



LMD-2451W

24-inch High Grade Multi Format LCD Monitor

The new LMD-2451W is a 24-inch widescreen LCD monitor designed for demanding broadcast and professional applications.

Redefining high performance in the mid-market sector, the new model incorporates a full HD resolution 1920x1200 WUXGA LCD panel, displaying high brightness and contrast images together with a superior viewing angle of 178 degrees. The LMD-2451W offers highly accurate and consistent colour reproduction through its unique Sony ChromaTRU technology. This allows assured picture quality decisions as well as facilitating close colour matching for tiling applications.

The LMD-2451W inherits the technology and features of the LMD-2450W. It also includes the latest generation of LCD panel which provides improved colour accuracy and viewing angle.

Full digital 10-bit processing adds to the already impressive array of specifications, delivering smooth greyscale and colour transitions.

The LMD-2451W accepts a 3G SDI input interface to display 1080p format for future proof capability.

A DVI-D input is available enabling a third-party manufacturer's multi-image processor to be connected. The Quad Split board developed by Harris can be inserted in the modular slot structure of the monitor saving space in confined environments.

It has a new on-screen video waveform and audio level meter combined together plus a picture-in-picture mode for greater user flexibility.

An automatic lip sync control is implemented to keep the sound synchronised with the video.

An Ethernet connector is available to control monitors remotely in a wall configuration.

Entirely at home in broadcast, OB, production, post-production and corporate environments, the LMD-2451W accepts a wide variety of PC and analogue video formats and optional decoder boards are available for standard and high definition digital video display.

Caractéristiques

New High Definition 1920x1200 WUXGA LCD Panel

Delivers outstandingly crisp, high brightness and high contrast images

Extremely wide Viewing Angle

Class-leading horizontal and vertical viewing angle - ideal for group viewing.

High Purity Colour Filters

The LMD-2451W uses precisely manufactured RGB colour filters, allowing the reproduction of colours with stunning depth and saturation to create highly natural images.

Colour Temperature

Colour temperatures of 9300k, 6500k, or a user preset value can be selected.

Accurate and Repeatable Colour Reproduction

ChromaTRU technology ensures close CRT colour accuracy and gamma matching throughout the product's life and delivers consistent colour temperature across the entire greyscale range. Both

control characteristics also assure extremely tight colour matching between different model samples.

Three settings are available to simulate EBU, SMPTE and ITU-709 colour reproduction.

10-bit Picture Processing

Delivers smooth colour and greyscale transitions for high quality video production.

Sophisticated I/P Conversion

The LMD-2451W monitor uses a motion-adaptive I/P-conversion process to achieve conversion results that are optimized to the picture content - whether it is static or dynamic. Highly accurate I/P conversion is provided regardless of signal resolution, for example, whether the input is HD or SD.

Multi-Format Signal Support - up to 3G SDI Input

LMD-2451W can accept almost any SD or HD video format, both analogue and digital.

Includes NTSC, PAL, component, RGB, Y/C, 480/60i, 575/50i, 480/60p, 576/50p, 1080/50i, 1080/60i, 1080/50p, 1080/60p, 720/50p, 720/60p, 1080/24psf, 1080/25psf, 1080/24p, 1080/25p, 1080/30p and PC signals from VGA to WUXGA.

3G SDI Input

The LMD-2451W has a 3G SDI input capability. On Sony's monitors, the 3G SDI interface is compliant with the SMPTE 425 standard, transmitting up to 4:2:2/10-bit 1080/60P video data using one SDI cable. This single-link system is known as a SD-SDI or HD-SDI system, but it can also handle both Dual-Link HD-SDI and 3G SDI video data with the use of Sony's 3G SDI interface. This 3G SDI interface enables LMD-2451W monitor to accept 50P and 60P video data. Where an upgrade to a Dual-Link HD-SDI system is necessary, this single-link 3G SDI system is also the ideal alternative.

Computer Input Frequencies

The LMD-2451W monitor is factory preset to accept 32 typical computer input signal frequencies.

Signal Interface Options

The monitor can accept up to two optional video boards for additional video analogue or digital inputs (HD/SD SDI). Note that the new LMD-2451W is compatible with current decoder boards.

Quad Split functionality

Harris QS-100HD board has been designed to fit inside the LMD-2451W for space saving. It provides ultimate quad images with many functions associated.

New Video Waveform and Audio Level Meter

A combined video waveform and Audio Level Meter is available on the On-screen display of the monitor.

