

# SONY®

NTSC/PAL

Digital Videocassette Recorder

## DVCAM™

### DSR-25



F o r

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

R e s u l t s

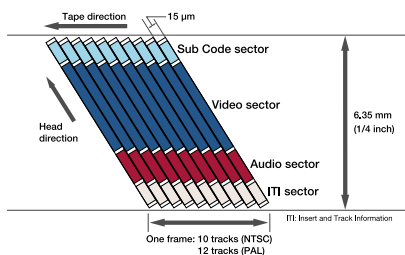
# The DVCAM Recorder For A Wide Range Of Applications

The DSR-25 is a DVCAM Digital Video Recorder specially designed for use in DV-based nonlinear editing suites. In operations ranging from those in small production houses to corporate institutions and from video journalism to event videography, the DSR-25 is ideal as a source feeder or recorder. It is also an ideal tool for uploading and downloading video to and from i.LINK™<sup>1</sup> equipped and compatible nonlinear editing systems. With its 2-inch<sup>2</sup> built-in LCD, using the DSR-25 is easy because important information, such as the recorded image, audio level, set-up menu, and system status is vividly displayed when you need it. In addition, the DSR-25 features easy one-touch duplication, the capability to preset user bits and time codes, a built-in tape counter, and a wireless remote. All of this is offered in one compact and lightweight package.

## DVCAM Format For Excellent Picture And Sound Quality

### The DVCAM Format

The DSR-25 uses the DVCAM format, 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 525/60)/4:2:0 (for 625/50). The unique compression algorithm provides excellent picture quality and superb multigenerational dubbing performance. It also offers outstanding digital audio performance by providing a wide dynamic range and an excellent signal-to-noise ratio comparable to CD quality.<sup>3</sup> 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.



### Playback Compatibility with the DV (25 Mb/s) Format

The DVCAM format maintains playback compatibility with the consumer DV format<sup>4</sup>. This compatibility allows the user to play back DV recorded tapes on the DSR-25. Such versatility is quite advantageous to users working with DV cameras for their great portability and long recording times.

### Dual-size Cassette Mechanism

The DSR-25 has a dual-size cassette mechanism that accepts both mini and standard size DVCAM and DV cassette tapes without using any special adaptor. This innovative feature allows the four different types of cassette tapes to be used without the cumbersome process associated with additional mechanical hardware.

### Long-duration Recording Capability

DVCAM videocassette tapes come in two sizes: standard and mini. A recording time of up to 184 minutes is possible with a standard-size cassette (PDV-184ME),

while the mini cassette (PDVM-40ME) allows up to 40 minutes. Although the tape is relatively narrow, 1/4-inch (6.35 mm), and the cassettes compact, these long recording times are achieved by using Sony advanced ME (Metal Evaporated) tape.

### Capability of Recording in DV Format<sup>5</sup>

Should you require a longer record time than what is available with the DVCAM format, the DSR-25 is capable of recording in the DV format. In DV format, the DSR-25 offers 270 minutes of recording with the standard-size cassette.

### NTSC/PAL Switchable Operation

To accommodate the growing needs for international program exchange, the DSR-25 is built with the flexibility for switchable operation in 525/625 environments.<sup>6</sup> This feature is also ideal for multinational operations that require dual compatibility. When recording through the i.LINK interface or in playback mode, the DSR-25 automatically detects the color system of the source. If you choose to use the analog interface, the manual select switch on the rear panel allows you to select the required mode.



1. i.LINK is a Sony trademark used only to designate that a product is equipped with 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. 2. Viewable area measured diagonally. 3. At 48 kHz/16-bit. 4. In SP mode only. 5. 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. This is a normal and expected phenomenon.

## Simple Editing Operation

### i.LINK Interface

The DSR-25 is equipped with a 4-pin i.LINK (DV) interface based on the IEEE1394 standard. The i.LINK interface provides a digital link from the DSR-25 to a variety of compatible equipment including Sony DVCAM VTRs and third-party nonlinear editors. Signals including video, audio, time code, and control can be transferred through this I/O with virtually no degradation of image or sound quality, which is essential in nonlinear editing. In addition, when a DVCAM cassette with IC memory is loaded into a DSR-25 VTR, the ClipLink™ data recorded on the cassette memory can be uploaded to a nonlinear editing system.<sup>7</sup>

### Effortless Duplication

The DSR-25 has three duplication modes, which can be set from the menu to copy videocassette tapes. In all modes, the original time codes are maintained. The different modes are as follows:

<b>AUTO TAPE COPY WITH CASSETTE MEMORY COPY</b>	This mode is used to create an exact duplicate of the original tape without blank segments. Both the material on the original tape and the information on the IC memory of the original tape are duplicated.
<b>AUTO TAPE COPY</b>	This mode is used for duplication of the original tape material without blank segments. The information on the IC memory is not duplicated.
<b>MANUAL TAPE COPY</b>	This mode is used to copy the original tape from any position on the tape. The information on the IC memory is not duplicated.

These functions are ideal when making work tapes and preserving an original master tape.

