



165-inch all-in-one LED display

TL-165AD19AW

Set contents

Model No.	TL-165AD19AW
Quantity	1
Carton Dimensions (W x H x D)	Pallet-1 : 1350 x 1597 x 850 mm (53.15" x 62.88" x 33.47") Pallet-2 : 1350 x 1737 x 850 mm (53.15" x 68.39" x 33.47")
Gross Weight	Pallet-1 : Approx. 177 kg (390.3 lbs) Pallet-2 : Approx. 246 kg (542.4 lbs)

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

■DISPLAY PANEL

Screen size	165-inch-class (4185.5 mm)
Aspect ratio	16:9
Effective Display Area (W x H)	3648 x 2052 mm (143.62" x 80.79")
LED Type	3-in-1 SMD
Pixel Pitch	1.90 mm
Resolution (H x V)	1920 x 1080
Brightness (Typ.)	700 cd/m ²
Contrast (Typ.)	4000:1
Refresh Rate	Max. 4100 Hz
Viewing angle (H / V)(Typ.)	170°/160°
Panel life time ¹ (Typ.)	Approx. 100000 hours

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

■CONNECTION TERMINAL (Display Panel)

AC Input	IEC C14 x 6
VIDEO Input	RJ45 x 6

■CONNECTION TERMINAL (Power Box)

AC Input	Neutrik (NAC3MP-HC) Rating 30 A x 1
AC Output	IEC C13 x 7
Control Signal	RJ45 x 1
Sensor Input	Stereo Mini Jack (Φ 2.5 mm) x 1

■CONNECTION TERMINAL (Control Box)

AC IN	IEC C14 x 1
HDMI™ IN	HDMI™ Type A Connector x 3 Linear PCM (sampling frequency: 48 kHz/44.1 kHz/32 kHz) Compatible with HDCP 2.2
HDMI™ OUT	HDMI™ Type A Connector x 1 Linear PCM (sampling frequency: 48 kHz/44.1 kHz/32 kHz) HDCP not supported
AUDIO IN	Stereo Mini Jack (Φ 3.5 mm) x 1 (Shared video input except USB and MEMORY VIEWER) 0.5 V [rms]
AUDIO OUT	Stereo mini jack (Φ 3.5 mm) x 1 (Shared video input except USB and MEMORY VIEWER) 0.5 V [rms]
AUDIO DIGITAL OUT	SPDIF
USB	USB TYPE A connector x 1 (DC 5V/2A, USB 3.0 is supported)(For Maintenance) USB Type A Connector x 1 (DC 5 V / 0.5 A, USB 2.0 is supported), USB Type mini B Connector x 1 (DC 5 V / 0.5 A, USB 2.0 is supported)
SERIAL IN	D-sub 9 pin x 1, RS-232C compliant
IR IN	Stereo Mini Jack (Φ 3.5 mm) x 1
LAN	RJ45 x 1 compatible with PLink™ RJ45 10BASE-T / 100BASE-TX
SLOT	x 2 Intel® SDM specification SLOT1: SDM-5 / L; 3.3 V / Max. 1.1 A, 12 V / Max. 5.5 A SLOT2: SDM-5 / L; 3.3 V / Max. 1.1 A, 12 V / Max. 2.75 A

■ELECTRICAL

All in one (Including Display panel / Control box / Power box)	Power Requirements	AC 200 V - 240 V 50Hz / 60Hz 19.97 A
	Power Consumption	2850 W (Shipping) / 3424 W (Rating)
	On Mode Average Power Consumption ¹	1104 W (Shipping Condition)
	Power Off Condition	Approx. 0.5 W
	Stand-by Condition	Approx. 0.7 W
	Apparent power	3795 VA
	Energy efficiency class for Europe	
Control Box	Power Requirements	AC 110 V - 127 V 50 / 60 Hz 2.2 A AC 200 V - 240 V 50 / 60 Hz 1.05 A
	Power Consumption	57 W (Shipping Condition) / 200 W (Rating)
Power Box	Power Requirements	AC 220 V - 240 V 50 Hz / 60 Hz 19.97 A
	Power Consumption	4 W

