial version is read-only, and cannot write files onto Professional Disc media. This capability requires a software upgrade. And support for Mac OS is planned to be available in winter 2008.

PDW-U1 Drive Unit

Front

Rear

PDW-U1 Specifications

		PDW-U1
Power requirements		DC 12 V
Power consumption		10 W
Operating temperature		5 to 40°C (+41 to +104 °F)
Storage temperature		-20 to +60°C (-4 to +140 °F)
Humidity		20 to 90% (relative humidity)
Mass		1.4 kg (3 lb 1 oz)
Dimensions		59 x 164 x 226 mm (2 3/8 x 6 1/2 x 9 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) x 1
Supplied accessories		Operation manual (x1)
		PDZ-1 Proxy Browsing Software (x1)
		PDZ-VX10 XDCAM Viewer Software (x1)
		Proxy Viewer Software (x1)
		PDZK-P1 XDCAM Transfer Software (x1)
		Setup utility software (x1)

PDJ-C1080 Cart/PDJ-A640 Cart

The PDJ-C1080 and PDJ-A640 are automated robotic cart systems ideal for multi-disc ingesting, archiving and on-air playout applications. The smaller PDJ-C1080 accommodates up to four PDW-HD1500 units and up to 80 discs, while the larger PDJ-A640 accommodates up to four PDW-HD1500 units and up to 640 discs. The PDJ-A640 also accommodates PDW-F75 XDCAM HD decks or/and PDW-1500 XDCAM decks in any combination with PDW-HD1500 units.
These cart systems are equipped with a standard VCC control protocol, allowing easy integration into existing systems. The total storage capacities are 4 Terabytes when using 80 discs and 32 Terabytes using 640 of 50-GB discs. PDJ-CS10 Cart Interface Software allows third-party applications to transfer files from the cart over the network, without controlling the cart's robotics or decks. With XDCAM file-based operations and metadata capability, as well as the reliability, long life and small physical size of Professional Disc media, these cart systems provide significant operational benefits, greater reliability, reduced operational costs and space-saving benefits compared to tape based systems.

- Ideal for multi-disc ingesting, archiving and on-air playout applications
- Equipped with VCC protocol (RS-422 or RS-232C)
- Equipped with a barcode reader unit
- Optional PDJ-CS10 Application Software allows third-party applications to transfer files from the cart over the network, without controlling the cart's robotics or decks
- High reliability and low-cost maintenance

PDJ-C1080

PDJ-A640

PDJ-C1080 Connector Panel

PDJ-A640 Connector Panel

XDCAM Application Software

All XDCAM HD422 products come with a variety of free application software packages that maximize the benefits of XDCAM disc- and file-based operations.

PDZ-1

PDZ-1 software is a simple-to-use PC application that allows users to easily browse and storyboard video clips recorded by an XDCAM system. It runs on Windows-based PCs and supports three types of interfaces: i.LINK (File Access Mode), Ethernet and USB*.

Once Proxy Data recorded on Professional Disc media is transferred to a PC with the PDZ-1 software installed, users can conveniently view and storyboard recorded footage right on the PC. PDZ-1 software also provides a variety of convenient tools for disc operations such as entire or partial disc copy (dubbing), and transfer between two XDCAM devices.

Storyboarding on a PC not only allows users to preview their edited sequences instantly, it also provides other powerful benefits such as the creation of ASF files (playable on Windows Media Player) and EDL data in various EDL formats, plus the transfer of high-resolution clips selected in the edited sequence.

*USB interface is only for PDW-U1.

PDZ-1 Features

- Supported interfaces: i.LINK (File Access Mode), Ethernet and USB (only for connection with the PDW-U1)
- High-speed ingestion of Proxy Data from XDCAM devices
- Browsing of Proxy Data recorded by the XDCAM systems (including those recorded by the SD version of the XDCAM system)
- Simple and quick cuts-only editing (storyboarding)* with the following functions:
  - Preview a result of the storyboard on PC
  - Save the results as a Clip List (XDCAM EDL)
  - Convert the Proxy Data on the storyboard to an ASF file for replay on Windows Media Player
  - Export the Clip List in AAF, BVE-9100, NewsBase™ XML and ALE (Avid Log Exchange) formats
  - Transfer high resolution clips according to the Clip List
- Disc copy – entire disc (all clips) or only selected clips
- Transfer selected clips with margins at the head and tail of the clips
- Registration of metadata such as "title", "creator", or "comments" for a disc or clip
- Registration of EssenceMark metadata for instant cue-up to desired scenes; names for EssenceMark metadata can also be easily assigned
- Automatic renaming of clips by predetermined rule (uses a predetermined prefix plus sequential numbers)
- Clip Search function using the registered metadata as a keyword
- Print function allows metadata such as thumbnails, creation date and comments to be printed out in an easy-to-see storyboard view

