



50-inch Class 4K UHD LCD Display

TH-50SQ2HW

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

■ DISPLAY PANEL

Screen Size (Diagonal)	49.5-inch (1257.3 mm)
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)	700 cd/m ²
Contrast Ratio (Typ)	4000:1
Dynamic Contrast Ratio	50000:1
Max. Display Colors	Approx. 1.06 Billion
Response Time (Typ)	8.0 ms
Viewing Angle (Horizontal / Vertical)	178° / 178° (CR>10)
Panel Life Time ¹ (Typ)	Approx. 50000 hours
Panel Surface Treatment	Anti-glare type (Haze 25%)

¹ 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 3	Linear PCM (Sampling frequency : 48 kHz/44.1 kHz/32 kHz) Compatible with HDCP 2.2
PC IN	Mini D-Sub 15-pin (DCC2B) x 1	Y/G : with sync 1.0 V [p-p] (75 Ω) : without sync 0.7 V [p-p] (75 Ω) P _B /C _B /B : without sync 0.7 V [p-p] (75 Ω) P _R /C _R /R : without sync 0.7 V [p-p] (75 Ω) HD/VD : TTL (high impedance)
SERIAL IN	D-sub 9pin x 1, RS-232C Compatible	
IR IN / OUT	Stereo Mini Jack (Φ3.5 mm) x 1 / x 1	
AUDIO IN	Stereo Mini Jack (Φ3.5 mm) x 1 (Shared video input except USB and MEMORY VIEWER)	0.5 V [rms]
AUDIO OUT	Stereo Mini Jack (Φ3.5 mm) x 1 Variable (-∞ - 0 dB) (1 kHz 0 dB Input, 10 kΩ Load)	0.5 V [rms]
LAN	RJ45 x 1 compatible with PLink™ RJ45 10BASE10-T/100BASE-TX	
USB	USB Type A Connector x 1 (DC 5 V / 1 A, USB 3.0 is supported) USB Type A Connector x 1 (DC 5 V / 2 A, USB 2.0 is supported) USB Type C Connector x 1 (Max 60 W Power Delivery compatible, USB2.0 is supported, DP Alt Mode compatible)	
SENSOR	4-pole sub-mini Jack (Φ2.5 mm) x 1	
Function slot	Intel® SDM specification Corresponding size SDM-S / SDM-L, Supply power 3.3 V / 1.1 A, 12 V / 5.5 A	

■ AUDIO

Built in Speaker	20W [10 W + 10 W]
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■ ELECTRICAL

Power Requirements	AC110-240 V 50 Hz / 60 Hz 2.8-1.4 A
Power Consumption	125 W (Shipping Condition)
On Mode Average Power Consumption ¹	114 W (Picture Mode: [Standard])
Power Off Condition	Approx. 0.3 W
Stand-by Condition	Approx. 0.5 W
Apparent power	277 VA
Energy efficiency class for Europe	

¹ Based on IEC 62087 Ed.2 measurement method

■ MECHANICAL

Dimension (W x H x D)	1129 x 649 x 66 mm (44.43" x 25.56" x 2.60")
Weight	15.5 kg (34.02 lbs)
Carton Dimensions (W x H x D)	1230 x 800 x 142 mm (48.43" x 31.50" x 5.60")
Gross Weight	21kg (46.3 lbs)
Cabinet Material	Bezel: Metal, Back: Plastic
Bezel Color	Black
Bezel Width	T/R/L/B 14.9 mm (0.59")
Pitch for Wall-Hanging	VESA Compliant 400 x 400 mm (15.8" x 15.8") (Installed by: M6 screws / Screw hole depth 20 mm (0.79"))

¹ Remote IR sensor is detachable.