1 Based on IEC 62087 Ed.2 measurement method.

■MECHANICAL

All in one (Including Display panel / Wall Mount, Control box / Power box)	Dimension (W x H x D)	3658 x 2062 x 75.5 mm (144.02" x 81.18" x 2.97")
	Weight	Approx. 225.0 kg / (496.1 lbs)

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

MECHANICAL

Display panel	Dimension (W x H x D)(Excluding the hook)	3658 x 2062 x 30.5 mm (144.02" x 81.18" x 1.20")
	Weight	Approx. 199.2 kg (439.2lbs)
	Cabinet Material	Aluminum die-casting
	Bezel Color (Cover Frame)	Black
Control Box	Bezel Width	Top / Bottom / Left / Right: 5.0 mm (0.2")
	Dimension (W x H x D)	441 x 62 x 696 mm (17.37" x 2.44" x 27.41")
Power Box	Weight	Approx. 6.6 kg (14.6 lbs)
	Dimension (W x H x D)	400 x 42 x 338 mm (15.75" x 1.66" x 13.31")
Wall Mount (x 2)	Weight	Approx. 2.5 kg (5.6 lbs)
	Dimension (W x H x D)	3540 x 39 x 60 mm (139.37" x 1.54" x 2.37") (per piece)
	Weight	Approx. 7.3 kg (16.1 lbs)
UPC Code		885170439429

INSTALLATION

Installation direction	Landscape
Installation angle	0°

ENVIRONMENTAL

Operating conditions	Temperature : 0 °C to 40 °C (32 °F to 104 °F) ¹
	: 0 °C to 35 °C (32 °F to 95 °F) ²
Storage conditions	Humidity : 10 % to 80 % (No condensation)
	Temperature : -10 °C to 40 °C (14 °F to 104 °F)
	Humidity : 10% 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

MAIN FEATURE

Input Search/Input Detection	Yes
Failover/Failback	Yes
Digital Zoom	Yes
Multi-Screen Settings	Yes
Power on Screen Delay	Yes
Screen saver	Yes
HDMI™ Power Management	Yes
SLOT Power Management	Yes (TY-SB01DL Only when inserted)
Sensor setting	Yes
Controller user level	Yes
Dynamic contrast	Yes
Color enhancement	Yes
Refine enhancer	Yes
Gradation smoother	Yes
Set up timer	Yes
AMX D.D.	Yes
Crestron Connected™	Yes (V2 / XiO)
WEB Browser control	Yes
PJLink™	Yes (Class2)
SNMP	Yes (v3)
Image settings	Yes
HDMI™ CEC Compatible	Yes
Media Player (USB memory/Internal memory)	Yes
Memory Viewer	Yes
Playlist edit	Yes
Data Cloning (USB/LAN)	Yes
Blue light reduction mode	Yes
Color management (color gamut conversion)	Yes
Pixel Calibration	Yes
Panel check	Yes
Multi Monitoring & Control Software compatible	Yes
Content management Software compatible	Yes
Screen Transfer compatible	Yes

Operating Time ¹	24 h / day
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1 In case of running for a long time, the moving image is recommended to be displayed.

STANDARD (CERTIFICATIONS)

SAFETY REGULATIONS	UL 62368-1 Ed. 3-2019 CSA C22.2 No. 62368-1:19 EN 62368-1:2014, (BS EN 62368-1:2014) EN IEC62368-1:2020, (BS EN IEC 62368-1:2020)
	US: FCC 47 CFR Part 15 SupartB ICES-003 Issue7 EN55032:2015 / A11:2020 EN55035:2017 / A11:2020 EN61000-3-2:2014 EN61000-3-3:2013 EN62311:2008

REMOTE CONTROL TRANSMITTER

Power supply	DC 3 V (AAA Size batteries x 2)
Operating distance	Approx. 7 m (23 ft) ¹
Weight	Approx. 63 g (2.3 oz) including batteries
Dimensions (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 (Refer to the instruction manual)