## Versatile Recording And Playback Functions

### Auto Repeat Function

The DSR-25 has an Auto Repeat function that enables it to repeatedly play back a program. Just after the DSR-25 reaches the end of the tape, the first complete blank portion, or the first index point, it automatically rewinds the tape and repeats the playback of the segment.<sup>8</sup>

### Power-on Recording/Playback Capabilities

An external timer can be used to trigger the DSR-25 to record or play back. When the TIMER switch on the front panel is set to REC, the DSR-25 automatically starts recording as soon as the AC power is turned on. Likewise, when the TIMER switch is set to REPEAT, the DSR-25 goes into the Auto Repeat mode and starts playing back a program the moment the power is turned on. These convenient features enable unattended automatic VTR operation.

## User Friendly Operation

### Built-in LCD Front Panel Monitor

The DSR-25 is equipped with a 2-inch<sup>2</sup>, high-resolution color LCD monitor. Easy set-up is an advantage of this monitor, as the set-up menu clearly displays the



appropriate parameters to select. While editing, working images are displayed, audio level meters are available, and the system status can be displayed to simplify the editing process.

### Compact Size and Light Weight

The DSR-25 is both compact and lightweight. Two units can be mounted side-by-side in a 19-inch equipment rack, where they occupy just two units of rack height.<sup>9</sup> The DSR-25 weighs only 4.3 kg (9 lb 8 oz).

### Cassette Memory Search

The DSR-25 has a cassette memory search function. Searchable index points are marked at the start of every recording. The DSR-25 can also search for the photo data recorded on cassettes with DSR-250, DSR-PD150 or DSR-PD100A camcorders, or the point where the recording date has been changed. These operations are controlled from the supplied wireless remote controller, RMT-DS5, or an optional DSRM-20 Remote Control Unit.

### Color Bar Generator and Tape Counter

The DSR-25 has a color bar generator that is activated from the set-up menu.<sup>10</sup> In addition, the recorder comes with a digital tape counter on the front panel. This counter is convenient for performing relative time code data editing and for monitoring the operation of the unit.

### Wireless Remote Controller

The Wireless Remote Controller, RMT-DS5, supplied with the DSR-25 provides control of basic functions.



6. The DSR-25 does not convert signals from 525 to 625, or vice versa. 7. Although the DSR-25 can send ClipLink data via i.LINK, ClipLink data cannot be modified by the DSR-25. 8. The DSR-25 ignores any blank or index point in the first 20 seconds of the tape. 9. Third party rack-mount kits are available. 10. These color bars are not compatible with the SMPTE standard.

## Specifications

### GENERAL

Power requirements	AC 100 V to 240 V, 50/60 Hz
Power consumption	16 W
Operating temperature	5 °C to 40 °C (41 °F to 104 °F)
Storage temperature	-20 °C to 60 °C (-4 °F to 140 °F)
Mass	4.3 kg (9 lb 8 oz)
Dimensions (W x H x D)	212 x 98 x 392.8 mm (8 3/8 x 3 7/8 x 15 1/2 inches) (including external projections)
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
Fast forward/Rewind time	Less than 2 min. with PDV-184ME/184N/184MEM
Search speed (Using supplied RMT-DS5 or optional DSRM-20)	± 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)

### VIDEO

Video system	525/60 (NTSC), 625/50 (PAL) (switchable)
Rec mode	DVCAM/DV (SP mode only)
Playback mode	DVCAM/DV (SP mode only)

### AUDIO

Rec mode	2CH mode (48 kHz/16-bit) / 4CH* mode (32 kHz/12-bit) / automatic (DV IN) (*Only 2 channels can be recorded simultaneously)
Playback mode (automatically selected)	2CH mode (48 kHz/16-bit) / 4CH mode (32 kHz/12-bit) 2CH mode (32 kHz/16-bit) / 2CH mode (44.1 kHz/16-bit)

### INPUT SIGNALS

VIDEO (ANALOG)	Composite:	BNC (x1) 1.0 Vp-p, 75 Ω, sync negative
	S-Video:	DIN 4-pin (x1) Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.286 Vp-p, (subcarrier burst) 75 Ω (in NTSC mode) C: 0.3 Vp-p, (subcarrier burst) 75 Ω (in PAL mode)
AUDIO (ANALOG)	Audio:	PIN jack (x2) -10/-2/+4 dBu (full bit -20 dB)

### OUTPUT SIGNALS

VIDEO (ANALOG)	Composite:	BNC (x1) 1.0 Vp-p, 75 Ω, sync negative
	S-Video:	DIN 4-pin (x1) Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.286 Vp-p, (subcarrier burst) 75 Ω (in NTSC mode) C: 0.3 Vp-p, (subcarrier burst) 75 Ω (in PAL mode)
AUDIO (ANALOG)	Audio:	PIN jack (x2) 2 Vrms (full bit)
	Headphone:	Stereo mini jack (x1)

### DIGITAL INPUT/OUTPUT SIGNALS

	i.LINK (DV In/Out):	IEEE 1394 based ( 4-pin x1)
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### OTHERS

	Color LCD monitor	2-inch type, 123,200 dots
	LANC	Stereo mini-mini jack (x1)
	Control S	Stereo mini jack (IN x1)

### SUPPLIED ACCESSORIES

	AC power cord, Wireless Remote Commander RMT-DS5, AA Dry Batteries x2, Operating manual, Cleaning Cassette
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## Optional Accessories



**VMC-IL4408A/4415/4435**  
i.LINK Cable (4-pin to 4-pin)



**VMC-IL4615/4635**  
i.LINK Cable (4-pin to 6-pin)



**DSRM-20**  
Remote Control Unit

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