SONY

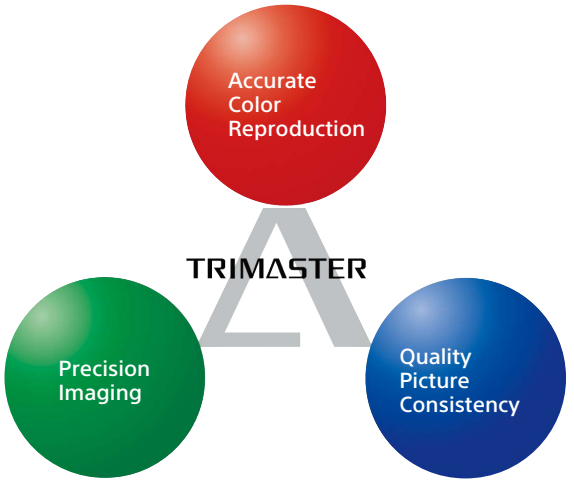
PVM-X2400
PVM-X1800

Professional Picture Monitor

TRIMASTER 4K HDR

TRIMASTER 4K HDR

The 4K HDR-compatible picture monitor that uses the same color gamut LCD panel as the BVM-HX310 master monitor and realizes all-white 1,000 cd/m2 luminance.



TRIMASTER Technology

TRIMASTER™ Technology is a design architecture used to elicit the full performance capabilities of Professional flat-panel displays. It comprises the core technologies that enable the highest level of color accuracy, precision imaging, and quality picture consistency.

Consistent Color Reproduction of Master Monitors and Picture Monitors in Content Creation Workflows

Live Production

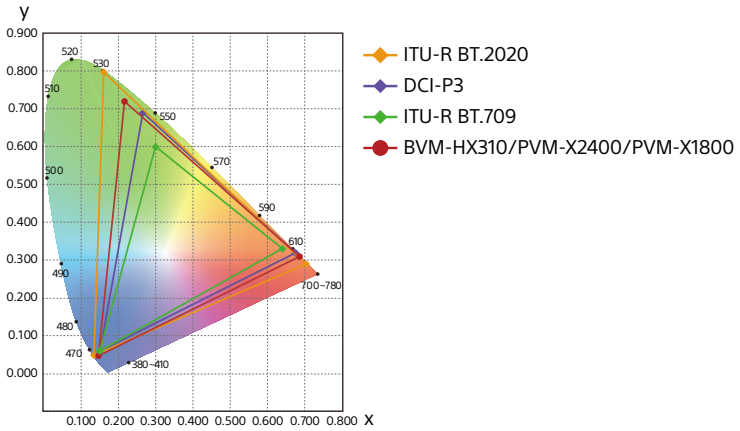
Shooting	Play-out	Lighting	Shading	Switching	Broadcasting
PVM-X	PVM-X	BVM-HX310 PVM-X	BVM-HX310	BVM-HX310 PVM-X	PVM-X

Dramas, Movies and Commercials Production

Shooting	CGI/VFX	Editing	Color Grading	Quality Control	Client Monitoring
PVM-X	PVM-X	BVM-HX310 PVM-X	BVM-HX310	BVM-HX310	BVM-HX310 PVM-X

4K Premium LCD Panel for True Color Matching with the BVM-HX310

The PVM-X Series has a 4K premium LCD panel (3840 x 2160) with a wide color gamut, high luminance, high contrast, fine grey scale, wide viewing angle and great uniformity. Sony specified the panel to realize 1,000 cd/m2 luminance and 100% color gamut coverage of the BVM-HX310, which is an industry-leading master monitor. This feature provides a color matching value across the entire process from camera shooting to finishing in versatile video productions such as live productions, TV programs, documentaries, music programs, movies, drama productions, commercial films, and more. All the professionals in a single project can share a common view and a common understanding of content color and tone even though they may be working at different times and in different locations. This allows everyone to communicate with each other more smoothly than before.