- Main unit
 - Wall mount x 3 (1 box includes 2 each of wall hanging brackets L and R)
 - Wall mount installation jig
 - Spare LED module x 3
 - Tools for assembly x 1
- Control box
 - LAN cable x 6
 - Power supply cord x 2
 - Remote control transmitter x 1
 - Batteries : AAA size x 2
 - External IR receiver x 1
 - SLOT adapters x 2
 - Mounting bracket x 1
 - Power supply cord x 2
- Power box
 - Power supply cord (for power outlet) x 1
 - Power supply cord (for connecting to Cabinet module) x 6
 - Sensor module x 1
 - LAN cable
 - 4-pole micro plug cable

SOFTWARE (free)

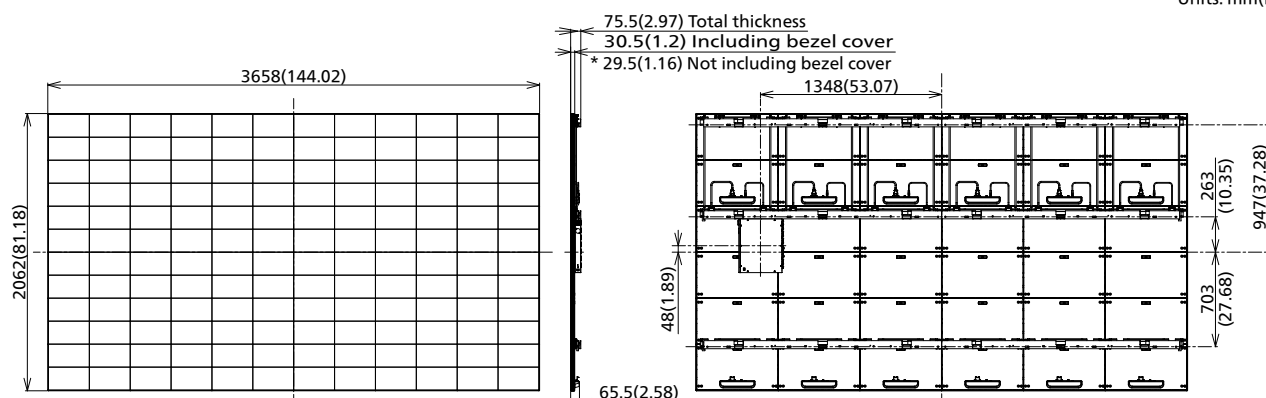
Multi Monitoring & Control Software
Content Management Software
Screen Transfer

OPTIONAL ACCESSORIES

LED module	TY-MD19AS1
Control Box	TY-CTRFHD3W
Power Box	TY-PWRBX3W
12G-SDI Terminal Board	TY-SB01QS
DIGITAL LINK Terminal Board	TY-SB01DL

DIMENSIONS

(Note) This drawing is not to scale.
Units: mm(inches)



