



## Leyard MGS Series Outdoor Fine Pixel Pitch LED Display

Leyard® MGS Series outdoor fine pixel pitch LED displays feature a die-casting aluminum structure and waterproof Glue on Board (GOB) technology that withstands harsh outside environments. Displays have an energy-saving cooling structure, and redundant power/data backup. They are ready for High Dynamic Range (HDR) content making them ideal for applications such as DOOH advertising, retail, outdoor media, billboards, airports and train stations, etc.



**IP65 Waterproof**  
Resists weather and maintains performance



**MicroLED Flip Chip**  
Ultra-high contrast ratio and deep black levels



**Wide Viewing Angle**  
Expansive viewing angles enhance visual clarity



**Heat Dissipation**  
Long lifespan, stable performance and energy efficiency

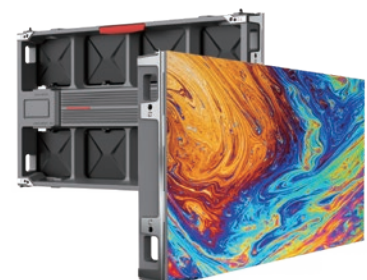


**6 Axis Adjustment**  
Precision alignment, versatile positioning, optimal viewing



**2-Year Warranty**  
Leyard LED Standard Limited Warranty

- 1.2, 1.3, 1.5, 1.6, 1.8 & 2.0mm pixel pitches
- MicroLED flip chip technology with high contrast ratio
- IP65 completely protective layout plus mechanical safety locks
- Easy installation and quick leveling for cabinets splicing and maintenance
- Efficient cooling system for better heat dissipation and energy-saving
- Redundant power/data backup and HDR ready display

