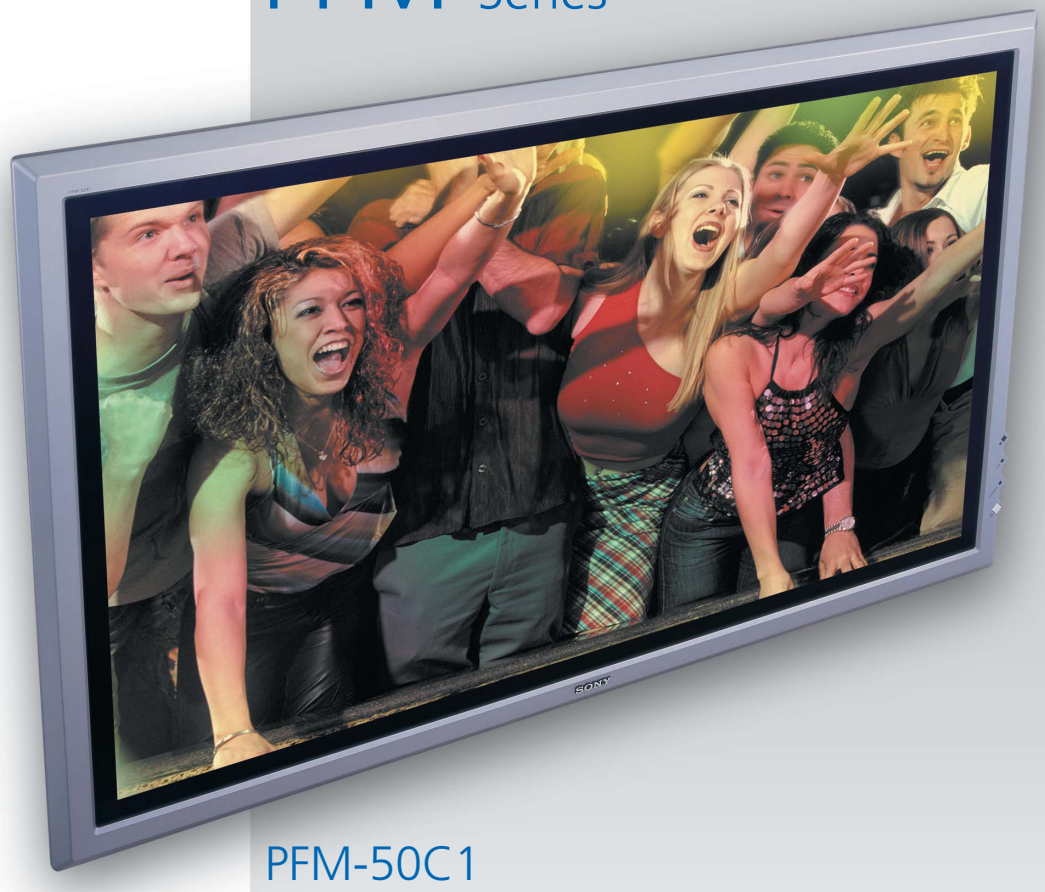
SONY

Professional Flat Panel Plasma Displays

PFM Series

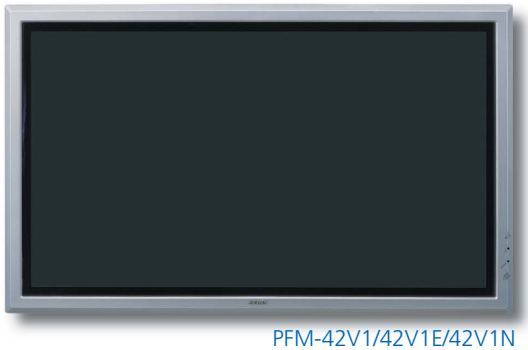


PFM-50C1
PFM-50C1E
PFM-42X1
PFM-42X1N
PFM-42V1
PFM-42V1E
PFM-42V1N

Dazzle Your Customers with Brilliant and Powerful Digital Signage Using Sony Plasma Displays