■ INSTALLATION

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

¹ 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) ¹ : 0 °C to 35 °C (32 °F to 95 °F) ² Humidity : 20% to 80% (No condensation)
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¹ : for up to 1400 m (4593 ft) altitude ² : 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	885170415829
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MAIN FEATURE

Input search/Input detection	Yes
Failover/Failback	Yes
Digital Zoom	Yes
Multi-screen setting/display	Yes
Portrait zoom	Yes
Power on Screen Delay	Yes
Auto setting	Yes
Screen Saver	Yes
HDMI™ Power Management	Yes
PC Power Management	Yes
Power save	Yes
Button Lock	Yes
Controller user level	Yes
12-segment color management	Yes
Dynamic contrast	Yes
Color enhancement	Yes
Refine enhancer	Yes
Gradation smoother	Yes
Dynamic backlight control	Yes
Set up timer	Yes
AMX D.D.	Yes
Crestron Connected™	Yes (V2)
WEB Browser control	Yes
PJLink	Yes (Class2)
SNMP	Yes
Image settings	Yes
HDMI™ CEC / ARC	Yes / Yes
USB Media Player	Yes
Memory Viewer	Yes
Playlist edit (Remote control operation)	Yes
Internal memory	Yes
Data Cloning	Yes
Blue light reduction mode	Yes
Whiteboard/mouse annotation	Yes
Operating Time¹	24h / 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.

COMPATIBLE SOFTWARE

Multi Monitoring & Control Software (Early Warning Software) compatible Ver. 3.3	Yes
Video Wall Manager compatible Ver. 1.15	Yes
Content management Software compatible Ver. 4.0.1	Yes
Screen Transfer Compatible Ver. 3.0.0	Yes

STANDARD (CERTIFICATIONS)

SAFETY REGULATIONS	IEC 62368-1:2014 IEC 62368-1:2018 UL 62368-1:2019 CSA C22.2 NO. 62368-1:19 EN 62368-1:2014 AS/NZS 62368-1:2022
RADIATION REGULATIONS	FCC CFR 47, Part 15, Subpart B 2015 Class A ANSI C63.4-2014 ICES-003 Issue7:2020 EN 55032: 2015 EN 55035: 2017 AS/NZS CISPR32:2015

REMOTE CONTROL TRANSMITTER

Power Requirements	DC 3 V (AAA Size batteries x 2)
Operating distance	Approx. 7m¹ (23ft)
Weight	Approx. 63g (2.3oz) ncluding batteries
Dimemsions (W x H x D)	48 x 134 x 20 mm (1.9" x 5.3" x 0.8")

1 When operated directly in front of receptor.

INCLUDED ACCESSORIES

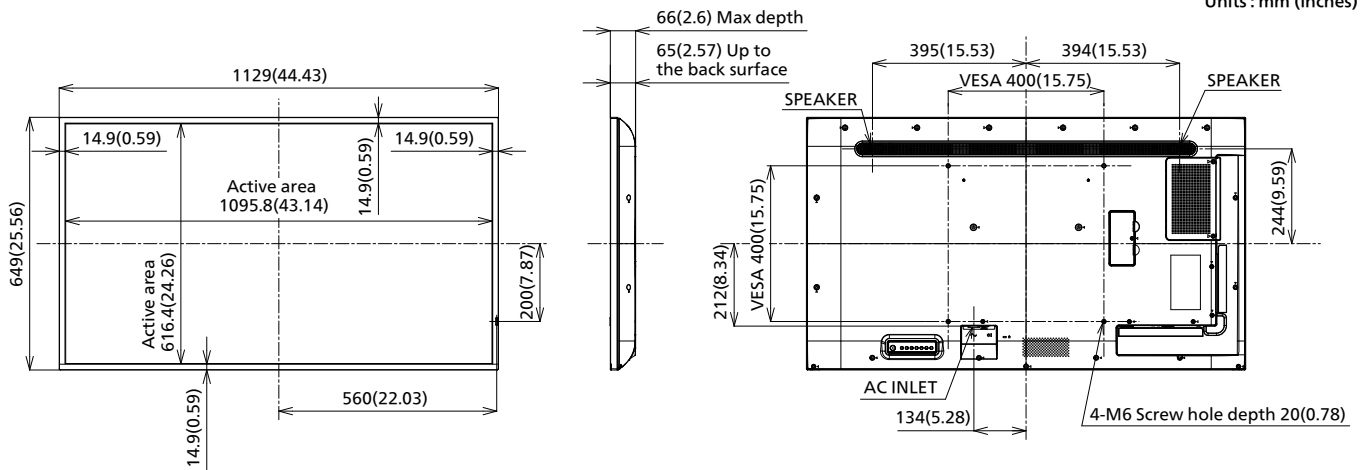
- Remote Control x 1 - Batteries (AAA size) x 2
- AC cord (approx. 2 m (78.7")) - sensor x 1
- Clamper x 2 - SDM-S Attachment - Operating Instruction Book

