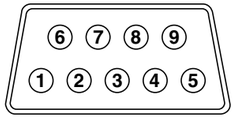
## Preset Input Signals

| | Signal name | Horizontal Frequency (kHz) | Vertical Frequency (Hz) | Standard-Equipped Boards | Optional Board | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | TY-42TM6Y | TY-42TM6B/V | TY-42TM6A/Z | TY-42TM6P | TY-42TM6D | TY-42TM6G | TY-FB7SD | TY-FB7HD | TY-FB7HM |
| Composite | NTSC | 15.73 | 59.94 | Y | Y | Y | | | | | | | |
| | PAL | 15.63 | 50.00 | Y | Y | Y | | | | | | | |
| | PAL60 | 15.73 | 59.94 | Y | Y | Y | | | | | | | |
| | SECAM | 15.63 | 50.00 | Y | Y | Y | | | | | | | |
| | Modified NTSC | 15.73 | 59.94 | Y | Y | Y | | | | | | | |
| Component | 525 (480)/60i | 15.73 | 59.94 | Y | Y | | Y | Y | | Y | Y | Y | |
| | 525 (480)/60p | 31.47 | 59.94 | Y | Y | | Y | Y | Y | Y | | | Y |
| | 625 (575)/50i | 15.63 | 50.00 | Y | Y | | Y | Y | | Y | Y | Y | |
| | 625 (575)/50p | 31.25 | 50.00 | Y | Y | | Y | Y | Y | Y | | | Y |
| | 750 (720)/60p | 45.00 | 60.00 | Y | Y | | Y | Y | Y | Y | | Y | Y |
| | 750 (720)/50p | 37.50 | 50.00 | Y | Y | | Y | Y | | Y | | | |
| | 1125 (1080)/60i | 33.75 | 60.00 | Y | Y | | Y | Y | Y | Y | | Y | Y |
| | 1125 (1080)/50i | 28.13 | 50.00 | Y | Y | | Y | Y | | Y | | Y | |
| | 1125 (1080)/24sF | 27.00 | 47.92 | Y | Y | | Y | Y | | Y | | Y | |
| | 1125 (1080)/30p | 33.75 | 30.00 | Y | Y | | Y | Y | | Y | | Y | |
| | 1125 (1080)/25p | 28.13 | 25.00 | Y | Y | | Y | Y | | Y | | Y | |
| | 1125 (1080)/24p | 27.00 | 24.00 | Y | Y | | Y | Y | | Y | | Y | |
| | 1250 (1080)/50i | 31.25 | 50.00 | Y | Y | | Y | Y | | Y | | | |
| RGB | 640 x 400 @70Hz | 31.46 | 70.07 | Y | Y | | Y | Y | | Y | | | |
| | 640 x 480 @60Hz | 31.47 | 59.94 | Y | Y | | Y | Y | Y | Y | | | Y |
| | 640 x 480 @72Hz | 37.86 | 72.81 | Y | Y | | Y | Y | | Y | | | |
| | 640 x 480 @75Hz | 37.50 | 75.00 | Y | Y | | Y | Y | | Y | | | |
| | 640 x 480 @85Hz | 43.27 | 85.01 | Y | Y | | Y | Y | | Y | | | |
| | 852 x 480 @60Hz | 31.47 | 59.94 | Y | Y | | Y | Y | Y | Y | | | |
| | 800 x 600 @56Hz | 35.16 | 56.25 | Y | Y | | Y | Y | | Y | | | |
| | 800 x 600 @60Hz | 37.88 | 60.32 | Y | Y | | Y | Y | Y | Y | | | |
| | 800 x 600 @72Hz | 48.08 | 72.19 | Y | Y | | Y | Y | | Y | | | |
| | 800 x 600 @75Hz | 46.88 | 75.00 | Y | Y | | Y | Y | | Y | | | |
| | 800 x 600 @85Hz | 53.67 | 85.06 | Y | Y | | Y | Y | | Y | | | |
| | 1024 x 768 @60Hz | 48.36 | 60.00 | Y | Y | | Y | Y | Y | Y | | | |
| | 1024 x 768 @70Hz | 56.48 | 70.07 | Y | Y | | Y | Y | | Y | | | |
| | 1024 x 768 @75Hz | 60.02 | 75.03 | Y | Y | | Y | Y | | Y | | | |
| | 1024 x 768 @85Hz | 68.68 | 85.00 | Y | Y | | Y | Y | | Y | | | |
| | 1152 x 864 @75Hz | 67.50 | 75.00 | Y | Y | | Y | Y | | Y | | | |
| | 1280 x 960 @60Hz | 60.00 | 60.00 | Y | Y | | Y | Y | | Y | | | |
| | 1280 x 960 @85Hz | 85.94 | 85.00 | Y | Y | | Y | Y | | Y | | | |
| | 1280 x 1024 @60Hz | 63.98 | 60.02 | Y | Y | | Y | Y | | Y | | | |
| | 1280 x 1024 @75Hz | 79.98 | 75.03 | Y | Y | | Y | Y | | Y | | | |
| | 1280 x 1024 @85Hz | 91.15 | 85.02 | Y | Y | | Y | Y | | Y | | | |
| | 1600 x 1200 @60Hz | 75.00 | 60.00 | Y | Y | | Y | Y | | Y | | | |
| | 1600 x 1200 @65Hz | 81.25 | 65.00 | Y | Y | | Y | Y | | Y | | | |
| | 1066 x 600 @60Hz | 37.88 | 60.32 | Y | Y | | Y | Y | Y | Y | | | |
| | 1366 x 768 @60Hz | 48.36 | 60.00 | Y | Y | | Y | Y | Y | Y | | | |
| | Mac 13˝ (640 x 480) | 35.00 | 66.67 | Y | Y | | Y | Y | | Y | | | |
| | Mac 16˝ (832 x 624) | 49.72 | 74.54 | Y | Y | | Y | Y | | Y | | | |
| | Mac 21˝ (1152 x 870) | 68.68 | 75.06 | Y | Y | | Y | Y | | Y | | | |

* 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

Panasonic

Have assembly and installation done by a qualified electrician.
Simulated pictures on screen.
Specifications are subject to change without notice. Printed in Japan

ASIA04S-01

Panasonic
ideas for life

# Plasma Display


**TH-65PHD7WK**
65-inch (165 cm) diagonal
High-Definiiton Plasma Display

**TH-50PHD7WK/WS**
50-inch (127 cm) diagonal
High-Definiiton Plasma Display

**TH-42PHD7WK/WS**
42-inch (106 cm) diagonal
High-Definiiton Plasma Display

**TH-42PWD7WK/WS**
42-inch (106 cm) diagonal
Wide Plasma Display

# Above and Beyond: The Panasonic Commitment to Customer Satisfaction

## The Image Quality and Versatility You Need Today, the System Expandability You'll Want Tomorrow

### New 65-inch plasma model for use in larger-than-conventional displays

Demand is rising for extra-large display screens, and Panasonic has the solution. Our new lineup of displays for professional applications includes a 65-inch plasma model that offers the superior image quality, extensive functions, and extendibility that make Panasonic an industry leader. The new unit suits any application calling for a super-size display. Use it in a directory in a building lobby, an information board for an airport, train station or other large public facility, or a monitor at event sites.

