

SMART CITY. ONE POLE.

LIGHTING • SECURITY • CONNECTIVITY • INFORMATION
PROJECT-BASED SOLUTION

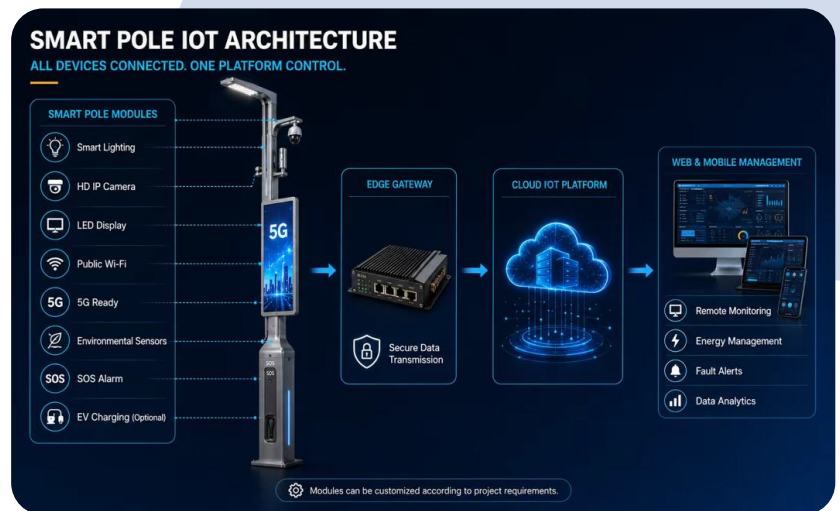


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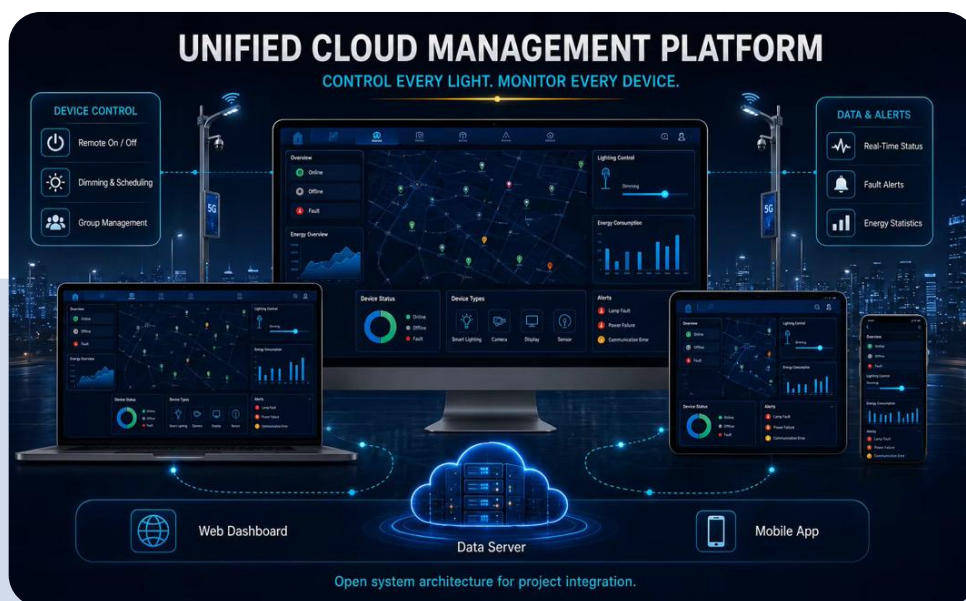
Smart Pole System

System Features

- Single lamp controller conforms to zigbee, NB-IOT, LoRa communication;
- Free wiring, simple installation, short commissioning period, no need to survey the project site in advance, real-life ready-to-use;
- It has the advantages of long communication distance, strong anti-interference ability and flexible networking. It can realize data transmission between devices between point-to-multipoint and multi-point-to-multipoint, and can form a MESH network structure such as star network and mesh network.
- Rich expandability, accessible through zigbee: rain and snow sensor, light sensor, traffic sensor, switch sensor, 4-20mA sensor (data acquisition), 0-5V sensor (data acquisition), etc.



- The platform adopts B/S architecture, which can provide service interfaces based on Web Service, support large-capacity wireless lighting streetlight access, and provide management control functions;
- Humanized strategy management function, according to customer needs to achieve on-demand control, automatic control.



