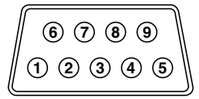
Preset Input Signals

	Signal name	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Optional Terminal Board												PC IN (D-Sub 15-pin) Fixed Terminal
				Composite Video TY-42TM6B/V	Component Video TY-42TM6A/Z	PC Input TY-42TM6P	RGB (Digital) TY-42TM6D	HDMI TY-FB8HM	BNC Dual Video TY-FB9BD	Composite/Component Video TY-42TM6Y	RGB Active Through TY-42TM6G	SDI TY-FB7SD	HD-SDI TY-FB7HD	SCART TY-FB8SC	
Composite	NTSC	15.73	59.94	Y					Y	Y				Y	
	PAL	15.63	50.00	Y					Y	Y				Y	
	PAL60	15.73	59.94	Y					Y	Y				Y	
	SECAM	15.63	50.00	Y					Y	Y				Y	
	Modified NTSC	15.73	59.94	Y					Y	Y				Y	
Component/RGB	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	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		Y		Y
	1125 (1080)/24p	27.00	24.00		Y	Y				Y	Y		Y		Y
	1125 (1080)/24sF	27.00	48.00		Y	Y				Y	Y		Y		Y
	1125 (1080)/25p	28.13	25.00		Y	Y				Y	Y		Y		Y
	1125 (1080)/30p	33.75	30.00		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

Note: 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

PC Input: D-Sub 15-Pin (Female)

Signal Name

Pin No.	Signal name
1	R (PR/CR)
2	G (Y)
3	B (PB/CB)
4	GND (Ground)
5	GND (Ground)
6	GND (Ground)
7	GND (Ground)
8	GND (Ground)

Pin No.	Signal name
9	NC (Not connected)
10	GND (Ground)
11	GND (Ground)
12	SDA
13	HD/SYNC
14	VD
15	SCL

Supplied Remote Control

(Comes with every Panasonic Plasma Display model.)

Remote Control Functions

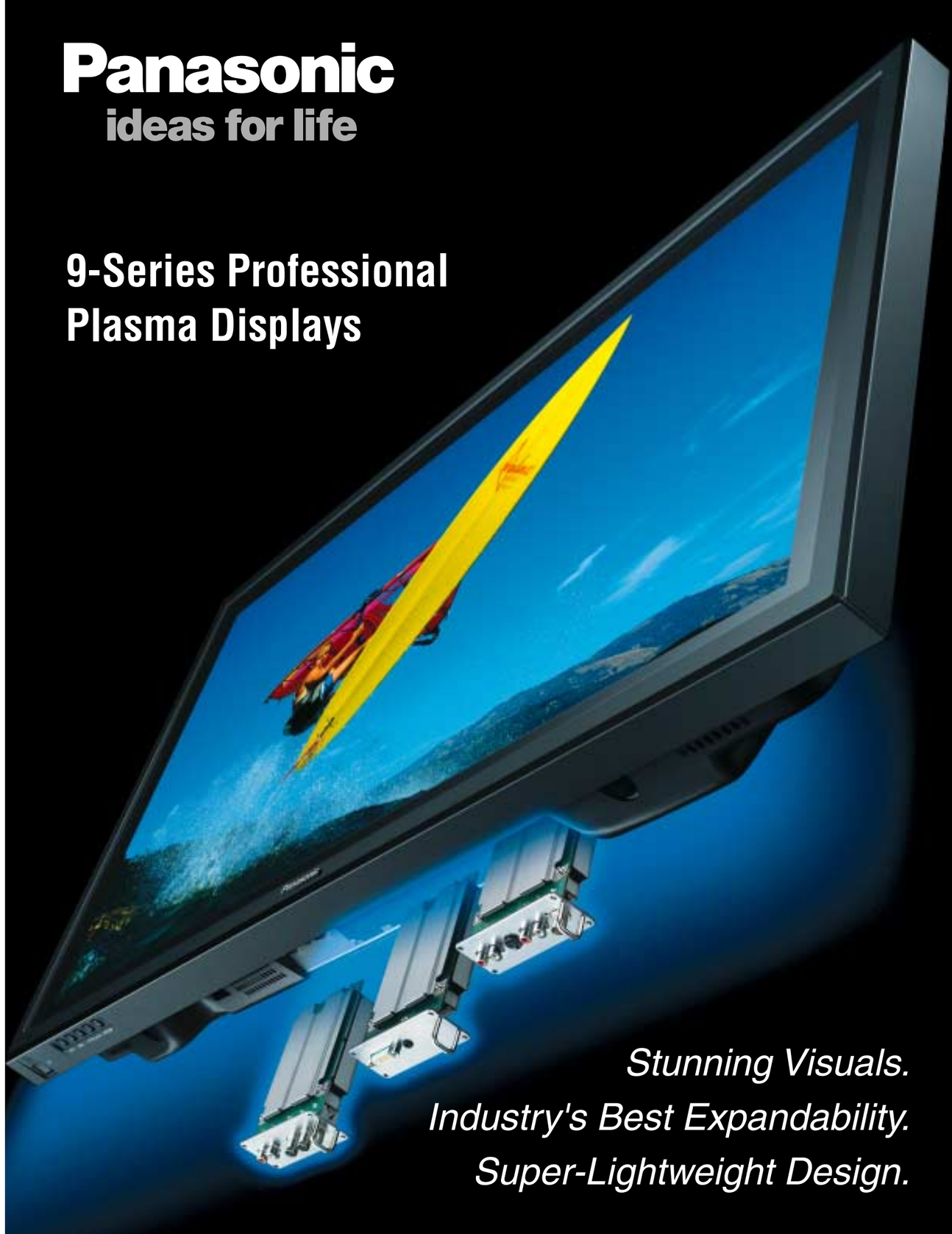
Power On
Power Off
Direct Input Selection (1/2/3/PC)
Input Selection
Status
Surround On/Off
Sound Mute On/Off
Volume Up/Down
Normalization (N)
Exit (R)
Position/Action
Digital Zoom
Dual Picture (MULTI PIP/SWAP/SELECT/MOVE)
Picture
Sound
Set Up
Picture Position/Size
Aspect
PC Mode Selection
Off Timer
Normal/ID Remote Selection
ID Number Set
ID All