### The ultimate in image quality — Expressivity that goes above and beyond previous limits

A host of Panasonic imaging technologies combine to achieve both the industry's highest gradation and outstanding 4,000:1* contrast. The accuracy and detail our displays provide cannot be adequately expressed by specifications alone. Their overall image quality goes far beyond conventional standards. They provide pictures with the kind of breathtaking beauty that stirs emotion.

* SD models

### Functions and expandability to meet a variety of applications

Dual Picture, Digital Zoom, multi-screen capability and other advanced functions enhance the usability of our displays. Our popular Multi-Function Slots are also provided. And we've expanded our lineup of optional terminal boards, making our displays solutions to an even wider range of customer needs.


### Connection with analogue equipment

Lets you connect an S-VHS VCR or video camera. This board has a video output terminal too, so you can also connect a sub-monitor device for image monitoring.

BNC Composite Video Terminal Board TY-42TM6B

### Connection with digital equipment

Allows full-digital transmission of video signals, with no degradation. Allows reproduction of high-quality images from a DVD player, PC or other compatible digital equipment.

RGB (Digital) Terminal Board (DVI-D with HDCP) TY-42TM6D

### Connection with PC

Lets you connect multiple PCs. Use it in conference rooms, class rooms, lecture halls and other sites where PCs are often used.

PC Input Terminal Board TY-42TM6P

### Connection with broadcast equipment

Compatible with the SDI or HD-SDI (for HDTV) systems used by broadcasting stations. This board lets the plasma display reproduce crisp, clear images in a studio or control room.

SDI Terminal Board TY-FB7SD
HD-SDI Terminal Board TY-FB7HD

### Fully digital connection


Enables the transfer of high-definition video and audio via a single cable. When the HDMI-compatible DVD video player is connected to this board, DVD images can be upconverted to 750p or 1125i for output.

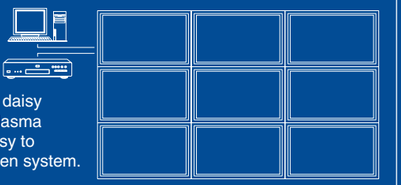
HDMI Terminal Board TY-FB7HM

### Remote video distribution

For distant distribution of video images. Images can be sent to the plasma display in real time from distant equipment connected to the transmitter.

Twisted-Pair-Cable Receiver Board (Video, Audio and PDP Control) KE0101CRBW

### Multi-screen system configuration



This board allows the daisy chaining of multiple plasma displays, making it easy to configure a multi-screen system.

RGB Active-Through Terminal Board TY-42TM6G

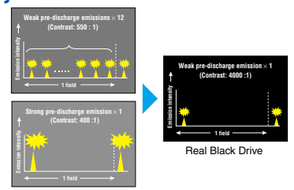
# The Industry's Best Overall Picture Quality

## *Technologies for Increasing Contrast and Gradation*

### Stunning 4000:1 Dark-Area Contrast* — New 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 SD models.




Conventional



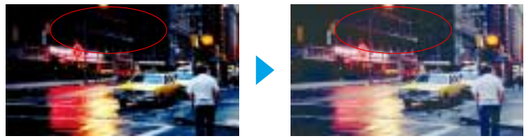

Real Black Drive

### Even Higher Bright-Area Contrast — Deep Black Filter

The front protective glass of the plasma display panel incorporates a Deep Black Filter that suppresses light transmittance and slashes the amount of external light reflected. This helps our displays achieve the industry's highest level of contrast when viewed in bright surroundings.

### 1,536 Shades of Gradation in Dark Scenes — New Super Real Gamma System

In scenes with low brightness levels, the New Super Real Gamma System reproduces gradation in steps equivalent to 1,536 shades. In other words, this original, non-linear signal processing system provides superior performance at brightness levels where the human eye sees best. As a result, it adds subtle nuances to darker scenes and gives images greater depth.

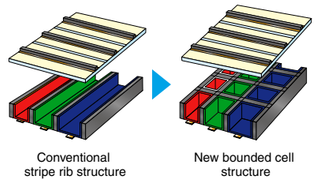


Conventional — New Super Real Gamma System

## *Technologies for Increasing Brightness*

### 10% Brighter Images — New MACH Panel with Bounded Cell Structure

The New MACH (Multi-facet Asymmetrical Configuration Hyper-pixel) 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. Furthermore, improvements to the drive circuit and plasma gas inside the panel have enabled Panasonic to boost peak brightness while actually lowering power consumption compared with our previous models. As a result, peak brightness is boosted by 10% compared with a previous Panasonic model.



Conventional stripe rib structure — New bounded cell structure

The new panel structure boasts a long service life of 60,000 hours*. A newly developed phosphor also raises the plasma displays' resistance to static-image screen burning to the same level as CRT displays.

* The time until panel brightness is reduced to half its initial level. The service life given above is intended as a guideline when displaying standard moving images. However, this time varies depending on the content of the images displayed and the usage environment.

### High-Contrast Images with a High S/N Ratio — Adaptive AGC

Our previous automatic gain control (AGC) detected the brightness level of the entire image, then boosted it as necessary. This had a drawback, in that it tended to increase noise and black-out parts of the image where the video signal did not require boosting. Adaptive AGC raises contrast while suppressing noise by detecting and boosting only the image edges.

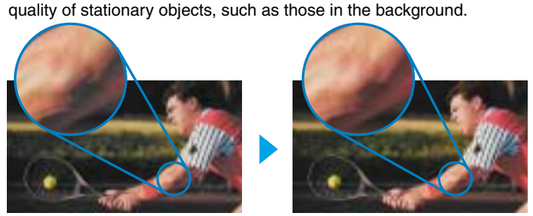
Note: The default setting for the Adaptive AGC is OFF.

Conventional — Adaptive AGC

## *Technologies for Improving Picture Clarity and Colours*

### Cleaner Moving Images — High-Precision MPD Noise Reduction

This newly developed technology dramatically reduces MPD (Motion Picture Disturbance) noise to deliver crisp, clean moving images. Using a Panasonic original algorithm, it detects motion patterns that tend to generate noise and makes the necessary adjustments to maximize image quality. And it does this without diminishing the quality of stationary objects, such as those in the background.



Conventional — MPD Noise Reduction

### Vibrant Colours and Natural Skin Tones — 3D Colour Management System

3D Colour Management System is a new correction process that works in a three-dimensional colour matrix (hue, saturation, and brightness) rather than the conventional two-dimensional colour difference plane. By correcting hue and brightness independently and providing finer control, this process delivers vibrant colours and natural skin tones.