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

System Requirements

OS: Windows XP (SP2 or later), Windows Vista Business 32-bit/Ultimate 32-bit

CPU: Pentium M processor or higher

NOTE: When using Live Logging mode, recommended CPU is Pentium4 2 GHz or higher

RAM: 512 MB or more

Other: Internet Explorer 6.0 (SP1 or later), DirectX 8.1b or later

PDZ-VX10 Sony XDCAM Viewer

PDZ-VX10 software allows the user to view on their PC high-resolution and Proxy MXF files recorded by XDCAM systems. With this software installed, thumbnails for all clips can be displayed in Windows Explorer, enabling the contents of a disc to be scanned easily and quickly.

System Requirements

OS: Windows XP (SP2 or later), Windows Vista Business 32-bit/Ultimate 32-bit

CPU: Intel Core Duo processor 1.83 GHz or higher or Intel Pentium4 3 GHz or higher

RAM: 1 GB or more

Other: Internet Explorer 6.0 (SP1 or later), DirectX 9.0c or later

The video playback performance will vary depending on the video format, file size and the performance of the computer used. For more details on system requirements, please contact your nearest Sony office.

Proxy Viewer

The Proxy Viewer of the PDZ-VX10 software is a simple application to play back Proxy Data on a PC.

System Requirements

OS: Windows XP (SP2 or later), Windows Vista Business 32-bit/Ultimate 32-bit

CPU: Pentium M processor or higher

RAM: 512 MB or more

Other: Internet Explorer 6.0 (SP1 or later), DirectX 8.1b or later

PDZK-P1 XDCAM Transfer for Apple Final Cut Pro Nonlinear Editing Systems

PDZK-P1 XDCAM Transfer is plug-in software for Apple Final Cut Pro nonlinear editing systems that provides native support for MXF files recorded by XDCAM systems. With this software installed, XDCAM devices can be mounted on Mac Finder via a FireWire/i.LINK connection, and users can seamlessly import, edit and export recorded material.

System Requirements

OS: Mac OS X version 10.4.11or later

CPU: PowerPC G5 2 GHz, Intel Core2Duo 2 GHz, Intel Xeon 2 GHz or higher

Other: QuickTime version 7.2 or later
Final Cut Pro version 6.0.2 or later

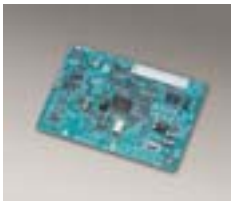
The latest versions of software can be downloaded from the Sony Website.
Please contact your nearest Sony office for details.

Optional Accessories

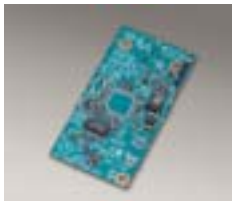
PDW-700 camcorder

PFD50DLA
Professional Disc

PFD23A
Professional Disc



CBK-SC02*
Analog Composite Input Board



CBK-HD01*
HD/SD-SDI Input Board

CBKZ-MD01*
SD Record and Playback Sortware

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

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

HDVF-C35W
3.5-inch** LCD Color Viewfinder

BP-GL95/GL65
Lithium-ion Battery Pack

BP-L80S/L60S
Lithium-ion Battery Pack

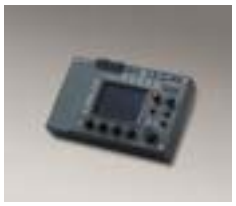
BC-L70
Battery Charger

BC-M150
Battery Charger

BC-L500
Battery Charger

AC-DN10/DN2B
AC Adaptor
(Photo shows AC-DN10)

RM-B150
Remote Control Unit



RM-B750
Remote Control Unit

RCP*-920/921/750/751**
Remote Control Unit
(Photo shows RCP-920)

MSU*-900/950**
Master Setup Unit
(Photo shows MSU-900)

DWR-S01D**
Wireless Microphone Receiver

WRR-855S
Wireless Microphone Receiver

*Planned to be available in autumn 2008.

