



50-inch Class 4K UHD LCD Display

## TH-50CQE2W

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

#### ■ DISPLAY PANEL

|                                       |  |
|---------------------------------------|--|
| Screen Size (Diagonal)                | 50-inch class (1257.3 mm / 49.50 inch) |
| Panel type / Backlight                | VA / Direct-LED                        |
| Aspect ratio                          | 16:9                                   |
| Effective Display Area (W x H)        | 1095.8 x 616.4 mm (43.14" x 24.26")    |
| Resolution (H x V)                    | 3840 x 2160                            |
| Brightness (Typ)                      | 500 cd/m <sup>2</sup>                  |
| Contrast Ratio (Typ)                  | 5000:1                                 |
| Dynamic Contrast Ratio                | 50000:1                                |
| Max. Display Colors                   | Approx. 1.07 Billion                   |
| Response Time (Typ)                   | 9.5 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 type (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™ Type A Connector x 4 (HDCP2.2)   |
| SERIAL IN         | Stereo mini jack (Φ3.5 mm) x 1, RS-232C Compatible   |
| IR IN             | Stereo mini jack (Φ3.5 mm) x 1   |
| AUDIO OUT         | Stereo mini jack (Φ3.5 mm) x 1<br>SPDIF x 1  |
| LAN               | RJ45 x 1 compatible with PLink™ 10BASE-T/100BASE-TX  |
| USB               | USB connector TYPE A x 1 : DC5 V / MAX 0.9 A, (USB 3.0 is supported)<br>USB connector TYPE A x 1 : DC5 V / MAX 0.5 A, (USB 2.0 is supported)<br>USB connector TYPE A x 1 : DC5 V / MAX 0.5 A, (USB 2.0 is supported) (Internal)<br>USB connector TYPE C x 1 : DC5 V / MAX 3.0 A, (USB 3.0 is supported, DP Alt Mode) |
| microSD           | microSD / SDHC / SDXC / MAX 1TB  |
| Wifi / Bluetooth® | Built-in IEEE 802.11 a/b/g/n/ac Dual band Bluetooth® 5.1, HID / A2DP   |

#### ■ AUDIO

|                  |                    |
|------------------|--------------------|
| Built in Speaker | 20 W [10 W + 10 W] |
|------------------|--------------------|

#### ■ ELECTRICAL

|  |                                |
|--|--------------------------------|
| Power Supply                                   | AC220-240 V 50 Hz / 60 Hz 0.8A |
| Power Consumption                              | 100 W (Shipping Condition)     |
| On Mode Average Power Consumption <sup>1</sup> | 95 W (Picture Mode: [Natural]) |
| Power Off Condition                            | 0 W                            |
| Stand-by Condition                             | 0.5 W                          |
| Apparent power                                 | 163VA                          |
| Energy efficiency class for Europe             |                                |

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

#### ■ MECHANICAL

|  |   |
|--|---|
| Dimension (W x H x D) Not including remote controller sensor | 1121 x 646 x 68 mm (44.12" x 25.43" x 2.66")  |
| Dimension (W x H x D) Including remote controller sensor     | 1121 x 664 x 68 mm (44.12" x 26.14" x 2.66")  |
| Weight   | 13.4 kg / 29.6 lbs  |
| Carton Dimensions (W x H x D)                                | 1215 x 775 x 165 mm (47.83" x 30.51" x 6.50")   |
| Gross Weight   | 19 kg / 41.9 lbs  |
| Cabinet Material   | Front: Metal, Side / Back: Plastic  |
| Bezel Color  | Black   |
| Bezel Width  | T/R/L 10 mm (0.39") B 15.5 mm (0.61")   |
| Pitch for Wall-Hanging                                       | VESA Compliant 200 x 200 mm (7.9" x 7.9") (Installed by: M6 screws / Screw hole depth: 10 mm (0.39"), Allowable screw length 24 mm (0.95")) |

This model has two types of Remote IR sensor. One is built-in type and the another is external type. It can be detached only for external type.

