

## 84-inch Class FULL HD LCD Display TH-84EF1U

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

#### ■ DISPLAY PANEL

|                                       |                                |
|---------------------------------------|--------------------------------|
| Screen Size (Diagonal)                | 84-inch (2134 mm)              |
| Panel type / Backlight                | IPS / Edge-LED                 |
| Aspect ratio                          | 16:9                           |
| Effective Display Area (W x H)        | 73.2" x 41.1" (1860 x 1046 mm) |
| Resolution (H x V)                    | 1920 x 1080                    |
| Brightness                            | 350 cd/m <sup>2</sup> (Typ)    |
| Contrast Ratio                        | 1400:1 (Typ)                   |
| Response Time                         | 5 ms (Typ) (G to G)            |
| Viewing Angle (Horizontal / Vertical) | 178° / 178° (CR ≥ 10)          |
| Panel Life Time*1                     | approx. 50000 hours (Typ)      |
| Panel Surface Treatment               | Anti glare type (Haze 10%)     |

\*1 When the panel lifetime is at 50% of the brightness under the condition of 25 degrees Celsius (+/- 2 degrees Celsius).

#### ■ CONNECTION TERMINAL

|             |  |   |
|-------------|--|---|
| VIDEO IN    | 4-Pole Mini Jack (M3) x 1  | 1.0 V [p-p] (75 Ω)  |
| HDMI IN     | HDMI Type A Connector x 2  | Linear PCM<br>(Sampling frequency : 48 kHz/44.1 kHz/32 kHz)   |
| DVI-D IN    | DVI-D 24-pin x 1   | Compliance with DVI Revision 1.0<br>Compatible with HDCP 1.1  |
| PC IN       | Mini D-Sub 15-pin x 1 (Female)   | Y/G : with sync 1.0 V [p-p] (75 Ω)<br>: without sync 0.7 V [p-p] (75 Ω)<br>P <sub>B</sub> /C <sub>B</sub> /B : 0.7 V [p-p] (75 Ω)<br>P <sub>R</sub> /C <sub>R</sub> /R : 0.7 V [p-p] (75 Ω)<br>HD/VD : 1.0 - 5.0 V [p-p] (high impedance) |
| SERIAL IN   | D-sub 9pin x 1, RS-232C Compatible   |   |
| LAN         | RJ45 x 1 10BASE-T/100BASE-TX, Compatible with PLink                              |   |
| IR IN / OUT | Mini Jack (M3) x 1 / x 1   |   |
| AUDIO IN    | Stereo Mini Jack (M3) x 1<br>(Shared with DVI-D IN and PC IN)                    | 0.5 V [rms]   |
| AUDIO OUT   | Stereo Mini Jack (M3) x 1<br>Variable (-∞ - 0 dB) (1 kHz 0 dB Input, 10 kΩ Load) | 0.5 V [rms]   |
| USB         | USB Type A connector x 1 DC 5 V/1A (USB 3.0 is not supported.)                   |   |

#### ■ AUDIO

|                      |   |
|----------------------|---|
| Built in Speaker     | 10 W (Full range : 15 mm x 25 mm / φ 70 mm x 2) |
| Built in Speaker OUT | 8 Ω , 20 W (10 W + 10 W) @1 kHz, @10% THD       |

#### ■ ELECTRICAL

|                                    |                              |
|------------------------------------|------------------------------|
| Power Requirements                 | 110 - 127 V AC 50 Hz / 60 Hz |
| Power Consumption                  | 535 W                        |
| On Mode Average Power Consumption* | 425 W                        |
| Power Off Condition                | approx. 0.3 W                |
| Stand-by Condition                 | approx. 0.5 W                |
| Apparent power                     | 538 VA                       |