Simulated pictures on screen.
Specifications are subject to change without notice. Printed in Japan
EUR06S-01

Panasonic

ideas for life

9-Series Professional Plasma Displays



Stunning Visuals.
Industry's Best Expandability.
Super-Lightweight Design.

The Industry Leader in Picture Quality, Versatility and Design

Panasonic's new 9-Series Professional Plasma Displays bring you greater efficiency, better visual quality and more flexible options. The specially designed 9-Series boasts the industry's highest levels of colour gradation and contrast for crisp, clear colours and a stunning visual experience. Each model features an ultra-lightweight, energy-efficient design, with weight reduced by as much as 15%*[1] compared with previous models. Exceptionally flexible and versatile, the 9-Series also features our signature multi-function input system that allows use in virtually any AV, PC or interactive environment. Whether used alone, set up as multi-screen systems, or mounted vertically, Panasonic 9-Series Professional Plasma Displays allow you to create a superior, customised system tailored to your professional needs.

*1: 42-inch HD model.

Supreme Visual Quality

Panasonic integrated its most advanced imaging technologies to achieve the industry's highest contrast and colour gradation. Shattering conventional image quality standards, our new 9-Series Professional Plasma Displays feature cutting-edge panel improvements and advanced colour management technology for breathtaking pictures that stimulate emotion and captivate any viewer.

Optimum Expandability

With triple function input slots and a variety of terminal boards, Panasonic's 9-Series Professional Plasma Displays let you customise the display to your exact needs. This great expandability combined with the superb image quality to make Panasonic displays a high-performance solution in almost any application.

Events/Entertainment
Visual "magnets" that keep customers entertained, informed and attentive.

Presentations
Powerful visual impact that helps make presentations and meetings a success. Optional touch panel adds interactivity and ease.

Digital Signage
Turnkey signage solutions that are attention getting and give your message extra punch.

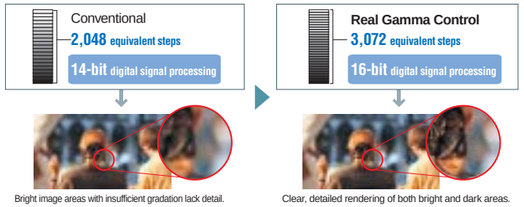
Industry's Best Picture Quality

Note: These features are found on the PH9/PS9 models only.

3,072 Equivalent Steps of Gradation for Finely Nuanced Images

Real Gamma Control

Instead of using first-stage, basic processing like other brands, Panasonic plasma displays use maximum 16-bit processing, the highest level in the industry, to process video signals all the way up to the gamma correction stage. While other brands use the number of signal bits for calculation, Real Gamma Control reproduces the actual image that appears on the screen at the world's highest level of 3,072 equivalent steps of gradation.



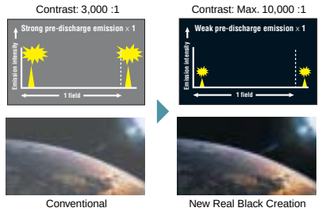
Bright image areas with insufficient gradation lack detail.

Clear, detailed rendering of both bright and dark areas.

Max.10,000:1 Contrast Provides Superb Depth

New Real Black Creation

Panasonic's original New Real Black Creation technology helps achieve the industry's highest level of contrast at a maximum of 10,000:1 in dark image areas to reproduce exceptionally deep, rich blacks. This system suppresses unwanted graying by reducing the electrical pre-discharge to about 30% of the level of conventional plasma displays.

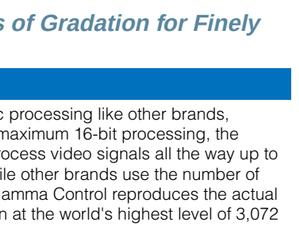


Excellent Brightness Even in Bright Rooms

Advanced Plasma Display Panel

Use of improved panel materials and enhanced rib and electrode shapes have boosted the efficiency of our plasma display panels. We've also attained a stable, high-speed discharge to cope with the light intensity in the finely-controlled discharge, These features combine to increase screen brightness by 20%*1 compared with previous models.

*1: For HD models. 5% for SD models.

