AbsenLive
Empowering Your Stage

POLARIS

PL V2 Series

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PL V2 Series

Comprehensive Product Design

- Lightweight
- Diversified
- Platform-based

High-quality Image Performance

- HDR
- 16bit
- 7680Hz
- *UltraBlack* Technology
- 95% DCI-P3 color gamut coverage

Ultimate User Experience

- Automatic edge protection
- Auto-lock and auto-eject system
- -7.5° ~ +10° curve connection
- Flexible mixed connection
- Folding wind bracing system
- Modular design for fast maintenance

COMPREHENSIVE PRODUCT DESIGN

Lightweight design

With panel dimensions in multiples of 500mm, the PL V2 series facilitates quick calculation of screen size. The panels are thin and lightweight for easy operation.

≤7.8kg per panel
500*500mm panel

≤12.5kg per panel
500*1000mm panel

78mm
Ultra-slim design

*Products with pixel pitches less than 2.5mm only provide 500*500mm panels

Diversified options

Offered in multiple pixel pitches ranging from 1.9mm to 4.8mm, the PL V2 series satisfies the needs of different scenarios. With a brightness of up to 1500 nits for indoor and 4500 nits for outdoor display, the PL V2 series delivers perfect images in bright environments.

Series	PL Pro V2	PL Plus V2	PL XR V2
Indoor pixel pitch	**2.5mm** • 1500nits brightness • NovaStar/ Brompton system	**1.9mm/ 2.5mm/ 2.9mm/ 3.9mm** • PL1.9 Plus V2, PL2.9 Plus V2 and PL3.9 Plus V2, 1000nits brightness • PL2.5 Plus V2, 1200nits brightness • NovaStar system	**2.5mm** • 1500nits brightness • Brompton system
Outdoor pixel pitch	**3.9mm/ 4.8mm** • PL3.9 Pro V2, 4500nits brightness • PL4.8 Pro V2, 4000nits brightness • NovaStar system	**2.9mm/ 3.9mm/ 4.8mm** • PL3.9W Plus V2 and PL4.8W Plus V2, 4500nits brightness • PL2.9W Plus V2, 4000nits brightness • NovaStar system	/

Platform-based design

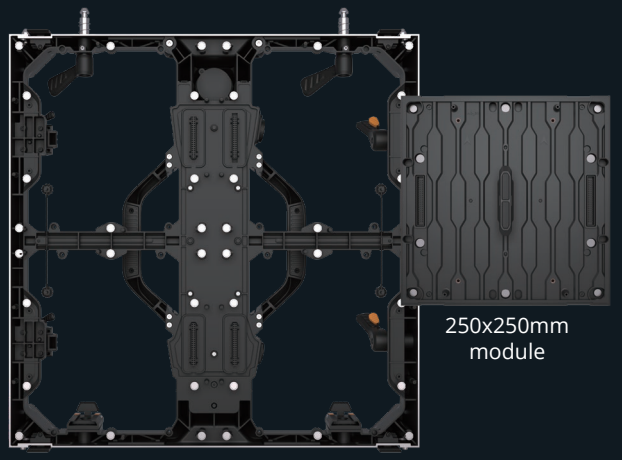
The PL V2 series adopts a platform design to help customers save cost. Modules with different pixel pitches can be used on one platform.

Indoor platform of common use

Applicable pixel pitches: 1.9mm, 2.5mm, 2.9mm, 3.9mm

Outdoor platform of common use

Applicable pixel pitches: 2.9mm, 3.9mm, 4.8mm



HIGH-QUALITY IMAGE PERFORMANCE

A true HDR experience

The PL V2 series supports HDR (High Dynamic Range) display, capable of producing more realistic and colorful images.

Wider brightness range

Rich and delicate colors

Fine image details

16bit high grayscale

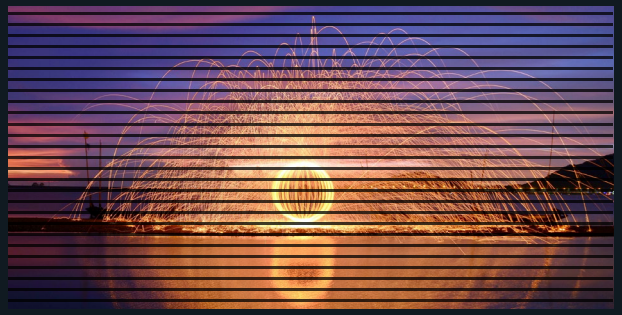
With a grayscale up to 16bit, the PL V2 series enables the display of most delicate details.

Gray scale < 14bit, picture details lost

Gray scale 14~16bit, clear picture details

Up to 7680Hz high refresh rate

A refresh rate of over 3840Hz is featured to deliver the premium image quality in camera or livestream without scanlines.



