



华橙实业
HC Industry

Specification



LED Display

Flexible LED Module

LED Soft Panel

P1.88、P2、P2.5、P3.076、P4

320mm*160mm

Safety

This chapter illustrates safety of the 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 and water prevention.
- 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 Flexible Display Module Series Are 240mmx120mm / 256mmx128mm / **320mmx160mm**; And The Point Spacing Includes: P1.25 / P1.29 / P1.56 / P1.579 / P1.66 / P1.875 / **P1.88 / P2 / P2.5** / P2.58 / P3 / **P3.076 / P4** .

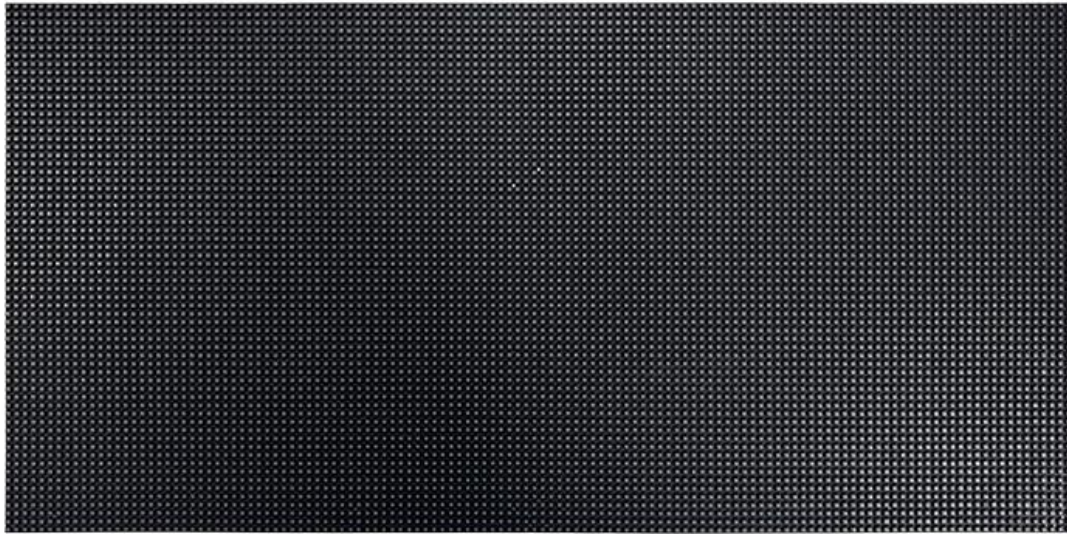
■ Features

- The module standard size design is 320mmx160mm, low current, low heat, high contrast 5000:1, high brightness and high gray level, refresh \geq 1920hz, 12-16bit gray level, and the image shows no delay and no dragging;
- The minimum bendable diameter is up to 509mm, and the visual angle is up to 160 °. It is suitable for curved surface flexible display such as stage background, exhibition hall and indoor conference room, which helps to improve the environmental grade and create a special visual atmosphere;
- The module is installed with strong magnetic adsorption, which can be slightly adjusted, and the flatness of the screen is good. Front maintenance design of power board, special scenarios, can realize front installation, and can meet front maintenance with specific tools;
- PCB board adopts flexible board, and the mask/bottom shell adopts superior silica gel material;
- The module is only 5.3mm thick, with ultra-thin design and small space occupation;