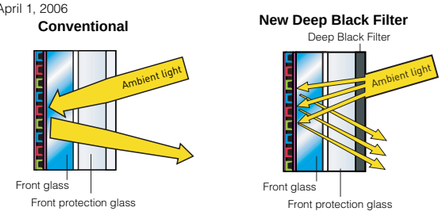


Industry's Best*2 Bright-Area Contrast

New Deep Black Filter

The New Deep Black Filter suppresses light transmittance and slashes the amount of external light reflected. This technology helps these displays achieve the industry's highest contrast ratio of 400:1 when viewed in bright surroundings. Reflection is minimal, so images are clean and distraction-free.

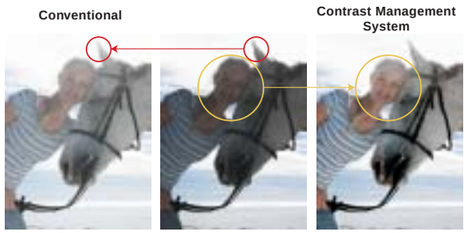
*2: As of April 1, 2006



Superior Expressive Detail

Contrast Management System

Original Panasonic technology optimises the contrast by matching it to the images in each scene. Instead of losing gradation by making part of the image too bright or too dark, this new technology applies just the right amount of contrast correction for each part of the scene. The result brings natural beauty to all parts of the scene.



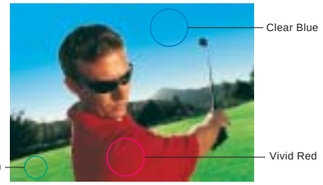
Enhancing dark areas washes out the highlights.

Brightens the subject without changing the background.

Rich, Vibrant Colours

Advanced 3D Colour Management

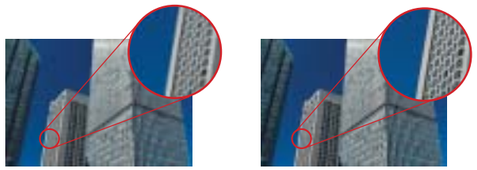
The Colour Management System achieves precise control based on 3D management in the colour difference plane and brightness directions. This finer level of control produces more expressive images.



Smooth Diagonal Lines and Sharp, Clear Images

Sub-Pixel Controller

The Sub-Pixel Controller eliminates jagged or blurred diagonal lines and produces smoother edges. Unlike conventional systems in which the three RGB colours are processed together, this advanced system processes each colour separately for crisper, more natural-looking images. Theoretically, this results in a 30% improvement in horizontal resolution compared with conventional systems.



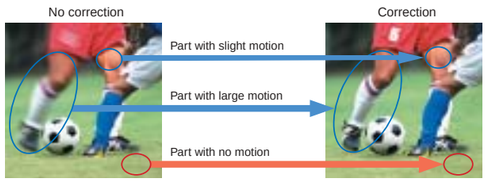
No correction

Correction

Even Scenes with Lots of Motion are Clear

Motion Pattern Noise Reduction

The Motion Pattern Noise Reduction circuit detects motion patterns that tend to generate noise, and makes adjustments to maximise image quality. It helps produce clean, sharp images with outstanding gradation, even in scenes with considerable motion. The result is a noticeable improvement in moving picture quality.



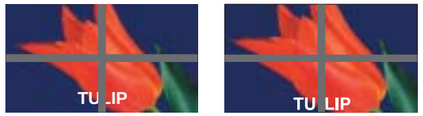
Panasonic plasma finely divides each scene into numerous parts, then detects the motion in each part and applies noise reduction where required.

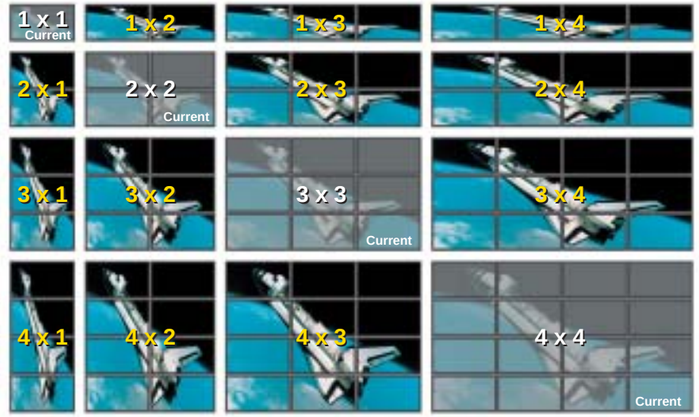
Advanced Usability

Powerful Multi-Screen Display Systems

Advanced Image-Enlarging Function

This built-in image-enlarging function makes it easier to set up multi-screen systems with as many as 16 displays (4x4 configuration).
A new function lets you enlarge the image up to 4x vertically and horizontally independently, making it easy to set up a multi-screen system with up to four displays arranged either vertically or horizontally. For example, expand the image horizontally to 4x and leave it unchanged vertically, and you can create a system with four units side-by-side. This is ideal in bank lobbies, airports and other places where you want a large display system that can be read from a distance.
Thanks to the ID control function, you can use the standard remote control unit to control multiple panels individually.
There is also a mode that displays a full-screen image, including the edges (the width of the frame) of the display panel. This is especially suitable for displaying text information, since no words are hidden by the frame.





Note: Image-enlarging function 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. Advanced image-enlarging function is not offered on the TH-65PHD8 series or TH-42PS9 series.
The ambient temperature varies depending on the installation location. Provide sufficient air conditioning for surrounding conditions.

