

WLRGFM-100

IOT Femto Gateway



LoRa IoT Gateway Solution

This Internet of Things (IoT) Femto Access Point/Gateway is specifically designed for wide area smart grid applications. Applications include, but not limited to automatic meter reading, monitoring fault indicators, monitoring street lights, etc. Typical deployment is using star network configuration similar to mobile network base station. Because of its long range and many device capabilities, it is a much more cost effective way for service providers to deploy this for sensor networks.

This gateway is very suitable for small business or private area use case like parking space, exhibition center or campus etc. It is also suitable for providing coverage for indoor blind spots.

Option support wide frequency range EU 862~870MHz / US902~928MHz / AS923MHz / CN470~510MHz.

Key Feature:

- In compliance with the latest LoRaWAN
 specification v1.0.2 and Regional Parameters v1.0.2
- 802.11 b/g/n 2T2R
- Various internet connection: Ethernet,
 Wireless bridge

- Built in LoRa antenna and optional external
- Support Listen Before Talk for downlink
- Web UI for Configuration
- Support OTA and USB upgrade
- Two classes of LoRa end-device are

supported- Class A and Class C



Specification:

CPU	Network SOC with 580MHz MIPS CPU Core		
	- SX1301 with SX1257		
RF Transceiver	- SX1301 with SX1255 for CN-470 SKU		
LoRa	-SX-1301 with SX-1257		
Number of Channels	8 concurrent channels		
Wireless	b/g/n 2.4GHz 2T2R		
WAN Port	One RJ-45 10/100Base-T/TX, Auto-sensing, Auto-MDIX		
Frequency Band	The following configuration is supported by different SKU: - EU 862~870 MHz - US 902~928 MHz - AS 923 MHz - CN 470~510 MHz		
Modulation	Base on LoRaWAN		
Transmit Power	0.5W		
Receive Sensitivity	-142 dBm		
Antenna	Built-in Wi-Fi antenna and one (1) external SMA LoRa antenna		
Security	AES 128		
Power Voltage	5VDC/2A via mini-USB port		
Temperature	-10°C to + 55°C(Operating) / -10°C to + 60°C (Storage)		
Working	Operating: 10 ~ 85% (Non-Condensing)		
Humidity	Storage: 5 ~ 90% (Non-Condensing)		
I/O interface	1x WAN 10/100Mbps, 1x USB2.0, 4 LED indicators		
Dimension	L: 116 x W:91 x H:27 mm		
Weight	160g		



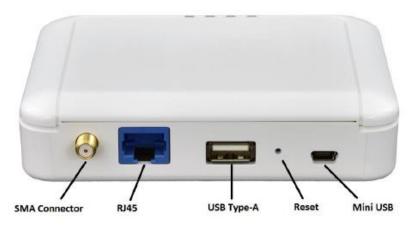


LED Indicators

LED	Color	Status	Description
		Off	Power on
	Green	On	Power off
		Blinking	Booting
Power		Off	N/A
Orai	Orange	On	System Error (no provision)
		Blinking	System is upgrading
		Off	Unplugged
		On	- Ethernet cable attached and IP
			address obtained
WAN	Green		- WiFi repeater mode enabled and IP
			address obtained
		Blinking	N/A
		Off	N/A
	Orange	On	N/A
		Blinking	N/A
		Off	WiFi radio disabled
	Green	On	WiFi radio disabled
		Blinking	N/A
WiFi		Off	N/A
	Orange	On	N/A
		Blinking	N/A
		Off	LoRa network server disconnected or
			inactivated



		On	LoRa network server connected or
	Green		activated
LoRa		Blinking	N/A
	Orange	Off	N/A
		On	N/A
		Blinking	N/A



Port	Count	Description	
SMA connector	1	External LoRa antenna	
RJ45	1	WAN port of the device	
USB Type-A	1	For firmware upgrade	
Reset	1	Reset to default (5 seconds to reset settings to factory default)	
Mini USB	1	Connected with USB power adapter	