#### ■ INSTALLATION

|               |   |
|---------------|---|
| Orientation   | Landscape / Portrait (clockwise rotation) |
| Tilting Angle | Landscape installed 20 degrees forward    |

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) <sup>1</sup> : 0°C to 35°C (32°F to 95°F) <sup>2</sup> |
|                       | 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.

**MAIN FEATURE**

|                             |            |
|-----------------------------|------------|
| Input search                | Yes        |
| Multi display settings      | Yes        |
| Power Management (HDMI™)    | Yes        |
| Power save                  | Yes        |
| Button Lock                 | Yes        |
| Controller user level       | Yes        |
| Dynamic backlight control   | Yes        |
| Timer setting               | Yes        |
| PJLink                      | Yes        |
| Image settings              | Yes        |
| USB Media Player            | Yes        |
| Memory Viewer               | Yes        |
| Built-in memory function    | Yes        |
| Data Cloning                | Yes        |
| Multi Monitoring & Control  | Yes        |
| Software compatible         |            |
| Android™ OS                 | Yes        |
| HTML5 Browser               | Yes        |
| Wireless Display            | Yes        |
| Operating Time <sup>1</sup> | 16 h / day |

1 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.

**INCLUDED ACCESSORIES**

- Remote Control
- Batteries (AA Size) x 2
- AC cord x 2 (EU/UK (approx. 2 m (78.7"))
- IR sensor x 1 (cable length approx. 1480 mm (4.85 ft))
- IR Sensor Holder x 1 (Screw x 3)
- RS232C cable x1 (Approx. 1 m (3.28 ft))
- Clamper x 3

**STANDARD (CERTIFICATIONS)**

|                       |  |
|-----------------------|--|
| SAFETY REGULATIONS    | EN62368-1                                  |
| RADIATION REGULATIONS | EN55032, EN55035, EN61000-3-2, EN61000-3-3 |

**WIRELESS LAN**

|                     |   |
|---------------------|---|
| Compliance standard | IEEE 802.11 a/b/g/n/ac Dual band (Wireless LAN Standard protocol) |
| Channel             | CH 1-13, CH 36-64, CH 100-140                                     |
| Communication range | Approx. 30 m (Depends on usage environment)                       |

**Bluetooth®**

|                   |                |
|-------------------|----------------|
| Supported version | Bluetooth® 5.1 |
| Profile           | HID / A2DP     |

**REMOTE CONTROL TRANSMITTER**

|                                 |  |
|---------------------------------|--|
| Power Requirements              | DC 3 V (AA Size batteries x 2)             |
| Operating distance <sup>1</sup> | Approx. 7 m/23 ft                          |
| Weight                          | Approx. 111 g (3.92 oz) ncluding batteries |
| Dimensions (W x H x D)          | 51 x 161 x 27 mm (2.00" x 6.34" x 1.07")   |

