



50-inch class High Definition Plasma Display

## TH-50PH30U

### ● Product specification (design and specification subject to change without notice)

#### ■ DISPLAY

Screen Size (Diagonal)	49.9-inch (1,268 mm)
Aspect ratio	16:9
Effective Display Area (W x H)	43.5" x 24.4" (1,105 x 622 mm)
Number of pixels (H x V)	1,024 x 768 pixels (1 pixel=3cells for R, G and B)
Pixel Pitch (H x V)	1.080 x 0.810 mm
Contrast Ratio	2,000,000 : 1
Gradation	5,120 steps (equivalent)
Panel Life*1	approx. 100,000 hours

\*1: Guideline operating hours before the panel brightness is reduced to half when the panel is used to display motion pictures in the Standard mode. Afterimages (burned-in images) and malfunctions are not taken into consideration.

#### ■ CONNECTION TERMINAL

VIDEO IN	BNC x 1	1.0 V [p-p] (75 Ω)
AUDIO IN (L/R)	RCA pin jack x 1 set	0.5 V [rms]
COMPONENT/RGB IN	BNC x 3	Y/G : with sync 1.0 V [p-p] (75 Ω) B/Pb/Cb, R/Pr/Cr : 0.7 V [p-p] (75 Ω)
AUDIO IN (L/R)	RCA pin jack x 1 set	0.5 V [rms]
HDMI IN	HDMI TYPE A connector x 1	
DVI-D IN	DVI-D 24pin x 1	Compliance with DVI Revision 1.0 Compatible with HDCP 1.1
AUDIO IN	M3 jack x 1	0.5 V [rms]
PC IN	MINI D-SUB 15pin x1(Female)	Y/G : with sync 1.0 V [p-p] (75 Ω) without sync 0.7 V [p-p] (75 Ω) B/Pb/Cb, R/Pr/Cr : 0.7 V [p-p] (75 Ω)
AUDIO IN	Plug & Play (VESA DDC 2B)	HD/VD : 1.0~5.0 V [p-p] (high impedance)
AUDIO IN	M3 jack x 1	0.5 V [rms]

#### ■ CONTROL TERMINAL

SERIAL	D-SUB 9pin x 1 (EXTERNAL CONTROL TERMINAL), RS-232C COMPATIBLE
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#### ■ ELECTRICAL

Power Requirements	110-127 V AC, 50 Hz/60 Hz
Power Consumption	245 W
On Mode Average Power Consumption*2	197 W
Power off condition	0.2 W
Stand-by condition	0.4 W

\*2: Based on IEC 62087 Ed.2 measurement method.

#### ■ SOUND

Audio Output	6Ω, 16 W [8 W + 8 W] (10 % THD)
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#### ■ MECHANICAL

Dimensions (W x H x D)	47.7" x 28.5" x 3.5" (1,210 x 724 x 89 mm)
Carton Dimensions (W x H x D)	54.5" x 32.9" x 11.2" (1,385 x 836 x 284 mm)
Weight	approx. 68.4 lbs. (31.0 kg)
Gross weight	approx. 88.2 lbs. (40.0 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)

#### ■ STANDARD (CERTIFICATIONS)

SAFETY REGULATIONS	UL60065, CAN/CSA-22.2 No.60065:03, NOM approval
RADIATION REGULATIONS	FCC Part 15 Class-B, ICES-003
Energy star 5.0, CEC	Yes

#### ■ 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	- AC power cord - Operating instruction book - CD ROM (Operating instructions) - Remote control transmitter - Batteries
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UPC Code	885170 043312
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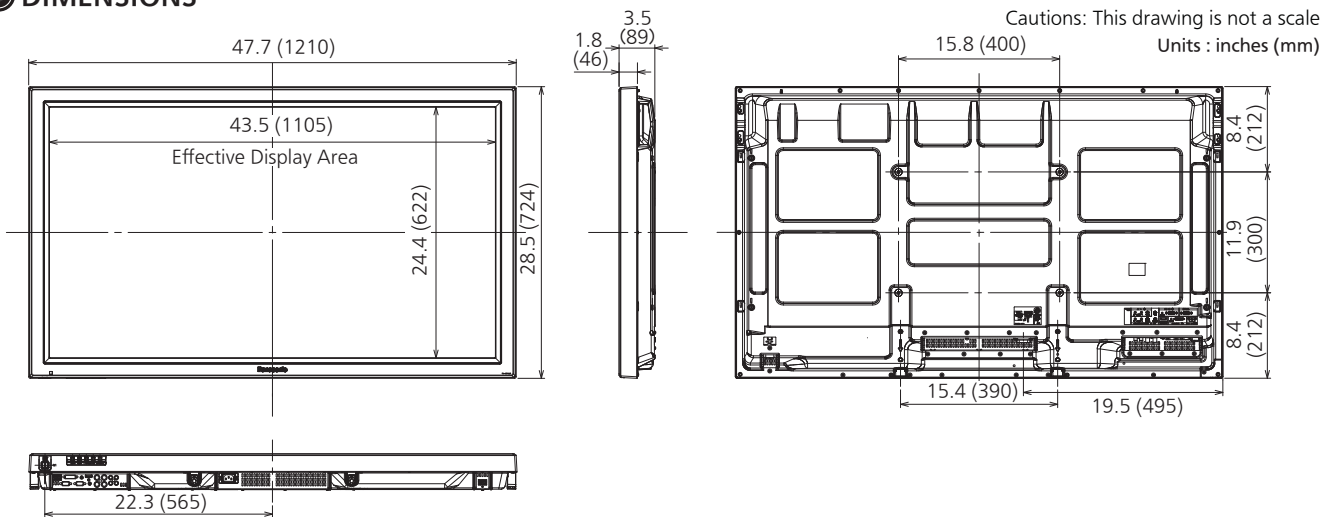
**MAIN FEATURE**

