



山西高科华杰光电科技股份有限公司
Shanxi Hi-Tech Huajie Optoelectronic Technology Co., Ltd.

高科显示屏 高科高品质

PRODUCT SPECIFICATION

Series	P - Project Series
Description	P2.5 Indoor Full Color Module
Model	THC2.5 PRO
Date	2025
Manufacturer	Shanxi Hi-Tech Huajie Optoelectronic Technology Co., Ltd.



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CB CE RoHS

Description

This product is primarily used for indoor LED display, with external dimensions of 320*160 (mm), pixel pitch of 2.5mm, featuring SMD1515/2121 LED lamp beads, flame-retardant V-0 grade PCB, PC housing, and HUB75 interface.

The product offers stable and reliable quality, featuring high luminance, high contrast, an ultra-wide viewing angle, and other performance advantages. Its excellent display effects make it suitable for various indoor scenarios, including advertising media, stage performances, security dispatching, educational conferences, and exhibition displays.

Note: Please do not use this product in high temperature, high humidity, high salinity or alkali environmen

Appearance



2121

(Front)

(Back)

Interface definition

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

引脚 I/O	信号 Signal	功能 Function
1、2、3	R1、G1、B1	第一组红色、绿色、蓝色数据 Red, Green, Blue data of group 1
4、16	GND	信号地 Signal Ground
5、6、7	R2、G2、B2	第二组红色、绿色、蓝色数据 Red, Green, Blue data of group 2
8、9、10、11、12	E、A、B、C、D	行控制 Line Control
13	CLK	时钟信号 Clock Signal
14	LAT	锁存信号 Latch Signal
15	OE	使能信号 Enable Signal

Technical parameters

Category	Item	Parameters and standards
Specifications and size	Outline dimension	L320mm×W160mm×D16mm
	Weight	0,27kg
	Pixel pitch	2.5mm
	Resolution	Module 128 pixels ×64 pixels Screen 160.000 dots/m ²
	Pixel composition	SMD1515/2121 1R1G1B full-color LED lamp Copper circuit wire, copper LED bulb legs (pure copper without iron)
	Signal interface	HUB75E
	Power interface	VH4P×1pcs
Optical parameters	Luminance of white balance	≥1500cd/m ²
	Contrast ratio	12000:1
	Color temperature	3000~21000K
	View angle , Best viewing distance	H≥170°, V≥170°, 2.5 – 200m

	Luminance uniformity	≥97%
Category	Item	Parameters and standards
	Color uniformity	≤ ±0.003 Cx, Cy
Electrical parameters	Supply voltage	High refresh: 4.5~5V Middle refresh: 5V
	Maximum current	4.5A
	Average power (Save energy)	Module 7.5W/pcs@5V Screen 165W/m ²
	Maximum power	Module 21W/pcs@5V Screen ≤ 500W/m ²
	Power supply method	AC220V/50Hz
	Earth leakage current	≤3.5mA/m ²
Processing performance	Refresh ratio Chip ICN	High refresh: ≥7680Hz DP3265S, DP3365S,
	Refresh frame frequency	50~60Hz
	Scanning mode	1/32 scan
	Gray scale	14bit
Environmental requirements	working temperature	-20℃ ÷ 45℃, 10%~80%RH
	Storage humidity	10% ÷ 80%RH
	Working humidity	-20℃ ÷ 50℃, 10% ÷ 85%RH
	Operating humidity	10% ÷ 85%RH
Other properties and usage	IP Grade	IP 41 (12 - 16 bit grayscale.)
	PCB PCB Flame-rating	UL94 V-0
	Lamp life time	≥100.000h

		$P_z \leq 1/10000$
Category	Item	Parameters and standards
	Full screen pixel out of control rate	
	Area Pixel Defect Rate	$P_Q \leq 3/10000$
	Maintenance mode	Front maintenance
	Load quantity	MAX7pcs@5V 40A
Reference standard	SJT 11141-2017、SJT 11281-2017、GB/T4943.1-2022、GB17625.1-2022	

LED SCREEN POWER SUPPLY

Model: KLF-H200V5-C3

Brand name: GKGD

Power: 200w

power output: 5v

Input voltage range: 190~264 VAC

Rated input voltage: 200~240 VAC

Output fluctuation: <500mV/0.1A/us $\pm 5\%$

On delay time: $\leq 3.0S/230Vac$

The output is protected against overvoltage and automatically returns to normal operation after the overvoltage is removed.

Insulation resistance: DC 500V 10M Ω Min

Permanent operating temperature: -30~+60°C

Storage temperature: -40~+80°C

Working humidity: 10~50% RH,

Storage humidity: 10~90% RH cooling mode: natural

Atmospheric pressure: 80-106 Kpa

Lightweight aluminum steel frame maximum 375 grams

SIGNAL CARD

12 HUB75E ports, no conversion board needed

Support color rendering function to display true color, arbitrary frequency multiplication to eliminate scanning lines when taking pictures.

Support low brightness with high grayscale technology, all PWM chips, dual latches and general chips

Support HUB75 interface and arbitrary modules 1~32S

Max load 512*512 (256*1024)

Cautions

The processes of product storage, installation, usage, and maintenance must refer to the "Product Instruction Manual".