Easy Installation

Ultra-Lightweight Cabinet

Panasonic's advanced PDP production technology made it possible to reduce the plasma panel glass thickness from 2.8 mm to 1.8 mm. This reduces overall weight by up to 15%*3 compared with previous models, making installation easier than ever. Using less glass benefits the environment, too.

*3: 42-inch HD model.

Weight Comparison

	New	Conventional	Reduction
50" HD	37.0 kg	43.0 kg	14%
42" HD	27.0 kg	31.5 kg	15%
42" SD	26.0 kg	29.5 kg	12%

Vertical Mounting

Panasonic professional plasma displays can be positioned vertically to display portrait images, allowing them to serve as effective storefront signboards. There's no need to install an optional fan kit.

Note: When using the display vertically, set it so the power button is on top.

Advanced Dual Picture Mode

Panasonic plasma displays feature the Advanced Dual Picture Mode in addition to the conventional Dual Picture Mode. This mode lets you overlay a video image onto a full-screen PC image. For example, you can superimpose text information from a PC over a video clip, giving you a more effective way to present information.
When displaying two separate images, you can select the audio output from either source. Playing back the audio from the sub-source can be useful in teleconferencing, for example.

Note: Dual Picture Mode cannot handle the following combinations of two analogue signals: Component - Component, Component - PC (RGB), PC (RGB) - Component, PC (RGB) - PC (RGB). The Advanced Dual Picture Mode may not work properly with some video signals.

Remote System Monitoring

In addition to the conventional display control command and power supply/input selection check command, Panasonic plasma displays feature a monitor command that lets you check the signal from a distant location. In conventional systems, you had to install a monitoring camera to check the images displayed on an advertising display panel or digital signage system. This monitor command, on the other hand, lets you monitor images by simply connecting a PC via a serial cable.

Long Service Life of 60,000 Hours

The inner panel improvements give Panasonic plasma panels a long service life of approximately 60,000 hours* even with their increased brightness.

* The time until panel brightness is reduced to half its initial level, when displaying moving images at standard mode. Excludes afterimages and malfunctions.

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 or according to the detected screen condition.
- **Peak Limit Mode:** Lowers the peak brightness level (image contrast) by 30%.

Energy-Saving Functions

A broad range of environment-friendly functions help minimize 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.)

Sound Menu

The Sound Menu gives you a choice of three sound settings (Standard/Dynamic/Clear) to best match the kind of input source.

Super Quiet Operation

Our "silence engineering" has eliminated the need for a fan on SD models and dramatically suppressed the fan noise on HD models, to give you the kind of quiet operation that makes for a more pleasant viewing experience.

Industry's Best 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, and to customise your system for specific needs.

Panasonic plasma display models come equipped with the standard terminal board mounted in slot 1. You can mount optional terminal boards in slots 2 and 3. Or, you can remove the standard terminal board and mount up to three optional boards.

* The photo above shows the standard terminal boards on 50˝ and 42˝ models.

Optional Terminal Boards

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

TY-42TM6G

- Sends the signal that's input via the PC IN terminal to a second display connected to the PC OUT terminal. 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)

TY-42TM6D

- Lets you connect a PC or other compatible digital equipment that outputs digital RGB signals (DVI-D compliant).
- Adding this board permits you to display images with the equivalent of 4,096 gradation levels.

HDMI Terminal Board (mounts in slot 1 or 2)

TY-FB8HM

- Enables fully digital connection of signals from HDMI-compatible DVD players and other digital equipment for blur-free images with no colour bleeding.

Specifications

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

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

BNC Dual Video Terminal Board (mounts in slot 1 or 2)

TY-FB9BD*1

*1: This board cannot be used on the TH-65PHD8EK/BK.

BNC Component Video Terminal Board (mounts in any slot)

TY-42TM6A

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

TY-42TM6B

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

TY-42TM6Y

RCA Component Video Terminal Board (mounts in any slot)

TY-42TM6Z

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

TY-42TM6V

Ir Through Terminal Board (mounts in any slot)

TY-FB9RT*1

Note: Only one terminal board can be used per display. Also, it can be used to control only Panasonic AV equipments.

*1: This board cannot be used on the TH-65PHD8EK/BK.

PC Input Terminal Board (mounts in any slot)

TY-42TM6P

- Lets you display images from two or more PCs.

* Does not support the DPMS function.

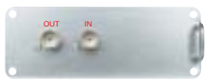
SCART Terminal Board (mounts in slot 1 or 2)

TY-FB8SC

SDI/HD-SDI Terminal Board (mounts in slot 1 or 2)

SDI Terminal Board **TY-FB7SD**

HD-SDI Terminal Board **TY-FB7HD**



- Supports the serial digital interface (SDI) used in broadcasting.
- Provides fully digital transmission for clear, clean image displays.
- The TY-FB7HD supports HDTV.

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

Plasma System Solutions

Simple Multi-Screen System

Using the RGB Active Through Terminal Board

You can easily configure a multi-screen system by using the RGB Active Through Terminal Board with the display's advanced image-enlarging function. This lets you disseminate information in a timely manner by updating the content over a network. You can also connect a DVD player to display background video images. This system is ideal for places where many people gather, such as business complexes and event venues.

• Image Displays with Eye-Catching Impact

The advanced image-enlarging function, with its variable horizontal and vertical display capability, creates displays that are effective on stages, near entranceways, and virtually anywhere.

