



## 86-inch Class 4K UHD LCD Display TH-86CQE1W

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

#### DISPLAY PANEL

|                                       |   |
|---------------------------------------|---|
| Screen Size (Diagonal)                | 86-inch (2174.2 mm)                           |
| Panel type / Backlight                | IPS / Edge-LED                                |
| Aspect ratio                          | 16:9  |
| Effective Display Area (W x H)        | 1895.0 x 1065.9 mm (74.60" x 41.96")          |
| Resolution (H x V)                    | 3840 x 2160                                   |
| Brightness (Typ)                      | 400 cd/m <sup>2</sup>                         |
| Contrast Ratio                        | 1200:1  |
| Dynamic Contrast Ratio                | 50000:1                                       |
| Max. Display Colors                   | Approx. 1.07 Billion (10bit)                  |
| Response Time (Typ)                   | 8 ms (G to G)                                 |
| Viewing Angle (Horizontal / Vertical) | 178° / 178° (CR>10)                           |
| Panel Life Time <sup>1</sup> (Typ)    | Approx. 50000 hours                           |
| Panel Surface Treatment               | Anti-glare low reflection treatment (Haze 3%) |

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

#### CONNECTION TERMINAL

|           |   |   |
|-----------|---|---|
| HDMI IN   | HDMI Connector x 4  | Compatible with HDCP 2.2                              |
| PC IN     | Mini D-Sub 15-pin (DDC2B) x 1                                 | RGB : 0.7 V p-p (75Ω)<br>HD/VD : TTL (High impedance) |
| SERIAL IN | D-sub 9pin (Female) x 1, RS-232C Compatible                   |   |
| IR IN     | Stereo mini jack (M3) x 1                                     |   |
| AUDIO IN  | Pin Jack x 2 (L/R)  |   |
| AUDIO OUT | Stereo mini jack (M3) x 1<br>SPDIF x 1                        |   |
| LAN       | RJ45 x 1  |   |
| USB       | USB Type-A Connector x 2, Type-C x 1<br>(Internal) Type-A x 1 |   |
| Wifi      | Dongle  |   |

#### AUDIO

|                  |                    |
|------------------|--------------------|
| Built in Speaker | 24 W [12 W + 12 W] |
|------------------|--------------------|

#### ELECTRICAL

|  |  |
|--|--|
| Power Requirements                             | AC 110 - 127 V 50 Hz / 60 Hz<br>AC 220 - 240 V 50 Hz / 60 Hz |
| Power Consumption                              | 364 W  |
| On Mode Average Power Consumption <sup>1</sup> | 318 W  |
| Power Off Condition                            | 0 W  |
| Stand-by Condition                             | Approx. 0.5 W  |
| Apparent power                                 | 369 W  |

<sup>1</sup> Based on IEC 62087 Ed.2 measurement method

#### MECHANICAL

|   |  |
|---|--|
| Dimension (W x H x D) Not including remote controller sensor box <sup>1</sup> | 1929 x 1100 x 80 mm (75.91" x 43.28" x 3.13")  |
| Dimension (W x H x D) Including remote controller sensor box <sup>1</sup>     | 1929 x 1116 x 80 mm (75.91" x 43.94" x 3.13")  |
| Weight  | 61.7 kg (136.1 lbs)  |
| Carton Dimensions (W x H x D)   | 2163 x 1405 x 380 mm (85.16" x 55.32" x 14.96")  |
| Gross Weight  | 84 kg (185.2 lbs)  |
| Cabinet Material  | Front/Side/Back: Metal   |
| Bezel Color   | Black  |
| Bezel Width   | T/R/L/B 15.3 mm (0.6")   |
| Pitch for Wall-Hanging  | VESA Compliant 600 x 400 mm (23.7" x 15.8") (Installed by: M8 screws / Screw hole depth 12 mm (0.48")) |

<sup>1</sup> Remote IR sensor is detachable.

#### INSTALLATION

|                          |                                |
|--------------------------|--------------------------------|
| Orientation <sup>1</sup> | Landscape                      |
| Tilting Angle            | Landscape : 20 degrees forward |

<sup>1</sup> Please contact your sales representative with regard to the tilt angle before installation.