Low refresh rate, pictures taken with scanning lines

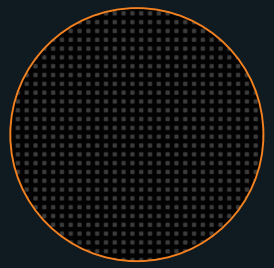
3840/7680Hz high refresh rate, pictures taken without scanning lines*

*The refresh rate of PL2.5 XR V2 and PL1.9 Plus V2 are 7680Hz

UltraBlack Technology

PL2.5 Pro V2
PL2.5 XR V2

Absen *Ultrablack* Technology delivers amazing in-camera performance, making the PL2.5 Pro V2 and PL2.5 XR V2 suitable for building LED walls for xR stages and virtual studios. It can effectively reduce the light reflection on the surface and improve the contrast ratio, letting images vividly displayed in detail.



Surface of PL2.5 Pro V2 and PL2.5 XR V2

Surface of conventional panels

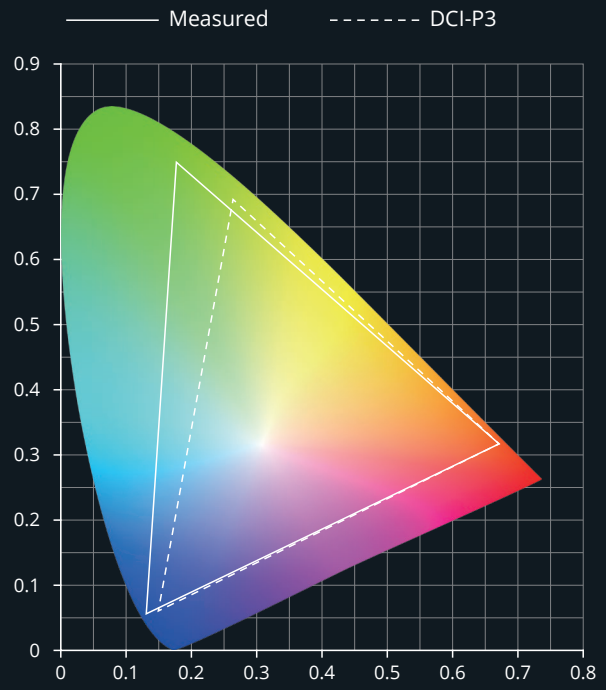
Anti-reflection surface

8800:1 ultra-high contrast ratio

Cinematic color gamut

PL2.5 Pro V2
PL2.5 XR V2

With a professional cinematic color gamut, the PL2.5 Pro V2 and PL2.5 XR V2 can reproduce all the desired colors of content for cinema use, bringing a stunning in-camera visuals.



Channel	Red	Green	Blue	Average
DCI-P3 Coverage	96.4%	91.8%	96%	95%

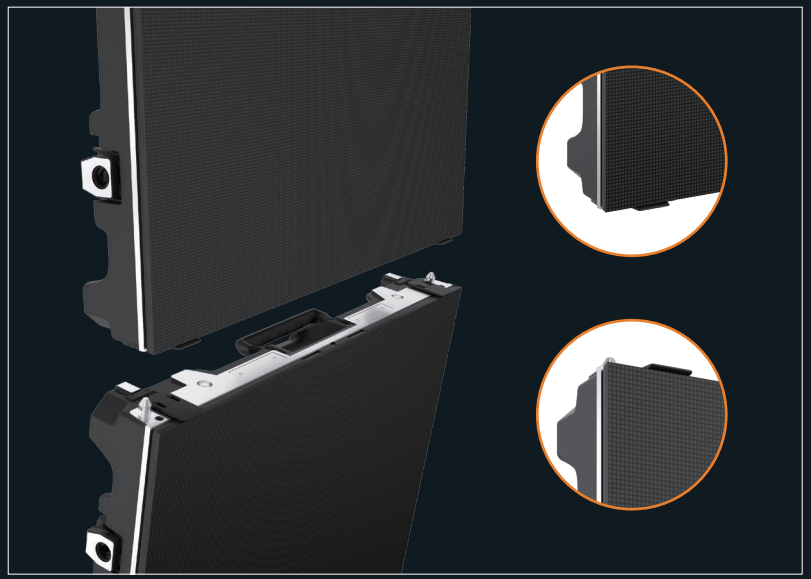
- **95%**
  Average DCI-P3 color gamut coverage
- **DCI-P3**
  Cinematic color gamut standard
  Pursue to show the full range of colors that the film is meant to present
  Widely adopted in the American film industry
- **Brompton Hyrda Calibration**
  Tested by Brompton Hydra Calibration system

