

Indoor Femto Gateway

Doc ver.: BQW_03_0005.003



Features

- Up to 8 concurrent channels for LoRa transmission
- Built-in 2.4G 802.11b/g/n Wireless LAN
- Optional support a wide frequency range from 470MHz to 928MHz in different SKU
*see specification below for more details
- Various Internet connection: Ethernet, Wireless bridge
- Support 3G/4G USB dongle as backhaul connection (customized SKU)
- Active scan for channel availability with RSSI levels
- Web UI for LoRa and network configuration
- Cloud service for gateway health monitor
- Support Listen Before Talk for downlink
- Ideal for indoor positioning
- Support OTA and USB upgrade

Browan has been instrumental in the development of LPWAN system solutions and is an early provider of LoRaWAN protocol based, end-to-end LPWAN solutions. The LoRaWAN technology is designed to connect low-cost, battery-operated sensors over long distances in harsh environments that were previously too challenging or cost-prohibitive to connect. Because of its long range, high penetration and high sensitivity capabilities, it is a much more cost-effective way for service providers to deploy LoRaWAN network for sensor applications in vertical market domain.

This Femto Gateway is specifically designed for wide area IoT applications. Applications include, but not limited to home security, automatic meter reading, monitoring fault indicators, monitoring streetlights, etc. This gateway is Femto type and 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.

Specification

Model Name	WLRGFM-100
Product Name	IOT Femto Gateway
Frequency Band	EU 862~870 MHz / US 902~928 MHz / IN 865~867 MHz / AS 923 MHz / CN 470~510 MHz
Number of Channels	Up to 8 concurrent channels
Wireless LAN	802.11 b/g/n 2.4G
WAN Protocol	LoRaWAN
Modulation	Based on LoRaWAN
RF Transceiver	SX1301 or SX1308 with SX1257 (additional SX1276 for LBT and background scan)
Transmit RF Power	0.5W (up to 27 dBm)
Receive Sensitivity	Down to -142 dBm
Operating Temperature	-10°C ~ 55°C
Storage Temperature	-10°C ~ 60°C
Power Supply	5VDC/2A via mini-USB port

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Specification (continues)

Antenna Type	Built-in Wi-Fi and LoRa antenna and one (1) external SMA connector for LoRa antenna
Interfaces	1 LAN 10/100Mbps, 1 USB 2.0 for firmware upgrade, 4 LED indicators
Dimensions	L:116 x W:91 x H:27 mm
Weight	160 g
Security	AES 128
Type Approval	FCC/CE/TELEC/ANATEL

SKU Detail

SKU	Country	Channels	Frequency Band (MHz)	Wifi 2.4 G channel
US	USA	8	US915 (902~928)	1~11
TW	Taiwan	8	AS923 (920~925)	1~11
CN	China	8	CN470 (470~510)	N
JP	Japan	8	AS923 (920~928)	1~13
KR	Korea	8	KR920 (920-928)	N
EU	Europe	8	EU868 (862~870)	1~13
AU	Australia/Brazil	8	AU915 (915~928)	1~13

* Samples are also available for IN 865~867 MHz.