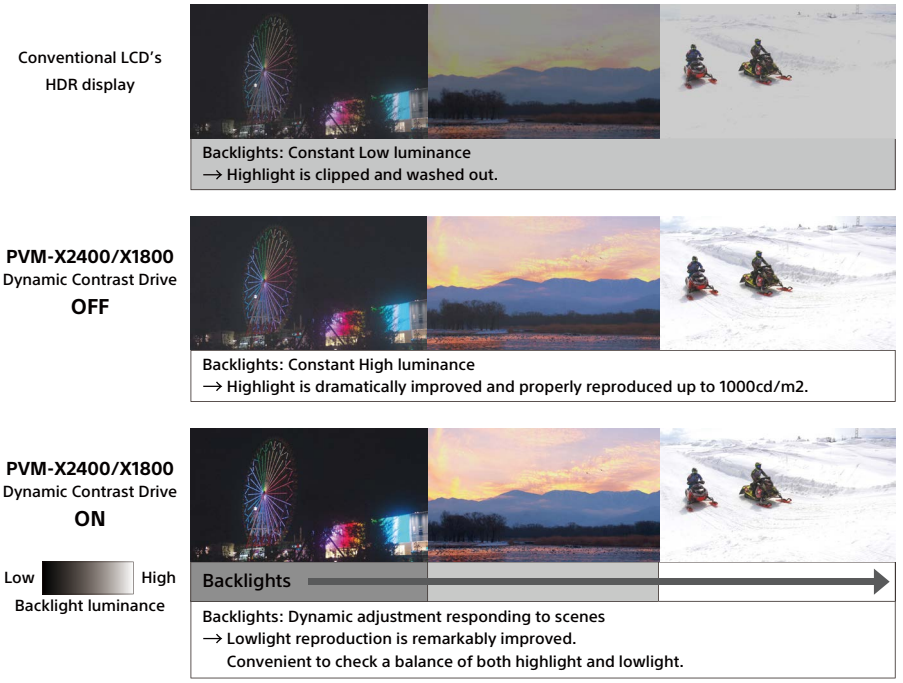


TRIMASTER Realizes Accurate Color Reproduction, Precise Imaging, and Quality Picture Consistency

TRIMASTER is a design architecture for accurate picture reproduction, precise imaging, and quality picture consistency. There are many advantages with the panel control and signal processing system such as fast processing, accurate linearizing of an input signal with an Optical Electrical Transfer Function, accurate color reproduction, and more.

Dynamic Contrast Drive

Dynamic Contrast Drive is a new backlight driving system that dynamically changes backlight luminance to adapt for the frame scene. You can conveniently check a total balance of highlights and low lights at a glance. Other advantages of this new system are that the drive does not cause any artificial halo effect and each signal level is displayed at each corresponding display luminance. With this drive, the monitor can dynamically perform with a 1,000,000:1 contrast ratio.

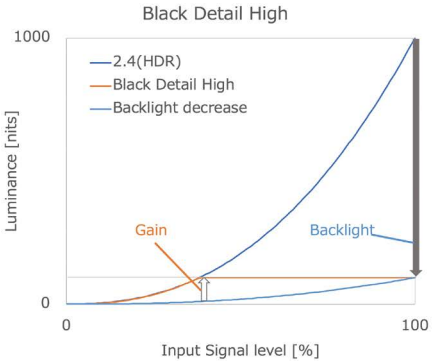


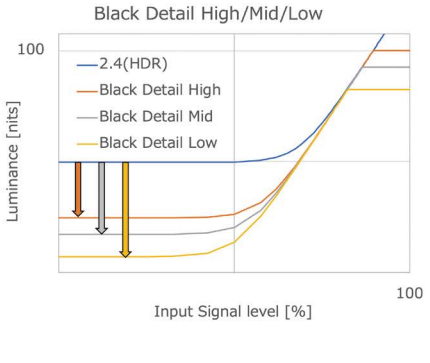
Note: The above three different scenes are a typical example.

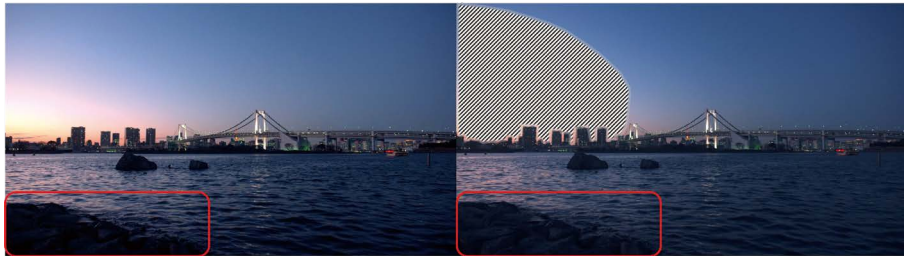
Features

Black Detail High/Mid/Low

Due to the LCD panel mechanism, backlight leaking from the panel surface is unavoidable. Black Detail High/Mid/Low provides more accurate monitoring of black detail in dark, low-APL (average picture level) images. The black level is reduced but gamma is maintained for correct color and grey scale. However, high luminance areas are clipped due to the dynamic range of the monitor. The portions to be clipped can be displayed by either zebra patterns or a clipped image.







User Interface

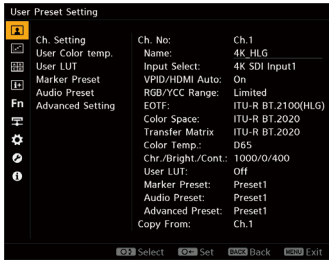
The OSD (On-Screen Display) menu structure has changed significantly from that of existing Sony 4K monitors. It has a shallow layered structure and you can see setting values when the OSD comes up and you can change them quickly. The Status menu has been repositioned from the top to the lower side. 4K/2K settings and Input settings/User presets are integrated in a single Channel. You can create 30 channels and rename each Channel according to your own preferences.

