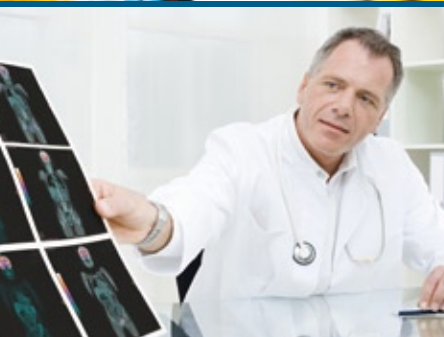
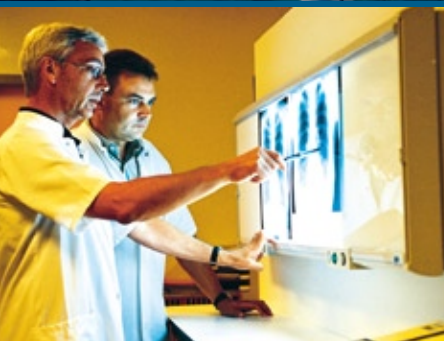


# MEDICAL PRODUCTS

General Catalog 2009

# Introduction



Thanks to the Ullevål Hospital in Norway and to Gelderse Vallei Hospital in the Netherlands for the use of their facilities.

## Sony Technology – Providing High-Quality Medical Images

As video technology moves from analog to digital, it provides the opportunity to enhance the performance, flexibility, and reliability of video equipment used in medical environments. Sony audio-visual technology – including high-performance digital video cameras, color monitors, printers, and video recorders – has been used for many years in these environments, assisting quicker, more accurate diagnosis and treatment in hospitals and clinics around the world.

This catalog illustrates the latest models from the wide range of Sony professional imaging products, all of which are designed to capture, record, monitor, and print images of the highest quality.

With our innovative technologies, Sony continues to develop and support the many ways in which video imaging is applied to the advancement of medicine. Furthermore, our extensive choice of products enables users to choose the optimum solution for a variety of usage needs.









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## Print Media at a Glance

# History of Sony Medical Printers

## — Proof of High Reliability

The printed image remains an essential part of modern diagnosis and treatment. Sony has been producing high-quality printing products for more than twenty years, giving medical practitioners access to the finest record of photographs. Sony's accumulated technology for medical printers brings you high reliability and stability. With reliability built in to assure years of trouble-free use in a wide range of medical environments, Sony printers provide you with a visual record that's as precise as it is permanent.

1984	<p>Sony launches the world's first color video printer "UP-1100" <b>A5 Color</b></p> <ul style="list-style-type: none"> <li>• Printing speed of 180 seconds and lamination in 60 seconds.</li> <li>• Glass edge thermal head.</li> <li>• Condenser paper ribbon.</li> <li>• Pulp-based printing paper.</li> </ul>	<p>The world's first Color Video Printer</p>	 <p>UP-1100</p>
1986	<p>Introducing the first thermal video printer for ultrasound, "UP-811" <b>A6 B/W</b></p> <p><u>Sony being one of the leading companies developing the thermal print technology</u></p> <ul style="list-style-type: none"> <li>• Printing speed of 12 seconds.</li> <li>• "Plastic-based printing paper" provides improved picture quality.</li> </ul>	<p>The first Thermal Video Printer</p>	 <p>UP-811</p>
1988	<p>"UP-5000", video printer for ultrasound and endoscopy <b>A5 Color</b></p> <ul style="list-style-type: none"> <li>• Thin film thermal head.</li> <li>• PET-based ink ribbon.</li> <li>• Plastic-based printing paper.</li> </ul>		 <p>UP-5000</p>
1989	<p>Introducing "UP-930", the first A4 black and white multi-scan printer <b>A4 B/W</b> and A6 black and white video printer "UP-850" <b>A6 B/W</b></p>		 <p>UP-850 UP-930</p>
1990	<p>Introducing "UP-3000", the first A6 color video printer adopted by medical modality, <b>A6 Color</b> and A4 black and white video printer "UP-910" <b>A4 B/W</b></p>		 <p>UP-3000 UP-910</p>
1991	<p>Introducing "UP-5100" <b>A5 Color</b> Introducing "UP-860" <b>A6 B/W</b></p>		 <p>UP-860</p>
1993	<p>Introducing "UP-1000" <b>A6 Color</b></p>		
1994	<p>Introducing "UP-880" <b>A6 B/W</b></p> <ul style="list-style-type: none"> <li>• Resolution: 325dpi, a significant improvement compared to the UP-860.</li> </ul>		 <p>UP-880</p>
1995	<p>Introducing "UP-5500" adopted by ophthalmology modality <b>A5 Color</b></p> <ul style="list-style-type: none"> <li>• Resolution: 300dpi, 4-split picture.</li> <li>• Printing speed of 30 seconds, half that of the UP-5100.</li> </ul>		 <p>UP-5500</p>
1997	<p>Introducing "UP-2000" <b>A6 Color</b></p> <ul style="list-style-type: none"> <li>• Printing speed of 25 seconds.</li> </ul>		

Introducing "UP-980", the first video printer, which can print on a blue transparent film and "UP-960" video printer only for print on paper.

A4 B/W



UP-960/980

1998

Introducing "UP-895"

A6 B/W

- Printing speed of 3.9 seconds.

Introducing the first digital film imager, the "UP-D70XR"

A4 Color



UP-895

1999

Introducing "UP-50"

A5 Color

- Printing speed of 20 seconds.
- Dimensions: 370 x 125 x 475 mm



UP-50

2000

Introducing "UP-20", a dedicated printer for the medical market

A6 Color

- Compact size.
- Printing speed of 20 seconds.

Introducing the first digital A6 black and white video printer "UP-D895"

A6 B/W

- Printing speed of 3.9 seconds.



UP-20



UP-D895

2001

Introducing "UP-D71XR",

A4 B/W

the first digital film imager to be adopted by X-ray modality.

Introducing the first digital A6 color printer "UP-D21MD"

A6 Color



UP-D71XR



UP-D21MD

2002

Introducing Film Station "UP-DF500", with diagnostic print quality

14 x 17 B/W

- The world's smallest foot print 686 mm x 250 mm in vertical setting.
- Equipped with DICOM interface.
- The first digital film imager for diagnostics.



UP-DF500

2003

Introducing "UP-D72XR", equipped with FilmLink connection capability

8 x10 B/W

Introducing "UP-D23MD"

A6 Color

- Hi-speed USB (USB 2.0)



UP-D23MD



UP-D72XR

2004

Introducing "UP-55MD"

A5 Color

- Superb print quality of approx. 379 dpi.

Introducing "UP-D897/897MD", the smallest and fastest printers in their class

A6 B/W

- Printing speed of approx. 2 seconds.

Introducing the first DICOM color printer "UP-D77MD" with fine color tuning function

A4 Color

Introducing "UP-990AD/970AD"

A4 B/W

- Accepting both analog and digital signal input.



UP-55MD



UP-D897

2005



UP-990AD



UP-D77MD

Introducing "UP-DF550" with diagnostic print quality

14 x 17, 11 x 14,  
10 x 12, 8 x10 B/W

- Support four film sizes.
- Small footprint in vertical setting.



UP-DF550

2006

Introducing "UP-D74XRD"

8 x10 B/W

- Support both of paper media and film.



UP-D74XRD

2007

Introducing "UP-DF750" with diagnostic print quality

14 x 17, 11 x 14,  
10 x 12, 8 x10 B/W


- Mannmography printing quality (High resolution 604 dpi, maximum density of 3.8+ with the UPT-M710BL and UPT-M712BL)
- Small footprint in vertical setting.





































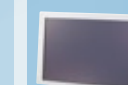






UP-DF750

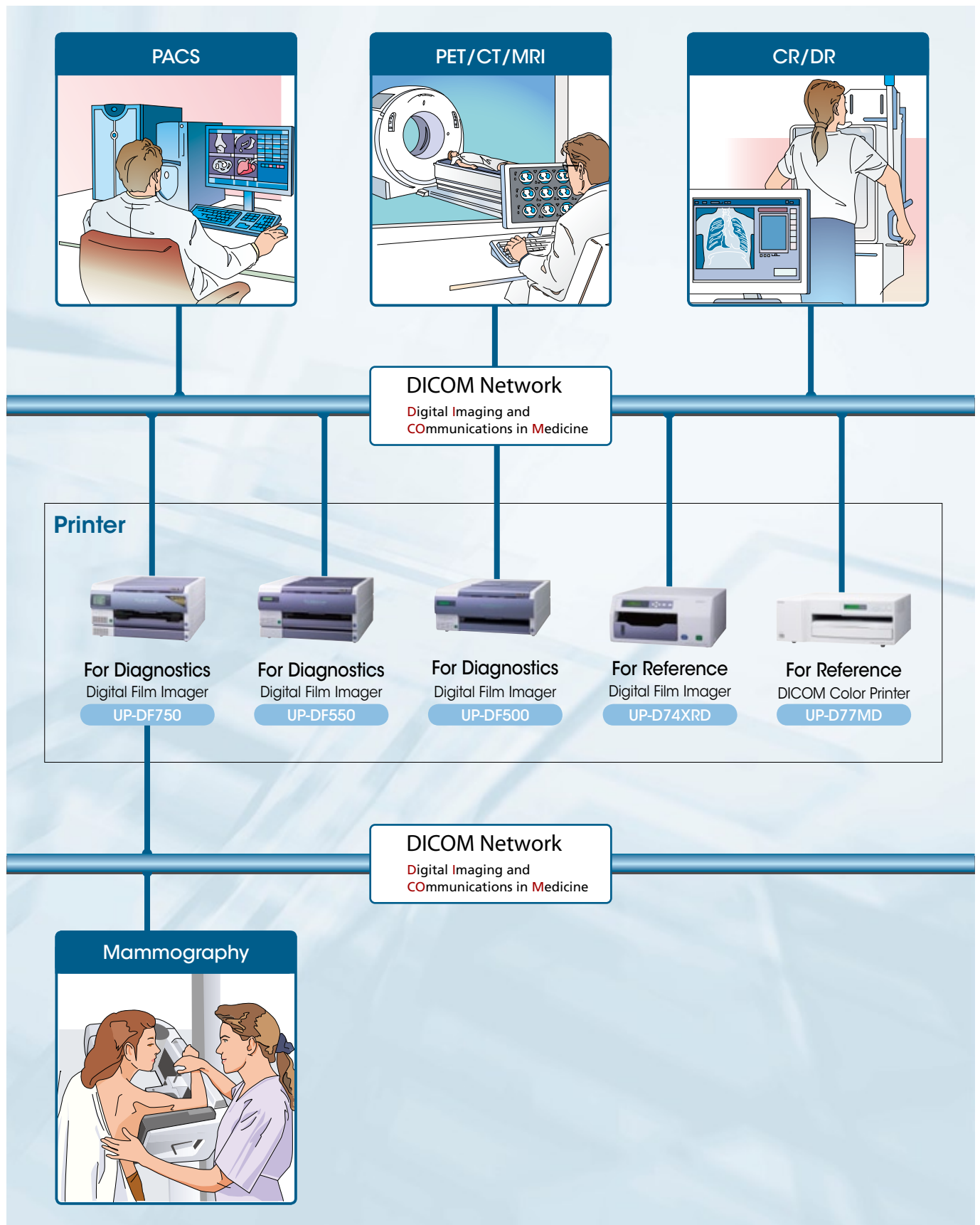
2008

# Medical Equipments Total Solution

	UP-897MD	UP-D897	UP-20	UP-21 MD	UP-D23MD	UP-55MD	UP-D55	UP-D80MD
								
	 	 	 	 	 	 	 	 
<b>Ultrasound</b> 	●	●	●	●	●	●	●	●
<b>Endoscope</b> 			●	●	●	●	●	●
<b>Surgical Microscope</b> 								
<b>Pathology</b> 	●	●	●	●	●	●	●	●
<b>Rational Camera/Slit Lamp</b> 			●	●	●	●	●	●
<b>Panoramic Tomography</b> 	●	●						●
<b>Mobile C-arm</b> 								

UP-990AD	UP-970AD	UP-D72XR	UP-D74XRD	PMW-10MD	DXC-C33/C33P	PDW-75MD	DVO-1000MD	LMD-2140MD	LMD-2450MD
    	   	   	    	  	 	   	   	    	    
●	●						●		
						●	●	●	●
				●	●	●		●	●
				●	●				
●	●	●	●						
●	●	●	●						

# For Network System



# Product Lineup

## For Image Capture

### Color Video Cameras

#### 1/2-inch type 3-Exmor™ CMOS Color Video Camera



- Equipped with three 1/2-inch type Exmor Full HD CMOS sensors
  - Excellent sensitivity of F10
  - Remarkable signal-to-noise of 54 dB
  - High horizontal resolution of 1,000 TV lines
  - Wide dynamic range of 450%
- C-mount type of lens mount
- Compact and lightweight camera head unit
- Camera head unit can be installed remotely up to 20 m from the camera control unit
- Various Shooting Modes, Specialized for Medical Use
  - Image reverse mode convenient for microsurgery
  - Freeze function synchronized with flash light of retinal camera
  - Spot photometry mode provided for the AE (Auto Exposure) on slit lamp

#### PMW-10MD

- Six Picture Profile™ settings for camera parameters, which can be customized and directly controlled from the switch on the front panel.
- Two SxS Pro™ Memory Card Slots
  - Record moving images and still images
  - No overwriting of valuable existing footage
- Long recording time of up to 140 minutes in a single card. Two recording modes are available:
  - HQ Mode: (1920 x 1080, 35Mb/s, VBR) 100 minutes\*1
  - SP Mode: (1440 x 1080, 25 Mb/s, CBR) 140 minutes\*1
- Come with XDCAM EX™ Clip Browsing Software
  - Allows users to easily browse and copy video clips to other devices such as hard disk drives.
  - Serves as a bridge tool between different formats - converting the clips to other file formats such as the DV format for export to existing DV-based nonlinear editing systems
  - Available for both Windows®-based PCs and Macintosh® computers
- A Wide Variety of Interfaces
  - Two HD-SDI outputs, a DVI-D output that supports 1080/60P and 1080/50P, an analog component output, analog composite output, and S-Video output. It also has a microphone input for audio recording.
  - A 9-pin RS-232C connector for remote control and a mini-stereo jack for a footswitch are provided
- 59.94i/50i switchable operation
- Worldwide AC power supply: AC100 V to 240 V
- Please refer to the specification page for details about standards and regulations.

