

LED MODULE

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LED DISPLAY MODULE

THE INTRODUCTION GUIDE

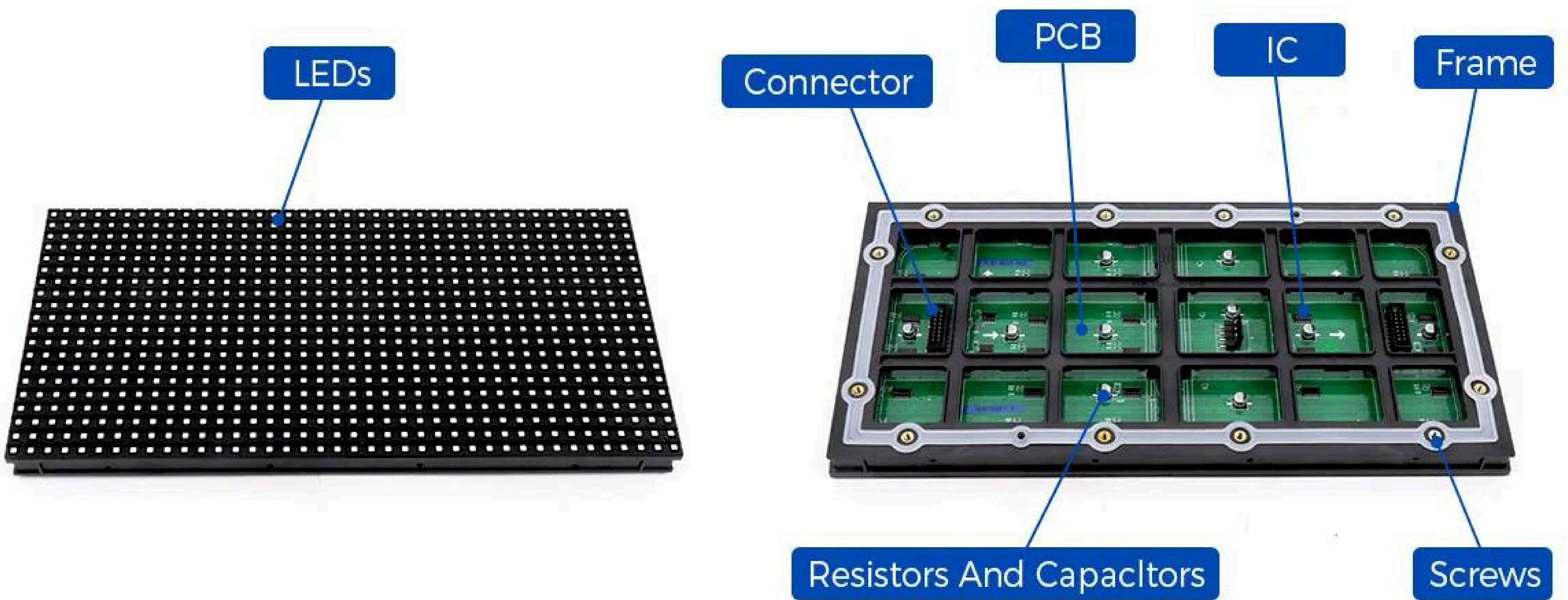
You can get the full knowledge of the led display module from this article, As a basic unit of LED display, which is also called an LED panel.

Covers the front surface of the LED screen, also the first thing comes to our eyes when we look at a LED display.

We'll bring you to know more about the LED module from these points as below:

The components, module classification of application, module size & some suggestions if we could offer

LED COMPONENTS



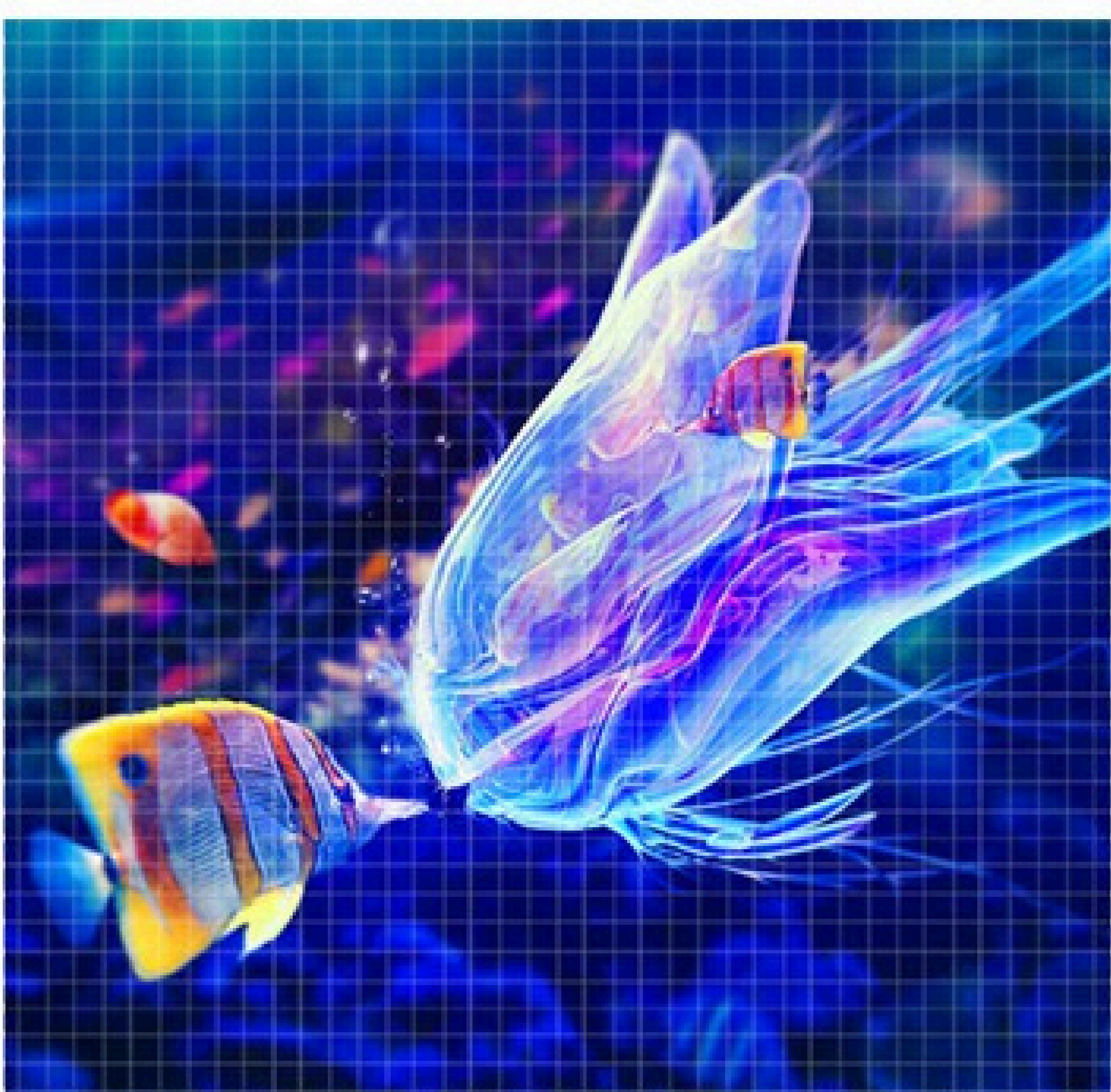
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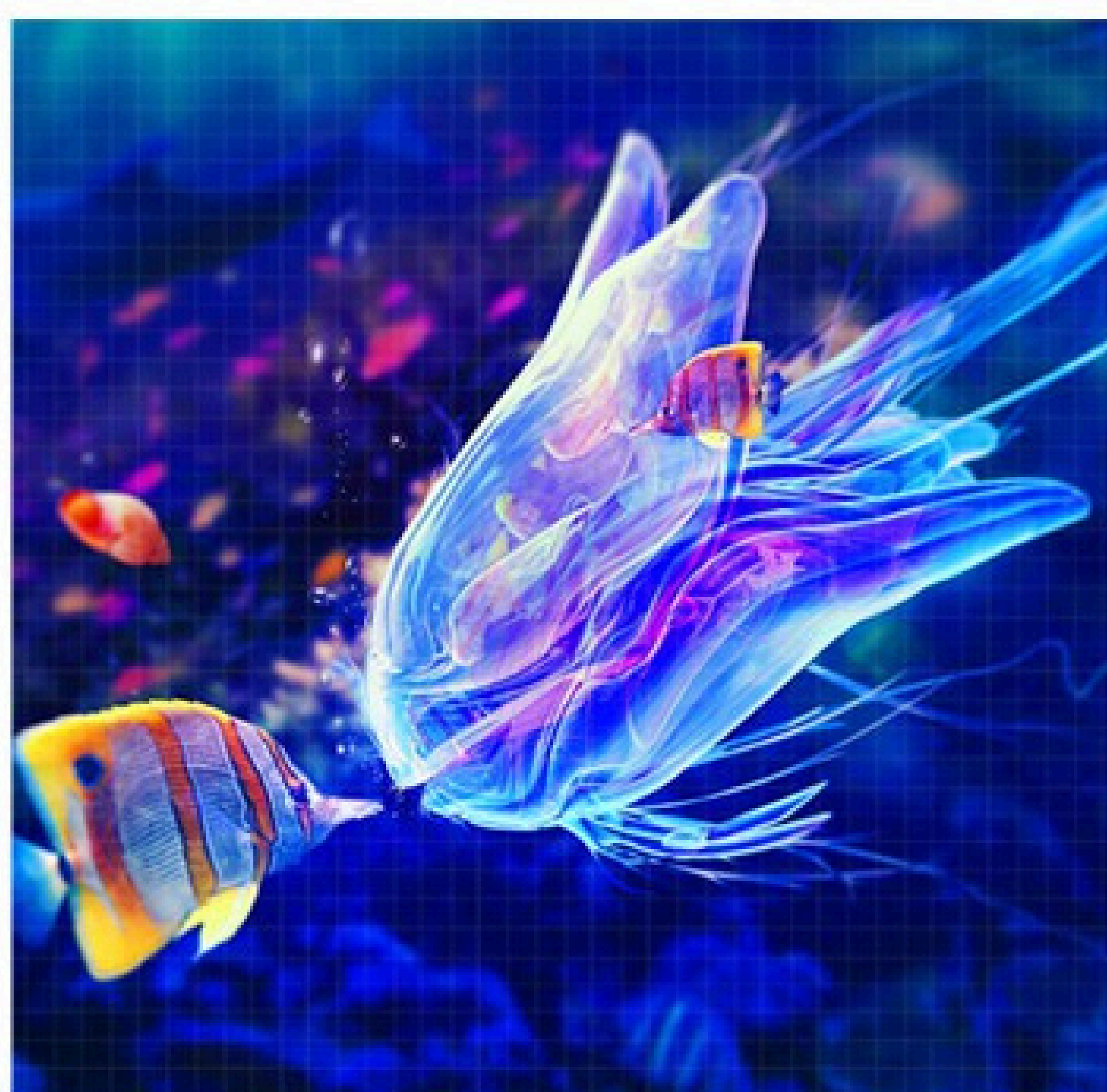
LED DISPLAY PANEL COMPONENTS

The LED display module is one of the main components of the finished LED display!

Mainly composed of LEDs, IC, Frame, PCB, Connector, Cables, Screws, resistors and capacitors.