• Simple System Configuration

Multi-screen systems generally require matrix switchers, image enlargers and other equipment, together with complicated wiring. With the RGB Active Through Terminal, you simply connect each display with a cable to build a large-screen multi-display system. Combined with the light weight of the displays, this makes it super easy to configure a highly effective system.

• Remote Control Over a Network

Because the content can be updated by using an existing network, the information being displayed can be quickly and easily updated*1. Monitoring commands also let you check the display status from a remote location.

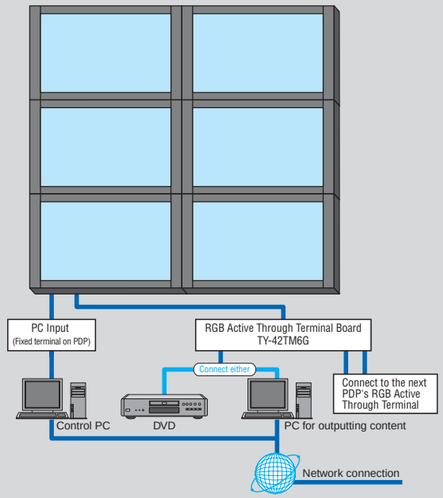
*1: You will need to procure control software.

Note: The advanced image-enlarging function for N x M multi-screen system is not offered on the TH-65PHD8 series or TH-42PS9 series.

Total Display Control with a Single Remote

The remote control that comes with the display is equipped with a "Display ID Control" function that allows you to control up to nine displays with the one remote.

System configuration (N x M image-enlarging)



Effective Discussion System

Using the Ir Through Terminal Board, BNC Dual Video Terminal Board, and Touch Panel

Function slots make it possible to combine various types of video equipment into a discussion system capable of reproducing a wide range of visual materials. Using the Ir Through Terminal Board, the video equipment can be operated by remote control while it is stored in racks to keep the room neat and tidy. The touch panel adds to the persuasive power of presentations and explanations. This system is ideal for seminar rooms, meeting rooms, or small lecture halls.

• Supports a Wide Variety of Video Sources

The BNC Dual Video Terminal Board and Component Video Terminal Board enable connection to various video devices. You can display images from VCRs, S-VHS VCRs, DVD players, and more.

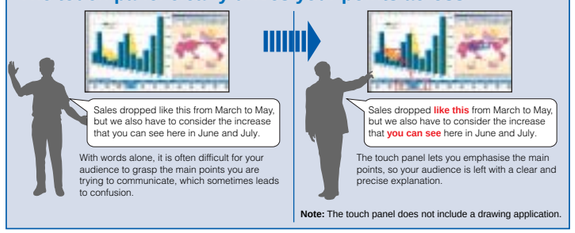
• Keeps the Room Neat and Attractive

The video devices can be connected to the Ir Through Terminal Board and placed out of the way in racks. Each device can then be operated via the remote control sensor on the display. You can even close the rack doors to keep the room interior neat and uncluttered for more comfortable discussions.

• Clear Visual Communications

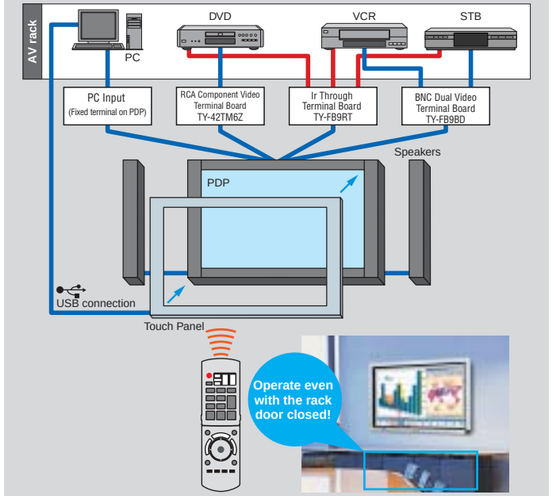
With the touch panel, you can write opinions directly onto the screen. Make your discussions more precise by clearly notating the materials displayed on-screen.

The touch panel clearly drives your points across!



Note: The touch panel does not include a drawing application.

