

# SONY®

# DVCAM™

## DVCAM Family



F o r

P r o f e s s i o n a l

R e s u l t s



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## Introduction

*Video production styles continue to diversify in response to the rapid and tremendous growth in visual communication. In this fast-changing environment, the need is for 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 analog to digital – these are just some of the factors behind the success of DVCAM. A full model line-up for digital acquisition, editing and program playout has led to the rapid acceptance of DVCAM by business users, production facilities and broadcasters around the world.*

*Many new models have been added to the DSR Series of DVCAM equipment, broadening the range of applications in ENG, field acquisition/editing, simple editing and so on.*

*Select from the Sony DVCAM lineup and you will be choosing innovative equipment to bring both new solutions to your production demands and added performance benefits to your system.*

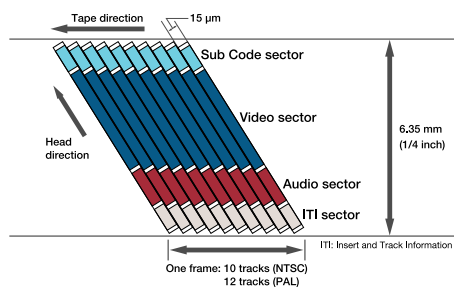


## Main Features

### The DVCAM Format

#### Digital Component Recording for Excellent Picture Quality

The DVCAM format is the professional extension of the worldwide standard DV format. The DVCAM format uses 8-bit digital component recording with a 5:1 compression ratio and a sampling rate of 4:1:1 (for NTSC) / 4:2:0 (for PAL). The unique compression algorithm provides excellent picture quality and superb multi-generation performance. The DVCAM format has a wider track pitch of 15  $\mu\text{m}$  (compared with 10  $\mu\text{m}$  for the DV format) which gives higher reliability for professional editing. It also offers superior digital audio performance, providing a wide dynamic range and excellent signal-to-noise ratio, comparable to CD quality. Alternative audio channel modes can be selected: a two-channel mode with 48 kHz/16-bit recording or a four-channel mode with 32 kHz/12-bit recording.



#### Excellent Performance from Professional DVCAM Tapes

To gain maximum performance from high-density digital recording, advanced Metal Evaporated tape technology has been developed for the DVCAM format. The use of Sony's pure

cobalt advanced evaporated coating gives both high output and a high C/N (Carrier-to-Noise) ratio, resulting in superb quality pictures and a low error rate.

A DLC (Diamond Like Carbon) protective layer provides the enhanced protection of the tape surface that is essential to avoiding tape damage during long editing sessions. Finally, DVCAM tapes provide a low frequency of dropout and superior thermal stability.

A variety of cassettes, including tapes with IC Cassette Memory and Master Tapes, is available to suit different applications. The built-in 16-kbit Cassette Memory stores ClipLink™ Log Data, Index Pictures, Photo mode and other shooting data, enhancing editing efficiency. Tapes without IC Cassette Memory fit a wide range of applications, with affordable price. The Master Tapes, which use Sony Hyper Evaticle II Magnetic Particle technology to provide higher output and lower noise, are suitable for high-speed data transfer applications as well as for making master recordings.



#### Recording Capability of Up to Three Hours

DVCAM cassette tapes are available in two sizes: standard and mini. The standard-size cassette provides a recording time of up to 184 minutes, while the mini-size cassette provides up to 40 minutes. These long recording times are achieved in very compact cassettes with a 1/4-inch (6.35 mm) tape width.



Mini-size cassette



Standard-size cassette

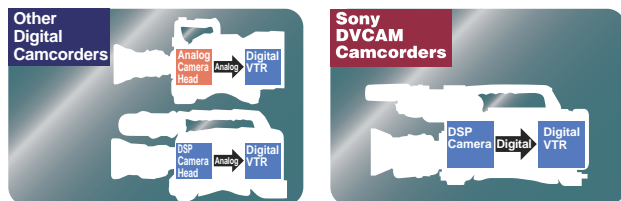
# Main Features

## Unique Technology and Advantages

### True Digital Camcorders

DSR-570WS DSR-370 DXC-D35+DSR-1 DSR-250 DSR-PD150 DSR-PD100A

Sony DVCAM camcorders are "True Digital Camcorders". They incorporate DSP (Digital Signal Processing) for full digital processing in the camera section and digital recording in the VTR section. The camera video signal remains in its digital component format through the recording process, resulting in outstanding image quality, free of artifacts and with none of the resolution loss typical of A/D and D/A conversion.



### Playback Capability

#### of DV (25 Mb/s) Format Recorded Tapes

DSR-2000 DSR-1800 DSR-1600 DSR-1500A DSR-70A

For maximum versatility in playback, the DVCAM VTRs are designed to playback DVCAM and DV (SP mode) tapes without a mechanical adaptor or menu adjustment. The DVCAM Master Series VTRs (DSR-2000/1800/1600/1500A/70A) support DVCPRO tape playback\*, and the DSR-2000 even supports DV (LP mode) playback. Furthermore, it is possible to use these tapes directly as editing source material, improving productivity.

\* Not compatible with SDTI (QSDI) and i.LINK (DV) interfaces.

### Recording Capability of the consumer DV (25 Mb/s) Format

DSR-250\* DSR-1500A DSR-50\* DSR-45\* DSR-25\* DSR-11\*

In the event a longer recording time is required, the above DVCAM camcorder and VTRs are also designed to record in the DV Format. Thanks to this feature, recording of up to 276 minutes is possible with a standard-size cassette and 60 minutes with a mini-size cassette.

\* The transition from cut to cut may not be smooth when recorded in DV (SP) format. In between scenes where the recording format is changed from DV to DVCAM, or vice versa, transition may not be smooth. Not available for editing.

### • Audio Cross-fade Capability

DSR-2000 DSR-1800 DSR-85

Preread heads also provide an audio cross-fade capability with clean audio transitions at editing points. During audio insert editing, the previously recorded audio signal is read out by preread heads, cross-faded with the VTR audio input signal and recorded back onto the same track. This provides excellent audio cross-fade editing performance without audio clicks at edit points and provides high quality audio to complement the video performance.

Note: Unless otherwise noted, all references to specific models refer to both the NTSC and PAL versions. (i.e., DSR-570WS refers to the DSR-570WS and the DSR-570WSP)

## Excellent Editing Performance

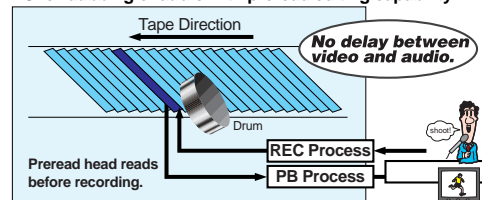
### • Preread Editing Capability\*

DSR-2000

The DSR-2000 VTR offers preread editing, a function never before available on a 1/4-inch (6.35 mm) VTR. Preread heads are positioned ahead of the record heads on the drum to scan previously recorded video and audio signals. These signals can then be sent to a character generator, a video switcher and/or an audio mixer, combined with signals from another source, and then recorded back onto the same tracks. Preread editing provides many advantages since it enables single-VTR titling, audio mix/swap and voice over with no delay between video and audio. In addition, A/B roll editing with two VTRs is available (MIX and WIPE only).

\* Not available for SDTI (QSDI) and i.LINK (DV) interfaces as these handle compressed signals.

#### <Over-dubbing of audio with preread editing capability>



### • Enhanced Digital Jog Audio

DSR-2000 DSR-1800 DSR-1600 DSR-1500A DSR-70A

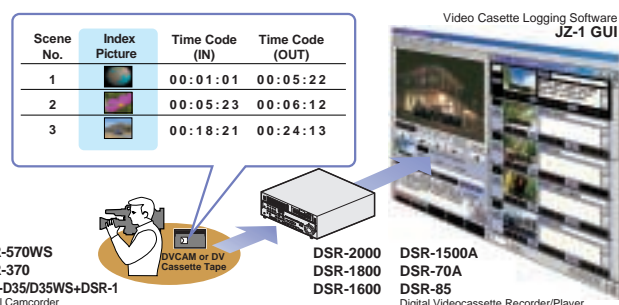
A digital jog audio function is included in the Master Series VTRs with a range of -1 to +1 (DSR-2000) or -0.5 to +0.5 (DSR-1800/1600/1500A/70A) times normal speed. With its quick and smooth response, locating editing points is very easy. This is a particularly important feature for ENG applications that usually require audio-based editing. Moreover, this function is even available when using DV and DVCPRO tapes.

### • ClipLink Operation

DSR-570WS DSR-370 DXC-D35+DSR-1 DSR-1800 DSR-1600 DSR-1500A DSR-70A DSR-85

The ClipLink feature is a unique Sony system that conveys shooting data into the digital production process. During acquisition with a camcorder equipped with this feature, the in-point/out-point time code data of each shot and its OK/NG status are recorded in the DVCAM Cassette Memory. At the same time, a still frame of each in-point, called an 'Index Picture'\*, is recorded on the DVCAM tape to provide visual information associated with the time code. ClipLink data can be imported automatically to JZ-1 videocassette logging software, modified and then be exported to editing devices. This greatly enhances subsequent editing operations.

\* The DSR-570WS/370 require an optional board to record Index Pictures.



## Versatile Digital Interfaces

### • SDI (Serial Digital Interface)\*

DSR-2000 DSR-1800\*\* DSR-1600\*\* DSR-1500A\*\* DSR-70A\*\* DSR-85\*\*

With SDI, high-quality picture and sound can be transferred between DVCAM VTRs and SDI-equipped devices.

\* The SDI used in DVCAM VTRs supports digital component video signals.  
\*\* The DSR-1800/1600/1500A/70A/85 require an optional board for SDI.

### • SDTI (QSDI™)\*

DSR-2000 DSR-1800\*\* DSR-1600\*\* DSR-1500A\*\* DSR-70A\*\* DSR-85

SDTI (QSDI) is a digital interface that handles compressed video as well as the sub-code data and digital audio signals of the DV/DVCAM formats. It allows virtually degradation-free transfer of both video and audio signals between SDTI (QSDI) equipped VTRs.

SDTI (QSDI) also makes it possible to transfer data at four times normal speed (DSR-85 only).

\* SDTI (Serial Data Transport Interface) is defined as SMPTE 305M.  
SDTI (QSDI) is the DV compressed signal interface defined as SMPTE 322M.  
\*\* The DSR-1800/1600/1500A/70A require an optional board for SDTI (QSDI).

### • i.LINK™ (DV)\*

DSR-570WS\*\* DSR-370\*\* DSR-250 DSR-PD150 DSR-PD100A DSR-2000\*\* DSR-1800\*\*  
DSR-1600\*\* DSR-1500A DSR-70A\*\* DSR-45 DSR-30 DSR-25 DSR-11  
DSR-50 DSR-V10 DSR-DU1

i.LINK enables a single cable to simultaneously carry digital video and audio signals, as well as data and control signals, with virtually no quality deterioration. This simple connection offers an ideal solution for connecting DVCAM equipment with consumer AV equipment and computer-related products.

\* i.LINK stands for IEEE1394-1995 standards and their revisions.

 is the logo for products that implement i.LINK.

\*\* Output only from the DSR-570WS/370. The DSR-2000/1800/1600/70A require an optional board for i.LINK.

Note: Sony VAIO computers are checked with Sony DV products, but not with DVCAM, concerning the i.LINK interconnection. Some VAIO application software may not work with DVCAM.

\* i.LINK is a trademark of Sony used only to designate that a product contains an IEEE 1394 connector. All products with an i.LINK connector may not communicate with each other. Please refer to the documentation that comes with any device having an i.LINK connector for information on compatibility, operating conditions and proper connection. For information on any Sony device having an i.LINK connection contact Sony at 1-800-686-7669.

### • SDTI-CP (MPEG) Out\*

DSR-2000

SDTI-CP provides a direct connection to MPEG IMX™ products.

\* SDTI-CP is defined as SMPTE 326M.

### • AES/EBU

DSR-2000 DSR-1800\* DSR-1600\* DSR-1500A\* DSR-85

The DSR-2000/1800/1600/1500A/ and DSR-85 VTRs are fitted with digital audio interfaces conforming to the AES/EBU standard. With a sampling frequency of 48 kHz and 20-bit quantization, these interfaces ensure high-quality audio.

\* The DSR-1800/1600/1500A require an optional board for AES/EBU.

## Sophisticated Mechanisms

### • Quick, Responsive Mechanism

DSR-2000 DSR-1800 DSR-1600 DSR-1500A DSR-70A

Quick mechanical response is an essential requirement for professional video production. The Master Series VTRs provide this rapid response with a combination of highly reliable direct reel drive and drum motor mechanisms. The result is a tape drive with rapid response to Jog and Shuttle commands when searching for edit points, and a rapid start in Play mode.

### • Three-size Cassette Compartment

DSR-2000 DSR-1800 DSR-1600 DSR-1500A DSR-70A

The Master Series VTRs incorporate a newly designed three-size cassette compartment to ensure compatibility with DV (25 Mb/s) format recorded tapes of all sizes and types. Thanks to this feature, it is possible to use standard and mini DV and DVCAM cassettes, as well as medium DVCPRO cassettes, without a mechanical adaptor.

### • Dual-size Cassette Compartment

DSR-570WS DSR-370 DSR-1 DSR-250 DSR-85 DSR-45 DSR-30  
DSR-25 DSR-11 DSR-50

The above camcorders and VTRs have a dual-size cassette compartment which accepts both standard and mini cassettes without a mechanical adaptor.

### • Dual Interface Mechanism

DSR-1

The DSR-1 Dockable Recorder has both Pro 76-pin Digital and Pro 50-pin connectors with a unique seesaw construction. These allow direct connection of the DSR-1 to several alternative Sony digital (DXC-D30\*/D30WS\*/D35/D35WS) and analog cameras (DXC-327B/637\*/537A\*/327A\*).



<Pro 76-pin Digital>

<Pro 50-pin>

\* These cameras are no longer sold, but current owners can still connect with the DSR-1.

### • High-speed Data Transfer Capability

DSR-85

The advanced drum mechanism and SDTI (QSDI) interface enable degradation-free data transfer and dubbing at four times normal speed.

### • Further operational efficiency via the DSR-DU1

DSR-570WS DSR-370 DSR-250 DSR-PD150 DSR-PD100A

The DSR-DU1 is a compact videodisk unit that mounts on or is interfaced with the above camcorders. It provides up to three hours of DVCAM/DV stream recording as a file. Via an i.LINK (DV) connection, the camera output of the camcorder is recorded to the hard drive of the DSR-DU1 in parallel to the recording made on the camcorder's tape. The DSR-DU1 is an extremely versatile device. When detached from the camcorder, it is very effective for field off-line logging or EDL creation, as a player for making dubs, or as a source feeder machine for i.LINK interface equipped nonlinear editors. Moreover, when connected to an SBP2 compatible i.LINK interface equipped nonlinear editor\*, the DSR-DU1 allows its DV files to be directly transferred to the media drives of the nonlinear editor. A maximum transfer speed of two times normal playback speed\*\* is possible. The Rec. start and stop time codes of each scene are also transferred to the editor, eliminating the logging process common to nonlinear editing.

\*1 Please contact your nearest Sony office or Authorized dealer for nonlinear products that support DV file transfer between the DSR-DU1.

\*\*2 The time required to transfer DV files from the DSR-DU1 may vary depending on the nonlinear editor used.

## Lineup Features

**Digital Camcorders****One-piece Camcorder Common Features**

DSR-570WS DSR-370

- Highly mobile one-piece design
- Studio operation capability with a CCU-M5A
- Intercom (DR-100) capability with a CA-370
- DSP (Digital Signal Processing)
- TruEye™ process for faithful color reproduction
- DynaLatitude™ process minimizes video level distortion
- Skin Detail with auto detection of active area
- Black Stretch and Compress control functions
- Superb picture quality of the DVCAM format
- Playback capability of DV recorded tapes (SP mode only)
- Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a mini-size cassette
- Total Level Control System (TLCS) for automatically extended range of Iris control
- Auto Tracing White Balance (ATW) function
- EZ Mode and EZ Focus for quick camera setup
- DynaFit™ shoulder pad for comfortable molding to any shoulder
- Variable color temperature settings: 3200 K (19 steps in the range from 2200 K to 4300 K) or 5600 K (13 steps in the range from 4600 K to 12000 K)
- Video light connector for optional light equipment
- Menu control by Jog Dial operation
- Camera Setup File System
- Flexible Safety zone marker
- SetupLog™ function for automatic recording of camera setting data
- Pool Feed operation\*<sup>1</sup>
- i.LINK (DV output only) interface providing a single cable connection to simultaneously transfer data and control signals as well as digital video and audio signals, with virtually no generation loss
- 26-pin VTR interface
- Full color picture playback without an external adaptor
- Edit Search function
- Time code superimposed during playback and record
- Freeze Mix function
- ClipLink operation\*<sup>2</sup>
- Compact and lightweight BP-L40A/L60A/L90A Lithium-ion Batteries or BP-M50/M100 Nickel Metal Hydride Batteries
- CA-WR855 Camera Adaptor for the WRR-855A/855B Wireless Receiver
- Compact crew package with the LC-400 Soft Carrying Case or LC-424 Hard Carrying Case

\*<sup>1</sup> The optional DSBK-501 Analog Composite Input Board is required.\*<sup>2</sup> The optional DSBK-301A Index Picture Board is required.**DSR-570WS/DSR-570WSP****One-piece Camcorder**

- Compact and lightweight: 6.4 kg (14 lb 20 oz) including viewfinder, microphone, lens, battery and tape
- Low power consumption: 24 W (without viewfinder)
- Three 2/3-inch type Power HAD WS™ CCDs providing high quality images with low smear level, high sensitivity, high S/N ratio (NTSC: 63 dB, PAL: 61 dB) and high horizontal resolution (800/850 TV lines in 16:9/4:3 mode)
- Hyper Gain (36 dB or 42 dB selectable)
- Aspect ratio switchable between 4:3 and 16:9
- SetupNavi™ function for camera setup file storage

**DSR-370/DSR-370P****One-piece Camcorder**

- Compact and lightweight: 6.2 kg (13 lb 10 oz) including viewfinder, microphone, lens, battery and tape
- Low power consumption: 21 W (without viewfinder)
- Three 1/2-inch type Power HAD™ CCDs for low smear level, high sensitivity, high S/N ratio (NTSC: 62 dB, PAL: 60 dB) and high horizontal resolution (800 TV lines)
- Hyper Gain (36 dB)
- 4:3 aspect ratio

## DXC-D35/D35WS/DXC-D35P/D35WSP+DSR-1/DSR-1P

### Two-piece Camcorder



- Combination of the DXC-D35/D35WS Digital Video Camera and the DSR-1 Dockable Recorder, equivalent to a one-piece camcorder
- Compact and lightweight: 6.3 kg (13 lb 14 oz)\*1/6.4 kg (14 lb 2 oz)\*2 including viewfinder, battery, joint plate and carrying handle
- Three 2/3-inch type Power HAD CCDs\*1/Three 2/3-inch type Power HAD WS CCDs\*2 for low smear level, high sensitivity and high S/N ratio (NTSC: 63 dB, PAL: 61dB), and high horizontal resolution (880 TV lines\*3/850 TV lines (4:3 mode)\*4, 800 TV lines (16:9 mode)\*4)
- Hyper Gain (36 dB or 42 dB selectable)
- DSP (Digital Signal Processing)
- TruEye process for faithful color reproduction
- DynaLatitude process minimizes video level distortion
- Skin Detail with auto detection of active area
- Black Stretch and Compress control functions
- Variable color temperature settings: 3200 K (19 steps in the range from 2200 K to 4300 K) or 5600 K (13 steps in the range from 4600 K to 12000 K)
- Black halo-free
- Superb picture quality of the DVCAM format
- Playback capability of DV recorded tapes (SP mode only)
- Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a mini-size cassette
- Total Level Control System (TLCS) for automatically extended range of Iris control
- Auto Tracing White Balance (ATW) function
- EZ Mode and EZ Focus for quick camera setup
- Camera Setup File System
- SetupNavi function for Camera Setup File Storage
- SetupLog function for automatic recording of camera setting data
- Edit Search function
- Time code superimposed during playback and record
- Freeze Mix function
- ClipLink operation
- 16:9 and 4:3 switchable\*2

\*1 Combination of the DXC-D35/D35P+DSR-1/1P

\*2 Combination of the DXC-D35WS/D35WSP+DSR-1/1P

\*3 DXC-D35/D35P

\*4 DXC-D35WS/D35WSP

## DSR-1/DSR-1P

### Dockable Recorder

- Compact and lightweight: 3.1 kg (6 lb 13 oz) including battery
- Ideal operation as a digital camcorder by docking with the DXC-D35/D35WS/D35P/D35WSP Digital Video Camera
- Dual-size cassette mechanism: both standard- and mini-size cassettes accepted
- Dual interface mechanism: Pro 76-pin Digital and Pro 50-pin interfaces for direct connection with both Sony digital and analog cameras
- Superb picture quality of the DVCAM format
- Playback capability of DV recorded tapes (SP mode only)
- Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a mini-size cassette
- ClipLink operation
- Full color picture playback capability without a playback adaptor
- Record review function
- Frame accurate back-space editing
- Built-in SMPTE/EBU time code generator/reader
- Time base stabilizer
- Full VTR function control (FastForward/Rewind/Play/Stop/Eject)
- Comprehensive 8-digit LCD



## Digital Camcorders

**DSR-250/DSR-250P****One-piece Camcorder**

- Compact and lightweight: 4.4 kg (9 lb 11 oz)
- Newly developed 1/3-inch type three CCDs for accurate color reproduction
- Capable of both interlace scan, for moving images, and progressive scan, for still images or shooting a moving subject\*<sup>1</sup> and exporting a frame of the image as a still picture
- DSP (Digital Signal Processing)
- 2.5-inch type (200,000 dot) color LCD monitor
- 12x lens\*<sup>2</sup> with Super SteadyShot™ system
- New, high-resolution 1.5-inch black & white viewfinder
- 16:9 recording mode available (electronically processed)

- Superb picture quality of the DVCAM format
- Recording and playback capability with standard and mini-size DVCAM and DV tapes (SP mode only)\*<sup>3</sup>
- 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 preset 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

\*<sup>1</sup> When recording moving images in progressive scan mode, the motion will display some jitter since the picture is read/output every 1/15 second (NTSC) or 1/12.5 second (PAL).