\*1 On a 32-GB card. When recording in HQ (35 Mb/s) mode, the recording time may differ from the above specified figure depending on the actual bit rate that is adopted during VBR encoding.

#### 1/2-type 3-CCD Color Video Camera



#### DXC-990/990P

Lens is Optional

- ExwaveHAD™ technology provides excellent sensitivity and low smear levels
- 1/2-type bayonet mount
- Compact and lightweight design
- High horizontal resolution of 850 TV lines
- RGB, Y/C, composite and component outputs
- On-screen programmable menu functions
- Full function control from the rear panel or the optional RM-C950 Remote Control Unit
- DynaLatitude™, Partial Enhance and Color Shading compensation functions
- Many advanced AE (Automatic Exposure) functions
- Optional CMA-D2MD/D2MDCE or CMA-D3/D3CE can be used for AC power supply. Please refer to the accessory page for details about camera adaptors.
- Please refer to the specification page for details about standards and regulations.

#### 1/3-type 3-CCD Color Video Camera



#### DXC-390/390P

Lens is Optional

- Exwave HAD™ technology provides excellent sensitivity and low smear levels
- C mount
- Very compact and light-weight
- High horizontal resolution of 800 TV lines
- RGB, Y/C and composite video outputs
- On-screen programmable menu functions
- Full function control from the side panel or the optional RM-C950 Remote Control Unit
- DynaLatitude™, Partial Enhance and Color Shading compensation functions
- Many advanced AE (Automatic Exposure) functions
- Optional CMA-D2MD/D2MD CE or CMA-D3/D3CE can be used for power supply. Please refer to the accessory page for details about camera adaptors.
- Please refer to the specification page for details about standards and regulations.

#### 1/3-type 3-CCD Color Video Camera



#### DXC-C33/C33P

Lens is Optional

- DV output terminal allows image recording into i.LINK™\* interface-equipped VTRs with no deterioration
- DynaLatitude™, Partial Enhance and Color Shading compensation functions
- Frame memory (long term exposure, freeze function)
- Two AE (Automatic Exposure) areas can be preset
- Easy control and operation of the camera by an external computer is possible with the RS-232C interface
- External synchronization (HD/VD, VBS) allows for multiple camera operation
- Please refer to the specification page for details about standards and regulations.

\* i.LINK is a Sony trademark used only to designate that a product is equipped with an IEEE1394 connector. Some products with an i.LINK connector may not 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.

## For Image Recording

### Recorders

#### XDCAM HD Recorder



- XDCAM™ HD optical disc recorder offering 1440 x 1080 high-definition (HD) image recording
- Uses Professional Disc™ media as the recording medium
  - 50-GB and 23-GB, high-capacity optical disc
  - Utilizes the same blue-violet laser technology as consumer Blu-ray Disc™ products
  - Designed specifically for professional recording applications to achieve higher transfer rates and a greater level of reliability
  - Already adopted by a large number of professional users worldwide, including broadcasters and video production companies
  - Rewriteable media (approx. 1,000 times)
  - Ideal for long-term storage of footage

- Long recording time of up to 4.5 hours
- Three recording modes are available:
  - HQ Mode: 35 Mb/s VBR, 150 minutes\*<sup>1</sup>
  - SP Mode: 25 Mb/s CBR, 200 minutes\*<sup>1</sup>
  - LP Mode: 18 Mb/s VBR, 265 minutes\*<sup>1</sup>
- Thumbnail-based instant random access to footage
- No overwriting of valuable existing footage
- VTR-like picture search operation using the Jog/Shuttle dial with  $\pm 20$  times normal-speed playback
- Easy cuts-only editing (Scene Selection Function)
- Proxy Data recording – a low-resolution version of the AV data is recorded simultaneously with the high-resolution data, which can be used for fast and easy editing and playback
- Metadata recording for efficient data management
- DVCAM™ recording (requires optional PDBK-104 board)
- 3.5-inch\*<sup>2</sup> color LCD display
- Network capability (requires the optional PDBK-101 board)
- Clip Continuous REC mode
- 59.94i/50i switchable operation
- Worldwide AC power supply: AC100 V to 240 V
- Please refer to the specification page for details about standards and regulations.

- \*<sup>1</sup> When recording with two-channel audio onto a 50-GB disc.
- \*<sup>2</sup> Viewable area measured diagonally.

#### DVD Recorder



- DVD recorder offering high-quality digital video recording using the MPEG-2 compression format
- Uses the DVD+RW disc as a recording medium, which provides rewrite capability and playback compatibility with many DVD players
- DVD+RW media allows operators to quickly eject the disc after recording without "finalize" process that can usually take a considerable amount of time
- DVD media also enables long-term archiving of images due to its long life

- Real-time VBR (Variable Bit Rate) encoding optimizes picture quality
- Records audio in the Dolby™ Digital Stereo format sound reproduction
- Long recording time of up to three hours on a single disc. Three recording modes are available:
  - HQ Mode\*: 60 minutes
  - SP Mode: 120 minutes
  - LP Mode: 180 minutes
- Quick random access by title and chapter
- High-speed color picture search with  $\pm 3$  times normal-speed playback as standard
- A variety of repeat playback modes
- Various data recording such as disc/title names, patient data of up to 2 KB (per one title), and scale data
- A variety of remote control interfaces and a wide range of interfaces
- Quick recording using an internal HDD
- Comes with the Canopus "DVD InfoEditor" software for browsing and editing of disc content on a PC
- Compact design and low power consumption
- NTSC/PAL switchable operation
- Worldwide AC power supply: AC 100 V to 240 V
- Please refer to the specification page for details about standards and regulations.

- \* In HQ Mode, CBR (Constant Bit Rate) encoding is used.

# For Image Monitoring

## High Resolution Monitors

LCD Monitor



- 32-inch\* monitor designed for surgical endoscopy applications
  - A-Si TFT Active Matrix LCD with a multi-layer AR coated protection panel
  - Full HD resolution of 1920 x 1080 pixels
  - Excellent brightness and contrast
  - Natural gradation and accurate color reproduction (10-bit DSP)
  - Sophisticated I/P (Interlace to Progressive) conversion
  - ChromaTRU color processing
  - Multi-format signal Input (Video (SD/HD), PC (DVI-D/HD15) )
  - VESA mounting with 200 x 400 mm pitch (4 holes)
  - One parallel and two types of serial remote control ports
  - Please refer to the specification page for details about standards and regulations.
- \* 32-inch viewable area measured diagonally

LCD Monitor



- 24-inch\* monitor designed for surgical endoscopy applications
  - A-Si TFT Active Matrix LCD with a multi-layer AR coated protection panel
  - High-resolution of 1920 x 1200 pixels (WUXGA)
  - Excellent brightness and contrast
  - Natural gradation and accurate color reproduction (10-bit DSP)
  - Sophisticated I/P (Interlace to Progressive) conversion
  - Medical safety listing and compliance
  - ChromaTRU color processing
  - Multi-format signal Input (Video (SD/HD), PC (DVI-D/HD15) )
  - VESA mounting with 100- mm hole spacing
  - One parallel and two types of serial remote control ports
  - Please refer to the specification page for details about standards and regulations.
- \* 24.1-inch viewable area measured diagonally

LCD Monitor



- Excellent brightness and contrast, plus a wide viewing angle of 170 degrees both vertically and horizontally
  - Natural reproduction of video images with Sony's original X-Algorithm technology
  - Picture Delay Minimum Mode enables users to optimize the picture delay under the balance between response speed and picture quality
  - A variety of signal input capabilities from SD to HD video and VGA to SXGA\*<sup>2</sup> via HD15 and DVI-D input
  - 2 input slots provide flexible input configuration from optional input adaptors
  - A wide variety of picture scan modes, Normal, Underscan, Overscan, Zoom, and Native
  - 20 patterns of monitor set-up data can be memorized in the user preset
  - VESA mounting with 100 x 100 mm pitch
  - Parallel and serial remote control ports
  - Please refer to the specification page for details about standards and regulations.
- \*<sup>1</sup> 21-inch viewable area measured diagonally  
\*<sup>2</sup> SXGA images are downconverted for display

LMD-2140MD

- 21-inch\*1 LCD monitor optimized for medical use
- A-Si TFT Active Matrix LCD with a multi-layer AR-coated protection panel
- High resolution of 1024 x 768 pixels (XGA)

LCD Monitor



- High-resolution of 1280 x 1024 pixels (SXGA)
  - Smooth image reproduction with Sony's original X-Algorithm technology
  - Natural gradation and accurate color reproduction (10-bit DSP)
  - High-horizontal resolution of 700 TV lines
  - A variety of signal input capabilities from SD to HD video and PC signals via DVD-I or HD connectors
  - Selectable scan mode; 20% Over Scan, Normal Scan (7 % over scan), -3% Under Scan, Full Scan, Native Scan, and Zoom
  - 2 input slots provide flexible input configuration from optional input adaptors
  - 20 patterns of monitor set-up data can be memorized in the user preset
  - VESA mounting with 100- mm hole spacing
  - Parallel and serial remote control ports
  - Please refer to the specification page for details about standards and regulations.
- \* 19.1-inch viewable area measured diagonally

LMD-1950MD

- 19.1-inch\* LCD monitor optimized for medical use
- A-Si TFT Active Matrix LCD with a multi-layer AR-coated protection panel

LCD Monitor



- 14-inch\* LCD monitor optimized for medical use
  - A-Si TFT Active Matrix LCD with a multi-layer AR-coated protection panel
  - High-resolution of 640 x 480 pixels (VGA)
  - High-performance LCD panel provides high-brightness, and high-contrast images with natural color reproduction
  - Accepts a full range of SD inputs including analog composite, Y/C (S-Video), 525i/625i component, and RGB
  - VESA mounting with 100- mm hole spacing
  - Parallel remote control port
  - Please refer to the specification page for details about standards and regulations.
- \* 14-inch viewable area measured diagonally

LMD-1420MD

## For Image Printing

### Analog Printers

Color Video Printer



**UP-20**



- Dye sublimation printer for superb quality prints
- High resolution of 403 dpi
- High-speed printing of approx. 16 seconds\* (NTSC) and 17 seconds\* (PAL) in A6 size
- Compact, space-saving design: 212 x 125 x 395 mm ( 8 3/8 x 5 x 15 5/8 inches)
- Selectable 2 or 4-Split image print mode
- Image spool function (four frame memories)
- Easy-to-use color adjustment function
- Front-loading operation allows easy maintenance and flexible setup
- RS-232C port for remote control operation
- Convenient remote control with the optional RM-91/RM-5500 Remote Commander
- Please refer to the specification page for details about standards and regulations.

\* Measured in high-speed mode when using the UPC-21S Color Printing Pack (excluding data transfer time)

Color Video Printer



**UP-21MD**



- Equipped with printer window display which allows menu operation on front panel
- Accepts analog RGB, S-Video (Y/C) or composite video input/output signals
- Dye sublimation printer for superb quality prints
- High resolution of 403 dpi
- High-speed printing of approx. 16 seconds\* (NTSC) and 17 seconds\* (PAL) in A6 size
- Compact, space-saving design: 212 x 125 x 395 mm ( 8 3/8 x 5 x 15 5/8 inches)
- Selectable 2 or 4-Split image print mode
- Image spool function (four frame memories)
- Easy-to-use color adjustment function
- Front-loading operation allows for easy maintenance and flexible set up
- RS-232C port for remote control operation
- Convenient remote control with the optional RM-91/ RM-5500 Remote Commander
- Please refer to the specification page for details about standards and regulations.

\* Measured in high-speed mode when using the UPC-21S Color Printing Pack (excluding data transfer time)

Color Video Printer



**UP-55MD**



- Dye sublimation printer for superb quality prints
- High resolution of 379 dpi
- High-speed printing of approx. 20 seconds\* in A5 size
- Compact, space-saving design: 280 x 125 x 398 mm (11 1/8 x 5 x 15 3/4 inches)
- Equipped with printer window display which allows menu operation on front panel
- Convenient image copy function (equipped with a USB host port)
- Easy-to-use color adjustment function
- Selectable 2, 4 or 8 split image print mode
- Image spool function (eight frame memories)
- Accepts analog R/Cr, G/G+S/Y, B/Cb, SYNC, Video, S-Video input/output signals
- Please refer to the specification page for details about standards and regulations.

\* Measured in high-speed mode with the UPC-55 Color Printing Pack

## Analog Printers

### Black and White Video Graphic Printer



**UP-897MD**



- Direct thermal printer with a high resolution of 325 dpi
- High-speed printing of approx. 2 seconds\* in A6-size
- Compact, space-saving design: 154 x 88 x 240 mm (6 1/6 x 3 1/2 x 9 1/2 inches)
- Superior operability with the front LCD display panel and Jog dial
- Supports standard and side print modes
- Detailed sharpness setting with 15 steps
- Multiple copy function (up to 20 copies of the last printed image)
- Zoom function (from 0.5 to 2 times in 0.1 increments)
- Image-capture function (up to 10 transferred images)
- Selectable 4:3 or 1:1 aspect ratio
- Automatic selection of EIA or CCIR video signal
- Worldwide AC power supply: AC 100 V to 240 V
- Please refer to the specification page for details about standards and regulations.

