

# SONY



## BVM-HX310

Professional Master Monitor

## TRIMASTER HX

## 4K

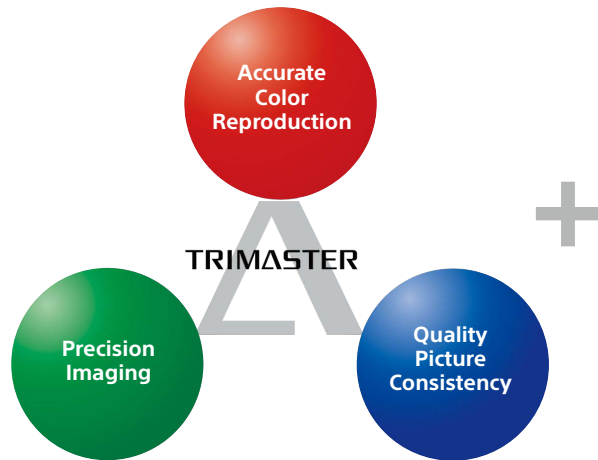
# TRIMASTER HX

Sony introduces a new technology brand, TRIMASTER HX.

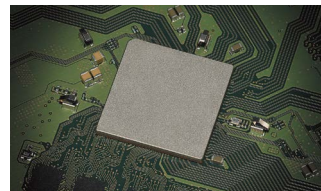
H=HDR

X=Liquid Crystal Display

TRIMASTER HX enables a new Sony professional LCD monitor, achieving accuracy and consistency of color reproduction and image quality that professionals can trust.



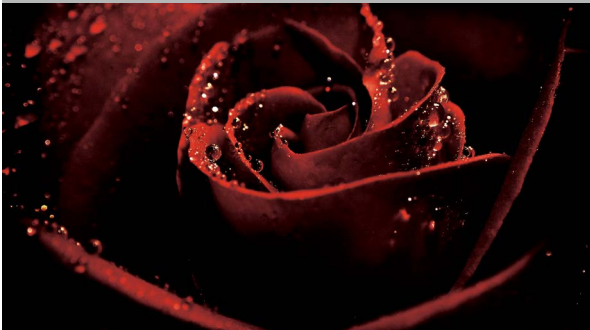
**Sony-specified Million Contrast LCD**



**Sony's unique technology for this new LCD**

- ★ Optimized algorithm for new LCD control
- ★ Unique correction for temperature stability
- ★ Accurate color reproduction in low light

## ACCURATE COLOR



### Richer colors in dark areas

By accurately reproducing colors in the low-luminance range, Sony's solution allows you to increase image quality by fine-tuning colors in dark areas.

## HIGH DYNAMIC RANGE



### Exceptional dynamic range

Thanks to its high dynamic range, Sony's solution faithfully reproduces a camera's dynamic range for smooth, beautifully detailed gradations.

## BLACK REPRODUCTION



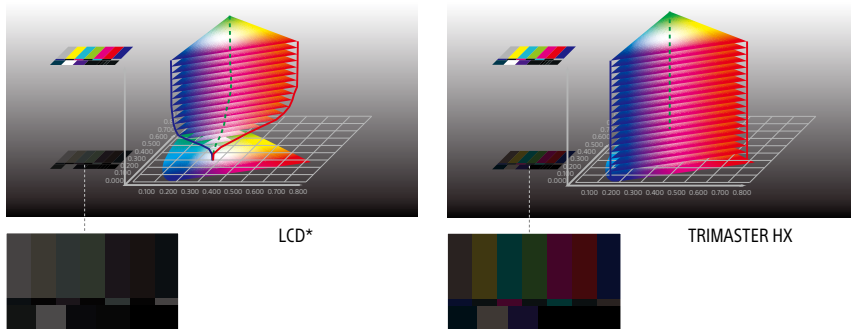
### Deeper, truer blacks

Sony's solution produces truer blacks, assuring you of a highly precise black level even when viewing under low ambient light.

# ▶ Accurate Color Reproduction

The wide color gamut generated by this technology assures faithful and consistent color reproduction over the entire luminance range.

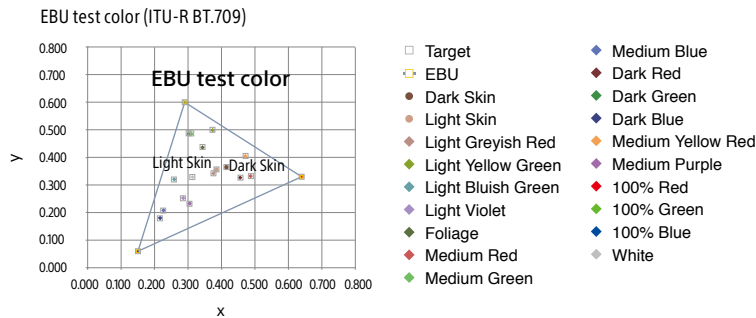
- Adjusts tone and color during the color grading process
- Reproduces accurate and deep color when working with CG for animation and games
- Reproduces the wide color gamut of digital cinema



\* Colour gamut images based on Sony's test results.

