



ResIoT-X7 Carrier-grade LoRaWAN™ Base station

ResIoT presents the latest generation of LoRaWAN™ Carrier-grade Gateway.

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-X7 gateway supports a range of industrial temperatures: -40 ° / + 85 °



version image ResIoT-X7-ETH-1-868-G0



ResIoT-X7 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	Up to 4 x card with: Chipset Semtech SX1301 + 2*SX1257 RF end-front, 8 Multi-SF LoRa Channels, Listen before talk Able to receive up to 32 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
Power Supply/Consumption	PoE-Power over ethernet Input 42~60 VDC IEEE 802.3af, Max 5W for models ResIoT-X7-ETH-1-868-00,ResIoT-X7-ETH-1-868-G0 PoE-Power over ethernet Input 42~60 VDC IEEE 802.3af, Max 8W for models ResIoT-X7-LTE-1-868-00,ResIoT-X7-LTE-1-868-G0 PoE-Power over ethernet Input 42~60 VDC IEEE 802.3af, Max 13W for models ResIoT-X7-ETH-2-868-G0,ResIoT-X7-LTE-2-868-G0 PoE-Power over ethernet Input 42~60 VDC IEEE 802.3at, Max 18W for models ResIoT-X7-ETH-3-868-G0,ResIoT-X7-LTE-3-868-G0 PoE-Power over ethernet Input 42~60 VDC IEEE 802.3at, Max 23W for models ResIoT-X7-ETH-4-868-G0,ResIoT-X7-LTE-4-868-G0

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	or direct supply 12 VDC (for Direct power supply or via Solar Panels)
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	GLOBAL EDGE GSM/GPRS, 3G, 4G Regulatory: GCF/ CE/ FCC/ PTCRB/ IC/ Anatel/ IFETEL/ SRRC/ NAL/ CCC/ KC/ NCC/ JATE/ TELEC/ RCM/ ICASA
Connectors	Ethernet 1 RJ-45 10/100 (PoE) LoRa 1xNTYPE (Optional 2xNTYPE, 3xNTYPE or 4xNTYPE) Optional Gps/GNSS 1xNTYPE Optional 2xLTE Antennas IP67 6 Pin connectors for optional 12VDC power supply and RS485 optional RS232/CAN-bus
Connected External Devices	Modbus via RS485, fully programmable Optional RS232 and CAN-bus
OS	Linux 4.1.15 (Yocto)
Software	SSH, OpenVPN

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	Three modes of use: 1) LoRaWAN Gateway with ResIoT Base Station Client (for simple 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 license 5 nodes upgradable to 96
Size / Dimension	258mm x 228mm x Height 90mm
Weight	2.65 Kg
Material, Chassis Type	IP67 Aluminum





ResIoT-X7 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-X7-ETH-1-868-00	863..870 MHz	ResIoT X7 Carrier-grade Base station 8 channels 868Mhz, Ethernet, PoE Included: 1xPole and Wall mount bracket, 1xLoRa Antenna omni 868MhZ IP67 465x27mm 3.8 dBi	8	N	N	N	1 x IP67 3.8 dBi Length 465mm	N	A, C	ResIoT Merlin IoT Box/Base Station Client, SSH Access, Custom configurable for other network servers
ResIoT-X7-ETH-1-868-G0	863..870 MHz	ResIoT X7 Carrier-grade Base station 8 channels 868Mhz, GNSS, Ethernet, PoE 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 3.8 dBi Length 465mm	N	A, B, C	ResIoT Merlin IoT Box/Base Station Client, SSH Access, Custom configurable for other network servers

