



Description

It has the characteristics of seamless, perfect display, long service life, fast frame change speed, high refresh rate, good uniformity, wide viewing angle, high grayscale, and natural color restoration. It is widely used in command and dispatch, security monitoring, video conferencing, studio display, and various indoor conference room displays.

Features

- *One box, one card, one power supply, can be directly mounted on the wall, embedded or floor mounted.
- *The box size adopts the golden ratio of 16:9, providing an excellent visual experience and meeting the needs of the mainstream market.
- *The box is installed front and back, which allows it to fit closely to the wall, effectively saving space and achieving harmonious integration with the surrounding environment.
- *The LED display module adopts a plastic-free bottom shell kit design. The die-cast aluminum box 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 is not affected by thermal conduction. Accelerated aging and reduced service life.
- *An industrial-grade precision floating wireless connector is used between the LED display unit module and the unit cabinet. It has the ability to correct the deviation during interlocking, and the connection is more stable. The whole screen seam can be finely adjusted based on the module to avoid the light and dark line effects between modules due to the seam. No signal cables or low-voltage power cables can be seen inside the cabinet, and it can be directly plugged in and out while powered.
- *The LED display screen adopts a non-contact magnetic levitation front maintenance design, which allows the front removal of modules, receiving cards, power supplies and other low-voltage components, and has hot-swappable capabilities.
- *In order to ensure the horizontal angle, vertical angle, and flatness of the LED display screen during on-site installation and improve the customer's final viewing experience, the LED cabinet is equipped with horizontal and vertical detection modules. The horizontal and vertical angles can be intuitively corrected on-site to ensure the horizontality and verticality of the LED cabinet structure during the project construction process.
- *The LED display switching power supply has PFC function, power factor ≥ 0.95 , power efficiency $\geq 91\%$ @ 25°C , and has over-current, short-circuit, over-voltage and under-voltage protection functions.
- *LED display chromaticity uniformity is within $\pm 0.001\text{Cx, Cy}$; LED display pixel center distance relative deviation $\leq 1\%$; LED display mean failure recovery time (MTTR) ≤ 2 minutes.



- *The color temperature of the LED display screen is continuously adjustable from 100K to 20000K. It can be set to multiple levels of white field adjustment such as cold color, warm color, and standard color. When the color temperature is 8500K, the color temperature error of the four-level white field adjustment of 100%, 75%, 50%, and 25% is $\leq 100K$.
- *In order to prevent metal ion migration and line short circuit, the LED display screen uses FR-4 four-layer board of the same grade or higher material. The PCB wires are wider, and the wire spacing and via spacing are larger, which can better prevent module black screen, display abnormality, lamp bead color loss, caterpillars and other phenomena. The surface is treated with immersion gold, the board thickness is $\geq 2mm$, the copper thickness is ≥ 1 ounce, TG $\geq 170^{\circ}C$, and the PCB board surface is moisture-proof/dust-proof/anti-static.
- *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.
- *The LED display screen has single-point out-of-control point detection, out-of-control point data feedback function, real-time detection of the working status of the display screen, automatic fault alarm function and notifies the corresponding technical operation and maintenance personnel by email.
- *The LED display screen is equipped with FLASH intelligent storage circuit, which can store module calibration data. When the module is replaced, the calibration data can be automatically read back. The storage capacity is $\geq 1MB$.
- *The LED display screen has a test button on the back of the cabinet, which can realize four monochrome displays of red, green, blue and white, and scan the display in horizontal and vertical scanning modes. There is no need to remove the module on the front of the cabinet and press the button inside the cabinet to perform this test function.
- *The LED display screen has a single power supply leakage current of $\leq 0.3mA$, which prevents the leakage current formed by multiple power supplies from causing the risk of tripping of the upstream electrical box.
- *The LED display has a low blue light mode, and you can select 30%, 40%, and 70% to adjust the blue light output of the display in the control software, effectively reducing the damage of blue light radiation to the eyes.
- *The LED display module adopts a hardware encryption circuit design, which cooperates with the decoding board and software to generate keys. The authorized use time can be set before leaving the factory. The screen will be automatically locked when the authorized use time is reached. The user must unlock the screen with the authorization password before using it normally.
- *It can record the number of times the LED display screen is turned on and off, and the length of time it is used, and can form a data storage period of 100 days. It also supports the monitoring of on-site temperature and humidity, and can display data in real time on the control software side, making it convenient for users to understand the on-site screen and environmental temperature and humidity data.
- *The LED display has HDR high dynamic range images. The HDR display function achieves a more realistic and vivid image display effect by expanding the dynamic range of the image and increasing the detail information of the bright and dark parts of the image.

Specification

Module parameters	
LED packaging	MIP1010 Common cathode flip chip
Physical point spacing	1.45mm
Resolution	472020 points/m ²
Lamp beads/IC	Nationstar MIP/High refresh rate
Light point color combination	1R1G1B
Module resolution	206×116
Module size (width x height) (mm)	300×168.75
Cabinet resolution	412×232
Box size (width x height x thickness) (mm)	600×337.5×31.5
Box weight	$\leq 4Kg/pc$
Operating voltage	DC+2.8V/+3.8V
Main parameters	
Optimal viewing distance	$\geq 4.5m$
Horizontal viewing angle	$\geq 175^{\circ}$
Vertical viewing angle	$\geq 175^{\circ}$
Maintenance method	Front maintenance
Control method	Synchronous control
Drive devices	Constant current drive
Refresh rate	$\geq 4200Hz$



Indoor full color LED video wall

A1.45NH

Frame rate	≥60Hz
Scanning method	58S
Brightness	200-1000cd/m ²
Grayscale	12/14/16/18/22/24bit
Contrast	≥20000:1
Decay rate (three years of operation)	≤15%
Brightness adjustment method	The brightness can be adjusted from 0-100% through the accompanying software; it supports both automatic/manual modes and allows for scheduled brightness adjustments
Mean time between failures	≥20000H
Life	≥100000H
Noise rate	≤1/100000 and no continuous out-of-control points
Ambient temperature	Storage -35°C~+85°C
Operating temperature	-20°C~+60°C
Operating voltage (AC)	220V±10%/50Hz/60Hz
Average power consumption	≤70W/m ² at 1000cd/m ² (≤45W/m ² at 600cd/m ²)
Peak power consumption	≤280W/m ² at 1000cd/m ² (≤180W/m ² at 600cd/m ²)
Installation box specifications	Die-cast aluminum housing
Brightness uniformity	≥99%
Protection level	IP5X