Installation Guide for

DIY Enterprise LoRa Gateway

WisDevice RAK**72x** Series

RAK7249

Version V1.0 | January 2019

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1 Building Blocks

Create your own Enterprise Gateway using the supplied building Blocks:

- **Main Board**
- **Enclosure**
- **Backup Battery**
- **Accessories**





The MainBoard supports multiple variants for meeting different requirement. Please refer to the DIY configuration for supported function.

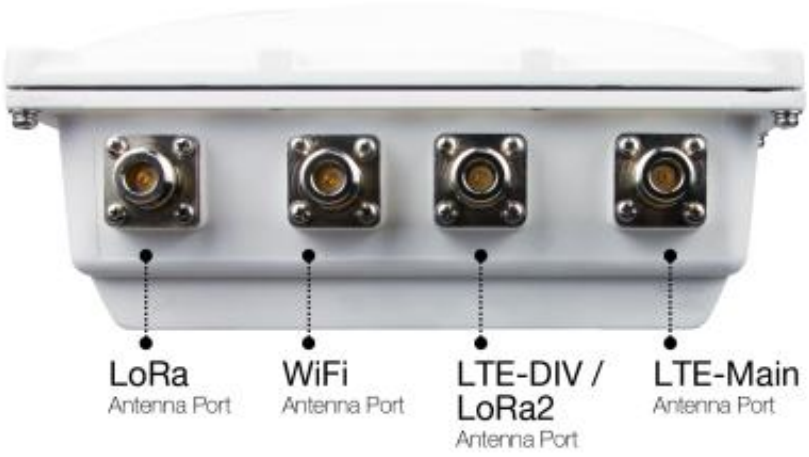
The Enclosure includes 5 RF cables and 1 Ethernet cable for connecting to the MainBoard.

For more accessories, please refer to the sales page.

Note: All the pictures are just for reference, if any discrepancy, please adhere to the actural product instead.

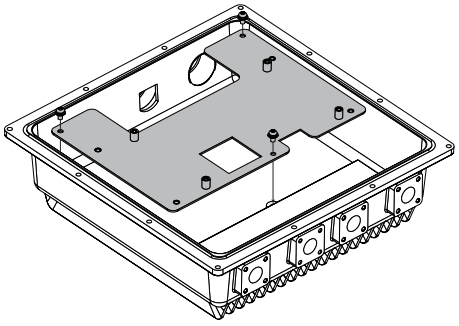
2 Interfaces of the Enclosure

The enclosure's interfaces and connectors of the DIY Gateway are shown as below.

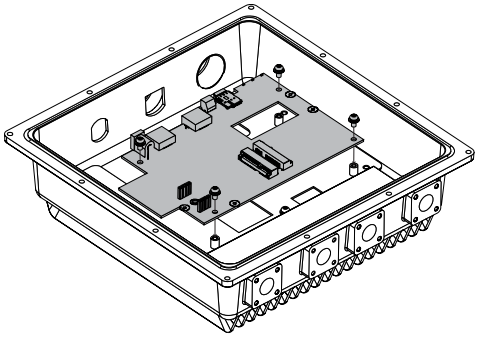


3 Assembly

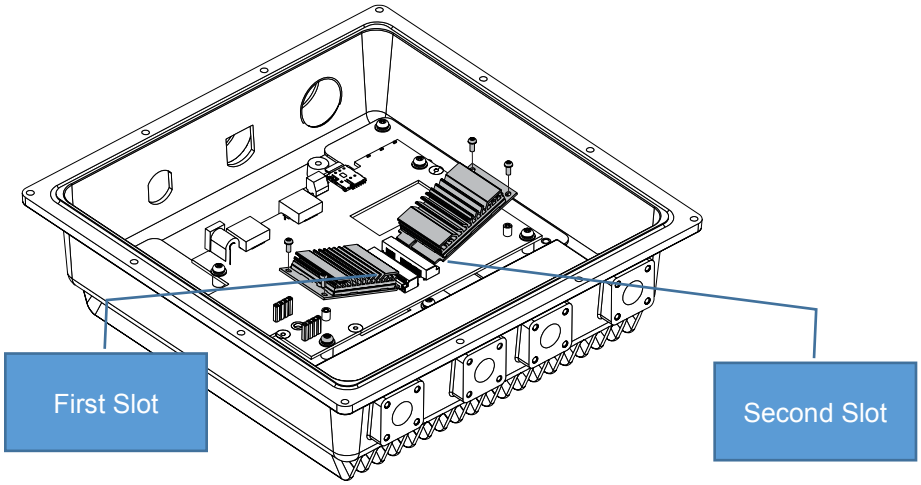
Step 1: Fix the support plate on the base with three M3*6 screws.



Step 2: Install the Mainboard with four M3*6 screws.