OPTIONAL ACCESSORIES

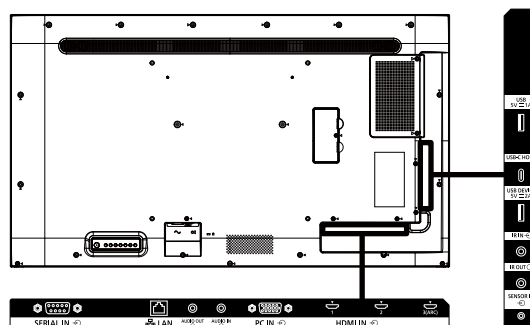
Pedestal stand	TY-ST43PE9
Early warning software	ET-SWA100/105 Series
3G-SDI terminal board	TY-SB01SS
12G-SDI terminal board	TY-SB01QS
DIGITAL LINK terminal board	TY-SB01DL

DIMENSIONS

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



CONNECTION TERMINAL



List of correspondence signals

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

Correspondence signal	Resolution (dot)	Scan rate		Dot clock rate (MHz)	Format ²	Plug and play compatible signal ⁴						
		Horizontal (kHz)	Vertical (Hz)			HDMI TM			USB-C		PC	
						4K/60p ⁵	4K/30p	2K	4K/60p	4K/30p		2K
480/60i	720 x 480i	15.73	59.94	13.50	Y	-	-	-	-	-	-	-
576/50i	720 x 576i	15.63	50.00	13.50	Y	-	-	-	-	-	-	-
480/60i	720 (1440) x 480i ¹	15.73	59.94	27.00	H/UC	○	○	○	-	-	-	-
576/50i	720 (1440) x 576i ¹	15.63	50.00	27.00	H/UC	○	○	○	-	-	-	-
480/60p	720 x 483	31.47	59.94	27.00	Y/H/UC	○	○	○	○	○	○	-
576/50p	720 x 576	31.25	50.00	27.00	Y/H/UC	○	○	○	○	○	○	-
720/60p	1280 x 720	45.00	60.00	74.25	Y/H/UC	○	○	○	○	○	○	-
720/50p	1280 x 720	37.50	50.00	74.25	Y/H/UC	○	○	○	○	○	○	-
1080/60i	1920 x 1080i	33.75	60.00	74.25	Y/H/UC	○	○	○	○	○	○	-
1080/50i	1920 x 1080i	28.13	50.00	74.25	Y/H/UC	○	○	○	○	○	○	-
1080/24p	1920 x 1080	27.00	24.00	74.25	Y/H/UC	○	○	○	○	○	○	-
1080/24PsF	1920 x 1080i	27.00	48.00	74.25	Y/H/UC	-	-	-	-	-	-	-
1080/25p	1920 x 1080	28.13	25.00	74.25	Y/H/UC	○	○	○	○	○	○	-
1080/30p	1920 x 1080	33.75	30.00	74.25	Y/H/UC	○	○	○	○	○	○	-
1080/60p	1920 x 1080	67.50	60.00	148.50	Y/H/UC	○	○	○	○	○	○	-
1080/50p	1920 x 1080	56.25	50.00	148.50	Y/H/UC	○	○	○	○	○	○	-
2K/24p	2048 x 1080	27.00	24.00	74.25	H/UC	-	-	-	-	-	-	-
2K/25p	2048 x 1080	28.13	25.00	74.25	H/UC	-	-	-	-	-	-	-
2K/30p	2048 x 1080	33.75	30.00	74.25	H/UC	-	-	-	-	-	-	-
2K/48p	2048 x 1080	54.00	48.00	148.50	H/UC	-	-	-	-	-	-	-
2K/60p	2048 x 1080	67.50	60.00	148.50	H/UC	-	-	-	-	-	-	-