SMD

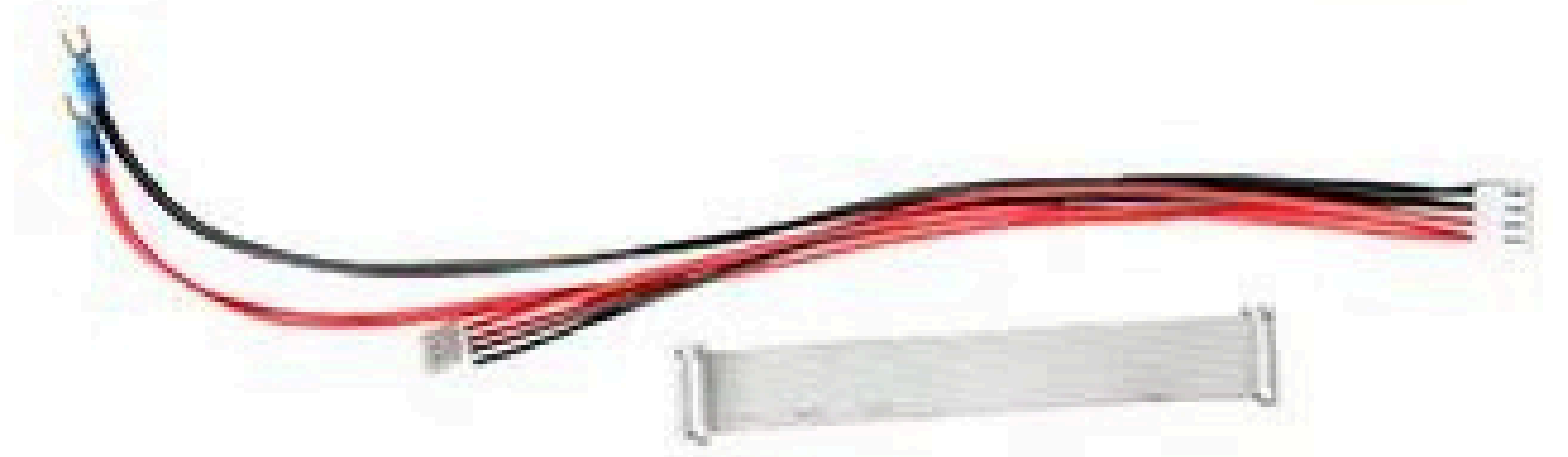
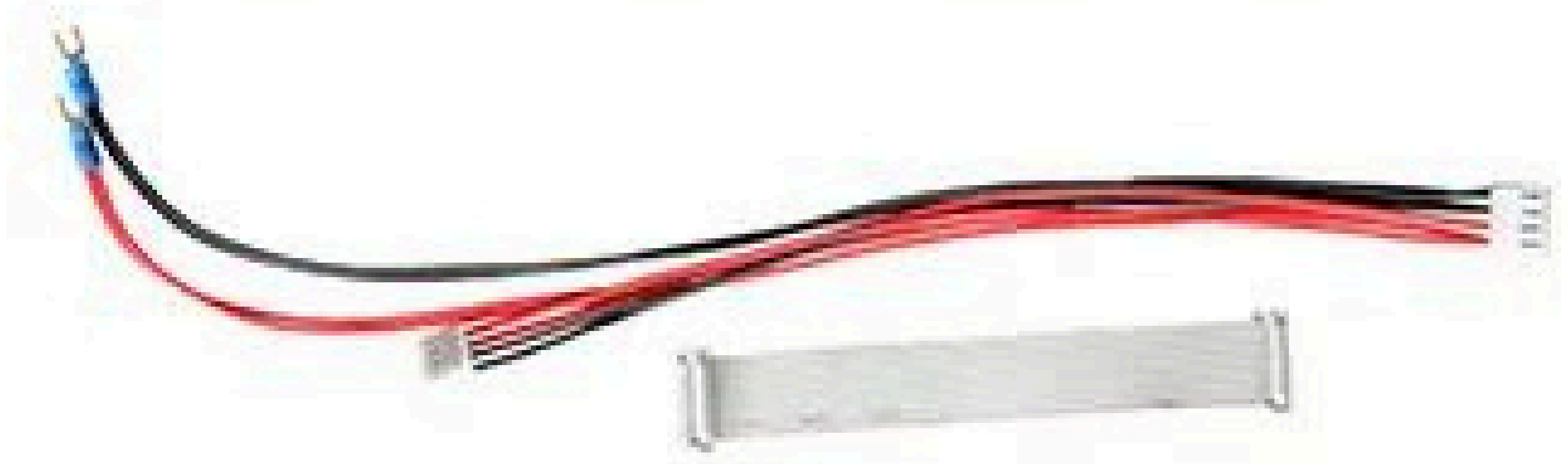
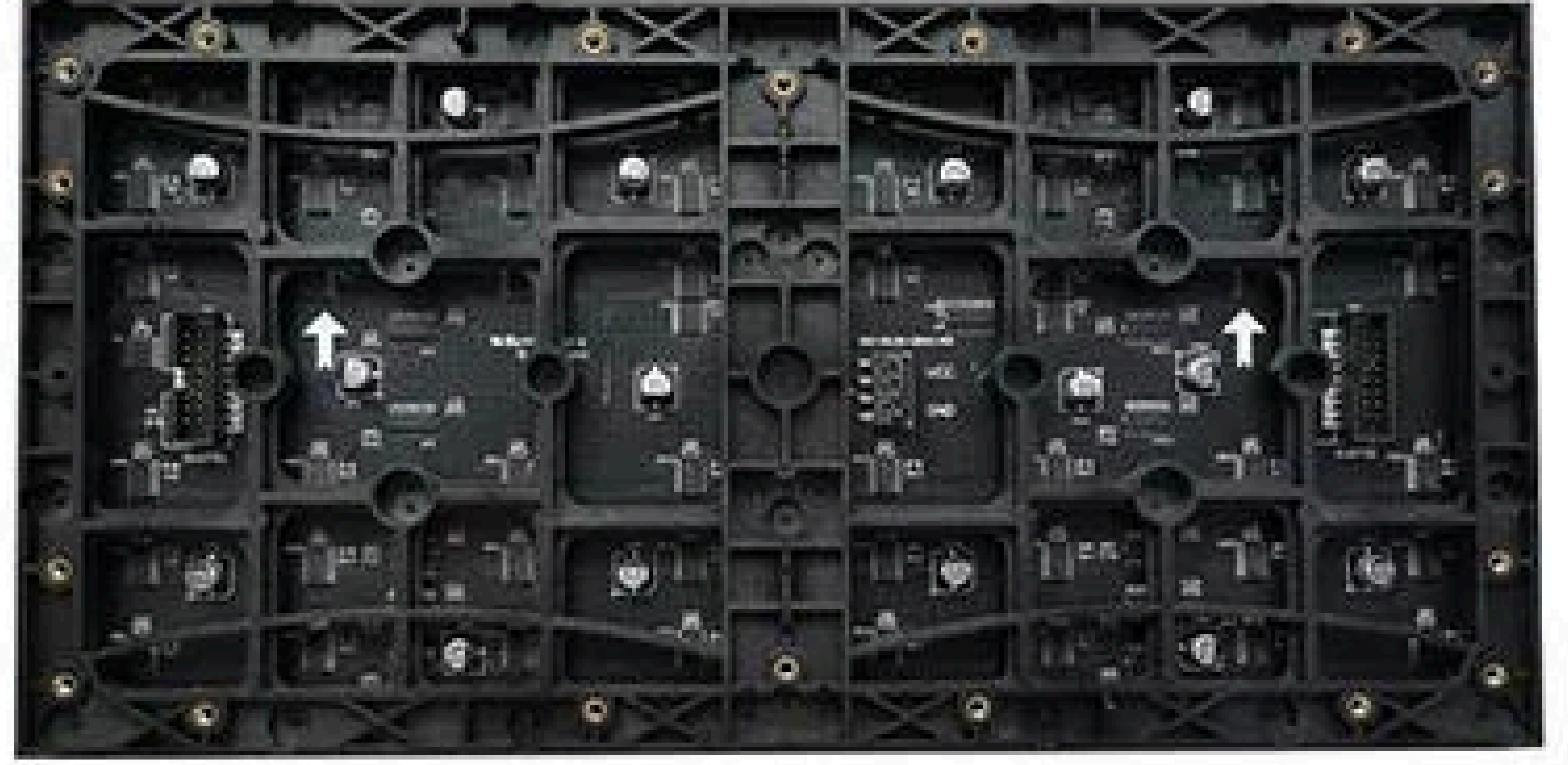
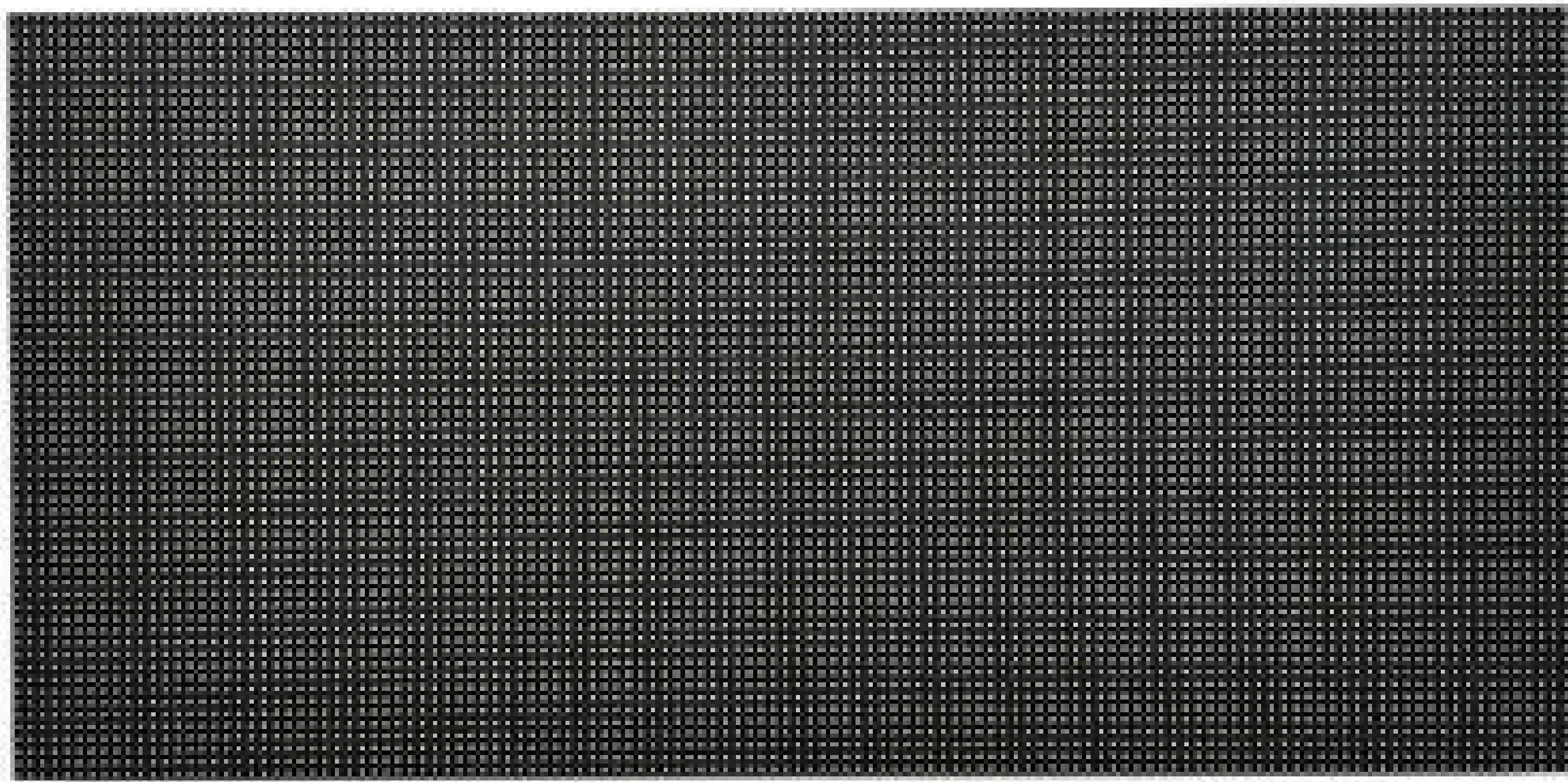


