

Velvet CorePlus (Remote Power) LED Display System Specifications

Learn about the product specifications. Due to continuing research, specifications are subject to change without notice.

Physical specifications

Learn the physical specifications for the tiles and the power supply.

Velvet CorePlus (Remote Power) LED Display System

	LED012-CP-R	LED014-CP-R	LED019-CP-R	LED024-CP-R
Tile dimensions (W x H x D)	476.2 mm x 535.7 mm x 80.5 mm (18.7 in x 21.1 in x 3.17 in)			
Tile resolution (W x H)	165,888 pixels 384 px x 432 px 8:9 aspect ratio	115,200 pixels 320 px x 360 px 8:9 aspect ratio	43,200 pixels 240 px x 180 px 8:9 aspect ratio	41,472 pixels 192 px x 216 px 8:9 aspect ratio
Tile weight	9.5 kg (20.9 lb)			
Service access	Front or rear			
LED module dimensions (W x H)	238.1 mm x 178.6 mm (9.35 in x 7.03 in)			
LED module resolution	96 px x 144 px	80 px x 120 px	60 px x 90 px	48 px x 72 px

Controller

Description	E500 controller	E600 controller
Dimensions (W x H x D)	487 mm x 88 mm x 343 mm (19.2 in x 3.5 in x 13.5 in)	482.6 mm x 89 mm x 372 mm (19.0 in x 3.5 in x 14.6 in)

Description	E500 controller	E600 controller
Weight	Shelf: 5.3 kg (11.7 lbs)	Shelf: 4.1 kg (9.0 lbs)

Remote Power Supply Rack Shelf

Description	Details
Dimensions (W x H x D)	485 mm x 133 mm x 395 mm (19.09 in x 5.24 in x 15.55 in)
Weight	Shelf: 11.5 kg (30.8 lbs) Rectifiers: 2.5 kg (6.7 lbs) per unit, four units maximum

Power requirements

Learn the power requirements for the tiles and the power supply.

Input ratings and power consumption for LED tiles

Input ratings	
LED012-CP-R	Future release
LED014-CP-R	48 VDC, 4.6 A (maximum 6 tiles) Typical: 67 W per panel, Max: 200 W per panel
LED019-CP-R	48 VDC, 4.6 A (maximum 6 tiles) Typical: 67 W per panel, Max: 200 W per panel
LED024-CP-R	48 VDC, 3 A (maximum 10 tiles) Typical: 40 W per panel, Max: 120 W per panel

Input rating for the controller

Input rating	
E500	100-250 V~, 50/60 Hz, 1.5 A, 75 watts
E600	100-240 V~, 50/60 Hz, 1.5 A, 75 watts

Power ratings for the Remote Power Supply Rack Shelf

Description	Details
Input voltage	120-230 VAC, 50/60 Hz 12A at 120VAC - 9.5A @ 230 VAC per rectifier (maximum four rectifiers installed)
Output	52 VDC (max), 30A per output (with maximum four rectifiers installed)

The number of displays that can be powered by a single Remote Power Supply Rack Shelf depends on the voltage range of the input and the number of rectifiers. Please consult your local Christie representative for further details.

	PSU modules	Max power	De-rated power	
		AC input: 187-312 V	AC input: 120 V	AC input: 176 V
Total output power (no redundancy)	1	2000W	1200W	1800W
	2	4000W	2400W	3600W
	3	5760W	3600W	5400W
	4	5760W	4800W	5760W

	PSU modules	Max power	De-rated power	
		AC input: 187-312 V	AC input: 120 V	AC input: 176 V
Total output power (n+1 redundancy)	2	2000W	1200W	1800W
	3	4000W	2400W	3600W
	4	5760W	3600W	5400W

Environment requirements

Learn about the environment requirements for the product while operating and not operating.