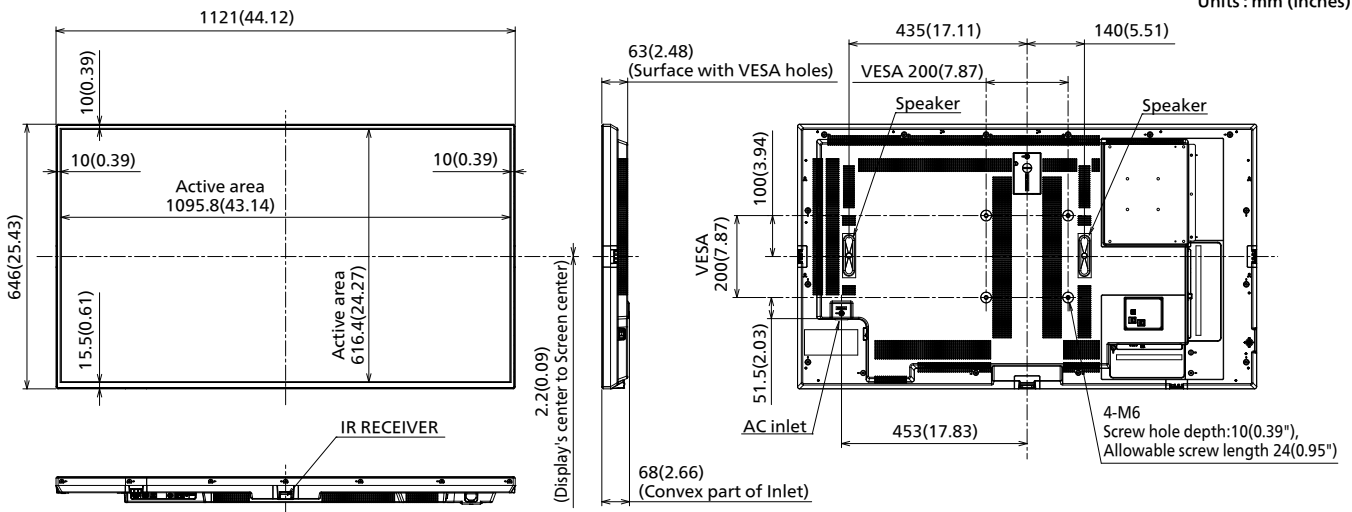
1 When operated directly in front of the display screen.

**OPTIONAL ACCESSORIES**

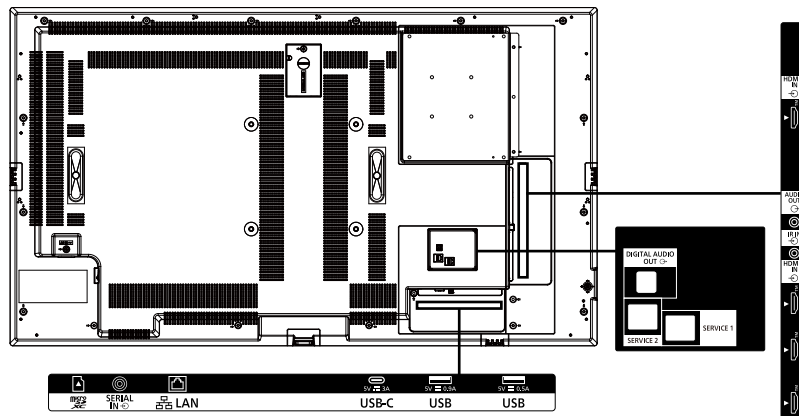
|                        |                         |
|------------------------|-------------------------|
| Early warning software | ET-SWA 100 / 105 series |
|------------------------|-------------------------|

