Manuals+ — User Manuals Simplified.

Cohda Wireless MK6 RSU Unit

Cohda Wireless MK6 RSU Unit User Guide

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Contents

Cohda Wireless MK6 RSU Unit

Specifications

- **Model:** MK6 RSU
- **Compliance:** RoHS and Lead-Free
- **Antennas:** 4x 5.9GHz Antennas, 2x LTE Antennas, 2x Bluetooth/WLAN Antennas, GNSS Antenna
- **Power Source:** Power Over Ethernet
- **Installation:** Traffic Poll or other elevated device

Kit Contents

Unpack the MK6 RSU Kit
Following items are included in the MK6 RSU Kit shipment.

RSU Unit

4x 5.9GHz Antennas
2 for DSRC, 2 for C-V2X

2x LTE Antennas

2x Bluetooth/WLAN
Antenna

GNSS Antenna

Self-Fusing Rubber Tape

M12 Connector

Pole Mount Bracket,
Earth wire, bolts, flat &
spring washers

3x Stainless Steel Straps

Warnings, Symbols and Marking

- **Warning:** Improper handling may lead to serious injury or even death.

  Caution: Be sure to follow the instructions.

- **Attention:** Improper handling may lead to injury or property damage.

Protective Earth

The product must be connected to a proper protective Earth.
To ensure the system benefits from optimum electromagnetic interference immunity, the individual system components, and the connection cables in particular, need to be shielded. The shield must be connected to the ground reference plane.
Systems without equipotential bonding or with potential differences between the individual grounding points or
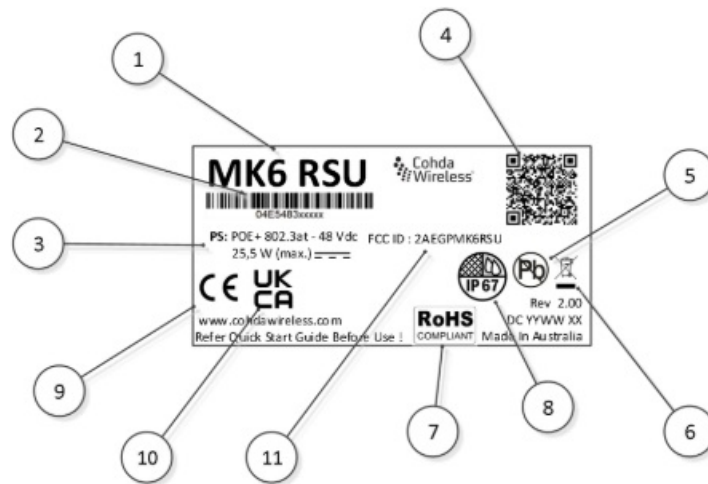
multiple instances of shield grounding, can result in transient currents at system frequency. These may affect the performance of the device.

Product Disposal

Products that are marked with the above symbol may not be disposed of as unsorted municipal waste (domestic waste). They should be disposed of through separate collection of electronic devices. This product and its packaging are manufactured from materials that can be recycled by specialist recycling companies. The product must be supplied to a specialist recycling company. Do not use municipal waste collection points. These may be used for privately used products only in accordance with WEEE Directive 2012/19/EU.

Product Identification

MK6 RSU Product Label (Enclosure) – Label information.

1. Product Model No.
2. Product Sr. No. Bar code information
3. Power supply Rating
4. Product Ordering Code QR Code info
5. The product is manufactured using Lead-Free Materials
6. Product Disposal Symbol
7. The product is an ROHS complaint
8. The product is IP 67-rated
9. CE Mark Symbol
10. UKCA Mark Symbol
11. FCC ID

SIM card installation

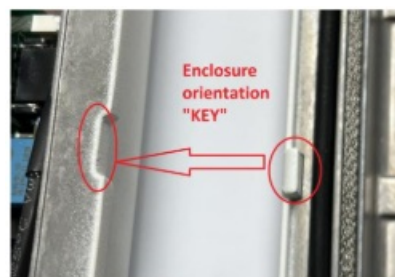Unscrew 4x Socket head cap screws with size 5 Allan key. Lift the enclosure lid carefully.

Slide the SIM socket cover toward the right and slip it up.

Insert a micro SIM card into the socket. Slip the socket cover down and slide it toward the left.

Close the top enclosure. Ensure the enclosure orientation 'KEY" is matched.

Fasten 4x Socket head cap screws with size 5 Allan-key. Following steps and torques.

MUST be followed to ensure the enclosure is sealed properly.