#### ENVIRONMENTAL

|                       |             |   |
|-----------------------|-------------|---|
| Operating Environment | Temperature | : 0°C to 40°C (32°F to 104°F) : 0°C to 35°C (32°F to 95°F) <sup>2</sup> |
|                       | Humidity    | : 20% to 80% (No condensation)  |
| Storage Environment   | Temperature | : -20°C to 60°C (-4°F to 140°F)   |
|                       | Humidity    | : 20% to 80% (No condensation)  |

<sup>1</sup> : for up to 1400 m (4593 ft) altitude <sup>2</sup> : for between 1400 m (4593 ft) and 2800 m (9186 ft) 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 | 885170376885 |
|----------|--------------|

**MAIN FEATURE**

|   |           |
|---|-----------|
| Wireless Display  | Yes       |
| USB Media Player  | Yes       |
| Data Cloning  | USB       |
| Multi display settings  | Yes       |
| Power on Screen Delay   | Yes       |
| Auto setting  | Yes       |
| No signal power off   | Yes       |
| HDMI power management (HDMI-Wakeup)                                     | Yes       |
| Button lock   | Yes       |
| Operation level control   | Yes       |
| Dynamic contrast  | Yes       |
| Set up timer  | Yes       |
| SERIAL control (RS232C)   | Yes       |
| LAN control   | Yes       |
| HDMI CEC Compatible   | Yes       |
| Crestron Connected™   | Yes       |
| Frame Creation  | Yes       |
| SNMP  | Yes       |
| PJLink™   | Yes       |
| Multi Monitoring & Control Software (Early Warning Software) compatible | Yes       |
| Memory Viewer   | Yes       |
| HTML5 Browser   | Yes       |
| HTML5 Browser auto-Launch   | Yes       |
| Real Time Clock   | Yes       |
| Pixel shift   | Yes       |
| OSD Rotation  | Yes       |
| USB Auto-play (Type A&C)  | Yes       |
| Operating Time <sup>1</sup>   | 16h / day |

<sup>1</sup> Displaying a still image for a long time may cause burn-in (image persistence artifacts), it could be mitigated when display video image.

**STANDARD (CERTIFICATIONS)**

|                       |   |
|-----------------------|---|
| SAFETY REGULATIONS    | EU/USA<br>CB Report (LVD; IEC62368-1 2nd Edition + EU/USA Deviation)<br>EU Deviation : EN62368-1:2014 2nd Edition   |
| RADIATION REGULATIONS | EU : EMC test report [Class-A]<br>(CE; EN55032:2012/EN61000-3-2:2014/<br>EN61000-3-3:2013/EN55024:2010<br>IEC61000-4-2:2008 IEC61000-4-3:2010<br>IEC61000-4-4:2012 IEC61000-4-5:2005<br>IEC61000-4-6:2013 IEC61000-4-8:2009<br>IEC61000-4-11:2004 ) |

**WIRELESS LAN FUNCTION**

|                        |   |
|------------------------|---|
| Compliance standard    | IEEE 802.11 a/b/g/n Dual<br>(Wireless LAN Standard protocol)<br>Wi-Fi certified |
| Channel                | IEEE 802.11 a/b/g/n   |
| Communication distance | Approx. 30 m<br>(Depends on usage environment)                                  |

**REMOTE CONTROL TRANSMITTER**

|                        |  |
|------------------------|--|
| Power Requirements     | DC 3 V (AA Size batteries x 2)           |
| Operating distance     | Approx. 7 m (22.9 ft) <sup>1</sup>       |
| Weight                 | Approx. 111 g (4 oz) including batteries |
| Dimensions (W x H x D) | 51 x 161 x 27 mm (2" x 6.4" x 1.1")      |