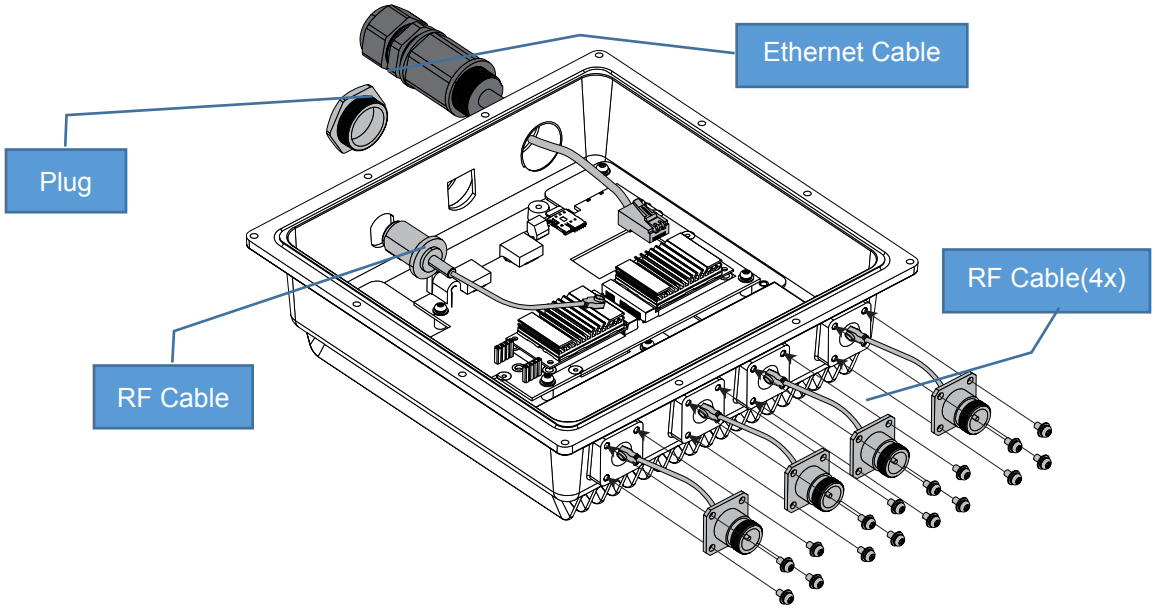


Step 3: Install the LoRa card (for example RAK833), the motherboard supports two LoRa cards, the first slot is for LoRa card of SPI type, the second slot is for LoRa card of USB type; if there is only one LoRa card (SPI type), please install it in the first slot.

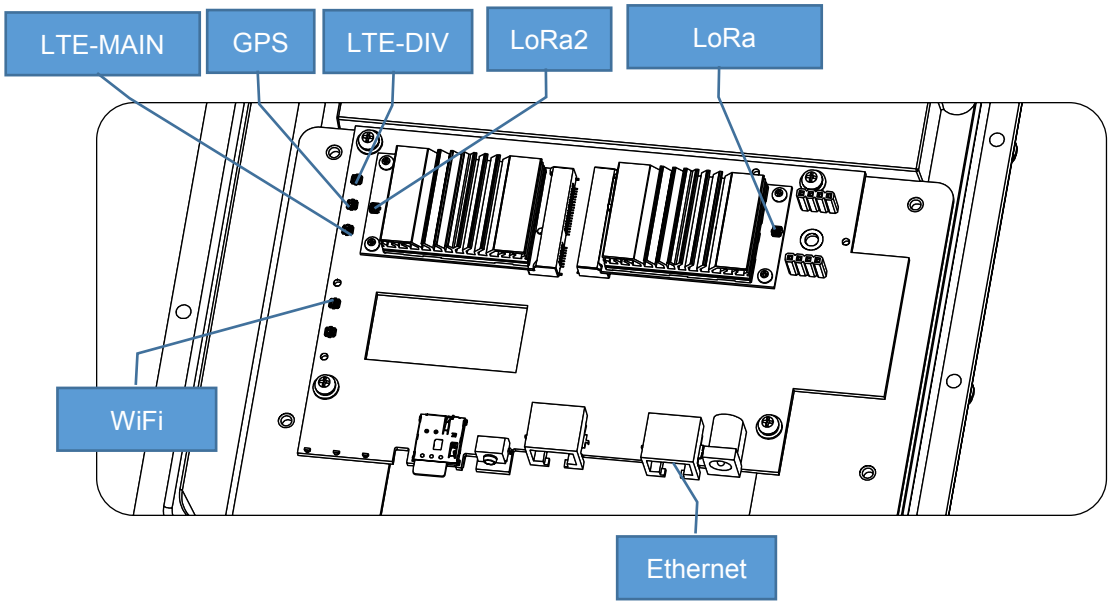


Step 4: If your board supports the cellular funtion, you can install your SIM card into the motherboard's SIM card slot.

Step 5: Installation of RF cables, Ethernet cable and reserved hole plugs.