2K/50p	2048 x 1080	56.25	50.00	148.50	H/UC	-	-	-	-	-	-	-
3840 x 2160/24p	3840 x 2160	54.00	24.00	297.00	H/UC	○	○	-	○	○	-	-
3840 x 2160/25p	3840 x 2160	56.25	25.00	297.00	H/UC	○	○	-	○	○	-	-
3840 x 2160/30p	3840 x 2160	67.50	30.00	297.00	H/UC	○	○	-	○	○	-	-
3840 x 2160/60p	3840 x 2160	135.00	60.00	594.00	H/UC	○	-	-	○	-	-	-
3840 x 2160/50p	3840 x 2160	112.50	50.00	594.00	H/UC	○	-	-	○	-	-	-
4096 x 2160/24p	4096 x 2160	54.00	24.00	297.00	H/UC	○	○	-	○	○	-	-
4096 x 2160/25p	4096 x 2160	56.25	25.00	297.00	H/UC	○	○	-	○	○	-	-
4096 x 2160/30p	4096 x 2160	67.50	30.00	297.00	H/UC	○	○	-	○	○	-	-
4096 x 2160/60p	4096 x 2160	135.00	60.00	594.00	H/UC	○	-	-	○	-	-	-
4096 x 2160/50p	4096 x 2160	112.50	50.00	594.00	H/UC	○	-	-	○	-	-	-
640 x 400/70	640 x 400	31.47	70.09	25.18	R/H/UC	-	-	-	-	-	-	-
640 x 400/85	640 x 400	37.86	85.08	31.50	R/H/UC	-	-	-	-	-	-	-
640 x 480/60	640 x 480	31.47	59.94	25.18	R/H/UC	○	○	○	○	○	○	○
640 x 480/67	640 x 480	35.00	66.67	30.24	R/H/UC	-	-	-	-	-	-	-
640 x 480/73	640 x 480	37.86	72.81	31.50	R/H/UC	-	-	-	-	-	-	-
640 x 480/75	640 x 480	37.50	75.00	31.50	R/H/UC	-	-	-	-	-	-	-
640 x 480/85	640 x 480	43.27	85.01	36.00	R/H/UC	-	-	-	-	-	-	-
800 x 600/56	800 x 600	35.16	56.25	36.00	R/H/UC	-	-	-	-	-	-	-
800 x 600/60	800 x 600	37.88	60.32	40.00	R/H/UC	○	○	○	○	○	○	○
800 x 600/72	800 x 600	48.08	72.19	50.00	R/H/UC	-	-	-	-	-	-	-
800 x 600/75	800 x 600	46.88	75.00	49.50	R/H/UC	-	-	-	-	-	-	-
800 x 600/85	800 x 600	53.67	85.06	56.25	R/H/UC	-	-	-	-	-	-	-
832 x 624/75	832 x 624	49.72	74.55	57.28	R/H/UC	-	-	-	-	-	-	-
852 x 480/60	852 x 480	31.47	59.94	34.24	H/UC	-	-	-	-	-	-	-
1024 x 768/50	1024 x 768	39.55	50.00	51.89	H/UC	-	-	-	-	-	-	-
1024 x 768/60	1024 x 768	48.36	60.00	65.00	R/H/UC	○	○	○	○	○	○	○
1024 x 768/70	1024 x 768	56.48	70.07	75.00	R/H/UC	-	-	-	-	-	-	-
1024 x 768/75	1024 x 768	60.02	75.03	78.75	R/H/UC	-	-	-	-	-	-	-
