

# Panasonic

ideas for life

# Plasma Display



**TH-50PHD6EX/BX**  
50-inch (127 cm) diagonal  
High Definition Plasma Display



**TH-42PHD6EX/BX**  
42-inch (106 cm) diagonal  
High Definition Plasma Display



**TH-42PWD6EX/BX**  
42-inch (106 cm) diagonal  
Wide Plasma Display

# ***Superior Picture Quality, Usability, Expandability — The Performance You Need in Professional Applications***

## **Real MACH System: The Industry's Best Overall Picture Quality**

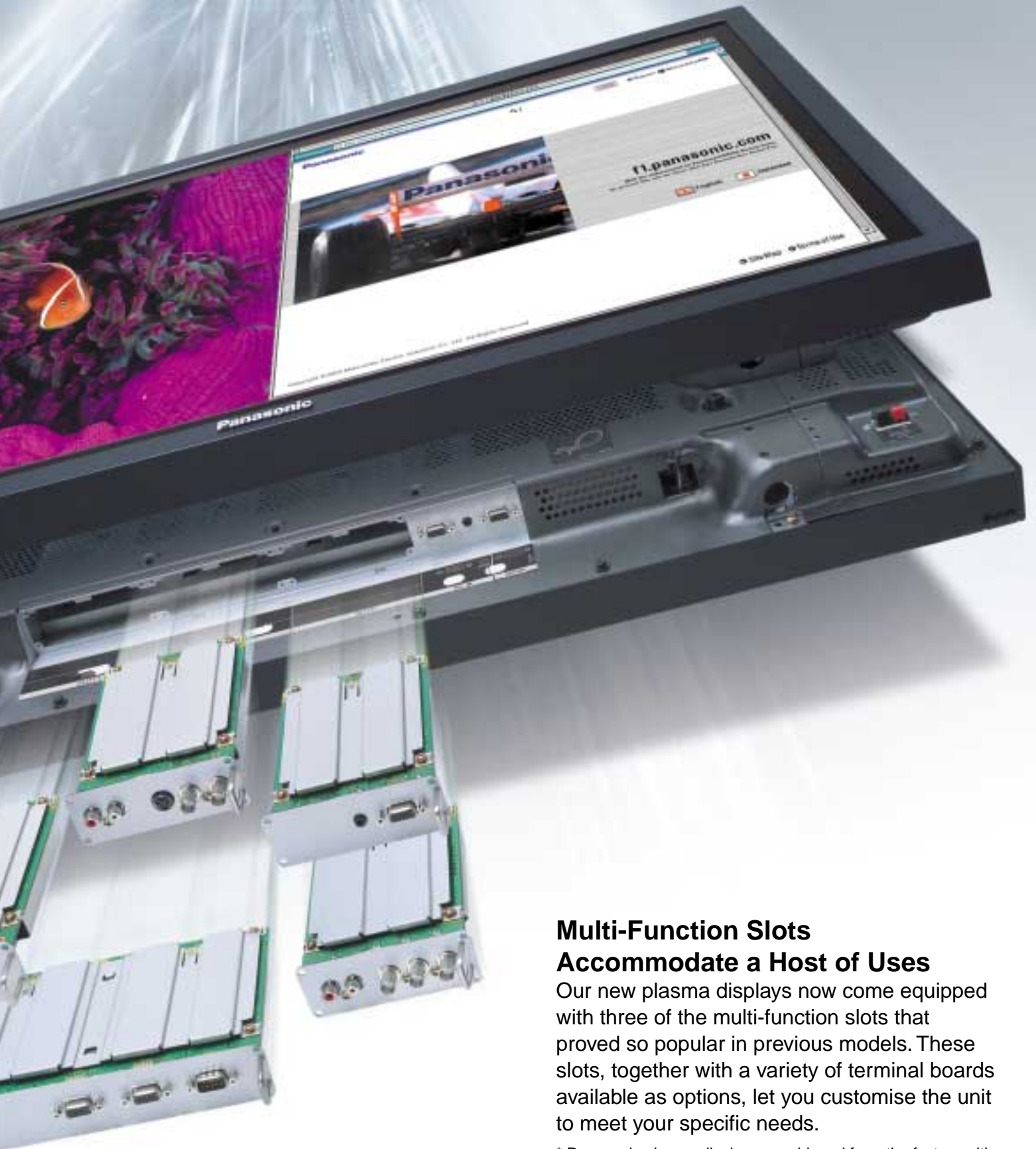
Panasonic developed two new advanced components and integrated them in a synergetic way to form what we call the Real MACH system.

The MACH Crystallizer provides the best driving characteristics for the display device. The MACH (Multi-facet Asymmetrical Configuration Hyper-pixel) Panel then delivers the image's full quality potential. Together, these Panasonic plasma display technologies reproduce images with the gradation and sharpness levels that are best suited to the way the human eye perceives objects. The result is picture quality and image depth that make for a high-impact viewing experience.

## **Functions that Improve Usability**

Panasonic plasma displays offer a host of versatile functions that maximise display performance. For example, with Dual Picture mode you can simultaneously display signals from any two connected AV sources onto a single screen. Or with Digital Zoom, you can enlarge a portion of an image by up to three times normal size for added impact. These and other functions make Panasonic plasma display panels an excellent choice for professional applications.





## **Multi-Function Slots Accommodate a Host of Uses**

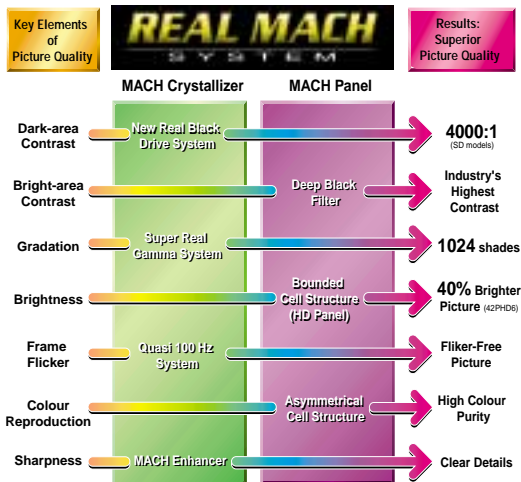
Our new plasma displays now come equipped with three of the multi-function slots that proved so popular in previous models. These slots, together with a variety of terminal boards available as options, let you customise the unit to meet your specific needs.

