



**华橙实业**  
HC Industry

# Specification



LED Display

## Outdoor&Full Color LED Display Module

HC-P6\_O  
192mm\*192mm

## Safety

This chapter illustrates safety of the Outdoor Full Color LED Display Module to ensure the product's storage, transport, installation and use safety. Safety instructions are applicable to all personnel who contact or use the product. First of all, pay attention to following points.

- Read through the instructions.
- Retain all instructions.
- Comply with all instructions.

### ■ Storage And Transport Safety

- Pay attention to dust.
- Do not place the product at a position near fire and heat.
- Do not place the product in an area containing explosive materials and strong electromagnetic environment.
- Place the product at a stable position to prevent damage or personal injury caused by dropping.
- Save the packing box and materials which will come in handy if you ever have to store and ship the product. For maximum protection during storage and shipping, repack the product as it was originally packed at the factory.

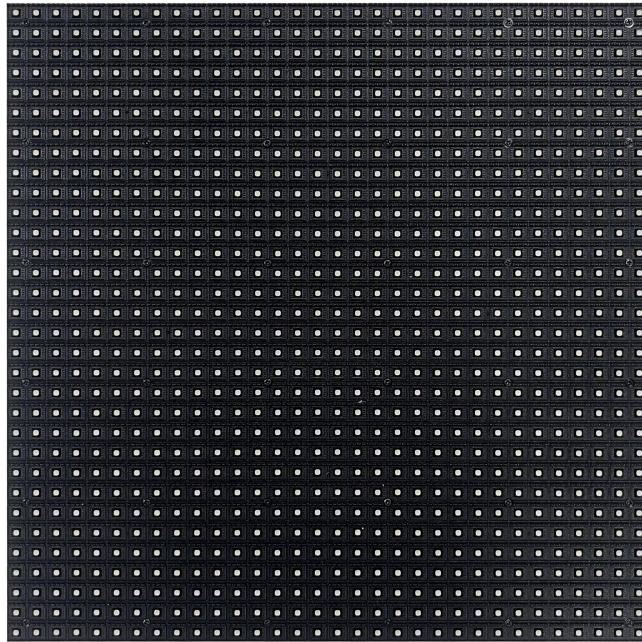
### ■ Installation And Use Safety

- Only trained professionals may install the product.
- Plugging and unplugging operations are prohibited when the power is on.
- Ensure safe grounding of the product.
- Always wear a wrist band and insulating gloves.
- Do not place the product in an area having frequent or strong shake.
- Perform dust removing regularly.
- Contact HC Industry for maintenance at any time, rather than have the product disassembled and maintained by non-professionals without authorization.
- Replace faulty parts only with the spare parts supplied by HC Industry.

## ■ Overview

The product specification is only applicable to Outdoor P6 full-color module, 1/8 scanning, specification and model HC-P6\_O . The production is controlled by professional engineers. Processes, materials, and assembly are all carried out in accordance with strict standards. The Product is flexible, portable, easy to install and maintain.