Digital Zoom	Yes
Video Wall	Yes (N x M, up to 5 x 5)
Power-On Delay	Yes
Display size setting	Yes
Auto Set Up	Yes
HDMI Range	Yes
Screen Saver	Negative image, Scrolling bar only, White screen, Overlay scrolling bar
NANO DRIFT Saver	Yes (LOW/MID/HIGH)
Side Bar Adjust	Yes
Peak Limit	Yes
Power Save	Yes
Power Management (PC/DVI)	Yes
No Signal Power Off	Yes
Initial INPUT	Yes
Initial VOL level	Yes
INPUT/Button Lock	Yes
Remote-control User Level	Yes
Maximum VOL level	Yes

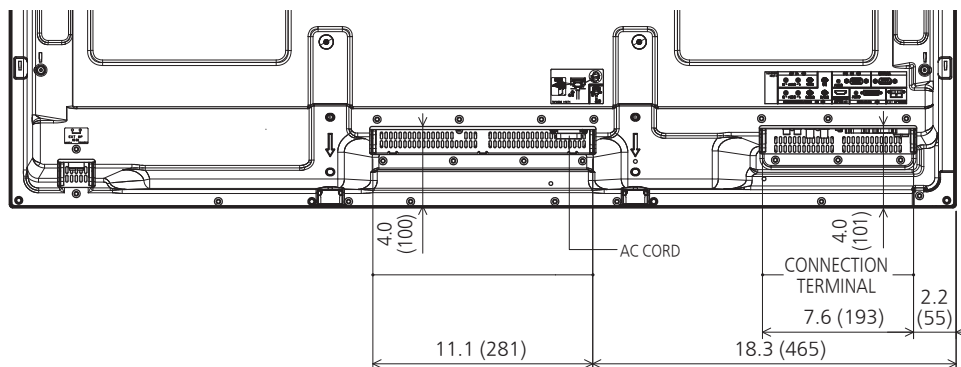
**OPTIONAL ACCESSORIES**

Pedestal	TY-ST20-K
Mobile stand	TY-ST58PF20
Wall-hanging bracket	TY-WK42PV20
Wall-hanging bracket (angled)	TY-WK42PR20
Ceiling-hanging bracket	TY-CE42PS20
Speakers	TY-SP50P8W-K
Touch Panel	TY-TP50P10S
Anti Glare Filter	TY-AR50P12W