\* Panasonic plasma displays are shipped from the factory with all multi-function slots empty.

# Superior Picture Quality

## Real MACH System

The Real MACH System combines the MACH (Multi-facet Asymmetrical Configuration Hyper-pixel) panel, designed to unleash the flat display's full potential, with the MACH Crystallizer, which optimizes the performance of display devices. Both panel and driver incorporate a wealth of Panasonic's advanced picture-enhancing technologies. Integrated into a single powerful system, they synergistically team up to provide levels of gradation, contrast, and sharpness that best suit the way the human eye perceives. The result is a level of picture quality and image depth that makes for a truly breathtaking viewing experience.

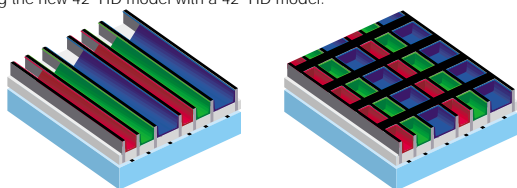


## MACH (Multi-facet Asymmetrical Configuration Hyper-pixel) Panel

### HD MACH Panel (TH-50PHD6/42PHD6)

The HD MACH panel features a bounded cell structure in which wall-like ribs are used to wrap each individual cell. By increasing the area in which the phosphor can be applied, this dramatically improves both light-emitting efficiency and intensity. As a result, brightness is boosted by 40% compared with a previous Panasonic model.\* The HD MACH panel structure also helps improve contrast. That's one of the reasons why Panasonic plasma TVs can deliver remarkably bright, easy-to-see images even in bright lighting.

\*Comparing the new 42" HD model with a 42" HD model.



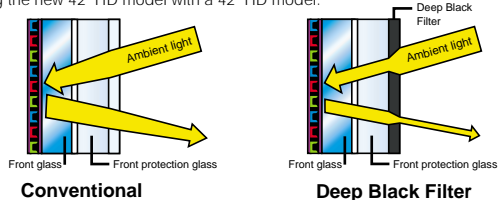
Conventional HD Panel

HD-MACH Panel

### Deep Black Filter

The front protective glass of the MACH Panel incorporates a new Deep Black Filter that suppresses light transmittance and slashes the amount of external light reflected. This helps our display achieve the industry's highest level of contrast, and twice as high as our previous model\* when viewed in bright surroundings.

\*Comparing the new 42" HD model with a 42" HD model.



### Asymmetrical Cell Structure

The MACH Panel uses an asymmetrical cell structure in which the pitch of the red, green and blue cells varies. By improving the light-emitting balance of the three primary colours, this helps deliver extremely pure whites while maintaining superior brightness.

## MACH Crystallizer

### New Real Black Drive System

We've also improved our acclaimed Real Black Drive System. By reducing the pre-discharge emission when reproducing black, the New Real Black Drive System provides deeper, richer blacks and a stunning 4000:1 contrast\*. The result is dramatically enhanced image clarity and realism.

\* For the TH-42PWD6



Conventional



New Real Black Drive System

### Super Real Gamma System

The Super Real Gamma System provides the optimal number of sub-fields for each scene. This allows Panasonic plasma display to reproduce 1,024\* shades of gradation for superior detail in dark scenes. When a PC signal is input, the Panasonic plasma display reproduces gradation in steps equivalent to 1,536\* shades at the lower brightness levels, where the human eye sees best. Panasonic's acclaimed Plasma AI function is also provided. This function analyses scenes and automatically adjusts peak brightness according to the brightness of the image.

\* In Normal/Cinema mode.

### MACH Enhancer

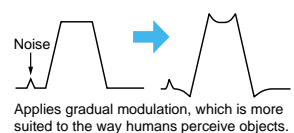
The MACH Enhancer is an original Panasonic contour-emphasis signal processing technology. Drawing on the Mach effect, this technology enhances an object's contours in a way that best suits the way the human eye perceives objects. Noise is minimal, so you get a more natural-looking image with clear details and impressive depth.

#### Conventional contour compensation system



Picture noise is also emphasized.

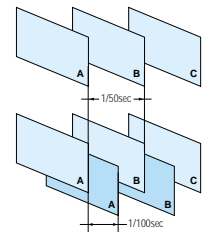
#### MACH Enhancer



The result is a clear, noise-free image.

### New Quasi 100Hz System

A quasi 100-Hz sub-field drive system detects when a PAL video signal is input and essentially doubles the number of fields displayed in a given time. This dramatically reduces the flicker that can occur when playing PAL sources.



### Digital Cinema Reality

The Digital Cinema Reality technology automatically detects a film-based source, then uses still-image processing for each individual image to achieve clear, smooth-flowing images with a level of detail that closely approaches that of the original film.

### Advanced 3-Dimensional Progressive Scan

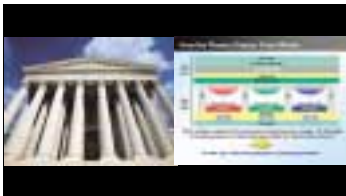
The 3-Dimensional Progressive Scan greatly boosts the precision of the progressive scan conversion. This eliminates flicker in still images and minimizes jagged diagonal edges in moving pictures, resulting in crisp, natural edges and greatly improved resolution. Panasonic Plasma Displays reproduce all input signals in the progressive format, virtually eliminating the line flicker that can occur when displaying in the interlace scan format.

# Superior Usability

## Dual Pictures

You can simultaneously display images from any two different kinds of AV sources connected. Or, adding one of the optional terminal boards lets you display images from two of the same type of image source, such as two PCs or two DVD players – an industry first. This new function lets you take full advantage of the plasma display's large screen.

- One touch of the remote control is all it takes to select a dual picture mode.



**Picture-And-Picture mode** splits the screen in half and shows different pictures on each half.



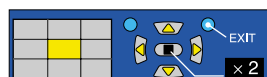
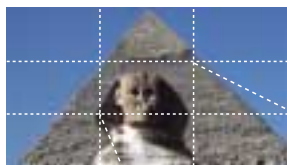
**Picture-In-Picture mode** superimposes a small sub-screen picture over a full-screen picture.