\* Measured in high speed mode with the UPP-110HG or UPP-110S (excluding data transfer time)

## Analog, Digital Hybrid Printers

### Black and White Hybrid Graphic Printer



**UP-990AD**



- Direct thermal printer with a high resolution of 325 dpi
- Accepts both analog and digital signal input
- Supports printing on blue transparent film and printing paper
- Superior operability with the front LCD panel and jog dial
- High-speed printing of approx. 8 seconds\* in A4 size
- Compact, space-saving design: 316 x 132.5 x 305 mm (12 1/2 x 5 1/4 x 12 1/8 inches)
- Selectable 2, 4 or 6 split image print mode
- Automatic media-cutting function
- Worldwide AC power supply: AC 100 to 240 V
- Please refer to the specification page for details about standards and regulations.

\* Measured in standard mode.

### Black and white Hybrid Graphic Printer



**UP-970AD**



- Direct thermal printer with a high resolution of 325 dpi
- Accepts both analog and digital signal input
- Supports printing on printing paper
- Superior operability with the front LCD panel and jog dial
- High-speed printing of approx. 8 seconds\* in A4 size
- Compact, space-saving design: 316 x 132.5 x 305 mm (12 1/2 x 5 1/4 x 12 1/8 inches)
- Selectable 2, 4 or 6 split image print mode
- Worldwide AC power supply: AC 100 to 240 V
- Please refer to the specification page for details about standards and regulations.

\* Measured in standard mode.

## Digital Printers

### Digital Black and White Graphic Printer



#### UP-D897



- Direct thermal printer with a high resolution of 325 dpi
- High-speed printing of approx. 2 seconds\* in A6-size
- Compact, space-saving design: 154 x 88 x 240 mm (6 1/6 x 3 1/2 x 9 1/2 inches)
- Superior operability with the front LCD display panel and Jog dial
- Supports standard and side print modes
- Detailed sharpness setting with 15 steps
- Multiple copy function (up to 20 copies of the last printed image)
- Resize image data to fit a pre-set printing area
- Panoramic-size print is available especially for dental applications
- Equipped with a Hi-Speed USB interface (USB 2.0) as standard
- Please refer to the specification page for details about standards and regulations.

\* Measured in high speed mode with the UPP-110HG or UPP-110S (excluding data transfer time)

### Digital Color Printer



#### UP-D23MD



- Dye sublimation printer for superb quality prints
- High resolution of 403 dpi
- High-speed printing of approx. 19 seconds\* in A6 size
- Compact, space-saving design: 212 x 125 x 395 mm (8 3/8 x 5 x 15 5/8 inches)
- Front-loading operation allows easy maintenance and flexible set up
- Resize-to-fit function
- Gray balance adjustment capability
- Image spool function (two frame memories)
- Equipped with a Hi-Speed USB (USB 2.0) as standard
- Includes a PC utility driver software kit
- Please refer to the specification page for details about standards and regulations.

\* Measured in high-speed mode with the UPC-21S (excluding data transfer time)

### Digital Color Printer



#### UP-D55



- Dye sublimation printer for superb quality prints
- High resolution of 379 dpi
- High-speed printing of approx. 20 seconds\* in A5 size
- Compact, space-saving design: 280 x 125 x 398 mm (11 1/8 x 5 x 15 3/4 inches)
- Front-loading operation allows easy maintenance and flexible set up
- Selectable 2, 4 and 8 split image print mode
- Color balance adjustment capability
- Image spool function (two frame memories)
- Resize-to-fit function
- Paper tray with paper stopper
- Equipped with a Hi-Speed USB interface (USB 2.0) as standard
- Includes a PC utility driver software kit
- Please refer to the specification page for details about standards and regulations.

\* Measured in high-speed mode (excluding data transfer time)

## Digital Printers

### Digital Color Printer



**UP-DR80MD**

LT
A4
Color



- A4/Letter color printer with built-in Hi-Speed USB (USB 2.0) interface
- Dye sublimation printer for superb quality prints
- High resolution of 301 dpi
- High-speed printing of approx. 76 seconds in A4-size
- Stylish and compact design: approx. 317 x 207 x 425 mm (12 1/2 x 8 1/8 x 16 3/4 inches)
- Front-loading operation for easy operation and maintenance
- Easy color adjustment
- Two types of color look up table to reproduce suitable colors for different modalities.
- Gray balance adjustment for the most suitable tonal range for your application.
- Highly durable prints with self-laminating print media
- Worldwide AC power supply: AC 100 V to 240 V
- Please refer to the specification page for details about standards and regulations.

### DICOM Color Printer



**UP-D77MD**

LT
A4
Color

**DICOM**

- A4/Letter color printer with built-in DICOM 3.0 interface
- Dye sublimation printer for superb quality prints
- High resolution of 300 dpi
- High-speed printing of approx. 85 seconds in A4-size
- Compact, space-saving design: approx. 494 x 176 x 469 mm (19 1/2 x 7 x 18 1/2 inches)
- Front-loading operation for easy operation and maintenance
- Easy color setting from 25 color patch pictures
- Precise color tuning capability
- Fine Gamma curve setting capability
- Highly durable prints with self-laminating print media
- Worldwide AC power supply: AC 100 V to 240 V
- Please refer to the specification page for details about standards and regulations.

## Digital Film Imagers

### Digital Film Imager



**UP-DF750**

**FILM STATION**

10"x12", 8"x10"	14" x 17", 11" x 14", 10" X 12", 8" x 10"	<b>DICOM</b>
High Density Blue Film	Blue Film	

- Digital film imager with a high resolution of 604 dpi, suitable for mammography imaging
- Supports dedicated Sony's High Density Blue Thermal Film and Blue Thermal Film (four sizes)
- High density blue thermal film for mammography (UPT-M710BL and

- UPT-M712BL) has a high maximum density of 3.8+.
- Two film supply trays to support four different film sizes (14 x 17, 11 x 14, 10 X 12, 8 x 10 inches)
- Vertical installation capability to save space
- Compact, space-saving design: 600 x 316 x 686 mm (23 5/8 x 12 1/2 x 27 1/8 inches)
- Auto calibration function
- Large 3.8-inch graphic LCD which provides menu direction change
- Four languages supported to display on the LCD.
- IP address, Net mask, Default Gateway and AE title can be set from front panel
- Large effective print area and edge-to-edge printing capability
- One default fixed gamma curve and 19 changeable gamma curves setting capability, for both regular blue thermal film and high-density blue thermal film
- DICOM-compliant network capability
- Quick warm-up time of only two minutes
- Worldwide AC power supply: 100 V to 240 V
- Incorporates environmentally friendly Sony thermal dry-processing technology
- Top and rear covers for easy maintenance to fix film jams
- Please refer to the specification page for details about standards and regulations.

### Digital Film Imager



**UP-DF550**

**FILM STATION**

14" x 17", 11" x 14", 10" X 12", 8" x 10"	<b>DICOM</b>
Blue Film	

- Digital film imager with a high resolution of 320 dpi
- Supports dedicated Sony Blue Thermal Film (four sizes)

- Two film supply trays to support four different film sizes (14 x 17, 11 x 14, 10 X 12, 8 x 10 inches)
- Vertical installation capability to save space
- Compact, space-saving design: 600 x 316 x 686 mm (23 5/8 x 12 1/2 x 27 1/8 inches)
- Auto calibration function
- IP address, Net mask, Default Gateway and AE title can be set from front panel
- Large effective print area and edge-to-edge printing capability
- Top and rear covers for easy maintenance to fix film jams
- One default fixed gamma curve and 19 changeable gamma curves setting capability
- DICOM-compliant network capability
- Quick warm-up time of only two minutes
- Worldwide AC power supply: 100 V to 240 V
- Incorporates environmentally friendly Sony thermal dry-processing technology
- Please refer to the specification page for details about standards and regulations.

## Digital Film Imagers

### Digital Film Imager



**UP-DF500**

**FILM STATION**

14" x 17"  
Blue Film

DICOM

- Digital film imager with a high resolution of 320 dpi
- Supports dedicated Sony Blue Thermal Film (14 x 17 inch)
- Vertical installation capability to save space
- Compact, space-saving design: 600 x 250 x 686 mm (23 5/8 x 9 7/8 x 27 1/8 inches)
- Auto calibration function
- One default fixed gamma curve and 19 changeable gamma curves setting capability
- IP address, Net mask, Default Gateway and AE title can be set from front panel
- DICOM-compliant network capability
- Quick warm-up time of only a few minutes
- Edge-to-edge printing capability
- Worldwide AC power supply: 100 V to 240 V
- Incorporates environmentally friendly Sony thermal dry-processing technology
- Please refer to the specification page for details about standards and regulations.

### Digital Film Imager



**UP-D74XRD**

8" x 10"  
B/W

8" x 10"  
Blue Film

DICOM

HI-SPEED  
USB

- Digital film imager with a high resolution of 300 dpi
- Newly designed mechanical paper/film path and blue thermal film provide higher picture quality

- Supports both of the UPT-736BL Blue Thermal Transparent Film and the UPP-725 Thermal Printing Paper
- DICOM-compliant network capability and Hi-Speed USB (USB 2.0) as standard
- Available network parameter settings and switching of paper and film easily via the front panel
- By incorporating micro-step motor, operation noise is reduced
- High-speed printing of approx. 40 seconds in 8 x 10 inch size
- Precise gamma-curve setting capability
- Compact, space-saving design: 412 x 210 x 431mm (16 1/4 x 8 3/8 x 17 inches)
- Front-loading operation allows easy operation and maintenance
- Secure paper-tray lock system
- Equipped with a small window on the paper tray to check media availability
- Detachable dust filter
- Worldwide AC power supply: 100 V to 240 V
- Incorporates environmentally friendly Sony thermal dry-processing technology
- Please refer to the specification page for details about standards and regulations.

### Digital Film Imager



**UP-D72XR**

8" x 10"  
B/W

8" x 10"  
Blue Film




IEEE 1284

- Digital film imager with a high resolution of 300 dpi
- Supports both of the UPT-735BL Blue Thermal Transparent Film and the UPP-725 Thermal Printing Paper
- High-speed printing of approx. 40 seconds in 8 x 10 inch size
- Precise gamma-curve setting capability
- Compact, space-saving design: 412 x 210 x 431mm (16 1/4 x 8 3/8 x 17 inches)
- Front-loading operation allows easy operation and maintenance
- Secure paper-tray lock system
- Equipped with a small window on the paper tray to check media availability
- Detachable dust filter
- USB connector and PARALLEL interface\* (IEEE1284)
- Incorporates environmentally friendly Sony thermal dry-processing technology
- Please refer to the specification page for details about standards and regulations.


\* Supported in ECP (Extended Capabilities Port), Compatible-Nibble and Compatible modes.

# Specifications


## For Image Capture


	1/2-type 3-CCD Color Video Camera DXC-990/990P	1/3-type 3-CCD Color Video Camera DXC-390/390P	1/3-type 3-CCD Color Video Camera DXC-C33/C33P
			