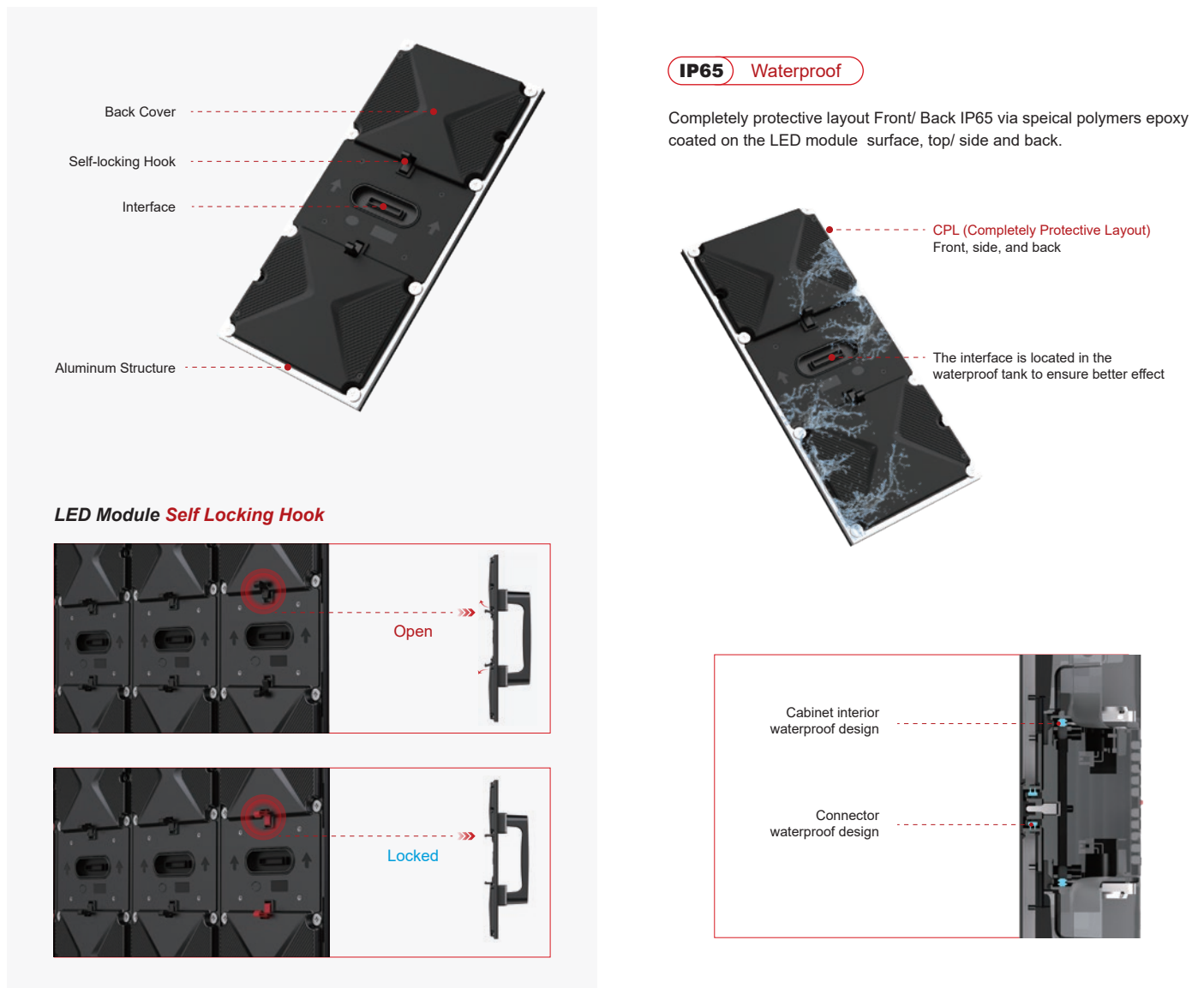


## Key Features



## Module Safety Enhancement (Double Spring + Self-locking Hook)

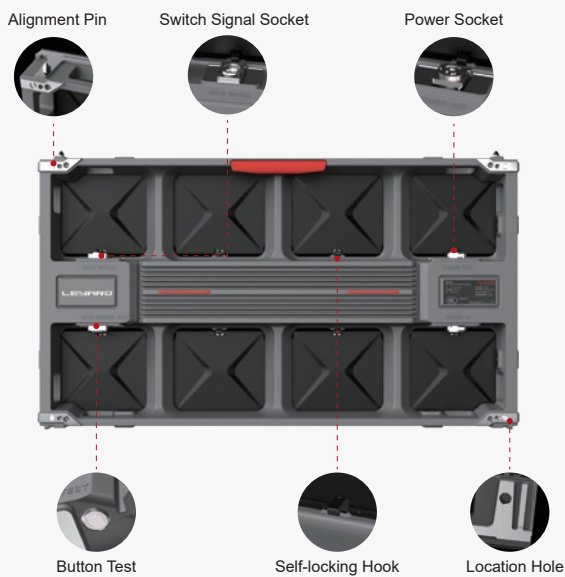
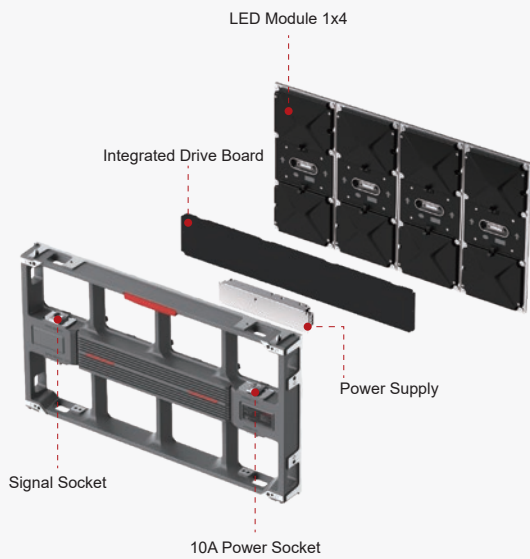
The LED modules are fully enclosed and packaged with polymer materials with excellent weather resistance (CPL process). To eliminate the hidden danger caused by magnetic adsorption of modules, mechanical locking with double spring + self-locking hook is adopted, and this double insurance design can ensure safety.