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)	Plug and play compatible signal ²		
		Horizontal (kHz)	Vertical (Hz)		HDMI		
					4K/60p ³	4K/30p	2K
480/60i ⁵	720 (1440) x 480i ¹	15.73	59.94	27.00	○	○	○
576/50i	720 (1440) x 576i ¹	15.63	50.00	27.00	○	○	○
480/60p ⁵	720 x 483	31.47	59.94	27.00	○	○	○
576/50p	720 x 576	31.25	50.00	27.00	○	○	○
720/60p	1280 x 720	45.00	60.00	74.25	○	○	○
720/50p	1280 x 720	37.50	50.00	74.25	○	○	○
1080/60i	1920 x 1080i	33.75	60.00	74.25	○	○	○
1080/50i	1920 x 1080i	28.13	50.00	74.25	○	○	○
1080/24p ⁵	1920 x 1080	27.00	24.00	74.25	○	○	○
1080/24PsF ⁵	1920 x 1080i	27.00	48.00	74.25	-	-	-
1080/25p	1920 x 1080	28.13	25.00	74.25	○	○	○
1080/30p	1920 x 1080	33.75	30.00	74.25	○	○	○
1080/60p	1920 x 1080	67.50	60.00	148.50	○	○	○
1080/50p	1920 x 1080	56.25	50.00	148.50	○	○	○
2K/24p ⁵	2048 x 1080	27.00	24.00	74.25	-	-	-
2K/25p	2048 x 1080	28.13	25.00	74.25	-	-	-
2K/30p	2048 x 1080	33.75	30.00	74.25	-	-	-
2K/48p ⁵	2048 x 1080	54.00	48.00	148.50	-	-	-
2K/60p	2048 x 1080	67.50	60.00	148.50	-	-	-
2K/50p	2048 x 1080	56.25	50.00	148.50	-	-	-
3840 x 2160/24p ⁵	3840 x 2160	54.00	24.00	297.00	○	○	-
3840 x 2160/25p	3840 x 2160	56.25	25.00	297.00	○	○	-
3840 x 2160/30p	3840 x 2160	67.50	30.00	297.00	○	○	-
3840 x 2160/60p	3840 x 2160	135.00	60.00	594.00	○	-	-
3840 x 2160/50p	3840 x 2160	112.50	50.00	594.00	○	-	-
4096 x 2160/24p ⁵	4096 x 2160	54.00	24.00	297.00	○	○	-
4096 x 2160/25p	4096 x 2160	56.25	25.00	297.00	○	○	-
4096 x 2160/30p	4096 x 2160	67.50	30.00	297.00	○	○	-
4096 x 2160/60p	4096 x 2160	135.00	60.00	594.00	○	-	-
4096 x 2160/50p	4096 x 2160	112.50	50.00	594.00	○	-	-
640 x 400/70 ⁵	640 x 400	31.47	70.09	25.18	-	-	-
640 x 400/85 ⁵	640 x 400	37.86	85.08	31.50	-	-	-
640 x 480/60 ⁵	640 x 480	31.47	59.94	25.18	○	○	○
640 x 480/67 ⁵	640 x 480	35.00	66.67	30.24	-	-	-
640 x 480/73 ⁵	640 x 480	37.86	72.81	31.50	-	-	-
640 x 480/75 ⁵	640 x 480	37.50	75.00	31.50	-	-	-
640 x 480/85 ⁵	640 x 480	43.27	85.01	36.00	-	-	-
800 x 600/56 ⁵	800 x 600	35.16	56.25	36.00	-	-	-
800 x 600/60 ⁵	800 x 600	37.88	60.32	40.00	○	○	○
800 x 600/72 ⁵	800 x 600	48.08	72.19	50.00	-	-	-
800 x 600/75 ⁵	800 x 600	46.88	75.00	49.50	-	-	-
800 x 600/85 ⁵	800 x 600	53.67	85.06	56.25	-	-	-
832 x 624/75 ⁵	832 x 624	49.72	74.55	57.28	-	-	-
852 x 480/60 ⁵	852 x 480	31.47	59.94	34.24	-	-	-
1024 x 768/50	1024 x 768	39.55	50.00	51.89	-	-	-
1024 x 768/60	1024 x 768	48.36	60.00	65.00	○	○	○
1024 x 768/70 ⁵	1024 x 768	56.48	70.07	75.00	-	-	-
1024 x 768/75 ⁵	1024 x 768	60.02	75.03	78.75	-	-	-
1024 x 768/82 ⁵	1024 x 768	65.55	81.63	86.00	-	-	-
1024 x 768/85 ⁵	1024 x 768	68.68	85.00	94.50	-	-	-
1066 x 600/60 ⁵	1066 x 600	37.64	59.94	53.00	-	-	-
1152 x 864/60	1152 x 864	53.70	60.00	81.62	-	-	-
1152 x 864/70 ⁵	1152 x 864	63.99	70.02	94.20	-	-	-
1152 x 864/75 ⁵	1152 x 864	67.50	75.00	108.00	-	-	-
1152 x 864/85 ⁵	1152 x 864	77.09	85.00	119.65	-	-	-
1152 x 870/75 ⁵	1152 x 870	68.68	75.06	100.00	-	-	-
1280 x 720/60	1280 x 720	44.76	60.00	74.48	-	-	-
1280 x 768/50 ⁵	1280 x 768	39.55	49.94	65.18	-	-	-
1280 x 768/60	1280 x 768	47.70	60.00	80.14	-	-	-
1280 x 768/60 ⁵	1280 x 768	47.78	59.87	79.50	-	-	-
1280 x 800/50	1280 x 800	41.20	50.00	68.56	-	-	-
1280 x 800/60 ⁵	1280 x 800	49.31	59.91	71.00	-	-	-
1280 x 800/60 ⁵	1280 x 800	49.70	59.81	83.50	-	-	-
1280 x 960/60	1280 x 960	60.00	60.00	108.00	-	-	-
1280 x 1024/60 ⁵	1280 x 1024	63.98	60.02	108.00	○	○	○
1280 x 1024/75 ⁵	1280 x 1024	79.98	75.02	135.00	-	-	-
1280 x 1024/85 ⁵	1280 x 1024	91.15	85.02	157.50	-	-	-
1360 x 768/60 ⁵	1360 x 768	47.71	60.02	85.50	-	-	-
1360 x 768/60	1360 x 768	47.70	60.00	84.72	-	-	-
1360 x 768/60 ⁵	1360 x 768	47.72	59.80	84.75	-	-	-
1366 x 768/50	1366 x 768	39.55	50.00	69.92	-	-	-
1366 x 768/60 ⁵	1366 x 768	48.39	60.03	86.71	-	-	-
1366 x 768/60	1366 x 768	48.00	60.00	72.00	-	-	-
1366 x 768/50 ⁵	1366 x 768	39.56	49.89	69.00	-	-	-
1366 x 768/60 ⁵	1366 x 768	47.71	59.79	85.50	-	-	-
1400 x 1050/60	1400 x 1050	65.22	60.00	122.61	-	-	-
1400 x 1050/75 ⁵	1400 x 1050	82.20	75.00	155.85	-	-	-
1440 x 900/60 ⁵	1440 x 900	55.47	59.90	88.75	-	-	-
1440 x 900/60	1440 x 900	55.92	60.00	106.47	-	-	-

