SONY®

LMD-150S

Sony introduces the LMD-150S, a new 4:3 15-inch[1] LCD panel that enhances the exciting LUMA™ Series of two-piece LCD monitors.

The LMD-150S is used in combination with its associated signal-processing unit[2] (the Multiformat Engine Unit), accepting a variety of signal formats ranging from SD to HD video, analog and digital, as well as analog computer signals. The Multiformat Engine Unit incorporates Sony's advanced X-Algorithm[3] I/P conversion technology - the central element that enables the LMD-150S monitor to reproduce extremely smooth images.

The LMD-150S monitor uses a multi-layer AR coating, which protects the face panel from scratches and minimizes reflections from ambient light.

Combined with the Multiformat Engine Unit, the LMD-150S is the optimum choice for applications that mainly use Standard Definition today, but that will require HD monitoring in the future.

[1] Viewable area measured diagonally.
[2] The LMD-150S must be used with the supplied Multiformat Engine Unit.
[3] X-Algorithm is used for 480/60i and 575/50i signal input only.

The Monitor Stand is optional.

FEATURES

Excellent Picture Reproduction

By nature, LCD panels operate in progressive mode, so displaying an interlace signal can be a difficult task. However, with the Sony LMD-150S, this concern is a thing of the past. The X-Algorithm processing used in the Multiformat Engine Unit, intelligently converts interlaced signals to progressive signals, using a highly sophisticated algorithm. The result is extremely smooth diagonal picture edges, which can be technically difficult to reproduce on conventional LCD monitors.

Excellent Brightness and Contrast
(High Clarity Panel using Multi-Layer AR Coating)

Wide Viewing Angle of 170 degrees

Input Versatility

The Multiformat Engine Unit can accept the following SD or HD video formats:

• NTSC and PAL
• Component 480/60i and 575/50i
• Progressive 480/60p and 576/50p
• High definition 1080/50i, 1080/60i, 720/60p, 1080/24PsF, and 1080/25PsF

In addition, the analog composite and component interfaces are offered as standard. Digital interfaces such as HD-SDI, SD-SDI, and DV are offered as optional boards.

Operational Convenience

The LMD-150S monitor provides the convenient features for which Sony professional monitors are renowned, including:

• Advanced marker settings
  (Aspect Marker, Center Marker, and Safety Area)
• Color temperature/gamma selection
• Blue-only mode
• Three-color tally
• Protected controls
• H/V delay function
• Stereo audio monitoring
• Selectable scan size for video input and aspect ratio
• Mounting flexibility (19-inch EIA standard rack mounting[4] and VESA 75 x 75 mm spacings)

[4] Requires the optional MB-524 mounting bracket.

OPTIONAL ACCESSORIES

BKM-220D	SDI 4:2:2 Input Adaptor
BKM-243HS	HD/SD-SDI Input Adaptor
BKM-255DV	DV Input Adaptor
SMF-600	Display IF Cable (10m)
SU-558	Monitor Stand
MB-524	Mounting Bracket

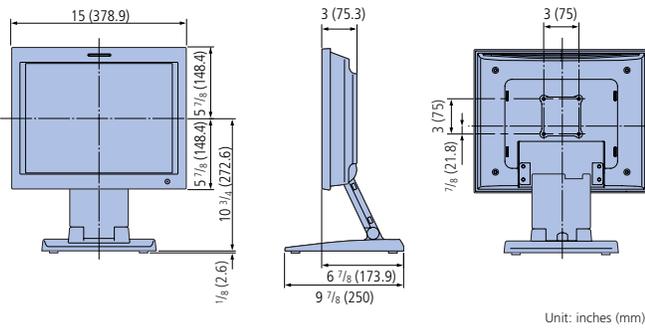# SPECIFICATIONS

LMD-150	
Picture Performance	
Type	a-Si TFT Active Matrix LCD with a multi-layer AR-coated protection panel
Resolution	1024 x 768 dots
Pixel Efficiency	99.99%
Dot Pitch	0.297 x 0.297 mm
Picture Size (H x W)	Approx. 12 x 9 inches (304 x 228 mm)
(Diagonal)	15-inch (380 mm)
Aspect	4:3
Colors	16,770,000 colours
Viewing Angle	85°/85°/85°/85° (typical) (up/down/left/right contrast>10:1)
Input	
Display Input Connector	

Digital Input			DVI-D
Dot Clock		25.175 MHz	65.000 MHz
Scanning Frequency	Horizontal	31.469 kHz	48.363 kHz
	Vertical	59.941 Hz	60.004 Hz

General	
Power Consumption	Approx. 35 W
Power Requirement	DC 16.5 V/12 V
Operating Temperature	32 to 95 °F (0 to 35 °C)
Operating Humidity	30 to 85% (no condensation)
Storage & Transport Temperature	14 to 104 °F (-10 to 40 °C)
Storage & Transport Humidity	0 to 90%
Operating/Storage/Trans. Pressure	700 to 1060 hPa
Dimensions (W x H x D)	15 x 11 ^{2}/$_3$ x 2 ^{3}/$_4$ inches*
	(379 x 297x 70 mm*)
Weight	Approx. 9 lb 11 oz (4.4 Kg)**
	Approx. 21 lb 3 oz (9.6 Kg)***
Supplied Accessories	Display interface cable, Warranty card, Operating instructions

* without the optional monitor stand and not including the projection parts
** without the optional SU-558 monitor stand.
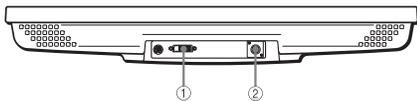*** with the optional SU-558 monitor stand.