Sony's TRIMASTER HX technology not only offers a wide color gamut with accuracy for each of the three primary colors, but also maintains this wide color gamut throughout the entire luminance range.

The BVM-HX310 can reproduce precise colors as a master monitor.



TRIMASTER HX technology offers smooth gradation throughout the entire luminance range without banding to provide the level of performance required for critical imaging.



Example conventional processing

TRIMASTER HX

\* Simulated image

The BVM-HX310 can display video content accurately even from a single pixel; for example, a small star in the night sky. It is designed to achieve reference monitor quality, which necessitates correct indication of the image even in very small areas such as just one pixel. The BVM-HX310 offers superb uniformity throughout the entire luminance range.



\* image

# High Dynamic Range Mode

In addition to the intrinsic high-contrast performance of the TRIMASTER HX panel, this monitor offers high dynamic range (HDR) mode. This provides extremely high levels of picture quality and image reproduction. The black areas are black, and peak brightness can be reproduced more realistically with rich colors. These high levels of highlight and color are typically saturated and limited in the conventional standard dynamic range.

Conventional standard dynamic range



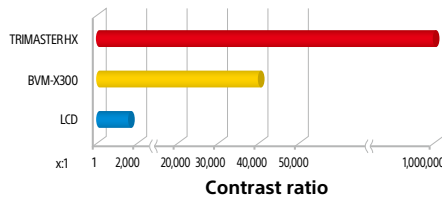
Highlight is clipped; less shadow detail

High Dynamic Range mode



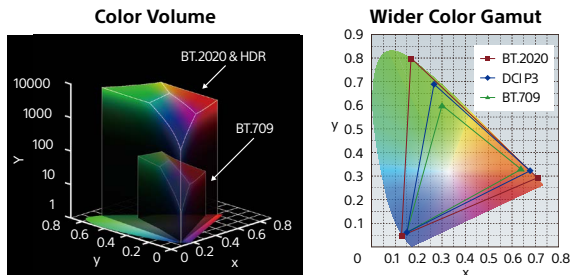
Render shadow detail to highlight

\*Simulated images



The wide color gamut works together with the HDR function, as higher resolution typically requires a wider color gamut. The ITU-R BT.2020 prescribes a much wider color gamut than the BT.709 in support of higher resolution images.

The color volume increases dramatically in an HDR system compared to an SDR system. As seen in the image below, the color gamut increases in the horizontal plane and the luminance level increases in the vertical axis. This has a synergistic effect – combining the high-resolution HDR and WCG gives a much more realistic and three-dimensional effect in image reproduction. And this in turn produces high-level, high-quality natural images.



The BVM-HX310 achieved 1,000 nits\*1 of brightness in full screen with a 1,000,000:1 contrast ratio which is especially suitable for HDR content. Accurate signals are always presented on display without worrying about the total brightness restriction of full-screen power consumption.

\*1Typical at D65



ABL



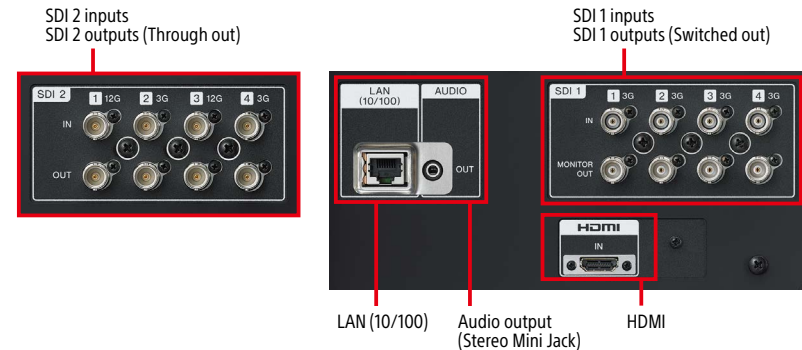
No automatic brightness limiter

\*Simulated images

# 12G/6G/3G/HD-SDI and HDMI

This master monitor supports 12G/6G/3G/HD-SDI and HDMI enabling simple 4k transmission with a single cable.