GOB



COB

LED FEATURES



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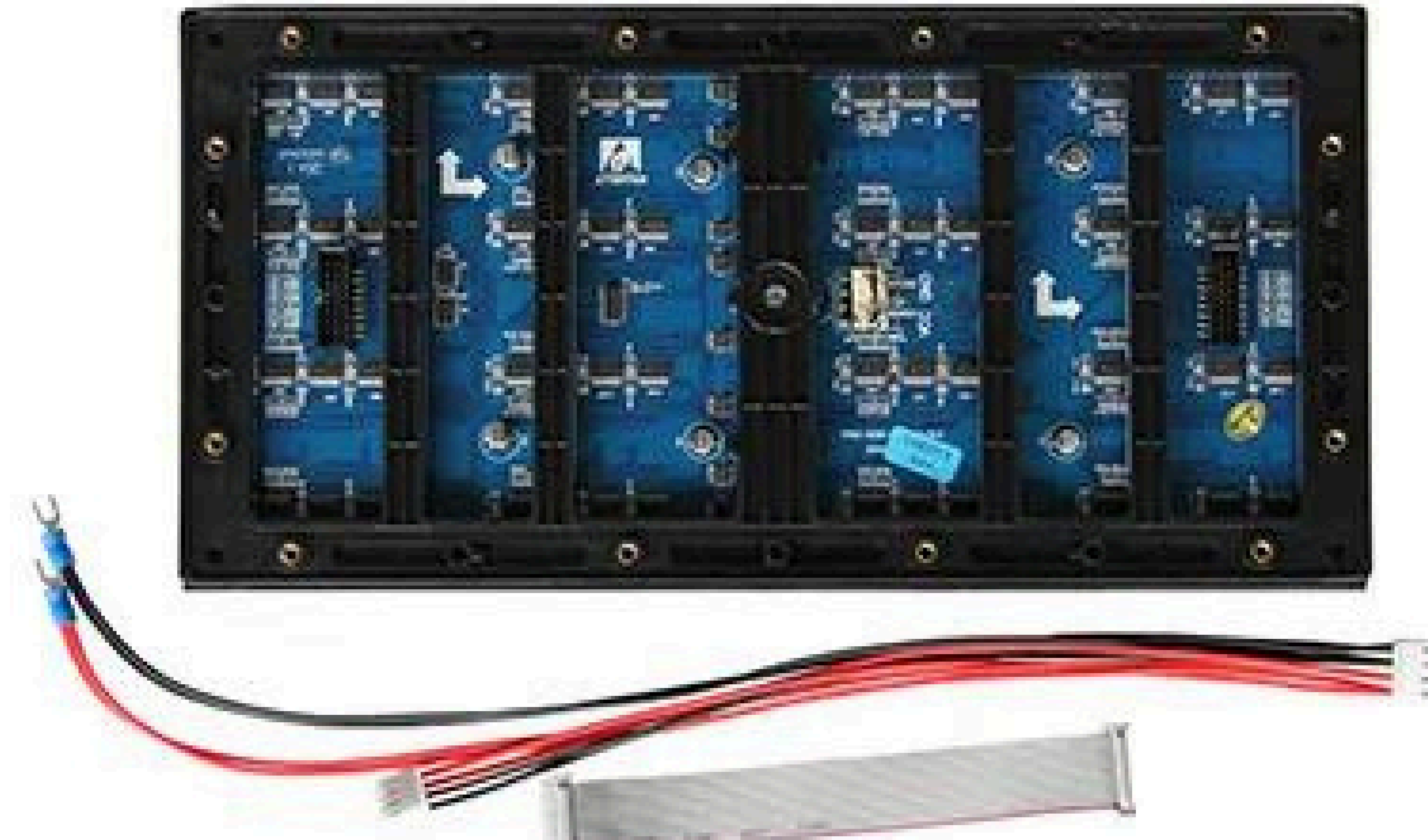
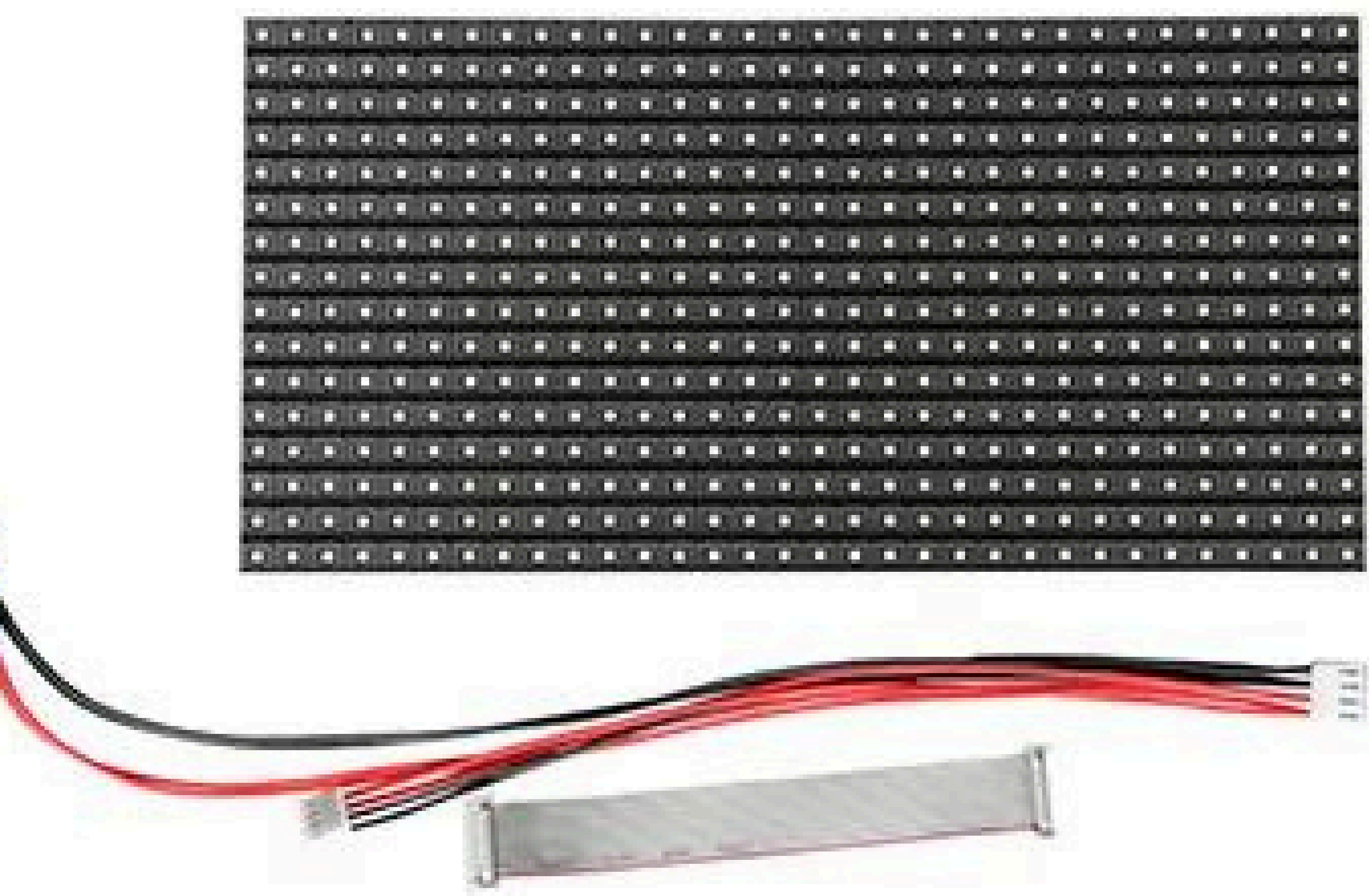
LED DISPLAY MODULE

1. INDOOR LED MODULE MAIN FEATURES

High definition, high refresh, the smaller of the pixel spacing, the more pixels per unit area, the clearer the image quality. the higher the resolution of LED screen.

1. Indoor led module Protection Grade: IP54.
2. Indoor full color brightness 600-1,000cd/m².
3. According to different requirement ,it can be 1920HZ~R3840HZ Refresh Rate.
4. Indoor display module power consumption is very lower, the indoor natural ventilation and heat dissipation can be achieved.

LED FEATURES



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LED DISPLAY MODULE

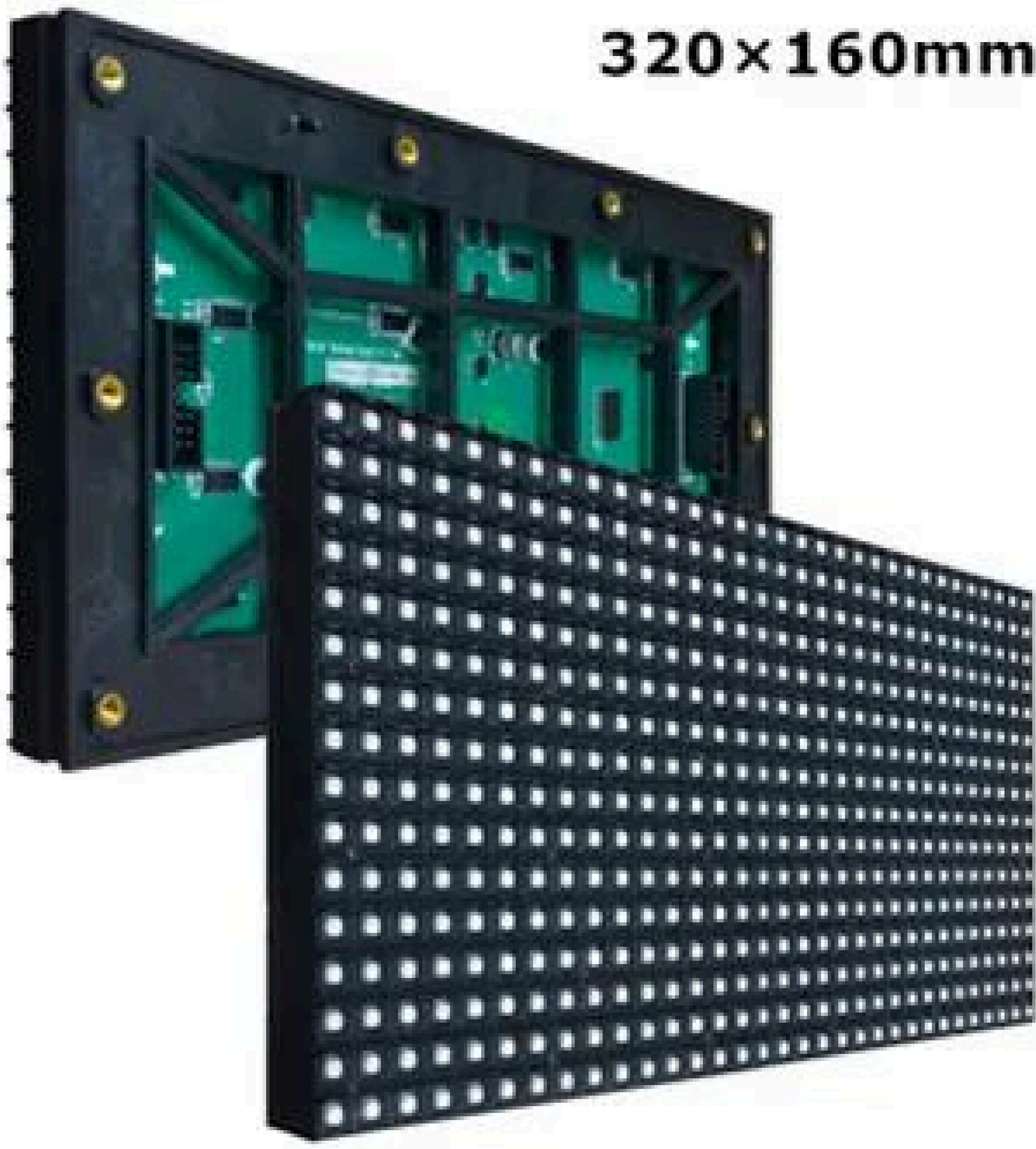
2:OUTDOOR LED MODULE MAIN FEATURES

High brightness, waterproof, outdoor installation modules are usually remote viewing, the observation is specific and far, so larger pixel spacing, so the pixel density is low, the higher brightness.

