SONY®

Medical
and
Scientific
Imaging System

C O N T E N T S

Sony Technology—Providing High Quality Medical Images

As video technology moves from analogue to digital, it provides the opportunity to enhance the performance, flexibility and reliability of video equipment used in medical environments. This catalogue illustrates the latest models in the wide range of Sony professional imaging products that makes it possible to capture, evaluate, share and store visual information of the highest quality. With our innovative technologies, we continue to develop and support the many ways in which video imaging is applied to the advancement of medicine.

Imaging Systems for Medical Applications

Telehealth

Operating Room

Consulting Room

Networks

Networks

Medical Classroom
Congress
Exhibition
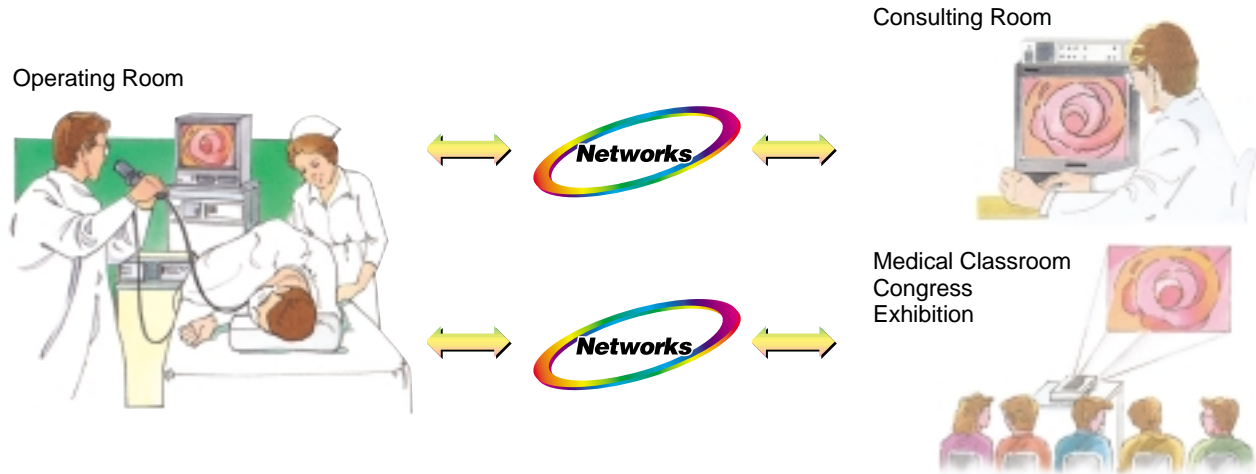
General Teleconferencing

Sony offers teleconferencing products that can be used for basic conferencing plus simple consultations. Education and training are other practical applications.

**Open Surgery
Surgical Endoscopy
Ultrasound Systems**

Videoconferencing System

Monitor

LAN

Videoconferencing System

Monitor

Videoconferencing System

Monitor

Videoconferencing System

Monitor

**Consultant
Specialist
Medical Classroom
Congress / Exhibition**
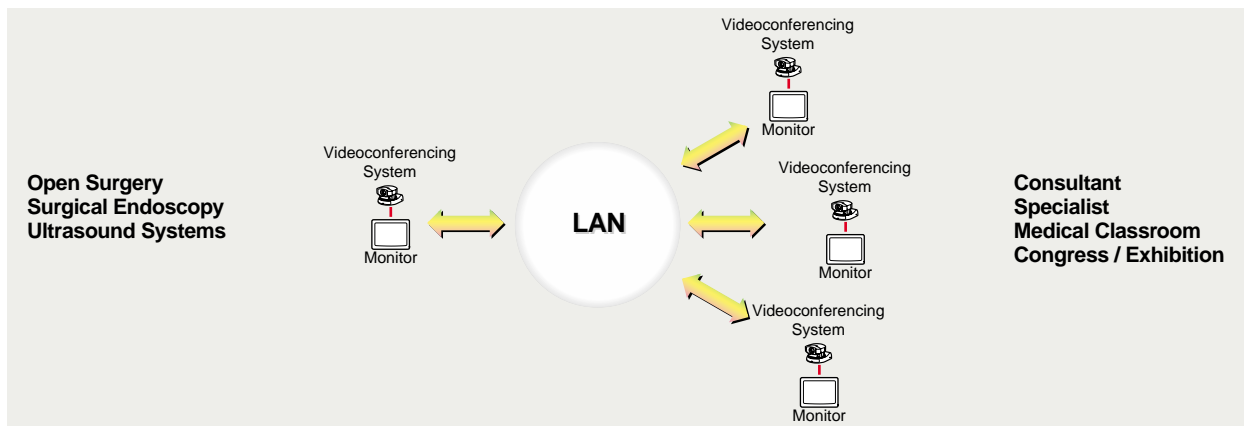
Image Sharing Over Networks

The Sony video network station and digital capture unit allows images obtained from a variety of medical equipment to be shared over a network. By connecting this system to a network, multiple users can view images from remote PCs running a standard Internet browser. With its flexible and scalable functions, the Sony video network station and digital capture unit is ideal in a wide range of medical fields.

Video Camera

Video Network Station

**Open Surgery
Surgical Endoscopy
Surgical Microscopy
Ultrasound Systems
Pathology Diagnosis
Documents & Film Pointing
Consultation**

Endoscope

Digital Capture Unit

Microscope

Networks

Server

Computer

Computer

Computer

Computer

**X-Ray Viewing Room
Consultant
Specialist
Medical Classroom
Congress/Exhibition**
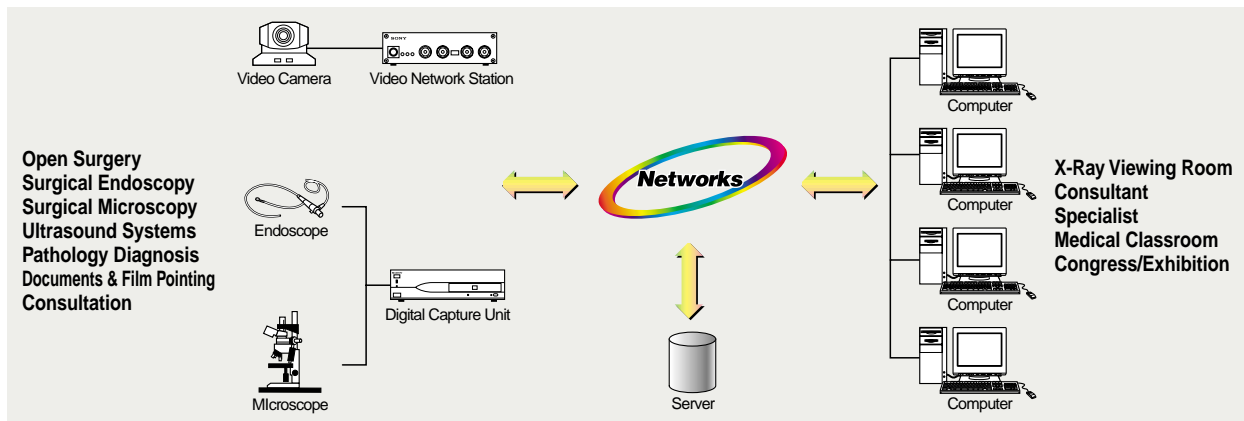
Ultrasound

Sony provides the finest high-resolution monitors, a range of VTRs and a digital capture unit for viewing, recording and sharing clear images obtained from ultrasound equipment, thus enabling accurate diagnosis and analysis. Highly detailed, economically priced, hard copies of on-screen images are provided within seconds by a printer from the sony product line-up.

Example

- LCD Monitor
- Colour Doppler Ultrasound
- Videocassette Recorder
- Colour Monitor
- Colour Video Printer
- Colour Monitor
- Digital Capture Unit

Example

- Monochrome Ultrasound
- Monochrome Video Printer
- Video casette Recorder
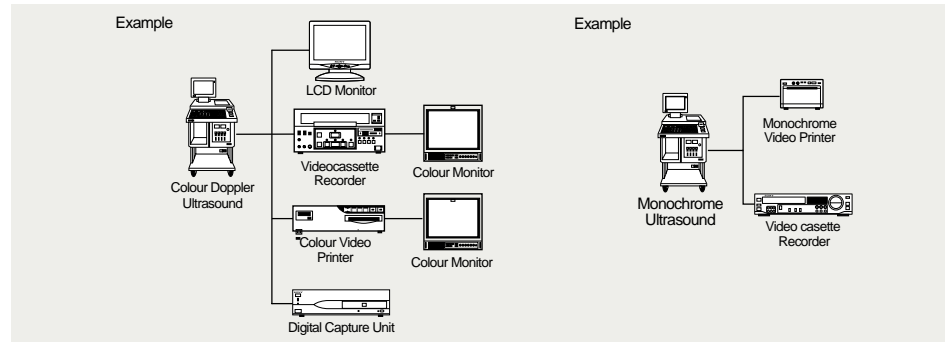
Radiology

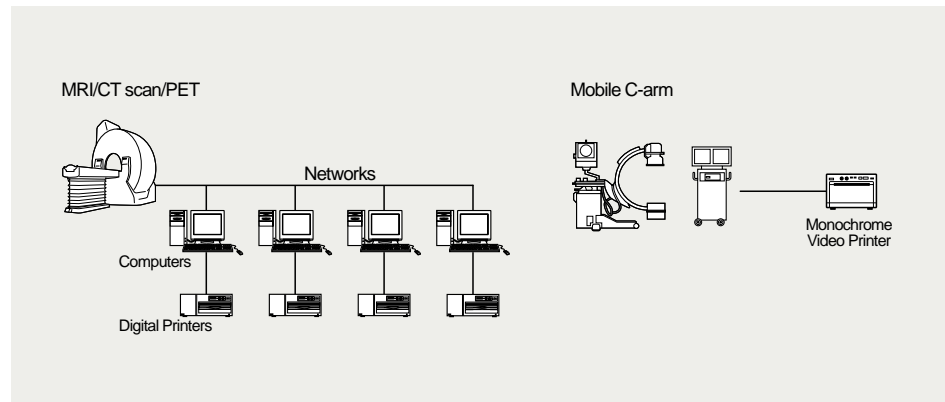A wide range of Sony printers are available to capture the precise images output from X-ray diagnostic systems. The images obtained from MRI, CT scan, PET and Mobile C-arm are reproduced by Sony printers at high speed and with high image quality.