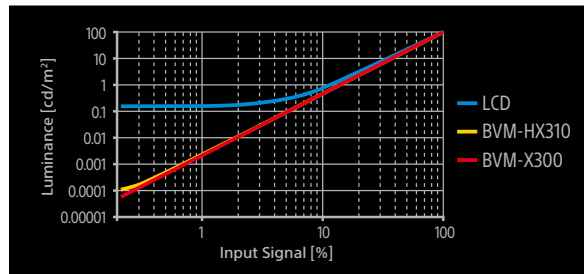
Rear connector panel



## ▶ Satisfaction of Seeing Truer Blacks

This TRIMASTER HX monitor superbly reproduces deep, truer blacks, allowing you to pick out subtle details and delicate highlights in surrounding areas. TRIMASTER HX technology accurately and clearly expresses color difference in extremely low luminance areas, which guarantees accurate image reproduction.

- TRIMASTER HX technology accurately displays noise and details in dark areas, allowing aperture and exposure to be finely adjusted, which avoids unwanted image artifacts.
- Video engineers can concentrate on grading tone and color more precisely and it is easier to adjust the black signal level, as shown in the pictures below.



BVM-HX310



BVM-X300

## ▶ 4K 4096 x 2160 Pixel Resolution LCD Panel

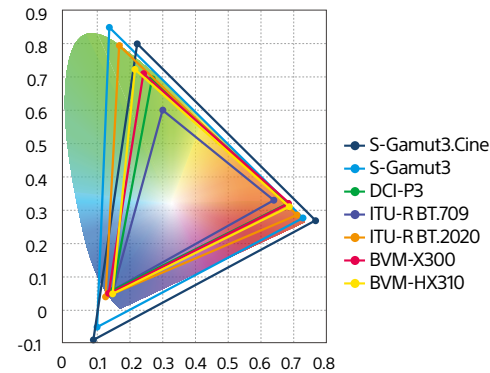
The BVM-HX310 incorporates a 31.1-inch true 4K panel at 4096 x 2160 pixel resolution. The aspect ratio is 1.89:1 (17:9) so images are mapped with no scaling processes.

## ▶ Supports DCI P3 and ITU-R BT.2020 Wide Color Spaces

The BVM-HX310 offers industry-leading wide color gamuts. It complies with the DCI-P3 color gamut and supports the ITU-R BT.2020 color space. S-GAMUT3.cine\*1 and S-GAMUT3\*1 color gamuts are also supported to achieve coherent cinematography production workflow with Sony's 4K cinematography cameras.

\*1 The BVM HX310 does not fully cover the ITU-R BT.2020, S-Gamut/S-Gamut3 and S-Gamut3.cine color space.

### Wider Color Gamut



\* Simulated image

## ▶ Gamut Marker

When ITU-R BT.2020 colors which are outside the ITU-R BT.709 or DCI-P3 color gamuts are detected, the 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 of the occurrence of such colors in the picture.

## Sony S-Log Gamma, Hybrid Log-Gamma and SMPTE ST 2084 Support

The BVM-HX310 supports conventional 2.2, 2.4, 2.6, and CRT gamma. In addition, it supports standardized EOTF for HDR (High Dynamic Range) such as SMPTE ST 2084 and ITU-R BT.2100(HLG). Both standards are used to cover various demands in the broadcast and cinematography industries. EOTF tables for live and post-production environments such as 2.4(HDR), S-Log2(HDR), S-Log3(HDR) and S-Log3(Live HDR) are also included. The latter is especially important as it offers easier camera control for high dynamic range live production (SR Live).

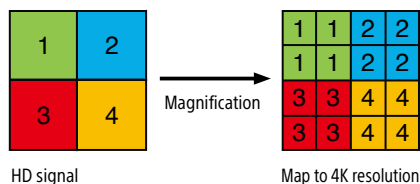
S-Log gammas are OETF curves used in Sony's digital cinematography cameras that allow you to capture the full latitude of the camera imager to be maintained throughout the production chain. Unlike conventional systems, in which highlight contrast is compressed, S-Log gamma logarithmically converts the video signal using characteristics similar to film negatives. This keeps the camera imager's dynamic range intact, even in extreme highlight areas.

The BVM-HX310 exhibits EOTFs which allow the reproduction of images with an inverse function of the camera's S-Log gamma signals.

Two display modes are offered: S-Log2 and S-Log3. Both of them enable easy workflows close to that of film, and deliver a 4K wide dynamic range. These log functions include the entire latitude range captured by the camera. When the BVM-HX310 is set to S-Log mode, it will display this range without the need for any signal correction or user LUTs.

## Accurate Upscale Conversion with Dot by Dot

By copying one dot four times, the HD signal is mapped to the 4K panel without pixel interpolation. This makes it possible to recognize pixel omissions. And by combining this with interlace display mode, ODD / EVEN mistakes, etc., can be easily found.