System configuration



Line Up

HD Models

TH-65PHD8EK/BK
65-inch (165 cm) diagonal High Definition Plasma Display

TH-50PH9EK/BK

TH-50PH9ES/BS

TH-50PH9E/B
50-inch (127 cm) diagonal High Definition Plasma Display

TH-42PH9EK/BK

TH-42PH9ES/BS

TH-42PH9E/B
42-inch (106 cm) diagonal High Definition Plasma Display

SD Model

TH-42PS9EK/BK

TH-42PS9ES/BS

TH-42PS9E/B
42-inch (106 cm) diagonal Progressive Wide Plasma Display

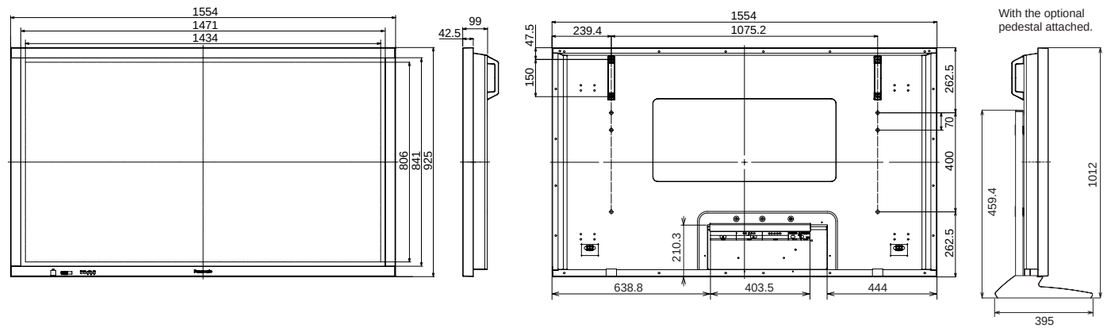
Specifications

COMMODITY NAME	65" HD Plasma Display	50" HD Plasma Display		42" HD Plasma Display		42" SD Plasma Display	
Continental Model	TH-65PHD8EK	TH-50PH9EK	TH-50PH9ES	TH-42PH9EK	TH-42PH9ES	TH-42PS9EK	TH-42PS9ES
UK Model	TH-65PHD8BK	TH-50PH9BK	TH-50PH9BS	TH-42PH9BK	TH-42PH9BS	TH-42PS9BK	TH-42PS9BS
Cabinet Colour	Black	Black	Silver	Black	Silver	Black	Silver
DISPLAY							
Screen Size (Diagonal)	65-inch	50-inch		42-inch		42-inch	
Aspect Ratio	16:9	16:9		16:9		16:9	
Effective Display Area (W x H)	1,434 x 806 mm	1,106 x 622 mm		920 x 518 mm		920 x 518 mm	
Resolution (H x V)	1,366 x 768 pixels	1,366 x 768 pixels		1,024 x 768 pixels		852 x 480 pixels	
Pixel Pitch (H x V)	1.050 x 1.050 mm	0.810 x 0.810 mm		0.900 x 0.675 mm		1.080 x 1.080 mm	
Contrast Ratio (Bright-area*1)	3,000:1 (350:1)	Max. 10,000:1 (400:1)					
Gradation	2,048 steps (equivalent)	3,072 steps (equivalent)					
SIGNAL COMPATIBILITY							
Scan Rate	Horizontal frequency: 15 — 110 kHz; Vertical frequency: 48 —120 Hz						
PC Signal Compatibility	VGA, SVGA, XGA	VGA, SVGA, XGA		VGA, SVGA, XGA		VGA	
	SXGA, UXGA... (Compressed)	SXGA, UXGA... (Compressed)		SXGA, UXGA... (Compressed)		SVGA, XGA, SXGA, UXGA... (Compressed)	
Supported Video Standards	NTSC, PAL, PAL 60, SECAM, Modified NTSC						
Video Signal Compatibility	525 (480)/60i, 60p; 625 (575)/50i, 50p; 750 (720)/60p, 50p; 1125 (1080)/60i, 50i, 24p, 24sF, 25p, 30p... SMPTE274M, 1250 (1080)/50i						
INPUT/OUTPUT							
Fixed Terminals							
PC IN	Mini D-sub 15pin x 1; Analogue RGB/Component; Plug & Play (VESA DDC 1/2B)						
AUDIO IN	M3 jack x 1						
SERIAL	D-sub 9-pin x 1, External control, RS-232C compatible						
Interchangeable Terminals							
Slot1	CVBS In/Out (BNC x 2, Composite), S-Video In (S-Video x 1), Audio In (L/R) (RCA pin jack x 2)	CVBS In (BNC x 1, Composite), Audio In (L/R) (RCA pin jack x 2); S-Video In (S-Video x 1), Audio In (L/R) (RCA pic jack x 2)					
Slot2	Vacant	Vacant		Vacant		Vacant	
Slot3	Vacant	Vacant		Vacant		Vacant	
ELECTRICAL							
Power Requirements	220 - 240 V AC, 50 Hz/60 Hz	220 - 240 V AC, 50 Hz/60 Hz		220 - 240 V AC, 50 Hz/60 Hz		220 - 240 V AC, 50 Hz/60 Hz	
Power Consumption	615 W	440 W		330 W		280 W	
Power off condition	0.35 W	0.2 W		0.2 W		0.2 W	
Stand-by condition	Save Off: 0.9 W, Save On: 0.7 W	Save Off: 0.7 W, Save On: 0.5 W		Save Off: 0.8 W, Save On: 0.6 W		Save Off: 0.8 W, Save On: 0.6 W	
SOUND							
Audio Output	20 W [10 W + 10 W] (10 % THD)	16 W [8 W + 8 W] (10 % THD)					
MECHANICAL							
Dimensions (W x H x D*2)	1,554 x 925 x 99 mm	1,210 x 724 x 95 mm		1,020 x 610 x 89 mm		1,020 x 610 x 89 mm	
Weight (approx.)	78.0 kg	37.0 kg		27.0 kg		26.0 kg	
OPERATING ENVIRONMENT							
Temperature	0°C — 40°C						
Humidity	20% — 80% (Non condensation)						
Altitude	0 — 2,400 m	0 — 2,800 m				0 — 3,000 m	
RADIATION REGULATIONS							
EN55022 Class-B, EN55024, EN61000-3-2, EN61000-3-3							
SAFETY STANDARDS							
EN60065 Ver. 7							
INCLUDED ACCESSORIES							
Remote control unit, UM3 battery x 2, Fixing band x 2, AC power cord, Operating instruction book							

