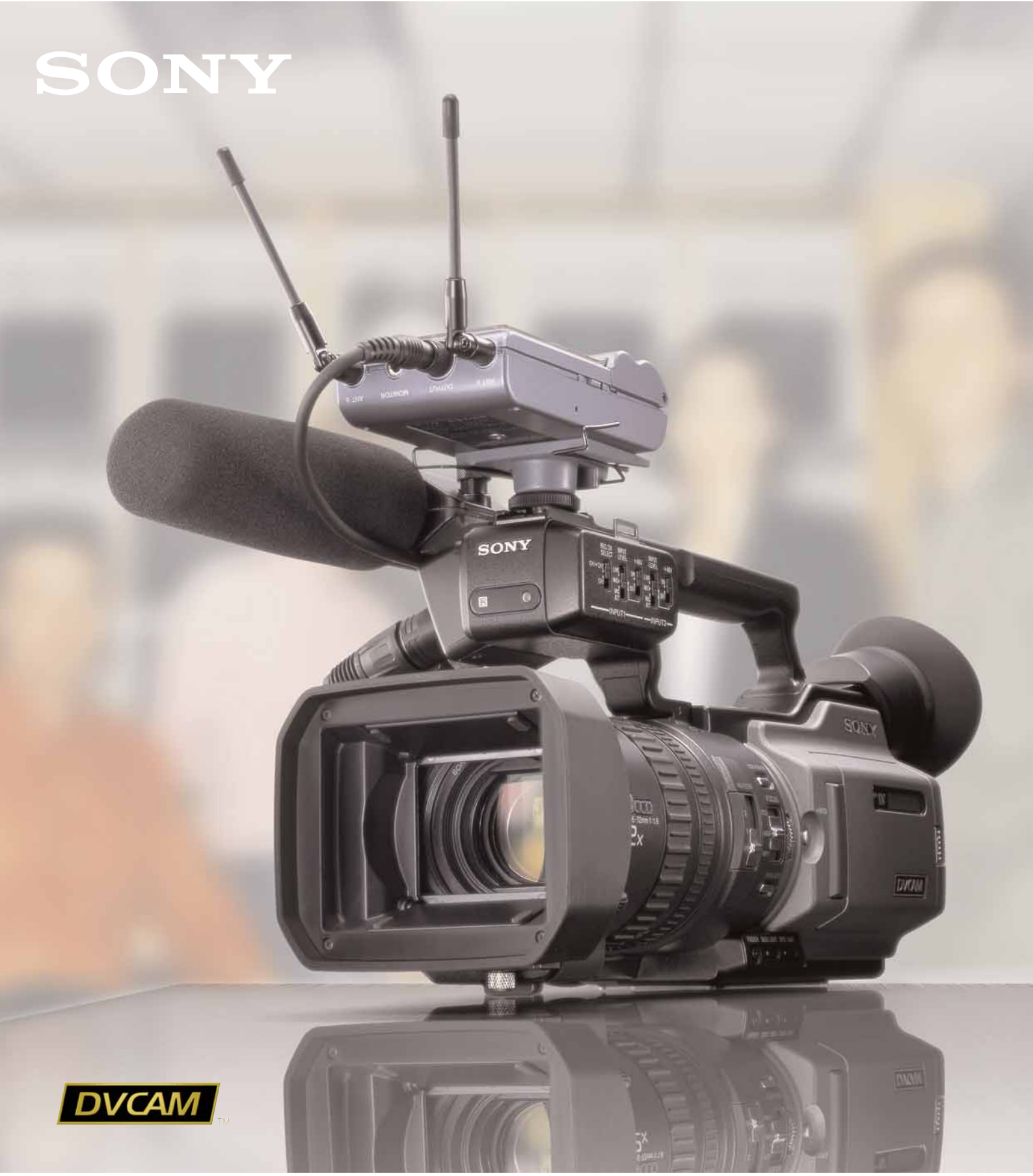
SONY



DVCAM™

DVCAM Product Range **2007**

www.sonybiz.net/dvcam

SONY

Introduction

Video production styles continue to diversify in response to the rapid and tremendous growth in visual communication. In this fast-changing environment, you need equipment that meets the crucial demands for both higher productivity and greater creativity in professional video production.

Since its launch in 1996, Sony DVCAM™ has satisfied these demands and brought many notable benefits. Excellent picture and sound quality that only a digital format can provide, high-performance editing capabilities, and system versatility that makes it possible to migrate smoothly from analogue to digital – these are just some of the factors behind the success of DVCAM.

DVCAM™

Digital Camcorders

DSR-450WSP

CAMCORDER

- > Three wide-aspect 2/3-inch type Power HAD™ EX CCDs provide high quality images with low smear level (-140 dB), high sensitivity, high S/N ratio (63 dB) and high horizontal resolution (800/850 TV lines in 16:9/4:3 mode)
- > Aspect ratio switchable between 16:9 and 4:3
- > Film-like shooting with progressive scan mode 25P
- > Selectable gamma table including film-like gamma
- > Slow shutter (1 to 8 and 16 frames accumulation)
- > Versatile interfaces such as analogue composite output, SDI output (with the CBK-SD01 board), and analogue composite input (with the CBK-SC01 board)
- > Camera remote control via the RM-B150/B750 Remote Control Unit

DSR-400P

CAMCORDER

- > Three 2/3-inch type Power HAD EX CCDs provide high quality images with low smear level (-140 dB), high sensitivity, high S/N ratio (63 dB) and high horizontal resolution (920 TV lines)
- > Supplied VCL-917BY, 17x zoom lens for the DSR-400PK package

DSR-450WSP/400P Series Camcorder Common Features

- > Rugged and ergonomic design
- > Compact and lightweight: approx. 6.5 kg (14 lb 5 oz) with the DXF-801 viewfinder, microphone, BP-GL65 battery pack and mini-size DVCAM cassette and VCL-917BY lens (supplied with the DSR-400PK package)
- > Low power consumption: approx. 17 W (with DC 12 V power supply, REC mode, viewfinder off and LCD monitor off)
- > 12-bit A/D conversion for faithful contrast reproduction
- > Advanced digital signal processing (ADSP)
- > DVCAM/DV (SP) selectable recording
- > Long recording time in DV (SP) mode: up to 276 minutes with a standard-size cassette
- > Digital output to external devices via an i.LINK interface
- > Quick FF/REW capabilities: approx. 40 seconds for a mini-size cassette and approx. 2 minutes and 30 seconds for a standard-size cassette
- > 2.5-inch type*1 colour LCD monitor
- > Supplied DXF-801, 1.5-inch type*1 black and white viewfinder
- > Battery remaining display in the camcorder viewfinder and LCD monitor
- > Shoulder pad can be adjusted either forwards or backwards
- > User-friendly menu controls
- > Memory Stick™ system for storage of camera setup parameters
- > Four assignable buttons to enable operators to assign frequently used functions
- > Turbo gain to boost up the gain level up to +36 dB
- > Intelligent light system to synchronise an optional portable light (max. 50 W) on/off to the REC button
- > CA-WR855 Camera Adaptor for the WRR-855B Wireless Microphone Receiver
- > Optical ND (Neutral Density) filter and electric CC (Colour Correction) filter
- > TruEye™ process for faithful colour reproduction
- > Triple Skin Tone Detail control
- > Auto-Tracing White Balance (ATW) function
- > Multi-matrix function
- > Colour temperature control
- > Interval recording to intermittently record signals at pre-determined intervals
- > Programmable gain (-3/0/3/6/9/12/18/24/30/36 dB)
- > Dual zebra (70 IRE to 90 IRE or more than 100 IRE)
- > Marker (centre, safety zone, 4:3/13:9/14:9 aspect (DSR-450WSP only))
- > Edit search for easy access to edit points
- > Stereo audio output (pin jacks)

*1 Viewable area measured diagonally

DSR-250P

CAMCORDER

- Compact and lightweight: 4.4 kg (9 lb 11 oz)
- Three 1/3-inch type three CCDs for accurate colour reproduction
- Capable of both interlace scan, for moving images, and progressive scan, for still images or shooting a moving subject*1 and exporting a frame of the image as a still picture
- DSP (Digital Signal Processing)
- 2.5-inch type (200,000 dot) colour LCD monitor
- 12x lens*2 with Super SteadyShot™ system
- High-resolution 1.5-inch black & white viewfinder
- 16:9 recording mode available (electronically processed)
- Superb picture quality
- Recording and playback capability with standard and mini-size DVCAM and DV tapes (SP mode only)*3
- Three XLR audio input connectors for professional microphones (one at front, two at rear)
- Audio dubbing capability (48 kHz/16-bit or 32 kHz/12-bit selectable)
- Long recording time: 184 minutes with a standard-size cassette in DVCAM mode, or 270 minutes in DV SP mode
- Time/date data superimposition on output pictures
- Digital still camera functions with Memory Stick
- Light output (DC 12 V, max. 30 W) and additional DC 12 V out for optional accessories
- Time code pre-set capability
- i.LINK (DV) interface providing a single cable connection to simultaneously transfer audio, video and command signals
- LANC interface for simple editing with a LANC-equipped recorder or editing system
- Supplied RMT-811 Remote Commander

*1 When recording moving images in progressive scan mode, the motion will display some jitter since the picture is read/output every 1/12.5 second.

*2 Digital zoom of 24x or 48x available via menu selection.