Picture-In-Picture mode

Side by side or Picture-in-Picture (PiP) mode allows users to check two images on the same screen. Combination of video and computer images side by side is also available.

Selectable Scan Size and Aspect Ratio

Over-scan and Normal-scan as well as full scan is available, and aspect ratio can be switched between 16:9 and 4:3.

Multiple-Language On-Screen Display

English, French, Spanish, German, Italian, Japanese and Chinese.

Advanced Video Markers

The LMD-2451W monitor can display various area markers, including a center marker, aspect markers, and a safety zone marker. These flexible marker controls, together with the choice of many different aspect markers, make the LMD-2451W monitor extremely convenient display devices for a variety of shooting scenarios - from standard video acquisition to digital cinematography.

Three Colour Tally

The LMD-2451W comes equipped with a tally lamp that can be lit via a parallel remote connector. The status of the signal displayed on the monitor can be identified by the tally colour - red, green, or amber.

Selectable Scan Size for Video Input and Aspect Ratio

The scan size can be selected between 5% over scan and 0% scan modes. The aspect ratio can be switched between 16:9 and 4:3 according to the input signal.

Smart APA (Auto Pixel Alignment) for Computer Input

The image size can be automatically adjusted to its optimal setting with the one-touch APA key

Remote Control Options

Three connection methods are available -, parallel 8-pin, serial RJ45 Ethernet and serial RS232C links. The parallel connection allows up to 38 functions to be remotely controlled.

Centralised Monitor-Wall Control

Via the serial RJ45 Ethernet connector using the BKM-16R control unit.

Stereo Audio Monitoring

The LMD-2451W is equipped with stereo speakers. Up to 16 embedded digital audio channels can be decoded and routed to the speakers. Analogue audio inputs are also catered for.

Smart Function Key Lighting

The key lighting contributes to the elegant design and enhances user functionality. And to increase flexibility, the lighting can be switched off to eliminate any visual disturbance when multiple displays are employed for tiling purposes.

Protected Controls

A key-inhibit switch prevents inadvertent operation from the control panel.

VESA Mounting Standard

Table, wall or ceiling mounting

Avantages

Suitable for a Wide Range of Applications

Ideal for BROADCAST (studio, office viewing, control room etc.), PRODUCTION (OB, monitor wall, VTR control, audio monitoring etc.), POST-PRODUCTION (mid-range multi-format editing consoles), CORPORATE (high-end multi-format use) and GRAPHIC DESIGN

Superb High Definition Display

Full HD 1920x1200 LCD panel delivers outstandingly sharp high brightness and contrast pictures

Perfect for Group Viewing

An ultra-wide viewing angle of 178 degrees makes this no problem

Lifelike picture quality

Outstanding greyscale and colour transitions provide lifelike picture quality thanks to full digital 10-bit processing.

Colour Quality Decisions can be made with Confidence

Enhanced colour gamut and innovative Sony ChromaTRU technology ensure consistent and repeatable colour to ITU-709, SMPTE and EBU standards and from monitor to monitor.

Consistently Optimal Picture Performance

Less 'drift' than CRT displays, with no convergence, geometry or linearity issues, and no susceptibility to magnetic fields.

Ideal for 'Tiling' Applications

Consistent and repeatable chroma and greyscale performance ensures close matching between monitors. Lighting function keys contribute to an elegant design ideally suited for display wall.

Productivity Boost

With new picture-in-picture and on-screen Video waveform and audio level meter.

Exceptionally Versatile

Equally suited to AV or IT-based applications due to a broad range of inputs and multi-format signal capabilities.

Future Proof

Multi-format and HD capability plus optional decoder boards will ensure that the LMD-2451W remains current.

Indoor or Outdoor Operation

Can be powered by AC or DC power supplies.

Easier to Install and Accommodate than CRT

Space saving / lightweight / low heat output - and ideal for OB or mobile applications

Air Conditioning Requirements lower than with CRT

LCD monitors generate less heat.

Low Maintenance

No routine convergence, geometry or linearity adjustments necessary. No susceptibility to magnetic fields.

Reduced Operator Fatigue

Flicker-free picture is more comfortable to view and reduces eye-strain.

Lower Total Cost of Ownership than CRT

- Simpler and cheaper to install, transport and store.
- Long operational life / high reliability.
- Low energy bills.
- Low maintenance cost.
- Reduced environmental disposal costs.

