

LP Pro Series

Solar-Powered Lamppost LED Display for Smart Cities P2.5, P3.12, P3.84, P4.76



Solar-Powered



High Definition



Energy Efficiency



Stable Performance



High Brightness



Easy Operation

Solar-Powered All-in-One Outdoor Digital Signage

The LP Series Solar-Powered Lamppost LED Display is a fully integrated outdoor digital signage solution that combines a high-brightness LED display, solar power panels, battery energy storage, and intelligent control systems into a single lamppost structure.

Designed for smart cities, roadside advertising, public information display, and off-grid environments, the LP Series delivers stable and reliable 24/7 operation with minimal energy consumption, fast and flexible installation, and low long-term operating costs.





High-Definition Display with Ultra-High Brightness

The LP Series Solar-Powered Lamppost LED Display delivers exceptional image clarity and outdoor visibility, even in the most challenging lighting environments.

With high-definition pixel pitch options down to P2.5, the display provides sharp text, vivid graphics, and smooth video playback—making it ideal for close-viewing applications such as sidewalks, bus stops, pedestrian zones, and urban streets.

The screen supports ultra-high brightness levels of up to 8,000 nits, ensuring outstanding readability under direct sunlight and high-ambient-light conditions. Combined with a high contrast ratio and wide viewing angles, content remains clear, vibrant, and consistent from every direction throughout the day.

Zero Energy Cost · True Green Technology

The LP Series Solar-Powered Lamppost LED Display operates entirely on solar energy, requiring no connection to the power grid. By combining high-efficiency solar panels with a built-in energy storage system, the screen is able to support continuous 24-hour operation, even in off-grid environments.

To further reduce power consumption, the display adopts an advanced common-cathode LED design, which significantly improves energy efficiency by optimizing current distribution to the red, green, and blue LEDs. This results in lower power usage, reduced heat generation, and extended component lifespan.

With zero electricity cost, low maintenance requirements, and environmentally friendly operation, the LP Series represents a truly sustainable digital signage solution for smart cities and green infrastructure projects.





Exquisite Product Quality with Highly Reliable Performance

The LP Series Solar-Powered Lamppost LED Display is engineered with premium-grade components and robust outdoor design, ensuring long-term stability and reliable performance in demanding environments.

The display features an advanced thermal management design with excellent heat dissipation, allowing stable operation in extreme outdoor temperatures of up to 65°C. This effectively reduces thermal stress, maintains color stability, and extends the service life of key components.

For superior visual performance, the screen supports an ultra-high refresh rate of up to 7,680 Hz and 16-bit grayscale processing, delivering:

- Smooth, flicker-free video playback
- Accurate color reproduction and smooth gradients
- Outstanding performance for camera recording and live viewing

Combined with precise manufacturing and strict quality control, the LP Series delivers exceptional image quality, long-term reliability, and consistent performance, making it ideal for 24/7 outdoor digital signage applications.

Easy Operation & Smart Control

The LP Series Solar-Powered Lamppost LED Display is designed for simple operation and flexible content management. The system supports multiple connectivity options, including Wi-Fi, 4G, USB, etc, allowing easy integration with various media sources.

The display can play videos, images, and text smoothly and reliably. Powered by a cloud-based professional CMS (Content Management System), users can manage, update, and schedule content anytime and anywhere through a centralized platform.

With remote control, intuitive operation, and simplified workflows, the LP Series enables efficient screen management with minimal effort—making outdoor digital signage easy, smart, and highly efficient.





Smart Module Design & Automatic Failure Notification

The LP Series Solar-Powered Lamppost LED Display can be equipped with smart monitoring chips integrated at the module level, enabling real-time diagnostics and intelligent system status monitoring.

In the event of any abnormal operation or component failure, the system automatically identifies the issue and sends instant notifications to users via the management platform. This allows potential problems to be detected remotely and promptly, eliminating the need for routine on-site inspections by technicians.

By enabling proactive and predictive maintenance, the smart module design significantly reduces downtime, labor requirements, and maintenance costs, resulting in higher operational efficiency and a lower total cost of ownership.

Item	P2.5	P3.12	P3.84	P4.76
Pixel Pitch	2.5mm	3.125mm	3.846mm	4.761mm
LED Type	SMD1415	SMD1415	SMD1921	SMD1921
Module Resolution	80dots × 80dots	64dots × 64dots	52dots × 52dots	42dots x 42dots
Driving Mode	1/16scan	1/16scan	1/13scan	1/7scan
Module Pixels	6,400dots	4,096dots	2,704dots	1,764dots
Module Size	200mm × 200mm	200mm × 200mm	200mm × 200mm	200mm × 200mm
Cabinet Size	800mm × 1800mm	800mm × 1800mm	800mm × 1800mm	800mm × 1800mm
Cabinet Resolution	320dots × 720dots	256dots × 576dots	208dots × 468dots	168dots x 378dots
Pixel Density	230,400dots/m ²	147,456dots/m ²	97,344dots/m ²	63.504dots/m ²
Minimum Viewing Distance	2.5m	3.1m	3.8mm	4.7 m
Brightness	4500nits~5000nits	4500nits~5000nits	6,000nits~8,500nits	6,000nits~8,500nits
IP Grade	IP65	IP65	IP65	IP65
Refresh Rate	7680Hz	7680Hz	7680Hz	7680Hz
Gray Scale	16bits~22bits	16bits~22bits	16bits~22bits	16bits~22bits
Viewing Angle	H:160° / V:140°	H:160° / V:140°	H:160° / V:140°	H:160° / V:140°
Maximum Power Consumption	560W/m ²	560W/m ²	560W/m ²	560W/m ²
Average Power Consumption	150W/m ²	150W/m ²	150W/m ²	150W/m ²
Input Voltage	DC12-24V	DC12-24V	DC12-24V	DC12-24V
Operating Temperature	- 20°C~55°C	- 30°C~55°C	- 20°C~55°C	- 30°C~55°C
Operating Humidity	95%	95%	95%	10%~95%
Cabinet Material	Aluminum profile	Aluminum profile	Aluminum profile	Aluminum profile
Cabinet Weight	170kgs	170kgs	170kgs	170kgs
Operating System	Windows (Win7, Win8, etc.)	Windows (Win7, Win8, etc.)	Windows (Win7, Win8, etc.)	Windows (Win7, Win8, etc.)
Signal Source Compatibility	Wifi, USB, 4G	Wifi, USB, 4G	Wifi, USB, 4G	Wifi, USB, 4G
Battery	Average operating time on full charge (rainy/cloudy conditions): >24 hours			
	Battery capacity: 4000 Wh			
	Battery cycle life: 4,000–5,000 cycles			
Solar Panel	Solar panel power: 150 W × 4 pcs			
	Solar panel size: 600 mm × 1240 mm x 4pcs			