**Viewable area measured diagonally.

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

****This product may not be available in some areas.

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

ECM-680S
Shotgun-type Electret Condenser Microphone

HDCA-702*
MPEG TS Adaptor

VCT-14
Tripod Adaptor

BKW-401
Viewfinder Rotation Bracket

CRC-12
Mic Holder

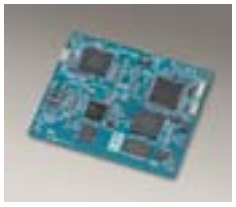
LC-777
Carrying Case (Hard)

LC-DS300SFT
Carrying Case (Soft)

PDW-HD1500 Deck

PFD50DLA
Professional Disc

PFD23A
Professional Disc



PDBK-201**
MPEG TS IN/OUT Board

PDBZ-S1500**
SD Recording & Playback Software

BKP-L551
Lithium-ion Battery Adaptor

BP-GL95
Lithium-ion Battery Pack

BP-L80S
Lithium-ion Battery Pack

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

RM-280
Editing Controller (Ver 2.03 or later)

RCC-5G
Remote Control Cable (5 m)

*Planned to be available in summer 2008.

**Planned to be available in autumn 2008.

XDCAM HD422 Camcorder Specifications

			PDW-700		
General	Mass		Approx. 4.3 kg (9 lb 8 oz) (w/o options), Approx. 6.0 kg (w/VF, Mic, Disc, BP-GL95 battery) (13 lb 4 oz)		
	Power requirements		DC 12 V +5.0 V/-1.0 V		
	Power Consumption		Approx. 40 W (while recording, w/o options, color LCD On) Approx. 44 W (while recording, w/viewfinder, color LCD On, manual lense, microphone)		
	Operating temperature		-5 to 40 °C (+32 to 104 °F)		
	Strage temperature		-20 to +60 °C (-4 to 140 °F)		
	Humidity		10 to 90% (relative humidity)		
	Continuous operating time		Approx. 120 min. w/BP-GL95 battery		
	Recording format	Video	MPEG HD422 (CBR: 50 Mb/s)		
			MPEG HD*1	HQ mode (VBR, maximum bit rate: 35 Mb/s)	
				SP mode (CBR, 25 Mb/s)	
				LP mode (VBR, maximum bit rate: 18 Mb/s) (Playback only)	
			MPEG IMX*2 (CBR, 50/40/30 Mb/s)		
			DVCAM*2 (CBR, 25 Mb/s)		
		Proxy Video	MPEG-4		
		Audio	MPEG HD422: 4 ch/24 bits/48 kHz		
			MPEG HD*1: 4 ch/16 bits/48 kHz		
			MPEG IMX*2: 4 ch/24 bits/48 kHz or 4 ch/16 bits/48 kHz		
			DVCAM*2: 4 ch/16 bits/48 kHz		
		Proxy Audio	A-law (4ch/8 bits/8 kHz)		
	Recording/Playback time		Please refer to "XDCAM HD422 Recording/Playback Specifications"		
Signal Inputs	SDI (HD/SD switchable) (Option)*3		BNC x 1	HD-SDI: SMPTE 292M (w/embedded audio)	
				SD-SDI: SMPTE 259M (w/embedded audio)	
	SD Composite (Option)*4		BNC x 1, 1.0 Vp-p, 75Ω, unbalanced		
	Genlock video		BNC x 1, 1.0 Vp-p, 75Ω, unbalanced		
	Audio		XLR 3-pin (female) x 2, Line / Mic / Mic+48V / ASE/EBU selectable		