**Picture-Out-Picture mode** displays a small picture on the right side of the screen.

## 9-Point Digital Zoom

This function divides the screen into nine zones (or points) and lets you enlarge the image in any one zone to two or three times in each direction and display it on the full screen. Use this function, which is easy to operate with the remote control, to give your presentation greater impact.



On-Screen Guidance



x2 Zoom



x3 Zoom

\* Digital Zoom does not work in Dual Picture mode. Images of SXGA resolution or higher from a PC or RGB source may not enlarge correctly.

## Image-Enlarging Function for Multi-Screen Applications

The built-in image-enlarging function makes it easier to set up multi-screen displays featuring four (2 x 2) or nine (3 x 3) units. For example, with nine 50-inch displays you can configure a huge display equivalent to 150 inches by simply connecting ordinary cables. That's the kind of display that catches eyes at shopping malls and event sites. This function works with component video signals, so you can use enlarged images from DVD and other high-quality sources in your display.



\* The image-enlarging function operates on video signal and on PC/RGB signal up to XGA mode. However, a normal display may not be obtained with some PC/RGB signals.

## Vertical Mounting

Panasonic plasma display can be positioned vertically to display portrait images and can serve as an effective storefront electronic signboard. The TH-42PHD6/50PHD6 can be set up vertically when a dedicated fan is installed.

### ¥ Fan Kit for Vertical Mounting Applications

TY-UPK50HV6 (for TH-50PHD6)

TY-UPK42HV6 (for TH-42PHD6)

\* Operating temperature: 0 to 35°C

## Enhanced Screen Saver Functions

A variety of screen saver functions help minimize the risk of uneven phosphor aging. You can also use the timer to set the screen saver operating cycles, operating time, and start and stop times. This lets you make settings that match your application.

- **White Bar Scroll:** White bars move across the screen from left to right at regular intervals. Good for ordinary still-image displays.

- **Screen Reversal:** Displays images with the black and white reversed. Good for text displays.



- **Side Panel Adjustment:** Brightens the black bands on the sides of the screen when displaying images in the 4:3 format.



- **Wobbling:** Shifts the image's position by several pixels at fixed time intervals.

- **Peak Limit Mode:** Lowers the peak brightness level (image contrast) by 30%.

## Long-Life Panel

Panasonic plasma display panels boast a long service life of approximately 60,000 hours.\*

\* The time until panel brightness is reduced to half its initial level. However, this time varies depending on the content of the images displayed and the usage environment. Displaying a single still image for long periods should be avoided because it can cause the image to be burnt onto the screen, leaving a permanent afterimage. (The service life given above is intended as a guideline when displaying standard moving images.)

## Energy-Saving Functions

A broad range of environment-friendly functions help minimise energy consumption.

- **Plasma C.A.T.S. (Contrast Automatic Tracking System)**

Plasma C.A.T.S. automatically senses the ambient light conditions and adjusts the brightness and gradation accordingly, to provide the best possible picture contrast for each operating environment. This feature helps reduce power consumption and minimise the risk of uneven phosphor aging.

- **DPMS (Display Power Management Signaling)**

Power is automatically turned on or off in response to a sync signal from the PC connected to the built-in PC input terminal.

- **Auto Power Off**

When you're using a device connected to the multi-function slots, the display panel goes into standby mode after about 10 minutes if no sync signal is received.

- **Power Save Mode**

Reduces the display's brightness.

- **Standby Power Save Mode**

Reduces power consumption when on standby. (Start-up may take a few moments once the display is in this mode.)

## Front Button Control

The five buttons on the front bezel give you instant access to all major functions via an easy-to-read on-screen menu display.

# Superior Expandability

## Multi-Function Slots

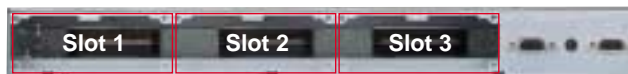


In addition to the fixed input interface, the Panasonic Plasma Display has three interchangeable slots that let you add different combinations of optional terminal boards. This gives you the flexibility to add digital or analogue capabilities, as necessary, to customise your system for specific needs.

You can assign an on-screen label to each of the video inputs on the slots for easier identification of connected video sources.

### Factory-Shipped with Multi-Function Slots Empty

Panasonic plasma displays are shipped from the factory with all multi-function slots empty. You can mount up to three optional terminal boards in these slots.



## Optional Terminal Boards

### RGB Active Through Terminal Board (mounts in slots 1 & 2)

This board sends the signal that's input via the PC1 IN terminal to a second plasma display connected to the PC1 OUT terminal. Up to nine plasma displays can be connected together. This connectability adds convenience when configuring a multi-screen system.



\* The characters in red are added for explanation.

### RGB (Digital) Terminal Board (DVI-D w/HDCP) (mounts in slot 1 or 2)

Lets you connect a PC that outputs digital RGB signals (DVI compliant). Adding this board lets you display images with the equivalent of 3,072 gradation levels.



**TY-42TM6D**

### PC Input Terminal Board (mounts in any slot)

Lets you display images from two or more PCs.  
\* Does not support the DPMS function.



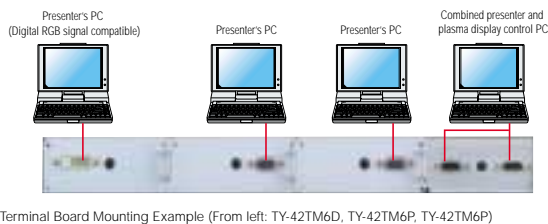
**TY-42TM6P**

# Examples Using the Multi-Function Slots

## Meetings and Presentations

### Lets you connect up to four PCs. Accepts high-quality RGB video signals.

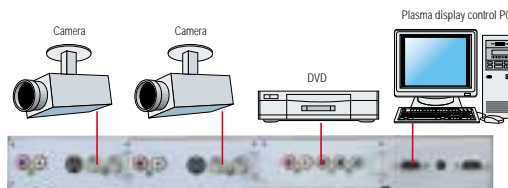
With previous plasma displays you could connect only one PC, so you often had to copy data from one PC to another or make other preparations. The Panasonic plasma display changes all that. The multi-function slots and built-in PC terminal let you connect up to four PCs, giving you all the firepower you need for smooth, powerful presentations. Also, using the digital RGB terminal board you can display high-quality digital images with the equivalent of 3,072 gradation levels.



