



DESCRIPTION

- Low cost PicoGateway for Private LoRa Network targeting Smart Building, Smart Farming, Smart Asset
- Based on powerful open Linux ARM Cortex A8 architecture
- Embedded LoRa MAC Server
- Customizable with several options (GPS/ WiFi /2G/3G ...)
- Complete end to end LoRa infrastructure solution coupled with éolane LoRa Reference Design for sensors/actuators

MAIN FEATURES

- Dimensions : 100 * 80 mm (excluding cable)
- PHY: LoRa or FSK 868 MHz / 433 or 169 MHz
- RF interfaces: 2* SMA connector – bi-band
- Protocol: LoRaWAN1.0
- Network capacity: up to 200 nodes (10min period)
1000 nodes (every day)
- Low power: less than 5W
- Encryption: AES 128

APPLICATIONS



Industry
Industrial
equipment

- M2M / Command & control
- Asset geotracking
- Smart Factory / Traceability
- Lone worker protection systems
- Smart Building / Smart Farming



Defence
Civil security
Naval

- Unattended ground sensors
- Monitoring of dangerous matters
- Preventive maintenance
- Tracking

Technical Specification

Interface

- LoRa RF interface 1: SMA female 50 ohm
- 169/433 RF interface 2: SMA female 50 ohm
- Power: DC jack
- Configuration: USB or Ethernet
- LAN output 1: RJ45 / 10-100 Mbps / HTTP
- LAN output 2: SUBD9 / RS485/232/Modbus

- *Optional 1:* GPS ((*embedded*))
- *Optional 2:* GSM / GPRS (*external*)
- *Optional 3:* WIFI (*dongle USB*)

RF interface 1

- Frequency band: 863 – 870 MHz band
- RF nominal power: up to +19 dBm

- *RF high power option:* up to +25 dBm

RF interface 2 (169 Mhz)

- Frequency band: 169 MHz ISM band
- RF nominal power: up to +17 dBm

- *RF high power option:* up to +25 dBm

RF interface 2 (433 Mhz)

- Frequency band: 433 MHz ISM band
- RF nominal power: +10dBm up to 17 dBm

Modulation

- LoRa: SF6 to SF12
- FSK:
- LORA channel BW (KHz): 12,5; 25; 62,5; 125; 250; 500
- LoRa sensitivity: -139 dBm (125KHz, SF12)

Linux Board

- Processor: 1GHz – Cortex A8
- RAM: 512 Mo
- eMMC: 4Go

Mechanicals

- Casing dimensions: 100mm * 80mm
- Casing: Plastic
- Casing IP: Indoor use
- DC input: DC Jack
- Consumption: * < 5W
- AC input: with external AC-USB adapter
- Temperature: 0°C to +50°C

Protocol - Network

- LoRaWAN End node: Compatible (default SF12)
- Network capacity: up to 200 nodes (10min period)
/ 1000 nodes (every day)

Ordering Code

ePGW-868-A-Band2-B-Option123

- A** L : +19 dBm / H: +25 dBm
- **Band 2:** 169 MHz ISM / 433MHz ISM
- **B** L : +17 dBm / H: +25 dBm
- **Option** 1: GPS, 2: GSM, 3: WIFI (b/g)

Accessories Codes

- 001 External AC-Jack adapter
- 002-i 868 MHz indoor antenna
- 002-o 868 MHz outdoor antenna
- 003 433 MHz antenna
- 004 169 MHz antenna
- 005 RF cable 5m

Additional Services

- Full custom design from specification to product
- Additional custom or standard wireless protocol
- In-house manufacturing
- Installation and after-sales services

Ordering Information

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