SONY

BVM-HX310

31-inch 4K TRIMASTER HX™ Professional Master Monitor

Overview

Total confidence

The BVM-HX310 TRIMASTER HX™ Professional Master Monitor gives absolute confidence that you're always seeing the true picture. Offering unrivalled 4K HDR picture quality, accuracy and consistency, it's ideal for demanding on-set, studio and post-production applications including 4K digital cinematography.

True colours

It's the 4K HDR monitor professional colourists have been waiting for. An optimal choice for critical colour grading and CG tasks, the BVM-HX310 offers support for industry-leading wide colour gamuts including DCI-P3, ITU-R BT.2020, S-Gamut3.cine and S-Gamut3. With consistent, faithful colour reproduction over the entire luminance range, it's an ideal partner for cinematography production and post production workflow with Sony's 4K cinematography cameras.

Note: BVM-HX310 does not cover the ITU-R BT.2020, S-Gamut/S-Gamut3 and S-Gamut3.cine colour space in full.

Ready for HDR

Fully realising the advanced performance of the TRIMASTER HX panel, the BVM-HX310 achieves 1,000

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nits* of full-screen brightness with 1,000,000:1 contrast ratio. It’s ideal for producing High Dynamic Range (HDR) content with rich, deep black areas and accurate reproduction of bright peak highlights. Together with support for a much wider colour gamut than conventional monitors, the BVM-HX310 can reproduce high-resolution HDR images with images clarity, depth and realism.

Great HDR flexibility

As well as conventional 2.2, 2.4, 2.6, and CRT gamma, the BVM-HX310 supports standardized Electro-Optical Transfer Functions (EOTF) for HDR such as SMPTE ST.2084 and ITU-R BT.2100 (HLG). Both standards are used to meet the demands of today’s broadcast and cinematography industries. Additional EOTF tables for live and post production environments include 2.4 (HDR), S-Log2 (HDR), S-Log3 (HDR) and S-Log3 (Live HDR) – enabling easy workflows close to that of film while delivering 4K wide dynamic range.

Features

Make no mistake

Support for VPID (Video Payload ID) identifies EOTF, colour space and RGB source information embedded in the SDI signal. Monitor settings are adjusted automatically, cutting the risk of human error in pressured live production environments.

Easy system integration

The BVM-HX310 effortlessly keeps pace with today’s production workflows. Integration in the latest system environments is streamlined with a single-cable 12G-SDI input, plus connections for 3G-SDI, HD-SDI including Single Link/Dual Link and HDMI (HDCP2.3/1.4).

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Enhance your workflow

Easily check the effect of different LUTs while you're on set or in post. Load customised User LUT (Look Up Table) files from a USB stick* for comparison during pre-grading or with a different EOTF. See the effect of different LUTs at the touch of a button.

*Note: BKM-17R controller is required.

Work in real time

Minimal processing delays are a critical factor in live production and broadcasting applications. With a processing delay of less than one video frame, the BVM-HX310 is ideally suited to the demands of real time video monitoring

True interlace mode

Interlace Display mode offers faithful reproduction of 1080i input signals, free from artefacts and picture degradation that can often occur during I/P conversion.

You're always in control

Anyone who's used the BVM-X300 master monitor will feel instantly at home with the familiar front control panel of the BVM-HX310. Seven user assignable function buttons are complemented by manual controls for aperture, chroma, brightness, and contrast. Usability is enhanced further with dimmable button lights and on/off switchable indicator lights. SDI2 4K and SDI2 2K were newly added as functions which can be assigned to function buttons*.
* Supported with V1.2 or later.

Easy Maintenance*

The BVM-HX310 employs a software-based colour temperature (white balance) calibration function, which

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is called Monitor AutoWhiteAdjustment**. Combined with a PC and commercially available calibration tools***, this function enables simple adjustment of the monitor's white balance.

* Supported with BVM-HX310
** Supported with Monitor AutoWhiteAdjustment V1.6
*** The Konica Minolta CA-410/CA-310/CA-210, Photo Research PR-655/670, DK-Technologies PM5639/06, X-Rite i1 Pro/i1 Pro2, Klein K-10, Colorimetry Research CR-250 and JETI specbos 1211/spectraval 1501/ 1511.

More peace of mind

Help's right here when you need it. PrimeSupport goes beyond your standard warranty, giving you privileged access to expert technical advice when you need it. And that's just the start. Depending on your Sony product and chosen level of PrimeSupport, you'll enjoy more great benefits for extra peace of mind.

