RX Series --P1.8 Spherical Screen

Product specification

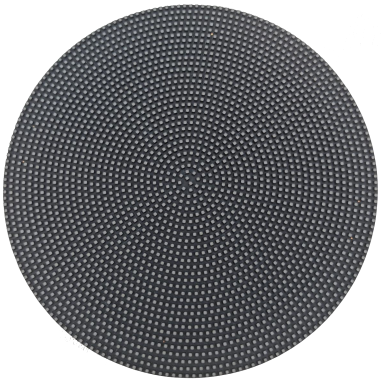
SHENZHEN KMTEKLED PHOTOELECTRICITY CO.，LTD

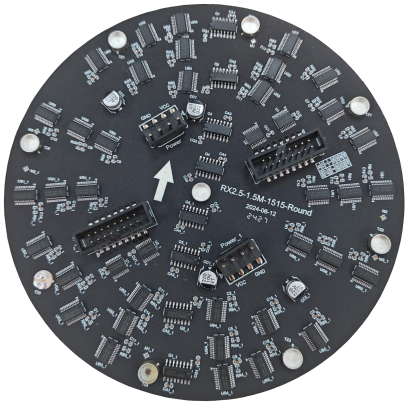
1.Scope of application

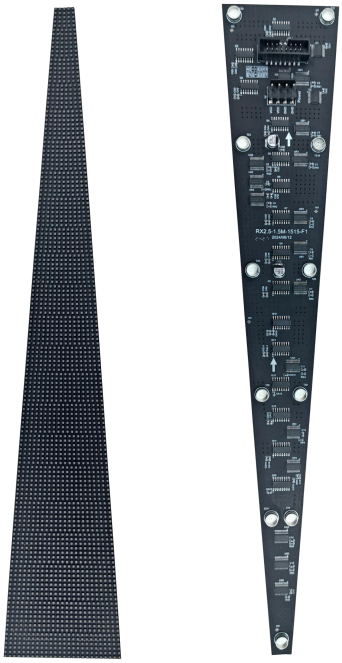
This technical manual is only applicable to indoor P1.8 LED spherical displays with diameters of 1 meter, 1.5 meters, and 2 meters. The following are special-shaped customized product parameters. If you have special needs, you can customize the parameters.

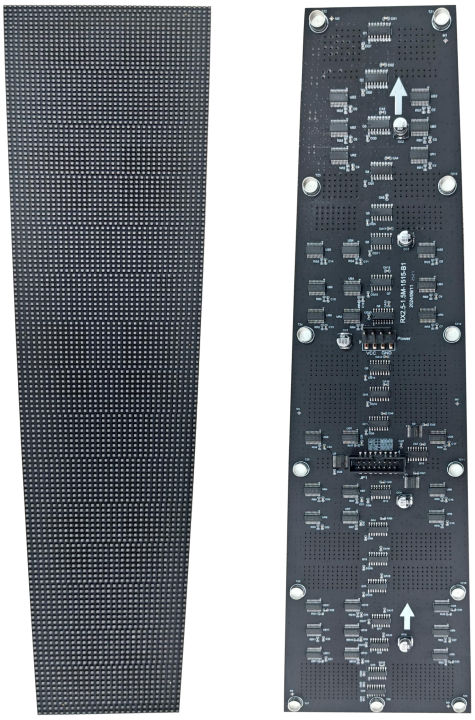
	Product name	P1.8 LED Spherical Screen				
Technical parameters	Pixel configuration	1R1G1B (Full color)				
	LED type	SMD1212				
	Pixel density (dots/㎡)	288906				
	Moduel size (mm)	Special shape customization				
	Brightness	500-800(cd/㎡)				
	Drive mode	49 Scan				
	Refresh rate	≥3000-3840 Hz				
	Frequency	50&60 Hz				
	Grey level	12-16 Bit				
	Viewing angle(W/H)	Full view				
	Signal interface mode	HUB75				
	Cabinet material	Sheet metal riveting process				
	Cabinet flatness	≤0.3 (mm)				
	IP Grade	IP41				
	Maintenance mode	Support Front service				
Spherical parameters	Diameter size（m）	1m	1.5m	2m	2.5m	3m
	Whole area	3.14㎡	7.065㎡	12.56㎡	19.625㎡	28.27㎡
	Whole resolution	1744 x 872	2618 x 1308	3490 x 1744	4362 x 2180	5324 x 2618
	Number of aliens	5	7	9	11	13
	Net weight	110kg	160kg	200kg	260kg	
	Max Consumption	570 W	1275 W	2342 W	3000 W	
	Display mode	asynchronous/ synchronous	asynchronous/ synchronous	synchronous	synchronous	synchronous
	Packing size (Estimate)	L：1240mm W: 1240mm H: 1590mm	L: 1720mm W: 1720mm H: 1980mm	L: 2020mm W: 2020mm H: 2600mm	Split and package	Split and package
	Voltage	110-220V				
	Working Temperature	-10—50 (℃)				
	Storage Temperature	-20—60 (℃)				
	Working Humidity	20—85%(RH)				
	Storage Humidity	20—80%(RH)				