1. Outdoor led module protection grade : IP65 or IP68
Waterproof outdoor led module.
2. Brightness: outdoor full colour module 5,000-10,000cd/m²
3. Refresh Rate: 960HZ-1920HZ Refresh Rate
4. The power consumption of outdoor display module is large. the current temperature is higher, the power consumption is higher , it will cause the LED lamp life is shorter.
5. Under the same brightness, the larger the distance between pixel pitch, the smaller the power consumption.

LED MODULE SIZE

320×160mm series



Outdoor

- P3.07mm
- P3.33mm
- P4mm
- P5mm
- P6.67mm
- P8mm
- P10mm

Indoor

- P1mm
- P1.25mm
- P1.37mm
- P1.538mm
- P1.667mm
- P1.839mm
- P1.86mm
- P2mm
- P2.5mm
- P3.076mm
- P4mm
- P5mm

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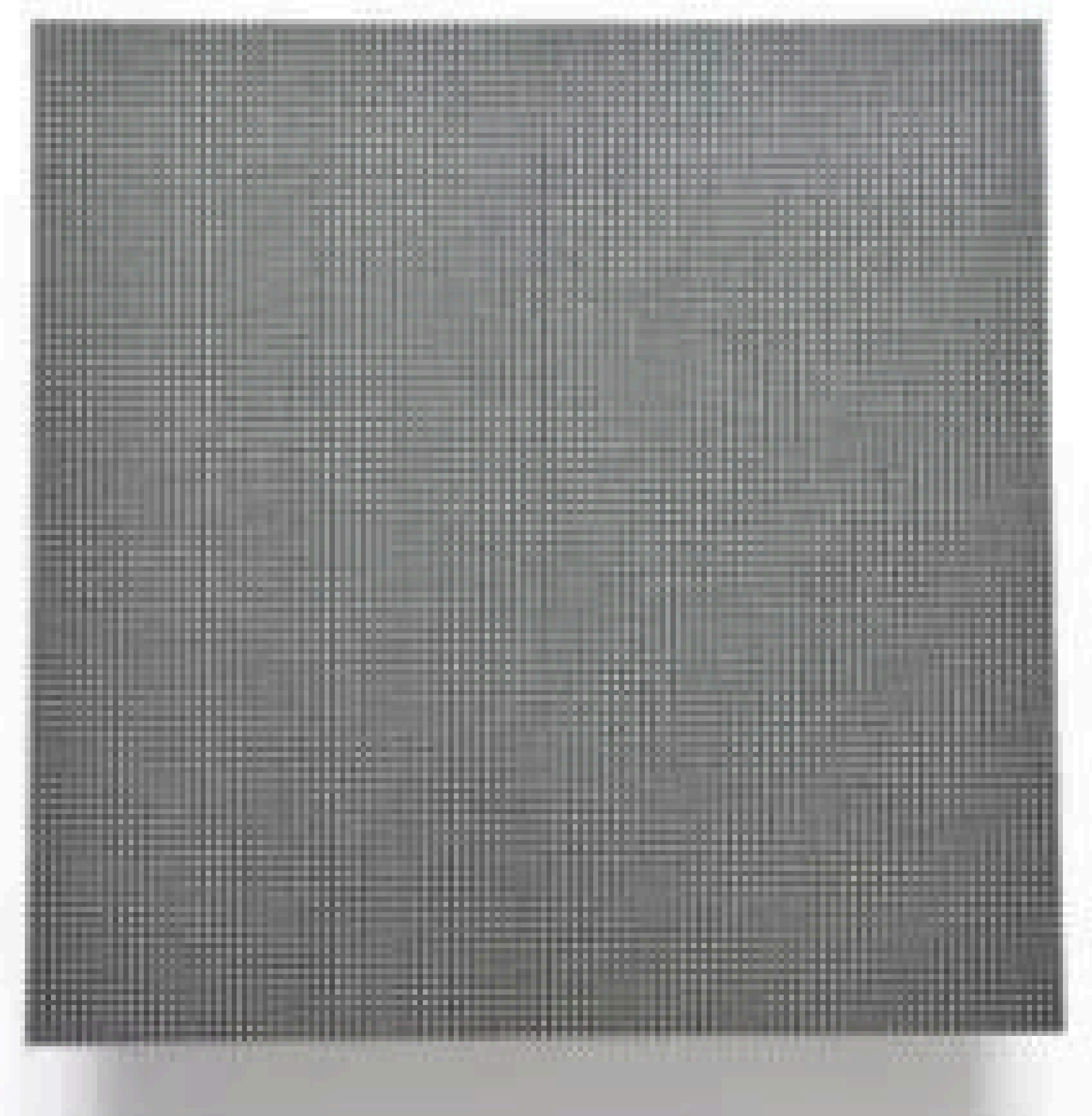
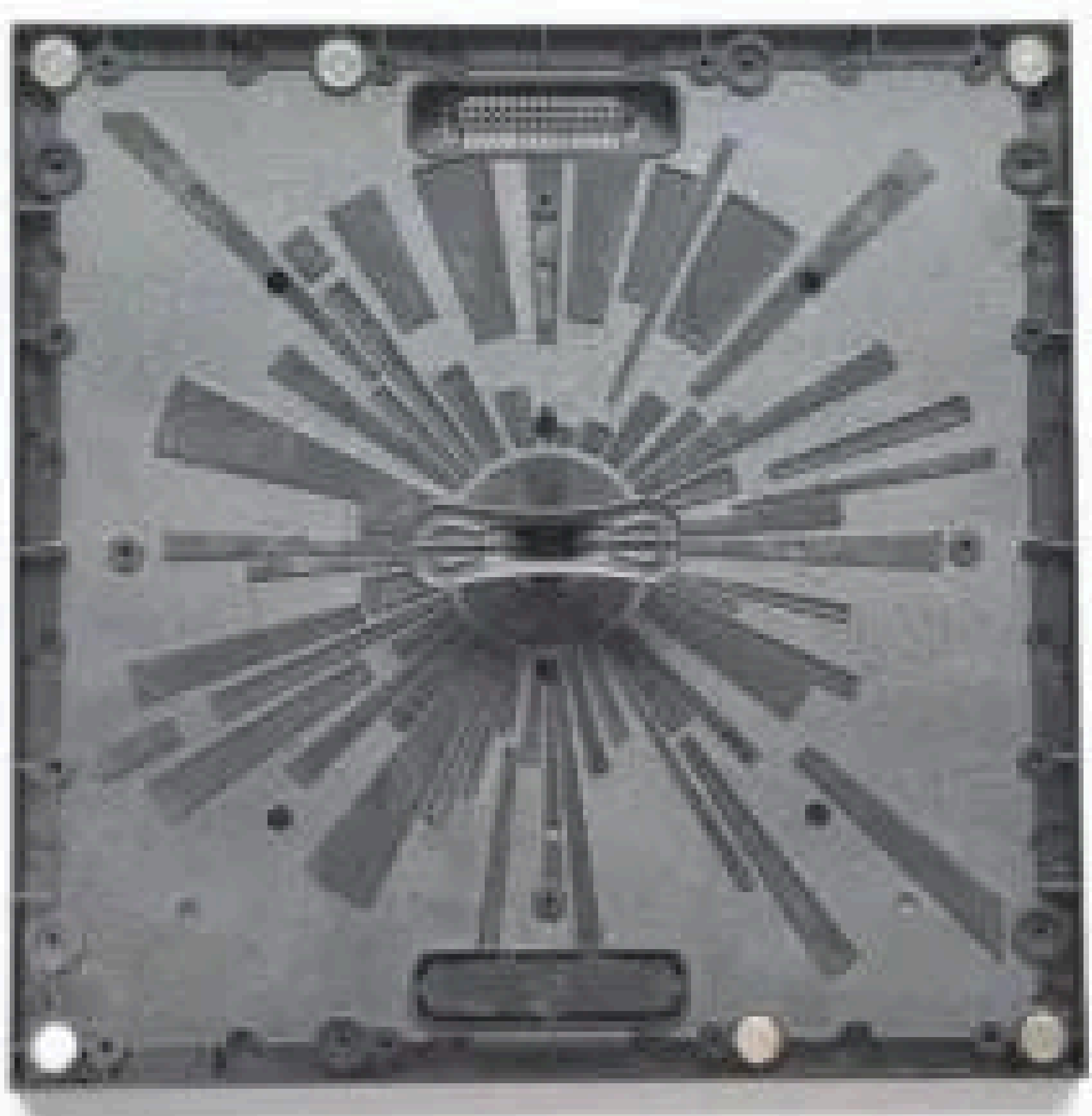
1. 320×160MM LED MODULE SIZE

The most common size that you can see on the market, high cost-effective & available for multiple application environments. More flexible on screen size & ratio, CAD screw hole unified, which will make it easier for your future maintenance & updates.

Change modules only to update screen. As long as the area is sufficient, display ratios such as 4:3, 16:9, 18:9, 21:9 can be easily assembled to meet the diverse needs of customers.

High cost effective, as it's the most well-developed model, it's also the most mature & economic option.

LED MODULE SIZE



Outdoor

- P2.976mm
- P3.91mm
- P4.81mm

Indoor

- P1.95mm
- P2.5mm
- P2.604mm
- P2.976mm
- P3.91mm
- P4.81mm

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LED DISPLAY MODULE


2. 250×250MM LED PANEL SCREEN SIZE

The one designed & appeared to meet the demand of rental display, which can build exactly 1sqm screens, the popular size for LED cabinet is 500*500 & 500*1000mm rental display, realize the live show, event & also the studio easily.

Easy operation & maintenance, with user-friendly handle, some model has been unified for both outdoor & indoor, to fit for all application environment.

Width & height is of the same size, easy for flexible screen size.

Pixel pitch optional: Outdoor: P4.81, P3.91 & P2.976; Indoor: P4.81, P3.91, P2.976, P2.604, P2.5 & 1.95.

The image shows three components of an LED display module. At the top left is a large, rectangular, dark grey module with a fine grid of small square pixels. Below it, two smaller components are shown: one is a black printed circuit board (PCB) with various electronic components and gold-colored solder points, and the other is a smaller, dark grey module with a similar pixel grid to the larger one.