PFM-50C1/50C1E

PFM-42X1/42X1N



PFM-42V1/42V1E/42V1N

The PFM-42X1 incorporates a high-resolution, widescreen 16:9, native XGA plasma display panel with brilliant picture quality. It achieves a high contrast ratio resulting in clear image reproductions, and its stylish, slim, and lightweight design makes it easy to integrate in almost any environment. The PFM-42X1 has the flexibility to accept a variety of signals including PC and HD video signals. In addition, its "Picture and Picture" function allows images from two separate signals to be displayed simultaneously.

Incorporating superb signal processing technology, precise images with smooth picture edges are reproduced making the PFM-42X1 ideal for digital signage that requires clear reproductions of small images and characters. These applications range from event signage and advertising at retail stores and shopping malls, to information displays at airports, train stations, schools, conference rooms, and securities exchanges. Wherever you need to grasp the attention of visitors, the PFM-42X1 is the ideal choice.

The PFM-50C1 is equipped with a wide XGA resolution display panel, while the PFM-42V1 incorporates a wide VGA plasma display panel. Like the PFM-42X1, the PFM-50C1 is ideal for applications in which clear and legible images of small characters need to be reproduced. The high brightness achieved by the PFM-42V1 makes it an ideal plasma display to catch the attention of passers-by.

Note: Unless otherwise specified, references in this brochure to the PFM-42V1, PFM-42X1, and PFM-50C1 also refer to the models PFM-42V1E/N, PFM-42X1N, and PFM-50C1E, respectively.

FEATURES AND BENEFITS

High-Quality Picture

The PFM-42X1 incorporates a high-resolution widescreen native XGA (1024 x 768) plasma display panel with a 16:9 aspect ratio, while the panels adopted by the PFM-50C1 and PFM-42V1 are wide XGA (1365 x 768) and wide VGA (852 x 480), respectively. All of these plasma displays offer excellent picture quality with a high contrast ratio, resulting in clear image reproduction.

Picture and Picture Function

Both the PFM-42X1 and PFM-42V1 have a Picture and Picture function. Two separate signals can be input to these units to display two separate 4:3 aspect ratio images, each variable in size. Signal Combinations can be seen in the table below.

Note: The picture and picture function is not supported on the PFM-50C1. The PFM-42X1N and PFM-42V1N require either the BKM-V10, BKM-V11, or BKM-V12 for picture and picture.

Digital Visual Interface (DVI)

The PFM-42X1 is equipped with a DVI-D HDCP interface capable of receiving signals from either a DVI-equipped PC or DVI-equipped A/V equipment, such as a DVD player, while the PFM-42V1 is equipped with a DVI-D interface for use with a DVI-equipped PC. The advantage of this interface is that digital data and video can be converted for viewing without the loss of image quality associated with the signal conversion of digital to analog.

Note: DVI interface is not supported on the PFM-50C1, PFM-42X1N, and PFM-42V1N.

Multi-Layer, AR-Coated Protection Panel

The anti-reflection (AR) coating on the glass protection panel reduces light reflection for clear, high-contrast picture viewing.

Picture and Picture
Signal Combinations for Picture and Picture

PFM-42X1/PFM-42V1 (Digital RGB is not supported on the PFM-42X1N and PFM-42V1N)

	Digital RGB	Analog RGB	Component	Y/C	Composite
Digital RGB			●	● ●	● ●
Analog RGB			●*	● ●	● ●
Component	●	●*		●	●
Y/C	● ●	● ●	●		
Composite	● ●	● ●	●		

● PFM-42X1 ● PFM-42V1

* Requires INPUT 1 on the PFM-42X1 to be used in combination with a component input from either the optional BKM-V11 or BKM-V12 Input Adapters