Correspondence signal	Resolution (dot)	Scan rate		Dot clock rate (MHz)	Plug and play compatible signal ²		
		Horizontal (kHz)	Vertical (Hz)		HDMI		
					4K/60p ³	4K/30p	2K
1600 x 900/50	1600 x 900	46.30	50.00	97.05	-	-	-
1600 x 900/60	1600 x 900	60.00	60.00	108.00	-	-	-
1600 x 900/60 ⁵	1600 x 900	55.99	59.95	118.25	-	-	-
1600 x 900/60	1600 x 900	55.92	60.00	119.00	-	-	-
1600 x 1200/60	1600 x 1200	75.00	60.00	162.00	-	-	-
1680 x 1050/60 ⁵	1680 x 1050	65.29	59.95	146.25	-	-	-
1920 x 1080/60 ⁵	1920 x 1080 ⁴	66.59	59.93	138.50	-	-	-
1920 x 1080/60	1920 x 1080	67.50	60.00	148.50	○	○	○
1920 x 1200/60 ⁵	1920 x 1200	74.04	59.95	154.00	○	○	○
1920 x 2160/60 ⁵	1920 x 2160	133.29	59.99	277.25	-	-	-
1920 x 2160/60	1920 x 2160	135.00	60.00	297.00	-	-	-
2560 x 1440/60 ⁵	2560 x 1440	88.79	59.95	241.50	-	○	-
2560 x 1600/50 ⁵	2560 x 1600	82.37	49.95	286.00	-	-	-
2560 x 1600/60 ⁵	2560 x 1600	98.71	59.97	268.50	-	-	-
3840 x 1080/60 ⁵	3840 x 1080	66.63	59.97	266.50	-	-	-
3840 x 2160/30 ⁵	3840 x 2160	65.69	29.98	262.75	-	-	-
3840 x 2160/60	3840 x 2160	133.31	60.00	533.25	-	-	-

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

2 : 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.