Note: The default setting for the 3D Colour Management System is OFF.

## *Technologies for Enhancing Resolution and Sharpness*

### Better Vertical Resolution — Active I/P Conversion

The Active I/P (Interlace/Progressive) Conversion system detects slow movements more precisely by increasing the range for detecting moving-picture and still-picture pixels. This reduces I/P conversion noise that often occurs when reproducing tiny movements, thereby producing crisper images while raising the vertical resolution in interlaced images.

Conventional — Active I/P Conversion



# Functions that Improve Usability

### Two Different Images on One Screen — Dual Picture Mode

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. This function allows you to take full advantage of the plasma display's large screen.

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

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

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

### Up to 4x Enlargement of Image Zones — Digital Zoom

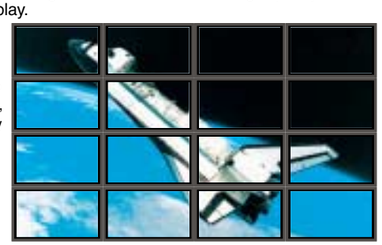
This function lets you enlarge a portion of an image by up to four times normal size and display it on the full screen. Use this function to give your presentations greater impact.

* 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. Some degradation occurs when images are enlarged.


### Huge Display Equivalent to 260-inches — Multi-Screen Applications

The built-in image-enlarging function makes it easier to set up multi-screen displays featuring four (2 x 2), nine (3 x 3), or sixteen (4 x 4) units. For example, with sixteen 65-inch displays you can configure a huge display equivalent to 260 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.



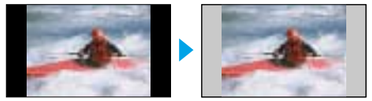
Note: The ambient temperature varies depending on the installation location. Provide sufficient air conditioning for surrounding conditions.

### Enhanced Screen Saver Functions

A variety of screen saver functions help minimise 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%.

### Energy-Saving Functions

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

- **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.

### Fan-Less Quiet Operation

Our "silence engineering" has eliminated the need for a fan — and fan noise — giving you the kind of quiet operation that makes for a more pleasant viewing experience.

(TH-65PHD7 and TH-50PHD7 feature a noise-suppressing silence design.)

### Vertical Mounting

Panasonic plasma display can be positioned vertically to display portrait images and can serve as an effective storefront electronic signboard.

- **Optional Fan Kit for Vertical Mounting Applications**

TY-UPK50HV7 (for TH-50PHD7)
TY-UPK42HV7 (for TH-42PHD7)
* Operating temperature: 0 to 35°C

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

## 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, and to customise your system for specific needs.

**• Multi-Function Slots on 65˝, 50˝ and 42˝ Models**
Panasonic plasma display models come equipped with the standard terminal boards mounted in slots 2 and 3. You can mount an optional terminal board in slot 1. Or, you can remove the standard terminal boards and mount up to three optional boards.


## 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.


**TY-42TM6G**

* 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 permits you to display images with the equivalent of 4,096 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**

### 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)

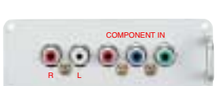
Lets you connect devices that output component video signals, such as DVD players or set-top boxes, or devices that output RGB signals.

* 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**

### SDI/HD-SDI Terminal Board

- Support the same serial digital interface (SDI) that is used in broadcasting.
- Provide fully digital transmission for clear, clean image displays.
- The TY-FB7HD supports HDTV.

**SDI Terminal Board**

**TY-FB7SD (mounts in slot 1 or 2)**

* Not compatible with the 6-series plasma display models.

**HD-SDI Terminal Board**

**TY-FB7HD (mounts in slot 1 or 2)**

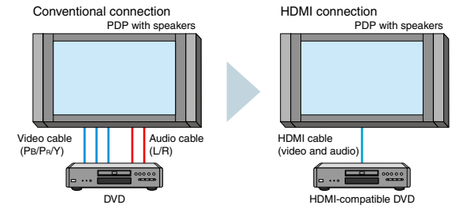
* Not compatible with the 6-series plasma display models.

**Specifications**

| | TY-FB7SD | TY-FB7HD |
|---|---|---|
| Standards compliance | SMPTE259M-C | SMPTE292M, SMPTE259M-C |
| Compatible video format | 525/59.94i 625/50i | 525/59.94i, 625/50i, 750/60p: 59.94p, 1125/30p, 1125/24p, 1125/60i: 59.94i, 1125/50i, 1125/24sF: 23.98sF |

### HDMI Terminal Board

- Supports HDMI, the next-generation digital broadcast standard.
- Enables fully digital connection of signals from HDMI-compatible DVD players and other digital equipment for blur-free images with no colour bleeding.
- Transmits both video and audio signals over a single cable.




**TY-FB7HM (mounts in slot 1 or 2)**

* Not compatible with the 6-series plasma display models.

**Specifications**

| | |
|---|---|
| Standards compliance | HDMI ver.1.1 |
| Compatible video format | 525/60p, 625/50p, 750/60p, 1125/60i VGA60 |

* High-Definition Multimedia Interface and HDMI are trademarks of HDMI Licensing, LLC.

# Plasma System Solutions

## Digital Signage/Narrowcasting System Complete with Touch Panel

Easy, interactive content distribution system for retail chains and public spaces such as shopping malls, office buildings and hotels

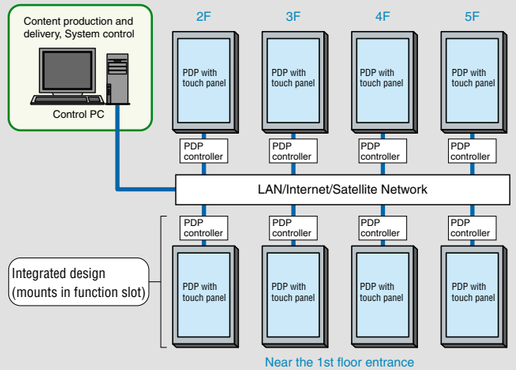
**• Constructing a Multi-Language Environment**
In contrast with conventional methods, in which several information panels are prepared in different languages, this digital system allows visitors to simply touch the panel itself to switch to the language they want. It is a highly effective and efficient way to offer people the content that they want to see.

**• Flexible Content Control**
Each Controller fits inside the Plasma and has a unique IP address, allowing content to be streamed to the Plasma on any LAN, modem, Internet or Satellite network. It speeds up the process of updating information, and any combination of Plasmas can be controlled locally or from a central location.

**• Space-Saving and Easy to install**
We have slimmed down the display system by incorporating the optional PDP Controller (see page 17) right inside the plasma display. It requires only two connections, power and network.

**• Universal System Design**
Since the entire system is configured in a Windows environment, the Controller is compatible with a wide variety of off-the-shelf software applications.

