SONY

PVM-741

7.4-inch TRIMASTER EL OLED monitor with 2x 3G/HD/SD-SDI inputs and smart functions.

Overview

Portable OLED picture monitor with 10-bit RGB panel driver

The PVM-741 is a high-performance, 7.4-inch (188-mm)* OLED (organic light-emitting diode) monitor backed by TRIMASTER EL™ technology. By optimally combining Sony's OLED display panel technology with a 10-bit panel driver and Sony's processing technology, the PVM-741 monitor achieves superb picture quality – unparalleled black performance, a wide colour gamut, and quick pixel response with virtually no motion blur.

Smart features for a wide range of applications

In addition to this picture performance, the PVM-741 monitor's hallmarks are its mobility and the smart and convenient features required for a small monitor – it has evolved in a steady, balanced way. The PVM-741 is ideal for a wide range of professional monitoring applications, including use in an studio camera monitoring, outside broadcast, on set acquisition for digital cinema, field production, editing studio and even research and development.

* 188-mm, viewable area, measured diagonally.

Features

Sony's OLED with a 10-bit RGB driver

The PVM-741 Quarter HD resolution (960 x 540 pixels) anda 10-bit RGB driver, together with Sony's Super Top Emission OLED display panel, creates life like and smoother-than-ever gradation from dark to bright portions of a scene such as in a sunrise or sunset.

Superb black performance

Thanks to Sony's OLED system, deep blacks can be accurately displayed and the black portion of an image is not degraded.

Quick response with blur-free motion

Because the OLED electroluminescent layer inherently responds to any electrical current input, it emits light immediately. By this mechanism, excellent quick response characteristics can be achieved in fast-motion images.

Multi-format signal interfaces with two 3G/HD/SD-SDI input capability

To provide flexibility the PVM-741 incorporates various video interfaces as standard, including 3G/HD/SD, SDI (x2) HDMI (x1) interface and Composite input (x1).

3G-SDI interface capability

With the 3G-SDI interface, PVM-741 accepts 1080/50p and 1080/60p formats, which is compliant with the SMPTE 425 standard, transmitting up to 4:2:2/10-bit 1080/60p and 1080/50p video data using one SDI cable. Also the PVM-741 accepts 10-bit 4:4:4 Y/Cb/Cr and 4:4:4 RGB of 3G-SDI signals for various formats. When an upgrade to these 1080/p systems is required, this single-link 3G-SDI system is an ideal, future-proof solution.

8-ch Audio Level Meter Display

When an SDI interface is connected, the embedded audio level can be displayed on screen with an 8-channel audio level meter.

HDMI interface for a wide range of applications

HDMI connectivity can expand user's convenience and applications. Forexample, the PVM-741 monitor can connect with professional video systemsuch as XDCAM, XDCAM-EX, NXCAM, and HDV. Furthermore, consumer video products like a Blu-ray and a digital camera are also connectable. These articles are ideal for Blu-ray video authoring and digital photo image previews.

Waveform monitor and vector scope display

The combination of the vector scope and waveform monitor functions helps users in field production without additional measurement equipment.

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.

Time Code display

PVM-741 can display on screen a Time Code – either LTC or VITC is selectable.

Flip function

The PVM-741 has a feature to flip the picture without frame delay, horizontally, vertically or both horizontally and vertically. This feature is useful for 3D acquisition system with 3D rig camera.

Camera focus functions

The PVM-741 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.
This camera focus function can even be enhanced when

combined with native scan mode.

Colour temperature

Colour temperatures of D93, D65, or a USER preset value can be selected.

Auto white adjustment

The PVM-741 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.

Sophisticated I/P conversion

PVM-741 uses a motion-adaptive I/P-conversion process to achieve conversion results that are optimised to the picture content – whether the image is static or dynamic. Highly accurate I/P conversion of both HD and SD inputs, is provided regardless of signal resolution.

I/P mode selection

PVM-741 provides four I/P modes so that users can select the most suitable mode for each purpose.

INTER-FIELD: interpolates images between fields. This is used for picture quality optimisation (e.g., to reduce jagged effect on moving pictures).

INTRA-FIELD: interpolates images within the field, and delivers naturally reproduced images and quick picture processing. This mode is available only for 1920 x 1080 SDI signal input.

FIELD MERGE: combines lines alternately in odd and even fields, regardless of picture movements. This is used for PsF (Progressive Segmented Frames) processing and still image monitoring.

LINE DOUBLER: interpolates by repeating each line. This is used for editing and monitoring fastmoving images, and checking line flicker. The minimum processing time is less than one field (0.5 frames).

