PR Series

AbsenLive

BROMPTON
TECHNOLOGY.

One Platform for Film Production

- Comprehensive
- Multi-purpose
- Virtual production solution

Excellent In-camera Visual Effects (ICVFX)

- 99.9% DCI-P3 color gamut coverage
- HDR, 16bit, 7680Hz
- 251Hz frame rate
- Higher CRI
- Super black level
- Minimizes off-axis color shift

Most Innovative Mechanical Design

- Composite structure design
- Better heat dissipation
- Customizable curve block
- One-step locking system
- Safety rope
- Modular design

ONE PLATFORM FOR FILM PRODUCTION

The PR series is developed as a professional platform of products for virtual production LED wall solutions, which can be used for building backdrops and ceilings.
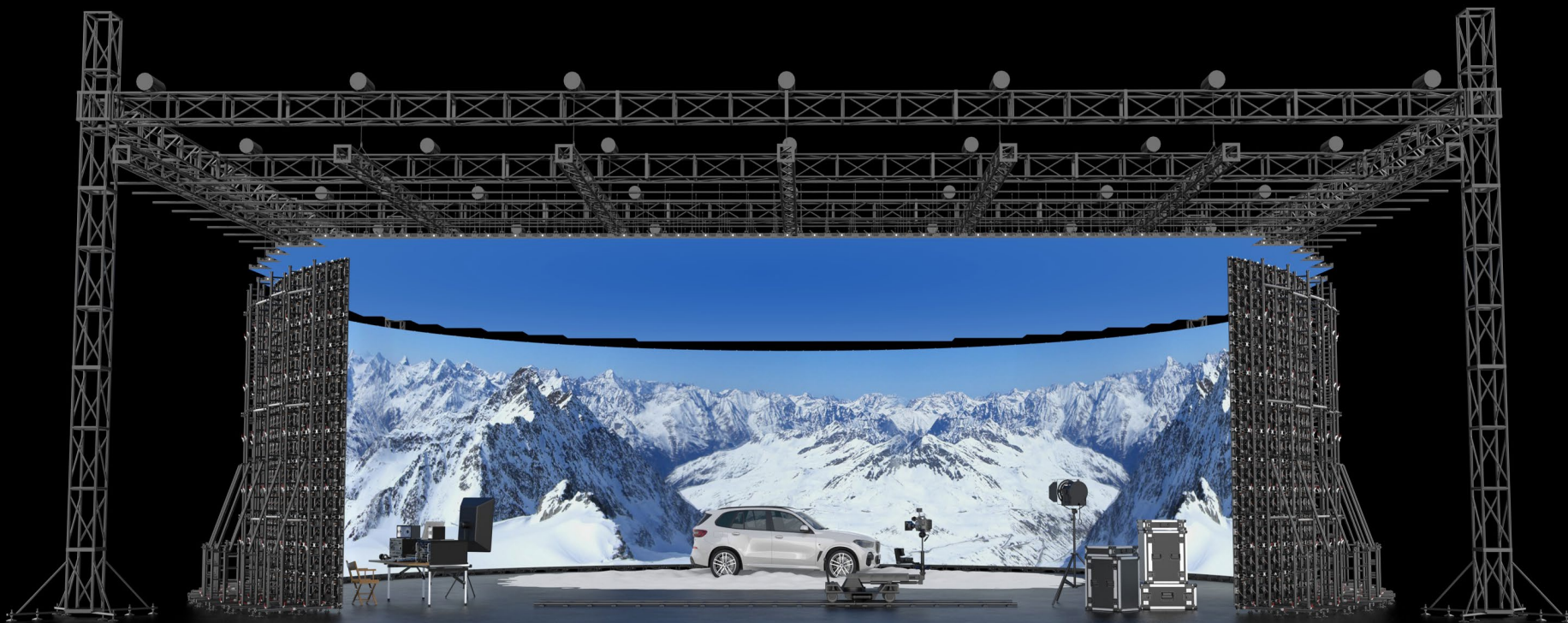
A comprehensive platform for VP

The PR Series is designed to provide LED solutions for virtual production. With two sizes and pixel pitches ranging from 1.5 to 5.2 mm, it satisfies the needs of any virtual production.
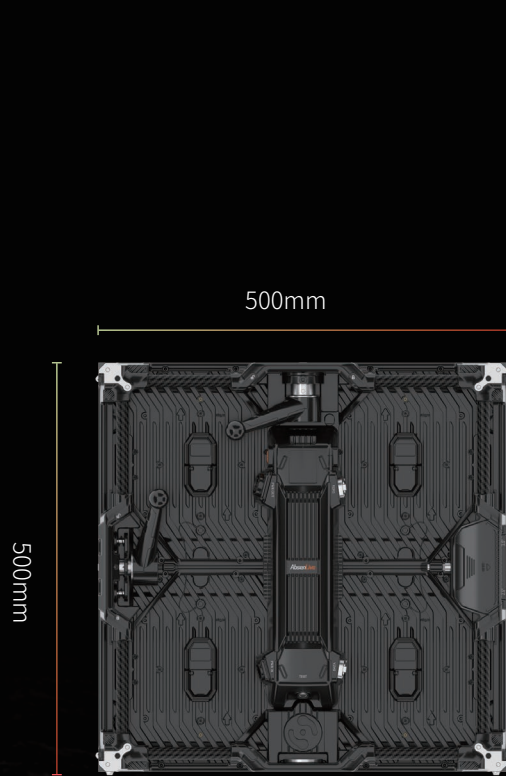
For backdrops