- Two separate signals can be used to display two images simultaneously.
- Each image can be adjusted to seven sizes (for a total 14 steps).
- The position of each picture can be swapped if desired.
- The background color can be selected from any of the following:
  - Gray (default) • Dark Gray • Black

Note: Background color settings are made from the screen saver setup menu

FEATURES AND BENEFITS

Multiple Inputs and High-Performance Scan Converter

The PFM Series utilizes 16:9 aspect ratio flat panels that provide smooth, high-quality images across the entire screen. Display signals range from standard SDTV[1] to HDTV, and RGB computer signals with resolutions up to UXGA. A range of optional input adapters is available, providing convenient system flexibility. In addition, an integrated high-performance scan converter provides accurate pixel-by-pixel image reproduction, offering optimum image quality whatever the signal format.
Optional adapters[2] are available for receiving component/RGB input signals. The BKM-V12 accepts signals via a D-sub 15-pin connector and has an active through feature, and the BKM-V11 accepts signals via BNC connectors.

1 An optional adapter is required to accept composite video signals on the following models:
The PFM-50C1E requires the BKM-B10 adapter.
The PFM-42X1N, PFM-42V1E, and PFM-42V1N require the BKM-V10 adapter.
2 These adapters are for use with the PFM-42X1 and PFM-42V1 series of displays.

Versatile and Stylish Design

With its simple yet sophisticated appearance, the PFM Series offers a stylish, high-impact way to convey graphical messages. With excellent installation flexibility, these slim and lightweight displays provide large, superb-quality images in minimal space. The bezels of the PFM-42X1 and PFM-42V1 are available in cool silver or bluish black, while the PFM-42X1N, PFM-42V1E/N, and PFM-50C1 are available in cool silver.

High-Quality Digital Audio Amplifier

All PFM Series models provide exceptionally clear audio reproduction as a result of their high-quality integrated digital amplifiers. In addition, the amplifiers feed Speaker OUT (L/R) connectors so that optional speakers can be connected - further enhancing audio performance and quality.

Preset Signals

Video Input	fH(kHz)	Frame Rate	Resolution (Active lines)
NTSC	15.734	60*1	480
PAL	15.625	50	575
SECAM	15.625	50	575
NTSC4.43	15.734	60*1	480
PAL60	15.734	60*1	480
PAL-M	15.734	60*1	480
PAL-N	15.734	60*1	480
575/50i	15.625	50	575
480/60i	15.734	60*1	480
1080/24PsF*5	27.000	48*2	1080
1080/50i	28.125	50	1080
576/50P	31.250	50	576
480/60P	31.469	60*1	480
1080/60i	33.750	60*1	1080
720/60P	45.000	60*1	720
720/50P	45.000	50	720