	Mic		XLR 5-pin (female, stereo) x 1		
	Time code		BNC x 1, 0.5 to 18 Vp-p, 10 Ω		
Signal Outputs	SDI (HD/SD switchable)		BNC x 2	Ch-1	HD-SDI: SMPTE 292M (w/embedded audio) SD-SDI: SMPTE 259M (w/embedded audio)
				Ch-2 (character On/Off)	HD-SDI: SMPTE 292M (w/embedded audio) SD-SDI: SMPTE 259M (w/embedded audio)
	HD Y/SD Composite (switchable)		BNC x 1	HD Y	
				SD Composite (character On/Off)	
	Audio		XLR 5-pin (male, stereo) x 1		
	Time code		BNC x 1, 1.0 Vp-p, 75Ω		
Other Inputs/outputs	Earphone		Mini-jack x 2 (front: manaural, rear: stereo/monoral)		
	i.LINK		x 1, 6 pin, File Access Mode		
	Ethernet		RJ-45 x 1, 100Base-Tx: IEEE802.3u, 10Base-T:IEEE802.3		
	Lens		12-pin		
	Remote		8-pin		
	Light		2-pin, DC 12 V, max. 50 W		
	DC input		XLR 4-pin (male) x 1, 11 to 17 V		
	DC output		4-pin x 1, 0.5 A max (for wireless microphone receiver)		
	Memory Stick		x 1 (for camera setup files)		
	USB		x 1 (for version-up)		
Audio performance	Frequency response		20 Hz to 20 kHz, +0.5 dB/-1.0 dB		
	Dynamic range		More than 93dB		
	Distortion		Less than 0.08% (at 1 kHz, reference level)		
	Crosstalk		Less than -70 dB (at 1kHz, reference level)		
	Wow & flutter		Below measurable limit		
	Headroom		-12/-16/-18/-20 dB (selectable)		
Camera section	Pickup device		3-chip 2/3-inch type HD Power HAD FX CCDs		
	Total picture elements		1920 x 1080		
	Optical system		F1.4 prism		
	Built-in optical filters		1: Clear, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND		
	Shutter speed	59.94i	1/100, 1/125, 1/250, 1/500, 1/1000. 1/2000, ECS, SLS*1		
		50i	1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000, ECS, SLS*1		
		25P	1/33, 1/50, 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000, ECS, SLS*1		
	Lens mount		2/3-inch-type 48 bayonet mount		
	Sensitivity (2000 lx, 89.9% reflectance)	59.94i	F11		
		50i	F12		
	Minimum illumination		0.016 lx (F1.4 lens: +42 dB, with 16-frame accumulation)		
	Gain selection		+42, +36, +32, +24, +18, +12, +9, +6, +3, +0, -3, -6 dB*5		
	Smear level		-135 dB		
	S/N ratio		59 dB (54 dB w/o NS)		
	Modulation depth (center of view)		45% or more		
	Geometric distortion		Below measurable level (w/o lens)		
Viewfinder			Option		
Built-in LCD monitor			3.5-inch type color LCD monitor		
Supplied accessories			Shoulder belt (x 1), Operation manual (x 1), XDCAM Application Software CD-ROM (x 1) Microphone cable (for coverting 3-pin to 5-pin) (x 1)		