*3 When recording in DV (SP) format, transitions between cut to cut may not be smooth. In addition, when the recording format is switched between DVCAM and DV, the transition may not be recorded smoothly.

DSR-PD170P

COMPACT CAMCORDER

- Compact and lightweight: Approx 1.6 kg (3 lb 6 oz) (camcorder only)
- Three 1/3-inch type three CCDs for accurate colour reproduction
- Capable of both interlace scan to acquire moving images and progressive scan to capture still images
- Advanced HAD™ technology for high sensitivity and excellent signal to noise ratio
- Low light shooting of 1 lx with F1.6 at 18 dB gain
- Large 180,000-dot LCD precision black and white viewfinder
- Optical 12x zoom lens*1 with Super SteadyShot™ system
- 16:9 widescreen acquisition mode
- DVCAM/DV selectable recording
- 2 ch. XLR audio input and supplied directional microphone
- 16-bit/12-bit PCM digital sound and audio dub capabilities
- Hybrid LCD monitor with a high resolution of more than 210,000 pixels
- Simultaneous operation of LCD monitor and viewfinder
- Large-sized handle to allow for a better and easier grip
- On-handle zoom lever and rec. start/stop button
- Long operating time of up to ten hours with the optional NP-F970 InfoLITHIUM™ battery pack
- Digital still camera functions with Memory Stick media
- Supplied lens hood with built-in lens cap
- Supplied wide conversion lens and additional lens hood
- i.LINK (DV) interface providing a single cable connection to simultaneously transfer audio, video and command signals

*1 Digital zoom of 24x or 48x available via menu selection

Master Series Digital VTRs

Since its introduction, the DVCAM format has become widely accepted in the world of video production – from industrial to broadcast markets. Recognising the increasing demands for DV-based production in broadcast applications, Sony introduced the DSR-2000P in 1999 complete with compatibility with all DV family formats and professional features, such as excellent editing performance and high-quality jog audio, inherited from analogue formats. Building on the advanced technologies of the DVCAM format and professional features of the flagship DSR-2000AP, Sony now presents the entire line-up of Master Series VTRs, our top-of-the-range DVCAM videocassette recorders and players. The Master Series VTRs (DSR-2000AP, DSR-1800AP, DSR-1600AP and DSR-1500AP) now bring the features and benefits introduced with the DSR-2000AP to a wider market, from industrial to broadcast for a wider range of applications and requirements.

Master Series VTR Common Features

> Superb picture quality
> Playback capability of DV (25 Mb/s) recorded tapes including DV tapes recorded in SP mode and DVCPRO tapes*1 without an adaptor or menu setting changes
> Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a mini-size cassette
> Four-channel audio editing capability*2
> Audio cross-fade function for clean audio transitions at editing points*3
> Excellent jog audio capability
> DMC (Dynamic Motion Control) provides noiseless slow-motion playback*4
> High-speed picture search over a range of 60 times*2 normal speed, in both forward and reverse
> Versatile digital interfaces*5: SDI, SDTI (QSDI), i.LINK (DV) and AES/EBU digital audio
> Extensive analogue interfaces: composite, component, S-Video and XLR audio
> HD-SDI up-conversion capability*5
> RS-422A remote control interface
> Frame accurate editing capability
> ClipLink operation
> Full tape dubbing with RS-422A interfaces
> 16:9 aspect ID signal recording
> Video process control for greater control of both analogue and digital outputs
> Built-in SMPTE/EBU time code and VITC generator/reader
> Built-in signal generator (colour bars, black burst, 1 kHz tone, silent signal)*6
> Flexible input selection between video and audio*7
> Universal powering system (AC 100 V to 240 V)
> Three-size cassette compartment to ensure compatibility with DV (25Mb/s) recorded tapes

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

*2 DSR-2000AP/DSR-1800AP/DSR-1600AP only.

*3 DSR-2000AP/DSR-1800AP only.

*4 DSR-2000AP/DSR-1800AP/ DSR-1600AP only.

*5 Optional Input/Output Boards required. Please check Feature Comparison of Digital VTRs (p.16) for details.

*6 DSR-2000AP/DSR-1800AP/DSR-1500AP only.

*7 i.LINK cannot be combined with other signal interfaces. When SDTI (QSDI) is selected as the audio input, the video signal is assumed to be SDTI (QSDI). However, when it is selected as the video input, other signal interfaces can be selected for the audio.

DSR-2000AP

Master

MASTER SERIES EDITING RECORDER

- > Playback capability of DV tapes recorded in LP mode
- > Pre-read editing capability*1 to perform sound-on-sound capability, audio mix/swap and over-dubbing of audio with no delay between video and audio as well as A/B roll editing*2 with two VTRs
- > VTR-to-VTR editing without external controllers
- > Wide range of digital slow speed from -1 to +1 times normal speed
- > Channel condition monitoring function
- > Audio level control in both recording and playback modes
- > Dial menu operation
- > Key Inhibit and Rec Inhibit functions to prevent accidental operation

*1 Not available through SDTI (QSDI) and i.LINK interfaces.

*2 MIX and WIPE only.

DSR-1800AP

Master

MASTER SERIES EDITING RECORDER

- > Pre-read playback capability to perform audio mix/swap and over dubbing without any delay between video and audio signals
- > Wide range of digital slow speed from -0.5 to +0.5 times normal speed
- > Channel condition monitoring function
- > Jog dial on front panel

DSR-1600AP

Master

MASTER SERIES EDITING PLAYER

- > Wide range of digital slow speed from -0.5 to +0.5 times normal speed
- > Channel condition monitoring function
- > Jog dial on front panel

DSR-1500AP

Master

MASTER SERIES EDITING RECORDER

- > Recording capability with standard and mini-size DV tapes. (SP mode only)*
- > Wide range of digital slow speed from -0.5 to +0.5 times normal speed
- > Compact, half-rack size
- > Menu keys on front panel for picture search
- > i.LINK interface as a standard

* Assemble or insert editing is not possible in the consumer DV format mode. However, back space editing is possible using the optional DSRM-10 Remote Control Unit. The transition from cut to cut may not be smooth when performed over a DV recording made on a different DV or DVCAM deck. In between scenes where the recording format is changed from DVCAM to consumer DV format, the transition may not be smooth either.
This is a normal and expected phenomenon. The audio reference level is fixed to -12 dB at DV(SP) recording.

Digital Recorders

DSR-45AP

RECORDER

- > Superb picture quality
- > Recording and playback capability of the DV format (SP mode only)*1
- > Long recording time: up to 184 minutes with a standard-size cassette, 40 minutes with a mini-size cassette in DVCAM mode
- > Full range of analogue Video IN/OUT: Component, Composite, S-Video
- > Four channel independent Audio IN/OUT with XLR connectors for Audio OUT
- > i.LINK(DV) interface for simultaneous transfer of audio, video and command signals
- > RS-422A remote control interface*2
- > RS-232C interface for basic control from a PC
- > LANC and Control S interface
- > Time code IN/OUT
- > Time code/ User bit pre-set
- > Time code IN through DV IN
- > Duplication function (Including the duplication of Cassette Memory data)
- > Compact size (half-rack size width, 2U height)
- > Low power consumption (22 W during playback)
- > Built-in 2.5-inch type (123,200 dot) colour LCD monitor
- > Tape counter
- > Wireless remote controller RMT-DS5 supplied

*1 When recording in DV (SP) format, the transition between cut to cut may not be smooth. In addition, when the recording format is switched between DVCAM and DV, the transition may not be recorded smoothly.

*2 The DSR-45AP is not equipped with the synchronisation capability, therefore is recommended to be used only as a source feeder in A/B roll editing.

DSR-50P

RECORDER

- > Superb picture quality
- > Recording and playback capability of the DV format (SP mode only)*
- > Long recording time: up to 184 minutes with a standard-size cassette, 40 minutes with a mini-size cassette in DVCAM mode
- > Analogue component video OUT
- > Four channel independent Audio IN/OUT with XLR connectors for Audio OUT
- > i.LINK (DV) interface for simultaneous transfer of audio, video, and command signals
- > Control S and Remote control (Foot Switch) interface.
- > 26-pin camera connector
- > Time code IN/OUT
- > Time code IN through DV IN
- > Duplication function (including the duplication of Cassette Memory data)
- > Compact/lightweight design and compatibility with BP-L series batteries for portable use
- > Built-in 2.5-inch type (200,000 dot) colour LCD monitor

* When recording in DV (SP) format, the transition between cut to cut may not be smooth. In addition, when the recording format is switched between DVCAM and DV, the transition may not be recorded smoothly.

DSR-DR1000AP

HARD DISK RECORDER

- > Hard disk recorder (160 GB) with 3.5-inch large-capacity hard drive
- > Up to twelve hours of 25 Mb/s DVCAM/DV video and audio recording
- > Compact and lightweight (210 x 130 x 422 mm/ 8 3⁄8 x 5 1⁄8 x 16 5⁄8 inches, 7.5 kg/ 16 lb 10 oz)
- > Simultaneous recording and playback capability
- > Variable speed playback within a wide range of -2 to +2 times normal speed
- > Smooth jog sound capability for easy designation of editing points
- > Clip segment playback for continuous playback of designated video segments
- > Repeat function* to allow loop playback of a selected clip or clip segment
- > Continuous loop recording allows recording to continue until stopped by operator
- > Interval recording to produce recordings over extended periods
- > Pre-alarm recording automatically triggers cache recording to start when an external alarm signal is detected
- > VTR-like control panel with Jog/Shuttle dial
- > Random access to files
- > Control by external devices supporting Sony Virtual File List (VFL) disk protocol via an RS-422A interface
- > Synchronous playback via an RS-422A interface
- > Versatile interfaces
- > i.LINK interface (6-pin) with AV/C and SBP2 protocols
- > High-speed file transfer via an i.LINK interface using SBP2 protocol
- > File transfer of DV video and audio using FTP via Ethernet connection

* The repeat function cannot be used for loop play back of multiple clips or multiple clip segments.

