



65-inch class Touch Screen LCD Display

## TH-65BFE1W

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

#### ■ DISPLAY

Screen Size (Diagonal)	64.5 inch (1638 mm)
Panel Type / Backlight	VA / Direct LED
Aspect Ratio	16 : 9
Effective Display Area (W x H)	1428.5 x 803.5 mm / 56.2" x 31.6"
Number of Pixels (H x V)	1920 x 1080
Brightness	400 cd/m <sup>2</sup> (typ)
Contrast Ratio	4000 : 1 (typ)
Max. Display Colors	10 bit, 1.07 Billion
Response Time	8.0 ms (typ) (G to G)
Viewing Angle (Horizontal / Vertical)	178° / 178° (CR≥10)
Panel Life Time*	approx. 50000 hours (Typ)

\* An approximate time until the panel brightness decreases to half of its original value.

#### ■ TOUCH PANEL

Detection Method	Infrared blocking detection method
Touch Operation	up to 10-point multi touch*
OS	Windows (7 / 8.1 / 10) Mac (OS X 10.10 / 10.11, macOS Sierra)

\* When using for Windows®. When using OS X is single touch.

• Windows is trademarks of Microsoft Corporation in the United States and other countries.

Mac, Mac OS X, macOS are trademarks of Apple Inc., registered in the U.S. and other countries.

#### ■ CONNECTION TERMINAL

HDMI IN	HDMI TYPE A connector x 2	Linear PCM (Sampling frequency: 48 kHz/44.1 kHz/32 kHz) Compatible with HDCP 1.4
DVI-D IN	DVI-D 24-pin x 1	Compatible with HDCP 1.4
PC IN	Mini D-sub 15 pin (DCC2B) x 1	B/G/B : without sync 0.7 V [p-p] (75 Ω) HD/VD : TTL
SERIAL IN	D-SUB 9pin x 1 RS-232C COMPATIBLE	
IR IN	Stereo mini jack (M3) x 1	0.5 V [rms]
AUDIO IN	Stereo mini jack (M3) x 1	0.5 V [rms]
AUDIO OUT	Stereo mini jack (M3) x 1	0.5 V [rms] Variable (-∞ - 0 dB) (1 kHz 0 dB Input, 10 kΩ Load)
USB	USB 2.0 Type A connector x 1 DC 5 V / 500 mA (USB 3.0 is not supported.)	
PC IN (For touch panel)	DirectCable USB 2.0 connector (Type A/male) x 1 DC 5 V / 500 mA	
Speaker out	8 W + 8 W (8 Ω)	

#### ■ ELECTRICAL

Power Requirements	AC 100-240 V, 50/60 Hz
Power Consumption	205 W
On Mode Average Power Consumption*	165 W
Power Off Condition	approx. 0 W
Stand-by Condition	approx. 0.5 W
Apparent Power	220 VA

\* Based on IEC 62087 Ed.2 measurement method

#### ■ MECHANICAL

Dimensions (W x H x D)	1490 x 865 x 106 mm / 58.7" x 34.1" x 4.2" (the remote control sensor box stored) 1490 x 948 x 106 mm / 58.7" x 37.4" x 4.2" (Mounted the speaker in the case of lateral placement) 1573 x 865 x 106 mm / 62.0" x 34.1" x 4.2" (Mounted the speaker in the case of vertical placement)
Weight	44 kg / 97 lbs. , 46 kg / 102 lbs. (With external speaker)
Carton Dimensions (W x H x D)	1640 x 1044 x 226 mm / 64.6" x 41.2" x 8.9"
Gross Weight	57 kg / 126 lbs.
Cabinet Material	Front: Metal / Back: Plastic
Bezel Color	Black
Bezel Width	T/B 30.0 mm / 1.18", R/L 30.2 mm / 1.19"
Pitch for Wall-Hanging	VESA Compliant 400 x 400mm / 15.7" x 15.7" (Installed by: M6 screws / Screw hole depth 19 mm / 0.75")
Protection Glass Thickness	approx. 4 mm / Anti Glare Scattering prevention film
External speaker (W x H x D)(Include)	764 x 82 x 59 mm / 30.1" x 3.3" x 2.3"

#### ■ INSTALLATION REQUIREMENT

Orientation	Landscape / Portrait
Tilting Angle	Landscape : 0 degrees forward / 20 degrees backward

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

\* When installing the display on portrait setting, be sure to install with the power indicator at the top side of the display.