MRI/CT scan/PET

- Networks
- Computers
- Digital Printers

Mobile C-arm

- Monochrome Video Printer

Endoscopy

Sony compact and lightweight CCD video cameras are suitable for endoscopic examinations. High-resolution monitors are used to display incredibly clear and true-to-life images, allowing several physicians to participate in the examination, conferring to make a more accurate diagnosis. High-quality colour still images can be obtained from the printer. A Sony VTR or digital capture unit can also be used to store images for later viewing.

- Colour Monitor
- Colour Video Printer
- Colour Video Camera
- Endoscope Adaptor
- Videocassette Recorder
- Digital Capture Unit
- Endoscope
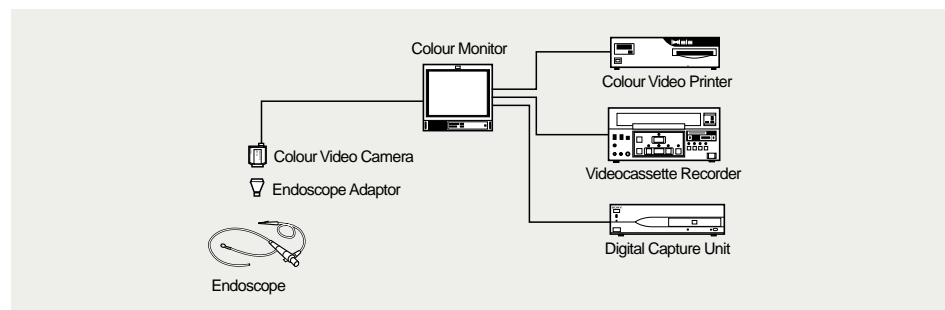
Dental

Sony compact video cameras are suitable for intra-oral applications. VTRs, video monitors and still recorders can be used to store and monitor the captured images. For dental X-ray, multiscan monitors and digital graphic printers are available.

Intra-oral Endoscopy

Colour Monitor

Colour Video Printer

Colour Video Camera

Videocassette Recorder

Dental X-ray

LCD Monitor
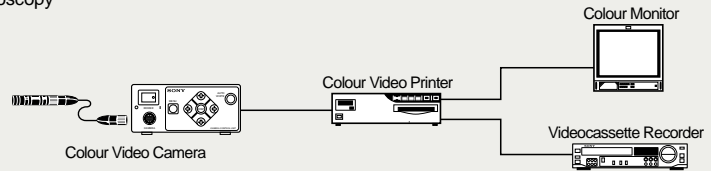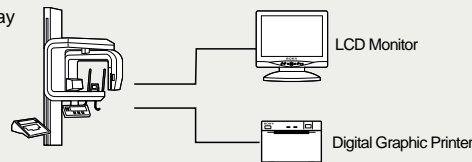
Digital Graphic Printer

Pathology

The combination of Sony high-performance colour video cameras and high-resolution monitors allows the display of tissue in lifelike colours as viewed through a microscope. These images can also be easily printed out using a colour video printer. High-resolution digital images can be obtained by Sony digital camera for a workstation-based digital pathology system.

Colour Video Camera

Microscope Adaptor

Microscope

Camera Control Unit

Colour Video Printer

Colour Monitor

Colour Monitor

Digital Camera

Microscope Adaptor

Microscope

Digital Processor

Networks

Computer

Digital Colour Printer
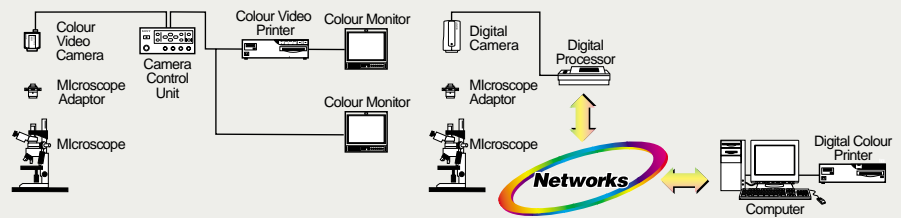
Ophthalmology

The combination of Sony high-performance colour video cameras and high-resolution monitors enables detailed images to be displayed from various optical devices. These images can also be easily printed out using a colour video printer. High-resolution digital images can be obtained by a Sony digital camera for a workstation-based digital ophthalmology system.

Colour Video Camera

Remote Control Unit

Microscope Adaptor

Rerinal Camera

Colour Video Printer

Colour Monitor

Digital Camera

Microscope Adaptor

Rerinal Camera

Digital Processor

Networks

Computer

Digital Colour Printer
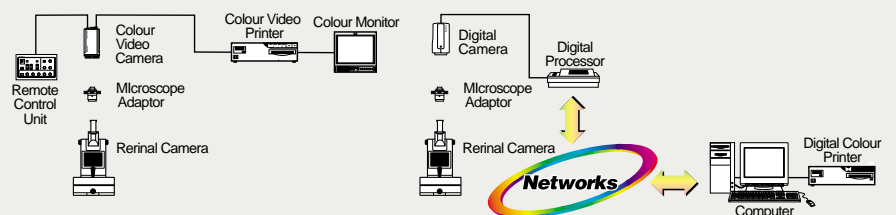
Microsurgery

Sony compact, high-performance CCD video cameras offer excellent surgical support when connected to operation microscopes. Images captured can be displayed on a high-resolution monitor so that the surgical team in the operating theatre can view details of the operation as seen under the operation microscope. At the same time, these high-quality images can be recorded on a Sony high-resolution VTR or a Sony Digital Capture Unit for later viewing. The Sony line of colour video printers 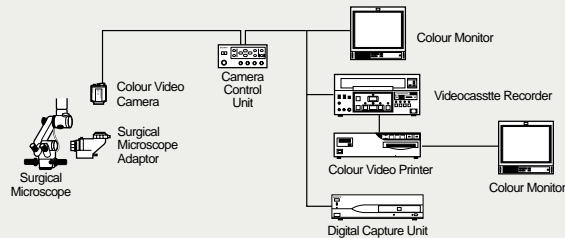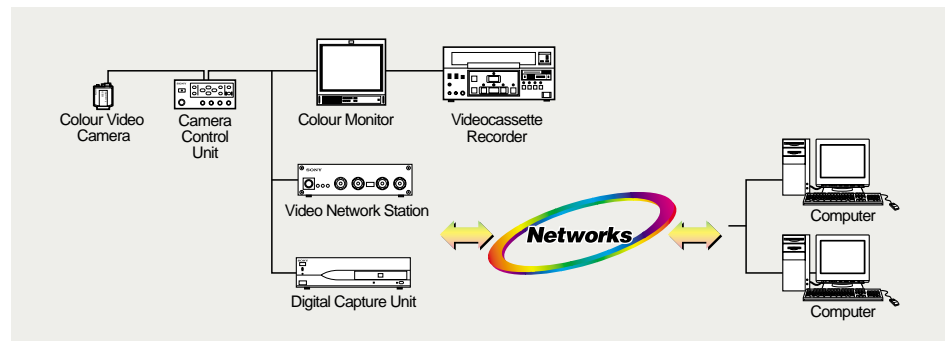can also reproduce quick, high-quality hardcopy prints. The recording of microsurgery procedures is beneficial for medical education and for presentations at medical conferences.

Colour Monitor

Colour Video Camera

Camera Control Unit

Videocasstte Recorder

Surgical Microscope Adaptor

Colour Video Printer

Colour Monitor

Surgical Microscope

Digital Capture Unit

Operating Theatre Monitoring

The combination of Sony video cameras, color monitors and VTRs allows the overall view of surgical procedures in an operating theatre to be recorded. This recorded material is useful for conferences and medical education. By adding a Sony video network station or digital capture unit to the system, the recorded images can be viewed by multiple users and at multiple locations through a network.

Colour Video Camera

Camera Control Unit

Colour Monitor

Videocassette Recorder

Video Network Station

Networks

Computer

Digital Capture Unit

Computer

Patient Monitoring

Sony monitors provide reliable patient monitoring systems at bedsides and in monitoring centres. Each monitor lets physicians keep continuous watch on patients physiological information.

Room 1

Physiological Monitors

Room 6

Monitoring Centre

Physiological Monitors
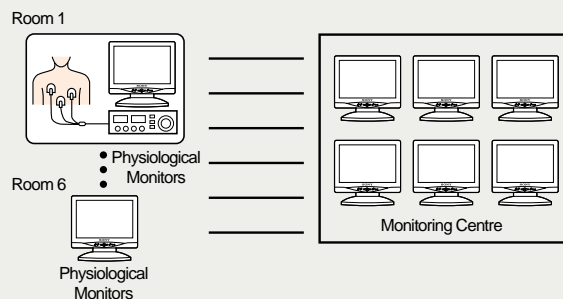
— For Image Capture —
Colour Video Cameras

1/2-type 3-CCD Colour Video Camera
DXC-990P

• 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 side panel or the optional RM-C950 Remote Control Unit
• DynaLatitude™, Partial Enhance and Color Shading compensation functions
• Many advanced Automatic Exposure (AE) functions
• Optional CMA-D2MDCE or CMA-D3CE can be used for AC power supply
• UL 544 listed
• Complies with the MDD

Dimensions:	70 (W) x 72 (H) x 123.5 (D) mm
	(2 $^7/_8$ x 2 $^7/_8$ x 4 $^7/_8$ inches)
Mass:	630 g (1 lb 6 oz)
Power consumption:	8.0 W

1/3-type CCD Colour Video Camera
DXC-C33P

Lens is optional

• Incorporates one of the smallest/lightest camera head units
• High horizontal resolution of 850 TV lines, excellent S/N ratio of 61 dB
• DV output terminal allows image recording into i.LINK interface-equipped VTR with no deterioration
• 10-bit DSP (Digital Signal Processing)
• DynaLatitude, Partial Enhance functions
• Frame memory (Long term exposure, Freeze function)
• Two AE (Automatic Exposure) areas can be preset
• Easy control and operation of the camera by external computer is possible with RS-232C interface
• External synchronization (HD/VD, VBS) allows for multiple camera operation
• Complies with the MDD

Dimensions:	CHU:	32 (W) x 38 (H) x 40 (D) mm
		(1 $^5/_{16}$ x 1 $^1/_2$ x 1 $^5/_8$ inches)
	CCU:	200 (W) x 88 (H) x 242 (D) mm
		(7 $^7/_8$ x 3 $^1/_2$ x 9 $^5/_8$ inches)
Mass:	CHU:	48 g (1.7 oz)
	CCU:	2.5 kg (5 lb 8 oz)
Power consumption:	Max. 18 W	