## Quad-View Display Function

The BVM-HX310 has a quad-view display function\*<sup>1</sup> which – across four distinct views – allows customized individual display settings including:

- Electro-optical transfer function (EOTF)
- Color space, transfer matrix, and color temperature
- Contrast, brightness, and chroma
- Interface (3G-SDI, HD-SDI including Single Link/Dual Link and HDMI)
- Signal structure (RGB and YCbCr)

An example application for quad-view display in production would be viewing the original footage on screen A, EOTF-converted image on screen B, another EOTF-converted image on screen C, and EOTF/color space-converted image on screen D.

\*<sup>1</sup> Inputs must be HD signals. The BVM-HX310 doesn't support down conversion from 4K. Any four HD signals can be displayed by selecting from SDI1 and HDMI, or SDI2 and HDMI.

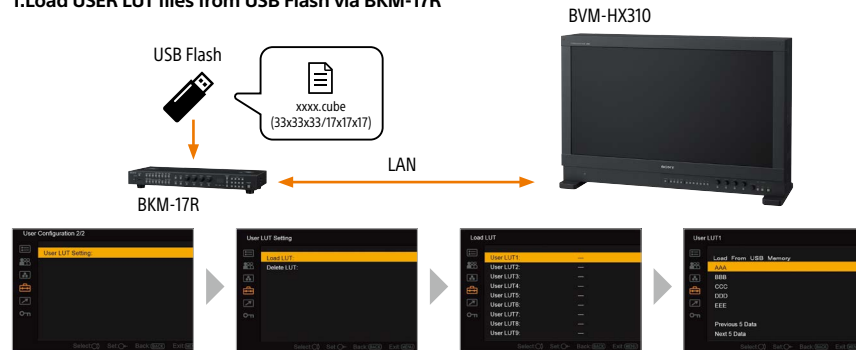


\* Simulated image

## ▶ USER LUT (Look-Up Table)

During on-set operation or in post-production, there is always a need to check the image during a pre-grading process or with a different EOTF. The BVM-HX310 has a user LUT function on the side of the monitor which allows you to display customized LUTs. Together with the quad-view mode, multiple user LUTs can be displayed on the same screen for side-by-side comparison.

### 1. Load USER LUT files from USB Flash via BKM-17R



### 2. Select and apply USER LUT



## ▶ Automatic Setting by VPID (Video Payload ID)

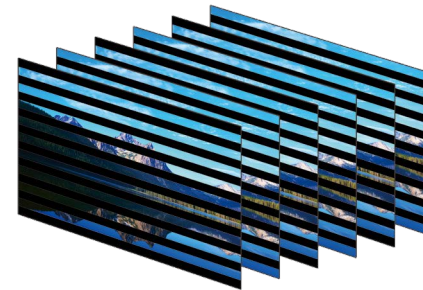
Compared with HD SDR, 4K HDR production has various and complex combinations of EOTF, color space, and RGB range. VPID automatically identifies source information embedded in the SDI signal and performs the correct monitor setting, minimizing human error.

## ▶ Low Process Delay

For a master monitor, a less process delay capability is very important especially in live production or broadcasting systems. Process delay in the BVM-HX310 is less than one frame and it ensures real-time video monitoring.

## ▶ Interlace Mode

The BVM-HX310 monitor offers an Interlace Display feature. 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.



\* Simulated image

## Faster access to the status menu page

BVM-HX310 can retain the settings last used in the status menu, such as Color space, EOTF, User Preset and more. Once you check them from the status menu and close the menu, you can quickly see them when you open the menu again.



## User Presets

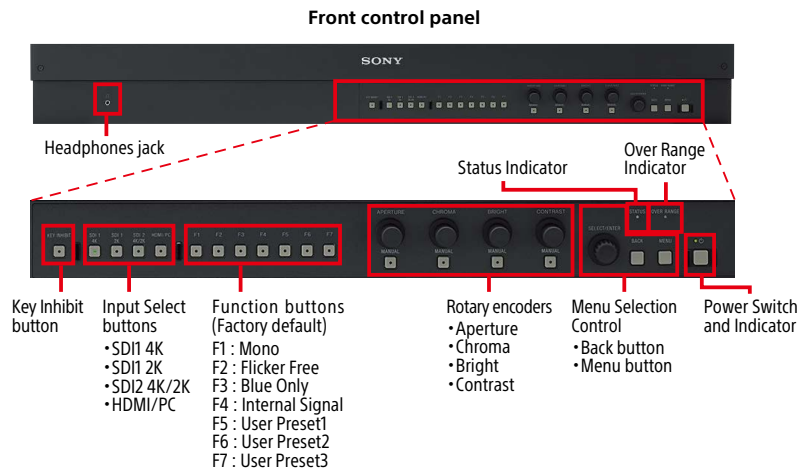
When multiple users share the same monitor, each user can memorize his/her settings and retrieve this data whenever required. This frees the user from time-consuming and repetitive setting tasks. Up to five User Presets can be memorized.



