



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

**DISPLAY PANEL**

Screen Size (Diagonal)	98-inch class (2477 mm / 97.5 inch)
Panel type / Backlight	IPS / Direct-LED
Aspect ratio	16:9
Effective Display Area (W x H)	2158.8 x 1214.3 mm (84.9" x 47.8")
Number of pixels (H x V)	3840 x 2160
Brightness (typ)	500 cd/m <sup>2</sup>
Contrast Ratio (typ)	1300:1
Dynamic Contrast Ratio	50000:1
Max. Display Colors	Approx. 1.07 Billion
Response Time (typ)	8.0 ms (G to G)
Viewing Angle (Horizontal / Vertical)	178° / 178° (CR≥10)
Panel Life Time*1 (typ)	Approx. 50000 hours
Panel Surface Treatment	Anti glare type (Haze 28%)

\*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 2 (Compatible with HDCP 2.2)	AUDIO: Linear PCM (Sampling frequency : 48 kHz/44.1 kHz/32 kHz)
Display Port Input	Display Port x 1 (Compatible with HDCP 2.2)	AUDIO: Linear PCM (Sampling frequency : 48 kHz/44.1 kHz/32 kHz)
Display Port Output	Display Port x 1 (Compatible with HDCP 1.4)*	
DVI-D IN	DVI-D 24-pin x 1	Compliance with DVI Revision 1.0 Compatible with HDCP 1.1
PC IN	Mini D-Sub 15-pin (DDC2B) x 1	Y/G : with sync 1.0 V [p-p] (75 Ω) : without sync 0.7 V [p-p] (75 Ω) P <sub>B</sub> /C <sub>B</sub> /B : without sync 0.7 V [p-p] (75 Ω) P <sub>R</sub> /C <sub>R</sub> /R : without sync 0.7 V [p-p] (75 Ω) HD/VD : HD/VD TTL (high impedance)
SERIAL IN	D-sub 9-pin x 1, RS-232C Compatible	
IR IN / IR OUT	Stereo Mini Jack (M3) x 1 / x 1	
AUDIO IN	Stereo Mini Jack (M3) x 2	0.5 V [rms]
AUDIO OUT	Stereo Mini Jack (M3) 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 10BASE-T/100BASE-TX	
DIGITAL LINK	RJ45 x 1 100BASE-TX, compatible with Long reach mode	
USB	USB Connector (Type A) x 2, DC 5 V/2A, DC 5 V/1A (USB 3.0 is supported)	
SLOT	Intel® SDM specification Corresponding size SDM-S / SDM-L, Supply power 12 V / 5.5 A, 3.3 V / 1.1 A	

\*Input : HDCP 2.2 Output : NG, Input : HDCP 1.4 Output : HDCP 1.4, Input : No HDCP Output : No HDCP

**AUDIO**

Built in Speaker	20 W [10 W + 10 W]
External Speaker Out	30 W [15 W + 15 W] 10%THD

**ELECTRICAL**

Power Requirements	AC 110 - 127 Hz / 60 Hz 220 - 240 V 50 Hz / 60 Hz
Power Consumption	685 W
On Mode Average Power Consumption*	599 W
Power Off Condition	Approx. 0.3 W
Stand-by Condition	Approx. 0.5 W
Apparent power	703 VA

\*Based on IEC 62087 Ed.2 measurement method

**MECHANICAL**

Dimension (W x H x D) including handles	2194 x 1249 x 90 mm (86.35" x 49.15" x 3.54")
not including handles	2194 x 1249 x 81 mm (86.35" x 49.15" x 3.17")
Weight	90 kg (198.5 lbs)
Bezel Color	Black
Bezel Width	T/B/L/R 16.0 mm (0.63")
Carton Dimensions (W x H x D)	2513 x 1704 x 450 mm (98.94" x 67.09" x 17.72")
Gross Weight	138 kg (304.3 lbs)
Cabinet Color / Material	Black / Front: Metal Back: Metal
Pitch for Wall-Hanging	VESA Compliant W800 x H500 mm (W31.5" x H19.7") (Installed by: M8 screws / Screw hole depth 13mm (0.5"))
Fan	Nothing

**INSTALLATION**

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

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

\*When installing the Display vertically, be sure that the Power Indicator comes to the upper side

**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)
	Altitude	: 0 to 2800 m (0 to 9186 ft)
Storage Environment	Temperature	: -20°C to 60°C (-4°F to 140°F)
	Humidity	: 20% to 80% (No condensation)

\*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.

