

Semi-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 passive PoE design
- 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
- IP55 weather proof

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 Semi-Outdoor 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	WLRRTMS-100
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
Transmit RF Power	0.5W (up to 27 dBm)
Receive Sensitivity	Down to -142 dBm
Operating Temperature	-20°C ~ 50°C

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Storage Temperature	-20°C ~ 50°C
Power Voltage	DC 12V/2A with passive PoE injector
Antenna Type	External SMA connector for LoRa
Ingress Protection	IP55
Interfaces	1xWAN, SIM, Reset button, LED indicators
Dimensions	L:278 x W:140 x H:75 mm
Weight	658 g
Security	AES 128

SKU Detail

SKU	Country	Channels	Frequency Band (MHz)	3G/4G Support	3G/4G Module
CN-470	China	8	CN470 (470~510)	Y	EC20-CE
JP	Japan	8	920~928	Y	EC25-J
AU	Australia	8	AU920 (915~928)	Y	EC25-AU
MY	Malaysia	16	919~923	Y	EC25-E
TW	Taiwan	16	920~925	Y	EC25-E
US	USA	16	US915 (902~928)	Y	EC25-A
EU	Europe	8	EU868 (862~870)	Y	EC25-E
CN-470-1278	China	8	CN470 (470~510)	Y	EC20-CE

* 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