## User-friendly Built-in Control Panel

The BVM HX310 incorporates a built-in control panel in front, which offers common operability with BVM-X300:

- Seven user assignable function buttons
- Manual controls for aperture, chroma, brightness, and contrast
- Separate 4K and 2K settings, enabling users straightforward operation
- Dimmable button lights and on/off switchable indicator lights



## Password Lock for User Preset

When multiple users share the same monitor, each user can register his/her own password for color temperature and user preset data. This ensures the user correctly recalls their preset data, and keeps preset information safe from unauthorized use.

## Power-on Setting

This function allows users to select setting data when the monitor starts up; this includes last memory, user preset, and factory preset settings. Users can set the monitor accurately and quickly. This function is very useful for rental equipment.

## Key Inhibit

The KEY INHIBIT button located on the front panel protects each user's settings. When a user wants to change these values, the lock can be released.



## Flexible Area Marker

Two flexible area markers can be freely set anywhere on the screen. This is a useful feature during shooting operation, for instance on shopping channels. These require a unique screen layout to instantly differentiate between a product and its commercial data.



Example : Shopping channels



Guide for a proper framing

Zoom out to show a commercial product

## Time Code

LTC and VITC time code can be displayed at the top or bottom of the picture.

## Area Settings and Aspect Ratio Markers

The BVM-HX310 monitor can display various markers, including an aspect marker, safe area marker, and center marker. In addition to this flexible selection of marker types, the monitor offers detailed display settings for each marker. For example, the color, 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.

### Marker Variation

	Safe Area Marker		Aspect Marker*
	%	Dot (Pixel)	
Selectable Markers	80%, 88%, 90%, 93%, or variable	Flexible	16:9, 15:9, 14:9, 13:9, 4:3, 2.39:1, 2.35:1, 1.896:1, 1.85:1, or 1.66:1
Line Colors	White, Red, Green, Blue, Yellow, Cyan, or Magenta		
Line Width	1 to 5 dots (factory preset at 2 dots)		
Line Luminance Intensity	High (bright) or Low (dark)		
Blanking	—		Off: Blanking is released Black: Blanking Half: Half blanking