## ■ Picture

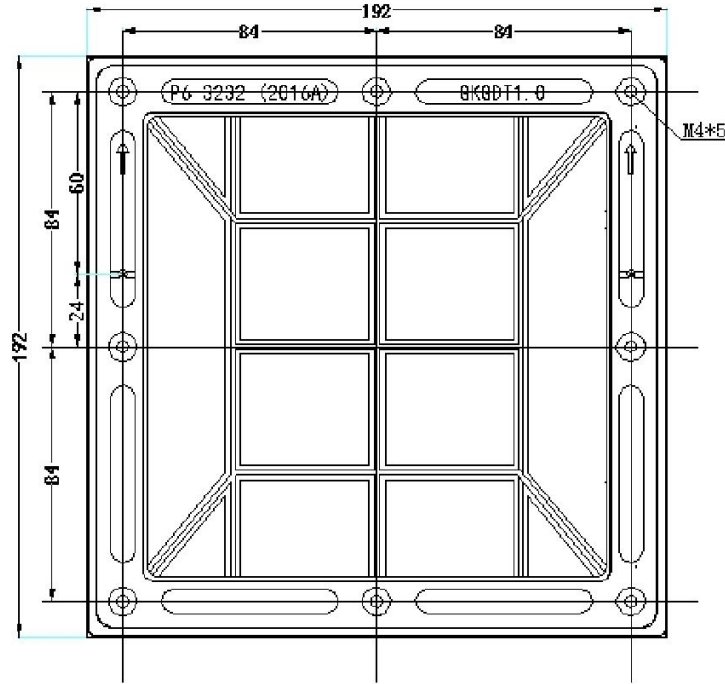


Module Front



Module Back

## ■ Structural Drawings

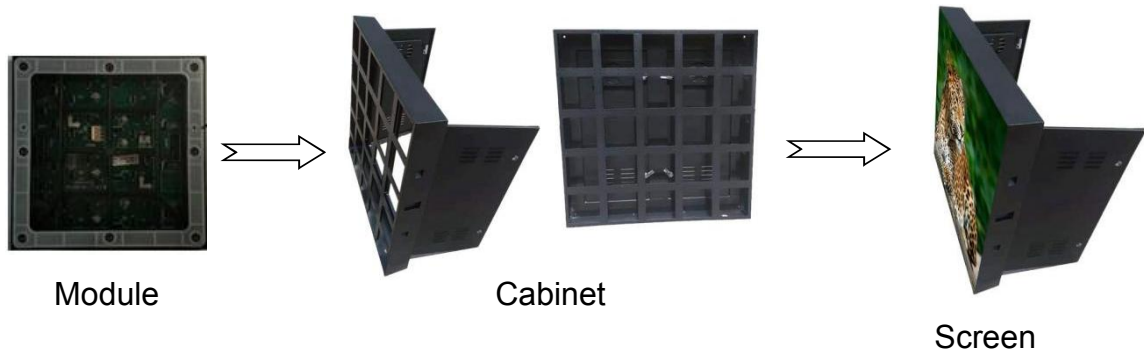


## ■ Interface Definition

|     |    |    |     |
|-----|----|----|-----|
| R1  | 1  | 2  | G1  |
| B1  | 3  | 4  | GND |
| R2  | 5  | 6  | G2  |
| B2  | 7  | 8  | GND |
| A   | 9  | 10 | B   |
| C   | 11 | 12 | D   |
| CLK | 13 | 14 | LAT |
| ROE | 15 | 16 | GND |

| Pin        | Signal Definition | Function                 |
|------------|-------------------|--------------------------|
| 1. 2. 3    | R1.G1.B1          | 1 Group RGB Data         |
| 5. 6. 7    | R2.G2.B1          | 2 Group RGB Data         |
| 9.10.11.12 | A.B.C.D           | Scan(Row) Control Signal |
| 4. 8. 16   | GND               | Signal Ground            |
| 13         | CLK               | Clock Signal             |
| 14         | LAT               | Latch Signal             |
| 15         | OE                | Output Enable Signal     |

## ■ Installation Diagram



## ■ Parameters

|  |                                  |
|--|----------------------------------|
| <b>Pitch</b>                                     | <b>P6 / 6mm</b>                  |
| <b>Application</b>                               | <b>Outdoor</b>                   |
| <b>Pixel Type</b>                                | <b>1R1G1B (Full-Color)</b>       |
| <b>Pixel Configuration</b>                       | <b>SMD1921</b>                   |
| <b>Module Size (Length x Height x Thickness)</b> | <b>192mm x 192mm x 17mm</b>      |
| <b>Module Resolution (WxH)</b>                   | <b>32x32 (dot)</b>               |
| <b>Scans Mode</b>                                | <b>1/8 Scan</b>                  |
| <b>Refresh Rate</b>                              | <b>≥1920Hz</b>                   |
| <b>Frame Rate</b>                                | <b>60Hz</b>                      |
| <b>Gray Level (Bit)</b>                          | <b>12-16 Bits</b>                |
| <b>Signal Interface Mode</b>                     | <b>HUB75</b>                     |
| <b>Module Weight</b>                             | <b>290±5g/pcs</b>                |
| <b>Brightness (Nits)</b>                         | <b>≥4500cd/m<sup>2</sup></b>     |
| <b>Pixel Density</b>                             | <b>27778 (dot/m<sup>2</sup>)</b> |
| <b>Color Temperature (K)</b>                     | <b>3000—18000 Adjustable</b>     |
| <b>Brightness Uniformity</b>                     | <b>≥ 97%</b>                     |
| <b>Deviation Of LED Luminance Center</b>         | <b>&lt; 3%</b>                   |
| <b>Horizontal Viewing Angle</b>                  | <b>≥140°</b>                     |
| <b>Vertical Viewing Angle</b>                    | <b>≥120°</b>                     |
| <b>Contrast Ratio</b>                            | <b>5000:1</b>                    |
| <b>Best Viewing Distance</b>                     | <b>≥ 6m</b>                      |
| <b>IP Rating</b>                                 | <b>IP65 (Front)</b>              |
| <b>Power Supply DC</b>                           | <b>5V</b>                        |
| <b>Maximum Current DC</b>                        | <b>5A/Pcs</b>                    |
| <b>Max Power Consumption</b>                     | <b>25W/Pcs</b>                   |
| <b>Max Power Consumption</b>                     | <b>678W/m<sup>2</sup></b>        |
| <b>Avg Power Consumption</b>                     | <b>339W/m<sup>2</sup></b>        |
| <b>Earth Leakage Current</b>                     | <b>&lt; 2mA</b>                  |
| <b>Lifetime (Hrs)</b>                            | <b>100,000 Hours</b>             |
| <b>Operation Temperature</b>                     | <b>-10℃ -- 50℃</b>               |
| <b>Storage Temperature</b>                       | <b>-20℃ -- 60℃</b>               |
| <b>Operation Humidity (RH)</b>                   | <b>20—80% (No Condensation)</b>  |
| <b>Storage Humidity (RH)</b>                     | <b>20—80% (No Condensation)</b>  |