Sony has newly introduced the Channel Select button on the front control panel for operators. You can only select a channel from the list where you see the channel name, color space, EOTF, input, and more. Also you can simply assign channels to the Function keys. When multiple users share the same monitor, each user can memorize his/her setting data to a channel and retrieve this data whenever required. This frees you from time-consuming and repetitive setting tasks. When multiple users share the same monitor, all monitor data can be saved and locked by a password*. Each user can freely change all data values but these cannot be overwritten and saved to monitor memory by anyone unless they know the password.

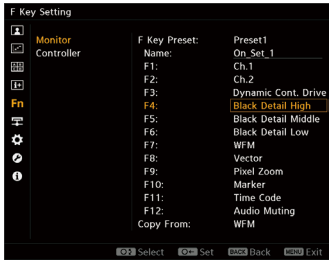
To speed up F-key configuration, you can take a shortcut to the settings menu screen simply by pressing and holding down the function key. And, to allow for the increase in functions, a new Function Key Preset is now included. You can create some different combinations of function keys and store them, and it is easy and quick to select one of the Function Key Presets. Not only the Channel but also the Function Key Preset, Color Temperature, and Marker name can be named from the OSD keyboard.

*A User 3D LUT data is an exception from the password protection.
It is independently added and deleted with no password protection.

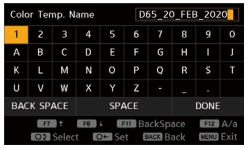
Shallow layered menu



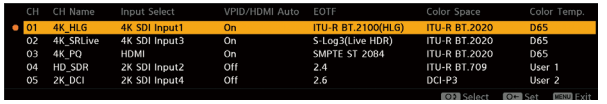
F key short-cut menu



OSD keyboard for rename function



CH select menu

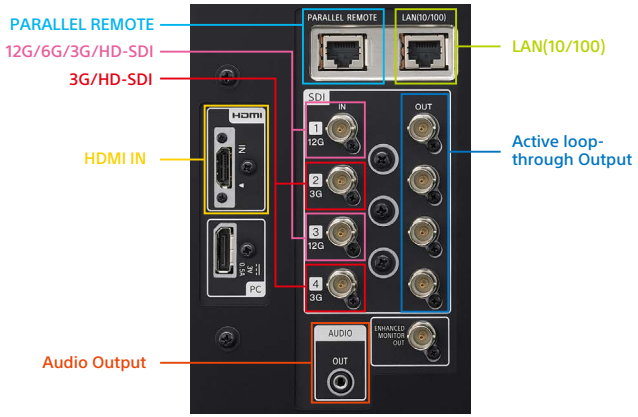


Features

4K Video Input Versatility for both Brand-New and Traditional Devices

The PVM-X Series monitor is equipped with built-in standard input interfaces: (12G/6G/3G/HD-SDI) BNC (x2), (3G/HD-SDI) BNC (x2), and HDMI (HDCP2.3/1.4) (x1).

- 12G simplifies wiring from the largest, latest system to the simplest field system
- Quad-link 3G-SDI offers truly convenient system configuration with many existing traditional devices
- HDMI is a mandatory interface supporting a rasterizer, multi-viewer, digital camera, set-top box, UHD Blue-ray and computer, and more



Various Signal Settings and Automatic Setting by Video Payload ID

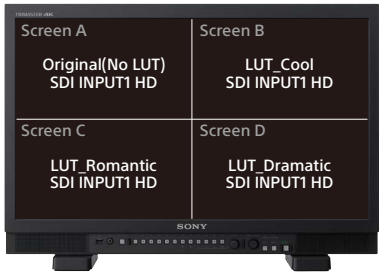
You can manually set various signal settings including ITU-R BT.2020, ITU-R BT.709, DCI-P3, S-Gamut/S-Gamut3, and S-Gamut3.Cine as color space and ITU-R BT.2100(HLG), SMPTE ST2084, S-Log3, and S-Log3(Live HDR) as EOTF. Support for VPID (video payload ID) identifies EOTF, Color Space, and RGB source information embedded in the SDI signal. Monitor settings are adjusted automatically, cutting the risk of human error in high-pressure live production environments.

User 3D LUT

User 3D LUT files can be loaded into the monitor's internal memory via a USB port on the front. Cube files with either 33 grid points or 17 grid points are supported. You can easily select different user LUTs and compare them in the Quad-View display.

Sony's Unique Quad View Display

The PVM-X Series provides a Quad-View display with individual settings of EOTF (SDR/HDR), color space, transfer matrix, color temperature, contrast, brightness, user 3D LUT, SDI/HDMI, and RGB/YCBCR for each display view. You can easily compare with different HD input sources and use it for monitoring different sources as a part of an HD wall system.



4K/HD Scopes with HDR/SDR Scale and Audio Level Meter Display

Both the waveform monitor and vector scope can be simultaneously displayed with scales for either HDR or SDR. The scales change automatically according to the monitor's selected EOTF setting. You can conveniently check both the input signal level and output luminance with the waveform monitor's HDR scale. There are various modes, including a zoom function (in an area of either 0 to 20% or 0 to 30%) with the waveform monitor, and a zoom function (in the central black area) with the vector scope, for adjusting camera white balance. The waveform monitor has three different displays: Luminance, RGB/YCBCR Parade, and RGB Overlay with the Gamut Error display. The waveform of a specified line can also be displayed. In addition, an audio level meter can display the embedded audio signal from the SDI or HDMI input; this is shown on screen either in ch1 to ch8 or ch9 to ch16.