**DIMENSIONS**

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



**CONNECTION TERMINAL**



1 Specifications and appearance are subject to change without notice.

## List of correspondence signals

HDMI 1/2/3/4, USB-C common

| Corresponding Signal | Resolution (Dot)              | Scanning frequency |               | Dot Clock frequency (MHz) | Plug and Play supported signal <sup>1,2</sup> |         |
|----------------------|-------------------------------|--------------------|---------------|---------------------------|---|---------|
|                      |                               | Horizontal (kHz)   | Vertical (Hz) |                           | Enhanced                                      | Enabled |
| 480/60i              | 720(1440) x 480i <sup>1</sup> | 15.73              | 59.94         | 27                        | ○   | ○       |
| 576/50i              | 720(1440) x 576i <sup>1</sup> | 15.63              | 50            | 27                        | ○   | ○       |
| 480/60p              | 720 x 483                     | 31.47              | 59.94         | 27                        | ○   | ○       |
| 576/50p              | 720 x 576                     | 31.25              | 50            | 27                        | ○   | ○       |
| 720/60p              | 1280 x 720                    | 45                 | 60            | 74.25                     | ○   | ○       |
| 720/50p              | 1280 x 720                    | 37.5               | 50            | 74.25                     | ○   | ○       |
| 1080/60i             | 1920 x 1080i                  | 33.75              | 60            | 74.25                     | ○   | ○       |
| 1080/50i             | 1920 x 1080i                  | 28.13              | 50            | 74.25                     | ○   | ○       |
| 1080/24p             | 1920 x 1080                   | 27                 | 24            | 74.25                     | ○   | ○       |
| 1080/25p             | 1920 x 1080                   | 28.13              | 25            | 74.25                     | ○   | ○       |
| 1080/30p             | 1920 x 1080                   | 33.75              | 30            | 74.25                     | ○   | ○       |
| 1080/60p             | 1920 x 1080                   | 67.5               | 60            | 148.5                     | ○   | ○       |
| 1080/50p             | 1920 x 1080                   | 56.25              | 50            | 148.5                     | ○   | ○       |
| 3840 x 2160/24p      | 3840 x 2160                   | 54                 | 24            | 297                       | ○   | ○       |
| 3840 x 2160/25p      | 3840 x 2160                   | 56.25              | 25            | 297                       | ○   | ○       |
| 3840 x 2160/30p      | 3840 x 2160                   | 67.5               | 30            | 297                       | ○   | ○       |
| 3840 x 2160/60p      | 3840 x 2160                   | 135                | 60            | 594                       | ○   | -       |
| 3840 x 2160/50p      | 3840 x 2160                   | 112.5              | 50            | 594                       | ○   | -       |
| 4096 x 2160/24p      | 4096 x 2160                   | 54                 | 24            | 297                       | ○   | ○       |
| 4096 x 2160/25p      | 4096 x 2160                   | 56.25              | 25            | 297                       | ○   | ○       |
| 4096 x 2160/30p      | 4096 x 2160                   | 67.5               | 30            | 297                       | ○   | ○       |
| 4096 x 2160/60p      | 4096 x 2160                   | 135                | 60            | 594                       | ○   | -       |
| 4096 x 2160/50p      | 4096 x 2160                   | 112.5              | 50            | 594                       | ○   | -       |
| 640 x 480/60         | 640 x 480                     | 31.47              | 59.94         | 25.18                     | ○   | ○       |
| 640 x 480/73         | 640 x 480                     | 37.86              | 72.81         | 31.5                      | -   | -       |
| 640 x 480/75         | 640 x 480                     | 37.5               | 75            | 31.5                      | -   | -       |
| 640 x 480/85         | 640 x 480                     | 43.27              | 85.01         | 36                        | -   | -       |
| 800 x 600/56         | 800 x 600                     | 35.16              | 56.25         | 36                        | -   | -       |
| 800 x 600/60         | 800 x 600                     | 37.88              | 60.32         | 40                        | ○   | ○       |
| 800 x 600/72         | 800 x 600                     | 48.08              | 72.19         | 50                        | -   | -       |
| 800 x 600/75         | 800 x 600                     | 46.88              | 75            | 49.5                      | -   | -       |
| 800 x 600/85         | 800 x 600                     | 53.67              | 85.06         | 56.25                     | -   | -       |
| 1024 x 768/50        | 1024 x 768                    | 39.55              | 50            | 51.89                     | -   | -       |
| 1024 x 768/60        | 1024 x 768                    | 48.36              | 60            | 65                        | ○   | ○       |
