Multiformat Color Video Monitor

PVM-20L5*
PVM-14L5*

*19-inch/13-inch viewable area, measured diagonally
Professional broadcasting and production is increasingly a multi-format world — and Sony's new PVM-L5 Series Color Video Monitors allow you to handle multiple signal formats with uncompromising picture quality, input flexibility and cost-efficient operation.

The new 20-inch (19" viewable area, measured diagonally) and 14-inch (13" viewable area, measured diagonally) PVM-L5 Series Monitors feature a compact chassis design, enabling easy installation where rack space is limited. For versatility in digital video production, they also support a wide variety of signal formats: 480/60I, 575/50I, 480/60P, 575/50P, 1035/60I, 1080/60I, and 720/60P.

With high-performance HR Trinitron® picture tubes for resolution up to 800 TV lines and offering SMPTE-C phosphors, Sony's PVM-L5 Series monitors provide an ideal solution for your current and future needs. In a wide range of applications, including non-linear editing, production, post production and broadcasting, these compact monitors give you picture quality and operating convenience you can always count on.
Effective operational functions

› Selectable aspect ratio
By pressing a front panel button, the aspect ratio can be switched between 4:3 and 16:9 with 480/60I, 575/50I, 480/60P and 575/50P signals. Signals including 1035/60I, 1080/60I, and 720/60P are displayed in 16:9 aspect ratio.

› Switchable color temperature
Color temperature can be changed to D65, D93 or user preset (5000 K to 10000 K).

› Blue only mode
Noise on signal can be precisely evaluated. Chroma and phase adjustments can be easily made with the monochrome display in the Blue only.

› 4:3 Area marker
By displaying the 4:3 Area marker, operators can check the 4:3 aspect area of a 16:9 picture.

› Underscan function
When the underscan mode is selected, the entire active picture area is displayed. This makes it possible to view the entire image to check picture edges.

› H/V delay function
The H/V delay function allows viewing of the blanking area and sync/burst signal by displaying the horizontal and vertical intervals in the center of the screen.

› Auto/Manual degaussing
When the power is turned on, the CRT is automatically degaussed. This function can be delayed to prevent large power surges when turning on large groups of monitors. Degaussing can also be initiated by pressing the Manual Degauss button.

› Three-color tally
Three colors such as red, green and amber (red + green) can be selected for tally lamps.

Ease of operation

› Auto Chroma/Phase Setup
An Auto Chroma/Phase Setup mode facilitates the complex, delicate procedure of monitor adjustment. Using broadcast standard color bars as a reference, this function automatically calibrates chroma and phase. In computer-based editing systems, this feature is very convenient for aligning the color reproduction of video output signals.

› Parallel and RS-485 serial remote control
The PVM-L5 Series can be controlled via the 8-pin modular RJ45 connector (parallel remote), and also by BVM Series monitors that are capable of one integrated, multi-monitor control system via the D-sub 9-pin connector (RS-485 serial remote)*.
A BVM monitor is required to utilize this control.

Others

› Audio monitoring
A mono audio amplifier and loudspeaker are provided for audio monitoring.

› VLF (Very Low Frequency)
The PVM-L5 Series minimizes magnetic field emission.

› Worldwide power supply
Applies to AC 100 to 240 V (50/60 Hz).

› Mountable in a 19-inch EIA standard rack
The PVM-20L5 can be mounted in a 19-inch EIA standard rack with the optional Slide Rail SLR-104 and the PVM-14L5 with the optional Mounting Bracket MB-521.
Rear Panel

Optional accessories

SDI with audio Decoder Adaptor BKM-150CP
HD SDI Input Adaptor BKM-142HD
SDI 4:2:2 Decoder Adaptor BKM-120D
Analog Component Input Adaptor BKM-129X
Slide Rail SLR-104
Mounting Bracket MB-521
16:9 Mask for 20-inch monitor (PVM-20L5) BKM-200M
16:9 Mask for 14-inch monitor (PVM-14L5) BKM-140M

Supplied accessories

AC Power Cord (1)
Operation Manual (1)
**Features**

**Input flexibility**

- **Multi-format signal support**
  PVM-L5 Series monitors are equipped with input connectors for composite, S-video (Y/C) and RGB/Y Pb Pr signals. In combination with optional input adaptors, they can also accept a wide range of digital signals, such as HD SDI as SMPTE 292M or SDI as SMPTE 259M. Adaptors for SDTI and i.LINK® are also available.

- **Versatile analog signal inputs**
  The PVM-L5 Series are equipped with input connectors for component (Y/R-Y/B-Y and Y Pb Pr), RGB, Y/C and composite signals to provide system flexibility. For accuracy in reproduction, the component level can even be adjusted according to the input system — whether it's SMPTE or Betacam® format.

- **NTSC/PAL operation**
  PVM-L5 Series monitors accept PAL and NTSC composite signals, using automatic detection.

- **Versatile signal interface option**
  With an optional adaptor inserted into the option slot of the rear panel, PVM-L5 Series monitors accept direct input from a wide variety of signal formats.

