Outdoor Full-Color LED Screen

K6.6 Pro (KP6.6-Y)

Description

Constructed entirely of aluminum, the enclosure is lightweight, high-strength, corrosion-resistant, and wind-pressure resistant, making it suitable for various harsh outdoor environments. The innovative all-aluminum structure combines efficient thermal conductivity with natural heat dissipation. Combined with heat sink fins and an internal fanless design, it achieves a passive cooling solution without the need for an internal air conditioner, reducing power consumption and failure rate. Supporting both front and rear maintenance modes, it offers convenient maintenance, significantly improving efficiency and reliability, and is widely applicable to various outdoor scenarios.

Features

*LED screen is designed to be waterproof and dustproof, and can withstand wind and rain erosion and dust pollution.

*The LED screen screen adopts a modular design, with the integrated main control box and display module forming independent components, which facilitates maintenance.

*The LED screen screen adopts an aluminum base shell design, which features high flatness, high density, and fast heat conduction. This improves the side-view modularity problem caused by easy deformation after assembly of conventional plastic base shells, and provides an ultra-high consistency effect under a wide outdoor viewing angle.

*The LED screen screen adopts an aluminum base shell + aluminum profile cabinet structure combined with a high heat dissipation fin design, which is in full contact with the air. Under the action of airflow, it can achieve rapid heat dissipation and prevent the LED screen module from degrading in performance or damaging components due to overheating.

*The LED screen screen adopts a hidden wiring design, with concealed wiring between cabinets, resulting in a simple and beautiful appearance.

*The LED screen uses a silent control box with a fanless design, which reduces noise generation and provides a quieter operating environment by eliminating traditional fans.

*The LED screen screen uses flame-retardant materials, and the PCB and components all meet the UL94V-0 flame-retardant rating, while the wiring meets the WW-1 flame-retardant rating, making the screen safer and more fireproof.

*The LED screen screen uses a self-locking quick-connect aviation plug, which allows power cords and network cables to be quickly and safely connected or disconnected, facilitating power supply and signal transmission for the modules.

*The LED screen screen adopts a common cathode voltage divider design, using 3.2V/4.2V voltage to precisely power different colors, reducing heat loss generated when the LED beads emit light, making it green, environmentally friendly and energy-saving, and resulting in a lower screen temperature.

*The LED screen adapter board adopts an integrated design without intermediate connectors. The PCB uses four-layer FR-4 board material, with each layer having a copper thickness of 70um (2Oz). It has an independent VCC layer + GND layer in the middle, separating power supply and signal transmission, effectively ensuring the overcurrent capacity and signal transmission stability of the entire cabinet.

*The LED screen screen adopts a hard-connection design, integrating signal and power into a single interface for transmission. It uses a custom board-to-board socket with large spring contacts for current transmission and small spring contacts for signal transmission. The socket also features a foolproof design to ensure transmission stability and safety in use.

*The LED screen switching power supply has PFC function, power factor ≥0.95, power efficiency ≥91%@25 , and protection functions for overcurrent, short circuit, overtemperature and undervoltage.

*LED screen have a single power supply leakage current of ≤1mA, eliminating the risk of tripping of the upstream electrical box due to leakage current from multiple power supplies.

*The LED screen screen records the number of times it is turned on and off and the duration of use, and the data can be stored for ≥100 days. It also supports the monitoring of on-site temperature and humidity, and the data can be displayed in real time on the control software, so that users can understand the on-site screen and environmental temperature and humidity data.

*The LED screen screen features a low blue light mode, allowing users to adjust the blue light output to three levels (30%, 40%, and 70%) via the control software, effectively reducing the harmful effects of blue light radiation on the eyes.

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Specification

Module parameters	
LED packaging form	SMD2727
Physical point spacing	6.67mm
resolution	22500 pixels /m²
LED beads/IC	High-quality domestic copper wire/high refresh rate
Light-emitting point color combination	1R1G1B
Module resolution	72×48
Module dimensions (width × height) (mm)	480×320
Speaker resolution	114×114
Box dimensions (width × height × thickness) (mm)	960×960×87
Box weight	≤27kg/piece
Operating voltage	DC +3.2V/+4.2V
Main parameters	
Optimal viewing distance	≥20m
Horizontal perspective	≥175°
Vertical perspective	≥175°
Maintenance method	Front/back maintenance
Control method	Synchronization control
Drive device	constant current
refresh rate	≥4320Hz
Frame rate	≥60Hz
Scanning method	6S
brightness	≥5000cd/m²
Gray levels	12/14/16/18bit
Contrast	≥10000:1
Attenuation rate (after three years of operation)	≤15%
Brightness adjustment method	Brightness can be adjusted from 0-100% via the accompanying software; supports automatic/ manual operation and allows setting a timer for brightness adjustment.
Computer operating system	Windows System 7 and above
Mean Time Between Failures	≥20000H
life	≤100000H
Noise rate	≤1/100000 and no continuous out-of-control points
Ambient temperature	Storage temperature: -40℃ to +60℃
Operating temperature	-20℃ to +60℃
Operating voltage (AC)	90-270V 50Hz/60Hz
Average power consumption	≤167W/m²
Peak power consumption	≤500W/m²
Installation enclosure specifications	Aluminum enclosure + aluminum base
Brightness uniformity	≥99%
Protection level	Front IP65 / Rear IP65