

# High Definition Plasma Display

# TH-85PF12E

## Product summary



- 85-inch 1080p High Definition Plasma Display for professional use.
- Equipped with three interchangeable slots-provide flexible and powerful systemsolution by adding/exchanging wide variety of optional slot-in boards.
- Available with various unique professional features-Weekly Command Timer, Dualpicture mode, Digital zoom, Built-in video wall image enlarger, etc..
- Various Energy-saving functions-DPMS, Auto power off, power save mode, etc...
- This is Low-reflection model

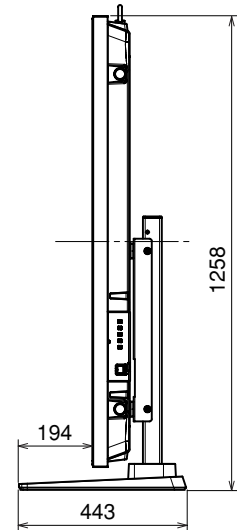
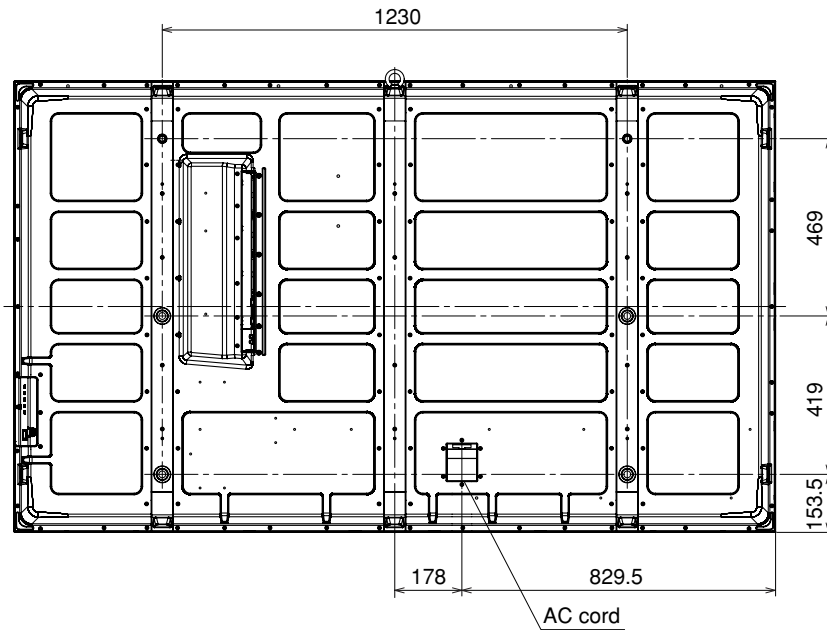
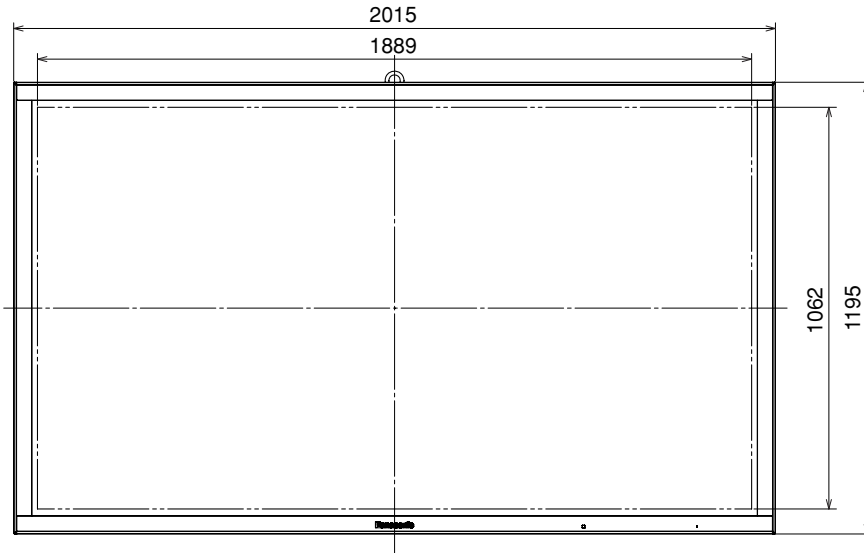
Note: Dual picture mode cannot handle the following combinations of two analog signals  
Component -Component, Component - PC(RGB), PC(RGB) - Component, PC(RGB) -PC(RGB)