PR1.5 PR1.9	500*500mm
PR2.5	500*500/ 500*1000mm

For ceilings

PR3.9 PR5.2	500*500/ 500*1000mm

A multi-purpose platform for VP

The PR products with narrow pixel pitches suit LED backdrops, enabling photographers to capture desired images even at close range. PR3.9 and PR5.2 are perfect for ceilings due to their high brightness, which provides optimal lighting effects.

PR1.5/ PR1.9/ PR2.5
Recommended for building backdrops

- 1500nits, satisfies backdrops brightness requirements
- Narrow pixel pitch for high resolution camera sensors
- Effectively resists moiré when shooting at close range

PR3.9/ PR5.2
Recommended for building ceilings

- 6000nits brightness, bright enough to be used as lighting
- Create realistic environmental lighting effects and reflections
- Each 500*1000mm panel weighs only 13.5kg,which requires lower load-bearing capacity

Platform of products for VP LED wall solutions
Advantages of using the same platform to build LED backdrops and ceilings

- **Same design**
  Helps to quickly calculate the screen size to determine the product configuration plan and save management costs

- **Same operation**
  Saves the learning cost of installation and disassembly

- **Same accessories**
  Accessories can be used flexibly, helping to save costs

- **Harmonized display performance**
  Create better shooting conditions for visual effects

EXCELLENT IN-CAMERA VISUAL EFFECTS (ICVFX)

ICVFX (In-Camera Visual Effects) is an innovative technique where visual effects are captured in the camera instead of the traditional post-production process. As one of the pillars of virtual production, ICVFX allows filmmakers to capture and see virtual assets as if they were actually there; making the process as effective as if they were real-world physical assets. With stunning display performance, the PR series brings excellent in-camera visual effects, making the filming process smoother and helping to produce more perfect works.
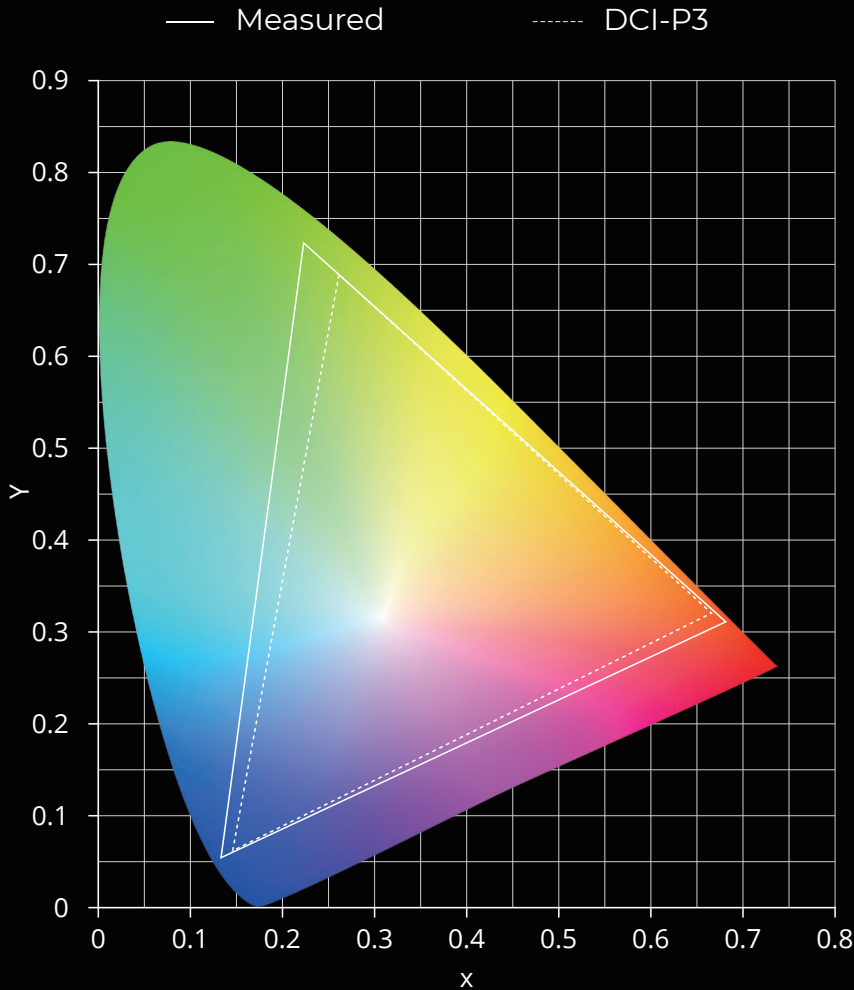
◉ 99.9% DCI-P3 color gamut coverage

