

# High Definition Plasma Display

**TH-50PH10EK  
TH-50PH10ES  
TH-50PH10BK  
TH-50PH10BS**

## ■ Product summary

- 50" High Definition Plasma Display for professional use.
- Equipped with three interchangeable slots-provide flexible and powerful system solution by adding/exchanging wide variety of optional slot-in boards.
- Available with various unique professional features-Weekly Command Timer, Dual picture mode, Digital zoom, Built-in video wall image enlarger, etc..
- Various Energy-saving functions-DPMS, Auto power off, Power save mode, etc..

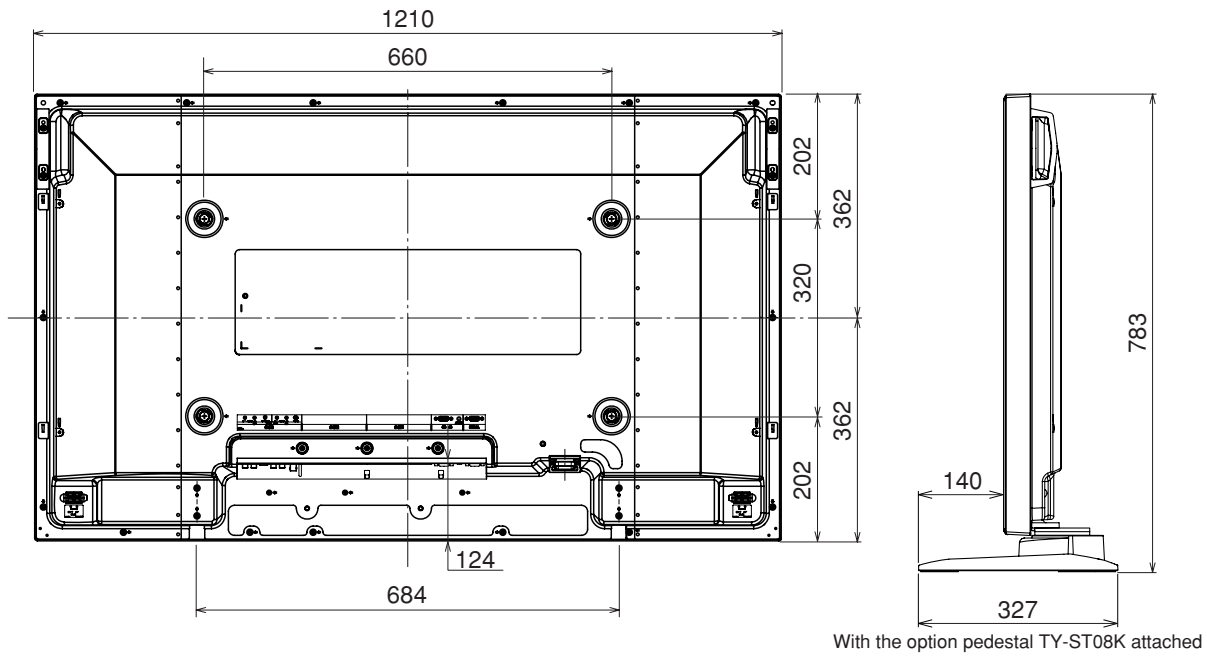
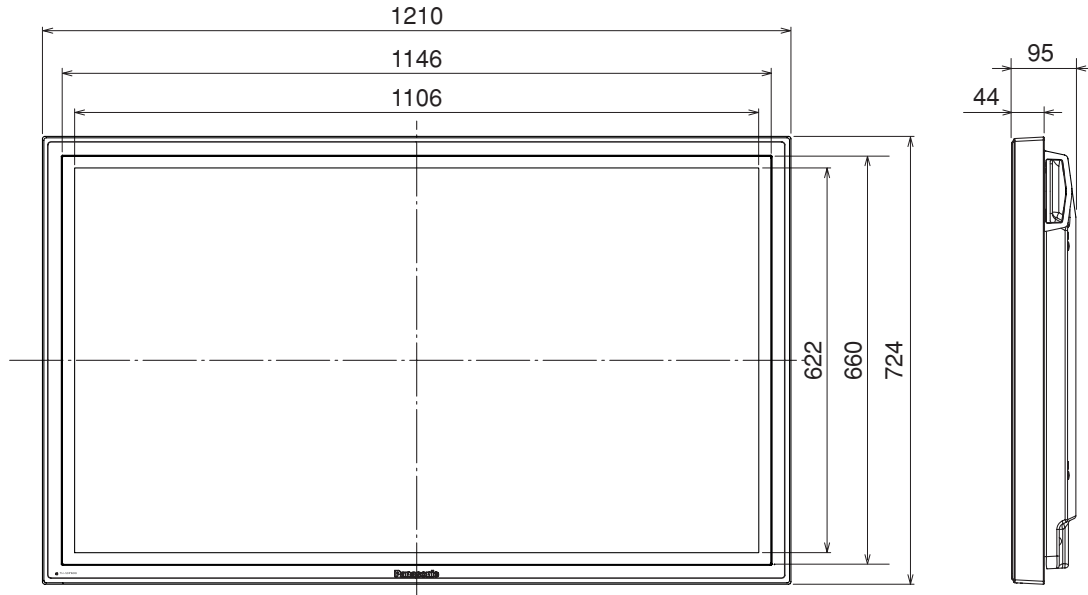
Note: Dual picture mode cannot handle the following combinations of two analog signals Component - Component, Component - PC(RGB), PC(RGB) - Component, PC(RGB) - PC(RGB)