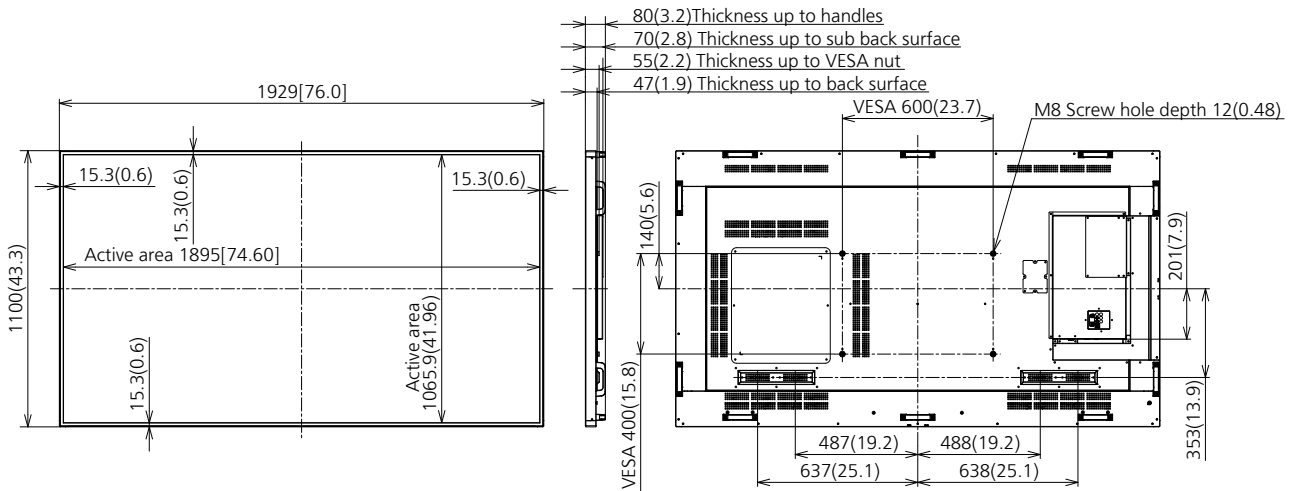
<sup>1</sup> When operated directly in front of the IR sensor.

**INCLUDED ACCESSORIES**

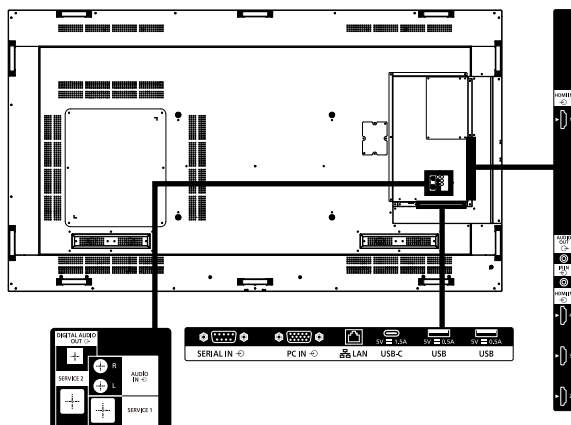
- Remote Control x 1 - Batteries (AA size) x 2 : AA/R6/LR6 type
- AC cord (approx. 2 m) - IR sensor x 1
- IR Sensor Holder x 1 - Screw (for IR Sensor's Holder) x 2
- Clamper x 3 - Wi-Fi dongle x 1
- Extension Cable (for Wi-Fi dongle) x 1
- Operating Instruction Book

