**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**

<table>
<thead>
<tr>
<th>Connectors</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>Ethernet &amp; PoE</td>
<td>Watertight RJ45</td>
</tr>
<tr>
<td>RS-485</td>
<td>Watertight RJ45</td>
</tr>
<tr>
<td>LoRa (1, 2 or 3 radio's)</td>
<td>1, 2, or 3 N-connector(s)</td>
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<tr>
<td>Optional: GSM and GPS connectors</td>
<td>N-connector</td>
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<tr>
<td>All RF type N-connectors can be replaced with 4.3-10 type connectors (specify when ordering)</td>
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**Power Requirements**

- Power Adapter: 48V PoE
- Unit ships with a 100-240 AC to PoE adapter: A 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**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Case Dimensions</td>
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<tr>
<td>Weight</td>
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