

# Technical Specifications SG600 4G Light Pole Gateway

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VERSION NUMBER: **V2.1**

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# Product Overview

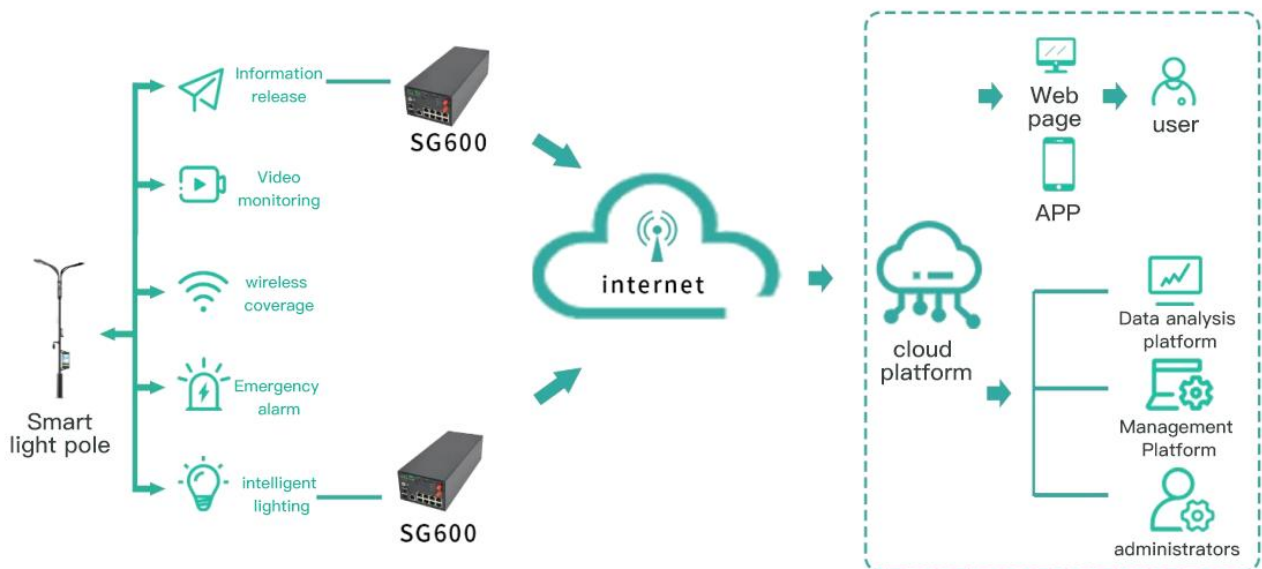
The SG600 4G Street Light Pole Gateway which is designed specifically for smart Street Light poles, replacing traditional applications composed of gateways, power modules, optical cat modems, etc. It integrates functions including surge protection system, power conversion system, AC/DC power control system, data acquisition system, network routing and switching system, as well as lighting control system, and works with smart terminal device management platform systems. Its design fully considers versatility and stability, based on IoT technology architecture design, it can meet the data collection and intelligent control of smart terminal devices, and it also has scalability, making it easy to integrate new devices under existing hardware. It supports centralized and individual control management of front-end multimedia devices and lighting equipment. It can access power remote monitoring and energy consumption monitoring of information collection sensors and sensing devices such as lighting, security monitoring, wireless coverage, broadcasting, information release, environmental meteorological monitoring, emergency alarms, municipal facilities monitoring, and charging piles. It features fast speed, powerful functions, and supports edge computing.

## Product Features

- Supports WLAN
- Supports 8 Ethernet ports
- Support hand in hand ring networking and STP
- Supports 4G LTE CAT4 high-speed network
- Supports efficient deployment of large-scale device networks
- Supports various hardware interfaces to meet various lamp pole requirements
- Fully industrial design, capable of facing challenges in harsh conditions
- Supports Linux OpenWrt system, facilitating user secondary development and providing comprehensive secondary development guides

- Supports various VPN functions including PPTP, L2TP, IPSEC, OPENVPN, GRE, GRE-TAP, Vxlan, etc.
- Supports SNMP and StarCloud STAR DEVICE MANAGER platform for efficient remote centralized network management

## Topology Diagram



## Technical Parameters

### Hardware Performance

Memory	512MB
FLASH	4GB EMMC
WIFI (optional)	802.11b/g/n
Network Support	Supports seven-mode full Netcom (4G).