\*<sup>2</sup> Digital zoom of 24x or 48x available via menu selection.

\*<sup>3</sup> 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-PD150/DSR-PD150P****Compact Camcorder**

- Compact and lightweight: 1.5 kg (3 lb 5 oz) including battery and tape
- Newly developed 1/3-inch type three CCDs for accurate color reproduction
- Capable of both interlace scan, for moving images, and progressive scan, for still images or shooting a moving subject\*<sup>1</sup> and exporting a frame of the image as a still picture
- DSP (Digital Signal Processing)
- 2.5-inch type (200,000 dot) color LCD monitor
- 12x lens\*<sup>2</sup> with Super SteadyShot system
- Manual control and a full range of auto modes
- 16:9 recording mode available (electronically processed)
- Superb picture quality of the DVCAM format
- Recording and Playback capability with mini-size DVCAM and DV tapes (SP mode only)\*<sup>3</sup>
- 40 minutes recording time with a mini-size cassette
- Time/date data superimposition on output pictures
- Digital still camera functions with **Memory Stick**
- InfoLITHIUM™ battery system displays the remaining capacity of the battery (accurate to the minute)
- Audio dubbing capability (48 kHz/16-bit or 32 kHz/12-bit selectable)
- 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
- Two XLR audio input connectors for professional microphones
- Supplied RMT-811 Wireless Remote Commander

\*<sup>1</sup> When recording moving images in progressive scan mode, the motion will display some jitter since the picture is read/output every 1/15 second (NTSC) or 1/12.5 second (PAL).

\*<sup>2</sup> Digital zoom of 24x or 48x available via menu selection.

\*<sup>3</sup> 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-PD100A/DSR-PD100AP

Handycam®-style Camcorder



- Compact and lightweight: 1 kg (2 lb 3 oz) including battery and tape
- Three 1/4-inch type CCDs
- Capable of both interlace scan, for moving images, and progressive scan, for still images or shooting a moving subject\*<sup>1</sup> and exporting a frame of the image as a still picture
- DSP (Digital Signal Processing)
- Super SteadyShot function with new optical system for stable picture shooting without sacrificing picture quality
- Extreme close-up shots with 12x optical/48x digital zoom
- Manual control and a full range of auto modes
- 16:9 recording mode available (electronically processed)
- Superb picture quality of the DVCAM format
- Playback capability of DV recorded tapes (SP mode only)
- 40 minutes recording time with a mini-size cassette\*<sup>2</sup>
- Two ways of still image recording: Tape Photo Mode using the cassette tape and Memory Photo Mode using a removable memory media (**Memory Stick**)
- Color 3.5-inch type LCD monitor
- InfoLITHIUM battery system displays the remaining capacity of the battery (accurate to the minute)
- Audio dubbing capability (32 kHz/12-bit only)
- 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
- XLR adaptor for connecting external professional microphones (supplied accessory)
- Wide-angle conversion lens (supplied accessory)
- RMT-811 Wireless Remote Commander (supplied accessory)

\*1 When recording moving images in progressive scan mode, the motion will display some jitter since the picture is read/output every 1/15 second (NTSC) or 1/12.5 second (PAL).

\*2 The DSR-PD100A accepts only mini-size DVCAM and DV cassettes.



MEMORY STICK

## Video Disk Unit For Digital Camcorders

### DSR-DU1

Video Disk Unit

- Compact hard drive unit (a 2.5-inch, 40GB hard drive) for use with DVCAM and Sony DV camcorders\*<sup>1</sup>
- Camera output can be recorded to the DSR-DU1's hard drive in parallel to the recordings made on the camcorder's tape via the i.LINK(DV) connection.
- Recording in 25Mb/s DVCAM/DV stream for up to three hours
- Capable of docking directly to the rear of DVCAM camcorders\*<sup>2</sup> by use of the CA-DU1 optional Camera Adaptor
- The camera adapter's slot-in mechanism allows easy and quick replacement of the DSR-DU1
- Can interface with a variety of i.LINK(DV) interface equipped Sony hand-held type DVCAM/DV camcorders via its iLINK(DV) connector
- The DSR-DU1's DV video/audio files can be transferred to a compatible i.LINK interface equipped nonlinear editor\*<sup>3</sup>
- Compact and Lightweight
- VTR-like functions and operation keys
- Loop recording (8 seconds)
- Interval recording
- 525(NTSC)/625(PAL) Switchable\*<sup>4</sup>
- REC Trigger controlled from the REC On/Off button of Sony i.LINK(DV) interface equipped camcorders\*<sup>5</sup>
- Supplied remote controller for Rec, Cue and Rec Tally controls
- Flexible DC operation (DC 12 V\*<sup>6</sup>, DC 8.4 V)
- Shooting Data (Time codes of the rec in and out points, Cue points from the DSR-DU1 and the supplied remote controller)

\*1 Please contact your nearest Sony office or Authorized dealer for compatible DV camcorders

\*2 DSR-570WS/570WSP/370/370P/500WS/500WSP/300A/300AP/250/250P

\*3 Please contact your nearest Sony office or Authorized dealer for nonlinear products that support DV file transfer between the DSR-DU1

\*4 Signal conversion from 525(NTSC) to 625(PAL), or vice versa is not possible

\*5 To use this function with camcorders other than the DSR-570WS/570WSP/370/370P, tape should be set in the cassette compartment.

\*6 To use the AC 12V, the optional CA-DU1 is required.



This photo shows the DSR-DU1 with a supplied case.

## Lineup Features

**Digital VTRs**

# Master Series VTR Common Features

**Master**  
Series

DSR-2000 DSR-1800 DSR-1600 DSR-1500A DSR-70A

Since its introduction, the DVCAM format has become widely accepted in the world of video production – from industrial to broadcast markets. Recognizing the increasing demands for DV-based production in broadcast applications, Sony introduced the DSR-2000 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 analog formats. Building on the advanced technologies of the DVCAM format and professional features of the flagship DSR-2000, Sony now presents the entire lineup of Master Series VTRs, our top-of-the-line DVCAM videocassette recorders and players. The Master Series VTRs (DSR-2000, DSR-1800, DSR-1600, DSR-1500A and DSR-70A) now bring the features and benefits introduced with the DSR-2000 to a wider market, from industrial to broadcast for a wider range of applications and requirements.

- 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\*<sup>1</sup> 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\*<sup>2</sup>
- Audio cross-fade function for clean audio transitions at editing points\*<sup>3</sup>
- Excellent jog audio capability
- DMC (Dynamic Motion Control) provides noiseless slow-motion playback\*<sup>4</sup>
- High-speed picture search over a range of 60 times\*<sup>2</sup> normal speed, in both forward and reverse
- Versatile digital interfaces\*<sup>5</sup>: SDI, SDTI (QSDI), i.LINK (DV) and AES/EBU digital audio
- Extensive analog interfaces: composite, component, S-Video and XLR audio
- RS-422A remote control interface
- Frame accurate editing capability
- ClipLink operation
- Full tape dubbing with ClipLink Log Data via SDTI (QSDI) and RS-422A interfaces

- 16:9 aspect ID signal recording
- Video process control for greater control of both analog and digital outputs
- Built-in SMPTE/EBU time code and VITC generator/reader
- Built-in signal generator (color bars, black burst, 1 kHz tone, silent signal)\*<sup>6</sup>
- Flexible input selection between video and audio\*<sup>7</sup>
- Universal powering system (AC 100 V to 240 V)
- Three-size cassette compartment to ensure compatibility with DV(25Mb/s) recorded tapes
- Closed caption function (NTSC Model only)

\*<sup>1</sup> SDTI (QSDI) and i.LINK (DV) interfaces do not support DVCPRO playback.

\*<sup>2</sup> DSR-2000/DSR-1800/DSR-1600 only.

\*<sup>3</sup> DSR-2000/DSR1800 only.

\*<sup>4</sup> DSR-2000/DSR1800/DSR-1600/DSR-70A only.

\*<sup>5</sup> Optional Input/Output Boards required. Please check Feature Comparison of Studio VTRs (p.16) for details.

\*<sup>6</sup> DSR-2000/DSR1800/DSR-1500A/DSR-70A only

\*<sup>7</sup> The i.LINK interface 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-2000/DSR-2000P

### Editing Recorder

- Playback capability of DV tapes recorded in LP mode
- Preread editing capability\*<sup>1</sup> 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\*<sup>2</sup> with two VTRs
- VTR-to-VTR editing without external controllers
- Wide range of digital slow speed from –1 to +1 times normal speed
- Optional SDTI-CP digital interface board (MPEG Out)
- 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

- DSBK-200 Control Panel for remote operation from a distance of up to 10 meters (approx. 33 ft.)

\*<sup>1</sup> Not available through SDTI (QSDI) and i.LINK interfaces.

\*<sup>2</sup> MIX and WIPE only.

**Master**  
Series

## DSR-1800/DSR-1800P

### Editing Recorder

- Preread 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



**Master**  
Series

## DSR-1600/DSR-1600P

### 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

**Master**  
Series

## DSR-1500A/DSR-1500AP

### 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 is 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



**Master**  
Series

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.

## DSR-70A/70AP

### Portable Editing Recorder



- Compact, all-in-one package features a 6.4-inch type VGA LCD monitor, a full cut-editing controller with a Jog/Shuttle dial and audio speaker
- Wide range of digital slow speeds from -0.5 to +0.5 times normal speed
- High-speed color picture search over a range of 32 times normal speed, in both forward and reverse
- Audio mix/swap recording
- ClipLink operation: cue up to Mark In/Cue address, change of mark In/Out points, change of OK/NG status and creation of new Mark In/Out points
- Edit List Memory Function
- Double Deck Editor by docking two DSR-70A units or a DSR-70A and a DNW-A25 Betacam SX® portable editing recorder
- SDI and i.LINK interfaces are provided by a single DSBK-160A optional board
- Two-camera switching recording\*<sup>1</sup>
- Sequential recording for up to 6 hours in the double deck configuration
- Parallel-run recording to control two docked DSR-70A units in parallel for simultaneous recording
- Two-way power supply system (AC/DC) for operation with either AC\*<sup>2</sup> or DC power

\*<sup>1</sup> The optional DSBK-180 Dual Video Input Board is required.

\*<sup>2</sup> AC adaptor is required.

**Master**  
Series

## Digital VTRs

## DSR-45/DSR-45P

### Recorder

- Superb picture quality of the DVCAM format
- Recording and playback capability of the DV format (SP mode only)\*<sup>1</sup>
- Long recording time: up to 184 minutes with a standard-size cassette, 40 minutes with a mini-size cassette
- Full range of analog 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\*<sup>2</sup>
- RS-232C interface for basic control from a PC
- LANC and Control S interface
- Time code IN/OUT
- Time code/ User bit preset
- 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 (22W during playback)
- Built-in 2-inch type (123,200 dot) color 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-45/45P is not equipped with the synchronization capability, therefore it is recommended to be used only as a source feeder in A/B roll editing.



## DSR-30/DSR-30P

### Recorder



- Superb picture quality of the DVCAM format
- 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

- i.LINK(DV) interface for simultaneous transfer of audio, video, and command signals
- LANC remote control interface
- Auto repeat / One program play function
- Duplication function with original time code
- Power-on recording and playback capabilities
- Clear frame picture
- External timer recording
- Index point search function (when using a cassette with Cassette Memory.)
- Built-in control tray with a Jog/Shuttle dial
- Headphone/microphone input
- Wireless remote controller RMT-DS30 supplied

## DSR-25 Recorder

- Superb picture quality of the DVCAM format
- Recording and playback capability of the DV format (SP mode only)\*<sup>1</sup>
- Long recording time: up to 184 minutes with a standard-size cassette, 40 minutes with a mini-size cassette
- Recording and playback capability of both NTSC/PAL signals\*<sup>2</sup>
- i.LINK(DV) interface for simultaneous transfer of audio, video, and command signals
- LANC and Control S interface
- Time code/ User bit preset
- Time code IN through DV IN
- Duplication function. (Including the duplication of Cassette Memory data)
- Power-on recording and playback capabilities
- Compact size (half-rack size width, 2U height)

- Low power consumption (16W during playback)
- Built-in 2-inch type (123,200 dot) color 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-25 is not equipped to convert signals from NTSC to PAL, or vice versa.



## DSR-11 Recorder



- Superb picture quality of the DVCAM format
- Recording and playback capability of the DV format (SP mode only)\*<sup>1</sup>
- Long recording time: up to 184 minutes with a standard-size cassette, 40 minutes with a mini-size cassette
- Recording and playback capability of both NTSC/PAL signals\*<sup>2</sup>
- i.LINK(DV) interface for simultaneous transfer of audio, video, and command signals

- LANC and Control S interface
- Time code IN through DV IN
- Auto repeat function
- Compact/lightweight design for both horizontal and vertical layout
- Wireless remote controller RMT-DS11 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-11 is not equipped to convert signals from NTSC to PAL, or vice versa.

## Digital VTRs

## DSR-50/DSR-50P

### Portable Recorder



- Superb picture quality of the DVCAM format
- 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
- Analog 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) color 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-V10/DSR-V10P

### DVCAM Video Walkman® Recorder

- Superb picture quality of the DVCAM format
- Playback capability of the DV format (SP mode only)
- Long recording time: up to 40 minutes with a mini-size cassette\*
- Compact/lightweight design and compatibility with InfoLITHIUM battery system for portable use
- Built-in 5.5-inch type color LCD monitor
- i.LINK(DV) interface for simultaneous transfer of audio, video, and command signals
- LANC remote control interface
- Auto repeat function

- Duplication function with original time code
- Assemble editing capabilities with the optional DSRM-E1 Edit Adaptor
- Image shooting capabilities with the optional CVX-V1/V3/V18NS Mini Camera

\* The DSR-V10/V10P is compatible to only mini-size DVCAM and DV cassettes.



## DSR-85/DSR-85P

### High-speed Editing Recorder



- Superb picture quality of the DVCAM format
- Playback capability of DV recorded tapes (SP mode only)
- Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a mini-size cassette
- Versatile digital interfaces: SDI\*, SDTI (QSDI) and AES/EBU digital audio
- Extensive analog interfaces: composite, component, S-Video and XLR audio
- RS-422A remote control interface
- High-speed data transfer at four times normal speed via SDTI (QSDI) interface
- High-speed tape dubbing with ClipLink Log Data at four times normal speed via SDTI (QSDI) and RS-422A interfaces
- ClipLink operation
- Frame accurate editing capability
- Built-in SMPTE/EBU time code generator/reader
- Time base corrector
- High-speed picture search over a range of 32 times normal speed, in both forward and reverse
- Digital slow function over a range from 0 to 0.24 times normal speed, in both forward and reverse
- Jog audio capability
- SIRCS (Sony Integrated Remote Control System) interface for the DSRM-10 Remote Control Unit

\* The optional DSBK-120 SDI Input/Output Board is required.

### Lineup Features

## Program Payout

## Flexicart

### Multi-cassette System

- Accepts a maximum of six DSR-2000/1800/1600 units\*1
- Designed to be modular and reconfigurable with optional VTRs and cassette bin units to meet differing applications
- Multiple inputs and outputs
- Fully automated, simultaneous record, playback and time delay
- Standard traffic and automation interface
- PC-driven, user-friendly Windows® environment



Applicable VTRs	VTR Mount Kit	Cassette Bin Unit	Configuration (VTR/Bin Unit ratio)		Standard-size Cassette Capacity
			VTRs	Bin Units (4U high)	
DSR-2000/2000P DSR-1800/1800P DSR-1600/1600P	BKFC-54	BKFC-21DV BKFC-210**2	1	7	147
			2	7	147
			3	6	126
			4	5	105
			5	4	84
			6	3	63

\*1 Available for standard-size cassettes only.

\*\*2 BKFC-210 DV Hand Kit: a robotics hand for handling DVCAM standard-size cassettes.

## Feature Comparison

## Digital Camcorders

	DSR-570WS DSR-570WSP	DSR-370 DSR-370P	DXC-D35/D35WS+DSR-1 DXC-D35P/D35WSP+DSR-1P	DSR-250 DSR-250P	DSR-PD150 DSR-PD150P	DSR-PD100A DSR-PD100AP
<b>Cassette</b>						
Standard-size Cassette	●	●	●	●	—	—
Mini-size Cassette	●	●	●	●	●	●
<b>Camera Section</b>						
Image Device	Three 2/3-inch type Power HAD WS CCDs	Three 1/2-inch type Power HAD CCDs	Three 2/3-inch type Power HAD CCDs*1	Three 1/3-inch type CCDs	Three 1/3-inch type CCDs	Three 1/4-inch type CCDs
16:9 Aspect Ratio	●	—	●*2	●*3	●*3	●*3
TruEye Process	●	●	●	—	—	—
DynaLatitude Process	●	●	●	—	—	—
Skin Detail	●	●	●	—	—	—
TLCS (Total Level Control System)	●	●	●	—	—	—
ATW (Auto Tracing White Balance)	●	●	●	●	●	●
EZ Mode	●	●	●	—	—	—
EZ Focus	●	●	●	—	—	—
Auto Focus	—	—	—	●	●	●
Camera Setup File System	●	●	●	—	—	—
SetupNavi	●	●	●	—	—	—
SetupLog	●	●	●	—	—	—
Super SteadyShot	—	—	—	●	●	●
CCU Capability	●	●	●*4	—	—	—
DynaFit Shoulder Pad	●	●	●	●	—	—
<b>VTR Section</b>						
ClipLink	●	●	●	—	—	—
Freeze Mix	●	●	●	—	—	—
Memory Mix	—	—	—	●	●	—
Photo Mode	—	—	—	●	●	●
<b>Interface</b>						
i.LINK (DV)	●*5	●*5	—	●	●	●
LANC	—	—	—	●	●	●

\*1 Image Device of the DXC-D35WS/D35WSP is Three 2/3-type Power HAD WS CCDs.

\*2 Combination of the DXC-D35WS/D35WSP+DSR-1/1P only.

\*3 Electronically processed.

\*4 Combination with the DXC-D35/D35WS/D35P/D35WSP and the CA-537

\*5 Output only. (input for video monitoring only)

● : Available

— : Not available



## Feature Comparison

## Digital VTRs

	DSR-2000 DSR-2000P	DSR-1800 DSR-1800P	DSR-1600 DSR-1600P	DSR-1500A DSR-1500AP	DSR-70A DSR-70AP	DSR-85 DSR-85P	DSR-45 DSR-45P	DSR-30 DSR-30P	DSR-25	DSR-11	DSR-50 DSR-50P	DSR-V10 DSR-V10P
<b>Cassette</b>												
Standard-size Cassette	●	●	●	●	●	●	●	●	●	●	●	—
Mini-size Cassette	●	●	●	●	●	●	●	●	●	●	●	●
DVCPRO Medium-size Cassette	●	●	●	●	●	—	—	—	—	—	—	—
<b>Digital Interface</b>												
SDI	●	(Option)	● <sup>*1</sup> (Option)	● (Option)	● (Option)	● (Option)	—	—	—	—	—	—
SDTI (QSDI)	●	(Option)	● <sup>*1</sup> (Option)	● (Option)	● (Option)	●	—	—	—	—	—	—
i.LINK (DV)	(Option)	(Option)	● <sup>*1</sup> (Option)	● (Option)	● (Option)	—	●	●	●	●	●	●
AES/EBU	●	(Option)	● <sup>*1</sup> (Option)	● (Option)	—	●	—	—	—	—	—	—
<b>Analog Interface</b>												
Composite	●	●	● <sup>*1</sup>	● <sup>*2</sup> (Option)	●	●	●	●	●	●	●	●
Component	●	●	● <sup>*1</sup>	● <sup>*2</sup> (Option)	● (Option)	●	●	—	—	—	● <sup>*1</sup>	—
S-Video	●	●	● <sup>*1</sup>	● <sup>*2</sup> (Option)	●	●	●	●	●	●	●	●
<b>Remote Control Interface</b>												
RS-422A	●	●	●	●	●	●	● <sup>*3</sup>	—	—	—	—	—
RS-232C	—	—	—	—	—	—	●	—	—	—	—	—
LANC	—	—	—	—	—	—	●	●	●	●	● <sup>*4</sup>	●
Control S	—	●	●	●	—	●	● <sup>*5</sup>	●	● <sup>*5</sup>	●	● <sup>*5</sup>	—
Foot Switch	—	—	—	—	—	—	—	—	—	—	●	—
Wireless Remote Control	—	—	—	—	—	—	●	●	●	●	—	● <sup>*6</sup>
<b>Editing Capability</b>												
Preread Editing/Playback	●	● <sup>*7</sup>	—	—	—	—	—	—	—	—	—	—
Assemble Editing	●	●	—	●	●	●	—	●	—	—	—	● (Option)
Insert Editing	● (Video/Audio/TC)	● (Video/Audio/TC)	—	● (Video/Audio/TC)	● (Video/Audio/TC)	● (Video/Audio/TC)	—	● (Video/Audio)	—	—	—	—
VITC	●	●	●	●	●	—	—	—	—	—	—	—
Time Code Input/Output	●	●	●	●	●	●	●	—	—	—	●	—
ClipLink	●	●	●	●	●	●	—	—	—	—	—	—
High-speed Data Transfer	—	—	—	—	—	●	—	—	—	—	—	—
Search Speed	x ±60	x ±60	x ±60	x ±60	x ±32	x ±32	x ±14.48 (NTSC), x ±17.48 (PAL)	x ±15	x ±14.48 (NTSC), x ±17.48 (PAL)	x ±14.48 (NTSC), x ±17.48 (PAL)	x ±14.48 (NTSC), x ±17.48 (PAL)	x ±11.48 (PAL)
Digital Slow	x ±1	x ±0.5	x ±0.5	x ±0.5	x ±0.5	x ±0 to 0.24	x ±1/10, 1/3	x ±1/10, 1/5	x ±1/10, 1/3	x ±1/10, 1/3	x ±1/10, 1/3	x ±1/3
<b>Others</b>												
DV Playback Capability	● (SP/LP)	● (SP only)	● (SP only)	● (SP only)	● (SP only)	● (SP only)	● (SP only)	● (SP only)	● (SP only)	● (SP only)	● (SP only)	● (SP only)
DVCPRO Playback Capability	●	●	●	●	●	—	—	—	—	—	—	—
DV (SP mode) Recording Capability	—	—	—	● <sup>*8</sup>	—	—	● <sup>*9</sup>	—	● <sup>*9</sup>	● <sup>*9</sup>	● <sup>*9</sup>	—
Auto Repeat/ Power-on Playback/Recording	—	● <sup>*10</sup>	● <sup>*10</sup>	● <sup>*10</sup>	—	—	●	●	●	● <sup>*11</sup>	—	● <sup>*11</sup>
Index Points Search	—	—	—	—	—	—	●	●	●	●	●	—
Closed Caption	● <sup>*12</sup>	● <sup>*12</sup>	● <sup>*12</sup>	● <sup>*12</sup>	● <sup>*12</sup>	—	● <sup>*12</sup> *13	● <sup>*12</sup>	● <sup>*12</sup>	● <sup>*12</sup>	● <sup>*12</sup> *14	● <sup>*12</sup>

\* 1 Output only. 26-pin camera connector accepts component video input.

