



42-inch High Definition Plasma Display

TH-42PH20E

TENTATIVE

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

■ DISPLAY

| | |
|--------------------------------|---|
| Screen Size (Diagonal) | 42-inch (1,057 mm) |
| Aspect Ratio | 16:9 |
| Effective Display Area (W x H) | 921 x 518 mm |
| Number of pixels (H x V) | 1,024 x 768 pixels (1 pixel=3 cells for R, G and B) |
| Pixel Pitch (H x V) | 0.900 x 0.675 mm |
| Brightness (Panel) | 1,400 cd/m ² |
| Contrast Ratio (Bright room) | 2,000,000:1 (400:1) |
| Gradation | 5,120 steps (equivalent) |

■ CONNECTION TERMINAL

| | | |
|------------------------|--|--|
| VIDEO IN | BNC x 1 | 1.0 V [p-p] (75 Ω) |
| AUDIO IN (L/R) | RCA pin jack x 2 | 0.5 V [rms] |
| COMPONENT/RGB IN | BNC x 3 | Y/G : with sync 1.0 V [p-p] (75 Ω) B/P _B /C _B , R/P _R /C _R : 0.7 V [p-p] (75 Ω) |
| AUDIO IN (L/R) | RCA pin jack x 2 | 0.5 V [rms] |
| HDMI IN | HDMI TYPE A connector x 1 | |
| DVI-D IN | DVI-D 24pin x 1 | DVI Revision 1.0 COMPATIBLE |
| AUDIO IN (L/R) | M3 jack x 1 | 0.5 V [rms] |
| PC IN | MINI D-SUB 15PIN x1 (Female) Plug & Play (VESA DDC 2B) | Y/G : with sync 1.0 V [p-p] (75 Ω) B/P _B /C _B , R/P _R /C _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 | 0.5 V [rms] |
| SERIAL | D-SUB 9PIN x 1 (EXTERNAL CONTROL TERMINAL), RS-232C COMPATIBLE | |
| Function Slot:SLOT 2.0 | 1 (Vacant) | |

■ ELECTRICAL

| | |
|------------------------------------|----------------------------------|
| Power Requirements | 220-240 V AC, 50 Hz/60 Hz |
| Power Consumption | 275 W |
| On Mode Average Power Consumption* | 160 W |
| Power Off Condition | 0.3 W |
| Stand-by Condition | 0.6 W (Save ON) 1.1 W (Save OFF) |

*Based on IEC 62087 Ed.2 measurement method.

■ AUDIO

| | |
|--------------|-----------------------------|
| Audio Output | 16 W [8 W + 8 W] (10 % THD) |
|--------------|-----------------------------|

■ MECHANICAL

| | |
|-------------------------------|-----------------------|
| Dimensions (W x H x D) | 1,020 x 610 x 89 mm |
| Carton Dimensions (W x H x D) | 1,138 x 721 x 284 mm |
| Weight | approx. 25.0 kg |
| Gross Weight | approx. 30.0 kg (TBD) |
| Cabinet Color | Black |

■ ENVIRONMENTAL

| | |
|-----------------------|--|
| Operating Environment | Temperature: 0 °C to 40 °C |
| | Humidity : 20 % to 80 % (Non condensation) |
| | Altitude : 0 to 2,800 m |
| Storage Environment | Temperature: -20 °C to 60 °C |
| | Humidity : 20 % to 90 % (Non condensation) |
| | Altitude : 0 to 3,300 m |

■ STANDARD (CERTIFICATIONS)

| | |
|-----------------------|---|
| SAFETY REGULATIONS | EN60065 Ver.7 |
| RADIATION REGULATIONS | EN55022 Class-B, EN55024 EN61000-3-2, EN61000-3-3 |

■ REMOTE CONTROL TRANSMITTER

| | |
|--------------------|--|
| Power Requirements | DC 3 V (2 x R6 Size batteries) |
| Operation Distance | approx. 7 m in front of plasma display |
| Weight | approx. 100 g including batteries |

| | |
|----------------------|--|
| INCLUDED ACCESSORIES | - Clamper - AC power cord - Operating instruction book - Remote control transmitter - Batteries |
|----------------------|--|