Computer Input	fH(kHz)	fV(Hz)	Resolution (Active Pixels)
VGA-1 (VGA350)	31.5	70	640 x 480
640 x 350 @85 (VESA STD)	37.9	85	640 x 350
640 x 400 @85 (VESA STD)	37.9	85	640 x 400
640 x 480 @60 (VESA STD)	31.5	60	640 x 480
Mac 13"	35.0	67	640 x 480
640 x 480 @72 (VESA STD)	37.9	72	640 x 480
640 x 480 @75 (VESA STD)	37.5	75	640 x 480
640 x 480 @85 (VESA STD)	43.3	85	640 x 480
852 x 480 @60 (I-O DATA)*3	31.7	60	852 x 480
VGA (VGA TEXT)	31.5	70	720 x 400
720 x 400 @85 (VESA STD)	37.9	85	720 x 400
800 x 600 @56 (VESA STD)	35.2	56	800 x 600
800 x 600 @60 (VESA STD)	37.9	60	800 x 600
800 x 600 @72 (VESA STD)	48.1	72	800 x 600
800 x 600 @75 (VESA STD)	46.9	75	800 x 600
800 x 600 @85 (VESA STD)	53.7	85	800 x 600
Mac 16"	49.7	75	832 x 624
1024 x 768 @60 (VESA STD)	48.4	60	1024 x 768
1024 x 768 @70 (VESA STD)	56.5	70	1024 x 768
1024 x 768 @75 (VESA STD)	60.0	75	1024 x 768
1024 x 768 @85 (VESA STD)	68.7	85	1024 x 768
1152 x 864 @75 (VESA STD)	67.5	75	1152 x 864
Mac 21"	68.7	75	1152 x 870
1280 x 960 @60 (VESA STD)	60.0	60	1280 x 960
1280 x 960 @85 (VESA STD)	85.9	85	1280 x 960
1280 x 1024 @60 (VESA STD)	64.0	60	1280 x 1024
1280 x 1024 @75 (VESA STD)	80.0	75	1280 x 1024
1280 x 1024 @85 (VESA STD)	91.1	85	1280 x 1024
1600 x 1200 @60 (VESA STD)*4*5	74.5	60	1600 x 1200
856 x 480 @60 (Matrox)*6	30.2	60	856 x 480
856 x 480 @59.6 (Matrox)*6	30.1	59.6	856 x 480
856 x 480 @60.1 (Matrox)*6	30.1	60.1	856 x 480
848 x 480 @60 (VESA STD)*5	29.8	60	848 x 480
848 x 480 @60 (VESA STD)	29.5	60	848 x 480
848 x 480 @75 (VESA STD)	37.7	75	848 x 480
1280 x 768 @60 (VESA STD)	47.8	60	1280 x 768
1280 x 768 @60 (VESA STD)	47.4	60	1280 x 768

*1 Also accepts signals with a frame rate of 59.94.
*2 Also accepts signals with a frame rate of 47.952. This signal requires a D/A conversion before input.
*3 With a graphics accelerator board from I-O Data Device, Inc.
*4 Dot phase adjustment is not available when a UXGA resolution (1600 x 1200) signal is input.
*5 The DVI-D input does not accept these signals.
*6 With a graphics card from Matrox Graphics Inc.

● PFM-50C1 ● PFM-42X1 ● PFM-42V1

Easy-To-Use Remote Control Unit

Easy control of the plasma display is possible with the supplied RM-971 remote control unit.

RM-971

External Control Using RS-232C Interface

All PFM Series plasma displays are equipped with an RS-232C interface, enabling users to have full control of the units from external equipment.

Installation Flexibility

All models can be installed in various positions to meet different user applications - whether placed on an optional stand[3], installed on a wall, or hung from a ceiling. These plasma displays can be mounted horizontally or vertically[4].

3 The SU-P50C is available for the PFM-50C1, and the SU-42B is available for the PFM-42X1 and PFM-42V1.
4 Vertical mounting is not recommended with the PFM-42V1. The PFM-42V1P is available for vertical mounting.

Selectable Aspect Ratio

When video is input, the aspect ratio can be selected from widescreen 16:9, expanded 4:3, Letter Box zoom, Subtitle mode, and standard 4:3. When a PC signal is input, the aspect ratio can be selected from widescreen 16:9 or standard 4:3.

Precise Color Temperature Control

In addition to three preset color temperature settings (cool, neutral, and warm), three user-defined color temperature settings can be stored in memory and recalled to meet the specific needs of your display environment.

Picture Zoom Control

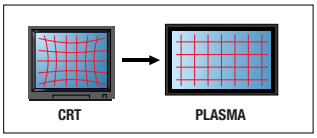
A section of the picture can be zoomed in for closer viewing using the Picture Zoom Control function. This also allows multiple units to be used in video-wall applications.

Dot Phase Adjustment (for analog RGB input from a PC)

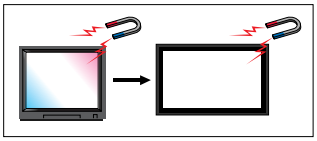
The sampling phase for signal digitizing can be precisely adjusted to the input RGB analog signal, creating clearer pictures. When the display receives an input signal, it automatically adjusts the picture's sharpness (phase/pitch) to ensure that a clear picture appears on the screen. Users can also adjust the setting manually.