1/3-type 3-CCD Colour Video Camera
DXC-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 rear panel or the optional RM-C950 Remote Control Unit
• DynaLatitude™, Partial Enhance and Colour Shading compensation functions
• Many advanced Automatic Exposure (AE) functions
• Optional CMA-D2MDCE (CMA-D3CE) can be used for power supply
• Complies with the MDD

Dimensions:	56(W) x 50(H) x 128 (D) mm
	(2 $^1/_4$ x 2 x 5 $^1/_8$ inches)
Mass:	360 g (13 oz)
Power consumption:	7.6 W

1/2-type 3-CCD Colour Video Camera
DXC-9100P

Lens is optional

• Progressive scan featuring full-frame dynamic image capturing
• Square picture pixels adoption (8.3 µm x 8.3 µm) for more accurate measurements
• Three alternative signal output capability—Normal mode and Frame Shutter mode (2:1 interlace) and Non-interlaced mode
• High horizontal resolution of 800 TV lines
• RGB, Y/C and composite video outputs
• CCD IRIS function and AGC (Automatic Gain Control) function to control a wide range of incoming light levels
• On-screen programmable menu functions
• Full function control from the rear panel or the optional RM-C950 Remote Control Unit
• 1/2-type bayonet mount
• Optional CMA-D2CE can be used for AC power supply
• Complies with the MDD

Dimensions:	79 (W) x 72 (H) x 168.2 (D) mm
	(3 $^1/_8$ x 2 $^7/_8$ x 6 $^3/_4$ inches)
Mass:	Approx. 790 g (1 lb 11 oz)
Power consumption:	12 W

Remote Control Unit
RM-C950

- Full remote control of DXC-990P/C33P/390P/9100P camera functions and lens zoom/focus/iris functions via RS-232

Dimensions:　　　212 (W) x 41 (H) x 132 (D) mm
　　　　　　　　　(8 ³/₈ x 2 ⁵/₈ x 5 ¹/₄ inches)
Mass:　　　　　　Approx. 400 g (14 oz)
Power requirements: DC 12 V (supplied from DXC-990P/C33P/390P/9100P connected to the
　　　　　　　　　CMA-D2CE Camera Adaptor)

1/4-type CCD Colour Video Camera
DXC-LS1P

Lens is optional

- Extremely small and compact camera composed of a camera head and a camera control unit
- 460 TV lines of horizontal resolution
- AE control function (CCD IRIS function combined AGC) provides automatic control over incoming light
- Built-in electronic zoom function (x1 to x3)
- Positive films can be shot as negative, or vice versa
- B&W mode for sharp images free from colour noise
- Y/C and composite video outputs
- On-screen programmable menu functions
- Optional CMA-D2CE or AC-E90HG can be used for power supply

Dimensions:　　　40 x 12 mm (without lens and cable)
　　　　　　　　　(1 ⁵/₈ x ¹/₂ inches)
Mass:　　　　　　Camera head (without lens and cable): 8 g (0.3 oz)
　　　　　　　　　Camera control unit : Approx. 665 g (1 lb 7 oz)
Power consumption: 5 W

1/2-type CCD Colour Video Camera
SSC-DC58AP/DC54AP/DC50AP

Lens is optional

- High density 1/2-inch IT Exwave HAD CCD offers excellent sensitivity with a minimum illumination of 0.8 lx (F1.2), very low smear, and high resolution of 470 TV lines
- Smart Control® function optimizes the balance between Iris and Gain settings to control a wide range of incoming light levels
- Extra gain with Turbo AGC function
- Aperture/Sharp Mode makes object outlines sharper in the reproduced picture
- Variable speed electronic shutter
- Accepts DC servo and Video servo type auto iris lenses
- Accepts C/CS-mount lenses
- Alternative power source operation - AC 220 to 240 V (SSC-DC58AP), AC 24 V (SSC-DC54AP) and DC 12 V (SSC-DC50AP)
- Optional YS-W170P or YS-W270P can be used for power supply (DC50AP only)

Dimensions:　　　DC58AP:　　64 (W) x 57 (H) x 162 (D) mm (2 ⁵/₈ x 2 ¹/₄ x 6 ¹/₂ inches)
　　　　　　　　　DC54AP/50AP:　64 (W) x 57 (H) x 137 (D) mm (2 ⁵/₈ x 2 ¹/₄ x 5 ¹/₂ inches)
Mass:　　　　　　DC58AP:　　900 g (2 lb)
　　　　　　　　　DC54AP/50AP:　600 g (1 lb 5 oz)
Power consumption: DC58AP:　　5.5 W
　　　　　　　　　DC54AP:　　6 W
　　　　　　　　　DC50AP:　　4.5 W

Camera Adaptors

CMA-D3CE

- Supplies DC power and transmits video/sync signal between the adaptor and the DXC-990P/ DXC-390P with CCZ-A cable or CCMC-3MZ cable
- Connects with optional RM-C950 remote control unit
- AC IN/DC IN

Dimensions　　　210 (W) x 44(H) x 210(D) mm
　　　　　　　　(8 ³/₈ x 1 ³/₄ x 8 ³/₈ inches)
Mass　　　　　　Approx. 1.4 kg (3 lb 1 oz)

CMA-D2MDCE

- Supplies DC power with a CCDC cable to the DXC-990P/390P/ 9100P
- Transmits DC power and video/sync signals between the camera and the adaptor with a CCMC 12-pin cable

Dimensions:　　　210 (W) x 50 (H) x 200 (D) mm
　　　　　　　　(8 ³/₈ x 2 x 7 ⁷/₈ inches)
Mass:　　　　　　1.1 kg (2 lb 7 oz)
Power consumption: 24.5 W

YS-W170P

- Transmits power and video/sync signals between the adaptor and the SSC-DC50AP over a single coaxial cable

Dimensions:　　　212 (W) x 52 (H) x 345 (D) mm
　　　　　　　　(8 ³/₈ x 2 ¹/₈ x 13 ⁵/₈ inches)
Mass:　　　　　　1.9 kg (4 lb 3 oz)
Power consumption: 15W

AC-E90HG

- The AC-E90HG supplies DC 9 V to the DXC-LS1P

Dimensions:　　　58 (W) x 86 (H) x 51 (D) mm
　　　　　　　　(2 ³/₈ x 3 ¹/₂ x 2 inches)
Mass:　　　　　　500 g (1 lb 2 oz)
Power consumption: 14 W

Microscope Adaptors

•Microscope Adaptors   •Operation Microscope Adaptors

MVA-15
for DXC-C33P/390P

MVA-265 (one way)
for DXC-990P/9100P and Carl Zeiss OPMI series, Topcon 600 series

Microscope Adaptor Connection Chart

For the availability of adaptors and couplers for endoscope and other microscopes, please contact the microscope manufactures or the Sony office nearest you.

Microscopes	Couplers	Microscope Adaptors	Video Cameras — C-Mount
Nikon	Nikon Coupler	MVA-15	DXC-C33P/390P
Nikon SMZ-10	Nikon Coupler	Adaptor	SSC-DC58AP/DC54AP/DC50AP
Olympus	Olympus Coupler		
	BHB Coupler		
Leica	Leica — Photo/TV Dual Attachment 445319 / Cine/TV Tube 445179		DXC-LS1P
Zeiss	Zeiss C-Mount TV		LO-UCMT
Others	Coupler	Adaptor	

C-Mount Adaptor
38 Bayonet Mount

Microscopes	Couplers	Microscope Adaptors	Video Cameras
Nikon	Nikon Coupler	Adaptor	DXC-990P/9100P
Nikon SMZ-10	Nikon Coupler	Adaptor	
Olympus	Olympus Coupler		
	BHB Coupler		
Zeiss	ZBB Coupler		
	ZBB Coupler		
Leica	LB Coupler		
Others	Coupler	Adaptor	

For Operational Microscope

Microscopes	Microscope Adaptors	Video Cameras
Carl Zeiss OPMI series	MVA-265	DXC-990P/9100P
Topcon 600 Series		

Videocassette Recorders

Specially Designed for Medical Applications

Digital Videocassette Recorder
DSR-20MDP

- Superb picture quality of the DVCAM™ format
- Max. 184 minutes of recording/playback time with a standard cassette and 40 minutes with a mini cassette
- Compact and lightweight (half-rack width)
- i.LINK™* (DV In/Out) interface based on the IEEE 1394 standard
- AC/DC operation
- Frame still picture
- Index picture search
- Optional foot switch for hands-free control
- Supplied wireless remote controller
- RS-232C and Control S interfaces for remote control
- Complies with the MDD

* i.LINK stands for IEEE 1394-1995 standards and their revisions.
i is the logo for products that implement i.LINK.

Dimensions:	Approx. 212 (W) x 98 (H) x 395 (D) mm
	(8 $^3/_8$ x 3 $^7/_8$ x 15 $^5/_8$ inches)
	(including external projections)
Mass:	Approx. 5.0 kg (11 lb)
Power requirements:	AC 220 V to 240 V, 50/60 Hz, DC 12V
Power consumption:	AC: 28 W DC: 2.0 A

S-VHS Videocassette Recorder
SVO-9500MDP

- Digital frame memory provides noiseless, clear freeze pictures
- Fully compatible with other S-VHS or VHS VTRs
- High-speed colour picture search at ±10 times normal speed
- Optional remote control unit provides jog/shuttle picture search
- Three alternative optional remote control interfaces: Sony 33-pin, 34-pin and RS-232C
- Compact and lightweight
- Complies with the MDD

Dimensions:	270 (W) x 144 (H) x 370 (D) mm
	(10 $^3/_4$ x 5 $^3/_4$ x 14 $^5/_8$ inches)
Mass:	12 kg (26 lb 7 oz)
Power requirements:	AC 220 V to 240 V, 50/60 Hz
Power consumption:	64 W

VHS Videocassette Recorder
SVO-3500MDP

- Reality Regenerator provides clearer, more accurate pictures during playback
- Picture capture function
- Dual Mode Shuttle (DMS) control
- High-speed FF/Rewind
- Control S IN connector
- Wireless remote commander RMT-V191B included
- Complies with the MDD

Dimensions	420 (w) x 100 (H) x 300 (D) mm
	(16 $^5/_8$ x 4 x 11 $^7/_8$ inches)
Power requirements:	AC 220 V to 240 V, 50/60 Hz
Mass	4.3 kg (9 lb 8oz)

Sony also provides a variety of VTRs such as Betacam SP® and Digital VTRs, which are renowned worldwide.

