



Description

It has the characteristics of seamless splicing, perfect display, long service lifespan, fast frame changing speed, high refresh rate, good uniformity, wide viewing angle, high grayscale, natural color reproduction, etc. It is widely used in command and dispatch, security monitoring, video conference, studio display, and various conference display occasions.

Feature

*The LED display screen adopts CNC one-piece die-cast aluminum cabinet, and the selected materials meet the standard of "GB/T 15115-2009 Die-cast Aluminum Alloy".

*The LED display screen module adopts a plastic-free bottom shell kit design. The die-cast aluminum cabinet is in direct contact with the PCB circuit board. The edge of the PCB circuit board directly contacts the four sides of the die-cast box to improve the thermal conductivity. Compared with the bottom shell with a plastic kit, it can better solve the color drift problem and ensure that the screen body is accelerated aging and reduced service life due to heat conduction. The product surface temperature rises by $\leq 5^{\circ}\text{C}$ after lighting for 5 minutes under normal video playback, and its temperature rises by $\leq 10^{\circ}\text{C}$ after lighting for 10 minutes.

*The LED display screen unit module and the unit cabinet use industrial-grade precision wireless connectors, which have the ability to fine-tune and correct deviations, and the connection is more stable. The whole screen joint can be finely adjusted in units of modules to avoid the light and dark line effect between modules due to the joints. The signal cable and low-voltage power cable cannot be seen inside the cabinet, and it can be plugged in and out directly with power on.

*The LED display screen adopts a non-contact magnetic suspension front maintenance design, which can remove low-voltage devices such as modules, receiving cards, and power supplies from the front, and has hot-swappable capabilities.

*The bottom of the LED display box adopts a positioning column boss design, which can effectively prevent the module from contacting the ground during installation and transportation, resulting in knocking and falling lights.

*In order to ensure the horizontal angle, vertical angle, and flatness of the screen installed on site and improve the customer's final viewing experience, the LED display screen has a horizontal and vertical detection module inside the LED box. The horizontal and vertical angles can be intuitively corrected on site to ensure the horizontality and verticality of the LED box structure during the project construction.

*The LED display switching power supply has a PFC function, a power factor ≥ 0.95 , a power efficiency $\geq 91\%$ @ 25°C , and has overcurrent, short circuit, overvoltage, and undervoltage protection functions.

*LED display color uniformity is within $\pm 0.001\text{Cx,Cy}$; the relative deviation of the center distance of the LED display pixel is $\leq 1\%$; the average fault recovery time (MTTR) of the LED display is ≤ 2 minutes.

*LED display screen color temperature 100K-20000K continuously adjustable, can be set to cool color, warm color, standard and other multi-level white field adjustment, when the color temperature is 8500K, 100%, 75%, 50%, 25% four-level white field adjustment color temperature error $\leq 100\text{K}$.

*LED display screen to prevent metal ion migration, line short circuit phenomenon, PCB FR-4 two-layer board of the same grade or higher material, PCB wire wider, wire spacing and via spacing larger, can better prevent module black screen, display abnormality, lamp bead color, caterpillar and other phenomena, surface immersion gold treatment, board thickness $\geq 1.6\text{mm}$, copper thickness ≥ 1 ounce, TG $\geq 150^{\circ}\text{C}$, PCB board surface with moisture/dust/anti-static/anti-oxidation, mildew resistance level ≤ 1 level.

*The LED display screen has HUB port signal connection detection, module voltage detection, module temperature detection, real-time detection of the working status of the display screen, and has an automatic fault alarm function and notifies the corresponding technical operation and maintenance personnel by email.

*LED display screen is based on GB/T 5169.16-2017 standard, the test temperature is 650°C , the time is 30 seconds, the sample burning flame or molten material should be extinguished within 30 seconds after the glow wire test, and the burning flame or molten material of the sample should not cause the test paper below to burn when dripping, and the flame retardant level (PCB board, wire, power supply, connector) reaches V-0 level.

*LED display screen meets EMCCLASSB anti-interference ability, and requires stable operation without interference from external radio frequency electromagnetic fields.

*The LED display screen has multiple sets of built-in parameters, which automatically call the corresponding parameters according to the brightness level changes of 0-255. When the brightness level is ≥ 16 , the refresh rate is $\geq 240\text{Hz}$; when the brightness level is ≥ 30 , the refresh rate is $\geq 600\text{Hz}$; when the brightness level is ≥ 50 , the refresh rate is $\geq 1920\text{Hz}$; when the brightness level is ≥ 60 , the refresh rate is $\geq 2880\text{Hz}$; when the brightness level is ≥ 75 , the refresh rate is $\geq 4200\text{Hz}$.

*The back of the LED display box has a test button, which can realize four monochrome displays of red, green, blue and white, and scan and display in horizontal and vertical scanning. There is no need to remove the front module of the box and press the button inside the box to perform this test function.

*LED display screen has a single power leakage current $\leq 0.3\text{mA}$, which eliminates the risk of leakage current formed by multiple power supplies causing tripping of the upper electric box.

*The LED display has a low blue light mode. You can select 30%, 40%, and 70% in the control software to adjust the blue light output of the display, effectively reducing the damage of blue light radiation to the eyes.

*One box, one card, and one power supply can be directly mounted on the wall, embedded, or floor-mounted.

*The box size adopts a 4:3 ratio design, providing an excellent visual experience and meeting the needs of the mainstream market.

*The box adopts a front-to-back installation method, which can fit the wall at a close distance, effectively saving space and achieving harmonious integration with the surrounding environment.



Specification

Module parameters	
LED encapsulation	SMD2121 black light
Pixel pitch	2.5mm
Resolution	160000 pixels/m ²
Lamp beads/IC	Domestic high-quality copper wire/high refresh rate
Pixel configuration	1R1G1B
Module resolution	128*64
Module size (mm)	320*160
Cabinet resolution	256*192
Cabinet size (mm)	640*480*31.5
Cabinet weight	≤5.7Kg/piece
Working voltage	DC+4.2V~+5V
Main parameters	
Best viewing distance	≥7.5m
Horizontal viewing angle	≥175°
Vertical viewing angle	≥175°
Maintenance method	Front maintenance
Control mode	Synchronous control
Drive device	Constant current drive
Refresh rate	≥4200Hz
Frame rate	≥60Hz
Scanning method	32S
Brightness	200-800CD/m ²
Grayscale	12/14/16/18bit
Contrast	≥10000:1
Attenuation rate (after working for 3 years)	≤15%
Brightness adjustment method	0-100% adjustment through supporting software; support automatic/manual, support setting brightness timing adjustment
MTBF	≥20000H
Lifespan	≥100000H
Failed rate	≤1/100000 and no continuous failed pixels
Storage temperature	-35°C~+85°C
Working temperature	-20°C~+60°C
Working voltage (AC)	220V±10%/50Hz/60Hz
Average power consumption	≤125W/m ² at 800CD/m ² (≤95W/m ² at 600CD/m ²)
Maximum power consumption	≤500W/m ² at 800CD/m ² (≤380W/m ² at 600CD/m ²)
Cabinet material	Die-cast aluminum cabinet
Brightness uniformity	≥99%
Protection class	IP5X