


SONY

Dependable recording in the O.R. made easy.



The HVO-3300MT 3D/2D HD Medical Video Recorder.

3D



Capture, store, and share the images you need.

Introducing the new HVO-3300MT 3D HD video recorder. Whether you need simultaneous image recording, multiple modality support, surgical image capture, vital signs monitoring, or easier content archiving and management, this compact portable recorder provides images you can depend on.

The HVO-3300MT model enables simultaneous recording in a variety of surgical fields through an endoscope, ultrasound, digital X-ray, and other compatible imaging systems. It captures surgical procedures while recording 2D or 3D video images in HD quality. The built-in 3.5-inch LCD color display allows you to easily access and review images—images that can be used in patient records, and for training, education, and referral.

This recorder is ideal for use in hospital operating rooms, medical imaging centers, surgical centers, clinics, and doctors' offices.

Key features

3D/2D Full HD video recording

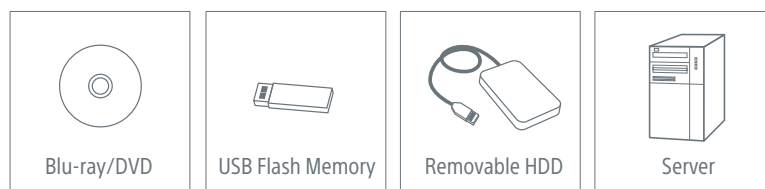
In addition to 2D full high-definition images, the HVO-3300MT recorder supports 3D images from endoscopes and surgical microscopes. Just select input signal formats from the menu to access various 3D formats: side-by-side, line-by-line, and dual stream.

Two-channel recording

Simultaneously record two separate channels of video, such as images from a connected endoscope and an O.R. camera. In addition, you can record footage not only in 3D, but also other content in 2D concurrently, making it easier to use and manage content.

Simultaneous recording onto external media

Record video files simultaneously onto the built-in internal hard disk drive, a Blu-ray™ / DVD disk, connected USB drive, or network server. This shortens your workflow, as there is no need to export or copy videos to external devices after recording on the internal HDD.



Network data transmission via CIFS & DICOM storage

Transfer recorded video footage on the HVO-3300MT recorder from the O.R. to a connected server, such as the Sony Content Management System (CMS) via CIFS over hospital networks.* You can access each recording quickly, eliminating the need to use an external media source to transfer the recording onto a PC. You can also use the HVO-3300MT recorder to transmit captured still image data in 3D or 2D to a PACS system using the DICOM protocol.

Proxy recording**

Record original full-resolution video data and smaller proxy data at the same time. This streamlines integration with Sony CMS—such as using full-resolution image files for clinical presentations—while also allowing lower-resolution proxy data to be archived or easily shared on tablets.

Bookmark index linkage**

Bookmarked indexes are recorded onto the video stream when you take a still picture or pause recording, for instance. Then these bookmarks can be linked directly into the connected Sony CMS to easily locate viewing/editing points on the CMS timeline.

Lightweight, compact design

This recorder is significantly slimmer and lighter than earlier models. The slim, compact design facilitates easy adjustment of the monitor position and saves space.

External touch panel capability

Use the HVO-3300MT recorder with an external touch panel monitor† for improved operability. For example, REC/STOP for each channel can be set independently, and data input (such as patient ID, name, gender, etc.) is simplified.

Compatible with previous models

While offering enhanced functionality, the HVO-3300MT model has command compatibility with previous-generation HVO-1000MD and HVO-3000MT recorders. All you do is set the required mode.

* Files are transferred using the file-sharing protocol CIFS (Common Internet File System) in Windows.

** These functions are available with Sony CMS version 2.1 or later.

† Requires an optional USB touch panel monitor.