| 1024 x 768/70        | 1024 x 768                    | 56.48              | 70.07         | 75                        | -   | -       |
| 1024 x 768/75        | 1024 x 768                    | 60.02              | 75.03         | 78.75                     | -   | -       |
| 1024 x 768/82        | 1024 x 768                    | 65.55              | 81.63         | 86                        | -   | -       |
| 1024 x 768/85        | 1024 x 768                    | 68.68              | 85            | 94.5                      | -   | -       |
| 1152 x 864/60        | 1152 x 864                    | 53.7               | 60            | 81.62                     | -   | -       |
| 1152 x 864/70        | 1152 x 864                    | 63.99              | 70.02         | 94.2                      | -   | -       |
| 1152 x 864/75        | 1152 x 864                    | 67.5               | 75            | 108                       | -   | -       |
| 1152 x 864/85        | 1152 x 864                    | 77.09              | 85            | 119.65                    | -   | -       |
| 1280 x 720/60        | 1280 x 720                    | 44.76              | 60            | 74.48                     | -   | -       |
| 1280 x 768/50        | 1280 x 768                    | 39.55              | 49.94         | 65.18                     | -   | -       |
| 1280 x 768/60        | 1280 x 768                    | 47.7               | 60            | 80.14                     | -   | -       |
| 1280 x 768/60        | 1280 x 768                    | 47.78              | 59.87         | 79.5                      | -   | -       |
| 1280 x 800/50        | 1280 x 800                    | 41.2               | 50            | 68.56                     | -   | -       |
| 1280 x 800/60        | 1280 x 800                    | 49.31              | 59.91         | 71                        | -   | -       |
| 1280 x 800/60        | 1280 x 800                    | 49.7               | 59.81         | 83.5                      | -   | -       |
| 1280 x 960/60        | 1280 x 960                    | 60                 | 60            | 108                       | -   | -       |
| 1280 x 960/85        | 1280 x 960                    | 85.94              | 85            | 148.5                     | -   | -       |
| 1280 x 1024/60       | 1280 x 1024                   | 63.98              | 60.02         | 108                       | ○   | ○       |
| 1280 x 1024/75       | 1280 x 1024                   | 79.98              | 75.02         | 135                       | -   | -       |
| 1280 x 1024/85       | 1280 x 1024                   | 91.15              | 85.02         | 157.5                     | -   | -       |
| 1360 x 768/60        | 1360 x 768                    | 47.71              | 60.02         | 85.5                      | -   | -       |
| 1366 x 768/50        | 1366 x 768                    | 39.55              | 50            | 69.92                     | -   | -       |
| 1366 x 768/60        | 1366 x 768                    | 48.39              | 60.03         | 86.71                     | -   | -       |
| 1366 x 768/60        | 1366 x 768                    | 48                 | 60            | 72                        | -   | -       |
| 1366 x 768/50        | 1366 x 768                    | 39.56              | 49.89         | 69                        | -   | -       |
| 1366 x 768/60        | 1366 x 768                    | 47.71              | 59.79         | 85.5                      | -   | -       |
| 1400 x 1050/60       | 1400 x 1050                   | 65.22              | 60            | 122.61                    | -   | -       |
| 1400 x 1050/75       | 1400 x 1050                   | 82.2               | 75            | 155.85                    | -   | -       |
| 1440 x 900/60        | 1440 x 900                    | 55.47              | 59.9          | 88.75                     | -   | -       |
| 1440 x 900/60        | 1440 x 900                    | 55.92              | 60            | 106.47                    | -   | -       |
| 1600 x 900/50        | 1600 x 900                    | 46.3               | 50            | 97.05                     | -   | -       |
| 1600 x 900/60        | 1600 x 900                    | 60                 | 60            | 108                       | -   | -       |
| 1600 x 900/60        | 1600 x 900                    | 55.99              | 59.95         | 118.25                    | -   | -       |
| 1600 x 900/60        | 1600 x 900                    | 55.92              | 60            | 119                       | -   | -       |
| 1600 x 1200/60       | 1600 x 1200                   | 75                 | 60            | 162                       | -   | -       |
| 1680 x 1050/60       | 1680 x 1050                   | 65.29              | 59.95         | 146.25                    | -   | -       |
| 1920 x 1080/60       | 1920 x 1080                   | 66.59              | 59.93         | 138.5                     | -   | -       |
| 1920 x 1080/60       | 1920 x 1080                   | 67.5               | 60            | 148.5                     | ○   | ○       |
| 1920 x 1200/60       | 1920 x 1200                   | 74.04              | 59.95         | 154                       | ○   | ○       |