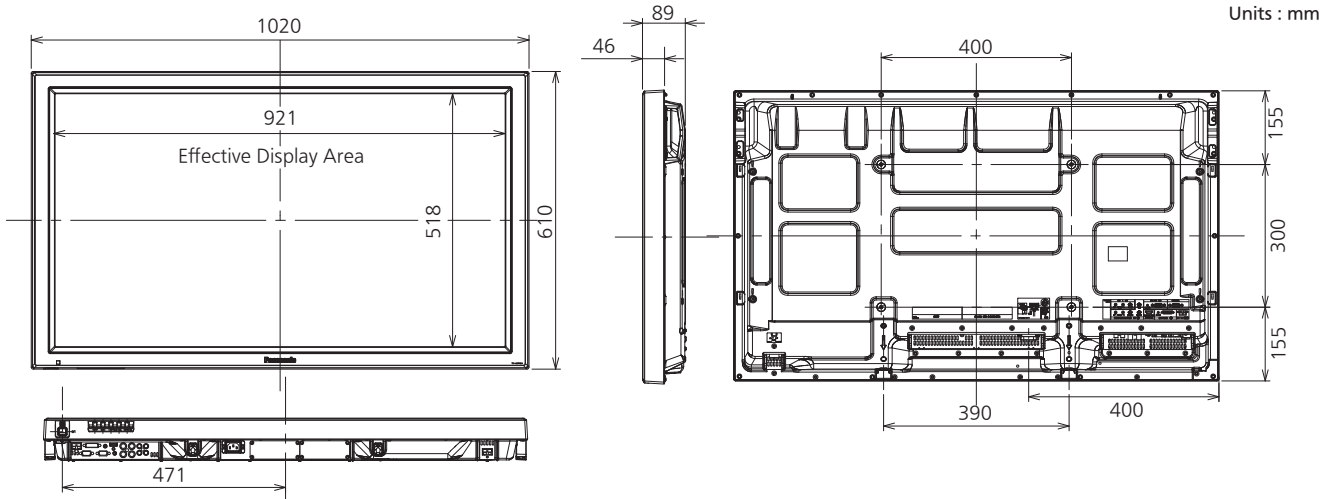
MAIN FEATURE

| | |
|-------------------------------|---|
| Multi Display | 2 x 2, 3 x 3, 4 x 4, 5 x 5 n x m (Max 5 x 5) |
| Digital Zoom | x2, x3, x4 |
| Display Size Setting | Yes |
| Weekly Command Timer | Yes |
| Automatic Picture Positioning | Yes |
| Screen Savers | NANODRIFT saver, Side Panel Adjustment Peak Limit Mode, Negative Image, Scrolling Bar only, White Screen, Overlay Scrolling Bar |
| Power Save Mode | Yes |
| Auto Power Off | Yes |
| Standby Power Save Mode | Yes |
| Input lock | Yes |
| Button lock | Yes |
| Maximum volume level | Yes |
| Remote user level | Yes |

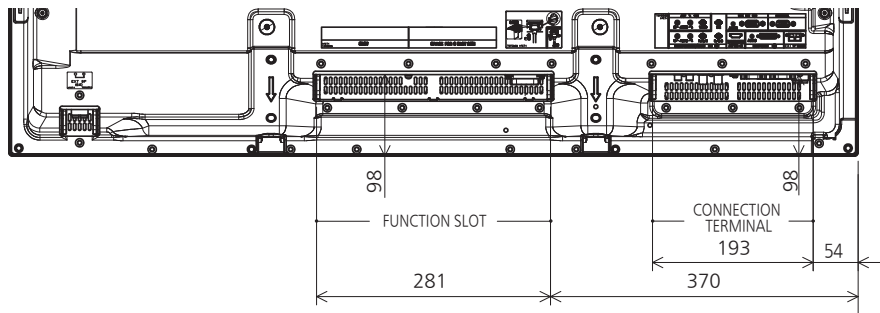
OPTIONAL ACCESSORIES

| | |
|------------------------------------|--------------|
| Pedestal | TY-ST20-K |
| Wall-hanging bracket | TY-WK42PV20 |
| Wall-hanging bracket (angled) | TY-WK42PR20 |
| Ceiling-hanging bracket | TY-CE42PS20 |
| Mobile stand | TY-ST58PF20 |
| Speakers | TY-SP42P8W-K |
| Touch Panel | TY-TP42P10S |
| Anti Glare Filter | TY-AR42P12W |
| HD-SDI (with audio) Terminal board | TY-FB10HD |
| Dual HDMI Terminal board | TY-FB10HMD |
| Dual Video Terminal board | TY-FB9BD |
| DVI-D Terminal board | TY-FB11DD |
| Ir Through board | TY-FB9RT |