Digital Videocassette Recorder/Player
DSR-1800P/1600P

- Superb picture quality of the DVCAM format
- Max. 184 minutes of recording (1800P)/playback time with a standard cassette and 40 minutes with a mini cassette
- Digital slow function (0 to ±0.5)
- Frame accurate editing capability
- High-speed picture search over a range of up to 60 times normal speed in both forward and reverse
- DVCPRO and consumer DV (SP mode only) playback capability without a special adaptor
- Component (Y, R-Y, B-Y), S video and Composite in (1800P)/out connectors
- Optional i.LINK*, SDI, SDTI (QSDI™)** digital video interfaces
- Optional AES/EBU digital audio interface
- Auto repeat/power-on playback function

* i.LINK stands for IEEE1394–1995 standards and their revisions.
** SDTI (Serial Data Transport Interface) is defined as SMPTE 305M.
  SDTI (QSDI) is the DV compressed signal interface defined as SMPTE 322M.

Dimensions:	427 (W) x 174 (H) x 400 (D) mm
	(16 7/8 x 6 7/8 x 15 3/4 inches)
Mass:	1800P: 13 kg (28 lb 10 oz)
Power requirements:	AC 100 V to 240 V, 50/60 Hz
Power consumption:	1800P: 100 W (Max.)
	1600P: 70 W (Max.)

Digital Videocassette Recorder
DSR-1500P

- Superb picture quality of the DVCAM format
- Max. 184 minutes of recording/playback time with a standard cassette and 40 minutes with a mini cassette
- Digital slow function (0 to ±0.5)
- Frame accurate editing capability
- High-speed picture search over a range of up to 60 times normal speed in both forward and reverse
- DVCPRO and consumer DV (SP mode only) playback capability without a special adaptor
- Optional Component (Y, R-Y, B-Y), S video and Composite in/out connectors
- Optional i.LINK*, SDI, SDTI (QSDI)** digital video interfaces
- Optional AES/EBU digital audio interface
- Auto repeat/power-on playback function

* i.LINK stands for IEEE1394–1995 standards and their revisions.
** SDTI (Serial Data Transport Interface) is defined as SMPTE 305M.
  SDTI (QSDI) is the DV compressed signal interface defined as SMPTE 322M.

Dimensions:	210 (W) x 130 (H) x 420 (D) mm
	(8 3/8 x 5 1/8 x 16 5/8 inches)
Mass:	6 kg (13 lb 3 oz)
Power requirements:	AC 100 V to 240 V, 50/60 Hz
Power consumption:	60 W (Max.)

Betacam SP Videocassette Recorder
UVW-1400AP

- Affordable Betacam SP video recorder for superior picture quality
- High-speed picture search (colour: up to ±5 times, B/W: up to ±16 times)
- RGB, Component (Y, R-Y, B-Y), S video and Composite in/out connectors
- RS-232C computer interface
- Foot switch control capability
- Trigger function for Sony colour video printers

Dimensions:	427 (W) x 193 (H) x 474 (D) mm
	(16 7/8 x 7 5/8 x 18 3/4 inches)
Mass:	19 kg (41 lb 14 oz)
Power consumption:	85 W

Digital Videocassette Recorder
DSR-70AP

- Superb picture quality of the DVCAM format
- Playback capability of DV (25 Mb/s) recorded tapes including DV tapes recorded in SP mode and DVCPRO tapes* without a mechanical adaptor
- Compact, all-in-one package including a 6.4-inch VGA LCD monitor, a full cut-editing controller with a Jog/Shuttle dial and an audio speaker
- Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a mini-size cassette
- Sequential recording for up to 6 hours
- High-speed picture search over a range of 32 times normal speed, in both forward and reverse
- Closed caption function
- Parallel-run recording
- Two-way power supply system(AC/DC)

* SDTI (QSDI) and i.LINK(DV) interfaces do not support DVCPRO playback.

Dimensions:	211 (W) x 149 (H) x 443 (D) mm
	(8 3/8 x 5 7/8 x 17 1/2 inches)
Mass:	5.8 kg (12 lb 12 oz)
Power requirements:	DC 12 V
Power consumption:	46 W (without options)

Digital Videocassette Recorder
DSR-50P

- Superb picture quality of the DVCAM format
- Max. 184 minutes of recording/playback time with a standard cassette and 40 minutes with a mini cassette
- Recording and playback of consumer DV (SP mode only) tapes
- Built-in 2.5-inch full-color LCD monitor
- Composite and S video in/out connectors
- Analogue component video out connectors
- Battery operation capability

Dimensions:	279 (W) x 99 (H) x 315 (D) mm
	(11 x 4 x 12 1/2 inches)
	(including external projections)
Mass:	3.9 kg (8 lb 9 oz)
Power consumption:	15 W (Max.)

Digital Videocassette Recorder
DSR-30P

- Superb picture quality of the DVCAM format
- Max. 184 minutes of recording/playback time with a standard cassette and 40 minutes with a mini cassette
- Consumer DV playback (SP mode only)
- i.LINK (DV In/Out) interface based on the IEEE 1394 standard
- LANC interface
- Auto repeat/One programme play
- Index/Photo/Date search
- Clear frame picture
- Control tray with a jog and shuttle dial
- Supplied wireless remote controller

Dimensions: Approx 430 (W) x 129 (H) x 374 (D) mm
(17 x 5 $^1/_8$ x 14 $^3/_4$ inches)
Mass: Approx 9.2 kg (20 lb 4 oz)
Power requirements: AC 220 V to 240 V, 50/60 Hz
Power Consumption: 32 W

Digital Videocassette Recorder
DSR-11

- Superb picture quality of the DVCAM format
- Max. 184 minutes of recording/playback time with a standard cassette and 40 minutes with a mini cassette
- Recording and playback of consumer DV (SP mode only) tapes
- PAL/NTSC compatible*
- Composite and S video in/out connectors
- i.LINK (DV In/Out) interface based on the IEEE 1394 standard
- Auto repeat function

* The DSR-11 does not convert signals from PAL to NTSC, or vice versa.

Dimensions: 180 (W) x 73 (H) x 265 (D) mm (7 $^1/_8$ x 2 $^7/_8$ x 10 $^1/_2$ inches)
(including external projections)
Mass: 2.8 kg (6 lb 2 oz)
Power requirements: DC 12 V
Power consumption: 15 W (Max.)

Digital Videocassette Recorder
DSR-V10P (DVCAM Video Walkman™)

- DVCAM recording/playback capability (mini cassette only)
- Consumer DV playback (mini cassette only) (SP mode only)
- Built-in 5.5-inch LCD Monitor
- i.LINK (DV In/Out) interface based on the IEEE 1394 standard
- LANC interface
- Analogue video/audio terminal (In/Out)
- Compact and lightweight body
- Long operating hours with Lithium-ion batteries (with optional NP-F950, 2.5 hours of consecutive playback with LCD on)

Dimensions: 148 (W) x 62 (H) x 135 (D) mm
(5 $^7/_8$ x 2 $^1/_2$ x 5 $^3/_8$) inches
Mass: 970 g (2 lb 2 oz)
(without a tape and battery)
Power requirements: DC: 7.2 V (battery operation)
DC: 8.4 V (AC adaptor operation)
Power consumption: 11.5 W (with LCD panel ON)

Optional Colour Video Camera
CVX-V1P for DSR-V10P

CVX-V1P attached with DSR-V10P

- Thumb-sized and lightweight (Camera head: 25 g, CCU: 135 g)
- 1/4-inch CCD Camera (470k pixels)
- Directly attached to the Video Walkman 20-pin connector (via the supplied Video Walkman Attachment)
- F1.8/f=3.9 mm lens with manual focus/iris
- Cable length : 2 m

Mass: Camera Unit: 25 g (0.85 oz)
CCU: 135 g (4.8 oz) (without a battery)
Dimensions: Camera head: 22 (W) x 18 (H) x 60 (D) mm
($^7/_8$ x $^{23}/_{32}$ x ^{2} $^3/_8$) inches
CCU: 35 (W) x 110 (H) x 60 (D) mm
(1 $^7/_{16}$ x 4 $^3/_8$ x 2 $^3/_8$) inches
Power requirements: DC: 7.2 V (battery operation)
DC: 8.4 V (AC adaptor operation)
Power consumption: 1.8 W

Multimedia Terminal
PCS-6000P

- Multimedia Terminal for variety of applications including Multimedia Terminal Processor, Camera, Desktop Terminal, Remote Commander
- Supports a bandwidth of up to 2 Mbps (LAN), up to 1.5 Mbps (ISDN) and complies with ITU-T standards
- Six site multi-conference function with split screen
- Built-in "Memory Stick" port and dual monitor capability
- Hi-resolution documents / still-image capability
- Multi language operation
- Built-in data-conference capability

Dimensions:
Multimedia Terminal Processor: 425 (W) x 132 (H) x 370 (D) mm (16 $^3/_4$ x 5 $^1/_4$ x 14 $^5/_8$ inches)
Camera: 142 (W) x 108 (H) x 159 (D) mm (5 $^5/_8$ x 4 $^3/_8$ x 6 $^3/_8$ inches)
Desktop Terminal: 140 (W) x 33 (H) x 126 (D) mm (5 $^5/_8$ x 1 $^5/_16$ x 5 inches)
Remote Commander: 50 (W) x 23.4 (H) x 190 (D) mm (2 x $^{15}/_{16}$ x 7 $^1/_2$ inches)
Mass:
Multimedia Terminal Processor: 12 kg (26 lb 7 oz)
Camera: 1.2 kg (2 lb 10 oz)
Desktop Terminal: 1 kg (2 lb 3 oz) (including battery)
Remote Commander: 0.15 kg (5 oz)
Power Consumption: AC: 220 V to 240 V, 50/60 kHz, 0.45 A

Compact Conference Package
PCS-1600P

- Compact, complete set-top box-type videoconferencing system including compact processor with camera and microphone, and remote commander
- Easy to use and easy to install (Plug and Play)
- Built-in "Memory Stick" port and dual monitor capability
- Supports a band width of up to 1 Mbps (LAN), up to 384 kbps (ISDN) and can be upgraded to enable four-site multi point operation
- Supports international standards: ISDN (H. 320), LAN/WAN (H.323)
- Standard 10/100Base T Ethernet port
- Full control via a built-in webserver

