

# Smart Light Pole Gateway

## F-G300



## Introduction

The F-G300 is a 5G wireless smart light pole gateway for the internet of things, which uses the public 4G/5G network to provide users with wireless long-distance big data transmission functions. It is widely used in various types of light poles in smart cities, municipal administrations, highways, characteristic towns, scenic spots, and parks.



### Industrial-grade Design

- ▶ High-performance industrial-grade wireless module.
- ▶ High-performance industrial-grade 32-bit communication processor.
- ▶ Use metal shell, protection grade IP30, metal shell and system safety isolation.



### Stability & Reliability

- ▶ WDT Watchdog design to ensure system stability
- ▶ Adopt a complete anti-drop mechanism to ensure that data terminal is always online
- ▶ Built-in 1.5KV electromagnetic isolation protection for Ethernet interface
- ▶ RS232/RS485 interface power and data isolation with CSA, UL and IEC standards
- ▶ SIM/UIM card interface built-in 15KV ESD protection
- ▶ Built-in reverse phase protection and over voltage protection for power interface
- ▶ Antenna interface lightning protection (Optional)



### Standard & Convenience

- ▶ Provide standard RS232, RS485, Ethernet and WIFI interfaces
- ▶ Provide standard wired WAN port (RJ45 support standard PPPOE protocol)
- ▶ Plug and play
- ▶ Convenient system configuration and maintenance interface
- ▶ Support local and remote WEB mode or CLI mode

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High Performance

- ▶ Support Static IP, DHCP, PPPOE, 3G/UMTS/4G/LTE, DHCP-4G
- ▶ Support 4G/Wire fail over (Optional)
- ▶ Support VPN (PPTP, L2TP, IPSEC, OPENVPN, GRE)
- ▶ Support remote management, SYSLOG, SNMP, TELNET, SSHD, HTTPS
- ▶ Support firmware upgrade for both local and remote
- ▶ Support NTP, build-in RTC
- ▶ Support DDNS
- ▶ Support a variety of DDNS
- ▶ Support VLAN, MAC address clone
- ▶ Support multiple installation
- ▶ WIFI support 802.11b/g/n/ac, support AP, AP Client, repeater mode
- ▶ Support WEP, WPA, WPA2 encryption
- ▶ Support private APN SIM card
- ▶ Support DHCP server, DHCP client, DHCP binding MAC, firewall, NAT, DMZ, QOS
- ▶ Support real time data traffic statistics
- ▶ Support TCP/IP, UDP, FTP (Option), HTTP
- ▶ Support VPN pass through ACL, URL filter
- ▶ Support timing reboot

## Product Specification

Cellular Specification	
Items	Contents
Module	Industrial wireless module
Standard and Frequency	5G NR: n1/n2/n3/n5/n7/n8/n20/n28/n41/n66/n71/n77/n78/n79 LTE:B1/B2/B3/B4(66)/B5(18/19/26)/B7/B8/B12(17)/B13/B14/B20/B25/B26/B28/B29/B30/B38/B39/B40/B41/B42/B43/ B46/ B48/B71 Remarks: Different modules can support different network standards
Theoretical Bandwidth	5G NR: DL 3.4 Gbps UL 350 Mbps LTE Cat20: DL 2.0 Gbps UL 150 Mbps HSPA+: DL 42 Mbps UL 5.76 Mbps
Transmit power	<23dBm
Receiving sensitivity	<-97dBm

