

## LMD-X310MD

31-inch 4K 2D LCD medical monitor



### Overview

#### View surgical images with the detail, clarity and colour of 4K

This 31-inch medical grade LCD monitor can display very high quality two-dimensional colour video images with 4K resolution from a wide range of medical imaging systems such as surgical endoscopes and laparoscopic camera systems. Its ergonomic design is optimised for environments such as Operating Rooms, surgical centres, clinics and doctors' offices.

Offering four times the pixel count of Full HD, the LMD-X310MD provides a clearer view of fine details than conventional medical monitors. Its increased resolution also maintains picture quality when viewing zoomed images, as well as supporting multiple picture display modes for enhanced operability in the OR.

The OptiContrast Panel™ ensures clear, high contrast images by controlling light reflections and dispersion within the LCD panel. The monitor's advanced new panel design is teamed with powerful Sony digital signal processing to provide a wider colour gamut than ordinary LCD medical monitors.

Advanced Image Multiple Enhancer (A.I.M.E.™) technology can be used to accentuate subtle colour differences or highlight the outline structure of displayed objects.

The LMD-X310MD features a slim, stylish design to allow easy handling, with a narrow bezel that maximises the compact monitor's screen area. Flat surfaces make disinfection simpler in modern clinical environments.

Simple installation and set-up is complemented by a user-friendly control panel for positive, intuitive operation in the OR.

**Note:** 4K medical monitors are available in 31-inch and 55-inch sizes. At 31-inches, this screen is the largest size that will fit an endoscopy system (trolley) to provide a full 4K medium-sized panel. At 55-inches, this screen provides the ideal viewing distance when mounted in an operating theatre when installed facing the bed.

## Features

- **4K Ultra HD resolution**

The LMD-X310MD can display 4K images with four times the detail of Full HD.

- **High brightness anti-reflective OptiContrast Panel™**

The 31-inch (789mm) OptiContrast Panel™ features an advanced design that controls incident light reflections and dispersion within the LCD panel layer for improved contrast and visibility. It also helps prevent dew condensation within the panel.

- **Wider colour gamut**

The advanced panel design and Sony signal processing ensure a wider colour gamut - as much as 43% greater than the BT.709 colour space.

- **A.I.M.E.™ (Advanced Image Multiple Enhancer)**

This unique technology has been developed to enhance the visibility of displayed shapes and colours. Structure Enhancement mode accentuates the outline of on-screen objects, while Colour Enhancement mode helps clarify subtle tonal differences between objects.

- **Ergonomic easy-grip design**

The monitor's slim, compact, easy to hold design facilitates simple user adjustment of monitor position.

- **Smaller bezel, larger screen**

The narrow bezel maximises screen size of this compact, space-saving monitor.

- **User friendly Control Panel**

Operation is simplified by the monitor's intuitive, easy to use control panel. LED backlighting only highlights active control buttons, guiding the user and reducing the risk of inadvertent operation, especially in dark environments. Custom buttons can be assigned to commonly used functions.

- **Easy clean design**

Flat surfaces simplify wiping off liquids and gels from the LCD panel and control buttons, supporting more effective cleanliness and disinfection.

- **Choice of display formats**

A variety of display formats including Rotation Image, Side-by-Side, Picture-in-Picture (PIP) and Picture-out-Picture (POP) can be selected quickly and easily from the menu.

- **Installation friendly cabling**

All signal connectors face downwards, allowing easy and organised cable connection to other equipment in the OR.

- **Compliance with medical standards**

The monitor is certified to IEC 60601-1 and applicable standards in respective countries or economic regions including Canada, Europe and the USA. For more details on compliance issues, please contact your nearest Sony office or an authorised dealer.

## Technical Specifications

Picture Performance	
● Panel	a-Si TFT Active Matrix LCD
● Picture Size (Diagonal)	789.06 mm (31 1/8 inches)
● Effective Picture Size (H x V)	698.0 x 368.1 mm (27 1/2 x 14 1/2 inches)
● Pixel pitch	0.1704 x 0.1704 mm
● Resolution (H x V)	4096 x 2160 pixels
● Aspect	17:9
● Pixel Efficiency	0.9999
● Backlight	LED
● Panel Technology	LCD with IPS
● Luminance (Panel Specification)	770 cd/m2 (typical)
● Contrast Ratio	1450:1
● Colors	Approx. 1.073 billion colors
● Viewing Angle (Panel Specification)	89°/89°/89°/89° (typical)
● Gamma	1.8, 2.0, 2.2, 2.4, 2.6, DICOM, Highlight
● HDMI Input	HDMI (x1) (HDCP 1.4 correspondence)
● DVI-D Input	DVI-D (x1) (HDCP 1.4 correspondence) TMDS single link
● SDI Input	BNC (x5) 3G/HD/SD-SDI
● Serial Remote (LAN)	D-sub 9-pin (RS-232C) (x1), RJ-45 (x1) (Ethernet, 10BASE-T/100BASE-TX)
● DC Input	XLR-type 3-pin (male) (x1), 26 V DC (output impedance 0.005 ohms or less)
● DVI-D Output	DVI-D (x1) when HDCP disabling
● SDI Output	BNC (x5)
● DC 5V/12V Output	5 V Output(x1), 8 W 12 V Output (x1) 20 W max

  

General	
● Power Requirements	LCD monitor - DC Input: 26 V, 6.9 A AC adaptor(AC-300MD): 245 (W) x 150 (L) x 58 (H) mm AC adaptor's AC IN: 100 V - 240 V, 50/60 Hz, 2.0A - 0.8 A
● Power Consumption	LCD Monitor: Approx. 180 W (max.)
● Operating Temperature	0°C to 40°C (Recommended: 20°C to 30°C) 32°F to 104°F (Recommended: 68°F to 86°F)
● Operating Humidity	30% to 85% (no condensation)
● Storage/Transport Temperature	-20°C to +60°C (-4°F to +140°F)
● Storage/Transport Humidity	0% to 90%

● Operating/Storage/Transport Pressure	700 hPa to 1060 hPa
● Dimensions (W x H x D) *1	753.8 x 456.4 x 69.3 mm (Slimmest D 28mm) (29 3/4 x 18 x 2 3/4 inches)
● Mass	Approx. 11.8 kg (Approx. 26lb 0.23oz)
● Mounting	100 x 100 mm VESA 100 x 200 mm VESA
● Supplied Accessories	AC adaptor : AC-300MD (1) AC power cord (1) Instructions for Use (CD-ROM) (1) Abridged edition of Instructions for Use (1) AC power plug holder(2) Instructions for Use of the AC adaptor (1) Service Contact List (1) Warranty book (JP only) (1) M4x12mm Screw(4)

## Notes

- \*1 The values for dimensions are approximate.