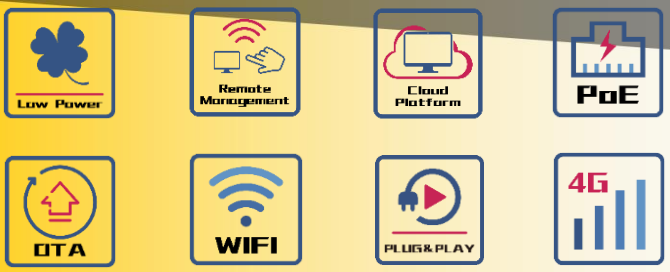


LoRaWAN® Gateway

F8926-GW-02



Introduction

F8926-GW-02 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 wired ethernet. 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, etc.

Industrial-grade Design

- High-performance industrial-grade CPU and wireless module
- High-performance industrial-grade multi-channel LoRaWAN® gateway RF chip
- Aluminum shell, IP30 protection
- DC9-36V, standard: 12V/1.5A
- Support POE+(802.3af/at) input

Stability & Reliability

- WDT watchdog timer to ensure system stability
- Anti-drop mechanism to ensure device always online
- Ethernet interface with built-in 15KV ESD
- Power interface with built-in phase-reversal, overvoltage, and lightning protection
- Antenna interface with lightning protection

Standard & Convenience

- Provide TYPE-C, Ethernet, 4G and WIFI interfaces
- Provide standard wired WAN/LAN interface (support standard PPPOE protocol)
- Provide powerful central management software to facilitate equipment
- Convenient system configuration and maintenance interface
- Intelligent data terminal, automatically enter transmission status after power on.

LoRaWAN® Gateway F8926-GW-02



High Performance

- Provide wired Ethernet connection modes
- Support LoRaWAN® protocol version: 1.0.2 and 1.0.3
- Support LoRaWAN® protocol: Class A and Class C
- Support 802.11 b/g/n WIFI network
- WIFI support variety types of encryptions such as WEP, WPA and WPA2.
- Support Semtech UDP GWMP Protocol mode
- Built-in NetWork Server mode which saves operation & deployment costs and easy to manage
- Support Basic station mode, multiple data encryption modes ensure data transmission security
- Support platform: LinkWAN, ChirpStack, Tencent Cloud, TTN, AWS, etc
- Provides HTTP push, MQTT subscription and publication, and TCP connection
- MQTT themes support configuration and data content can be transformed by embedding JavaScript functions for the client-side

Product Specification

LoRa Parameters	
Items	**Contents**
Traffic Channels	Simple star network
LoRaWAN Protocol	Class A and Class C
Theoretical Communication Distance	Urban Communication: 9km @ SF12 Floor Penetration: 16 floors @SF12
Frequency	EU433, CN470-510, CN779-787, EU863-870, US902-928, AU915-928, AS923, KR920-923
Power	27±1dBm
Sensitivity	Max receiving sensitivity of antenna: -140dBm @LoRa
Bandwidth	125kHz, 250kHz, 500kHz
Channel	8 x uplink channels 1 x downlink channel
Speed Rate	Adaptive link speed rate
Communication Method	Half-duplex
Working Mode	Supports sending & receiving different frequencies Supports sending & receiving same frequencies
Server Reporting Method	Wired Ethernet, 4G
Wireless Management	WiFi wireless management and upgrade

LoRaWAN® Gateway F8926-GW-02



WIFI	
Items	Contents
Frequency	IEEE802.11b/g/n standards
Bandwidth	IEEE802.11b /g: Maximum speed is 54Mbps IEEE802.11n: Maximum speed is 150Mbps
Encryption	WEP, WPA, WPA2, WPS (Optional)
Power	20dBm（11n），24dBm（11g），26dBm（11b）
Sensitivity	<-72dBm @ 54Mbps
Cellular Network	
Items	Contents
Standards and Frequency Bands	LTE FDD, LTE TDD, EVDO, WCDMA, TD-SCDMA, CDMA1X, GPRS/EDGE
Theorical Bandwidth	LTE FDD：downlink 100Mbps，uplink 50Mbps LTE TDD：downlink 61Mbps，uplink 18Mbps DC-HSPA+：downlink 42Mbps，uplink 5.76 Mbps TD-HSPA+：downlink 4.2Mbps，uplink 2.2Mbps EVDO Rev. A：downlink 3.1Mbps，uplink 1.8Mbps
Power	<23dBm
Sensitivity	<-97dBm
Interfaces	
Items	Contents
WAN(POE)	WAN/LAN, 1x10/100M Ethernet port (RJ45 socket), adaptive MDI/MDIX, built-in 1.5kV electromagnetic isolation protection
LAN	1x10/100M Ethernet port (RJ45 socket), adaptive MDI/MDIX, built-in 1.5kV electromagnetic isolation protection
Console	Type-C USB
Indicator	"PWR", "SYS", "WiFi","LoRa "
Power Supply	Standard 3-core locomotive power socket with built-in power reverse phase protection and overvoltage protection
TF Card	8GB/32GB, Support customizes
Antenna	LoRa, WIFI, 4G
Indicator	"PWR", "SYS", "WiFi","LoRa ", "4G"
Reset	Use this button to restore gateway parameters to factory defaults
SIM	Support 3FF card