**MAIN FEATURE**

USB Media Player	Yes
Failover/Failback	Yes
Data Cloning	Yes
Digital Zoom	Yes
Multi display settings	Yes
Power on Screen Delay	Yes
Auto setting	Yes
Screen Saver	Yes
Power Management	Yes (HDMI/DP/DVI-D/PC/DIGITAL LINK)
Power save	Yes
Button Lock	Yes
Controller user level	Yes
Input search	Yes
12-segment colour management	Yes
Dynamic contrast	Yes
Color enhancement	Yes
Refine enhancer	Yes
Gradation smoother	Yes
Frame creation	Yes
Dynamic backlight control	Yes
Set up timer	Yes
AMX D.D.	Yes
Crestron Connected™	Yes
Extron XTP	Yes
WEB Browser control	Yes
PJLink™	Yes
Multi Monitoring & Control Software compatible	Yes
Video Wall Manager compatible	Yes
Content management Software compatible	Yes
Image settings	Yes
Input Detection	Yes
HDMI CEC Compatible	Yes
Memory Viewer	Yes
Local Dimming	Yes
Operating Time*1	24h / day
Auto vertical and horizontal determination (Accelerometer)	Yes

\*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 a moving images.

**REMOTE CONTROL TRANSMITTER**

Power Requirements	DC 3 V (2 x AAA Size batteries)
Operating distance	Approx. 7 m (23 ft)*
Weight	Approx. 63 g (2.2 oz) including batteries
Dimensions (W x H x D)	48 x 134 x 20 mm (1.9" x 5.3" x 0.8")

\*When operated directly in front of receptor.

**STANDARD (CERTIFICATIONS)**

SAFETY REGULATIONS	UL60950-1, 2nd Edition, 2014-10-14 CSA C22.2 No. 60950-1-07, 2nd Edition, 2014-10 Mexico: UL Certificate of Compliance (UL Mexico issue) EU: EN60950-1:2006 + A11:2009 + A1:2010 + A12:2011+A2:2013 BEAB approval IEC60950-1 AS/NZS Deviation
RADIATION REGULATIONS	FCC 47 CFR, Part 15, Subpart B Class A ANSI C63.4-2014 ICES-003 EN55032:2012+AC:2013 (CLASS A), EN55035 EN55024:2010, EN61000-3-2:2014, EN61000-3-3:2013 IEC61000-4-2:2008, IEC61000-4-3:2010, IEC61000-4-4:2012 IEC61000-4-5:2005, IEC61000-4-6:2013, IEC61000-4-8:2009 IEC61000-4-11:2004 AS/NZS CISPR32:2013 RCM Mark

**INCLUDED ACCESSORIES**

- Remote Control
- Batteries (AAA size) x 2
- Clamper x 3
- USB memory cover x 1
- SLOT adapter x 1
- AC cord (approx. 2.0 m (79"))
- CD-ROM / User Manual
- Operating Instruction Book

**COMPATIBLE SOFTWARE**

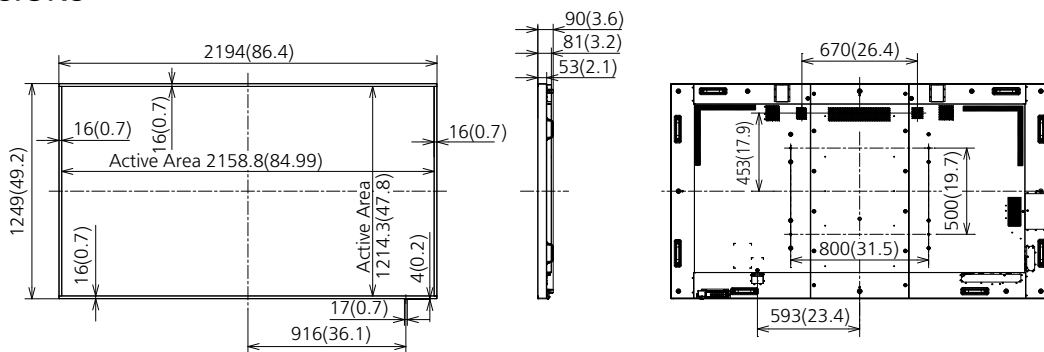
Multi Monitoring & Control Software	Ver 2.0 or later
CMS Content Management Software	Ver 3.1 or later
Video Wall Manager	Ver 1.8 or later

**OPTIONAL ACCESSORIES**

Wall - hanging Bracket	TY - WK98PV1
Early Warning Software* Basic license / 3-year license	ET-SWA 100 / 105series (Depending on the license type, the symbol at the end of the part number is different.)
Video wall manager Automatic Display Adjustment Upgrade Kit	TY-VUK10

