

SONY



HVO-3300MT

HVO-3300MT

3D HD Video Recorder

3D

Capture, Store and Share

In recent years, demand for greater flexibility in medical image recording has been growing particularly in simultaneous surgical image recording, multiple modality support, and easier content archiving and management.

Responding to these critical requirements, Sony proudly introduces the HVO-3300MT, a 3D/HD video recorder. This recorder enables simultaneous recording of up to two channels from a surgical camera, endoscope, ultrasound, digital X-ray, and other compatible imaging systems in HD quality. You can utilize recorded images for patient records, training, education, and referral purposes.

Moreover, the live streaming capability achieves during recording real-time transmission beyond the OR. This allows you to send and share images between surgeons and other clinicians who are supporting the procedure or learning from it in different locations.

This compact recorder is an ideal choice for use in hospital operating rooms for effective content management.



Key Features

3D/2D Full HD Video Recording

In addition to 2D Full high definition images, the HVO-3300MT supports 3D images from rigid endoscopes and surgical microscopes, meeting today's various medical sources. This recorder accepts various 3D formats (side-by-side, line-by-line, and dual stream), and the user simply selects input signal formats via a menu.

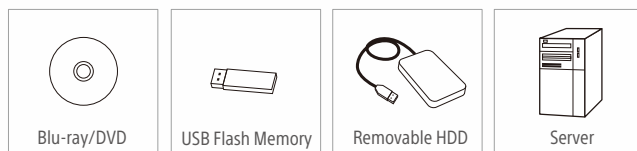
Ch1/Ch2 Two Channel Recording

The HVO-3300MT can simultaneously record two separate channels of input video, such as images from a connected endoscope and from an OR room camera. In addition, it enables for users to record a footage not only in 3D footage but also another content in 2D concurrently. This makes it much easier to use and manage content.

Simultaneous Recording Onto Two External Media

Video files can be recorded simultaneously onto the built-in internal hard disk drive, a Blu-ray/DVD disk, connected USB drive, or network server.

This helps shorten the workflow, as there is no need to export or copy videos to external device after they have been recorded on the internal HDD.



Network Data Transmission Via CIFS*1

Recorded video footage and still images on the HVO-3300MT can be transferred to a connected server such as the Sony Content Management System (CMS) – the CMDS-MS10MD and CMDS-MS20MD – via CIFS over hospital networks. This enables you to access content quickly after recording, without the additional step of having to use an external media source to copy content onto a PC.

*1 CIFS (Common Internet File System) is the file-sharing protocol.

Live Streaming*2

The HVO-3300MT incorporates a live streaming function which achieves real-time transmission of images captured by endoscopes, cameras, and other devices to other locations beyond the OR. This allows you to instantly share these medical insights with doctors in their medical offices or, indeed, anywhere with network connection, contributing to their expertise.

*2 This function is available with the Sony CMS version 2.2 and the HVO-3300 firmware version 1.1 or later.

DICOM Linkage For Effective Content Management DICOM MWL (Modality Work List)*3

Thanks to DICOM MWL support, you can input patient information from RIS or DICOM servers via your network. Hospital staffs are not required to key the patient information data in preparation before surgery that it enables to avoid human error and improve the efficiency.

*3 This function is available with the HVO-3300 firmware version 1.1 or later.

Network Data Transmission In DICOM Format

In addition to data transmission via network, the HVO-3300MT can transmit still image data captured to a PACS system using the DICOM protocol.

CMS Linkage For Effective Content Management

Proxy Recording*4

The HVO-3300MT can record both original high quality video data and low-size proxy data which is transferred to the Sony CMS during recording.

Proxy data is suitable for simple viewing, sharing to tablet devices and long-term storage which can effectively save server space.

High quality video data is appropriate for use in such as clinical presentations at medical conference.

Bookmark Index Linkage*4

Bookmark index markers are recorded onto the video when a user action occurs, such as taking a still picture or temporarily pausing recording. These bookmarks can be fed directly into the connected Sony CMS, allowing you to easily locate viewing/editing points on the CMS timeline.

*4 Available with the Sony CMS version 2.1 or later.

External Touch Panel Capability

The HVO-3300MT can be used with an external touch panel monitor*5. This improves operability – for example, REC/STOP for each channel can be set independently, and data input (entering patient ID, name, gender, date of birth, etc.) is simplified.

*5 Requires an optional USB touch panel monitor, commercially available.

Perfect HVO-1000MD and HVO-3000MT Replacement

While offering enhanced functionality, the HVO-3300MT has command compatibility with previous-generation HVO-1000MD and HVO-3000MT recorders; the operator simply sets the required mode. Operators who have used these existing recorders will appreciate the operational familiarity of the HVO-3300MT.

