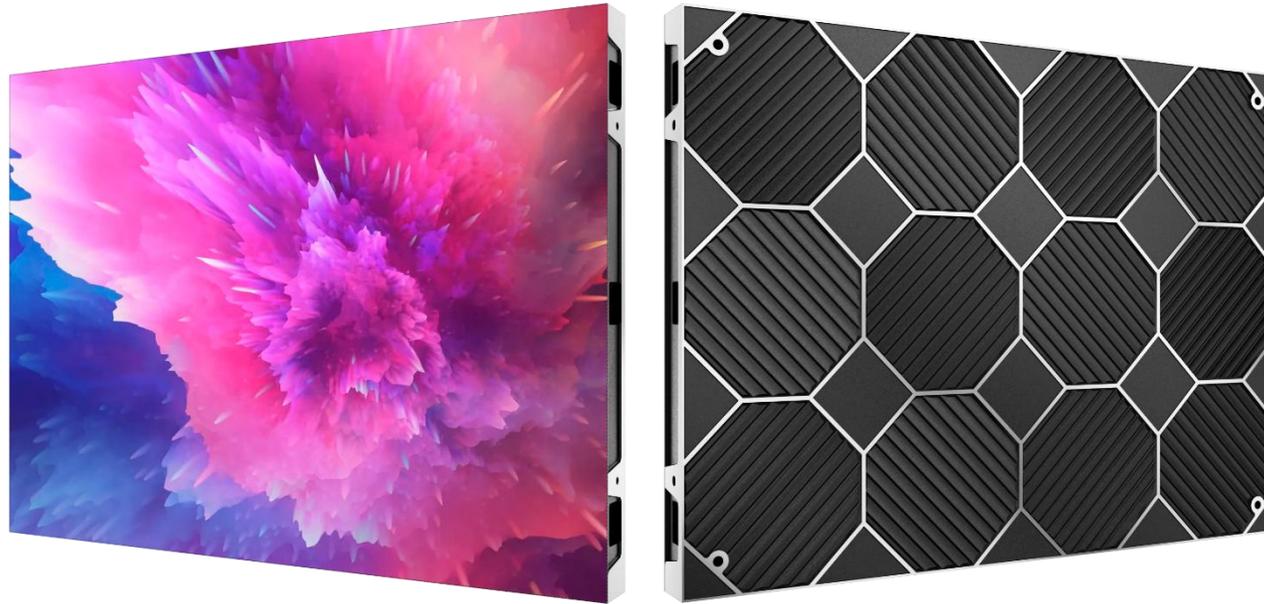# PREMTECO
INNOVATIVE VISUAL TECHNOLOGIES

SP3-Max Series

Ultra-Lightweight & Ultra-Thin Fine-Pitch LED Display - P1.2, P1.5, P1.8, P2.0, P2.5

Lightweight 16.8kg/sqm

Front Access

Ultra Slim Design 32mm

Easy Maintenance

Die-Casting Aluminum

Quick Installation

7680Hz

Seamless connection

Slim and lightweight design

The die-cast aluminum SP3 MAX Series cabinet is engineered with an ultra-lightweight design of 5.16kg per panel, equivalent to 16.8 kg per square meter, delivering significant advantages in installation efficiency and transportation convenience.

Meanwhile, the slim 32 mm cabinet thickness enables a compact screen structure, making it especially suitable for space-constrained indoor environments.

More importantly, the reduced overall weight minimizes structural load, effectively lowering pressure on building architecture and reducing potential safety risks, including long-term structural stress—making it ideal for both permanent installations and rental applications.