**System Configuration**




* You can configure a 50-inch display and control system with a slim 4.6-inch profile by simply combining the TH-50PHD7 Plasma Display and TY-TP50P6-S Touch Panel, then mounting the VC250 PDP Controller in the function slot of the plasma display.

* Content is distributed by a centralized control PC in an office and stored in the hard disk of each PDP controller, ready to be displayed by touch panel operation.

## Information System Using the Twisted-Pair-Cable Receiver Board

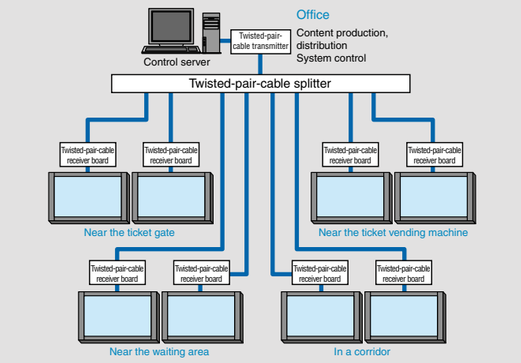
Displaying up-to-date information such as transportation schedule changes, stock market conditions, and countless other possible subjects.

**• Real-Time Information Bulletins**
The use of the CAT5e twisted-pair cable allows content to be sent from the server in real-time, for instant response to events such as sudden changes in transportation schedules or accident information as it becomes available.

**• Long-Distance Transmission of High-Quality Video Signals**
High-resolution XGA images, sound and RS232C control signal are transmitted approximately 150 m over a single cable. PDP control signals can also be sent over the same cable to allow remote operation of power ON/OFF and other functions.

**• Higher Signal Quality, Lower Costs, and Easier Installation**
Thin, lightweight CAT5e twisted-pair cables do a better job of preventing signal degradation than coaxial cables. They also reduce costs and shorten the time needed for installation.

**System Configuration**




* By mounting the KE0101CRBW Twisted-Pair-Cable Receiver Board (video, audio and control) in the plasma display, images can be sent to the display from an office up to 150 meters away.

* Using the KE0108CHDW Twisted-Pair-Cable Splitter, several plasma displays can be connected in a cascade configuration.



## HD-SDI/SD-SDI System for Broadcast Use

Displays crisp, clear images in a studio or control room.

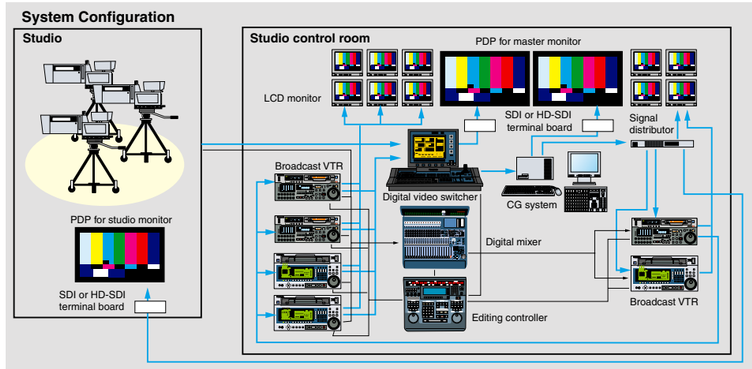
**• Adapts Easily to HD-SDI/SD-SDI Systems**
The PDP adapts easily to HD-SDI and SD-SDI, the digital interfaces used in broadcasting and video production. Simply plug the SDI or HD-SDI terminal board into the function slot.

**• Larger Screen with Wider Viewing Angle**
Large PDP screens range from 42 to 50 inches — a big advantage over the maximum 32-inch screen available with conventional HD-CRT monitor displays for broadcast use. PDP screens also offer a wider viewing angle and easier, more comfortable monitoring.

**• Saves Rack Space**
With its thin profile, a PDP takes up less rack space than a CRT monitor.

**• Ideal as a Studio Monitor**
When the PDP is used as a studio monitor display, its large screen and wide viewing angle provide superior viewing for performers and production crew. The PDP also requires little installation space and is easy to move. When a 65-inch PDP is used for recording a programme with a live audience, it helps create a livelier, upbeat atmosphere.

**System Configuration**



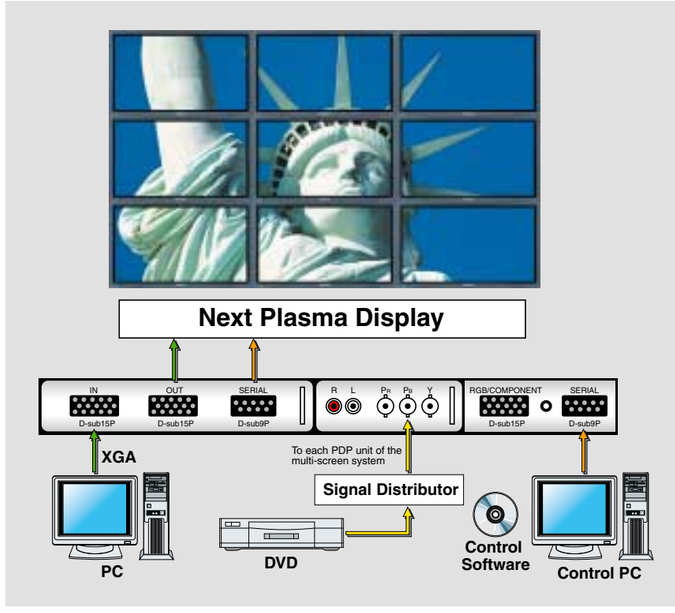

## Multi-Screen System Using RGB Active Through Terminal Board

Eye-catching huge display system at shopping malls and event sites

**• Easy-to-Configure Multi-Screen System at a Low Cost**
This system shows DVD 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.

**• Easy-to-See Information**
The system displays enlarged XGA images with excellent quality.

**• Various Display Patterns and Powerful Impact**
A "control PC" connected through a serial interface lets you switch the input sources and control various display patterns.



