

PicoGateway

A READY-TO-USE INDOOR LoRa CONCENTRATOR FOR SMALL & PRIVATE NETWORK

TECHNICAL SPECIFICATIONS

Interface

- 868 RF interface: SMA female 50 ohm
- Power: 5VDC jack (<5W)
- Configuration: Ethernet or GSM – xml file
- LAN: RJ45 / 10-100 Mbps / HTTP REST / SSL/TLS
- GSM: GPRS (2.5G) / HTTP REST / SSL/TLS
- MODBUS: RS485

RF 868 MHz Band

- Frequency band: 863 – 868.6MHz G1 Sub-band
- RF power: +14 dBm (conducted on SMA)

Modulation

- LoRa Data Rate: 300 bps
- LoRa channel BW (KHz): 125 KHz
- LoRa sensitivity: -137 dBm

Protocol - Network

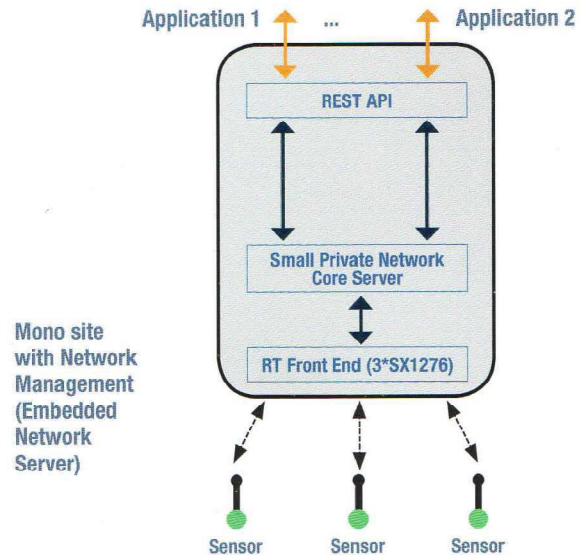
- LoRaWAN™ End node: Compatible on default channels & SF12 (fixed data rate, ADR not supported)
- ABP activation (OTAA not supported)
- Network capacity: up to 200 nodes (15 min period & unconfirmed frame)

Services

- LoRa Network server
- REST API service for data access & device declaration
- Complete end to end LoRa infrastructure solution coupled with éolane LoRa Reference Design and/or OEM products for sensors/actuators

Casing

- Casing dimensions: 101mm * 74mm * 35mm
- Weight: 120g
- Casing: Plastic (ABS+PC)
- Casing IP: Indoor use
- Temperature: 0°C to +50°C



ACCESSORIES

- External AC-DC wall plug (90-240VAC to 5VDC – 2A)
- LoRa antenna (868 MHz)
- GPRS antenna

ADDITIONAL SERVICES

- Full custom design from specification to product
- Additional custom or standard wireless protocol (e.g. 433 MHz band on request)
- In-house manufacturing
- Installation and after-sales services

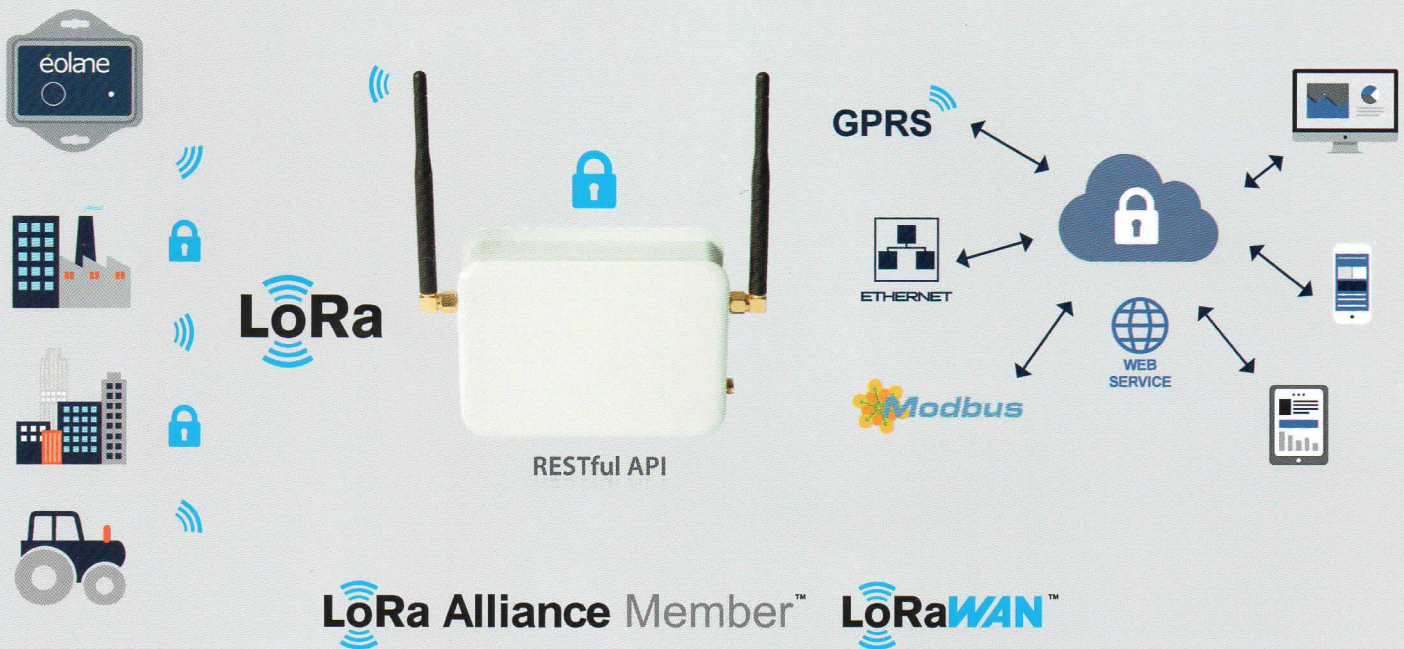
ORDERING INFORMATION

Packaging	HW configuration	Part Number
Unitary	Ethernet+GSM+MODBUS	CS-20010A0U
Box (50 units)	Ethernet+GSM+MODBUS	CS-20010A0B


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The éolane PicoGateway is an ultra-low-cost LoRa Gateway for LoRa SPNs (Small Private Networks). For this integrated architecture, embedding a LoRa protocol server, the PicoGateway, provides the relay between the sensors (RF endpoints) and the cloud (application server, web services). The PicoGateway supports the LoRaWAN™ protocol, and allows listening to RF channels in the ISM (Industrial, Scientific and Medical) band, the connection to the cloud operating through a GSM (2.5G), Ethernet or Modbus link.




PRODUCT APPLICATION



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

Industry
Industrial
equipment



Unattended ground sensors
Monitoring of dangerous matters
Preventive maintenance
Tracking

Defence
Civil Security
Naval

MAIN FEATURES

- Dimensions : 101*74*35 mm
- PHY: LoRa 868 MHz band 3 channels
(LoRaWAN™ default channels)
- RF interfaces: SMA connector
- Protocol: LoRaWAN™ compliant end Node
(ADR not supported)
- Network capacity: up to 200 nodes
- Low power: less than 5W
- Long Range: up to 15km
- Encryption: AES 128 (LoRa); SSL/TLS (Ethernet/GSM)