Cabinet Specifications
•Cabinet size: 640 mm × 480 mm
•Thickness: 32 mm
•Weight: 5.16 kg per panel
•Weight per sqm: 16.8 kg/sqm
•Available Pixel Pitches : P1.2 / P1.5 / P1.8 / P2.0 / P2.5
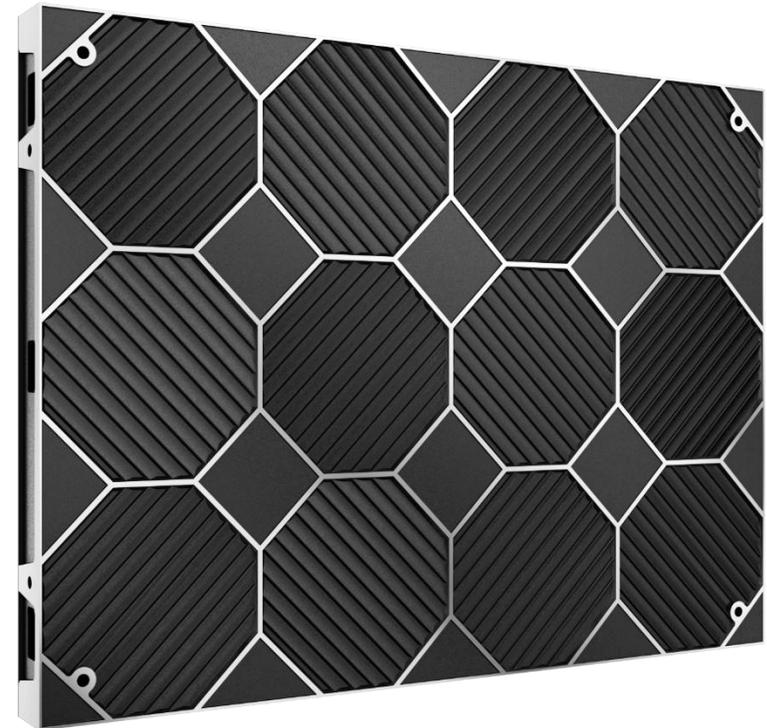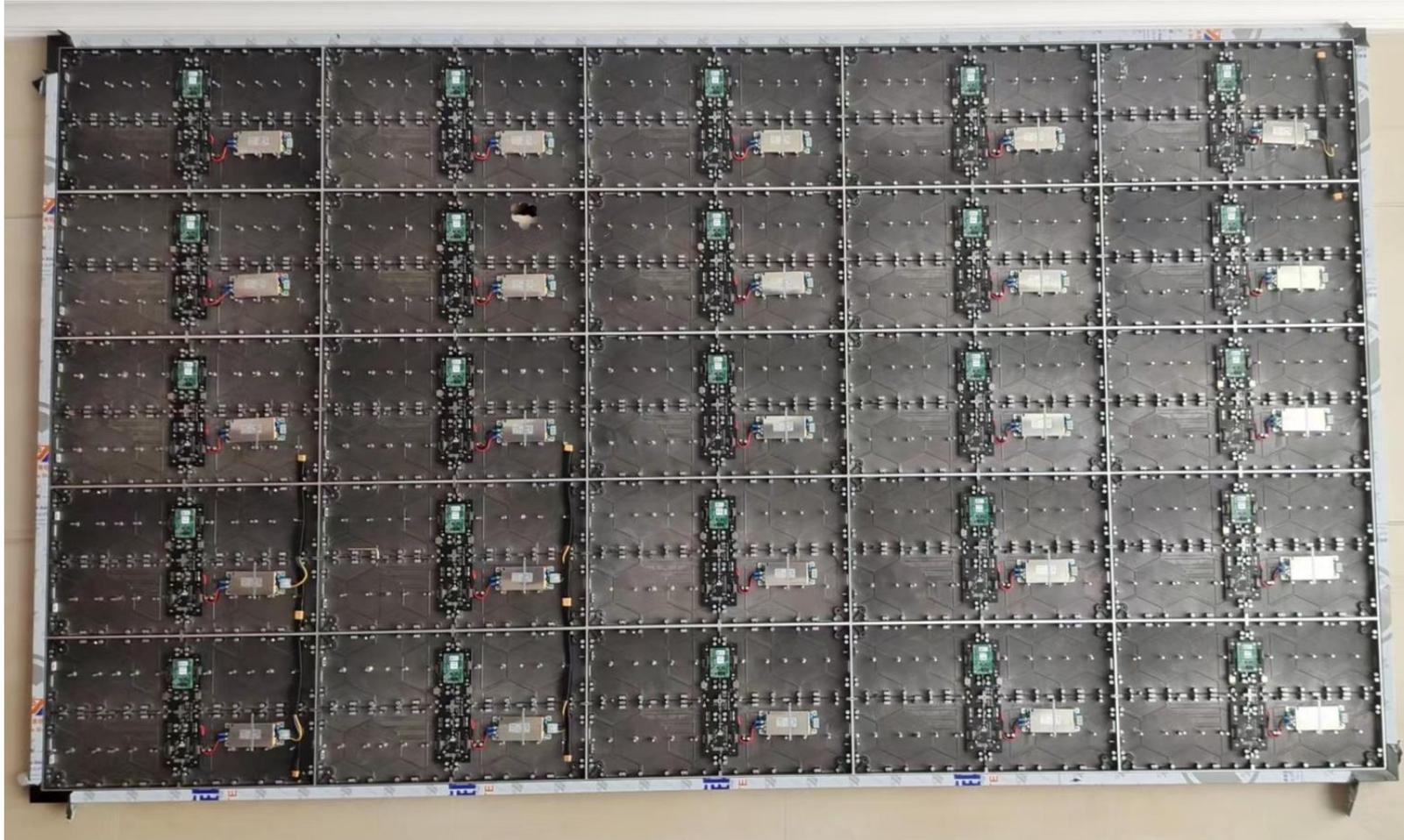
Front Access Service