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

DISPLAY	
Screen Size (Diagonal)	85-inch (2,167 mm)
Aspect Ratio	16:9
Effective Display Area (W x H)	1,889 x 1,062 mm
Number Of Pixeis (H x V)	1,920 x 1,080 pixels (1 pixel = 3cells for R, G and B)
Pixel Pitch (H x V)	0.984 x 0.984 mm
Moving Picture Resolution	1,080 lines *Based on APDC measurement method.
Contrast	40,000:1
Dynamic Contrast	2,000,000:1
Gradation	6,144 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 SXGA resolution: compressed) Horizontal scanning frequency 15 - 110 kHz Vertical scanning frequency 48 - 120 Hz
INPUT / OUTPUT	
(Slot1) Vacant	
(Slot2) DVI-D Input	DVI x 1
Audio Input (L/R)	M3 jack x 1 0.5 V[rms]
(Slot3) Component Input	BNC x 3 Y/G : with sync 1.0 V[p-p] (75 Ω) P <sub>B</sub> /B, P <sub>R</sub> /R: 0.7 V[p-p] (75 Ω)
Audio Input (L/R)	M3 jack x 1 0.5 V[rms]
LAN Control	RJ45 10BASE-T / 100BASE-TX, compatible with PLink™
(Fixed) PC Input	MINI D-sub 15-pin x 1 (Female) Y/G : with sync 1.0 V[p-p] (75 Ω) P <sub>B</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)
Plug & Play (VESA DDC 2B)	
Audio Input	M3 jack x 1
Serial	D-sub 9-pin x 1 (External control), RS-232C compatible
ELECTRICAL	
Power Requirements	220 - 240 V AC, 50 Hz/60 Hz
Power Consumption	1100 W
Power Off Condition	0.4 W
Stand-By Condition	Save OFF: 1.2 W, Save ON: 0.7 W
SOUND	
Audio Out	RCA pin jack x 2 (L/R) Output level: Variable (-∞ ~ 0 dB)
MECHANICAL	
Dimemnsions (W x H x D)	2,015 x 1,195 x 99 mm
Weight	approx. 117 kg
Cabinet Color	Black
ENVIRONMENTAL	
Operating Environment	
Temperature	0 °C to 40 °C
Humidity	20 % to 80 % (Non condensation)
Altitude	0 to 2,400 m
Storage Environment	
Temperature	-20 °C to 60 °C
Humidity	20 % to 90 % (Non condensation)
Altitude	0 to 3,300 m
RADIATION REGULATIONS	
EN60065 Ver.7	
SAFETY REGULATIONS	
EN55022 Class-B, EN55024 EN61000-3-2, EN61000-3-3	
REMOTE CONTROL TRANSMITTER	
Power Requirements	DC 3 V (2 x R6 (UM3) Size batteries)
Operation Distance	approx. 7 m in front pf plasma display
Weight	approx. 130 g including batteries
INCLUDED ACCESSORIES	
<ul style="list-style-type: none"> <li>• AC power cord</li> <li>• Operating instruction book</li> <li>• Remotecontrol transmitter</li> <li>• Batteries</li> <li>• Fixing band</li> <li>• CD-ROM (Operating instructions)</li> <li>• Allen wrench x 1</li> <li>• Eyebolt cap x 1</li> <li>• Eyebolt (M12) x 1</li> <li>• Ferrite core x 2</li> <li>• Noise cut filter</li> </ul>	
OPTIONAL ACCESSORIES	
<ul style="list-style-type: none"> <li>• Wall-hanging bracket (vertical)</li> <li>• Pedestal</li> <li>• Ceiling-handing bracket</li> <li>• Floor stand</li> <li>• Terminal boards</li> </ul>	