Features

Flexible and Variable Area Markers, Aspect Marker, and Center Marker

You can set either two Flexible Area Markers or two Variable Area Markers on the screen. As their line colors and thickness can be changed, these two markers are easily identified. This second marker makes it easier to check the center portion's focus. Flexible Area Markers can be used for screen layout guidance in shopping programs.

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%

Marker Preset Image 1

Marker Preset Image 2

Marker Preset Image 3

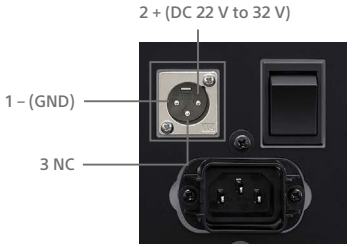
Example : Shopping channels

Guide for a proper framing

Zoom out to show a commercial product

DC Operation

The PVM-X Series can be operated with DC 22 V to DC 32 V. This provides more flexibility and mobility for users who need a larger high brightness screen for on-set applications. It is also ideal for field applications.



Yoke-Mount and Wall-Mount Capability

PVM-X2400 and PVM-X1800 monitors have screw holes on their side bezels for yoke mounting. This type of mounting is convenient when installing a monitor to a camera crane or monitor stand in the field. There are also wall-mount 100-mm pitch holes on each monitor's rear panel.

Yoke-mount

Wall-mount

Features

Highly Reliable Mechanical Design, Optional Protection Panel, and 19-inch EIA Standard Rack-Mount Capability

For long-term reliability, Sony ran multiple thermal simulations to find the most efficient cooling system and mechanical structure. Sony also undertook frequent heat load testing of customer installations over a long period of time, ensuring products passed its own exacting standards.

Optional PVMK-PX24 and PVMK-PX18* protection panels save the premium screen of the PVM-X Series from occasional inadvertent scratches and impacts during transportation and preparation**. One of these panels can be easily and quickly attached and detached without any tools, which is ideal for time-critical on-site application. An optional PVMK-RX24 or PVMK-RX18 rack-mount bracket can be used to mount the monitor on a standard 19-inch EIA rack, with or without the protection panel in place.

*Clearance space at the top of the monitor is required to enable attachment and detachment.
** The optional protection panels are not designed to protect the monitor screen from backlight heat during operation.

PVM-X1800

PVM-X2400


PVM-X2400 (Side)

Room Clearance Connector Panel Design

The connector panel on the rear of each monitor is designed to allow sufficient cord clearance. This design protects the connectors, saves space, and enables cabling flexibility with easy identification of the connectors for system integration and maintenance.

4K (4096 x 2160) and 2K (2048 x 1080) Input

The PVM-X Series monitor can display 4K and 2K inputs. The 4K/2K signal is displayed in two ways – as a full 4K/2K image scaled into a QFHD (3840 x 2160) screen or as a 4K/2K native display with side cut.

Power-on Setting

Power-on setting allows you to select the required setting data when the monitor starts up; this includes last memory, user preset, and factory preset settings. This function means you can set the monitor accurately and quickly – this is particularly useful for rental equipment.

Optimized Low-Latency I/P Conversion

With low latency, an I/P conversion system delivers automatically optimized signal processing according to input signals. This helps with editing and monitoring fast-moving images, and with synchronizing audio with lip sync.

Zoom Function

The PVM-X Series can magnify the center of the screen, allowing you to check the camera focus.

Various Basic Functions

The monitor has various basic functions such as Contrast/Brightness/Chroma adjustments, Mono, Blue Only, RGB cut off, Internal Signal, Internal Signal Pattern, and more.

Mono

Red (G and B off)

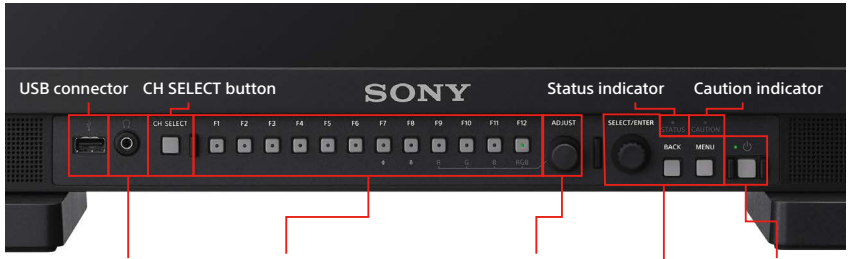
Green (R and B off)

Blue (R and G off)

Features

New Control Panel

The traditional input keys have integrated Function keys for more flexible configuration of input selections and functions. One of these, the Channel Select key, is newly set up as a dedicated key for input selection. You are required to select each setting from a given set of multiple settings, avoiding any inadvertent change to the setting parameters. This is ideal for busy operators in demanding production environments as they can see the setting details in the on-screen display and, even under pressure, simply select the required input without error. For added convenience, this monitor feels familiar as it has the same tactile response as the BVM-HX310 control panel.