## Scientific and Reasonable Layout Highlighting the Aesthetics of Technology

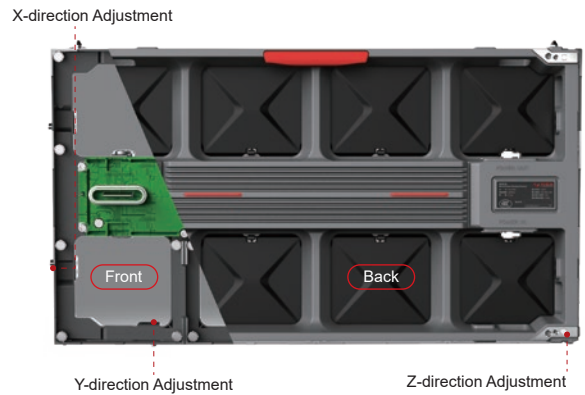
> Supports dual receiving card backup and dual power supply backup. Power input AC100~240V (50-60Hz), in order to reduce strong current interference, the power supply uses bottom in top out;

> Stable and reliable, the distance between strong and weak electric socket is greater than 300mm, and between the module and the drive plate using a floating plug-in, with a Mosaic correction function, it's more stable for connection.



## Quick Leveling Easy Installation

- > 6 axis smoothness adjustment.
- > Full front maintenance and the front & rear installation.

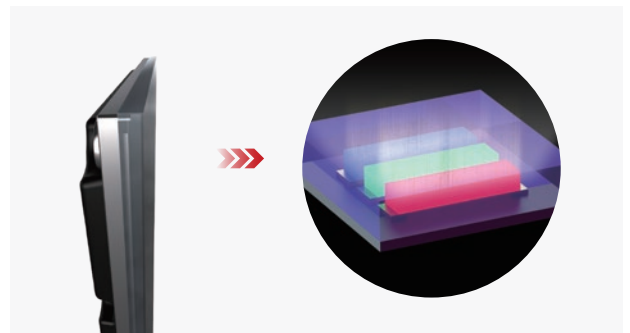


### LED Module Full Front Maintenance



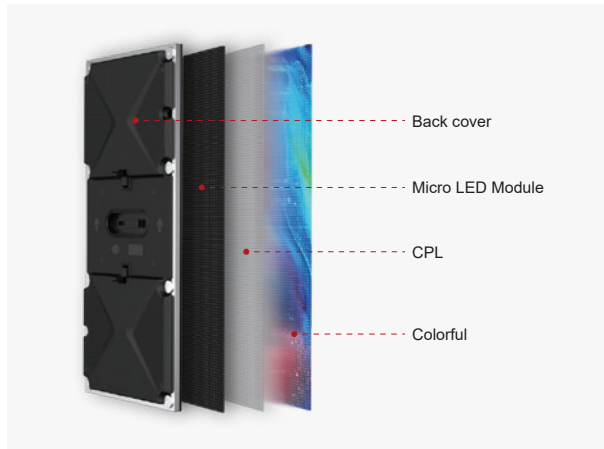
## Protection Technology

The IC surface on the front, side and back of the module is covered perfectly by the polymer material so that it has high level protection. The side of the module is also not afraid of bumps, which solves the problem of bright line on the boundary of the glue module. The protection level reaches IP65, and the surface is anti-scraping and anti-static. It is an integral upgrade to the protection of the whole product.



## Effective Heat Management

- > 30% lower power consumption
- > Micro LED to deliver the great visual performance
- > TUV, low blue light certification



## Heat Sink + High Co-efficiency Silicon O-ring

Micro LED is in full flip chip package. The light efficiency is super high. GOB to protect both the front and back for uniform heat dissipation. 3 ventilation tunnels inside of the products for better color uniformity and heat management.



## MicroLED Full Flip Chip

Using MicroLED full flip chip and leadless MIP packaging process, with high stability, high reliability (to solve the caterpillar problem), compared with conventional outdoor products Leyard MGS Series contrast increased by 1 times, brightness 3000nits-4000nits, better uniformity, lower energy consumption, and higher cost performance, so the comprehensive advantages are obvious.



Stability and reliability have been greatly improved



The contrast rate is up to 10,000:1



Fine pitch LED brightness meets the outdoor need



Significant reduction in energy consumption (30%)



Higher cost performance and enhancing benefits



The module is fully sealed light spreads uniform, and the Angle of view increased

## Low Bright & High Gray

The LED display achieves 16bit gray performance. The higher the gray level, the higher the picture hierarchy and brightness, and the more detailed the image can be displayed with less information loss.



