SENSE IT
TECHNOLOGIES
MONITORING AND CONTROL SOLUTIONS



LoRaWAN Outdoor Gateway - 868 Mhz (Solar with External Antenna and built-in battery)

SKU: SI-LRW-GW-868-007

Deploy LoRaWAN® networks anywhere with a self-powered solar gateway designed for remote and off-grid installations. Featuring integrated solar charging, rechargeable batteries, 4G LTE connectivity and GPS, it provides reliable long-range communication for thousands of IoT sensors without requiring mains power.

OVERVIEW

This ultra-low-power solar LoRaWAN® gateway is designed for remote locations where mains power and wired communications are unavailable. Combining an integrated LoRaWAN® concentrator, rechargeable battery system, solar charging, 4G LTE connectivity and GPS, it provides a completely self-contained communication platform for industrial IoT deployments. It is ideal for agriculture, mining, oil and gas, environmental monitoring, water management and other remote infrastructure applications.

The gateway supports over 2,000 LoRaWAN® devices through its 8-channel concentrator, delivering long-range wireless communication of up to 15 km in open environments, depending on terrain, antenna selection and installation height. Intelligent power management continuously optimises battery charging and energy consumption, allowing the gateway to operate for up to four days without sunlight under typical operating conditions.

Built into a rugged IP67-rated aluminium enclosure, the gateway withstands harsh outdoor environments while supporting wall or pole mounting for rapid deployment. Integrated GPS simplifies installation and remote asset management, while cellular backhaul removes the need for fixed internet infrastructure. Wi-Fi is provided for local configuration, making installation and maintenance straightforward even in isolated locations.

Integrated with the Sense It platform, the gateway provides secure connectivity for live dashboards, historical reporting, automated alerts and remote device management, making it an ideal solution for remote IoT deployments where reliability and independence from mains power are essential.

KEY FEATURES

- Solar-powered LoRaWAN® gateway
- Built-in rechargeable battery backup
- 4G LTE cellular backhaul
- 8-channel LoRaWAN® concentrator
- Supports over 2,000 LoRaWAN® devices
- Integrated GPS receiver
- Wi-Fi configuration
- Intelligent battery and power management
- IP67-rated aluminium enclosure
- Long-range wireless communication
- Wall and pole mounting
- Designed for off-grid deployments

- Compatible with the Sense It monitoring platform

TECHNICAL SPECIFICATIONS

General

- Gateway type: Solar-powered outdoor LoRaWAN® gateway
- Wireless technology: LoRaWAN®
- 8-channel LoRaWAN® concentrator
- Supports approximately 2,000 LoRaWAN® devices
- Communication range: Up to 15 km (line-of-sight)
- Integrated GPS receiver
- Built-in watchdog and hardware timer

LoRaWAN

- Frequency bands: EU868, US915, AU915, AS923, KR920, IN865, RU864, CN470
- Maximum transmit power: 27 dBm
- Receiver sensitivity: Up to -140 dBm
- Supports LoRaWAN Class A, B and C devices
- Compatible with major LoRaWAN network servers

Connectivity

- 4G LTE cellular backhaul
- Nano SIM card slot
- Wi-Fi (configuration only)
- HTTP, HTTPS and MQTT protocols
- OpenVPN client support

Power

- 30 W monocrystalline solar panel
- Built-in 25 Ah rechargeable battery
- Supports operation for up to 4 days without sunlight
- 12–24 VDC auxiliary power input
- USB Type-C service and console port
- Typical power consumption: 0.8 W

Environmental

- Operating temperature: -30°C to 70°C
- Charging temperature: -20°C to 50°C
- Storage temperature: -40°C to 85°C
- Operating humidity: 0–95% RH (non-condensing)
- Ingress protection: IP67

Physical

- Housing material: Die-cast aluminium
- Dimensions: 250 × 157.5 × 46 mm
- Weight: 1.76 kg (with batteries)

Installation

- Wall mounting
- Pole mounting
- Designed for remote and off-grid installations

Applications

- Agriculture
- Mining
- Oil and gas
- Water management
- Environmental monitoring
- Forestry
- Utilities
- Remote infrastructure
- Smart agriculture
- Industrial IoT

GALLERY



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