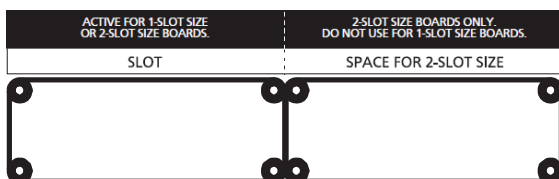
DIMENSIONS



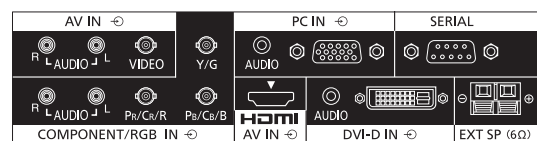
TERMINAL DIMENSIONS



FUNCTION SLOT



CONNECTION TERMINAL



● Preset Input Signals

| Signal name | horizontal frequency (kHz) | vertical frequency (Hz) | Fixed Terminal | | | | Optional Board | | | | | | |
|----------------------|----------------------------|-------------------------|-----------------|-----------------|------|-------|--|---------------------------|-------------------|-------------------------------|------------------------|---|--|
| | | | Component Video | Composite Video | HDMI | DVI-D | PC IN (D-sub 15-pin) | BNC Dual Video (TY-FB98D) | DVI-D (TY-FB11DD) | HD-SDI with Audio (TY-FB10HD) | Dual HDMI (TY-FB10HMD) | | |
| Composite | | | | | | | | | | | | | |
| 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 | | | | | |
| Component/RGB | | | | | | | | | | | | | |
| 525(480)/60i | 15.73 | 59.94 | Y | | Y | Y | Y | | Y | | | | |
| 525(480)/60p | 31.47 | 59.94 | Y | | Y | Y | Y* 1</td <td></td> <td>Y</td> <td></td> <td></td> <td>Y</td> <td></td> | | Y | | | Y | |
| 625(575)/50i | 15.63 | 50.00 | Y | | | | Y | | | | | | |
| 625(576)/50i | 15.63 | 50.00 | | | Y | Y | | | | | | Y | |
| 625(575)/50p | 31.25 | 50.00 | Y | | | | Y | | | | | | |
| 625(576)/50p | 31.25 | 50.00 | | | Y | Y | | | Y | | | Y | |
| 750(720)/60p | 45.00 | 60.00 | 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*2 | | Y | Y | Y*2 | | Y | Y | Y | | |
| 1125(1080)/60p | 67.50 | 60.00 | Y*2 | | Y | Y | Y*2 | | Y | Y | Y | | |
| 1125(1080)/50i | 28.13 | 50.00 | Y*2 | | Y | Y | Y*2 | | Y | Y | Y | | |
| 1125(1080)/50p | 56.25 | 50.00 | Y*2 | | Y | Y | Y*2 | | Y | Y | Y | | |
| 1125(1080)/30p | 33.75 | 30.00 | Y*2 | | | Y | Y*2 | | Y | Y | | | |
| 1125(1080)/25p | 28.13 | 25.00 | Y*2 | | | Y | Y*2 | | Y | Y | | | |
| 1125(1080)/24p | 27.00 | 24.00 | Y*2 | | Y | Y | Y*2 | | Y | Y | Y | | |
| 1125(1080)/24sF | 27.00 | 48.00 | Y*3 | | | | Y*3 | | | | Y | | |
| 1250(1080)/50i | 31.25 | 50.00 | Y*4 | | | | Y*4 | | | | | | |
| RGB | | | | | | | | | | | | | |
| 640×400@70Hz | 31.46 | 70.07 | Y | | | | Y | | | | | | |
| 640×480@60Hz | 31.47 | 59.94 | Y*5 | | Y | Y | Y | | 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 | 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 | | Y | | | | |
| 1024×768@50Hz | 39.55 | 50.00 | | | | | Y | | Y | | | | |
| 1024×768@60Hz | 48.36 | 60.00 | Y | | Y | 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 | | 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 | 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 | | Y | | | | |
| 1400×1050@60Hz | 65.22 | 60.00 | | | | Y | | | Y | | | | |
| 1600×1200@60Hz | 75.00 | 60.00 | Y | | | 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 | | 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

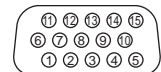
Serial RS232C : D-sub 9-Pin (Male)



| No. | 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 | Shorted in this set |
| 8 | CTS | |
| 9 | RI | NC |

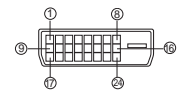
*These signal names are those of computer specifications.

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



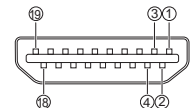
| No. | Signal name |
|-----|-------------------------------------|
| 1 | R (P _R /C _R) |
| 2 | G (Y) |
| 3 | B (P _B /C _B) |
| 4 | NC (Not connected) |
| 5 | GND (Ground) |
| 6 | GND (Ground) |
| 7 | GND (Ground) |
| 8 | GND (Ground) |
| 9 | +5V DC |
| 10 | GND (Ground) |
| 11 | NC (Not connected) |
| 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 sense |
| 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 DC |
| 10 | T.M.D.S. clock+ | 19 | Hot Plug Detect |