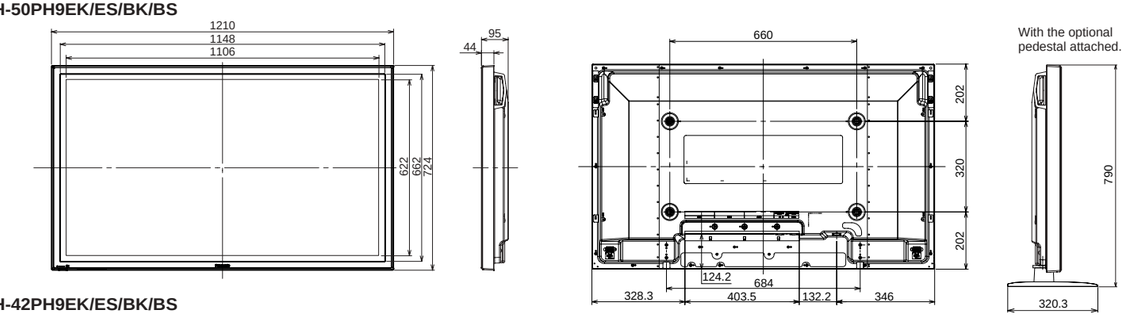
*1: Measured at 100 lux.
*2: Exclusive of protruding portion

Dimensions (Unit: mm)

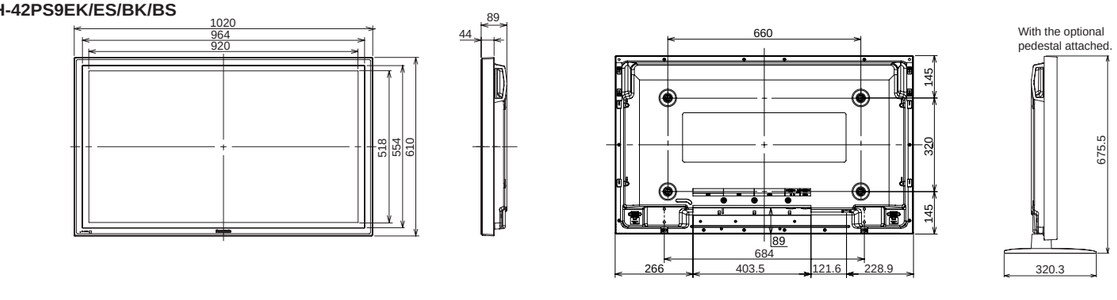
TH-65PHD8EK/BK



TH-50PH9EK/ES/BK/BS



TH-42PH9EK/ES/BK/BS
TH-42PS9EK/ES/BK/BS

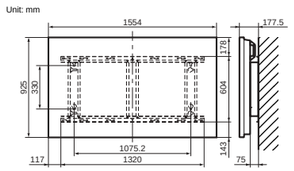


Options

Mounting Options

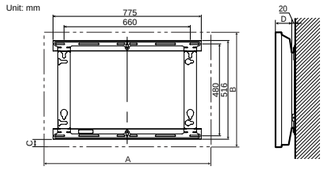
Wall-hanging bracket

TY-WK65PV7



TY-WK42PV7

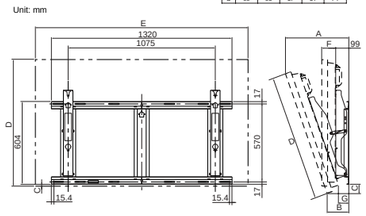
	50" model	42" model
A	1210	1020
B	724	610
C	91.5	34.5
D	95	89



Wall-hanging bracket (angled)

TY-WK65PR8

R	0°	5°	10°	15°	20°
A	198	270	340	408	473
B	198	190	180	169	158
C	14	28	41	54	66
D	925				
E	1554				
F	99				
G	99	93	87	81	74



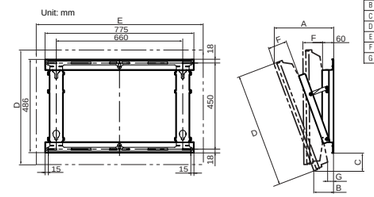
TY-WK42PR7

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

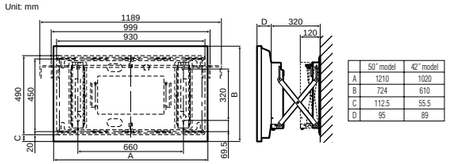
42" model

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



Wall-hanging bracket (drawer type)

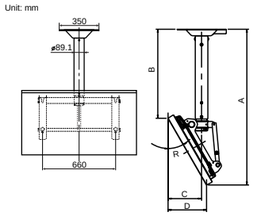
TY-WK42DR1



	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

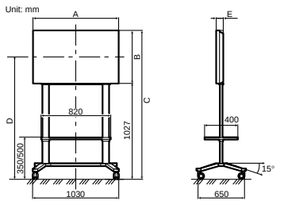
R	0°			15°			30°		
A	1187	1287	1387	1487	1201	1301	1401	1501	1181	1281	1381	1481
B	466	566	666	766	506	606	706	806	558	658	758	858
C	199				249				286			
D	0				186				360			

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				252			
D	0				157				303			

