rfi engineering

L-gateway
RE.41.LGTW

THE FUTURE IS HERE. IT'S JUST NOT CONNECTED YET

Modular Outdoor LoRa® Gateway

The L-gateway is a ruggedized modular outdoor LoRa® gateway | base station that enables versatile wireless connectivity to your Internet of Things (IoT) applications. LoRa® RF technology has been pioneered by Semtech and is a 2-way wireless solution, operating in the license exempt ISM bands, that complements M2M cellular infrastructure. LoRa® provides a low-cost way to connect battery operated and mobile devices to the network infrastructure.

The function of the L-gateway is to forward received RF packets to an external server through a IP/UDP link. It also transmits RF packets that are sent by the external server. The L-gateway is standard equipped with one LoRa® radio, a GPS receiver and an advanced 2G/3G modem. Optionally it can be expanded with two additional LoRa® radio's to turn the unit into a sectorized base station.

To facilitate GPS-less localization services every L-gateway is synchronized with sub-microsecond precision to any of its neighbors through RFI's Consensus Protocol (RCP)™. The L-gateway has an external accessible RS-485 interface to allow easy configuration by an engineer on-site.

Features

✓ Ruggedized modular design with 1, 2 or 3 LoRa® radio's
✓ 868MHz (Europe) long range operation, up to 15 km range in line-of-sight and < 2 km in urban environment
✓ Powered by 220V PoE or 48V PoE
✓ RS-485 interface for on-site trouble shooting
✓ GPS and 2G/3G radio's on-board
✓ GPS and 2G/3G antenna on-board (RF connector optional)
✓ Multiple VLAN & VPN support
✓ LoRa® client localization support
✓ Web interface for local & remote configuration
✓ Remotely configurable and OTA software upgradeable
✓ Default "customer" configuration during production
✓ Pre-integrated with ThingPark™ Wireless from Actility
✓ Powder coated aluminum enclosure with pole mounting clamps and ground terminals
✓ 3 Year Warranty

Connectors

Ethernet & PoE	Watertight RJ45
RS-485	Watertight RJ45
LoRa (1, 2 or 3 radio's)	1, 2, or 3 N-connector(s)
Optional: GSM and GPS connectors	N-connector

All RF type N-connectors can be replaced with 4.3-10 type connectors (specify when ordering)

Power Requirements

Power Adapter	48V PoE

Unit ships with a 100-240 AC to PoE adapterA 48V PoE adapter can be ordered optional (specify when ordering)

Environmental

Operating Temperature	-40º to +85ºC with no derating
Storage Temperature	-40º to +90ºC
Relative Humidity	5% to 95% non-condensing
Altitude	0-10,000 feet
Cooling	Convectional - non vented case

Mechanical

Case Dimensions	422L x 208W x 105H (mm)
Weight	1500 grams, 53 Ounces

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