\*Based on IEC 62087 Ed.2 measurement method

#### ■ MECHANICAL

|                               |   |
|-------------------------------|---|
| Dimension (W x H x D)         | 75.2" x 43.4" x 3.1" (1910 x 1102 x 78 mm)  |
| Weight                        | approx. 154 lbs (70 kg)   |
| Bezel Color                   | Black   |
| Bezel Width                   | T/B: 1.0 inch (25.6 mm), R/L: 0.9 inch (22.6 mm)  |
| Carton Dimensions (W x H x D) | 81.1" x 53.9" x 14.3" (2059 x 1369 x 361 mm)  |
| Gross Weight                  | approx. 232 lbs (105 kg)  |
| Cabinet Material / Color      | Metal / Black   |
| Pitch for Wall-Hanging        | VESA Compliant 23.6" x 19.7" (600 x 500 mm) (Installed by: M8 screws / Screw hole depth 0.4" (10 mm)) |

#### ■ INSTALLATION

|               |   |
|---------------|---|
| Orientation   | Landscape / Portrait                          |
| Tilting Angle | 0 - 15 degrees forward with landscape setting |

\*Please contact your sales representative with regard to the tilt angle before installation.

#### ■ ENVIRONMENTAL

|                       |             |   |
|-----------------------|-------------|---|
| Operating Environment | Temperature | : 32° F to 104° F (0°C to 40°C)*1                             |
|                       | Humidity    | : 20% to 80% (No condensation) 32° F to 95° F (0°C to 35°C)*2 |
|                       | Altitude    | : 0 to 9186 feet (0 to 2800 m)*3                              |
| Storage Environment   | Temperature | : -40° F to 140° F (-20°C to 60°C)                            |
|                       | Humidity    | : 20% to 80% (No condensation)                                |

\*1 : for up to 4593 ft (1400 m) altitude \*2 : for between 4593 ft (1400 m) and 9186 ft (2800 m) altitude  
Depending on the temperature or humidity conditions, uneven brightness may be observed. This is not a malfunction.  
• This unevenness will disappear while applying current continuously. If not, consult the distributor.

|          |              |
|----------|--------------|
| UPC Code | 885170287174 |
|----------|--------------|

**MAIN FEATURE**

|  |           |
|--|-----------|
| Digital Zoom                                   | Yes       |
| Power ON Screen Delay                          | Yes       |
| 1:1 Pixel mode                                 | Yes       |
| Auto setup                                     | Yes       |
| Screen Saver                                   | Yes       |
| PC Power Management                            | Yes       |
| DVI-D Power Management                         | Yes       |
| HDMI Power Management                          | Yes       |
| Input Lock                                     | Yes       |
| Button Lock                                    | Yes       |
| Remote-control User Level                      | Yes       |
| Input Search                                   | Yes       |
| USB Media Player*1                             | Yes       |
| Data Cloning                                   | Yes       |
| Early Warning Software compatible              | Yes       |
| Multi Monitoring & Control Software compatible | Yes       |
| Operating Time*2                               | 16h / day |

\*1 USB input has some restrictions. Please refer to operating instructions for more information.  
 \*2 In case of running for a long time, the moving image is recommended to be displayed. If you display a still picture for an extended period, the image retention might remain on the screen. However, image retention can gradually disappear by displaying movie images.

**STANDARD (CERTIFICATIONS)**

|                       |  |
|-----------------------|--|
| SAFETY REGULATIONS    | UL60950-1, CSA C22.2 No. 60950-1-07, 2nd Edition, 2014-10<br>Mexico: UL Certificate of Compliance(UL Mexico issue) |
| RADIATION REGULATIONS | FCC 47 CFR, Part 15, Subpart B Class A<br>ICES-003   |

**REMOTE CONTROL TRANSMITTER**

|                        |  |
|------------------------|--|
| Power Requirements     | DC 3 V<br>(2 x AAA Size batteries)         |
| Operating distance     | approx. 23 ft (7 m)*                       |
| Weight                 | approx. 2.2 oz (63 g) including batteries  |
| Dimensions (W x H x D) | 1.7" x 4.1" x 0.8"<br>(44 x 105 x 20.5 mm) |