System Time	Time synchronization using NTP technology with built-in RTC
<b>Interface</b>	
WAN Port	1 WAN port (configurable as LAN)
LAN Port	8 (10M/100M/1000M adaptive MDI/MDIX port)
Gigabit Optical Fiber Port	2 10/100/1000M SFP slots
SIM Card Interface	1 (drawer card slot, supports 1.8V/3V SIM/UIM card)
USB Interface	1*USB2.0
Reset	1 (reset button).
Antenna Interface	1 (4G antenna, 50 ohm impedance, SMA male inner pin interface).
	1 (2.4G antenna, 50 ohm impedance, SMA inner pin interface) (optional).
Console Port	1*RS232, 3-pin terminal
Power Terminal	1 (3-pin aerospace connector).
Serial Port	2*RS485, independently isolated, aviation connector
Relay	2 relay output interfaces
Power Output	DC12V*4, 4 independent control, maximum output power 70W, aerospace connector;
	DC24V*1, maximum output power 40W, aerospace connector
Indicators	4 (1 PWR light, 1 SYS light, 1 LTE light, 1 WIFI light)
<b>Power Characteristics</b>	
Power	Power input (220V AC), aviation connector
<b>Operating Conditions</b>	
Operating Temperature	-35~+75°C
Storage Temperature	-40~+85°C
Operating Humidity	5%~95% (non-condensing)
Device Ventilation	Natural heat dissipation no noise
<b>Physical Features</b>	
Chassis	Full metal chassis
Dimensions	Length*Width*Height 295*118*80mm (excluding antenna mounting accessories)
Installation Methods	Desktop flat placement, rail mounting, wall mounting
weight	Net weight: 0.82KG (excluding antennas and mounting accessories)
	Gross weight: 1.02KG (with accessories and packaging box)
<b>Device Safety and Reliability</b>	
Safety and Reliability	Power reverse protection, overvoltage protection, overcurrent protection; Ethernet interface built-in 1.5KV electromagnetic isolation protection; RS232/RS485 interface built-in 15KV ESD protection; SIM/UIM card interface built-in 15KV ESD protection
Protection Level	IP30
Certification	Compliant with CCC, RoHS
MTBF	≥ 100,000 hours
<b>Software Features</b>	

Network Access	Supports APN VPDN
Access Authentication	Supports CHAP/PAP authentication
Network Mode	GSM/GPRS/EDGE,LIMITS/HSPA+/EVDO/TD-SCDMA/TD-LTE/FDD LTE/5G NR
LAN Protocol	Support ARP, Ethernet
WAN Protocol	Supports static IP, DHCP, PPPoE, PPP
IP Applications	Supports Ping, Trace, DHCP Server, DHCP Relay, DHCP Client, DNS relay, DDNS, Telnet
IP Routing	Supports routing
NAT Function	Supports network address translation
Industrial Protocols	Supports environmental protection 212 protocol, supports MQTT, MUDBUS and other industrial protocols
<b>Network Security</b>	
Firewall	Full state packet monitoring (SPI), defense against denial of service (DoS) attacks, filtering of multicast Ping packets, access control lists (ACL), content URL filtering, port mapping, virtual IP mapping, IP-MAC binding
Data Security	IPsec VPN/L2TP/PPTP/GRE/OPEN VPN/CA certificate
<b>Reliability</b>	
Backup Function	Supports fiber, wired, and 4G mutual backup
Link Online Monitoring	Sends heartbeat packets for detection, automatically connects when disconnected
Built-in Watchdog	Device self-checking technology, device fault self-repair
<b>WLAN (optional)</b>	
Protocol Standard	IEEE 802.11b/g/n
Rate	Up to 144Mbps
Security Features	Open system, shared key, WPA/WPA2 authentication, WEP/TKIP/AES encryption
Working Mode	AP Client mode
Transmission Distance	100m (actual transmission distance depends on the environment).
<b>Intelligence</b>	
Integrated DTU Function	Supports TCP, UDP transparent transmission mode, TCP Server mode, supports Modbus RTU to Modbus TCP bridge, supports DCUDP, DCTCP mode
<b>Network Management</b>	
QOS Management	Supports bandwidth limitation, IP speed limit
Configuration Methods	Supports telnet, web, ssh, and console configuration methods
Upgrade Methods	Supports web upgrade, FOTA upgrade method
Log Fuction	Supports local system logs, remote logs, serial port output logs.
Network Management Functions	Supports StarCloud STAR Device Manager platform, batch management
Simple Network Management Function	Supports SNMP v1/v2/v3, supports SNMP TRAP function