1024 x 768/82	1024 x 768	65.55	81.63	86.00	R/H/UC	-	-	-	-	-	-	-
1024 x 768/85	1024 x 768	68.68	85.00	94.50	R/H/UC	-	-	-	-	-	-	-
1066 x 600/60	1066 x 600	37.64	59.94	53.00	H/UC	-	-	-	-	-	-	-
1152 x 864/60	1152 x 864	53.70	60.00	81.62	H/UC	-	-	-	○	○	○	-
1152 x 864/70	1152 x 864	63.99	70.02	94.20	R/H/UC	-	-	-	-	-	-	-
1152 x 864/75	1152 x 864	67.50	75.00	108.00	R/H/UC	-	-	-	-	-	-	-
1152 x 864/85	1152 x 864	77.09	85.00	119.65	R/H/UC	-	-	-	-	-	-	-
1152 x 870/75	1152 x 870	68.68	75.06	100.00	R/H/UC	-	-	-	-	-	-	-
1280 x 720/60	1280 x 720	44.76	60.00	74.48	R/H/UC	-	-	-	○	○	○	○
1280 x 768/50	1280 x 768	39.55	49.94	65.18	R/H/UC	-	-	-	-	-	-	-
1280 x 768/60	1280 x 768	47.70	60.00	80.14	R/H/UC	-	-	-	-	-	-	-
1280 x 768/60	1280 x 768	47.78	59.87	79.50	R/H/UC	-	-	-	-	-	-	-
1280 x 800/50	1280 x 800	41.20	50.00	68.56	R/H/UC	-	-	-	-	-	-	-
1280 x 800/60	1280 x 800	49.31	59.91	71.00	R/H/UC	-	-	-	-	-	-	-
1280 x 800/60	1280 x 800	49.70	59.81	83.50	R/H/UC	-	-	-	○	○	○	○
1280 x 960/60	1280 x 960	60.00	60.00	108.00	R/H/UC	-	-	-	-	-	-	-
1280 x 960/85	1280 x 960	85.94	85.00	148.50	R	-	-	-	-	-	-	-
1280 x 1024/60	1280 x 1024	63.98	60.02	108.00	R/H/UC	○	○	○	○	○	○	○
1280 x 1024/75	1280 x 1024	79.98	75.02	135.00	R/H/UC	-	-	-	-	-	-	-
1280 x 1024/85	1280 x 1024	91.15	85.02	157.50	R/H/UC	-	-	-	-	-	-	-
1360 x 768/60	1360 x 768	47.71	60.02	85.50	H/UC	-	-	-	-	-	-	-
1360 x 768/60	1360 x 768	47.70	60.00	84.72	H/UC	-	-	-	-	-	-	-
1360 x 768/60	1360 x 768	47.72	59.80	84.75	H/UC	-	-	-	-	-	-	-
1366 x 768/50	1366 x 768	39.55	50.00	69.92	H/UC	-	-	-	-	-	-	-
1366 x 768/60	1366 x 768	48.39	60.03	86.71	R/H/UC	-	-	-	-	-	-	-
1366 x 768/60	1366 x 768	48.00	60.00	72.00	R/H/UC	-	-	-	-	-	-	-
1366 x 768/50	1366 x 768	39.56	49.89	69.00	R/H/UC	-	-	-	-	-	-	-
1366 x 768/60	1366 x 768	47.71	59.79	85.50	R/H/UC	-	-	-	-	-	-	-
1400 x 1050/60	1400 x 1050	65.22	60.00	122.61	H/UC	-	-	-	-	-	-	-

