



Product Specifications

PCB Series Products

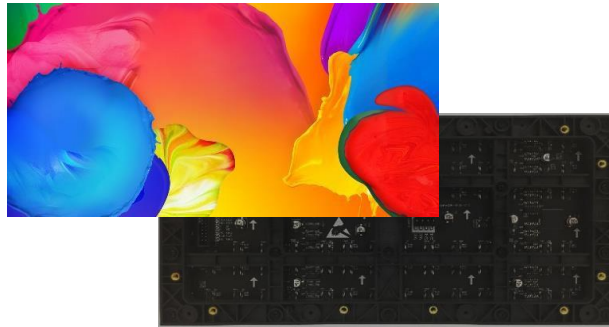


Shenzhen Zhanxin Technology Co., Ltd

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1. Product Description



1. Each pixel on the front of the LED display contains three chips, and a single pixel is composed of R, G, B full flip chip integrated package.
2. The back of the LED display module contains driver IC, resistors, capacitors and other components, which can be connected to the display control system to display video, images and text information.
3. The LED display module is mounted by magnet adsorption, and professional suction cup tools are used to complete installation and debugging.

Product Features

1. High reliability, full flip-chip, integrated packaging;
2. Lamp and driver integrated, constant current drive, uniform light emission, low power consumption;
3. Surface light source, wide viewing angle, good display effect;
4. The display module disassembly and assembly process is simple;

3. Technical parameters

Basic Parameter	
Pixel Pitch	2.5mm
Pixel Structure	1R1G1B
Pixel Density	160.000pixels/m ²
Module Resolution	128*64 Pixel
Module Size	320*160mm
Lamp Spec (R - G - B)	SMD 2020 Nationstar
Electric current	R:15mA; G:8mA; B:5mA
Forward voltage	R: 2,1V; G: 2,8V; B: 2,8V
Wavelength	R:624nm; G:525nm; B:474nm
Drive IC	MBI/ICN/SM - 16 channels of constant current output - Constant output current range: (- 0.5~20mA @ VDD=5V supply voltage - 0.5~10mA @ VDD=3.3V supply voltage) Best output current accuracy: Between channels: : $\leq \pm 1.5\%$(Typ.) Between ICs: $\leq \pm 1.5\%$(Typ.) - Built-in 16K-bit x 2 SRAM to support time-multiplexing for 1~64 scans - 16/15/14/13 bit color depth PWM control to improve image refresh rate - Built-in PWM enhancement, High contrast noise improvement, GCLK multiplication technology Maximum data clock frequency: 15MHz@VDD=5V
Weight	320g
Optical Parameter	



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Number of colors displayed	16.7 million colors - 281trillion colors
White Balance Brightness	$\geq 800 - 1200 \text{cd/m}^2$
Color Temperature	2800—13000K Adjustable
Contrast	10000 : 1
Horizontal Viewing Angle	$160^\circ \pm 5^\circ$
Vertical Viewing Angle	$160^\circ \pm 5^\circ$
Visible Distance	$\geq 2.5 \text{ m} - 100$
Brightness Uniformity	$\geq 97\%$
Allowable dead point rate	< 0.0001 (LED industry standard ≤ 0.0003)
Process Performance	
Color processing	16 Bit
Gray scale	65.536 level
Control Distance	Cable 100 m, Optical Fiber: 20km
Drive Mode	constant current source driver
Frame Rate	$\geq 60 \text{HZ}$
Refresh Rate	3840 Hz
Scan mode	32S
Brightness Adjustment Range	0-100 Stepless Adjustmen
Usage Parameter	
Continuous Operation Time	7*24 hours
Expected LED Lifetime(Max)	$> 100,000$ hours
MTBF	$> 10,000$ hours
Attenuation 3 year	$< 15\%$
IP Rating	IP40
Operating Temperature	$-10^\circ \text{C} - 80^\circ \text{C}$
Operating and storage humidity	10 %- 90% RH No Condensation
Storage Temperature	$-30^\circ \text{C} - 60^\circ \text{C}$
Electrical Parameter	
Operating Voltage \perp	DC 4.5- 5V
Maximum current	5,2 A
Power Requirements	AC 110 or 220 V $\pm 10\%$
Maximum power consumption	$\sim 28 \text{W}$
Average power consumption	$\sim 15 \text{W}$