

# High Definition Plasma Display

# TH-50PH12U

## Product summary



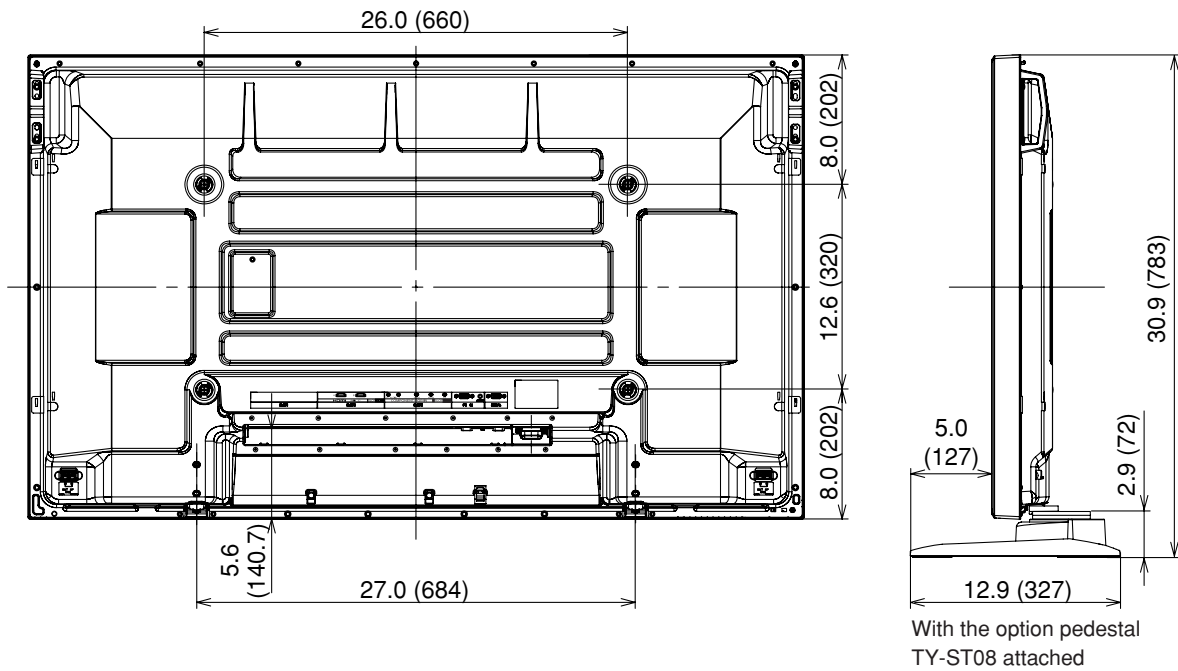
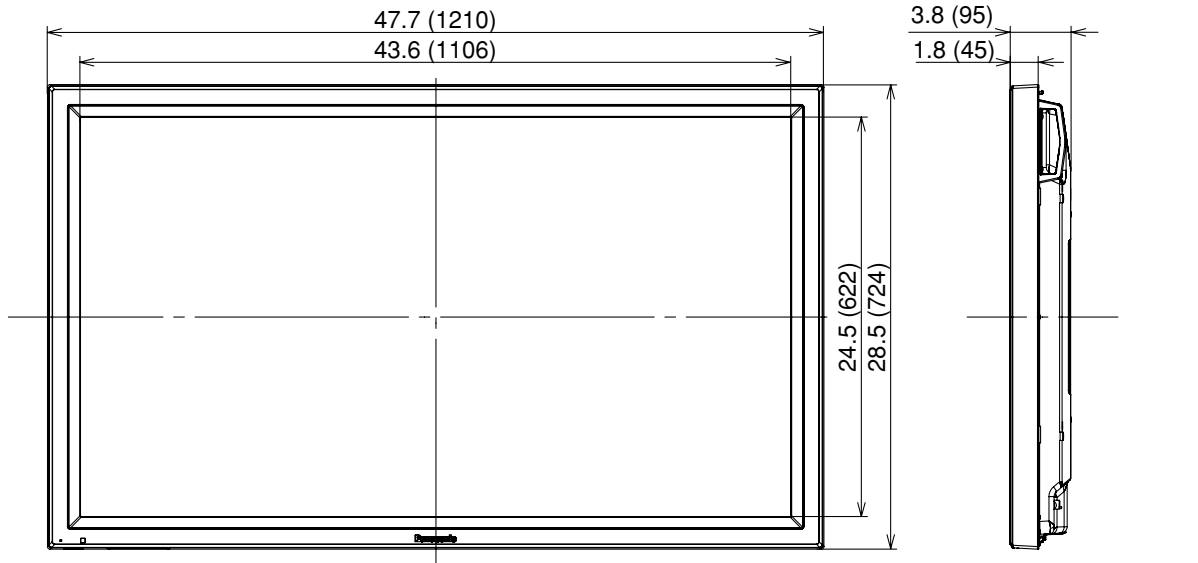
- 50" High Definition Plasma Display for professional use.
- Equipped with three interchangeable slots-provide flexible and powerful system solution boards by adding/exchanging wide variety of optional slot-in.
- Available with various unique professional features-Vertical Mounting, Dual picture mode,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