Correspondence signal	Resolution (dot)	Scan rate		Dot clock rate (MHz)	Format ²	Plug and play compatible signal ⁴						
		Horizontal (kHz)	Vertical (Hz)			HDMI™			USB-C			PC
						4K/60p ⁵	4K/30p	2K	4K/60p	4K/30p	2K	
1400 x 1050/75	1400 x 1050	82.20	75.00	155.85	R/H/UC	-	-	-	-	-	-	-
1440 x 900/60	1440 x 900	55.47	59.90	88.75	R/H/UC	-	-	-	-	-	-	-
1440 x 900/60	1440 x 900	55.92	60.00	106.47	R/H/UC	-	-	-	-	-	-	-
1600 x 900/50	1600 x 900	46.30	50.00	97.05	H/UC	-	-	-	-	-	-	-
1600 x 900/60	1600 x 900	60.00	60.00	108.00	H/UC	-	-	-	-	-	-	-
1600 x 900/60	1600 x 900	55.99	59.95	118.25	H/UC	-	-	-	-	-	-	-
1600 x 900/60	1600 x 900	55.92	60.00	119.00	H/UC	-	-	-	○	○	○	-
1600 x 1200/60	1600 x 1200	75.00	60.00	162.00	R/H/UC	-	-	-	-	-	-	-
1680 x 1050/60	1680 x 1050	65.29	59.95	146.25	R/H/UC	-	-	-	-	-	-	-
1920 x 1080/60	1920 x 1080 ³	66.59	59.93	138.50	R/H/UC	-	-	-	-	-	-	-
1920 x 1080/60	1920 x 1080	67.50	60.00	148.50	R/H/UC	○	○	○	○	○	○	○
1920 x 1200/60	1920 x 1200	74.04	59.95	154.00	R/H/UC	○	○	○	○	○	○	○
1920 x 2160/60	1920 x 2160	133.29	59.99	277.25	H/UC	-	-	-	-	-	-	-
1920 x 2160/60	1920 x 2160	135.00	60.00	297.00	H/UC	-	-	-	-	-	-	-
2560 x 1440/60	2560 x 1440	88.79	59.95	241.50	H/UC	-	○	-	○	○	-	-
2560 x 1600/50	2560 x 1600	82.37	49.95	286.00	H/UC	-	-	-	-	-	-	-
2560 x 1600/60	2560 x 1600	98.71	59.97	286.50	H/UC	-	-	-	-	-	-	-
3840 x 1080/60	3840 x 1080	66.63	59.97	266.50	H/UC	-	-	-	-	-	-	-
3840 x 2160/30	3840 x 2160	65.69	29.98	262.75	H/UC	-	-	-	○	○	-	-
3840 x 2160/60	3840 x 2160	133.31	60.00	533.25	H/UC	-	-	-	○	-	-	-