## ■ Attention Point

- Static electricity protection: LED lamp beads and CMOS tubes are relatively sensitive to static electricity and are easy to be damaged by static electricity. During the installation or maintenance of the screen, operators should wear anti-static gloves or bracelets. When operating on the workbench, it is required that the workbench must be covered with thermal anti-static leather, and the workbench, soldering iron and other equipment must be grounded;
- The main body and shell of the display should be well grounded. The grounding resistance is less than  $3\Omega$ , achieving the purpose of lightning protection, and effectively preventing accidental electric shock accidents. The installation environment should avoid strong electromagnetic equipment;
- For the configuration and connection of the cable, please refer to the maximum power consumption in the actual use of the screen body, and follow the suggestions of professional electrical workers, and correctly connect to the power supply supply. Do not bring too much load. Loss of brightness. In severe cases, it will cause frequent cards and even burn the screen;
- After the display screen installation is completed, be sure to use the multi-meter to detect whether the 220V AC circuit and the 5V DC circuit each part of each part can be used to confirm that there is no abnormality and can be used to use it;
- After the power on, if there is any abnormal phenomenon such as short circuit, tripping, wire burning, etc., it is not allowed to conduct power on test repeatedly, and the circuit problem should be checked in time;
- After power on, if several lines of highlights are found on the LED display screen, the main power supply should be turned off in time, and check whether the module power line and flat line are in good contact (if the power supply is not turned off in time, IC damage may be caused);
- Switching sequence of LED display screen:
  - when the screen is turned on: turn on the computer first, and then turn on the power supply of LED display screen;
  - When closing the screen: turn off the power supply of the LED display first, and then turn off the computer.
  - Incorrect switching sequence may cause damage to the LED lamp chip;
- The LED display shall avoid being in power-off state for a long time. Long time power failure may cause adverse chemical changes in internal substances of electronic components (such as electrolyte) and affect the service life of components. Power on and light the screen for at least 2 hours every week;

## ■ Disclaimer

- Any product failure or damage caused by non-compliance with the above relevant precautions or other human factors is not covered by the manufacturer's warranty. Please keep the factory data and accessories properly. If you have any questions, please contact us.

## ■ After-sales Service

- The after -sales service of the products described in this article is provided by the manufacturer. Product quality insurance period: one year, life -long maintenance, and providing free new software upgrades for life. If you have relevant needs, please contact us in time.

## ■ Special Service

- The above specifications are our standardized products. We can customize the products according to your needs. If you need assistance, please feel free to contact us!

## ■ Package

|                                  |   |
|----------------------------------|---|
| <b>Standard Packing Quantity</b> | <b>40 Pcs / Carton</b>                            |
| <b>Packing Size</b>              | <b>545mm (L) X320mm (W) X 475mm (H)</b>           |
| <b>Net Weight</b>                | <b>16.0 Kg</b>                                    |
| <b>Gross Weight</b>              | <b>18.0 Kg</b>                                    |
| <b>Parts List</b>                | <b>Flat Cable (40 Pcs) 、 Power Cable (20 Pcs)</b> |