### Marker Examples



Aspect Mode: 2.35:1,  
Safe Area: Shape A,  
Area Size: 80%



Aspect Mode: 14:9,  
Safe Area: Shape B,  
Area Size: 80%



Aspect Mode: 4:3,  
Safe Area: Shape C,  
Area Size: 80%

# Formats

Signal System	Signal Format		
<b>2K/HD (HD-SDI)</b>			
1920 × 1080/60i*1, 50i, 30p*1, 30PsF*1, 25p, 25PsF, 24p*1, 24PsF*1	4 : 2 : 2 YCbCr	10 bit	
1280 × 720/60p*1, 50p, 30p*1, 25p, 24p*1			
2048 × 1080/30p*1, 30PsF*1, 25p, 25PsF, 24p*1, 24PsF*1			
<b>2K/HD (HD-SDI Dual link)</b>			
1920 × 1080/60p*1, 50p	4 : 2 : 2 YCbCr	10 bit	
1920 × 1080/60i*1, 50i, 30p*1, 30PsF*1, 25p, 25PsF, 24p*1, 24PsF*1	4 : 4 : 4 RGB	10 bit / 12 bit	
	4 : 4 : 4 YCbCr		
2048 × 1080/60p*1, 50p, 48p*1	4 : 2 : 2 YCbCr	10 bit	
2048 × 1080/30p*1, 30PsF*1, 25p, 25PsF, 24p*1, 24PsF*1	4 : 4 : 4 RGB	10 bit / 12 bit	
	4 : 4 : 4 YCbCr		
2048 × 1080/30p, 30PsF, 25p, 25PsF, 24p, 24PsF	4 : 4 : 4 XYZ	12 bit	
<b>2K/HD (3G-SDI)</b>			
1920 × 1080/60p*1, 50p	4 : 2 : 2 YCbCr	10 bit	Level A / Level B-DL
1920 × 1080/60i*1, 50i, 30PsF*1, 25PsF, 24p*1	4 : 4 : 4 RGB	10 bit / 12 bit	Level A / Level B-DL
	4 : 4 : 4 YCbCr		
1920 × 1080/30p*1, 25p, 24PsF*1	4 : 4 : 4 RGB	10 bit / 12 bit	Level A / Level B-DL
	4 : 4 : 4 YCbCr		
1280 × 720/60p*1, 50p, 30p*1, 25p, 24p*1	4 : 4 : 4 RGB	10 bit	Level A
	4 : 4 : 4 YCbCr		
2048 × 1080/60p*1, 50p, 48p*1	4 : 2 : 2 YCbCr	10 bit	Level A / Level B-DL
2048 × 1080/30p*1, 30PsF*1, 25p, 25PsF, 24p*1, 24PsF*1	4 : 4 : 4 RGB	10 bit / 12 bit	Level A / Level B-DL
	4 : 4 : 4 YCbCr		
2048 × 1080/30p, 30PsF, 25p, 25PsF, 24p, 24PsF	4 : 4 : 4 XYZ	12 bit	Level A / Level B-DL
<b>2K/HD (3G-SDI Dual Link)</b>			
1920 × 1080/60p*1, 50p	4 : 4 : 4 RGB	10 bit / 12 bit	Level A / Level B-DL
	4 : 4 : 4 YCbCr		
2048 × 1080/60p*1, 50p, 48p*1	4 : 4 : 4 RGB	10 bit / 12 bit	Level A / Level B-DL
	4 : 4 : 4 YCbCr		
<b>4K/UHD (3G-SDI Dual Link)</b>			
3840 × 2160/30p*1, 25p, 24p*1	4 : 2 : 2 YCbCr	10 bit	Level C / Level B-DS
3840 × 2160/30PsF*1, 25PsF, 24PsF*1	4 : 2 : 2 YCbCr	10 bit	Level B-DS
4096 × 2160/30p*1, 25p, 24p*1	4 : 2 : 2 YCbCr	10 bit	Level C / Level B-DS
4096 × 2160/30PsF*1, 25PsF, 24PsF*1	4 : 2 : 2 YCbCr	10 bit	Level B-DS
			2-sample interleave division / Square division *2
			Square division
			2-sample interleave division / Square division *2
			Square division
<b>4K/UHD (HD-SDI Quad Link)</b>			
3840 × 2160/30p*1, 30PsF*1, 25p, 25PsF, 24p*1, 24PsF*1	4 : 2 : 2 YCbCr	10 bit	Square division
4096 × 2160/30p*1, 30PsF*1, 25p, 25PsF, 24p*1, 24PsF*1	4 : 2 : 2 YCbCr	10 bit	Square division
<b>4K/UHD (3G-SDI Quad Link)</b>			
3840 × 2160/60p*1, 50p	4 : 2 : 2 YCbCr	10 bit	Level A / Level B-DL
	4 : 4 : 4 RGB	10 bit / 12 bit	Level A / Level B-DL
	4 : 4 : 4 YCbCr		2-sample interleave division / Square division
3840 × 2160/30p*1, 25p, 24p*1	4 : 4 : 4 RGB	10 bit / 12 bit	Level A / Level B-DL
	4 : 4 : 4 YCbCr		Square division
3840 × 2160/30PsF*1, 25PsF, 24PsF*1	4 : 4 : 4 RGB	10 bit / 12 bit	Level A / Level B-DL
	4 : 4 : 4 YCbCr		Square division
4096 × 2160/60p*1, 50p, 48p*1	4 : 2 : 2 YCbCr	10 bit	Level A / Level B-DL
	4 : 4 : 4 RGB	10 bit / 12 bit	Level A / Level B-DL
	4 : 4 : 4 YCbCr		2-sample interleave division / Square division
4096 × 2160/30p*1, 25p, 24p*1	4 : 4 : 4 RGB	10 bit / 12 bit	Level A / Level B-DL
	4 : 4 : 4 YCbCr		Square division
4096 × 2160/30PsF*1, 25PsF, 24PsF*1	4 : 4 : 4 RGB	10 bit / 12 bit	Level A / Level B-DL
	4 : 4 : 4 YCbCr		Square division
4096 × 2160/30p, 25p, 24p	4 : 4 : 4 XYZ	12 bit	Level A / Level B-DL
4096 × 2160/30PsF, 25PsF, 24PsF	4 : 4 : 4 XYZ	12 bit	Level A / Level B-DL
			2-sample interleave division / Square division
			Square division

Signal System	Signal Format			
<b>4K/UHD (12G-SDI Single Link)</b>				
3840 × 2160/60p*1, 50p	4 : 2 : 2 YCbCr	10 bit	Mode 1	2-sample interleave division / Square division
3840 × 2160/30p*1, 25p, 24p*1	4 : 4 : 4 RGB	10 bit / 12 bit	Mode 1	2-sample interleave division / Square division
	4 : 4 : 4 YCbCr			
4096 × 2160/60p*1, 50p, 48p*1	4 : 2 : 2 YCbCr	10 bit	Mode 1	2-sample interleave division / Square division
4096 × 2160/30p*1, 25p, 24p*1	4 : 4 : 4 RGB	10 bit / 12 bit	Mode 1	2-sample interleave division / Square division
	4 : 4 : 4 YCbCr			
4096 × 2160/30p, 25p, 24p	4 : 4 : 4 XYZ	12 bit	Mode 1	2-sample interleave division / Square division
<b>4K/UHD (6G-SDI Single Link)</b>				
3840 × 2160/30p*1, 25p, 24p*1	4 : 2 : 2 YCbCr	10 bit	Mode 1	2-sample interleave division / Square division
4096 × 2160/30p*1, 25p, 24p*1	4 : 2 : 2 YCbCr	10 bit	Mode 1	2-sample interleave division / Square division

\*1 Also compatible with 1/1.001.

