

## BVM-F250

24.5-inch Full-HD Broadcast  
OLED Monitor



### Overview

#### **Broadcast reference monitor**

For reference monitoring applications in the broadcast industry, Sony's leading edge Organic Light-Emitting Diode (OLED) technology and signals processing technology ensures absolutely outstanding performance with the BVM-F250.

#### Affordable price

Super Top Emission technology enhances OLED's intrinsic benefits to deliver outstanding black performance, a quick response with virtually no motion blur, and a wide colour gamut. An all-new 12-bit output digital signal processing engine provides a nonlinear cubic conversion colour-management system that delivers precise colour reproduction, stunning picture uniformity, smoother-than-ever gamma performance, and picture quality consistency.

#### Accepts computer signals via HDMI

The BVM-F250 accepts various computer signals input up to 1920 x 1080 through its HDMI connector.

### Features

#### **Superb Picture Performance**

Sony TRIMASTER EL technology combines the ultimate performance of Sony OLED display with the highly sophisticated

TRIMASTER technology to provide the highest level of picture performance:

- Accurate Black Reproduction
- High purity and accurate colour reproduction
- Quick response with virtually no motion blur
- High Contrast Performance

### **Super Top Emission™ technology**

Sony's Super Top Emission™ technology has a micro-cavity structure which incorporates colour filters. The micro-cavity structure uses an optical resonance effect to enhance colour purity and improve light-emission efficiency. In addition, the colour filter of each RGB further enhances the colour purity of emitted light, and reduces ambient light reflection.

### **Ultimate Display Engine**

High-precision signal processing engine has been developed to fulfil the reference monitor criteria and is optimized to maximize OLED panel performance. This engine incorporates 12-bit output accuracy at each process, and provides both a high quality I/P conversion algorithm and a highly accurate colour management system.

### **Multi-format signal support**

The BVM-F250 monitor can accept almost any SD or HD video format, both analogue and digital, and variable computer signals up to 1920 × 1080. In addition to the standard inputs, four option board slots are offered to configure this monitor according to different user needs.

### **Versatile video inputs**

This monitor is equipped as standard with two 3G/HD/SD-SDI inputs, an HDMI (with HDCP) input and a Displayport\* for future expansion. In addition, four option ports are available.

\* DisplayPort input will be supported from monitor software

version 1.1 or later.

## **Four Slots for Optional Video Input Decoders**

The monitor can accept up to four optional video input boards simultaneously. Available formats include analogue, composite, Y/C, components, RGB and digital 3G/HD/SD SDI.

## **3D signal analyzing functions (3D signal input, 2D display)**

By installing the optional BKM-250TG 3G/HD-SDI input adaptor\*, the BVM-F250 can support a variety of 3D signal analyzes. The 3D signals\* are displayed in 2D mode.

- Difference display
- Checkerboard display
- L/R switch display
- Horopter check display
- Flip H display

\* Requires the BKM-250TG 3G-SDI input adaptor (serial number 7200001 or later). 3D signals are not displayed in stereoscopic view.

## **Auto White Balance**

The colour temperature and white balance of BVM-E and F Series monitors can be automatically adjusted by the Auto White Balance function using specified colour temperature probes, such as the Konica Minolta CA-210, CS-200, DK-Technologies PM5639/06, and X-Rite i1 (Eye-One) Pro.

## **High Quality I/P Conversion Technology**

The BVM-F250 monitor uses a sophisticated I/P conversion technique that keeps artefacts that are often seen in flat panel displays to a minimum such as edge jaggedness, conversion errors, etc.

## **Low video delay**

The BVM-F250 display engine ensures a picture delay that is less than one field.

## **Panel Calibration**

Every BVM-F250 monitor is carefully calibrated at the factory on an individual basis, providing a high level of accuracy and stability for characteristics such as gamma and uniformity.

## **Colour Feedback System**

Using a colour feedback system, the BVM-F250 monitor achieves the stability required for Broadcast critical monitoring applications.

## **Interlaced Display Mode**

Faithfully reproduces interlaced signals, emulating CRT monitors.

## **Picture**

Two images can be displayed Side by Side to provide users with enhanced operational flexibility.

## **Pixel Zoom Mode**

A selected area of the displayed picture can be enlarged on a pixel basis, up to eight times in size both vertically and horizontally.

## **HD Frame Capture Mode**

The HD Frame Capture function of the BVM-F Series allows a picture frame from the 3G-SDI and HD-SDI input to be captured and saved as a picture file on a Memory Stick™ media.

## **Separate Control unit with memory stick slot**

A separate control unit BKM-16R is available for the BVM-F250. It is equipped with a Memory Stick socket enables users to download and save all monitor set-ups such as input channel configuration, control preset adjustments, white balance settings and maintenance parameters.

## Centralised Monitor-Wall Control

Multiple monitors can be easily managed by a single control unit BKM-16R via an Ethernet connection.