High Sound Pressure Stereo Speakers (2W+2W) with Audio Muting

For Onset monitoring, Machine rooms, and other places with significant environmental noise, you need high sound pressure. 2W+2W front stereo speakers are more powerful than a monaural speaker or a rear speaker system and you can get a good stereophonic effect from them. When you need to put the monitor on mute very quickly, you can simply press the assigned Audio Muting Function key.

Options

PVMK-PX24
Protection panel for PVM-X2400

PVMK-PX18
Protection panel for PVM-X1800

PVMK-RX24
Rack Mounting Bracket for PVM-X2400

PVMK-RX18
Rack Mounting Bracket for PVM-X1800

BKM-17R
Monitor Control Unit

The PVM-X2400/X1800 monitors and the BKM-17R Monitor Control Unit are equipped with an Ethernet port, allowing remote control of display parameters across a standard Ethernet connection. One BKM-17R Monitor Control Unit can control up to thirty-two (32) monitors*1.

*1 Includes BVM-HX310, BVM-X300, PVM-X(Except PVM-X300) , BVM-L , PVM-L, and BVM- E/-F Series monitors.

INPUT/OUTPUT	
LAN	10BASE-T/100BASE-TX connector: RJ-45 (x1)
DC 12 V IN	Circle pin (x1)
USB (USB2.0) connector	USB Standard A (x1)
GENERAL	
Power requirements	DC IN: 12 V, 0.5 A (supplied with the connected monitor or the connected AC adapter) AC adapter (AC-UES1230 or ACUES1230M) AC adaptor: AC IN: 100 V to 240 V, 50/60 Hz, DC OUT: 12 V, 3 A
Current consumption	12 V DC, 0.5 A
Power consumption	Approx. 6 W
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)
Operating pressure	700 hPa to 1060 hPa
Storage / transport temperature	-10°C to +40°C (14°F to 104°F)
Storage/transport humidity	0% to 90%
Operating / storage / transport pressure	700 hPa to 1060 hPa
Dimensions(W x H x D)	424 x 58.8 x 169.6 mm (16 3/4 x 2 3/8 x 6 3/4 inches)
Mass	2.1 kg (4 lb 10 oz)
Supplied accessories	AC adapter (AC-UES1230 or ACUES1230M)(1), AC power cord (1), Rack mount brackets (2), Rack mount bracket attachment screws(4), Function labels (2), DC-cord secure connection attachment (1), DC-cord secure connection screw (1), Before Using This Unit (1), CD-ROM (1), European Representative (1)

Formats

Signal System	Signal Format			
2K/HD (HD-SDI)				
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				
2K/HD (HD-SDI Dual link)				
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			
	4 : 4 : 4 YCbCr	10 bit / 12 bit		
2K/HD (3G-SDI)				
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			
2K/HD (3G-SDI Dual Link)				
1920 × 1080/60p*1, 50p	4 : 4 : 4 RGB	10 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			
4K/UHD (3G-SDI Dual Link)				
3840 × 2160/30p*1, 25p, 24p*1	4 : 2 : 2 YCbCr	10 bit	Level C / Level B-DS	2-sample interleave division / Square division*2
3840 × 2160/30PsF*1, 25PsF, 24PsF*1	4 : 2 : 2 YCbCr	10 bit	Level B-DS	Square division
4096 × 2160/30p*1, 25p, 24p*1	4 : 2 : 2 YCbCr	10 bit	Level C / Level B-DS	2-sample interleave division / Square division*2
4096 × 2160/30PsF*1, 25PsF, 24PsF*1	4 : 2 : 2 YCbCr	10 bit	Level B-DS	Square division
4K/UHD (HD-SDI Quad Link)				
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
4K/UHD (3G-SDI Quad Link)				
3840 × 2160/60p*1, 50p	4 : 2 : 2 YCbCr	10 bit	Level A / Level B-DL	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	2-sample interleave division / Square division
	4 : 4 : 4 YCbCr			
3840 × 2160/30PsF*1, 25PsF, 24PsF*1	4 : 4 : 4 RGB	10 bit / 12 bit	Level A / Level B-DL	Square division
	4 : 4 : 4 YCbCr			
4096 × 2160/60p*1, 50p, 48p*1	4 : 2 : 2 YCbCr	10 bit	Level A / Level B-DL	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	2-sample interleave division / Square division
	4 : 4 : 4 YCbCr			
4096 × 2160/30PsF*1, 25PsF, 24PsF*1	4 : 4 : 4 RGB	10 bit / 12 bit	Level A / Level B-DL	Square division
	4 : 4 : 4 YCbCr			
4K/UHD (12G-SDI Single Link)				
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			
4K/UHD (6G-SDI Single Link)				
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 Structure	
640 × 480/60P*1	4:4:4 (RGB)	12/10/8bit
	4:4:4 (YCbCr)	12/10/8bit
	4:2:2 (YCbCr)	12bit
720 × 480/60P*1	4:4:4 (RGB)	12/10/8bit
	4:4:4 (YCbCr)	12/10/8bit
	4:2:2 (YCbCr)	12bit
1280 × 720/60P*1	4:4:4 (RGB)	12/10/8bit
	4:4:4 (YCbCr)	12/10/8bit
	4:2:2 (YCbCr)	12bit
1920 × 1080/60I*1	4:4:4 (RGB)	12/10/8bit
	4:4:4 (YCbCr)	12/10/8bit
	4:2:2 (YCbCr)	12bit
720 × 576/50P	4:4:4 (RGB)	12/10/8bit
	4:4:4 (YCbCr)	12/10/8bit
	4:2:2 (YCbCr)	12bit
1280 × 720/50P	4:4:4 (RGB)	12/10/8bit
	4:4:4 (YCbCr)	12/10/8bit
	4:2:2 (YCbCr)	12bit
1920 × 1080/50I	4:4:4 (RGB)	12/10/8bit
	4:4:4 (YCbCr)	12/10/8bit
	4:2:2 (YCbCr)	12bit
1920 × 1080/60P*1	4:4:4 (RGB)	12/10/8bit
	4:4:4 (YCbCr)	12/10/8bit
	4:2:2 (YCbCr)	12bit
1920 × 1080/50P	4:4:4 (RGB)	12/10/8bit
	4:4:4 (YCbCr)	12/10/8bit
	4:2:2 (YCbCr)	12bit
1920 × 1080/30P*1	4:4:4 (RGB)	12/10/8bit
	4:4:4 (YCbCr)	12/10/8bit
	4:2:2 (YCbCr)	12bit
1920 × 1080/25P	4:4:4 (RGB)	12/10/8bit
	4:4:4 (YCbCr)	12/10/8bit
	4:2:2 (YCbCr)	12bit
1920 × 1080/24P*1	4:4:4 (RGB)	12/10/8bit
	4:4:4 (YCbCr)	12/10/8bit
	4:2:2 (YCbCr)	12bit