◉ Higher CRI (Color Rendering Index)

◉ HDR (High Dynamic Range)

◉ 16bit high grayscale

◉ 7680Hz high refresh rate

◉ Super black level; up to 10,000:1 contrast ratio

◉ Up to 251Hz high frame rate

◉ Minimizes off-axis color shift

◉ Advanced IMD 4-in-1 technology

Accurate color reproduction

The PR Series allows creators to use precise color reproduction with its DCI-P3 color gamut to unleash their full creative potential.

—— Measured   ------- DCI-P3

99.9%

Average DCI-P3 color gamut coverage

DCI-P3

Digital Cinema Initiatives P3
A color gamut set by Digital Cinema Initiatives, LLC.
Cinematic color gamut range
25% wider than sRGB color gamut

Brompton Hyrda Calibration

Tested by Brompton Hydra Calibration system
Measured by Absen Labs

Channel	Red	Green	Blue	Average
DCI-P3 Coverage	99.7%	100%	100%	99.9%

*Refers to the test result of PR2.5

Smooth visual performance

The PR series can not only show videos smoothly at a high frame rate, but also support all the advanced features needed in virtual production such as frame remapping, a function usually used with the shutter sync adjustment to realize multi-camera shooting of the same objects in different video backgrounds at the same time to improve work efficiency and save costs of virtual recording, especially for xR project.

The higher frame rate, the smaller animation steps, resulting in the following results

◉ Smoother picture
60Hz

◉ Inconspicuous ghosting
**144Hz**

◉ Less pronounced tearing
251Hz

*The PR2.5 500*500mm panels, PR3.9 and PR5.2 support 251Hz frame rate. And the frame rate of other products is specified in the parameters.

Minimizes off-axis color shift

The PR series provides wide viewing angles of ±80° horizontally and vertically while remaining consistent with color and brightness, allowing the cinematographers to shoot in an unrestricted filming environment without compromising the visual quality.

Horizontal color temperature (K)

6545

6585

-90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 (°)
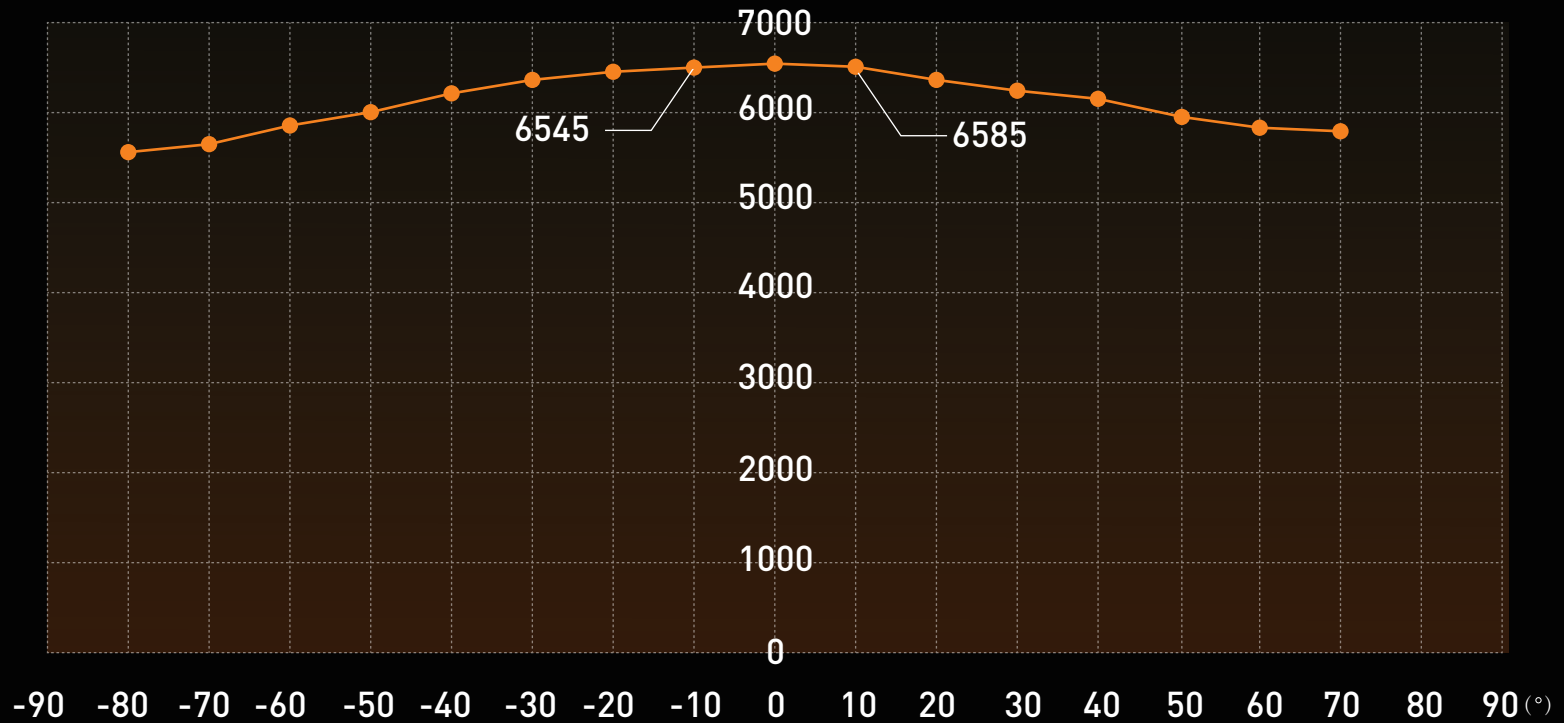
±80°