ULTIMATE USER EXPERIENCE

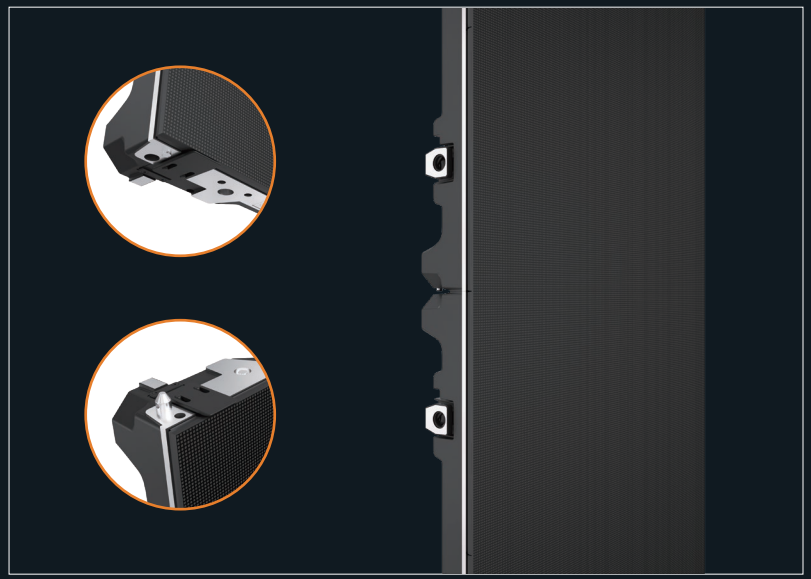
IMMERSIVE
EXPERIENCE
Absen

Automatic edge protection

The narrow-pixel-pitches products of PL V2 series incorporate automatic edge protection on each panel corner*, thereby reducing pixel damage drastically without laborious manual operations.



When placed on the ground, the protective structure protrudes to protect the LEDs on the edge, drastically reducing pixel damage



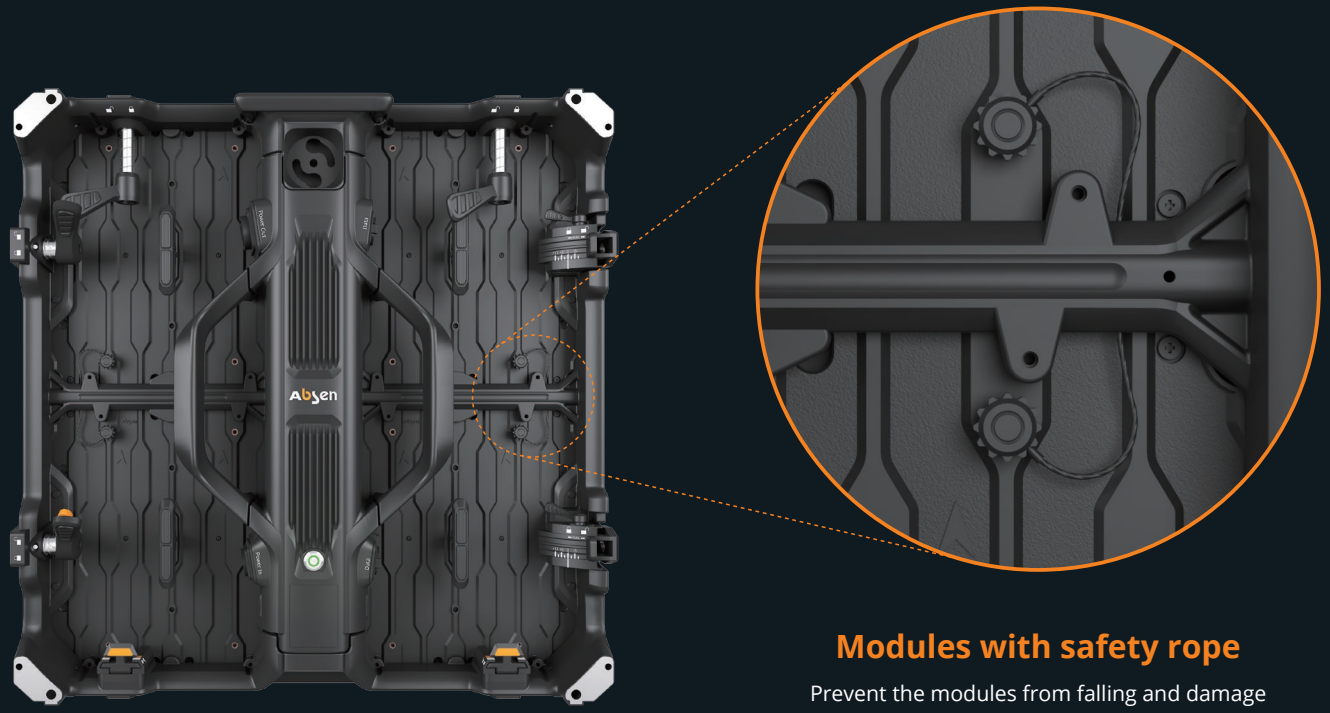
When the upper and lower panels are connected vertically, the protective structure will automatically retract and hide

(Structural reliability has been verified by 2000 times of connection tests by Absen labs)

* Only for PL2.5 Pro V2, PL2.5 XR V2, PL1.9 Plus V2 and PL2.5 Plus V2

Safety rope for module protection

The PL V2 series modules are equipped with safety ropes to protect the modules from falling under strong vibrations or misoperation, reducing potential safety hazards.