\* 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 Wireless remote controller is not supplied.

\* 7 Playback only.

\* 8 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 DVCPRO deck. In between scenes where the recording format is changed from DVCPRO 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.

\* 9 When recording in DV (SP) format, transitions between cut to cut may not be smooth. In addition, when the recording format is switched between DVCPRO and DV, the transition may not be recorded smoothly.

\* 10 Auto repeat/Power-on playback only.

\* 11 Auto repeat only.

\* 12 NTSC model only.

\* 13 Output from Monitor out connector only.

\* 14 Output from Video out connector only.

● : Available

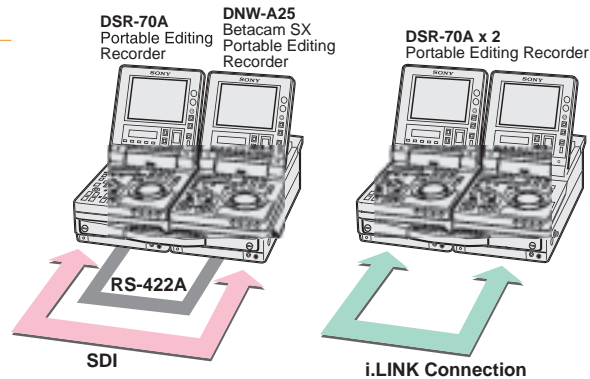
— : Not available

## Application Examples

## Field Editing

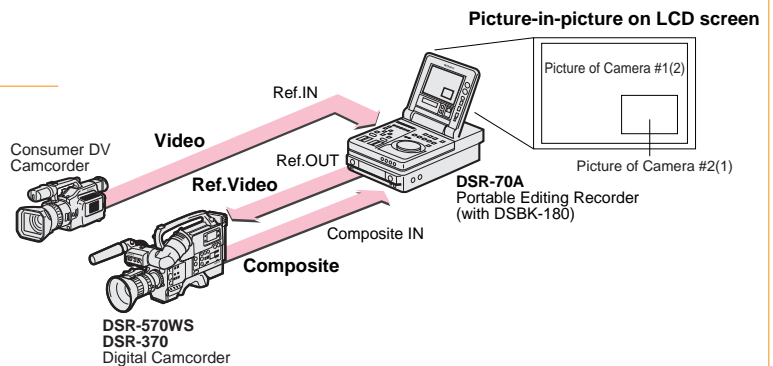
### Lap-top Editing System

- Portable and compact cut-editing system package
- Simple cable connection with virtually no deterioration of picture and sound quality
- All-digital editing process
- DV/DVCAM/DVCPRO to Betacam SX format editing
- Betacam SX to DVCAM format editing



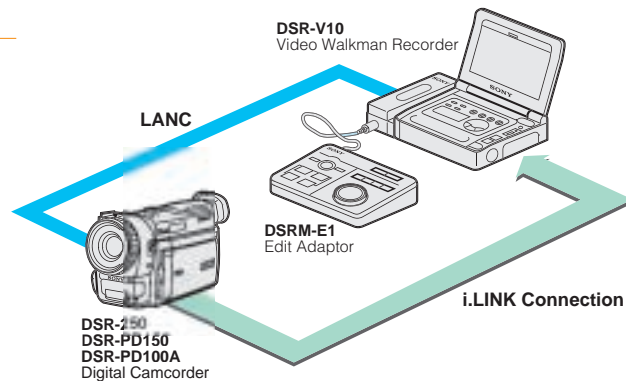
### Two-camera Switching Recording System

- Flexible recording by alternately switching between two camcorders
- Ideal for field/event recording with a minimum system and smaller crew



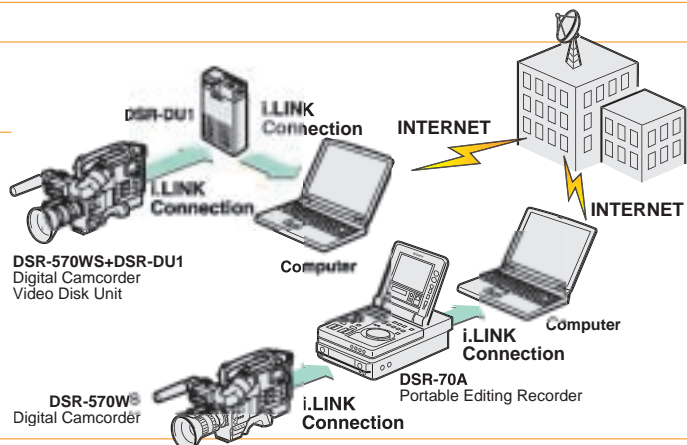
### Simple Field Editing System

- Portable and compact system package
- Assemble editing with up to 99 events x 4 programs



### Newsgathering and Image Transmission System

- Minimum package for shooting and editing
- Simple cable connection with virtually no deterioration of picture and sound quality
- Internet transmission of urgently required images via a PC equipped with an i.LINK interface



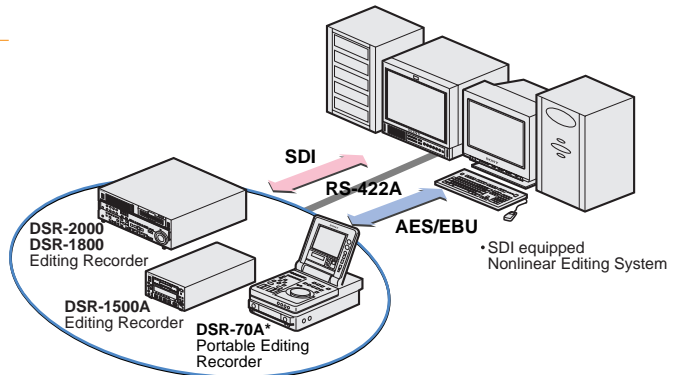
## Application Examples

## Studio Editing – Nonlinear

### SDI-based Nonlinear Editing System

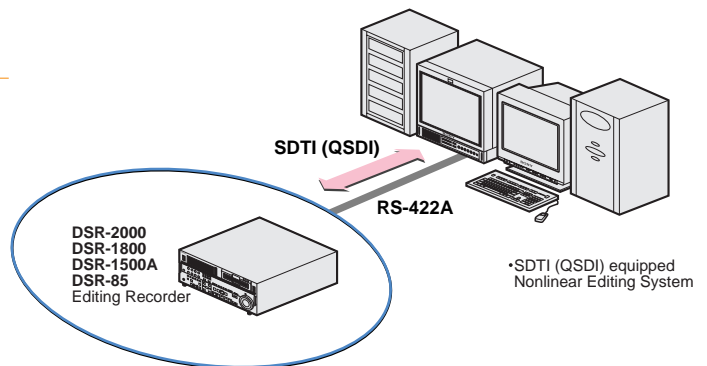
- Direct digital connection with SDI-equipped nonlinear editing system
- High picture and sound quality by use of SDI and AES/EBU interfacing

\* The DSR-70A does not support AES/EBU.



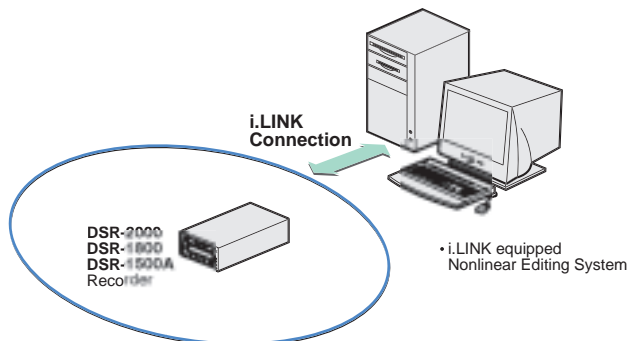
### SDTI (QSDI)-based Nonlinear Editing System

- Superior multi-generation picture and sound quality by use of SDTI (QSDI) interfacing
- The DSR-85 can transfer data at four times normal speed to compatible nonlinear editing system



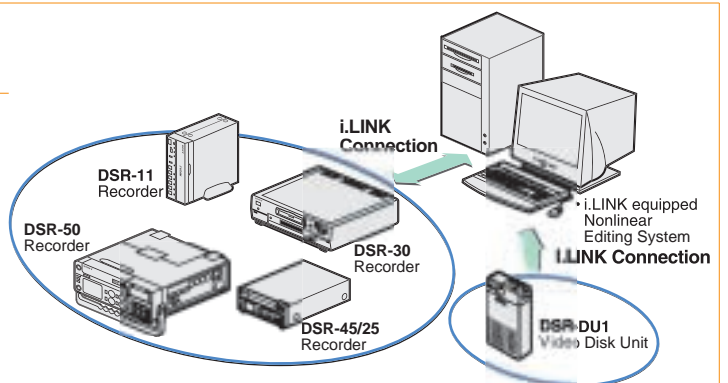
### High-end, i.LINK-based Nonlinear Editing System

- Superior multi-generation picture and sound by use of i.LINK interfacing
- Quick mechanical response



### DV-based, i.LINK Nonlinear Editing System

- Superior multi-generation picture and sound by use of i.LINK interfacing



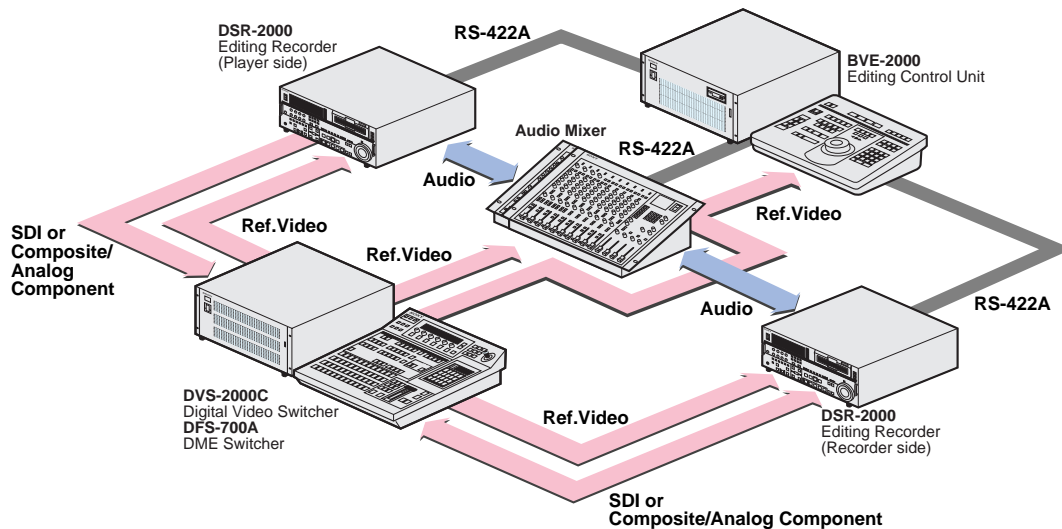
## Application Examples

## Studio Editing – Linear

### Preread Editing System

- A/B roll editing with two VTRs\*
- Audio mix/swap and voice over with no delay between video and audio
- Title editing with one VTR and Audio Mixer

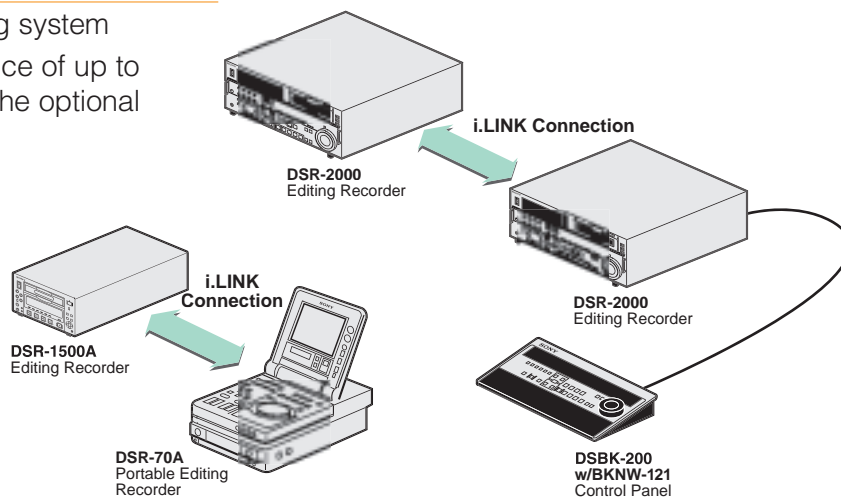
\* MIX and WIPE only



### VTR-to-VTR Editing System

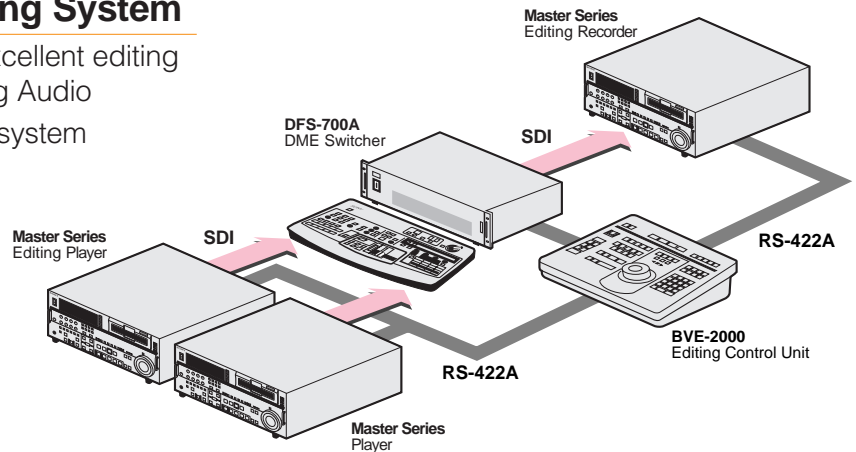
- Convenient two-machine editing system
- Remote operation from a distance of up to 10 meters (approx. 33 ft.) with the optional DSBK-200 Control Panel\*

\* For DSR-2000 System



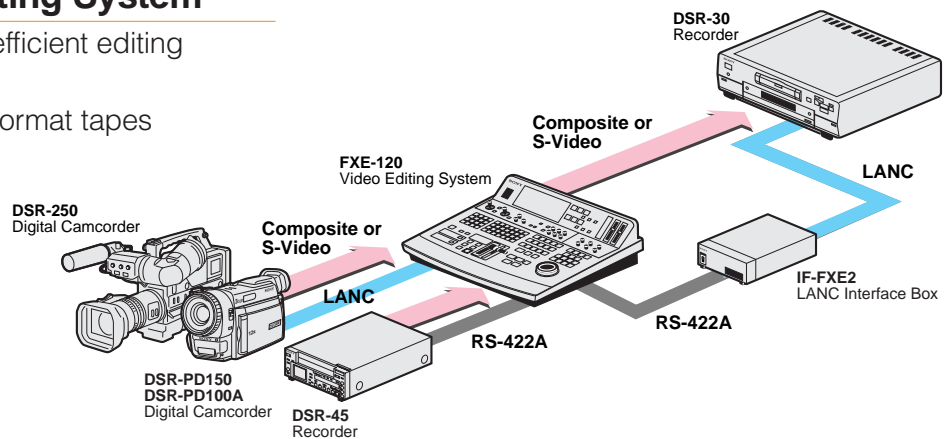
## Master Series Linear Editing System

- Full A/B-roll digital system with excellent editing performance and high quality Jog Audio
- Smooth migration to a full digital system

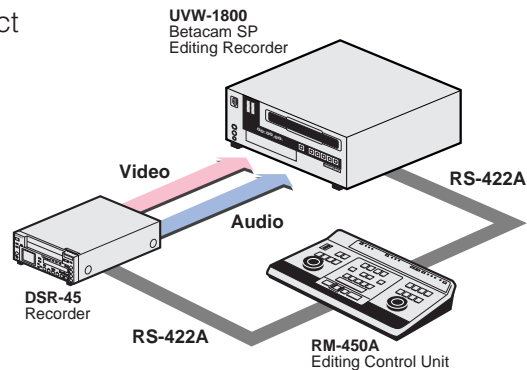


## Low-cost, Simple Editing System

- LANC-based, simple and efficient editing with effects
- Possible to utilize existing format tapes



- Simple cut-editing system
- Space-saving with the compact DSR-45



## Optional Accessories & Peripheral Equipment



### BP-L40A/L60A/L90A

Rechargeable  
Battery Pack

DSR-570WS DSR-370 DSR-1 DSR-250 DSR-70A

DSR-50



### BP-M50/M100

Rechargeable Nickel Metal Hybride  
Battery Pack

DSR-570WS DSR-370 DSR-1 DSR-250 DSR-70A

DSR-50



### NP-F550

Rechargeable  
Battery Pack

DSR-PD150 DSR-PD100A



### NP-F750

Rechargeable  
Battery Pack

DSR-PD150 DSR-PD100A DSR-V10 DSR-DU1



### NP-F960

Rechargeable  
Battery Pack

DSR-PD150 DSR-PD100A DSR-V10 DSR-DU1



### AC-DN1

AC Adaptor

DSR-570WS DSR-370 DSR-DU1



### AC-DN2B

AC Adaptor

DSR-570WS DSR-370 DSR-250 DSR-70A



### AC-V700A

AC Adaptor/Charger

DSR-PD150 DSR-PD100A DSR-V10 DSR-DU1



### DC-L1

Battery Adaptor for  
NP-1B

DSR-570WS DSR-370 DSR-1



### BC-L120/L120CE

Battery Charger for  
BP-L40A/L60A/L90A, NP-1B, BP-90A

DSR-570WS DSR-370 DSR-1 DSR-250 DSR-70A

DSR-50



### BC-L50

Battery Charger for  
BP-L40A/L60A/L90A

DSR-570WS DSR-370 DSR-1 DSR-250 DSR-70A

DSR-50



### BC-M50

Battery Charger for  
BP-L40A/L60A/L90A/M50/M100

DSR-570WS DSR-370 DSR-1 DSR-250 DSR-70A

DSR-50



### AC-550

AC Adaptor

DSR-570WS DSR-370 DSR-70A DSR-50



### DXF-51

5-inch Monochrome  
Viewfinder

DSR-570WS DSR-370 DXC-D35+DSR-1

\*When it is attached to the DSR-570WS/370, a mount bracket (A-8274-968-B) included in the CA-370 is required.



### CCU-M5A/M5AP

Camera Control Unit

DSR-570WS DSR-370



### RCP-TX7

Remote Control Panel

DSR-570WS DSR-370



### RM-M7G

Remote Control Unit

DSR-570WS DSR-370 DXC-D35+DSR-1 CCU-M5A/M5AP



### CA-370

Intercom Adaptor for DR-100  
(Headset)

DSR-570WS DSR-370

\*The CA-370 includes a mount bracket (A-8274-968-B) to attach the DXF-51 to the DSR-570WS/370.