Wide horizontal/ vertical viewing angles
Minimizes off-axis color shift
Wider angles for shooting

*Refers to the test result of PR2.5

Advanced IMD 4-in-1 technology

PR1.5 incorporates flip-chip common cathode 4-in-1 LEDs for a high brightness and contrast ratio, as well as excellent moiré reduction for improved in-camera performance.
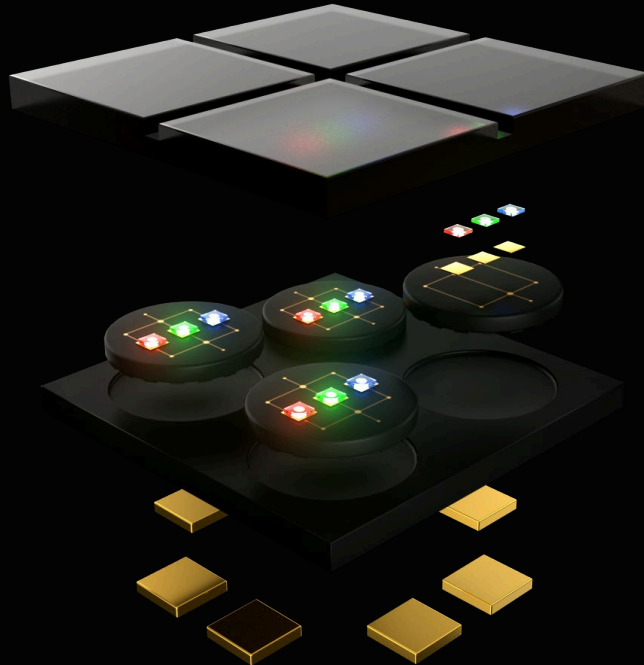
X2.5
Improved anti-collision ability

## 20%
Contrast enhancement

X3
Flatness improvement

- 4-in-1 pixel integration enhances adhesion and reduces lamp knockout probability