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WIFI Specification	
Items	Contents
Frequency	IEEE802.11b/g/n, 2.4G, 2x2 MIMO, AP mode, Station mode (option) IEEE802.11ac, 5.8G, 2x2 MIMO, AP mod, Station mode (option)
Bandwidth	IEEE802.11b/g: 108Mbps IEEE802.11n: 300Mbps IEEE802.11ac: 780Mbps
Security	WEP, WPA, WPA2 encryption
Power	26dBm (11b) , 21.5dBm (11g) , 20dBm (11n) , 16dBm (11ac)
Sensitive	<-72dBm@54Mbps
Hardware System	
Items	Contents
CPU	Industrial 32 bit processor
FLASH	32MB
DDR3	512MB
TF	8GB/32GB, optional
Interfaces	
Items	Contents
AC Input	1 x 85~264V/35A
AC Output	3 x 85~264V/10A, Provide 220V output power supply to the corresponding equipment; remote control switch, voltage and current detection, a single channel allows a maximum current of 10A
DC Output	1 x 12V/2A, Can realize remote switch and current detection 1 x 24V/2A, Can realize remote switch and current detection
SFP	2 x SFP interface, 10/100/1000M SFP slot, Support single-mode, multi-mode fiber, support ring network management, ring, chain and other network topology
WAN	1 x 10/100/1000M Ethernet (RJ45) , auto MDI/MDIX, Built-in 1.5KV electromagnetic isolation protection
LAN	7 x 10/100/1000M Ethernet (RJ45) , auto MDI/MDIX, Built-in 1.5KV electromagnetic isolation protection, Among them, 4 channels of POE, support POE+ single channel power up to 30W 4 x RS232/RS485, Built-in 15KV ESD protection:
Serial	Data bit: 5, 6, 7, 8 Stop bit: 1, 2 Check : NONE, EVEN, ODD Band rate: 2400~115200bits/s
Indicators	"Power", "System", "Online", "Signal "
DI	4 x DI Input high level: 5 to 30 VDC, Input low level: 0 to 3 VDC

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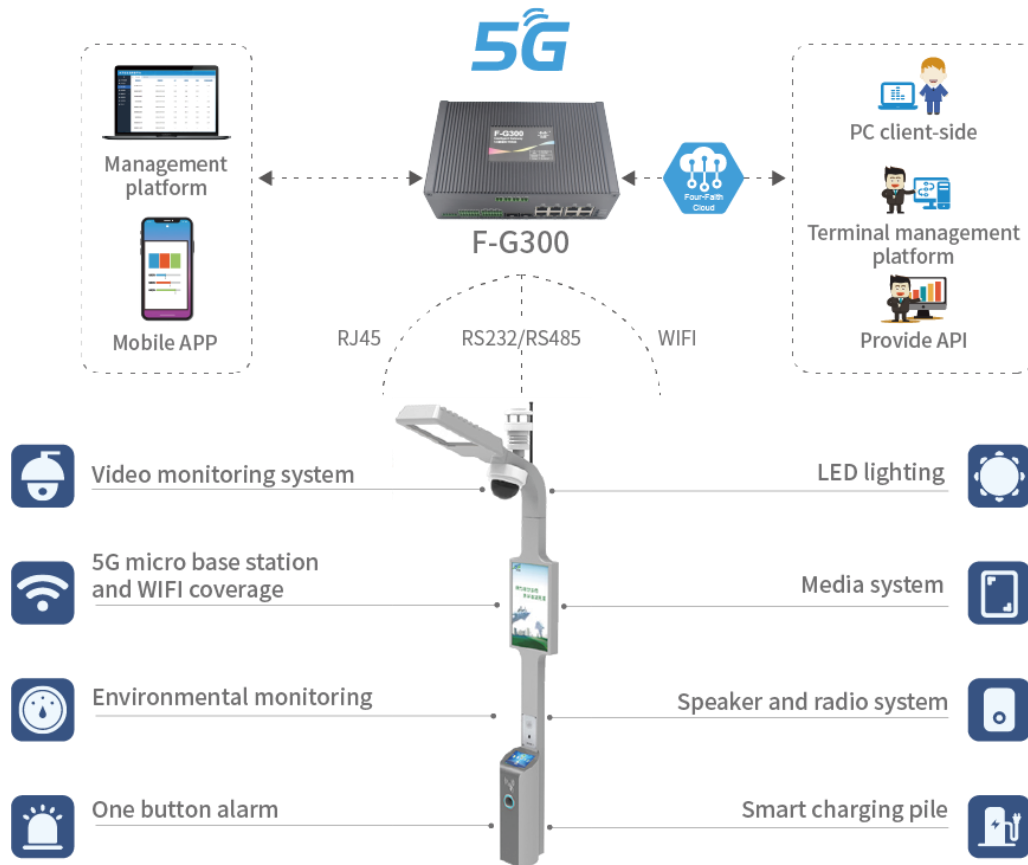