**DIMENSIONS**

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



**CONNECTION TERMINAL**



1 Specifications and appearance are subject to change without notice.

 Supported signals & TV format

| Corresponding Signal | Resolution (Dot)              | Scanning frequency |               | Dot Clock frequency (MHz) | Format <sup>2</sup> | Plug and Play supported signal |        |    |
|----------------------|-------------------------------|--------------------|---------------|---------------------------|---------------------|--------------------------------|--------|----|
|                      |                               | Horizontal (kHz)   | Vertical (Hz) |                           |                     | HDMI                           | Type-C | PC |
| 480/60i              | 720(1440) x 480i <sup>1</sup> | 15.73              | 59.94         | 27                        | H/Type-C            | ○                              | ○      | -  |
| 576/50i              | 720(1440) x 576i <sup>1</sup> | 15.63              | 50            | 27                        | H/Type-C            | ○                              | ○      | -  |
| 480/60p              | 720 x 483                     | 31.47              | 59.94         | 27                        | H/Type-C            | ○                              | ○      | -  |
| 576/50p              | 720 x 576                     | 31.25              | 50            | 27                        | H/Type-C            | ○                              | ○      | -  |
| 720/60p              | 1280 x 720                    | 45                 | 60            | 74.25                     | H/Type-C            | ○                              | ○      | -  |
| 720/50p              | 1280 x 720                    | 37.5               | 50            | 74.25                     | H/Type-C            | ○                              | ○      | -  |
| 1080/60i             | 1920 x 1080i                  | 33.75              | 60            | 74.25                     | H/Type-C            | ○                              | ○      | -  |
| 1080/50i             | 1920 x 1080i                  | 28.13              | 50            | 74.25                     | H/Type-C            | ○                              | ○      | -  |
| 1080/24p             | 1920 x 1080                   | 27                 | 24            | 74.25                     | H/Type-C            | ○                              | ○      | -  |
| 1080/25p             | 1920 x 1080                   | 28.13              | 25            | 74.25                     | H/Type-C            | ○                              | ○      | -  |
| 1080/30p             | 1920 x 1080                   | 33.75              | 30            | 74.25                     | H/Type-C            | ○                              | ○      | -  |
| 1080/60p             | 1920 x 1080                   | 67.5               | 60            | 148.5                     | H/Type-C            | ○                              | ○      | -  |
| 1080/50p             | 1920 x 1080                   | 56.25              | 50            | 148.5                     | H/Type-C            | ○                              | ○      | -  |
| 2K/24p               | 2048 x 1080                   | 27                 | 24            | 74.25                     | H/Type-C            | -                              | -      | -  |
| 2K/25p               | 2048 x 1080                   | 28.13              | 25            | 74.25                     | H/Type-C            | -                              | -      | -  |
| 2K/30p               | 2048 x 1080                   | 33.75              | 30            | 74.25                     | H/Type-C            | -                              | -      | -  |
| 2K/48p               | 2048 x 1080                   | 54                 | 48            | 148.5                     | H/Type-C            | -                              | -      | -  |
| 2K/60p               | 2048 x 1080                   | 67.5               | 60            | 148.5                     | H/Type-C            | -                              | -      | -  |
| 2K/50p               | 2048 x 1080                   | 56.25              | 50            | 148.5                     | H/Type-C            | -                              | -      | -  |
| 3840 x 2160/24p      | 3840 x 2160                   | 54                 | 24            | 297                       | H/Type-C            | ○                              | ○      | -  |
| 3840 x 2160/25p      | 3840 x 2160                   | 56.25              | 25            | 297                       | H/Type-C            | ○                              | ○      | -  |
| 3840 x 2160/30p      | 3840 x 2160                   | 67.5               | 30            | 297                       | H/Type-C            | ○                              | ○      | -  |
| 3840 x 2160/60p      | 3840 x 2160                   | 135                | 60            | 594                       | H/Type-C            | ○                              | ○      | -  |
| 3840 x 2160/50p      | 3840 x 2160                   | 112.5              | 50            | 594                       | H/Type-C            | ○                              | ○      | -  |
| 4096 x 2160/24p      | 4096 x 2160                   | 54                 | 24            | 297                       | H/Type-C            | ○                              | ○      | -  |
| 4096 x 2160/25p      | 4096 x 2160                   | 56.25              | 25            | 297                       | H/Type-C            | ○                              | ○      | -  |
| 4096 x 2160/30p      | 4096 x 2160                   | 67.5               | 30            | 297                       | H/Type-C            | ○                              | ○      | -  |
| 4096 x 2160/60p      | 4096 x 2160                   | 135                | 60            | 594                       | H/Type-C            | ○                              | ○      | -  |
| 4096 x 2160/50p      | 4096 x 2160                   | 112.5              | 50            | 594                       | H/Type-C            | ○                              | ○      | -  |
| 640 x 400/70         | 640 x 400                     | 31.47              | 70.09         | 25.18                     | H/Type-C/PC         | -                              | -      | -  |
| 640 x 400/85         | 640 x 400                     | 37.86              | 85.08         | 31.5                      | H/Type-C            | -                              | -      | -  |
| 640 x 480/60         | 640 x 480                     | 31.47              | 59.94         | 25.18                     | H/Type-C/PC         | ○                              | ○      | ○  |
| 640 x 480/67         | 640 x 480                     | 35                 | 66.67         | 30.24                     | H/Type-C/PC         | -                              | -      | -  |
| 640 x 480/73         | 640 x 480                     | 37.86              | 72.81         | 31.5                      | H/Type-C/PC         | -                              | -      | -  |
| 640 x 480/75         | 640 x 480                     | 37.5               | 75            | 31.5                      | H/Type-C/PC         | -                              | -      | -  |
| 640 x 480/85         | 640 x 480                     | 43.27              | 85.01         | 36                        | H/Type-C/PC         | -                              | -      | -  |
| 800 x 600/56         | 800 x 600                     | 35.16              | 56.25         | 36                        | H/Type-C/PC         | -                              | -      | -  |
| 800 x 600/60         | 800 x 600                     | 37.88              | 60.32         | 40                        | H/Type-C/PC         | ○                              | ○      | ○  |
