

Leyard TWS Series LED VIDEO WALL



#### Light-Weight and Versatile Fine Pitch LED Performance

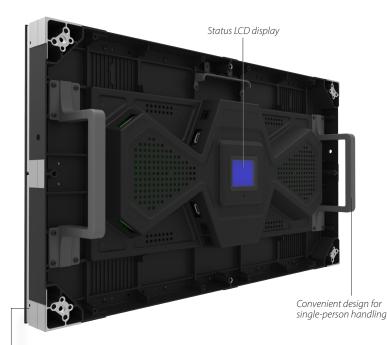
The Leyard<sup>®</sup> TWS Series is a family of versatile ultra-fine pitch LED video wall displays available in 0.9, 1.2, 1.5 and 1.8 millimeter pixel pitches. Featuring a convenient 27" diagonal size, the all-in-one design fits a broad range of fine-pitch installation environments. The Leyard TWS Series is light weight and easy to handle enabling it to be an attractive solution for faceted curved video walls, hanging video walls or traditional video walls favoring a compact fine pitch solution.

The Leyard TWS Series features pixel pitches and optical performance well suited for demanding visual applications and offers options for redundant video cabling and power. The Leyard TWS Series features a 16:9 aspect ratio and exactly achieves popular resolutions at every pitch. For a wide range of high resolution applications, the Leyard TWS Series is an ideal fixed installation solution.

#### Fits More Installation Environments

Leyard TWS Series 27" LED video wall displays feature an all-in-one, simple-to-deploy design that enhances application possibilities and improves installation efficiency. Delivering 16:9 aspect ratio, the Leyard TWS Series perfectly hits Full HD, 4K and 8K resolutions. The Leyard TWS Series LED display size works well in small or large spaces, as well as for concave curved video walls. Constructed in light-weight, thermally-efficient magnesium alloy cabinet, the Leyard TWS Series provides improved heat dissipation and faster, easier single-person handling during installation.





Magnesium alloy chassis is 30% lighter than aluminum with enhanced heat dissipation

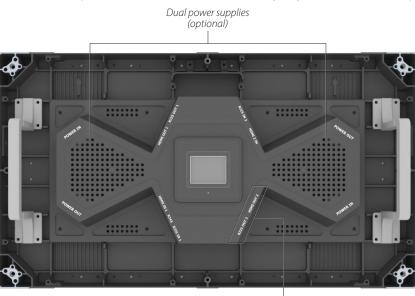
## Compact, Reliable and Easy to Service

The Leyard TWS Series is architected to deliver what matters for quick installation and service. Every Leyard TWS Series display

includes two standard HDMI input and loopoutput pairs, meeting HDCP compliance and redundancy needs.

Leyard TWS Series LED displays are available with single or dual power supplies, with the dual power supply options adding a level of redundancy. For quick servicing, the Leyard TWS Series components can be accessed by removing the rear cover.

The Leyard TWS Series' compact, all-in-one design locates video power, control and redundancy in one location, requiring no external boxes or converters.



Standard, redundant HDPC-compliant HDMI input and control

## Comprehensive Image Control Capabilities

For LED video wall image control, the Leyard TWS Series uses Leyard<sup>®</sup> LED Control Software for image set-up and adjustment. The Windows<sup>®</sup>-based software communicates to the video wall via LAN, enabling set-up and control of parameters like brightness, RGB color space and gamma gray scale. It allows for electronic seam correction to optimize uniformity on even the most perfectly installed video walls.

Leyard TWS Series LED displays also support a serial command set that can be invoked via RS232 or LAN connection.

| Functions Option Language  |   |
|--|---|
| Settings 🖗   | Advanced Controls 🔁 Seas Correction   |
| Communication  | Paraseter, Correction Area, ReadBack Area, Correction Paraseter Area  |
| Control Mede     Retwork     •       Serial Port     003     Refresh       Start IP     192.168.0.32     192.168.0.32  | Paral<br>Calibration<br>Bata     Change Kage<br>Bata     Shor Preview<br>Form     Calibration (0)<br>Calibration (0)<br>Colibration (0)<br>Colibratio |
| Ping IP 192.168.0.32 Ping  | Tile Operation Area   |
| Vodule Type<br>Family TVS •<br>Pitch TVS012 •  | B-Chinate List I Lise   B-Chinate(I, I) Image: State Stat   |
| Advance  | Settings P (Advanced Controls (Setup) Basic Controls<br>Device Detect Nodels Assign Address Refresh Shown Values  |
| Nobel Address and Committee<br>Committee Interval<br>Robel Address, Column (0)<br>Robel Address, Column (0)<br>Robel Address, Column (0)<br>Robel Address, Column (0)<br>Robel Barrett<br>Tile Address<br>Rev (0) Column (0)<br>All Tiles<br>Password Level<br>Installer Productor | Device Statut Pedick Asing Address Rafeeth   Seriel Bret Pedick Asing Address Rafeeth   Bail D2 Find Pedick Asing Address   Fail Pedick Address Calue D   Fail Rafeeth Pedick Address   Fail Fail Fail   Fail Rafeeth Pedick Address   Fail Rafeeth Pedick   Fail Rafeet   |