With a **front-access service design**, all key components of the SP3 MAX series LED screen can be easily accessed and removed from the front, enabling **fast and efficient maintenance** or component replacement. This design allows technicians to quickly resolve any issues **without dismantling the entire screen** or moving it from its installed position.

As a result, front access service significantly **reduces maintenance time**, **lowers labor costs**, and **minimizes downtime**, making it an ideal solution for **indoor fixed installations**, especially in space-limited environments.

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Seamless Connection

The SP3 MAX cabinet is manufactured using high-precision die-cast aluminum, ensuring exceptional structural accuracy, strength, and long-term consistency. This advanced manufacturing process guarantees precise cabinet alignment and excellent screen flatness, effectively eliminating gaps and misalignment between panels.

As a result, the entire LED display surface appears seamless, smooth, and visually uniform, delivering superior image continuity and enhanced visual comfort. The rigid die-cast aluminum structure also improves mechanical stability and durability, ensuring reliable performance during long-term operation as well as frequent installation and dismantling in rental applications.

High Visual Performance for Commercial & Rental Applications

The SP3 MAX Series LED panel features a 7,680 Hz refresh rate and 14-bit grayscale, delivering smooth motion, stable images, and vivid color reproduction. The display is flicker-free and camera-friendly, ensuring excellent performance for live broadcasting and professional filming.

For commercial applications such as malls, lobbies, showrooms, and control rooms, it provides uniform brightness, consistent colors, and reliable 24/7 operation. For rental and stage use, it eliminates scan lines, black bars, and flicker, making it ideal for events, exhibitions, concerts, and broadcasts.

Combined with a lightweight die-cast aluminum cabinet, excellent flatness, and fast maintenance, the SP3 MAX Series delivers reliable performance for both fixed installation and rental environments.

Power & Signal Redundancy | Never Blackout

The cabinet is designed with sufficient internal space to support dual power supplies and dual receiving cards. This redundant design ensures continuous operation: if one power supply or receiving card fails, the backup unit automatically takes over, keeping the cabinet running without interruption.