## ■ Product specification (Design and specifications subject to change without notice)

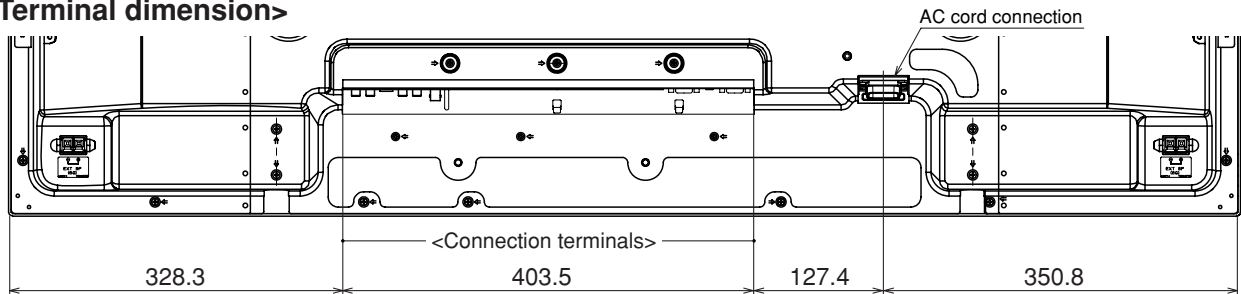
Display	
Screen Size (Diagonal)	50-inch (127 cm)
Aspect ratio	16:9
Effective Display Area (W x H)	1106 x 622 mm
Resolution (H x V)	1,366 x 768 pixels (1pixel=3cells for R, G and B)
Pixel Pitch (H x V)	0.810 x 0.810 mm
Brightness	1,200 cd/m <sup>2</sup>
Contrast Ratio (Bright room)	Max. 10,000:1 (400:1)
Gradation	3,072 steps (equivalent)
Signal Compatibility	
Scan Rate	Horizontal frequency 15-110 kHz Vertical frequency 48 -120 Hz
PC Signal Compatibility	VGA, WVGA, SVGA, XGA, WXGA, WXGA <sup>+</sup> , SXGA, SXGA <sup>+</sup> , WSXGA <sup>+</sup> , UXGA, WUXGA (WXGA <sup>+</sup> and over resolution : compressed)
Supported Video Standards	NTSC, PAL, PAL 60, SECAM, Modified NTSC
Input / Output	
Fixed Terminal	
PC IN	Mini D-sub 15pin x 1 (Female) Analog RGB/Components *Plug & Play (VESA DDC 2B)
AUDIO IN	M3 jack x 1
SERIAL	D-sub 9-pin x 1 (Male) External control, RS-232C compatible
Interchangeable Terminals (Slot1 : TY-FB9BD)	
CVBS IN	BNC x 1 Composite
AUDIO IN(L/R)	RCA pin jack x 2
S-VIDEO	S-VIDEO x 1
AUDIO IN(L/R)	RCA pin jack x 2
(Slot2)	Vacant
(Slot3)	Vacant
ELECTRICAL	
Power Requirements	220 - 240 V AC, 50 Hz/60 Hz
Power Consumption	485 W
Power off condition	0.3 W
Stand-by condition	Save OFF 0.8 W, Save ON 0.6 W
SOUND	
Audio Output	16 W [8 W + 8 W] (10% THD)
MECHANICAL	
Dimensions (W x H x D)	1,210 x 724 x 95 mm (exclusive protruding portion)
Weight	approx. 36.0 Kg
Cabinet Colour	TH-50PH10EK, TH-50PH10BK : Black TH-50PH10ES, TH-50PH10BS : Silver
ENVIRONMENTAL	
Operating environment	
Temperature	0 °C - 40 °C
Humidity	20 % - 80 % (Non condensation)
Altitude	0 - 2,800 m
Storage environment	
Temperature	-20 °C - 60 °C
Humidity	20 % - 90 % (Non condensation)
Altitude	0 - 3,300 m
RADIATION REGULATIONS	
EN55022 Class-B, EN55024, EN61000-3-2, EN61000-3-3	
SAFETY STANDARDS	
EN60065 Ver.7	
IR REMOTE CONTROL	
Power Requirements	DC 3V (2 x R6 (UM3) Batteries)
Operation distance	approx. 7m in front of plasma display
Weight	approx. 130g including batteries
INCLUDED ACCESSORIES	
• Fixing Band x 2 • AC power cord • Operating instruction book • Remote control • Batteries	
OPTIONAL ACCESSORIES	
• Wall-hanging bracket (vertical,angled,drawer type) • Pedestal • Ceiling-hanging bracket • Mobile stand • Touch Panel • Speakers • Anti-Glare Filter • Terminal boards	

