

MiDoMet LoRaWAN Lite Gateway



MiDoMet LoRaWAN Lite Gateway is an indoor 8 channel gateway, based on RAK7258 hardware with integrated Ethernet and LTE connectivity.

It supports the 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.

It is a perfect solution for indoor installation, for example in multiple apartments building. Package includes LoRa antenna, mounting screws and anchor.

MAIN FEATURES

Full support LoRaWAN Stack (V 1.0.2)

100 M base-T Ethernet with PoE (802.3 af)

Backup multi back-haul with Ethernet, WiFi, LTE Cat 4

can be integrated in private servers (ChirpStack) or public ones (TTN)

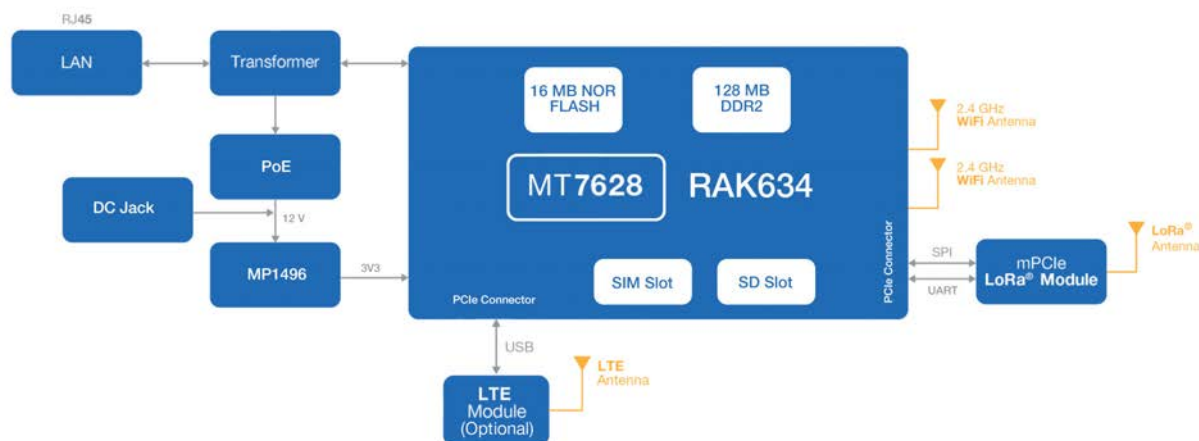
TF card for registry backup

HARDWARE



MD.LRGATE.3

HARDWARE ARCHITECTURE



FEATURES

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 • RX Sensitivity: -142 dBm (Min) • TX Power: 27 dBm (Max)
Cellular Net	<p>Supports Quectel EG95-E EG95-E for EMEA Region</p> <ul style="list-style-type: none"> • LTE FDD: B1/B3/B7/B8/B20/B28A • WCDMA: B1/B8 • GSM/EDGE: B3/B8
Power	<ul style="list-style-type: none"> • DC 12 Volts - 1 Ampere • POE (IEEE 802.3af), 42~57 VDC
Consumption	12W (typical)
ETH	RJ45 (10/100M)
Antenna	<ul style="list-style-type: none"> • LoRa: RP-SMA Female Connector • Wi-Fi: Internal Antenna
Protection	IP 30
Case Material	Plastics
Wight	0,3Kg -
Working Temp	-10 to 55 °C
Mounting	Wall mounting



SUPPORTED SOFTWARES

LoRa	NETWORK	MANAGEMENT
Supports class A,C	Wi-Fi AP mode	WEB Management
LoRa package forward	LTE APN setup	Supports SSH2
TX power up setup	Uplink backup	Firmware update
Data logger	Supports 802.1q	Supports MQTT Bridge
Statistics	DHCP Server/Client	
Server address & port setup	Router module NAT	
	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	27 dBm (Max)
LoRa RX Sensibility	-142 dBm (Min)