- Integrated package with good air tightness and improved moisture resistance

- The same pixel density, 50% reduction in solder joints, higher stability

- Better color mixing and high contrast

- Reduce moiré effect effectively

- Better on-camera performance

MiniLED

MOST INNOVATIVE MECHANICAL DESIGN

The PR Series is an excellent choice for not just virtual production studios but also spectacular stage designs.
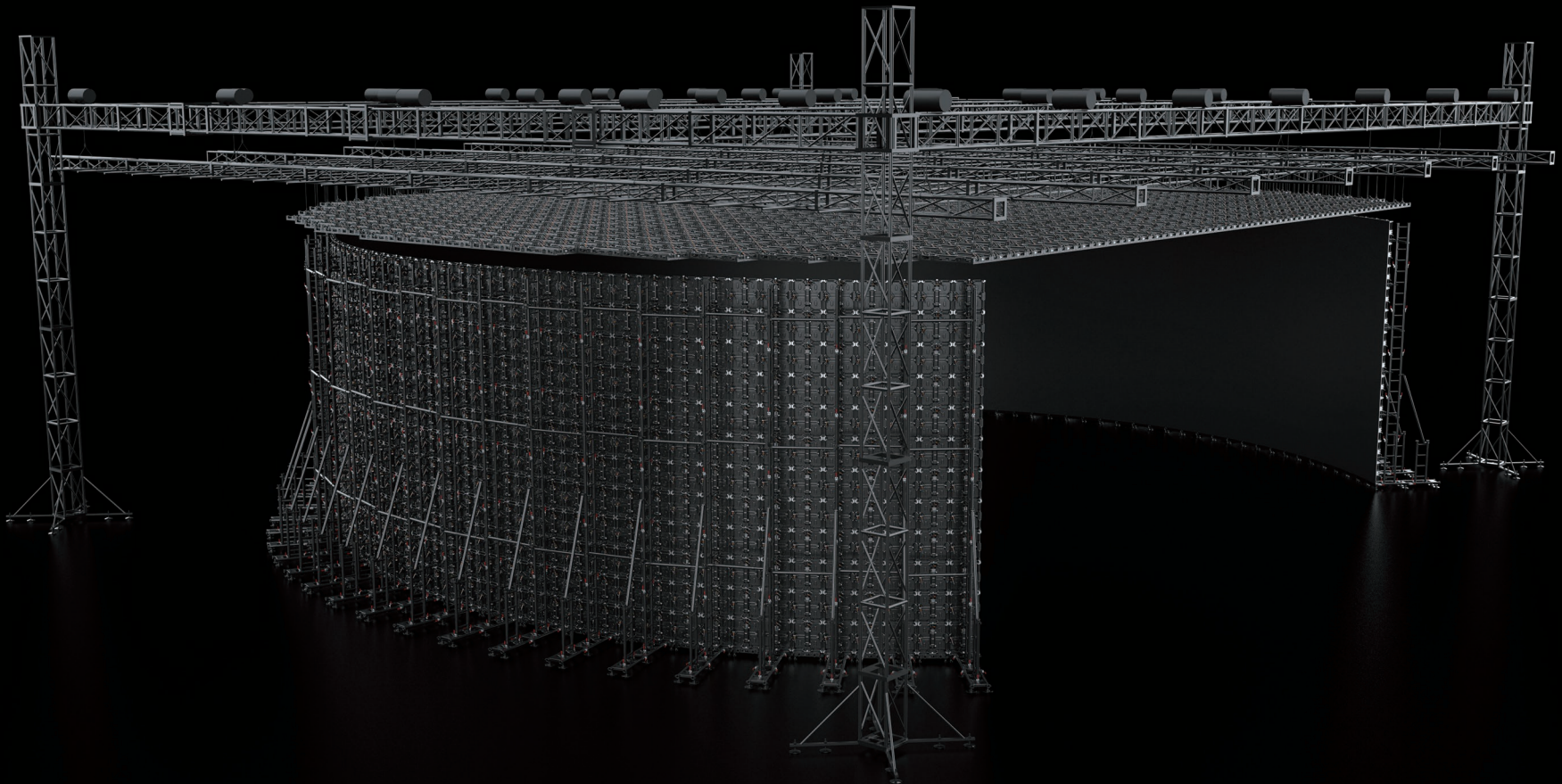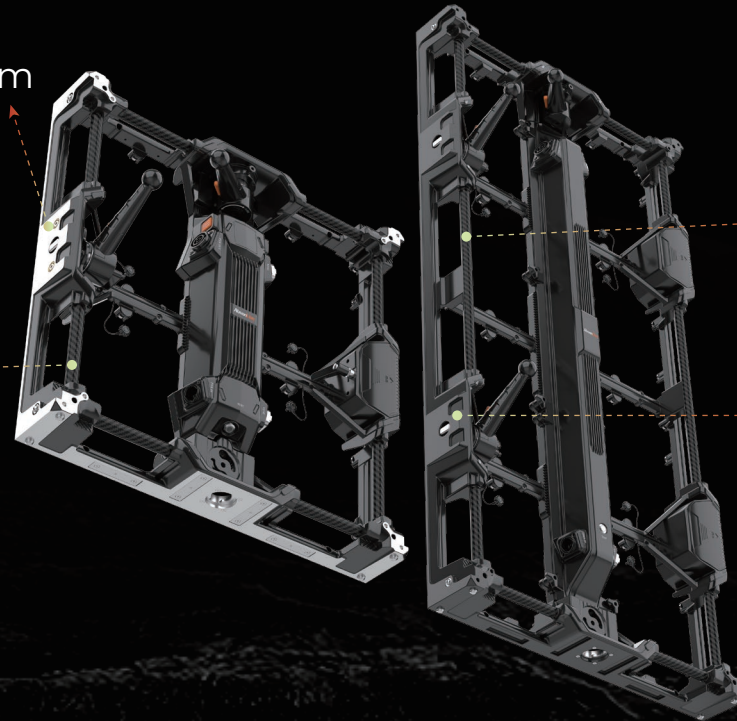
Composite structure design

The revolutionary carbon fiber and die-casting alloy composite structure of the PR Series makes panels lightweight and durable.
All round tubes are alternatives to conventional handles for safer and easier operation.

Die casting aluminum

Carbon fiber

Carbon fiber

Die casting
magnesium

A true one-step locking system

The PR Series, equipped with a true one-step locking system, enables panels to be connected or disconnected by simply rotating the handle after pressing the button. With just one vertical side lock and one horizontal side lock, their installation and disassembly are more efficient than with conventional panels.