Pole Lighting Management

The intelligent lighting management control system is composed of background management software (cloud database), centralized controller, terminal controller (single lamp controller, dual lamp controller), and the centralized controller communicates with the background management software platform through the GPRS network, through RF433. Wirelessly communicates with each terminal controller. By receiving the commands sent by the background management software, the centralized controller can control each terminal controller to control the switching and dimming of each street lamp, and query the power consumption and working status of each street lamp for preparation. Background management, software query. At the same time, the centralized controller can control the street lamp power circuit in the control box through the IO expansion module, and can also collect information such as illuminance, temperature and humidity, and gated light to the background management software to realize real-time monitoring on the site.

Standard Features

6 meters Street Pole (Standard height)



Q235 steel pole, 2.5 mm wall thickness; outdoor powder coating for corrosion, rust and UV resistance.

LED Light Module



80W Philips LED chips; 3000–6000K; Mean Well dimmable sealed driver; IP66; power factor ≥ 0.95 ; status monitoring and fault alarm.

Single Light Controller



CAT.1 communication; 0–10V/PWM dimming; up to 1000W load; energy metering, scheduling, offline control, fault alarm and OTA upgrade; IP65.

Edge Gateway



4-Port, 2 × 1000Base-X SFP and 8 × 10/100/1000Base-T; ring network and PoE support; connects LED displays, emergency intercoms and IP speakers.

Environmental Sensor



(6 in 1) PM2.5, PM10, temperature, humidity, noise and dust monitoring; RS485/Modbus output; web and mobile APP data display.

Electrical Accessories



Circuit breakers, customized wiring harnesses, waterproof connectors, surge protection modules, isolated power supplies and connection units.

LED Display



P4 mm Cabinet 520 × 1160 mm; display area 480 × 960 mm; single-sided high refresh; automatic brightness, temperature control and remote content management.

Optional Features

Emergency Call Unit



One-touch emergency call; 1MP camera; two-way audio/video; adaptive RJ45; DC12V/1A or standard PoE; aluminum housing.

Emergency Call Console



8-inch video type ,HD touch screen; remote terminal monitoring; two-way video intercom; monitoring, zone broadcasting, recording and playback/download functions.

5G



The lamp pole can be reserved for mobile, Telecom communication base stations as relay coverage

Extensible Access



Extensible Access: nfrared Sensor, Radar, Vehicle Flow Monitoring Sensor, RFID Communication

EV Smart AC Charging



Built-in lamp pole, international interface, support platform statistical management, support APP self-charging, support remote management, operation level: monthly settlement

WIFI hotspot



Street lamp embedded WIFI base station, to achieve city-wide WIFI hotspot coverage, dual-frequency communication 2.4/5G coexistence, concurrent access to 200 points, distance 70 m, support a variety of authentication access methods, support the operation system, scalable probe applications, traffic statistics and other applications.

PTZ Camera



4MP up to 2560 × 1440 @ 30fps; 350° pan and 0–90° tilt; two-way audio, human/vehicle detection, sound-light alarm; IP66 and PoE.

IP Speaker



30W network column speaker; live paging, remote volume control, grouping and scheduled tasks; web and mobile APP management; PoE supported.