2.Module Diagram

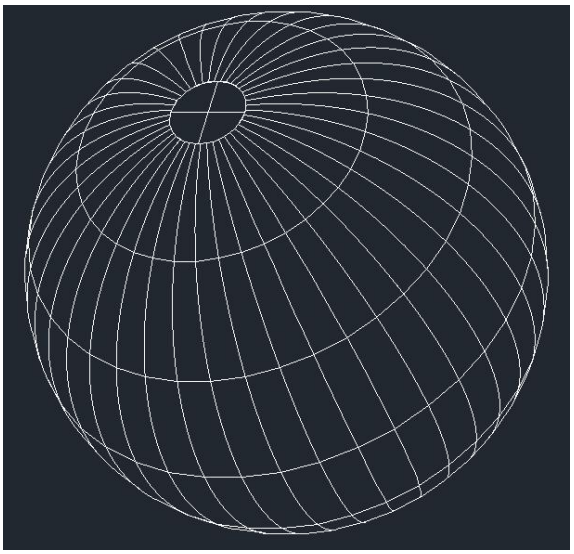








3.Product Structure Diagram

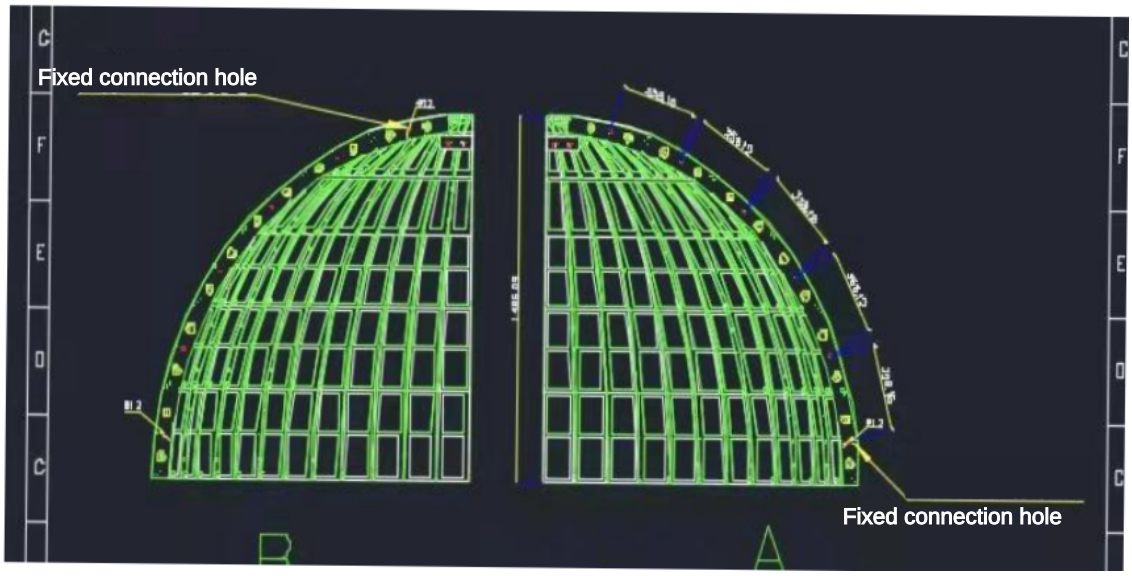


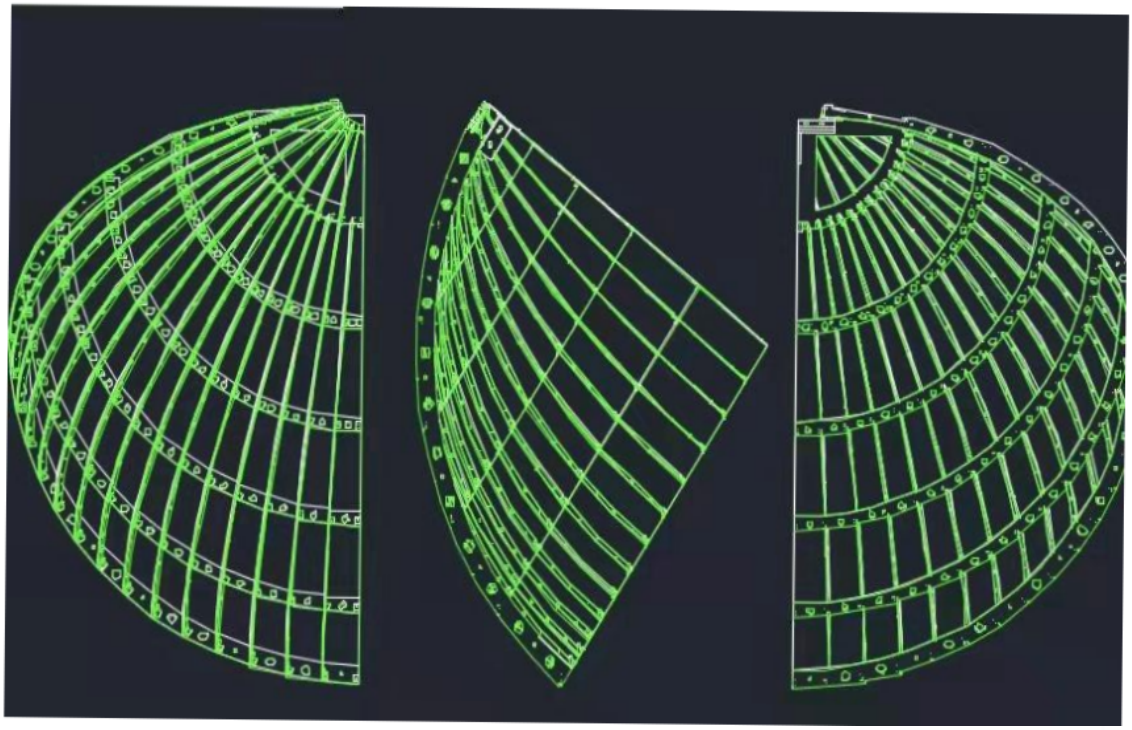