| 800 x 600/72         | 800 x 600                     | 48.08              | 72.19         | 50                        | H/Type-C/PC         | -                              | -      | -  |
| 800 x 600/75         | 800 x 600                     | 46.88              | 75            | 49.5                      | H/Type-C/PC         | -                              | -      | -  |
| 800 x 600/85         | 800 x 600                     | 53.67              | 85.06         | 56.25                     | H/Type-C/PC         | -                              | -      | -  |
| 832 x 624/75         | 832 x 624                     | 49.72              | 74.55         | 57.28                     | H/Type-C/PC         | -                              | -      | -  |
| 852 x 480/60         | 852 x 480                     | 31.47              | 59.94         | 34.24                     | H/Type-C            | -                              | -      | -  |
| 1024 x 768/50        | 1024 x 768                    | 39.55              | 50            | 51.89                     | H/Type-C            | -                              | -      | -  |
| 1024 x 768/60        | 1024 x 768                    | 48.36              | 60            | 65                        | H/Type-C/PC         | ○                              | ○      | ○  |
| 1024 x 768/70        | 1024 x 768                    | 56.48              | 70.07         | 75                        | H/Type-C/PC         | -                              | -      | -  |
| 1024 x 768/82        | 1024 x 768                    | 65.55              | 81.63         | 86                        | H/Type-C/PC         | -                              | -      | -  |
| 1024 x 768/85        | 1024 x 768                    | 68.68              | 85            | 94.5                      | H/Type-C/PC         | -                              | -      | -  |
| 1066 x 600/60        | 1066 x 600                    | 37.64              | 59.94         | 53                        | H/Type-C            | -                              | -      | -  |
| 1152 x 864/60        | 1152 x 864                    | 53.7               | 60            | 81.62                     | H/Type-C/PC         | -                              | -      | ○  |
| 1152 x 864/70        | 1152 x 864                    | 63.99              | 70.02         | 94.2                      | H/Type-C/PC         | -                              | -      | -  |
| 1152 x 864/75        | 1152 x 864                    | 67.5               | 75            | 108                       | H/Type-C/PC         | -                              | -      | -  |
| 1152 x 864/85        | 1152 x 864                    | 77.09              | 85            | 119.65                    | H/Type-C/PC         | -                              | -      | -  |
| 1152 x 870/75        | 1152 x 870                    | 68.68              | 75.06         | 100                       | H/Type-C/PC         | -                              | -      | -  |
| 1280 x 720/60        | 1280 x 720                    | 44.76              | 60            | 74.48                     | H/Type-C/PC         | -                              | -      | ○  |
| 1280 x 768/50        | 1280 x 768                    | 39.55              | 49.94         | 65.18                     | H/Type-C            | -                              | -      | -  |
| 1280 x 768/60        | 1280 x 768                    | 47.7               | 60            | 80.14                     | H/Type-C            | -                              | -      | -  |
| 1280 x 768/60        | 1280 x 768                    | 47.78              | 59.87         | 79.5                      | H/Type-C/PC         | -                              | -      | -  |
| 1280 x 800/50        | 1280 x 800                    | 41.2               | 50            | 68.56                     | H/Type-C            | -                              | -      | -  |
| 1280 x 800/60        | 1280 x 800                    | 49.31              | 59.91         | 71                        | H/Type-C            | -                              | -      | -  |
| 1280 x 800/60        | 1280 x 800                    | 49.7               | 59.81         | 83.5                      | H/Type-C            | -                              | -      | ○  |
| 1280 x 960/60        | 1280 x 960                    | 60                 | 60            | 108                       | H/Type-C/PC         | -                              | -      | -  |
| 1280 x 960/85        | 1280 x 960                    | 85.94              | 85            | 148.5                     | H/Type-C            | -                              | -      | -  |
| 1280 x 1024/60       | 1280 x 1024                   | 63.98              | 60.02         | 108                       | H/Type-C/PC         | ○                              | ○      | ○  |
| 1280 x 1024/75       | 1280 x 1024                   | 79.98              | 75.02         | 135                       | H/Type-C/PC         | -                              | -      | -  |
| 1280 x 1024/85       | 1280 x 1024                   | 91.15              | 85.02         | 157.5                     | H/Type-C/PC         | -                              | -      | -  |
| 1360 x 768/60        | 1360 x 768                    | 47.71              | 60.02         | 85.5                      | H/Type-C            | -                              | -      | -  |
| 1360 x 768/60        | 1360 x 768                    | 47.7               | 60            | 84.72                     | H/Type-C            | -                              | -      | -  |
| 1360 x 768/60        | 1360 x 768                    | 47.72              | 59.8          | 84.75                     | H/Type-C            | -                              | -      | -  |
| 1366 x 768/50        | 1366 x 768                    | 39.55              | 50            | 69.92                     | H/Type-C            | -                              | -      | -  |
| 1366 x 768/60        | 1366 x 768                    | 48.39              | 60.03         | 86.71                     | H/Type-C            | -                              | -      | -  |
| 1366 x 768/60        | 1366 x 768                    | 48                 | 60            | 72                        | H/Type-C            | -                              | -      | -  |
| 1366 x 768/50        | 1366 x 768                    | 39.56              | 49.89         | 69                        | H/Type-C            | -                              | -      | -  |
| 1366 x 768/60        | 1366 x 768                    | 47.71              | 59.79         | 85.5                      | H/Type-C/PC         | -                              | -      | -  |
| 1400 x 1050/60       | 1400 x 1050                   | 65.22              | 60            | 122.61                    | H/Type-C            | -                              | -      | -  |
| 1400 x 1050/75       | 1400 x 1050                   | 82.2               | 75            | 155.85                    | H/Type-C/PC         | -                              | -      | -  |
| 1440 x 900/60        | 1440 x 900                    | 55.47              | 59.9          | 88.75                     | H/Type-C            | -                              | -      | -  |
| 1440 x 900/60        | 1440 x 900                    | 55.92              | 60            | 106.47                    | H/Type-C/PC         | -                              | -      | -  |
| 1600 x 900/50        | 1600 x 900                    | 46.3               | 50            | 97.05                     | H/Type-C            | -                              | -      | -  |
| 1600 x 900/60        | 1600 x 900                    | 60                 | 60            | 108                       | H/Type-C            | -                              | -      | ○  |
| 1600 x 900/60        | 1600 x 900                    | 55.99              | 59.95         | 118.25                    | H/Type-C            | -                              | -      | -  |