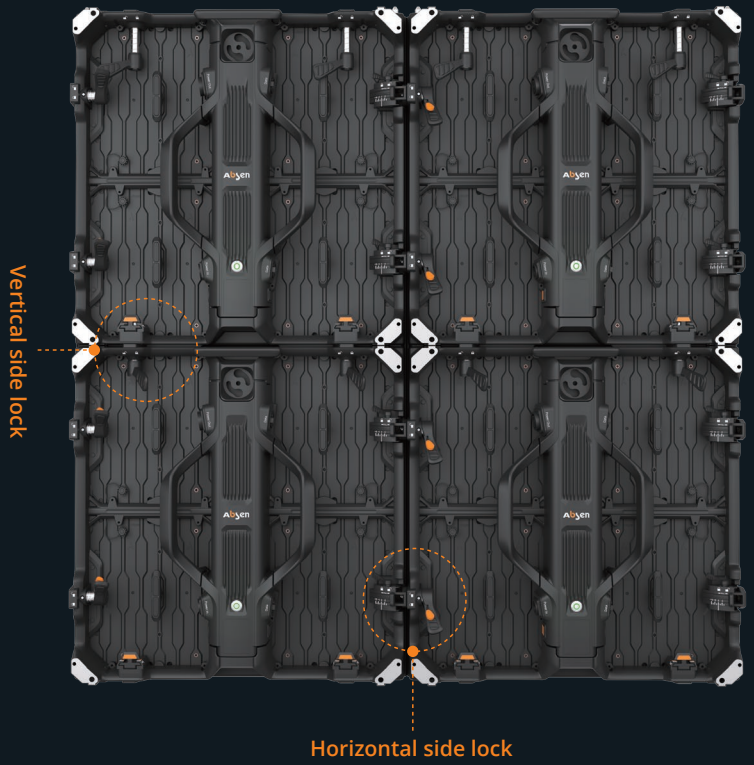


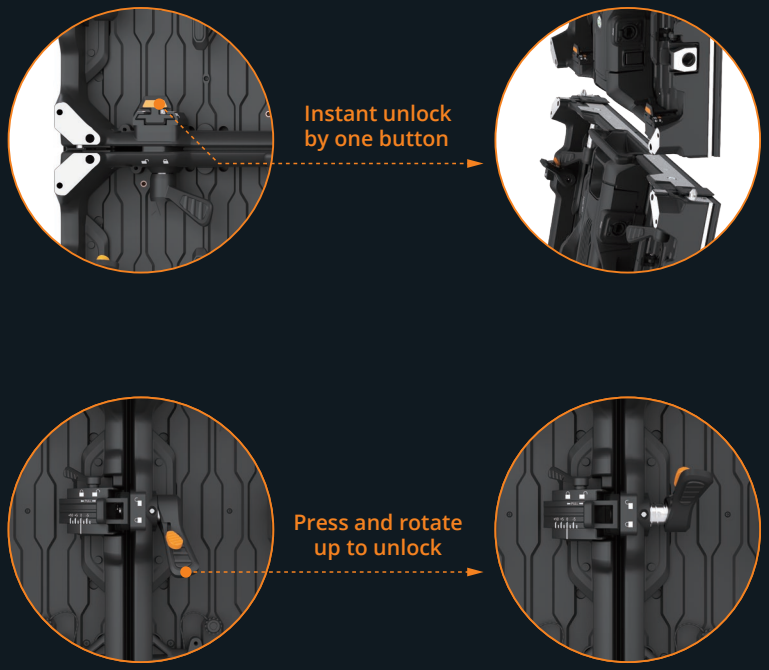
Modules with safety rope

Prevent the modules from falling and damage due to improper operations

Durable lock system for better flatness

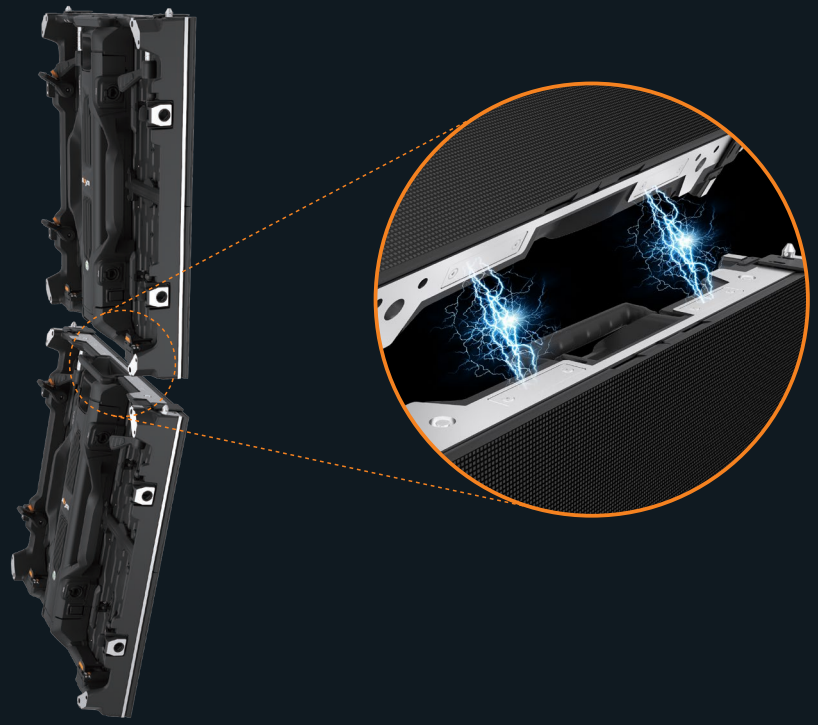
Customized lock system helps users to quickly complete the installation and disassembly of the panels. It is very reliable and can further ensure the flatness of the screen.