Flat Panel Advantages

Flat panel displays produce accurate image geometry as a result of their linear pixel alignment.



Unlike conventional CRTs, flat panel plasma displays are resistant to magnetic fields - providing drift-free color uniformity.



Resize and Reposition Adjustment

If a picture is not sized or positioned correctly on the screen, the resize and reposition functions can be used to manually adjust the picture size and vertical/horizontal position of the picture to fit the screen.

Picture Setting Memory

Up to 20 individual picture-setting patterns can be stored and loaded as required. This function is convenient when multiple users share a single unit. The following settings are available:

- •Contrast
- •Brightness
- •Chroma
- •Phase
- •Sharpness
- •Noise Reduction
- •Color Temperature
- •Color Correct
- •Resize and Reposition
- •Gamma Correct
- •Aspect Ratio Adjustment
- •Pixel Adjustment

Multi-Language On-Screen Display (OSD)

A multi-language OSD is available on all units. Supported languages include English, French, German, Italian, Spanish, and Japanese.

Closed Caption Decoder

Closed caption data embedded in video signals can be displayed on all of these PFM Series displays.

Screen Saver

Residual images are reduced effectively with "Picture Orbiting" and "Picture Inversion" screen saver functions. In addition to these, the PFM-42X1 has a "Background" screen saver function that displays the background screen, which can be selected from one of the following three colors: gray (default), dark gray, and black.

Energy-Saving Mode

The energy-saving mode decreases power consumption of the unit by reducing the emission level of the plasma panel, thus saving cost throughout the lifespan of the display.

24-Hour On/Off Timer

The power can conveniently be turned on and off using the built-in 24-hour on/off timer.

Picture Modes

The PFM Series offers several picture modes that allows images to be displayed according to different user preferences and viewing environments. Two factory presets (Standard Mode and Vivid Mode) allow for quick and easy display setup. Also available are three user modes for storage of user-defined settings.

Auto Wide Function

The Auto Wide function automatically enlarges the video image to fill the 16:9 wide aspect screen.

Worldwide Power Supply

The PFM Series plasma displays accept 100 to 240 volts and can be used worldwide.

OPTIONAL ACCESSORIES

BKM-V10 ● ●
Video Input Adapter
- Composite input/output
- Y/C input
- Audio input (x1)

BKM-V11 ● ●
Component/RGB Input Adapter
- YUV/RGB input
- Audio input (x1)

BKM-V12 ● ●
RGB/Component Active Through Adapter
- RGB/YUV input/output (active through)
- Audio input (x1)

BKM-B10 ●
Video Input Adapter
- Composite input/output
- Y/C input
- Audio input (x1)

SS-SP10A ●
Speaker System

SS-SP20B ● ●
Speaker System
*Available in bluish black or cool silver.

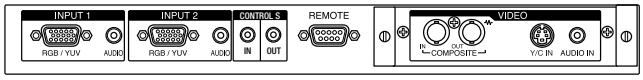
SU-P50C ●
Monitor Stand

SU-42B ● ●
Monitor Stand

● PFM-50C1 ● PFM-42X1 ● PFM-42V1

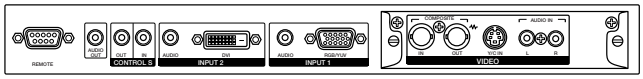
CONNECTOR AND CONTROL PANELS

PFM-50C1/PFM-50C1E Connector Panel



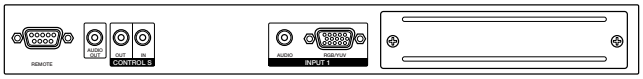
PFM-50C1E requires an optional BKM-B10 adapter (shown in the illustration) to accept composite video signals.

