

BVM-X300 V2

30-inch 4K TRIMASTER EL™ OLED critical reference monitor



Overview

The BVM-X300 30-inch* 4K OLED master monitor is the flagship model in Sony's professional monitor line-up. This high performance TRIMASTER EL™ OLED monitor offers unparalleled black performance, colour reproduction, quick pixel response and industry-leading wide viewing angles. In addition, the BVM-X300 has an enhanced interface and features to support High Dynamic Range (HDR) live production, as well as a wide colour gamut conforming to DCI-P3 and most of the ITU-R BT.2020 standard*. By unleashing these superb features and qualities, this master monitor provides a powerful tool for a wide range of applications such as colour grading and QC (quality control) in the 4K production workflow.

* 750.2 mm viewable area, measured diagonally.

** The BVM-X300 does not cover the BT.2020 colour space in full.

Sony's unique OLED panel is equipped with 4K (4096x2160) pixels. This master monitor is ideal for cinema applications and 4K colour grading.

Offers unprecedented image reproduction – black is black, and peak brightness can be reproduced more realistically with colours that are typically saturated in a conventional standard dynamic range. When S-Log3 (Live HDR) is selected, the BVM-X300 reproduces an S-Log3 HDR image with System Gamma, which is optimised for HDR live production. EOTFs of S-Log3, S-Log3 (Live HDR), S-Log2, SMPTE ST2084 and ITU-R BT.2100 (HLG) are supported.

The BVM-X300 supports a wide colour gamut conforming to DCI-P3 and most of the ITU-R BT.2020 standard*. Furthermore, it supports S-GAMUT3.cine and S-GAMUT3.

* The BVM-X300 does not cover the BT.2020 colour space in full

The BVM-X300 can display formats including 4K, 2K, UHD and HD at various frame rates. 3G/HD-SDI Quad link and Dual link are supported for 4K/UHD and 3G/HD-SDI Single link and Dual link supported for 2K/HD. XYZ signals as well as RGB and Y/CB/CR are supported.

The BVM-X300 monitor can display various markers, including an aspect marker, safe area marker, and centre marker.

To improve monitor usability, V2.2 firmware offers a new Input Setting. User preset is put into Input Setting menu and the number of Input Settings is expanded from four to eight.

Shopping channels require a unique screen layout to differentiate instantly between a product and its commercial data. The monitor allows two flexible area markers to be set anywhere on screen.

When Rec.2020 colours out of Rec.709 or DCI-P3 colour gamuts are detected, the monitor indicates this with a zebra pattern over the relevant area of the picture. Gamut Marker is a convenient feature that instantly tells viewers to such colours.

Relative contrast modes (1/2, 1/3 and 1/4) instantly adjust contrast and allow HDR images to be monitored with higher peak luminance.

Features

In addition to the intrinsic high-contrast performance of the TRIMASTER EL™ OLED panel, this monitor provides High Dynamic Range mode. This offers never-seen-before image reproduction – black is black, and peak brightness can be reproduced more realistically with colours that are typically saturated in a conventional standard dynamic range. This mode can brilliantly express sparkling city lights and stars in the night sky.

The BVM-X300 offers industry leading wide colour gamuts. It complies with the DCI P3 colour gamut and supports the ITU R BT.2020 colour space. S GAMUT3.cine* and S GAMUT3* colour space are also supported to achieve coherent cinematography production workflow with Sony's 4K cinematography cameras.

* The BVM-X300 does not support the ITU-R BT.2020, S-Gamut/S-Gamut3 and S-Gamut3.cine colour space in full.

The monitor supports HDMI and both 2 Sample Interleave (2SI) and Square Division signals on SDI. HDMI support HD signals and 4K/UHD signals up to 50p 60p YCbCr 4:2:2 12-bit. It also supports HD signals including 3G-SDI single link for 1920 x 1080/50p 60p, YCbCr 4:2:2 10-bit, and 3G-SDI dual link for 1920 x 1080/50p 60p, 4:4:4 12/10-bit. 3G/HD-SDI Quad link and Dual link are supported for 4K/UHD and 3G/HD-SDI Single link and Dual link are supported for 2K/HD. XYZ signals as well as RGB and Y/CB/CR are supported.

A key benefit of TRIMASTER EL technology is its unique ability to turn each pixel completely off. TRIMASTER EL is capable of reproducing accurate black with each individual pixel, enabling users to evaluate images faithfully to the original signal.

The TRIMASTER EL grey-to-grey switching speed (measured in microseconds, μ s) is much faster than that of the LCD (measured in milliseconds).

* This fast response benefits a variety of applications and uses.

* Sony test results

The BVM-X300 OLED TRIMASTER EL provides a superior viewing angle performance as compared to other flat panel technology available on the market. It makes easier to evaluate picture performance with a few viewers to see the same colours and contrast.

The BVM-X300 supports conventional 2.2, 2.4, 2.6, and CRT gamma. In addition, HDR (High Dynamic Range) EOTF tables are provided for 2.4 (HDR), SMPTE ST 2084, S-Log2 (HDR), S-Log3 (HDR), SMPTE ST.2084 (HDR) and ITU-R BT.2100 (HLG). S-Log3(Live HDR) offers easier camera control for High Dynamic Range (HDR) live production.