AWS-G500

LIVE CONTENT PRODUCER

Anycast Station

Anycast Station – an integrated, portable and easy to use solution to help you deliver your live event.
Designed as a highly portable and easy to use content management and delivery tool for live production, the Anycast Station combines an audio mixer, video switcher, streamer encoder, and LCD monitor in one briefcase sized unit weighing only around 17 lbs 10 oz (8kg).

The Anycast Station (AWS-G500) provides a range of inputs including DV, S-Video, Composite and RGB to allow the user to bring together both Video and PC content in an event without the need for external line converters.
The Anycast Station is adaptable to your needs – giving you a choice of inputs for up to six sources, and the ability to deliver content to your audience – both at the venue and to remote audiences via a web stream. In addition, live source material can be recorded on external hard disk drives for archive or later editing on a PC.
The Anycast Station now has two optional interface modules that extend the system's wide capabilities: the BKAW-560 HD Analogue Component I/O Module and the BKAW-590 HD-SDI I/O Module. End users can now migrate from analogue to digital or SDI to HD simply by swapping the modular BKAW interface cards.
With all of these features, the Anycast Station is an ideal tool to help you deliver a wide range of events such as business conferences, seminars, press conferences, product promotions, live staging and distance learning.

HDXchange

COMPLETE NETWORK EDITING SOLUTION

No matter what business you are in today there is great pressure to increase output while reducing costs. Implementing a streamlined workflow should not mean compromising business needs or goals. HDXchange is the complete solution for a collaborative network editing environment.

HDXchange has been designed and engineered by Sony to simplify today's collaborative workflows. It's a powerful, scalable platform that's built on widely recognised open industry standards, so you're not locked into proprietary acquisition formats or media.
HDXchange is the ideal managed shared storage solution for those who acquire or produce media in DV, DVCAM and HDV-based formats. It's also the perfect environment to unlock the powerful workflow benefits of the Sony XDCAM and XDCAM HD production system.
With HDXchange, material is always held centrally and streamed on demand to users. This means multiple users can concurrently access and utilise library clips.
HDXchange is more than a content store – it has a full and comprehen-Isive asset management system.
This provides the tools to ingest and index material, search and browse clips – and perform simple editing.
Full programme finishing can be completed in any of the supported non-linear editing packages. Today these include Sony Vegas and Apple Final Cut Pro, with Avid LE support from September 2007. Completed projects can be distributed via a choice of delivery options.

Vegas™+DVD

PROFESSIONAL HD VIDEO, AUDIO AND DVD PRODUCTION

The Vegas+DVD Production Suite combines Vegas 7, DVD Architect™ 4 and Dolby Digital® AC-3 encoding software to offer an integrated environment for all phases of video, audio, DVD, and broadcast production. This suite has all the tools needed to edit and process DV, HDV, SD/HD-SDI and all XDCAM formats in real time, fine-tune audio and author surround sound, dual-layer DVDs.
Vegas+DVD key features include comprehensive XDCAM support, Cinescore software plug-in support, direct export to Sony PSP, customisable video effects and 5.1-channel AC-3 encoding. The Vegas+DVD Production Suite also includes a Sony Pictures Sound Effects Series sampler CD, Boris Graffiti LTD titling software, and Magic Bullet Movie Looks™ video effects. Vegas+DVD is available in English, French and German.

Cinescore™

PROFESSIONAL SOUNDTRACK CREATION

Cinescore software automatically generates fully composed, multigenre production music using royalty-free Themes in a variety of popular styles. Arrange your media, then create dynamic and effective musical tracks for movies, slideshows, commercials, and radio productions in just minutes.
Highly customisable, user-defined settings yield an unlimited number of musical choices. Switch up tempo, mood, and intensity by positioning Hint Markers to correlate with the changes in your video.
Cinescore software includes over 300 sound effects and audio transitions to enhance your soundtrack. Layer musical hits, comedic effects and sonic textures across multiple tracks to achieve maximum impact. Deliver projects in nearly any format without leaving the Cinescore environment.

Sound Forge™ 9

PROFESSIONAL DIGITAL AUDIO PRODUCTION SUITE

The Sound Forge 9 professional digital audio production suite includes everything you need to quickly get from raw audio to finished master. Use this suite to create and edit stereo and multichannel audio files with speed and precision, efficiently analyse, record and edit audio, digitise and restore old recordings, model acoustic environments, design sound for multimedia and master replication-ready CDs. Sound Forge 9 new features include multichannel file recording, editing and processing, phase scope metering and Dolby Digital AC-3 export. Includes CD Architect™ 5 software, Noise Reduction™ 2 plug-ins and Mastering Effects Bundle powered by iZotope™. Works with Windows® Vista™.

ACID™ Pro 6

PROFESSIONAL MUSIC WORKSTATION

ACID Pro 6 software is a professional music workstation for composing, recording, mixing and arranging audio and MIDI tracks. New multitrack technologies and full MIDI sequencing join legendary ACID looping functionality to form an incomparable environment for music creation and production.
Included with ACID Pro 6 software is a custom edition of Native Instruments™ KOMPAKT and over 1,000 loops so you can start making music right out of the box. Native support for VST instruments and plug-ins expands your palette of available sounds. ACID Pro 6 key features include automatic pitch and tempo matching, unlimited tracks, 24-bit/192kHz recording, on-the-fly punch-in recording, inline MIDI editing, control surface support, 5.1 surround mixing and integrated CD burning. ACID Pro 6 is available in English and German.

UWP-C1

TURNKEY PACKAGE

- Consists of an omni-directional lavalier microphone, bodypack transmitter and portable tuner
- Suitable for a wide range of applications, from news gathering and interviews to talk shows and conferences
- The lavalier microphone is supplied with a microphone windscreen and microphone-holder clip
- The bodypack transmitter is supplied with a belt clip
- The portable tuner is supplied with a microphone stand adaptor, shoe-mount adaptor and belt clip for mounting on a camcorder and output cables (3-pole mini-plug/XLR-type, 3-pole mini-plug/stereo mini-plug)

UWP-C2

TURNKEY PACKAGE

- Consists of a handheld microphone and portable tuner
- Suitable for news gathering and for use in PA systems
- The handheld microphone is supplied with a microphone holder
- The portable tuner is supplied with a microphone stand adaptor, shoe-mount adaptor and belt clip for mounting on a camcorder and output cables (3-pole mini-plug/XLR-type, 3-pole mini-plug/stereo mini-plug)

UWP-C3

TURNKEY PACKAGE

- Consists of a plug-on transmitter and portable tuner
- Suitable for a wide range of applications, from news gathering and interviews to field productions
- The plug-on transmitter is supplied with a softcase
- The portable tuner is supplied with a shoe-mount adaptor and belt clip for mounting on a camcorder and output cables (3-pole mini-plug/XLR-type, 3-pole mini-plug/stereo mini-plug)

Accessories

BP-GL65/GL95
Lithium Ion Battery Pack
DSR-450WSP DSR-400P DSR-250P DSR-50P

BP-L60S
Lithium Ion Rechargeable Battery Pack
DSR-450WSP DSR-400P DSR-250P DSR-50P

2NP-F970/B
InfoLITHIUM Rechargeable Battery Pack
DSR-PD170P

HVL-LBP
LED Light
DSR-PD170P

AC-DN10
AC Adaptor
DSR-450WSP DSR-400P DSR-250P

AC-DN2B
AC Adaptor
DSR-450WSP DSR-400P DSR-250P

AC-V700A
AC Adaptor/Charger
DSR-PD170P

AC-VQ1050B
AC Adaptor/Charger
DSR-PD170P

BC-M150
Battery Charger for BP-GL65/GL95
DSR-450WSP DSR-400P DSR-250P DSR-50P

BC-L70
Battery Charger for BP-GL65/GL95
DSR-450WSP DSR-400P DSR-250P DSR-50P

DXF-51
5-inch Monochrome Viewfinder*
DSR-450WSP DSR-400P

RM-B750
Remote Control Unit
DSR-450WSP

RM-B150
Remote Control Unit
DSR-450WSP

RM-280
Editing Controller
DSR-DR1000AP DSR-1500AP DSR-1600AP DSR-1800AP DSR-2000AP DSR-45AP

YJ19x9BKRS
2/3-inch type Format 19x Lens
DSR-450WSP DSR-400P

A20x8.6BRM-SD
2/3-inch type Format 20x Lens
DSR-450WSP DSR-400P

VF-58PK
Filter Kit
PL Filter and Multi-coat Filter
DSR-250P DSR-PD170P

VCL-HG0758
Wide Conversion Lens 0.7x
DSR-250P DSR-PD170P

VCL-HG1758
Tele Conversion Lens 1.7x
DSR-250P DSR-PD170P

LSF-S58
Lens Hood
DSR-PD170P

* When it is attached to the DSR-450WSP/400P, a mount bracket (A-8274-968-B) is required.

