



IOT Product Line

# LoRaWAN™ Industrial Rugged Gateway LIRG-2



ProEsys presents the latest generation of innovative LoRaWAN™ Gateway for Industrial IOT applications using dual-band technology. Its rugged design and construction makes it ideal for installation in harsh environments typically encountered in industrial applications.

It is ideally suited for outdoor and waterproof installation (IP67) in high-

performance and demanding markets: Energy, Smart Grid, Transportation, Telecom and Broadcasting. It is fully interoperable with LoRaWAN™ compliant 868MHz/2.4GHz devices and with ProEsys or 3rd party network servers.

This new gateway allows hopping network and meshing, allowing easy interconnection and data traffic among isolated gateways. This feature also allows faster FOTA upgrades.



LIRG-2 features integrated dual-band antenna, GPS antenna, PoE power supply, LNA, digital filtering, 0.5W (868MHz) PA, allowing superior RF sensitivity and improved range coverage.

PRELIMINARY INFORMATION

# FEATURES

Industrial Grade

Can be installed in any part of network, mostly in industrial environment.

Robust design

IP67 Die cast Metal enclosure covered with UV resistant paint to offer excellent weather resistance and RF shielding.

Galvanic Insulation / Surge protection

All ports offer additional protection as required by the most demanding standards

Easy Installation

Requires only PoE connection, thanks to integrated antennas

# APPLICATIONS

- Critical Infrastructure monitoring
- TELCO / Broadcasting
- Smart Grid
- Smart Agriculture
- Transportation
- Asset Tracking
- Oil & Gas monitoring

# SPECIFICATIONS

Main Control Unit	Sitara™ Cortex®-A8 1GHz (2000 MIPS)
Power supply	Ethernet standard 802.3af POE Galvanically Insulated up to 5KV rms Integrated supercapacitor backup for short-term outages Optional Photovoltaic panel for remote installations
LoRaWAN™ RF Module	Semtech® chip based
Operational RF Interface	863—870 MHz / 2.4—2.483 GHz
N° of simultaneous LoRaWAN RF channels	8 ch., 125 KHz and 500 KHz channel BW @ 868 MHz 1 dedicated channel for inter-gateway link @ 868 MHz 1 frequency hopping channel for mesh network @ 2.4 GHz
Supported protocol	LoRaWAN™ 1.0
RF protection	Surge arrester and galvanic insulation
Max TX Power	+27 dBm ERP (0.5W) @ 868MHz, +13dBm @ 2.4GHz
RX Sensitivity	-140 dBm with additional bandpass filter @ 868MHz -132 dBm with additional bandpass filter @ 2.4GHz
Average power consumption	5W
Antenna connection	Integrated dual-band 868MHz (4dBi) / 2.4 GHz (6dBi)
GPS	High accuracy timing receiver, with integrated antenna
RF antenna	N-Type connector for external RF antenna on request
Data connections	Ethernet RJ-45 / WiFi (Optional) / Cellular (Optional)
OS	Debian Linux GNU
Environmental resistance/Operating temperature	IP67 / -40 to + 70 °C
Surge protections	2.8 KV rms 1 min., 6 KV pk 1.2/50µs
Dimensions/Weight	220 x 300 x 100mm / 3 Kg

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Specifications subject to change without notice



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