

# Outdoor Micro Gateway



## Features



- Compliance with LoRaWAN 1.0.3
- Up to 16 concurrent channels
- 3G/4G backhaul supported
- Optional support a wide frequency range from 470MHz to 928MHz in different SKU
- \*see specification below for more details
- Long range over 15 kilometers radius
- 1 LAN port (10/100Mbps) with PoE
- Downlink LBT
- Support background scan
- Cloud service to support easy deployment
- Provides full redundancy coverage
- IP67 waterproof
- Support Ubuntu OS

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 tracking applications than to use GPRS network.

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 streetlights, 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

<b>Model Name</b>	WAPS-232N_LW
<b>Product Name</b>	IOT Access Point
<b>Frequency Band</b>	EU 863~870 MHz / US 902~928 MHz / India 865~867 MHz / AS 923 MHz / CN 470~510 MHz / AU915~928 MHz
<b>Number of Channels</b>	Up to 16 Channels
<b>WAN Protocol</b>	LoRAWAN
<b>Modulation</b>	Based on LoRaWAN
<b>RF Transceiver</b>	SX1301 with SX1257
<b>Transmit RF Power</b>	0.5W (up to 27 dBm)
<b>Receive Sensitivity</b>	Down to -142 dBm
<b>Operating Temperature</b>	-20°C ~ 60°C (optional for -40°C ~ 60°C )
<b>Power Supply</b>	55VDC/0.6A via PoE adapter (Microsemi PD-9001GR 802.11at)
<b>Antenna Type</b>	External N-Type antenna
<b>Ingress Protection</b>	IP67

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## Specification (continues)

<b>Interfaces</b>	1 WAN port, 2 LoRa antenna connectors, 1 GPS antenna connector, One 3G/4G antenna (optional), SIM card slot(Optional)
<b>Dimensions</b>	L:230 x W:200 x H:66 mm
<b>Weight</b>	2.05 kg
<b>Security</b>	AES 128
<b>Type Approval</b>	FCC/CE/NCC/TELEC
<b>Surge</b>	6 KV surge at Ethernet RJ45 Port

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## SKU Detail

SKU	Country	Channels	Frequency Band (MHz)	3G/4G Support	3G/4G Module
CN-08	China	8	CN470 (470~510)	N	N
CN-08-M	China	8	CN470 (470~510)	Y	EC20-CE
CN-16	China	16	CN470 (470~510)	N	N
CN-16-M	China	16	CN470 (470~510)	Y	EC20-CE
868M-08	Europe	8	EU868 (862~870)	N	N
868M-08-M-EU	Europe	8	EU868 (862~870)	Y	EC25-E
920M-16-J	Japan	16	AS923 (920~928)	N	N
920M-16-M-J	Japan	16	AS923 (920~928)	Y	EC25-J
920M-16-TW	Taiwan	16	AS923 (920~925)	N	N
920M-16-M-TW	Taiwan	16	AS923 (920~925)	Y	EC25-AU
900M-16	USA	16	US915 (902~928)	N	N
900M-16-M-A	USA	16	US915 (902~928)	Y	EC25-A
900M-08-A	USA	8	US915 (902~928)	N	N
900M-08-M-A	USA	8	US915 (902~928)	Y	EC25-A

## 3G/4G Band Support

3G/4G Module	EC25-E	EC25-J	EC25-A	EC25-AU	EC20-CE
Countries	Europe	Japan	USA	Australia/ Taiwan	China
LTE FDD	B1/B3/B5/B7/ B20	B1/B3/B5/B18/ B19/B26	B2/B4/B12	B1/B2/B3/B4 B5/B7/B28	B1/B3
LTE TDD	B38/B40/B41	B41	X	B40	B38/B39/B40/B41
WCDMA	B1/B5	B1/B6/B19	B2/B4/B5	B1/B2/B5	B1
TDSCDMA	X	X	X	X	B34/B39
CDMA 1x/EVDO	X	X	X	X	BC0



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