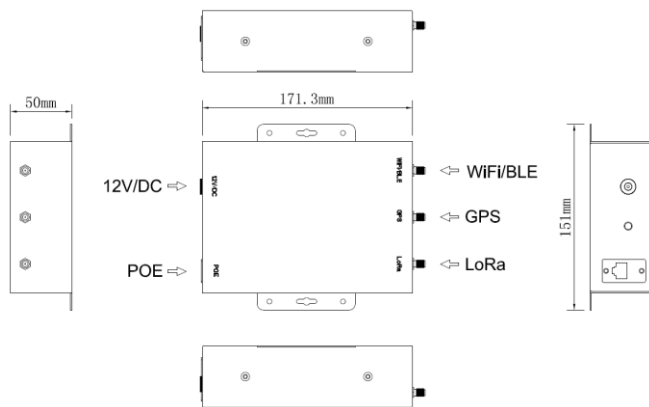


Indoor LoRaWAN-100 CHIRPSTACK GATEWAY



The CHIRPSTACK GATEWAY is a robust 8-channel LoRa Gateway that supports PoE (Power over Ethernet) and DC power supply. Adopting SX1302 LoRa chip and high-performance quad-core CPU, It is designed to handle multiple protocols, including Wi-Fi 2.4 GHz, 5.0 GHz IEEE 802.11 b/g/n/ac wireless, Bluetooth 5.0, BLE, LoRa and LTE Cat1/Cat M1, making it suitable for various scenarios. Its durable construction ensures reliable performance in diverse environments, from smart cities to industrial applications.

KEY FEATURES

- LoRaWAN Gateway.
- Open Source OpenWrt system.
- Support LoRaWAN Station connection.
- LoRa Concentrator Engine: Semtech SX1302.
- LoRa High sensitivity: down to -140dBm Sensitivity @292bps.
- Support BLE 5.0, Wi-Fi 2.4G/5G IEEE 802.11b/g/n.
- Managed by Web GUI, SSH via LAN or WiFi.
- Support the POE Power supply.
- Support LTE Cat1/Cat M1(optional).
- Support GPS, GLONASS, Galileo, Beidou (optional).

Hardware

CPU: Broadcom BCM2711 quad-core Cortex-A72 (ARM v8) 64-bit
Memory: 2GB LPDDR4-3200 SDRAM
eMMC: 8GB eMMC Flash memory
Port: 1 × RJ45 (PoE PD supported)
Data Rate: 10/100/1000 Mbps
Physical Layer: supporting IEEE 1588
Mode: Full or Half Duplex

LoRaWAN

Antenna: External Antenna
Channel: 8 (Half)
Frequency Band: EU868
Sensitivity: -140dBm Sensitivity @292bps

Output Power: 27dBm Max (Typical 26dBm)
Receive Channel: 8 (Half/Full-duplex)
Send Channel: 1
Protocol V1.0 Class A/Class B/Class C and V1.0.2 Class A/Class B/Class C

Bluetooth/(Optional)

Antenna: External Antenna (same as WiFi, 2 in 1)
Standard: Bluetooth 5.0, BLE Frequency Band: 2.4G

WiFi(Optional)

WiFi: 2.4 GHz, 5.0 GHz IEEE 802.11 b/g/n/ac wireless
Security: WPA/WPA2 authentication
Sensitivity: -140dBm Sensitivity @292bps
Output Power: 27dBm Max (Typical 26dBm)

Cellular(Optional, can be replaced by different 4G)

Antenna: External Antenna
SIM Slot: Nano SIM card
LTE-FDD Band B1/ B3/ B5/B8
LTE-TDD Band B34/ B38/ B39/ B40/ B41 (140 MHz)

GNSS(optional)

Antenna: External Antenna
Supported GNSS: GPS、GLONASS、BDS 1PPS

Channel: 32 tracking channels

Power

Power Consumption: Typical 2.6 W
Power input: 12V 1.5A with PoE input (802.3 af)

Size

Ingress Protection: IP51
Dimensions: 171.3 x 151 x 50 mm Weight 0.5 kg
Installation: Wall mounting, Pole mounting

System

OpenWRT with Network Protocol: TCP, UDP, DHCP, DDNS, HTTP, HTTPS, DNS, SSH, MQTT, ...etc
Frequency Band: EU868
Sensitivity: -140dBm Sensitivity @292bps

Others

Operating Temperature -40°C to +75°C
Storage Temperature -40°C to +85°C

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