Auto-lock and auto-eject system

The magnet-assisted and vertically operated side locks make assembly quick, accurate and easy, enabling one-man installation and saving labor costs.



Step 1

Bring the top of lower panel into contact with the bottom of the upper panel, the magnetic design at both ends of the panels will connect them automatically.

Step 2

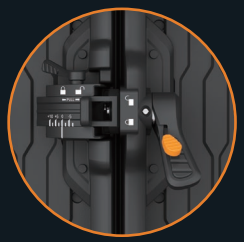
Align the panels with each other.

Step 3

Insert the vertical lock plug into the upper panel and turn it to the right for connection.

Creative curved installation

The PL V2 series can realize curve connection from -7.5° convex to +10° concave for an innovative and artistic visual performance .



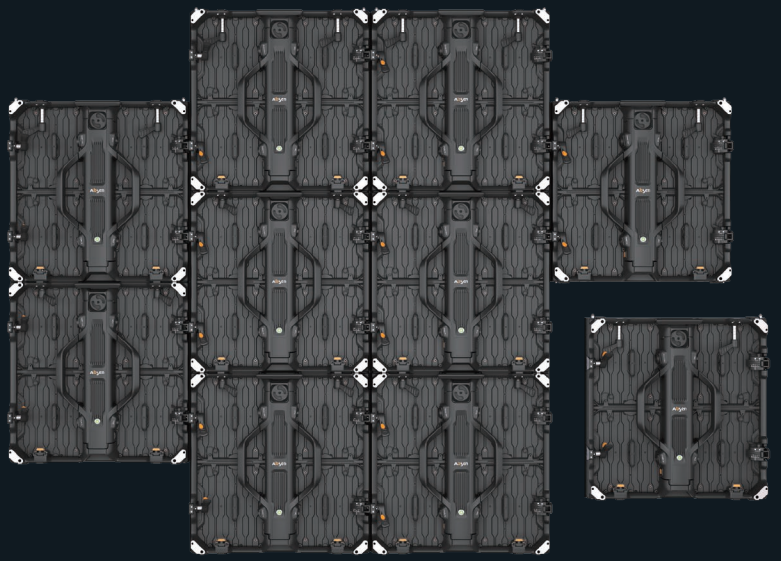
Adjustable from -7.5° convex to +10° concave

Adjust in 2.5° per unit

Flexible mixed connection

The PL V2 series supports 500*500mm and 500*1000mm panels to be assembled together to help customers quickly fill the empty space below.* In addition, it also supports the irregular connection of 500*500mm panels to achieve more creative effects.

500*500mm and 500*1000mm panels connected vertically

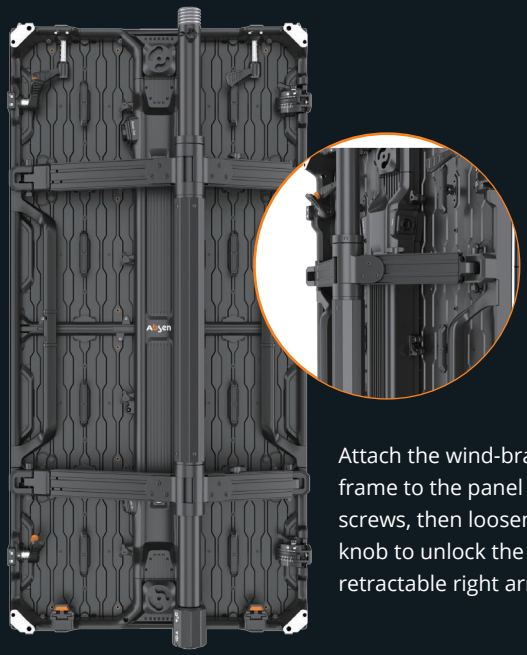


500*500mm panel irregular connection in horizontal direction

*It is not recommended to connect 500*500mm and 500*1000mm panels horizontally

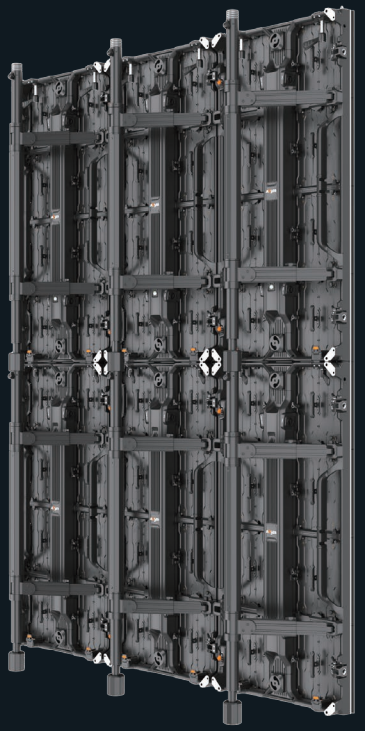
Folding wind bracing system

The PL V2 series provides an optional wind bracing system* to resist strong wind while strengthening the panel connection and ensuring the safety and flatness of the screen.