Video Recording Time*

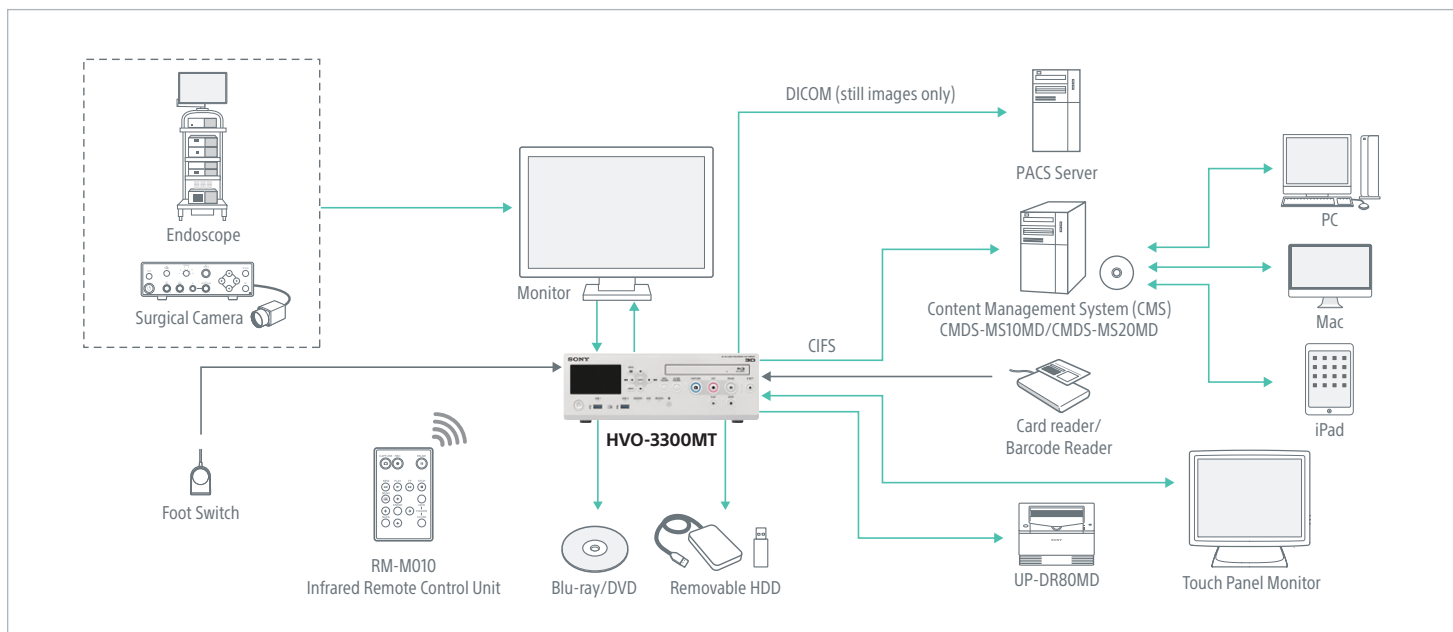
| Recording Media | HD (3D or 2D) | | | | | | SD (2D) | | | |
|-----------------|---------------|------------|------------|----------------------------|------------|------------|-------------------------|------------|------------|-------------|
| | 1920 x 1080p | | | 1920 x 1080i / 1280 x 720p | | | 720 x 480i / 720 x 576i | | | |
| | Best | High | Standard | Best | High | Standard | Best | High | Standard | |
| | 24 Mbps | 18 Mbps | 12 Mbps | 20 Mbps | 12.5 Mbps | 6 Mbps | 6 Mbps | 4 Mbps | 2 Mbps | |
| Internal HDD | 2 TB | 168h 26min | 267h 2min | 375h 56min | 185h 45min | 375h 56min | 644h 11min | 644h 11min | 879h 33min | 1162h 46min |
| BD-R (SL) | 25 GB | 2h 22min | 3h 55min | 5h 50min | 2h 37min | 5h 50min | 11h 26min | 11h 26min | 17h 49min | 28h 22min |
| DVD-R (SL) | 4.7 GB | 25min | 43min | 1h 4min | 28min | 1h 4min | 2h 5min | 2h 5min | 3h 15min | 5h 10min |
| External media | 1 TB | 99h 56min | 165h 31min | 246h 24min | 110h 55min | 246h 24min | 481h 46min | 481h 46min | 750h 39min | 1195h 30min |

Number of Recordable Still Images*

| Recording Media | BMP/TIFF | | JPEG | | | | | | |
|-----------------|----------|---------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| | HD | SD | HD | | | SD | | | |
| | | | Best | High | Standard | Best | High | Standard | |
| Internal HDD | 2 TB | 282,000 | 1,510,000 | 1,050,000 | 1,940,000 | 3,390,000 | 3,880,000 | 5,410,000 | 6,740,000 |
| BD-R (SL) | 25 GB | 3,800 | 24,000 | 15,000 | 30,000 | 59,700 | 65,200 | 65,200 | 65,200 |
| DVD-R (SL) | 4.7 GB | 690 | 4,380 | 2,740 | 5,470 | 10,800 | 16,200 | 32,000 | 65,200 |
| External media | 1 TB | 160,000 | 1,010,000 | 634,000 | 1,260,000 | 2,520,000 | 3,780,000 | 7,500,000 | 14,700,000 |

* These specifications may vary according to the recording image format or writing conditions. They are for reference only, and are not guaranteed.