| Corresponding Signal | Resolution (Dot) | Scanning frequency |               | Dot Clock frequency (MHz) | Format <sup>2</sup> | Plug and Play supported signal |        |    |
|----------------------|------------------|--------------------|---------------|---------------------------|---------------------|--------------------------------|--------|----|
|                      |                  | Horizontal (kHz)   | Vertical (Hz) |                           |                     | HDMI                           | Type-C | PC |
| 1600 x 900/60        | 1600 x 900       | 55.92              | 60            | 119                       | H/Type-C            | -                              | -      | -  |
| 1600 x 1200/60       | 1600 x 1200      | 75                 | 60            | 162                       | H/Type-C/PC         | -                              | -      | ○  |
| 1680 x 1050/60       | 1680 x 1050      | 65.29              | 59.95         | 146.25                    | H/Type-C            | -                              | -      | -  |
| 1920 x 1080/60       | 1920 x 1080      | 66.59              | 59.93         | 138.5                     | H/Type-C            | -                              | -      | -  |
| 1920 x 1080/60       | 1920 x 1080      | 67.5               | 60            | 148.5                     | H/Type-C/PC         | ○                              | ○      | ○  |
| 1920 x 1200/60       | 1920 x 1200      | 74.04              | 59.95         | 154                       | H/Type-C/PC         | ○                              | ○      | ○  |

<sup>1</sup> Pixel-Repetition signal (dot clock frequency 27.0 MHz) only

<sup>2</sup> Following characters are abbreviation of input terminals.

H : HDMI (HDMI 1, 2, 3, 4)  
 Type-C : USB Type-C  
 PC : D-sub RGB

<sup>3</sup> Signals with ○ in the Plug and Play-supported signal column are the ones written in EDID (Extended Display Identification Data) of this unit.

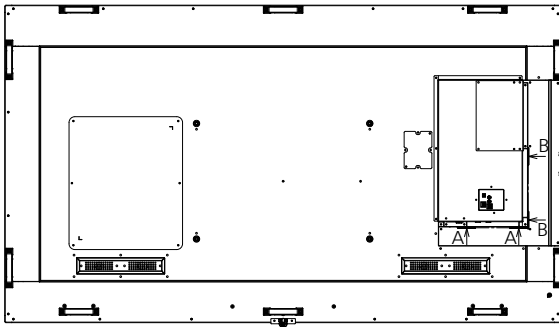
For signals without ○ in the Plug and Play-supported signal column, resolutions may not be selected on the PC side even if this unit supports those signals.

