

SONY

HVR-M35E

Flagship HDV VTR with support for native progressive recording



New flexibility, new features, new opportunities



The HVR-M35E is the flagship of our compact HDV VTR range with unrivalled production flexibility due to its support for a huge range of HDV/DVCAM/DV formats - making it ideal for inclusion in any workflow based on these formats. Whatever your requirements today or tomorrow, the HVR-M35E is designed to be your perfect partner.

A key feature of the HVR-M35E is its compatibility with HDV native progressive recording on the new HVR-Z7E and HVR-S270E camcorders. It also supports playback of 720P HDV material and provides an HD/SD-SDI output with embedded audio and TC data. A high resolution LCD screen in the front panel provides for easy monitoring whatever your production set-up.

The HVR-M35E is the ultimate in workflow flexibility for both HDV and DVCAM users.

As with all HDV products, the HVR-M35E has the added benefit of 2 year Silver Support warranty - providing additional piece of mind.

Features

HD/SD-SDI Output

HD/SD-SDI output allows duplication to a deck with HD/SD-SDI input, for example an XDCAM or HDCAM deck.

Multi-format Playback/Recording Capability

The HVR-M35E supports HDV native progressive recording modes and has a 60i/50i switchable function, so it can playback/record:

HDV1080i:
60i/50i/24p/30p/25p

DVCAM/DV:
60i/50i

The HDV720p(24/25/30p) tape playback is available for a simple viewing.

* No i.LINK output for HDV720p

Dual-size Cassette Mechanism

The HVR-M35E accepts both standard and mini size HDV, DVCAM, and DV cassettes without using any special adaptor. Standard size cassettes allow recording times of up 276 minutes and can also used by most DVCAM/HDV shoulder-mount camcorders including the new HVR-S270E. Sony DigitalMaster™ is the highest specification and most reliable tape for HDV, DVCAM and DV usage.

Four Channel Audio Data Playback

The HVR-M35E can play back the four-channel audio data in HDV1080i format recorded by the HVR-S270E. It can also play back the four-channel audio data in DVCAM format. The four-channel audio data is embedded in the i.LINK and HD/SD-SDI output, or is output through the AES/EBU audio connectors.

Down-conversion Capabilities

The HVR-M35E can convert material from HD down to SD, and output the SD video signal through its i.LINK, SD-SDI, analogue component, S-video, and composite connectors. This allows users to edit recorded material

with a compatible nonlinear editing system using current DV editing software, as well as record SD signals to an external VTR. When down-converting these signals, the aspect ratio displayed can be converted from 16:9 to 4:3. Display modes can be selected from Squeeze, Letterbox, and Edge Crop. Letterbox output is not available from the i.LINK connector. For HDV recording with four channels audio data, the audio data in the down-converted DV signal is selectable from either 1/2ch or 3/4ch.

50/60Hz Switchable

The HVR-M35E is compatible with both 50 and 60 Hz use - providing greater user flexibility to make and edit productions on a worldwide basis.

HDV/DV IN TC

The HVR-M35E is equipped with HDV/DV IN TC, enabling time code synchronization with external equipment - ideal when dubbing tapes or recording to tapes with material edited by nonlinear editing systems.

2.7-inch LCD Monitor

A 2.7" wide LCD panel with monaural speaker enables operators to check 16:9 aspect pictures images, audio level meter and set-up menu. "Clear Photo LCD plus" technology further improves the visibility of previous LCDs, offering more detailed and colourful reproduction of objects in dark or bright places.

Duplicate Plus

The DUPLICATE PLUS function makes it easy to copy video and audio from a VTR or camcorder onto the HVR-M35E - along with the original time code. Operators simply connect the two i.LINK devices together via their i.LINK interfaces and press the DUPLICATE PLUS and PLAY buttons on the front panel of the HVR-M35E. Copying will then begin.

Edge Crop Adjust

The HVR-M35E is able to adjust the edge crop position when down converting from HD (16:9 aspect ratio) to SD (4:3 aspect ratio). By displaying the edge crop marker on the monitor, you can check the crop position on the LCD monitor before down converting.

Custom Repeat

The HVR-M35E has an Auto Repeat function that enables it to repeatedly play back a program. In addition, the HVR-M35E has a Custom Repeat function that allows operators to set a repeat number of times, a repeat interval, and a start time of repeat.

Time code settings

The time code can be preset using any number in H/M/S/F (hours/minutes/seconds/frames), for accurate tape-position information.