Spherical Design Diagram

Spherical Structure Diagram

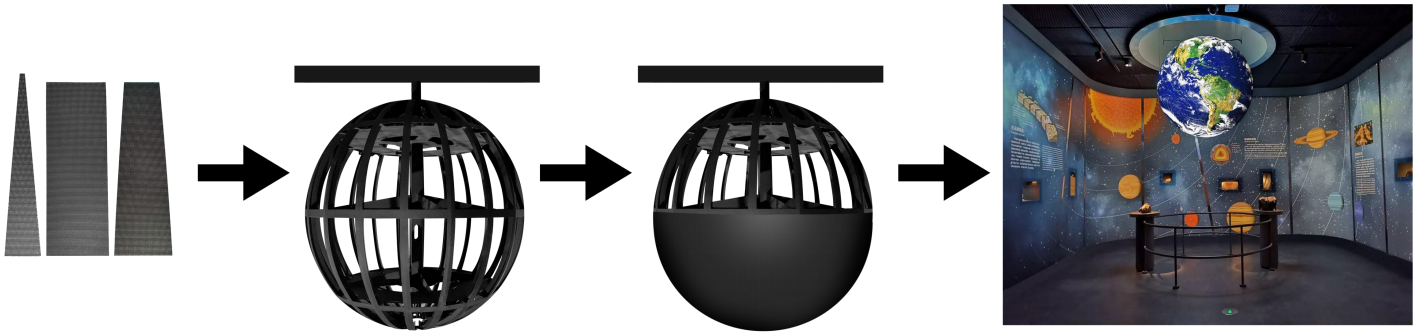
Actual diagram of the Whole Spherical structure