LED
INDOOR P1.25 MM

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320X160MM SERIES INDOOR LED MODULE

Pixel Pitch: P1.25mm

LED Type: SMD1010


Module Size (MM): 320*160

Module Resolution: 256*128

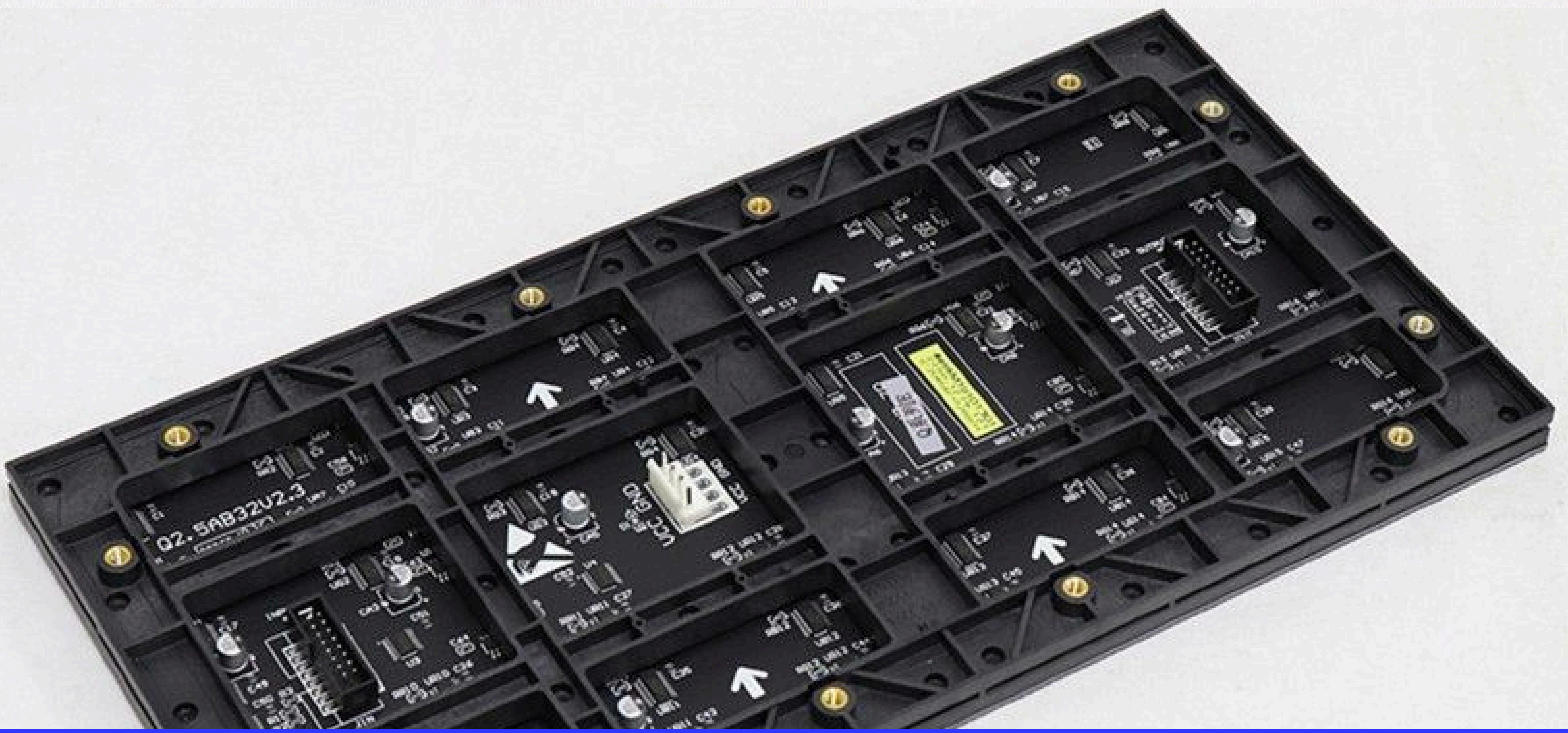
Driving Mode: 1/32Scan

Refresh Rate(Hz): 3840

Brightness (Nits): 600



LED
INDOOR P2.5 MM



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LED DISPLAY MODULE

320X160MM SERIES INDOOR LED MODULE

Pixel Pitch: P2.5mm

LED Type: SMD2020

Module Size (MM): 320*160

Module Resolution: 128*64

Driving Mode: 1/32Scan

Refresh Rate(Hz): 1920 / 3840

Brightness (Nits): 800

LED
INDOOR P4 MM



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LED DISPLAY MODULE

320X160MM SERIES INDOOR LED MODULE

Pixel Pitch: P4mm

LED Type: SMD2020

Module Size (MM): 320*160

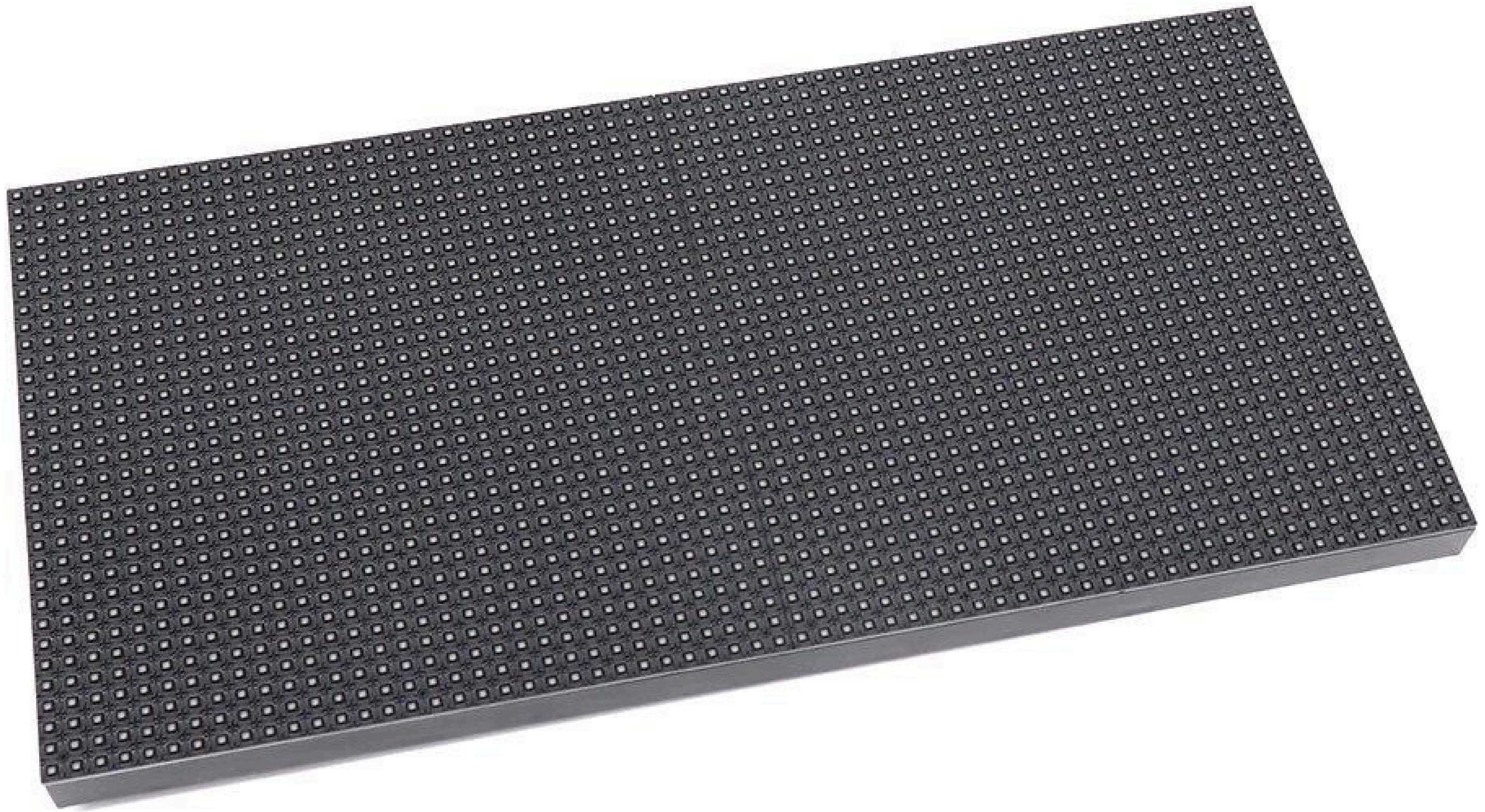
Module Resolution: 80*40

Driving Mode: 1/20Scan

Refresh Rate(Hz): 1920 / 3840

Brightness (Nits): 700

LED
INDOOR P5 MM



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320X160MM SERIES INDOOR LED MODULE

Pixel Pitch: P5mm

LED Type: SMD2020

Module Size (MM): 320*160

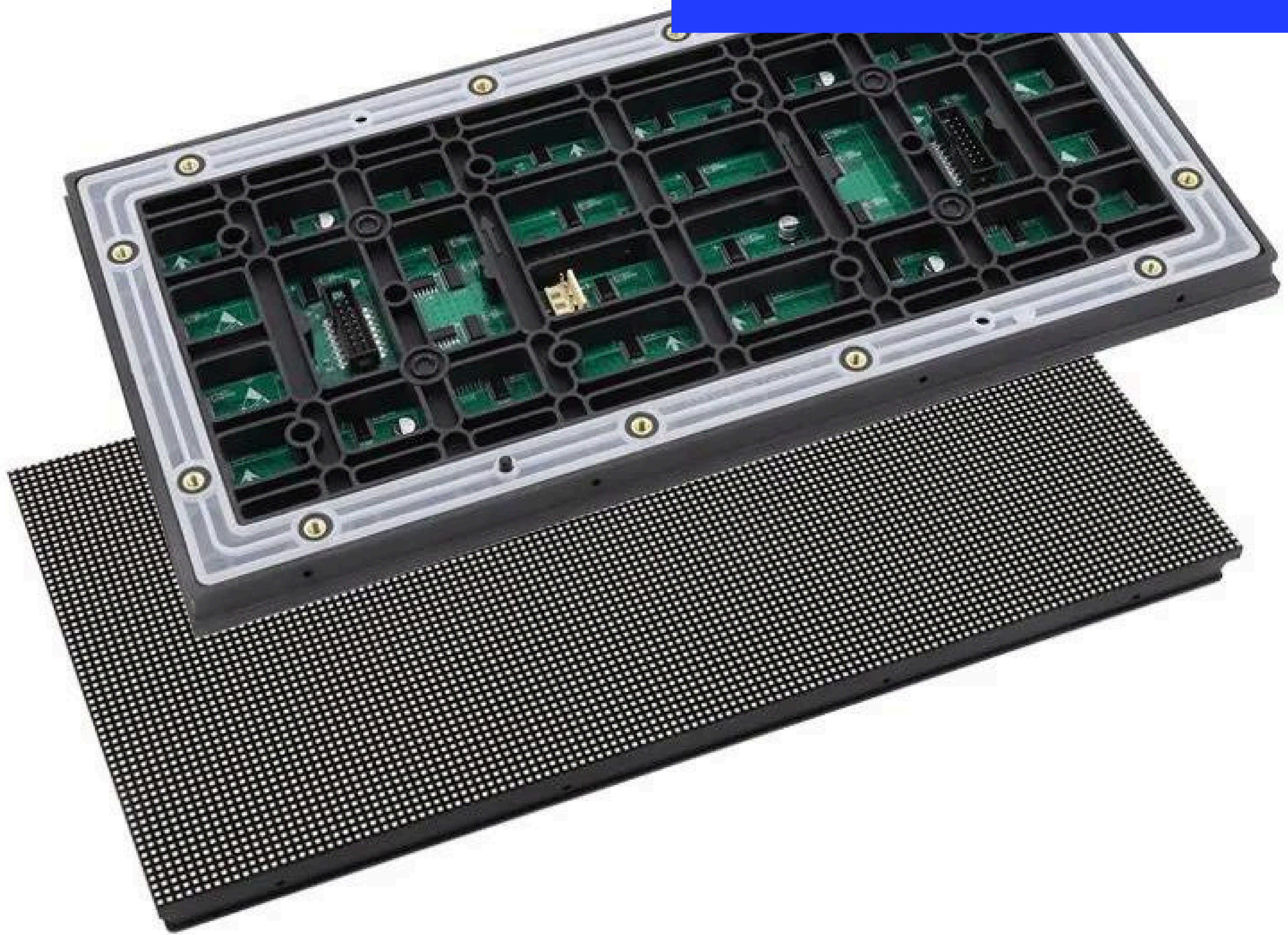
Module Resolution: 64*32

Driving Mode: 1/16Scan

Refresh Rate(Hz): 1920 / 3840

Brightness (Nits): 700

**LED
OUTDOOR P2.5 MM**



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LED DISPLAY MODULE

320X160MM SERIES OUTDOOR LED DISPLAY MODULE

Pixel Pitch: P2.5mm

LED Type: SMD1415

Module Size (MM): 320*160

Module Resolution: 128*64

Driving Mode: 1/16Scan

Refresh Rate(Hz): 3840

Brightness (Nits): 5000

**LED
OUTDOOR P3 MM**



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LED DISPLAY MODULE

320X160MM SERIES OUTDOOR LED DISPLAY MODULE

Pixel Pitch: P3mm

LED Type: SMD1415

Module Size (MM): 320*160

Module Resolution: 104*52

Driving Mode: 1/13Scan

Refresh Rate(Hz): 1920 / 3840

Brightness (Nits): 5000

**LED
OUTDOOR P4 MM**



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320X160MM SERIES OUTDOOR LED DISPLAY MODULE

