



IOT Product Line
LoRaWAN™ Industrial Rugged Gateway
LIRG-1



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

It is ideally suited for high-performance and demanding markets: Energy, Smart Grid, Transportation, Telecom and Broadcasting.

It is fully interoperable with LoRaWAN™ compliant devices and with ProEsys or 3rd party network servers.

It is suitable for outdoor installation with fully weatherproof enclosure. device with IP66 protection, extended temperature range, RF filtering, lightning protection, antenna and power supply galvanic insulation.

An integrated Low-Noise Amplifier and digital filtering give superior RF sensitivity for improved range coverage. The integrated RF power amplifier capable of up to 0.5Watt can reach the outermost devices.

FEATURES

Industrial Grade

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

Robust design

IP66 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

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
LoRaWAN™ RF Module	Semtech® chip based
Operational RF Interface	863 -- 870 MHz
N° of simultaneous RF channels	8 ch., 125 KHz and 500 KHz channel BW
Supported protocol	LoRaWAN™ 1.0
RF protection	Surge arrester and galvanic insulation
Max TX Power	+27 dBm ERP (0.5W)
RX Sensitivity	-140 dBm with additional bandpass filter
Average power consumption	5W
Antenna connection	N-type, Output impedance 50 Ohm
GPS	High accuracy timing receiver
GPS antenna connection	N-type, Powered and Galvanic Insulated, Input impedance 50 Ohm
RF antenna	Vertical Collinear 5 dBi omnidirectional (Standard) Yagi directional antenna (on request)
GPS Antenna	High Gain filtered with integrated LNA antenna
Data connections	Ethernet RJ-45 / WiFi (Optional) / Cellular (Optional)
OS	Debian Linux GNU
Environmental resistance/Operating temperature	IP66 / -30 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

Specifications subject to change without notice



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