

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

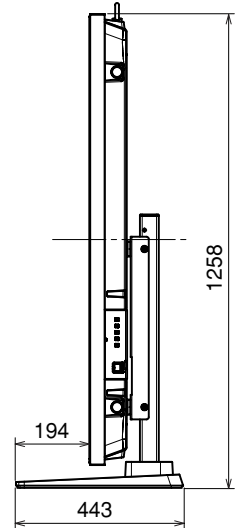
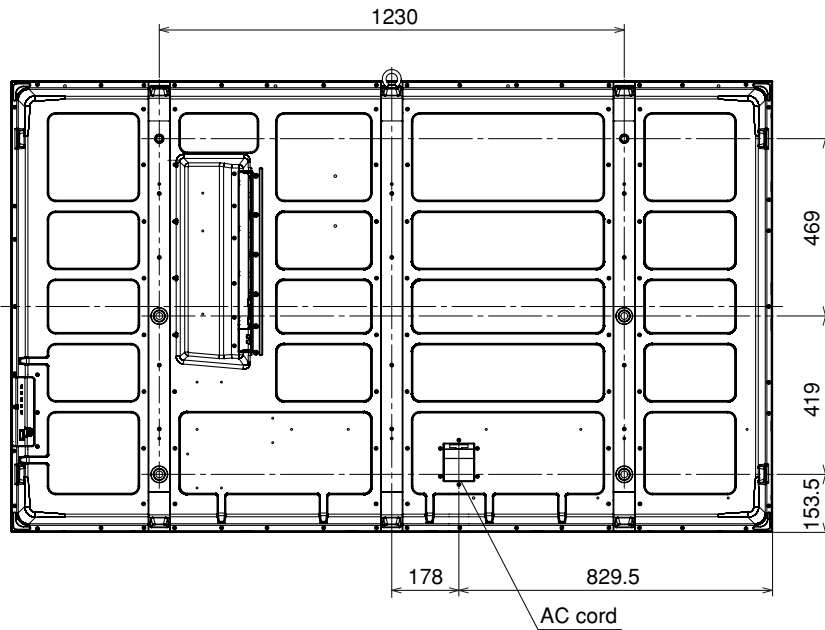
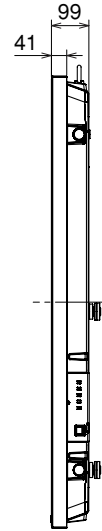
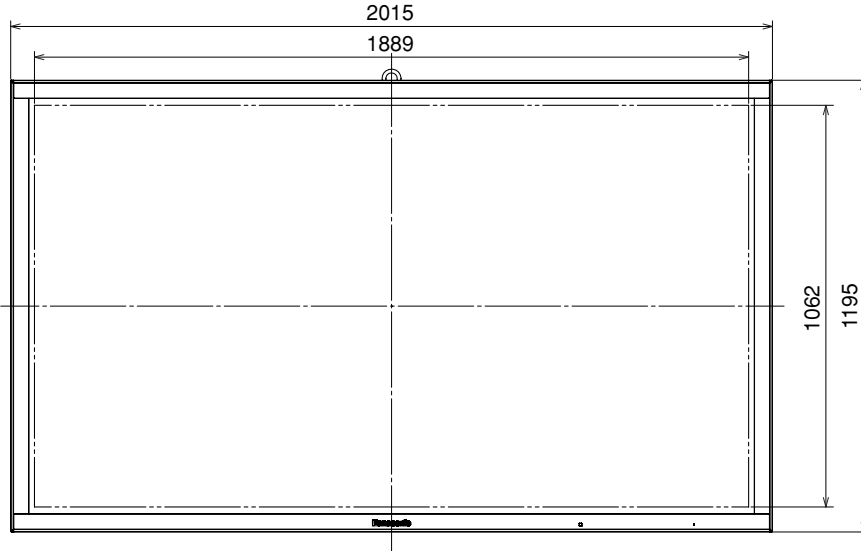
Note: Dual picture mode cannot handle the following combinations of two analog signals
Component -Component, Component - PC(RGB), PC(RGB) - Component, PC(RGB) -PC(RGB)

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 _B /B, P _R /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 _B /B, P _R /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"> • AC power cord • Operating instruction book • Remotecontrol transmitter • Batteries • Fixing band • CD-ROM (Operating instructions) • Allen wrench x 1 • Eyebolt cap x 1 • Eyebolt (M12) x 1 • Ferrite core x 2 • Noise cut filter | |
| OPTIONAL ACCESSORIES | |
| <ul style="list-style-type: none"> • Wall-hanging bracket (vertical) • Pedestal • Ceiling-handing bracket • Floor stand • Terminal boards | |

