

Outdoor Micro Gateway



Features

- Compliance to LoRaWAN 1.0.2
- Up to 16 concurrent channels for LoRa transmission
- 3G/4G backhaul supported
- Option support wide frequency range from 470MHz to 928MHz
- Long range over 15 kilometers radius
- 1 LAN port (10/100Mbps) with PoE
- Downlink LBT
- Cloud service to support easy deployment
- Patented repeater mode for last mile coverage
- Thousands to millions devices depending on data model
- Cost effective for providing full redundancy coverage
- IP67 waterproof

Gemtek 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.

The Micro Gateway is specifically designed for wide area smart city 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. This product can be configured as last mile repeater to solve sensor connectivity issue when sensor is located at edge of the coverage or out of coverage. It's a cost effective way to provide full redundancy coverage for the entire service area

Specification

| | |
|-----------------------|---|
| Model Name | WAPS-232N |
| Frequency Band | EU 862~870 MHz / US 902~928 MHz / India 865~867 MHz / AS 923 MHz / CN 470~510 MHz / AU915~928 MHz |
| Number of Channels | Up to 16 Channels |
| WAN Protocol | LoRAWAN |
| Modulation | Based on LoRaWAN |
| RF Transceiver | SX1301 with SX1257 or SX1255 for CN-470 SKU |
| Transmit RF Power | 0.5W (up to 27 dBm) |
| Receive Sensitivity | Down to -142 dBm |
| Operating Temperature | -40°C ~ 60°C |
| Storage Temperature | -40°C ~ 60°C |
| Power Voltage | 55VDC/0.6A via PoE adapter |

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|--------------------|--|
| Antenna Type | External N-Type antenna |
| Ingress Protection | IP67 |
| Interfaces | 1 LAN port, 2 LoRa antenna connectors, 1 GPS antenna connector, One (1) 3G/4G antenna (option) |
| Dimensions | L:230 x W:200 x H:68 mm |
| Weight | 2.05 kg |
| Security | AES 128 |

SKU Detail

| SKU | Country | Channels | Frequency Band (MHz) | 3G/4G Support | 3G/4G Module |
|-------------|-----------|----------|----------------------|---------------|--------------|
| AU-16 | Australia | 16 | AU920 (915~928) | N | N |
| AU-16-M | Australia | 16 | AU920 (915~928) | Y | EC25-AU |
| AU-8 | Australia | 8 | AU920 (915~928) | N | N |
| AU-8-M | Australia | 8 | AU920 (915~928) | Y | EC25-AU |
| CN-470-16 | China | 16 | CN470 (470~510) | N | N |
| CN-470-16-M | China | 16 | CN470 (470~510) | Y | EC20-CE |
| EU-8-M | Europe | 8 | EU868 (862~870) | Y | EC25-E |
| JP-16 | Japan | 16 | 920~928 | N | N |
| JP-16-M | Japan | 16 | 920~928 | Y | EC25-J |
| MY-16 | Malaysia | 16 | 919~923 | N | N |
| MY-16-M | Malaysia | 16 | 919~923 | Y | N |
| TW-16 | Taiwan | 16 | 920~925 | N | EC25-AU |
| TW-16-M | Taiwan | 16 | 920~925 | Y | N |
| US-16 | USA | 16 | US915 (902~928) | N | EC25-AU |
| US-16-M | USA | 16 | US915 (902~928) | Y | N |

* Sample available for India 865~867 MHz

3G/4G Band Support

| | EC25-E | EC25-J | EC25-A | EC25-AU | 3G/EC20-CE |
|--------------|------------------------------|-----------------------------|-----------|-----------------------------|-----------------|
| Country | Europe Taiwan Malaysia | Japan | USA | Australia | China |
| LTE FDD | B1/B3/B5/B7/B8/ B20 | B1/B3/B5/B8/B18/ B19/B26 | B2/B4/B12 | B1/B2/B3/B4 B5/B7/B8/B28 | B1/B3/B8 |
| LTE TDD | B28/B40/B41 | B41 | X | B40 | B38/B39/B40/B41 |
| WCDMA | B1/B5/B8 | B1/B6/B8/B19 | B2/B4/B5 | B1/B2/B5/B8 | B1/B8 |
| GSM | B3/B8 | X | X | B2/B3/B5/B8 | 900/1800 |
| TDSCDMA | X | X | X | X | B34/B39 |
| CDMA 1x/EVDO | X | X | X | X | BC0 |