

F8L10GW Lorawan Gateway Technical Specification



Introduction

F8L10GW LoRaWAN gateway is a wireless communication gateway/base station based on LoRaWAN protocol and access LoRaWAN terminal of various application nodes, the collected data is transmitted to the cloud server through 3G / 4G or wired Ethernet. It adopts 32 bits high-performance industrial processors and industrial-grade wireless modules embedded real-time operating system, while providing 1 Ethernet LAN, 1 WIFI interface, it supports WIFI wireless configuration management and online upgrade, and supports GPS and 220V power supply, POE power supply, solar energy, or DC power supply and other ways.

The F8L10GW base station complies with the standard LoRaWAN protocol and works with standard LoRaWAN terminals and Network Servers.

The product has been widely used in the M2M industry in the IoT industrial chain, such as smart grid, intelligent transportation, industrial automation, intelligent building, fire protection, public safety.

Industrial Application Design

- ◆ High-performance industrial-grade wireless module
- ◆ Adopt high-performance industrial multi channel LoRaWAN base station / gateway RF chip
- ◆ Aluminum shell, IP65
- ◆ Support AC220V, POE power supply, solar power supply

Stable and reliable

- ◆ WDT watchdog design to ensure system stability
- ◆ Complete anti-drop mechanism to ensure data terminal always online
- ◆ Ethernet interface built-in 1.5KV electromagnetic isolation protection
- ◆ SIM / UIM card interface built-in 15KV ESD protection
- ◆ Power interface built-in reverse phase protection and over-voltage protection, lightning protection
- ◆ Antenna interface lightning protection

Command Standard

- ◆ Provide standard Ethernet and WIFI interface, can be directly connected to Ethernet devices and WIFI devices
- ◆ Provide standard wired WAN port support standard PPPOE association

- ◆ Intelligent data terminal, power-on to enter the data transfer status
- ◆ Provide powerful center management software to facilitate equipment management.
- ◆ Convenient system configuration and maintenance interface

Powerful

- ◆ Provides wired connection and dhcp-4G (default) two effective connection
- ◆ Support LoRaWAN protocol: ClassA, ClassB, ClassC
- ◆ WIFI supports 802.11b / g / n
- ◆ WIFI support WEP, WPA, WPA2 and other encryption style, MAC address filtering and other functions
- ◆ Support LoRaWAN protocol wireless data transmission

typical application

- ◆ Power line online monitoring
- ◆ Wisdom parking lot
- ◆ Soil temperature and humidity monitoring
- ◆ Wisdom irrigation
- ◆ Wireless remote meter reading
- ◆ Photovoltaic array monitoring

Specification

F8L10GW Characteristics	<ul style="list-style-type: none"> •Communication Network: Start topology •LoRaWAN Protocol: ClassA、ClassB、ClassC •Working Frequency: EU433、CN470-510、CN779-787、EU863-870、US902-928、AU915-928、AS923、KR920-923 • Communication Distance(Outdoor): 6km • Max TX Power:25±2dBm • RX Sensitivity: max -140dbm @LoRa ; -70dbm @WIFI •Communication Bandwidth: 125kHz、250kHz、500kHz •8 upstream channel,1 downstream channel •No data-loss and no relay wireless communication •Speed:Link Adaptive Speed •Work Mode:Support different frequency and same frequency •Location:GPS, Beidou •Report to Server:3G/4G, Wired network •Wireless Management:WIFI management and upgrade •Local Storage:32G TF card
Antenna Interface	<p>I-pex to N type, external</p> <ul style="list-style-type: none"> •LoRa antenna, interface: N-type female, LoRa fibre-glass antenna ,2dBi gain •4G antenn,interface:N-type female, 4G fibre-glass antenna,3dBi gain •WIFI antenna,interface: N-type female,2.4G fibre-glass antenna,3dBi gain •GPS antenna, interface:-type female,GPS fibre-glass antenna,4dBi gain
Power	<ul style="list-style-type: none"> •Power way: AC220、POE、Solar power •POE port supports auto 10/100 Base-T •POE standard: IEEE802.3af/IEEE802.3at
Consumption	<ul style="list-style-type: none"> •Stand by: Average Current≤140mA@12V •Communication: Transmit current≤550mA@12V Receive current≤420mA@12V
Physical Characteristics	<ul style="list-style-type: none"> •Size: 289.4x217.5x115.0 mm(No antennas and accessories) •Weight: about 2700g (No antennas, accessories and POE power) •Installation: Provide the installation accessory, wall-mounted or pole-mounted
Others	<ul style="list-style-type: none"> • Working temperature range: -40~+85℃ •Storing temperature range: -40~+125° C (-40~+257°F) •Humidity: 95%(No freezing)