## In-Store Display

### Featuring multiple video sources and use of Dual Picture mode.

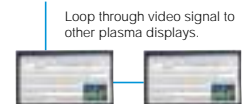
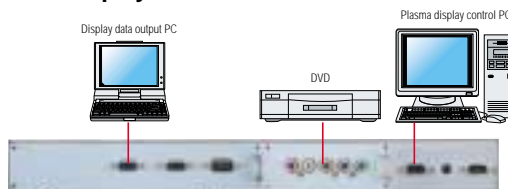
For example, a fitness club could air images of their exercise room as part of a promotion. For even greater impact, you can connect a camera to the video terminal board and show real-time images from the club. Or, you can connect a DVD player to the component video terminal and show dramatic close-ups. The effect can be heightened by using Dual Picture mode to show different images at the same time.



## In a Lecture Hall

### An image from a PC is shown on multiple plasma displays at the same time.

In the past, you generally had to use a video distributor to set up several supplemental monitors in a large lecture hall or other facility. Not anymore. With the optional RGB Active Through Terminal Board, all you have to do is connect ordinary cables. And Panasonic HD plasma displays support XGA signals, so you can display high-resolution data.



## Component /Composite Video Terminal Board (mounts in slots 1 & 2, or slots 2 & 3)

Lets you connect a wide range of input sources, from composite video, S-video, and component video signals to RGB signals.

### TY-42TM6Y

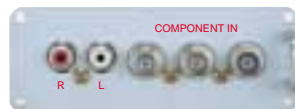


## Component Video Terminal Board (mounts in any slot)

Lets you connect devices that output component video signals, such as DVD players or set-top boxes, or devices that output RGB signals.

\* Accepts only RGB signals with "SYNC ON G".

### BNC Component Video Terminal Board TY-42TM6A



### RCA Component Video Terminal Board TY-42TM6Z



## Composite Video Terminal Board (mounts in slot 1 or 2)

Lets you connect a VCR, video camera or other video equipment. (Supports through-out configurations.)

### BNC Composite Video Terminal Board TY-42TM6B



### RCA Composite Video Terminal Board TY-42TM6V

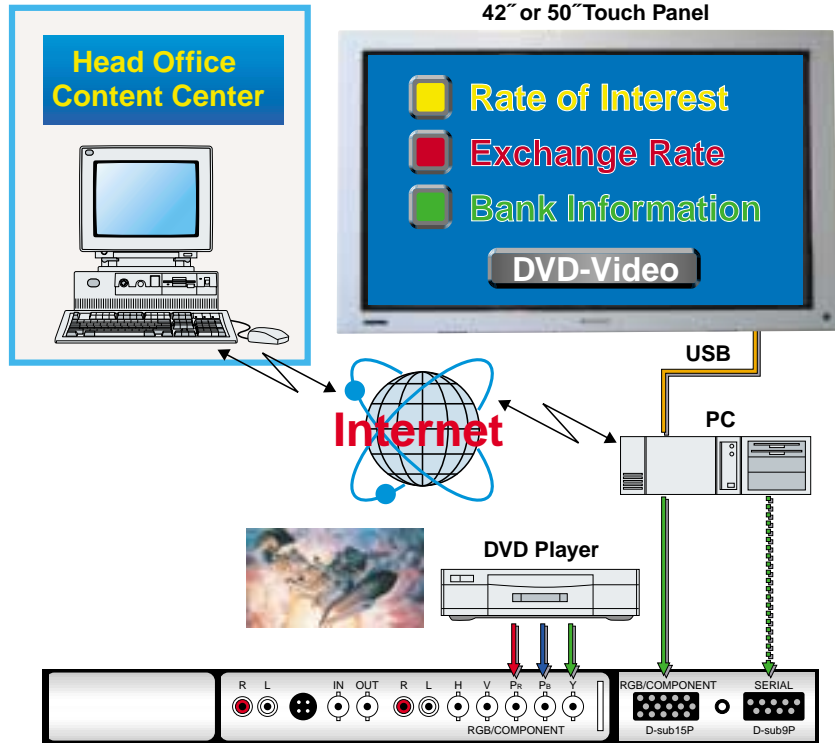


# Plasma System Solutions

## Bank: Interactive Information Board

¥ This interactive information display system features a dedicated Touch Panel (42-inch or 50-inch) mounted on a plasma display. It's connected to the head office through an IP network, such as the Internet or a corporate intranet. This system lets you immediately transmit up-to-the-minute financial information to respond to a customer request.

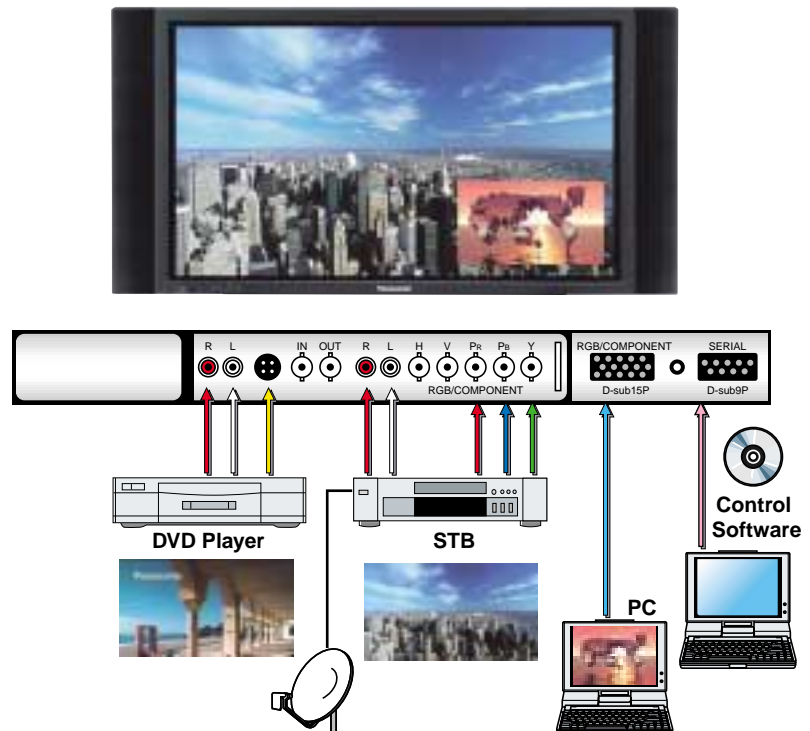
¥ Content produced in HTML format by the head office is displayed on demand using link buttons on the homepage screen.