**ENVIRONMENTAL**

Operating Environment	Temperature	: 0 °C to 40 °C*1 : 0 °C to 35 °C*2
	Humidity	: 20 % to 80 % (No condensation)
	Altitude	: 0 to 2800 m
Storage Environment	Temperature	: -20 °C to 60 °C
	Humidity	: 20 % to 80 % (Non condensation)

- \*1 for up to 1400 m altitude
- \*2 for between 1400 m and 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.

**STANDARD (CERTIFICATIONS)**

SAFETY REGULATIONS	EU:EN60950-1:2006 + A11:2009 + A1:2010 + A12 : 2011+ A2:2013 BEAB approval (TBD) AS/NZS 60950.1:2015 Inc A1 IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013 North America:UL 60950-1 2nd Edition + A1:2014 + A2:2014 CAN/CSA-C22.2 No. 60950-1-07 + A1:2011 + A2:2014
RADIATION REGULATIONS	EN55022:2010+AC:2011(Class A) (expire 03/2017) EN55032:2012+AC2013 Class A EN61000-3-2:2014 EN61000-3-3:2013 EN55024:2010+A1:2015 IEC61000-4-2:2008 IEC61000-4-3:2010 IEC61000-4-4:2012 IEC61000-4-5:2014 IEC61000-4-6:2013 IEC61000-4-8:2009 IEC61000-4-11:2004 AS/NZS CISPR32:2013 (Class A) RCM Mark 47 CFR FCC Part 15 Subpart B ANSI C63.4:2014 ICES-003 Issue 6:2016

**REMOTE CONTROL TRANSMITTER**

Power Requirements	DC 3 V (2 x AA Size batteries)
Operating distance	approx. 5 m*
Weight	113 g Including batteries
Dimensions (W x H x D)	160 x 50 x 20 mm

\*When operated directly in front of receptor.

**INCLUDED ACCESSORIES**

- Operating Instruction book - CD-ROM (User manual)
- Power supply cord (approx. 2 m)
- Remote Control Transmitter
- Batteries for the Remote Control Transmitter (AA/R6/LR6 type) x 2
- Clamper x 3 - Speaker x 1 - Speaker mounting clasp x 2 (These clasps are assembled with the speaker and supplied with it.)
- Screw for mounting the speaker (M3) x 4
- Speaker cable (approx. 0.7 m) x 2

**OPTIONAL ACCESSORIES**

Pedestal Stand	TY-ST75PE9
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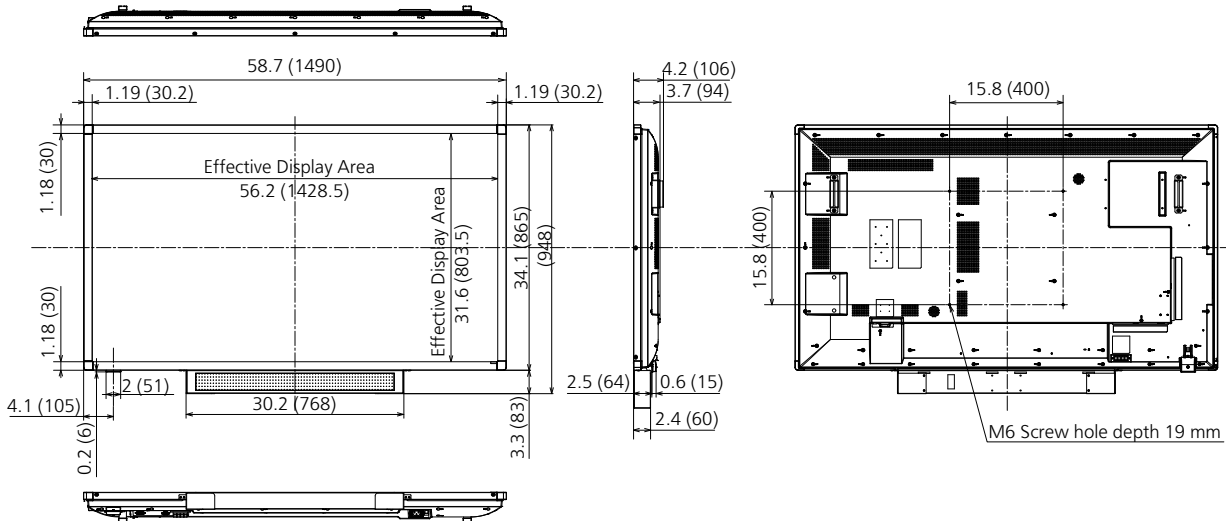
**MAIN FEATURE**

Auto setting	Yes
HDMI power management	Yes
PC power management	Yes
DVI-D power management	Yes
Remote-control	Yes
Key Pad	Yes
Signal check	Yes
Scheduler Priority	Yes
Easy Whiteboard Functions	Yes
Operating Time*	16H/7d

