

# Outdoor Micro Gateway

DOC ver.: BQW\_03\_0004.009



## 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
  - 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

Model Name	WAPS-232N_LW
Product Name	IOT Access Point
Frequency Band	EU 863~870 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 ~ 60°C (optional for -40°C ~ 60°C )
Power Supply	55VDC/0.6A via PoE adapter (Microsemi PD-9001GR 802.3at)
Antenna Type	External N-Type antenna
Ingress Protection	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/RCM
<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
868M-16	Europe	16	EU868 (862~870)	N	N
868M-16-M-EU	Europe	16	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
900M-16-M-AU	AU	16	AU915(915~928)	Y	EC25-AU
900M-16-AU	AU	16	AU915(915~928)	N	N
900M-08-M-ID	Indonesia	8	AS923-2(920~923)	Y	EC25-E

- Optional features supports LoRaWAN Standalone Mode (Embedded Network Server), please contact us for more details.

## 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