VCT-PG11RMB
Video Tripod
DSR-PD170P

RM-1BP
Remote Control for VCT-PG11RMB Video Tripod
DSR-PD170P

UWP-C1
Wireless Microphone Package
DSR-450WSP
DSR-400P
DSR-250P
DSR-PD170P

UWP-C2
Wireless Microphone Package
DSR-450WSP
DSR-400P
DSR-250P
DSR-PD170P

UWP-C3
Wireless Microphone Package
DSR-450WSP
DSR-400P
DSR-250P
DSR-PD170P

WRR-862B
Dual UHF Synthesized Tuner*
DSR-450WSP
DSR-400P

WRR-855B
UHF Synthesized Tuner
DSR-450WSP
DSR-400P

WRT-822B
UHF Synthesized Wireless Transmitter
DSR-450WSP
DSR-400P

CA-WR855
Camera Adaptor for WRR-855B
DSR-450WSP
DSR-400P

CAC-12
Microphone Holder
DSR-450WSP
DSR-400P
DSR-250P

VCT-U14
Tripod Adaptor
DSR-450WSP
DSR-400P
DSR-250P

ECM-673/674/678
Elecret Condenser Microphone
DSR-250P
DSR-PD170P

LC-DS300SFT
Carrying Case (Soft type)
DSR-450WSP
DSR-400P

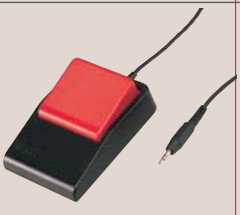
LCS-G1BP
Camcorder Carrying Case (Soft type)
DSR-PD170P

LC-H300
Hard Carrying Case
DSR-450WSP
DSR-400P

LCH-VX2000A
Hard Carrying Case
DSR-PD170P

LCR-VX2000A
Rain Jacket
DSR-PD170P

LCR-1
Rain Cover
DSR-450WSP
DSR-400P

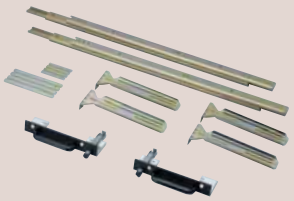


FS-20
Foot Switch
DSR-50P

DSRM-10
Remote Control Unit
DSR-1800AP
DSR-1600AP
DSR-1500AP
DSR-45AP
DSR-50P

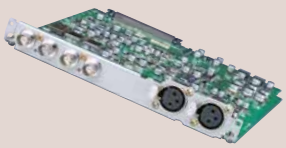
* When using the WRR-862B, a mounting bracket (A-8278-057-A) is required.

Accessories



RMM-131
Rack Mount Kit
DSR-2000AP
DSR-1800AP
DSR-1600AP

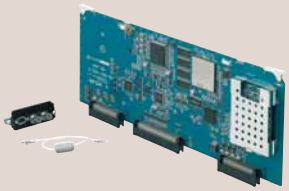
DSBK-1501
Digital Input/Output Board
DSR-1500AP



DSBK-1505
Analogue Input Board
DSR-1500AP

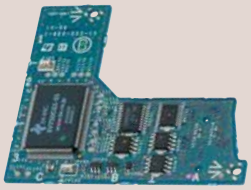
DSBK-1601
SDI/AES/EBU Output Board
DSR-1600AP

DSBK-1801
SDI/AES/EBU
Input/Output Board
DSR-1800AP



DSBK-2020
HD Up-conversion Board
DSR-2000AP

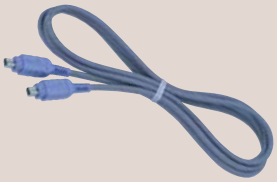
DSBK-1820
HD Up-conversion Board
DSR-1800AP
DSR-1600AP



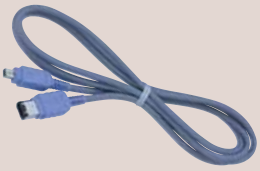
CBK-SC01
Analogue Composite
Input Board
DSR-450WSP

CBK-SD01
SDI Output Board
DSR-450WSP

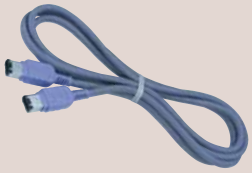
RCC-5G
Remote Control Cable (5 m)
DSR-2000AP
DSR-1800AP
DSR-1600AP
DSR-1500AP
DSR-45AP
DSR-DR1000AP



VMC-IL4408A/
IL4415/IL4435
i.LINK Cable (4-pin to
4-pin, 0.8 m/1.5 m/3.5 m)
DSR-PD170P
DSR-45AP



VMC-IL4615/
IL4635
i.LINK Cable
(4-pin to 6-pin,
1.5 m/3.5 m)
DSR-250P
DSR-PD170P
DSR-2000AP
DSR-1800AP
DSR-1600AP
DSR-1500AP
DSR-45AP
DSR-50P
DSR-DR1000AP



VMC-IL6615/
IL6635
i.LINK Cable (6-pin
to 6-pin, 1.5 m/3.5 m)
DSR-250P
DSR-2000AP
DSR-1800AP
DSR-1600AP
DSR-1500AP
DSR-50P
DSR-DR1000AP

CCF-3L
DV Cable
(6-pin with lock to 6-pin)
DSR-450WSP
DSR-400P
DSR-250P
DSR-2000AP
DSR-1800AP
DSR-1600AP
DSR-1500AP
DSR-50P
DSR-DR1000AP

CCFD-3L
DV Cable
(6-pin with lock to 4-pin)
DSR-450WSP
DSR-400P
DSR-250P
DSR-PD170P
DSR-45AP
DSR-50P

MSH-32/64/128/
128S2
IC Recording Media
Memory Stick
(32 MB/64 MB/128 MB/256 MB)
DSR-450WSP
DSR-400P
DSR-250P
DSR-PD170P

PHDV-276DM/
186DM/124DM/64DM
Digital Master Standard
Cassette Tape

PHDVM-63DM
Digital Master Mini
Cassette Tape

DSR-450WSP
DSR-400P
DSR-250P
DSR-PD170P
DSR-2000AP
DSR-1800AP
DSR-1600AP
DSR-1500AP
DSR-45AP
DSR-50P

DSR-450WSP
DSR-400P
DSR-250P
DSR-PD170P
DSR-2000AP

DSR-1800AP
DSR-1600AP
DSR-1500AP
DSR-45AP
DSR-50P

PDVM-12N/22N/32N/40N
Digital Videocassette
(Non-IC type/Mini size)

PDV-34N/64N/94N/124N/184N
Digital Videocassette
(Non-IC type/Standard size)

PDVM-12ME/22ME/32ME/
40ME
Digital Videocassette
(IC-type/Mini size)

PDV-34ME/64ME/94ME/124ME/
184ME
Digital Videocassette
(IC-type/Standard size)

PDV-12CL
Cleaning Cassette Tape (Standard size)

PDVM-12CL
Cleaning Cassette Tape (Mini size)