Fully flush top design

Vertical side lock

Horizontal side lock

Lock

Unlock

Lock

Unlock
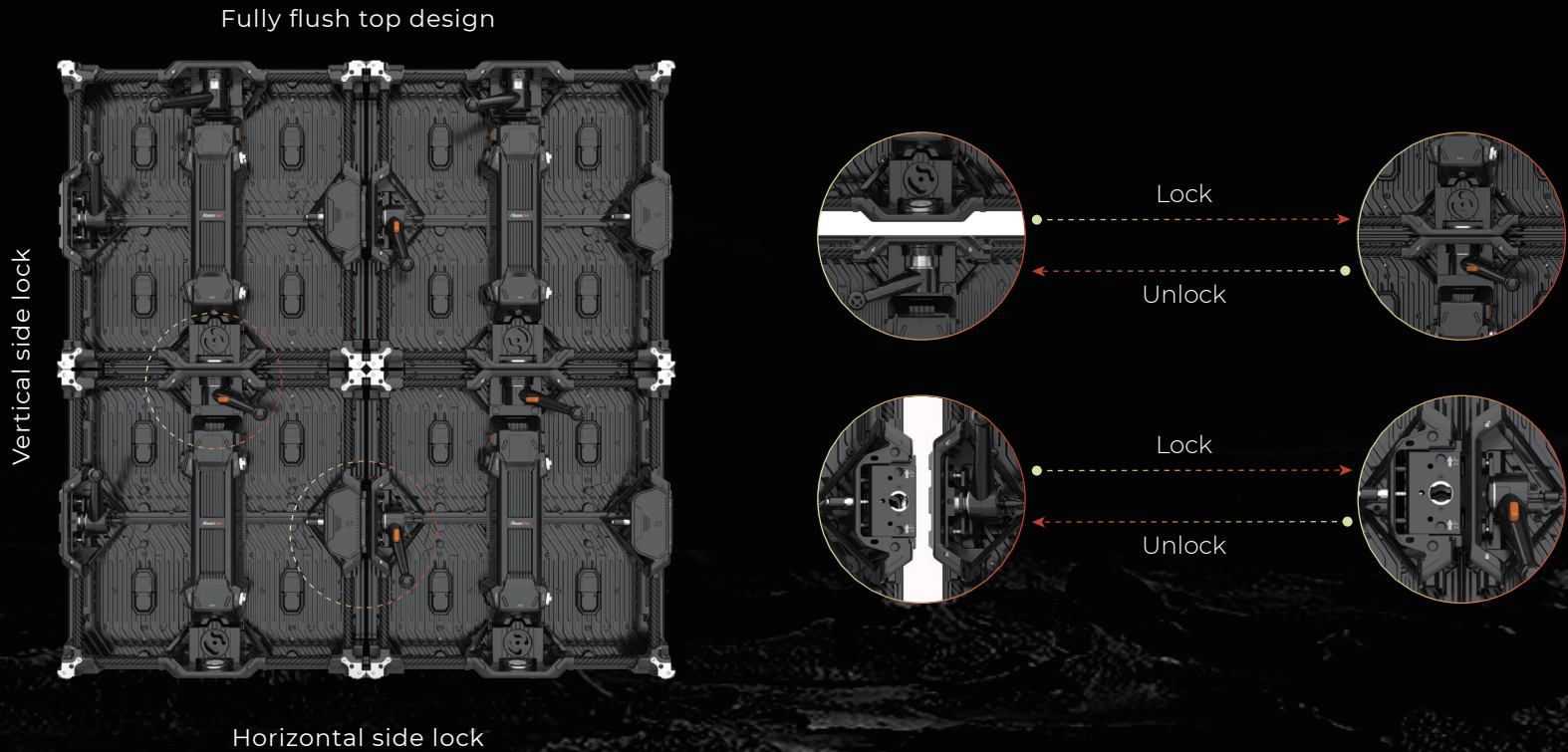
Comprehensively improved flatness