Image device	Three 1/2-type IT (Interline Transfer) Exwawe HAD		Three 1/3-type IT (Interline Transfer) Exwawe HAD
Effective picture elements	768 (H) x 494 (V) (DXC-990/390/C33) , 752 (H) x 582 (V) (DXC-990P/390P/C33P)		
Sensing area	6.4 (H) x 4.8 (V) mm	4.8 (H) x 3.6 (V) mm	
Scanning system	2:1 interlaced, 525 lines (DXC-990/390/C33), 2:1 interlaced, 625 lines (DXC-990P/390P/C33P)		
Horizontal frequency	15.734 kHz (DXC-990/390/C33), 15.625 kHz (DXC-990P/390P/C33P)		
Vertical frequency	59.94 Hz (DXC-990/390/C33), 50Hz (DXC-990P/390P/C33P)		
Sync system	Internal or external with VBS, HD/VD		
Phase control	H/SC phase control		
Horizontal resolution	850 TV lines	800 TV lines	850 TV lines
Lens mount	Bayonet mount		C mount
Flange back	38.00mm		17.526 mm
Sensitivity	F11 at 2000 lx		F8.0 at 2000 lx
Minimum illumination	1 lx (F1.4, GAIN: HYPER)		4 lx (F2, GAIN: HYPER)
S/N ratio	63 dB (DXC-990), 62dB (DXC-990P)		62 dB (DXC-390/C33), 61dB (DXC-390P/C33P)
Gain	STEP/AGC/HYPER selectable STEP:0 to 24 dB by 1 dB step AGC:0 to 24 dB (Limit value: 6 dB, 12 dB, 18 dB, 24 dB selectable) HYPER: 30 dB		
Shutter speed	0.5 to 1/100,000 s	8.0 to 1/100,000 s	
Electronic shutter	OFF/STEP/VARIABLE/CCD IRIS selectable		OFF/STEP/VARIABLE/CCD IRIS/KNOB selectable
Iris	Auto/Manual		Manual
AE area	Multi/Large/Medium/Spot/Slit/Manual selectable		
AE speed	Fast/Mid/Slow selectable		
AE defect	Average/Peak selectable		
Contrast effect	Manual/DynaLatitude/DCC+ selectable		
Knee point	High/Mid/Low/Off selectable (Contrast Effect: Manual)		
Black stretch	Variable (Contrast Effect: Manual)		
Gamma	On/Off (Variable at ON)		
Pedestal	Master and R/B Manual adjustable		
Black balance	ABB		
White balance	AWB/ATW normal/ATW wide/Manual/3200 K/5600 K selectable AWB or ATW R/B paint, manual R/G gain		
ATW area	Normal/Manual selectable		
ATW speed	Fast/Mid/Slow selectable		
Detail level	All/Target/Off (Variable at All or Target)		
Detail frequency	High/Mid/Low selectable		
Linear matrix	All/Target/Off (Variable at All or Target)		
Linear matrix mod	Standard/R Enhance/G Enhance/B Enhance/Manual selectable		
Partial enhance	All/In/Out selectable		
CCD integration mode	Field/Frame selectable		
Shading compensation	Off/On (Manual control)		
Baud rate	19200/9600/4800/2400/1200 selectable		
Sync	RGB/G/Off selectable		
Trigger	On (Positive edge trigger/Negative edge trigger)/Off		
Strobe	Slave		
User file	A/B switchable		
Scene file	Standard/Microscope/Full Auto/Strobe/File A or B		
Output signals	VBS, RGB/SYNC, Y/C, Y/R-Y/B-Y	VBS, RGB/SYNC, Y/C	VBS, RGB/SYNC, Y/C, i.LINK(DV)
Serial data	RS-232C		
Operational temperature	-5 to 45°C (23 to 113°F)		
Storage temperature	-20 to 60°C (-4 to 140°F)		
Power requirements	DC 10.5 to 15.0 V		AC 100 to 240 V, 50/60 Hz
Power consumption	Approx. 7.6 W	Approx. 7.6 W	CHU: 48 g (1.7 oz) CCU: 2.5 kg (5 lb 8 oz)
Dimensions	70 x 72 x 123.5 mm (2 7/8 x 2 7/8 x 4 7/8 inches)	56 x 50 x 128 mm (2 1/4 x 2 x 5 1/8 inches)	CHU: 32 x 38 x 40 mm (1 5/16 x 1 1/2 x 1 5/8 inches) CCU: 2.5 kg (5 lb 8 oz)
Mass	Approx. 630 g (1 lb 6 oz)	Approx. 370 g (13 oz)	CHU: 48 g (1.7 oz) CCU: 2.5 kg (5 lb 8 oz)
Connectors	RGB/SYNC (9-pin D-sub), DC IN/VBS (12-pin), VIDEO OUT (BNC), TRIGGER IN (BNC), REMOTE (8-pin mini DIN), GEN LOCK IN (BNC) LENS (6-pin)	RGB/SYNC (9-pin D-sub), DC IN/VBS (12-pin), VIDEO OUT (BNC), TRIGGER IN (BNC), REMOTE (8-pin mini DIN), LENS (6-pin)	DV OUT (6-pin jack), RGB/SYNC (9-pin D-sub) FS/TRIG IN (Stereo Mini jack), REMOTE (8-pin mini DIN), AC Inlet, Camera (20-pin), EXT SYNC IN (BNC)
Standards/Regulations	DXC-990/390 US/CANADA: Safety: UL60601-1, CSA C22.2 No.601.1 EMC: FCC Part 15 Subpart-B Digital Device Class A ICES-003 Class A Digital Apparatus Japan: EMC: VCCI Class A  DXC-990P/390P Europe: Safety: EN60601-1 EMC: EN 60601-1-2, EN55103-1(E1-E4), EN55103-2 EC Directive: MDD, EMC Australia: EMC: EN55103-1(E1-E4) CB Certification: IEC 60601-1		DXC-C33 US/CANADA: Safety: UL60601-1, CSA C22.2 No.601.1 EMC: FCC Part 15 Subpart-B Digital Device Class A ICES-003 Class A Digital Apparatus  Japan: EMC: VCCI Class A DXC-C33P Europe: Safety: EN60601-1 EMC: EN 60601-1-2, EN55103-1(E1-E4), EN55103-2 EC Directive: MDD, EMC Australia: EMC: AS/NZS CISPR22 Class B CB Certification: IEC 60601-1

# For Image Capture





		PMW-10MD
		
<b>General</b>		
Mass		CHU : Approx. 90 g (3.2 oz)
Dimensions		CCU : Approx. 2.8 kg (6 lb 3 oz)
Power Requirements		CHU : 35 x 45 x 50 mm (1 7/16 x 1 13/16 x 2 inches) without projection CCU : 200 x 88 x 240 mm (7 7/8 x 3 1/2 x 9 1/2 inches) without projection
Power Consumption		AC 100 to 240 V, 50/60 Hz
Operational Temperature		0.6-0.36 A (Max.30 W)
Storage Temperature		0 °C to 40 °C (32 °F to 104 °F)
<b>Camera Head Unit</b>		
Image Device		3-chip 1/2-inch type Exmor CMOS
Effective Picture Elements		1920(H) x 1080(V)
Lens Mount		C-mount
Optical system		F2.2 prism system
Sensitivity		F10 typical (in 1920 x 1080/59.94i mode)
Minimum Illumination		0.14 lx (in 1920 x 1080/59.94i mode, F2.2, +21 dB gain, with 64-frame slow shutter)
S/N Ratio		54 dB (Y) (typical)
Horizontal Resolution		1000TV lines (in 1920 x 1080/59.94i ;through HD-SDI)
White Balance		PRESET/MEMORY/ATW
AE		ON/OFF
AE Area		Multi/Large/Medium/Spot/Slit Selectable
Connector		
Camera output		20-pin (x1)
<b>Camera Control Unit</b>		
Picture Profile		PictureProfile 1-6
Output Signals		HD-SDI, VBS, S-Video(Y/C), Y,Pb,Pr, DVI-D
DVI-D output		1080i/1080P
Color Bars		Multifomat/75%/100%/Off
Downconvert Mode		Squeeze/Letterbox/EdgeCrop
Flash Trigger output		CMOS/Open-Collector
Serial Data		RS-232C
<b>Connectors</b>		
Camera input		36-pin (x1)
MIC input		Stereo mini-jack (x1)
Composite output		BNC (x1)
S-Video output		mini DIN 4-pin (x1)
Component output		D-Sub 15-pin (x 1)
DVI-D output		DVI connector 19-pin (x1)
HD SDI output		BNC (x 2)
EXT SYNC input		BNC (x1)
FS,TRIG IO		Stereo mini-jack (x1)
Remote		D-sub 9-pin (x1)
Freeze function		OFF/ON
Recording Media		SxS Pro Memory Card
Recording Format(Video)		
HQ mode		35Mbps (VBR) MPEG-2 MP@HL - 1920x1080 / 59.94i, 50i
SP mode		25Mbps (CBR) MPEG-2 MP@H-14 - 1440x1080 / 59.94i, 50i
Recording Format(Audio)		LPCM (16bits, 48kHz, 2Ch)
Recording Capacity		
HQ mode		Approx. 100 min. with SBP-32 (32 GB) memory card Approx. 50 min. with SBP-16 (16 GB) memory card Approx. 25 min. with SBP-8 (8 GB) memory card
SP mode		Approx. 140 min. with SBP-32 (32 GB) memory card Approx. 70 min. with SBP-16 (16 GB) memory card Approx. 35 min. with SBP-8 (8 GB) memory card
Standards/Regulations		US/CANADA: Safety: UL 60601-1, UL 60065, CSA C22.2 No.601.1, CSA C22.2 No.60065 EMC: FCC Part 15 Subpart-B Digital Device Class A ICES-003 Class A Digital Apparatus Europe: Safety: EN 60601-1, EN 60065 EMC: EN 60601-1-2, EN55103-1(E1-E4), EN55103-2 EC Directive: MDD, EMC, LVD Australia: EMC: EN55103-1(E1-E4) Japan: EMC: VCCI Class A, JIS C 61000-3-2 CB Certification: IEC 60601-1, IEC 60950-1

# For Image Recording


XDCAM HD Recorder				
PMW-75MD				
				
<b>General</b>				
Power requirements	100 V to 240 V AC, 50/60 Hz			
Power consumption	70 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	7.2 kg (15 lb 6 oz)			
Dimensions (W x H x D)	307 x 100 x 411 mm (12 1/8 x 4 x 16 1/2 inches)			
Recording format	Video	MPEG HD (MPEG-2 MP@HL); HQ mode (VBR, maximum bit rate: 35 Mb/s), SP mode (CBR, 25 Mb/s), LP mode (VBR, maximum bit rate: 18 Mb/s), DVCAM (CBR, 25 Mb/s) (Option: PDBK-104)		
	Proxy Video	MPEG-4		
	Audio	MPEG HD: 4 or 2ch/16 bit/48kHz, DVCAM: 4 ch/16 bit/48 kHz		
	Proxy Audio	A-law (4 ch / 2 ch, 8 bit, 8 kHz)		
Playback format	Video	MPEG HD (MPEG-2 MP@HL); HQ mode (VBR, maximum bit rate: 35 Mb/s), SP mode (CBR, 25 Mb/s), LP mode (VBR, maximum bit rate: 18 Mb/s), DVCAM (CBR, 25 Mb/s)		
	Proxy Video	MPEG-4		
	Audio	MPEG HD: 4 ch or 2 ch, 16 bit/48 kHz DVCAM: 4 ch, 16 bit/48 kHz*		
	Proxy Audio	A-law (4 ch / 2 ch, 8 bit, 8 kHz)		
Recording/Playback time (approx.)	PFD50DLA (50 GB)                      PFD23A (23.3 GB)			
	MPEG HD	HQ (4-ch audio)	145 min.	65 min.
		(2-ch audio)	150 min.	68 min.
	SP	(4-ch audio)	190 min.	85 min.
		(2-ch audio)	200 min.	90 min.
	LP	(4-ch audio)	248 min.	112 min.
		(2-ch audio)	265 min.	122 min.
	DVCAM	(4-ch audio)	185 min.	85 min.
	Search speed	Jog mode	-1 to +2 times normal speed	
Variable Speed mode		-1 to +2 times normal speed		
Shuffle mode		±20 times normal speed		
<b>Signal Inputs</b>				
Analog reference input	BNC x2 (including loop through), HD Tri-level sync or SD composite sync (0.3 Vp-p/75 Ω/sync negative)			
Analog composite input (option: PDBK-104)	BNC x1, RS-170M			
Analog HD component input (option: PDBK-103)	BNC x4, Y/Pb/Pr/(Sync) or G/B/R/(Sync)			
HD-SDI input	BNC x1, SMPTE 292M			
SD-SDI input (option: PDBK-104)	BNC x1, SMPTE 259M			
Analog audio input	XLR x2 (channel selectable), +4/0/-3/-6 dBu (selectable), 10 kΩ, balanced			
Digital audio input	AES/EBU, BNC x2, 4 channels			
Timecode input	BNC x1, SMPTE time code			
<b>Signal Outputs</b>				
Analog composite video output	BNC x1, (1.0 Vp-p/75 Ω/sync negative), RCA-pin x1, (1.0 Vp-p/75 Ω/sync negative)			
Monitor output	D-sub 15-pin (G/B/R or Y/Pb/Pr)			
HD-SDI output	BNC x2, SMPTE 292M			
SD-SDI output	BNC x1, SMPTE 259M			
Analog audio output	XLR x2 (channel selectable), +4/0/-3/-6 dBu (selectable), 600 Ω load, balanced			
Audio monitor output	RCA x2 (L, R, Mix), -6dBu, 47 kΩ, unbalanced			
Headphone output	Stereo phone jack, -14dBu, 8 Ω, unbalanced			
Digital audio output	AES/EBU, BNC x2, 4 channels			
Timecode output	BNC x1, SMPTE time code			
<b>Other Inputs/Outputs</b>				
i.LINK	IEEE1394, 6-pin x1, DV OUT (DV stream output) or File Access Mode			
i.LINK (HDV 1080i) (option: PDBK-102)	IEEE1394, 6-pin x1, HDV 1080i IN/OUT			
Ethernet (option: PDBK-101)	1000Base-T (RJ-45)			
RS-422A	D-sub 9-pin x 1			
RS-232C	D-sub 9-pin x 1			
CONTROL	Mini-jack 4-pin			
<b>Video Performance</b>				
Sampling frequency	Y: 74.25MHz, R-Y/B-Y: 37.125MHz			
Quantization	8 bit/sample			
Analog composite output (DV)	Frequency response: 0 to 4.2 MHz +1.0/-3.0 dB (525), 0 to 4.8 MHz +1.0/-3.0 dB (625), S/N (Y): 53 dB or more, Y/C delay (K2T): ±25 ns or less, K-factor: 2% or less			
<b>Processor Adjustment Range</b>				
Video level	±3 dB			
Chroma level	±3 dB			
Set up/black level	±30 IRE			
Chroma phase	±30°			
System sync phase	±3 μs			
System sync phase (fine)	±200 ns			
<b>Audio Performance</b>				
Sampling frequency	48 kHz			
Quantization	16 bit/2 channels or 16 bit/4 channels			
Frequency response	20 Hz to 20 kHz +0.5/-1.0 dB (0 dB at 1 kHz)			
Dynamic range	90 dB or more			
Distortion	0.05% or less (at 1 kHz)			
Headroom	20/18/16/12 dB (selectable)			
<b>Built-in display</b>				
	3.5-inch type color LCD monitor			
<b>Standards/Regulations</b>				
	US/CANADA: Safety: UL 60601-1, CSA C22.2 No.601.1 EMC: FCC Part 15 Subpart-B Digital Device Class A ICES-003 Class A Digital Apparatus Europe: Safety: EN 60601-1 EMC: EN 60601-1-2 EC Directive: MDD Australia: EMC: EN55103-1(E1-E4) Japan: Safety: PSE EMC: J55013, JIS C 61000-3-2 CB Certification: IEC 60601-1, IEC 60065, IEC 60825-1			