PFM-42X1 Connector Panel



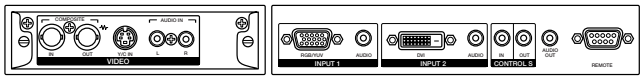
PFM-42X1 can also be configured with either the BKM-V11 or BKM-V12 adapters in lieu of the BKM-V10 (shown in the illustration) to accept RGB/Component signals.

PFM-42X1N Connector Panel



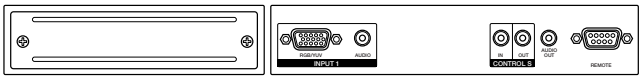
PFM-42X1N requires an optional BKM-V10 adapter to accept composite video signals. It can also be configured with either the BKM-V11 or BKM-V12 adapters to accept RGB/Component signals.

PFM-42V1/PFM-42V1E Connector Panel



PFM-42V1 can also be configured with either the BKM-V11 or BKM-V12 adapters in lieu of the BKM-V10 (shown in the illustration) to accept RGB/Component signals. The PFM-42V1E requires and optional BKM-V10 adapter (shown in the illustration) to accept composite video signals.

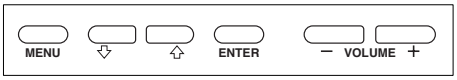
PFM-42V1N Connector Panel



PFM-42V1N requires an optional BKM-V10 adapter to accept composite video signals. It can also be configured with either the BKM-V11 or BKM-V12 adapters to accept RGB/Component signals.

Note: Connector panels are located on the bottom of all units.

PFM-50C1, PFM-42X1, and PFM-42V1 Control Panel



The control panel is located on the top of all units.

Note: The power switch is positioned on the front of all units.