7680 x 4320

# 16:9 Aspect Ratio for Popular Resolutions

Leyard TWS Series displays feature a 16:9 aspect ratio that ensures every pixel pitch is designed to exactly achieve Full HD, 4K or 8K resolutions. Leyard TWS Series displays can also be configure in any video wall configuration to meet the widest range of application requirements.

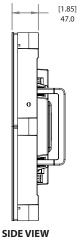
| 13.3ft/4.0m  |              |              |              |              |             |               |               |               |               |               |               |               |
|--------------|--------------|--------------|--------------|--------------|-------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 12.2ft/3.7m  |              |              |              |              |             |               |               |               |               |               |               |               |
| 11.1ft/3.3m  |              |              |              |              |             |               |               |               |               |               |               |               |
| 10.0ft/3.0m  |              |              |              |              |             |               |               |               |               |               |               |               |
| 8.9ft/2.7m   |              |              |              |              |             |               |               |               |               |               |               |               |
| 7.7ft/2.3m   |              |              |              |              |             |               |               |               |               |               |               |               |
| 6.6ft/2.0m   |              |              |              |              |             |               |               |               |               |               |               |               |
| 5.5ft / 1.6m |              |              |              |              |             |               |               |               |               |               |               |               |
| 4.4ft/1.3m   |              |              |              |              |             |               |               |               |               |               |               |               |
| 3.3ft / 1.0m |              |              |              |              |             |               |               |               |               |               |               |               |
| 2.2ft/0.67m  |              |              |              |              |             |               |               |               |               |               |               |               |
| 1.1ft/0.34m  |              |              |              |              |             |               |               |               |               |               |               |               |
|              | 2.0ft / 0.6m | 3.9ft / 1.2m | 5.9ft / 1.8m | 7.9ft / 2.4m | 9.8ft / 3m  | 11.8ft / 3.6m | 13.8ft / 4.2m | 15.7ft / 4.8m | 17.7ft / 5.4m | 19.7ft / 6.0m | 21.6ft / 6.6m | 23.6ft / 7.2m |
| Displays     | 1 x 1        | 2 x 2        | 3 x 3        | 4 x 4        | 5 x 5       | 6 x 6         | 7 x 7         | 8 x 8         | 9 x 9         | 10 x 10       | 11 x 11       | 12 x 12       |
| TWS0.9       | 640 x 360    | 1280 x 720   | 1920 x 1080  | 2560 x 1440  | 3200 x 1800 | 3840 x 2160   | 4480 x 2520   | 5120 x 2880   | 5760 x 3240   | 6400 x 3600   | 7040 x 3960   | 7680 x 4320   |
| TWS1.2       | 480 x 270    | 960 x 540    | 1440 x 810   | 1920 x 1080  | 2400 x 1350 | 2880 x 1620   | 3360 x 1890   | 3840 x 2160   | 4320 x 2430   | 4800 x 2700   | 5280 x 2970   | 5760 x 3240   |
| TWS1.5       | 384 x 216    | 768 x 432    | 1152 x 648   | 1536 x 864   | 1920 x 1080 | 2304 x 1296   | 2688 x 1512   | 3072 x 1728   | 3456 x 1944   | 3840 x 2160   | 4224 x 2376   | 4608 x 2592   |
| TWS1.8       | 320 x 180    | 640 x 360    | 960 x 540    | 1280 x 720   | 1600 x 900  | 1920 x 1080   | 2240 x 1260   | 2560 x 1440   | 2880 x 1620   | 3200 x 1800   | 3520 x 1980   | 3840 x 2160   |
|              |              |              |              |              |             |               |               |               |               |               |               |               |