**DR-100**  
Headset  
(used with CA-370)

DSR-570WS DSR-370



**CA-DU1**  
Camera Adaptor

DSR-570WS DSR-370 DSR-250 DSR-DU1



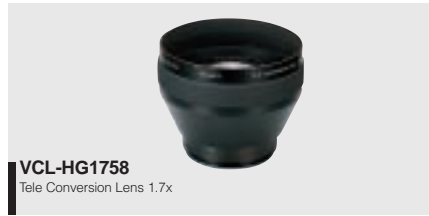
**VF-58PK**  
Filter Kit  
PL Filter and Multi-coat Filter

DSR-250 DSR-PD150



**VCL-HG0758**  
Tele Conversion Lens 0.7x

DSR-250 DSR-PD150



**VCL-HG1758**  
Tele Conversion Lens 1.7x

DSR-250 DSR-PD150



**VCT-1170RM**  
Video Tripod with  
Remote Control

DSR-PD150 DSR-PD100A



**VCT-U14**  
Tripod Adaptor

DSR-570WS DSR-370 DXC-035+DSR-1 DSR-250



**CAC-4**  
Chest Pad

DXC-035+DSR-1



**WRR-805A**  
UHF Synthesized Tuner

DSR-PD150 DSR-PD100A



**WRT-805A**  
UHF Synthesized  
Wireless Transmitter

DSR-PD150 DSR-PD100A



**WRR-810A**  
UHF Synthesized Tuner

DXC-035+DSR-1



**WRR-855A/855B**  
UHF Synthesized Tuner

DSR-570WS DSR-370 DXC-035+DSR-1



**WRR-861A/861B**  
UHF Synthesized Tuner

DSR-570WS DSR-370 DXC-035+DSR-1

\*When using the WRR-861A/861B,  
A mount bracket (A-8278-G57-A)  
is required.



**BTA-801**  
Adaptor for WRR-855A

DXC-035+DSR-1



**CA-WR855**  
Adaptor for WRR-855A

DSR-570WS DSR-370



**CAC-12**  
Microphone Holder

DSR-570WS DSR-370 DXC-035+DSR-1 DSR-250 DSR-PD150  
DSR-PD100A



**EC-0.5C2**  
Microphone Cable

DXC-035+DSR-1 DSR-250 DSR-PD150 DSR-PD100A



**ECM-672/670**  
Electret Condenser  
Microphone

DSR-570WS DSR-370 DXC-035+DSR-1 DSR-250 DSR-PD150  
DSR-PD100A

## Optional Accessories & Peripheral Equipment



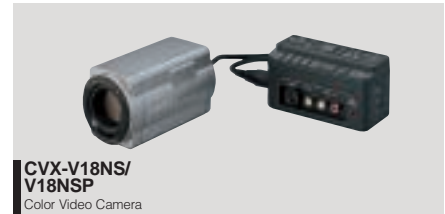
**CVX-V1/V1P**  
Color Video Camera

DSR-V10



**CVX-V3/V3P**  
Color Video Camera

DSR-V10



**CVX-V18NS/  
V18NSP**  
Color Video Camera

DSR-V10



**LC-424**  
Carrying Case  
(Hard type)

DSR-370 DXC-D35+DSR-1 DSR-570WS



**LC-400**  
Carrying Case  
(Soft type)

DSR-570WS DSR-370



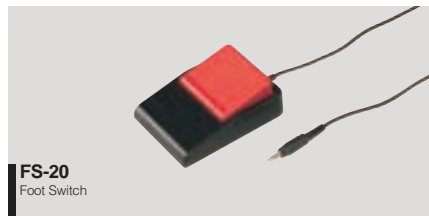
**LC-PD150**  
Hard Carrying Case

DSR-PD150



**LCR-1**  
Rain Cover

DSR-570WS DSR-370 DXC-D35+DSR-1



**FS-20**  
Foot Switch

DSR-50



**IF-FXE2**  
LANC Interface Box

DSR-30



**DSRM-10**  
Remote Control Unit

DSR-1800 DSR-1600 DSR-1500A DSR-85 DSR-45  
DSR-25 DSR-11 DSR-50



**DSRM-20**  
Remote Control Unit

DSR-45 DSR-25 DSR-11 DSR-50



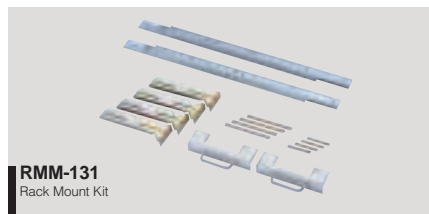
**DSRM-E1/E1P**  
Edit Adaptor

DSR-V10



**UVR-60/60P**  
TBC Remote Control Unit

DSR-2000 DSR-1800 DSR-1600 DSR-85



**RMM-131**  
Rack Mount Kit

DSR-2000 DSR-1800 DSR-1600 DSR-85



**BKNW-121**  
Control Panel Case

DSR-2000



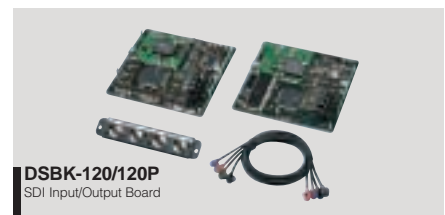
**BKNW-225**  
Docking Kit

DSR-70A



**LC-DN220**  
Carrying Case

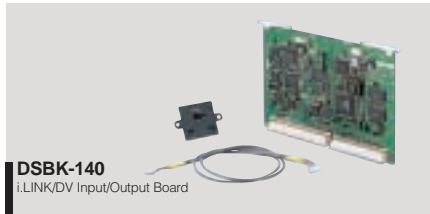
DSR-70A



**DSBK-120/120P**  
SDI Input/Output Board

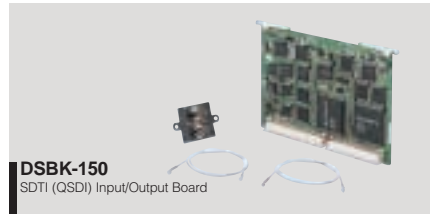
DSR-85





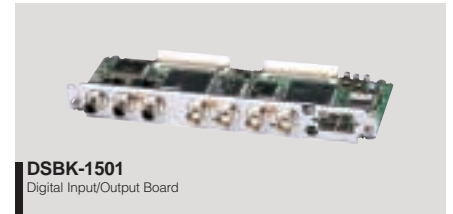
**DSBK-140**  
i.LINK/DV Input/Output Board

DSR-70A



**DSBK-150**  
SDTI (QSDI) Input/Output Board

DSR-70A



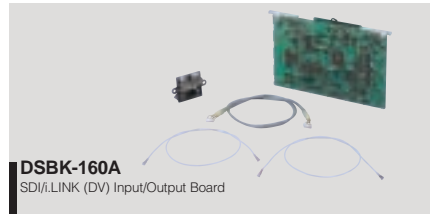
**DSBK-1501**  
Digital Input/Output Board

DSR-1500A



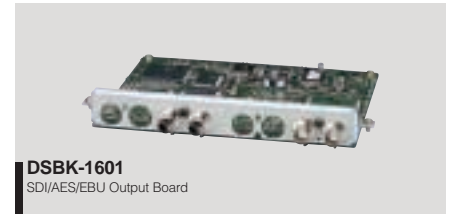
**DSBK-1504**  
Analog Input Board

DSR-1500A



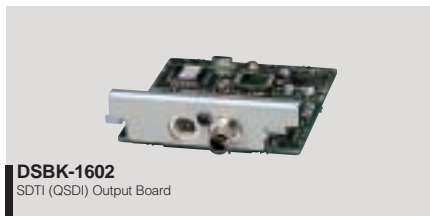
**DSBK-160A**  
SDI/i.LINK (DV) Input/Output Board

DSR-70A



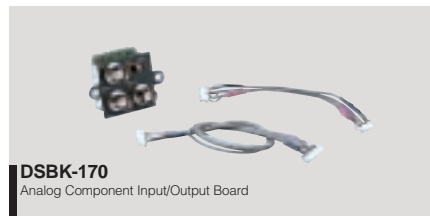
**DSBK-1601**  
SDI/AES/EBU Output Board

DSR-1600



**DSBK-1602**  
SDTI (QSDI) Output Board

DSR-1600



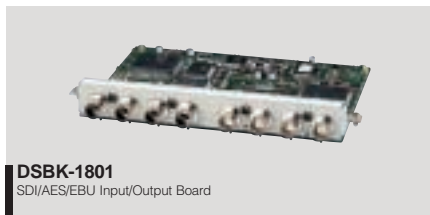
**DSBK-170**  
Analog Component Input/Output Board

DSR-70A



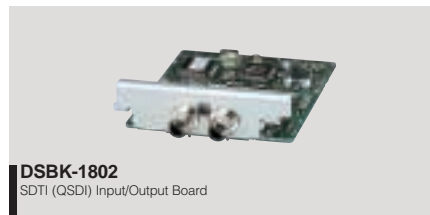
**DSBK-180/180P**  
Dual Video Input Board

DSR-70A



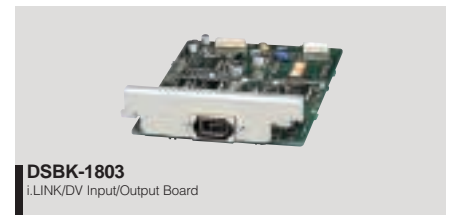
**DSBK-1801**  
SDI/AES/EBU Input/Output Board

DSR-1800



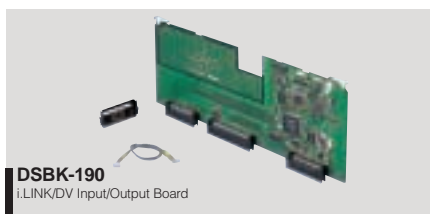
**DSBK-1802**  
SDTI (QSDI) Input/Output Board

DSR-1800



**DSBK-1803**  
i.LINK/DV Input/Output Board

DSR-1800 DSR-1600



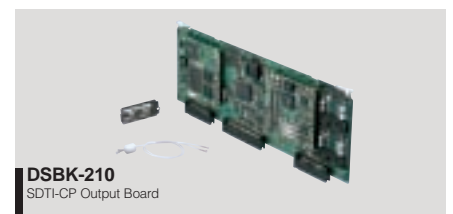
**DSBK-190**  
i.LINK/DV Input/Output Board

DSR-2000



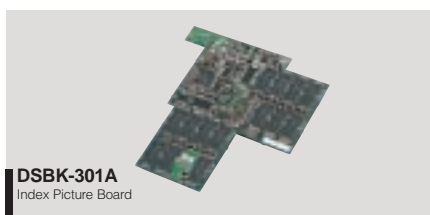
**DSBK-200**  
Control Panel

DSR-2000



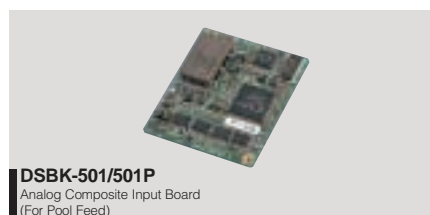
**DSBK-210**  
SDTI-CP Output Board

DSR-2000



**DSBK-301A**  
Index Picture Board

DSR-570WS DSR-370



**DSBK-501/501P**  
Analog Composite Input Board  
(For Pool Feed)

DSR-570WS DSR-370



**RCC-5G/10G/30G**  
Remote Control Cable  
(5 m/10 m/30 m)

DSR-2000 DSR-1800 DSR-1600 DSR-1500A DSR-85  
DSR-45 DSR-70A

## Optional Accessories & Peripheral Equipment



**CCA-7**  
Camera Remote Control Panel  
Control Cable

DSR-570WS DSR-370 DXC-D35+DSR-1



**CCQX-3**  
Connecting Cable

DSR-570WS DSR-370 DXC-D35+DSR-1



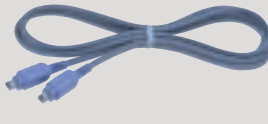
**CCZ-A2/A5/A10/A50/A100/A300**  
Connecting Cable  
(26-pin - 26-pin)

DSR-570WS DSR-370 DSR-50 CCU-M5A/M5AP



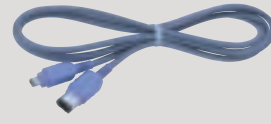
**CCZQ-A2/A5/A10**  
Connecting Cable  
(26-pin - 14-pin)

DSR-570WS DSR-370



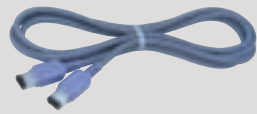
**VMC-IL4408A/IL4415/IL4435**  
i.LINK Cable  
(4-pin to 4-pin, 0.8 m/1.5 m/3.5 m)

DSR-PD150 DSR-PD100A DSR-45 DSR-25 DSR-30  
DSR-11 DSR-V10 DSR-DU1



**VMC-IL4615/IL4635**  
i.LINK Cable  
(4-pin to 6-pin, 1.5 m/3.5 m)

DSR-250 DSR-PD150 DSR-PD100A DSR-2000 DSR-1800  
DSR-1600 DSR-1500A DSR-70A DSR-45 DSR-25  
DSR-30 DSR-11 DSR-V10 DSR-50 DSR-DU1



**VMC-IL6615/6635**  
i.LINK Cable  
(6-pin to 6-pin, 1.5 m/3.5 m)

DSR-250 DSR-2000 DSR-1800 DSR-1600 DSR-1500A  
DSR-70A DSR-50



**CCF-3L**  
DV Cable  
(6-pin with lock to 6-pin)

DSR-570WS DSR-370 DSR-250 DSR-2000 DSR-1800  
DSR-1600 DSR-1500A DSR-70A DSR-50



**CCFD-3L**  
DV Cable  
(6-pin with lock to 4-pin)

DSR-570WS DSR-370 DSR-250 DSR-PD150 DSR-PD100A  
DSR-45 DSR-25 DSR-30 DSR-11 DSR-50  
DSR-V10



**PDV-64MEM/124MEM/184MEM**  
Digital Video Cassette  
(Master tape/Standard size)

DSR-570WS DSR-370 DSR-1 DSR-250 DSR-2000  
DSR-1800 DSR-1600 DSR-1500A DSR-85 DSR-45  
DSR-25 DSR-30 DSR-11 DSR-70A DSR-50



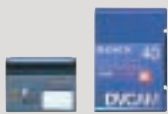
**PDVM-32MEM/40MEM**  
Digital Video Cassette  
(Master tape/Mini size)

DSR-570WS DSR-370 DSR-1 DSR-250 DSR-PD150  
DSR-PD100A DSR-2000 DSR-1800 DSR-1600 DSR-1500A  
DSR-85 DSR-45 DSR-25 DSR-30 DSR-11  
DSR-70A DSR-50 DSR-V10



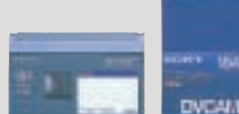
**PDV-34ME/64ME/94ME/124ME/184ME**  
Digital Video Cassette  
(Standard size)

DSR-570WS DSR-370 DSR-1 DSR-250 DSR-2000  
DSR-1800 DSR-1600 DSR-1500A DSR-85 DSR-45  
DSR-25 DSR-30 DSR-11 DSR-70A DSR-50



**PDVM-12ME/22ME/32ME/40ME**  
Digital Video Cassette  
(Mini size)

DSR-570WS DSR-370 DSR-1 DSR-250 DSR-PD150  
DSR-PD100A DSR-2000 DSR-1800 DSR-1600 DSR-1500A  
DSR-85 DSR-45 DSR-25 DSR-30 DSR-11  
DSR-70A DSR-50 DSR-V10



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

DSR-570WS DSR-370 DSR-1 DSR-250 DSR-2000  
DSR-1800 DSR-1600 DSR-1500A DSR-85 DSR-45  
DSR-25 DSR-30 DSR-11 DSR-70A DSR-50



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

DSR-570WS DSR-370 DSR-1 DSR-250 DSR-PD150  
DSR-PD100A DSR-2000 DSR-1800 DSR-1600 DSR-1500A  
DSR-85 DSR-45 DSR-25 DSR-30 DSR-11  
DSR-70A DSR-50 DSR-V10



**PDV-12CL**  
Cleaning Cassette Tape  
(Standard size)

DSR-570WS DSR-370 DSR-1 DSR-250 DSR-2000  
DSR-1800 DSR-1600 DSR-1500A DSR-85 DSR-45  
DSR-25 DSR-30 DSR-11 DSR-70A DSR-50



**PDVM-12CL**  
Cleaning Cassette Tape  
(Mini size)

DSR-570WS DSR-370 DSR-1 DSR-250 DSR-PD150  
DSR-PD100A DSR-2000 DSR-1800 DSR-1600 DSR-1500A  
DSR-85 DSR-45 DSR-25 DSR-30 DSR-11  
DSR-70A DSR-50 DSR-V10



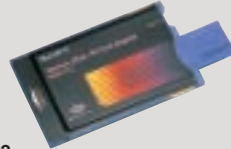
**MSA-8A/16A/32A/64A**  
Memory Stick  
(8 MB/16 MB/32 MB/64 MB)

DSR-250 DSR-PD100A DSR-PD150



**MSAC-FD2MA**  
Floppy Disc Adaptor for  
Memory Stick

DSR-250 DSR-PD100A DSR-PD150



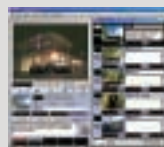
**MSAC-PC2**  
PC Card for  
Memory Stick