■Dimensions (Shown with optional Pedestal stand)

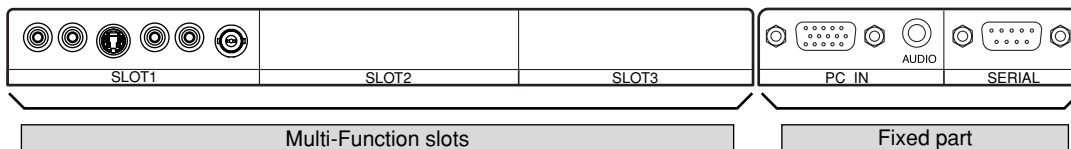
Units : mm



<Terminal dimension>



<Connection terminals>



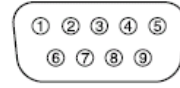
# Preset Input Signals

Signal name	horizontal frequency (kHz)	vertical frequency (Hz)	Optional Terminal Board												
			Composite/Component Video TY-42TM6Y	Component Video TY-42TM6A/Z	PC Input TY-42TM6P	RGB Active Through TY-42TM6G	Composite Video TY-42TM6B/V	BNC Dual Video TY-FB9BD	DVI-D(for PF series) TY-FB9FDD	DVI-D(for PH/PS series) TY-42TM6D	SDI TY-FB7SD	HD-SDI TY-FB9HD	HDMI TY-FB8HM	SCART TY-FB8SC	PC IN(D-sub 15-pin) Fixed Terminal
<b>Composite</b>	NTSC	15.73	59.94	Y										Y	
	PAL	15.63	50.00	Y										Y	
	PAL60	15.73	59.94	Y										Y	
	SECAM	15.63	50.00	Y										Y	
	Modified NTSC	15.73	59.94	Y										Y	
<b>Component / RGB</b>	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	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
	625(576)/50p	31.25	50.00							Y	Y			Y	
	750(720)/60p	45.00	60.00	Y	Y	Y	Y			Y	Y		Y	Y	Y
	750(720)/50p	37.50	50.00	Y	Y	Y	Y			Y	Y		Y	Y	Y
	1125(1080)/60i	33.75	60.00	Y	Y	Y	Y			Y	Y		Y	Y	Y
	1125(1080)/60p	67.50	60.00	Y*	Y*	Y*	Y*			Y					Y*
	1125(1080)/50i	28.13	50.00	Y	Y	Y	Y			Y	Y		Y	Y	Y
	1125(1080)/50p	56.25	50.00	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	
1125(1080)/24sF	27.00	48.00	Y	Y	Y	Y						Y		Y	
1250(1080)/50i	31.25	50.00	Y	Y	Y	Y								Y	
<b>RGB</b>	640×400@70Hz	31.46	70.07	Y	Y	Y	Y								Y
	640×480@60Hz	31.47	59.94	Y	Y	Y	Y			Y	Y			Y	Y
	640×480@72Hz	37.86	72.81	Y	Y	Y	Y								Y
	640×480@75Hz	37.50	75.00	Y	Y	Y	Y								Y
	640×480@85Hz	43.27	85.01	Y	Y	Y	Y								Y
	800×600@56Hz	35.16	56.25	Y	Y	Y	Y								Y
	800×600@60Hz	37.88	60.32	Y	Y	Y	Y			Y	Y				Y
	800×600@72Hz	48.08	72.19	Y	Y	Y	Y								Y
	800×600@75Hz	46.88	75.00	Y	Y	Y	Y								Y