	DSR-450WSP	DSR-400P	DSR-250P	DSR-PD170P
General				
CCD size	3CCD 2/3-inch	3CCD 2/3-inch	3CCD 1/3-inch	3CCD 1/3-inch
CCD type	16:9, Power HAD EX	4:3, Power HAD EX	4:3	4:3
16:9 or 4:3 commutation	4:3 Commutation		16:9 Commutation	16:9 Commutation
Standard lens	Recommended Canon: Canon : YJ19x9BKRS Fujinon : A20x8.6BRM-SD	VCL-917BY (supplied in K package)	12x (6.0 to 72 mm)	12x (6.0 to 72 mm)
Interchangeable lens	•	•		
Viewfinder type	BW CRT	BW CRT	BW CRT	High resolution BW LCD
Colour LCD screen	2.5-inch	2.5-inch	2.5-inch	2.5-inch, Hybrid
Tape size	Standard & Mini	Standard & Mini	Standard & Mini	Mini only
Recording & playback format	DVCAM / DV	DVCAM / DV	DVCAM / DV	DVCAM / DV
Manual iris	Yes (Ring)	Yes (Ring)	Yes (Ring)	Yes (Dial)
Manual zoom	Electric or Manual	Electric or Manual	Electric or Manual	Electric or Manual
Focus ring	•	•	•	•
Assignable buttons	•	•		
Adjustable shoulder pad	•	•		
On-handle zoom lever & Rec button				•
Time code preset	•	•	•	•
Memory Stick	For scene file store	For scene file store	For still image capture	For still image capture
Mass	6.5 kg	6.5 kg	4.4 kg	1.5 kg
Camera Specification				
Sensitivity	F11 at 2000 lx (Typical)	F11 at 2000 lx (Typical)		
S/N Ratio	63 dB Typical	63 dB Typical		
Smear Level	-140 dB	-140 dB		
Minimum illumination	0.5 lux	0.5 lux	2 lux	1 lux
Resolution	800 lines (in 16:9 mode) 850 lines (in 4:3 mode)	920 lines	530 lines	530 lines
Advanced Camera Features				
25P (progressive)	•			
Slow Shutter	•			
Selectable Gamma	•			
TruEye Processor	•	•		
Adaptive Highlight Control	•	•		
Skin Tone Detail	•	•		
Variable Black Gamma Range	•	•		
ATW (Auto Tracing White Balance)	•	•		
Electronic Soft Focus	•	•		
Multi-matrix Function	•	•		
Colour Temperature Control	•	•		
Camera Setup File	•	•		
Interval Recording	•	•	•	•
Super SteadyShot			•	•
Still image recording			•	•
Output connectors				
Composite Video	Yes (BNC)		Yes (RCA+BNC)	Yes (Jack)
Monitor	Yes (BNC)	Yes (BNC)		
S-Video			•	•
i.LINK (IEEE1394)	Yes (6-pin)	Yes (6-pin)	Yes (6-pin)	Yes (4-pin)
SDI	Yes (option CBK-SD01)			
Audio (2x RCA)	•	•	•	•
DC (4-pin)	•	•	•	
Time Code	•	•		
Input connectors				
Composite	Yes (option CBK-SC01)		Yes (RCA)	Yes (RCA)
S-Video			•	•
Gen Lock	•	•		
LANC			•	•
Lens connector	•	•		
Audio XLR	Yes (1x front + 2x rear)	Yes (1x front + 2x rear)	Yes (1x front + 2x rear)	Yes (2x)
Time Code	•	•		
DC 12V (XLR 4-pin)	•	•	•	
i.LINK (IEEE1394)			Yes (6-pin)	Yes (4-pin)
Accessories				
AC adaptor	AC-DN10 / DN2B	AC-DN10 / DN2B	AC-DN10 / DN2B	AC-L15 (supplied)
Battery	BP-GL95/GL65/L60S	BP-GL95/GL65/L60S	BP-L60S	NP-F970/770/570
i-LINK cable	CCF-3L (6P-6P) CCFD-3L (4P-6P)	CCF-3L (6P-6P) CCFD-3L (4P-6P)	CCF-3L (6P-6P) CCFD-3L (4P-6P)	VMC-IL4415/4435 (4P-4P) VMC-IL4615/4635 (4P-6P)
Battery charger	BC-M150/L70	BC-M150/L70	BC-M150/L70	AC-V700A/VQ1050B
UHF Receiver & Beltpack Transmitter			UWP-C1	UWP-C1
UHF Reciever & Handheld Transmitter			UWP-C2	UWP-C2
UHF Wireless Receiver	WRR-855B (+CA-WR855)	WRR-855B (+CA-WR855)		
UHF Wireless BeltpackTransmitter	WRT-822B	WRT-822B		
UHF Wireless Handheld Transmitter	WRT-807B	WRT-807B		
High Quality Shotgun Microphone	ECM-678	ECM-678	ECM-670	ECM-670
Wide angle	Canon YJ12x6.5 KRS Fujinon A12x6.8	Canon YJ12x6.5 KRS Fujinon A12x6.8	option: Sony VCL-HG0758 (without lens hood) Canon WR-58 Century Optics	Sony VCL-HG0758 (supplied) Canon WR-58 Century Optics
Rain cover	LCR-1	LCR-1	LCR-1	LCR-VX2000A
Camcorder light	Anton Bauer Ultra Light2 20W (UL2-6)+ (DIFFUSION FILTER uld-f)	Anton Bauer Ultra Light2 20W (UL2-6)+ (DIFFUSION FILTER uld-f)	Anton Bauer Ultra Light2 20W(UL2-6)+ (DIFFUSION FILTER uld-f)	HVL-20DW2
Tripod adaptor	VCT-U14 (supplied)	VCT-U14 (supplied)	VCT-U14 (option)	(photo type)
Hard carrying case	LC-H300	LC-H300		LCH-VX2000A
Soft carrying case	LC-DS300SFT	LC-DS300SFT	LC-DS300SFT	LCS-VCB
Large viewfinder	DXF-51 + accessories*	DXF-51 + accessories*	DXF-51 + accessories*	
Silver Support	•	•	•	•

* Spare part ref. for assembling kit = A-8278-177-A.
• Available

Digital VTR Features Comparison

	DSR-2000AP	DSR-1800AP	DSR-1600AP	DSR-1500AP	DSR-50P	DSR-45AP
Cassette						
Standard-size Cassette	•	•	•	•	•	•
Mini-size Cassette	•	•	•	•	•	•
DVCPRO Medium-size Cassette	•	•	•	•		•
Digital Interface						
SDI	•	• (Option)	•*1 (Option)	• (Option)		
SDTI (QSDI)	•					
i.LINK (DV)	•	•	• *1	•	•	•
AES/EBU	•	• (Option)	• *1 (Option)	• (Option)		
HD-SDI	• *1 (Option)	• *1 (Option)	• *1 (Option)			
Analogue Interface						
Composite	•	•	• *1	• *2 (Option)	•	•
Component	•	•	• *1	• *2 (Option)	• *1	•
S-Video	•	•	• *1	• *2 (Option)	•	•
Remote Control Interface						
RS-422A	•	•	•	•		• *3
RS-232C						•
LANC					• *4	•
Control S		•	•	•	• *5	• *5
Foot Switch					•	
Wireless Remote Control						•
Editing Capability						
Pre-read Editing/Playback	•	• *6				
Assemble Editing	•	•	•			
Insert Editing	• (Video/Audio/TC)	• (Video/Audio/TC)		• (Video/Audio/TC)		
VITC	•	•	•	•		
Time Code Input/Output	•	•	•	•		•
ClipLink	•	•	•	•		
Search Speed	x ±60	x ±60	x ±60	x ±60	x ±17.48	x ±17.48
Digital Slow	x ±1	x ±0.5	x ±0.5	x ±1/10, 1/3	x ±1/10, 1/3	x ±1/10, 1/5
Others						
DV Playback	• (SP/LP)	• (SP only)	• (SP only)	• (SP only)	• (SP only)	• (SP only)
DVCPRO Playback	•	•	•	•		
DV (SP mode) Recording				• *7	• *8	• *8
Auto Repeat/Power-on Playback/Recording		• *9	• *9	• *9		•
Index Points Search					•	•

* 1 Output only
* 2 These signals share the same BNC connectors
* 3 As a player only
* 4 Control Jack (accepts LANC command as player)
* 5 Input only.
* 6 Playback only.
* 7 Assemble or insert editing is not possible in the consumer DV format mode. However, back space editing is possible using the optional ansition may not be smooth either. This is a normal and expected phenomenon. The audio reference level is fixed to -12 dB at DV(SP) recording.
* 8 When recording in DV (SP) format, transitions between cut to cut may not be smooth. In addition, when the recording format is switched between DVCAM and DV, the transition may not be recorded smoothly.
* 9 Auto repeat/Power-on playback only.
* 10 Auto repeat only.

• Available

		DSR-450WSP	DSR-400P
General			
Power requirements		DC 12 V (11 to 17V)	
Power consumption		Approx. 17 W (with DC 12 V power supply, REC mode, viewfinder off, LCD monitor off)	
Operating temperature		0 to +40 °C (+32 to +104 °F)	
Storage temperature		-20 to +60 °C (-4 to +140 °F)	
Operating humidity		25 to 85%	
Mass		Approx. 6.5 kg (14 lb 5 oz) (with viewfinder, microphone, BP-GL65 battery, mini-size DVCAM cassette, VCL-917BY lens)	
Continuous operating time		Approx. 300 min. with BP-GL95 battery, REC mode	
Signal inputs/outputs			
Video inputs	Analogue composite	BNC, 1.0 Vp-p, 75 Ω (with the CBK-SC01)	—
	Genlock video	BNC, 1.0 Vp-p, 75 Ω	
Audio input (CH-1/2)		XLR-3 (2), female, -60 dBu/+4 dBu, 10 kΩ, balanced	
Microphone input		XLR-3, female, -60 dBu	
Time code input		BNC, 0.5 to 18 Vp-p, 10 kΩ	
Video outputs	SDI	BNC, 0.8 Vp-p, 75 Ω (with the CBK-SD01)	—
	i.LINK	i.LINK, 6-pin IEEE 1394-based	
	Analogue composite	BNC, 1.0 Vp-p, 75 Ω	—
Audio output (CH-1/2)		Pin-jacks (2), -10dBu, 47kΩ	
Time code output		BNC, 1.0 Vp-p, 75 Ω	
Monitor output		BNC, 1.0 Vp-p, 75 Ω	
Earphone output		Mini-jack	
Other inputs/outputs			
Lens		12-pin	
VF		20-pin	
Remote		8-pin	—
Wireless microphone		7-pin	
Light		2-pin, DC 12 V, max. 50 W	
DC input		XLR-4-pin, male, DC 11 to 17 V	
DC output		4-pin (for wireless microphone receiver), DC 12 V (max. 0.2 A)	
Battery terminal		5-pin	
Camera			
Pickup device		3-chip 2/3-inch type Power HAD EX CCD	
Aspect ratio		16:9/4:3 switchable	4:3
Total picture elements		1038 (H) x 1188 (V)	
Effective picture elements		980 (H) x 1064 (V)	
Spectral system		F1.4 prism (with quarts filter)	
Built-in filters		1: Clear, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND	
Lens mount		2/3-inch type Sony bayonet mount	
Signal system		PAL colour system	
Scan format		625/50i, 625/25P	625/50i
Sync system		Internal and External with the VBS or BS signal	
A/D conversion		12 bits	
Sensitivity		F11 (typical) (2000 lx, 89.9% reflectance)	
Minimum illumination		0.5 lx (F1.4 lens, +36 dB gain, shutter off) 0.03 lx (with slow shutter, 16 frames accumulation)	0.5 lx (F1.4 lens, +36 dB gain, shutter off)
Smear level		-140 dB (typical)	
Video S/N ratio		63 dB (typical)	
Horizontal resolution		850 TV lines (4:3 mode), 800 TV lines (16:9 mode)	920 TV lines
Vertical resolution		480 TV lines (with EVS) and 530 TV lines (without EVS) at 625/50i mode 575 TV lines at 625/25P mode	480 TV lines (with EVS), 530 TV lines (without EVS)
Shutter speed		1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 s at 625/50i mode 1/33, 1/50, 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000 s at 625/25P mode	1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 s
ECS		50 to 6000 Hz at 625/50i mode 25 to 6000 Hz at 625/25P mode	50 to 6000 Hz
Slow shutter		1/25, 1/12.5, 1/8.3, 1/6.3, 1/5, 1/4.2, 1/3.6, 1/3., 1/1.6 s (1 to 8, 16 frames)	—
Gain selection		-3, 0, 3, 6, 9, 12, 18, 24, 30, 36 dB (for GAIN LOW, GAIN MID, GAIN HIGH and GAIN TURBO positions)	
Video			
Recording format	Video	DVCAM/DV (SP) (25 Mb/s)	
	Audio	2 ch/16-bit/48 kHz, 2 ch/12-bit/32 kHz, 4 ch/12-bit/32 kHz (for use with a studio VTR)	
Record/playback time		DVCAM: 184 min (with the PDV-184ME), DV SP: 276 min (with the PDV-184ME)	
Fast forward time		Approx. 45 s (with the PDVM-40ME), approx. 2 min 30 s (with the PDV-184ME)	
Rewind time		Approx. 45 s (with the PDVM-40ME), approx. 2 min 30 s (with the PDV-184ME)	
Recommended recording media		PDV-184ME/124ME/94ME/64ME/34ME/184N/124N/94N/64N/34N, PDVM-184ME/124ME/94ME/64ME/34ME/184N/124N/94N/64N/34N	
Sampling frequency		Y: 13.5 MHz, R-Y/B-Y: 6.75 MHz	
Quantization		8 bits	
Audio			
Frequency response		48 kHz: 20 Hz to 20 kHz +0.5/-1.0 dB, 32 kHz: 20 Hz to 14.5 kHz +0.5/-1.0 dB	
Dynamic range		More than 80 dB	
Distortion		Less than 0.12% (at 1 kHz, reference level, 48 kHz)	
Built-in LCD monitor			
		2.5-inch type colour LCD monitor, resolution: 214,000 (964 x 222) pixels	
Viewfinder			
CRT		1.5-inch type monochrome	
Indicators		REC TALLY (2), TAKE TALLY, BATT, SHUTTER, GAIN UP	
Horizontal resolution		600 TV lines	
Microphone			
		Electret condenser microphone (detachable)	
Eco-info			
		Lead-free solder is used for soldering all the parts including circuit component electrodes. Halogenated flame retardants are not used in the printed wiring boards.(100%)	
Supplied Accessories			
		DXF-801 Viewfinder, Microphone, VCT-U14 Tripod Adaptor, Shoulder Strap, Lens Mount Cap, Test Chart for Flange Focal Length Adjustment, VCL-917BY Zoom Lens (DSR-400PK Package)	