<b>DO</b>	2 switch output DO, load current: <50mA @ 30VDC
<b>Relay</b>	2 passive relay control outputs, relay load: 5A 250VAC/30VDC
<b>AI</b>	2 x 4~20mA ADC interface
<b>GPS</b>	1 x GPS
<b>Antenna</b>	Cellular:4x Standard SMA female antenna interface, characteristic impedance 50 ohm WIFI: 2x Standard SMA female antenna interface, characteristic impedance 50 ohm GPS: 1x Standard SMA female antenna interface, characteristic impedance 50 ohm(optional)
<b>SIM/UIM</b>	2 standard drawer type user card interfaces, support 1.8V/3V SIM/UIM card, built-in 15KV ESD protection (Remarks: Compatible with e-SIM)
<b>TF</b>	1 x TF card interface
<b>Reset</b>	Through this button, the parameter configuration can be restored to the factory value
<b>Power Supply</b>	
<b>Items</b>	<b>Contents</b>
<b>AC</b>	AC 85~264/35A (max) 0.15~0.25A (All output ports are empty)
<b>Operating</b>	0.1A (All output ports are empty)
<b>Standby</b>	0.1A (All output ports are empty)
<b>Physical</b>	
<b>Items</b>	<b>Contents</b>
<b>Shell</b>	Metal casing, IP30 protection
<b>Size</b>	215 x 134.7 x 70.2mm (Does not include antenna and mounting parts)
<b>Weight</b>	1.8kg (Does not include antenna and mounting parts)
<b>Others</b>	
<b>Items</b>	<b>Contents</b>
<b>Operating Temperature</b>	-35~+75°C (-31~+167°F)
<b>Storage Temperature</b>	-40~+85°C (-40~+185°F)
<b>Humidity</b>	95% (No condensation)

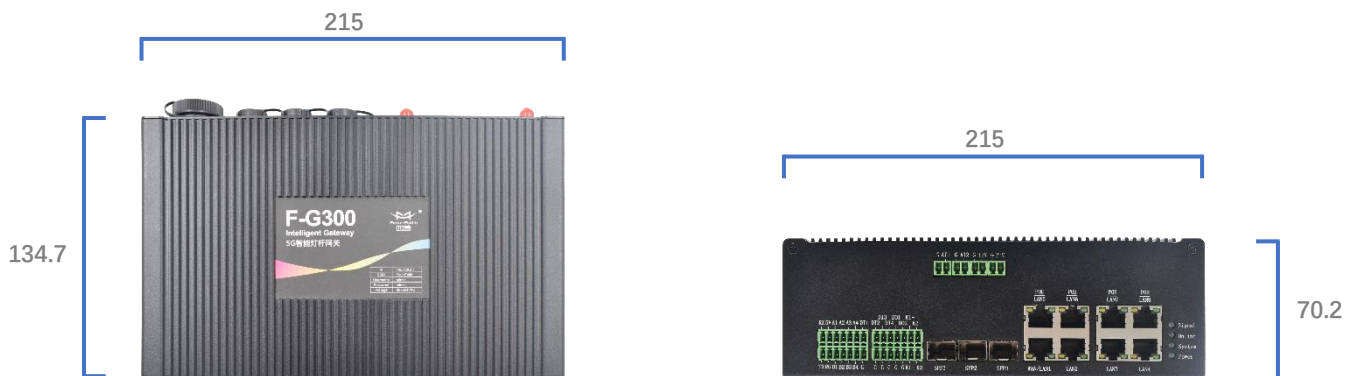
# Smart Light Pole Gateway F-G300



## Topology



## Dimension (mm)



# Smart Light Pole Gateway F-G300



## Order Information

Models	Description
F-G300	Cellular (5G-NR), WIFI, SIM*2