Pixel Pitch: P4 mm

LED Type: SMD1921

Module Size (MM): 320*160

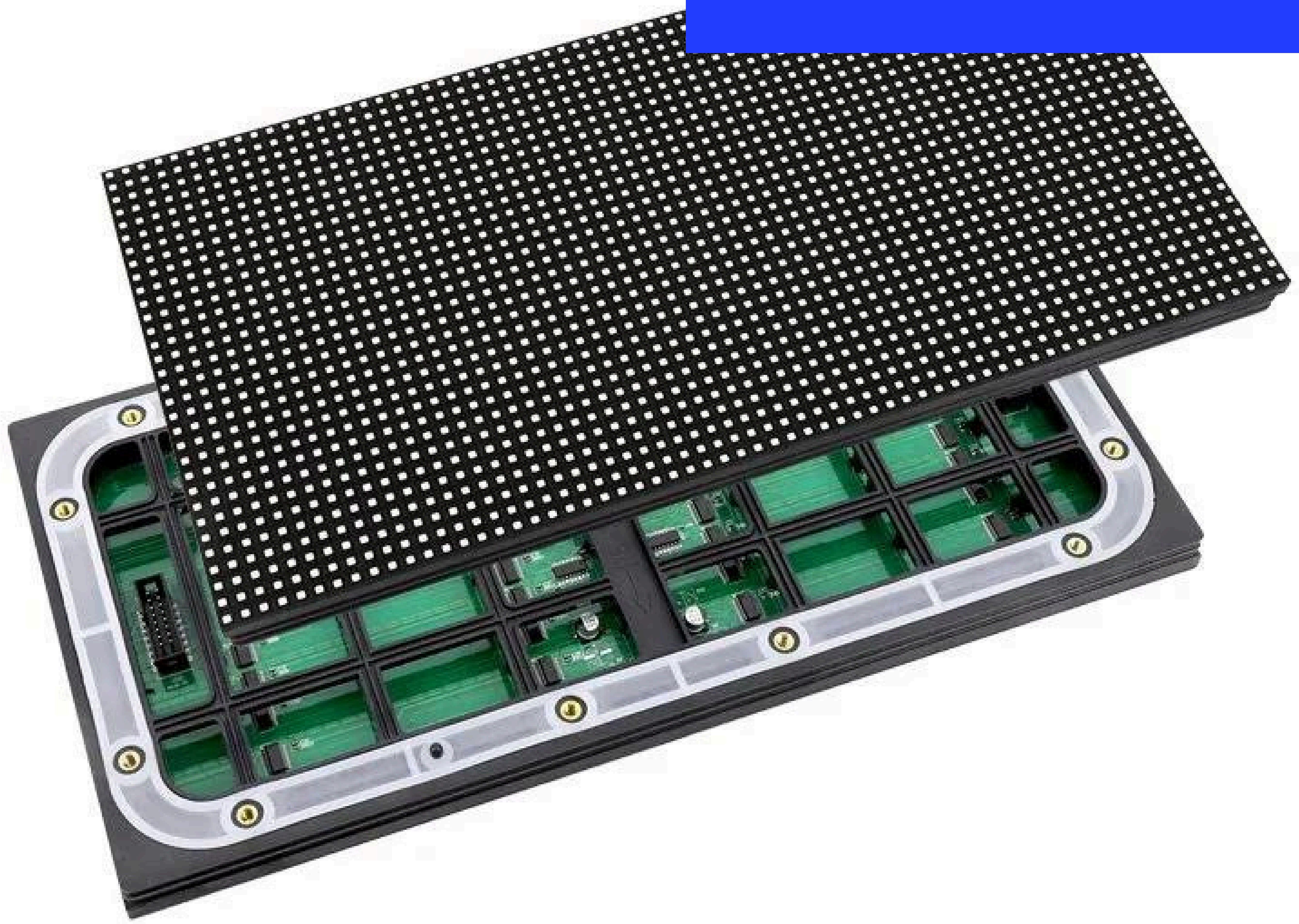
Module Resolution: 80*40

Driving Mode: 1/10Scan

Refresh Rate(Hz): 1920 / 3840

Brightness (Nits): 5500

**LED
OUTDOOR P5 MM**



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320X160MM SERIES OUTDOOR LED DISPLAY MODULE

Pixel Pitch: P5 mm

LED Type: SMD2727

Module Size (MM): 320*160

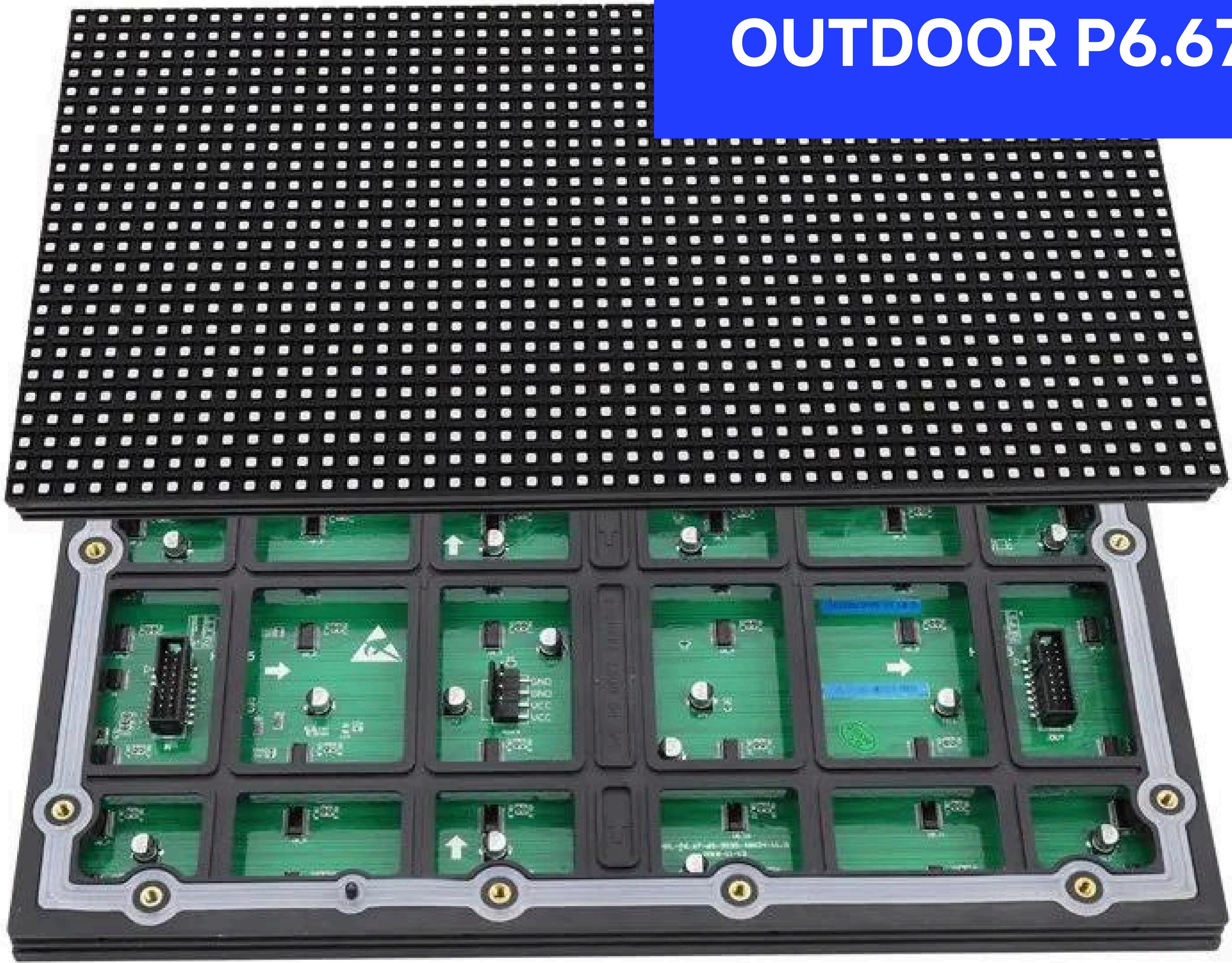
Module Resolution: 64*32

Driving Mode: 1/8 Scan

Refresh Rate(Hz): 1920 / 3840

Brightness (Nits): 6000

LED
OUTDOOR P6.67MM



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320X160MM SERIES OUTDOOR LED DISPLAY MODULE

Pixel Pitch: P6.67mm

LED Type: SMD3535

Module Size (MM): 320*160

Module Resolution: 48*24

Driving Mode: 1/6Scan

Refresh Rate(Hz): 1920 / 3840

Brightness (Nits): 6000

**LED
OUTDOOR P8 MM**



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320X160MM SERIES OUTDOOR LED DISPLAY MODULE

Pixel Pitch: P8mm

LED Type: SMD3535

Module Size (MM): 320*160

Module Resolution: 40*20

Driving Mode: 1/5Scan

Refresh Rate(Hz): 1920 / 3840

Brightness (Nits): 5500

A photograph of an LED display module. The top part shows the front view with a grid of small, square LEDs. The bottom part shows the back view, revealing the internal green printed circuit board (PCB) with various electronic components like chips, capacitors, and connectors. The module is housed in a black frame with silver-colored mounting tabs.

LED
OUTDOOR P10 MM

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320X160MM SERIES OUTDOOR LED DISPLAY MODULE

Pixel Pitch: P10mm

LED Type: SMD3535

Module Size (MM): 320*160

Module Resolution: 32*16

Driving Mode: 1/2Scan

Refresh Rate(Hz): 1920 / 3840

Brightness (Nits): 5800



**LED
FLEXIBLE SOFT**

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FLEXIBLE SOFT LED DISPLAY MODULE

The main feature of Flexible LED Screen Panel is that the LED panel is soft, flexible.

Compare to indoor fixed LED display and outdoor fixed LED display, the flexible LED panel can be any designed for rolled, bend and swing to do any shape LED video wall as you want.

Super flexible Soft LED display module with high-quality driving IC and LEDs with high refresh rate and great color uniformity.

We offer various pixels for flexible LED panel ranges from P1.875mm, P2mm, P3mm, P4mm to P5mm.

The panel sizes can be 240*120mm, 320mm*160mm and 256*128mm.

LED LED SENDING BOX



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LED DISPLAY MODULE

NOVASTAR TAURUS TB1-4G LED MULTIMEDIA PLAYER FOR LED WALL

Taurus series products are NovaStar's second generation of multimedia players dedicated to small and medium-sized full-color LED displays. Taurus series products can be widely used in LED commercial display fields such as lamp pole screens, chain store screens, advertising machines, mirror screens, retail store screens, door head screens, car screens, and screens without PCs.

1. Synchronization mechanism for multi-screen playing:

The TB1 support switching on/off function of synchronous display. When synchronous display is enabled, the same content can be played on different displays synchronously if the time of different TB1 units are synchronous with one another and the same program is being played.

2. Powerful hardware processing Capability:

- ▶ 1.5 GHz four-core processor
- ▶ Support for 1080P video hardware decoding
- ▶ 1 GB operating memory
- ▶ 8 GB on-board internal storage space with 4 GB available for users

3. Omnidirectional Control Plan:

LED LED SENDING BOX



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LED DISPLAY MODULE

NOVASTAR MCTRL300 LED SENDING BOX R FOR SMALL LED VIDEO WALL

MCTRL300 is NovaStar's independent led screen control card from the M3 Series, and supports audio and video input. The M3 undertakes encoding and data processing, sending the audio and video to the led panel display, be it indoor or outdoor led displays.