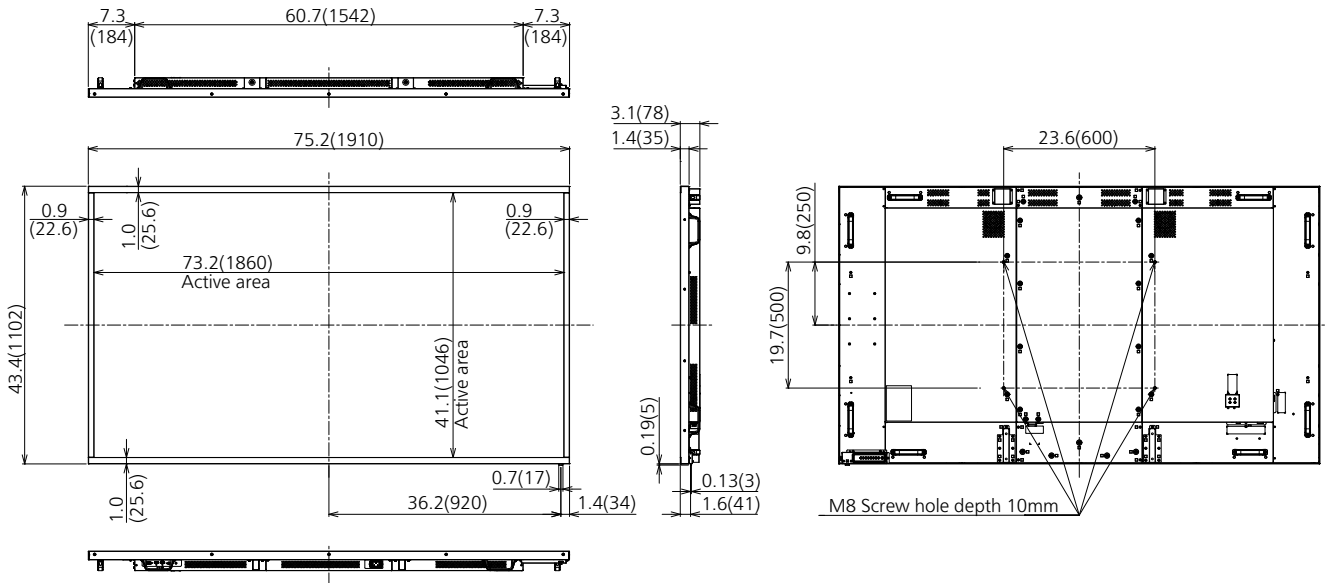
\*When operated directly in front of receptor.

**INCLUDED ACCESSORIES**

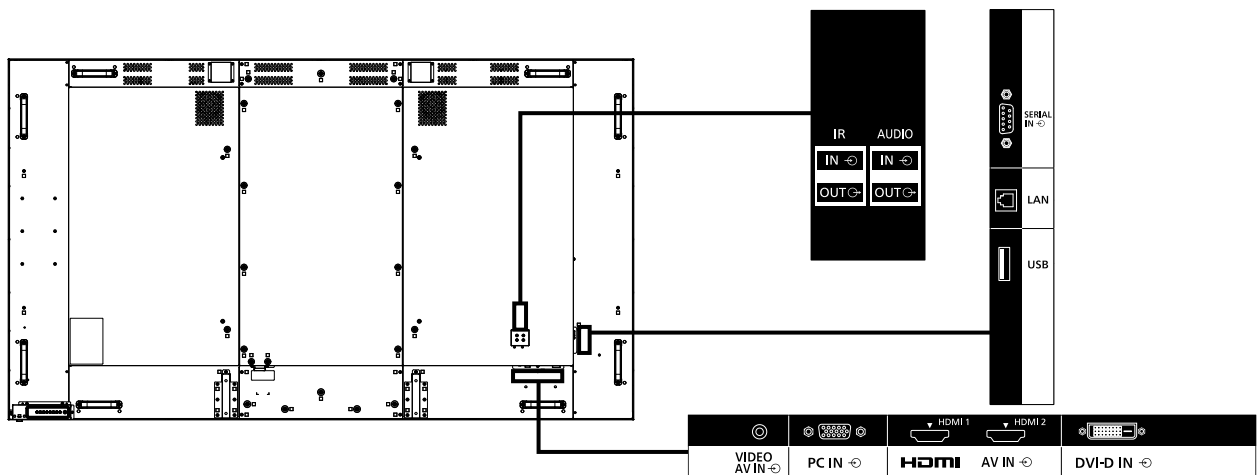
- AC cord (78" (2.0 m))
- Remote Control
- Batteries (AAA size) x 2
- Clamper x 3
- CD-ROM/User manual
- Operating instruction book