LoRaWAN® Gateway F8926-GW-02

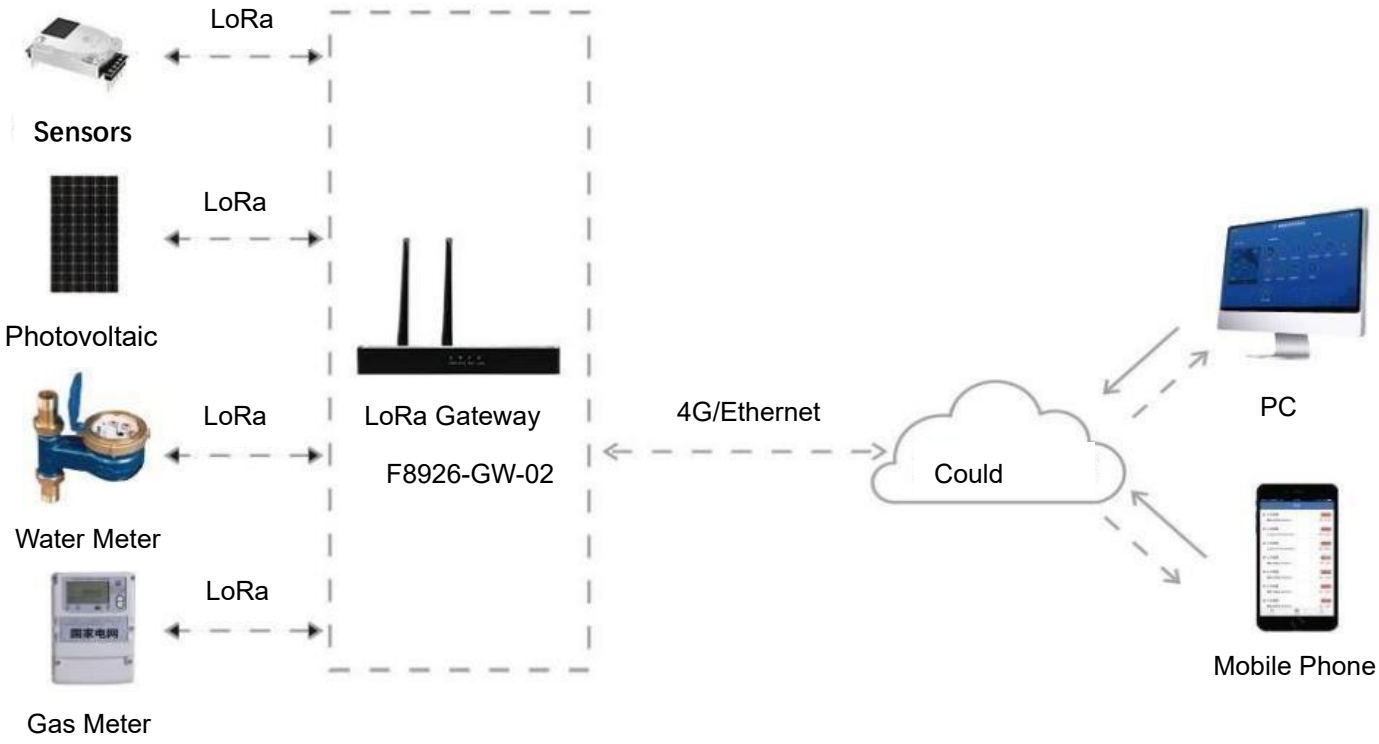


Physical Properties	
Items	Contents
Operating Temperature	-35~+75ºC
Storage Temperature	-40~+85ºC
Relative Humidity	95% (non-condensing)
Hardware	
Items	Contents
CPU	Industrial grade 32-bit communication processor
FLASH	32MB
DDR2	128MB
Power Consumption	
Items	Contents
Stand By	Average Current ≤ 120mA @ 12V
Communication	Transmitting Current ≤ 450mA @12V (4G) Transmitting Current ≤ 145mA @12V (Without 4G) Receiving Current ≤ 120mA @12V
Power Supply	
Items	Contents
Standard	12V/1.5A (Recommend),
Range	DC 9~36 V
POE	(802.3AF) Power 25W max
Others	
Items	Contents
Shell	Aluminum casing, IP30
Dimensions	160x105x24mm (Not include antenna and other components)