## Entertainment: Reception System

¥ This standalone system lets you connect a PC, DVD player, Set-Top Box, or other device to a single plasma display to deliver information. The display image can be switched via a remote control unit or a PC connected serially. (Control software is required.)

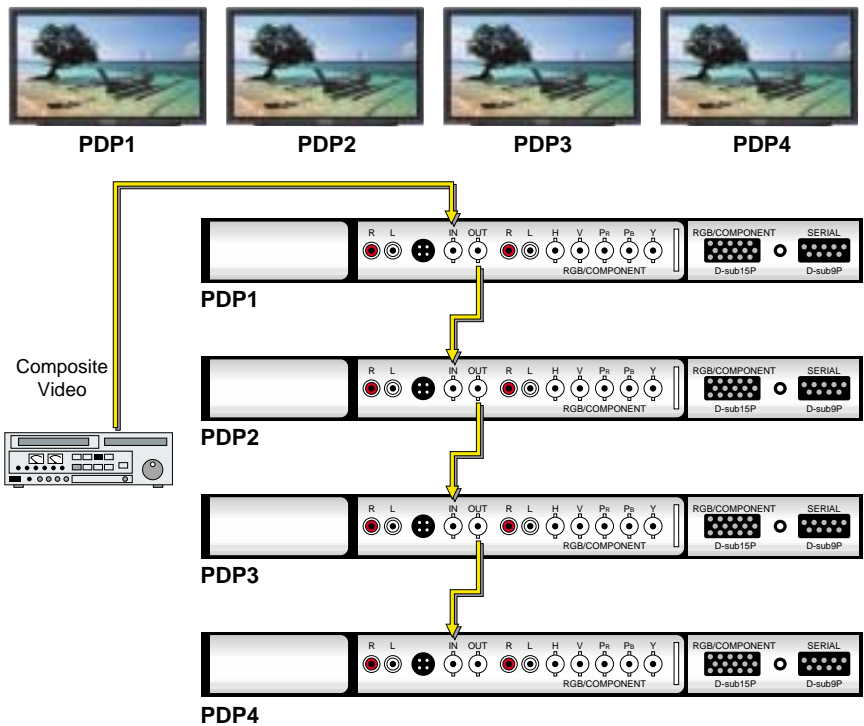
¥ The system can be used, for example, to display a schedule of events at a conference, information about the facility, or information about a company or its products. The display's crisp, clear moving pictures from DVDs give visitors a positive first impression of a facility.



# Store: Video Picture Display System

¶ This easy-to-construct system lets you distribute moving pictures to plasma display units set up at locations throughout a large store.

¶ The system gives you an effective way to show promotional videos, commercials, or background videos. Used this way, it helps create a lively, stimulating store environment.



# Shopping Mall : 3 x 3 Multi-Screen Display

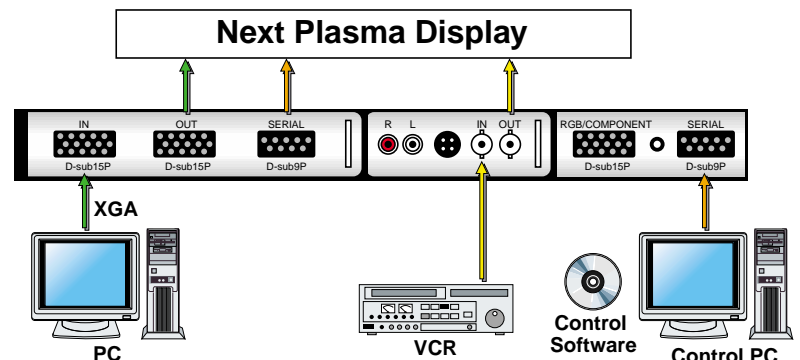
¶ This system shows video and PC data on a giant 9-screen (3 x 3) display. This system, which requires no image enlargement device, makes it possible to have a multi-screen system at a low cost.

¶ The system displays enlarged XGA images with excellent quality.

¶ A "control PC" connected through a serial interface lets you switch the input sources and control various display patterns.



Use the TY-WK42DR1 Wall-Hanging Bracket (drawer type).