# An Unlimited Range of Professional Applications

## In-Store Display


TESCO, London, UK

## Education

KONAMI SCHOOL, Tokyo, Japan

School, Addis Ababa, Ethiopia

## Information

ANA HOTEL TOKYO, Tokyo, Japan


Cosmos Bank, Taipei, Taiwan

SOGO Department Store, HongKong, China

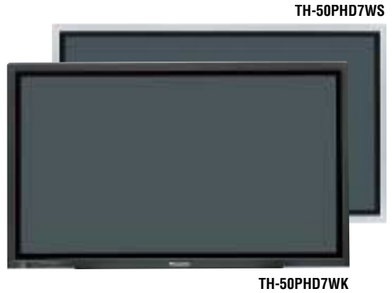
## Amusement

Les Mills Gym, Dunedin, New Zealand

Smooths, Los Angeles, USA

# High Definition Models

**TH-65PHD7WK**
65-inch (165 cm) diagonal
High Definition Plasma Display



TH-50PHD7WK

**TH-50PHD7WK/WS**
50-inch (127 cm) diagonal
High Definition Plasma Display

TH-42PHD7WK

**TH-42PHD7WK/WS**
42-inch (106 cm) diagonal
High Definition Plasma Display

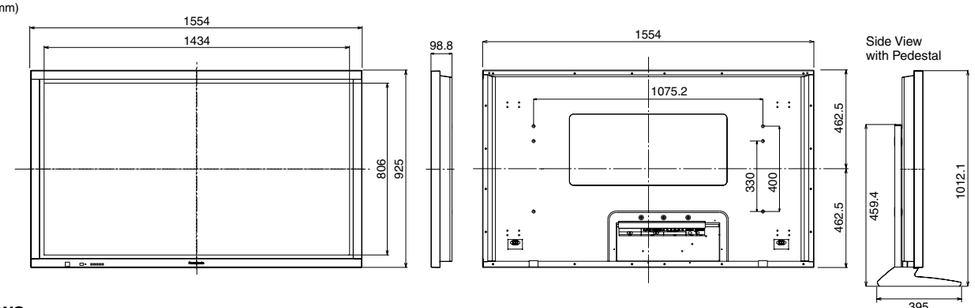
## Specifications

| | TH-65PHD7WK | TH-50PHD7WK/WS | TH-42PHD7WK/WS |
|---|---|---|---|
| **DISPLAY** | | | |
| Screen Size Diagonal (Effective) W x H | 65″ (1,645 mm) 1,434 x 806 mm | 50″ (1,269 mm) 1,106 x 622 mm | 42″ (1,056 mm) 920 x 518 mm |
| Screen Aspect | 16 : 9 Wide | 16 : 9 Wide | 16 : 9 Wide |
| Number of Pixels | 1,049,088 (1366 x 768) | | 786,432 (1024 x 768) |
| Pixel Pitch (H x V) | 1.05 x 1.05 mm | 0.81 x 0.81 mm | 0.90 x 0.675 mm |
| Displayable Colours | 3,620 million colours | 3,620 million colours | 3,620 million colours |
| Contrast Ratio | 3000 : 1 | 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 | 20 W (10 W x 2) | 16 W (8 W x 2) | 16 W (8 W x 2) |
| On-Screen Display | US English/UK English/Spanish/French/German/Italian/Chinese/Japanese | | |
| Screen Coating | AR (Anti-Reflection) Coating | | |
| **GENERAL** | | | |
| Power Supply | AC 220 - 240 V, 50/60Hz | AC 220 - 240 V, 50/60Hz | AC 220 - 240 V, 50/60Hz |
| Power Consumption Stand-by | 635 W Save On: 1.2 W, Off: 1.5 W | 435 W Save On: 0.7 W, Off: 1 W | 315 W Save On: 0.7 W, Off: 1 W |
| Dimensions (W x H x D) | 1554 x 925 x 99 mm | 1210 x 724 x 95 mm | 1020 x 610 x 89 mm |
| Weight | 81.5 kg | 43.0 kg | 30.0 kg |
| Operating Temperature | 0°C — 40°C | | |
| Operating Humidity | 20% — 80% (Non condensation) | | |
| EMC | EN55022 Class A, EN55024, EN61000-3-2, EN61000-3-3 | | |
| Safety Standards | BEAB, CE, EN60065 (IEC65) | | |

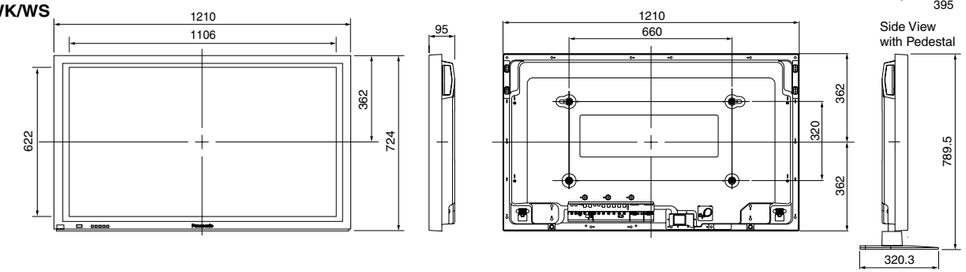
| | TH-65PHD7WK/WS | TH-50PHD7WK/WS | TH-42PHD7WK/WS |
|---|---|---|---|
| **TERMINALS** | | | |
| Composite Video Input | BNC coaxial x 1, 1.0 Vp-p (75 ohms or high impedance) | | |
| Composite Video Output | BNC coaxial x 1, 1.0 Vp-p (75 ohms or high impedance) | | |
| S-Video Input | S terminal x 1, Y: 1 Vp-p (75 ohms), C: 0.286 Vp-p (75 ohms) | | |
| Audio Input (for Video) | RCA phono type connectors (L, R) (1 set) | | |
| PC Input (RGB/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 (for PC) | M3 stereo plug | | |
| Component/R,G,B Input | BNC coaxial x 3 (Y, PB, PR or R, G, B [SYNC ON G]) Y/G: 1.0 Vp-p/composite (75 ohms); 0.7 Vp-p/non-composite (75 ohms) PB/B, PR/R: 0.7 Vp-p (75 ohms) | | |
| Audio Input (for Component/R,G,B) | RCA phono type connectors (L, R) (1 set) | | |
| Serial (RS232C) | D-Sub 9-pin (Female) | | |

## Dimensions (Unit: mm)

**TH-65PHD7WK**




**TH-50PHD7WK/WS**






# Standard Definition Models

TH-42PWD7WK

TH-42PWD7WS

**TH-42PWD7WK/WS**
42-inch (106 cm) diagonal
Wide Plasma Display

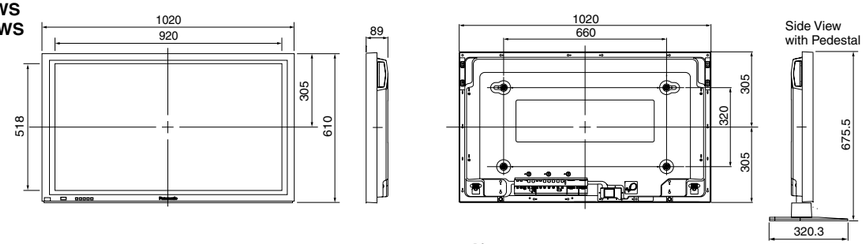
## Specifications

| | TH-42PWD7WK/WS |
|---|---|
| **DISPLAY** | |
| Screen Size Diagonal (Effective) W x H | 42″ (1,056 mm) 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 | 3,620 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/Japanese |
| Screen Coating | AR (Anti-Reflection) Coating |
| **GENERAL** | |
| Power Supply | AC 220 - 240 V, 50/60Hz |
| Power Consumption Stand-by | 250 W Save On: 0.7 W, Off: 1 W |
| Dimensions (W x H x D) | 1020 x 610 x 89 mm |
| Weight | 29.0 kg |
| Operating Temperature | 0°C — 40°C |
| Operating Humidity | 20% — 80% (Non condensation) |
| EMC | EN55022 Class A, EN55024, EN61000-3-2, EN61000-3-3 |
| Safety Standards | BEAB, CE, EN60065 (IEC65) |