DSR-250 DSR-PD100A DSR-PD150

## Peripheral Equipment



**VSR-2000A**  
Video Server



**JZ-1**  
Videocassette Logging Software



**DFS-700A**  
DME Switcher



**BVE-2000**  
Editing Control Unit



**RM-450A**  
Editing Control Unit

## Specifications (NTSC Models)

## DSR-570WS/DSR-370/DXC-D35/D35WS+DSR-1 Camcorders

## DSR-1 Dockable Recorder

	DSR-570WS	DSR-370	DXC-D35/D35WS+DSR-1	DSR-1
<b>General</b>				
Power requirements	DC 12 V (11 to 17 V)			DC 12 V +5/-1 V
Power consumption	26.1 W (with VF), 24 W (without VF)	22.1 W (with VF), 20 W (without VF)	24.8 W (with VF)	12 W
Operating temperature	32 °F to 104 °F (0 °C to 40 °C)			32 °F to 104 °F (0 °C to 40 °C)
Storage temperature	-4 °F to 140 °F (-20 °C to 60 °C)			-4 °F to 140 °F (-20 °C to 60 °C)
Tape speed	28.193 mm/s			28.193 mm/s
Recording/Playback time				
Standard size	184 min.			184 min.
Mini size	40 min.			40 min.
Fast forward/Rewind time				
Standard size	Approx. 12 min.			Approx. 12 min.
Mini size	Approx. 3 min.			Approx. 3 min.
Continuous recording time	Approx. 70 min. with BP-L40A, 90 min. with BP-M50, 140 min. with BP-L60A, 200 min. with BP-M100, 230 min. with BP-L90A	Approx. 80 min. with BP-L40A, 100 min. with BP-M50, 180 min. with BP-L60A, 230 min. with BP-M100, 290 min. with BP-L90A	Approx. 75 min. with BP-L40A	Approx. 75 min. with BP-L40A (DSR-1 + DXC-D35)
Weight	14 lb 20 oz (6.4 kg) (with VF, microphone, lens, battery and tape)	13 lb 10 oz (6.2 kg) (with VF, microphone, lens, battery and tape)	D35: 16 lb 1 oz (7.3 kg), D35WS: 16 lb 5 oz (7.4 kg) (with VF, microphone, lens, battery, tape and carrying handle)	6 lb 13 oz (3.1 kg) (with battery)
Dimensions (W x H x D)	4 7/8 x 7 5/8 x 11 1/8 inches (121 x 192 x 280 mm) (without projections) 9 5/8 x 9 3/4 x 21 1/8 inches (242 x 247 x 536 mm) (with projections)	4 7/8 x 7 5/8 x 10 3/4 inches (121 x 192 x 270 mm) (without projections) 9 5/8 x 9 3/4 x 21 1/8 inches (242 x 247 x 536 mm) (with projections)	4 7/8 x 8 1/8 x 13 5/8 inches (121 x 206 x 344 mm)	4 3/4 x 7 3/8 x 7 3/8 inches (118 x 185 x 185 mm)
<b>Camera Section</b>				
Image device	3-chip 2/3-inch type, Interline-Transfer CCD	3-chip 1/2-inch type, Interline-Transfer CCD	3-chip 2/3-inch type, Interline-Transfer CCD	—
Optics	F1.4 medium index prism system			—
Effective picture elements	980 (H) x 494 (V)	768 (H) x 494 (V)	D35: 768 (H) x 494 (V), D35WS: 980 (H) x 494 (V)	—
Total picture elements	1038 (H) x 504 (V)	811 (H) x 508 (V)	D35: 811 (H) x 508 (V), D35WS: 1038 (H) x 504 (V)	—
Sensing area	9.6 mm x 4.8 mm	6.4 mm x 4.8 mm	D35: 8.8 mm x 6.6 mm, D35WS: 9.6 mm x 5.4 mm	—
Built-in filters	1: 3200 K 2: 5600 K+1/8 ND 3: 5600 K 4: 5600 K+1/64 ND	1: 3200 K 2: 5600 K+1/8 ND 3: 5600 K 4: 5600 K+1/64 ND	1: 3200 K 2: 5600 K+1/8 ND 3: 5600 K 4: 5600 K+1/64 ND	—
Lens mount	Sony 2/3-inch type bayonet mount	Sony 1/2-inch type bayonet mount	Sony 2/3-inch type bayonet mount	—
Signal system	NTSC color system			—
Scanning system	2:1 interlaced, 525 lines, 60 fields/s			—
Horizontal frequency	15.734 kHz			—
Vertical frequency	59.94 Hz			—
Sync system	Internal Sync, GENLOCK IN/VIDEO IN (VBS or BS), External Sync, VTR/CCU IN			—
Horizontal resolution	16:9 mode: 800 TV lines(center) 4:3 mode: 850 TV lines (center)	800 TV lines (center)	D35: 880 TV lines, D35WS: 850 TV lines (4:3 mode), 800 TV lines (16:9 mode)	—
Vertical resolution	400 TV lines (without EVS), 450 TV lines (with EVS)			—
Minimum illumination	0.25 lx with F1.4, Hyper gain (42 dB) 0.4 lx with F1.8, Hyper gain (42 dB)	0.5 lx with F1.4, Hyper gain (36 dB) 0.8 lx with F1.8, Hyper gain (36 dB)	0.25 lx with F1.4, Hyper gain (36 dB+DPR) 0.4 lx with F1.8, Hyper gain (36 dB+DPR)	—
Sensitivity	F11 at 2000 lx (3200 K, 89.9% reflectance) (typical)			—
Gain selection	-3 dB, 0 dB, 3 dB, 6 dB, 9 dB, 12 dB, 18 dB, 18 dB+DPR*, 24 dB, 24 dB+DPR, Hyper gain (36 dB or 42 dB selectable)	-3 dB, 0 dB, 3 dB, 6 dB, 9 dB, 12 dB, 18 dB, 18 dB+DPR**, 24 dB, 24 dB+DPR, Hyper gain (36 dB)	-3 dB, 0 dB, 3 dB, 6 dB, 9 dB, 12 dB, 18 dB, 18 dB+DPR, 24 dB, 24 dB+DPR, Hyper gain (30 dB+DPR or 36 dB+DPR)	—
Shutter speed selection	OFF, 1/100, 1/250, 1/500, 1/1000, 1/2000 (s)			—
S/N ratio	63 dB (typical)	62 dB (typical)	63 dB (typical)	—
Registration	0.05% (all zones, without lens)			—
Geometric distortion	Below measurable level			—
<b>VTR Section</b>				
Video performance**				
Bandwidth	Luminance: 30 Hz to 5.0 MHz ±1.0 dB Chrominance: 30 Hz to 1.5 MHz +1.0/-5.0 dB			Luminance: 30 Hz to 5.0 MHz ±1.0 dB 5.75 MHz +0/-3.0 dB (Typical measurement) Chrominance: 30 Hz to 1.5 MHz +1.0/-5.0 dB
S/N ratio	More than 55 dB			More than 55 dB
K-factor (K21, KPB)	Less than 2.0%			Less than 2.0%
Y/C delay	Less than 30 ns			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 4 CH mode (32 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1.0 dB			2 CH mode (48 kHz/16-bit): 20 Hz to 20 kHz +0.5/-1.0 dB 4 CH mode (32 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1.0 dB
Dynamic range	More than 80 dB			More than 80 dB
Distortion (THD)	Less than 0.08% (1 kHz reference level, 48 kHz)			Less than 0.08%
<b>Input/Output Connectors</b>				
Signal inputs	Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Analog Video In: BNC, 1.0 Vp-p, 75 Ω (with DSBK-501 optional board installed) Ext Audio CH-1/2: XLR 3-pin female x2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ MIC In: XLR 3-pin female TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ		Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ	Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ
Signal outputs	Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω 26-pin male VBS: 1.0 Vp-p, sync negative Y/R-Y/B-Y: Y: 1.0 Vp-p, sync negative R-Y/B-Y: 0.7 Vp-p Y/C: Y: 1.0 Vp-p, sync negative C: 0.286 Vp-p (burst level) S-Video: DIN 4-pin, 1.0 Vp-p, 75 Ω DV Out: 6-pin, IEEE1394 Audio CH-1/2: Phono, -10 dBu, 47 kΩ Monitor Out: BNC, 1.0 Vp-p, sync negative, 75 Ω TC Out: BNC, 1.0 Vp-p, 75 Ω	Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω 26-pin male VBS: 1.0 Vp-p, sync negative Y/R-Y/B-Y: Y: 1.0 Vp-p, sync negative R-Y/B-Y: 0.7 Vp-p Y/C: Y: 1.0 Vp-p, sync negative C: 0.286 Vp-p (burst level) S-Video: DIN 4-pin, 1.0 Vp-p, 75 Ω DV Out: 6-pin, IEEE1394 Audio CH-1/2: Phono, -10 dBu, 47 kΩ Monitor Out: BNC, 1.0 Vp-p, sync negative, 75 Ω TC Out: BNC, 1.0 Vp-p, 75 Ω	Camera head BNC connector: VBS: 1.0 Vp-p, sync negative 26-pin connector of CA-537 docked VBS: 1.0 Vp-p, sync negative Y/R-Y/B-Y: Y: 1.0 Vp-p, sync negative, R-Y/B-Y: 0.7 Vp-p Y/C: Y: 1.0 Vp-p, sync negative, C: 0.286 Vp-p (burst level) RGB: 1.4 Vp-p Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω S-Video: DIN 4-pin Y: 1.0 Vp-p, sync negative C: 0.286 Vp-p (burst level) Audio CH-1/2: Phono, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 75 Ω	Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω S-Video: DIN 4-pin Y: 1.0 Vp-p, sync negative, 75 Ω C: 0.286 Vp-p, 75 Ω Audio CH-1/2: RCA PIN, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 75 Ω
Others	DC In: XLR 4-pin male DC Out: XLR 4-pin female Battery Terminal: 5-pin Earphone: Mini jack Light Out: 2-pin female WRR Out: 7-pin Lens: 12-pin VF: 20-pin Remote1: Stereo mini jack Remote2: 10-pin	DC In: XLR 4-pin male DC Out: XLR 4-pin female Battery Terminal: 5-pin Earphone: Mini jack Light Out: 2-pin female WRR Out: 7-pin Lens: 12-pin VF: 20-pin Remote1: Stereo mini jack Remote2: 10-pin	DC In: XLR 4-pin male DC Out: XLR 4-pin female Earphone: Mini jack Lens: 12-pin VF: 8-pin, 20-pin Remote1: Stereo mini jack Remote2: 10-pin	Analog Interface: Pro 50-pin Digital Interface: Pro 76-pin Digital DC In: XLR 4-pin male DC Out: XLR 4-pin female Earphone: Stereo Mini jack
<b>Supplied Accessories</b>				
	1.5-inch B/W Viewfinder (DXF-801) Microphone with Wind Screen Tripod Adaptor VCT-U14 Shoulder Strap, Lens Mount Cap Flange Focal Length Adjustment Test Chart Binding Tic Operating Instructions		1.5-inch B/W Viewfinder (DXF-801) Microphone with Wind Screen Tripod Adaptor VCT-U14 Remote Control Unit (RM-LG1) Shoulder Strap, Lens Mount Cap Flange Focal Length Adjustment Test Chart Operating Instructions	Shoulder Strap, Connector Cap Lithium Battery (type CR2032) M4 x6 Screws (2), M4 x12 Screws (2) Operating Instructions ClipLink Guide

\*1: DPR is equivalent to +6 dB gain up.  
18 dB+DPR: Equivalent to +24 dB gain up.  
24 dB+DPR: Equivalent to +30 dB gain up.  
Hyper gain (30 dB+DPR): Equivalent to +36 dB gain up.

\*2: The specifications for "Video/Audio performance" were measured by playing back material on a DSR-1800/1800P (via analog component out) that had been recorded by each camcorder

## Specifications (NTSC Models)

**DSR-250/DSR-PD150/DSR-PD100A** Camcorders

	DSR-250	DSR-PD150	DSR-PD100A
<b>General</b>			
Power requirements	DC 12 V (11 V to 17 V)	DC 7.2 V (Battery), DC 8.4 V (AC adaptor)	DC 7.2 V (Battery operation), 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), 5.4 W (with LCD)	4.3 W (with VF), 5.3 W (with LCD)
Operating temperature	32 °F to 104 °F (0 °C to 40 °C)		
Storage temperature	-4 °F to 140 °F (-20 °C to 60 °C)		
Tape speed	Approx. 28.2 mm/s (DVCAM mode) Approx. 18.8 mm/s (DV SP mode)		28.2 mm/s
Recording/Playback time	184 minutes (DVCAM mode), 270 minutes (DV SP mode with PDV-184ME) 40 minutes (DVCAM mode), 60 minutes (DV SP mode with PDVM-40ME)	40 minutes (DVCAM mode) 60 minutes (DV SP mode, with PDVM-40ME)	40 min. with PDVM-40ME/40N/40MEM
Weight	Approx. 9 lb 11 oz (4.4 kg)	Approx. 3 lb 5 oz (1.5 kg)	Approx. 2 lb 13 oz (1.28 kg) (with XLR adaptor, lens, lens hood, battery and tape)
Dimensions (W x H x D)	9 5/8 x 10 x 20 1/8 inches (214.7 x 251.25 x 508.8 mm) including microphone	5 1/8 x 7 1/8 x 16 inches (128 x 180 x 405 mm) including microphone	3 3/4 x 4 1/2 x 7 5/8 inches (93 x 112 x 193.5 mm)
<b>Lens</b>			
Zoom	12:1 Variable Speed (1.2-22 s) zoom lens F =6.0 to 72.0 mm; F1.6 to 2.4		12:1 variable speed (1.83 to 26.5 s) zoom lens F=4.3 to 51.6 mm; F1.6 to 2.8
Filter diameter	58 mm (2 3/8 inches)		52 mm (2 1/8 inches)
Focus	Auto/Manual (ring)/Infinity/One push auto		Auto/Manual (ring)/Infinity
<b>Camera</b>			
Image device	Three 1/3-inch type CCDs, 380,000 pixels		Three 1/4-inch type CCDs, 380,000 pixels
Signal system	EIA Standard, NTSC color system		
Scanning system	Progressive/Interlace Scan		
Horizontal resolution	530 TV lines		500 TV lines
Minimum illumination	2 lx		4 lx
Gain selection	+0, +3, +6, +9, +12, +15, +18 dB		—
Shutter speed selection	1/4, 1/8, 1/15, 1/30, 1/60, 1/90, 1/100, 1/125, 1/180, 1/250, 1/350, 1/500, 1/725, 1/1000, 1/1500, 1/2000, 1/3000, 1/4000, 1/6000, 1/10000 s		1/4 to 1/10000 s
Exposure	Auto/Manual (Iris ring)	Auto/Manual (Iris dial)	Auto/Manual (Exposure dial, Program AE)
White balance	Auto/One-push (Memory A, B)/Outdoor (5800 K)/Indoor (3200 K)		
Viewfinder	1.5-inch black and white CRT, Zebra Pattern	180,000 dot Black & White LCD, Zebra Pattern	180,000 dot color LCD, Zebra Pattern
Built-in microphone	—		Stereo electret condenser microphone
Built-in speaker	Dynamic speaker		Dynamic speaker
LCD	TFT Active Matrix, 2.5-inch, 200,640 dots (880 x 228)		TFT Active Matrix, 3.5-inch 184,580 pixels (839 x 220)
Memory card slot	<b>Memory Stick</b> Recording signals: Camera signals, VTR signals Image size: VGA (640 x 480) Image compression: JPEG		PC Card Standard ATA specifications Type II Power requirements: 3.3/5 V Capacity: 2 MB to 64 MB (when formatted by DSR-PD100A) Recording signals: Camera signal, VTR signal Image size: VGA (640 x 480) Image compression: JPEG
<b>Input/Output Connectors</b>			
Signal inputs/outputs	Video IN/OUT: RCA pin x 1 Luminance signal: 1 Vp-p, 75 Ω, unbalanced, sync negative Video OUT: BNC pin x 1 Luminance signal: 1 Vp-p, 75 Ω, unbalanced, sync negative Audio IN/OUT: RCA pin x 2, 245 mV, 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, Luminance signal: 1 Vp-p, 75 Ω, unbalanced Chrominance signal: 0.286 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 Luminance signal: 1 Vp-p, 75 Ω, unbalanced, sync negative Audio IN/OUT: RCA pin x 2, 327 mV 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 Luminance signal: 1 Vp-p, 75 Ω, unbalanced Chrominance signal: 0.286 Vp-p (NTSC) 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	Audio/Video In/Out: Special AV mini jack (converts to Phono) x1, 1.0 Vp-p, 75 Ω, sync negative S-Video In/Out: Mini DIN 4-pin x1 Y: 1.0 Vp-p, 75 Ω, unbalanced C: 0.286 Vp-p (subcarrier burst), 75 Ω, unbalanced MIC In: Stereo mini jack x1 (XLR 3-pin x1, via adaptor) i.LINK (DV): 4-pin x1
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	
<b>Supplied Accessories</b>			
	ECM-NV1 Monaural Microphone RMT-811 Remote Commander and R6 Batteries (2) MSA-4A IC Recording Media <b>Memory Stick</b> MSAC-US1 <b>Memory Stick</b> Reader/Writer Picture Gear 4.1 Lite Lens Hood Hood Cap	ECM-NV1 Monaural Microphone AC-L10 AC Adaptor NP-F330 InfoLITHIUM Rechargeable Battery Pack RMT-811 Remote Commander and R6 Batteries (2) MSA-4A IC Recording Media <b>Memory Stick</b> MSAC-US1 <b>Memory Stick</b> Reader/Writer Picture Gear 4.1 Lite, Stereo AV Cable Lens Hood, Hood Cap, Carrying Belt	Wide conversion Lens AC-L10 AC Adaptor NP-F330 InfoLITHIUM Rechargeable Battery Pack RMT-811 Remote Commander and R6 Batteries (2) MSA-4A IC Recording Media <b>Memory Stick</b> <b>Memory Stick</b> /PC Card Adaptor XLR Adaptor, Special Stereo AV Cable Lens Hood, Lens Cap, i.LINK Cable, Carrying Belt

## Specifications (NTSC Models)

**DSR-2000/DSR-1800/DSR-1600/DSR-1500A/DSR-85A** Studio VTRs

	DSR-2000	DSR-1800	DSR-1600	DSR-1500A	DSR-85
<b>General</b>					
Power requirements	AC 100 V to 240 V, 50/60 Hz				
Power consumption (Max.)	120 W	100 W	70 W	55 W	185 W
Operating temperature	41 °F to 104 °F (5 °C to 40 °C)				
Storage temperature	-4 °F to 140 °F (-20 °C to 60 °C)				
Operating humidity	Less than 80%				
Storage humidity	Less than 90%				
Tape speed	28.193 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			When controlling via RS-422A: Search speed is up to ±32 times normal speed. When controlling via optional DSRM-10: Jog mode: still to ±2 times normal speed. Shuttle mode: 8 steps, from still to ±16 times normal speed. Digital slow mode: 3 steps, still, ±1/5, 1/10 times normal speed
Weight	39 lb 10 oz (18 kg)	28 lb 10 oz (13 kg)		13 lb 3 oz (6 kg)	46 lb 4 oz (21 kg)
Dimensions (W x H x D, excluding projections)	16 7/8 x 7 x 19 5/8 inches (427 x 175 x 496.5 mm)	16 7/8 x 6 7/8 x 15 3/4 inches (427 x 174 x 400 mm)		8 3/8 x 5 1/8 x 16 5/8 inches (210 x 130 x 420 mm)	16 7/8 x 6 7/8 x 19 1/2 inches (427 x 174 x 494 mm)
<b>Video Performance</b>					
Bandwidth (via analog component I/O)	30 Hz to 5.0 MHz ±1.0 dB 5.75 MHz +0/-3.0 dB (Typical measurement)		30 Hz to 5.0 MHz ±1.0 dB		30 Hz to 5.0 MHz ±1.0 dB 5.75 MHz +0/-3.0 dB (Typical measurement)
Chrominance	30 Hz to 1.5 MHz + 1.0/-5.0 dB				
S/N ratio (via analog component I/O)	More than 55 dB				
K-factor (K2T, KPb)	Less than 2.0%				
Y/C delay	Less than 30 ns				
<b>Audio Performance</b>					
Frequency response	2 CH mode (48 kHz/16-bit) 4 CH mode (32 kHz/12-bit)		20 Hz to 20 kHz +0.5/-1.0 dB 20 Hz to 14.5 kHz +0.5/-1.0 dB		20 Hz to 20 kHz ±1.0 dB 20 Hz to 14.5 kHz ±1.0 dB
Dynamic range	More than 90 dB				
Distortion (THD+N)	Less than 0.05%		Less than 0.07%		Less than 0.05%
<b>Video Signal Inputs</b>					
<b>Analog</b>					
Ref. Video (BNC x2, loop-through connection)	Composite, 1.0 Vp-p, 75 Ω, sync negative	0.286 Vp-p, 75 Ω, sync negative		Composite, 1.0 Vp-p, 75 Ω, sync negative	
Video (BNC x2, loop-through connection) **	Composite, 1.0 Vp-p, 75 Ω, sync negative		Composite, 1.0 Vp-p, 75 Ω, sync negative		Composite, 1.0 Vp-p, 75 Ω, sync negative
Component Y (BNC x3) **	1.0 Vp-p, 75 Ω, sync negative		1.0 Vp-p, 75 Ω, sync negative		1.0 Vp-p, 75 Ω, sync negative
R-Y	0.7 Vp-p, 75 Ω (75 %)		0.7 Vp-p, 75 Ω (75 %)		0.7 Vp-p, 75 Ω (75 %)
B-Y	0.7 Vp-p, 75 Ω (75 %)		0.7 Vp-p, 75 Ω (75 %)		0.7 Vp-p, 75 Ω (75 %)
S-Video **	DIN 4-pin x1 Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.286 Vp-p, 75 Ω (at burst level)		BNC x2 Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.286 Vp-p, 75 Ω (at burst level)		DIN 4-Pin x1 Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.286 Vp-p, 75 Ω (at burst level)
<b>Digital</b>					
SDI **3,4,5,6	BNC x2, active-through connection Conforms to Serial Digital Interface (270 Mb/s), SMPTE 259M		BNC x1 Conforms to Serial Digital Interface (270 Mb/s), SMPTE 259M		BNC x2, active-through connection Conforms to Serial Digital Interface (270 Mb/s), SMPTE 259M
SDTI (QSDI) (BNC x1) **5,6	Conforms to SDTI (270 Mb/s), SMPTE 305M/322M		Conforms to SDTI (270 Mb/s), SMPTE 305M/322M		Conforms to SDTI (270 Mb/s), SMPTE 305M/322M
i.LINK (DV) (6-pin x1) **6,7	IEEE1394		IEEE1394		—
<b>Audio Signal Inputs</b>					
<b>Analog</b>					
Audio **	XLR 3-pin female x4 -6/0/+4 dBu, 600 Ω on/off/-60 dBu, high impedance		XLR 3-pin female x2 -6/0/+4 dBu, high impedance		XLR 3-pin female x4 -6/0/+4 dBu, 600 Ω on/off/-60 dBu, high impedance
<b>Digital</b>					
AES/EBU **3,4	BNC x2 75 Ω, unbalanced		BNC x2 75 Ω, unbalanced		XLR 3-pin female x2 110 Ω, balanced
<b>Video Signal Outputs</b>					
<b>Analog</b>					
Ref. Video (BNC x1)	0.286 Vp-p, 75 Ω, sync negative		—		0.286 Vp-p, 75 Ω, sync negative
Video	Video 1/2/3(SUPER) BNC x3	Video 1/2(SUPER) BNC x2		Video 1/2/3 (SUPER) BNC x3	Video 1/2 (SUPER) BNC x2
Component (BNC x3)	Composite, 1.0 Vp-p, 75 Ω, sync negative Y: 1.0 Vp-p, 75 Ω, sync negative, R-Y: 0.7 Vp-p, 75 Ω (75 %), B-Y: 0.7 Vp-p, 75 Ω (75 %)				
S-Video	DIN 4-pin x1		BNC x2		DIN 4-pin x1
	Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.286 Vp-p, 75 Ω (at burst level)				
<b>Digital</b>					
SDI **3,4,5,6	BNC x3		BNC x2		
	Conforms to Serial Digital Interface (270 Mb/s), SMPTE 259M				
SDTI (QSDI) **5,6,10	BNC x1		BNC x2		BNC x1
	Conforms to SDTI (270 Mb/s), SMPTE 305M/322M				
i.LINK (DV) (6-pin x1) **6,7	IEEE1394		—		
<b>Audio Signal Outputs</b>					
<b>Analog</b>					
Audio	XLR 3-pin male x4 -6/0/+4 dBu (selectable by menu)		XLR 3-pin male x2		XLR 3-pin male x4 4 dBu, 600 Ω loading, low impedance, balanced
Monitor	Phono x1 -11 dBu, 47 kΩ, unbalanced (-20 dBFS)	RCA x1 -11 dBu, 47 kΩ, unbalanced (-20 dBFS)		Phono x1 ∞ to -11 dBu, 47 Ω, unbalanced (-20 dBFS)	Phono x1 -6 dBu, 47 kΩ, unbalanced
Headphone (JM-60 headphone jack x1)	∞ to -13 dBu, 8 Ω, unbalanced (-20 dBFS)		∞ to -13 dBu, 8 Ω, unbalanced (-20 dBFS)		-16 dBu, 8 Ω, unbalanced
<b>Digital</b>					
AES/EBU **5,4,9	BNC x2 75 Ω, unbalanced		XLR 3-pin male x2 110 Ω, balanced		
<b>Time Code Input/Output</b>					
In (BNC x1)	0.5 Vp-p to 18 Vp-p, 3 kΩ, unbalanced				
Out (BNC x1)	2.2 Vp-p, 75 Ω, unbalanced				
<b>Remote</b>					
	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	RS-422A: D-sub 9-pin female x1 TBC Remote: D-sub 15-pin male x1 Control S (SIRCS): Stereo mini jack x1
<b>Supplied Accessories</b>					
	AC Power Cord RCC-5G 9-pin Remote Control Cable Operating Instructions	AC Power Cord Operating Instructions		AC Power Cord CD-R (Operating Instructions)	AC Power Cord RCC-5G 9-pin Remote Control Cable Operating Instructions, ClipLink Guide

\* The DSR-1500A only

\*1: The optional DSBK-1504 is required for the DSR-1500A.

\*2: The optional DSBK-120 is required for the DSR-85.

\*3: The optional DSBK-1801 is required for the DSR-1800.