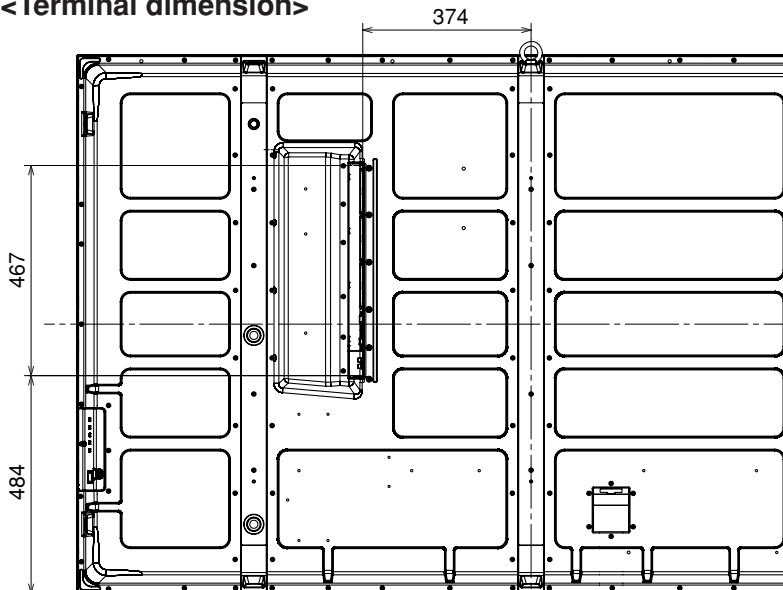
■Dimensions

Units : mm

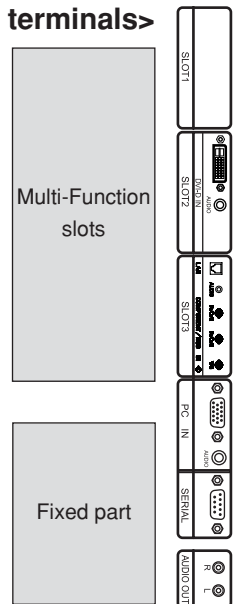


With the optional pedestal TY-ST85P12 attached

<Terminal dimension>



<Connection terminals>



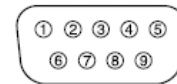
Preset Input Signals

| 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 | |
| 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 | Y | Y | | | | | Y | | |
| | 525(480)/60p | 31.47 | 59.94 | Y | Y | Y ¹ | Y ¹ | | Y | | | | Y | Y | | Y ¹ | | |
| | 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 | | |
| | 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 ² | Y ² | Y ² | Y ² | | Y | Y | Y | Y | Y | Y | | Y ² | | |
| | 1125(1080)/60p | 67.50 | 60.00 | Y ² | Y ² | Y ² | Y ² | | Y | | | Y | | Y | | Y ² | | |
| | 1125(1080)/50i | 28.13 | 50.00 | Y ² | Y ² | Y ² | Y ² | | Y | Y | Y | Y | Y | Y | | Y ² | | |
| | 1125(1080)/50p | 56.25 | 50.00 | Y ² | Y ² | Y ² | Y ² | | Y | | Y | Y | Y | Y | | Y ² | | |
| | 1125(1080)/30p | 33.75 | 30.00 | Y ² | Y ² | Y ² | Y ² | | Y | Y | Y | Y | | | | Y ² | | |
| | 1125(1080)/25p | 28.13 | 25.00 | Y ² | Y ² | Y ² | Y ² | | Y | Y | Y | Y | | | | Y ² | | |
| | 1125(1080)/24p | 27.00 | 24.00 | Y ² | Y ² | Y ² | Y ² | | Y | Y | Y | Y | | Y | | Y ² | | |
| | 1125(1080)/24sF | 27.00 | 48.00 | Y ³ | Y ³ | Y ³ | Y ³ | | | Y | Y | Y | | | | Y ³ | | |
| | 1250(1080)/50i | 31.25 | 50.00 | Y ⁴ | Y ⁴ | Y ⁴ | Y ⁴ | | | | | | | | | Y ⁴ | | |
| | 2048x1080/24p | 27.00 | 24.00 | | | | | | | | | | | | | | | |
| | 2048x1080/24sF | 27.00 | 48.00 | | | | | | | | | | | | | | | |
| RGB | 640×400@70Hz | 31.46 | 70.07 | Y | Y | Y | Y | | | | | | | | | Y | | |
| | 640×480@60Hz | 31.47 | 59.94 | Y ⁶ | Y ⁶ | 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 ⁶ | Y ⁶ | 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 | | |
| | 1920x1080@60Hz | 67.50 | 60.00 | Y ⁷ | Y ⁷ | Y ⁷ | Y ⁷ | | Y ⁷ | | | | | | | Y ⁷ | | |
| | 1920x1200@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 | | |

*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 _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 |