DIMENSIONS

15 (378.9)
5 ^{7}/$_8$ (148.4)
5 ^{7}/$_8$ (148.4)
5 ^{7}/$_8$ (148.4)
10 ^{3}/$_4$ (272.6)
^{1}/$_8$ (2.6)
3 (75.3)
6 ^{7}/$_8$ (173.9)
9 ^{7}/$_8$ (250)
3 (75)
3 (75)
^{7}/$_8$ (21.8)

Unit: inches (mm)

Multiformat Engine Unit-WX1	
Input/Output	
Input	BNC, Loop through, automatic 75 Ω termination (x3)

	Composite	1.0 Vp-p ±3 dB, sync negative
	Y/C	S-Y: 1.0 Vp-p ±3 dB, sync negative
		S-C: 0.286 Vp-p ±3 dB (NTSC), 0.3 Vp-p ±3 dB (PAL)
	Component	Y, PB, PR: 0.7 Vp-p ±3 dB
	RGB	G: 0.7 Vp-p ±3 dB, Sync on G 0.3Vp-p
		B: 0.7 Vp-p ±3 dB
		R: 0.7 Vp-p ±3 dB
	Audio In	Stereo mini jack (x1)
	(for Video signals)	-5 dBu, more than 47 kΩ
	OPTION A-1	Option Slot (x1)
	OPTION A-2	
	OPTION B-1	Option Slot (x1)
	OPTION B-2	
	Ext. Sync	BNC, Loop-through, automatic 75 Ω termination
		0.3 to 4 Vp-p ±3 dB, sync negative,
		usable tri-level sync signal 0.6 Vp-p ±3 dB
	Computer	HD D-sub 15-pin (female) (x1)
		0.7 Vp-p, 75 Ω, positive (R,G,B)
	Audio In	Stereo mini jack (x1)
	(for computer signals)	-5 dBu, more than 47 kΩ
	DC IN*	XLR 4-pin (male) (x1), 12 V, output impedance 0.05 Ω or less
Output	
	Audio Monitor Out	Stereo mini jack (x1)
	Speaker Out	Stereo (0.5 W + 0.5 W)
	PARALLEL Remote	Modular 8-pin (Assignable)
	Display Signal Out	Exclusive connector (x1)
	Display DC Out	XLR 4-pin (female) (x1), DC 16.5 V (when AC power is supplied)
		DC 12 V (when DC power is supplied)

Video	
Horizontal Scanning Frequency	15 to 45 kHz
Frame Scanning Frequency	48 to 60 Hz

Computer	
Dot Clock	110 MHz
Horizontal Scanning Frequency	28 to 69 kHz
Vertical Scanning Frequency (frame)	60 to 85 Hz
Plug & Play	DDC-2B

General	
Power Consumption	Multiformat Engine Unit with LMD-150S: Approx. 58 W
	(without option boards)
	Multiformat Engine Unit only: Approx. 23 W (without option boards)
Power Requirement	AC 100 to 240 V±10%, 50/60 Hz, DC 12 V
Operating Temperature	32 to 95 °F (0 to 35 °C)
Operating Humidity	30 to 85% (no codensation)
Storage and Trans. Temperature	14 to 104 °F (-10 to 40 °C)
Storage & Transport Humidity	0 to 90%
Operating/Storage/Trans. Pressure	700 to 1060 hPa
Dimensions (W x H x D)	17 ^{1}/$_8$ x 1 ^{3}/$_4$ x 12 ^{1}/$_8$ inches
excluding protrusions	(434 x 44 x 305 mm)
Weight	Approx. 9 lb 15 oz (4.5 Kg)**
Supplied Accessories	AC cord, AC plug holder, Mounting bracket, Operating instructions,
	CD-ROM, Warranty card

*This connector is used to supply external DC power to the LMD-150S via the Multiformat Engine Unit.
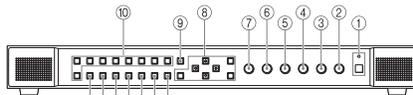**Excluding supplied accessories.

CONNECTOR PANEL

LMD-150S Front Connector
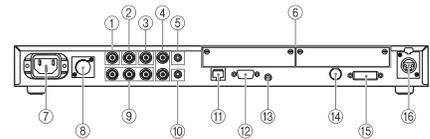

① DISPLAY SIGNAL IN
② DC IN jack

Multiformat Engine Unit Front Panel

① Power switch and indicator
② VOLUME
③ CONTRAST
④ PHASE
⑤ CHROMA
⑥ BRIGHT
⑦ APERTURE
⑧ Menu
⑨ EXT SYNC
⑩ Input select
⑪ APA (Auto Pixel Alignment)
⑫ SCAN
⑬ ASPECT
⑭ MARKER
⑮ BLUE ONLY
⑯ MONO
⑰ HV DELAY

Multiformat Engine Unit Rear Panel

① G/Y/COMPOSITE (BNC)
② B/Pb/S-Y (BNC)
③ R/Pr/S-C (BNC)
④ EXT SYNC IN/OUT (BNC)
⑤ AUDIO IN (stereo mini jack)
⑥ Optional input slot
⑦ AC IN
⑧ DC 12V IN (XLR)
⑨ Loop-through output (BNC)
⑩ AUDIO MONITOR OUT
    (stereo mini jack)
⑪ PARALLEL REMOTE
    (modular connector)
⑫ COMPUTER SIGNAL IN
    (D-sub 15 pin, female)
⑬ COMPUTER AUDIO
    (stereo mini jack)
⑭ Service terminal
⑮ DISPLAY SIGNAL OUT
⑯ DISPLAY DC OUT
    (XLR, female)

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