

Leyard® TWS Series LED Video Wall

This document is for an integrator, designer, consultant, or end user to develop specifications to a project utilizing a Leyard® TWS Series LED Video Wall. Below you will find a table of product specifications for the Leyard TWS Series and unique specifications that can be used when designing and writing specifications. The table lists the feature category and the detailed specs. There is also a description of the main benefit, which usually does not appear in the bid but offers background and explanation on the requirement purpose.

Leyard TWS Series Bid Specifications

Leyard TWS Series LED Display Cabinets		
Feature	Requirement	Benefit
Specification List: Applies to: TWS0.9 TWS1.2 TWS1.5 TWS1.8	Bezel width: Zero (seamless) LED type: Commercial grade 3-in-1 Black SMD LED display cabinet size: 600 x 337.5 x 95mm 23.62 x 13.28 x 3.74in LED display cabinet diagonal: 688.5mm 27.1 in LED display cabinet weight: 4.7 kgs Brightness: > 800 nits Brightness uniformity: ≥ 97% Color uniformity: ≥97% Color gamut: 100% NTSC Colors: 16.7 million Color temperature: 3,200 – 9,300 K, adjustable Color processing: 10 bits Contrast ratio: ≥6,000:1 Viewing angle, horizontal: ≥ +/-80 degrees Viewing angle, vertical: ≥ +/-70 degrees Input frame rate: 50, 60 Hz Installation and service: Rear Regulatory: NRTL, FCC Class A, CE Class A, WEEE, EN60950 and CISPER22/2010 Line voltage: 100-240 Volts AC, 50/60Hz auto switching Video input type: 2 x HDMI in, 2 x HDMI out, HDCP Compliant. Video input max resolution: 1920 x 1080 @ 60 Hz Video signal extension: CAT6 (HDBaseT), Fiber Optic, optional Video signal redundancy: Optional Video extension redundancy: Optional Display control: Leyard Control Software (included) Control input: RS232 or Ethernet Protection: Leyard ERO-LED protective surface (optional)	
Specification List: TWS0.9	Pixel Pitch: 0.9375mm Resolution per Leyard TWS Cabinet : 640 x 360 Pixel Density: 1,137,777 / sq m 105,700 sq ft LED surround: Black Solder Mask	

Specification List: TWS1.2	Pixel Pitch: 1.25mm Resolution per Leyard TWS Cabinet: 480 x 270 Pixel Density: 640,000 / sq m 59,450 / sq ft LED surround: Black Solder Mask	
Specification List: TWS1.5	Pixel Pitch: 1.5625mm Resolution per Leyard TWS Cabinet: 384 x 216 Pixel Density: 409,600 / sq m 38,050 / sq ft LED surround: MicroGrid Shader™	
Specification List: TWS1.8	Pixel Pitch: 1.875mm Resolution per Leyard TWS Cabinet: 320 x 180 Pixel Density: 284,444 / sq m 26,422 / sq ft LED surround: MicroGrid Shader	
Architecture	The LED video wall product must be part of a family sharing one architectures but including pitches from 0.9 to 1.8 mm. Cabinet size and architecture easily divisible into 16:9 walls and including slim LED cabinets with distributed video connections.	This architecture allows customers to select wall size and vary pixel pitch depending on needs, get a perfectly aligned video wall and use less room.
Mounting System		
Mounting System	Display mount must allow for access to rear of cabinets.	
Weight	The LED display cabinet must have weight less than: 4.7kg (10.36lb)	Allows for easier handling, faster installation, less damage from installation and lower structural requirements for wall strength.
Curved Walls	The display mounting structure must be capable of supporting concave curved walls.	Allows for curved wall installation that is preferred In certain control room and conference room designs.
Environmental		
Quiet operation	The video wall must operate without fans.	Fanless operation ensures less noise at the wall and in the room allowing for conference room or control room installations requiring a quiet environment.
Operating Temperature	The display must be able to operate in a -10 to 40°C (-14 to 104°F) environment.	The video wall operates properly in a range of environmental conditions.
Operating Humidity	The display must be able to operate in a 10-80% RH non-condensing environment.	The video wall operates properly in a