DVD Recorder	
DVO-1000MD	
	
<b>General</b>	
Power Requirements	AC 100 V to 240 V, 50/60 Hz
Power Consumption	35 W
Operating Temperature	+5 to +40°C (41 to 104°F)
Storage Temperature	-20 to +60°C (-13 to 140°F)
Operating Humidity	20 to 80%
Dimensions	212 x 128.5 x 382 mm (8 3/8 x 5 x 15 inches)
Mass	6 kg (13 lb 4 oz)
Recording System	DVD Recording, NTSC/PAL Switchable
Recording Format	Video: MPEG-2 compression Audio: Dolby Digital format
Recordable Media	DVD+RW (2.4x and 4x speed)
Recording Time	HQ Mode: 60 minutes SP Mode: 120 minutes LP Mode: 180 minutes
Safety Standards	IEC60601-1, EN60601-1, UL60601-1, CAN/CSA C22.2 No.601.1
<b>Input/Output</b>	
Analog Composite Input	BNC x2, with loop-through, unbalanced, 1.0 Vp-p, 75 Ω
S-Video Input	4-pin DIN x2, with loop-through Y: 1.0 Vp-p, 75 Ω, unbalanced C: 0.286 Vp-p (NTSC)/0.3 Vp-p (PAL), 75 Ω, unbalanced
Analog Composite Output	BNC x1, 1.0±0.2 Vp-p, 75 Ω, unbalanced
S-Video Output	4-pin DIN x1 Y: 1.0 Vp-p, 75 Ω, unbalanced C: 0.286 Vp-p (NTSC)/0.3 Vp-p (PAL), 75 Ω, unbalanced
Analog Audio Input	RCA Pin x2 (L/R), 2 Vrms (full bit), input impedance 47 kΩ
Analog Audio Output	RCA Pin x2 (L/R), 2 Vrms (full bit), load impedance 47 kΩ
Monitor Audio Output	Monitor RCA Pin x1, 2 Vrms (full bit), load impedance 47 kΩ
i.LINK (DV IN)	i.LINK 6-pin x1, IEEE1394
Remote Control	RS-232C x1, D-sub 9-pin Remote1 x1, stereo mini jack (for connection with the optional SVRM-100A/DSRM-10 controllers) Remote2 x1, stereo mini jack (for connection with the optional FS-24 foot switch) USB 2.0 x1 (Full Speed)
Standards/Regulations	US/CANADA: Safety: UL 60601-1, CSA C22.2 No.601.1 EMC: FCC Part 15 Subpart-B Class B personal computers and peripherals ICES-003 Class B Digital Apparatus Europe: Safety: EN 60601-1 EMC: EN 60601-1-2 EC Directive: MDD Australia: EMC: EN55022 Class B Japan: Safety: PSE EMC: J55013, JIS C 61000-3-2 CB Certification: IEC 60601-1, IEC 60065, IEC 60825-1




# For Image Monitoring

	LCD Monitor LMD-3250MD	LCD Monitor LMD-2450MD	LCD Monitor LMD-2140MD	LCD Monitor LMD-1950MD
				
Picture Performance	A-SiTFT Active Matrix			
LCD Panel Type	A-SiTFT Active Matrix		α-SiTFT Active Matrix LCD with an AR-coated protection panel	
Resolution	1920 x 1080 pixels (Full HD)	1920 x 1080 pixels (WUXGA)	1024 x 768 pixels	1280 x 1024 pixels (SXGA)
Effective Picture Size (H x W) (Diagonal)	Approx. 698 x 393 mm (Approx. 27 1/2 x 15 1/2 inches) (H x V) Approx. 802 mm (Approx. 31 5/8 inches) (Diagonal)	Approx. 518 x 324 mm, Diagonal 613.2 mm (Approx. 20 1/2 x 12 1/8 inches, 24.1 inches)	Approx. 430 x 322 mm, Diagonal 537 mm (Approx. 17 x 12 3/4 inches, 21 1/4 inches)	Approx. 376 x 301 mm, Diagonal 482 mm (Approx. 14 7/8 x 11 7/8 inches, 19.1 inches)
Aspect	16:9	16:10	4:3	5:4
Colors	Approx. 1,073,700,000 colors (10 bits)	Approx. 16,770,000 colors (8-bit)		
Viewing Angle	89°/89°/89°/89° (typical) (up/down/left/right contrast >10:1)	89°/89°/89°/89° (typical) (up/down/left/right contrast >10:1)	85°/85°/85°/85° (typical) (up/down/left/right contrast >10:1)	89°/89°/89°/89° (typical) (up/down/left/right contrast >10:1)
Input / Output				
	<b>INPUT</b> Composite (PAL/NTSC): BNC x 1, 1.0 Vp-p ±3dB sync negative Y/C: 4pin Mini DIN x 1 Y: 1.0 Vp-p ±3dB sync negative, C: 0.286 Vp-p ±3dB (NTSC burst signal level), 0.3 Vp-p ±3dB (PAL burst signal level) RGB, Component: BNC x 3 RGB: 0.7 Vp-p ±3dB (Sync On Green, 0.3 Vp-p sync negative) Component: 0.7 Vp-p ±3dB (75% chrominance standard color bar signal) External Sync: BNC x 1 0.3 to 4.0 Vp-p ± bipolarity ternary or negative polarity binary HD15: D-sub 15 pin x 1, R/G/B: 0.7 Vp-p sync positive (Sync On Green, 0.3 Vp-p sync negative) Sync: Total level (polarity free, H/V separate sync) Plug & Play function: corresponds to DDC2B DVI-D: TMDS single link Parallel remote: Modular connector 8 pin x 1 Serial remote (LAN): D-sub 9-pin (RS232C) x 1, RJ-45 modular connector (ETHERNET) x 1 Input slot: 2 slots (Signal format: H: 15 to 45 kHz, V: 48 to 60 Hz) A BKM-423HS board is supplied. DC 5 V / 24 V (output impedance 0.05 ohms or less) <b>Output</b> Standard Composite: BNC x 1, Loop-through, with 75 Ω automatic termination Y/C: 4pin mini DIN x 1 Loop-through, with 75 Ω automatic termination RGB, Component: BNC x 3, Loop-through, with 75 Ω automatic termination	<b>INPUT</b> Composite: BNC (x 1), 1.0 Vp-p ±3 dB, sync negative Y/C: 4pin Mini DIN (x 1) Y: 1.0 Vp-p ±3dB, sync negative C: 0.286 Vp-p ±3dB (NTSC), 0.3 Vp-p ±3dB (PAL) Component/RGB: BNC (x 3) Component: 0.7 Vp-p ±3dB (75% chrominance standard color bar signal) RGB: 0.7 Vp-p ±3 dB (Sync On Green, 0.3 Vp-p, sync negative) Ext. Sync: BNC (x 1), 0.3 to 4.0 Vp-p ± bipolarity ternary or negative polarity binary Computer: DVI-D: TMDS (Single Link) HD15: D-sub 15pin (x 1) 0.7 Vp-p, sync positive (Sync On Green, 0.3 Vp-p, sync negative) Sync: TTL level (polarity free, H/V separate sync) Plug & Play function: corresponds to DDC-2B Optional: 1 slot Signal format: H 15 to 45 kHz, V 48 to 60 Hz DC IN: DC 5 V/24 V (output impedance 0.05 Ω or less) <b>Output</b> Composite: BNC (x 1), Loop-through, 75 Ω automatic termination Y/C: 4-pin mini-DIN (x 1), Loop-through, 75 Ω automatic termination Component/RGB: BNC (x 3), Loop-through, 75 Ω automatic termination Ext. Sync: BNC (x 1), Loop-through, 75 Ω automatic termination <b>Remote</b> Parallel: Modular 8-pin (x 1) Serial: D-sub 9-pin (RS-232C) (x 1), RJ-45 modular (ETHERNET) (x 1)	<b>INPUT</b> Composite: BNC (x 1), 1.0 Vp-p ±3 dB, sync negative Y/C: 4pin Mini DIN (x 1) Y: 1.0 Vp-p ±3dB, sync negative C: 0.286 Vp-p ±3dB (NTSC) / 0.3 Vp-p ±3dB (PAL) Component/RGB: BNC (x 3) Component: Y: 1.0 Vp-p ±3 dB, Pb, Pr: 0.7 Vp-p ±3 dB RGB: G: 0.7 Vp-p ±3 dB, Sync on G 0.3 Vp-p, B: 0.7 Vp-p ±3 dB, R: 0.7 Vp-p ±3 dB Ext. Sync: BNC (x1), 0.3 to 4 Vp-p ±bipolarity ternary or negative, polarity binary Computer: DVI-D: TMDS (Single Link) Analog RGB: HD D-sub15-pin (female), 0.7 Vp-p, 75 Ω sync positive (R, G, B) <b>Output</b> Composite: BNC (x 1), Loop-through, automatic 75 Ω termination Y/C: 4pin Mini DIN (x 1), Loop-through, automatic 75 Ω termination Component/RGB: BNC (x 3), Loop-through, automatic 75 Ω termination Ext. Sync: BNC (x 1), Loop-through, automatic 75 Ω termination <b>Remote</b> Parallel: Modular 8 pin (Assignable) Serial: RS-232C (serial remote), D-sub 9-pin	<b>INPUT</b> Composite: BNC (x 1), 1.0 Vp-p ±3 dB, sync negative Y/C: 4pin Mini DIN (x 1) Y: 1.0 Vp-p ±3dB, sync negative C: 0.286 Vp-p ±3dB (NTSC) / 0.3 Vp-p ±3dB (PAL) Component/RGB: BNC (x 3) Component: Y: 1.0 Vp-p ±3 dB, Pb, Pr: 0.7 Vp-p ±3 dB RGB: G: 0.7 Vp-p ±3 dB, Sync on G 0.3 Vp-p, B: 0.7 Vp-p ±3 dB, R: 0.7 Vp-p ±3 dB Ext. Sync: BNC (x 1), 0.3 to 4 Vp-p ±bipolarity ternary or negative, polarity binary Computer: DVI-D: TMDS (Single Link) HD15: Analog RGB: HD D-sub15pin (female); 0.7 Vp-p, 75 Ω sync positive (R, G, B) <b>Output</b> Composite: BNC (x 1), Loop-through, automatic 75 Ω termination Y/C: 4pin Mini DIN (x 1), Loop-through, automatic 75 Ω termination Component/RGB: BNC (x 3), Loop-through, automatic 75 Ω termination Ext. Sync: BNC (x 1), Loop-through, automatic 75 Ω termination <b>Remote</b> Parallel: Modular 8 pin (Assignable) Serial: RS-232C (serial remote), D-sub 9-pin
General				
Power Consumption	Maximum: Approx. 136 W (with 2 x BKM-229X)	Maximum: Approx. 115 W (with 2 x BKM-229X)	Maximum: Approx. 100 W (with 2 x BKM-255DV) Standard: Approx. 92 W (without optional input adaptor)	Maximum: Approx. 66 W (with 2 x BKM-229X) Standard: Approx. 59 W (without optional input adaptor)
Power Requirement	DC IN: 24 V 5.0 A, 5 V 0.060 A (Supplied from AC adaptor) AC Adaptor (Sony, AC-3250MD) AC IN: 100 V to 240 V, 50/60Hz 1.53 A to 0.58 A	AC 100 to 240 V, 50/60 Hz, 0.6 A to 1.1 A, DC 24 V 4.6 A	AC 100 to 240 V ±10%, 50/60 Hz	DC 24 V 2.8 A, AC 100 to 240 V ±10%, 50/60 Hz
Operating Temperature	0 to 35 °C (32 °F to 95 °F) Recommended temperature: 20 to 30 °C (68 °F to 86 °F)	0 to 35 °C (32 to 95 °F), Recommended: 20 to 30 °C (68 to 86 °F)	0 to 40°C (32 to 104° F)	
Operating Humidity	30 to 85 % (no condensation)			
Storage / Transport Temperature	-20 to 60 °C (-4 to 140 °F)		-10 to 40°C (14 to 104° F)	
Storage / Transport Humidity	0 to 90 % (no condensation)			
Operating / Storage / Trans. Pressure	700 to 1060 hPa (no condensation)			
Dimensions (W x H x D)	783 x 480 x 125 mm (30 7/8 x 18 7/8 x 5 inch) (including the projection parts)	Approx. 602 x 386 x 110 mm (23 3/4 x 15 1/4 x 4 3/8 inches) (including projections)	Approx. 505 x 444 x 119 mm (20 x 17 3/8 x 4 3/4 inches)	Approx. 442 x 403 x 118 mm (17 1/2 x 15 7/8 x 4 3/4 inches)
Mass	Approx. 13.3 kg (29 lb 5 oz) (without optional boards)	Approx. 11.0 kg (24 lb 4 oz) (without optional board)	Approx. 9.8 Kg (21 lb 10 oz) with 2 x BKM-255DV	Approx. 9.7 Kg (21 lb 6 oz) with 2 x BKM-229X
Standards/Regulations	US/CANADA: Safety: UL 60601-1, CSA C22.2 No.601.1 EMC: FCC Part 15 Subpart-B Digital Device Class A ICES-003 Class A Digital Apparatus Europe: Safety: EN 60601-1 EMC: EN 60601-1-2 EC Directive: MDD Australia: EMC: EN 55022 Class B Japan: EMC: VCCI Class A CB Certification: IEC 60601-1, IEC 60950-1	US/CANADA: Safety: UL 60601-1, CSA C22.2 No.601.1 EMC: FCC Part 15 Subpart-B Digital Device Class A ICES-003 Class A Digital Apparatus Europe: Safety: EN 60601-1 EMC: EN 60601-1-2 EC Directive: MDD Australia: EMC: AS/NZS CISPR 22 Class B Japan: EMC: VCCI Class A CB Certification: IEC 60601-1, IEC 60950-1	US/CANADA: Safety: UL 60601-1, UL 60950-1, CSA C22.2 No.601.1, CSA C22.2 No.60950-1 EMC: FCC Part 15 Subpart-B Digital Device Class A ICES-003 Class A Digital Apparatus Europe: Safety: EN 60601-1, EN 60950-1 EMC: EN 60601-1-2, EN 55103-1, EN55103-2 EC Directive: MDD, EMC, LVD Australia: EMC: EN 55022 Class B Japan: EMC: VCCI Class A, JIS C 61000-3-2 CB Certification: IEC 60601-1, IEC 60950-1	US/CANADA: Safety: UL 60601-1, CSA C22.2 No.601.1 EMC: FCC Part 15 Subpart-B Digital Device Class A ICES-003 Class A Digital Apparatus Europe: Safety: EN 60601-1 EMC: EN 60601-1-2 EC Directive: MDD Australia: EMC: EN 55022 Class B Japan: EMC: VCCI Class A CB Certification: IEC 60601-1, IEC 60950-1