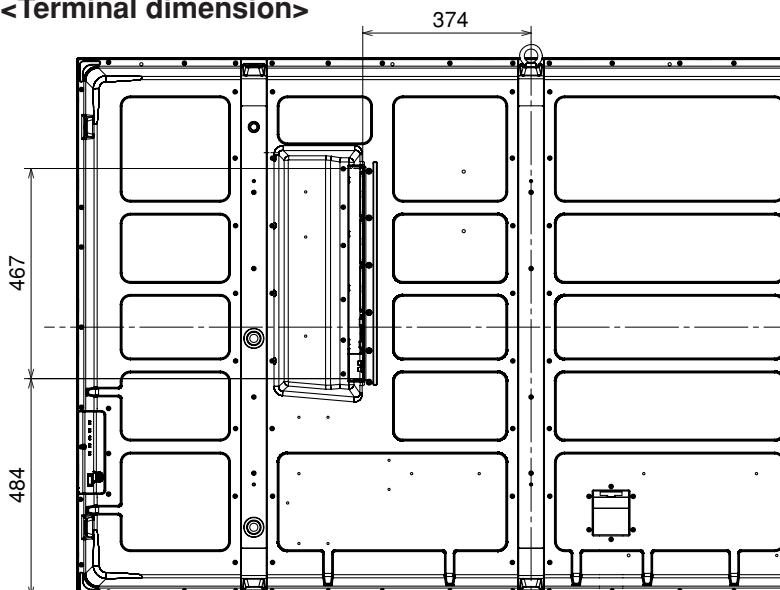
# ■ Dimensions

Units : mm

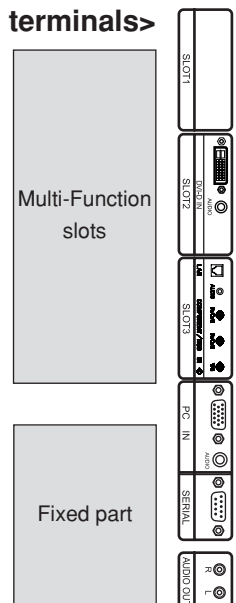


With the optional pedestal TY-ST85P12 attached

## <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 TY-FB11DD	SDI TY-FB7SD	HD-SDI TY-FB9HD	HD-SDI with Audio TY-FB10HD	Dual HD-SDI TY-FB11DHD	HDMI TY-FB8HM	Dual HDMI TY-FB10HMD	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					Y
	525(480)/60p	31.47	59.94	Y	Y	Y <sup>1</sup>	Y <sup>1</sup>			Y				Y	Y		Y <sup>1</sup>
	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			
	750(720)/60p	45.00	60.00	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
	1125(1080)/60i	33.75	60.00	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>			Y	Y	Y	Y	Y	Y		Y <sup>2</sup>
	1125(1080)/60p	67.50	60.00	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>			Y			Y		Y		Y <sup>2</sup>
	1125(1080)/50i	28.13	50.00	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>			Y	Y	Y	Y	Y	Y		Y <sup>2</sup>
	1125(1080)/50p	56.25	50.00	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>			Y		Y	Y	Y	Y		Y <sup>2</sup>
	1125(1080)/30p	33.75	30.00	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>			Y	Y	Y					Y <sup>2</sup>
	1125(1080)/25p	28.13	25.00	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>			Y	Y	Y	Y	Y	Y		Y <sup>2</sup>
	1125(1080)/24p	27.00	24.00	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>			Y	Y	Y	Y		Y		Y <sup>2</sup>
	1125(1080)/24sF	27.00	48.00	Y <sup>3</sup>	Y <sup>3</sup>	Y <sup>3</sup>	Y <sup>3</sup>				Y	Y	Y				Y <sup>3</sup>
	1250(1080)/50i	31.25	50.00	Y <sup>4</sup>	Y <sup>4</sup>	Y <sup>4</sup>	Y <sup>4</sup>										Y <sup>4</sup>
	2048x1080/24p	27.00	24.00														
	2048x1080/24sF	27.00	48.00														
<b>RGB</b>	640x400@70Hz	31.46	70.07	Y	Y	Y	Y										Y
	640x480@60Hz	31.47	59.94	Y <sup>6</sup>	Y <sup>6</sup>	Y	Y			Y				Y	Y		Y
	640x480@72Hz	37.86	72.81	Y	Y	Y	Y										Y
	640x480@75Hz	37.50	75.00	Y	Y	Y	Y										Y
	640x480@85Hz	43.27	85.01	Y	Y	Y	Y										Y