As a result, the screen delivers maximum reliability and uninterrupted performance, ensuring it will never blackout—even in mission-critical or long-hour operation environments.
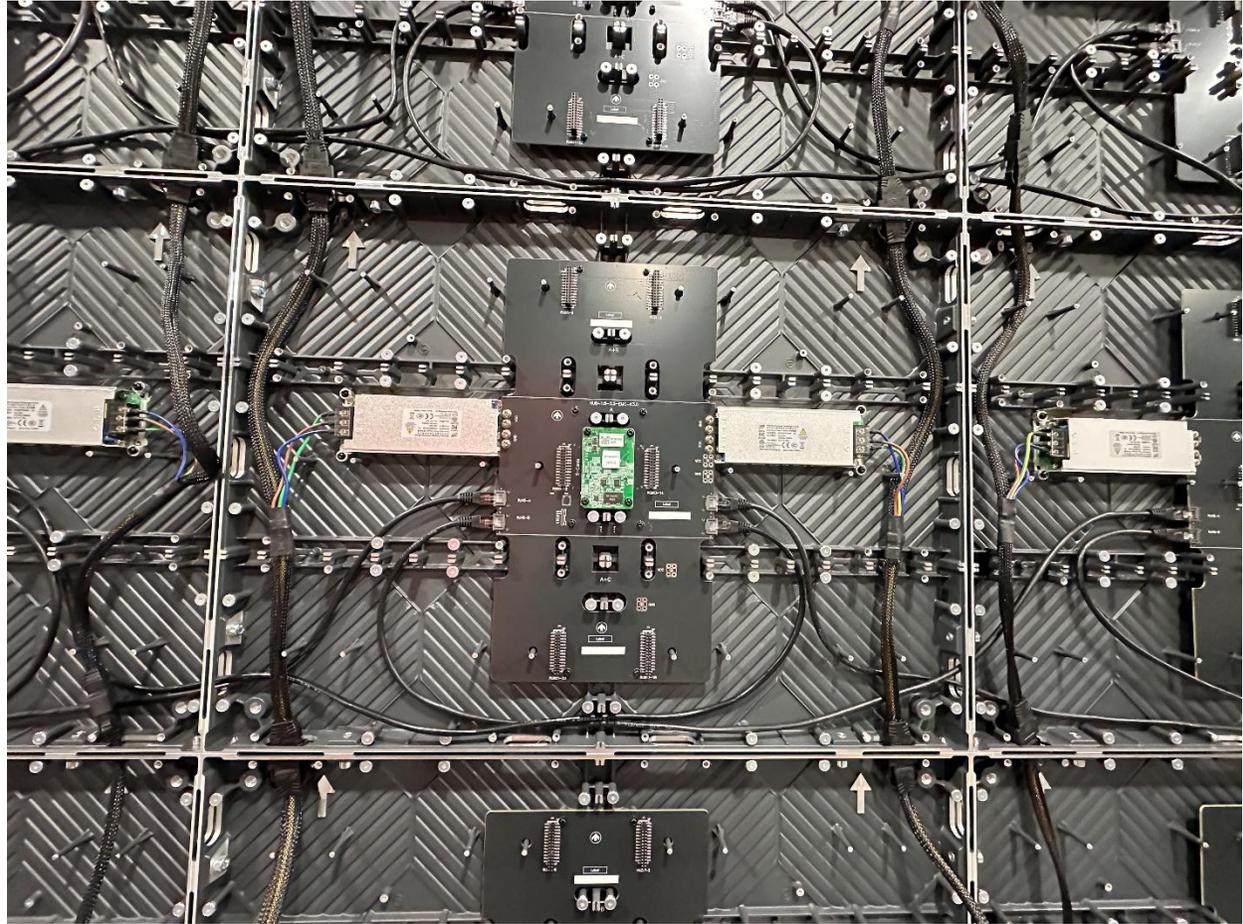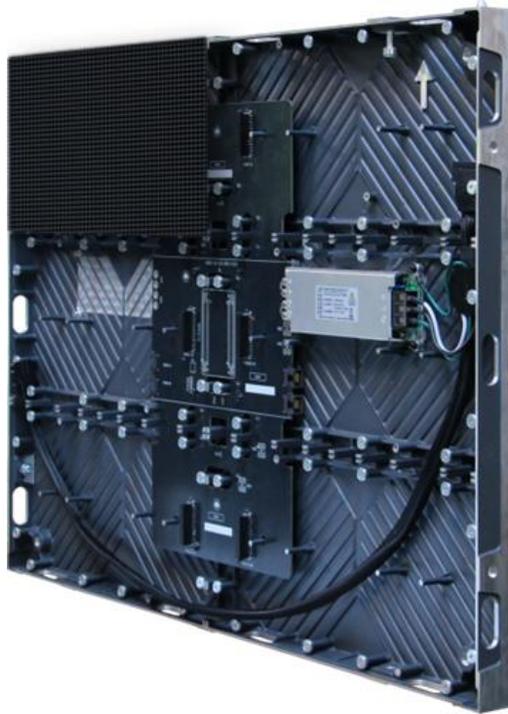
Hard-Pin Connection | Enhanced Reliability & Installation Convenience