		range of environmental conditions.
Storage Temperature	The display must be able to be stored in a -20 to 60°C (-4 to 140°F)	The video wall will operate properly after storage in a range of environmental conditions.
Storage Humidity	The display must be able to be stored in a 10-85% RH non-condensing environment.	The video wall will operate properly after storage in a range of environmental conditions.
Protection	Meet or exceed IP40 protection standard. Leyard ERO-LED Protective Coating.	Provides protection against foreign objects. Increased ruggedness, allows for surface cleaning
LED Display Cabinet		
Commercial grade LED display cabinet	The LED and LED display cabinet must be designed for 24/7 extended operation	Provides around-the-clock operation with excellent visual performance.
Magnesium alloy chassis	Cabinet chassis material should be magnesium alloy	Enables lightweight cabinet with enhanced heat dissipation.
Viewing angle	The video wall must support horizontal viewing angle ≥ 70 degrees at $\geq 90\%$ brightness, and vertical at $\geq +80/-75$ degrees at $\geq 80\%$ brightness.	Provides extended exposure in digital signage installations and more comfortable viewing in control rooms.
Consistent Display cabinet dimensions	All pitches in the family of video wall display must have exactly the same physical dimensions.	Gives customer ability to define exact wall size and choose between 4 different pitch sizes later without impacting wall dimensions.
Low reflectance	The surface of the LED display must be low reflectance in well lit environments.	Provides better visual performance and perceived contrast in brightly lit environments.
Electronics		
HDCP Compliance	The display must be HDCP compatible allowing an HDCP source to be displayed on the wall.	Ensures that HDCP protected content can be displayed on the video wall.

Seam correction software	The video wall must include seam correction software to electrically compensate for any visible mechanical dark or bright lines.	Corrects even very slight mechanical line imperfections so that the wall looks perfectly uniform.
RS232 Control	The video wall must be capable of accepting and passing through RS-232 control commands to a wall.	Allows for programmatic control of the video wall.
LAN Control	The video wall must have a built-in option for control off LAN.	Allows for programmatic control of the video wall over a network.
Color Temperature adjustments	The video wall must be able to be adjusted to a range of color temperatures between 3,200 and 9,300 K.	Allows for customers to hit color temperatures desirable for their environments.
Redundant video cabling	The video wall must be configurable to support redundant video cabling.	Increases uptime for mission critical environments by eliminating potential failure point
Long distance signal transport	Must support long distance video signal connection to the video wall via standard protocol HDBaseT and standard cabling CAT6.	Allows video sources to be located in the rack room with easy access and full climate control.
Fiber optic signal transport	Must support long distance video signal connection to the video wall via fiber optic cables.	Allows for long video runs with the security provided by fiber optic interconnect.
Windows-based control software	Includes Windows based control software that allows the user to configure the video wall and optimize its visual performance. Software must be pre-loaded with test patterns and allow for adjustments of brightness, RGB, and Gamma Gray scale.	Allows for fast set-up and image adjustment through an intuitive interface.
Power Supply		
Redundant Power Supply Option	The LED video wall must have an option for a redundant on-board power supply.	Ensures continuous operation in the case of a power supply failure.
Other		
24-hour advanced exchange policy	The display manufacturer must offer a service policy that allows a replacement LED display cabinet to be shipped out within 24 hours.	Allows the Leyard and Planar partner to be responsive to customer support needs.
5 year warranty	The video wall must be covered by warranty for up to 5 years including extensions.	The video wall is a significant investment and should offer warranty coverage beyond a standard 2 or 3 year coverage span.
Touch Option	For applicable pitches, video wall must have an LED MultiTouch option available which includes:	Allows user to interact with content. With 32

	<ul style="list-style-type: none"> - IR Touch sensor - Trim - Leyard® PLTS™ Technology 	simultaneous touch points and excellent tactile feel.
Surface Protection	Leyard ERO-LED protective surface	Protects against contact, reduces ESD, can be cleaned