Dimensions: 258 (W) x 134 (H) x 216 (D) mm
(including camera) (10 $^1/_4$ x 5 $^3/_8$ x 8 $^5/_8$ inches)
Mass: 2.7 kg (5 lb 15 oz)
Power Consumption: DC: 12 V, 2.5 A

Video Network Station
SNT-V304

- Enables up to four video surveillance cameras to be remotely monitored and controlled over existing TCP/IP networks (LAN, WAN, telephone lines)
- GUI-based monitoring and control using networked PCs running standard web browser
- Easy to install, expand and maintain
- Multi-user access and password protection
- High refresh rates provide near-motion pictures
- S Video input
- Remote camera/HSR recorder control
- Alarm image buffering allows storage of pre-alarm and post-alarm images
- When an alarm occurs a JPEG file showing the alarm event can be sent to a pre-determined e-mail address or server
- Alternative viewing modes
- TCP/IP, 10/100BaseT interfaces
- Image transfer to FTP server
- Relay out control

Dimensions: 146 (W) x 41.5 (H) x 223.5 (D) mm
(5 $^3/_4$ x 1 $^{11}/_{16}$ x 8 $^7/_8$ inches)
excluding projecting parts
Mass: 0.8 kg (1 lb 12 oz)
Power requirements: AC 12 V
Power consumption: 5.5 W

Digital Scan Converter
DSC-1024HD

- Versatile upward and downward digital scan converter
- Input accepted in the 15.6 to 70 kHz horizontal frequency range and the 50 to 120 Hz vertical frequency range and output at an industry standard 15.6 kHz, 31.5 kHz, 37 kHz, 48 kHz or 64 kHz frequency
- Built-in transcoder for universal conversions between video signal formats
- PAL/NTSC conversion capability
- Scan doubler capability
- Automatic input signal recognition
- On-screen menu display

Dimensions: 424 (W) x 44 (H) x 354 (D) mm
(16 $^3/_4$ x 1 $^3/_4$ x 14 inches)
Mass: 4.1 kg (9 lb 1 oz)
Power requirements: AC 200 V to 240 V, 0.25 A (max.), 50/60 Hz
Power consumption: 30 W (max. power on), 3 W (typical power off)

High Resolution Monitors

Specially Designed for Medical Applications

Colour Monitors

18.1-inch LCD Monitor
LMD-181MD

- 18.1-inch a-Si TFT Active Matrix Liquid Crystal Device (LCD) with a double-layer AR (Anti-Reflection)-coated protection panel
- High-resolution of 1280 x 1024 pixels
- High-performance LCD panel provides high-brightness, high-contrast images with natural color reproduction
- Accepts VGA, SVGA, XGA and SXGA signals with horizontal frequencies of 24 to 73 kHz
- Mounting slot accepts an input adaptor for PAL, NTSC and HD video signals
- Fluid-resistant structure
- Parallel remote control capability
- VESA mounting standard
- Complies with the MDD

Dimensions: 432 (W) x 395 (H) x 124 (D) mm
                   (17 $^1/_8$ x 15 $^5/_8$ x 5 inches)
Mass: Approx. 7.0 kg (15 lb 7 oz)
Power consumption: 0.9 to 0.5 A/AC 100 to 240 V

15-inch LCD Monitor
LMD-151MD

- 15.0-inch a-Si TFT Active Matrix Liquid Crystal Device (LCD) with a double-layer AR (Anti-Reflection)-coated protection panel
- High resolution of 1024 x 768 pixels
- High-performance LCD panel provides high-brightness, high-contrast images with natural color reproduction
- Accepts VGA, SVGA, and XGA signals with horizontal frequencies of 24 to 73 kHz
- Mounting slot accepts an input adaptor for PAL, NTSC and HD video signals
- Fluid-resistant structure
- Parallel remote control capability
- VESA mounting standard
- Complies with the MDD

Dimensions: 393 (W) x 338 (H) x 114 (D) mm
                   (15 $^1/_2$ x 13 $^3/_8$ x 4 $^1/_2$ inches)
Mass: Approx. 6.0 kg (13 lb 4 oz)
Power consumption: 0.7 to 0.4 A/AC 100 to 240 V

Colour Monitors

15-inch LCD Monitor
LMD-150MD

- 15.0-inch a-Si TFT Active Matrix Liquid Crystal Device (LCD)
- High resolution of 1024 x 768 pixels
- AG (Anti-Glare) treatment
- High-performance LCD panel provides high-brightness, high-contrast images
- Accepts VGA, SVGA, and XGA signals with horizontal frequencies of 24 to 60 kHz
- Drip-proof, complying with IPX 1
- VESA mounting standard
- Complies with the MDD

Dimensions: 393 (W) x 338 (H) x 119.5 (D) mm
                   (15 $^1/_2$ x 13 $^3/_8$ x 4 $^3/_4$ inches)
Mass: Approx. 5.5 kg (12 lb 2 oz)
Power consumption: 0.6 to 0.4 A/AC 100 to 240 V

20-inch Colour Video Monitor
PVM-20M2MDE (PAL/NTSC)

- Trinitron CRT provides a resolution of 600 TV lines
- Beam current feedback circuit for stable colour reproduction
- Accepts composite, Y/C, RGB and component (Y/R-Y/B-Y) signals
- Accepts external sync
- Fluid resistance with the supplied side covers
- Parallel and serial remote control capability
- 19-inch EIA standard rack mountable
- Complies with the MDD

Dimensions: 450 (W) x 457.5 (H) x 503 (D) mm
                   (17 $^3/_4$ x 18 $^1/_8$ x 19 $^7/_8$ inches)
Mass: 30 kg (66 lb 2 oz)
Power consumption: 1.5 to 0.6 A/AC 100 to 240 V

Colour Monitors

14-inch Colour Video Monitor
PVM-14M2MDE (PAL/NTSC)

- Trinitron CRT provides a resolution of 600 TV lines
- Beam current feedback circuit for stable colour reproduction
- Accepts composite, Y/C, RGB and component (Y/R-Y/B-Y) signals
- Accepts external sync
- Fluid resistance with the supplied side covers
- Parallel and serial remote control capability
- 19-inch EIA standard rack mountable
- Complies with the MDD

Dimensions: 346 (W) x 340 (H) x 430.5 (D) mm
                     (13 ^{5}/$_8$ x 13 ^{1}/$_2$ x 17 inches)
Mass: 16.7 kg (37 lb 8 oz)
Power consumption: 1.2 to 0.5 A/AC 100 to 240 V

14-inch Colour Video Monitor
PVM-14N5MDE (PAL/NTSC/ SECAM/NTSC$_{4.43}$)

- Trinitron CRT provides a resolution of 500 TV lines
- Beam current feedback circuit for stable colour reproduction
- Accepts composite and Y/C signals
- Fluid resistance with the supplied side covers
- 19-inch EIA standard rack mountable
- Complies with the MDD

Dimensions: 346 (W) x 340 (H) x 414 (D) mm
                     (13 ^{5}/$_8$ x 13 ^{3}/$_8$ x 16 ^{5}/$_{16}$ inches)
Mass: 15 kg (33 lb 1 oz)
Power consumption: 80 W/AC 100 to 240 V

Colour Monitors

20-inch Colour Video Monitor
PVM-20M7MDE (PAL)

- HR Trinitron CRT provides a high resolution of 550 TV lines* at 15 kHz and 800 TV lines with progressive scan
- EBU standard phosphors
- Digital PAL comb filter for accurate image reproduction
- Field doubling scanning reduces flicker phenomenon
- Accepts composite, Y/C, RGB and component (Y/R-Y/B-Y) signals
- Fluid resistance with the supplied side covers
- RS-232C remote control capability
- 19-inch EIA standard rack mountable
- 19-inch EIA standard rack mountable
- Complies with the MDD

* Maximum resolution of the field doubling digital device circuit.

Dimensions: 450 (W) x 457.5 (H) x 503 (D) mm
                     (17 ^{3}/$_4$ x 18 ^{1}/$_8$ x 19 ^{7}/$_8$ inches)
Mass: 34 kg (74 lb 15 oz)
Power consumption: Approx. 160 W/AC 220 to 240 V

15-inch Colour Graphic Monitor
PGM-100P1MD

- Trinitron CRT with AR (Anti-Reflection) coating
- High light output of 160 nits
- Accepts VGA and SVGA computer signals
- Fluid-resistant structure
- Complies with the MDD

Dimensions: 368 (W) x 343 (H) x 391 (D) mm
                     (14 ^{1}/$_2$ x 13 ^{5}/$_8$ x 15 ^{1}/$_2$ inches)
Mass: Approx. 15 kg (33 lb 1 oz)
Power consumption: 130 W (max.), 7 W (stand by)/AC 100 to 240 V

In addition, Sony offers a number of alternative monitor types suitable for a wide range of medical applications.

Colour Monitors

20/14-inch Colour Video Monitor
PVM-20L4/14L4 (PAL/NTSC/ SECAM/NTSC4.43)

- HR Trinitron CRT provides a high resolution of 800 TV lines
- EBU standard phosphors
- Beam current feedback circuit for stable colour reproduction
- Accepts composite, Y/C, RGB and component (Y/R-Y/B-Y) signals
- 1 slot available for optional input adaptors
- Accepts external sync
- Parallel and serial remote control capability
- 19-inch EIA standard rack mountable

Dimensions: PVM-20L4:
Approx. 452 (W) x 414 (H) x 500 (D) mm
(17 $^7/_8$ x 16 $^3/_8$ x 19 $^3/_4$ inches)
PVM-14L4:
Approx. 346 (W) x 280 (H) x 424 (D) mm
(13 $^5/_8$ x 11 $^1/_8$ x 16 $^3/_4$ inches)
Mass: PVM-20L4: Approx. 31 kg (69 lb 5 oz)
PVM-14L4: Approx. 17 kg (37 lb 8 oz)
Power requirements: AC 100 to 240 V
Power Consumption: PVM-20L4: 115 W (with options: 120 W)
PVM-14L4: 90 W (with options: 95 W)

20/14-inch Colour Video Monitor
PVM-20M4E/14M4E (PAL/NTSC/ SECAM/NTSC4.43)

- HR Trinitron CRT provides a high resolution of 800 TV lines
- EBU standard phosphors
- Beam current feedback circuit for stable colour reproduction
- Accepts composite, Y/C, RGB and component (Y/R-Y/B-Y) signals
- Optional component serial digital interface kits available
- Accepts external sync
- Parallel and serial remote control capability
- 19-inch EIA standard rack mountable