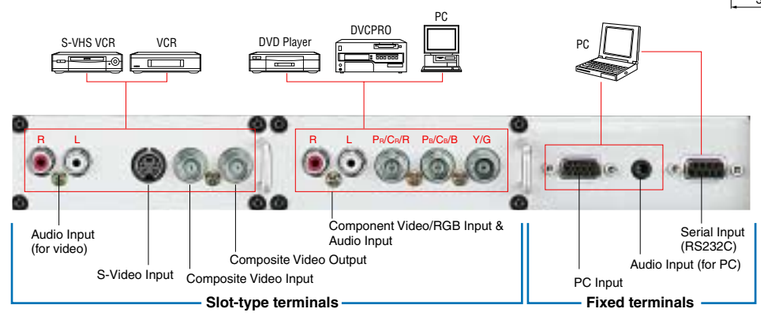
| | TH-42PWD7WK/WS |
|---|---|
| **TERMINALS** | |
| Composite Video Input | BNC coaxial x 1, 1.0 Vp-p (75 ohms or high impedance) |
| Composite Video Output | BNC coaxial x 1, 1.0 Vp-p (75 ohms or high impedance) |
| S-Video Input | S terminal x 1, Y: 1 Vp-p (75 ohms), C: 0.286 Vp-p (75 ohms) |
| Audio Input (for Video) | RCA phono type connectors (L, R) (1 set) |
| PC Input (RGB/Component) | Mini D-sub 15-pin x 1 (VGA display & SVGA, XGA, SXGA, UXGA compressed display) fH: 15 — 110 kHz; fV: 48 — 120 Hz |
| Audio Input (for PC) | M3 stereo plug |
| Component/R,G,B Input | BNC coaxial x 3 (Y, PB, PR or R, G, B [SYNC ON G]) Y/G: 1.0 Vp-p/composite (75 ohms); 0.7 Vp-p/non-composite (75 ohms) PB/B, PR/R: 0.7 Vp-p (75 ohms) |
| Audio Input (for Component/R,G,B) | RCA phono type connectors (L, R) (1 set) |
| Serial (RS232C) | D-Sub 9-pin (Female) |

## Dimensions (Unit: mm)

**TH-42PHD7WK/WS**
**TH-42PWD7WK/WS**




## Terminals

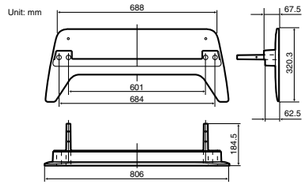



The characters in red are added for explanation.

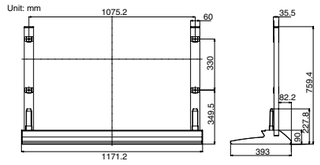
# Options

## Pedestal
**TY-ST07-K**
**TY-ST42PA20**

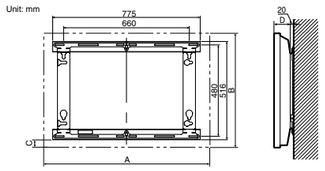





## TY-ST65-K

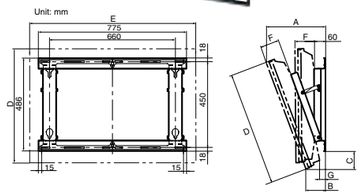



## Wall-hanging bracket
**TY-WK42PV7**




| | 50″ model | 42″ model |
|---|---|---|
| A | 1210 | 1020 |
| B | 724 | 610 |
| C | 91.5 | 34.5 |
| D | 95 | 89 |

## Wall-hanging bracket (angled)
**TY-WK42PR7**




50″ model

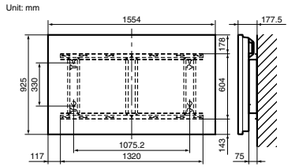
| R | 0° | 5° | 10° | 15° | 20° |
|---|---|---|---|---|---|
| A | 155 | 200 | 243 | 285 | 325 |
| B | 155 | 137 | 119 | 99 | 80 |
| C | 130 | 137 | 145 | 152 | 156 |
| D | 724 | | | | |
| E | 1210 | | | | |
| F | 95 | | | | |
| G | 60 | 57 | 42 | 26 | 11 |

42″ model

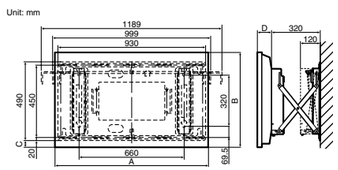
| R | 0° | 5° | 10° | 15° | 20° |
|---|---|---|---|---|---|
| A | 149 | 188 | 226 | 264 | 299 |
| B | 149 | 135 | 121 | 107 | 92 |
| C | 73 | 80 | 88 | 95 | 101 |
| D | 610 | | | | |
| E | 1020 | | | | |
| F | 89 | | | | |
| G | 60 | 50 | 40 | 29 | 19 |

## TY-WK65PV7



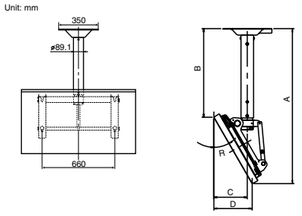



## Wall-hanging bracket (drawer type)
**TY-WK42DR1**




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

## Ceiling-hanging bracket
**TY-CE42PS7**




50″ model

| R | 0° | | | 15° | | | 30° | | |
|---|---|---|---|---|---|---|---|---|---|
| A | 1187 | 1287 | 1387 | 1487 | 1201 | 1301 | 1401 | 1501 | 1181 | 1281 | 1381 | 1481 |
| B | 466 | 566 | 666 | 766 | 506 | 606 | 706 | 806 | 558 | 658 | 758 | 858 |
| C | 199 | | | | 249 | | | | 286 | | | |
| D | 0 | | | | 186 | | | | 360 | | | |

42″ model

| R | 0° | | | 15° | | | 30° | | |
|---|---|---|---|---|---|---|---|---|---|
| A | 1130 | 1230 | 1330 | 1430 | 1144 | 1244 | 1344 | 1444 | 1129 | 1229 | 1329 | 1429 |
| B | 523 | 623 | 723 | 823 | 561 | 661 | 761 | 861 | 604 | 704 | 804 | 904 |
| C | 193 | | | | 228 | | | | 262 | | | |
| D | 0 | | | | 157 | | | | 303 | | | |