Attach the wind-bracing frame to the panel with screws, then loosen the knob to unlock the retractable right arm

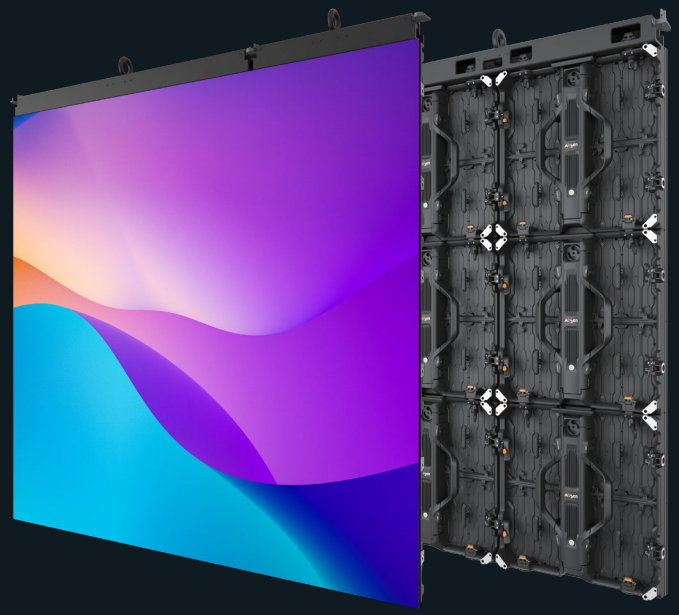
Lengthen the retractable right arm and screw the knob to lock tightly



*Only applies to outdoor 500*1000mm panels

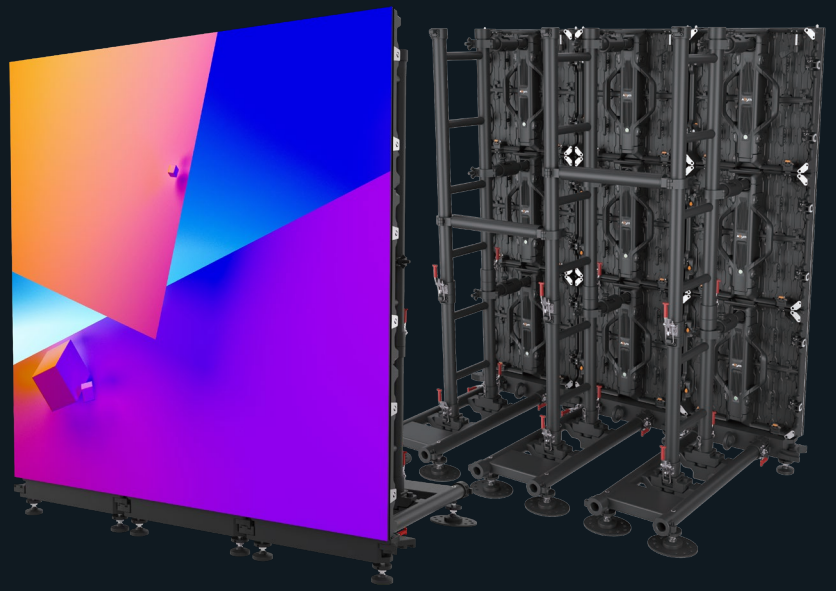
Multiple installation methods

The PL V2 series supports hanging, stacking, front and rear installations, making it adaptable to all scenarios.*



500mm/ 1000mm all-black hanging bar

(Hanging height≤ 10m; Can be used for PL V10 series)



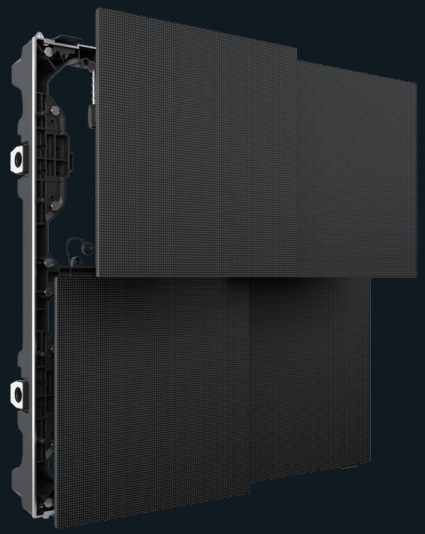
Stacking system

(Stacking height≤ 5m; Can be used for PL V10 series)

* In the case of front installation, enough space should be reserved to assemble the power box

Modular design for easy maintenance

The PL V2 series adopts a modular design to realize full front and rear maintenance. The magnetic module comes with a delicate handle and the independent power box can be instantly removed with one press, making the operation easier.