	DSR-250P	DSR-PD170P
General		
Power requirements	DC 12 V (11 V to 17 V)	DC 7.2 V (Battery), DC 8.4 V (AC adaptor)
Power consumption	10.5 W (with VF), 12.1 W (with VF and LCD)	4.7 W (with VF), 5.7 W (with VF and LCD)
Operating temperature	0 °C to 40 °C (32 °F to 104 °F)	
Storage temperature	-20 °C to 60 °C (-4 °F to 140 °F)	
Tape speed	Approx. 28.2 mm/s (DVCAM mode) Approx. 18.8 mm/s (DV SP mode)	
Recording/Playback time	184 minutes (DVCAM mode), 270 minutes (DV SP mode with PDV-184ME) cassette, 40 minutes (DVCAM mode), 60 minutes (DV SP mode with PDVM-40ME)	40 minutes (DVCAM mode), 60 minutes (DV SP mode, with PDVM-40ME)
Mass	Approx. 4.4 kg (9 lb 11 oz)	(camcorder only) Approx. 1.6 kg (3 lb 8 oz)
Dimensions (W x H x D)	214.7 x 251.25 x 508.8 mm (9 5/8 x 10 x 20 1/8 inches)	133 x 180 x 456 mm (5 1/4 x 7 1/8 x 18 inches) including microphone
Lens		
Zoom	12:1 Variable Speed zoom lens ; F = 6.0 to 72.0 mm ; F1.6 to 2.4	
Filter diameter	58 mm (2 3/8 inches)	
Focus	Auto/Manual (ring)/Infinity/One push auto	
Camera		
Image device	Three 1/3-inch type CCDs, 450,000 pixels	
Signal system	CCIR Standard, PAL colour system	
Scanning system	Progressive/Interlace Scan	
Horizontal resolution	530 TV lines	
Minimum illumination	2 lx	1 lx
Gain selection	+0, +3, +6, +9, +12, +15, +18 dB	
Shutter speed selection	1/3, 1/6, 1/12, 1/25, 1/50, 1/60, 1/100, 1/120, 1/150, 1/215, 1/300, 1/425, 1/600, 1/1000, 1/1250, 1/1750, 1/2500, 1/3500, 1/6000, 1/10000 s	
Exposure	Auto/Manual (Iris ring)	Auto/Manual (Iris dial)
White balance	Auto/One-push (Memory A, B)/Out door (5800 K)/Indoor (3200 K)	Auto/One-push/Outdoor (5800K)/Indoor (3200K)
Viewfinder	1.5-inch black and white CRT, Zebra Pattern	180,000 dot Black & White LCD, Zebra Pattern
Built-in microphone	—	
Built-in speaker	Dynamic speaker	
LCD	TFT Active Matrix 2.5-inch type, 200,640 dots (880 x 228)	Hybrid, 2.5-inch type, 211,200 dots (960 x 220)
Memory card slot	Memory Stick Recording signals: Camera signals, VTR signals Image compression: JPEG Image size: VGA (640 x 480)	
Input/Output Connectors		
Signal inputs/outputs	Video IN/OUT: RCA pin x 1, Y: 1 Vp-p, 75 Ω, unbalanced, sync negative Video OUT: BNC pin x 1, Y: 1 Vp-p, 75Ω, unbalanced, sync negative Audio IN/OUT: RCA pin x 2,245 m Output impedance with less than 2.2 kΩ Input impedance with more than 47 kΩ S-Video IN/OUT: Mini-DIN 4 pin x 1 Y: 1 Vp-p, 75 Ω, unbalanced, C: 0.3 Vp-p Audio IN: XLR 3-pin (female) x 3, -60 dBu, 6.8 kΩ, +4 dBu, 6.8 kΩ (0 dBu = 0.775 V rms) i.LINK (DV): 6 pin (with lock) x 1	Video IN/OUT: RCA pin x 1 Y: 1 Vp-p, 75 Ω, unbalanced, sync negative Audio IN/OUT: RCA pin x 2, 327 mV Output impedance with less than 2.2 k Input impedance with more than 47 k S-Video IN/OUT: Mini-DIN 4 pin x 1 Y: 1 Vp-p, 75 Ω, unbalanced C: 0.3 Vp-p Audio IN: XLR 3-pin female x 2, -60 dBu, 3 kΩ, +4 dBu, 10 kΩ (0 dBu = 0.775 V rms) i.LINK (DV): 4-pin x 1
Others	LANC: Stereo mini-mini jack (0.25 mm) x 1 Headphone: Stereo mini jack (0.35 mm) x 1 External DC IN: 12 V, XLR 4-pin (male) DC OUT for Light: 12 V, max. 30 W DC OUT: 12 V, 4 pin	LANC: Stereo mini-mini jack (0.25 mm) x 1 Headphone: Stereo mini jack (0.35 mm) x 1 External DC IN: 8.4 V for AC-L10 AC adaptor
Supplied Accessories		
	ECM-NV1 Monaural Microphone RMT-811 Remote Commander and R6 Batteries (2) Hood Cap	ECM-NV1 Monaural Microphone AC-L15 AC Adaptor NP-F570 InfoLITHIUM Rechargeable Battery Pack RMT-811 Remote Commander and B6 Batteries (2) VCL-HG0758 Wide Conversion Lens LSF-S58 Lens Hood for Wide Conversion Lens and Hood Cap Lens Hood with Built-in Lens Cap Carrying Belt i.LINK Cable Strap Stereo AV Cable

