

# 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

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

<b>Upstream Channel</b>	8
<b>Downstream Channel</b>	1
<b>Communication Rate</b>	Adaptive link rate
<b>Work Mode</b>	Support receive and send at same frequency or different frequency
<b>Location Service</b>	GPS, Beidou (optional)
<b>Server Report Method</b>	3G/4G, Wired Ethernet
<b>Local Storage</b>	Support 32G TF card

#### ANTENNA

<b>LoRa</b>	N-type female antenna, omnidirectional fiberglass antenna, 2dBi
<b>4G Cellular</b>	N-type female antenna, omnidirectional fiberglass antenna, 3dBi
<b>WIFI</b>	N-type female antenna, 2.4G omnidirectional fiberglass antenna, 3dBi
<b>GPS</b>	N-type female antenna, omnidirectional fiberglass antenna, 4dBi

#### POWER

<b>Standard Input Voltage</b>	AC 100~240V
<b>DC Input Voltage Range (optional)</b>	DC 12~48 V
<b>POE (optional)</b>	10/100 Base-T, IEEE802.3af/IEEE802.3at standard

#### POWER CONSUMPTION

<b>Stand By</b>	Average Current ≤140mA@12V
<b>Communication</b>	Transmitting current≤550mA@12V Receiving current≤420mA@12V

#### PHYSICAL PROPERTIES

<b>Dimensions</b>	289.4x217.5x115.0 mm (excluding antennas and mountings)
<b>Weight</b>	2700g (excluding antennas, accessories and POE power)
<b>Installation</b>	Wall mount or pole mount (provide accessories)

#### OTHERS

<b>Operating Temperature</b>	-40~+85°C (-40~+185°F)
<b>Storage Temperature</b>	-40~+125°C (-40~+257°F)
<b>Relative Humidity</b>	95% (non-condensing)

## PRODUCT PICTURES



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