Centre marker and aspect markers
The PVM-741 can display a centre marker and aspect markers. The brightness of these markers can be selected from two different levels: grey and dark grey. Users can also select a grey mat to fill the outer area of the aspect markers.

Safety area markers
The safety area markers can be selected from 80%, 85%, 88%, 90%, and 93%.

External remote control function
PVM-741 monitor has an external remote control capability for input/output signal selection and adjustment of various items via Ethernet (10BASE-T/100BASE-TX) connection. Up to 32 monitors and up to four BKM16R control units can be connected via Ethernet connection and controlled remotely on the network. Also this monitor supports some functions of the BKM-16R – an optional remote control unit for BVM-E/BVM-F/BVM-L/PVM-L Series monitors – such as the power on/off switch and the Input Select function.*

* The PVM-741 does not support all BKM-16R functions.

Power-saving mode
When no input signal is received for over a minute, the monitor goes into power-saving mode and consumes minimal power.

This function prevents unnecessary electrical consumption.

Silent mode

This convenient function enables users to stop the built-in cooling fan achieving monitor operation without any fan rotation noise. Silent mode is ideal when noise must be avoided.

Closed-caption decoder

The closed caption information embedded in EIA/CEA-608 and EIA/CEA-708 can be decoded for display.

User-friendly control panel design

By assigning monitor functions to each of its seven function buttons, users can customise the PVM-741 for a specific application or usage such as field or studio use. Seven functions can be allocated to the assignable buttons. Button lights are dimmable and indicator lights are on/off switchable. This function allows users to easily operate a monitoring in a dark environment without interference of these lights.

Robust, light-weight, and compact body

Incorporating a light-weight and compact aluminium diecast body with a detachable AR-coated protection panel,this model is flexible enough to change style according to user requirements: with or without stand (which iseasily detachable), tilted on a stand (15-degree slant), rack-mounted, or set on a camera pedestal.

Retractable carrying handle

The PVM-741 provides a retractable carrying handle as a supplied accessory. With this carrying handle, users find it easy to hand carry this superb OLED monitor anytime, anywhere.

Mounting flexibility

The PVM-741 is 3.8U high and half-rack wide. Using the optional MB-531 mounting bracket with a 10-degree-forward and 10-degree-backward nonstop-tilt capability, two units can be

installed side by side in a 19-inch EIA standard rack.

Screw holes for camera pedestal

With 3/8-inch and 1/4-inch screw holes on its base, the PVM-741 can be installed in a camera system. Also with the supplied arm-mount bracket fixed on the top, the PVM-741 can be installed in a camera arm.

Optional ENG kit VF-510

For use in ENG and EFP field, the optional VF-510ENG Kit provides a viewing hood, carrying handle, and connector protector.

Detachable AR (anti-reflection)-coated protection panel

AR-coated protection panel keeps the OLED panel surface from scratch and keeps reflection from ambient light to aminimum.

AC/DC operations

The PVM-741 can be operated with two-way power supplies:DC 12 V and AC via the attached dedicated AC adaptor.

Specifications

Picture Performance	
Panel	OLED panel
Picture Size (Diagonal)	188.0 mm 7 1/2 inches
Effective Picture Size (H x V)	163.9 x 92.2 mm 6 1/2 x 3 5/8 inches
Resolution (H x V)	960 x 540 pixels (Quater HD)

Aspect	16:9
Pixel Efficiency	0.9999
Panel Drive	RGB 10-bit
Viewing Angle (Panel Specification)	89°/89°/89°/89° (typical) (up/down/left/right contrast 10:1)
Normal Scan	0% scan
Over Scan	5% over scan
Color Temperature	D65, D93, User
Warm-up Time	Approx. 30 minutes

Input

Composite Input	BNC (x1), 1.0 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	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), 12V DC (output impedance 0.05 Ω or less)

Output

Composite Output	BNC (x1) Loop-through, with 75 Ω automatic termination
SDI Output	BNC (x1) Output signal amplitude: 800 mVp-p ±10% Output impedance: 75 Ω unbalanced
Audio Monitor Output	Stereo mini jack (x1)
Speaker (Built-in) Output	0.5 W (mono)
Headphone Output	Stereo mini jack (x1)

General

Power Requirements	100 V to 240 V AC, 0.5 A to 0.3 A, 50/60 Hz 12 V DC, 1.9 A
Power Consumption	Approx. 30 W (max.)