	DSR-2000AP	DSR-1800AP	DSR-1600AP	DSR-1500AP
General				
Power requirements	AC 100 V to 240 V, 50/60 Hz			
Power consumption (Max.)	120 W	100 W	70 W	55 W
Operating temperature	5 °C to 40 °C (41 °F to 104 °F)			
Storage temperature	-20 °C to 60 °C (-4 °F to 140 °F)			
Operating humidity	Less than 80%			
Storage humidity	Less than 90%			
Tape speed	28.221 mm/s			
Recording/Playback time	Standard size: 184 min.(DVCAM mode), 276 min.(DV SP mode)* with PDV-184ME/184N/184MEM, Mini size: 40 min.(DVCAM mode), 60 min.(DV SP mode)* with PDVM-40ME/40N/40MEM			
Fast forward/Rewind time	Standard size: Less than 3 min. with PDV-184ME/184N/184MEM, Mini size: Less than 1 min. with PDVM-40ME/40N/40MEM			
Search speed	Shuttle mode: still to ±60 times normal speed Digital slow mode: ±1 times normal speed		Shuttle mode: still to ±60 times normal speed Digital slow mode: ±0.5 times normal speed	
Mass	18 kg (39 lb 10 oz)	13 kg (28 lb 10 oz)		6 kg (13 lb 3 oz)
Dimensions (W x H x D, excluding projections)	427 x 175 x 495.5 mm (16 7/8 x 7 x 19 5/8 inches)	427 x 174 x 400 mm (16 7/8 x 6 7/8 x 15 3/4 inches)		210 x 130 x 420 mm (8 3/8 x 5 1/8 x 16 5/8 inches)
Video Performance				
Bandwidth (via analogue component I/O) Luminance	25 Hz to 5.0 MHz ±1.0 dB 5.75 MHz +0/-3.0 dB (Typical measurement)	25 Hz to 5.0 MHz ±1.0 dB		25 Hz to 5.0 MHz +1.0/-1.5 dB
Chrominance	25 Hz to 2.0 MHz + 1.0/-2.0 dB			
S/N ratio (via analogue component I/O)	More than 55 dB			
K-factor (K2T, KPB)	Less than 2.0%			
Y/C delay	Less than 30 ns			
Audio Performance				
Frequency response 2 CH mode (48 kHz/16-bit)	20 Hz to 20 kHz +0.5/-1.0 dB			20 Hz to 20 kHz ±1.0 dB
4 CH mode (32 kHz/12-bit)	20 Hz to 14.5 kHz +0.5/-1.0 dB			20 Hz to 14.5 kHz ±1.0 dB
Dynamic range	More than 90 dB			More than 87 dB
Distortion (THD+N)	Less than 0.05%			Less than 0.07%
Video Signal Inputs				
Analogue				
Ref. Video (BNC x2, loop-through connection)	0.3 Vp-p, 75 Ω, sync negative		—	0.3Vp-p, 75Ω, sync negative
Video (BNC x2, loop-through connection)*1	Composite, 1.0 Vp-p, 75 Ω, sync negative		—	Composite, 1.0 Vp-p, 75 Ω, sync negative
Component (BNC x3) *1 Y	1.0 Vp-p, 75 Ω, sync negative		—	1.0 Vp-p, 75 Ω, sync negative
R-Y	0.7 Vp-p, 75 Ω (100 %)		—	0.7 Vp-p, 75 Ω (100 %)
B-Y	0.7 Vp-p, 75 Ω (100 %)		—	0.7 Vp-p, 75 Ω (100 %)
S-Video *1	DIN 4-pin x 1 Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, 75 Ω (at burst level)		—	BNC x 2 Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, 75 Ω (at burst level)
Digital				
SDI *2,*3	BNC x 2, active-through connection Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656		—	BNC x 1 Conforms to Serial Digital Interface (270 Mb/s), ITU-RBT.656
SDTI (QSDI) (BNC x1) *3	Conforms to SDTI (270 Mb/s), SMPTE 305M/322M	—	—	Conforms to SDTI (270 Mb/s), SMPTE 305M/322M
i.LINK (DV) (6-pin x1)	IEEE1394		—	IEEE1394
HD-SDI *5	BNC x 2, SMPTE-292M			—
Audio Signal Inputs				
Analogue				
Audio *1	XLR 3-pin female x4 -6/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance	XLR 3-pin female x4 -6/-3/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance	XLR 3-pin female x4	XLR 3-pin female x2 -6/-3/0/+4 dBu, high impedance
Digital				
AES/EBU *2,*3	BNC x 2 75 Ω, unbalanced		—	BNC x 2 75 Ω, unbalanced
Video Signal Outputs				
Analogue				
Ref. Video (BNC x1)	0.3 Vp-p, 75 Ω, sync negative			—
Video	Video 1/2/3 (super) BNC x 3	Video 1/2(super) BNC x 2		Video 1/2/3 (super) BNC x 3
	Composite, 1.0 Vp-p, 75 Ωsync negative			
Component (BNC x3)	Y: 1.0 Vp-p, 75 Ω, sync negative R-Y: 0.7 Vp-p, 75 Ω (100%) B-Y: 0.7 Vp-p, 75 Ω (100%)			
S-Video	DIN 4-pin x 1			BNC x 2
	Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, 75 Ω (at burst level)			
Digital				
SDI *2,*3	BNC x 3	BNC x 2		
	Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656			
SDTI (QSDI) *3	BNC x 1	—		BNC x 2
	Conforms to SDTI (270 Mb/s), SMPTE 305M/322M			
i.LINK (DV) (6-pin x1)	IEEE1394			
Audio Signal Outputs				
Analogue				
Audio	XLR 3-pin male x4			XLR 3-pin male x2
	-6/0/+4 dBu (selectable by menu) 600Ω loading, low impedance, balanced	-6/-3/0/+4 dBu (selectable by menu)		—
Monitor	Phono x 1	RCA x1		
	-9 dBu, 47 kΩ, unbalanced (-18 dBFS)	-9 dBu, 47 kΩ, unbalanced (-18 dBFS)		-∞ to -9 dBu, 47 kΩ, unbalanced (-18 dBFS)
Headphone (JM-60 headphone jack x1)	-∞ to -11 dBu, 8 Ω, unbalanced (-18 dBFS)	-∞ to -11 dBu, 8 Ω, unbalanced (-18 dBFS)		-∞ to -11 dBu, 8 Ω, unbalanced (-18 dBFS)
Digital				
AES/EBU *2,*3	BNC x 2 75 Ω, unbalanced			
Time Code Input/Output				
In (BNC x1)	0.5 Vp-p to 18 Vp-p, 3.3 kΩ, unbalanced			
Out (BNC x1)	2.2 Vp-p, 75 Ω, unbalanced			
Remote				
	RS-422A: D-sub 9-pin female x2 Video Control: D-sub 15-pin male x1 Control Panel: D-sub 15-pin female x1	RS-422A: D-sub 9-pin female x1 Video Control: D-sub 15-pin male x1 Control S (SIRCS): Stereo mini jack x1		RS-422A: D-sub 9-pin female x1 Control S (SIRCS): Stereo mini jack x1
Supplied Accessories				
	AC Power Cord RCC-5G 9-pin Remote Control Cable Operating Instructions (CD-R)	AC Power Cord Operating Instructions (CD-R)		—

*1 The DSR-1500AP only for recording and playback.
The optional DSBK-1504 is required for the DSR-1500AP.
*2 The optional DSBK1801 is required for the DSR-1800AP.
*3 The optional DSBK1501 is required for the DSR-1500AP.
*4 The optional DSBK-1601 is required for the DSR-1600AP.
*5 The optional DSBK-2020 is required for the DSR-2000AP and DSBK-1820 for the DSR-1800AP/DSR-1600AP.

		DSR-45AP
General		
System		PAL
Power requirements		AC 100 to 240 V, 50/60Hz
Power consumption		22 W
Operating temperature		5 °C to 40 °C (41 °F to 104 °F)
Storage temperature		-20 °C to 60 °C (-4 °F to 140 °F)
Tape speed	DVCAM mode DV SP mode	28.2 mm/s 18.8 mm/s
Recording/Playback time in DVCAM mode	Standard size Mini size	184 min. with PDV-184ME/184N/184MEM 40 min. with PDVM-40ME/40N/40MEM
Tape rewind time		Less than 2 min. with PDV-184ME/184N/184MEM
Search speed		When controlling via optional DSRM-20: or supplied RMT-DS5 ± x1/10, x1/3, x1,x2,x11, x17 (DVCAM) ± x1/10, x1/3, x1,x2,x11, x24 (DV SP)
Mass		Approx. 4.6 kg (10 lb 2 oz)
Dimensions (W x H x D, including projections)		212 x 98 x 392.8 mm (8 3/8 x 3 7/8 x 15 1/2 inches)
Video Signal Inputs		
Rec mode		DVCAM/DV (SP mode only)
PB mode		DVCAM/DV (SP mode only)
Ref. Video		BNC x1*1 Black burst: 75 Ω, sync negative
Composite		BNC x1 (Shared with REF IN) 1.0Vp-p, 75 Ω, Sync Negative
S-Video		4-pin mini DIN (x1) Y: 1.0Vp-p, 75 Ω, Sync Negative C: 0.3Vp-p (subcarrier burst) 75 Ω
Component		BNC x3 Y: 1.0 Vp-p, 75 Ω, sync negative R-Y/B-Y: 0.7 Vp-p, 75 Ω, (with 100 % colour bar)
Audio Signal Inputs		
Audio		PIN Jack x4 -10/-2/+4 dBu (full bits -18dB)
Video Signal Outputs		
Composite		BNC x1 1.0Vp-p, 75 Ω, Sync Negative
S-Video		4-pin mini DIN (x1) Y: 1.0Vp-p, 75 Ω, Sync Negative C: 0.3Vp-p (subcarrier burst) 75 Ω
Component		BNC x3, Y: 1.0 Vp-p, 75 Ω, sync negative R-Y/B-Y: 0.7 Vp-p, 75 Ω, (with 100 % colour bar)
Monitor		PIN Jack x1, 1.0Vp-p, 75 Ω, Sync Negative
Audio Signal Outputs		
Audio		XLR 3pin x4 (Male) +4dBu (full bits -18dB)*2
Monitor		PIN Jack x1, 2 Vrms (maximum)
Digital Input/Output		
i.LINK (DV)		4-pin x1, IEEE1394
Time Code Input/Output		
In		BNC x1, 0.5 to 18 Vp-p (time code input), 0.5 to 4 Vp-p (through output)
Out		BNC x1, 2.2 Vp-p, 600 Ω/1.2 Vp-p, 75 Ω, 0.5 to 4 Vp-p (through output)
Others		
LCD Monitor		LANC: Stereo mini-mini jack x1 Control S*3 (SIRCS) In: Stereo mini jack x1 Headphone: Stereo mini jack x1 RS-422A: D-sub 9-pin female x1 RS-232C: D-sub 9-pin male x1 2.5-inch type, 123,200 dots
Supplied Accessories		RMT-DS5 wireless Remote Controller Size AA (R6) Battery for Remote (2) AC Power Cord Cleaning Cassette Operating Manual Interface Manual for Programmers (RS-232C)