\*4: The optional DSBK-1501 is required for the DSR-1500A.

\*5: The optional DSBK-1802 is required for the DSR-1800.

\*6: The optional DSBK-190 is required for the DSR-2000.

\*7: The optional DSBK-1803 is required for the DSR-1800/1600.

\*8: The optional DSBK-120 is required for the DSR-85.

\*9: The optional DSBK-1601 is required for the DSR-1600.

\*10: The optional DSBK-1602 is required for the DSR-1600.

## Specifications (NTSC Models)

**DSR-45/DSR-30/DSR-25/DSR-11** Studio VTRs

	DSR-45	DSR-30	DSR-25	DSR-11
<b>General</b>				
System	NTSC		NTSC/PAL Switchable	
Power requirements	AC100 to 240V, 50 to 60Hz	AC120V, 60Hz	AC100 to 240V, 50 to 60Hz	AC100 to 240V, 50 to 60Hz
Power consumption	22 W	37 W	16 W	15 W
Operating temperature	41 °F to 104 °F (5 °C to 40 °C)			
Storage temperature	-4 °F to 140 °F (-20 °C to 60 °C)			
Tape speed	DVCAM mode	28.2 mm/s		
	DV SP mode	18.8 mm/s		
Recording/ Playback time	Standard size	184 min. with PDV-184ME/184N/184MEM		
	Mini size	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, x1.2, x9, x14 (DVCAM) ± x1/10, x1/3, x1.2, x9, x24 (DV SP)	± x1/5, x1.2, x10, x15	When controlling via optional DSRM-20 or supplied RMT-DS5: ± x1/10, x1/3, x1.2, x9, x14 (DVCAM NTSC) ± x1/10, x1/3, x1.2, x9, x24 (DV SP NTSC) ± x1/10, x1/3, x1.2, x11, x17 (DVCAM PAL) ± x1/10, x1/3, x1.2, x11, x24 (DV SP PAL)	When controlling via optional DSRM-20 or supplied RMT-DS11: ± x1/10, x1/3, x1.2, x9, x14 (DVCAM NTSC) ± x1/10, x1/3, x1.2, x9, x24 (DV SP NTSC) ± x1/10, x1/3, x1.2, x11, x17 (DVCAM PAL) ± x1/10, x1/3, x1.2, x11, x24 (DV SP PAL)
Weight	Approx. 10 lb 2 oz (4.6 kg)	Approx. 20 lb 4 oz (9.2 kg)	Approx. 9 lb 8 oz (4.3 kg)	Approx. 6 lb 2 oz (2.8 kg)
Dimensions (W x H x D, including projections)	16 7/8 x 6 7/8 x 19 1/2 inches (212 x 98 x 392.8 mm)	17 x 5 1/8 x 14 3/4 inches (430 x 129 x 374 mm)	8 3/8 x 3 7/8 x 15 1/2 inches (212 x 98 x 392.8 mm)	7 1/8 x 2 7/8 x 10 1/2 inches (180 x 73 x 265 mm)
<b>Video Signal Inputs</b>				
Rec mode	DVCAM/DV (SP mode only)	DVCAM	DVCAM/DV (SP mode only)	DVCAM/DV (SP mode only)
PB mode	DVCAM/DV (SP mode only)			
Ref. Video	BNC x1** Black burst: 75 Ω, sync negative	—		
Composite	BNCx1(Shared with REF IN) 1.0Vp-p, 75 Ω, Sync Negative	BNCx1, PIN Jack x1 1.0Vp-p, 75 Ω, Sync Negative	BNCx1 1.0Vp-p, 75 Ω, Sync Negative	PIN Jack x1 1.0Vp-p, 75 Ω, Sync Negative
S-Video	4-pin mini DIN (x1) Y: 1.0Vp-p, 75 Ω, Sync Negative C: 0.286Vp-p (subcarrier burst) 75 Ω	4-pin mini DIN (frontx1, rearx1) Y: 1.0Vp-p, 75 Ω, Sync Negative C: 0.286Vp-p (subcarrier burst) 75 Ω	4-pin mini DIN (x1) Y: 1.0Vp-p, 75 Ω, Sync Negative C: 0.286Vp-p (NTSC Mode)(subcarrier burst) 75 Ω C: 0.3Vp-p (PAL Mode)(subcarrier burst) 75 Ω	4-pin mini DIN (x1) Y: 1.0Vp-p, 75 Ω, Sync Negative C: 0.286Vp-p (NTSC Mode)(subcarrier burst) 75 Ω C: 0.3Vp-p (PAL Mode)(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 75 % color bar)	—		
<b>Audio Signal Inputs</b>				
Audio	PIN Jack x4 -10/-2/+4 dBu (full bits -20dB)	PIN Jack (rear L/R x1, front L/R x1) 2 Vrms (full bits)	PIN Jack (L/R x1) -10/-2/+4 dBu (full bits -20dB)	PIN Jack (L/R x1) 2 Vrms (full bits)
<b>Video Signal Outputs</b>				
Composite	BNCx1 1.0Vp-p, 75 Ω, Sync Negative	BNCx2 1.0Vp-p, 75 Ω, Sync Negative	BNCx1 1.0Vp-p, 75 Ω, Sync Negative	PIN Jack x1 1.0Vp-p, 75 Ω, Sync Negative
S-Video	4-pin mini DIN (x1) Y: 1.0Vp-p, 75 Ω, Sync Negative C: 0.286Vp-p (subcarrier burst) 75 Ω	4-pin mini DIN (x2) Y: 1.0Vp-p, 75 Ω, Sync Negative C: 0.286Vp-p (subcarrier burst) 75 Ω	4-pin mini DIN (x1) Y: 1.0Vp-p, 75 Ω, Sync Negative C: 0.286Vp-p (NTSC Mode)(subcarrier burst) 75 Ω C: 0.3Vp-p (PAL Mode)(subcarrier burst) 75 Ω	4-pin mini DIN (x1) Y: 1.0Vp-p, 75 Ω, Sync Negative C: 0.286Vp-p (NTSC Mode)(subcarrier burst) 75 Ω C: 0.3Vp-p (PAL Mode)(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 75 % color bar)	—		
Monitor	PIN Jackx1, 1.0Vp-p, 75 Ω, Sync Negative	—		
<b>Audio Signal Outputs</b>				
Audio	XLR 3pin x4 (Male) +4dBu(full bits -20dB) *2)	PIN Jack (L/R x2) 2 Vrms (full bits)	PIN Jack (L/R x1) 2 Vrms (full bits)	PIN Jack (L/R x1) 2 Vrms (full bits)
Monitor	PIN Jack x1, 2 Vrms (maximum)	—		
<b>Digital Input/Output</b>				
i.LINK (DV)	4-pin x1, IEEE1394			
<b>Time Code Input/Output</b>				
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)	—		
<b>Others</b>				
LCD Monitor	LANC: Stereo mini-mini jack x1 Control S** (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-inch type, 123,200 dots	LANC: Stereo mini-mini jack x2 (front x1/rear x1)** Control S** (SIRCS) In: Mini jack x1 Control S (SIRCS) Out: Mini jack x1 Headphone: Stereo mini jack x1 Trigger In: RCA pin x1 (active short) MIC In: Mini jack x1  —	LANC: Stereo mini-mini jack x1 Control S** (SIRCS) In: Stereo mini jack x1 Headphone: Stereo mini jack x1  2-inch type, 123,200 dots	LANC: Stereo mini-mini jack x1 Control S** (SIRCS): Stereo mini jack x1  —
<b>Supplied Accessories</b>				
	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)	RMT-DS30 Wireless Remote Controller Size AA (R6) Batteries for Remote (2) AC Power Cord Cleaning Cassette Operating Manual LANC Cable	RMT-DS5 Wireless Remote Controller Size AA (R6) Batteries for Remote (2) AC Power Cord Cleaning Cassette Operating Manual	RMT-DS11 Wireless Remote Controller Size AA (R6) Batteries for Remote (2) AC Adaptor, Power Cord Cleaning Cassette Operating Manual Rack

\*1 Shared between composite IN and REF-IN.  
\*3 Recommended remote control unit: DSRM-20

\*2 The audio output level of the DSR-45 will be reduced by half when connected to an Unbalanced XLR input device.  
\*4 Priority on front LANC.

## Specifications (NTSC Models)

# DSR-70A

Portable Editing Recorder

General	
Power requirements	DC 12 V
Power consumption	46 W (without options)
Operating temperature	32 °F to 104 °F (0 °C to 40 °C)
Storage temperature	-4 °F to 140 °F (-20 °C to 60 °C)
Operating humidity	Less than 80%
Storage humidity	Less than 90%
Tape speed	28.193 mm/s
Recording/Playback time	Standard size: 184 min. with PDV-184ME/184N/184MEM Mini size: 40 min. 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	x ±32
Weight	12 lb 12 oz (5.8 kg)
Dimensions (W x H x D)	8 3/8 x 5 7/8 x 17 1/2 inches (211 x 149 x 443 mm)
Video Signal Inputs	
Analog	
Ref. Video (BNC x2, loop-through connection)	0.286 Vp-p, 75 Ω, sync negative
Video (BNC x2, loop-through connection)	Composite, 1.0 Vp-p, 75 Ω, sync negative
Component (BNC x3) <sup>*1</sup>	Y: 1.0 Vp-p, 75 Ω, sync negative R-Y: 0.7 Vp-p, 75 Ω (75%) B-Y: 0.7 Vp-p, 75 Ω (75%)
S-Video (DIN 4-pin x1)	Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.286 Vp-p, 75 Ω (at burst level)
Digital	
SDI (BNC x1) <sup>*2</sup>	Conforms to Serial Digital Interface (270 Mb/s), SMPTE 259M
SDTI (QSDI) (BNC x1) <sup>*3</sup>	Conforms to SDTI (270 Mb/s), SMPTE 305M/322M
i.LINK (DV) (6-pin x1) <sup>*4</sup>	IEEE1394
Audio Signal Inputs	
Analog	
Audio (CH-1,2) (XLR 3-pin female x2)	+4/0/-60 dBu, high impedance, balanced

Video Signal Outputs	
Analog	
Ref. Video (BNC x1)	0.286 Vp-p, 75 Ω, sync negative
Video 1/2(SUPER) (BNC x2)	Composite, 1.0 Vp-p, 75 Ω, sync negative
Component (BNC x3) <sup>*1</sup>	Y: 1.0 Vp-p, 75 Ω, sync negative R-Y: 0.7 Vp-p, 75 Ω (75%) B-Y: 0.7 Vp-p, 75 Ω (75%)
S-Video (DIN 4-pin x1)	Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.286 Vp-p, 75 Ω (at burst level)
Digital	
SDI (BNC x2) <sup>*2</sup>	Conforms to Serial Digital Interface (270 Mb/s), SMPTE 259M
SDTI (QSDI) (BNC x1) <sup>*3</sup>	Conforms to SDTI (270 Mb/s), SMPTE 305M/322M
i.LINK (DV) (6-pin x1) <sup>*4</sup>	IEEE1394
Audio Signal Outputs	
Analog	
Audio (CH-1,2 or CH-3,4) (XLR 3-pin male x2)	+4/0/-6 dBu (selectable by menu)
Monitor (R/L) (Phono x1)	-6 dBu, 47 kΩ, unbalanced
Headphone (JM-60 headphone jack x1)	-∞ to -20 dBu, 8 Ω, unbalanced
Time Code Input/Output	
Time Code In (BNC x1)	0.5 to 18 Vp-p, 3.3 kΩ, unbalanced
Time Code Out (BNC x1)	2.2 Vp-p ±3.0 dB, 600Ω, unbalanced
LCD	
LCD display (x1)	6.4-inch type VGA, 640 (H) x 480 (V)
Speaker	
Built-in speaker (x1)	Monaural
Remote	
	RS-422A: D-sub 9-pin female x1
Other	
	DC 12 V In: XLR 4-pin male x1
Supplied Accessories	
	Carrying Belt Connector Cap (per interface) Operating Instructions Warranty Card

\*1: The optional DSBK-170 Analog Component Input/Output Board is required.

\*2: The optional DSBK-160A SDI/i.LINK (DV) Input/Output Board is required.

\*3: The optional DSBK-150 SDTI (QSDI) Input/Output Board is required.

\*4: The optional DSBK-140 i.LINK/DV Input/Output Board or DSBK-160A SDI/i.LINK (DV) Input/Output Board is required.

# DSR-50

Portable Recorder

General	
System	NTSC
DC input	XLR 4-pin (male), +12 V
Power consumption	15 W
Operating temperature	41 °F to 104 °F (5 °C to 40 °C)
Storage temperature	-4 °F to 140 °F (-20 °C to 60 °C)
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
Weight	8 lb 9 oz (3.9 kg), excluding battery and tape
Dimensions (W x H x D)	9 3/4 x 3 3/4 x 12 1/4 inches (247 x 92.5 x 311 mm), excluding projections 11 x 4 x 12 1/2 inches (279 x 99 x 315 mm), including projections
Video	
Rec mode	DVCAM/DV (SP mode only)
PB mode	DVCAM/DV (SP mode only)
Audio	
Rec mode	48.0 kHz/16-bit (2CH)/ 32.0 kHz/12-bit (4CH)/automatic (DV IN)
PB 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: 0.286 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: 0.286 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 -20 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, with Level Control
Other	
Color LCD monitor	2.5-inch type, 200,000 dots
Supplied accessories	LCD Protection Cover, Cleaning Cassette



## Specifications (NTSC Models)

# DSR-V10

DVCAM Video Walkman Recorder

General	
Power requirements	DC 7.2 V (with battery), DC 8.4 V (with AC adaptor)
Power consumption	11.5 W (LCD on)
Operating temperature	32 °F to 104 °F (0 °C to 40 °C)
Storage temperature	-4 °F to 140 °F (-20 °C to 60 °C)
Tape speed	28,193 mm/s
Weight	2 lb 2 oz (970 g) (without battery and tape)
Dimensions (W x H x D)	5 7/8 x 2 1/2 x 5 3/8 inches (148 x 62 x 135 mm)
LCD screen	5.5-inch type
Video	
Video signal	EIA standard, NTSC color
Video input/output	
Video (PIN Jack x1)	Composite, 1.0 Vp-p, 75 Ω, unbalanced, sync negative
S-Video (Mini DIN 4-pin x1)	Y: 1.0 Vp-p, 75 Ω, unbalanced, sync negative C: 0.286 Vp-p (subcarrier burst), 75 Ω, unbalanced

Audio	
Audio signal	Recording: 48 kHz/16-bit, 32 kHz/12-bit Playback: 48 kHz/16-bit, 32 kHz/12-bit, 32 kHz/16-bit, 44.1 kHz/16-bit
Audio inputs/outputs (PIN Jack x1/stereo L/R) (PIN Jack x2)	-7.5 dBs (0 dBu=0.775 Vrms)
Others	
	i.LINK (DV): 4-pin x1, IEEE1394 LANC: Stereo mini-mini jack x1 Headphone: Stereo mini jack x1 Multi connector: 20-pin x1
Supplied Accessories	
	AC-V700 AC Adaptor/Charger DK-415 DK Cable Carrying belt Operating Instructions

DSRM-E1 (Edit Adaptor for DSR-V10)	
General	
Power requirements	DC 7.2 V (supplied from DSR-V10), DC 8.4 V (with AC Adaptor)
Power consumption	Approx. 1.8 W
Operating temperature	32 °F to 104 °F (0 °C to 40 °C)
Storage temperature	-4 °F to 140 °F (-20 °C to 60 °C)
Weight	Main unit: 5.6 oz (160 g) Controller: 12 oz (340 g)
Dimensions (W x H x D)	Main unit: 2 3/4 x 2 1/2 x 5 3/8 inches (69 x 61 x 134 mm) Controller: 7 1/4 x 1 11/16 x 5 1/8 inches (184 x 42 x 128 mm)

Connectors	
	Multi connector: 20-pin x1 Control unit: Mini DIN 8-pin x1 LANC: Stereo mini-mini jack x1
Monitor Output	
Video output (PIN Jack x1)	Composite, 1.0 Vp-p, 75 Ω, unbalanced, sync negative
Audio output (PIN Jack x1/stereo L/R)	0.327 V, impedance 470 Ω or less

CVX-V1 / CVX-V3 / CVX-V18N (Color Video Cameras for DSR-V10)	
General	
Power requirements	DC 7.2 V (with battery), DC 8.4 V (with AC adaptor)
Power consumption	CVX-V1/V3: 1.8 W CVX-V18NS: 2.2 W
Operating temperature	32 °F to 104 °F (0 °C to 40 °C)
Storage temperature	-4 °F to 140 °F (-20 °C to 60 °C)
Weight	
Camera head	CVX-V1: 25 g (0.85 oz) CVX-V3: 75 g (2.6 oz) CVX-V18NS: 343 g (12 oz)
CCU (without battery)	CVX-V1: 135 g (4.8 oz) CVX-V3: 135 g (4.8 oz) CVX-V18NS: 153 g (5 oz)
Dimensions (W x H x D)	
Camera head	CVX-V1: 7/8 x 23/32 x 2 3/8 inches (22 x 18 x 60 mm) CVX-V3: 1 7/16 x 1 5/8 x 2 7/8 inches (36 x 40 x 70 mm) CVX-V18NS: 2 1/2 x 2 5/8 x 4 5/8 inches (63 x 66 x 115 mm)
CCU	CVX-V1: 1 7/16 x 4 3/8 x 2 3/8 inches (35 x 110 x 60 mm) CVX-V3: 1 7/16 x 4 3/8 x 2 3/8 inches (35 x 110 x 60 mm) CVX-V18NS: 2 x 2 3/8 x 4 3/8 inches (50 x 59 x 110 mm)
Camera	
Image device	1/4-inch Interline-Transfer CCD
Effective picture elements	CVX-V1/V3: 380,000 pixels CVX-V18NS: 300,000 pixels
Total picture elements	CVX-V1/V3: 410,000 pixels CVX-V18NS: 470,000 pixels
Lens	CVX-V1: F1.8 CVX-V3: F2.8 to 4 CVX-V18NS: F1.4

Focal length	CVX-V1: f=3.9 mm (35 mm conversion: 38 mm) CVX-V3: f=3.5 mm to 10.5 mm (35 mm conversion: 35 mm to 105 mm) CVX-V18NS: f=4.1 mm to 73.8 mm (35 mm conversion: 41 mm to 738 mm)
Minimum illumination	CVX-V1: 2 lx CVX-V3: 5 lx CVX-V18NS: 0.7 lx
Gain selection	CVX-V1: Auto/Hold CVX-V3: Auto
White balance	CVX-V1: Auto/Hold CVX-V3: Auto
Shutter speed	CVX-V1: Auto, 1/60, 1/100, 1/250, 1/500, 1/2000, 1/10000 CVX-V18NS: Auto, 1/4, 1/8, 1/15, 1/30, 1/60, 1/90, 1/100, 1/125, 1/180, 1/250, 1/350, 1/500, 1/725, 1/1000, 1/1500, 1/2000, 1/3000, 1/4000, 1/6000, 1/10000
Night shot (CVX-V18NSP only)	IR light effective distance: 20 m (with slow shutter on), 5 m (without slow shutter)
Others (on CCU)	
	External MIC In: Stereo mini-mini jack x1 Multi connector: 20-pin x1 Camera cable connector: 12-pin x1 (CVX-V18NS only) Battery connector
Supplied Accessories	
	Video Walkman Attachment Unit Operating Manual

# DSR-DU1

Video Disk Unit

General	
Power requirements	DC 8.4 V
Power consumption	8.5 W
Weight	1 lb 5 oz (600 g)
Dimensions (W x H x D)	44 x 101 x 142 mm
Operating temperature	0 °C to 40 °C
Storage temperature	-20 °C to 60 °C
Operating Humidity	Less than 85 % (without condensation.)
Input/Output Terminals	
DV IN/OUT	i.LINK x1 (IEEE1394 4-pin)
Remote	4-pin Stereo mini Jack x1
DC IN	x1
Supplied Accessories	
	Warranty card Operation manual i.LINK cable (4-pin to 4-pin) Remote controller (RM-LG2) Battery (CR2032) Case

# Flexicart

Multi-cassette System

General	
Power requirements	AC 100/120/220/230/240 V, 50/60 Hz
Power consumption	600 VA
Operating temperature	4 °F to 95 °F (5 °C to 35 °C)
Operating humidity	25% to 80% (non-condensing)
Weight	Approx. 551 lb 2.5 oz (250 kg) (without VTRs, cassette bin units and tapes)
Dimensions (W x H x D)	23 5/8 x 78 x 43 inches (600 x 1980 x 1090 mm)
Connections	
	Ref. Video In (BNC): Black burst or composite video Time code In: (BNC) Remote control interfaces: REMOTE1: RS-422A D-sub 9-pin REMOTE2: RS-232C D-sub 25-pin Parallel interface: D-sub 50-pin
Supplied Accessories	
	AC Power Cord Operation Manual Maintenance Manual Installation Manual

