SONY

LMD-A180

18.4-inch lightweight Full HD
high grade LCD monitor for
studio and field use

Overview

Lightweight and slim Full HD (1920 x 1080) LMD-A Series monitor with an excellent cost-performance ratio

The LMD-A180 18.4-inch LMD-A Series LCD monitor offers Full HD resolution, along with a lightweight and compact design. The LMD-A180 offers the same user-interface design, convenient features, functions and operability among the LMD-A series. This consistency among the LMD-A180, LMD-A240 and LMD-A220 brings great user benefits when they 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, Wall mount and yoke-mount holes, and an optional protection kit (BKM-PL18). 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.
LMD-A180 expands and enhances the monitor's ability to support 4K production, shopping channels, field and graphics applications.
Sony continuously improves the LMD-A Series. The LMD-A180 achieves HDR capability and is able to answer the highest demands of HDR production.

Color consistency and HDR production features

Thanks to premium LCD technology, the color gamut is wide and same as the color gamut of BVM-HX3110, BVM-HX310, PVM-X3200, PVM-X2400, PVM-X1800 and LMD-A240. Colors of them on the screens are matched to each other.

The LMD-A180 is a cost-effective yet highly capable entry solution for HD HDR and 4K HDR production. The monitor supports EOTF of S-Log3(Live HDR) which allows for seamless integration into Sony HDR Live production workflow. While also supporting ITU-R BT.2100(HLG), LMD-A180 will also easily integrate with Sony camcorders to enable Instant HDR workflow.

SMPTE ST2084, S-Log3, S-Log2 and 2.4(HDR) are also supported for a variety of video productions.

4K production features

The LMD-A180 fulfils the demand for an affordable HD monitor in a 4K system. The unit supports the ITU-R BT.2020 colour space and accepts one of Quad-link 2SI 3G-SDI signals. To fully utilise its wide colour gamut, the monitor offers DCI-P3 and S-GAMUT/S-GAMUT3/S-GAMUT3.cine settings, with proper EOTFs such as 2.6 gamma, S-Log3 and S-Log2.

Features

Color consistency and High Dynamic Range
Thanks to Premium LCD technology, the color gamut is wide and same as the color gamut of BVM-HX3110, BVM-HX310, PVM-X3200, PVM-X2400, PVM-X1800 and LMD-A240. Colors of them on the screens are matched to each other. And the monitor supports ITU-R BT.2020, DCI-P3, S-GAMUT/S-GAMUT3/S-GAMUT3.cine, sRGB and Adobe RGB.
LMD-A180 supports EOTFs of ITU-R BT.2100(HLG)*, SMPTE ST2084, S-Log 3, S-Log3(Live HDR), S-Log2 and 2.4(HDR). When selecting one of the HDR EOTFs, the monitor automatically sets the backlight of its panel to the maximum luminance.
(With its wide colour gamut, the LMD-A180 displays colour reproduction that is close to that of Sony master monitors such

as BVM-HX310. This allows LMD-A180 to easily and smoothly integrate into HDR production workflows.)

*Refer to ITU-R BT.2100-2. System gamma only supports 1.2 and it applies to a Y signal.

Wide colour gamut*

Thanks to Premium LCD technology, The LMD-A180 supports ITU-R BT.2020, DCI-P3, S-Gamut/S-Gamut3, S-Gamut3.Cine, sRGB and Adobe RGB.

*The LMD-A180 does not cover colour gamut of ITU-R BT.2020, DCI-P3, S-Gamut/S-Gamut3, S-Gamut3.Cine and Adobe RGB in full.

Lightweight and compact with lower power consumption

The LMD-A180 offers a design that is uniquely light and compact. Power consumption of this model is relatively lower than the PVM-X1800 4K picture monitor. 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-A180 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 1680 x 1050

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.

False colour function

The monitor can display false colour according to the signal level from a camera. As the whole picture is changed, it is easy to see levels for over-exposure, under-exposure or appropriate exposure. You can adjust these levels and turn the scale* of false colour on and off, as required.

* False color scale itself only supports a 0.45 OETF signal.

Optional protection kit (BKM-PL18)

This accessory provides an AR-coated protection panel for the 17-inch monitor, along with corner bumpers to safeguard the

monitor from scratches and impact. The benefit of this is significant when renting out these monitors – for example, panel damage is reduced and there is a far lower incidence of panel replacement and downtime during rental cycles.

* Optional protection kit cannot be mounted together with the rack mount kit(MB-L18).

Yoke-mount and Wall-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 wall-mount 100 mm pitch holes on each monitor's rear panel.

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

The LMD-A180 offers the same user-interface design and operability among the LMD-A series and share a consistent front control panel design. This means that all the LMD-A monitors can be operated and controlled in the same way.

Camera focus function

The LMD-A180 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.

Line doubler mode for field dominance check and time code function

The LMD-A180 offers a line doubler mode, which is helpful when

checking for field order and line flicker. In addition, 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-A180 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-A180 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.

* Refer to the AutoWhiteAdjustment Software download page which probes are supported.

Enhanced Picture & Picture function
The unique Picture & Picture function of the LMD-A180 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.
Sync-free side by side with low latency allows you to monitor two signals without synchronisation. You can configure each picture as HD or SD with different frame rates, taking them from both SDI and HDMI. This function works with the false colour function, camera focus function and metadata on the main picture of the two pictures.

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

The LMD-A180 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.

Camera/lens metadata display function and on-screen tally

The LMD-A180 monitor can display the camera and lens metadata* set of a camera system, according to the SMPTE RDD18** 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.

*Lens metadata is supported by F65, PMW-F55, PMW-F5, PXW-FS7M2 and PXW-FS7 as well as equipment capable of SMPTE RDD18.
** 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.

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

Flexible area marker, Grid Display, two Center Markers and Flip functions

You can set two flexible area markers freely on the screen. As their line colours and thickness can be changed, these two markers are easily identified.

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.

Power-on setting

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.

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.

Detachable handle and Rack-mount capability

The monitor is equipped with a detachable handle for portable applications. It can be removed to reduce weight when installed in a monitor wall or when it is rack mounted with MB-L18.

Specifications

Picture Performance

Panel	a-Si TFT Active Matrix LCD
Picture Size (Diagonal)	469.2 mm 18.4 inches
Effective Picture Size (H x V)	409.0 x 230.0 mm 16 1/8 x 9 1/8 inches
Resolution (H x V)	1920 x 1080 pixels (Full HD)
Aspect	16:9
Pixel Efficiency	99.99%
Colors	Approx. 1,073 million colours
Viewing Angle (Panel Specification)	89°/89°/89°/89° (typical) (up/down/left/right contrast > 10:1)
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, 0.6 A to 0.4 A, 50/60 Hz DC 12 V to 17 V, 5.0 A to 3.5 A
Power Consumption	Approx. 60W (max.) Approx. 53 W (average power consumption in the default status) 0.3 W In off-mode (when the Power switch is off)
Off Mode Activated	After About 60 Minutes
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	444 x 310 x 70 mm (without monitor feet) 444 x 332.5 x 165mm (with monitor feet) 17 1/2 x 12 1/4 x 2 7/8 inches (without monitor feet) 17 1/2 x 13 1/8 x 6 1/2 inches (with monitor feet)
Mass	Approx. 4.8 kg (with monitor feet) Approx. 10 lb 9.3 oz (with monitor feet)
Supplied Accessories	AC power cord (1) AC plug holder (1) Handle (1) (including 4 screws) Before Using This Unit (1)
Optional Accessories	BKM-PL18 MB-L18

Notes

Note	*1 The values for dimensions are approximate.

Gallery