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ResIoT-X7-LTE-1-868-00	863..870 MHz	ResIoT X7 Carrier-grade Base station 8 channels 868Mhz, Ethernet,LTE/4G/3G/2G Modem , PoE Included: 1xPole and Wall mount bracket, 1xLoRa Antenna omni 868MhZ IP67 465x27mm 3.8 dBi, 2xLTE Antenna IP67	8	N	N	YES	1 x IP67 3.8 dBi Length 465mm	2 x IP67	A, C	ResIoT Merlin IoT Box/Base Station Client, SSH Access, Custom configurable for other network servers
ResIoT-X7-LTE-1-868-G0	863..870 MHz	ResIoT X7 Carrier-grade Base station 8 channels 868Mhz, GNSS, Ethernet,LTE/4G/3G/2G Modem , PoE Included: 1xPole and Wall mount bracket, 1xLoRa Antenna omni 868MhZ IP67 465x27mm 3.8 dBi, 1xGPS/GLONASS Antenna IP67, 2xLTE Antenna IP67	8	YES	1 x IP67	YES	1 x IP67 3.8 dBi Length 465mm	2 x IP67	A, B, C	ResIoT Merlin IoT Box/Base Station Client, SSH Access, Custom configurable for other network servers
ResIoT-X7-ETH-2-868-G0	863..870 MHz	ResIoT X7 Carrier-grade Base station 16 channels 868Mhz(2x8), GNSS, Ethernet, PoE,Full duplex support. Included: 1xPole and Wall mount bracket, 2xLoRa Antenna omni 868MhZ IP67 465x27mm 3.8 dBi, 1xGPS/GLONASS Antenna IP67.	16	YES	1 x IP67	N	2 x IP67 3.8 dBi Length 465mm	N	A, B, C	ResIoT Merlin IoT Box/Base Station Client, SSH Access, Custom configurable for other network servers
ResIoT-X7-LTE-2-868-G0	863..870 MHz	ResIoT X7 Carrier-grade Base station 16 channels 868Mhz(2x8), GNSS, Ethernet,LTE/4G/3G/2G Modem , PoE,Full duplex support. Included: 1xPole and Wall mount bracket, 2xLoRa Antenna omni 868MhZ IP67 465x27mm 3.8 dBi, 1xGPS/GLONASS Antenna IP67, 2xLTE Antenna IP67	16	YES	1 x IP67	YES	2 x IP67 3.8 dBi Length 465mm	2 x IP67	A, B, C	ResIoT Merlin IoT Box/Base Station Client, SSH Access, Custom configurable for other network servers





ResIoT-X7-ETH-3-868-G0	863..870 MHz	ResIoT X7 Carrier-grade Base station 24 channels 868Mhz(3x8), GNSS, Ethernet, PoE,Full duplex support. Included: 1xPole and Wall mount bracket, 2xLoRa Antenna omni 868MhZ IP67 465x27mm 3.8 dBi, 1xGPS/GLONASS Antenna IP67	24	YES	1 x IP67	N	3 x IP67 3.8 dBi Length 465mm	N	A, B, C	ResIoT Merlin IoT Box/Base Station Client, SSH Access, Custom configurable for other network servers
ResIoT-X7-LTE-3-868-G0	863..870 MHz	ResIoT X7 Carrier-grade Base station 24 channels 868Mhz(3x8), GNSS, Ethernet,LTE/4G/3G/2G Modem , PoE,Full duplex support. Included: 1xPole and Wall mount bracket, 2xLoRa Antenna omni 868MhZ IP67 465x27mm 3.8 dBi, 1xGPS/GLONASS Antenna IP67, 2xLTE Antenna IP67	24	YES	1 x IP67	YES	3 x IP67 3.8 dBi Length 465mm	2 x IP67	A, B, C	ResIoT Merlin IoT Box/Base Station Client, SSH Access, Custom configurable for other network servers
ResIoT-X7-ETH-4-868-00	863..870 MHz	ResIoT X7 LoRaWAN Gateway/Base station Carrier-grade 32 channels 868Mhz(4x8), Ethernet, PoE,Full duplex support. Included: 1xPole and Wall mount bracket, 2xLoRa Antenna omni 868MhZ IP67 465x27mm 3.8 dBi	32	N	N	N	4 x IP67 3.8 dBi Length 465mm	N	A, B, C	ResIoT Merlin IoT Box/Base Station Client, SSH Access, Custom configurable for other network servers
ResIoT-X7-LTE-4-868-00	863..870 MHz	ResIoT X7 LoRaWAN Gateway/Base station Carrier-grade 32 channels 868Mhz(4x8), Ethernet,LTE/4G/3G/2G Modem, PoE, Full duplex support. Included: 1xPole and Wall mount bracket, 2xLoRa Antenna omni 868MhZ IP67 465x27mm 3.8 dBi, 2xLTE Antenna IP67	23	N	N	YES	4 x IP67 3.8 dBi Length 465mm	2 x IP67	A, B, C	ResIoT Merlin IoT Box/Base Station Client, SSH Access, Custom configurable for other network servers