	800x600@56Hz	35.16	56.25	Y	Y	Y	Y										Y
	800x600@60Hz	37.88	60.32	Y	Y	Y	Y			Y							Y
	800x600@72Hz	48.08	72.19	Y	Y	Y	Y										Y
	800x600@75Hz	46.88	75.00	Y	Y	Y	Y										Y
	800x600@85Hz	53.67	85.06	Y	Y	Y	Y										Y
	852x480@60Hz	31.47	59.94	Y <sup>6</sup>	Y <sup>6</sup>	Y	Y			Y							Y
	1024x768@50Hz	39.55	50.00							Y							
	1024x768@60Hz	48.36	60.00	Y	Y	Y	Y			Y							Y
	1024x768@70Hz	56.48	70.07	Y	Y	Y	Y										Y
	1024x768@75Hz	60.02	75.03	Y	Y	Y	Y										Y
	1024x768@85Hz	68.68	85.00	Y	Y	Y	Y										Y
	1066x600@60Hz	37.64	59.94	Y	Y	Y	Y			Y							Y
	1152x864@60Hz	53.70	60.00							Y							
	1152x864@75Hz	67.50	75.00	Y	Y	Y	Y										Y
	1280x768@60Hz	47.70	60.00	Y	Y	Y	Y										Y
	1280x960@60Hz	60.00	60.00	Y	Y	Y	Y										Y
	1280x960@85Hz	85.94	85.00	Y	Y	Y	Y										Y
	1280x1024@60Hz	63.98	60.02	Y	Y	Y	Y			Y							Y
	1280x1024@75Hz	79.98	75.03	Y	Y	Y	Y										Y
	1280x1024@85Hz	91.15	85.02	Y	Y	Y	Y										Y
	1366x768@50Hz	39.55	50.00							Y							
	1366x768@60Hz	48.36	60.00	Y	Y	Y	Y			Y							Y
	1400x1050@60Hz	65.22	60.00							Y							
	1600x1200@60Hz	75.00	60.00	Y	Y	Y	Y										Y
	1600x1200@65Hz	81.25	65.00	Y	Y	Y	Y										Y
	1920x1080@60Hz	67.50	60.00	Y <sup>7</sup>	Y <sup>7</sup>	Y <sup>7</sup>	Y <sup>7</sup>			Y <sup>7</sup>							Y <sup>7</sup>
	1920x1200@60Hz	74.04	59.95							Y							
	Mac13" (640x480)	35.00	66.67	Y	Y	Y	Y										Y
	Mac16" (832x624)	49.72	74.54	Y	Y	Y	Y										Y
	Mac21" (1152x870)	68.68	75.06	Y	Y	Y	Y										Y

\*1:When selected the RGB format and 525p signal input, it is recognized as VGA 60Hz signal. \*2:Based on SMPTE 274M standard. \*3:Based on SMPTE RP211 standard. \*4:Based on SMPTE 295M standard. \*5:Based on SMPTE 292M and 372M standards. \*6:When inputted VGA 60Hz format signal, it is recognized as 525p signal. \*7:The input signal is recognized as 1,125 (1,080) / 60p.

Note: Signals without above specification may not be displayed properly.

## 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