## High Refresh Rate, High Contrast Ratio

Leyard MGS Series' high refresh rates and high contrast ratios offer several advantages. A high refresh rate ensures smoother motion and reduces motion blur, resulting in a better viewing experience especially for fast-paced content like sports or action movies. Its high contrast ratio enhances the difference between the darkest and brightest content, leading to more vibrant and lifelike images with improved detail and depth.



## HDR - High Dynamic Range Images

More dynamic range and image detail better reflect the real environment in the visual effects. Each pixel has RGB information, as well as the actual brightness information of that point. The light surface is fully sealed, the point light source becomes surface light source, the diffusion is uniform and the view angle can be greatly increased.



## Color Rendition

By constructing the nonlinear correction curve and color coordinate transformation coefficient matrix, the display effect is continuously improved. After the LED control system decodes the video, the secondary filtering display algorithm is added to carry out 16-bit color correction point by point for each LED on the display screen.



## Single Cabinet Gamut Adjustment

Because the color gamut of the LED itself is large, the color gamut of the LED can be adjusted to the same as that of the conventional LCD to meet customer requirements. When there are multiple batches of cabinets in the whole screen, you can use this function to adjust.



## Industrialization Certification

### Global Application

Leyard MGS Series has passed the international and domestic authority of electrical, safety, electromagnetic radiation, environmental protection certificates, including CCC, CNAS, CB, CE, cTUVus, FCC, ROHS, REACH, WEEE, etc.



Leyard MGS outdoor fine-pitch LED displays feature a weatherproof design, strong durability, excellent brightness and vibrant display performance for ensuring effective communication and engaging visual experiences in any outdoor setting. It can be widely used in advertising, retail, transportation and recreational facilities.



**Weatherproof in the Desert Heat, on Cold Peaks or at Humid Beaches**



## Specifications

Item	MGS1.2	MGS1.3	MGS1.5	MGS1.6	MGS1.8	MGS2.0
LED Type	Full Flip Chip 3in1					
Pitch	1.25mm	1.33mm	1.53mm	1.67mm	1.86mm	2.0mm
Module Resolution (WxH)	128x288	120x270	104x232	96x216	86x192	80x180
Module Size (WxH)	160x360x20mm   6.3"x14.17"x0.79"					
Module Composition (WxH)	4x1	4x1	4x1	4x1	4x1	4x1
Cabinet Resolution	512x288	480x270	416x232	384x216	344x192	320x180
Pixel Density (pixel/m <sup>2</sup> )	640,000	562,500	418,888	360,000	286,666	250,000
Cabinet Size (WxHxD)	640x360x70mm   25.2"x14.17"x2.76"					
Unit Area	0.2304m <sup>2</sup>   2.48ft <sup>2</sup>					
Cabinet Weight	8.5kg   18.74lb					
Surface Flatness	≤0.1mm					
Brightness Calibration	Yes					
Color Calibration	Yes					
Brightness (after calibration)	3000-4000 nits					
Color Temperature	3000-10000K Adjustable					
Horizontal Viewing Angle	170°					
Vertical Viewing Angle	170°					
Deviation of LED Luminance Center (after calibration)	<3%					
Brightness Uniformity	≥97%					
Chromaticity Uniformity (after correction)	±0.003Cx,Cy within					
Contrast Ratio	10000:1					
Max. Power Consumption	150W/cabinet; 651W/m <sup>2</sup>					
Avg. Power Consumption (300nit)	50W/cabinet; 217W/m <sup>2</sup>					
Power Supply	AC100~240V (50/60Hz)					
Power Supply Configuration	Single power supply (dual power supply optional)					
Drive Mode	Constant current PWM driving					
Frame Rate	50&60Hz					
Grey Level	16bit					
Refresh Rate	3840Hz					
Lifetime	100,000 hrs					
IP Level (front/ rear)	IP65					
Operation Temperature	-20 ~ 40°C   -4 ~ 104°F					
Storage Temperature	-30 ~ 60°C   -22 ~ 140°F					
Operation Humidity	10~80%RH no condensation					
Storage Humidity	10~85%RH no condensation					
Warranty	2 years					
Certification	FCC, CB, cTUVus, CE, IC, ROHS, WEEE, REACH					