

F8L10GW

LoRaWAN Gateway



F8L10GW is a wireless data transmission gateway based on standard LoRaWAN protocol. It can be connected to LoRaWAN terminals in various application nodes, collects useful information and sends the data to cloud server through wireless 3G/4G cellular network or wired ethernet.

The product uses the high-performance industrial-grade 32-bits CPU and wireless module, with the embedded real-time operating system as the software support platform. It provides 1 Ethernet LAN, 1 WIFI interface, supports WIFI wireless configuration, management and OTA update, supports GPS, 100~240V power input. Optional power supply methods such as POE and DC.

The product has been widely used in the M2M industry of the IoT industrial chain, such as smart grid, intelligent transportation, smart home, finance, mobile POS gateways, supply chain automation, industrial automation, intelligent building, fire protection, public safety, environmental protection, meteorology, digital medical, telemetry, agriculture, forestry, water, coal, petrochemical and other related fields.

HIGHLIGHTS

INDUSTRIAL-GRADE DESIGN

- ◆ High-performance industrial-grade CPU and wireless module
- ◆ High-performance industrial-grade multi-channel LoRaWAN gateway RF chip
- ◆ Aluminum housing, IP65 protection
- ◆ Support AC100-240V, POE (optional), DC 12-48V (optional) or solar power supply (optional)

POWERFUL FUNCTIONS

- ◆ Provide wired Ethernet and dhcp-4G (default) connection modes
- ◆ Support LoRaWAN protocol: Class A, Class B and Class C
- ◆ Support 802.11 b / g / n WIFI network
- ◆ WIFI support variety types of encryption such as WEP, WPA and WPA2. Support MAC address filtering
- ◆ Support LoRaWAN wireless data transmission protocol

STABLE & RELIABLE

- ◆ WDT watchdog timer to ensure system stability
- ◆ Mature anti-drop mechanism to ensure device always online
- ◆ Ethernet interface with built-in 15KV ESD
- ◆ SIM/UM card interface with built-in 15KV ESD
- ◆ Power interface with built-in phase-reversal, over-voltage and lightning protection
- ◆ Antenna interface with lightning protection

STANDARD INTERFACE & EASY-TO-USE

- ◆ Provide standard Ethernet and WIFI interface, can be connected to device by Ethernet and WIFI directly
- ◆ Provide standard wired WAN interface (support standard PPPOE protocol), can be connected to ADSL device directly
- ◆ Provide powerful central management software to facilitate equipment
- ◆ Convenient system configuration and maintenance interface
- ◆ Intelligent data terminal, automatically enter transmission status after power-on

TYPICAL APPLICATION

- ◆ Smart grid power line online monitoring
- ◆ Smart parking solution
- ◆ Soil temperature and humidity monitoring
- ◆ Intelligent Agriculture
- ◆ Wireless remote meter reading
- ◆ Photovoltaic array monitoring

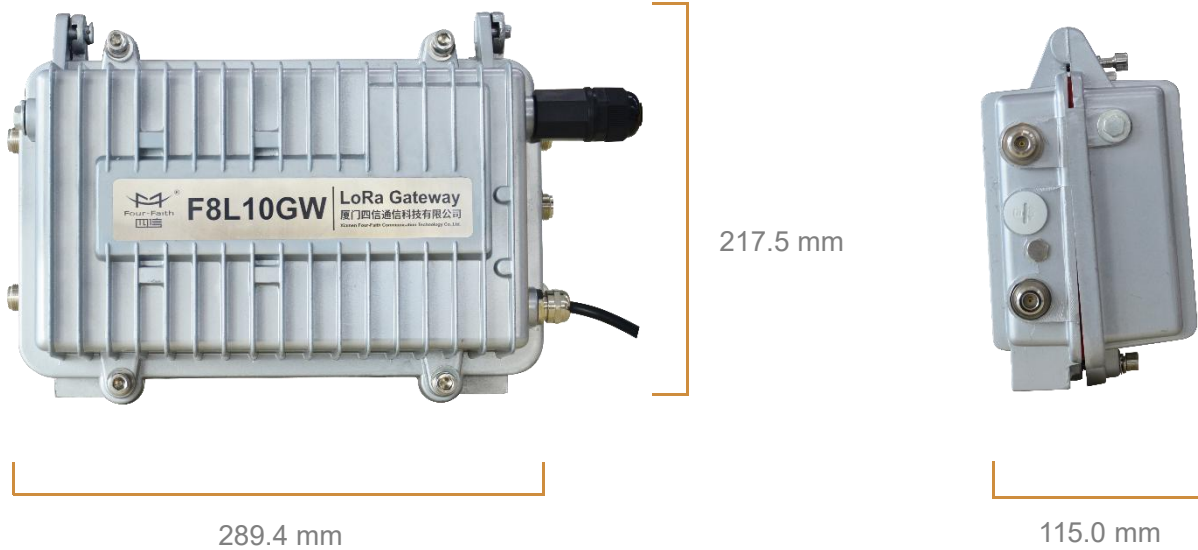
SPECIFICATIONS

CHARACTERISTICS

Network Structure	Simple Star Network Topology
LoRaWAN Protocol	Class A, Class B (coming soon), Class C
Support Protocol	MQTT, UDP, TCP/IP, etc.
Working Frequency	EU433, CN470-510, CN779-787, EU863-870, US902-928, AU915-928, AS923, KR920-923
Communication Distance (Outdoor)	6 Km (urban), 11.5 Km (suburb without obstacles)
Maximum TX Power	25±2dBm
Sensitivity	-140dbm @LoRa; -70dbm @WIFI
Bandwidth	125kHz, 250kHz, 500kHz

Upstream Channel	8
Downstream Channel	1
Communication Rate	Adaptive link rate
Work Mode	Support receive and send at same frequency or different frequency
Location Service	GPS, Beidou (optional)
Server Report Method	3G/4G, Wired Ethernet
Local Storage	Support 32G TF card
ANTENNA	
LoRa	N-type female antenna, omnidirectional fiberglass antenna, 2dBi
4G Cellular	N-type female antenna, omnidirectional fiberglass antenna, 3dBi
WIFI	N-type female antenna, 2.4G omnidirectional fiberglass antenna, 3dBi
GPS	N-type female antenna, omnidirectional fiberglass antenna, 4dBi
POWER	
Standard Input Voltage	AC 100~240V
DC Input Voltage Range (optional)	DC 12~48 V
POE (optional)	10/100 Base-T, IEEE802.3af/IEEE802.3at standard
POWER CONSUMPTION	
Stand By	Average Current $\leq 140\text{mA}@12\text{V}$
Communication	Transmitting current $\leq 550\text{mA}@12\text{V}$ Receiving current $\leq 420\text{mA}@12\text{V}$
PHYSICAL PROPERTIES	
Dimensions	289.4x217.5x115.0 mm (excluding antennas and mountings)
Weight	2700g (excluding antennas, accessories and POE power)
Installation	Wall mount or pole mount (provide accessories)
OTHERS	
Operating Temperature	-40~+85°C (-40~+185°F)
Storage Temperature	-40~+125°C (-40~+257°F)
Relative Humidity	95% (non-condensing)

PRODUCT PICTURES



Note: There may be differences between models of accessories and interfaces, actual products shall prevail.