Product Specification

Specification Model:	P2.5-SMD2020-32S
Specification Description:	P2.5 Indoor SMD 3-in-1 Module
Module Structure:	LED Lamp and Driving ICND1065L
Lamp Bead:	2020 Lamp

Part One: Parameter

P2.5 Indoor Full Color Display SMD2020(1R1G1B)

	Item	Parameter
Unit Module	Model Number	P2.5-SMD2020-32S
	Module size	320mm*160mm
	Pixel pitch	2.5mm
	Pixels Density	160000dots/m²
	Pixel configuration	1R1G1B
	LED specification	Model: SMD2020 Manufacturer:Kinglight Country of origin: China ❖ Wavelength: Red ≥ 630nm, Green ≥535nm, Blue ≥480nm. ❖ Luminous Intensity: Red ≥700mcd; Green ≥1000mcd; Blue ≥200mcd ❖ Viewing Angle: Red 110Deg; Green 110Deg; Blue 110Deg ❖ Forward Voltage : Red 2.7V; Green 3.4V; Blue 3.4V ❖ Reverse Current: Red 0,5 uA; Green 0,5 uA; Blue 0,5 uA
	Pixel resolution	128dots(W)*64dots(H)
	LED Driver IC	ICND1065L
	Best viewing distance	2.5M～30M
	Panel current	4-4.5A
	Input Voltage	5 VDC

	Max Power	≤ 457 W/m2
	Module thickness	14.5mm
	Weight	0.46Kg ± 0.01Kg
	Drive type	Constant current drive
	Brightness Adjustment	Computer, Point to Point
	Control Mode	256 levels
	Scan mode	1/32 Scan
	Port type	HUB75
	Non-functional Pixels	<0.0001
	Brightness	≥1100cd/m2
	Display Colors	281000 billion colors
	Frame Frequency	60Hz
	MTBF (Mean Time Between Failures)	≥10,000 hours
	IP Rating	IP50
	Brightness Uniformity	>0.95
	Horizontal / Vertical Viewing Angle	160˚/160˚
	Gray Scale	16 bits
	LED Life	≥100,000 hours
	Humidity	10% - 95%RH
	Temperature	-20˚C ± 60˚C
	Refresh frequency	7680Hz

Part Two: Test Description

Item	Technical parameter
Ground connection	There is a protective grounding terminal, grounding resistance is not greater than 0.1Ω
Safety mark	The protective grounding terminal is marked, and there is a warning sign at the fuse and switch power. After the marking durability test, the marking is firm and legible.
Leakage current to ground	Leakage current to ground does not exceed 3.5mA/m² (effective value)
High and low temperature operation	Put the module into the environmental test chamber at 55℃, energize it for 24h, and then restore it to normal temperature; put it into the environmental test chamber at -20℃, energize it for 24h, and then restore it to normal temperature, the product appearance structure and function are normal before and after the test.
High and low temperature storage	Put the module into the temperature 100℃ environment test chamber for 24h, and recover 4h at room temperature after the test; put it into the temperature -40℃ environment for 24h, and recover 4h at room temperature after the test, the appearance structure and function are normal after the test.
Humidity and heat load	Put the module into the temperature (50±2)℃, relative humidity 87%～90% environmental test chamber, power on for 8h, check every hour, the products are normal before and after the test.
Constant humidity and heat	Put the module into the environmental test chamber with temperature (50±2)℃ and relative humidity 87%~90%, power on for 48h. Then after 4h of recovery at room temperature, the product is normal in appearance, structure and function.
Salt spray test	Under the conditions of salt solution PH value 7+/-0.5, concentration 5% NaCL, temperature 35+/-1 degree, continuous spraying 72h, no rusting and corrosion on the surface of the display after the test, the performance is intact and the operation is normal.
Shipping test	According to the three-stage circulation conditions of GB/T 6587 for the module, the appearance structure and function of the sample are normal after the test.
Fire retardant	Tested according to BS476-7 flame retardant standard, the display meets the CLASS 1 standard and the fire rating reaches UL94 V-0
Moisture resistance	In the range of 10%RH-95%RH, the display works normally.

Part Three: Product Features

1. Adopting 2.5mm ultra-small pixel pitch, it realizes ultra-high resolution indoors and presents a breathtaking high-definition image effect. With the characteristic of wide viewing angle, the color is still true and gorgeous no matter viewing from up, down, left or right, meeting the need of viewing from different angles.

2. Adopting three-in-one LED with good RGB color mixing effect, which makes the color performance more brilliant and image more realistic.

3. The LED screen occupies a small volume, light weight box, indoor high-density full-color screen, the display image is delicate and realistic. Surface-mounted packaging technology, high uniformity, good brightness and viewing angle, to achieve rapid installation and disassembly, saving your valuable time and labor costs.

◆ LED lamp

The 2020 matte black light packaged with high-end chips from world-renowned manufacturers fully guarantees the service life and display quality of the display.

◆ Driving IC

High refresh rate and high grayscale constant-current driving IC from world-renowned top manufacturers are used for excellent driving performance, stability and reliability.

