SONY

LMD-A240

24-inch cost-effective, lightweight Full HD high grade LCD monitor for studio and field use





Overview

Lightweight and slim WUXGA (1920 x 1200) LMD-A Series monitor with an excellent cost-performance ratio.
The LMD-A240 24-inch LMD-A Series LCD monitor offers WUXGA resolution, along with a lightweight and compact design. There is more than a 12% to 22% reduction in mass, 30% reduction in depth, and more than 25% reduction in power consumption, compared to Sony's previous models. The LMD-A Series offers the same user-interface design, convenient features, functions and operability as PVM-A Series OLED picture monitors. This consistency between the PVM-A and LMD-A Series brings great user benefits when both types of monitor are used in the same network. Furthermore, LMD-A Series monitors provide versatility for a wide range of user applications both in the studio and in the field. These include DC operation, VESA mount and yoke-mount holes. In addition, the latest camera-linkage functions, such as camera and lens metadata display and a Picture and Picture function, provide the convenience of working efficiency both in the field and in the post process.

- **Stylish lightweight and slim body with industry's widest viewing angle**

  Robust double-coated paint finish and stylish sharp edges chassis. Perfect for group monitoring. More than a 12% to 22% reduction in mass, 30% reduction in depth, and more than 25% reduction in power consumption, compared to Sony's previous models. It provides cost savings for transportation and power consumption. It also saves space and weight in digital galleries.

- **Latest camera-linkage functions**

  Includes camera and lens metadata display and a Picture and Picture function with side by side, wipe, blending, difference and auto input switching. Ideal for OnSet and live production monitoring.

- **User presets and password protection**

  Secure your monitor settings for greater peace of mind. Five user presets are available. One colour temperature memory USER1 can also be password protected.

- **2K format display and Dual-Link HD-SDI mode**

  This feature offers a cost effective 2K monitoring solution, ideal for OnSet digital cinematography. In addition, a Dual-link HD-SDI input is available.

- **Multiple monitors firmware upgrade utility**

  Save you time to upgrade simultaneously your monitors through your network.

Features

- **Lightweight and compact with lower power consumption**

  The LMD-A series monitors offer a design that is uniquely light and compact. Their weight is reduced by 12% to 22%, and depth by more than 30%, compared with predecessor models. Power consumption for these models is reduced by more than 25%. Users appreciate these convenient, cost-saving qualities.

- **Optimised low-latency I/P conversion**

  The I/P conversion system delivers automatically optimised signal processing according to input signals with low-latency (less than 0.5 field). This system helps users to edit and monitor for a live production.

- **Video input versatility**

  The LMD-A240 monitor is equipped with built-in standard input interfaces: 3G/HD/SD-SDI (x2), HDMI (HDCP) input (x1) and composite (x1).

- **Computer input versatility**

  Multiple computer signals can be received via an HDMI/DVI interface; the resolution range is from 640 x 480 to 1920 x 1200 pixels.

- **In-Monitor Display (IMD) function**

  With an external remote function via Ethernet, image source names and tally information can be displayed on screen. LMD-A Series monitors support the TSL system protocol. The IMD system can display European language text including umlaut and accent marks.

- **Waveform monitor, vector scope and audio level meter display**

  An input signal's waveform and vector scope with an SDI-embedded 2-channel audio level meter can be displayed on screen. Both the waveform monitor and vector scope have various modes, including a zoom function (in an area of 0 to 20 IRE) with the waveform monitor, and a zoom function (in the central black area) with the vector scope, for adjusting white balance. The waveform of a specified line can also be displayed. In conjunction with the Picture & Picture function*, the waveform monitor and vector scope display can monitor two camera signals. In addition, an audio level meter can display the embedded audio signal from the SDI or HDMI input. It can display on screen the ch1 to ch8 or ch9 to ch16.

  *Supported with V1.1

- **Yoke-mount and VESA-mount capability**

  The monitor includes screw holes on its side bezels for yoke mounting. This type of mounting is convenient when installing a monitor to a camera crane or monitor stand. There are also VESA-mount 100-mm pitch holes on each monitor's rear panel. The optional SU-561 monitor stand (available separately) providing height and tilt function is also available for this model.

