



ResIoT-X4 LoRaWAN® Base station

ResIoT® presents the latest generation of LoRaWAN® Gateway Gateway/Base station Business-grade model.

It is ideal for demanding markets: Smart Grid, Energy, Telecom and Broadcasting. This flexible solution provides durable, low-power, widearea connectivity in support of M2M and IoT applications. It is suitable for outdoor installation. The ResIoT-X4 gateway supports a range of industrial temperatures: -40° / $+85^{\circ}$





ResIOT-X4 Specifications

Processor & Memory	ARM Cortex-A7 Processor 528/629MHz RAM DDR3 512MB, 4GB eMMC Flash, Cache 32 KB-I, 32 KB-D, 128 KB L2
Radio LoRa	Chipset Semtech SX1301** + 2*SX1257 RF end-front, 8 Multi-SF LoRa Channels, Listen before talk Able to receive up to 8 LoRa® modulated packets simultaneously Protocol 1.02, 1.03, 1.1. Class A,B,C (B only with Gps/Gnss version) Max TX Power +27 dBm, Receiving Sensitivity -142.5dBm Available frequencies: 868 MHz and 915 MHz ISM bands **From the last quarter of 2021 Semtech SX1303, new generation of LoRa® baseband processor with Fine Timestamp capability that enables Time Difference of Arrival (TDOA) network-based geolocation
Power Supply/Consumption	PoE-Power over ethernet Input 42~60 VDC IEEE 802.3at, or direct supply 12-24 VDC (for Direct power supply or via Solar Panels) (optional) Max 5W
Working Temp.	-40°C~85°C. Operating Humidity 10%~90%, non-condensing





Gps/GNSS	GNSS: BeiDou, Galileo, GLONASS, GPS / QZSS Number of concurrent GNSS: 3
Modem	EMEA EDGE GSM/GPRS, 3G, 4G Regulatory: GCF/ CE/ KC / NCC/ RCM / NBTC / FAC / ICASA
WiFi	Optional 802.11bgn (optional)
Connectors	Ethernet 1 RJ-45 10/100 (PoE) LoRa 1xNTYPE 1xLTE Antennas IP67 Optional Gps/GNSS 1xNTYPE Optional 1xWiFi Antenna IP67 Optional 6 Pin connectors for optional 12-24VDC power supply and RS485,RS232/CAN-bus
Connected External Devices	Optional RS485,RS232 and CAN-bus
OS	Linux 4.1.15 (Yocto)
Software	SSH, OpenVPN 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® Network Server 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
Size / Dimension	258mm x 228mm x Height 90mm
Weight	2.65 Kg
Material, Chassis Type	IP67 Aluminum





ResIoT-X4 BASE STATION ORDERING INFORMATION

Model	Frequency Support	Description	Radio Channels	GPS GLONASS	GPS/GLO NASS Antenna	Mode m 2G/3G /LTE	LoRa Antenna	2G/3G/L TE Antenna	LoRaWAN® Class Device support	Pre-installed Software
ResIoT-X4-ETH-1-868-00	863..870 MHz	ResIoT® X4 Base station 8 channels 868Mhz, PoE, Ethernet Included: 1xPole and Wall mount bracket, 1xLoRa Antenna omni 868Mhz IP67 465x27mm 3.8 dBi	8	N	N	N	1 x IP67 3 dBi Length 465mm	N	A, C	ResIoT® Merlin IoT Box/Base Station Client, ResIoT® LoraWAN® Network Server + IoT Platform with free license unlimited devices, SSH Access, Custom configurable for other network servers
ResIoT-X4-ETH-1-868-G0	863..870 MHz	ResIoT® X4 Base station 8 channels 868Mhz, PoE, Ethernet, GNSS Included: 1xPole and Wall mount bracket, 1xLoRa Antenna omni 868Mhz IP67 465x27mm 3.8 dBi, 1xGPS/GLONASS Antenna IP67	8	YES	1 x IP67	N	1 x IP67 3 dBi Length 465mm	N	A, B, C	ResIoT® Merlin IoT Box/Base Station Client, ResIoT® LoraWAN® Network Server + IoT Platform with free license unlimited devices, SSH Access, Custom configurable for other network servers

ResIoT-X4 Datasheet v.1.8 - 29-09-2021



ResIoT®
Ripa di Porta Ticinese, 39 - 20143 - Milano
Web site: www.resiot.io



ResIoT-X4-LTE-1-868-00	863..870 MHz	ResIoT® X4 Base station 8 channels 868Mhz, PoE, Ethernet, LTE/4G/3G/2G Modem Included: 1xPole and Wall mount bracket, 1xLoRa Antenna omni 868Mhz IP67 465x27mm 3.8 dBi, 1xLTE Antenna IP67	8	N	N	YES	1 x IP67 3 dBi Length 465mm	1 x IP67	A, C	ResIoT® Merlin IoT Box/Base Station Client, ResIoT® LoraWAN® Network Server + IoT Platform with free license unlimited devices, SSH Access, Custom configurable for other network servers
ResIoT-X4-LTE-1-868-G0	863..870 MHz	ResIoT® X4 Base station 8 channels 868Mhz, PoE, Ethernet, LTE/4G/3G/2G Modem, GNSS Included: 1xPole and Wall mount bracket, 1xLoRa Antenna omni 868Mhz IP67 465x27mm 3.8 dBi, 1xLTE Antenna IP67, 1xGPS/GLONASS Antenna IP67	8	YES	1 x IP67	YES	1 x IP67 3 dBi Length 465mm	1 x IP67	A, B, C	ResIoT® Merlin IoT Box/Base Station Client, ResIoT® LoraWAN® Network Server + IoT Platform with free license unlimited devices, SSH Access, Custom configurable for other network servers
ResIoT-X4-ETH-1-868-0W	863..870 MHz	ResIoT® X4 Base station 8 channels 868Mhz, PoE, Ethernet, Wifi Included: 1xPole and Wall mount bracket, 1xLoRa Antenna omni 868Mhz IP67 465x27mm 3.8 dBi, 1xWifi Antenna IP67	8	N	N	N	1 x IP67 3 dBi Length 465mm	N	A, C	ResIoT® Merlin IoT Box/Base Station Client, ResIoT® LoraWAN® Network Server + IoT Platform with free license unlimited devices, SSH Access, Custom configurable for other network servers

