

BVM-X300 V 2.0

4K OLED unleashed



Overview

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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 includes unparalleled black performance, colour reproduction, quick pixel response, and industry-leading wide viewing angles. In addition, the BVM-X300 has enhanced interface and features for 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 makes an ideal 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.

- **Full 4K picture resolution**

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

- **High Dynamic Range**

Offers never-seen-before image reproduction – the 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 optimized for HDR live production.

EOTFs of S-Log3, S-Log3 (Live HDR), S-Log2, SMPTE ST2084, HLG SG1.2 and HLG SG Variable are supported.

- **Supports DCI P3 and ITU-R BT.2020 wide colour spaces**

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

- **Multi-format capability**

The BVM-X300 can display various formats, such as 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.

- **Safe area and aspect markers**

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

- **Gamut Marker**

When Rec.2020 colours out of Rec.709 or DCI-P3 colour gamuts are detected, this master 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 1/2, 1/3 and 1/4**

Relative contrast modes (1/2, 1/3 and 1/4) quickly adjust contrast and allow you to monitor HDR images with higher peak luminance.

Features

- **High Dynamic Range mode**

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 – the 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 town lights and stars in the night sky.

- **Supports DCI P3 and ITU-R BT.2020 wide colour spaces**

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.

- **HDMI(HDCP2.2) and 3G-SDI Quad-link up to 4096 x 2160/48p 50p 60p, YCbCr 4:2:2 10-bit**

This master 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.

- **Accurate black and colour reproduction**

A key advantage of TRIMASTER EL is the fact that each pixel can be turned completely off. No other display technology is able to offer this. TRIMASTER EL is capable of reproducing accurate black with each individual pixel, enabling users to evaluate each picture image faithfully to the signal.

- **Quick Response with Virtually No Motion Blur**

The TRIMASTER EL gray-to-gray switching speed (measured in microseconds, μ s) is much faster than that of the LCD (measured in milliseconds, ms).* This fast response benefits a variety of applications and uses.

* Sony's test results.

- **Extremely wide viewing angle**

Sony 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.

- **Sony S-Log Gamma, SMPTE ST 2084 and HLG Support**

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), HLG SG 1.2 (HDR) and HLG SG Variable (HDR). S-Log3(Live HDR) offers easier camera control for High Dynamic Range (HDR) live production.

- **Flicker free mode**

The TRIMASTER EL OLED panel's superb 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.

- **Interlace mode**

The BVM-X300 monitor offers an Interlace Display feature for 1080i input. This enables 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.

- **Safe area and aspect markers**

The BVM-X300 monitor 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. For example, the 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.

Technical 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), HLG SG1.2(HDR), HLG SG Variable(HDR)

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.