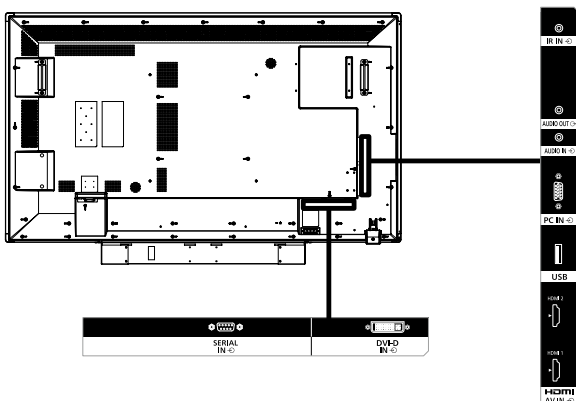
\*In case of running for a long time, the moving image is recommended to be displayed. If you display a still picture for an extended period, the image retention might remain on the screen. However, image retention can gradually disappear by displaying a moving images.

**DIMENSIONS**

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



**CONNECTION TERMINAL**



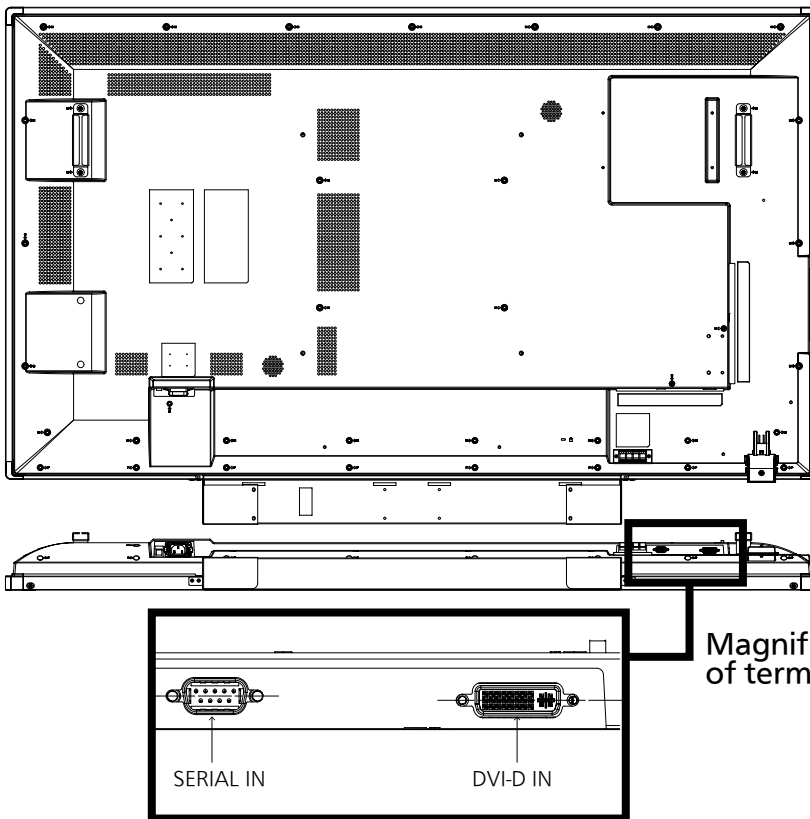
## ● Applicable Input Signals

### ■ Picture signal form

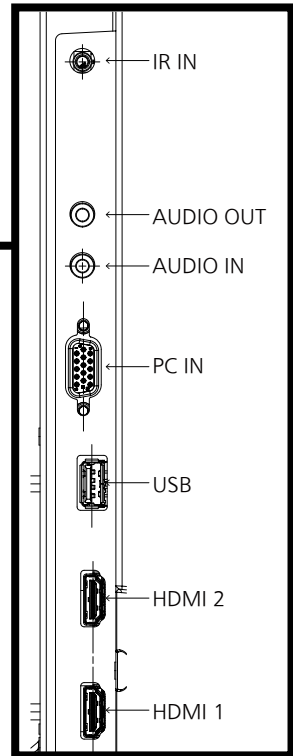
Correspondence signal	Resolution dot	Scan rate		Dot clock rate (MHz)	Input format		
		Horizontal (kHz)	Vertical (Hz)		PC	DVI-D	HDMI1 HDMI2
640 x 480 60Hz	640 x 480	31.47	59.94	25.18	○	○	○
640 x 480 75Hz	640 x 480	37.50	75.00	31.50	○	○	○
800 x 600 60Hz	800 x 600	37.88	60.32	40.00	○	○	○
800 x 600 72Hz	800 x 600	48.08	72.19	50.00	○	○	○
800 x 600 75Hz	800 x 600	46.88	75.00	49.50	○	○	○
1024 x 768 60Hz	1024 x 768	48.36	60.00	65.00	○	○	○
1024 x 768 70Hz	1024 x 768	56.48	70.07	75.00	○	○	○
1024 x 768 75Hz	1024 x 768	60.02	75.03	78.75	○	○	○
1280 x 768 60Hz	1280 x 768	47.40	59.99	68.25	○	○	○
1280 x 768 60Hz	1280 x 768	47.78	59.87	79.50	○	○	○
1280 x 960 60Hz	1280 x 960	60.00	60.00	108.00	○	○	○
1280 x 1024 60Hz	1280 x 1024	63.98	60.02	108.00	○	○	○
1360 x 768 60Hz	1360 x 768	47.71	60.02	85.50	○	○	○
1600 x 1200 60Hz	1600 x 1200	75.00	60.00	162.00	○	○	○
1366 x 768 60Hz	1366 x 768	47.71	59.70	85.50	○	○	○
1920 x 1080 60Hz	1920 x 1080	67.50	60.00	148.50	○		