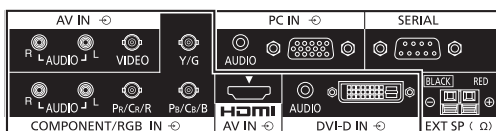
**DIMENSIONS**



**TERMINAL DIMENSIONS**



**CONNECTION TERMINAL**



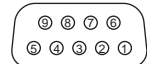
**● Preset Input Signals**

Signal name	horizontal frequency (kHz)	vertical frequency (Hz)	Component Video	Composite Video	HDMI	DVI-D	PC IN (D-sub 15-pin)
<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		
<b>Component/RGB</b>	525(480)/60i	15.73	59.94	Y		Y	Y
	525(480)/60p	31.47	59.94	Y		Y	Y*1
	625(575)/50i	15.63	50.00	Y			Y
	625(576)/50i	15.63	50.00			Y	Y
	625(575)/50p	31.25	50.00	Y			Y
	625(576)/50p	31.25	50.00			Y	Y
	750(720)/60p	45.00	60.00	Y		Y	Y
	750(720)/50p	37.50	50.00	Y		Y	Y
	1125(1080)/60i	33.75	60.00	Y*2		Y	Y*2
	1125(1080)/60p	67.50	60.00	Y*2		Y	Y*2
	1125(1080)/50i	28.13	50.00	Y*2		Y	Y*2
	1125(1080)/50p	56.25	50.00	Y*2		Y	Y*2
	1125(1080)/30p	33.75	30.00	Y*2			Y*2
	1125(1080)/25p	28.13	25.00	Y*2			Y*2
	1125(1080)/24p	27.00	24.00	Y*2		Y	Y*2
1125(1080)/24sF	27.00	48.00	Y*3			Y*3	
<b>RGB</b>	640×400@70Hz	31.46	70.07	Y			Y
	640×480@60Hz	31.47	59.94	Y*5		Y	Y
	640×480@72Hz	37.86	72.81	Y			Y
	640×480@75Hz	37.50	75.00	Y			Y
	640×480@85Hz	43.27	85.01	Y			Y
	800×600@56Hz	35.16	56.25	Y			Y
	800×600@60Hz	37.88	60.32	Y		Y	Y
	800×600@72Hz	48.08	72.19	Y			Y
	800×600@75Hz	46.88	75.00	Y			Y
	800×600@85Hz	53.67	85.06	Y			Y
	852×480@60Hz	31.47	59.94	Y*5		Y	Y
	1024×768@50Hz	39.55	50.00			Y	Y
	1024×768@60Hz	48.36	60.00	Y		Y	Y
	1024×768@70Hz	56.48	70.07	Y			Y
	1024×768@75Hz	60.02	75.03	Y			Y
	1024×768@85Hz	68.68	85.00	Y			Y
	1066×600@60Hz	37.64	59.94	Y		Y	Y
	1152×864@60Hz	53.70	60.00			Y	Y
	1152×864@75Hz	67.50	75.00	Y			Y
	1280×768@60Hz	47.70	60.00	Y			Y
	1280×960@60Hz	60.00	60.00	Y			Y
	1280×960@85Hz	85.94	85.00	Y			Y
	1280×1024@60Hz	63.98	60.02	Y		Y	Y
	1280×1024@75Hz	79.98	75.03	Y			Y
	1280×1024@85Hz	91.15	85.02	Y			Y
	1366×768@50Hz	39.55	50.00			Y	Y
	1366×768@60Hz	48.36	60.00	Y		Y	Y
	1400×1050@60Hz	65.22	60.00			Y	Y
	1600×1200@60Hz	75.00	60.00	Y		Y	Y
	1600×1200@65Hz	81.25	65.00	Y			Y
1920×1080@60Hz	67.50	60.00	Y*6		Y*6	Y*6	
1920×1200@60Hz	74.04	59.95			Y	Y	
Mac13" (640×480)	35.00	66.67	Y			Y	
Mac16" (832×624)	49.72	74.54	Y			Y	
Mac21" (1152×870)	68.68	75.06	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:When inputted VGA 60 Hz format signal, it is recognized as 525p signal. \*6:Recognized as 1,125(1,080)/60p signal.  
 Note:Signals without above specification may not be displayed properly.

**● Pin assignments and signal names**

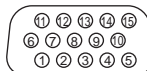
Serial RS232C : D-sub 9-Pin (Male)



No.	Details
1	NC
2	RXD
3	TDX
4	Not used
5	GND
6	Not used
7	Shorted in this set
8	
9	NC

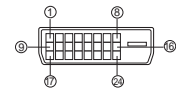
\*These signal names are those of computer specifications.

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



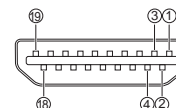
No.	Signal name
1	R (P <sub>R</sub> /C <sub>R</sub> )
2	G (Y)
3	B (P <sub>B</sub> /C <sub>B</sub> )
4	NC (Not connected)
5	GND (Ground)
6	GND (Ground)
7	GND (Ground)
8	GND (Ground)
9	+5V DC
10	GND (Ground)
11	NC (Not connected)
12	SDA
13	HD/SYNC
14	VD
15	SCL

DVI-D Input Terminal



No.	Signal name	No.	Signal name
1	T.M.D.S. data 2-	13	—
2	T.M.D.S. data 2+	14	+5 V DC
3	T.M.D.S. data 2 shield	15	Ground
4	—	16	Hot plug detect
5	—	17	T.M.D.S. data 0-
6	DDC clock	18	T.M.D.S. data 0+
7	DDC data	19	T.M.D.S. data 0 shield
8	—	20	—
9	T.M.D.S. data 1-	21	—
10	T.M.D.S. data 1+	22	T.M.D.S. clock shield
11	T.M.D.S. data 1 shield	23	T.M.D.S. clock+
12	—	24	T.M.D.S. clock-

HDMI Terminal



No.	Signal	No.	Signal
1	T.M.D.S. data 2+	11	T.M.D.S. clock shield
2	T.M.D.S. data 2 shield	12	T.M.D.S. clock-
3	T.M.D.S. data 2-	13	CEC
4	T.M.D.S. data 1+	14	Reserved (N.C. on device)
5	T.M.D.S. data 1 shield		
6	T.M.D.S. data 1-	15	SCL
7	T.M.D.S. data 0+	16	SDA
8	T.M.D.S. data 0 shield	17	DDC/CEC Ground
9	T.M.D.S. data 0-	18	+5 V Power
10	T.M.D.S. clock+	19	Hot Plug Detect