	800×600@85Hz	53.67	85.06	Y	Y	Y	Y								Y
	852×480@60Hz	31.47	59.94	Y	Y	Y	Y			Y	Y				Y
	1024×768@50Hz	39.55	50.00							Y					
	1024×768@60Hz	48.36	60.00	Y	Y	Y	Y			Y	Y				Y
	1024×768@70Hz	56.48	70.07	Y	Y	Y	Y								Y
	1024×768@75Hz	60.02	75.03	Y	Y	Y	Y								Y
	1024×768@85Hz	68.68	85.00	Y	Y	Y	Y								Y
	1066×600@60Hz	37.64	59.94	Y	Y	Y	Y			Y	Y				Y
	1152×864@60Hz	53.70	60.00							Y					
	1152×864@75Hz	67.50	75.00	Y	Y	Y	Y								Y
	1280×960@60Hz	60.00	60.00	Y	Y	Y	Y								Y
	1280×960@85Hz	85.94	85.00	Y	Y	Y	Y								Y
	1280×1024@60Hz	63.98	60.02	Y	Y	Y	Y			Y					Y
	1280×1024@75Hz	79.98	75.03	Y	Y	Y	Y								Y
	1280×1024@85Hz	91.15	85.02	Y	Y	Y	Y								Y
	1366×768@50Hz	39.55	50.00							Y					
	1366×768@60Hz	48.36	60.00	Y	Y	Y	Y			Y	Y				Y
	1400×1050@60Hz	65.22	60.00							Y					
	1600×1200@60Hz	75.00	60.00	Y	Y	Y	Y			Y					Y
	1600×1200@65Hz	81.25	65.00	Y	Y	Y	Y								Y
	1920×1080@60Hz	67.50	60.00	Y*	Y*	Y*	Y*			Y					Y*
	1920×1200@60Hz	74.04	59.95							Y					
	Mac13" (640×480)	35.00	66.67	Y	Y	Y	Y								Y
	Mac16" (832×624)	49.72	74.54	Y	Y	Y	Y								Y
Mac21" (1152×870)	68.68	75.06	Y	Y	Y	Y								Y	

\* The PH/PS series dose not accept these signals

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 (Male)



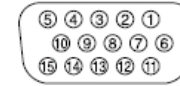
### Pin Assignment and Signal Name

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
Synchronization method	Asynchronous
Baud Rate	9600 bps
Parity	None
Character Length	8 bits
Stop Bit	1 bit
Flow control	-

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



### Signal Name

Pin No.	Signal name
1	R (P <sub>R</sub> /C <sub>R</sub> )
2	G (Y)
3	B (P <sub>B</sub> /C <sub>B</sub> )
4	NC (Not connected)
5	GND (Ground)
6	GND (Ground)
7	GND (Ground)
8	GND (Ground)
9	NC (Not connected)
10	GND (Ground)
11	NC (Not connected)
12	SDA
13	HD/SYNC
14	VD
15	SCL