

MiDoMet LoRaWAN Prime Gateway



MiDoMet LoRaWAN Prime Gateway is a complete 8 channel gateway, based on RAK7240 hardware with integrated Ethernet and LTE connectivity.

SIM and SD Card slot are easy accessible, at the same time the IP65 grade protection make possible an outdoor installation. It supports MQTT Bridge mode, with option for TLS authentication. Equipped with Power-over-Ethernet (PoE) to serve scenarios where wall or ceiling mounting are required, without needing the installation of auxiliary power lines. The Open Source software for managing and configuring this device is based on OpenWRT. The LoRa packet forwarder is integrated in the device.

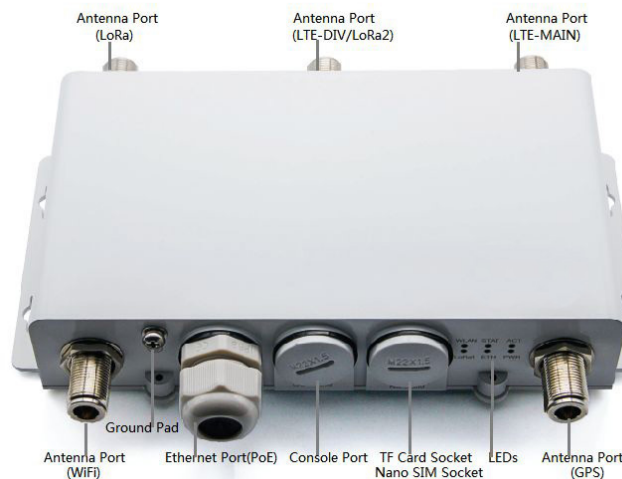
Perfect for outdoor installation, to create a capillary network or to cover small areas, for example to remote read nodes in continuous buildings.

Package includes one LoRa antenna, two LTE antennas, one GPS antenna, one 2.4G WiFi antennas, a PoE Injector and a mounting kit.

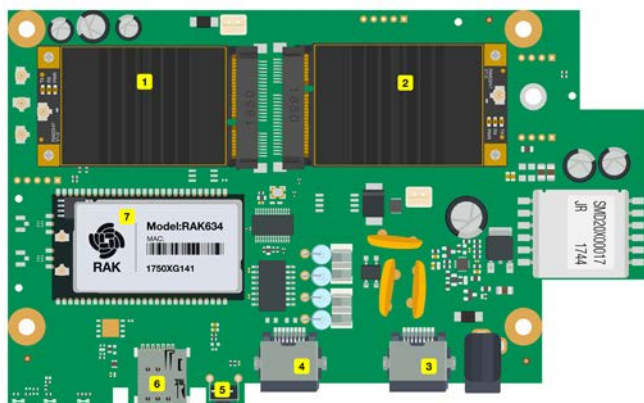
MAIN FEATURES

- IP65 industrial grade enclosure with cable glands
- PoE + surge protection
- Up to 16 LoRa channel (optional)
- Backhaul: Wi-Fi, LTE and Ethernet
- GPS
- SD Card Slot

HARDWARE



BOARD OVERVIEW



- 1 RAK2247 Mini-PCle
- 2 LoRa Concentrator
- 3 PoE
- 4 RS232
- 5 Reset Switch
- 6 SIM & TF Card Slot
- 7 RAK634 CPU Module

CARATTERISTICHE

| | |
|----------------------------------|---|
| Computing | MT7628, DDR2RAM 128MB |
| WiFi | <ul style="list-style-type: none"> • Frequency: 2.400-2.4835GHz(802.11b/g/n) • RX Sensitivity: -95dBm (Min), • TX Power: 20dBm (Max) • Operation Channels: 2.4GHz: 1-13 |
| LoRa | <ul style="list-style-type: none"> • SX1301 Mini PCIe card • 8 Channels (16 opzionale) • RX Sensitivity: -139dBm (Min) • TX Power: 25dBm (Max) |
| Cellular Net | <ul style="list-style-type: none"> • LTE FDD: B1/B3/B7/B8/B20/B28A • WCDMA: B1/B8 • GSM: 900/1800MHz |
| Power | <ul style="list-style-type: none"> • DC 12 Volts - 1 Ampere • POE (IEEE 802.3af), 42~57 VDC |
| Consum | 12W (typical) |
| ETH | RJ45 (10/100M) |
| Antenna | 5 N-Type connectors |
| Protection | IP 65 |
| Materiale del contenitore | Aluminum |
| Weight | 1,3Kg |
| Working temperature | -20 to 55 °C |
| Mounting | Wall or pole mounting |

MD.LRGATE.3



SUPPORTED SOFTWARES

| LoRa | NETWORK | MANAGEMENT |
|-----------------------------|--------------------|----------------------|
| Supports class A,B, C | Wi-Fi AP mode | WEB Management |
| LoRa package forward | Uplink backup | Supports SSH2 |
| TX power up setup | Supports 802.1q | Firmware update |
| Data logger | DHCP Server/Client | Supports MQTT Bridge |
| Statistics | Router module NAT | |
| Server address & port setup | Firewall | |

RF SPECIFICATIONS

| | |
|------------------------------------|---|
| Wireless Standard | IEEE 802.11b/g/n |
| WiFi Band | ISM band: 2.412~2.472(GHz) |
| Wi-Fi Channel | -2.4GHz: 1-13 |
| Wi-Fi Trasmission Power | 802.11b • 1Mbps: 19dBm • 11Mbps: 19dBm 802.11g • 6Mbps: 18dBm • 54Mbps: 16dBm 802.11n(2.4G) • MCS0 (HT20): 18dBm • MCS7 (HT20): 16dBm • MCS0 (HT40): 17dBm • MCS7 (HT40): 15dBm |
| Wi-Fi Receiving Sensitivity | 802.11b • 1Mbps: 95dBm • 11Mbps: 88dBm 802.11g • 6Mbps: 90dBm • 54Mbps: 75dBm 802.11n(2.4G) • MCS0 (HT20): 89dBm • MCS7(HT20): 72dBm • MCS0(HT40): 86dBm • MCS7(HT40): 68dBm |
| LoRa Frequency | EU868 |
| LoRa TX Power | 25 dBm (Max) |
| LoRa RX Sensibility | -139 dBm (Min) |