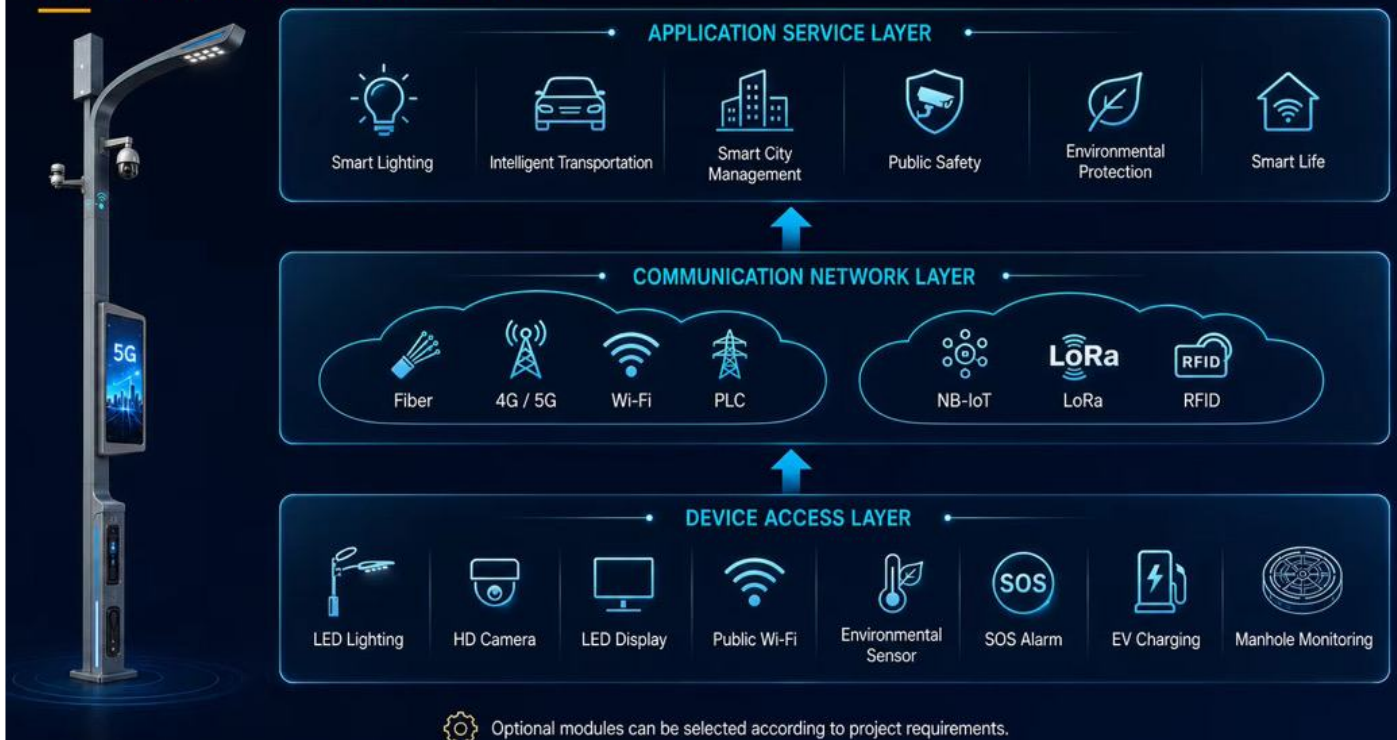
SMART CITY APPLICATION ECOSYSTEM

ONE INFRASTRUCTURE. MULTIPLE URBAN SERVICES.