Signal System	Signal Structure	
2048 × 1080/60P*1	4:4:4 (RGB)	12/10/8bit
	4:4:4 (YCbCr)	12/10/8bit
	4:2:2 (YCbCr)	12bit
2048 × 1080/50P	4:4:4 (RGB)	12/10/8bit
	4:4:4 (YCbCr)	12/10/8bit
	4:2:2 (YCbCr)	12bit
2048 × 1080/48P	4:4:4 (RGB)	12/10/8bit
	4:4:4 (YCbCr)	12/10/8bit
	4:2:2 (YCbCr)	12bit
2048 × 1080/30P*1*6	4:4:4 (RGB)	12/10/8bit
	4:4:4 (YCbCr)	12/10/8bit
	4:2:2 (YCbCr)	12bit
2048 × 1080/25P*6	4:4:4 (RGB)	12/10/8bit
	4:4:4 (YCbCr)	12/10/8bit
	4:2:2 (YCbCr)	12bit
2048 × 1080/24P*1	4:4:4 (RGB)	12/10/8bit
	4:4:4 (YCbCr)	12/10/8bit
	4:2:2 (YCbCr)	12bit
3840 × 2160/30P*1*2	4:4:4 (RGB)	12/10/8bit*3*5
	4:4:4 (YCbCr)	12/10/8bit*3*4
	4:2:2 (YCbCr)	12bit
3840 × 2160/25P*2	4:4:4 (RGB)	12/10/8bit*3*5
	4:4:4 (YCbCr)	12/10/8bit*3*4
	4:2:2 (YCbCr)	12bit
3840 × 2160/24P*1*2	4:4:4 (RGB)	12/10/8bit*3*5
	4:4:4 (YCbCr)	12/10/8bit*3*4
	4:2:2 (YCbCr)	12bit
4096 × 2160/30P*1*2	4:4:4 (RGB)	12/10/8bit*3*5
	4:4:4 (YCbCr)	12/10/8bit*3*4
	4:2:2 (YCbCr)	12bit
4096 × 2160/25P*2	4:4:4 (RGB)	12/10/8bit*3*5
	4:4:4 (YCbCr)	12/10/8bit*3*4
	4:2:2 (YCbCr)	12bit
4096 × 2160/24P*1*2	4:4:4 (RGB)	12/10/8bit*3*5
	4:4:4 (YCbCr)	12/10/8bit*3*4
	4:2:2 (YCbCr)	12 bit