- **User-friendly operability and user interface**

  The monitor has a number of additional features, including: Time Code display (LTC/VITC-supported); safety area markers, closed caption display (EIA/CEA-608 and EIA/CEA-708, SDI only), 8-channel audio level meter display, computer signal input capability via HDMI input and external remote control function.

- **Consistent design with PVM-A Series monitors**

  LMD-A Series monitors offer the same functions and operability as PVM-A Series monitors and share a consistent front control panel design. This means that both types of monitor can be operated and controlled in the same way.

- **Camera focus function**

  The LMD-A240 monitor can control the aperture level of a video signal, and display images on the screen with sharpened edges to help camera focus operation. Further to this, the sharpened edges can be displayed in user-selectable colours (white, red, green, blue, and yellow) for more precise focusing.

- **Time code function**

  LTC and VITC time code can be displayed at the top or bottom of the picture.

- **On screen Tally**

  The monitor is equipped with a three colours red, green and yellow On-screen Tally function.

- **Network control function**

  The LMD-A240 has the network control function that allows you to upgrade the monitor software by Ethernet very easily. The network capability will also be utilised for a central control of multiple units in a system environment.

- **Auto white adjustment***

  The LMD-A240 monitor employs a software-based colour temperature (white balance) calibration function, which is called Monitor_AutoWhiteAdjustment. Combined with a PC and commercially available calibration tools*, this function enables simple adjustment of the monitor's white balance.

  * The Konica Minolta CA-210/CA-310/CS-200, DK-Technologies PM5639/06, X-Rite i1 Pro/i1 Pro2, Photo Research PR-655/670, Klein K-10, and JETI specbos 1211.

  *Supported with V1.1

- **Picture & Picture function***

  The unique Picture & Picture function of the LMD-A240 allows simultaneous display of two input signals on the monitor's screen. This function helps with colour adjustment and setting of camera frames. Various modes are available: side by side, wipe, blending, difference and auto input switching. This function works when synchronous SDI signals are input.

  * Supported with V1.1

- **2K (2048 x 1080) input and image-slide***

  The LMD-A240 monitor can display 2K (2048 x 1080 resolution) input. The 2K signal is displayed in two ways – as a full 2K image scaled into a full-HD (1920 x 1080) screen, or as a 2K native display with an image-slide function.

  Supported with V1.1

- **Camera/lens metadata display function and on-screen tally***

  The LMD-A240 monitor can display the camera and lens metadata set of a camera system, according to the SMPTE RDD-18 document for Acquisition Metadata Sets for Video Camera Parameters. Further to this, these monitors also support a subset of Sony's private metadata.** The monitor is also equipped with a three-colours red, green and yellow on-screen tally function. The position of the tally display can be changed to either the upper or lower section of the screen.

  * Supported with V1.1

  * Not all metadata is supported.

- **Anamorphic image conversion and Active Format Description (AFD) functions***

  The monitor's anamorphic image conversion function** correctly displays horizontally squeezed 3G/HD-SDI signals from an onset camera system. The signals include two major systems: 16:9 1920 x 1080 (1280 x 720) signals and 17:9 2048 x 1080 signals. These signals can be appropriately displayed on the monitor's screen. The Active Format Description (AFD) function*** also reads the ancillary data flag on an SDI, and can upconvert the SD image to display automatically on the full HD resolution screen. This is achieved by adjusting the resolution and aspect ratio.< br>
  * Supported with V1.1

  ** Only 3G/HD-SDI and dual-link HD-SDI are supported.

  *** Only SD-SDI signals are supported.

- **Grid Display, two Center Markers and Flip functions***

  Grid Display function displays arbitrary multiple vertical and horizontal lines to help when users check the composition of a picture. In addition to a standard Center Marker 1, Center Marker 2 is also available. This second marker enables easier checking of the centre portion's focus. The Flip function turns the reversed image to a normal view, horizontally or vertically.

