Pico Next Indoor Gateway

⚠ Features

- Compliance to LoRaWAN 1.0.3
- Support Packet Forward/Basic Station Mode
- Support Spectral Scan & Listen Before Talk(LBT)
- Various Internet connections: Ethernet with 3G/4G backhaul
- Web UI for LoRa and network configuration
- Support local firmware upgrade
- CAN 2.0 design is reserved for future data communication purposes
- Customizable SKU: (1) LTE-M back-haul
  (2) Wi-Fi back-haul with GPS
- Customizable LTE-M 3G/4G module for different Country

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 the LoRaWAN network for sensor applications in the vertical market domain.

The LoRa Cellular Gateway is specifically designed for wide-area IoT applications. Applications include, but are not limited to home security, automatic meter reading, monitoring fault indicators, monitoring streetlights, etc. This gateway is very suitable for small business or private area use cases like parking space, exhibition center or campus, etc.

Specification

Model Name	WSMS-155AGN
LoRaWAN Specification	LoRaWAN 1.0.3
Frequency Band	EU 863~870 MHz / US 902~928 MHz
Number of Channels	Up to 8 concurrent channels for LoRa transmission
LoRa Modulation	Based on LoRaWAN
LoRa RF Transceiver	• SX1308 with SX1257 (background scan) • SX1302 with SX1250 (Customizable by request)
LoRa Transmit Power	0.5W (up to 27 dBm)
LoRa Receive Sensitivity	Down to -142 dBm (conducted)
LoRa Software	• Packet forward mode / Basic Station Mode • AWS IoT Core with Basic station mode (Customizable by request)
Operating Temperature	-10℃ ~ 55℃
Storage Temperature	-20℃ ~ 60℃

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Specification (continues)

Power Supply	DC 12 V/1.5 A-Power Adaptor DC 10~30 V 3-Pin Connector Power supply Passive PoE 10~30 V
GPS	GPS + GLONASS, L1C/A band (optional for time-stamping) (*)
Wi-Fi	802.11b/g/n, 1x1, 2.4GHz (optional for backhaul) (*)
4G LTE	Quectel PCIe module (LTE Cat 4 or Cat M1/NB2(*))
Interfaces	• 1 WAN RJ45 10/100Mbps (w/ passive PoE capability) • 1 Reset button • 1 SIM card slot (2FF) • 1 DC jack in • 4 LED indicators • 1 CAN 2.0 (*)
Antenna Type	• 1 external LoRa antenna • 1 external 4G antenna • 1 external Wi-Fi antenna (*) • 1 external GPS antenna (*)
Dimensions	L:120 x W:136 x H:35mm
Weight	0.40 kg
Security	AES 128
Type Approval	FCC / IC / CE (In progress)

Remark: "*" means the function is supported in different SKU. Primary SKU is without Wi-Fi/GPS for the US/EU market. GPS and Wi-Fi functions will be based on customers' requests.

SKU Detail

SKU	Country	Channels	Frequency Band (MHz)	3G/4G Module	Wi-Fi w/ GPS
868M-EU	Europe	8	EU868 (862~870)	EC25-EUX	N
868M-W-EU	Europe	8	EU868 (862~870)	EC25-EUX	Y
900M-A	USA	8	US915 (902~928)	EC25-A	N
900M-W-A	USA	8	US915 (902~928)	EC25-A	Y

*Note: Reserved customizable features as shown below:
1. CAN 2.0 design is reserved for future data communication purpose.
2. LTE-M back-haul SKU is customizable by request.
3. 3G/4G module is customizable to meet country-specific regulations.
4. AWS IoT Core with Basic station Mode is customizable by request.
5. Other frequency band is customizable by request. (AU915, AS923, etc.)

For more details, please contact us at our website: www.browan.com or directly via email: sales@browan.com

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LTE Band Support

Cat-4 Module	EC25-EUX	EC25-J	EC25-A	EC25-AU	EC25-G
Countries	Europe	Japan	USA	Australia/Brazil/Taiwan	Global
LTE FDD	B1/B3/B7/B20/B28A	B1/B3/B5/B18/B19/B26	B2/B4/B12	B1/B2/B3/B4 B5/B7/B28	B1/B2/B3/B4/B5/B7/B12/B13/B18/B19/B20/B25/B26/B28
LTE TDD	B38/B40/B41	B41	X	B40	B38/B39/B40/B41
WCDMA	B1	B1/B6/B19	B2/B4/B5	B1/B2/B5	B1/B2/B4/B5/B6/B19
GSM	B3	X	X	B2/B3/B5	B2/B3/B5

LTE Cat-M1 Band Support

Cat-M1 Module	BG95 Series
Mode	Cat M1/ Cat NB2/ EGPRS/ GNSS/
Frequency Bands	1/2/3/4/5/8/12/13/18/19/20/25/26①/27①/28/31/66/71②/72/73/85
Remark	① Cat M1 Bands Only ② Cat NB2 Bands Only

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