

ResIOT® X4S-A is an **all-in-one Solar LoRaWAN® Gateway**, completely autonomous, designed for rapid and outdoor deployments. It integrates mounting brackets for pole or wall installation and a 50W solar panel, ensuring complete energy independence and fast deployment in every environment.

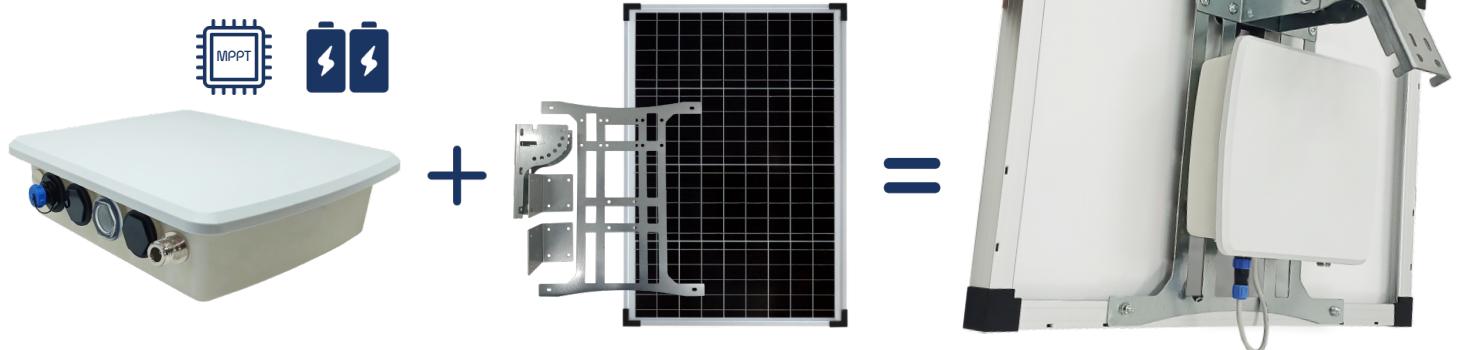
Thanks to its IP67 enclosure, waterproof connectors and solar-powered design, ResIOT® X4S-A is ideal for remote and off-grid applications. It delivers reliable, low-power, wide-area connectivity for M2M and IoT projects, making it perfectly suited for Smart Grid, Energy, TLC and Broadcasting scenarios.

Completely autonomous!

- All-In-One product!** Nothing else needed for your LoRaWAN network deployment
- Embedded high efficiency **LiFePO4 batteries** for up to **4 days without sunlight!**
- Embedded **MPPT solar charger** (Maximum power point tracking) for maximum charging
- Integrated **50W solar panel**. Can charge 1 day of operation in just 2 hours of sunlight!
- Ultra-fast** and easy installation designed for **1 single-person deployment**
- Adjustable mounting bracket** (0°- 90°) with locking steps for optimal solar exposure
- Full Made in Italy** by ResIOT®!



Why choose ResIOT® X4S-A?



ResIOT LoRaWAN Gateway

Embedded solar charger and batteries

Solar panel with brackets

For both pole and wall mount

All-In-one solution

For fast LoRaWAN network deployment!

Key Strengths

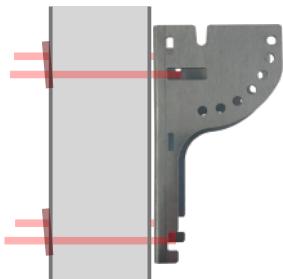
 50W integrated Solar Panel	 Embedded LiFePO4 batteries	 MPPT Embedded charge controller	 Waterproof case	 Modem 2G 3G/4G LTE	 ChipSIM MFF2	 MicroSIM 3FF Slot	 -20 to +70 °C 10%-95% H
 All-In-One premium IoT solution	 Ultra fast one person deployment	 Cortex-A7 629MHz	 RAM 512Mb	 4Gb eMMC	 Semtech SX1303	 Data Retention	 LoRa Net Srv & IoT Platform

Ultra fast single-person deployment



The ResIOT[®] X4S-A has been designed for extremely fast and straightforward installation, allowing single-person deployment without specialized tools and **without the need to hold any weight during mounting or adjustment operations**. The installation process consists of three simple steps:

1. Mount the P-shaped bracket: secure the custom-designed P-shaped mounting bracket to a pole or wall. The bracket is fully designed, engineered, and manufactured in-house, ensuring robustness and perfect compatibility. It supports both pole mounting (for poles of various diameters) and wall mounting through dedicated holes for wall anchors.



2. Attach the gateway and solar panel assembly: hang the gateway and solar panel body onto the slots located at the top of the bracket. The assembly pivots on a through-bolt inserted into the two fixing flanges, providing a stable and secure mechanical support while simplifying handling during installation.



3. Adjust the solar panel tilt angle: set the optimal solar panel inclination according to the geographical location. The tilt angle is adjustable from 0° to 90°, with pre-defined 15° locking steps to ensure precise, reliable, and repeatable positioning.



Technical features

ResIOT[®] Software	Four modes of use: 1) LoRaWAN [®] Gateway with ResIOT [®] Merlin Base Station Client (for business or carrier-grade networks with full remote control and secure connection with ResIOT [®] GW Remote Access Server) 2) LoRaWAN [®] Gateway with Semtech [™] Packet Forwarder / Basic Station 3) Industrial IoT Box. On-premises ResIOT [®] LoRaWAN [®] Net Srv and ResIOT [®] IoT Platform all in a box with free unlimited license 4) Hybrid Mode 1+3 LoRaWAN [®] Gateway with ResIOT [®] Merlin Base Station Client & Industrial IoT Box SSH, OpenVPN available
Data Retention	In case of connection lost between gateway and network server the arrived radio messages are not lost, they are saved in memory and forwarded to the network server when the connection is restored
CPU & Memory	ARM Cortex-A7 528/629MHz, RAM DDR3 512MB, 4GB eMMC Flash, Cache 32 KB-I, 32 KB-D, 128 KB L2
Power Supply	Embedded 50W solar panel. Embedded MPPT solar charge controller for maximum efficiency. Full battery charged in less than 1 sunny day
Batteries	Embedded LiFePO4 high-capacity batteries. Up to 4 working days without sunlight
Modem & SIM	Modem Quectel EG91x 4G, LTE, 3G, 2G, EMEA EDGE GSM/GPRS Regulatory: GCF/ CE/ KC / NCC / RCM / NBTC / FAC / ICASA Chip SIM MFF2 included and ready to activate (worldwide connectivity! Visit sim.resiot.io). MicroSIM 3FF slot available. You can use your own SIM Card (ChipSIM will be automatically deactivated)
Radio Lora	Chipset Semtech SX1303 + 2x SX1250 RF end-front, 8 Multi-SF LoRa Channels, Listen before talk, Fine Timestamp capability for Time Difference of Arrival (TDOA & network-based geolocation), Able to receive up to 8 LoRa [®] modulated packets simultaneously. Protocol 1.02, 1.03, 1.1. Class A,C Max TX Power +27 dBm, Receiving Sensitivity -141dBm
Connectors	LoRa 1xNTPYE Internal LTE antenna Ethernet 1 RJ-45 10/100 (PoE)
Sensors & OS	Embedded Accelerometer, Shock, Inclination, Temperature & Humidity Sensors. Linux 4.1.15 (Yocto)
Working Param.	-20°C~70°C. Operating Humidity 10%~90%, non-condensing
Case & Size	IP67 Metal Case, 67 x 46 x 11cm, about 7.9 Kg all included (gateway, solar panel, batteries, brackets, etc.)