Dimensions: PVM-20M4E:
450 (W) x 458 (H) x 503 (D) mm
(17 $^3/_4$ x 18 $^1/_8$ x 19 $^7/_8$ inches)
PVM-14M4E:
346 (W) x 340 (H) x 431 (D) mm
(13 $^5/_8$ x 13 $^1/_2$ x 17 inches)
Mass: PVM-20M4E: 30 kg (66 lb 2 oz)
PVM-14M4E: 16.7 kg (36 lb 13 oz)
Power requirements: AC 100 to 240 V
Power Consumption: PVM-20M4E: 130 W
PVM-14M4E: 90 W

20/14-inch Colour Video Monitor
PVM-20M2E/14M2E (PAL/NTSC/ SECAM/NTSC4.43)

- Trinitron CRT provides a resolution of 600 TV lines
- Beam current feedback circuit for stable colour reproduction
- Accepts composite, Y/C, RGB and component (Y/R-Y/B-Y) signals
- Optional component serial digital interface kits available
- Accepts external sync
- Parallel and serial remote control capability
- 19-inch EIA standard rack mountable

Dimensions: PVM-20M2E:
450 (W) x 458 (H) x 503 (D) mm
(17 $^3/_4$ x 18 $^1/_8$ x 19 $^7/_8$ inches)
PVM-14M2E:
346 (W) x 340 (H) x 431 (D) mm
(13 $^5/_8$ x 13 $^1/_2$ x 17 inches)
Mass: PVM-20M2E: 30 kg (66 lb 2 oz)
PVM-14M2E: 16.7 kg (36 lb 13 oz)
Power requirements: AC 100 to 240 V
Power Consumption: PVM-20M2E: 120 W
PVM-14M2E: 90 W

Colour Monitors

20/14-inch Colour Video Monitor
PVM-20N6E/14N6E (PAL/NTSC/ SECAM/NTSC4.43)

- Trinitron CRT provides a resolution of 500 TV lines
- Beam current feedback circuit for stable colour reproduction
- Accepts composite, Y/C and RGB signals
- Accepts external sync
- 19-inch EIA standard rack mountable

Dimensions: PVM-20N6E:
449 (W) x 441 (H) x 502 (D) mm
(17 $^{11}/_{16}$ x 17 $^3/_8$ x 19 $^3/_4$ inches)
PVM-14N6E:
346 (W) x 340 (H) x 414 (D) mm
(13 $^5/_8$ x 13 $^3/_8$ x 16 $^5/_{16}$ inches)
Mass: PVM-20N6E: 28 kg (61 lb 11 oz)
PVM-14N6E: 15 kg (33 lb 1 oz)
Power requirements: AC 100 to 240 V
Power consumption: PVM-20N6E: 105 W
PVM-14N6E: 80 W

20/14-inch Colour Video Monitor
PVM-20N5E/14N5E (PAL/NTSC/ SECAM/NTSC4.43)

- Trinitron CRT provides a resolution of 500 TV lines
- Beam current feedback circuit for stable colour reproduction
- Accepts composite and Y/C signals
- Accepts external sync
- 19-inch EIA standard rack mountable

Dimensions: PVM-20N5E:
449 (W) x 441 (H) x 502 (D) mm
(17 $^{11}/_{16}$ x 17 $^3/_8$ x 19 $^3/_4$ inches)
PVM-14N5E:
346 (W) x 340 (H) x 414 (D) mm
(13 $^5/_8$ x 13 $^3/_8$ x 16 $^5/_{16}$ inches)
Mass: PVM-20N5E: 28 kg (61 lb 11 oz)
PVM-14N5E: 15 kg (33 lb 1 oz)
Power requirements: AC 100 to 240 V
Power consumption: PVM-20N5E: 105 W
PVM-14N5E: 80 W

9-inch Colour Video Monitor
PVM-9045QM (PAL/NTSC/ SECAM/NTSC4.43)

- HR Trinitron CRT provides a high resolution of 450 TV lines
- Beam current feedback circuit for stable colour reproduction
- Accepts composite, Y/C, RGB and component (Y/R-Y/B-Y) signals
- Accepts external sync
- 19-inch EIA standard rack mountable
- AC/DC operation capability

Dimensions: 217 (W) x 217 (H) x 352.5 (D) mm
(8 $^5/_8$ x 8 $^5/_8$ x 14 inches)
Mass: 8.2 kg (17 lb 3 oz)
Power requirements: AC 100 to 240 V
Power consumption: AC 43 W, DC 40 W

Colour Monitors

6.5-inch LCD Monitor
LMD-650

- 6.5-inch a-Si TFT Active Matrix Liquid Crystal Device (LCD)
- Resolution of 640 x 480 pixels
- Multi-layer AR (Anti-Reflection)-coated protection panel
- High-performance LCD panel provides high-brightness, high-contrast images
- Accepts composite video and S video signals
- Parallel remote control capability
- 19-inch EIA standard rack mountable
- AC/DC operation capability

Dimensions: 393 (W) x 338 (H) x 119.5 (D) mm
                     (15 $^1/_2$ x 13 $^3/_8$ x 4 $^3/_4$ inches)
Mass: Approx. 5.5 kg (12 lb 2 oz)
Power consumption: 0.6 to 0.4 A/AC 100 to 240 V

Black and White Monitors

14/9-inch B/W Video Monitor
PVM-145E/95E (CCIR/EIA)

- High resolution of 1000 TV lines (PVM-145E) and 900 TV lines (PVM-95E)
- Accepts composite signals
- Accepts external sync 19-inch
- EIA standard rack mountable

Dimensions: PVM-145E: 346 (W) x 340 (H) x 330 (D) mm
                                (13 $^5/_8$ x 13 $^1/_2$ x 13 inches)
                     PVM-95E: 217 (W) x 218 (H) x 250 (D) mm
                                (8 $^5/_8$ x 8 $^5/_8$ x 9 $^7/_8$ inches)
Mass: PVM-145E: 11 kg (24 lb 4 oz)
                     PVM-95E: 5.5 kg (12 lb 2 oz)
Power consumptions: PVM-145E: 28 W
                     PVM-95E: 26 W

Colour Monitors

42-inch Flat Panel Monitor
PFM-42B1E (PAL/NTSC/SECAM/ NTSC4.43/PAL-M/PAL 60)

- 42-inch AC-type Plasma Display Panel with AR (Anti-Reflection) screen
- High resolution of 1024 x 1024 pixels
- I/P (Interlace/Progressive) conversion technology for smooth image reproduction
- Accepts composite, S video (Y/C), RGB/component and computer signals up to UXGA with the high-performance scan converter*
- Optional boards including BKM-B30NW network adaptor are available for added versatility
- Slim, at a depth of just 83 mm (3 3/8 inches)
- RS-232C remote control capability

* An optional BKM-B10 input adaptor is required to accept video signals.

Dimensions: 1033 (W) x 631 (H) x 83 (D) mm
                     (40 $^3/_4$ x 24 $^7/_8$ x 3 $^3/_8$ inches)
Mass: Approx. 29.4 kg (64 lb 11oz)
Power requirements: AC 100 to 240 V
Power consumption: Max. 400 W

32-inch Flat Panel Monitor
PFM-32C1E (PAL/NTSC/SECAM/ NTSC4.43/PAL-M/PAL 60)

- 32-inch AC-type Plasma Display Panel with AR (Anti-Reflection) screen
- High resolution of 1024 x 852 pixels
- Real Digital System for natural and rich image reproduction
- Accepts composite, S video (Y/C), RGB/component and computer signals with the high-performance scan converter*
- Slim and lightweight
- Built-in high quality digital audio amplifier
- RS-232C and Control S remote control capability

* An optional BKM-B10 input adaptor is required to accept video signals.

Dimensions: 838 (W) x 521 (H) x 97 (D) mm
                     (33 x 20 $^5/_8$ x 3 $^7/_8$ inches)
Mass: 22 kg (48 lb 8 oz)
Power consumption: 270 W

Digital Printers

Colour Video Printer
UP-21MD

- Resolution of 403 dpi for high picture quality
- Photo-realistic quality prints with Sony dye sublimation printing technology with more than 16 million colors
- A6 size color print in approx. 17 seconds*[1]
- Easy-to-use colour adjustment function
- Compact design
- 2 or 4-split prints mode
- Four frame memories capability
- Front-loading operation allows for easy maintenance and flexible set up
- Accepts and outputs an analog RGB, S Video (Y/C) or composite video signal
- RS-232C port for remote control operation
- Convenient remote control with the optional RM-91/RM-5500 Remote Commander
- Worldwide AC power supply: 100 V to 120 V, 220 V to 240 V
- Complies with the MDD

*[1] Measured in high-speed mode with the UPC-21S Color Printing Pack

Dimensions: 212 (W) x 125 (H) x 395 (D) mm (8 $^3/_8$ x 5 x 15 $^5/_8$ inches)
Mass: 6.5 kg (14 lb 5 oz)
Power consumption: AC 100 to 120 V: 1.8 A, AC 220 to 240 V:1.0 A

Colour Video Printer
UP-51MD

- 2048 dots thermal head and high resolution of 300 dpi
- 8 bit (256 gradations) and 16 million colours per pixel
- A5 size print in approx. 22 seconds*
- 2, 4, 8 or 16 split/duplicate image print modes
- RGB, Y/C and composite video inputs
- Wired and wireless remote controls with the optional RM-5500 Remote Commander
- External control via RS-232C interface
- Eight frame memories capability
- Optional FS-30/FS-36 Foot Switch/RM-91 Remote Commander for easy printing control
- Optional print packs:
  Self-laminating Colour Print Pack: UPC-540/540MD (102 prints)
  Colour: UPC-510 (200 prints)
- Complies with the MDD

* When measured at high-speed mode using the UPC-510

Dimensions: 370 (W) x 125 (H) x 475 (D) mm
(14 $^5/_8$ x 5 x 18 $^3/_4$ inches)
Mass: 14 kg (31 lb)
Power consumption: AC 220 to 240 V: 1.2 A