Features of NOVASTAR MCTRL300 LED Controller Box of LED Display:

- 1) 1 DVI interface for video input.
- 2) USB interface for instruction communication.
- 3) Audio input interface integrated.
- 4) Resolutions supported: 1024×1200, 1280×1024, 1600×848, 1920×712, 2048×640.
- 5) Light sensor interface integrated.

LED LED SENDING BOX



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LED DISPLAY MODULE

NOVASTAR TB2-4G LED DISPLAY VIDEO CONTROL BOX

Taurus series products can be widely used in LED commercial video display fields such as lamp pole display screens, chain store led screens, advertising screen machines, mirror screens, retail store screens, door head screens, car screens, and screens without PCs.

TB2-4G model products have the following advantages and can better meet user needs:

Supports 650,000 pixel loading capacity

High processing performance

Comprehensive control solution

Support synchronous and asynchronous dual mode

Support WiFi AP connection

LED LED SENDING BOX



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LED DISPLAY MODULE

NOVASTAR TB6 VIDEO LED SCREEN MULTIMEDIA PLAYER

Loading Capacity : 1,300,000 pixels Processing Capacity : 8 core processor, 2 GB operating memory+8 GB internal storage space Wi-Fi : ✓(Dual Wifi) 3G、4G : ✓(Optional) Redundant Backup : ✓ Switching on/off of synchronous display : ✓

Loading capacity up to 1,300,000 pixels

Synchronization mechanism for multi-screen playing

Powerful processing capability

Omnidirectional control plan

Synchronous and asynchronous dual-mode

Dual-Wi-Fi mode

4G module

Redundant backup

LED LED SENDING BOX



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LED DISPLAY MODULE

NOVASTAR MCTRL600 FULL COLOR HD LED DISPLAY CONTROLLER BOX

MCTRL600 is a controller developed by NovaStar with a single-unit loading capacity of 1920×1200. MCTRL600 utilizes UART to cascade and control multiple units. Suitable for a variety of applications, especially led rental and fixed installations video wall such as stage broadcasts, monitoring centers, sports arenas, and more.

following characteristics:

- 1) HDMI/DVI input;
- 2) HDMI/external audio input;
- 3) 12bit/10bit/8bit HD video source;
- 4) Resolution supported:2048×1152, 1920×1200, 2560×960;
- 5) Resolution supported:1440×900; (12bit/10bit)
- 6) 1 light sensor interface;
- 7) Cascading supported;
- 8) 18bit gray scale processing and presentation;
- 9) Video format:RGB,YCrCb4:2:2,YCrCb4:4:4;
- 10)Standard 1U housing; independent power supply;

LED VIDEO PROCESSOR



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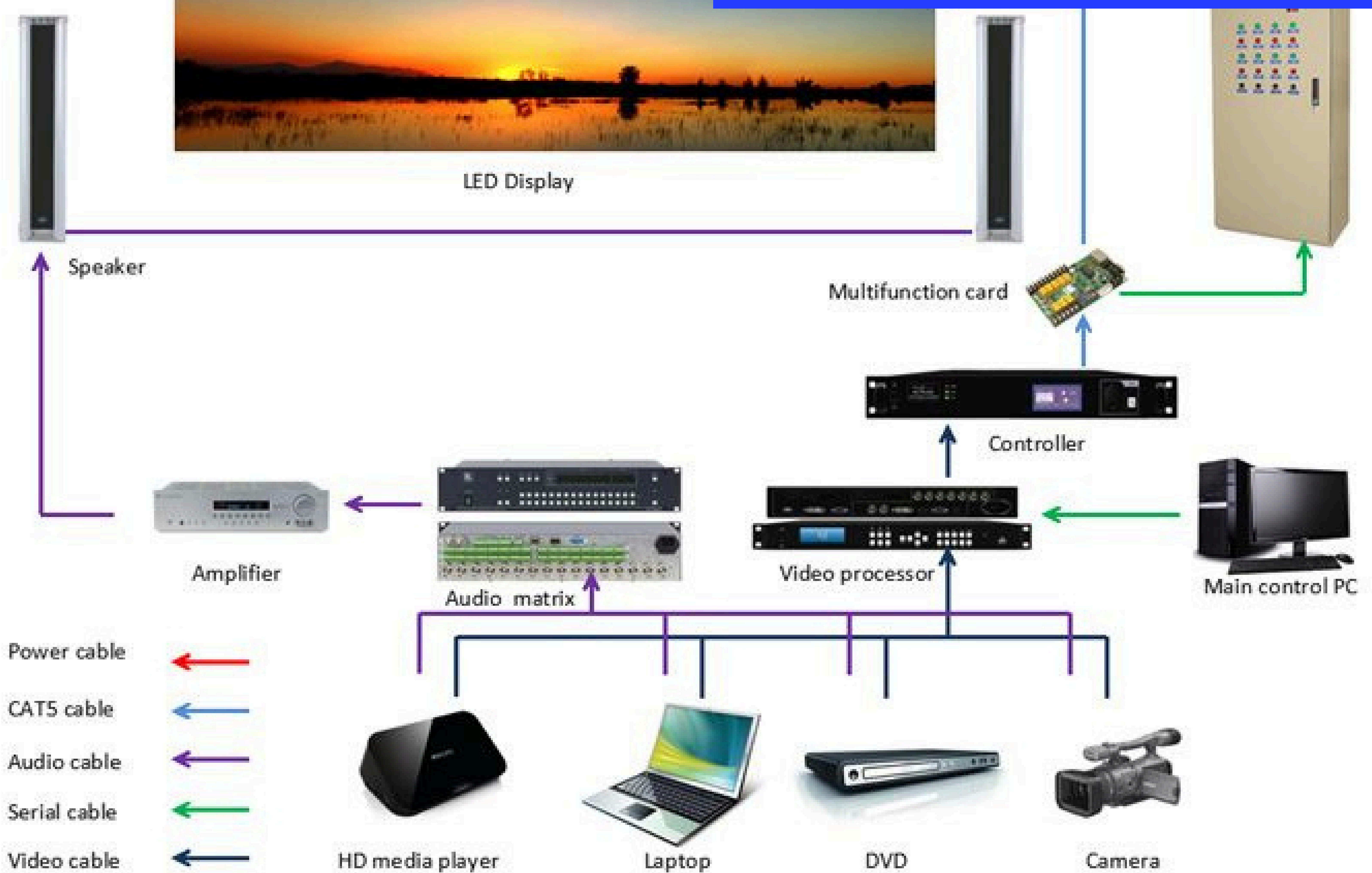
LED DISPLAY MODULE

NOVASTAR LED VIDEO PROCESSOR VX6S LED DISPLAY SCREEN WALL

The VX6s led video processor is the Novastar controller's all-in-one video controller that integrates sending card functions with video processing. Designed with powerful video processing capability, it supports 7 video inputs and 6 Gigabit Ethernet outputs for giant led video walls

- The maximum loading capacity of video output is 3.9 million pixels.
- 7 input connectors: 2 × 3G-SDI, 2 × HDMI1.3, 2 × DVI, 1 × USB.
- Supports 3 × layers and 1 × OSD.
- Supports quick and advanced screen configurations.
- Switches the PVW to PGM by pressing only the TAKE button in the switcher mode.
- Supports PGM preview in the switcher mode.
- Supports adjustment of input resolutions and backup of input source.
- Supports brightness adjustment of the screen loaded by the VX6s.
- Multiple VX6s units can be cascaded.
- Automatically scales the image to fit the whole screen.
- The maximum video output width is 4096 pixels.
- A total of 16 user presets can be created and saved as templates. The templates can be used directly and conveniently.
- Any HDMI or DVI input source can be used as the synchronization signal to achieve vertical synchronization of output.
- Features an intuitive OLED screen and clear button indicator lights in the front panel, simplifying system control and operation.

LED VIDEO PROCESSOR



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LED DISPLAY MODULE

NOVASTAR LED VIDEO PROCESSOR VX6S LED DISPLAY SCREEN WALL

InputInterface TypeQuantityDescription3G-SDI2Maximum support 1920×1080@60Hz resolution video source input, backward compatibleUSB2U disk video picture file playback.

Connect the mouse.U-AUDIO2Output audio interfaceDVI2The VESA standard supports up to 1920×1200@60Hz input video source input, which is backward compatible. Support HDCPHDMI2Maximum support 1920×1200@60Hz resolution video source input, backward compatible. Support HDCP.OutputEthernet port66-channel network port output interfaceDVI1Pre-monitoring interface, can be set to PGM preview.

The U disk can be connected to the display for human-computer interaction display.Control interfaceEthernet1Connect to PC communication or access the networkUSB Type-BConnect to a PC and control it via a PC.

USB cascading inputUSB Type-AUsed for device cascade

outputParameterPower interfaceAC100V~240V 50/60HzOperating temperature-20°C~60°CDimension1U standard chassis

LED VIDEO PROCESSOR



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LED DISPLAY MODULE

NOVASTAR VX4 FULL HD LED DISPLAY VIDEO CONTROLLER BOX

- 1) The inputs of the VX4 include CVBS×3, VGA×3, DVI×2, HDMI×1, DP×1. They support input resolution up to 1920×1200@60Hz; the input images of VX4 can be zoomed point-to-point according to the screen resolution;
- 2) Provide seamless high-speed switch and fade-in/ fade-out effect so as to strengthen and display picture demonstration of professional quality;
- 3) The location and size of PIP can both be adjusted, which can be controlled at will;
- 4) Adopts the Nova G4 engine; the screen is stable and flicker free without scanning lines; the images are exquisite and have a good sense of depth;
- 5) Can implement white balance calibration and color gamut mapping based on different features of LEDs used by screens to ensure reproduction of true colors;
- 6) HDMI/external audio input;
- 7) 10bit/8bit HD video source;
- 8) The loading capacity: 2.3 million pixel;
- 9) Support multiple controller montage for loading huge screen;
- 10) Supports Nova's new-generation point-by-point correction technology; the correction is fast and efficient;
- 11) Computer software for system configuration is not necessary. The system can be configured using one knob and one button. All can be done just by fingers. That is what we called Touch Track!



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LED DISPLAY MODULE

NOVASTAR MCTRLR5 OPTICAL FIBER BIG LED DISPLAY CONTROLLER

Novastar UHD MCTRLR5 Optical Fiber LED Display Controller Box

1. Rotate freely, any field on LED Display Rotate-able, any angle rotate, its offer every possible innovative display effect.
2. Large Load Capacity, max support 4k*1k@60Hz frame.
3. 10km long distance transmission, support faster and stable image.
4. Input Port: HDMI1.4, Dual DVI, 6G SDI



**LED
POSTER**



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LED DISPLAY MODULE

P2.5 OUTDOOR MULTI-FUNCTIONAL ADVERTISING POSTER LED SCREEN

Outdoor multifunctional poster screen can be used. A single poster screen can be used alone, and multiple single poster screens can be quickly combined into a larger screen. There are 4 rollers on the bottom of the multifunctional poster screen stand for easy movement.

The indoor multi-functional poster screen can easily maintain the power supply, receiving card, hub card and cable, and the operation is convenient, fast and simple.

The indoor multifunctional poster screen bracket can be easily adjusted from 80 degrees to 90 degrees, and the angle can be adjusted arbitrarily to meet various viewing angle requirements.