Inrush Current	(1) Maximum possible inrush current at initial switch-on (Voltage changes caused by manual switching): 51 A peak, 7 A r.m.s. (240V AC) (2) Inrush current after a mains interruption of five seconds (Voltage changes caused at zerocrossing): 17 A peak, 2 A r.m.s. (240V AC)
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	222.4 x 166 x 70 mm 222.4 x 183.5 x 161.8 mm (when AC adaptor is installed) 8 7/8 x 6 5/8 x 2 7/8 inches 8 7/8 x 7 1/4 x 6 3/8 inches (when AC adaptor is installed)
Mass	Approx. 2.0 kg Approx. 2.6 kg(when AC adaptor is installed) Approx. 4 lb 6 oz Approx. 5 lb 12 oz(when AC adaptor is installed)
Supplied Accessories	AC power cord (1) AC plug holder (1) AC adaptor (1) Handle (1) Arm mount bracket (1) Screws (4) Operating instructions (1) CD-ROM (1) Using the CD-ROM Manual (1)
Optional Accessories	MB-531 Mounting bracket MB-532 Mounting panel VF-510 Monitor ENG kit

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Notes

Note	*1 The values for dimensions are approximate.

Related products

PMW-F55
Super 35mm 4K CMOS sensor compact CineAlta camera records HD/2K/4K on SxS memory plus 16-bit RAW 2K/4K output

PMW-F5
Super 35mm 4K CMOS sensor compact CineAlta camera records HD/2Kon SxS memory plus 16-bit RAW 2K/4K output

PXW-FS7
4K Super 35mm Exmor CMOS sensor XDCAM camera with α Mount lens system, 4K/2K RAW and XAVC recording options

PDW-850
Three 2/3-inch Power HAD FX CCD sensors XDCAM HD422 ultimate Professional Disc camcorder with best picture quality and easy-to-share and archive media

PMW-400L
Three 2/3-inch type Exmor CMOS sensors without lens XDCAM camcorder recording Full HD 422 at 50 Mbps

PMW-400K
Three 2/3-inch type Exmor CMOS sensors with 16x zoom HD lens XDCAM camcorder recording Full HD 422 at 50 Mbps

PMW-320L
Three 1/2-inch type Exmor CMOS sensors XDCAM EX camcorder without lens recording full HD / SD

PMW-320K
Three 1/2-inch type Exmor CMOS sensors XDCAM EX camcorder with 16x zoom HD lens recording full HD / SD

PXW-X500
Three 2/3-inch type PowerHAD FX Full HD CCD sensors XDCAM camcorder with multi-format recordings including XAVC

PXW-X320
Three 1/2-inch type Exmor CMOS sensors XDCAM camcorder with 16x zoom HD lens recording Full HD XAVC 100 Mbps, with

PXW-FS7M2
4K Super 35mm Exmor CMOS sensor XDCAM camera with Variable ND Filter, E-

LMD-941W
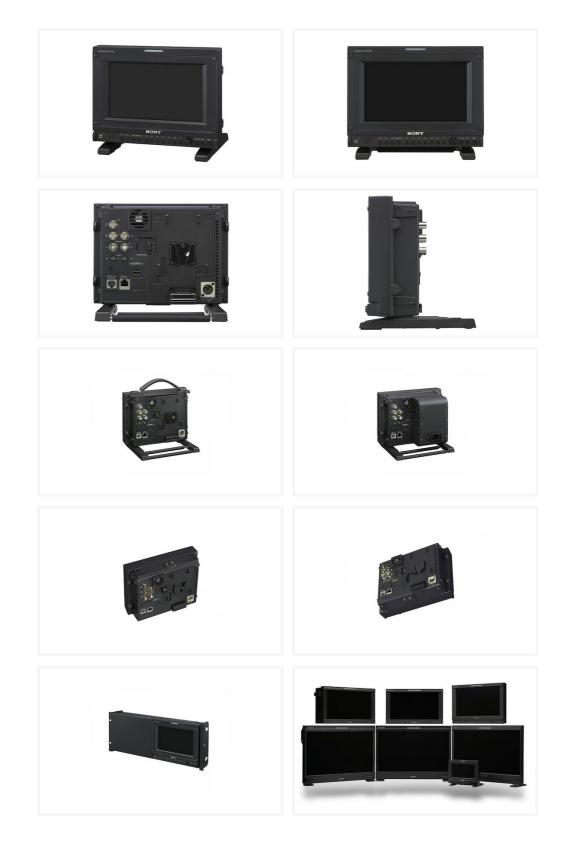Full-HD 9-inch LCD monitorwith 2x 3G/HD/SD-SDI inputs and smart functions.

| wireless options | Mount (Lever Lock), 4K/2K RAW and XAVC recording |

Gallery