Instant access

Save time when you're under pressure. The BVM-HX310 can retain settings last used in the status menu, including colour space, EOTF, User Preset and more. When the menu's opened again, everything's instantly available.

Mark your area

Two flexible shooting area markers can be set anywhere on screen. It's useful for applications like shopping channels, where you need to differentiate clearly between views of the featured product and its buying information.

Password protected

Multiple users can register their own password to access

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colour temperature and user preset data settings. This allows each user to correctly recall their own preset data, while keeping information safe from unauthorised use.

Ready for action

Key settings including last memory and user preset are loaded instantly when the monitor’s powered up. It’s a major time saver that’s invaluable for rental applications.

Area aspect ratio markers

The BVM-HX310 can display various markers, including an aspect marker, safe area marker, and centre 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.

Specifications

Picture performance	
Panel	α-Si TFT Active Matrix LCD
Picture size (diagonal)	789.1 mm (31.1 inches)
Effective Picture size (H x V)	698.0 x 368.1 mm (27 1/2 x 14 1/2 inches)
Resolution (H x V)	4096 x 2160 pixels
Aspect	17 : 9 (1.89 : 1)
Pixel efficiency	99,99%
Panel drive	10-bit

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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° (up/down/left/right contrast > 10:1)
Colour temperature	D55, D61, D65, D93, DCI*1, and user 1-5 (5,000 K to 10,000 K adjustable), DCI XYZ
Luminance (panel specification) (typical)	1000 cd/m2
Colour space (Colour gamut)	ITU-R BT.2020*2, ITU-R BT.709, EBU, SMPTE-C, DCI-P3*2, Native*3, 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-Log3 (Live HDR), S-Log2 (HDR), SMPTE ST 2084(HDR), ITU-BT.2100(HLG)

Input

SDI 1 input	(3G/HD) BNC (x4) Input impedance: 75 Ω unbalanced
	(12G/6G/3G/HD) BNC (x2) ,

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SDI 2 input	(3G/HD) BNC (x2), Input impedance: 75 Ω unbalanced
HDMI	HDMI (HDCP2.3/1.4) (x1)
Serial remote (LAN)	Ethernet (10BASE-T/100BASE-TX), RJ-45 (x1)

Output

SDI 1 MONITOR output*4	(3G/HD) BNC (x4) , Output impedance: 75 Ω unbalanced
SDI 2 output	(12G/6G/3G/HD) BNC (x2) , (3G/HD) BNC (x2) , Output impedance: 75 Ω unbalanced
Audio monitor	Stereo mini jack (x1)
Headphones	Stereo mini jack (x1)

General

Power requirement	AC 100 V to 240 V, 5.1 A to 2.1 A, 50/60 Hz
Power consumption	Approx. 450 W (max.)
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	30% to 85% (no condensation)
Storage / transport temperature	-20°C to +60°C (-4°F to +140°F)

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Storage / transport humidity	0% to 90%
Operating / storage / transport pressure	700 hPa to 1060 hPa
Dimensions (W x H x D)	778 x 519.5 x 230 mm (30 3/4 x 20 1/2 x 9 1/8 inches)
Mass Approx.	29 kg (63 lb 15 oz)
Supplied accessories	AC power cord (1), AC plug holder (1), Before Using This Unit (1)

Notes

*1	DCI: x=0.314, y=0.351
*2	The BVM-HX310 does not cover selected colour space in full.
*3	The BVM-HX310 individual chromaticity points. The widest colour space setting of the signal is reproduced by the BVM-HX310.
*4	SDI1 MONITOR output is a switched-output between SDI1 and SDI2 when signals are a 3G/HD-SDI signal.

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Related products

BKM-17R

Monitor Control Unit

HDCU-3500

IP-ready Camera Control Unit (CCU) for HDC-3500 4K/HD system camera

HDCU-5500

IP-ready Camera Control Unit (CCU) for HDC-5500 4K/HD system camera

HDC-5500

High performance three 2/3-inch 4K CMOS sensor portable system camera with direct 4K output

PXW-Z750

4K 2/3-type 3-chip CMOS Shoulder-mount Camcorder with global shutter, high sensitivity, 4K/HD simultaneous recording, 120p HFR in HD, 12G-SDI and advanced wireless workflow capabilities

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Gallery

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