Spécifications techniques**--Picture Performance--**

Type	A-Si TFT Active Matrix LCD
Resolution	1920 x1200 pixels (WUXGA)
Picture Size (H x W) (Viewable area) (Diagonal)	Approx. 518.4 x 324.0 mm (Approx. 20 1/2 x 12 1/8 inches) Approx. 613.2 mm (24.1 inches)
Aspect	16:10
Colours	Approx. 16.7 million colours
Viewing Angle	89°/89°/89°/89° (typical) (up/down/left/right contrast>10:1)

--Input--

Standard	<p>Composite BNC x 1, 1.0 Vp-p ±3dB sync negative</p> <p>Y/C 4pin Mini DIN x 1 Y: 1.0 Vp-p ± 3dB sync negative C: 0.286 Vp-p ± 3dB (NTSC burst signal level), 0.3 Vp-p ± 3dB (PAL burst signal level)</p> <p>RGB, Component BNC x 3 RGB : 0.7 Vp-p ± 3dB (Sync On Green, 0.3 Vp-p sync negative) Component : 0.7 Vp-p ± 3dB (75% chrominance standard color bar signal)</p> <p>External Sync BNC x 1 0.3 to 4.0 Vp-p ± bipolarity ternary or negative polarity binary</p> <p>Audio RCA phono pin x 2 (L, R) -5 dBu 47 k ohms or higher</p> <p>HD15 D-sub 15 pin x 1 R/G/B: 0.7 Vp-p sync positive (Sync On Green, 0.3 Vp-p sync negative) Sync : Total level (polarity free, H/V separate and composite sync) Plug & Play function : corresponds to DDC-2B</p> <p>DVI-D TMDS signal link (fV: 50.0 to 85.1 Hz, fH:31.5 to 77.0 kHz, Dot Clock:25.175 - 162.000 MHz)</p> <p>Parallel remote Modular connector 8 pin x 1 (pin assignment at users' allocation)</p>
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Optional	Serial remote (LAN) D-sub 9-pin (RS232C) x 1 RJ-45 modular connector (ETHERNET) x 1 (10BASE-T/100BASE-TX)
	DC in XLR type 4pin x 1 DC24V (output impedance 0.005 ohms or less) Option input slot 2 slots (for HD-SDI, SDI capability and extra analogue I/O's)

--Output--

Standard	Composite BNC x 1, Loop-through, with 75 ohms automatic termination
	Y/C 4pin mini DIN x 1 Loop-through, with 75 ohms automatic termination
	RGB, Component BNC x 3, Loop-through, with with 75 ohms automatic termination
	External Sync BNC x 1, Loop-through, with 75 ohms automatic termination
	Audio monitor out RCA phono pin type x 2 (L, R)
	Speaker (Built-in) 1.0 W + 1.0 W (stereo)

--General--

Power Requirement	AC100 V to 240 V 50/60 Hz 0.6 A to 1.1 A, DC2 4V 4.6 A
Power Consumption	Maximum Approx. 130 W (with 2 x BKM-229X)
Operating Temperature	0 to 35°C (recommended operation temperature 20 to 30°C)
Operating Humidity	30 to 85% (No condensation)
Storage & Transport Temperature	-20 to 60°C
Storage & Transport Humidity	0 to 90%
Operating/Storage/Trans. Pressure	700 to 1060 hPa
Dimensions (W x H x D)	Dimensions 602.4 x 497.9 x 269.9 mm (23 3/4 x 19 5/8 x 10 3/4 inches)
Display Stand (W x H x D)	Dimensions without stand 602.4 x 386.2 x 110.0 mm (23 3/4 x 15 1/4 x 4 3/8 inches)
Mass	320.0 x 361.5 x 269.9 mm (12 5/8 x 14 1/4 x 10 3/4 inches) With two option boards Approx. 11.4 kg (25 lb 2 oz) with BKM-229X x 2 Without option boards Approx. 11.0 kg (24 lb 4 oz)

Accessoires**Moniteurs****BKM-220D**

Adaptateur d'entrée SDI 4:2:2

**BKM-243HS**

Adaptateur d'entrée HDSDI/4:2:2

Cartes en option**BKM-227W**

Adaptateur d'entrée NTSC / PAL
pour moniteurs LMD

**BKM-229X**

Adaptateur d'entrée composantes
analogiques pour moniteurs LMD

Unités de commande**BKM-16R**

Unité de contrôle du moniteur