## Specifications (PAL Models)

## DSR-570WSP/DSR-370P/DXC-D35P/D35WSP+DSR-1P Camcorders

## DSR-1P Dockable Recorder

	DSR-570WSP	DSR-370P	DXC-D35P/D35WSP+DSR-1P	DSR-1P
<b>General</b>				
Power requirements	DC 12 V (11 to 17 V)			DC 12 V +5/-1 V
Power consumption	26.1 W (with VF), 24 W (without VF)	22.1 W (with VF), 20 W (without VF)	24.8 W (with VF)	12 W
Operating temperature	32 °F to 104 °F (0 °C to 40 °C)			32 °F to 104 °F (0 °C to 40 °C)
Storage temperature	-4 °F to 140 °F (-20 °C to 60 °C)			-4 °F to 140 °F (-20 °C to 60 °C)
Tape speed	28.221 mm/s			28.221 mm/s
Recording/Playback time	184 min.			184 min.
Standard size	40 min.			40 min.
Mini size	40 min.			40 min.
Fast forward/Rewind time	Approx. 12 min.			Approx. 12 min.
Standard size	Approx. 3 min.			Approx. 3 min.
Mini size	Approx. 3 min.			Approx. 3 min.
Continuous recording time	Approx. 70 min. with BP-L40A, 90 min. with BP-M50, 140 min. with BP-L60A, 200 min. with BP-M100, 230 min. with BP-L90A	Approx. 80 min. with BP-L40A, 100 min. with BP-M50, 180 min. with BP-L60A, 230 min. with BP-M100, 290 min. with BP-L90A	Approx. 75 min. with BP-L40A	Approx. 75 min. with BP-L40A (DSR-1P + DXC-D35P)
Weight	14 lb 20 oz (6.4 kg) (with VF, microphone, lens, battery and tape)	13 lb 10 oz (6.2 kg) (with VF, microphone, lens, battery and tape)	D35P: 16 lb 1 oz (7.3 kg), D35WSP: 16 lb 5 oz (7.4 kg) (with VF, microphone, lens, battery, tape and carrying handle)	6 lb 13 oz (3.1 kg) (with battery)
Dimensions (W x H x D)	4 7/8 x 7 5/8 x 11 1/8 inches (121 x 192 x 280 mm) (without projections) 9 5/8 x 9 3/4 x 21 1/8 inches (242 x 247 x 536 mm) (with projections)	4 7/8 x 7 5/8 x 10 3/4 inches (121 x 192 x 270 mm) (without projections) 9 5/8 x 9 3/4 x 21 1/8 inches (242 x 247 x 536 mm) (with projections)	4 7/8 x 8 1/8 x 13 5/8 inches (121 x 206 x 344 mm)	4 3/4 x 7 3/8 x 7 3/8 inches (118 x 185 x 185 mm)
<b>Camera Section</b>				
Image device	3-chip 2/3-inch type, Interline-Transfer CCD	3-chip 1/2-inch type, Interline-Transfer CCD	3-chip 2/3-inch type, Interline-Transfer CCD	—
Optics	F1.4 medium index prism system			—
Effective picture elements	980 (H) x 582 (V)	752 (H) x 582 (V)	D35P: 752 (H) x 582 (V), D35WSP: 980 (H) x 582 (V)	—
Total picture elements	1038 (H) x 594 (V)	795 (H) x 596 (V)	D35P: 795 (H) x 596 (V), D35WSP: 1038 (H) x 594 (V)	—
Sensing area	9.6 mm x 5.4 mm	6.4 mm x 4.8 mm	D35P: 8.8 mm x 6.6 mm, D35WSP: 9.6 mm x 5.4 mm	—
Built-in filters	1: 3200 K 2: 5600 K+1/8 ND 3: 5600 K 4: 5600 K+1/64 ND	1: 3200 K 2: 5600 K+1/8 ND 3: 5600 K 4: 5600 K+1/64 ND	1: 3200 K 2: 5600 K+1/8 ND 3: 5600 K 4: 5600 K+1/64 ND	—
Lens mount	Sony 2/3-inch type bayonet mount	Sony 1/2-inch type bayonet mount	Sony 2/3-inch type bayonet mount	—
Signal system	PAL colour system			—
Scanning system	2:1 interlaced, 625 lines, 50 fields/s			—
Horizontal frequency	15 625 kHz			—
Vertical frequency	50 Hz			—
Sync system	Internal Sync, GENLOCK IN/VIDEO IN (VBS or BS), External Sync, VTR/CCU IN			—
Horizontal resolution	16:9 mode: 800 TV lines (center) 4:3 mode: 850 TV lines (center)	800 TV lines (center)	D35P: 880 TV lines, D35WSP: 850 TV lines (4:3 mode), 800 TV lines (16:9 mode)	—
Vertical resolution	480 TV lines (without EVS), 530 TV lines (with EVS)			—
Minimum illumination	0.25 lx with F1.4, Hyper gain (42 dB) 0.4 lx with F1.8, Hyper gain (42 dB)	0.5 lx with F1.4, Hyper gain (36 dB) 0.8 lx with F1.8, Hyper gain (36 dB)	0.25 lx with F1.4, Hyper gain (36 dB+DPR) 0.4 lx with F1.8, Hyper gain (36 dB+DPR)	—
Sensitivity	F11 at 2000 lx (3200 K, 89.9% reflectance) (typical)			—
Gain selection	-3 dB, 0 dB, 3 dB, 6 dB, 9 dB, 12 dB, 18 dB, 18 dB+DPR*, 24 dB, 24 dB+DPR, Hyper gain (36 dB or 42 dB selectable)	-3 dB, 0 dB, 3 dB, 6 dB, 9 dB, 12 dB, 18 dB, 18 dB+DPR*, 24 dB, 24 dB+DPR, Hyper gain (36 dB)	-3 dB, 0 dB, 3 dB, 6 dB, 9 dB, 12 dB, 18 dB, 18 dB+DPR, 24 dB, 24 dB+DPR, Hyper gain (30 dB+DPR or 36 dB+DPR)	—
Shutter speed selection	OFF, 1/60, 1/250, 1/500, 1/1000, 1/2000 (s)			—
S/N ratio	61 dB (typical)	60 dB (typical)	61 dB (typical)	—
Registration	0.05% (all zones, without lens)			—
Geometric distortion	Below measurable level			—
<b>VTR Section</b>				
Video performance**	Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 dB Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 dB			Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 dB 5.75 MHz +0/-3.0 dB (Typical measurement) Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 dB
Bandwidth	More than 55 dB			More than 55 dB
S/N ratio	Less than 2.0%			Less than 2.0%
K-factor (K2T, KPb)	Less than 30 ns			Less than 30 ns
Y/C delay	Less than 30 ns			Less than 30 ns
Audio performance**	2 CH mode (48 kHz/16-bit): 20 Hz to 20 kHz +0.5/-1.0 dB 4 CH mode (32 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1.0 dB			2 CH mode (48 kHz/16-bit): 20 Hz to 20 kHz +0.5/-1.0 dB 4 CH mode (32 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1.0 dB
Frequency response	More than 80 dB			More than 80 dB
Dynamic range	Less than 0.08% (1 kHz reference level, 48 kHz)			Less than 0.08%
Distortion (THD)	Less than 0.08% (1 kHz reference level, 48 kHz)			Less than 0.08%
<b>Input/Output Connectors</b>				
Signal inputs	Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Analog Video In: BNC, 1.0 Vp-p, 75 Ω (with DSBK-501P optional board installed) Ext Audio CH-1/2: XLR 3-pin female x2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ MIC In: XLR 3-pin female TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ	Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ	Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ	Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ
Signal outputs	Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω 26-pin male VBS: 1.0 Vp-p, sync negative Y/R-Y/B-Y: Y: 1.0 Vp-p, sync negative R-Y/B-Y: 0.525 Vp-p Y/C: Y: 1.0 Vp-p, sync negative C: 0.3 Vp-p (burst level) S-Video: DIN 4-pin, 1.0 Vp-p, 75 Ω DV Out: 6-pin, IEEE1394 Audio CH-1/2: Phono, -10 dBu, 47 kΩ Monitor Out: BNC, 1.0 Vp-p, sync negative, 75 Ω TC Out: BNC, 1.0 Vp-p, 75 Ω	Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω 26-pin male VBS: 1.0 Vp-p, sync negative Y/R-Y/B-Y: Y: 1.0 Vp-p, sync negative R-Y/B-Y: 0.525 Vp-p Y/C: Y: 1.0 Vp-p, sync negative C: 0.3 Vp-p (burst level) S-Video: DIN 4-pin, 1.0 Vp-p, 75 Ω DV Out: 6-pin, IEEE1394 Audio CH-1/2: Phono, -10 dBu, 47 kΩ Monitor Out: BNC, 1.0 Vp-p, sync negative, 75 Ω TC Out: BNC, 1.0 Vp-p, 75 Ω	Camera head BNC connector: VBS: 1.0 Vp-p, sync negative 26-pin connector of CA-537P docked to DXC-D35P: VBS: 1.0 Vp-p, sync negative Y/R-Y/B-Y: Y: 1.0 Vp-p, sync negative, R-Y/B-Y: 0.525 Vp-p Y/C: Y: 1.0 Vp-p, sync negative, C: 0.3 Vp-p (burst level) RGB: 1.4 Vp-p Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω S-Video: DIN 4-pin DV Out: 6-pin, IEEE1394 Y: 1.0 Vp-p, sync negative C: 0.3 Vp-p (burst level) Audio CH-1/2: Phono, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 75 Ω	Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω S-Video: DIN 4-pin Y: 1.0 Vp-p, sync negative, 75 Ω C: 0.3 Vp-p, 75 Ω Audio CH-1/2: RCA PIN, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 75 Ω
Others	DC In: XLR 4-pin male DC Out: XLR 4-pin female Battery Terminal: 5-pin Earphone: Mini jack Light Out: 2-pin female WRR Out: 7-pin Lens: 12-pin VF: 20-pin Remote1: Stereo mini jack, Remote2: 10-pin	DC In: XLR 4-pin male DC Out: XLR 4-pin female Battery Terminal: 5-pin Earphone: Mini jack Light Out: 2-pin female WRR Out: 7-pin Lens: 12-pin VF: 20-pin Remote1: Stereo mini jack, Remote2: 10-pin	DC In: XLR 4-pin male DC Out: XLR 4-pin female Earphone: Mini jack Lens: 12-pin VF: 8-pin, 20-pin Remote1: Stereo mini jack Remote2: 10-pin	Analogue Interface: Pro 50-pin Digital Interface: Pro 76-pin Digital DC In: XLR 4-pin male DC Out: XLR 4-pin female Earphone: Stereo Mini jack
<b>Supplied Accessories</b>				
	1.5-inch B/W Viewfinder (DXF-801) Microphone with Wind Screen Tripod Adaptor VCT-U14 Shoulder Strap, Lens Mount Cap Flange Focal Length Adjustment Test Chart Blinding Tie Operating Instructions	1.5-inch B/W Viewfinder (DXF-801) Microphone with Wind Screen Tripod Adaptor VCT-U14 Remote Control Unit (RM-LG1) Shoulder Strap, Lens Mount Cap Flange Focal Length Adjustment Test Chart Operating Instructions	Shoulder Strap Connector Cap Lithium Battery (type CR2032) M4 x6 Screws (2) M4 x12 Screws (2) Operating Instructions ClipLink Guide	

\*1: DPR is equivalent to +6 dB gain up.  
18 dB+DPR: Equivalent to +24 dB gain up.  
24 dB+DPR: Equivalent to +30 dB gain up.  
Hyper gain (30 dB+DPR): Equivalent to +36 dB gain up.

\*\*2: The specifications for "Video/Audio performance" were measured by playing back material on a DSR-1800Q/1800P (via analog component out) that had been recorded by each camcorder.

## Specifications (PAL Models)

**DSR-250P/DSR-PD150P/DSR-PD100AP** Camcorders

	DSR-250P	DSR-PD150P	DSR-PD100AP
<b>General</b>			
Power requirements	DC 12 V(11 V to 17 V)	DC 7.2 V (Battery), DC 8.4 V (AC adaptor)	DC 7.2 V (Battery operation), 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), 5.4 W (with LCD)	4.3 W (with VF), 5.3 W (with LCD)
Operating temperature	32 °F to 104 °F (0 °C to 40 °C)		
Storage temperature	-4 °F to 140 °F (-20 °C to 60 °C)		
Tape speed	Approx. 28.2 mm/s (DVCAM mode) Approx. 18.8 mm/s (DV SP mode)		28.2 mm/s
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)	40 min. with PDVM-40ME/40N/40MEM
Weight	Approx. 9 lb 11 oz (4.4 kg)	(camcorder only) Approx. 3 lb 5 oz (1.5 kg)	Approx. 2 lb 13 oz (1.28 kg) (with XLR adaptor, lens, lens hood, battery and tape)
Dimensions (W x H x D)	9 5/8 x 10 x 20 1/8 inches (214.7 x 251.25 x 508.8 mm)	5 1/8 x 7 1/8 x 16 inches (128 x 180 x 405 mm) including microphone	3 3/4 x 4 1/2 x 7 5/8 inches (93 x 112 x 193.5 mm)
<b>Lens</b>			
Zoom	12:1 Variable Speed (1.2-22 s) zoom lens F =6.0 to 72.0 mm; F1.6 to 2.4		12:1 Variable speed (1.83 to 26.5 s) zoom lens F=4.3 to 51.6 mm; F1.6 to 2.8
Filter diameter	58 mm (2 3/8 inches)		52 mm (2 1/8 inches)
Focus	Auto/Manual (ring)/Infinity/One push auto		Auto/Manual (ring)/Infinity
<b>Camera</b>			
Image device	Three 1/3-inch type CCDs, 450,000 pixels		Three 1/4-inch type CCDs, 450,000 pixels
Signal system	CCIR Standard, PAL color system		
Scanning system	Progressive/Interlace Scan		
Horizontal resolution	530 TV lines		500 TV lines
Minimum illumination	2 lx		4 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		1/3 to 1/10000 s
Exposure	Auto/Manual (Iris ring)	Auto/Manual (Iris dial)	Auto/Manual (Exposure dial, Program AE)
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	180,000 dot color LCD, Zebra Pattern
Built-in microphone	—		Stereo electret condenser microphone
Built-in speaker	Dynamic speaker		Dynamic speaker
LCD	TFT Active Matrix 2.5-inch 200,640 dots (880 x 228)		TFT Active Matrix, 3.5-inch 184,580 pixels (839 x 220)
Memory card slot	<b>Memory Stick</b> Recording signals: Camera signals, VTR signals Image size: VGA (640 x 480) Image compression: JPEG		PC Card Standard ATA specifications Type II Power requirements: 3.3/5 V Capacity: 2 MB to 64 MB (when formatted by DSR-PD100AP) Recording signals: Camera signal, VTR signal Image size: VGA (640 x 480) Image compression: JPEG
<b>Input/Output Connectors</b>			
Signal inputs/outputs	Video IN/OUT: RCA pin x 1, Luminance signal:1 Vp-p, 75 Ω, unbalanced, sync negative Video OUT: BNC pin x 1, Luminance signal: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 Luminance signal:1 Vp-p, 75 Ω, unbalanced, Chrominance signal: 0.3 Vp-p (PAL) 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 Luminance signal: 1 Vp-p, 75 Ω, unbalanced, sync negative Audio IN/OUT: RCA pin x 2, 327 mV 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 Luminance signal: 1 Vp-p, 75 Ω, unbalanced Chrominance signal: 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	Audio/Video In/Out: Special AV mini jack (converts to Phono) x1, 1.0 Vp-p, 75 Ω, sync negative S-Video In/Out: Mini DIN 4-pin x1 Y: 1.0 Vp-p, 75 Ω, unbalanced C: 0.3 Vp-p (subcarrier burst), 75 Ω, unbalanced MIC In: Stereo mini jack x1 (XLR 3-pin x1, via adaptor) i.LINK (DV): 4-pin x1
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	
<b>Supplied Accessories</b>			
	ECM-NV1 Monaural Microphone RMT-811 Remote Commander and R6 Batteries (2) MSA-4A IC Recording Media <b>Memory Stick</b> MSAC-US1 <b>Memory Stick</b> Reader/Writer Picture Gear 4.1 Lens Hood Lite Hood Cap	ECM-NV1 Monaural Microphone AC-L10 AC Adaptor NP-F330 InfoLITHIUM Rechargeable Battery Pack RMT-811 Remote Commander and R6 Batteries (2) MSA-4A IC Recording Media <b>Memory Stick</b> MSAC-US1 <b>Memory Stick</b> Reader/Writer Picture Gear 4.1 Lite Stereo AV Cable, Lens Hood Hood Cap, Carrying Belt	Wide conversion Lens AC-L10 AC Adaptor NP-F330 InfoLITHIUM Rechargeable Battery Pack RMT-811 Remote Commander and R6 Batteries (2) MSA-4A IC Recording Media <b>Memory Stick</b> <b>Memory Stick</b> /PC Card Adaptor XLR Adaptor Special Stereo AV Cable, Lens Hood, Lens Cap, Carrying Belt

## Specifications (PAL Models)

**DSR-2000P/DSR-1800P/DSR-1600P/DSR-1500AP/DSR-85P** Studio VTRs

	DSR-2000P	DSR-1800P	DSR-1600P	DSR-1500AP	DSR-85P
<b>General</b>					
Power requirements	AC 100 V to 240 V, 50/60 Hz				
Power consumption (Max.)	120 W	100 W	70 W	55 W	185 W
Operating temperature	41 °F to 104 °F (5 °C to 40 °C)				
Storage temperature	-4 °F to 140 °F (-20 °C to 60 °C)				
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		When controlling via RS-422A: Search speed is up to ±32 times normal speed. When controlling via optional DSRM-10: Jog mode: still to ±2 times normal speed. Shuttle mode : 8 steps, from still to ±16 times normal speed Digital slow mode: 3 steps, still, ±1/5, 1/10 times normal speed
Weight	39 lb 10 oz (18 kg)	28 lb 10 oz (13 kg)	13 lb 3 oz (6 kg)	46 lb 4 oz (21 kg)	
Dimensions (W x H x D, excluding projections)	16 7/8 x 7 x 19 5/8 inches (427 x 175 x 496.5 mm)	16 7/8 x 6 7/8 x 15 3/4 inches (427 x 174 x 400 mm)	8 3/8 x 5 1/8 x 16 5/8 inches (210 x 130 x 420 mm)	16 7/8 x 6 7/8 x 19 1/2 inches (427 x 174 x 494 mm)	
<b>Video Performance</b>					
Bandwidth (via analog component I/O)	Luminance 25 Hz to 5.0 MHz +1.0/-2.0 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	25 Hz to 5.0 MHz +1.0/-2.0 dB 5.75 MHz +0/-3.0 dB (Typical measurement)	
Chrominance	25 Hz to 2.0 MHz + 1.0/-2.0 dB				
S/N ratio (via analog component I/O)	More than 55 dB				
K-factor (K2T, KP8)	Less than 2.0%				
Y/C delay	Less than 30 ns				
<b>Audio Performance</b>					
Frequency response	2 CH mode (48 kHz/16-bit) 4 CH mode (32 kHz/12-bit)	20 Hz to 20 kHz +0.5/-1.0 dB	20 Hz to 20 kHz ±1.0 dB	20 Hz to 20 kHz +0.5/-1.0 dB	20 Hz to 20 kHz +0.5/-1.0 dB
Dynamic range	More than 90 dB				
Distortion (THD+N)	Less than 0.05%		Less than 0.07%	More than 85 dB	Less than 0.05%
<b>Video Signal Inputs</b>					
<b>Analog</b>					
Ref. Video (BNC x2, loop-through connection)	Composite, 1.0 Vp-p, 75 Ω, sync negative		—	Composite, 1.0 Vp-p, 75 Ω, sync negative	
Video (BNC x2, loop-through connection)**	Composite, 1.0 Vp-p, 75 Ω, sync negative		—	Composite, 1.0 Vp-p, 75 Ω, sync negative	
Component Y (BNC x3) **	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 **	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)	DIN 4-pin x 1 Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, 75 Ω (at burst level)
<b>Digital</b>					
SDI **3,4,9	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-R BT.656	BNC x 2, active-through connection Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656
SDTI (QSDI) (BNC x1) **4,5	Conforms to SDTI (270 Mb/s), SMPTE 305M/322M		—	Conforms to SDTI (270 Mb/s), SMPTE 305M/322M	Conforms to SDTI (270 Mb/s), SMPTE 305M/322M
i.LINK (DV) (6-pin x1) **6,7	IEEE1394		—	IEEE1394	—
<b>Audio Signal Inputs</b>					
<b>Analog</b>					
Audio **	XLR 3-pin female x4		—	XLR 3-pin female x2	XLR 3-pin female x4
	-6/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance		-6/-3/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance	-6/-3/0/+4 dBu, 600 Ω on/off/ high impedance	-6/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance
<b>Digital</b>					
AES/EBU **3,4	BNC x 2 75 Ω, unbalanced		—	BNC x 2 75 Ω, unbalanced	XLR 3-pin female x2 110 Ω, balanced
<b>Video Signal Outputs</b>					
<b>Analog</b>					
Ref. Video (BNC x1)	0.3 Vp-p, 75 Ω, sync negative		—	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	Video 1/2 (super) BNC x 2	Video 1/2 (super) BNC x 2
Component (BNC x3)	Composite, 1.0 Vp-p, 75 Ω, sync negative				
S-Video	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%)		DIN 4-pin x 1		
	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)				
<b>Digital</b>					
SDI **3,4,9	BNC x 3		BNC x 2		
	Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656				
SDTI (QSDI) **4,5,10	BNC x 1		BNC x 2		BNC x 1
	Conforms to SDTI (270 Mb/s), SMPTE 305M/322M				
i.LINK (DV) (6-pin x1) **6,7	IEEE1394				
<b>Audio Signal Outputs</b>					
<b>Analog</b>					
Audio	XLR 3-pin male x4		XLR 3-pin male x2	XLR 3-pin male x4	
	-6/0/+4 dBu (selectable by menu)		-6/-3/0/+4 dBu (selectable by menu)		4 dBu, 600 Ω loading, low impedance, balanced
Monitor	Phono x 1	RCA x1	Phono x 1		
	-9 dBu, 47 kΩ, unbalanced (-18 dBFS)	-9 dBu, 47 kΩ, unbalanced (-18 dBFS)	∞ to -9 dBu, 47 kΩ, unbalanced (-18 dBFS)		-6 dBu, 47 kΩ, unbalanced
Headphone (JM-60 headphone jack x1)	∞ to -11 dBu, 8 Ω, unbalanced (-18 dBFS)		∞ to -11 dBu, 8 Ω, unbalanced (-18 dBFS)		-16 dBu, 8 Ω, unbalanced
<b>Digital</b>					
AES/EBU **3,4,9	BNC x 2 75 Ω, unbalanced		XLR 3-pin male x2 110 Ω, balanced		
<b>Time Code Input/Output</b>					
In (BNC x1)	0.5 Vp-p to 18 Vp-p, 3 kΩ, unbalanced				
Out (BNC x1)	2.2 Vp-p, 75 Ω, unbalanced				
<b>Remote</b>					
	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	RS-422A: D-sub 9-pin female x1 TBC Remote: D-sub 15-pin male x1 Control S (SIRCS): Stereo mini jack x1	RS-422A: D-sub 9-pin female x1 TBC Remote: D-sub 15-pin male x1 Control S (SIRCS): Stereo mini jack x1
<b>Supplied Accessories</b>					
	AC Power Cord RCC-5G 9-pin Remote Control Cable Operating Instructions	AC Power Cord Operating Instructions	AC Power Cord Operating Instructions	AC Power Cord RCC-5G 9-pin Remote Control Cable Operating Instructions, ClipLink Guide	AC Power Cord RCC-5G 9-pin Remote Control Cable Operating Instructions, ClipLink Guide

\* The DSR-1500A only

\*1: The optional DSBK-1504 is required for the DSR-1500A.

