HVO-3300MT

Full HD 2D/3D medical recorder

Overview

Record and manage high-quality video footage in Full HD resolution from 3D or 2D image sources

The HVO-3300MT Video Recorder allows clinicians to capture high quality 3D or 2D images acquired with 3D/2D endoscopic camera systems, surgical microscopes, and other compatible medical imaging systems in Full HD.

Successor to the popular HVO-1000MD and HVO-3000MT recorders, the HVO-3300MT is capable of recording 3D or 2D images with Full HD resolution from a connected modality onto its high-capacity internal hard drive. Video footage can also be stored simultaneously on up to two external media devices, including Blu-ray Disc/DVD, USB memory or a hospital server for easy sharing. In addition, live video captured by the HVO-3300MT can be streamed directly to consulting rooms, offices and other locations outside the OR.

Enhanced functions compared with its predecessors include a large LCD colour display for reviewing images and adjusting system settings, increased internal HDD capacity, two-channel recording; and simultaneous low-resolution proxy recording via connection to the Sony CMS (Content Management System).

Compliant with latest medical safety standards, the recorder

features a compact design that's both smaller and lighter than the previous-generation HVO-1000MD and HVO-3000MT, allowing easy integration in a medical cart.

This equipment is intended for use by qualified medical professionals.

Features

3.5-inch front panel colour LCD
The recorder's large 3.5-inch colour LCD shows input image and status, as well as displaying images during playback and device settings screens. It allows confirmation that intended images are input to the recorder correctly without the need for an external display.

3D/2D Full HD Recording
The HVO-3300MT supports both 3D and 2D Full HD recording. It accepts various 3D formats (side by side, line by line and dual stream). Input signal format is selectable via menu. 3D data are recorded as either side-by-side or top-and-bottom format.

Two channel recording
The HVO-3300MT can simultaneously record two separate channels of input video, such as images from a connected endoscope and an OR room camera.

Wide range of video interfaces
A wide variety of input/output signal formats are supported, including 3G-SDI, HD-SDI, DVI-D (both for 3D and 2D); together with SD-SDI, composite and S-Video only for 2D. RGB input only is available for the sub-picture in PinP mode.

Large HDD supports long recording times
The recorder's high capacity 2TB hard drive allows a maximum recording time of around 168 hours (single channel, in Best picture quality setting).

Simultaneous recording onto two external media

While video images are recorded onto the internal HDD, they can also be stored simultaneously on up to two external media devices (e.g. Blu-ray/DVD disc, removable USB HDD, USB flash memory and/or a server connected to hospital networks).

Network data transmission via CIFS

Recorded video footage and still images can be transferred to a connected server - such as the Sony Content Management System (CMS) - via CIFS over hospital networks, allowing users to access recordings quickly after a recording is completed. This eliminates the additional step of users having to transfer recordings onto their PC using an external media source.

Live streaming

Live stream images captured by endoscopes, cameras and other devices in real time to consulting rooms, offices and other locations outside the OR. (Requires Sony CMS version 2.2 and HVO-3300 firmware version 1.1 or later).

DICOM MWL support

Support for DICOM Modality Work List allows automatic input of patient information from RIS or DICOM servers via the hospital network. Hospital staff aren't required to manually key-in patient information data before surgery, avoiding human error and saving time. (Requires firmware version 1.1 or later).
The HVO-3300MT can also transmit captured still image data to a PACS system using the DICOM protocol.

Ideal 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. Operators who have used these existing recorders will appreciate the operational familiarity of the HVO-3300MT.

exFAT and NTFS support

The HVO-3300MT supports exFAT and NTFS as well as FAT32 file formats. Recordings can be stored directly on an external USB mass storage device, with no need for pre-formatting before use.

External touch panel capability

Convenient operation of HVO-3300MT functions - such as REC/STOP for each channel independently and input of patient data - can also be accomplished via an optional touch panel controller (available separately*).
* For more details, please contact your nearest Sony sales office or authorised dealer.

Space-Saving, Lightweight Compact Design

This recorder is approximately 81 mm slimmer and 1.9 kg lighter than predecessor HVO-1000MD/HVO-3000MT models.

Simultaneous proxy recording

Original high quality video data and smaller proxy files can be recorded at the same time. This streamlines integration with Sony's CMS system - such as using high quality image files for clinical presentations, while lower resolution proxies can be shared on tablet devices or archived for future legal/compliance purposes.

Bookmark index linkage to CMS

Bookmark index markers are automatically recorded onto the video stream when user actions occur, such as taking still pictures or temporarily pausing recording. These bookmarks can be fed directly into the connected CMS (CMDS-MS10MD or CMDS-MS20MD), allowing users to easily locate viewing/editing points on the CMS timeline. (NB: requires CMS Ver 2.1 or later).

Specifications | 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: 24Mbps (Best), 18Mbps (High), 12Mbps(Stardard) 1080i/720p: 20Mbps (Best), 12.5Mbps (High), 6Mbps (Standard)
Recording Bit Rate (SD)	NT/PAL: 6Mbps (Best), 4Mbps (High), 2Mbps (Standard)
3D Recording	Side by Side, Top and Bottom (Input 3D Signals: Side by Side, Line by Line, Dual Stream)

Connectors

	3G/HD/SD-SDI (BNC type) (2) DVI-D (Single link) (2)

Input Connectors	S-VIDEO (Mini DIN 4-pin type) (1) VIDEO (BNC Type) (1) RGB (Mini D-Sub 15-pin) (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 (TypeA) (2) USB 2.0 (TypeA) (4) USB 2.0 (TypeB) (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)

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) *1	305.0 x 115.5 x 329.0 mm (including longest protrusions) 12 1/8 × 4 5/8 × 13 in. (including longest protrusions)
	Before Using This Unit (1) CD-ROM (Instructions for Use, PROTOCOL MANUAL) (1)

Supplied Items	Warranty booklet (1)
	Service Contact List (1)
	Infrared remote control unit (RM-M010) (1)
	European Representative (1)
Compliance with Medical Safety Standards	Yes

Related products

MCC-3000MT

3D Full HD Medical Video Camera

MCC-500MD

Full HD surgical video camera with Exmor™ CMOS sensor.

UP-DR80MD

A4 Digital Colour Printer

MCC-1000MD

Two-piece Full HD surgical video camera

Gallery