Traffic Management

Supports traffic threshold setting, supports traffic statistics and traffic alarm functions

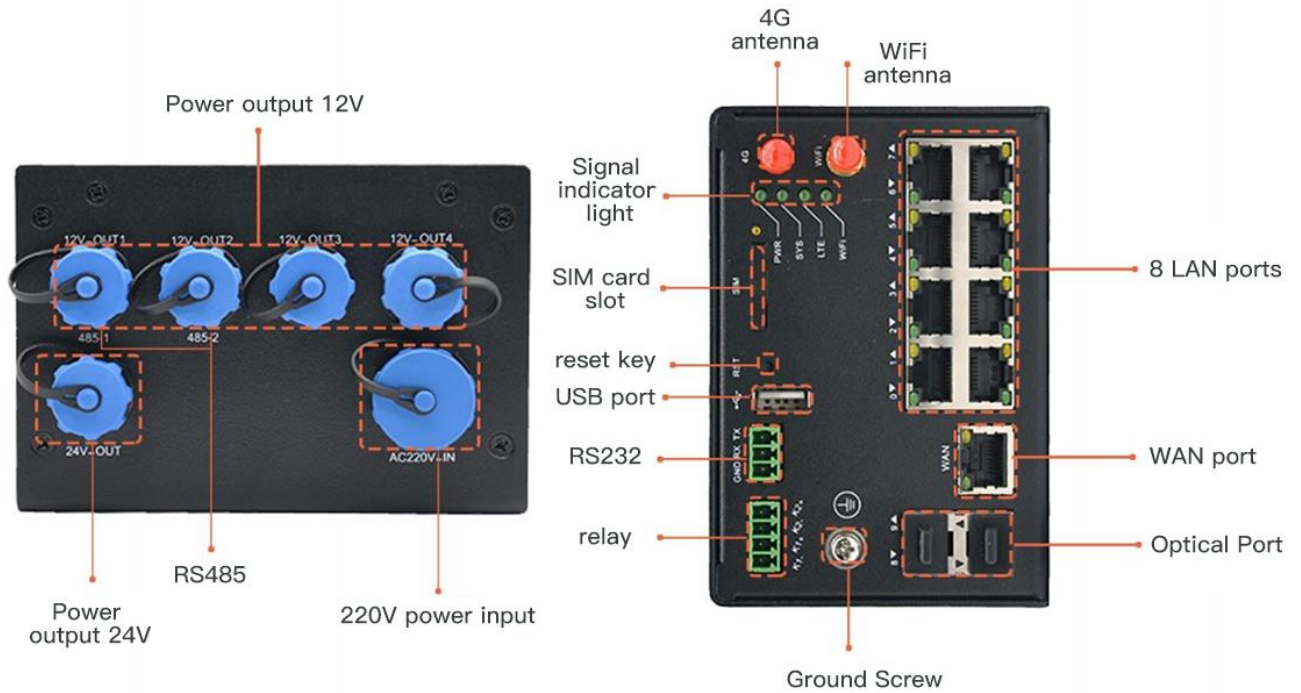
Maintenance Tools

Ping, route tracing

Status Inquiry

System status, modem status, network connection status, route status

## Product Interfaces



# Product Dimensions

单位:mm  
unit:mm