Non-operating environment

Item	Description
Tile temperature	-10°C to 50°C (14°F to 122°F)
Tile humidity (non-condensing)	10% to 90%

Operating environment

Item	Description
Tile temperature	0°C to 40°C (32°F to 104°F)
Tile humidity (non-condensing)	10% to 90%
Altitude	0 to 3000 meters
Controller temperature	-20°C to 60°C (-4°F to 140°F)
Controller humidity	10% to 90%

Remote Power Supply Rack Shelf

Description	Details
Temperature	Operating: -10 to 35°C (14°F to 95°F)

Description	Details
	Storage: -40 to 85°C (-40 to 185°F)
Humidity (non-condensing)	Operating: 0% to 93% Non-operating: 0% to 95%
Elevation	-60 to 2000 m (-198 to 6600 ft)
Heat dissipation	<2196 BTU per hour (four PSU modules)
Acoustic	Max 66dB (four PSU modules)

Display specifications

	LED012-CP-R	LED014-CP-R	LED019-CP-R	LED024-CP-R
Pixel pitch	1.24 mm	1.48 mm	1.98 mm	2.48 mm
Pixel size	1.0 mm x 1.0 mm	1.0 mm x 1.0 mm	1.0 mm x 1.0 mm	2.1 mm x 2.1 mm
Pixel configuration	1R 1G 1B			

Product documentation

For installation, setup, and user information, see the product documentation available on the Christie website. Read all instructions before using or servicing this product.

1. Access the documentation from the Christie website:
 - Go to this URL: <http://bit.ly/2qXBAdX> or <https://www.christiedigital.com/en-us/digital-signage/products/led-tiles/coreplus-series>.
 - Scan the QR code using a QR code reader app on a smartphone or tablet.



2. On the product page, select the model and switch to the **Downloads** tab.

Related documentation

Additional information on the Velvet CorePlus (Remote Power) LED Display System is available in the following documents.

- *CorePlus (Remote Power) Product Safety Guide (P/N: 020-102591-XX)*
- *CorePlus (Remote Power) Installation and Setup Guide (P/N: 020-102423-XX)*
- *E500 User Guide (P/N: 020-102222-XX)*
- *E600 User Guide (P/N: 020-102717-XX)*
- *E500 LED Display Controller Serial Commands Technical Reference (P/N: 020-102458-XX)*

Regulatory

This product conforms to the latest regulations and standards related to product safety, environmental requirements, and electromagnetic compatibility (EMC).

Safety

- CAN/CSA C22.2 No. 60950-1
- ANSI/UL 60950-1 - Information Technology Equipment – Safety – Part 1: General Requirements
- IEC 60950-1 IEC/EN 60950-1 - Information Technology Equipment – Safety – Part 1: General Requirements
- EN 60950-1
- IEC 62471-1 - Photobiological safety of lamps and lamp systems

Electro-magnetic compatibility

Emissions

- FCC CFR47, Part 15, Subpart B, Class A - Unintentional Radiators
- CAN ICES-003 (A)/NMB-003 (A) - Information Technology Equipment (Including Digital Apparatus) - Limits and Methods of Measurement
- CISPR 32/EN 55032, Class A
- IEC 61000-3-2/EN61000-3-2: Limits for Harmonic Current Emissions

Immunity

- IEC 61000-3-3/EN61000-3-3
- IEC/EN61000
- IEC 61000-4-2/EN61000-4-2
- IEC 61000-4-3/EN61000-4-3
- IEC 61000-4-4/EN61000-4-4
- IEC 61000-4-5/EN61000-4-5
- IEC 61000-4-6/EN61000-4-6
- IEC 61000-4-8/EN61000-4-8
- IEC 61000-4-11/EN61000-4-11

Environmental

EU Directive (2011/65/EU) on the restriction of the uses of certain hazardous substances (RoHS) in electrical and electronic equipment and the applicable official amendment(s).

EU Regulation (EC) No. 1907/2006 on the registration, evaluation, authorization and restriction of chemicals (REACH) and the applicable official amendment(s).

EU Directive (2012/19/EU) on waste and electrical and electronic equipment (WEEE) and the applicable official amendment(s).