

Four-Faith 四信®

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 (Optional), 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 (Optional) IEEE802.11ac，5.8G, 2x2 MIMO，AP mod，Station mode (Optional)
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
Serial	4 x RS232/RS485，Built-in 15KV ESD protection： 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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DO	2 switch output DO, load current: <50mA @ 30VDC
Relay	2 passive relay control outputs, relay load: 5A 250VAC/30VDC
AI	2 x 4~20mA　ADC interface
GPS	1 x GPS
Antenna	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)
SIM/UIM	2 standard drawer type user card interfaces, support 1.8V/3V SIM/UIM card, built-in 15KV ESD protection (Remarks: Compatible with e-SIM)
TF	1 x TF card interface
Reset	Through this button, the parameter configuration can be restored to the factory value
Power Supply	
Items	**Contents**
AC	AC 85~264/35A (max)
Operating	0.15~0.25A (All output ports are empty)
Standby	0.1A (All output ports are empty)
Physical	
Items	**Contents**
Shell	Metal casing, IP30 protection
Size	215 x 134.7 x 70.2mm (Does not include antenna and mounting parts)
Weight	1.8kg (Does not include antenna and mounting parts)
Others	
Items	**Contents**
Operating Temperature	-35~+75ºC (-31~+167℉)
Storage Temperature	-40~+85ºC (-40~+185℉)
Humility	95% (No condensation)

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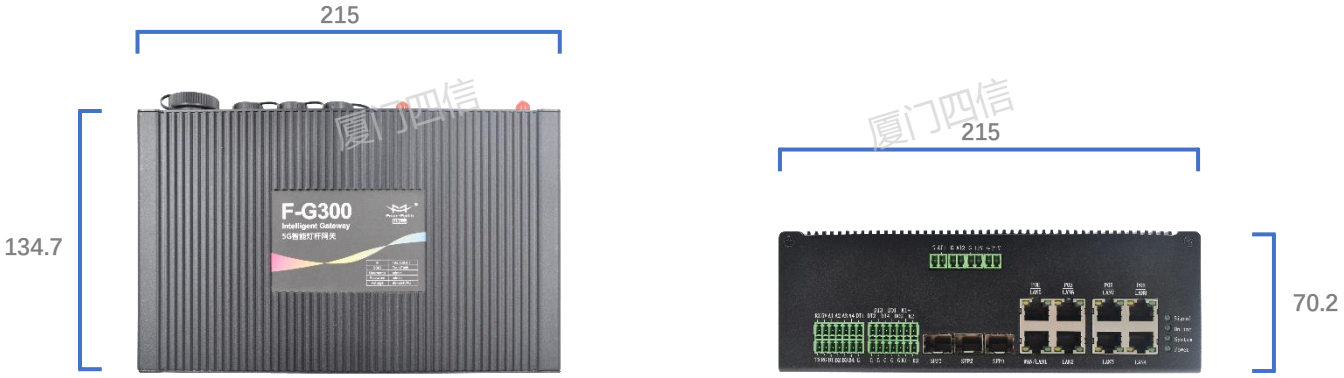
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Topology



Dimension (mm)



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Order Information

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

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