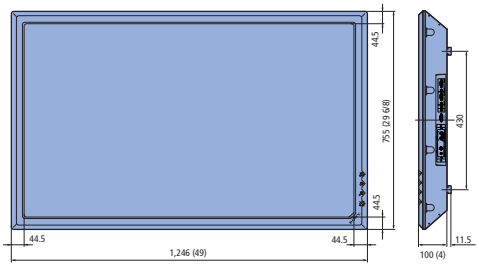
SPECIFICATIONS

Picture Performance		PFM-50C1/50C1E	PFM-42X1/42X1N	PFM-42V1/42V1E/42V1N
Panel	Resolution	1365 x 768 pixels	1024 x 768 pixels	852 x 480 pixels
	Pixel pitch	0.81 x 0.81 mm	0.90 x 0.676 mm	1.08 x 1.08 mm
	Active area (W/H)	1,106 x 622 mm	920 x 518 mm	
	Viewable picture area	50-inch/1,270 mm (measured diagonally)	42-inch/1,058 mm (measured diagonally)	
	Colors	16.8 million colors simultaneously	1.06 billion colors simultaneously	16.8 million colors simultaneously
	Type	AC-type Plasma Display Panel with anti-reflection screen		
Color system		NTSC, PAL, SECAM, NTSC4.43, PAL60, PAL-M, PAL-N		
Sampling rate		13.5 to 140 MHz		
Input/Output				
INPUT1		D-sub 15-pin		
	RGB	0.7 Vp-p/non composite, 1.0 Vp-p composite, 75 Ω		
	YUV	0.7 Vp-p/non composite (U/V), 1.0 Vp-p/composite (Y), 75 Ω		
	AUDIO	Stereo mini jack, 500 mVrms, high impedance		
INPUT2*1		D-sub 15-pin	DVI-D HDCP	DVI-D
	RGB	0.7 Vp-p/non composite, 1.0 Vp-p composite, 75 Ω	–	–
	YUV	0.7 Vp-p/non composite (U/V), 1.0 Vp-p/composite (Y), 75 Ω	–	–
	AUDIO	Stereo mini jack, 500 mVrms, high impedance		
VIDEO*2	COMPOSITE IN	BNC, 1.0 Vp-p ±2 dB sync negative, 75 Ω automatic termination		
	Y/C IN	Mini DIN 4-pin		
		Y: 1.0 Vp-p ±2 dB sync negative, 75 Ω automatic termination C: 0.286 Vp-p ±2 dB sync negative (NTSC), 75 Ω 0.3 Vp-p ±2 dB sync negative (PAL), 75 Ω		
	AUDIO IN	Stereo mini jack, 500 mVrms, high impedance	Phono jack (L/R), 500 mVrms, high impedance	
	COMPOSITE OUT	BNC, loop-through		
AUDIO OUT		–	Stereo mini jack, 500 mVrms, high impedance	
SPEAKER OUT (L/R)		7 W + 7 W (6 Ω)		
REMOTE (RS-232C)		D-sub 9-pin		
CONTROL S		Stereo mini jack		
General				
Power requirements		AC 100 to 240 V, 50/60 Hz, 5.4 to 2.2 A	AC 100 to 240 V, 50/60 Hz, 4.2 to 1.8 A	AC 100 to 240 V, 50/60 Hz, 3.7 to 1.5 A
Power consumption (max.)		490 W	400 W	360 W
Operating temperature		0 to 35 °C (32 to 95 °F)		
Storage temperature		-10 to 40 °C (14 to 104 °F)		
Humidity		20 to 90 %, no condensation		
Dimensions*3 (W/H/D)		1,246 x 755 x 100 mm (49 x 29 6/8 x 4 inches)	1,033 x 631 x 102 mm (40 3/4 x 24 7/8 x 4 1/8 inches)	1,033 x 631 x 83 mm (40 3/4 x 24 7/8 x 3 3/8 inches)
Mass		46.7 kg (103 lb 9 oz)	29.7 kg (65 lb 8 oz)	27.0 kg (59 lb 8 oz)
Supplied Accessories				
		AC Power Cord, AC Plug Holder (2), AA/R6 Sized Batteries (2), Cable Holder A (2), Cable Holder B (4), Operating Instructions	DVI-D Cable*4, AC Power Cord, AC Plug Holder (2), AA/R6 Sized Batteries (2), Cable Holder (4), Operating Instructions	
		Remote Commander RM-971		
Regulation Compliance				
		UL1950, CSA No.950 (c-UL), CE LVD (EN60950), PSE, FCC Class-B, IC Class-B, VCCI Class-B, CE EMC (EN55022 Class-B, EN55024, EN61000-3-2, EN61000-3-3), C-Tick (AS/NZS 3548/95, AS/NZS 4252.1), JEITA, CB		

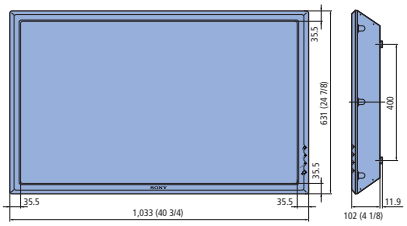
*1 The PFM-42X1N and PFM-42V1N do not have an INPUT2.
*2 The PFM-50C1E requires an optional BKM-B10 adapter to accept video signals.
The PFM-42X1N, PFM-42V1E and the PFM-42V1N requires an optional BKM-V10 adapter to accept video signals.
*3 Excluding protruding parts.
*4 Not included with the PFM-42X1N or PFM-42V1N

Dimensions

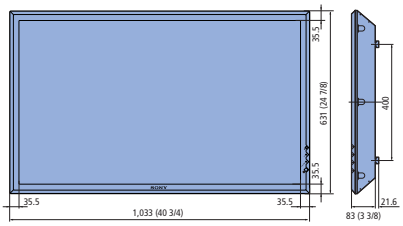
Unit: mm (inches)



PFM-50C1/50C1E



PFM-42X1/42X1N



PFM-42V1/42V1E/42V1N

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