LED Lamp Specification					
Color	Package	Intensity	Viewing Angle	Wavelength	Testing Conditions
Red	SMD1415	48mcd	120°	622nm	25°C,8mA
Green		155mcd	120°	526nm	25°C,5mA
Blue		20mcd	120°	470nm	25°C,3mA



LED POSTER

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P2.5 OUTDOOR MULTI-FUNCTIONAL ADVERTISING POSTER LED SCREEN

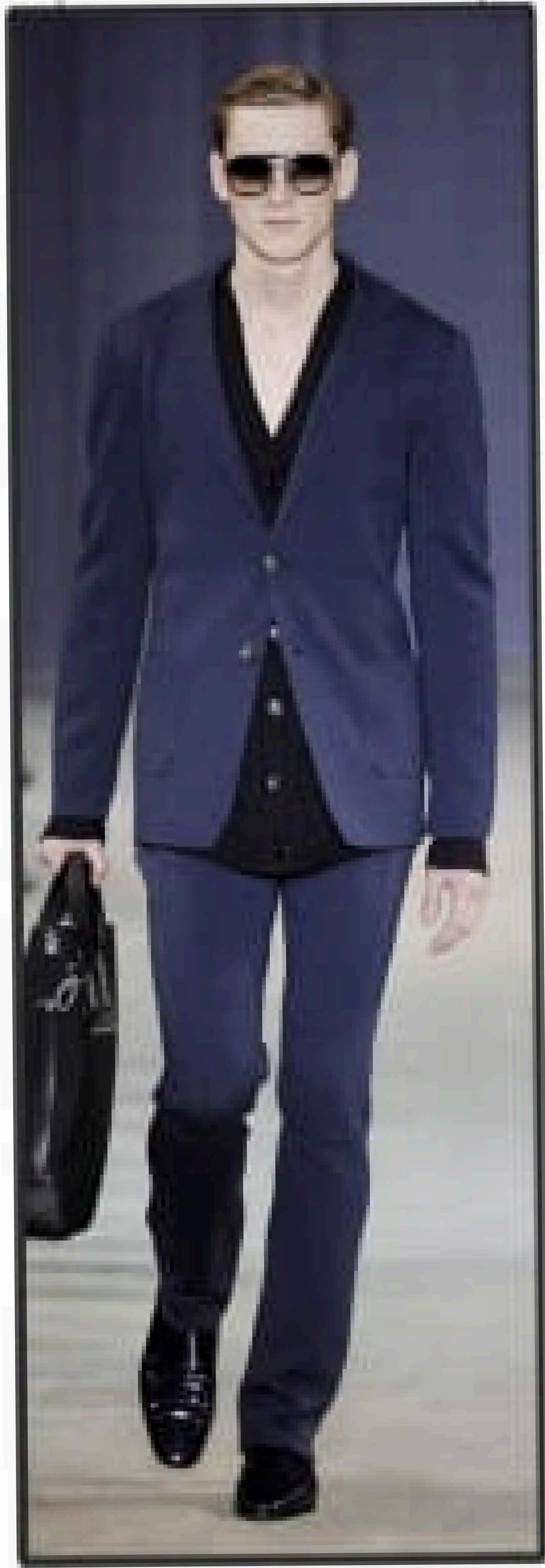
Module Parameter

Pixel Pitch	2.5mm
Pixel Configuration	SMD1415
Density	160,000pixels/m ²
Module Resolution	128pixel(L) *64pixel(H)
Module Dimension	320mm(L) * 160mm(H) * 18mm(D)
Driving Mode	Constant current, 1/16 duty

LED Cabinet

Module Quantity in a Cabinet	2(L) *4(H)
Cabinet Dimension	640 (L) *640 (H) * 90(D)mm
Cabinet Resolution	256(L) * 256(H)
Cabinet Material	Die-cast aluminum
Cabinet Weight	≈12.5KG

LED POSTER



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P2.5 INDOOR MULTI-FUNCTIONAL ADVERTISING POSTER LED SCREEN

- ★ [25Kg with customized canvas bag](#)
- ★ [35mm slim body + protect glass](#)
- ★ [Built-in stereo audio for Ad/video](#)
- ★ [Hanging, Wall Mount, Floor stand](#)
- ★ [high flatness, precision, seamless](#)



Key Features

Multiple Sizes: Large, Medium, Wide.

Super-light Portable: 13kg ~ 25 Kg, Slim at 35mm

Durable: with Acrylic Protection, 24x7 Running

User-Friendly: Plug and Play, Mobile App control

DIY large size video wall by simple HDMI connection

Kinglight
晶台光电

NOVA STAR

MW
MEAN WELL

LED POSTER

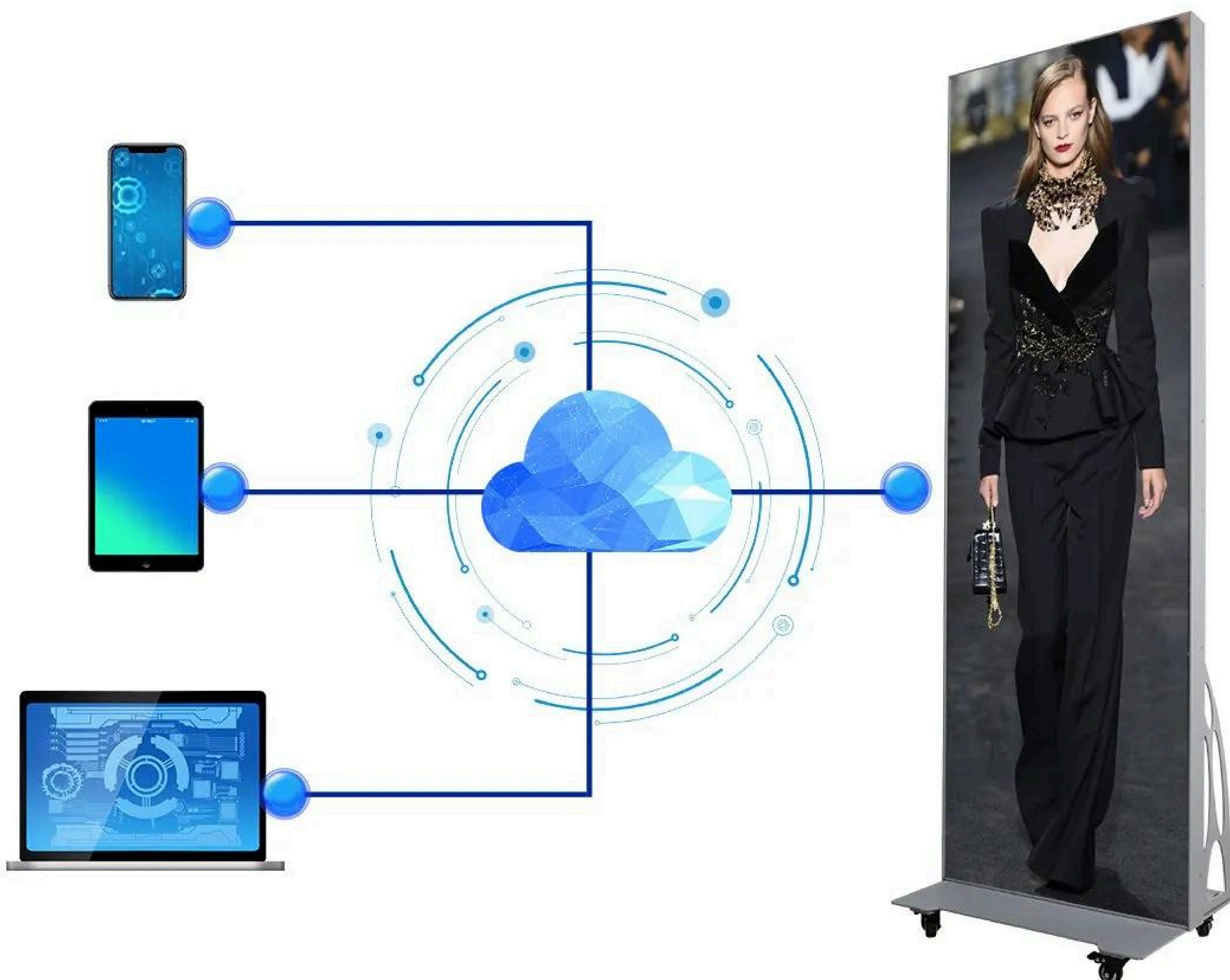


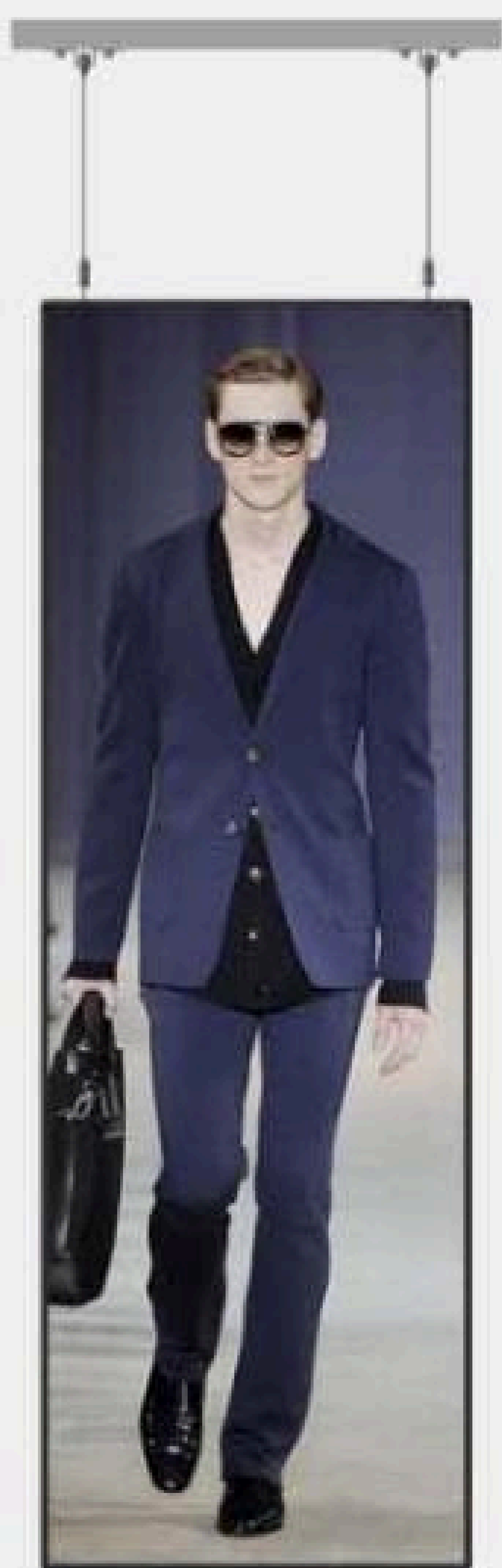
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P2.5 INDOOR MULTI-FUNCTIONAL ADVERTISING POSTER LED SCREEN

Features	Uni-Vision iPoster	Others in market
Design	Patented private elegant design cabinet	Low quality public cabinet can purchase in anywhere
Screen Size	1920x640mm, 1280x640mm, 1600x960mm, customize sizes	Only 1920x640mm
Weight	100% aluminum Cabinet at ~26kg (1920x640mm)	Iron cabinet at ~40kg (1920x640mm)
Thickness/ Bezel	Slim at 35mm and 6mm bezel (full screen)	~50mm thickness, ~20mm for Bezel
Flatness	CNC processing great seamless, flatness (none of any line)	Magnet fix on iron plate have many visible gaps and lines
Protection	With acrylic cover protection, can use in public situation	Without surface protection, pixels very easy to damage
Installation	Foldable stand, floor stand, hanging, wall mount	Without hanging and wall mount installation
Connection	Posters can be spliced to DIY any size LED video wall	Single mode
Accessories	Travelling bag, flight case (4 pcs)	No travelling bag





Hanging Installation



LED POSTER

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P2.5 INDOOR MULTI-FUNCTIONAL ADVERTISING POSTER LED SCREEN

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LED DISPLAY MODULE

CONCLUSIONS

As you can see, LED display module is multi-functional, reliable, and has preeminent visual performance. It is cost-effective and energy-effective, which can be your advisable investment if you decide to improve your brand images, or increase profits!

Exceed offers customers with high-quality LED display modules and services! Are you going to get your satisfied modules at a good price? Or do you want to get reasonable quotations? Just contact us now!