\*2: The optional DSBK120 is required for the DSR-85.

\*3: The optional DSBK1801 is required for the DSR-1800.

\*4: The optional DSBK1501 is required for the DSR-1500A.

\*5: The optional DSBK1802 is required for the DSR-1800.

\*6: The optional DSBK-190 is required for the DSR-2000.

\*7: The optional DSBK1803 is required for the DSR-1800/1600.

\*8: The optional DSBK-120 is required for the DSR-85.

\*9: The optional DSBK-1601 is required for the DSR-1600.

\*10: The optional DSBK-1602 is required for the DSR-1600.

## Specifications (PAL Models)

**DSR-45P/DSR-30P/DSR-25/DSR-11** Studio VTRs

	DSR-45P	DSR-30P	DSR-25	DSR-11
<b>General</b>				
System	PAL		NTSC/PAL Switchable	
Power requirements	AC100 to 240V, 50 to 60Hz	AC220 to 240V, 50Hz	AC100 to 240V, 50 to 60Hz	AC100 to 240V, 50 to 60Hz
Power consumption	22 W	37 W	16 W	15 W
Operating temperature	41 °F to 104 °F (5 °C to 40 °C)			
Storage temperature	-4 °F to 140 °F (-20 °C to 60 °C)			
Tape speed	DVCAM mode	28.2 mm/s		
	DV SP mode	18.8 mm/s		
Recording/Playback time	Standard size	184 min. with PDV-184ME/184N/184MEM		
	Mini size	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)	± x1/5, x1, x2, x10, x18	When controlling via optional DSRM-20 or supplied RMT-DS5: ± x1/10, x1/3, x1,x2,x9, x14 (DVCAM NTSC) ± x1/10, x1/3, x1,x2,x9, x24 (DV SP NTSC) ± x1/10, x1/3, x1,x2,x11, x17 (DVCAM PAL) ± x1/10, x1/3, x1,x2,x11, x24 (DV SP PAL)	When controlling via optional DSRM-20 or supplied RMT-DS11: ± x1/10, x1/3, x1,x2,x9, x14 (DVCAM NTSC) ± x1/10, x1/3, x1,x2,x9, x24 (DV SP NTSC) ± x1/10, x1/3, x1,x2,x11, x17 (DVCAM PAL) ± x1/10, x1/3, x1,x2,x11, x24 (DV SP PAL)
Weight	Approx. 10 lb 2 oz (4.6 kg)	Approx. 20 lb 4 oz (9.2 kg)	Approx. 9 lb 8 oz (4.3 kg)	Approx. 6 lb 2 oz (2.8 kg)
Dimensions (W x H x D, including projections)	8 3/8 x 3 7/8 x 15 1/2 inches (212 x 98 x 392.8 mm)	17 x 5 1/8 x 14 3/4 inches (430 x 129 x 374 mm)	8 3/8 x 3 7/8 x 15 1/2 inches (212 x 98 x 392.8 mm)	7 1/8 x 2 7/8 x 10 1/2 inches (180 x 73 x 265 mm)
<b>Video Signal Inputs</b>				
Rec mode	DVCAM/DV (SP mode only)	DVCAM	DVCAM/DV (SP mode only)	
PB mode	DVCAM/DV (SP mode only)			
Ref. Video	BNC x1* Black burst: 75 Ω, sync negative	—		
Composite	BNCx1(Shared with REF IN) 1.0Vp-p, 75 Ω, Sync Negative	BNCx1, PIN Jack x1 1.0Vp-p, 75 Ω, Sync Negative	BNCx1 1.0Vp-p, 75 Ω, Sync Negative	PIN Jack 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	4-pin mini DIN (frontx1, rearx1) Y: 1.0Vp-p, 75 Ω, Sync Negative C: 0.3Vp-p (subcarrier burst) 75 Ω	4-pin mini DIN (x1) Y: 1.0Vp-p, 75 Ω, Sync Negative C: 0.286Vp-p (NTSC Mode)(subcarrier burst) 75 Ω C: 0.3Vp-p (PAL Mode)(subcarrier burst) 75 Ω	4-pin mini DIN (x1) Y: 1.0Vp-p, 75 Ω, Sync Negative C: 0.286Vp-p (NTSC Mode)(subcarrier burst) 75 Ω C: 0.3Vp-p (PAL Mode)(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 % color bar)	—		
<b>Audio Signal Inputs</b>				
Audio	PIN Jack x4 -10/-2/+4 dBu (full bits -18dB)	PIN Jack (rear L/R x1, front L/R x1) 2 Vrms (full bits)	PIN Jack (L/R x1) -10/-2/+4 dBu (full bits -20dB)	PIN Jack (L/R x1) 2 Vrms (full bits)
<b>Video Signal Outputs</b>				
Composite	BNCx1 1.0Vp-p, 75 Ω, Sync Negative	BNCx2 1.0Vp-p, 75 Ω, Sync Negative	BNCx1 1.0Vp-p, 75 Ω, Sync Negative	PIN Jack 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	4-pin mini DIN (x2) Y: 1.0Vp-p, 75 Ω, Sync Negative C: 0.3Vp-p (subcarrier burst) 75 Ω	4-pin mini DIN (x1) Y: 1.0Vp-p, 75 Ω, Sync Negative C: 0.286Vp-p (NTSC Mode)(subcarrier burst) 75 Ω C: 0.3Vp-p (PAL Mode)(subcarrier burst) 75 Ω	4-pin mini DIN (x1) Y: 1.0Vp-p, 75 Ω, Sync Negative C: 0.286Vp-p (NTSC Mode)(subcarrier burst) 75 Ω C: 0.3Vp-p (PAL Mode)(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 % color bar)	—		
Monitor	PIN Jack x1, 1.0Vp-p, 75 Ω, Sync Negative	—		
<b>Audio Signal Outputs</b>				
Audio	XLR 3pin x4 (Male) +4dBu(full bits -18dB)*2	PIN Jack (L/R x2) 2 Vrms (full bits)	PIN Jack (L/R x1) 2 Vrms (full bits)	PIN Jack (L/R x1) 2 Vrms (full bits)
Monitor	PIN Jack x1, 2 Vrms (maximum)	—		
<b>Digital Input/Output</b>				
i.LINK (DV)	4-pin x1, IEEE1394			
<b>Time Code Input/Output</b>				
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)	—		
<b>Others</b>				
LCD Monitor	LANC: Stereo mini-mini jack x1 Control S** (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	LANC: Stereo mini-mini jack x2 (front x1/rear x1)*4 Control S** (SIRCS) In: Mini jack x1 Control S (SIRCS) Out: Mini jack x1 Headphone: Stereo mini jack x1 Trigger In: RCA pin x1 (active short) MIC In: Mini jack x1	LANC: Stereo mini-mini jack x1 Control S** (SIRCS) In: Stereo mini jack x1 Headphone: Stereo mini jack x1	LANC: Stereo mini-mini jack x1 Control S** (SIRCS): Stereo mini jack x1
	2-inch type, 123,200 dots	—	2-inch type, 123,200 dots	—
<b>Supplied Accessories</b>				
	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)	RMT-DS30 Wireless Remote Controller Size AA (R6) Batteries for Remote (2) AC Power Cord Cleaning Cassette Operating Manual LANC Cable	RMT-DS5 Wireless Remote Controller Size AA (R6) Batteries for Remote (2) AC Power Cord Cleaning Cassette Operating Manual	AC Adaptor, Power Controller RMT-DS11 Wireless Remote Commander Size AA (R6) Batteries for Remote (2) Cleaning Cassette Operating Manual Rack

\*1 Shared between composite IN and REF-IN.

\*3 Recommended remote control unit: DSRM-20

\*2 The audio output level of the DSR-45P will be reduced by half when connected to an Unbalanced XLR input device.

\*4 Priority on front LANC.

## Specifications (PAL Models)

# DSR-70AP

Portable Editing Recorder

General	
Power requirements	DC 12 V
Power consumption	46 W (without options)
Operating temperature	32 °F to 104 °F (0 °C to 40 °C)
Storage temperature	-4 °F to 140 °F (-20 °C to 60 °C)
Operating humidity	Less than 80%
Storage humidity	Less than 90%
Tape speed	28.221 mm/s
Recording/Playback time	Standard size: 184 min. with PDV-184ME/184N/184MEM Mini size: 40 min. 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	x ±32
Weight	12 lb 12 oz (5.8 kg)
Dimensions (W x H x D)	8 3/8 x 5 7/8 x 17 1/2 inches (211 x 149 x 443 mm)
Video Signal Inputs	
Analog	
Ref. Video (BNC x2, loop-through connection)	0.3 Vp-p, 75 Ω, sync negative
Video (BNC x2, loop-through connection)	Composite, 1.0 Vp-p, 75 Ω, sync negative
Component (BNC x3)*1	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 x1)	Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, 75 Ω (at burst level)
Digital	
SDI (BNC x1)*2	Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656
SDTI (QSDI) (BNC x1)*3	Conforms to SDTI (270 Mb/s), SMPTE 305M/322M
i.LINK (DV) (6-pin x1)*4	IEEE1394
Audio Signal Inputs	
Analog	
Audio (CH-1,2) (XLR 3-pin female x2)	+4/0/-60 dBu, high impedance, balanced

Video Signal Outputs	
Analog	
Ref. Video (BNC x1)	0.3 Vp-p, 75 Ω, sync negative
Video 1/2(SUPER) (BNC x2)	Composite, 1.0 Vp-p, 75 Ω, sync negative
Component (BNC x3)*1	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 x1)	Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, 75 Ω (at burst level)
Digital	
SDI (BNC x2)*2	Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656
SDTI (QSDI) (BNC x1)*3	Conforms to SDTI (270 Mb/s), SMPTE 305M/322M
i.LINK (DV) (6-pin x1)*4	IEEE1394
Audio Signal Outputs	
Analog	
Audio (CH-1,2 or CH-3,4) (XLR 3-pin male x2)	+4/0/-6 dBu (selectable by menu)
Monitor (R/L) (Phono x1)	-6 dBu, 47 kΩ, unbalanced
Headphone (JM-60 headphone jack x1)	-∞ to -20 dBu, 8Ω, unbalanced
Time Code Input/Output	
Time Code In (BNC x1)	0.5 to 18 Vp-p, 3.3 kΩ, unbalanced
Time Code Out (BNC x1)	2.2 Vp-p, ±3.0 dB, 600 Ω, unbalanced
LCD	
LCD display (x1)	6.4-inch type VGA, 640 (H) x 480 (V)
Speaker	
Built-in speaker (x1)	Monaural
Remote	
	RS-422A: D-sub 9-pin female x1
Other	
	DC 12 V In: XLR 4-pin male x1
Supplied Accessories	
	Carrying Belt Connector Cap (per interface) Operating Instructions Warranty Card

\*1: The optional DSBK-170 Analog Component Input/Output Board is required.

\*2: The optional DSBK-160A SDI/i.LINK (DV) Input/Output Board is required.

\*3: The optional DSBK-150 SDTI (QSDI) Input/Output Board is required.

\*4: The optional DSBK-140 i.LINK/DV Input/Output Board or DSBK-160A SDI/i.LINK (DV) Input/Output Board is required.

# DSR-50P

Portable Recorder

General	
System	PAL
DC input	XLR 4-pin (male), +12 V
Power consumption	15 W
Operating temperature	41 °F to 104 °F (5 °C to 40 °C)
Storage temperature	-4 °F to 140 °F (-20 °C to 60 °C)
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
Weight	8 lb 9 oz (3.9 kg), excluding battery and tape
Dimensions (W x H x D)	9 3/4 x 3 3/4 x 12 1/4 inches (247 x 92.5 x 311), excluding projections 11 x 4 x 12 1/2 inches (279 x 99 x 315 mm ), including projections
Video	
Rec mode	DVCAM/DV (SP mode only)
PB mode	DVCAM/DV (SP mode only)
Audio	
Rec mode	48.0 kHz/16-bit (2CH)/ 32.0 kHz/12-bit (4CH)/automatic (DV IN)
PB 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) Composite	BNC, 1.0 Vp-p, 75 Ω, Sync negative 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, with Level Control
Other	
Color LCD monitor	2.5-inch type, 200,000 dots
Supplied accessories	LCD Protection Cover, Cleaning Cassette

## Specifications (PAL Models)

# DSR-V10P

DVCAM Video Walkman Recorder

General	
Power requirements	DC 7.2 V (with battery), DC 8.4 V (with AC adaptor)
Power consumption	11.5 W (LCD on)
Operating temperature	32 °F to 104 °F (0 °C to 40 °C)
Storage temperature	-4 °F to 140 °F (-20 °C to 60 °C)
Tape speed	28,221 mm/s
Weight	2 lb 2 oz (970 g) (without battery and tape)
Dimensions (W x H x D)	5 7/8 x 2 1/2 x 5 3/8 inches (148 x 62 x 135 mm)
LCD screen	5.5-inch type
Video	
Video signal	CCIR standard, PAL color
Video input/output	
Video (PIN Jack x1)	Composite, 1.0 Vp-p, 75 Ω, unbalanced, sync negative
S-Video (Mini DIN 4-pin x1)	Y: 1.0 Vp-p, 75 Ω, unbalanced, sync negative C: 0.3 Vp-p (subcarrier burst), 75 Ω, unbalanced

Audio	
Audio signal	Recording: 48 kHz/16-bit, 32 kHz/12-bit Playback: 48 kHz/16-bit, 32 kHz/12-bit, 32 kHz/16-bit, 44.1 kHz/16-bit
Audio inputs/outputs (PIN Jack x1/stereo L/R) (PIN Jack x2)	-7.5 dBs (0 dBu=0.775 Vrms)
Others	
	i.LINK (DV): 4-pin x1, IEEE1394 LANC: Stereo mini-mini jack x1 Headphone: Stereo mini jack x1 Multi connector: 20-pin x1
Supplied Accessories	
	AC-V700 AC Adaptor/Charger DK-415 DK Cable Carrying belt Operating Instructions

DSRM-E1P (Edit Adaptor for DSR-V10P)	
General	
Power requirements	DC 7.2 V (supplied from DSR-V10P), DC 8.4 V (with AC Adaptor)
Power consumption	Approx. 1.8 W
Operating temperature	32 °F to 104 °F (0 °C to 40 °C)
Storage temperature	4 °F to 140 °F (-20 °C to 60 °C)
Weight	Main unit: 5.6 oz (160 g) Controller: 12 oz (340 g)
Dimensions (W x H x D)	Main unit: 2 3/4 x 2 1/2 x 5 3/8 inches (69 x 61 x 134 mm) Controller: 7 1/4 x 1 11/16 x 5 1/8 inches (184 x 42 x 128 mm)

Connectors	
	Multi connector: 20-pin x1 Control unit: Mini DIN 8-pin x1 LANC: Stereo mini-mini jack x1
Monitor Output	
Video output (PIN Jack x1)	Composite, 1.0 Vp-p, 75 Ω, unbalanced, sync negative
Audio output (PIN Jack x1/stereo L/R)	0.327 V, impedance 470 Ω or less

CVX-V1P / CVX-V3P / CVX-V18NSP (Color Video Cameras for DSR-V10P)	
General	
Power requirements	DC 7.2 V (with battery), DC 8.4 V (with AC adaptor)
Power consumption	CVX-V1P/V3P: 1.8 W CVX-V18NSP: 2.2 W
Operating temperature	32 °F to 104 °F (0 °C to 40 °C)
Storage temperature	-4 °F to 140 °F (-20 °C to 60 °C)
Weight	
Camera head	CVX-V1P: 25 g (0.85 oz) CVX-V3P: 75 g (2.6 oz) CVX-V18NSP: 343 g (12 oz)
CCU (without battery)	CVX-V1P: 135 g (4.8 oz) CVX-V3P: 135 g (4.8 oz) CVX-V18NSP: 153 g (5 oz)
Dimensions (W x H x D)	
Camera head	CVX-V1P: 7/8 x 23/32 x 2 3/8 inches (22 x 18 x 60 mm) CVX-V3P: 1 7/16 x 1 5/8 x 2 7/8 inches (36 x 40 x 70 mm) CVX-V18NSP: 2 1/2 x 2 5/8 x 4 5/8 inches (63 x 66 x 115 mm)
CCU	CVX-V1P: 1 7/16 x 4 3/8 x 2 3/8 inches (35 x 110 x 60 mm) CVX-V3P: 1 7/16 x 4 3/8 x 2 3/8 inches (35 x 110 x 60 mm) CVX-V18NSP: 2 x 2 3/8 x 4 3/8 inches (50 x 59 x 110 mm)
Camera	
Image device	1/4-inch Interline-Transfer CCD
Effective picture elements	CVX-V1P/V3P: 440,000 pixels CVX-V18NSP: 360,000 pixels
Total picture elements	CVX-V1P/V3P: 470,000 pixels CVX-V18NSP: 570,000 pixels

Lens	CVX-V1P: F1.8 CVX-V3P: F2.8 to 4 CVX-V18NSP: F1.4
Focal length	CVX-V1P: f=3.9 mm (35 mm conversion: 38 mm) CVX-V3P: f=3.5 mm to 10.5 mm (35 mm conversion: 35 mm to 105 mm) CVX-V18NSP: f=4.1 mm to 73.8 mm (35 mm conversion: 41 mm to 738 mm)
Minimum illumination	CVX-V1P: 2 lx CVX-V3P: 5 lx CVX-V18NSP: 0.7 lx
Gain selection	CVX-V1P: Auto/Hold CVX-V3P: Auto
White balance	CVX-V1P: Auto/Hold CVX-V3P: Auto
Shutter speed	CVX-V1P: Auto, 1/50, 1/120, 1/250, 1/500, 1/2000, 1/10000 CVX-V18NSP: Auto, 1/3, 1/6, 1/12, 1/25, 1/50, 1/75, 1/100, 1/125, 1/150, 1/215, 1/300, 1/425, 1/600, 1/1000, 1/1250, 1/1750, 1/2500, 1/3500, 1/6000, 1/10000
Night shot (CVX-V18NSP only)	IR light effective distance: 20 m (with slow shutter on), 5 m (without slow shutter)
Others (on CCU)	
	External MIC In: Stereo mini-mini jack x1 Multi connector: 20-pin x1 Camera cable connector: 12-pin x1 (CVX-V18NSP only) Battery connector
Supplied Accessories	
	Video Walkman Attachment Unit Operating Manual

# DSR-DU1

Video Disk Unit

General	
Power requirements	DC 8.4 V
Power consumption	8.5 W
Weight	1 lb 5 oz (600 g)
Dimensions (W x H x D)	44 x 101 x 142 mm
Operating temperature	0 °C to 40 °C
Storage temperature	-20 °C to 60 °C
Operating Humidity	Less than 85 % (without dew condensation.)
Input/Output Terminals	
DV IN/OUT	i.LINK x1 (IEEE1394 4-pin)
Remote	4-pin Stereo mini Jack x1
DC IN	x1
Supplied Accessories	
	Warranty card Operation manual i.LINK cable (4-pin to 4-pin) Remote controller (RM-LG2) Battery (CR2032) Case

# Flexicart

Multi-cassette System

General	
Power requirements	AC 100/120/220/230/240 V, 50/60 Hz
Power consumption	600 VA
Operating temperature	4 °F to 95 °F (5 °C to 35 °C)
Operating humidity	25% to 80% (non-condensing)
Weight	Approx. 551 lb 2.5 oz (250 kg) (without VTRs, cassette bin units and tapes)
Dimensions (W x H x D)	23 5/8 x 78 x 43 inches (600 x 1980 x 1090 mm)
Connections	
	Ref. Video In (BNC): Black burst or composite video Time code In: (BNC) Remote control interfaces: REMOTE1: RS-422A D-sub 9-pin REMOTE2: RS-232C D-sub 25-pin Parallel interface: D-sub 50-pin
Supplied Accessories	
	AC Power Cord Operation Manual Maintenance Manual Installation Manual

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Sony Electronics Inc.  
One Sony Drive  
Park Ridge, NJ 07656  
[www.sony.com/professional](http://www.sony.com/professional)

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