\*2 Level C when 2-sample interleave division(2SI); level B-DL when square division(SQD).

## HDMI

Signal System	Signal Format	Standard
640 × 480/60p*3	4 : 4 : 4 RGB 12 bit / 10 bit / 8 bit	CTA-861-D
	4 : 4 : 4 YCbCr	
	4 : 2 : 2 YCbCr 12 bit	
720 × 480/60p*3	4 : 4 : 4 RGB 12 bit / 10 bit / 8 bit	CTA-861-D
	4 : 4 : 4 YCbCr	
	4 : 2 : 2 YCbCr 12 bit	
720 × 576/50p	4 : 4 : 4 RGB 12 bit / 10 bit / 8 bit	CTA-861-D
	4 : 4 : 4 YCbCr	
	4 : 2 : 2 YCbCr 12 bit	
1280 × 720/60p*3, 50p	4 : 4 : 4 RGB 12 bit / 10 bit / 8 bit	CTA-861-D
	4 : 4 : 4 YCbCr	
	4 : 2 : 2 YCbCr 12 bit	
1920 × 1080/60i*3, 50i	4 : 4 : 4 RGB 12 bit / 10 bit / 8 bit	CTA-861-D
	4 : 4 : 4 YCbCr	
	4 : 2 : 2 YCbCr 12 bit	
1920 × 1080/60p*3, 50p, 30p*3, 25p, 24p*3	4 : 4 : 4 RGB 12 bit / 10 bit / 8 bit	CTA-861-D
	4 : 4 : 4 YCbCr	
	4 : 2 : 2 YCbCr 12 bit	
2048 × 1080/60p*3, 50p, 48p, 30p*3, 25p, 24p*3	4 : 4 : 4 RGB 12 bit / 10 bit / 8 bit	No Standard
	4 : 4 : 4 YCbCr	
	4 : 2 : 2 YCbCr 12 bit	
3840 × 2160/60p*3*4, 50p*4	4 : 4 : 4 RGB 8 bit*5	CTA-861-G
	4 : 4 : 4 YCbCr	
	4 : 2 : 2 YCbCr 12 bit*5	
	4 : 2 : 0 YCbCr 8 bit	
3840 × 2160/30p*3*4, 25p*4, 24p*3*4	4 : 4 : 4 RGB 12 bit / 10 bit / 8 bit*5*7	CTA-861-G
	4 : 4 : 4 YCbCr 12 bit / 10 bit / 8 bit*5*6	
	4 : 2 : 2 YCbCr 12 bit	

Signal System	Signal Format	Standard
4096 × 2160/60p*3*4, 50p*4	4 : 4 : 4 RGB 8 bit*5	CTA-861-G
	4 : 4 : 4 YCbCr 12 bit*5	
	4 : 2 : 0 YCbCr 8 bit	
4096 × 2160/30p*3*4, 25p*4, 24p*3*4	4 : 4 : 4 RGB 12 bit / 10 bit / 8 bit*5*7	CTA-861-G
	4 : 4 : 4 YCbCr 12 bit / 10 bit / 8 bit*5*6	
	4 : 2 : 2 YCbCr 12 bit	
800 × 600/60p	4 : 4 : 4 RGB 12 bit / 10 bit / 8 bit	VESA and Industry Standards and Guidelines for Computer Display Monitor Timing(DMT)
	4 : 4 : 4 YCbCr	
	4 : 2 : 2 YCbCr 12 bit	
1024 × 768/60p	4 : 4 : 4 RGB 12 bit / 10 bit / 8 bit	VESA and Industry Standards and Guidelines for Computer Display Monitor Timing(DMT)
	4 : 4 : 4 YCbCr	
	4 : 2 : 2 YCbCr 12 bit	

\*3 Also compatible with the frame rate 1/1.001.

\*4 This signal is described as "equivalent to the 4K signal" in this manual.

\*5 [Enhanced Format] must be selected in the [HDMI Signal Format] menu. Also, when using this input signal, use the Premium High-Speed HDMI cable. (30P, 25P, 24P signals are only for the 4:4:4 RGB/YCbCr 10/12bit signal.)

\*6 The 4:4:4(YCbCr)12/10bit signal is displayed after converting to the 4:2:2(YCbCr)12/10bit signal.