Black and White Video Graphic Printers

B/W Video Graphic Printer
UP-980CE

- Thermal video graphic printer with 256 steps of grey level
- Large print size (CCIR standard: 186x 249 mm at side direction print mode, 187x 138 mm at normal direction print mode)
- High-speed printing of 12 seconds
- Multiple print modes; Standard, Side and 2, 4, 6 split (different images) print
- Accepts 15.75 kHz video signal and 31.5 kHz high scan signal
- Blue transparency prints with optional UPT-210BL
- Auto paper cut function
- Optional printing paper rolls:
  Blue Transparent Film: UPT-210BL
  High Density Printing Paper: UPP-210HD
  High Quality Printing Paper: UPP-210SE
- Complies with the MDD

Dimensions: 316 (W) x 132 (H) x 305 (D) mm
(12 $^1/_2$ x 5 $^1/_4$ x 12 $^1/_8$ inches)
Mass: 8 kg (17 lb 10 oz)
Power consumption: AC 220 to 240 V: 1.3 A, AC 120 V: 2.4 A

B/W Video Graphic Printer
UP-960CE

- Thermal video graphic printer with 256 steps of grey level
- Large print size (CCIR standard: 181x 243 mm at side direction print mode, 190x 142 mm at normal direction print mode)
- High-speed printing of 12 seconds
- Multiple print modes; Standard, Side and 2 split (different images) print
- Accepts worldwide video signals of both CCIR and EIA standard
- Optional printing paper rolls:
  High Density Printing Paper: UPP-210HD
  High Quality Printing Paper: UPP-210SE
- Complies with the MDD

Dimensions: 316 (W) x 132 (H) x 305 (D) mm
(12 $^1/_2$ x 5 $^1/_4$ x 12 $^1/_8$ inches)
Mass: 8 kg (17 lb 10 oz)
Power consumption: AC 220 to 240 V: 1.3 A, AC 120 V: 2.4 A

B/W Video Graphic Printer
UP-895CE

- High-quality, glossy, near photographic printing on the UPP-110HG
- 1280 dots thermal head with 256 gradations
- Small size and light weight
- Print size: 90 x 68 mm (normal mode, aspect ratio 4:3)
- Hard copy prints in approx. four seconds (aspect ratio 4:3)
- Three width settings, including wide-scan
- 4:3/1:1 aspect ratio selectable
- CCIR/EIA automatic selection
- Auto paper load system for simple operation
- Optional RM-91 Remote Commander for easy printing control
- Optional printing paper roll:
  High glossy type: UPP-110HG (18 m)*
  High density type: UPP-110HD (20 m)
  Normal density type: UPP-110S (20 m)
- Complies with the MDD

* Also supplied with the main unit.

Dimensions: 154 (W) x 105 (H) x 260 (D) mm
(6 $^1/_8$ x 4 $^1/_4$ x 10 $^1/_4$ inches)
Mass: 3.4 kg (7 lb 8 oz)
Power consumption: AC 220 to 240 V: 0.8 A, AC 100 to 120 V: 1.5 A

Digital Printers

Digital Colour Printer
UP-D21MD

- Resolution of 403 dpi for high picture quality
- Photo-realistic quality prints with Sony dye sublimation printing technology with more than 16 million colors
- High-speed printing of approximately 19 seconds[*1]
- Compact design enables it to fit into the limited space and to be rack mounted on a medical cart side by side with other equipment
- Front-loading operation allows for easy maintenance and flexible set up
- USB interface (Version 1.1)
- Resize-to-fit feature allows users to enlarge images of VGA(640 x 480 dots), SVGA(800 x 600 dots) and XGA(1024 x 768 dots) to the approximately 1,520 x 1,144 dots size image[*2] or approximately 2,000 x 1,520 dots size image[*3]
- Grey balance adjustment capability
- Image spooling function (Two frame memories)
- Worldwide AC power supply: 100 V to 120 V, 220 V to 240 V
- Complies with the MDD

[*1] Measured in high-speed mode with the UPC-21S (does not include data transfer time)
[*2] When using the UPC-21S
[*3] When using the UPC-21L

Dimensions:	212(W) x 125(H) x 395(D) mm (8 3/8 x 5 x 15 5/8 inches)
Mass:	6.5 kg (14 lb 5 oz)
Power consumption:	AC 100 to 120 V: 1.8 A, AC 220 to 240 V:1.0 A

Digital Medical Printer
UP-D70XR

- X-ray images are clearly reproduced on the UPT-730BL Blue Thermal Transparent Film
- Photo-realistic quality colour printing with dye sublimation printing technology
- X-ray images (using UPT-730BL) are printed out in 44 seconds and colour A4 size in approx. 85 seconds
- Grey balance adjustments for delicate grey colour reproduction
- Detachable dust filter
- Environmentally friendly dry printer which requires neither liquid chemicals nor the use of heavy metals such as silver
- Provides superb bit-map printing through a SCSI and Centronics interface facility
- Compatible with Windows 95/98, Windows NT 4.0 and Macintosh OS
- Optional print packs:
  Blue Transparent Film: UPT-730BL (100 prints)
  Self-laminating Colour Print Pack: UPC-740 (72 prints)
  Colour: UPC-8810 (100 prints)
  B&W: UPC-8820 (100 prints)
- Complies with the MDD

Dimensions:	493.8 (W) x 189 (H) x 468.8 (D) mm (19 1/2 x 7 1/2 x 18 1/2 inches)
Mass:	19 kg (41 lb 14 oz)
Power Consumption:	AC 220 to 240 V: 260 W max. Less than 30 W (stand-by mode)

Digital Colour Printer
UP-D50

- 2048 dots thermal head
- Photo-quality prints with over 16 million colours per pixels
- A5 size print in approx. 30 seconds[*1]
- Standard SCSI interface
- Compatibility with Windows® 95/98/2000, Windows NT® 4.0, and Macintosh® OS
- Selectable print finish: glossy, matte, and texture[*2]
- Optional print packs:
  Self-laminating Colour Print Pack: UPC-540 (102 prints)
  Colour:UPC-510 (200 prints)
- Complies with the MDD

[*1] When measured at high-speed mode using the UPC-510
[*2] When using the UPC-540/540MD

Dimensions:	370 (W) x 125 (H) x 482 (D) mm (14 5/8 x 5 x 19 inches)
Mass:	13 kg (28 lb 10 oz)
Power consumption:	AC 100 to 240 V: 250 W

Digital Printers

Digital Graphic Printer
UP-D895

- Resolution of 325 dpi and 256 steps of grey level for high picture quality
- High-speed printing of approximately 3.8 seconds[*1]
- Resize-to-fit feature allows users to enlarge images for printing
- High-quality, glossy, near-photographic printing with the UPP-110HG High Glossy Printing Paper
- Parallel (IEEE 1284) and USB (version. 1.0) interfaces
- Multiple print modes available for a variety of applications
- Especially suited to dental applications, the 8 MB picture memory makes panoramic-size prints possible
- Compact, space-saving design
- Complies with the MDD
- Worldwide AC power supply: 100 V to 120 V, 220 V to 240 V
- The driver software of the predecessor model UP-D890 can be used with the UP-D895[*2]

[*1] Does not include the data transfer time.
[*2] In this case, only the features of the UP-D890 are available.

Dimensions:	154 (W) x 105 (H) x 260 (D) mm (6 1/8 x 4 1/4 x 10 1/4 inches)
Mass:	Approx. 3.4 kg (7 lb 8 oz)
Power consumption:	AC 100 to 120 V: 1.8 A, AC 220 to 240 V:1.0 A

Digital Capture Unit

Digital Capture Unit
UPA-P100MD

- Records images in TIFF and JPEG formats
- Large recording capability of 20 GB allows users to record up to approx. 15,000 non-compressed TIFF images
- Built-in CD-R
- Selectable CD-R recording modes; Singles session or Multiple session
- Networking capability allows users to view the images from Internet browsers, and to share the images with multiple users through a LAN
- Direct printout capability
- Optional RM-P110 Remote Control unit for easy operation
- Complies with the MDD

Dimensions:	300 x 330 x 78 mm (11 7/8 x 13 x 3 1/8 inches)
Mass:	5.5 kg (12 lb 2 oz)
Power consumption:	AC 100 to 240 V: 50/60 Hz

Print accessories

A4 Size
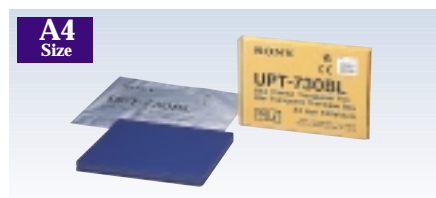
Blue Thermal Transparent Film

UPT-730BL

For the UP-D70XR

Contents:	100 sheets of print film
Paper size:	297 x 210 mm (11 3/4 x 8 3/8 inches)

A4 Size

Colour Printing Pack

UPC-7010

For the UP-7300MDP

Contents:	Roll of YMC ink ribbon
	100 sheets of print paper
Paper size:	297 x 210 mm (11 3/4 x 8 3/8 inches)

A4 Size

Colour Printing Pack

UPC-8810

For the UP-D70XR

Contents:	Roll of YMC ink ribbon
	100 sheets of print paper
Paper size:	297 x 210 mm (11 3/4 x 8 3/8 inches)

A5 Size

Colour Printing Pack

UPC-510

For the UP-51MD/D50

Contents:	1 roll of ink ribbon
	200 sheets of print paper
Paper size:	148 x 210 mm (5 7/8 x 8 3/8 inches)

A5 Size

Self-laminating Colour Printing Pack

UPC-540/540MD

For the UP-51MD/D50

Contents:	1 roll of ink ribbon
	102 sheets of print paper
Paper size:	148 x 210 mm (5 7/8 x 8 3/8 inches)

A6 Size

Colour Printing Pack

UPC-2010

For the UP-2850P/2800P/2300P/2100P/D2600S/D2500

Contents:	Cartridge of YMC ink ribbon
	200 sheets of print paper
Paper size:	130 x 88 mm (5 1/8 x 3 1/2 inches)

A6 Size

Colour Printing Pack

UPC-21S

For the UP-21MD/D21MD

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

A6 Size

Colour Printing Pack

UPC-21L

For the UP-21MD/D21MD

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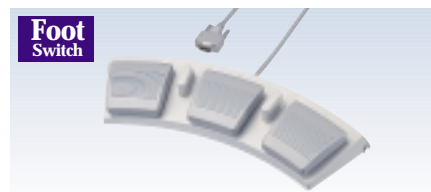
Foot Switch