Assign Buttons

Other than the default functions, frequently used functions can be assigned for convenient and customized operation.

Benefits

Unique flexibility (including new HDV Progressive modes)

The HVR-M35E is the ultimate in HDV/DVCAM/DV production flexibility with support for all of the below formats, including the native HDV progressive recording mode introduced with the HVR-Z7E and HVR-S270, as well the progressive scan mode of the HVR-V1E.

- 1080 50i/60i, 24p/25p/30p HDV formats
- 720P HDV format playback* (although not through i.Link)
- NTSC/ PAL DV/DVCAM formats

Flexible Inputs and Outputs

The HVR-M35E offers the most comprehensive I/O available at this price point including support for the new 4 audio channel HDV specification on the new HVR-Z7E and HVR-S270E.

- NEW HD/SD
- SDI output for use with dubbing to other HD or SD tape formats.
- NEW access to 4 channel XLR audio outputs.
- Access to 4 channel audio inputs via Phono.

An affordable way to enjoy High Definition

Through the HDV format Sony's HVR-M35E allows you to playback and record High Definition pictures on a standard DV format cassette - providing both a highly cost effective format and full 1080 line resolution.

Watch as you work

Excellent picture reproduction for viewing and cuing up tapes with the added benefit of audio.

- No need for an external picture monitor.
- Ease of use for reviewing content.

Easy integration with the way you already work

Continuity of Workflow can be very important. Enjoying the benefits of the HVR-M35E does not mean that you need to change the way you work. Like DVCAM VTR's, a full range of connectivity is available for external devices including Composite In/Out, S-Video In/Out, Component Out and i.LINK (IEEE1394). In addition, you can choose to convert your HDV footage with the in-built

down-converter to output in Standard Definition if required.

A comprehensive support service

Just like the rest of the HDV range, the HVR-M35E benefits from two years Silver Support warranty as standard providing a unique after-sales care programme offering enhanced support and service.

Technical Specifications

Recording/playback performance

Recording format	HDV: HDV1080/60i, 1080/50i, 1080/24p, 1080/25p, 1080/30p
Playout format	DVCAM/DV SP: DVCAM, DV SP 480/60i (NTSC), 576/50i (PAL) HDV: HDV1080/60i, 1080/50i, 1080/24p, 1080/25p, 1080/30p. HDV720/24p, 720/25p, 720/30p
Playout video signal	DVCAM/DV SP: DVCAM, DV SP 480/60i (NTSC), 576/50i (PAL) 1080/60i, 1080/50i, 480/60i (NTSC), 576/50i (PAL), 480/60P, 576/50P, 720/60P, 720/50P
Tape speed	HDV/DV SP: Max. 18.812 mm/s
Playback/recording time	DVCAM: Max. 28.218 mm/s HDV/DV SP: Max. 276 min with PHDV-276DM cassette Max. 63 min with PHDVM-63DM cassette
Fast forward/rewind time	DVCAM: Max. 184 min with PHDV-276DM cassette Max. 41 min with PHDVM-63DM cassette Approx. 2 min with PHDV-276DM cassette

Input/output connectors/devices

Video input/output	BNCx1 / BNCx1
Monitor video out	RCA pin x1
S-video input/output	Mini-DIN 4-pin x1 / Mini-DIN 4-pin x1
Component video output	BNC x 3
i.LINK interface (HDV /DV)	6-pin (no power)
HD/SD-SDI output	BNC x1
Audio input	RCA pin x 4ch
Audio output	XLR 3pin x 4ch
Monitor audio out	RCA pin x 1
AES/EBU output	BNC x2
TC out	BNC x1
Phones	Stereo minijack (ø3.5 mm)
LANC	Stereo mini-minijack (ø2.5 mm)
Control S input	Stereo minijack (ø3.5 mm)
LCD monitor	2.7-inch type (Viewable area measured diagonally), approx. 211,200 dots (960 x 220), Clear Photo™ LCD Plus

General

Weight	Approx. 9 lb 12 oz (4.4 kg)
Dimensions (WxHxD)	Approx. 212 x 88 x 390.3mm (8 3/8 x 3 1/2 x 15 3/8 inch)
Power requirements	AC 120 V, 60 Hz
Power consumption	16 W (playback mode with LCD monitor on)
Operating temperature	41 to 104 °F (5 to 40 °C)
Storage temperature	-4 to 140 °F (-20 to +60 °C)