Front maintenance of modules, power box*

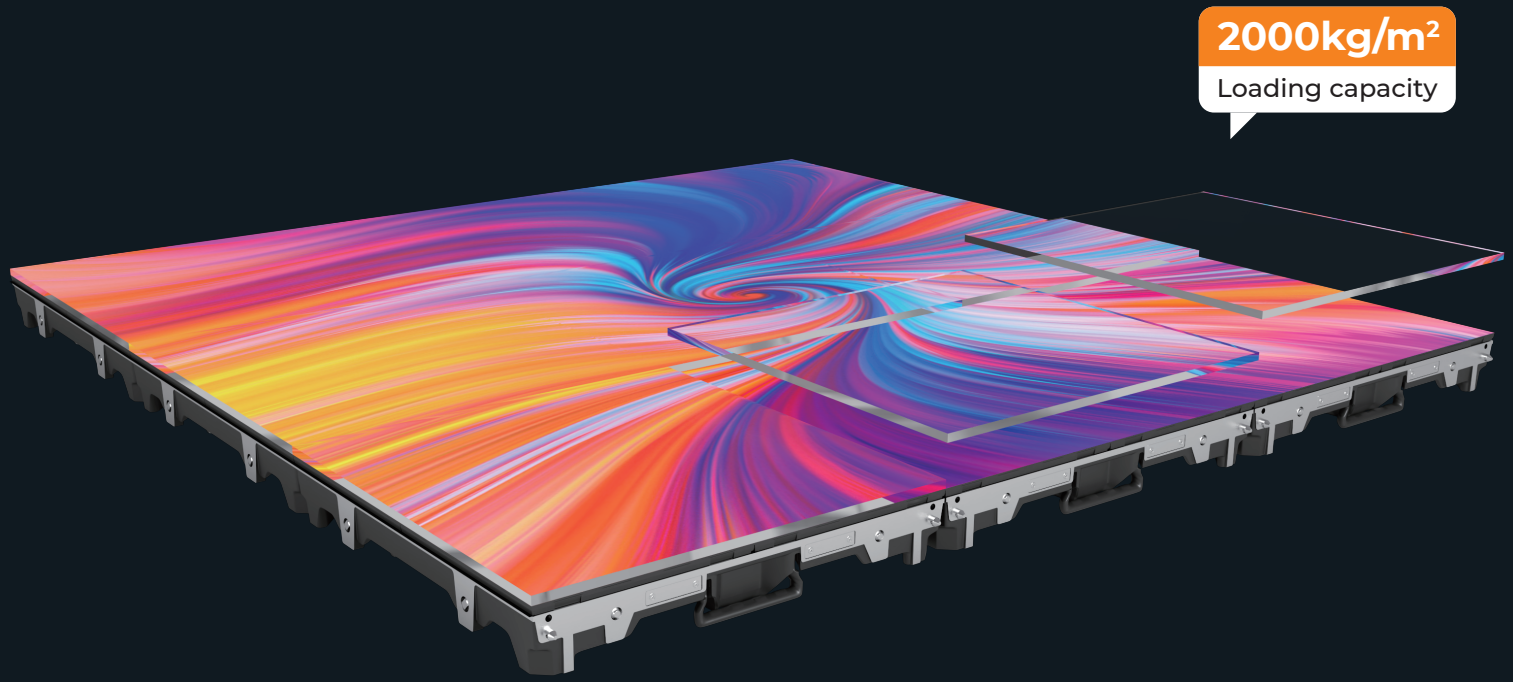
Rear maintenance of modules, power box

Instant removal of power box with one press

* Indoor products are equipped with front-maintenance tools. Outdoor products requires ordinary screwdriver for front maintenance.

Optional PC mask for floor display

The surface of PL V2 series outdoor products with 3.9 and 4.8mm pixel pitch can be turned into a floor display screen by adding a layer of PC mask. Combined with the main screen with the same pixel pitch, it can create a visually unified stage effect. *



*Only for 500*500mm panels of PL3.9 Pro V2, PL4.8 Pro V2, PL3.9W Plus V2 and PL4.8W Plus V2. Not available for car show.
*Constraint coverage structure around the whole screen is required to prevent the displacement of the PC mask during strong vibration .

Accessories for touring stage

An optional dolly system is available for PL V2 series for fast hanging installation. And the flight cases are available for safe airfreight.

- Dolly system (Optional)