Foot Switch

FS-30

Multiple function controller for the UP-51MD

Connector:	D-sub 9-pin
Cable length:	3 m
Dimension:	337.3 (W) x 46.1 (H) x 128.0 (D) mm
	(13 3/8 x 1 7/8 x 5 1/8 inches)
Mass:	900 g (1 lb 15 oz)
Supplied accessory:	Operation manual

Print Media at a Glance (A4, A4+, A5 A6 Colour)

Size	Description	Model	Print sheets/pack	UP-7300MDP* UP-7200MD*/7000P*/D7000E*	UP-D70XR	UP-D8800*
A4 Size	Blue Transparency Film	UPT-730BL	100		O	
	Colour Print Pack	UPC-7010	100	O		
	Colour Print Pack	UPC-8810	100		O	O
	B&W Print Pack	UPC-7020*/7020A	100	O		
	B&W Print Pack	UPC-8820	100		O	O
	Self-Laminating Colour Print Pack	UPC-740	72		O	
	OHP Transparency Print Pack	UPC- 7030	100	O		
	OHP Transparency Print Pack	UPC- 8830*	100			O
	Self-Laminating Colour Print Pack	UPC-8840*/8840A	70			O
A4+ Size	Colour Print Pack	UPC-8817	100		O	O
	Self-Laminating Colour Print Pack	UPC-747	72		O	

Size	Description	Model	Print sheets/pack	UP-51MD	UP-D50	
A5 Size	Colour Print Pack	UPC-510	200	O	O	
	Self-Laminating Colour Print Pack	UPC-540/540MD	102	O	O	

Size	Description	Model	Print sheets/pack	UP-2850P*/ 2800P*/2300P*	UP-2100P*	UP-D2600S*/D2500*	UP-21MD/ UP-D21MD
A6 Size	Colour Print Pack	UPC-2010	200	O	O	O	
	B&W Print Pack	UPC-2020	200	O		O	
	Self-Adhesive Stickers Print Pack	UPC-20S01**	200	O		O	
	4-Split Self-Adhesive Stickers Print Pack	UPC-20S04**	200	O		O	
	16-Split Self-Adhesive Stickers Print Pack	UPC-20S16	200	O		O	
	Self-Laminating Colour Print Pack	UPC-2040A**	120			O	
	Colour Postcard Print Pack	UPC-2070E	150	O		O	
	Colour Print Pack	UPC-21S	240				O
	Colour Print Pack	UPC-21L	200				O

* Production of these products has been discontinued. This information has been included to assist customers who are still using this media.

** For details, please consult your nearest Sony office.

A4 Width

Type III Blue Thermal Transparent Film
UPT-210BL
For the UP-980CE

Paper size:	210 mm (W) x 12.5 m
Print quantity:	42 prints (6-split)

A4 Width

Type II High Density Printing Paper
UPP-210HD
For the UP-980CE/960CE

Paper size:	210 mm (W) x 25m
Print quantity:	119 prints (with UP-980CE)
	126 prints (with UP-960CE)

A4 Width

Type II High Quality Printing Paper
UPP-210SE
For the UP-980CE/960CE

Paper size:	210 mm (W) x 25 m
Print quantity:	119 prints (with UP-980CE)
	126 prints (with UP-960CE)

A6 Width

Type V High Glossy Printing Paper
UPP-110HG
For the UP-895CE/D895

Paper size:	110 mm (W) x 18 m
Print quantity:	195 prints

A6 Width

Type IV Superior Density Printing Paper
UPP-110HA
For the UP-D890

Paper size:	110 mm (W) x 18 m

A6 Width

Type II High Density Printing Paper
UPP-110HD
For the UP-895CE/D895/D890

Paper size:	110 mm (W) x 20 m
Print quantity:	217 prints (with UP-895CE)

A6 Width

Type I High Quality Printing Paper
UPP-110S
For the UP-895CE/D895/D890

Paper size:	110 mm (W) x 20 m
Print quantity:	217 prints (with UP-895CE)

Remote Commander

Remote Control Unit
RM-91
Simple remote commander for the UP-7300MDP/51MD/
2850P/2800P/2300P/2100P/980CE/960CE/895CE

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

Remote Commander

Wired/Wireless Remote Commander
RM-5500
Multiple function remote control over the UP-51MD/
2850P/2800P/2300P/2100P

Connector:	Special mini
Cable length:	5 m
Mass:	200 g (7 oz)—including cable
Supplied accessory:	Operation manual

Print Media at a Glance (A4 and A6 B & W)

Size	Description	Model	Paper length/roll	UP-980CE	UP-960CE	UP-930*/910*
A4 Width	Blue Transparency Film	UPT-210BL	12.5 m	O		
	High Density Print Paper	UPP-210HD	25 m	O	O	O
	High Quality Print Paper	UPP-210SE	25 m	O	O	O
	High Density Print Paper	UPP-216HD	25 m			O
	High Quality Print Paper	UPP-216SE	25 m			O

Size	Description	Model	Paper length/roll	UP-895CE/D895	UP-890CE*/D890*	UP-860CE*/D860E*
A6 Width	High Glossy Print Paper	UPP-110HG	18 m	O		
	Superior Density Print Paper	UPP-110HA	18 m		O	
	High Density Print Paper	UPP-110HD	20 m	O	O	O
	High Quality Print Paper	UPP-110S	20 m	O	O	O

Foot Switch/Remote Commander at a Glance

Type	Description	Model	UP-7300MDP*	UP-51MD	UP-21MD/D21MD/2850P*/ 2800P*/2300P*/2100P*	UP-980CE/960CE/ 895CE/890CE*
Foot Switch	Multiple Function Foot Switch	FS-30		O		
Remote Commander	Simple Remote Commander	RM-91	O	O	O	O
	Multiple Function Remote Commander	RM-5500		O	O	

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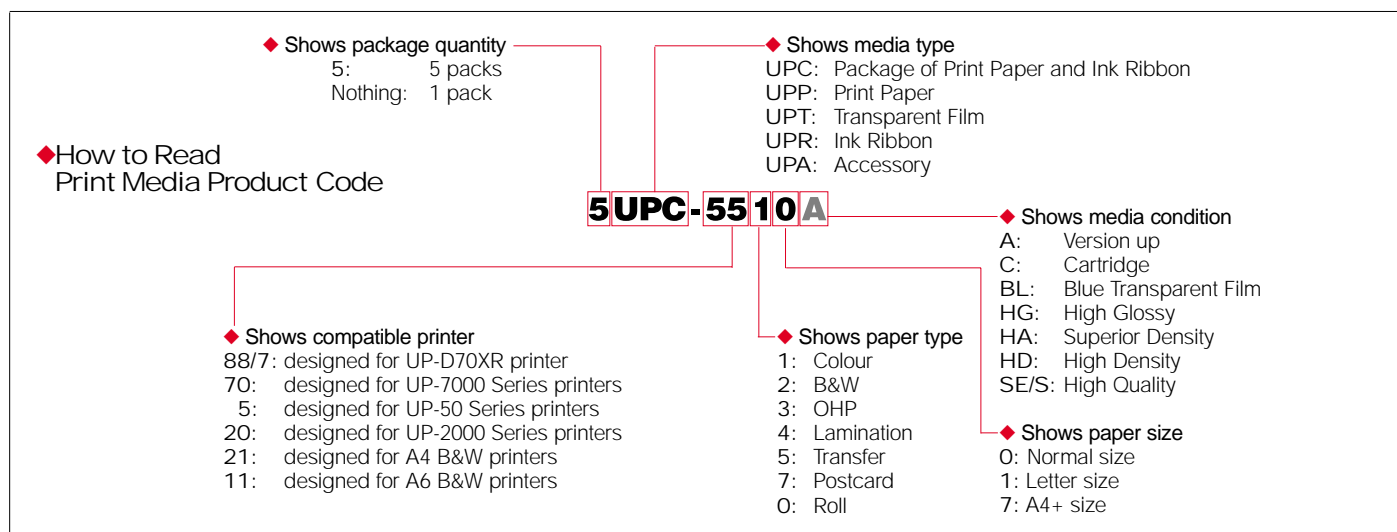All non-metric weights and measures are approximate.

Print Media at a Glance (for discontinued printers)

Size	Description	Model	Print sheets/pack	UP-5600MDP*	UP-D5500*	UP-5000 series*
A5 Size	Colour Print Pack	UPC-5510	200	O	O	
	Ink Ribbon Holder for UPC-5510/5UPC-5510	UPA-5500		O	O	
	OHP Transparency Print Pack	UPC-5530*	100	O		
	Colour Print Pack	UPC-5010A	100			O
	Colour Print Pack	UPC-5010P	100			O
	B&W Print Pack	UPC-5020A	100			O

Size	Description	Model	Print sheets/pack	UP-1000 series*	UP-3000 series*
A6 Size	Colour Print Pack	UPC-1010	100	O	
	Colour Print Pack	20UPC-1010	20 packs x 100	O	
	Colour Print Pack	UPC-3010	80		O
	B&W Print Pack	UPC-1020	100	O	
	B&W Print Pack	UPC-3020	80		O
	4-Split Self-Adhesive Stickers Print Pack	UPC-S04**	100	O	
	16-Split Self-Adhesive Stickers Print Pack	UPC-S16**	100	O	
	16-Split Self-Adhesive Stickers Print Pack	20UPC-S16**	20 packs x 100	O	Colour Print Pack
	Self-Laminating Colour Print Pack	5UPC-1040*	5 packs x 75	O	

* Production of these products has been discontinued. This information has been included to assist customers who are still using this media.

** For details, please consult your nearest Sony office.

◆How to Read Print Media Product Code

◆ Shows package quantity
5: 5 packs
Nothing: 1 pack

◆ Shows media type
UPC: Package of Print Paper and Ink Ribbon
UPP: Print Paper
UPT: Transparent Film
UPR: Ink Ribbon
UPA: Accessory

5UPC-5510A

◆ Shows media condition
A: Version up
C: Cartridge
BL: Blue Transparent Film
HG: High Glossy
HA: Superior Density
HD: High Density
SE/S: High Quality

◆ Shows compatible printer
88/7: designed for UP-D70XR printer
70: designed for UP-7000 Series printers
5: designed for UP-50 Series printers
20: designed for UP-2000 Series printers
21: designed for A4 B&W printers
11: designed for A6 B&W printers

◆ Shows paper type
1: Colour
2: B&W
3: OHP
4: Lamination
5: Transfer
7: Postcard
0: Roll

◆ Shows paper size
0: Normal size
1: Letter size
7: A4+ size

Distributed by