**DIMENSIONS**

Cautions: This drawing is not a scale  
Units : inches (mm)



**CONNECTION TERMINAL**



\* Specifications and appearance are subject to change without notice.

## List of correspondence signals

V : VIDEO  
R : D-sub RGB  
Y : YC<sub>B</sub>C<sub>R</sub>/YP<sub>B</sub>P<sub>R</sub>  
D : DVI-D  
H : HDMI

The picture signal which can indicate a this machine is as it is the following table.

| Correspondence signal          | Resolution (dot)               | Scan rate       |              | Dot clock rate (MHz) | Format  |
|--------------------------------|--------------------------------|-----------------|--------------|----------------------|---------|
|                                |                                | Horizontal(kHz) | Vertical(Hz) |                      |         |
| NTSC/NTSC4.43/<br>PAL-M/PAL60  | 720 x 480i                     | 15.73           | 59.94        | -                    | V       |
| PAL/PAL-N/SECAM                | 720 x 576i                     | 15.63           | 50.00        | -                    | V       |
| 525i (480i)                    | 720 x 480                      | 15.73           | 59.94        | 13.50                | R/Y     |
| 625i (576i)                    | 720 x 576i                     | 15.63           | 50.00        | 13.50                | R/Y     |
| 525i (480i)                    | 720 (1440) x 480 <sup>*2</sup> | 15.73           | 59.94        | 27.00                | D/H     |
| 625i (576i)                    | 720 (1440) x 576 <sup>*2</sup> | 15.63           | 50.00        | 27.00                | D/H     |
| 525p (480p)                    | 720 x 483                      | 31.47           | 59.94        | 27.00                | R/Y/D/H |
| 625p (576p)                    | 720 x 576                      | 31.25           | 50.00        | 27.00                | R/Y/D/H |
| 750 (720) /60p                 | 1280 x 720                     | 45.00           | 60.00        | 74.25                | R/Y/D/H |
| 750 (720) /50p                 | 1280 x 720                     | 37.50           | 50.00        | 74.25                | R/Y/D/H |
| 1125 (1080) /60i <sup>*1</sup> | 1920 x 1080i                   | 33.75           | 60.00        | 74.25                | R/Y/D/H |
| 1125 (1080) /50i               | 1920 x 1080i                   | 28.13           | 50.00        | 74.25                | R/Y/D/H |
| 1125 (1080) /24p               | 1920 x 1080                    | 27.00           | 24.00        | 74.25                | R/Y/D/H |
| 1125 (1080) /24PsF             | 1920 x 1080i                   | 27.00           | 48.00        | 74.25                | R/Y     |
| 1125 (1080) /25p               | 1920 x 1080                    | 28.13           | 25.00        | 74.25                | R/Y/D/H |
| 1125 (1080) /30p               | 1920 x 1080                    | 33.75           | 30.00        | 74.25                | R/Y/D/H |
| 1125 (1080) /60p               | 1920 x 1080                    | 67.50           | 60.00        | 148.50               | R/Y/D/H |
| 1125 (1080) /50p               | 1920 x 1080                    | 56.25           | 50.00        | 148.50               | R/Y/D/H |
| 640 x 400                      | 640 x 400                      | 31.47           | 70.09        | 25.18                | R/Y/D/H |
|                                | 640 x 400                      | 37.86           | 85.08        | 31.50                | R/Y/D/H |
| 640 x 480                      | 640 x 480                      | 31.47           | 59.94        | 25.18                | R/Y/D/H |
|                                | 640 x 480                      | 35.00           | 66.67        | 30.24                | R/Y/D/H |