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

² Alphabets inside the Format column represent as it follows.

R : D-sub RGB (PC IN)

Y : YCBCR/YPBPR (PC IN)

H : HDMI™ (HDMI™ 1, HDMI™ 2, HDMI™ 3)

UC : USB-C DP Alt Mode (USB-C HOST)

³ Based on VESA CVT-RB (Reduced Blanking) standard

⁴ Signals with ○ in the plug and play compatible signal column is the signal described in the EDID (extended display identification data) of the display. without ○ in the plug and play compatible signal column, the resolution may not be selected on the computer even if the display is supporting it.

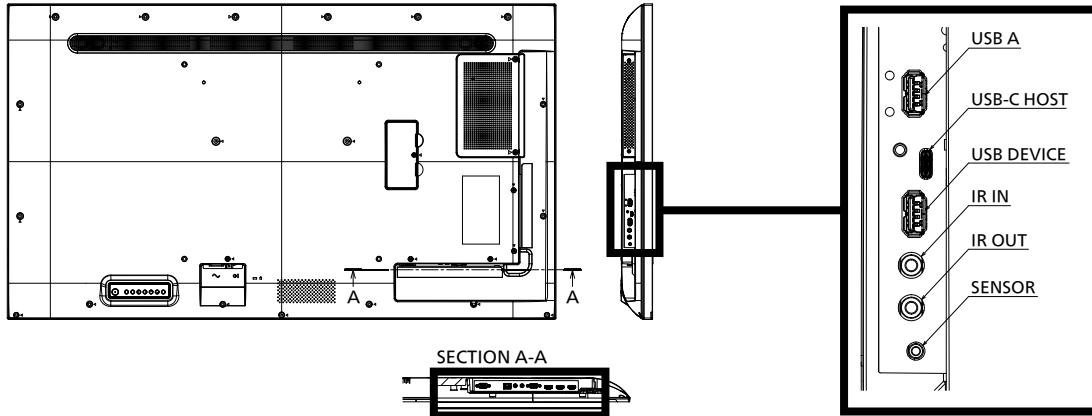
⁵ 4K / 60p means 4K / 60p / HDR and 4K / 60p / SDR.

Note

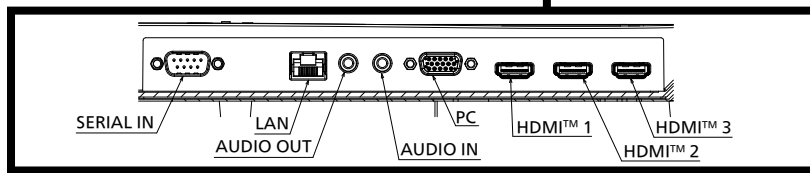
- The signal format distinguished automatically will be sometimes indication different from an actual input signal.
- [i] shown after the number of dots of resolution means the interlace signal.
- When 1080/30PsF signal and 1080/25PsF signal are input, they are processed as 1080/60i signal and 1080/50i signal, and then displayed.
- When 1080/30PsF signal and 1080/25PsF signal are input, they are processed as 1080/60i signal and 1080/50i signal, and then displayed.

● Drawing of terminals

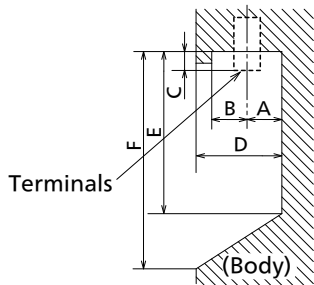
View from back



Magnified figure of terminal a



Sectional view of terminal a
(SERIAL IN / LAN / AUDIO OUT / AUDIO IN / PC / HDMI™ 1 / HDMI™ 2 / HDMI™ 3)

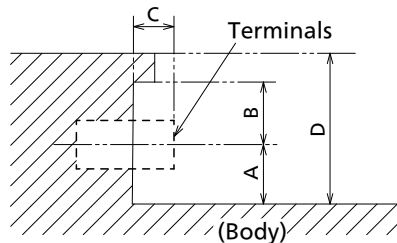


Terminal a
50SQ2H Terminal (Bottom)

Units : mm (inches)

	SERIAL IN	LAN	AUDIO IN/OUT	PC	HDMI™ 1/2/3
A	11.4 (0.44)	10.1 (0.39)	11.7 (0.46)	11.4 (0.44)	8.6 (0.33)
B	10.5 (0.42)	12.2 (0.48)	10.3 (0.41)	10.6 (0.42)	13.4 (0.53)
C	5.1 (0.21)	-	2.5 (0.10)	5.1 (0.21)	-
D	27.0 (1.06)				
E	76.7 (3.01)				
F	78.3 (3.08)				

Sectional view of terminal b
(USB A / USB C / USB A (Touch) / IR IN / IR OUT / SENSOR)



Terminal b
50SQ2H Terminal (Side)

Units : mm (inches)

	USB A	USB C	IR IN/OUT	SENSOR IN
A	10.7 (0.42)	6.9 (0.27)	11.7 (0.46)	10.2 (0.40)
B	11.6 (0.46)	15.5 (0.61)	10.6 (0.43)	12.2 (0.48)
C	-	-	2.5 (0.10)	1.2 (0.05)
D	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.