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

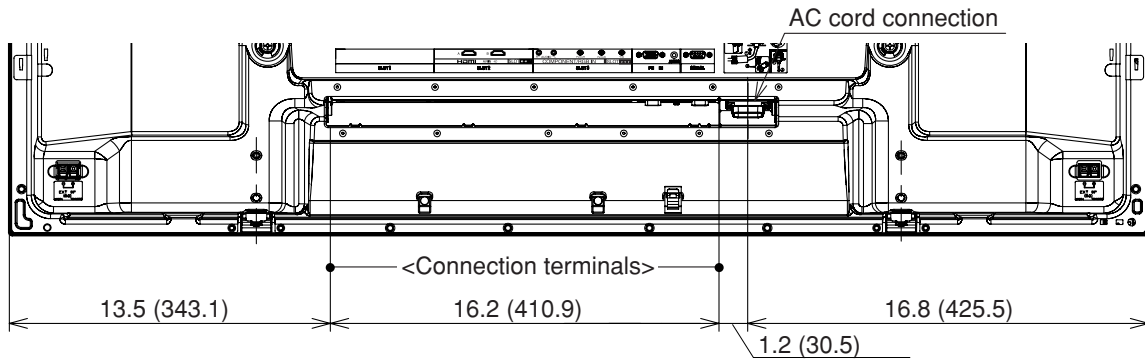
DISPLAY	
Screen Size (Diagonal)	49.9-inch (1,269 mm)
Aspect Ratio	16:9
Effective Display Area (W x H)	43.6" x 24.5" (1,106 x 622 mm)
Resolution (H x V)	1,366 x 768 pixels (1 pixel=3 cells for R, G and B)
Pixel Pitch (H x V)	0.810 x 0.810 mm
Brightness	1,400 cd/m <sup>2</sup>
Contrast Ratio (Bright room)	30,000:1 (400:1)
Dynamic Contrast Ratio	1,000,000:1
Gradation	5,120 steps (equivalent)
APPLICABLE SIGNALS	
Scanning Format	525 (480) / 60i · 60p, 625 (575) / 50i · 50p, 625 (576) / 50p, 750 (720) / 60p · 50p, 1125 (1080) / 60i · 60p · 50i · 50p · 24p · 25p · 30p · 24sF, 1250 (1080) / 50i
PC Signal Compatibility	VGA, SVGA, XGA, WXGA, SXGA, UXGA (Over WXGA resolution : compressed) Horizontal scanning frequency 15-110 kHz Vertical scanning frequency 48-120 Hz
INPUT / OUTPUT	
(Slot1) Vacant	
(Slot2) HDMI IN	HDMI TYPE A connector x 2
(Slot3) COMPONENT IN	BNC x 3 Y/G : with sync 1.0 V p-p (75 Ω) P <sub>s</sub> /B, P <sub>r</sub> /R : 0.7 V p-p (75 Ω)
AUDIO IN (L/R)	RCA pin jack x 2 0.5 V rms
(Fixed) PC IN	MINI D-SUB 15PIN x 1 (Female) Y/G : with sync 1.0 V p-p (75 Ω) P <sub>s</sub> /B, P <sub>r</sub> /R : 0.7 V p-p (75 Ω) HD/VD : 1.0~5.0 V p-p (high impedance)
AUDIO IN	M3 JACK x 1
SERIAL	D-SUB 9PIN x 1 (EXTERNAL CONTROL TERMINAL), RS-232C COMPATIBLE
ELECTRICAL	
Power Requirements	110-127 V AC, 50 Hz/60 Hz
Power Consumption	465 W
Power Off Condition	0.2 W
Stand-by Condition	Save OFF 1.2 W, Save ON 0.5 W
SOUND	
Audio Output	16 W [8 W + 8 W] (10 % THD)
MECHANICAL	
Dimensions (W x H x D)	47.7" x 28.5" x 3.8" (1,210x 724 x 95 mm)
Weight	75.0 lbs (34.0 kg)
Cabinet Color	Black
ENVIRONMENTAL	
Operating Environment	
Temperature	32 °F to 104 °F (0 °C to 40 °C)
Humidity	20 % to 80 % (Non condensation)
Altitude	0 to 9,100 feet (0 to 2,800 m)
Storage Environment	
Temperature	-4 °F to 140 °F (-20 °C to 60 °C)
Humidity	20 % to 90 % (Non condensation)
Altitude	0 to 10,800 feet (0 to 3,300 m)
SAFETY REGULATIONS	
UL6500 Ver.2	
RADIATION REGULATIONS	
FCC Part 15 Class-B, ICES-003	
REMOTE CONTROL TRANSMITTER	
Power Requirements	DC 3 V (2 x AA Size batteries)
Operation Distance	approx. 23 ft (7 m) in front of plasma display
Weight	approx. 3.5 oz (100 g) including batteries
INCLUDED ACCESSORIES	
• Fixing Band • AC Power Cord • Operating Instruction Book • Remote Control Transmitter • 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 : inches (mm)