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ResIoT-X7-ETH-1-915-00	902.928 MHz	ResIoT X7 Carrier-grade Base station 8 channels 915Mhz, Ethernet, PoE Included: 1xPole and Wall mount bracket, 1xLoRa Antenna omni 915MhZ IP67 465x27mm 3.8 dBi	8	N	N	N	1 x IP67 3.8 dBi Length 465mm	N	A, C	ResIoT Merlin IoT Box/Base Station Client, SSH Access, Custom configurable for other network servers
ResIoT-X7-ETH-1-915-G0	902.928 MHz	ResIoT X7 Carrier-grade Base station 8 channels 915Mhz, GNSS, Ethernet, PoE Included: 1xPole and Wall mount bracket, 1xLoRa Antenna omni 915MhZ IP67 465x27mm 3.8 dBi, 1xGPS/GLONASS Antenna IP67	8	YES	1 x IP67	N	1 x IP67 3.8 dBi Length 465mm	N	A, B, C	ResIoT Merlin IoT Box/Base Station Client, SSH Access, Custom configurable for other network servers
ResIoT-X7-LTE-1-915-00	902.928 MHz	ResIoT X7 Carrier-grade Base station 8 channels 915Mhz, Ethernet, LTE/4G/3G/2G Modem , PoE Included: 1xPole and Wall mount bracket, 1xLoRa Antenna omni 915MhZ IP67 465x27mm 3.8 dBi, 2xLTE Antenna IP67	8	N	N	YES	1 x IP67 3.8 dBi Length 465mm	2 x IP67	A, C	ResIoT Merlin IoT Box/Base Station Client, SSH Access, Custom configurable for other network servers
ResIoT-X7-LTE-1-915-G0	902.928 MHz	ResIoT X7 Carrier-grade Base station 8 channels 915Mhz, GNSS, Ethernet, LTE/4G/3G/2G Modem , PoE Included: 1xPole and Wall mount bracket, 1xLoRa Antenna omni 915MhZ IP67 465x27mm 3.8 dBi, 1xGPS/GLONASS Antenna IP67, 2xLTE Antenna IP67	8	YES	1 x IP67	YES	1 x IP67 3.8 dBi Length 465mm	2 x IP67	A, B, C	ResIoT Merlin IoT Box/Base Station Client, SSH Access, Custom configurable for other network servers





ResIoT-X7-ETH-2-915-G0	902.928 MHz	ResIoT X7 Carrier-grade Base station 16 channels 915Mhz(2x8), GNSS, Ethernet, PoE,Full duplex support. Included: 1xPole and Wall mount bracket, 2xLoRa Antenna omni 915MhZ IP67 465x27mm 3.8 dBi, 1xGPS/GLONASS Antenna IP67.	16	YES	1 x IP67	N	2 x IP67 3.8 dBi Length 465mm	N	A, B, C	ResIoT Merlin IoT Box/Base Station Client, SSH Access, Custom configurable for other network servers
ResIoT-X7-LTE-2-915-G0	902.928 MHz	ResIoT X7 Carrier-grade Base station 16 channels 915Mhz(2x8), GNSS, Ethernet,LTE/4G/3G/2G Modem , PoE,Full duplex support. Included: 1xPole and Wall mount bracket, 2xLoRa Antenna omni 915MhZ IP67 465x27mm 3.8 dBi, 1xGPS/GLONASS Antenna IP67, 2xLTE Antenna IP67	16	YES	1 x IP67	YES	2 x IP67 3.8 dBi Length 465mm	2 x IP67	A, B, C	ResIoT Merlin IoT Box/Base Station Client, SSH Access, Custom configurable for other network servers
ResIoT-X7-ETH-3-915-G0	902.928 MHz	ResIoT X7 Carrier-grade Base station 24 channels 915Mhz(3x8), GNSS, Ethernet, PoE,Full duplex support. Included: 1xPole and Wall mount bracket, 2xLoRa Antenna omni 915MhZ IP67 465x27mm 3.8 dBi, 1xGPS/GLONASS Antenna IP67	24	YES	1 x IP67	N	3 x IP67 3.8 dBi Length 465mm	N	A, B, C	ResIoT Merlin IoT Box/Base Station Client, SSH Access, Custom configurable for other network servers
ResIoT-X7-LTE-3-915-G0	902.928 MHz	ResIoT X7 Carrier-grade Base station 24 channels 915Mhz(3x8), GNSS, Ethernet,LTE/4G/3G/2G Modem , PoE,Full duplex support. Included: 1xPole and Wall mount bracket, 2xLoRa Antenna omni 915MhZ IP67 465x27mm 3.8 dBi, 1xGPS/GLONASS Antenna IP67, 2xLTE Antenna IP67	24	YES	1 x IP67	YES	3 x IP67 3.8 dBi Length 465mm	2 x IP67	A, B, C	ResIoT Merlin IoT Box/Base Station Client, SSH Access, Custom configurable for other network servers

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