The TRIMASTER EL OLED panel's extremely quick response and scan-driving performance deliver stunning picture quality with virtually no motion blur. However, there is a possibility that flicker is just visible when a lower frequency signal is displayed (24p, 24PsF, and 50i). To remove visible flicker, the BVM-X300 is equipped with Flicker-free mode.

The BVM-X300 offers an Interlace Display feature for 1080i input. This enables the input to be presented as a true interlace display. As with the Native Scan function, Interlace Display mode offers faithful reproduction of the input signal, and the displayed interlace fields are free from the picture degradation that can occur as a result of typical I/P conversion processes.

The BVM-X300 can display various markers, including an aspect marker, safe area marker, and center marker. In addition to this flexible selection of marker types, detailed display settings of each marker are offered. Colour, brightness, horizontal/vertical position, and width of aspect markers can all be controlled, while the height and width of safe area markers can be adjusted.

Freely set up to two area markers on screen, with adjustable line colour and thickness.
* Supported with V2.2

LTC and VITC time code can be displayed at the top or bottom of the picture.
* Supported with V2.2

Specifications

Picture Performance	
Panel	OLED panel
Picture size (diagonal)	750.2 mm (29 5/8 inches)
Effective Picture size (H x V)	663.5 x 349.9 mm (26 1/4 x 13 7/8 inches)
Resolution (H x V)	4096 x 2160 pixels
Aspect	17:9
Pixel efficiency	99,99%
Panel drive	RGB 10-bit

Panel frame rate	48 Hz / 50 Hz / 60 Hz (48 Hz and 60 Hz are also compatible with 1/1.001 frame rates)
Viewing angle (panel specification)	89°/89°/89°/89° (typical) (up/down/left/right contrast > 10:1)
Colour temperature	D55, D61, D65, D93, DCI*1, DCI XYZ and user 1-5 (5,000 k to 10,000 k adjustable)
Standard luminance	Standard luminance 100 cd/m ² (100% white signal input, User Preset 1 to User Preset 5) 48cd.m2 (User Preset XYZ)
Colour space (colour gamut)	ITU-R BT.2020*2, ITU-R BT.709, EBU, SMPTE-C, DCI-P3, BVM-X300 Native*3, S-Gamut/S-Gamut3*2, S-Gamut3.cine*2
Transmission Matrix	ITU-R BT.2020 (Non-constant luminance is supported), ITU-R BT.709
EOTF	2.2, 2.4, 2.6, CRT, 2.4(HDR), S-Log3(HDR), S-Log 3(Live HDR), S-Log2(HDR), SMPTE ST 2084(HDR) , ITU-R BT.2100(HLG), RGB(SG1.2)

Input

SDI	BNC (x4) x 2sets
HDMI	HDMI (x1)
Serial remote (LAN)	Ethernet (10BASE-T/100BASE-TX), RJ-45 (x1)

Output

SDI monitor	BNC (x4) (Switched out)
Audio monitor	Stereo mini jack (x1)
Headphones	Stereo mini jack (x1)

General

Power requirement	AC 100 V to 240 V, 50/60 Hz
Operating temperature	0°C to 35°C (32°F to 95°F) Recommended: 20°C to 30°C (68°F to 86°F)
Operating humidity	0 % to 90 % (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
Mass	16.2 kg (35 lb 12 oz)

Dimensions (W x H x D)	742.4 x 479.5 x 205 mm (29 1/4 x 19 x 8 1/8 inches)
Supplied accessories	AC power cord (1), AC plug holder (1), CD-ROM (1), Before Using This Unit (Japanese, English 1), HDMI holder

Notes

*1	DCI: x=0.314 y=0.351
*2	The BVM-X300 does not support the ITU-R BT.2020, S-Gamut/S-Gamut3 and S-Gamut3.cine colour space in full.
*3	The BVM-X300 individual chromaticity points. The widest colour space setting of the signal is reproduced by the BVM-X300.

Related products

			
<p>PVM-X550 55-inch 4K TRIMASTER EL™ OLED high grade picture monitor</p>	<p>PXW-FS7M2 4K Super 35 mm Exmor CMOS sensor XDCAM camera with Variable ND Filter, E-Mount (Lever Lock), 4K/2K RAW and XAVC recording</p>	<p>BVM-E171 16.5-inch TRIMASTER EL™ OLED critical reference monitor with wide viewing angle supports 4K production</p>	<p>PMW-PZ1 4K/HD SxS memory player</p>
			
<p>F65 Super 35 mm 8K CMOS sensor SRMASTER camera</p>	<p>PMW-F55 Super 35 mm 4K CMOS sensor compact CineAlta camera records HD/2K/4K on SxS memory plus 16-bit RAW 2K/4K output</p>	<p>HXC-FB80 Three 2/3-inch Exmor™ CMOS sensor HD colour studio camera</p>	<p>HDC-4300 4K/HD System Camera</p>
			
<p>MVS-8000X 4K, HD, 3G, SD Multi-Format Production Switcher Processor</p>	<p>HDRC-4000 HDR Production Converter Unit</p>	<p>PMW-F5 Super 35 mm 4K CMOS sensor compact CineAlta camera records HD/2K on SxS memory plus 16-bit RAW 2K/4K output</p>	<p>PXW-FS7 4K Super 35 mm Exmor CMOS sensor XDCAM camera with α Mount lens system, 4K/2K RAW and XAVC recording options</p>



BVM-E251

24.5-inch TRIMASTER EL™
OLED critical reference
monitor with wide viewing
angle supports 4K production

Gallery