<Terminal dimension>



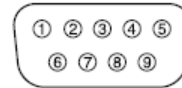
<Connection terminals>

SLOT1	A	B	SLOT1 [12] [3]	R <sup>-</sup> AUDIO L	PbCr6	PbCr6	Y/B	PC IN	AUDIO	SERIAL
	HDMI AV IN									
SLOT2				SLOT3						

# 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 TY-FB1DD	SDI TY-FB7SD	HD-SDI TY-FB9HD	HD-SDI with Audio TY-FB10HD	HDMI TY-FB8HM	Dual HDMI TY-FB10HMD	PC IN(D-sub 15-pin) Fixed Terminal		
<b>Composite</b>																	
NTSC	15.73	59.94	Y														
PAL	15.63	50.00	Y														
PAL60	15.73	59.94	Y														
SECAM	15.63	50.00	Y														
Modified NTSC	15.73	59.94	Y					Y	Y								
<b>Component / RGB</b>																	
525(480)/60i	15.73	59.94	Y	Y	Y	Y			Y	Y	Y						Y
525(480)/60p	31.47	59.94	Y	Y	Y	Y		Y				Y	Y	Y			Y
625(575)/50i	15.63	50.00	Y	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	Y	Y	Y	Y
750(720)/50p	37.50	50.00	Y	Y	Y	Y		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	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	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	Y						Y
1125(1080)/25p	28.13	25.00	Y	Y	Y	Y		Y		Y	Y						Y
1125(1080)/24p	27.00	24.00	Y	Y	Y	Y		Y		Y	Y						Y
1125(1080)/24sF	27.00	48.00	Y	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		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
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
1024×768@50Hz	39.55	50.00						Y									
1024×768@60Hz	48.36	60.00	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
1152×864@60Hz	53.70	60.00						Y									
1152×864@75Hz	67.50	75.00	Y	Y	Y	Y											Y
1280×768@60Hz	47.70	60.00	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
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
1920×1200@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

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	+5V DC
10	GND (Ground)
11	NC (Not connected)
12	SDA
13	HD/SYNC
14	VD
15	SCL