The PR series panels include two positioning pins on the horizontal lock, four positioning pins on the bottom, and four magnets on both the top and bottom to assure alignment precision, installation efficiency, and flatness of the screen.
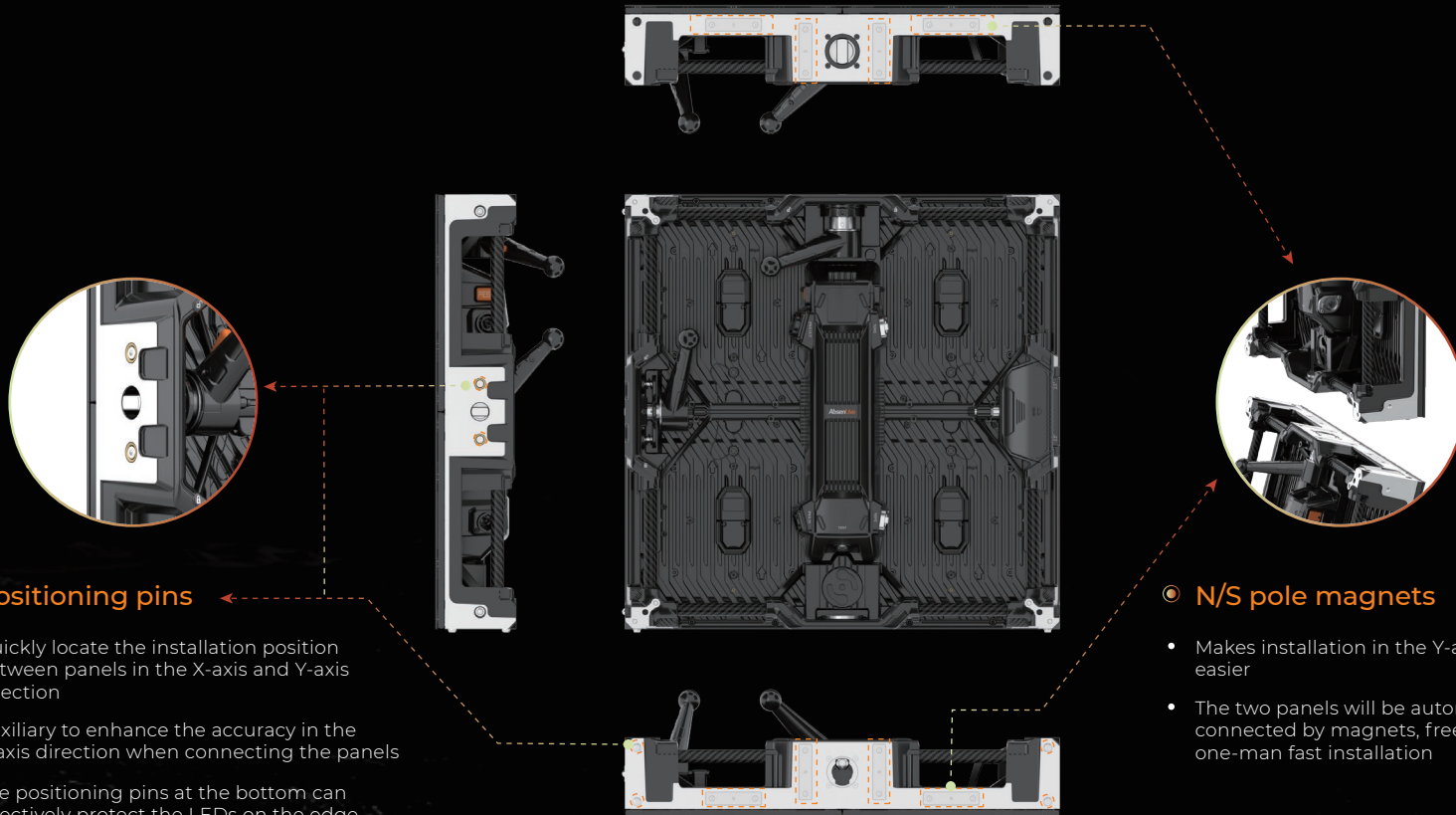

Positioning pins

- Quickly locate the installation position between panels in the X-axis and Y-axis direction
- Auxiliary to enhance the accuracy in the Z-axis direction when connecting the panels
- The positioning pins at the bottom can effectively protect the LEDs on the edge

N/S pole magnets

- Makes installation in the Y-axis direction easier
- The two panels will be automatically connected by magnets, freeing hands for one-man fast installation

Better heat dissipation and module protection

The magnesium alloy casing of modules enhances heat dissipation that better avoids the display from being cyan even when it is completely white. All modules are equipped with a safety rope to prevent them from falling off as a result of excessive vibration or improper operation, and ensure the safety of the ceiling installation.
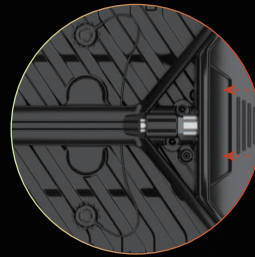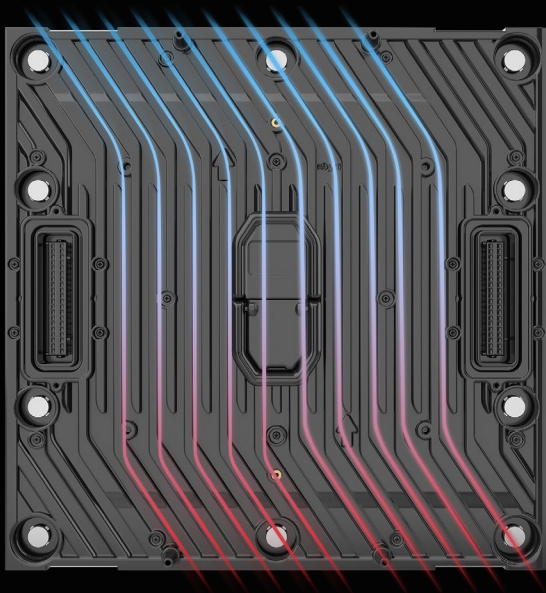
## Magnesium alloy casing