3 : 4K / 60p means 4K / 60p / HDR and 4K / 60p / SDR.

4 : Conforms to VESA CVT-RB (Reduced Blanking)

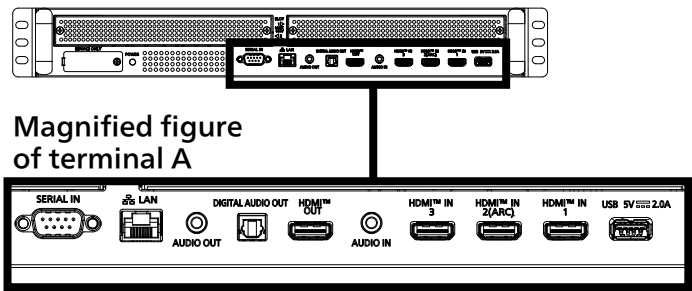
5 : Depending on the content, such as video, display may not be smooth.

Note

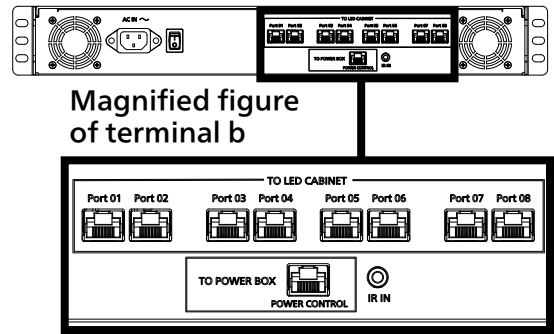
- All LED pixels are 1920 horizontal x 1080 vertical. Signals with different resolutions are converted to the number of pixels and displayed.
- The signal format distinguished automatically will be sometimes indication different from an actual input signal.
- [i] shown after the number of dots of resolution 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.

● Drawing of terminals (Control Box)

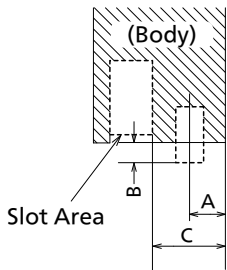
View from front



View from back



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

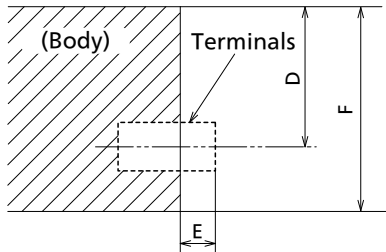


Terminal a
TL-165AD19A Front terminal

Units : mm (inches)

	SERIAL IN	LAN	AUDIO IN/OUT	DIGITAL AUDIO OUT	HDMI 1/2/3/OUT	USB
A	15.9 (0.63)	14.3 (0.57)	16.1 (0.64)	14.1 (0.56)	13.1 (0.52)	13.7 (0.54)
B	3.9 (0.16)	-	1.3 (0.05)	-	-	-
C	27.6 (1.09)					

Sectional view of terminal b
(TO LED CABINET(8 PLACES) / TO POWER BOX / IR IN)



Terminal b
TL-165AD19A Rear Terminal

Units : mm (inches)

	TO LED CABINET (8 PLACES)	TO POWER BOX	IR IN
D	34.0 (1.34)	14.3 (0.57)	16.1 (0.64)
E	-	-	1.3 (0.06)
F	62.0 (2.44)		

1 Due to the structure of the terminals, some connection cables/USB memory devices may not be usable.
Please check this diagram before use. Please be sure to check this diagram before using the connection cable or USB memory device.