# For Image Monitoring

LCD Monitor	
LMD-1420MD	
	
<b>Picture Performance</b>	
LCD panel type	α-Si TFT Active Matrix LCD with a Multi-layer AR-coated protection panel
Resolution	640 x 480 pixels (VGA)
Picture Size (H x W)	Approx. 283 x 212 mm, Diagonal 354 mm (Approx. 11 1/4 x 8 3/8 inches, 14 inches)
Aspect	4:3
Viewing Angle	85°/85°/85°/85° (typical) (up/down/left/right contrast>10:1)
<b>Inputs/outputs</b>	
	<p><b>INPUT</b></p> <p>Line A            Composite: BNC x 1, 1.0 Vp-p ±3 dB 75 Ω termination, sync 0.3 Vp-p negative            Y/C: DIN 4 pin x 1            Y: 1.0Vp-p ±3 dB, 75 Ω termination            C: 0.286 Vp-p ±3 dB (NTSC), 0.3 Vp-p ±3 dB (PAL), 75 Ω termination, sync 0.3 Vp-p negative            Audio in: RCA pin x 1, -5 dBu 47 kΩ or higher</p> <p>Line B            Composite: BNC x 1, 1.0 Vp-p ±3 dB 75 Ω termination, sync 0.3 Vp-p negative            Audio in: RCA pin x 1, -5 dBu 47 kΩ or higher</p> <p>RGB/Component            BNC x 3, 0.7 Vp-p ±3 dB 75 Ω termination, Sync on Green 0.3Vp-p negative            Audio in: RCA pin x 1, -5 dBu 47 kΩ or higher</p> <p>Option:            D1-SDI: D-sub 9-pin x 1            Audio in: RCA pin x 1 -5 dBu 47 kΩ or higher</p> <p>External Sync: BNC x 1            Remote: Parallel remote: Modular 8-pin (Assignable)</p> <p><b>Output</b></p> <p>Line A            Composite: BNC x 1, Loop-through, with 75 Ω automatic termination            Y/C: DIN 4 pin x 1, Loop-through, with 75 Ω automatic termination            Audio out: RCA pin x 1</p> <p>Line B            Composite: BNC x 1, Loop-through, with 75 Ω automatic termination            Audio out: RCA pin x 1, Loop-through</p> <p>RGB/Component            BNC x 3, Loop-through, with 75 Ω automatic termination            Audio out: RCA pin x 1, Loop-through</p> <p>External Sync            BNC x 1 Loop-through with 75 Ω automatic termination</p>
<b>General</b>	
Power Consumption	Approx. 51 W (with BKM-320D x 1)
Power requirements	AC 100 to 240 V, 50/60 Hz
Operating temperature	0 to 40 °C (32 to 104 °F)
Operating humidity	30 to 85% (no condensation)
Storage & Transport Temperature	-20 to 55 °C (-4 to 130 °F)
Storage & Transport Humidity	0 to 90% (no condensation)
Operating/Storage/Trans. Pressure	700 to 1060 hPa
Dimensions (W x H x D)	Approx. 343 x 354 x 264 mm (13 5/8 x 14 x 10 1/2 inch) Approx. 343 x 304 x 87 mm (13 5/8 x 12 x 3 1/2 inch) without stand
Mass	Approx. 6.8 kg (14 lb 16 oz) Approx. 5.1 kg (11 lb 4 oz) without stand
Standards/Regulations	<p>US/CANADA:            Safety: UL 60601-1, CSA C22.2 No.601.1            EMC: FCC Part 15 Subpart-B Digital Device Class A            ICES-003 Class A Digital Apparatus</p> <p>Europe:            Safety: EN 60601-1            EMC: EN 60601-1-2            EC Directive: MDD</p> <p>Australia: EMC: AS/NZS CISPR 22 Class B            Japan: EMC: VCCI Class A            CB Certification: IEC 60601-1, IEC 60065</p>




## For Image Printing

	Color Video Printer <b>UP-20</b>	Color Video Printer <b>UP-21MD</b>	Color Video Printer <b>UP-55MD</b>
			
Printing Method	Dye sublimation printing		
Resolution	403 dpi (1664 dots)		Approx. 379 dpi
Gradations	8 bit (256 level) processing each for yellow, magenta and cyan		
Effective Print Pixels	NTSC S Size 1,524 x 976 dots, L Size 2,032 x 1,452 dots PAL S Size 1,524 x 1,176 dots, L Size 2,032 x 1,458 dots		2528 x 1920 dot (full screen print)
Paper Size	A6 S Size 100 x 90 mm (4 x 3 5/8 inches) A6 L Size 144 x 100 mm (5 3/4 x 4 inches)		A5 Size: 178 x 152 mm (7 1/8 x 6 inches)
Printing Time (High-speed Mode)	NTSC UPC-21S approx. 16 seconds UPC-21L approx. 25 seconds PAL UPC-21S approx. 17 seconds UPC-21L approx. 25 seconds		Approx. 20 seconds
Memory	4 frame memories		8 frame memories
Control Terminal	Remote 1 (special mini) for optional RM-5500 Remote 2 (stereo mini) for optional RM-91 RS-232C interface port (D-sub 25-pin) for external computer		
Inputs/Outputs	Video, S-Video	Video, S-Video, RGB	Video, S-Video, RGB, SYNC
Paper Tray Capacity	L size tray: Max. 50 sheets S size tray: Max. 80 sheets		Max. 100 sheets
Input Current	100 to 120 V: 1.8 A 220 to 240 V: 1.0 A		100 to 120 V: Max.2.8 A 220 to 240 V: Max.1.2 A
Power Requirements	AC 100 to 120 V, 50/60 Hz, AC 220 to 240 V, 50/60 Hz		
Operating Temperature	5 °C to 35 °C (41 °F to 95 °F)		
Operating Humidity	20% to 80% (no condensation allowed)		
Storage and Transport Temperature	-20 °C to 60 °C (-4 °F to 140 °F)		
Dimensions	212 (W) x 125 (H) x 395 (D) mm (8 3/8 x 5 x 15 5/8 inches)		Approx. 280 x 125 x 398 mm (11 1/8 x 5 x 15 3/4 inches) excluding the projection parts
Mass	Approx. 6.5 kg (14 lb 5 oz)		Approx. 9 kg (19 lb 13 oz)
Standards/Regulations	US/CANADA: Safety: UL 60601-1, UL 60950-1, CSA C22.2 No.601.1, CSA C22.2 No.60950-1 EMC: FCC Part 15 Subpart-B Digital Device Class A ICES-003 Class A Digital Apparatus Europe: Safety: EN 60601-1, EN 60950-1 EMC: EN 60601-1-2, EN 55022 (Class B), EN 55024, EN 61000-3-2, EN 61000-3-3 EC Directive: MDD, EMC, LVD Australia: EMC: EN55022 Class B Japan: EMC: VCCI Class A, JIS C 61000-3-2 CB Certification: IEC 60601-1, IEC 60950-1		



# For Image Printing




	Black and White Video Graphic Printer	Black and White Hybrid Graphic Printer	
	UP-897MD	UP-990AD	UP-970AD
			
Printing Method	Direct thermal printing		
Resolution	325 dpi		
Gradations	8 bit (256 level) processing		
Effective Print Pixels	(when "SC:WD1" is selected from "SCAN") EIA: 1210 x 490 dots CCIR: 1210 x 582 dots	Digital: 3414 x 2560 dots EIA: 1280 x 508 dots CCIR: 1280 x 612 dots	
Picture Size	(when "SC:WD1" or "SC:NOR" is selected from "SCAN") When "S:STD" is selected from "SIDE" EIA: 94 x 73 mm CCIR: 94 x 71 mm When "S:SIDE" is selected from "SIDE" EIA: 124 x 96 mm CCIR: 127 x 96 mm	When "S:STD" is selected from "SIDE" EIA: 187 x 140 mm CCIR: 187 x 138 mm When "S:SIDE" is selected from "SIDE" EIA: 249 x 188 mm CCIR: 249 x 186 mm	
Paper Size	Paper width of 110 mm	Paper width of 210 mm	
Printing Time	When "SP:HI" is selected from "SPEED" Approx. 2 seconds / image (at standard setting) When "SP:NOR" is selected from "SPEED" Approx. 3.3 seconds / image (at standard setting)	Approx. 8 seconds / image (in standard mode)	
Picture Memory	10 frames (800 k x 8 bits per frame)	Digital mode: 3414 x 2560 dots max. Analog mode: 6 frames (800 k x 8 bits per frame)	
Interface	Input connector: VIDEO IN (BNC type) EIA or CCIR composite video signals 1.0 Vp-p, 75 ohms/high-impedance (EIA/CCIR automatically discriminated) Output connector: VIDEO OUT (BNC type) EIA or CCIR composite video signals 1.0 Vp-p, 75 ohm loop-through/EE switchable REMOTE connector: stereo mini jack	Digital: Hi-Speed USB (USB 2.0) Analog: Input connector: VIDEO IN (BNC type) EIA or CCIR composite video signals 1.0 Vp-p, 75 ohms/high-impedance (EIA/CCIR automatically discriminated) Output connector: VIDEO OUT (BNC type) EIA or CCIR composite video signals 0 Vp-p, 75 ohm loop-through/EE switchable REMOTE connector: stereo mini jack	
Printer Driver Software	—	Microsoft Windows 2000/XP/Vista	
Input Current	1.5 A to 0.8 A	2.4 A to 1.3 A	
Power Requirements	AC 100 to 240 V, 50/60 Hz		
Operating Temperature	5 °C to 35 °C (41 °F to 95 °F)		
Operating Humidity	20% to 80%		
Storage and Transport Temperature	-20 °C to 60 °C (-4 °F to 140 °F)		
Storage and Transport Humidity	20% to 90%	20% to 80%	
Dimensions (W x H x D)	316 x 132.5 x 305 mm (6 1/6 x 3 1/2 x 9 1/2 inches)	316 x 132.5 x 305 mm (12 1/2 x 5 1/4 x 12 1/8 inches)	
Mass	Approx. 2.6 kg (5 lb 11 oz)	Approx. 8 kg (17 lb 10 oz)	
Standards/Regulations	US/CANADA: Safety: UL 60601-1, UL 60950-1, CSA C22.2 No.601.1, CSA C22.2 No.60950-1 EMC: FCC Part 15 Subpart-B Digital Device Class A ICES-003 Class A Digital Apparatus Europe: Safety: EN 60601-1, EN 60950-1 EMC: EN 60601-1-2, EN 55022 (Class B), EN 55024, EN 61000-3-2, EN 61000-3-3 EC Directive: MDD, EMC, LVD Australia: EMC: EN55022 Class B Japan: EMC: VCCI Class A, JIS C 61000-3-2 CB Certification: IEC 60601-1, IEC 60950-1		

# For Image Printing

	Digital Color Printer <b>UP-D23MD</b>	Digital Color Printer <b>UP-D55</b>	Black and White Digital Graphic Printer <b>UP-D897</b>
			
Printing Method	Dye sublimation printing		Direct thermal printing
Resolution	403 dpi	379 dpi	325 dpi
Gradations	8 bit (256 level) processing each for yellow, magenta, and cyan		8 bit (256 level) processing
Effective Print Pixels	S Size 1,520 x 1,144 dots L Size 2,000 x 1,520 dots	169 x 129 mm (6 3/4 x 5 1/8 inches)	4096 x 1280 dots (max.)
Print Area	S Size: 95.8 x 72.1 mm (3 7/8 x 2 7/8 inches) L Size 126 x 95.76 mm (5 x 3 7/8 inches)	169 x 129 mm (6 3/4 x 5 1/8 inches)	320 x 100 mm (max.) (12 5/8 x 4 inches)
Paper Size	A6 S size: 100 x 90 mm (4 x 3 5/8 inches) A6 L size: 144 x 100 mm (5 3/4 x 4 inches)	A5 Size: 178 x 152 mm (7 1/8 x 6 inches)	Paper width of 110 mm
Printing Time	High-speed Mode UPC-21S: approx. 19 seconds UPC-21L: approx. 29 seconds	High-speed Mode Approx. 20 seconds	High-speed mode Approx. 2 seconds / image (960 x 1280 dots) Normal speed Approx. 3.3 seconds / image (960 x 1280 dots)
Memory	18 MB (two frame memories)		4096 x 1280 x 8 (bit)
Interface	Hi-Speed USB (USB 2.0)		
Printer Driver Software	Microsoft Windows 2000/XP/Vista		
Paper Tray Capacity	L size tray: Max. 50 sheets S size tray: Max. 80 sheets	Max. 100 sheets	-
Input Current	100 to 120 V: 1.8 A 220 to 240 V: 1.0 A	100 to 120 V: 2.8 A 220 to 240 V: 1.2A	1.5 A to 0.8 A
Power Requirements	AC 100 to 120 V, 50/60 Hz, AC 220 to 240 V, 50/60 Hz		AC 100 to 240 V, 50/60 Hz
Operating temperature	5 °C to 35 °C (41 °F to 95 °F)		
Operating humidity	20% to 80% (no condensation allowed)		
Storage and transport temperature	-20 % to 60 % (-4 °F to 140 °F)		
Storage and transport humidity	20 % to 90 % (no condensation allowed)		
Dimensions (W x H x D)	Approx. 212 x 125 x 395 mm (8 3/8 x 5 x 15 5/8 inches)	Approx. 280 x 125 x 398 mm (11 1/8 x 5 x 15 3/4 inches)	154 x 88 x 240 mm (6 1/6 x 3 1/2 x 9 1/2 inches)
Mass	Approx. 6.5 kg (14 lb 5 oz)	Approx. 9 kg (19 lb 13 oz)	Approx. 2.6 kg (5 lb 11 oz)
Standards/Regulations	US/CANADA: Safety: UL 60601-1, UL 60950-1, CSA C22.2 No.601.1, CSA C22.2 No.60950-1 EMC: FCC Part 15 Subpart-B Digital Device Class A ICES-003 Class A Digital Apparatus Europe: Safety: EN 60601-1, EN 60950-1 EMC: EN 60601-1-2, EN 55022 (Class B), EN 55024, EN 61000-3-2, EN 61000-3-3 EC Directive: MDD, EMC, LVD Australia: EMC: EN55022 Class B Japan: EMC: VCCI Class A, JIS C 61000-3-2 CB Certification: IEC 60601-1, IEC 60950-1	US/CANADA: Safety: UL 60601-1, UL 60950-1, CSA C22.2 No.601.1, CSA C22.2 No.60950-1 EMC: FCC Part 15 Subpart-B Digital Device Class A ICES-003 Class A Digital Apparatus Europe: Safety: EN 60601-1, EN 60950-1 EMC: EN 60601-1-2, EN 55022 (Class B), EN 55024, EN 61000-3-2, EN 61000-3-3 EC Directive: MDD, EMC, LVD Australia: EMC: EN55022 Class B Japan: EMC: VCCI Class A, JIS C 61000-3-2 CB Certification: IEC 60601-1, IEC 60950-1	US/CANADA: Safety: UL 60601-1, UL 60950-1, CSA C22.2 No.601.1, CSA C22.2 No.60950-1 EMC: FCC Part 15 Subpart-B Digital Device Class A ICES-003 Class A Digital Apparatus Europe: Safety: EN 60601-1, EN 60950-1 EMC: EN 60601-1-2, EN 55022 (Class B), EN 55024, EN 61000-3-2, EN 61000-3-3 EC Directive: MDD, EMC, LVD Australia: EMC: EN55022 Class B Japan: EMC: VCCI Class A, JIS C 61000-3-2 CB Certification: IEC 60601-1, IEC 60950-1