Note

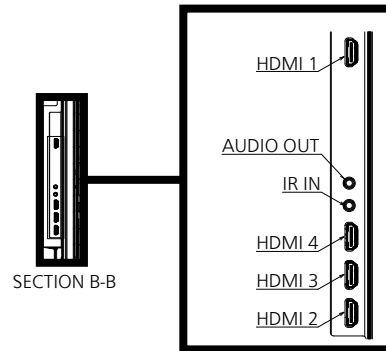
- An auto detected signal format may be differently displayed from the actual input signal.
- The i symbols (example 1080i) means Interlaced signal.

● Terminals

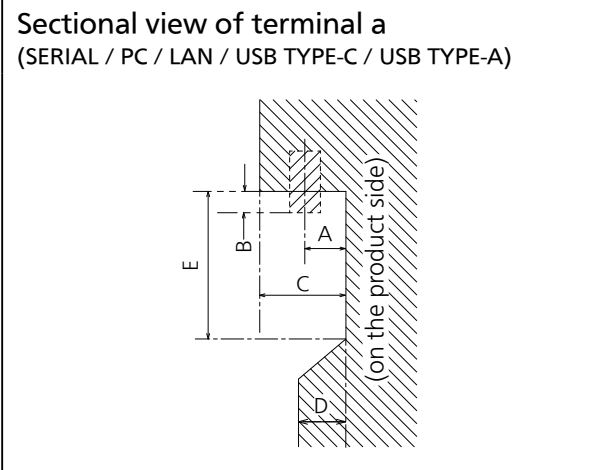
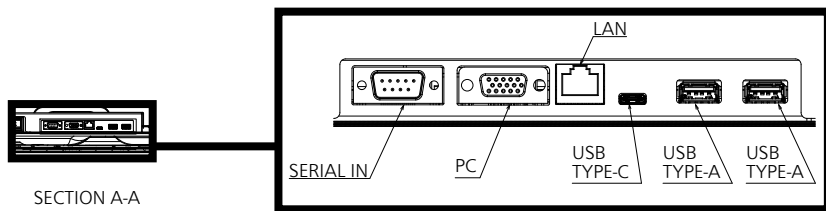
View from back



Magnified figure of terminal b

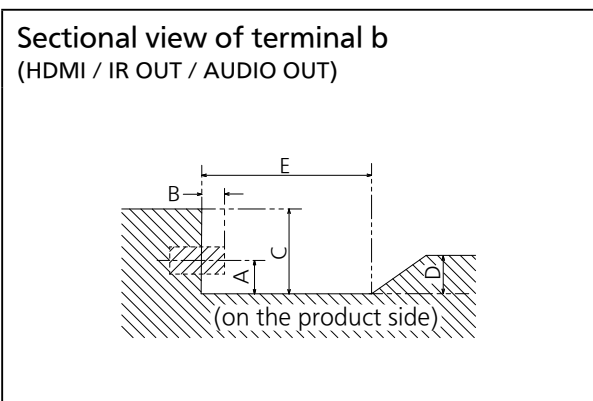


Magnified figure of terminal a



Terminal a  
86CQE1W Terminal (Bottom) Units : mm (inch)

|   | SERIAL / PC | LAN         | USB TYPE-C | USB TYPE-A  |
|---|-------------|-------------|------------|-------------|
| A | 12.5 (0.49) | 12.7 (0.50) | 7.8 (0.31) | 10.3 (0.41) |
| B | 3.7 (0.15)  | -           | -          | -           |
| C | 34.3 (1.35) |             |            |             |
| D | 12.0 (0.47) |             |            |             |
| E | 85.5 (3.37) |             |            |             |



Terminal b  
86CQE1W Terminal (Side)

|   | HDMI        | IR / AUDIO OUT |
|---|-------------|----------------|
| A | 9.6 (0.38)  | 10.8 (0.42)    |
| B | -           | 0.8 (0.03)     |
| C | 34.3 (1.35) |                |
| D | 7.9 (0.31)  |                |
| E | 92.6 (3.65) |                |

Units : mm (inch)

1 Since clearance between terminals are limited, some USB connector will not fit. Please check if USB memory devices you are going to use will fit, using the diagram above.