Weight	450g （No include accessories ）

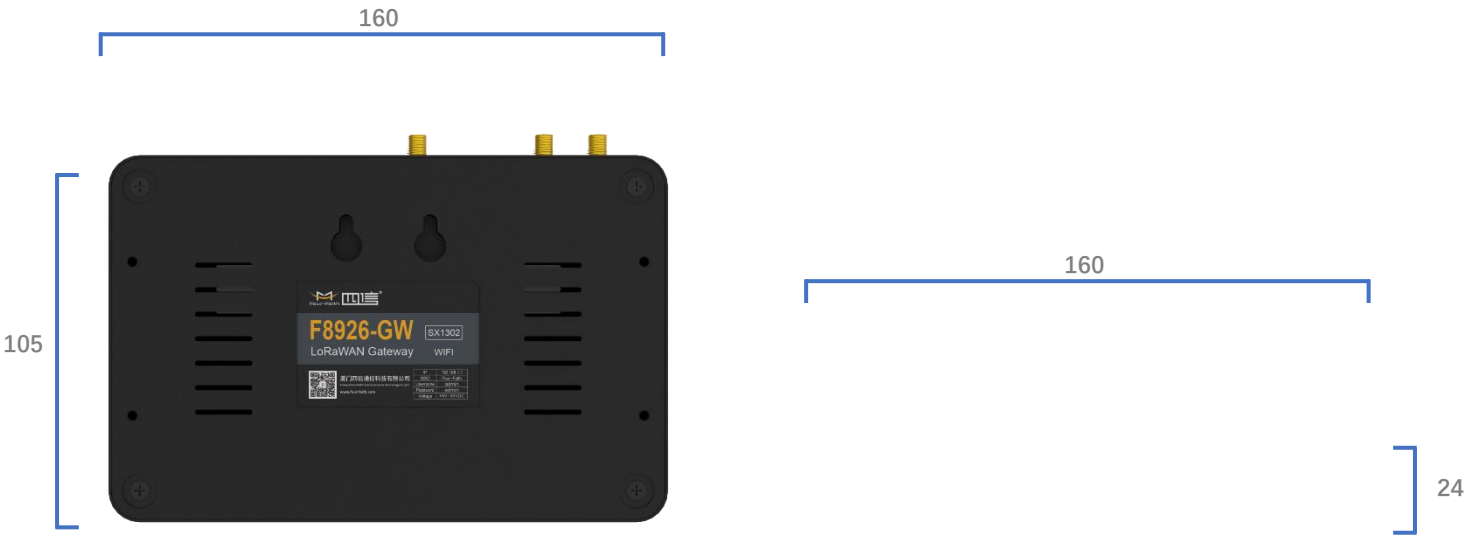
LoRaWAN® Gateway F8926-GW-02



Topology



Dimension (mm)



LoRaWAN® Gateway F8926-GW-02



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

Order Information

Products	Description	4G Antenna	WIFI Antenna	LoRa Antenna
F8926-GW-02433-XXX	LoRa+LTE WIFI Gateway	1	1	1
F8926-GW-02470-XXX	LoRa+LTE WIFI Gateway	1	1	1
F8926-GW-02868-XXX	LoRa+LTE WIFI Gateway	1	1	1
F8926-GW-02915-XXX	LoRa+LTE WIFI Gateway	1	1	1
F8926-GW-02433-MZZ	LoRa+ WIFI Gateway	0	1	1
F8926-GW-02470-MZZ	LoRa+ WIFI Gateway	0	1	1
F8926-GW-02868-MZZ	LoRa+ WIFI Gateway	0	1	1
F8926-GW-02915-MZZ	LoRa+ WIFI Gateway	0	1	1
Note: XXX is the 4G version, MZZ is the non-4G version				