Mobile stand

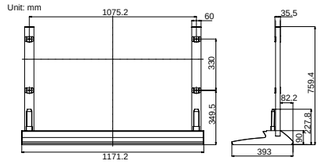
TY-ST42PF3



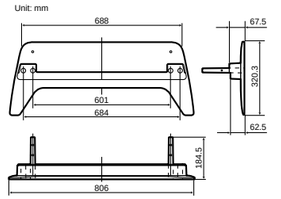
	50" model	42" model
A	1210	1020
B	724	610
C	1751	1637
D	1389	1332
E	95	89

Pedestal

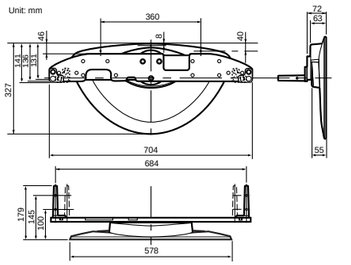
TY-ST65-K



TY-ST07-K/S



TY-ST08-K/S

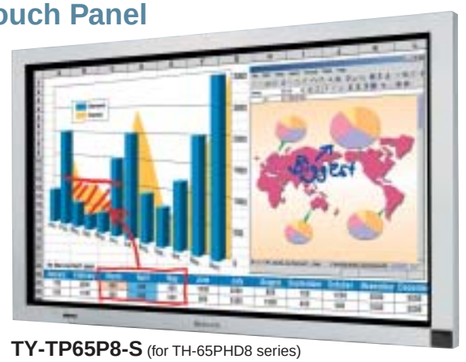


Compatible Models at a Glance

●: Compatible; —: Not compatible

	TY-ST65-K	TY-ST07-K/S	TY-ST08-K/S	TY-WK65PV7	TY-WK42PV7	TY-WK65PR8	TY-WK42PR7	TY-WK42DR1	TY-ST42PF3	TY-CE42PS7
TH-65PHD8 series	●	—	—	●	—	●	—	—	—	—
TH-50PH9 series	—	●	●	—	●	—	●	●	●	●
TH-42PH9 series, TH-42PS9 series	—	●	●	—	●	—	●	●	●	●

Touch Panel



TY-TPEN6 Touch Pen also available.

TY-TP65P8-S (for TH-65PHD8 series)
TY-TP50P8-S (for TH-50PH9 series)
TY-TP42P8-S (for TH-42PH9 series, TH-42PS9 series)

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-TP65P8-S	TY-TP50P8-S	TY-TP42P8-S
Applicable display devices	Panasonic 65" plasma display	Panasonic 50" plasma display	Panasonic 42" plasma display
Detection system	Infrared ray interruption		
Panel aperture (W x H)	1455 x 812 mm	1129 x 645 mm	945 x 531 mm
Detection range (W x H)	1440 x 812 mm	1104 x 620 mm	920 x 513 mm
Effective detection range	Above detection range +1.0 mm top, bottom, right, and left		
Operating modes	Input point, Continuous, End point detection *1		
Resolution	2881 (H) x 1625 (V) *1	2209 (H) x 1241 (V) *1	1841 (H) x 1033 (V) *1
Detection pitch	2.0 x 2.0 mm		
Output system	Coordinate output		
Optical elements	361 (H) x 204 (V)	277 (H) x 156 (V)	231 (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: 45 msec/frame max. Moving: 10 msec/frame max.	First touch: 30 msec/frame max. Moving: 8 msec/frame max.	
Interface	USB1.1 compliant; Signal: +DATA, -DATA, VCC, GND; I/F connector: TYPE B		
Panel shape	Flat panel		
Dimensions (W x H x D) *2	1598 x 951 x 72 mm	1257 x 773 x 69 mm	1073 x 659 x 69 mm
Weight (Except bracket)	5.0 kg	5.8 kg	5.0 kg
Escutcheon (frame)	Aluminum	Aluminum, ABS rosin	
Power supply (voltage)	DC + 5 V ±10% (Supplied from USB bus power)		
Electric current	DC + 5 V max. 400 mA		

*1: When using the specific driver software.
*2: Except bracket, inclusive of protruding portion.
Note: The touch panel does not include a drawing application.

Anti-Glare Filter

TY-AR65P9W (for TH-65PHD8 series)
TY-AR50P9W (for TH-50PH9 series)
TY-AR42P9W (for TH-42PH9 series, TH-42PS9 series)

Note: You cannot mount both a Touch Panel (TY-TP65P8S) and an Anti-Glare Filter (TY-AR65P9W) on the TH-65PHD8 series at the same time.

Detachable Stereo Speakers

Photo shows TY-SP42P8W-K.

Photo shows TY-SP42P8W-S.

TY-SP65P7W-K (for TH-65PHD8EK/BK)
Configuration: 2-way, 3-speaker
Dimensions (W x H x D): 100 x 925 x 90 mm
Weight: 2.2 kg/each

TY-SP50P8W-K (for TH-50PH9EK/BK)
TY-SP50P8W-S (for TH-50PH9ES/BS)
Configuration: 2-way, 3-speaker
Dimensions (W x H x D): 107 x 724 x 88 mm
Weight: 2.0 kg/each

TY-SP42P8W-K
(for TH-42PH9EK/BK, 42PS9EK/BK)
TY-SP42P8W-S
(for TH-42PH9ES/BS, 42PS9ES/BS)
Configuration: 2-way, 3-speaker
Dimensions (W x H x D): 107 x 610 x 88 mm
Weight: 2.0 kg/each