|                                | 640 x 480                      | 37.86           | 72.81        | 31.50                | R/Y/D/H |
|                                | 640 x 480                      | 37.50           | 75.00        | 31.50                | R/Y/D/H |
|                                | 640 x 480                      | 43.27           | 85.01        | 36.00                | R/Y/D/H |
| 800 x 600                      | 800 x 600                      | 35.16           | 56.25        | 36.00                | R/Y/D/H |
|                                | 800 x 600                      | 37.88           | 60.32        | 40.00                | R/Y/D/H |
|                                | 800 x 600                      | 48.08           | 72.19        | 50.00                | R/Y/D/H |
|                                | 800 x 600                      | 46.88           | 75.00        | 49.50                | R/Y/D/H |
| 832 x 624                      | 832 x 624                      | 53.67           | 85.06        | 56.25                | R/Y/D/H |
|                                | 832 x 624                      | 49.72           | 74.55        | 57.28                | R/Y/D/H |
| 852 x 480                      | 852 x 480                      | 31.47           | 59.94        | 34.24                | D/H     |
|                                | 1024 x 768                     | 39.55           | 50.00        | 51.89                | D/H     |
|                                | 1024 x 768                     | 48.36           | 60.00        | 65.00                | R/Y/D/H |
|                                | 1024 x 768                     | 56.48           | 70.07        | 75.00                | R/Y/D/H |
|                                | 1024 x 768                     | 60.02           | 75.03        | 78.75                | R/Y/D/H |
|                                | 1024 x 768                     | 65.55           | 81.63        | 86.00                | R/Y/D/H |
| 1066 x 600                     | 1066 x 600                     | 68.68           | 85.00        | 94.50                | R/Y/D/H |
|                                | 1066 x 600                     | 37.64           | 59.94        | 53.00                | D/H     |
|                                | 1152 x 864                     | 53.70           | 60.00        | 81.62                | D/H     |
|                                | 1152 x 864                     | 63.99           | 70.02        | 94.20                | R/Y/D/H |
|                                | 1152 x 864                     | 67.50           | 75.00        | 108.00               | R/Y/D/H |
| 1152 x 870                     | 1152 x 870                     | 77.09           | 85.00        | 119.65               | R/Y/D/H |
|                                | 1152 x 870                     | 68.68           | 75.06        | 100.00               | R/Y/D/H |
| 1280 x 720                     | 1280 x 720                     | 44.76           | 60.00        | 74.48                | R/Y/D/H |
|                                | 1280 x 768                     | 39.55           | 49.94        | 65.18                | R/Y/D/H |
| 1280 x 768                     | 1280 x 768                     | 47.70           | 60.00        | 80.14                | R/Y/D/H |
|                                | 1280 x 768                     | 47.78           | 59.87        | 79.50                | R/Y/D/H |
|                                | 1280 x 800                     | 41.20           | 50.00        | 68.56                | R/Y/D/H |