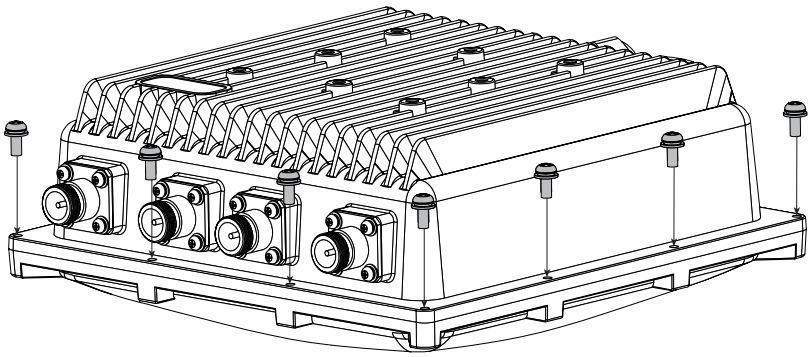


Step 6: Connect the cable to the motherboard. The connectors on motherboard are as follows. Connect with the cables one by one.



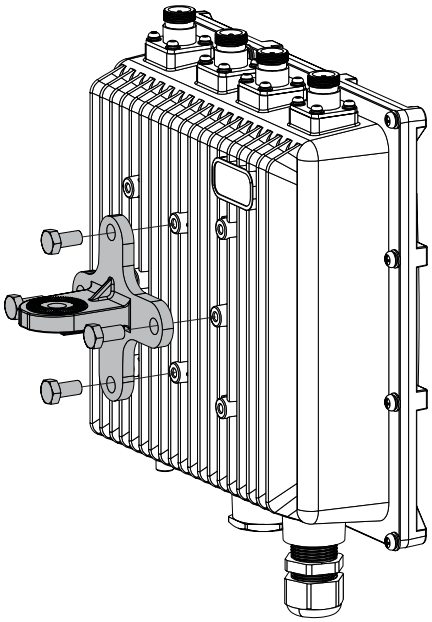
Step 7: If you have a Backup Battery Kit, connect with the Backup Battery to the motherboard.

Step 8: Close the top cover with 12PCS M4*12 screws.

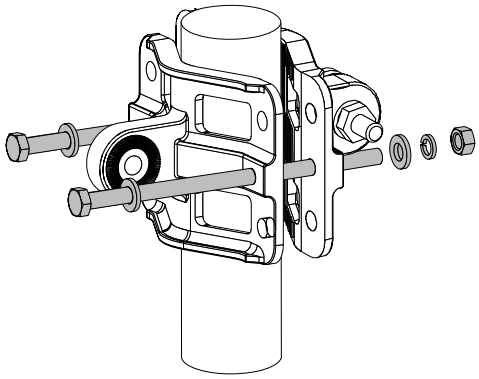


4 Installation

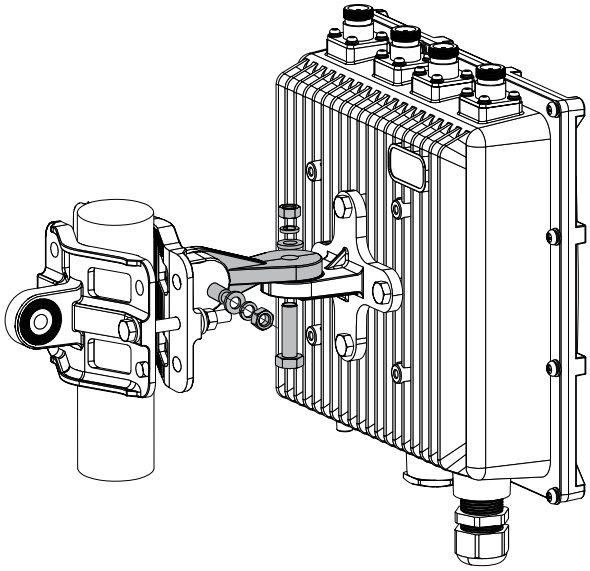
Step 1: Fix the device bracket on the bottom of the enclosure with four M6*12 screws.



Step 2: Tighten the pole clamp bar with hexagonal bolts M6*110, washer and nuts.



Step 3: Connect the clamp bar and the device with hexagonal bolts M6*30, washer and nuts.



5 Optional Accessories

LoRa Antenna

☐ 433
☐ 470
☐ 868
☐ 915

4G Antenna

☐ CMCC
☐ CUCC

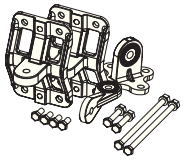
GPS Antenna

☐ 1575.42

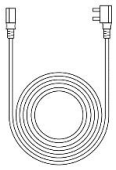
2.4G Antenna

☐ 2.4000 – 2.4835

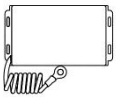
PoE



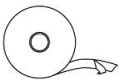
Mounting Kit



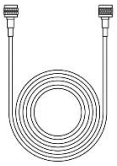
PoE Cable



PoE Lightning Arrester



Water-proof Rubber Cloth



Radio Frequency Cable

Insulating Tape

6 Contact Information

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7 Revision History

Revision	Description	Date
1.0	Initial version	2019-01-15

8 Document Summary

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About RAKwireless:

RAKwireless is the pioneer in providing innovative and diverse cellular and LoRa connectivity solutions for IoT edge devices. It's easy and modular design can be used in different IoT applications and accelerate time-to-market turnover.
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