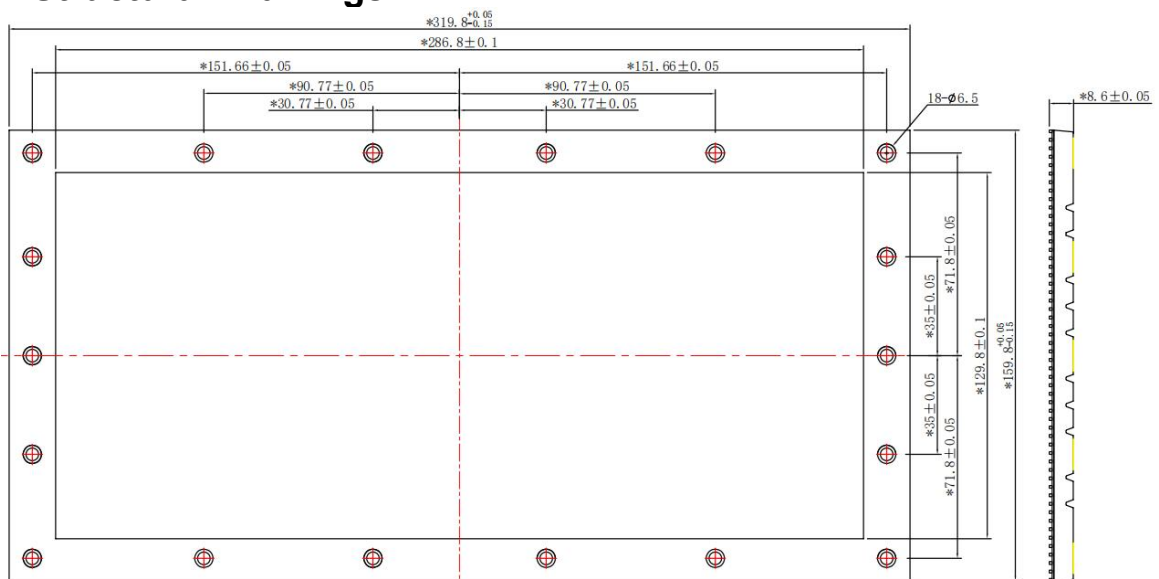
■ Process Introduction

- PCB board adopts Gold Sinking Process, S1000-2 base material, special circuit layout, multi-layer board process design, and high-level materials to greatly reduce the phenomenon of "color temperature";
- The whole series adopts high contrast black light. When the screen is black, the ink color and luminous angle of the whole screen are consistent. When playing HD video, the screen is fine and soft with good visual effect.
- The bottom shell is made of top-grade silica gel raw materials, with good flexibility, high temperature resistance, low temperature resistance, electrostatic elimination and strong protection performance;
- The PCB board is welded with copper column and adhesive backing to form a lockable base with the bottom shell, making the module more firm and reliable;
- The single board is equipped with 18 strong magnetic magnets, with a single magnetic content of 2000GS, which greatly solves the problem of degumming and warping of ordinary modules, and effectively improves the flatness and use effect of the screen.

■ Picture



■ Structural Drawings



■ Parameters

Pitch (mm)	P1.29	P1.56	P1.66	P1.88
Pixel Type	1R1G1B (Full-Color)			
Pixel Configuration	SMD1010	SMD1212		SMD1515
Module Size (mm)	320x160x5.35 (Length x Height x Thickness)			
Module Resolution (WxH)	248x124	204x102	192x96	170x85
Scans Mode	1/62	1/51	1/48	1/43
Refresh Rate(Hz)	≥ 3000--3840			
Frame Rate (Hz)	50&60			
Gray Level (Bit)	12-16 Bits			
Signal Interface Mode	HUB75			
Module Bottom Shell Material	Silicone soft bottom shell			
Module Weight (Kg/Pcs)	0.334±0.05	0.325±0.05	0.318±0.05	0.315±0.05
IP Code	IP45			
Installation Mode	Support front and rear installation & maintenance			
Brightness (Nits)	650-800cd			
Color Temperature (K)	3000—10000 Adjustable			
Brightness Uniformity	≥97%			
Deviation Of LED Luminance Center	<3%			
Horizontal Viewing Angle (°)	≥160°			
Vertical Viewing Angle (°)	≥140°			
Contrast Ratio	5000:1			
Power Supply DC (V)	5V	5V	5V	5V
Maximum Current DC (A)	5A	5A	5A	4.5A
Max Power Consumption (W/Pcs)	25W	25W	25W	22.5W
Max Power Consumption (w/m ²)	490	490	490	440
Avg Power Consumption (w/m ²)	165	165	165	150
Lifetime (Hrs)	100,000			
Operation Temperature (°C)	-10 -- 50			
Storage Temperature (°C)	-20 -- 60			
Operation Humidity (RH)	20—85% (No Condensation)			
Storage Humidity (RH)	20—80% (No Condensation)			