1280 x 800 60Hz	1280 x 800	49.70	59.81	83.50	○	○	○
640 x 480 60Hz	640 x 480	31.50	60.00	25.20		○	○
480p 60Hz	720 x 480	31.50	60.00	27.03		○	○
480p 60Hz	720 x 480	31.50	60.00	27.03		○	○
720p 60Hz	1280 x 720	45.00	60.00	74.25		○	○
1080i 60Hz	1920 x 540	33.75	60.00	74.25		○	○
480i 60Hz	720(1440) x 480i	15.75	60.00	27.03			○
1080p 60Hz	1920 x 1080	67.50	60.00	148.50		○	○
576p 50Hz	720 x 576	31.25	50.00	27.00		○	○
576p 50Hz	720 x 576	31.25	50.00	27.00		○	○
720p 50Hz	1280 x 720	37.50	50.00	74.25		○	○
1080i 50Hz	1920 x 540	28.13	50.00	74.25		○	○
576i 50Hz	720(1440) x 576i	15.63	50.00	27.00			○
1080p 24Hz	1920 x 1080	27.00	24.00	74.25		○	○
1080p 25Hz	1920 x 1080	28.13	25.00	74.25		○	○
1080p 30Hz	1920 x 1080	33.75	30.00	74.25			○

**● Drawing of terminals**

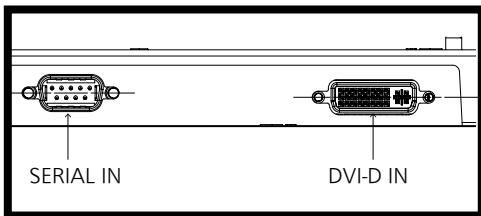
View from back



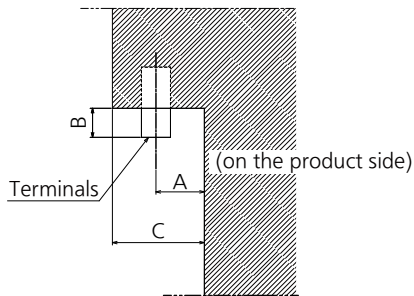
Magnified figure of terminal b



Magnified figure of terminal a



Sectional view of terminal a  
SERIAL IN/DVI-D IN

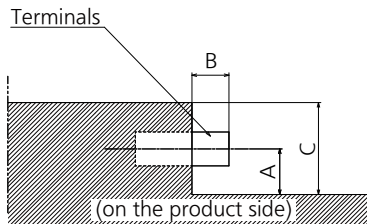


Terminal a  
65BFE1 Terminal  
(Bottom)

Units : inches (mm)

	SERIAL IN	DVI-D IN
A	0.37 (9.5)	0.29 (7.3)
B	0.21 (5.3)	0.23 (5.8)
C	0.87 (22.2)	

Sectional view of terminal b  
IR IN/AUDIO OUT/AUDIO IN/PC IN/USB/HDMI 1/HDMI 2



Terminal b  
65BFE1 Terminal (Side)

Units : inches (mm)

	IR IN	AUDIO IN (IN/OUT)	PC IN	USB	HDMI
A	0.39 (9.8)	0.39 (9.8)	0.37 (9.5)	0.28 (7.0)	0.26 (6.7)
B	0.06 (1.4)	0.12 (3.0)	0.21 (5.3)	—	—
C	0.87 (22.2)				

\* 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.