The LED panel adopts a hard-pin connection design, completely eliminating the need for ribbon cables. This ensures a more reliable and stable signal and power connection, resulting in improved operational stability and a longer product lifespan.

Compared with traditional ribbon-cable designs, the hard-pin modules can be connected to any HUB interface position, without being limited to fixed ribbon-cable sockets. This provides greater installation flexibility, enabling faster and more convenient module installation and replacement.

By removing fragile ribbon cables, the design significantly reduces the risk of connection failures, especially during long-term operation or frequent installation and dismantling in rental environments. At the same time, it reduces maintenance frequency and overall costs, making the system more dependable and cost-effective throughout its entire lifecycle.
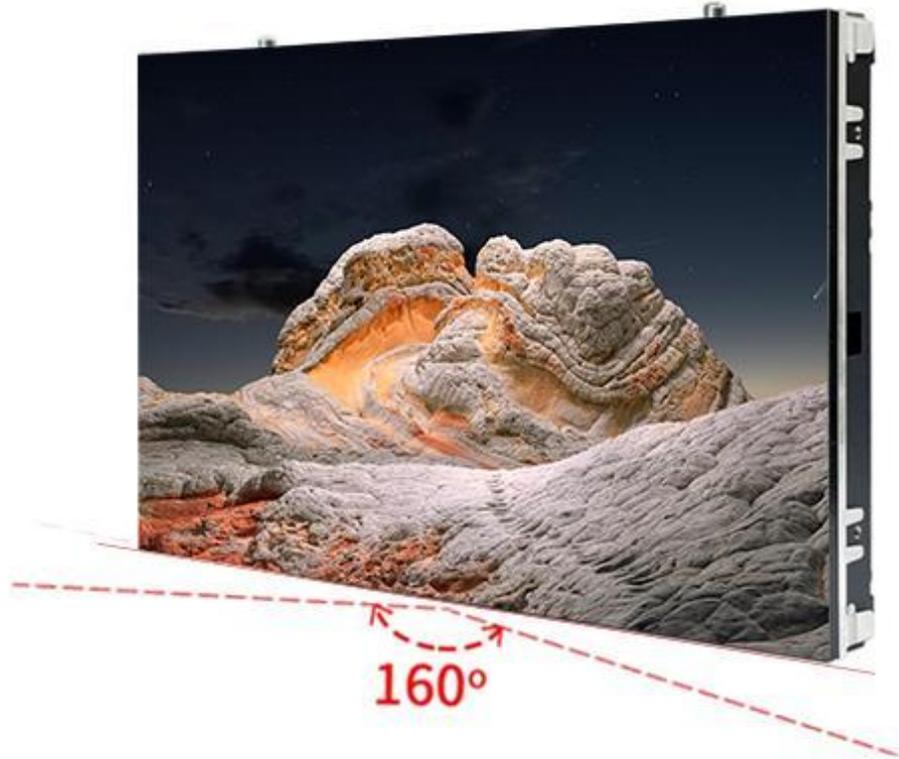
Large Viewing Angle

The LED display features wide horizontal and vertical viewing angles of up to 160°, ensuring clear and consistent image quality from a broad range of perspectives.