# For Image Printing

	DICOM Color Printer		Digital Color Printer
	UP-D77MD		UP-DR80MD
			
Printing Method	Dye sublimation thermal printing		
Resolution	300 dpi	301 dpi	
Gradations	8 bit (256 level) processing each for yellow, magenta, and cyan		
Effective Print Pixels	A4 size: 3208 x 2400 dots Letter size: 3000 x 2400 dots	A4 size: 3400 x 2392 dots Letter size: 3192 x 2464 dots	
Print Area	A4 size: 271.6 x 203.2 mm (10 3/4 x 8 inches) Letter size: 254.0 x 203.2 mm (10 x 8 inches)	A4 size: 287 x 202 mm (11 1/4 x 8 inches) Letter size: 269 x 208 mm (10 5/8 x 8 1/4 inches)	
Printing Time	A4 size: Approx. 85 seconds	A4 size: Approx. 76 seconds Letter size: Approx. 72 seconds	
Interface	DICOM 3.0 (100Base-TX/10Base-T)		Hi-Speed USB (USB 2.0)
Paper Tray Capacity	72 sheets		50 sheets
Input Current	3.5 to 1.5 A		3.4 to 1.4 A
Power Requirements	AC 100 to 240 V, 50/60 Hz		
Operating Temperature	10 °C to 30 °C (50 °F to 86 °F)		5 °C to 35 °C (41 °F to 95 °F)
Operating Humidity	20% to 80% (no condensation allowed)		
Storage and Transport Temperature	-20 °C to 60 °C (-4 °F to 140 °F)		
Storage and Transport Humidity	20% to 90% (no condensation allowed)		
Dimensions (W x H x D)	Approx. 493.8 x 176 x 468.8 mm (19 1/2 x 7 x 18 1/2 inches)		Approx. 317 x 207 x 425 mm (12 1/2 x 8 1/8 x 16 3/4 inches)
Mass	Approx. 21 kg (46 lb 5 oz)		Approx. 11.5 kg (25.3 lbs)
Standards/Regulations	US/CANADA: Safety: UL 60601-1, UL 60950-1, CSA C22.2 No.601.1, CSA C22.2 No.60950-1 EMC: FCC Part 15 Subpart-B Digital Device Class A ICES-003 Class A Digital Apparatus Europe: Safety: EN 60601-1, EN 60950-1 EMC: EN 60601-1-2, EN 55022 (Class B), EN 55024, EN 61000-3-2, EN 61000-3-3 EC Directive: MDD, EMC, LVD Australia: EMC: EN55022 Class B Japan: EMC: VCCI Class A, JIS C 61000-3-2 CB Certification: IEC 60601-1, IEC 60950-1		

	Digital Film Imager		
	UP-DF750	UP-DF550	UP-DF500
			
Printing Method	Direct Thermal Printing		
Resolution	604 dpi (23.78 dot/mm)	320 dpi (12.59 dot/mm)	
Gradations	16,384 level processing	4,096 level processing	
Picture Elements*	8,256 dots x 9,888 dots	5,232 x 4,360 dots	5,060 x 4,224 dots
Throughput*	Approx. 75 prints per hour (excluding time for cooling the head)	Approx. 70 sheets per hour (excluding time for cooling the head)	
Film Supply Tray	Two trays		One tray
Film Supply Tray Capacity	125 sheets (max.)		
Maximum density	3.8 and higher with UPT-M712BL/M710BL 3.2 and higher with UPT-517BL/514BL/512BL/510BL	3.2 and higher with UPT-517BL/514BL/512BL/510BL	
Media Size	354 x 430 mm (14 x 17 inches) 279 x 354 mm (11 x 14 inches) 253 x 304 mm (10 x 12 inches) 202 x 253 mm (8 x 10 inches)	354 x 430 mm (14 x 17 inches)	
Maximum Print Size	346.7 x 415.3 mm (13 3/4 x 16 3/8 inches) (When using the UPT-517BL)	335.4 x 401.8 mm (15 7/8 x 13 1/4 inches) (When using the UPT-517BL)	
Interface	DICOM 3.0 (Rj-45 Modular jack x 1), AC IN (for power)		DICOM 3.0 (Rj-45 Modular jack x 1), Special output connector x 1, AC IN (for power)
Power Requirements	AC 100 to 120 V/ AC 200 to 240 V, 50/60 Hz	AC 100 to 240 V, 50/60 Hz	
Input current	4.4/2.4 A	4.4 to 1.8 A	
Operating Temperature	10 °C to 30 °C (50 °F to 86 °F)		
Operating Humidity	20% to 80% (no condensation allowed)		
Storage and Transport Temperature	-20 °C to 60 °C (-4 °F to 140 °F)		
Storage and Transport Humidity	20% to 80% (no condensation allowed)		
Dimensions (W x H x D)	600 x 316 x 686 mm (23 5/8 x 12 1/2 x 27 1/8 inches)		600 x 250 x 686 mm (23 5/8 x 9 7/8 x 27 1/8 inches)
Mass	Approx. 65 kg (143 lb 5 oz)	Approx. 63 kg (138 lb 14 oz)	Approx. 55kg (121 lb 4 oz)
Standards/Regulations	US/CANADA: Safety: UL 60601-1, UL 60950-1, CSA C22.2 No.601.1, CSA C22.2 No.60950-1 EMC: FCC Part 15 Subpart-B Digital Device Class A ICES-003 Class A Digital Apparatus Europe: Safety: EN 60601-1, EN 60950-1 EMC: EN 60601-1-2, EN 55022 (Class B), EN 55024, EN 61000-3-2, EN 61000-3-3 EC Directive: MDD, EMC, LVD Australia: EMC: EN55022 Class B Japan: EMC: VCCI Class A, JIS C 61000-3-2 CB Certification: IEC 60601-1, IEC 60950-1		

\* When printing on 14 x 17 inch film.

## For Image Printing

	Digital Film Imager	
	UP-D74XRD	UP-D72XR
		
Printing Method	Direct Thermal Printing	
Resolution	300 dpi	
Gradations	512 gray level processing	
Effective Print Pixels	2743 x 2320 dots	
Print Area	232.2 x 196.4 mm (9 1/4 x 7 3/4 inches)	
Printing Time	Approx. 40 seconds	
Memory	16 MB	
Interface	DICOM port x 1 (RJ-45 modular jack) USB connector x 1	Parallel IEEE 1284 ECP Mode x 1, USB connector x 1
Paper Tray Capacity	Paper: 100 sheets / Film: 100 sheets	
Printer Driver Software	Microsoft Windows 2000/XP/Vista	—
Input Current	3.5 to 1.5 A	100 to 120 V: 2.9 A 220 to 240 V: 1.3 A
Power Requirements	AC 100 to 240 V, 50/60 Hz	AC 100 to 120 V, 50/60 Hz, AC 220 to 240 V, 50/60 Hz
Operating Temperature	10 °C to 30 °C (50 °F to 86 °F)	
Operating Humidity	20% to 80% (no condensation allowed)	
Storage and Transport Temperature	-20 °C to 60 °C (-4 °F to 140 °F)	
Storage and Transport Humidity	20% to 90% (no condensation allowed)	
Dimensions (W x H x D)	412 x 210 x 431 mm (16 1/4 x 8 3/8 x 17 inches)	
Mass	Approx. 16kg (35 lb 3 oz)	Approx. 15.5 kg (34 lb 3 oz)
Standards/Regulations	US/CANADA: Safety: UL 60601-1, UL 60950-1, CSA C22.2 No.601.1, CSA C22.2 No.60950-1 EMC: FCC Part 15 Subpart-B Digital Device Class A ICES-003 Class A Digital Apparatus Europe: Safety: EN 60601-1, EN 60950-1 EMC: EN 60601-1-2, EN 55022 (Class B), EN 55024, EN 61000-3-2, EN 61000-3-3 EC Directive: MDD, EMC, LVD Australia: EMC: EN55022 Class B Japan: EMC: VCCI Class A, JIS C 61000-3-2 CB Certification: IEC 60601-1, IEC 60950-1	

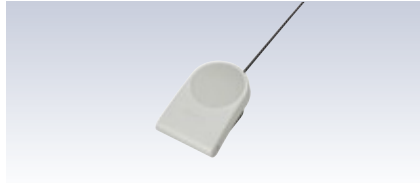
# Optional Accessories

## For Image Capture



**CMA-D2MDCE**  
Camera Adaptor

DXC-990P DXC-390P



**FS-24**

Foot Switch  
Connector: Monaural mini  
Cable Length: 5 m  
Mass: Approx. 190 g (6.7 oz)

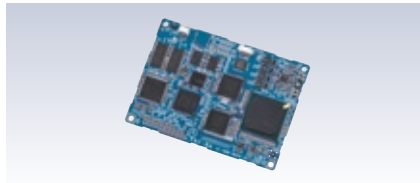
PMW-10MD

## For Image Recording



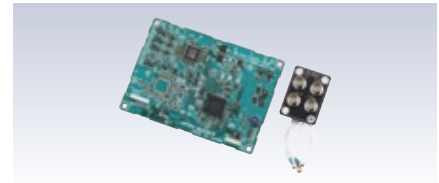
**PDBK-101**  
Network Board

PDW-75MD



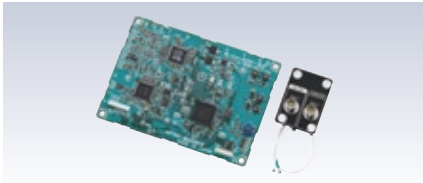
**PDBK-102**  
MPEG-TS In/Out Board\*

PDW-75MD



**PDBK-103**  
HD Analog Input Board\*

PDW-75MD



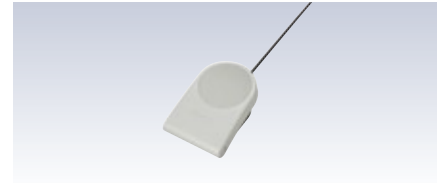
**PDBK-104**  
SD Input Up-converter Board\*

PDW-75MD



**SVRM-100A**  
Remote Control Unit

DVO-1000MD



**FS-24**

Foot Switch  
Connector: Monaural mini  
Cable Length: 5 m  
Mass: Approx. 190 g (6.7 oz)

PDW-75MD DVO-1000MD

\* Only one of the PDBK-102, 103 or 104 boards can be installed at any one time.