| 1280 x 800                     | 1280 x 800                     | 49.31           | 59.91        | 71.00                | R/Y/D/H |
|                                | 1280 x 800                     | 49.70           | 59.81        | 83.50                | R/Y/D/H |
|                                | 1280 x 960                     | 60.00           | 60.00        | 108.00               | R/Y/D/H |
| 1280 x 960                     | 1280 x 960                     | 85.94           | 85.00        | 148.50               | R/Y     |
|                                | 1280 x 1024                    | 63.98           | 60.02        | 108.00               | R/Y/D/H |
| 1280 x 1024                    | 1280 x 1024                    | 79.98           | 75.02        | 135.00               | R/Y/D/H |
|                                | 1280 x 1024                    | 91.15           | 85.02        | 157.50               | R/Y/D/H |
|                                | 1360 x 768                     | 47.71           | 60.02        | 85.50                | D/H     |
| 1360 x 768                     | 1360 x 768                     | 47.70           | 60.00        | 84.72                | D/H     |
|                                | 1360 x 768                     | 47.72           | 59.80        | 84.75                | D/H     |
|                                | 1366 x 768                     | 39.55           | 50.00        | 69.92                | D/H     |
| 1366 x 768                     | 1366 x 768                     | 48.39           | 60.03        | 86.71                | R/Y/D/H |
|                                | 1366 x 768                     | 48.00           | 60.00        | 72.00                | R/Y/D/H |
|                                | 1366 x 768                     | 39.56           | 49.89        | 69.00                | R/Y/D/H |
|                                | 1366 x 768                     | 47.71           | 59.79        | 85.50                | R/Y/D/H |
|                                | 1400 x 1050                    | 1400 x 1050     | 65.22        | 60.00                | 122.61  |
| 1400 x 1050                    | 1400 x 1050                    | 82.20           | 75.00        | 155.85               | R/Y/D/H |
|                                | 1440 x 900                     | 55.47           | 59.90        | 88.75                | R/Y/D/H |
| 1440 x 900                     | 1440 x 900                     | 55.92           | 60.00        | 106.47               | R/Y/D/H |
|                                | 1600 x 900                     | 46.30           | 50.00        | 97.05                | D/H     |
| 1600 x 900                     | 1600 x 900                     | 60.00           | 60.00        | 108.00               | D/H     |
|                                | 1600 x 900                     | 55.99           | 59.95        | 118.25               | D/H     |
|                                | 1600 x 900                     | 55.92           | 60.00        | 119.00               | D/H     |
| 1680 x 1050                    | 1680 x 1050                    | 65.29           | 59.95        | 146.25               | R/Y/D/H |
| 1600 x 1200                    | 1600 x 1200 <sup>*3</sup>      | 75.00           | 60.00        | 162.00               | R/Y/D/H |
| 1920 x 1080                    | 1920 x 1080 <sup>*4</sup>      | 66.59           | 59.93        | 138.50               | R/Y/D/H |
|                                | 1920 x 1080                    | 67.50           | 60.00        | 148.50               | R/Y/D/H |
| 1920 x 1200                    | 1920 x 1200 <sup>*3</sup>      | 74.04           | 59.95        | 154.00               | R/Y/D/H |