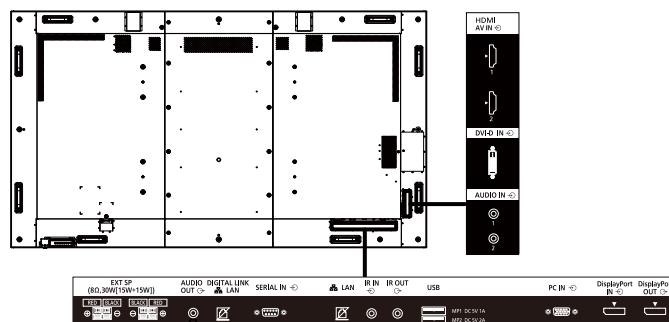
\* Multi-Monitoring Control Software Ver 2.0 or later is required.

**DIMENSIONS**



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

**CONNECTION TERMINAL**



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



Correspondence signal	Resolution (dot)	Scan rate		Dot clock rate (MHz)	Format*2	Plug and play compatible signal*5						
		Horizontal (kHz)	Vertical (Hz)			HDMI				DL	DP	DVI-D/PC
						1	2	3	4			
1400 x 1050/60	1400 x 1050	65.22	60.00	122.61	D/H/DL/DP	-	-	-	-	-	-	-
1400 x 1050/75	1400 x 1050	82.20	75.00	155.85	R/D/H/DL/DP	-	-	-	-	-	-	-
1440 x 900/60	1440 x 900	55.47	59.90	88.75	R/D/H/DL/DP	-	-	-	-	-	-	-
1440 x 900/60	1440 x 900	55.92	60.00	106.47	R/D/H/DL/DP	-	-	-	-	-	-	-
1600 x 900/50	1600 x 900	46.30	50.00	97.05	R/D/H/DL/DP	-	-	-	-	-	-	-
1600 x 900/60	1600 x 900	60.00	60.00	108.00	D/H/DL/DP	-	-	-	-	-	-	-
1600 x 900/60	1600 x 900	55.99	59.95	118.25	D/H/DL/DP	-	-	-	-	-	-	-
1600 x 900/60	1600 x 900	55.92	60.00	119.00	D/H/DL/DP	-	-	-	-	-	○	○
1600 x 1200/60	1600 x 1200	75.00	60.00	162.00	R/D/H/DL/DP	-	-	-	-	-	-	-
1680 x 1050/60	1680 x 1050	65.29	59.95	146.25	R/D/H/DL/DP	-	-	-	-	-	-	-
1920 x 1080/60	1920 x 1080 <sup>*3</sup>	66.59	59.93	138.50	R/D/H/DL/DP	-	-	-	-	-	-	-
1920 x 1080/60	1920 x 1080	67.50	60.00	148.50	R/D/H/DL/DP	○	○	○	○	○	○	○
1920 x 1200/60	1920 x 1200	74.04	59.95	154.00	R/D/H/DL/DP	○	○	○	○	○	○	○
1920 x 2160/60	1920 x 2160	133.29	59.99	277.25	H/DL/DP	-	-	-	-	-	-	-
1920 x 2160/60	1920 x 2160	135.00	60.00	297.00	H/DL/DP	-	-	-	-	-	-	-
2560 x 1440/60	2560 x 1440	88.79	59.95	241.50	H/DL/DP	-	-	○	-	○	○	-
2560 x 1600/50	2560 x 1600	82.37	49.95	286.00	H/DL/DP	-	-	-	-	-	-	-
2560 x 1600/60	2560 x 1600	98.71	59.97	268.50	H/DL/DP	-	-	-	-	-	-	-
3840 x 1080/60	3840 x 1080	66.63	59.97	266.50	H/DL/DP	-	-	-	-	-	-	-
3840 x 2160/60	3840 x 2160	133.31	60.00	533.25	H/DL/DP	-	-	-	-	-	○	-
3840 x 2160/30	3840 x 2160	65.69	29.98	262.75	H/DL/DP	-	-	-	-	-	○	-

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

\*2 : Signals to represent formats are as follows.

R : D-sub RGB (PC IN)

Y : YP<sub>B</sub>P<sub>R</sub>/YC<sub>B</sub>C<sub>R</sub> (PC IN)

D : DVI-D (DVI-D IN)

H : HDMI (HDMI 1, HDMI 2)

DL : DIGITAL LINK (DIGITAL LINK)

DP : Display Port (Display Port)

The analogue input supports onG and onY.

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

\*4 : YC<sub>B</sub>C<sub>R</sub>420 format only supported

\*5 : 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.