■ Parameters

Pitch (mm)	P2	P2.5	P2.58	P3.076	P4
Pixel Type	1R1G1B (Full-Color)				
Pixel Configuration	SMD1515	SMD1515	SMD2121	SMD1515	SMD2121
Pixel Density (Dot/m ²)	250000	160000	150156	105625	62500
Module Size (mm)	320x160x5.35 (Length x Height x Thickness)				
Module Resolution (WxH)	160x80	128x64	124x62	104x52	80x40
Scans Mode	1/40	1/32	1/31	1/26	1/20
Refresh Rate(Hz)	≥3000-- 3840	≥1920			
Frame Rate (Hz)	50&60				
Gray Level (Bit)	12-16 Bits				
Signal Interface Mode	HUB75				
Module Bottom Shell Material	Silicone soft bottom shell				
Module Weight (Kg/Pcs)	0.315±0.05	0.269±0.05	0.260±0.05	0.252±0.05	0.230±0.05
IP Code	IP45				
Installation Mode	Support front and rear installation & maintenance				
Brightness (Nits)	650-800cd				
Color Temperature (K)	3000—10000 Adjustable				
Brightness Uniformity	≥97%				
Deviation Of LED Luminance Center	<3%				
Horizontal Viewing Angle (°)	≥160°				
Vertical Viewing Angle (°)	≥140°				
Contrast Ratio	5000:1				
Power Supply DC (V)	5V	5V	5V	5V	5V
Maximum Current DC (A)	4.5A	4.5A	4.5A	4.5A	4.5A
Max Power Consumption (W/Pcs)	22.5W	22.5W	22.5W	22.5W	22.5W
Max Power Consumption (w/m ²)	440	440	440	440	440
Avg Power Consumption (w/m ²)	150	150	150	150	150
Lifetime (Hrs)	100,000				
Operation Temperature (°C)	-10 -- 50				
Storage Temperature (°C)	-20 -- 60				
Operation Humidity (RH)	20—85% (No Condensation)				
Storage Humidity (RH)	20—80% (No Condensation)				

■ Installation Diagram

➤ Project 1



Soft Module



Cabinet



Install



Project

➤ Project 2



Soft Module



Cabinet



Install



Project

■ Attention Point

- When installing or disassembling the module, it is strictly forbidden to tear the module violently, so as not to pull the copper column too hard and damage the PCB;
- The minimum bending diameter of the soft module is within 509mm, It is strictly prohibited to fold the module repeatedly;
- It is not recommended to use galvanized square pipe for installation, and the flatness of galvanized square pipe cannot be guaranteed. It is recommended to use a sheet metal sandblasting iron box with good flatness and easy installation;
- 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 3Ω , 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 multimeter 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.

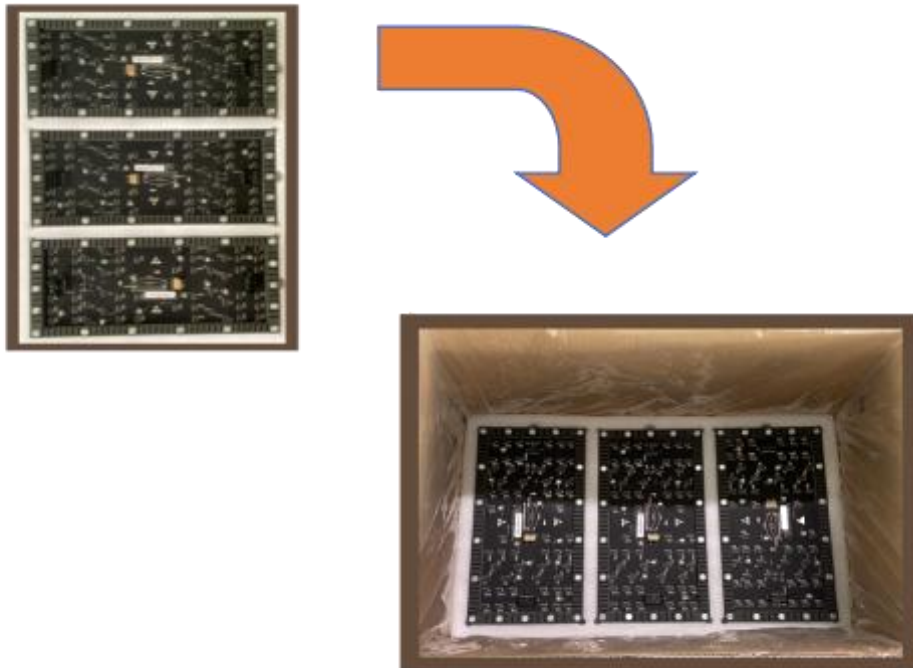
■ After-sales Service

- 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



■ Case Show