  * Supported with V1.1

- **Power-on setting, DC Low Power indicator and USB 2.0 for power supply (+5 V, 500 mA)***

  Power-on setting allows users to make choice when the monitor starts up; this includes last memory, user preset, and factory preset settings. So, users can set the monitor accurately and quickly. This function is very useful for rental equipment. DC power supply is available in the range of 12V to 17V. The power indicator blinks when the DC power supply is low. In addition, the USB 2.0 port can supply 5 V power to third-party devices.

  * Supported with V1.1

- **User Presets with password lock and short-cut to function key configuration***

  When multiple users share the same monitor, each user can memorize his/her setting data and retrieve this data whenever required. This frees the user from time consuming and repetitive setting tasks. When multiple users share the same monitor, each user can register his/her own password for colour temperature and user preset data. This ensures the user correctly recalls previous user preset data, and keeps preset information safe from unauthorised use. For improving speed of the function key configuration, the user can take a short-cut to the settings menu screen by simply pressing the function key repeatedly.

  * Supported with V1.1

- **Multiple monitors upgrade utility***

  Multiple PVM-A and LMD-A Series monitors on the same Ethernet network can be upgraded by simple operation providing an efficient solution for large infrastructure.

  * Supported with V1.1

Technical Specifications

Picture Performance	
Panel	a-Si TFT Active Matrix LCD
Picture Size (Diagonal)	mm 24 inches
Effective Picture Size (H x V)	518.4 x 324.0 mm 20 1/2 x 12 7/8 inches
Resolution (H x V)	1920 x 1200 pixels (WUXGA)
Aspect	16:10
Pixel Efficiency	99.99%
Colors	Approx.16.7 million colors
Normal Scan	0% scan

Input	
Composite Input	BNC (x1), 1 Vp-p ±3dB, sync negative
SDI Input	BNC (x2)
HDMI Input	HDMI (x1) (HDCP correspondence)
Audio Input	Stereo mini jack (x1), -5 dBu 47 kΩ or higher
Parallel Remote	RJ-45 Modular connector 8-pin (x1) (Pin-assignable)
Serial Remote (LAN)	RJ-45 (x1) (Ethernet, 10BASE-T/100BASE-TX)
DC Input	XLR-type 4-pin (male) (x1), DC 12 V to 17 V (output impedance 0.05 Ω or less)

Output	
Composite Output	BNC (x1), Loop-through, with 75 Ω automatic terminal function
SDI Output	BNC (x2), output signal amplitude: 800 mVp-p ±10%, output impedance: 75 Ω unbalanced
Audio Monitor Output	Stereo mini jack (x1)
Speaker (Built-in) Output	1.0 W (Monaural)
Headphone Output	Stereo mini jack (x1)

General	
Power Requirements	100 V to 240 V AC, 0.5 A to 0.2 A, 50/60 Hz DC 12 V to 17 V, 3.6 A to 2.6 A
Power Consumption	Approx. 51 W (max.) Approx. 45 W (average power consumption in the default sattus)
Inrush Current	(1) Maximum possible inrush current at initial switch-on (Voltage changes caused by manual switching): 58 A peak, 0.3 A r.m.s. (240V AC) (2) Inrush current after a mains interruption of five seconds (Voltage changes caused at zero-crossing): 46 A peak, 0.2 A r.m.s. (240V AC)
Operating Temperature	0°C to 35°C (Recommended: 20°C to 30°C) 32°F to 95°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	566.6 x 397.8 x 64.4 mm (without monitor feet) 566.6 x 420.3 x 165.0 mm (with monitor feet) 22 3/8 x 15 3/4 x 2 5/8 inches (without monitor feet) 22 3/8 x 16 5/8 x 6 1/2 inches (with monitor feet)
Mass	Approx. 7.6 kg (with monitor feet) Approx. 16 lb 12 oz (with monitor feet) Approx. kg (without monitor feet) Approx. lb oz (without monitor feet)
Supplied Accessories	AC power cord (1) AC plug holder (1) Before Using This Unit (1) CD-ROM (1)
Optional Accessories	SU-561 Monitor Stand

Notes	
Note	*1 The values for dimensions are approximate.

Accessories

Control Units



BKM-16R

Monitor Control Unit

Other



SU-561

Monitor Stand

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