SONY

LMD-2451MD

24-inch HD 2D LCD Medical Monitor

Overview

LMD-2451MD Medical 24" LCD Monitor

The LMD-2451MD has an advanced 24 inch LCD panel, and has inherited the conventional functions from the formerly introduced LMD-MD series. At full HD resolution WUXGA (1920x 1200) the LMD-2451MD ensures very high quality image representation.

The monitor has a host of user-friendly features such user-memory function, chroma phase control, multi-display function and ChromaTRU technology.

In recent years, Sony Professional has identified a growing need for large screen HD medical monitors. Endoscope systems now benefit from Full HD resolution to attain superior colour representation and higher picture quality.

Exceptional, high-definition 24-inch medical monitor with class-leading resolution.

Accepts almost any SD and HD video signal in both analogue and digital, allowing doctors to view images simultaneously from multiple sources.

Selectable Gamma Curves enables you to set up the picture quality you desire.

The mirror image can provide more convenience to the doctors when working one in front of each other and looking on two different monitors, meaning that the image will always show the same object moving direction.

Complies with the 100-mm VESA mounting standard so the monitor can be attached to a surgical mount arm for use in operating theatres.

Features

Sony unique colour matching technology “Chroma TRU”
For an extra level of colour reproduction accuracy, every LCD panel used in the LMD-2451MD is precisely colour calibrated at the factory, providing consistent characteristics. The colorimetric of an LCD display, by nature, can exhibit inaccurate colour characteristics and gamma curves, which can make precise colour matching between multiple monitors a challenge. The LMD-2451MD solves this problem by precisely calibrating each LCD panel's light output so that the R, G, B colour coordinates are consistent for every monitor. A second calibration is further applied so that white balance is maintained at a consistent colour temperature throughout all greyscale levels.
Excellent Brightness and Contrast (WUXGA Panel)
The LMD-2451MD provides high-brightness and high contrast images by utilising super-wide aperture WUXGA (1920x1200) LCD panels.
Natural Gradation and Accurate Colour Reproduction (10-Bit DSP)
The LMD-2451MD adopts an advanced full 10-bit digital video signal processor to produce smoothly-detailed images with natural gradation.
Sophisticated I/P (Interlace to Progressive) Conversion
The LMD-2451MD uses an advanced technology to perform sophisticated I/P conversion. This method combines the pixels above, below, and in the diagonal direction of the image in areas where there is movement, and then inserts a natural pixel to create the absent lines. The result is very smooth image reproduction for both moving and static picture areas.
Input Versatility (Multi-format Signal Support)
The LMD-2451MD monitor can accept almost any signal ranging from SD to HD video, as well as PC signals via its DVI-D or HD15 connectors. Sony has set up three different subtypes of this monitor. So the user can choose between an additional HD-SDI input, DVI IN and OUT or the fast 3G HD-SDI- board. This flexibility allows images from a variety of medical equipment sources to be displayed. The LMD-2451MD also provides parallel and serial control (including via Ethernet) as standard.
Gamma Curve Selection
Users can choose from two gamma curves, DICOM or CRT 2.2, whichever is more appropriate for the image being monitored.
Multiple Display Modes
This monitor incorporates multiple display modes (also known as 'Picture-and-Picture' including picture-out-picture and side-by-side split screen. They enable zooming so that displayed images fill the viewing area. These flexible display modes are convenient when viewing both live video and captured images simultaneously.
Mirror Image
This monitor can reproduce a full-screen sized, reverse image. This function is convenient when, for example, two display monitors are used with one assigned to the surgeon and the other assigned to the surgeon's assistant, allowing more convenient camera operation by the assistant.
Protected Controls
The key-inhibit function helps prevent inadvertent operation from the control panel.
Compliance with medical standards
This product is distributed to the US and EU as a medical device and satisfies product safety standards (e.g. IEC 60601-1). For more details, please contact your nearest Sony sales office or an authorized dealer.

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Specifications

Picture Performance	
LCD Panel Type	a-Si TFT Active Matrix
Resolution	WUXGA (1920 X 1200)
Effective Picture Size (W x H)	Approx. 518 x 324 mm (20 1/2 x 12 7/8 inches) Diagonal 609 mm (24 inches)
Aspect	16:10
Colors	Approx. 16,770,000 colors
Viewing Angle	89°/89°/89°/89° (typical) (up/down/left/right contrast > 10:1)
Input/Output	
Input	Composite BNC (x 1), 1.0 Vp-p ±3dB, sync negative Y/C 4pin Mini DIN (x 1) Y: 1.0 Vp-p ±3dB, sync negative C: 0.286 Vp-p ±3dB (NTSC), 0.3 Vp-p ±3dB (PAL) Component/RGB BNC (x 3) Component: 0.7 Vp-p ±3dB (75% chrominance standard color bar signal) RGB: 0.7 Vp-p ±3dB (Sync On Green, 0.3 Vp-p, sync negative) Ext. Sync BNC (x 1) 0.3 to 4.0 Vp-p ±bipolarity ternary or negative polarity binary Computer DVI-D (x 1): TMDS single link HD15 D-sub 15pin (x 1) 0.7 Vp-p, sync positive (Sync On Green, 0.3 Vp-p, sync negative) Sync: TTL level (polarity free, H/V separate sync) Plug & Play function: corresponds to DDC-2B Optional 1 slot Signal format: H 15 to 45 kHz, V 48 to 60 Hz DC IN DC 5 V/24 V (output impedance 0.05Ω or less)
Remote	Parallel Modular 8-pin (x 1) Serial D-sub 9-pin (RS-232C) (x 1) RJ-45 modular (ETHERNET) (x 1) Composite BNC (x 1), Loop-through, 75Ω automatic termination

Output	Y/C 4-pin mini-DIN (x 1), Loop-through, 75Ω automatic termination
	Component/RGB BNC (x 3), Loop-through, 75Ω automatic termination
	Ext. Sync BNC (x 1), Loop-through, 75Ω automatic termination
General	
Power Consumption	Maximum: Approx. 115 W (with 2 x BKM-229X)
Power Requirements	AC 100 to 240 V, 50/60 Hz, 1.2~0.6 A, DC 24 V 3.5 A, 5 V 0.030 A
Operating Temperature	0 to 35 °C (32 to 95 °F), Recommended: 20 to 30 °C (68 to 86 °F)
Operating Humidity	30 to 85 % (no condensation)
Storage & Transport Temperature	-20 to 60 °C (-4 to 140 °F)
Storage & Transport Humidity	0 to 90 % (no condensation)
Operating, Storage, and Transport Pressure	700 to 1060 hPa
Dimensions (W x H x D)	Approx. 602 x 386 x 110 mm (23 3/4 x 15 1/4 x 4 3/8 inches) (including projections)
Mass	Approx.8.5 Kg (18lb 12oz) (with BKM-243HS pre-installed)
Supplied Accessories	
AC adaptor	
AC power cord	
AC plug holder	
Instructions for Use	
CD-ROM (Operating instructions)	
Using the CD-ROM manual	
Quick reference	
When You First Use The Monitor booklet	
Sales company guide	
Warranty card	

Related products

BKM-250TGM

3G/HD/SD-SDI Input Adaptor

MCC-500MD

Full HD surgical video camera with Exmor™ CMOS sensor.

BKM-243HSM

HDSDI/4:2:2 SDI Input Adaptor

Gallery