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

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

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

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

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

XDCAM HD422 Deck Specifications

			PDW-HD1500	
General	Dimensions (W x H x D)		210 x 132 x 396 mm (8 3/8 x 5 1/4 x 15 5/8 inches)	
	Mass		Approx. 6.5 kg (14 lb 5 oz)	
	Power requirements		100 V to 240 V AC, 50/60 Hz 12 V DC	
	Power Consumption		AC: 80 W, DC: 65 W, SAVEMODE(DC): 55 W	
	Operating temperature		+5 to 40 °C (+41 to 104 °F)	
	Strage temperature		-20 to +60 °C (-4 to +140 °F)	
	Humidity		25 to 90% (relative humidity)	
	Recording format	Video	MPEG HD422 (CBR: 50 Mb/s)	
			MPEG HD*1	HQ mode (VBR, maximum bit rate: 35 Mb/s)
				SP mode (CBR, 25 Mb/s)
				LP mode (VBR, maximum bit rate: 18 Mb/s) (Playback only)
			MPEG IMX*2 (CBR, 50/40/30 Mb/s)	
			DVCAM*2 (CBR, 25 Mb/s)	
		Proxy Video	MPEG-4	
		Audio	MPEG HD422: 8 ch/24 bits/48 kHz	
			MPEG HD*1: 4 ch/16 bits/48 kHz	
			MPEG IMX*2: 4 ch/24 bits/48 kHz or 8 ch/16 bits/48 kHz	
			DVCAM*2: 4 ch/16 bits/48 kHz	
		Proxy Audio	A-law: 8ch/8 bits/8 kHz	
	Recording/Playback time		Please refer to "XDCAM HD422 Recording/Playback Specifications"	
	Search speed (in color)	Jog mode	-1 to +1 time normal speed	
		Variable speed	-2 to +2 times normal speed	
		Shuttle mode	-20 to +20 times normal speed	
		F.Fwd/Rev	-35/+35 times normal speed	
Signal Inputs	SDI (HD/SD*1 switchable)		BNC x 1	HD-SDI: SMPTE 292M (w/embedded audio)
				SD-SDI: SMPTE 259M (w/embedded audio)
	Reference input		BNC x 2 (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 audio (line)		XLR 3-pin (female) x 2, +6 dBu, Hi-Z, balanced	
	Digital audio AES/EBU		BNC x 2, 4 ch (2 ch each, 1/2 ch and 3/4 ch), AES-3id-1997	
	Time code		BNC x 1, SMPTE time code, 0.5 to 18 Vp-p/3.3 kΩ/unbalanced	
Signal Outputs	HD-SDI		BNC x 1, SMPTE 292M (w/embedded audio)	
	HD-SDI (character On/Off)		BNC x 1, SMPTE 292M (w/embedded audio)	
	SD-SDI		BNC x 1, SMPTE 259M (w/embedded audio)	
	SD-SDI (character On/Off)		BNC x 1, SMPTE 259M (w/embedded audio)	
	SD composite		BNC x 1, 10 Vp-p/75 Ω/negative, SMPTE 172M	
	SD composite (character On/Off)		BNC x 1, 10 Vp-p/75 Ω/negative, SMPTE 172M	
	Analong audio line		XLR 3-pin (male) x 2, +4 dBu, 600Ω, Lo-Z, balanced	
	Analog audio monitor		XLR 3-pin (male) x 2, +4 dBu, 600Ω, Lo-Z, balanced	
	Digital audio AES/EBU		BNC x 2, 4 ch (2 ch each, 1/2 ch and 3/4 ch), AES-3id-1997	
	Time code		BNC x 1, SMPTE time code, 1 Vp-p/75 Ω/unbalanced	
Other Inputs/outputs	Phones		Stereophone-jack x 1	
	i.LINK		x 1, 6 pin, IEEE1394	
	Ethernet		RJ-45 x 1, 1000Base-T: IEEE802.3ab, 100Base-Tx: IEEE802.3u, 10Base-T: IEEE802.5	
	Remote		D-sub 9-pin (female) x 1, RS-422A	
	Video control		D-sub 9-pin (female) x 1, RS-422A	
	AC input		x 1, 100 to 240 V	
	DC input		XLR 4-pin (male) x 1	
	DC output		4-pin (female) x 1, DC 12 V, 7.5 W	
	USB		x 2 (for maintenance)	
Video performance	Sampling frequency		Y: 74.25 MHz, Pb/Pr: 37.125MHz	
	Quantization		8 bit/sample	
	Compression		MPEG-2 4:2:2P@HL	
	Composite output		Frequency response: 0.5 to 5.75 MHz +0.5 dB/-2.0 dB S/N(Y): 53 dB or more Y/C delay: ± 20 ns or less K-factor (K2T): 1% or less	
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 to 400 ns	
Audio performance	Sampling frequency		48 kHz	
	Quantization		24 bit	
	Frequency response		20 Hz to 20 kHz +0.5 dB/-1.0 dB	
	Dynamic range		90 dB or more	
	Distortion		0.05% or less	
	Headroom		-12/-16/-18/-20 dB (selectable)	
Supplied accessories			Operation manual (x 1), Installation manual (x 1), XDCAM Application Software CD-ROM (x 1)	

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

*2: Requires optional PDBZ-S1500 software planned to be available in autumn 2008.

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