Signal System	Signal Structure	
3840 × 2160/60P*1*2	4:4:4 (RGB)	8bit*3
	4:4:4 (YCbCr)	8bit*3
	4:2:2 (YCbCr)	12bit*3
	4:2:0 (YCbCr)	8bit
3840 × 2160/50P*2	4:4:4 (RGB)	8bit*3
	4:4:4 (YCbCr)	8bit*3
	4:2:2 (YCbCr)	12bit*3
	4:2:0 (YCbCr)	8bit
4096 × 2160/60P*1*2	4:4:4 (RGB)	8bit*3
	4:4:4 (YCbCr)	8bit*3
	4:2:2 (YCbCr)	12bit*3
	4:2:0 (YCbCr)	8bit*3
4096 × 2160/50P*2	4:4:4 (RGB)	8bit*3
	4:4:4 (YCbCr)	8bit*3
	4:2:2 (YCbCr)	12bit*3
	4:2:0 (YCbCr)	8bit
800 × 600/60P	4:4:4 (RGB)	12/10/8bit
	4:4:4 (YCbCr)	12/10/8bit
	4:2:2 (YCbCr)	12bit
1024 × 768/60P	4:4:4 (RGB)	12/10/8bit
	4:4:4 (YCbCr)	12/10/8bit
	4:2:2 (YCbCr)	12 bit

*1 Also compatible with the frame rate 1/1.001.
*2 This signal is described as "equivalent to the 4K signal" in this manual.
*3 "Enhanced Format" must be selected in the "HDMI Signal Format" (page 29).Also, when using this input signal, use the PremiumHigh-Speed HDMI cable. (30P, 25P, 24P signals are only for the 4:4:4 RGB/YCbCr 10/12bit signal.)
*4 The 4:4:4(YCbCr)12/10bit signal is displayed after converting to the 4:2:2(YCbCr)12/10bit signal.
*5 The 4:4:4(RGB)12/10bit signal is displayed after converting to the 4:2:2(YCbCr)12/10bit signal or is displayed as a 4:4:4(RGB)8bitsignal.
*6 This signal system is not described in EDID (Extended Display Identification Data).

Specifications

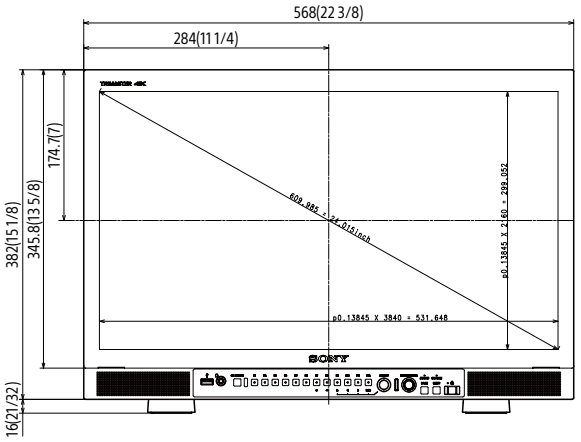
	PVM-X2400	PVM-X1800
Picture performance		
Panel	α-Si TFT Active Matrix LCD	
Picture size (diagonal)	609.6 mm (24 inches)	469.2 mm (18.4 inches)
Effective Picture size (H x V)	531.6 x 299.1 mm (21 x 11 7/8 inches)	408.96 x 230.04 mm (16 1/8 x 9 1/8 inches)
Resolution (H x V)	3840 x 2160 pixels	
Aspect	16 : 9	
Display colours	Approx. 1.07 billion colours	
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) contrast > 10:1)	89°/89°/89°/89° (up/down/left/right contrast > 10:1)	
Color temperature	D60, D65, D93, DCI*1, and user 1-10 (5,000 K to 10,000 K adjustable)	
Luminance(panel specification)(typical)	1000 cd/m2	
Color space (Color gamut)	ITU-R BT.2020*2, ITU-R BT.709, DCI-P3*2, 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, 2.4 (HDR), S-Log3, S-Log3 (Live HDR), SMPTE ST 2084, ITU-R BT.2100(HLG)	
Input		
SDI	(12G/6G/HD-SDI) BNC (x2), (3G/HD-SDI) BNC (x2), Input impedance: 75 Ω unbalanced	
HDMI	HDMI (HDCP2.3/1.4) (x1)	
Parallel Remote	RJ-45 8-pin (x1) (Fixed pin assignment)	
Serial remote (LAN)	Ethernet (10BASE-T/100BASE-TX), RJ-45 (x1)	
DC Input	XLR-type 3-pin (male) (x1), DC 22 V to 32 V (output impedance 0.05 Ω or less)	
Output		
SDI Output	(12G/6G/3G/HD-SDI) BNC (x2) , (3G/HD-SDI) BNC (x2) , Output impedance: 75 Ω unbalanced	
Audio monitor	Stereo mini jack (x1)	
Speaker (Built-in) Output	2.0 W+2.0W (Stereo)	
Headphones	Stereo mini jack (x1)	
General		
Power requirement	AC 100 V to 240 V, 2.6 A to 1.0 A, 50/60 Hz DC 22 V to 32 V, 9.9 A to 6.3 A	AC 100 V to 240 V, 2.1 A to 0.8 A, 50/60 Hz DC 22 V to 32 V, 8.2 A to 5.1 A
Power consumption	Approx. 225 W (Maximum at AC operation) Approx. 205 W (Maximum at DC operation)	Approx. 180 W (Maximum at AC operation) Approx. 165 W (Maximum at DC operation)
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)	
Strage / transport temperature	-20°C to +60°C (-4°F to +140°F)	
Strage / transport humidity	0% to 90%	
Operating / strage /transport pressure	700 hPa to 1060 hPa	
Dimensions (W x H x D)	568 x 382 x 158.5 mm*3 (22 3/8 x 15 1/8 x 6 1/4 inches) (without monitor stand) 568 x 403.5 x 178.5 mm*3 (22 3/8 x 16 x 7 1/8 inches) (with monitor stand)	444 x 310 x 148.5 mm*3 (17 3/8 x 12 1/4 x 5 7/8 inches) (without monitor handle and monitor stand)*4 444 x 368.7 x 168.5 mm*3 (17 3/8 x 14 5/8 x 6 3/4 inches) (with monitor handle and monitor stand)
Mass	Approx. 10.5 kg (23 lb 2 oz)	Approx. 8.2 kg (18 lb 1 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 PVM-X2400 and PVM-X1800 does not cover selected color space in full.
*3 Without projection parts.
*4 Hight without Handle is 331.5mm (13 1/8inches).