**New compact design**

- **Compact chassis**
  The compact chassis design of PVM-L5 Series monitors enables easy installation where rack space is limited. When compared to conventional PVM-M Series monitors, the PVM-20L5 can be mounted using one less rack space (9 rack unit height) and the PVM-14L5 using two less spaces (6 rack unit height).

- **External sync**
  The PVM-L5 Series can accept external sync signal for synchronization with other equipment. The external sync can be activated so that it will automatically switch according to the input selected.

**Excellent picture performance**

- **High resolution**
  The HR Trinitron® CRT enables the PVM-L5 Series to achieve a high resolution of 800 TV lines.

- **Accurate color matching**
  SMPTE-C standard phosphor CRTs are incorporated in the PVM-20L5 and PVM-14L5. The accuracy of color reproduction achieved by these monitors makes them ideal for applications that require precise on-screen color.

- **Beam current feedback circuit**
  Because monitor white balance is prone to drift during continuous operation over a long period of time, the PVM-L5 Series are equipped with a beam current feedback circuit that eliminates white balance drift and maintains long-term color stability.

- **Illuminated controls**
  LED-lit sheet keys located on the sides of the front panel allow the PVM-L5 Series to be easily operated in low-light production environments. The LED indicators can be turned off or adjusted in brightness by five steps according to light conditions and operator preference.
# Specifications

## General

<table>
<thead>
<tr>
<th></th>
<th>PVM-20L5</th>
<th>PVM-14L5</th>
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</thead>
<tbody>
<tr>
<td><strong>CRT</strong></td>
<td>20-inch HR Trinitron</td>
<td>14-inch HR Trinitron</td>
</tr>
<tr>
<td><strong>Color system</strong></td>
<td>NTSC, PAL</td>
<td>NTSC, PAL</td>
</tr>
<tr>
<td><strong>Resolution (4:3/16:9)</strong></td>
<td>800 TV lines (4:3)/600 TV lines (16:9)</td>
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<tr>
<td><strong>Aperture correction</strong></td>
<td>OFF: 0 dB, ON: 2 to 6 dB</td>
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<tr>
<td><strong>Frequency response Phase</strong>*</td>
<td>LINE: 10.0 MHz +0 dB/-3 dB, Y signal only, RGB: 10.0 MHz to 24.0 MHz +0 dB/-3 dB</td>
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<tr>
<td><strong>Synchronization</strong></td>
<td>AFC time constant 1.0 ms</td>
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<tr>
<td><strong>Scanning frequency</strong></td>
<td>15.625 kHz to 45 kHz (For more details, please refer to the Acceptable Formats table)</td>
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## CRT

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<tbody>
<tr>
<td><strong>AG pitch</strong></td>
<td>0.31 mm</td>
<td>0.25 mm</td>
</tr>
<tr>
<td><strong>Phosphor</strong></td>
<td>SMPTE-C</td>
<td>SMPTE-C</td>
</tr>
<tr>
<td><strong>Effective picture size (4:3)</strong></td>
<td>388.4 (W) x 292.6 (H) mm, 484.8 (Diagonal) mm</td>
<td>267.5 (W) x 200.6 (H) mm, 331.6 (Diagonal) mm</td>
</tr>
<tr>
<td><strong>Effective picture size (16:9)</strong></td>
<td>388.4 (W) x 228 (H) mm, 443 (Diagonal) mm</td>
<td>267.5 (W) x 150.5 (H) mm, 306.9 (Diagonal) mm</td>
</tr>
</tbody>
</table>

## Dimensions (W x H x D)

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<tr>
<td><strong>Weight</strong></td>
<td>Approx. 68 lb 5 oz (31 kg)</td>
<td>Approx. 37 lb 8 oz (17 kg)</td>
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</table>

## Acceptable Formats

<table>
<thead>
<tr>
<th>System</th>
<th>Horizontal scanning frequency (kHz)</th>
<th>Total lines per frame</th>
<th>Active lines per frame</th>
<th>Vertical scanning frequency (Hz)</th>
<th>Aspect ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>480/60i (NTSC)</td>
<td>15.734</td>
<td>525</td>
<td>483</td>
<td>60</td>
<td>16:9/4:3</td>
</tr>
<tr>
<td>575/50i (PAL)</td>
<td>17.625</td>
<td>625</td>
<td>575</td>
<td>50</td>
<td>16:9/4:3</td>
</tr>
<tr>
<td>480/60P</td>
<td>31.469</td>
<td>525</td>
<td>483</td>
<td>60</td>
<td>16:9/4:3</td>
</tr>
<tr>
<td>576/50P</td>
<td>31.250</td>
<td>625</td>
<td>576</td>
<td>50</td>
<td>16:9/4:3</td>
</tr>
<tr>
<td>1035/60i</td>
<td>33.750</td>
<td>1125</td>
<td>1035</td>
<td>60</td>
<td>16:9</td>
</tr>
<tr>
<td>1080/60i</td>
<td>33.750</td>
<td>1125</td>
<td>1080</td>
<td>60</td>
<td>16:9</td>
</tr>
<tr>
<td>720/60P</td>
<td>45.000</td>
<td>750</td>
<td>720</td>
<td>60</td>
<td>16:9</td>
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</table>

* The Y/C input has priority over the Composite input.