# An Unlimited Range of Professional

## In-Store Display



IMAX Theater, Moscow, Russia



## Information



St. Stephan's Cathedral, Vienna, Austria

## TV Production



Mainichi Broadcasting System, Inc., Osaka, Japan

# Applications

## Showroom



Toyota car showroom, Paris, France



## Amusement



Tokyo Race Course, Tokyo, Japan

## Education



Ritsumeikan University, Kusatsu, Japan

# High Definition Models



**TH-50PHD6EX/BX**  
50-inch (127 cm) diagonal High Definition Plasma Display



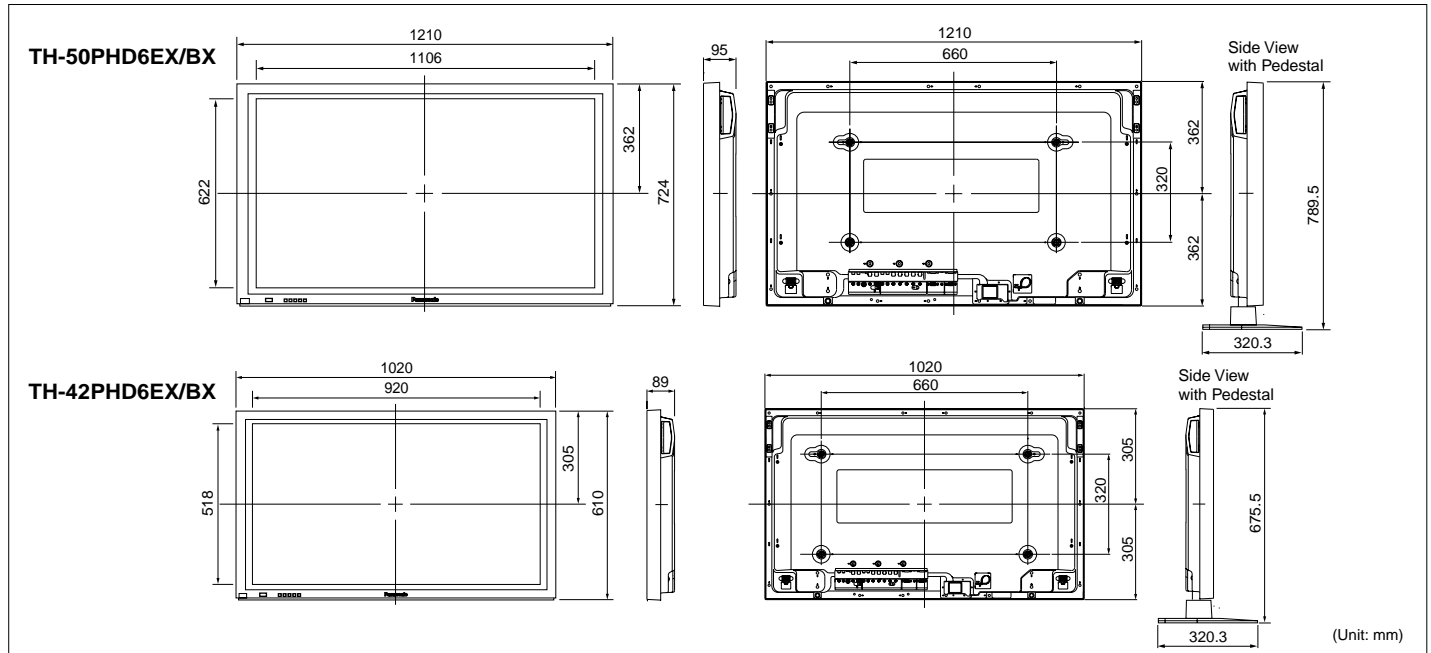
**TH-42PHD6EX/BX**  
42-inch (106 cm) diagonal High Definition Plasma Display

## Specifications

	TH-50PHD6EX/BX	TH-42PHD6EX/BX
<b>DISPLAY</b>		
Screen Size Diagonal (Effective)	50" (1269 mm)	42" (1056 mm)
W x H	1,106 x 622 mm	920 x 518 mm
Screen Aspect	16 : 9 Wide	16 : 9 Wide
Number of Pixels	1,049,088 (1366 x 768) pixels	786,432 (1024 x 768) pixels
Pixel Pitch (H x V)	0.81 x 0.81 mm	0.90 x 0.675 mm
Displayable Colours	1,070 million colours	1,070 million colours
Contrast Ratio	3000 : 1	3000 : 1
Viewing Angle	Horizontal: More than 160°; Vertical: More than 160°	
Colour System	NTSC/PAL/SECAM/PAL 60Hz/M-NTSC	
Audio Output	16 W (8 W x 2)	16 W (8 W x 2)
On-Screen Display	US English/UK English/Spanish/French/German/Italian/Chinese	
Screen Coating	AR (Anti-Reflection) Coating	AR (Anti-Reflection) Coating

	TH-50PHD6EX/BX	TH-42PHD6EX/BX
<b>TERMINALS</b>		
RGB Input (PC/Component)	Mini D-sub 15-pin x 1 (VGA, SVGA, XGA display & SXGA, UXGA compressed display)	
	fH: 15 — 110 kHz; fV: 48 — 120 Hz	
Audio Input (PC/Component)	M3 stereo plug	M3 stereo plug
Serial (RS232C)	D-Sub 9-pin (Female)	D-Sub 9-pin (Female)
<b>GENERAL</b>		
Power Supply	AC 220 - 240 V, 50/60Hz	AC 220 - 240 V, 50/60Hz
Power Consumption	445 W	335 W
Stand-by (Save On)	1.1 W	1.1 W
Dimensions (W x H x D)	1210 x 724 x 95 mm	1020 x 610 x 89 mm
Weight	43.5 kg	29.5 kg
Operating Temperature	0°C — 40°C	0°C — 40°C
Operating Humidity	20% — 80% (Non condensation)	20% — 80% (Non condensation)

## Dimensions





## TH-42PWD6EX/BX

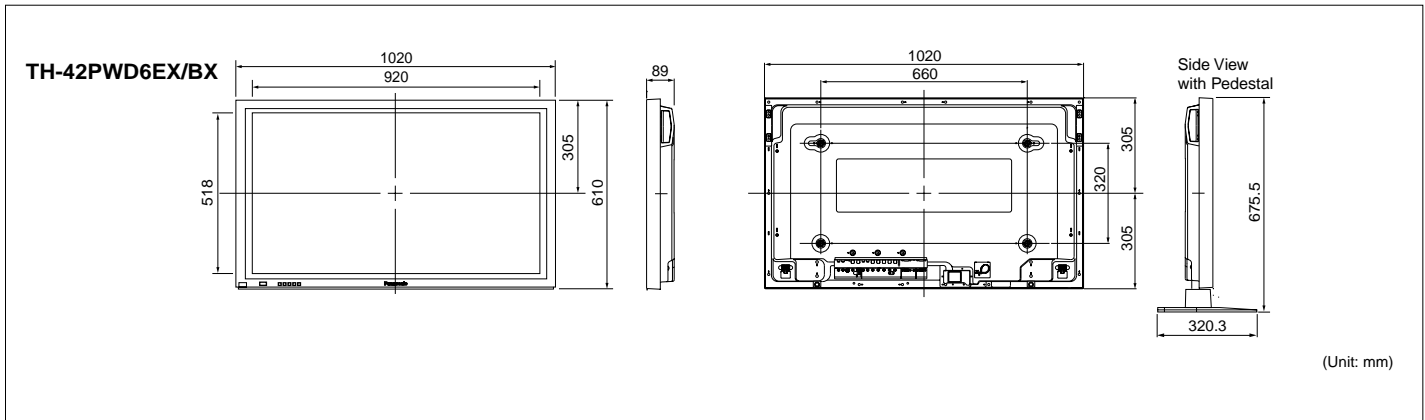
42-inch (106 cm) diagonal Wide Plasma Display