◆ PCB

The multi-layer circuit design is adopted to ensure uniform current distribution and good heat dissipation of the lamp board, prevent color blocking in low gray conditions, and enhance the capacity to resist electromagnetic interference.
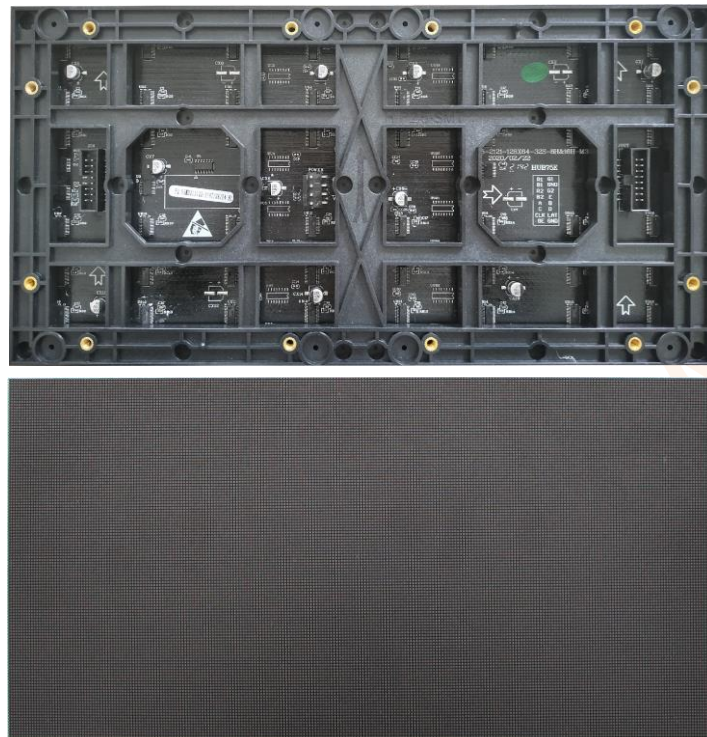
◆ Connector

Use high quality 1U gold-plated connectors, no plate-wire connection inside the cabinet, stable and reliable.
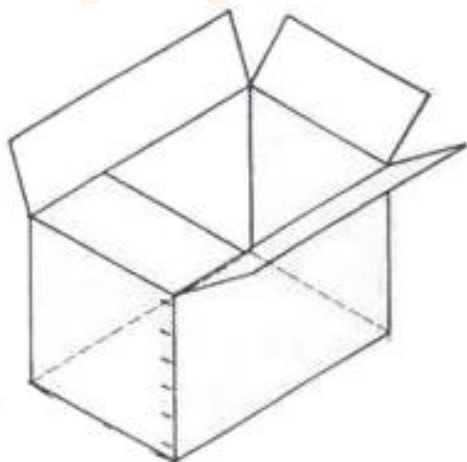
◆ Drive and control

Dedicated 16BIT high gray scale, high refresh drive constant current IC, with a special fading circuit to protect LED and prevent glitch leakage.

Part Four: Module Pictures

Part Five: Packaging

The packaging is made of high quality carton, and the module is equipped with corner protectors, including pearl cotton corner protectors, which can effectively avoid damage to the product caused by collision during handling and transportation.

Part Six: Installation Method（simple diagram of display installation structure）

▼ 多种安装方式，满足客户的不同需求
A variety of installation methods to meet the different needs of customers

LED 显示屏 LED Display **吊装式** **Lifting type**	LED 显示屏 LED Display **镶嵌式** **Mosaic**	LED 显示屏 LED Display **贴墙式** **Wall style**
LED 显示屏 LED Display **悬挂式** **Hanging**	LED 显示屏 LED Display **底部支架式** **Bottom bracket type**	LED 显示屏 LED Display **落地式** **Floor style**

◆ Application scope:

Halls of government buildings, halls of enterprises and institutions, conference rooms, exhibition halls, commercial buildings, stages, evening party scenes, etc.

Part Seven: Reminders

◆ Use Environment

1. This product is an indoor display.

2. Avoid use in high temperature, high humidity, high acid/alkali/salt environments.

3. Keep away from flammable objects, gases and dusts.

4. The normal operating ambient temperature of this product is -20~60℃, the best ambient temperature is -10~40℃.

5. The storage temperature is -30~60℃, avoid storage in high temperature, high humidity, high acid / alkali / salt environment; away from flammable items, gas storage.

6. Avoid strong collisions and sharp objects during transportation.

◆ Operation

1. The power terminals of this product are prohibited from being connected backwards.

2. If the product fails during the warranty period, please send it back to our company for repair, or repair it under the guidance of our after-sales staff.

3. In the process of disassembling/assembling the product, be sure to operate carefully and avoid tools hitting the product.

4. The operation and use process should do a good job of lightning protection, anti-static work; the box and steel structure should be grounded.

5. The product in the process of use, not continuous power on and off, the two operations should be separated by at least 1 minute.

6. This product can not be closed for a long time, it is recommended to use once a half month, power on for 4 hours; in high humidity environment, it is recommended to use once a week, power on for 4 hours.

7. This product is not allowed to play the highest brightness of the full white screen for more than half an hour, it is recommended to play dynamic video-based.

◆ Cleaning

If you clean the surface of the module, please use a soft brush to gently brush. Prohibit the use of any liquid substances to clean the surface of the LED module, otherwise it may damage the LED.

Part Eight : Connecting Operation Diagram

Note: Our company will continue to upgrade and improve the existing products, specifications are subject to change without notice, the product specifications and technical indicators are explained to our company.