THREE-LAYER SMART POLE ARCHITECTURE

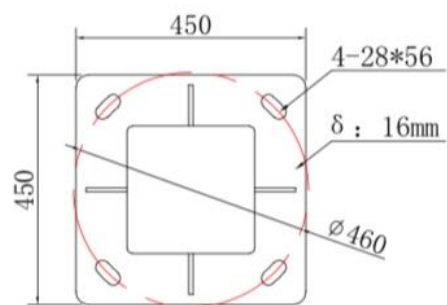
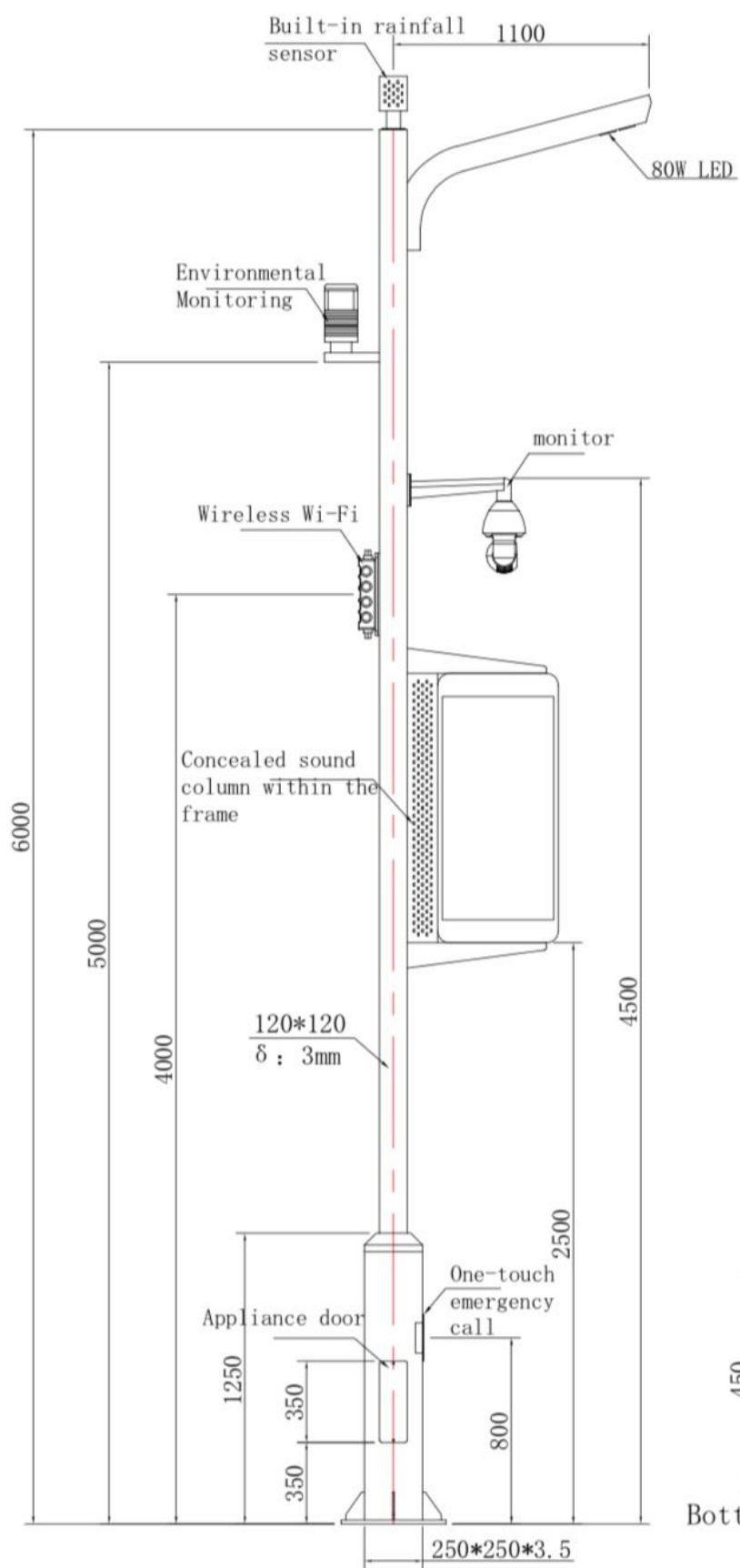
FROM FIELD DEVICES TO SMART CITY APPLICATIONS



MULTIFUNCTIONAL MODULE CONFIGURATION



- 1 Smart Lighting**
LED lamps with smart nodes provide adaptive lighting according to the traffic and pedestrian flow or different periods.
- 2 Environment Monitoring**
Environment sensors detect air quality, wind, temperature, and noise, which can be used in resident alerts, pollution monitoring, winter road maintenance support, driver's alerts, etc.
- 3 Camera**
The camera provides live streaming video for surveillance monitoring, making the city safer, and expands to specific applications like collecting traffic and pedestrian data, traffic violations, smart parking, face recognition, etc.
- 4 LED Display**
It can provide citizen services such as traffic guiding, emergency alert notification and public information, and commercial advertising with dynamic events and holiday promotions.
- 5 EV (AC Charging)**
The charging pile for electric vehicles uses the power grid of streetlights, and the operation status of the charging pile could be monitored in Smart Pole Management System.
- 6 Wireless AP**
The wireless AP provides free or charged Wi-Fi hotspot service to the citizen.
- 7 Wireless mobile charging**
Wireless charging is according to the Standard Qi, and the mobile phone storage area is equipped with a nonslip edge to help citizens charge the mobile phone when needed.



Bottom Flange Schematic Diagram

LED Display Specification

CE CE Certified

Input Voltage	220V AC
Electric Consumption	400W
Life Span	>100,000 hours
Working Temperature	-20°C ~ +60°C
Protection Level	IP65
Pitch size	4mm
LED Display Screen size	Cabinet 520 × 1160 mm; display area 480 × 960 mm
Interface	USB2.0 / Ethernet / RS485
Supported Format	Video / Images / Text / Animation and other
Aspect Ratio	Playing videos can form various ratios such as 4:3, 16:9, etc.
Display color	16.7M (close to nature color)

ENGINEERED FOR OUTDOOR PERFORMANCE