**Compatible Models at a Glance**

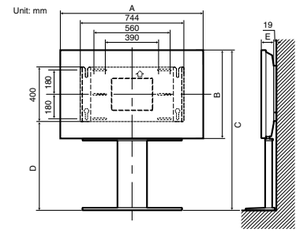
●: Compatible; —: Not compatible

| | TY-ST65-K | TY-ST07-K | TY-ST42PA20 | TY-WK42DR1 | TY-WK65PV7 | TY-WK42PV7 | TY-WK42PR7 | TY-ST42PW1 | TY-ST42PF3 | TY-CE42PS7 |
|---|---|---|---|---|---|---|---|---|---|---|
| TH-65PHD7WK | ● | — | — | — | ● | — | — | — | — | — |
| TH-50PHD7WK/WS | — | ● (WK) | ● (WS) | ● | — | ● | ● | ● | ● | ● |
| TH-42PHD7WK/WS | — | ● (WK) | ● (WS) | ● | — | ● | ● | ● | ● | ● |
| TH-42PWD7WK/WS | — | ● (WK) | ● (WS) | ● | — | ● | ● | ● | ● | ● |



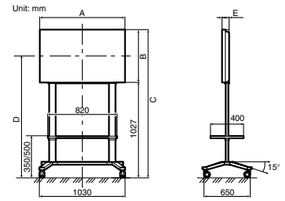
## Wall stand
**TY-ST42PW1**

| | 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**

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




## Touch panel

**TY-TPEN6 Touch Pen also available.**

Note: Use the optional mounting bracket, when you mount both a touch panel and the optional speakers at the same time.

**TY-TP50P6-S** (for TH-50PHD7)
**TY-TP42P6-S** (for TH-42PHD7/42PWD7)

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"

**Specifications**

| | TY-TP50P6-S | TY-TP42P6-S |
|---|---|---|
| Applicable display devices | Panasonic 50″ plasma display | Panasonic 42″ plasma display |
| Power supply (voltage) | DC + 5V ±10% (Through USB) | |
| Electric current | DC + 5V, Max 400mA | |
| Detection system | Infrared ray interruption | |
| 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 | |
| Operating modes | Input point, Continuous, Moving, End point detection*1 | |
| Resolution (W x H) | 2201 x 1241*1 | 1833 x 1033*1 |
| Detection pitch | 2.0 x 2.0 mm | |
| Output system | Coordinate output | |
| Optical elements | 276 (H) x 156 (V) | 230 (H) x 130 (V) |
| Optical element pitch | 4.0 x 4.0 mm | |
| Minimum stylus | 6.0 x 6.0 mm | |
| Scan speed | First touch: 30 msec/frame max., Moving: 5 msec/frame max. | |
| Interface | USB1.1 compliant; Signal: +DATA, -DATA, VCC, GND; I/F connector: TYPE B | |
| Panel shape | Integrated flat panel controller | |
| Dimensions (W x H x D) | 1256 x 748 x 69 mm | 1066 x 634 x 69 mm |
| Depth when mounted | 118 mm | 110 mm |
| Weight (excluding brackets) | 4.2 kg | 3.5 kg |
| Escutcheon (frame) | Aluminum | |
| USB driver/Applicable OS | Windows® 98SE/2000/ME/XP | |

*1 When using the specific driver software.

## Detachable stereo speakers

**TY-SP65P7W-K** (for TH-65PHD7WK)
Configuration: 2-way, 3-speaker
Dimensions (W x H x D): 100 x 925 x 90 mm
Weight: 2.2 kg/each

**TY-SP50P5W-K** (for TH-50PHD7WK)
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-42PHD7WK, 42PWD7WK)
Configuration: 2-way, 3-speaker
Dimensions (W x H x D): 104 x 610 x 89 mm
Weight: 2.1 kg/each

**TY-SP50P6W-S** (for TH-50PHD7WS)
Configuration: 2-way, 3-speaker
Dimensions (W x H x D): 104 x 724 x 89 mm
Weight: 2.3 kg/each

**TY-SP42P6W-S** (for TH-42PHD7WS, 42PWD7WS)
Configuration: 2-way, 3-speaker
Dimensions (W x H x D): 104 x 610 x 89 mm
Weight: 2.1 kg/each

# Peripherals

* Some peripherals are not available in some countries. Consult your local sales company for details.

## Twisted-Pair-Cable Receiver Board

- The Twisted-Pair-Cable Receiver Board makes it possible, using a single CAT5e cable, to simultaneously send video signal (RGB, component, or composite), audio signal and the PDP control signal.
  * To send a composite video signal, the Composite Video Terminal Board (TY-42TM6Y, 42TM6B or 42TM6V) must be mounted in the slot of PDP.
- This reduces both costs and setup time compared with a conventional BNC cable connection.
- XGA signals (1024 x 768 pixels) can be sent up to 150 m.
- Because the Twisted-Pair-Cable Receiver Board mounts in a multi-function slot, it runs on power supplied by the PDP and takes up no additional equipment space.

For the latest information on the Twisted-Pair-Cable Receiver Board, please visit the following website:

**http://www.kowa.co.jp/i-master/cat5-eng**

### KE0101CRBW
**(Video, audio and PDP control signals) (Mounts in any slot*)**

* Should be mounted in slot 1 to send the PDP control signal. PDP control signal transmission is one-way.

**Specifications (KE0101CRBW)**

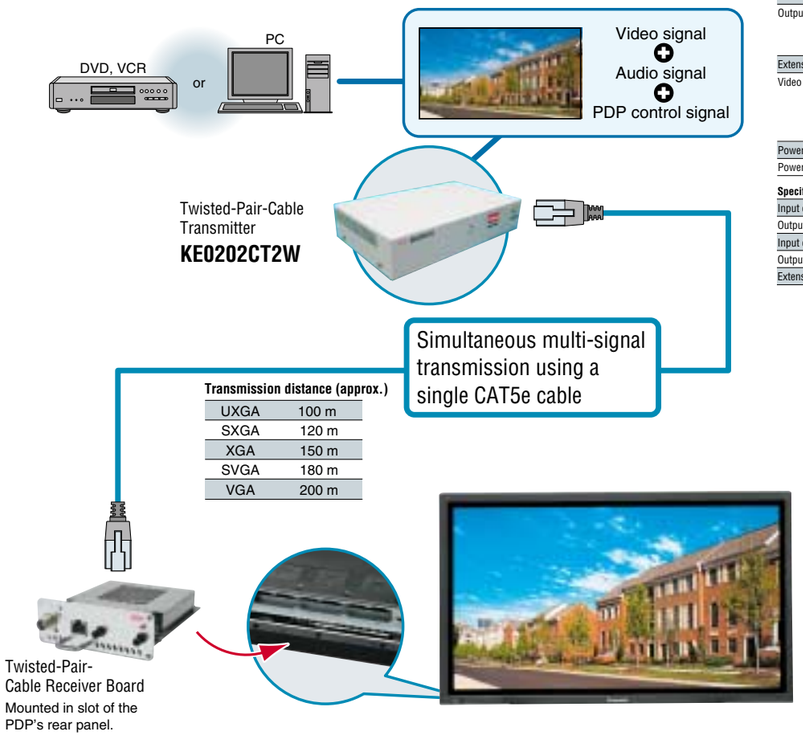
| | |
|---|---|
| Applicable displays | Panasonic Plasma Displays |
| Input channel | 1 input system for extension |
| Output channel | 1 system (internal connector) for RGB<br>or 1 system (extrenal connector) for Video,<br>1 system for sound and 1 system for RS232C |
| Extension cable | CAT5/CAT5e/CAT6 |
| Video output signal | Analog RGB: 0.7Vp-p (75 ohms); HD, VD: TTL<br>Component: Y: 1.0Vp-p (75 ohms) sync signal included<br>$P_B$, $P_R$: ± 0.35Vp-p (75 ohms)<br>Video: 1.0Vp-p (75 ohms) |
| Power supply | Supplied from the plasma display |
| Power consumption | Approx. 6 W |