1: Pixel-Repetition signal (dot clock frequency 27.0 MHz) only

2: 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.

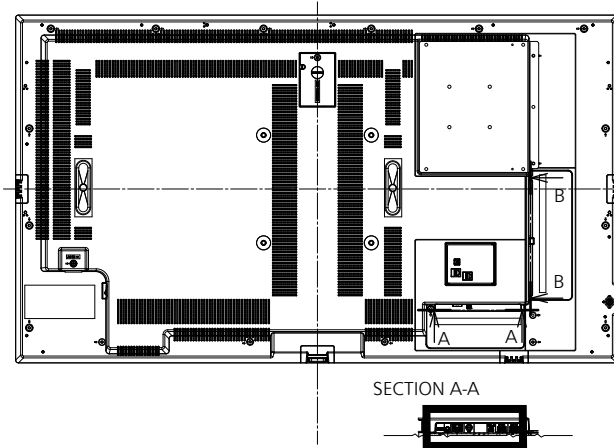
## Note

● An auto detected signal format may be differently displayed from the actual input signal.

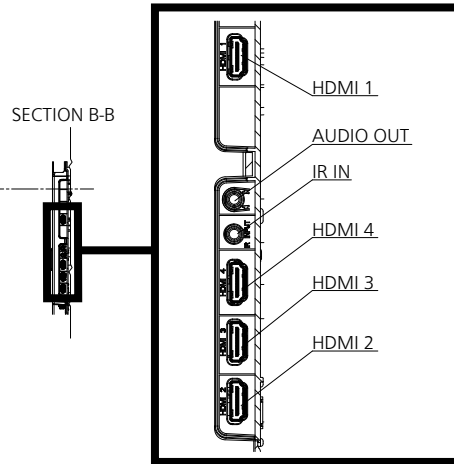
● [ i ] shown after the number of dots of resolution means the interlace signal.

**● Drawing of terminals**

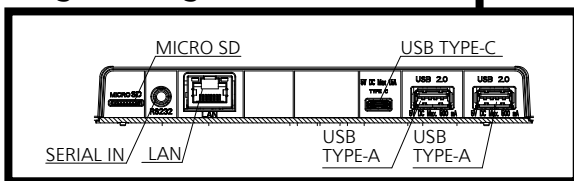
View from back



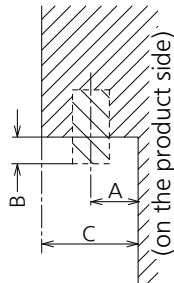
Magnified figure of terminal b



Magnified figure of terminal a



**Sectional view of terminal a**  
(MICRO SD / SERIAL IN / LAN / USB TYPE-C /  
USB TYPE-A / USB TYPE-A)

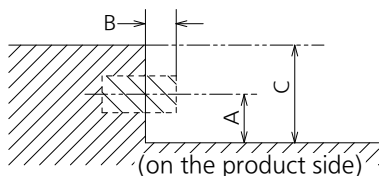


**Terminal a**  
**50CQE2W Terminal (Bottom)**

Units : mm (inches)

|   | MICRO SD    | SERIAL     | LAN        | USB TYPE-C | USB TYPE-A |
|---|-------------|------------|------------|------------|------------|
| A | 5.1 (0.2)   | 7.7 (0.3)  | 9.3 (0.36) | 4.8 (0.18) | 7.3 (0.28) |
| B | -           | 0.7 (0.02) | 5.1 (0.2)  | -          | -          |
| C | 27.0 (1.06) |            |            |            |            |

**Sectional view of terminal b**  
(HDMI 1 / AUDIO OUT / IR IN / HDMI 4 / HDMI 3 / HDMI 2)



**Terminal b**  
**50CQE2W Terminal (Side)**

Units : mm (inches)

|   | HDMI        | IR /<br>AUDIO OUT |
|---|-------------|-------------------|
| A | 6.6 (0.26)  | 7.7 (0.3)         |
| B | -           | 0.7 (0.02)        |
| C | 27.0 (1.06) |                   |

1 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.