Viewers can comfortably enjoy the content from different angles without distortion or color shift, creating a more immersive and engaging viewing experience for multiple audiences simultaneously.

Application Fields

- Meeting Rooms
- Exhibition Centers
- Shopping Malls
- Airports
- Commercial Displays
- Event & Rental Displays

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Item	P1.2	P1.5	P1.8	P2.0	P2.5
Pixel Pitch	P1.25mm	P1.538mm	1.86mm	2.0mm	2.5mm
LED Type	SMD1010	SMD1010	SMD1515	SMD1515	SMD2020
Module Resolution	256dotsx 128dots	208dotsx 104dots	172dots × 86dots	160dots × 80dots	128dots × 64dots
Driving Mode	1/64scan	1/52scan	1/43scan	1/40scan	1/32scan
Module Pixels	32,768dots	34,112dots	14,792dots	12,800dots	8,192dots
Module Size	320mm × 160mm	320mm × 160mm	320mm × 160mm	320mm × 160mm	320mm × 160mm
Cabinet Size	640mm × 480mm	640mm × 480mm	640mm × 480mm	640mm × 480mm	640mm × 480mm
Cabinet Resolution	512dots x 384dots	416dots x 312dots	344dots ×258dots	320dots × 240dots	256dots × 192dots
Pixel Density	640,000dots/㎡	422,500dots/㎡	288,906 dots/㎡	250,000dots/㎡	160,000dots/㎡
Minimum Viewing Distance	≥1.2m	≥1.5m	≥1.8m	≥2.0m	≥2.5 m
Brightness	800nits～1,000nits	800nits～1,000nits	800nits～1,000nits	800nits～1,000nits	800nits～1,000nits
IP Grade	IP43	IP43	IP43	IP43	IP43
Refresh Rate	7,680Hz	7,680Hz	7,680Hz	7,680Hz	7,680Hz
Gray Scale	14bits～22bits	14bits～22bits	14bits～22bits	14bits～22bits	14bits～22bits
Viewing Angle	H:160° / V:140°	H:160° / V:140°	H:160° / V:140°	H:160° / V:140°	H:160° / V:140°
Maximum Power Consumption	280W/㎡	280W/㎡	280W/㎡	280W/㎡	280W/㎡
Average Power Consumption	70W/㎡	70W/㎡	70W/㎡	70W/㎡	70W/㎡
Input Voltage	AC110V～AC220V @ 50Hz / 60Hz	AC110V～AC220V @ 50Hz / 60Hz	AC110V～AC220V @ 50Hz / 60Hz	AC110V～AC220V @ 50Hz / 60Hz	AC110V～AC220V @ 50Hz / 60Hz
Operating Temperature	- 20℃～60℃	- 20℃～60℃	- 20℃～60℃	- 20℃～60℃	- 20℃～60℃
Operating Humidity	10%～90%	10%～90%	10%～90%	10%～90%	10%～90%
Cabinet Material	Die-casting Aluminum	Die-casting Aluminum	Die-casting Aluminum	Die-casting Aluminum	Die-casting Aluminum
Cabinet Weight	5.16kg/panel	5.16kg/panel	5.16kg/panel	5.16kg/panel	5.16kg/panel
Cabinet Thickness	32mm	32mm	32mm	32mm	32mm
Operating System	Windows (Win7, Win8, etc.)	Windows (Win7, Win8, etc.)	Windows (Win7, Win8, etc.)	Windows (Win7, Win8, etc.)	Windows (Win7, Win8, etc.)
Signal Source Compatibility	DVI, HDMI, etc.	DVI, HDMI, etc.	DVI, HDMI, etc.	DVI, HDMI, etc.	DVI, HDMI, etc.