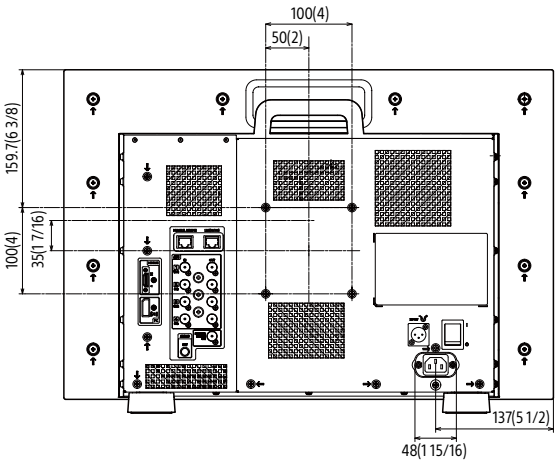
Dimensions

PVM-X2400

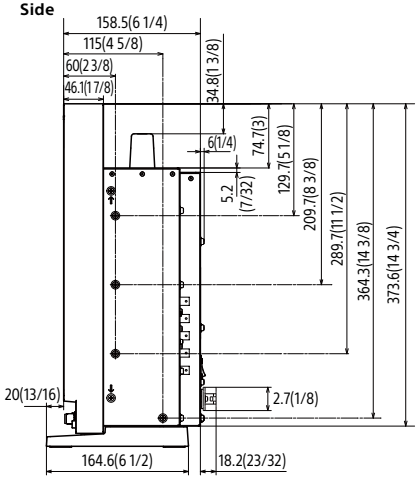
Front



Rear

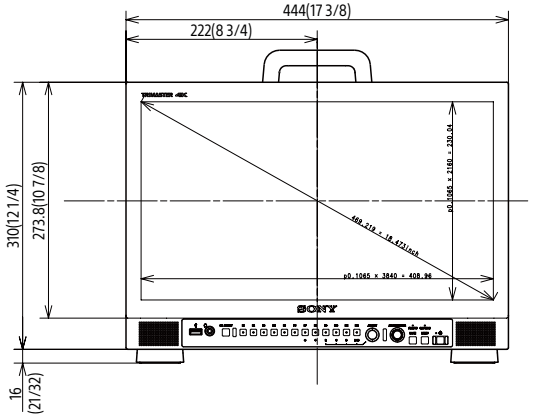


Side

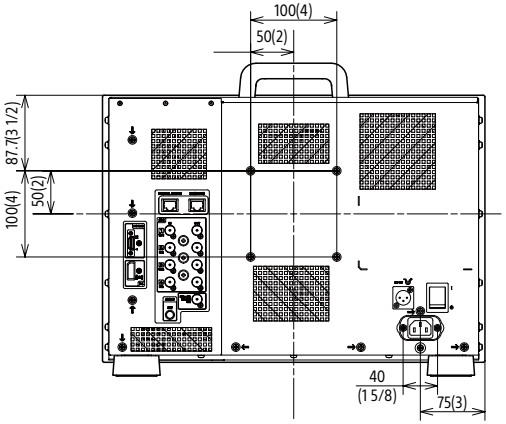


PVM-X1800

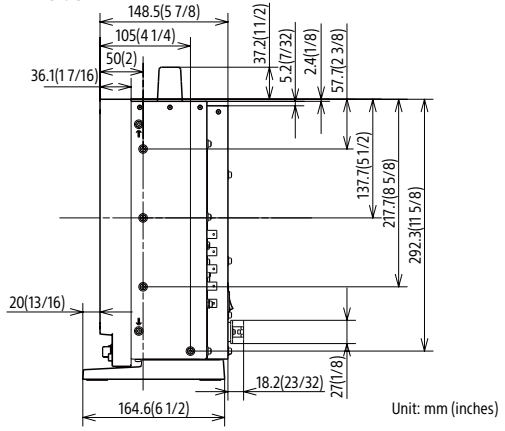
Front



Rear



Side



Unit: mm (inches)

Distributed by

MK20412V1DNP03