*1 Shared between composite IN and REF-IN.
*2 The audio output level of the DSR-45AP will be reduced by half when connected to an Unbalanced XLR input device.
*3 Recommended remote control unit: DSRM-20

	DSR-50P
General	
DC input	XLR 4-pin (male), +12 V
Power consumption	15 W
Operating temperature	5 °C to 40 °C (41 °F to 104 °F)
Storage temperature	-20 °C to 60 °C (-4 °F to 140 °F)
Tape speed	Approx. 28.2 mm/s (DVCAM mode), Approx. 18.8 mm/s (DV SP mode)
Recording/Playback time	184 minutes (DVCAM mode), 270 minutes (DV SP mode), with PDV-184ME cassette
	40 minutes (DVCAM mode), 60 minutes (DV SP mode), with PDVM-40ME cassette
Mass	3.9 kg (8 lb 9 oz), excluding battery and tape
Dimensions (W x H x D)	247 x 92.5 x 311 mm (9 3/4 x 3 3/4 x 12 1/4 inches), excluding projections 279 x 99 x 315 mm (11 x 4 x 12 1/2 inches), including projections
Video	
Recording mode	DVCAM/DV (SP mode only)
Playback mode	DVCAM/DV (SP mode only)
Audio	
Recording mode	48.0 kHz/16-bit (2CH)/ 32.0 kHz/12-bit (4CH)/automatic (DV IN)
Playback mode	48.0 kHz/16-bit (2CH) / 32.0 kHz/12-bit (4CH)/ 32.0 kHz/16-bit (2CH)/44.1 kHz/16-bit (2CH) (automatically selected)
Input/Output Terminals	
Video IN Composite	1.0 Vp-p, 75 Ω, Sync negative
S (4-pin mini DIN)	Y: 1.0 Vp-p, 75 Ω, Sync negative C: 0.3 Vp-p (subcarrier burst) 75 Ω
Audio IN	XLR 3-pin (female) (+4 dBu/-20 dBu/-60 dBu) x 4, impedance more than 3 kΩ with +48 V power supply (independently switched for each channel)
Camera IN	26-pin camera connector
Composite	1.0 Vp-p, 75 Ω, Sync negative
Component	Y: 1.0 Vp-p, 75 Ω, Sync negative B-Y: 0.7 Vp-p, 75 Ω, R-Y: 0.7 Vp-p, 75 Ω
Reference IN	BNC, Black Burst 75 Ω, Sync negative (use Video IN)
Video OUT 1 (Monitor)	BNC, 1.0 Vp-p, 75 Ω, Sync negative Composite Superimpose On/Off
Video OUT 2 Composite	BNC, 1.0 Vp-p, 75 Ω, Sync negative
S (4-pin mini DIN)	Y: 1.0 Vp-p, 75 Ω, Sync negative C: 0.3 Vp-p (subcarrier burst) 75 Ω
Component OUT	BNC x 3 Y: 1.0 Vp-p, 75 Ω, Sync negative B-Y/R-Y: 0.7 Vp-p, 75 Ω
Audio OUT	PIN Jack x 4, -10 dBu Standard output level -18 dB from full bit
Audio OUT (Monitor)	PIN Jack
DV IN/OUT	6-pin (with lock)
Timecode IN	BNC, 0.5 to 18 Vp-p, 10 kΩ
Timecode OUT	BNC, 2.2 Vp-p, 600 Ω/1.2 Vp-p, 75 Ω
Control S	Stereo mini jack
Remote	Stereo mini jack (Edge High/Edge Low/ Level High/Level Low) (Tally)
Control	Stereo mini-mini jack (compatible with LANC as a player)
Headphone jack (left side)	Stereo standard jack, -19 dBu, Control with Level
Other	
Colour LCD monitor	2.5-inch type, 200,000 dots
Supplied accessories	LCD Protection Cover, Cleaning Cassette

*1 Composite, Component and S-video inputs share the same BNC connectors.
*2 Composite, Component and S-video outputs share the same BNC connectors.
*3 The volume of monitor can be controlled by the PHONE LEVEL control knob.

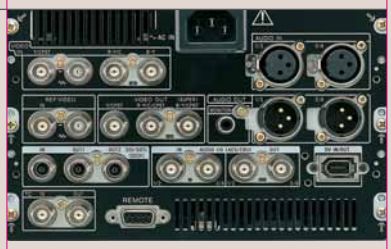
	DSR-DR1000AP
General	
Power requirements	AC 100 V to 240 V, 50/60 Hz
Power consumption	75 W
Recording Time	Up to 12 hours
Hard Drive	160 GB
Operating temperature	5 °C to 40 °C (41 °F to 104 °F)
Storage temperature	-20 °C to 60 °C (-4 °F to 140 °F)
Operating humidity	Less than 80%
Storage humidity	Less than 90%
Mass	7.5 kg (16 lb 10 oz)
Dimensions (W x H x D)	210 x 130 x 422 mm (8 3/8 x 5 1/8 x 16 5/8 inches, without projection)
Video Performance	
Bandwidth (via analogue component I/O) Luminance Chrominance	25 Hz to 5.0 MHz ±1.0 25 Hz to 2.0 MHz +1.0/-2.0 dB
S/N ratio (via analogue component I/O)	More than 54 dB
K-factor (K2T, KPB)	Less than 2.0%
Y/C delay	Less than 30 ns
Audio Performance	
Frequency response	2CH mode (48 kHz/16-bit) 20 Hz to 20 kHz ±1.0 dB 4CH mode (32 kHz/12-bit) 20 Hz to 14.5 kHz ±1.0 dB
Dynamic range	More than 87 dB
Distortion (THD + N)	Less than 0.07% (48 kHz)
Video Signal Inputs	
Analogue	
REF. Video (BNC x 2)	0.3 Vp-p, 75 Ω sync negative
Composite Video (BNC x 2), loop-through connection*1	1.0 Vp-p, 75 Ω, sync negative
Component (BNC x 3)*1	Y: 1.0 Vp-p, 75 Ω, sync negative R-Y: 0.7 Vp-p, 75 Ω (100% colour bar B-Y: 0.7 Vp-p, 75 Ω (100% colour bar)
S-Video (BNC x 2)*1	Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, 75 Ω (at burst level)
Digital	
SDI (BNC x 1)	Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656
i.LINK(DV) (6-pin x 1)	IEEE 1394-based
Audio Signal Inputs	
Analogue	
Audio (XLR 3-pin female x 2)	-6/-3/+4 dBu (selectable by menu), high impedance
Digital	
AES/EBU (BNC x 2)	75 Ω, unbalanced
Video Signal Outputs	
Analogue	
Composite 1/2(SUPER) (BNC x2)*2	1.0 Vp-p, 75 Ω, sync negative
Component (BNC x 3)*2	Y: 1.0 Vp-p, 75 Ω, sync negative R-Y: 0.7 Vp-p, 75 Ω (100% colour bar) B-Y: 0.7 Vp-p, 75 Ω (100% colour bar)
S-Video (BNC x 2)*2	Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, 75 Ω (at burst level)
Digital	
SDI (BNC x 2)	Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656
i.LINK (DV) (6-pin x 1)	IEEE 1394-based
Audio Signal Outputs	
Analogue	
Audio (XLR 3-pin male x 2)	-6/0/+4 dBu (selectable by menu)
Monitor (RCA x 1)*	-∞ to -9 dBu, 47 kΩ, unbalanced (-18 dBFS)
Headphone (JM-60 headphone jack x 1)	-∞ to -11 dBu, 8 Ω, unbalanced (-18 dBFS)
Digital	
AES/EBU (BNC x 2)	75 Ω, unbalanced
Time Code	
Time Code In (BNC x 1)	0.5 Vp-p to 18.0 Vp-p, 3 kΩ, unbalanced
Time Code Out (BNC x 1)	2.2 Vp-p, 600 Ω, unbalanced
Remote	
RS-422A	D-sub 9-pin, female x 2
Control	Mini jack x 1
Network	
Ethernet (x 1)	10/100 Base-T Ethernet, RJ-45 modular jack
Supplied Accessories	
	AC power cord x 1, RM-LG2 (Remote Control Unit) x 1, Operation manual (CD-ROM) x 1, Warranty card x 1

*1 Composite, Component and S-video inputs share the same BNC connectors.
*2 Composite, Component and S-video outputs share the same BNC connectors.
*3 The volume of monitor can be controlled by the PHONE LEVEL control knob.

DSR-50P

DSR-2000AP

DSR-1500AP



DSR-1800AP

DSR-DR1000AP

DSR-1600AP

DSR-45AP

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