- Fasten screw at locations 1, 2, 3 and 4 with torque **10kgf.cm**
- Fasten screw at locations 1, 2, 3 and 4 with torque **20kgf.cm**
- Fasten screw at locations 1, 2, 3 and 4 with torque **30kgf.cm**
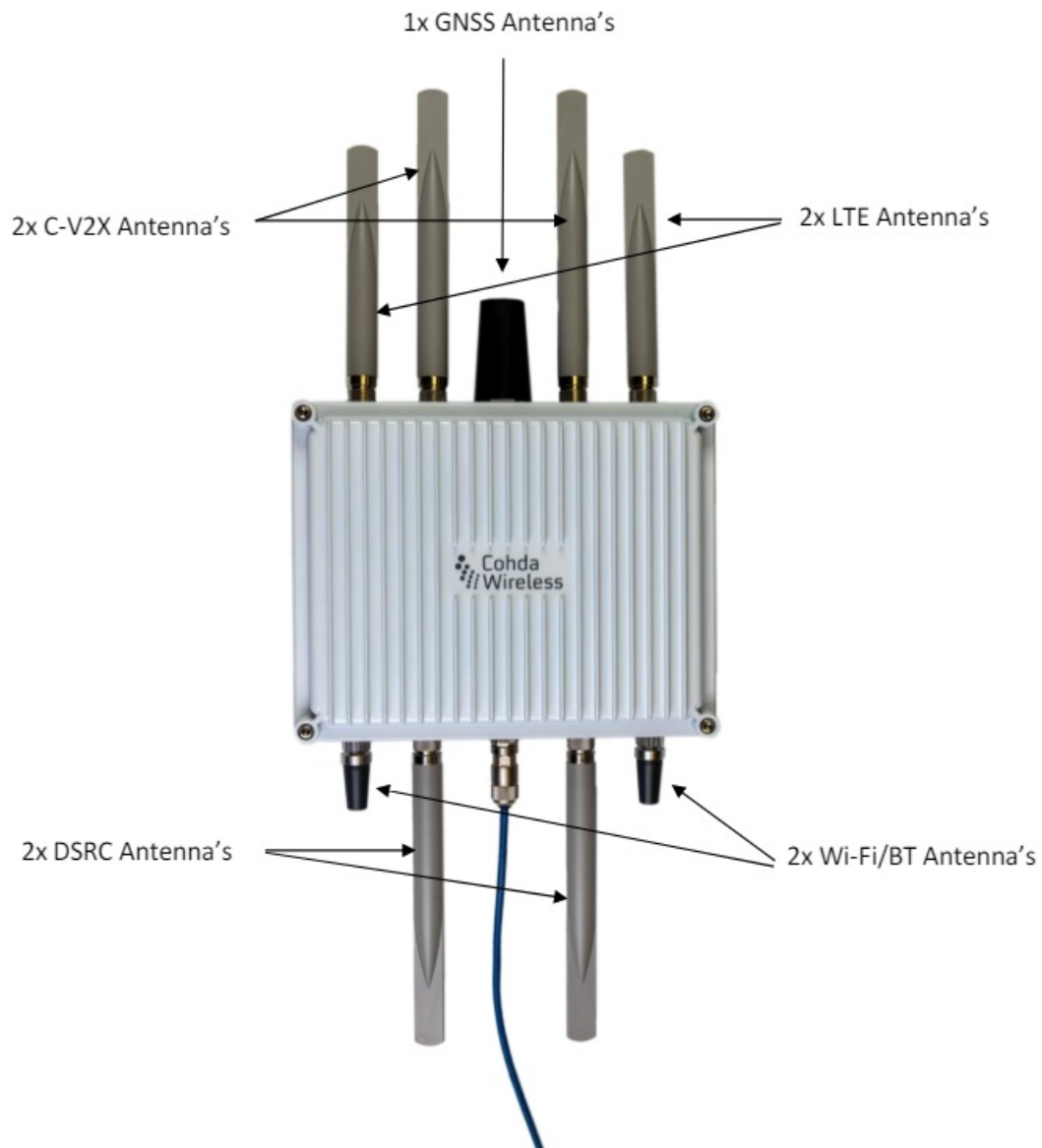
Connecting MK6 RSU

Assemble the Ethernet connector using the M12 X-Coded field attachable Ethernet connector.
The MK6 RSU can only be powered through the Ethernet port, it supports either Mode A (Endspan) or Mode B (Midspan). The Field-Attachable Ethernet connector suits 7.7-9.0mm diameter cable by default. Please use the correct alternative grommet supplied for smaller (5.5-6.7mm or 6-7.7mm) diameter cable.