\*7 The 4:4:4(RGB)12/10bit signal is displayed as a 4:4:4(RGB)8bit signal

# 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
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)
Color temperature	D55, D61, D65, D93, DCI*, and user 1-5 (5,000 K to 10,000 K adjustable),DCI XYZ
Luminance(panel specification)(typical)	1000 cd/m <sup>2</sup>
Color space (Color gamut)	ITU-R BT.2020 <sup>*2</sup> ; ITU-R BT.709, EBU, SMPTE-C, DCI-P3 <sup>*2</sup> , Native <sup>*3</sup> , S-GAMUT3 <sup>*2</sup> ; S-GAMUT3.cine <sup>*2</sup>
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 type (x4) Input impedance: 75 Ω unbalanced
SDI 2 input	(12G/6G/3G/HD) BNC type (x2) , (3G/HD) BNC type (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 <sup>*4</sup>	(3G/HD) BNC type (x4) <SDI1/SDI2 Switched output>, Output impedance: 75 Ω unbalanced
SDI 2 output	(12G/6G/3G/HD) BNC type (x2) , (3G/HD) BNC type (x2) <SDI2 active loop-through output>, 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. 450W(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)
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. 30kg (66 lb 2 oz)
Supplied accessories	AC power cord (1), AC plug holder (1), CD-ROM (1), Before Using This Unit (1),

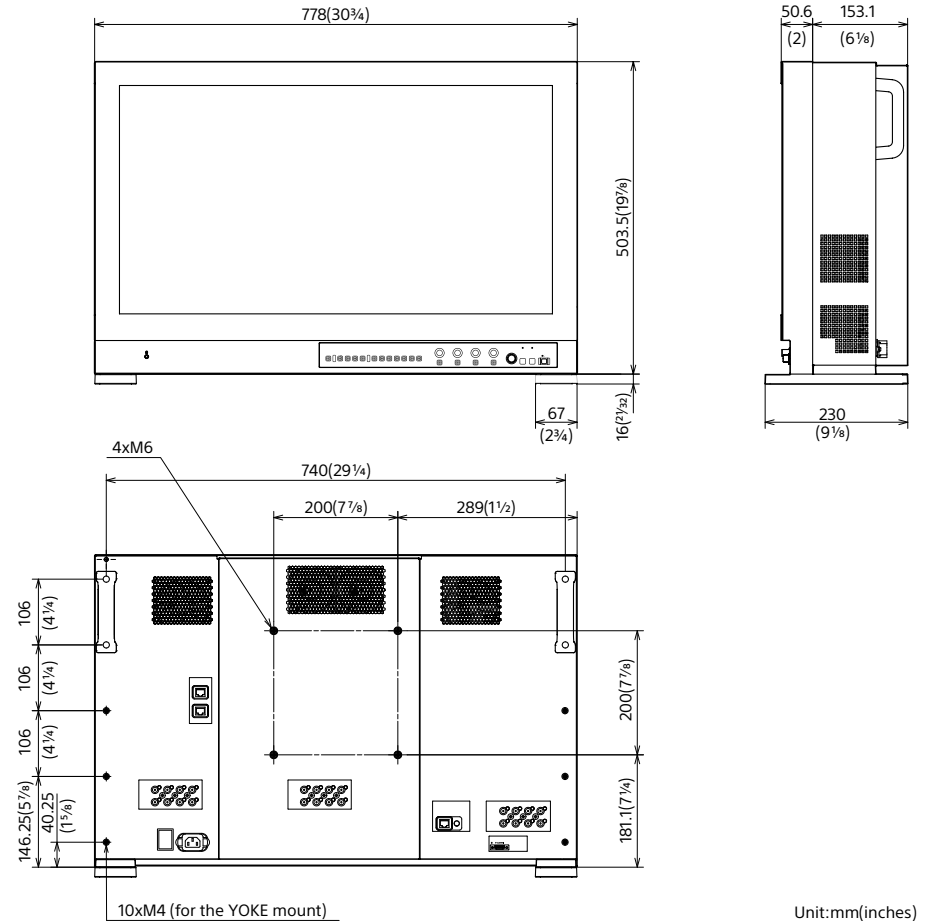
\*1 DCI: x=0.314, y=0.351

\*2 The BVM-HX310 does not cover selected color space in full.

\*3 The BVM-HX310 individual chromaticity points. The widest color 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.

# Dimensions



Unit:mm(inches)

Distributed by

©2018 Sony Imaging Products & Solutions Inc.

Reproduction in whole or in part without written permission is prohibited. Features, design, and specifications are subject to change without notice.

Screen images are simulated.

The values for mass and dimension are approximate.

"SONY" is a registered trademark of Sony Corporation.

"TRIMASTER", "TRIMASTER HX" are trademarks of Sony Corporation.

HDMI is a trademark of HDMI Licensing, LLC.

All other trademarks are the properties of their respective owners.

Please visit Sony's professional website or contact your Sony representative for specific models available in your region.