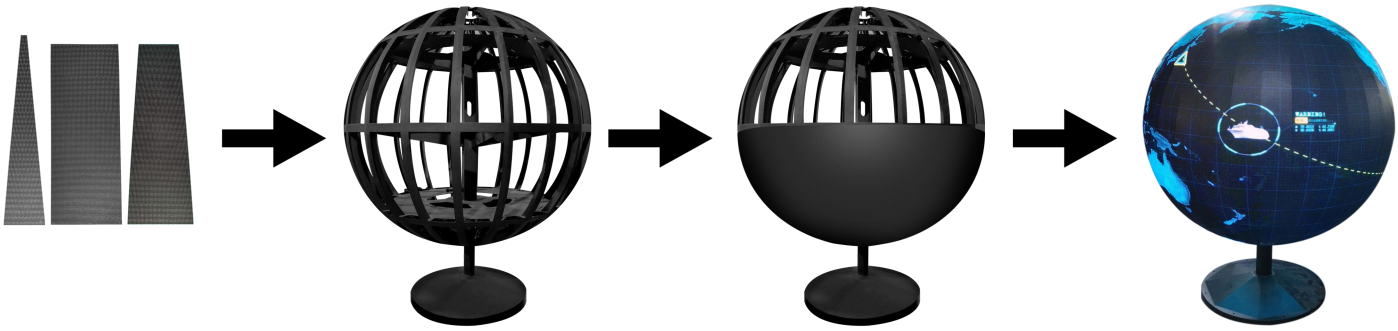
4.Cabinet Schematic Diagram





5.Installation diagram





6.NOTE

6.1 Installation and usage precautions

- When installing and disassembling the module, it is strictly forbidden to violently tear the module to avoid breaking the copper pillars with excessive force and damaging the PCB board.
- The bending angle of the soft module is between 150° and 180°.
  It is strictly prohibited to violently fold the module repeatedly.
- It is not recommended to use galvanized square pipes for installation, as galvanized square pipes cannot guarantee flatness. It is recommended to use easy to install and flat Install the sheet metal sandblasted iron box with good strength.
- Static electricity protection: LED lamp beads and IC devices are relatively sensitive to static electricity and are easily damaged by static electricity.
  When installing or maintaining the unit, operators must 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 equipment such as the workbench and soldering iron must be grounded.

- The main body and shell of the display screen should be well grounded to achieve the purpose of lightning protection and effectively prevent accidental electric shock accidents, and the installation environment should be away from strong electromagnetic equipment.
- For the configuration and connection of cables, please refer to the maximum power consumption of the screen in actual use, and follow the advice of a professional electrician to correctly connect the power supply.

Do not load too much, which may cause excessive load and cause the module to attenuate due to voltage.And produce the loss of brightness. In severe cases, it may cause frequent tripping or even screen burnout.

- After the display screen body is assembled, be sure to use a multimeter to check whether the 220V AC circuit and the 5V DC circuit of each part are short-circuited. Only after confirming that there is no abnormality can it be powered on.
- After powering on, if abnormal phenomena such as short circuit, tripping, or burnt wires are found, do not power on and test repeatedly.

Circuit problems should be checked promptly.

- Try to use a dark computer desktop background to avoid sudden high current surges when the LED display screen is turned on and instantly enters a bright, all-white display state.

During work, the screen should also avoid freezing on certain bright images for a long time, which will cause the screen temperature to rise sharply. These behaviors will affect the performance of IC and LED lamp beads service life.

6.2 Storage and cleaning precautions

- Before assembly, please ensure that the module and related electrical accessories are stored in a dry environment (the temperature is not higher than 35℃, humidity not higher than 65%).
- During daily cleaning of the screen body, it is strictly prohibited to splash water on the screen body and module. It is necessary to use an anti-static soft brush to gently clean the surface of the screen. Do not use damp rags, items containing moisture, or hard objects to clean them.

7.Packaging

①

Place the spherical cabinet on the wooden board

②

Fix the spherical box base with wooden board

③

The spherical box is wrapped with foam and surrounded by wooden boards

④

The packaging is completed

8. Application

Science Museum (ceiling type)

Exhibition hall (seated type)

Science and Technology Museum (mosaic type)

Children's Palace (embedded)