### Specifications

Picture Performance	
Panel	OLED panel
Picture Size (Diagonal)	623.4 mm 24 5/8 inches
Effective Picture Size (H x V)	543.4 x 305.6 mm 21 1/2 x 12 1/8 inches
Resolution (H x V)	1920 x 1080 pixels (Full HD)
Aspect	16:09
Pixel Efficiency	0.9999
Panel Drive	RGB 10-bit
Panel Frame Rate	48 Hz, 50 Hz, 60 Hz, 72 Hz, 75 Hz *1
Viewing Angle (Panel Specification)	89°/89°/89°/89° (typical) (up/down/left/right contrast > 10:1)
Normal Scan	0% scan
	Mapping the pixels of the signal to the panel to one-to-one mode, or

Native Scan	displaying an SD signal of nonsquare pixels (the number of H pixels of the signal system is 720 or 1440) or a 640 × 480 SD signal of HDMI video by scaling processing of doubling for the V direction and correct aspect ratio for the H direction and also optimizing and displaying a picture by modifying the aperture coefficient value, filter coefficient value, etc.
Under Scan	3% under scan
Over Scan	Mask of 5% over scan portion in the normal scan
Color Temperature	D65, D93, User
Standard Luminance	100 cd/m <sup>2</sup> (Preset1 to Preset5) (100% white signal input)
Color Space (Color Gamut)	ITU-R BT.709, EBU, SMPTE-C, F250 Native *2
Warm-up Time	Approx. 30 minutes

## Input

BNC (x2) Input impedance: 75 Ω unbalanced

SDI Input	<p>Sampling frequency</p> <p>3G-SDI:</p> <ul style="list-style-type: none"> <li>- Y/Cb/Cr (4:2:2): 148.5 MHz/74.25 MHz/74.25 MHz</li> <li>- Y/Cb/Cr (4:4:4): 148.5 MHz /148.5 MHz/148.5 MHz</li> <li>- G/B/R (4:4:4): 148.5 MHz/148.5 MHz/148.5 MHz</li> </ul> <p>HD-SDI:</p> <ul style="list-style-type: none"> <li>- Y/Cb/Cr (4:2:2): 74.25 MHz/37.125 MHz/37.125 MHz</li> </ul> <p>SD-SDI:</p> <ul style="list-style-type: none"> <li>- Y/Cb/Cr (4:2:2): 13.5 MHz/6.75 MHz/6.75 MHz</li> </ul> <p>Quantization</p> <p>3G-SDI: 10bit/sample, 12 bit/sample</p> <p>HD-SDI: 10bit/sample</p> <p>SD-SDI: 10bit/sample</p>
-----------	--

---

HDMI Input	HDMI (x1) (HDCP correspondence, Deep Color correspondence)
------------	--

---

DisplayPort	DisplayPort connector (x1) *3
-------------	-------------------------------

---

Option Port	Four (4) ports
-------------	----------------

---

Parallel Remote	D-sub 9-pin (female) (x1)
-----------------	---------------------------

---

Serial Remote (LAN)	RJ-45 (x1) (Ethernet, 10BASE-T/100BASE-TX)
---------------------	--

---

## Output

SDI Output	<p>BNC (x1) (monitor output) *4</p> <p>Output signal amplitude: 800 mVp-p ± 10%</p> <p>Output impedance: 75 Ω unbalanced</p> <p>Transmission distance</p> <p>3G-SDI: 70 m max. *5</p> <p>HD-SDI: 100 m max. *5</p> <p>SD-SDI: 200 m max. *6</p>
DC 5 V Output	Circle 4-pin (female) (x1)

## General

Power Requirements	100 V to 240 V AC, 1.6 A to 0.8 A, 50/60 Hz
Power Consumption	<p>Approx. 145 W (max.)</p> <p>Approx. 72 W (average power consumption in the default status)</p>
	<p>(1) Maximum possible inrush current at initial switch-on (Voltage changes caused by manual switching): 53 A peak, 17 A</p>



Inrush Current	r.m.s. (240V AC) (2) Inrush current after a mains interruption of five seconds (Voltage changes caused at zero-crossing): 39 A peak, 6 A r.m.s. (240V AC)
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	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
Dimensions (W x H x D) *7	576.0 x 424.0 x 148.0 mm 22 3/4 x 16 3/4 x 5 7/8 inches
Mass	Approx. 13.0 kg Approx. 28 lb 11 oz

Supplied Accessories	<p>AC power cord (1)          AC plug holder (1)          Bracket (1)          Operation Manual          (Japanese, English, each 1)          CD-ROM (1)          Using the CD-ROM Manual          (1)</p>
----------------------	--

---

Optional Accessories	<p>BKM-16R Monitor Control          Unit          BKM-37H/BKM-38H          Controller Attachment          Stand          SMF-700 Monitor Interface          Cable          BKM-220D SDI 4:2:2 Input          Adaptor (with serial          number 2100001 or higher)          BKM-227W NTSC/PAL          Input Adaptor          BKM-229X Analog          Component Input Adaptor          (with serial number          2200001 or higher)          BKM-243HS HD/D1-SDI          Input Adaptor (with serial          number 2108355 or higher)          BKM-244CC HD/SD-SDI</p>
----------------------	--

---

Closed Caption Adaptor  
BKM-250TG 3G/HD/SD-SDI  
Input Adaptor (with serial  
number 7300001 or higher)

---

## Notes

- Note
- \*1 48 Hz, 60 Hz and 72 Hz are also compatible with a frame rate of 1/1.001.
  - \*2 The BVM-F250 individual chromaticity points. The widest color space setting of the signal is reproduced by the BVM-F250. R (x= 0.681, y= 0.319)/G (x= 0.189, y= 0.724)/B (x= 0.141, y= 0.051) (typical)
  - \*3 The DisplayPort input is available from V1.1.
  - \*4 The signal from the monitor output connector does not satisfy the online signal specifications.
  - \*5 When using 5C-FB coaxial cables (Fujikura or equivalent).
  - \*6 When using 5C-2V coaxial cables (Fujikura or equivalent).
  - \*7 The values for dimensions are approximate.
-



## Gallery