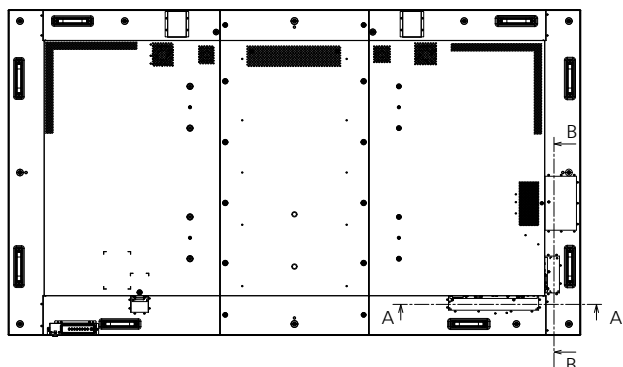
● [ i ] shown after the number of dots of resolution means the interlace signal.

● When 1080/30PsF signal and 1080/25PsF signal are input, they are processed as 1080/60i signal and 1080/50i signal, and then displayed.

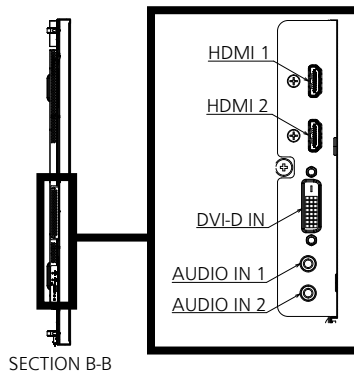
● When 1920 x 2160/60 signal (dot clock frequency 297.00 MHz, DIGITAL LINK format) is input, 3840 x 2160/60p is displayed.

**Drawing of terminals**

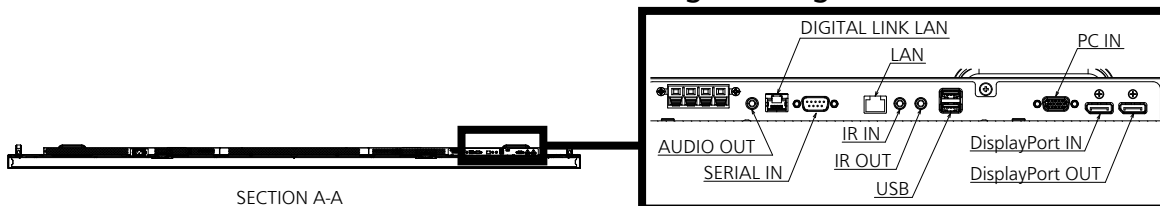
View from back



Magnified figure of terminal b

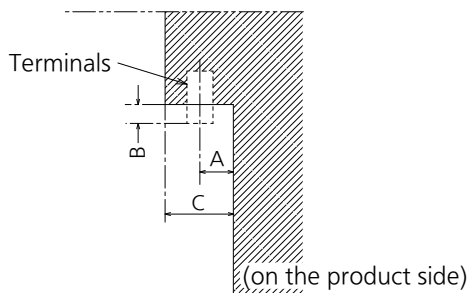


Magnified figure of terminal a



**Sectional view of terminal a**

(AUDIO OUT / DIGITAL LINK LAN / SERIAL IN / LAN / IR IN / IR OUT / USB / PC IN / DisplayPort IN / DisplayPort OUT)



**Terminal a**

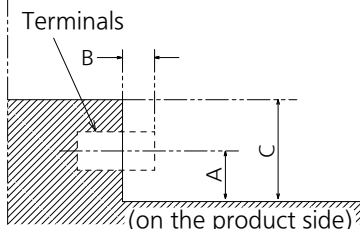
**98SQ1W Terminal (Bottom)**

Units : mm (inch)

	AUDIO OUT	DIGITAL LINK LAN	SERIAL IN	LAN	IR IN/OUT	USB (LOWER)	USB (UPPER)	PC IN	DisplayPort IN/OUT
A	11.6 (0.46)	11.0 (0.43)	11.3 (0.45)	10.1 (0.40)	11.6 (0.46)	9.2 (0.36)	17.7 (0.70)	11.3 (0.44)	8.5 (0.33)
B	2.7 (0.11)	—	5.8 (0.23)	—	2.7 (0.11)	—	—	5.1 (0.20)	—
C	29.0 (1.14)								

**Sectional view of terminal b**

(HDMI / DVI-D IN / AUDIO IN)



**Terminal b**

**98SQ1W Terminal (Side)**

Units : mm (inch)

	HDMI	DVD-ID IN	AUDIO IN
A	10.4 (0.41)	12.2 (0.48)	13.7 (0.54)
B	—	5.7 (0.23)	2.7 (0.11)
C	31.1 (1.22)		

\*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.