ResIOT® X7

Outdoor IP67 Base Station LoRaWAN® Gateway

ResIOT®
let your things sail on net

ResIOT® X7 is the latest **LoRaWAN® Gateway/Base station Carrier-grade model**. It is specifically designed for outdoor application thanks to its **modern-designed IP67 aluminium case** and water-proof components & connectors.

This gateway works in a range of industrial temperatures, from -40 °C to + 85 °C. That's makes our device suitable for every environmental conditions and this is the main reason of its wide market success. ResIOT® X7 provides durable, low-power, widearea connectivity in support of M2M and IoT applications.

It is perfect for demanding markets like **Smart Grid, Energy, Telecom and Broadcasting**.

Cortex-A7 629MHz	RAM 512Mb	4Gb eMMC	PoE 42-60V or 12-24V	Super capacitors	RS-485	ChipSIM MFF2	MicroSIM 3FF Slot	Waterproof case	-40 to +85 °C 10%-95% H	
Modem 2G 3G/4G LTE	GPS GNSS	Semtech SX1303	LoRaWAN® class support	Wifi	Linux Yocto 4.1.15	Embedded sensors	Data Retention	LoRa Net Srv & IoT Platform		

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 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	PoE-Power over ethernet Input 42~60 VDC IEEE 802.3at, or 12-24 VDC (for Direct power supply or via Solar Panels). Consumption from 5W (ResIOT-X7-ETH-1-868-00) to 23W (ResIOT-X7-LTE-4-868-G0). Short power outage supported with Supercapacitors, max time 4 minutes
External Conn.	Optional RS485,RS232 and CAN-bus
Modem & SIM	Only for LTE version, Modem Quectel EG91x 4G, LTE, 3G, 2G, EMEA EDGE GSM/GPRS Regulatory: GCF/ CE/ FCC/ PTCRB/ IC/ Anatel/ IFETEL/ SRRC/ NAL/ CCC/ KC/ NCC/ JATE/ TELEC/ RCM/ 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 & GPS	Up to 4 cards with Chipset Semtech SX1303 + 2x SX1257 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,B,C (B only for GPS version). Max TX Power +27 dBm, Receiving Sensitivity -142.5dBm Only for GPS version, module ublox MAX-M8Q (concurrent reception of up to 3 GNSS)
Connectors	Ethernet 1 RJ-45 10/100 (PoE) LoRa 1xNTYPE (Optional 2xNTYPE, 3xNTYPE or 4xNTYPE), Optional Gps/GNSS 1xNTYPE, Optional 1xLTE Antenna IP67 6 Pin connectors for 12-24VDC power supply and RS485, Optional RS232/CAN-bus
Wifi	Only for Wifi version, 802.11b/g/n
Sensors & OS	Embedded Accelerometer, Shock, Inclination, Temperature & Humidity Sensors. Linux 4.1.15 (Yocto)
Working Param.	-40°C~85°C. Operating Humidity 10%~90%, non-condensing
Case & Size	IP67 Aluminum Case, 258mm x 228mm x 90mm, about 2.65 Kg

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Ordering Information

ResIOT® X7 is configured and delivered with pre-installed Software
- ResIOT® Merlin IoT Box/Base Station Client
- ResIOT® LoraWAN® Network Server
- IoT Platform with free license unlimited devices
- SSH Access & custom configuration available for other network servers

This gateway supports complete remote management, all the configuration settings can be done centrally by the ResIOT® Infrastructure Server.

Available Models

Model	Freq.	Description	Radio Ch.	GPS GLONASS	Modem 2G/3G/ 4G/LTE	LoRa Antenna	LoRaWAN® Classes
ResIOT-X7-LTE-1-868-00	863..870 MHz	ResIOT® X7 LoRaWAN® Carrier-Grade Gateway 8 channels 868Mhz Ethernet, LTE/4G/3G/2G Modem , PoE .at, RS485, Chip SIM, slot Micro SIM 3FF Included: 1xPole and Wall mount bracket 1xLoRa Antenna omni 868MhZ IP67 465x27mm 3.8 dBi 1xLTE Antenna IP67 PoE Injector ResIOT-POE-56SP-DIN included	8	N	YES Antenna 1x IP67	1x IP67 3.8 dBi Length 465mm	A, C
ResIOT-X7-LTE-1-868-G0	863..870 MHz	ResIOT® X7 LoRaWAN® Carrier-Grade Gateway 8 channels 868Mhz Ethernet, LTE/4G/3G/2G Modem, PoE .at, RS485, GNSS, Chip SIM, slot Micro SIM 3FF Included: 1xPole and Wall mount bracket 1xLoRa Antenna omni 868MhZ IP67 465x27mm 3.8 dBi 1xLTE Antenna IP67, 1xGPS/GLONASS Antenna IP67 PoE Injector ResIOT-POE-56SP-DIN included	8	YES Antenna 1x IP67	YES Antenna 1x IP67	1x IP67 3.8 dBi Length 465mm	A, B, C
ResIOT-X7-LTE-2-868-G0	863..870 MHz	ResIOT® X7 LoRaWAN® Carrier-Grade Gateway 16 channels 868Mhz Ethernet, LTE/4G/3G/2G Modem, PoE .at, RS485, GNSS, Chip SIM, slot Micro SIM 3FF Included: 1xPole and Wall mount bracket 2xLoRa Antenna omni 868MhZ IP67 465x27mm 3.8 dBi 1xLTE Antenna IP67, 1xGPS/GLONASS Antenna IP67 PoE Injector ResIOT-POE-56SP-DIN included	16	YES Antenna 1x IP67	YES Antenna 1x IP67	2x IP67 3.8 dBi Length 465mm	A, B, C
ResIOT-X7-LTE-3-868-G0	863..870 MHz	ResIOT® X7 LoRaWAN® Carrier-Grade Gateway 24 channels 868Mhz Ethernet, LTE/4G/3G/2G Modem, PoE .at, RS485, GNSS, Chip SIM, slot Micro SIM 3FF Included: 1xPole and Wall mount bracket 2xLoRa Antenna omni 868MhZ IP67 465x27mm 3.8 dBi 1xLTE Antenna IP67, 1xGPS/GLONASS Antenna IP67 PoE Injector ResIOT-POE-56SP-DIN included	24	YES Antenna 1x IP67	YES Antenna 1x IP67	2x IP67 3.8 dBi Length 465mm 1x IP67 extra connector	A, B, C
ResIOT-X7-LTE-4-868-G0	863..870 MHz	ResIOT® X7 LoRaWAN® Carrier-Grade Gateway 32 channels 868Mhz Ethernet, LTE/4G/3G/2G Modem, PoE .at, RS485, GNSS, Chip SIM, slot Micro SIM 3FF Included: 1xPole and Wall mount bracket 2xLoRa Antenna omni 868MhZ IP67 465x27mm 3.8 dBi 1xLTE Antenna IP67, 1xGPS/GLONASS Antenna IP67 PoE Injector ResIOT-POE-56SP-DIN included	32	YES Antenna 1x IP67	YES Antenna 1x IP67	2x IP67 3.8 dBi Length 465mm 2x IP67 extra connectors	A, B, C
ResIOT-POE-56SP-DIN		56V Gigabit PoE Injector with 56VDC 35W 802.3at compliant. Output and Surge Protection. DIN Kit included					

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