- Reduce heat accumulation effectively
- Better heat dissipation
- Better color consistency

Safety rope

- Prevent the module from falling suddenly due to severe vibration or improper operation
- Guarantee the safety of ceiling installation

Extraordinary curving capabilities

The PR Series provides a new connection solution with a curve block that can be customized at any angle between 0 and 7.5 degrees, allowing for more flexibility in building curved screens.
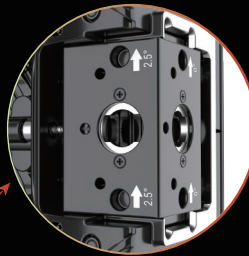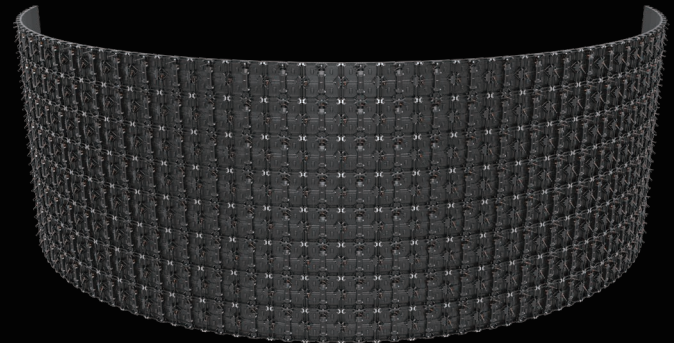
Curve block

Customizable to any angle between 0 and 7.5 degrees

Adjustable clamping handle

Rotate to release the curve block to adjust the angle
Pull the handle to the left and rotate to adjust its position independently

*Only the 500*500mm panel incorporates curve block. The default optional angles of the curve block are 0, 2.5°, 5°, and 7.5° (adjusted in units of 2.5°)

Flexible mixed connection

With great installation flexibility, the 500*500mm panel and the 500*1000mm panel can be connected to each other vertically and horizontally.

Vertical connection

Horizontal connection

Mixed connection of 500*500mm panels and 500*1000mm panels

Multiple installation methods

The PR series is compatible with a variety of installation techniques, including hanging, stacking, and ceiling installation. The LED display can be built using optional accessories as required.
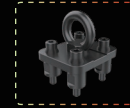

Hanging installation
500mm & 1000mm hanging bar
Available in either ring or hook versions

Stacking installation
Stacking system

Ceiling installation
Hanging ring

Modular design for fast maintenance

The PR series' classic modular design allows for front and rear maintenance of modules and the power box. Give the power box a simple click and it will be removed, making maintenance very user-friendly.

Front maintenance
Modules, power box

Instant removal of
power box with one press

Rear maintenance
Modules, power box

Parameters	PR1.5	PR1.9	PR2.5	PR3.9	PR5.2
LED type	IMD (Flip-chip)	Black SMD1212	Black SMD1515	SMD1921	SMD1921
Pixel pitch (mm)	1.5	1.9	2.5	3.9	5.2
Panel dimensions (WxHxD, mm)	500x500x93	500x500x93	500x500x93/ 500x1000x93	500x500x93/ 500x1000x93	500x500x93/ 500x1000x93
Panel resolution	320x320	256x256	200x200/ 200x400	128x128/ 128x256	96x96/ 96x192
Panel weight (kg)	9.5	9.5	9.5/ 13.5	9.5/ 13.5	9.5/ 13.5
Panel material	Carbon fiber + Die casting aluminum	Carbon fiber + Die casting aluminum	500x500mm panel: Carbon fiber + Die casting aluminum 500x1000mm panel: Carbon fiber + Die casting magnesium		
Module size (WxH, mm)	250x250	250x250	250x250	250x250	250x250
Brightness (nit)	1500	1500	1500	6000	6000
Refresh rate (Hz)	7680	7680	7680	7680	7680
Grayscale (bit)	16	16	16	16	16
Contrast ratio	10000:1	8000:1	10000:1	10000:1	10000:1
Color temperature (K)	6500	6500	6500	6500	6500
Viewing angle (H/V, °)	160/160	160/160	160/160	160/160	160/160
Drive mode	1/8	1/8	1/8	1/8	1/4
Average DCI-P3 color gamut coverage	100%	98%	99.9%	95.1%	95.1%
Maximum frame rate supported (Hz)	144	240	251 (500x500mm panel) 156 (500x1000mm panel)		251
AC operating voltage(V)			100~240	251	
Power consumption (max./avg., W/m²)	880/295	570/190	600/200	600/200	580/194
Storage temperature (℃)			-40~+60		
Operating temperature (℃)			-10~+40		
Storage humidity (RH)			10%~90%		
Operating humidity (RH)			10%~90%		
IP rating	IP40/IP21	IP40/IP21	IP40/IP21	IP65/IP54	IP65/IP54
Control system			Brompton		
Certification			FCC, ETL, CE, RoHS		