Video Recording Time*

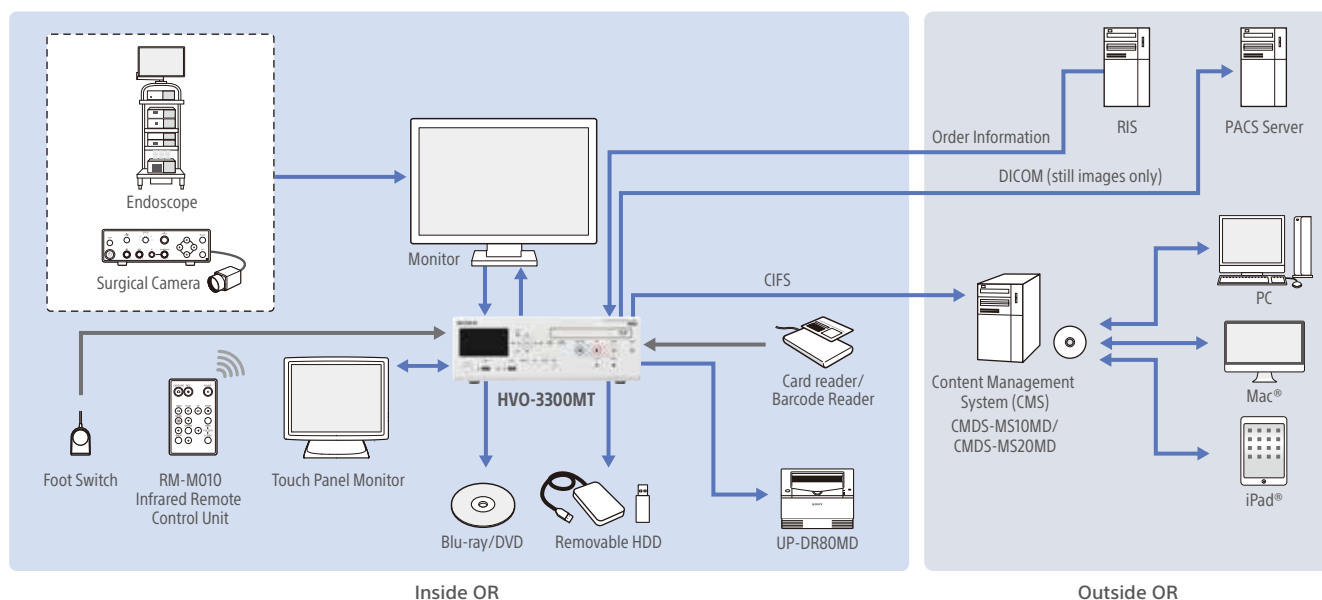
		HD (3D or 2D)						SD (2D)		
		1920 x 1080p			1920 x 1080i / 1280 x 720p			720 x 480i / 720 x 576i		
		Best	High	Standard	Best	High	Standard	Best	High	Standard
		24 Mbps	18 Mbps	12 Mbps	20 Mbps	12.5 Mbps	6 Mbps	6 Mbps	4 Mbps	2 Mbps
Internal HDD	2 TB	168 h 26 min	267 h 2 min	375 h 56 min	185 h 45 min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

Number of Recordable Still Images*

		BMP/TIFF		JPEG					
		HD	SD	HD			SD		
		–	–	Best	High	Standard	Best	High	Standard
Internal HDD	2TB	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)	25GB	3,800	24,000	15,000	30,000	59,700	65,200	65,200	65,200
DVD-R (SL)	4.7GB	690	4,380	2,740	5,470	10,800	16,200	32,000	65,200
External Media	1TB	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	5 °C to 40 °C (41 °F to 104 °F)
Operating Humidity	20% to 80% (Maximum wet-bulb temperature: 30 °C (86 °F)) (No condensation)
Operating Pressure	700 hPa to 1060 hPa
Storage and Transport Temperature	-20°C to +60°C (-4°F to +140°F)
Storage and Transport Humidity	20% to 90% (Maximum wet-bulb temperature: 30 °C (86 °F)) (No condensation)
Storage and Transport Pressure	700 hPa to 1060 hPa
Mass	Approx. 6.5 kg (Approx. 14 lb. 5.3oz.)
Dimensions (W x H x D) *	305.0 x 115.5 x 329.0 mm (12 1/8 x 4 5/8 x 13 in.) (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)

* The values for dimensions are approximate.
This product is classified as a Class 1 laser product.
This product is distributed to US and EU as a medical device. It satisfies 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

Distributed by

Related Products



LMD-2765MD
27-inch LCD Monitor



LMD-3251MT
32-inch 3D LCD Monitor

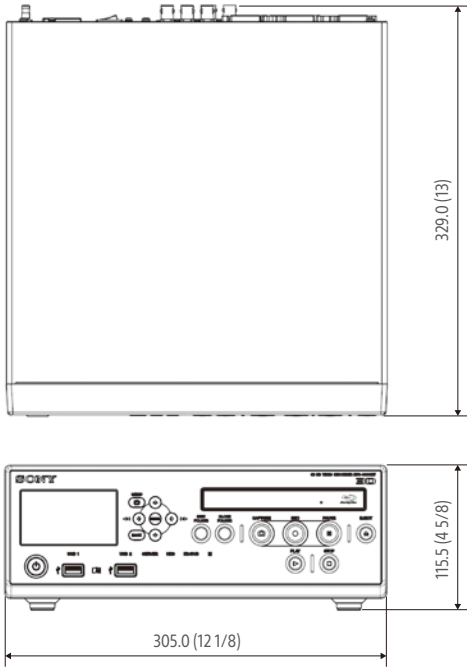


UP-DR80MD
Digital Color Printer



CMD5-MS20MD/CMD5-MS10MD
Content Management System

Dimensions



Unit: mm (inches)

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