System Configuration



Specifications

HVO-3300MT

Recording Features

| | |
|-------------------------|--|
| Recording Video Format | MPEG-4 AVC/H.264 |
| Recording Audio Format | AAC LC |
| Recording File Format | MP4 |
| Recording Media | Internal HDD (2TB) External USB Storage Network (CIFS) DVD-R BD-R SL/BD-R DL BD-RE SL/BD-RE DL |
| Recording Bit Rate (HD) | 1080p 24 Mbps (Best), 18 Mbps (High), 12 Mbps (Standard) 1080i/720p 20 Mbps (Best), 12.5 Mbps (High), 6 Mbps (Standard) |
| Recording Bit Rate (SD) | 480i/576i 6 Mbps (Best), 4 Mbps (High), 2 Mbps (Standard) |
| 3D Recording | Side by Side, Top and Bottom (Input 3D Signals: Side by Side, Line by Line, Dual Stream) |

Connectors

| | |
|-------------------|---|
| Input Connectors | 3G/HD/SD-SDI (BNC type) (2) DVI-D (Single link) (2) S-VIDEO (Mini DIN 4-pin type) (1) VIDEO (BNC type) (1) RGB IN (Mini D-sub 15pin) (1) AUDIO (Stereo mini jack) (1) MIC (Stereo mini jack) (1) AC Inlet (3-pin) (1) |
| Output Connectors | 3G/HD/SD-SDI (BNC type) (1) DVI-D (Single link) (1) S-VIDEO (Mini DIN 4-pin type) (1) VIDEO (BNC type) (1) AUDIO (Stereo mini jack) (1) |
| Other Interfaces | USB 3.0 (Type A) (2) USB 2.0 (Type A) (4) USB 2.0 (Type B) (1) Network (RJ-45, 1000 Base-T/100 Base-TX) (1) REMOTE RS-232C (D-Sub 9-pin) (1) REMOTE contact switch (stereo mini jack) (4) MENU MONITOR (Mini D-Sub 15-pin) (1) Equipotential |

General

| | |
|-----------------------------------|---|
| Power Requirements | 100 V to 240 V AC, 50/60 Hz |
| Input Current | 1.25 to 0.52 A |
| Operating Temperature | 41 °F to 104 °F (5 °C to 40 °C) |
| Operating Humidity | 20% to 80% (Maximum wet-bulb temperature: 86 °F (30 °C)) (No condensation) |
| Operating Pressure | 700 hPa to 1060 hPa |
| Storage and Transport Temperature | -4°F to +140°F (-20°C to +60°C) |
| Storage and Transport Humidity | 20% to 90% (Maximum wet-bulb temperature: 86 °F (30 °C)) (No condensation) |
| Storage and Transport Pressure | 700 hPa to 1060 hPa |
| Mass | Approx. 14 lb. 5.3oz. (Approx. 6.5 kg) |
| Dimensions (W x H x D)* | 12 1/8 x 4 5/8 x 13 in. (305.0 x 115.5 x 329.0 mm) (including longest protrusions) |
| Supplied Items | Before Using this Unit (1) CD-ROM (Instructions For Use, PROTOCOL MANUAL) (1) Warranty Booklet (1) Service Contact List (1) Infrared remote control unit (RM-M010) (1) European Representative (1) |

* The values for dimensions are approximate.

These products are distributed to US (FDA) and EU (MDD) as medical devices.

They satisfy product safety standards (e.g. IEC 60601-1).**

** For more details, please contact your nearest Sony sales office or an authorized dealer.

Front and Rear Panels

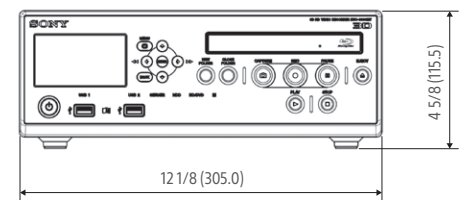
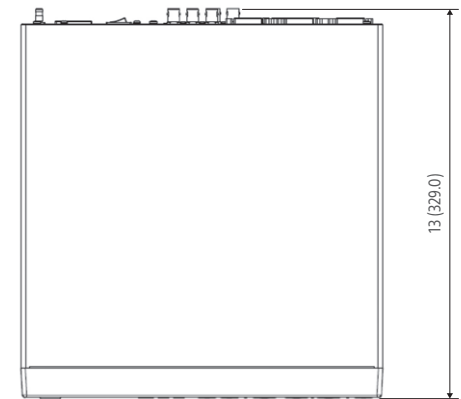


Front Panel



Rear Panel

Dimensions



Unit: inches (mm)

Related Products



LMD-2765MD
27-inch LCD Monitor



LMD-3251MT
32-inch 3D LCD Monitor



UP-DR80MD
Digital Color Printer



CMDS-MS20MD/CMDS-MS10MD
Content Management System

Sony Electronics Inc.
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sony.com/medical

ME-4068

CAUTION: Federal (USA) law restricts this device to sale by or on the order of a physician or other appropriately licensed medical professional.

CAUTION: See product labeling for indications, contraindications, warnings, cautions, and directions for use.

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