## For Image Monitoring



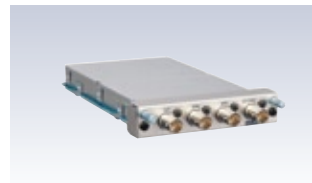
**BKM-220D**  
SDI 4:2:2 Input Adaptor

LMD-2450MD LMD-2140MD  
LMD-1950MD



**BKM-227W**  
Analog component input adaptor

LMD-2450MD LMD-2140MD  
LMD-1950MD



**BKM-229X**  
Analog Component Input Adaptor

LMD-2450MD LMD-2140MD  
LMD-1950MD



**BKM-243HS**  
HD SDI&SDI Input Adaptor

LMD-2450MD LMD-2140MD

# For Image Printing



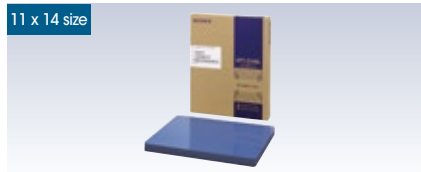
14 x 17 Size

## UPT-517BL

Blue Thermal Film

Contents: 125 sheets of print film  
Paper size: 354 x 430 mm (14 x 17 inches)

UP-DF500 UP-DF550 UP-DF750



11 x 14 size

## UPT-514BL

Blue Thermal Film

Contents: 125 sheets of print film  
Paper size: 279 x 354 mm (11 x 14 inches)

UP-DF550 UP-DF750



10 x 12 size

## UPT-512BL

Blue Thermal Film

Contents: 125 sheets of print film  
Paper size: 253 x 304 mm (10 x 12 inches)

UP-DF550 UP-DF750



8 x 10 Size

## UPT-510BL

Blue Thermal Film

Contents: 125 sheets of print film  
Paper size: 202 x 253 mm (8 x 10 inches)

UP-DF550 UP-DF750



10 x 12 Size

## UPT-M712BL

High Density Blue Thermal Film

Contents: 125 sheets of print film  
Film size: 253 x 304 mm (10 x 12 inches)

UP-DF750



8 x 10 Size

## UPT-M710BL

High Density Blue Thermal Film

Contents: 125 sheets of print film  
Film size: 202 x 253 mm (8 x 10 inches)

UP-DF750



8 x 10 Size

## UPT-736BL

Blue Thermal Film

Contents: 100 sheets of print film  
Paper size: 202 x 253 mm (8 x 10 inches)

UP-D74XRD



8 x 10 Size

## UPT-735BL

Blue Thermal Transparent Film

Contents: 100 sheets of print film  
Paper size: 202 x 253 mm (8 x 10 inches)

UP-D72XR



8 x 10 Size

## UPP-725

Thermal Print Media

Contents: 100 sheets of print media  
Paper size: 203 x 254 mm (8 x 10 inches)

UP-D74XRD UP-D72XR



A4 Size

## UPC-770

Self-Laminating Color Printing Pack

Contents: 72 sheets of print paper  
a roll of ink ribbon  
Paper size: 210 x 298 mm (8 3/8 x 11 3/4 inches)

UP-D77MD



Letter Size

## UPC-771

Self-Laminating Color Printing Pack

Contents: 72 sheets of print paper  
a roll of ink ribbon  
Paper size: 216 x 280 mm (8 5/8 x 11 1/8 inches)

UP-D77MD



A4 Size

## UPC-R80MD

Self-Laminating Color Printing Pack

Contents: Paper roll for 50 prints x 2  
Ink ribbon x 2  
Paper length: 210 mm x 16 m (8 3/8 x 630 inches)

UP-DR80MD



Letter Size

## UPC-R81MD

Self-Laminating Color Printing Pack

Contents: Paper roll for 50 prints x 2  
Ink ribbon x 2  
Paper length: 216 mm x 15 m (8.5 x 590 inches)

UP-DR80MD



A5 Size

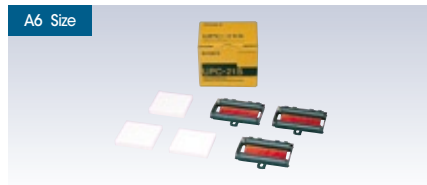
## UPC-55

Color Printing Pack

Contents: 200 sheets of print paper  
2 rolls of ink ribbon  
Paper Size: 178 x 152 mm (7 1/8 x 6 inches)

UP-D55 UP-55MD

# For Image Printing



## UPC-21S

### Color Printing Pack

Contents: 240 sheets of print paper  
3 rolls of ink ribbon  
Paper size: 100 x 90 mm (4 x 3 5/8 inches)

UP-20 UP-21MD UP-D23MD



## UPC-21L

### Color Printing Pack

Contents: 200 sheets of print paper  
4 rolls of ink ribbon  
Paper size: 144 x 100 mm (5 3/4 x 4 inches)

UP-20 UP-21MD UP-D23MD



## UPT-210BL

### Blue Thermal Transparent Film (Type III)

Paper size: 210 mm (W) x 12.5 m  
Print quantity: 42 prints (6-sprits)  
(with UP-990AD/970AD)

UP-990AD



## UPP-210HD

### Thermal Print Media (Type II: High Density)

Paper size: 210 mm (W) x 25 m  
Print quantity: 139 prints (with UP-990AD/970AD)

UP-990AD UP-970AD



## UPP-210SE

### Thermal Print Media (Type I: High Quality)

Paper size: 210 mm (W) x 25 m  
Print quantity: 139 prints (with UP-990AD/970AD)

UP-990AD UP-970AD



## UPP-110HG

### Thermal Print Media (Type V: High Glossy)

Paper size: 110 mm (W) x 18 m  
Print quantity: 193 prints (with UP-897MD/D897)

UP-897MD UP-D897



## UPP-110HD

### Thermal Print Media (Type II: High Density)

Paper size: 110 mm (W) x 20 m  
Print quantity: 215 prints (with UP-897MD/D897)

UP-897MD UP-D897



## UPP-110S

### Thermal Print Media (Type I: High Quality)

Paper size: 110 mm (W) x 20 m  
Print quantity: 215 prints (with UP-897MD/D897)

UP-897MD UP-D897



## RM-91

### Remote Control Unit

Connector: Stereo mini  
Cable length: 5 m  
Mass: 80 g (3 oz)  
Supplied accessory: Operation manual

UP-20 UP-21MD UP-55MD  
UP-897MD UP-990AD UP-970AD



## RM-5500

### Wired/Wireless Remote Commander

Connector: Special mini  
Cable length: 3 m  
Mass: 200 g (7 oz)—including cable  
Supplied accessory: Operation manual

UP-20 UP-21MD UP-55MD

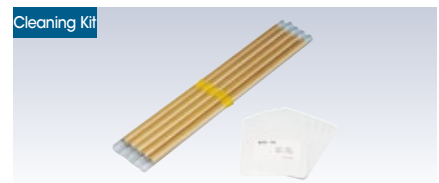


## FS-24

### Foot Switch

Connector: Monaural mini  
Cable Length: 5 m  
Mass: Approx. 190 g (6.7 oz)

UP-20 UP-21MD UP-55MD  
UP-897MD UP-990AD UP-970AD



## UPA-500

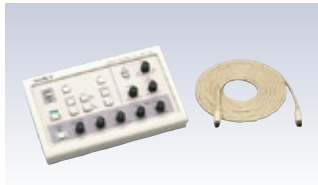
### Cleaning Kit

Contents: cleaning roller x 5  
cleaning paper x 5  
wrapping film x 1

UP-DF500

# General-purpose Optional Accessories (Non medical products)

## For Image Capture



**RM-C950**  
Remote Control Unit

DXC-990/990P DXC-390/390P  
DXC-C33/C33P



**CMA-D2MDCE**  
Camera Adaptor

DXC-990P DXC-390P



**CMA-D3/D3CE**  
Camera Adaptor

DXC-990/990P DXC-390/390P



**CCDC cable**  
12-pin/4-pin DC Cable

DXC-990/990P DXC-390/390P



**CCXC-12 cable**  
12-pin/12-pin Multi Core Cable

DXC-990/990P



**CCMC-9DS cable**  
9-pin/4BNCs, DIN 4-pin

DXC-990/990P DXC-390/390P  
DXC-C33/C33P



**CCZ-A cable**  
26-pin/26-pin Cable

DXC-990/990P DXC-390/390P



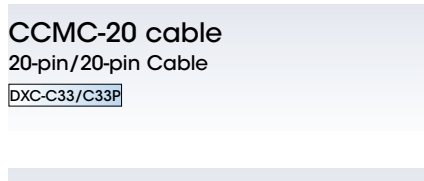
**CCMC-T20/15/10/05**  
Camera Cable

PMW-10MD



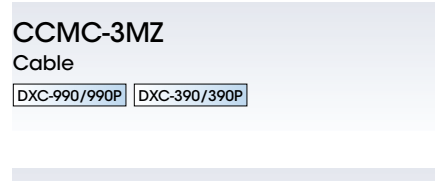
**SBP-32/16/8**  
SxS Pro Memory Cards

PMW-10MD



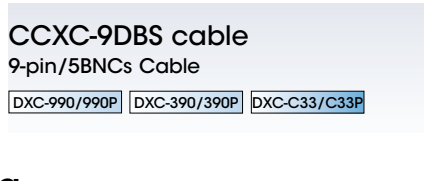
**CCMC-20 cable**  
20-pin/20-pin Cable

DXC-C33/C33P



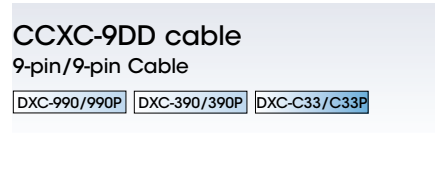
**CCMC-3MZ**  
Cable

DXC-990/990P DXC-390/390P



**CCXC-9DBS cable**  
9-pin/5BNCs Cable

DXC-990/990P DXC-390/390P DXC-C33/C33P



**CCXC-9DD cable**  
9-pin/9-pin Cable

DXC-990/990P DXC-390/390P DXC-C33/C33P

## For Image Recording



**DSRM-10**  
Remote Control Unit

DVO-1000MD



**RCC-5G**  
Remote Control Cable (5m)

PDW-75MD



**PFD50DLA**  
Professional Disc

PDW-75MD



**PFD23A**  
Professional Disc

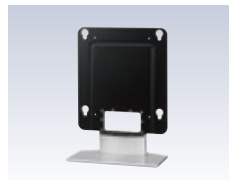
PDW-75MD

## For Image Monitoring



**BKM-320D**  
SD-SDI Input Adaptor

LMD-1420MD



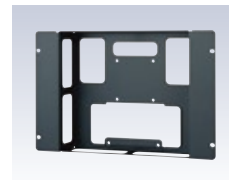
**SU-32FW**  
Display Stand

LMD-3250MD



**SU-560**  
Display Stand

LMD-2450MD LMD-2140MD  
LMD-1950MD



**MB-526**  
Mounting Bracket for  
14-inch Monitor

LMD-1420MD

## For Image Printing

**UPA-21SA**  
Slide Adapter  
Slide adapter for a medical cart  
Applicable models: UP-20/21MD/D23MD

# Print Media at a Glance

Size	Description	Model	Print sheets pack	UP-DF750	UP-DF550	UP-DF500				
14 x 17 size	Blue Thermal Film	UPT-517BL	125	○	○	○				
11 x 14 size	Blue Thermal Film	UPT-514BL	125	○	○					
10 x 12 size	Blue Thermal Film	UPT-512BL	125	○	○					
8 x 10 size	Blue Thermal Film	UPT-510BL	125	○	○					
10 x 12 size	High Density Blue Thermal Film	M712BL	125	○						
8 x 10 size	High Density Blue Thermal Film	M710BL	125	○						
				UP-D74XRD			UP-D72XR			
8 x 10 size (inches)	Blue Thermal Film	UPT-736BL	100	○						
	Blue Thermal Transparent Film	UPT-735BL	100			○				
	Thermal Print Media	UPP-725	100	○		○				
				UP-DR80MD			UP-D77MD/D75MD			
A4 size	Self-Laminating Color Printing Pack	UPC-R80MD	100	○						
	Self-Laminating Color Printing Pack	UPC-770	72			○				
Letter size	Self-Laminating Color Printing Pack	UPC-R81MD	100	○						
	Self-Laminating Color Printing Pack	UPC-771	72			○				
				UP-980/980CE			UP-D70XR			
A4 size	Blue Thermal Transparent Film	UPT-730BL /731BL	100			○				
Letter size	Blue Thermal Transparent Film (Type III)	UPT-210BL	12.5 m	○						
				UP-55MD/D55	UP-51MD	UP-51MDP	UP-D50	UP-5600/5600MDP	UP-D5500	UP-5000series
A5 size	Color Printing Pack	UPC-55		○						
	Color Printing Pack	UPC-510	200		○	○				
	Color Printing Pack	UPC-5510	200				○	○		
	Color Printing Pack	UPC-5010A	100							○
				UP-990AD	UP-970AD	UP-980/980CE	P-960/960CE	UP-930/910		
A4 Width	Blue Thermal Transparent Film (Type III)	UPT-210BL	12.5 m	○						
	Thermal Print Media (Type II: High Density)	UPP-210HD	25 m	○	○	○	○		○	○
	Thermal Print Media (Type I: High Quality)	UPP-210SE	25 m	○	○	○	○		○	○
	Thermal Print Media (Type II: High Density)	UPP-216HD	25 m							○
	Thermal Print Media (Type I: High Quality)	UPP-216SE	25 m							○
				UP-D23MD	UP-20/21MD	UP-1000 series	UP-3000 series	UP-2950MD/2900MD/2850P/2800P/2300P	UP-211/2100P	UP-D2600/D2600S/D2500
A6 size	Color Printing Pack	UPC-21S	240	○	○					
	Color Printing Pack	UPC-21L	200	○	○					
	Color Printing Pack	UPC-1010	100			○				
	Color Printing Pack	UPC-3010	80				○			
	Color Printing Pack	UPC-2010	200					○	○	○
	B&W Printing Pack	UPC-2020	200					○		○
				UP-897MD/D897	UP-895MD/895CE/D895/D895MD	UP-890MD/890CE/D890	UP-860/860CE/D860/D860E			
A6 Width	Thermal Print Media (Type V: High Glossy)	UPP-110HG	18 m	○	○					
	Thermal Print Media (Type II: High Density)	UPP-110HA	18 m				○			
	Thermal Print Media (Type II: High Density)	UPP-110HD	20 m	○	○	○	○		○	○
	Thermal Print Media (Type I: High Quality)	UPP-110S	20 m	○	○	○	○		○	○

All print quantity numbers are measured in default setting. All non-metric weights and measures are approximate.

Production of these products has been discontinued.

# Remote Commander at a Glance

Size	Description	Model	UP-20/21MD/55MD	UP-897MD/990AD/970AD	UP-980/980CE 960/960CE	UP-895MD/895CE 890MD/890CE	UP-51MD/51MDP	UP-7300/7300MDP	UP-2950MD/2900MD/2850P/2800P/2300P/2100/2100P
Remote Commander	Foot Switch	FS-24	○	○	○	○	○	○	○
	Simple Remote Commander	RM-91	○	○	○	○	○	○	○
	Multiple Function Remote Commander	RM-5500	○				○		○

Production of these products has been discontinued.

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