● The signal format distinguished automatically will be sometimes indication different from an actual input signal.

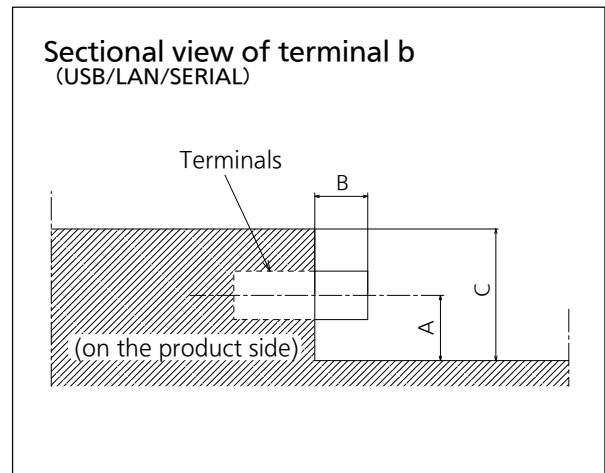
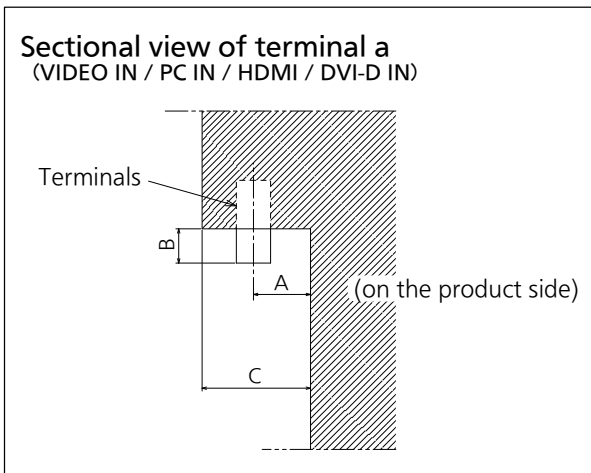
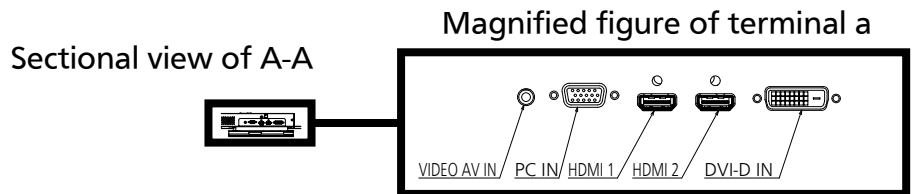
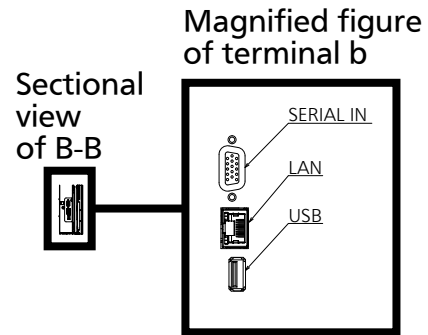
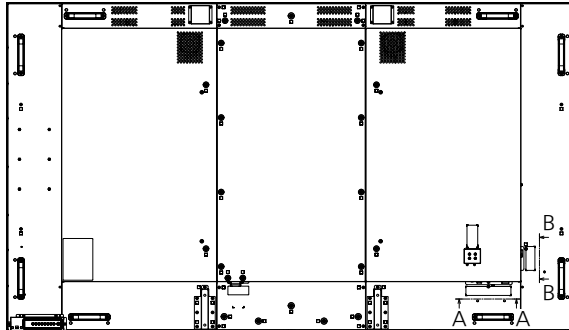
\*1: When 1125 (1035) /60i signal is input, it is displayed as 1125 (1080) /60i signal. \*3: Displayed with image elements thinned out in the image processing circuit.

\*2: Pixel-Repetition signal (dot clock frequency 27.0 MHz) only

\*4: Based on VESA CVT-RB (Reduced Blanking) standard

● Drawing of terminals

View from back



84EF1

Units : inches (mm)

|   | VIDEO AV IN | PC IN       | HDMI        | DVI-D IN    | SERIAL IN   | LAN         | USB         |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| A | 0.51 (13.1) | 0.54 (13.8) | 0.43 (10.9) | 0.49 (12.5) | 0.54 (13.8) | 0.48 (12.2) | 0.46 (11.6) |
| B | 0.07 (1.7)  | 0.2 (5.1)   | -           | 0.22 (5.6)  | -           | -           | -           |
| C | 1.69 (43.0) |             |             |             |             |             |             |

\*Due to the construction of terminal, some types of connecting cable or USB memory device cannot be used. Be sure to use connecting cable or USB memory device after confirmation in this drawing.