### Specifications

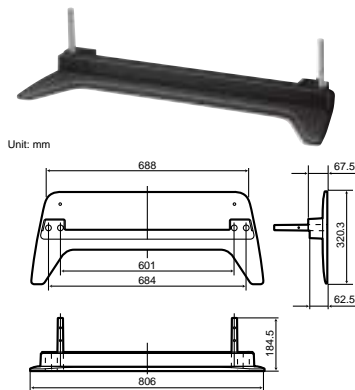
		TH-42PWD6EX/BX
<b>DISPLAY</b>		
Screen Size	Diagonal	42" (1056 mm)
(Effective)	W x H	920 x 518 mm
Screen Aspect		16 : 9 Wide
Number of Pixels		408,960 (852 x 480) pixels
Pixel Pitch (H x V)		1.08 x 1.08 mm
Displayable Colours		1,070 million colours
Contrast Ratio		4000 : 1
Viewing Angle		Horizontal: More than 160° ; Vertical: More than 160°
Colour System		NTSC/PAL/SECAM/PAL 60Hz/M-NTSC
Audio Output		16 W (8 W x 2)
On-Screen Display		US English/UK English/Spanish/French/German/Italian/Chinese
Screen Coating		AR (Anti-Reflection) Coating

		TH-42PWD6EX/BX
<b>TERMINALS</b>		
RGB Input (PC/Component)		Mini D-sub 15-pin x 1 (VGA display & SVGA, XGA, SXGA, UXGA compressed display)
Audio Input (for PC/Component)		M3 stereo plug fH: 15 — 110 kHz; fV: 48 — 120 Hz
Serial (RS232C)		D-Sub 9-pin (Female)
<b>GENERAL</b>		
Power Supply		AC 220 - 240 V, 50/60Hz
Power Consumption		265 W
Stand-by (Save On)		0.8 W
Dimensions (W x H x D)		1020 x 610 x 89 mm
Weight		28.9 kg
Operating Temperature		0°C — 40°C
Operating Humidity		20% — 80% (Non condensation)

### Dimensions



## Pedestal **TY-ST05-K**



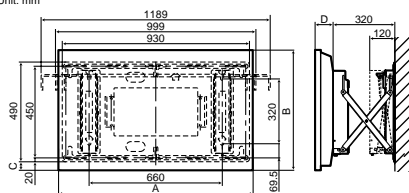
Unit: mm

## Wall-hanging bracket (drawer type) **TY-WK42DR1**



	50 model	42 model
A	1210	1020
B	724	610
C	112.5	55.5
D	95	89

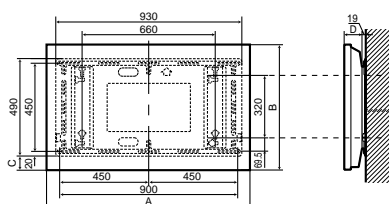
Unit: mm



## Wall-hanging bracket **TY-WK42PV1**



Unit: mm

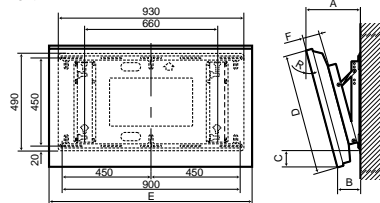


	50 model	42 model
A	1210	1020
B	724	610
C	112.5	55.5
D	95	89

## Wall-hanging bracket (angled) **TY-WK42PR1**



Unit: mm



50" model

R	0	5	10	15	20
A	150	198	245	290	333
B	150	135	120	104	87
C	113	121	130	138	144
D			724		
E			1210		
F			95		

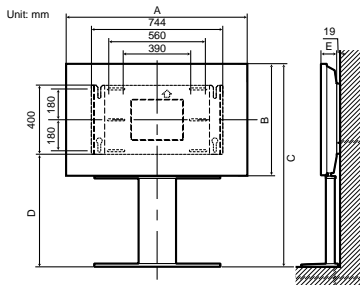
42" model

R	0	5	10	15	20
A	144	187	229	269	308
B	144	134	124	113	101
C	56	64	74	82	89
D			610		
E			1020		
F			89		

## Wall stand **TY-ST42PW1**



Unit: mm

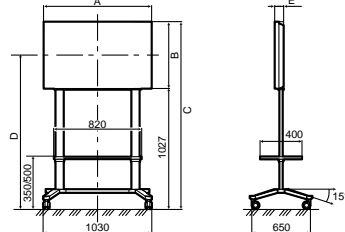


	50 model	42 model
A	1210	1020
B	724	610
C	1230.5	1116.5
D	668.5	611.5
E	95	89

## Mobile stand **TY-ST42PF3**



Unit: mm

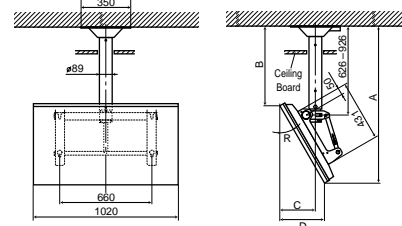


	50 model	42 model
A	1210	1020
B	724	610
C	1751	1637
D	1389	1332
E	95	89

## Ceiling-hanging bracket **TY-CE42PS1**



Unit: mm



50" model

R	0	15	30
A	1138	1298	1338
B	414	514	614
C		199	288
D		0	186

42" model

R	0	15	30
A	1081	1181	1281
B	471	571	671
C		194	229
D		0	157

## Touch Panel



**TY-TP50P6-S** (for TH-50PHD6)

**TY-TP42P6-S** (for TH-42PHD6/42PWD6)

This add-on touch panel lets you write directly onto the screen with a light touch. Ideal for adding written comments during a presentation or meeting.

- ¥ Highly reliable optical sensor system
- ¥ Outstanding resolution, easy operation
- ¥ Thin design makes a precise fit with display screen
- ¥ Lets you use display as a "whiteboard"
- ¥ TY-TPEN6 Touch Pen is optionally available

Note: You cannot mount both a touch panel and the optional speakers at the same time.