| LEYARD TWS SERIES SPECIFICATIONS                          |   |                                  |                                  |                                  |  |  |  |  |
|---|---|----------------------------------|----------------------------------|----------------------------------|--|--|--|--|
| Product Name  | TWS0.9                                      | TWS1.2                           | TWS1.5                           | TWS1.8                           |  |  |  |  |
| Pixel Pitch   | 0.9375mm                                    | 1.25mm                           | 1.5625mm                         | 1.875mm                          |  |  |  |  |
| Display Resolution  | 640 x 360                                   | 480 x 270                        | 384 x 216                        | 320 x 180                        |  |  |  |  |
| Pixel Density (pixels)                                    | 1,137,777 / sq m<br>105,700 / sq ft         | 640,000 / sq m<br>59,450 / sq ft | 409,600 / sq m<br>38,050 / sq ft | 284,444 / sq m<br>26,422 / sq ft |  |  |  |  |
| LED Type  | Commercial grade 3-in-1 Black SMD           |                                  |                                  |                                  |  |  |  |  |
| LED Surround  | Black Solder Mask Leyard® MicroGrid Shader™ |                                  |                                  |                                  |  |  |  |  |
| Brightness Max (cd/sq.m)                                  | > 800                                       |                                  |                                  |                                  |  |  |  |  |
| Color Gamut   | 100% NTSC                                   |                                  |                                  |                                  |  |  |  |  |
| Contrast Ratio  | > 6,000:1                                   |                                  |                                  |                                  |  |  |  |  |
| LED Refresh Rate  | 1920 Hz                                     | 3000Hz                           | 3000Hz                           | 3000Hz                           |  |  |  |  |
| Color Temperature, Adjustable (k)                         | 3,200 - 9,300                               |                                  |                                  |                                  |  |  |  |  |
| Brightness Uniformity                                     | >97%  |                                  |                                  |                                  |  |  |  |  |
| Color Uniformity  | >97%  |                                  |                                  |                                  |  |  |  |  |
| Viewing Angle, Horizontal                                 | 160°  |                                  |                                  |                                  |  |  |  |  |
| Viewing Angle, Vertical                                   | 140°  |                                  |                                  |                                  |  |  |  |  |
| LED Lifetime: Typical                                     | 100,000 hrs                                 |                                  |                                  |                                  |  |  |  |  |
| Display Size (W x H x D)                                  | 600 x 337.5 x 95mm   23.62 x 13.28 x 3.74in |                                  |                                  |                                  |  |  |  |  |
| Display Weight (kg / display)                             | 4.7 kg   10.4 lb                            |                                  |                                  |                                  |  |  |  |  |
| Line Voltage  | 100-240 Volts AC, 50/60Hz autoranging       |                                  |                                  |                                  |  |  |  |  |
| Power Consumption, Max. (watts)                           | 140 watts / Display   700 watts / sq m      |                                  |                                  |                                  |  |  |  |  |
| Power Consumption, Typ. (watts)                           | 48 watts / Display   240 watts / sq m       |                                  |                                  |                                  |  |  |  |  |
| Accoustic Noise   | Fanless Operation                           |                                  |                                  |                                  |  |  |  |  |
| Operating Temperature/Humidity                            |   |                                  |                                  |                                  |  |  |  |  |
| (degrees F/C)<br>10-80% relative humidity, non-condensing | -10° to 40° C   -14° to 104° F              |                                  |                                  |                                  |  |  |  |  |
| Video Inputs  | 2x HDMI in, 2x HDMI out                     |                                  |                                  |                                  |  |  |  |  |
| HDCP Compliant  | Yes   |                                  |                                  |                                  |  |  |  |  |
| Video Input Resolution Maximum                            | 1920 x 1080 @ 60Hz                          |                                  |                                  |                                  |  |  |  |  |
| Frame Rate  | 50, 60Hz                                    |                                  |                                  |                                  |  |  |  |  |
| Video Signal Extension Options                            | CAT6 and Fiber Optic                        |                                  |                                  |                                  |  |  |  |  |
| Video Signal Redundancy                                   | Optional                                    |                                  |                                  |                                  |  |  |  |  |
| Video Extension Redundancy                                |   | Optic                            | onal                             |                                  |  |  |  |  |
| Display Control   | Leyard Control Software included            |                                  |                                  |                                  |  |  |  |  |
| Control Input Type  | RS232 or Ethernet                           |                                  |                                  |                                  |  |  |  |  |
| Regulatory Compliance                                     |   |                                  |                                  |                                  |  |  |  |  |
|   | 1   |                                  |                                  |                                  |  |  |  |  |

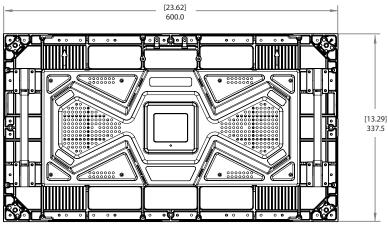
#### Visit www.Leyard.com for full list of product specifications.



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