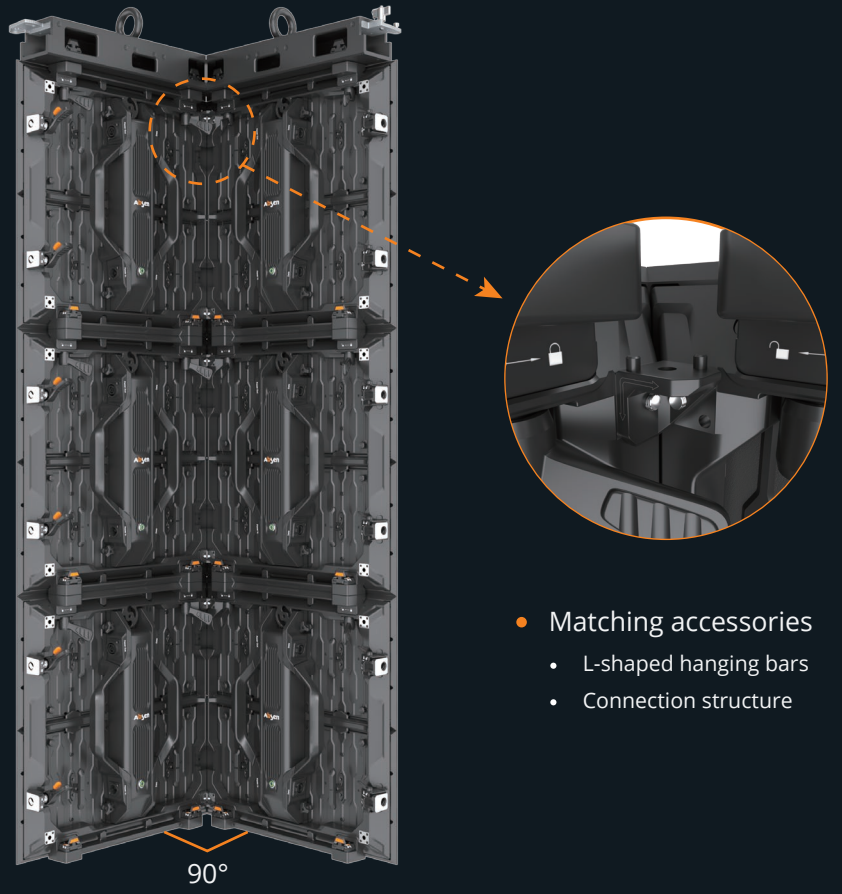
  Often used to quickly build a screen for a touring stage

  Only applicable to outdoor 500*1000mm panels with 3.9mm, 4.8mm pixel pitches

- 4-in-1 flight cases (Applicable to 500*1000mm panels)
- 6-in-1 flight cases (Applicable to 500*500mm panels)

Optional cube version panels

The PL V2 series 500*500mm cube version panels are available as an option to create cube-shaped or L-shaped displays.



- Optional 500*500mm cube version panels
  - PL V2 series full range of 500*500mm products can provide cube version
  - Can be connected with the general panels
  - Delivered with curve lock system as standard
  - When installing the panels at right angle, it's neccessary to remove the locks between cabinets' connection position first, and then use the connection stuctures for installation

- Matching accessories
  - L-shaped hanging bars
  - Connection structure

V1.4

Parameters	PL2.5 XR V2	PL2.5 Pro V2	PL3.9 Pro V2	PL4.8 Pro V2	PL1.9 Plus V2	PL2.5 Plus V2	PL2.9 Plus V2	PL3.9 Plus V2	PL2.9W Plus V2	PL3.9W Plus V2	PL4.8W Plus V2
LED type	SMD1515	SMD1515	Black SMD1921	Black SMD1921	SMD1212	SMD1515	SMD1515	SMD2121	SMD1515	SMD1921	SMD1921
Pixel pitch (mm)	2.5	2.5	3.9	4.8	1.95	2.5	2.97	3.9	2.97	3.9	4.8
Panel dimensions (WxHxD, mm)	500x500x78	500x500x78	500x500x78/500x1000x78		500x500x78	500x500x78	500x500x78/500x1000x78		500x500x78 500x1000x78	500x500x78/500x1000x78	
Panel resolution	200x200	200x200	128x128 128x256	104x104 104x208	256x256	200x200	168x168 168x336	128x128 128x256	168x168 168x336	128x128 128x256	104x104 104x208
Panel weight (kg)	7.5	7.5	7.8/12.5	7.8/12.5	7.5	7.5	7.5/12	7.5/12	7.5/12	7.8/12.5	7.8/12.5
Panel material	Die casting aluminum										
Module size (WxH, mm)	250x250										
Brightness (nit)	1500	1500	4500	4000	1000	1200	1000	1000	4000	4500	4500
Refresh rate (Hz)	7680	3840	3840	3840	7680	3840	3840	3840	3840	3840	3840
Grayscale (bit)	16	16	15	15	16	15	14	14	15	14	14
Contrast ratio	8800:1	8800:1	7000:1	6500:1	5500:1	5000:1	7000:1	7400:1	4000:1	4500:1	4500:1
Color temperature (K)	6500										
Viewing angle (H/V, °)	160/140	160/140	140/120	120/110	160/140	140/140	140/140	140/140	140/120	140/120	140/120
Drive mode	1/8	1/20	1/8	1/7	1/16	1/20	1/21	1/16	1/14	1/8	1/7
AC operating voltage(V)	100~240										
Power consumption (max./avg., W/m²)	740/247	680/230 (Brompton) 720/240 (NovaStar)	780/260	720/240	700/235	640/215	560/187	560/187	720/240	600/200	600/200
Storage temperature (°C)	-40 ~ +60										
Operating temperature (°C)	-10 ~ +40										
Storage humidity (RH)	10% ~ 90%										
Operating humidity (RH)	10% ~ 90%										
IP rating	IP40/IP21	IP40/IP21	IP65/IP54	IP65/IP54	IP40/IP21	IP40/IP21	IP40/IP21	IP40/IP21	IP65/IP54	IP65/IP54	IP65/IP54
Control system	Brompton	Brompton/ NovaStar	NovaStar	NovaStar	NovaStar	NovaStar	NovaStar	NovaStar	NovaStar	NovaStar	NovaStar
Certification	CE, FCC, ETL, RoHS										

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