### Specifications

	TY-TP50P6-S	TY-TP42P6-S
Applicable display devices	TH-50PHD6	TH-42PHD6/42PWD6
Panel aperture (W x H)	1118 x 632 mm	928.5 x 526.5 mm
Detection range (W x H)	1100 x 620 mm	916 x 516 mm
Effective detection range	Above detection range + 1.0 mm top, bottom, right, and left	
Resolution (W x H)	2201 x 1241	1833 x 1033
Optical elements	276 (H) x 156 (V)	230 (H) x 130 (V)
Optical element pitch	4.0 x 4.0 mm	
Detection pitch	2.0 x 2.0 mm	
Minimum stylus	6.0 x 6.0 mm	
Scan speed	First touch: 30 msec/frame max., Moving: 8 msec/frame max.	
Panel shape	Integrated flat panel controller	
Escutcheon (frame)	Aluminum	
Dimensions (W x H x D)	1256 x 748 x 69 mm	1066 x 634 x 69 mm
Depth when mounted	126 mm	118 mm
Weight (excluding brackets)	4.2 kg	3.5 kg
Touch driver	Applicable OS: Microsoft Windows 98SE/2000/ME/XP	
<b>Common Specifications</b>		
Detection system	Infrared ray interruption	
Operating modes	Input point, Continuous, Moving, End point detection	
Output system	Coordinate output	
Interface	USB1.1 compliant	
I/F connector	USB connector TYPE B	
Power supply	Through USB + 5V, Max. 400mA	

## Detachable Stereo Speakers



### **TY-SP50P5W-K**

(for TH-50PHD6EX/BX)

Configuration: 2-way, 3-speaker

Dimensions (W x H x D): 104 x 724 x 89 mm

Weight: 2.3 kg/each



### **TY-SP42P5W-K**

(for TH-42PHD6EX/BX, 42PWD6EX/BX)

Configuration: 2-way, 3-speaker

Dimensions (W x H x D): 104 x 610 x 89 mm

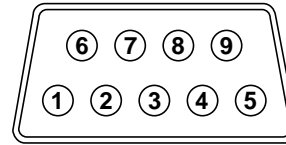
Weight: 2.1 kg/each

## Preset Input Signals

Signal name	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Optional Board						Multi-screen use & Digital Zoom mode
			TY-42TM6Y	TY-42TM6B/V	TY-42TM6A/Z	TY-42TM6P	TY-42TM6D	TY-42TM6G	
Composite	NTSC	15.73	59.95	-	-	-	-	-	-
	PAL	15.63	50	-	-	-	-	-	-
	PAL60	15.73	59.95	-	-	-	-	-	-
	SECAM	15.63	50	-	-	-	-	-	-
Component	Modified NTSC	15.73	59.95	-	-	-	-	-	-
	525 (480)/60i	15.73	59.94	-	-	-	-	-	-
	625 (575)/50i	15.63	50	-	-	-	-	-	-
	525 (480)/60p	31.47	59.94	-	-	-	-	-	-
	625 (575)/50p	31.25	50	-	-	-	-	-	-
	750 (720)/60p	45	60	-	-	-	-	-	-
	750 (720)/50p	37.5	50	-	-	-	-	-	-
	1125 (1080)/60i	33.75	60	-	-	-	-	-	-
	1125 (1080)/50i	28.13	50	-	-	-	-	-	-
	1125 (1080)/24p	27	24	-	-	-	-	-	-
	1125 (1080)/24sF	27	48	-	-	-	-	-	-
	1250 (1080)/50i	31.25	50	-	-	-	-	-	-
	RGB	640 x 400 @70	31.5	70	-	-	-	-	-
640 x 480 @60		31.5	59.94	-	-	-	-	-	-
Mac 13 (640 x 480)		35	67	-	-	-	-	-	-
640 x 480 @75		37.5	75	-	-	-	-	-	-
852 x 480 @60		31.7	60	-	-	-	-	-	-
800 x 600 @60		37.9	60	-	-	-	-	-	-
800 x 600 @75		46.9	75	-	-	-	-	-	-
800 x 600 @85		53.7	85	-	-	-	-	-	-
Mac 16 (832 x 624)		49.7	75	-	-	-	-	-	-
1024 x 768 @60		48.4	60	-	-	-	-	-	-
1024 x 768 @70		56.5	70	-	-	-	-	-	-
1024 x 768 @75		60	75	-	-	-	-	-	-
1024 x 768 @85		68.7	85	-	-	-	-	-	-
Mac 21 (1152 x 870)		68.7	75	-	-	-	-	-	-
1280 x 1024 @60		64	60	-	-	-	-	-	-
1280 x 1024 @75		80	75	-	-	-	-	-	-
1280 x 1024 @85		91.1	85	-	-	-	-	-	-
1600 x 1200 @60		75	60	-	-	-	-	-	-
1067 x 600 @60		37.9	60.3	-	-	-	-	-	-
1366 x 768 @60		48.4	60	-	-	-	-	-	-
525 (480)/60i		15.73	59.94	-	-	-	-	-	-
525 (480)/60p		31.47	59.94	-	-	-	-	-	-
625 (575)/50i		15.63	50	-	-	-	-	-	-
625 (575)/50p		31.25	50	-	-	-	-	-	-
750 (720)/60p		45	60	-	-	-	-	-	-
750 (720)/50p		37.5	50	-	-	-	-	-	-
1125 (1080)/60i		33.75	60	-	-	-	-	-	-
1125 (1080)/50i	28.13	50	-	-	-	-	-	-	
1125 (1080)/24p	27	24	-	-	-	-	-	-	
1125 (1080)/24sF	27	48	-	-	-	-	-	-	
1250 (1080)/50i	31.25	50	-	-	-	-	-	-	

\* When a signal having a resolution that exceeds the panel resolution is input, a simplified display will be produced.

## Serial RS232C: D-Sub 9-Pin (Female)



### Pin Assignment and Signal Name

Pin No.	Signal name	Descriptions
1	CD	NC
2	RXD	Receive Data
3	TXD	Transmit Data
4	DTR	Not used
5	GND	Ground
6	DSR	Not used
7	RTS	Short Circuit
8	CTS	
9	RI	NC

### Transmitting Conditions

Signal Level	Complied with RS232C
Synchronous System	Start/Stop Synchronous Communication
Baud Rate	9600 bps
Parity	Nil
Character Length	8 bits
Stop Bit	1 bit
X Parameter	Nil

### Supplied Remote Control

(Comes with every Panasonic Plasma Display model.)



#### Remote Control Functions

- Stand-by (On/Off)
- Input Selection
- Status
- Surround On/Off
- Sound Mute On/Off
- Volume Up/Down
- Normalization (N)
- Exit (R)
- Position/Action
- Digital Zoom
- Picture
- Sound
- Set Up
- Picture Position/Size
- Aspect
- PC Mode Selection
- Off Timer