**Specifications (KE0202CT2W)**

| | |
|---|---|
| Input channel | 1 each for video (RGB and video)<br>1 each for audio and 1 for RS-232C |
| Output channel | 1 each for monitor output (RGB, video, and audio)<br>1 for extension output (2 division)<br>1 for extension output (2 division) |
| Extension cable | CAT5/CAT5e/CAT6 |
| Video output signal | Analog RGB: 0.7Vp-p (75 ohms); HD, VD: TTL<br>Component: Y: 1.0Vp-p (75 ohms) sync signal included<br>$P_B$, $P_R$: ± 0.35Vp-p (75 ohms)<br>Video: 1.0Vp-p (75 ohms) |
| Power supply | AC 100 — 240 V, 50/60 hz |
| Power consumption | Approx. 10 W |

**Specifications (KE0108CHDW)**

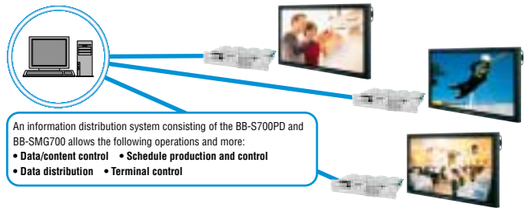
| | |
|---|---|
| Input channel | 1 input for CAT5e |
| Output channel | 8 outputs for CAT5e |
| Input connector | RJ-45 connector |
| Output connector | RJ-45 connector |
| Extension cable | CAT5e |






## Networked MPEG2 Player

- Mounts in the function slot to reduce wiring and save space. The local remote control allows playback control without the need for a mouse and keyboard.
- Video signals are transmitted digitally to ensure crisp, clear images.
- The hardware decoder produces DVD-level image quality by supporting MPEG2 MP@ML (Main Profile@Main Level) transport. High-bit-rate data also streams smoothly because all playback data is first stored in the built-in hard disk.
- Combination with the BB-SMG700 Streaming Box Manager makes it possible to schedule the distribution of motion video, still images and other content, and deliver over a LAN or Internet.




Direct playback is also possible using the included remote control.

### BB-S700PD Streaming Box
**(Mounts in slots 1 & 2)**

**Terminals**


**Specifications**

| | | |
|---|---|---|
| Hardware | Applicable displays | Panasonic Plasma Displays |
| | HDD capacity | Approx. 20 GB*1 |
| | External jacks | 10BASE-T/100BASE-TX (RJ-45), Audio output (Stereo mini jack*2) |
| | Power supply | Supplied from plasma display (DC 14V) |
| | Power consumption | Approx. 14V/0.7A max. |
| Software | Web browser | HTML4.01 subset, partial CSS1 and CSS2<br>ECMA Script 262 3rd edition (JavaScript 1.5 equivalent)<br>Partial DOM Level 1, Level 2 and Dynamic HTML |
| | Applicable servers | Streaming Box Manager BB-SMG700*3 |
| | Data distribution protocol | Proprietary method (block data distribution with error-triggered retransmission function and encoding process) |
| MPEG | Image | MPEG2 PS, MPEG2 TS, MP@ML |
| | Audio | Linear PCM*4, MPEG Audio Layer 1, Layer 2 |
| | Maximum bit rate | 10 Mbps (in storage and playback) |

*1: Part of this capacity is used by the system. *2: Exclusive use with internal connection.
*3: Some functions are performed jointly with the BB-SMG700. *4: At sampling frequency of 48kHz.

### BB-SMG700 Streaming Box Manager

Controls up to 100 plasma display panels.
This application contains all of the functions necessary for video distribution.

**BB-SMG700 Operating Environment**

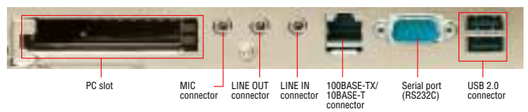
| | |
|---|---|
| CPU | Pentium® IV 1GHz or faster, Recommended: Pentium® IV 2.4GHz or faster |
| Main storage memory | 512MB or more, Recommended: 1 GB or more |
| HDD capacity | Required capacity: 10 GB or more |
| Network interface | 1000BASE-T/100BASE-TX/10BASE-T |
| Applicable OS | Windows® XP Professional (SP1) |

## PDP Controller

- Function board design reduces wiring and saves space.
- Clear images made possible by digital connection using the function slot of the plasma display.
- Customised to maximise the performance of Panasonic plasma displays.
  - Realistic display images achieved by a 1:1 pixel correspondence with Panasonic plasma displays.
  - Can also be used in vertical display applications.
- Models with a pre-installed, digital signage system are also available.
- Easy to install, it requires only a network and power connection. The mouse/keyboard connections can be wireless, through the PCMCIA slots.

### VC250 series (Mounts in slots 1, 2 & 3)

**Terminals**




**Specifications**

| | |
|---|---|
| Applicable displays | Panasonic Plasma Displays |
| CPU | ULV Pentium® M 900MHz |
| Main storage memory | Standard 256MB DDR SO-DIMM |
| Internal HDD | 2.5" HDD 30GB x 1 |
| Network | 100BASE-TX/10BASE-T x 1, Wake On LAN supported |
| Interfaces | Serial x 2*1, USB2.0/1.1 x 2*2, Line In x 1, Line Out x 1, MIC x 1 |
| PCMCIA slot | 2*3 |
| Preinstalled OS | Windows® XP Embedded |
| Dimensions | 315 (W) x 29 (H) x 211 (D) mm (including cooling fan) |
| Weight | 1.2 kg |
| Power supply | Supplied from the plasma display |
| Power consumption | 20 W max. |
| Standard | FCC Class A |

*1: One serial interface is connected internally.
*2: USB 1.1 is for HID (human interface devices) only. Maximum power supply for the two ports is 3.5 W.
*3: Maximum power supply for the two slots is 2.0 W when using 5.0 V, and 3.6 W when using 3.3 V.