ATTENTION: Please refer to the instruction sheet that comes with the M12 connector when assembling the M12 Ethernet field attachable connector!

Connect DSRC, C-V2X, LTE, Bluetooth/WLAN and GNSS antennas and M12 Ethernet connector.

1x GNSS Antenna's

2x C-V2X Antenna's

2x LTE Antenna's

2x DSRC Antenna's

2x Wi-Fi/BT Antenna's

Wrap the N-connector and antenna joints with the provided Self-Fusing Rubber Tape to prevent water intrusion.

- Cut a small length (10cm) of Self-Fusing tape.
- Remove the backing film.
- Begin wrapping Self-Fusing tape around the N-connector and antenna joint. Stretch tape to 300% and wrap it spirally around the object with a 50% overlap.
- Repeat steps and ensure at least one complete wrap is applied.
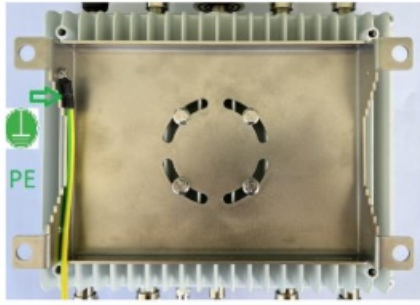- Cut off any excess.

Ensure the surface is clean

Stretch tape and wrap

Done

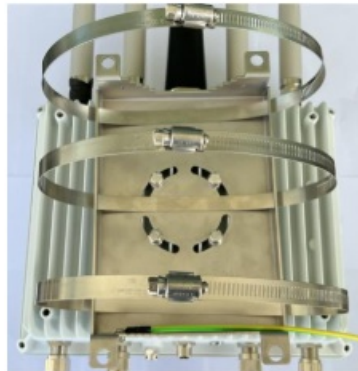Both vertical and horizontal mounting with brackets are supported.

Horizontal Mount

Vertical Mount

Bracket can be mounted to a Pole using the provided Stainless Steel straps, or can be bolted to a wall through four mounting holes in the bracket. The ground wire is recommended to be connected to a good common earth point.

Example of using
Stainless Steel Straps.

RSU attached to Vertical
pole.

RF bands

- Cellular bands
    - **5G NR FDD bands –** n2, n5, n25, n66, n71
    - **5G NR TDD bands –** n78 n77
    - **LTE-FDD bands –** B2, B4, B5, B7, B12, B17, B25, B66, B71 , B29 *1, B30 *1
    - **LTE-TDD bands –** B41
    - **WCDMA band –** B2,B4, B5
    - GSM 1900
- DSRC and C-V2X bands
    - **C-V2X (LTE TDD** – B47) – 5.9Ghz*2
    - **DSRC –** 5.9Ghz
- BT bands
    - **BT5.1 2.412 –** 2.480 Ghz
- Wi-Fi bands
    - Wi-Fi 2.4GHz
    - Wi-Fi 5GHz 5.15 – 5.925 Ghz

- GPS Band 1
  - L1C/A
- GLONASS – L1OF
  - **Galileo –** E1-B/C
  - BeiDou – B1

Note

1. Rx only.
2. The C-V2X technology has applied for the waiver process (waiver document number: DA-23-343) and strictly follows the below conditions.

Operating Frequency range	Channel Band width	RSU RF O/P Power
5905 – 5925 Mhz	20Mhz	33dBm EIRP

Link to Documentation and Software Support

Please register at the Cohda Wireless Support Website

It can be accessed in two ways:

- Directly via **https://support.cohdawireless.com**
- Through clicking on the "Support" tab on the Cohda Wireless website **www.cohdawireless.com**

1. On the signup page that opens, enter your name and email address to register for Support and access to technical documentation.
2. Your email address has to be the Company email address and not your email address.
3. Please submit a support request by clicking on the button "Submit a request" to ensure your account is validated.
4. Once your account has been validated and you have logged into the Customer Support website, you will have access to the information on all Cohda products, how to develop applications and FAQs.
5. If you have purchased the SDK license, this will be made available to you via the Cohda Wireless Support website upon account validation.
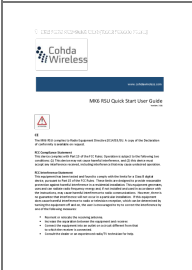
Cohda Wireless Pty Ltd
www.cohdawireless.com

FAQ

- **Q: Can this device be used by the general public?**
  - A: No, this device is not sold via retail or mail for normal public use. It should be installed and serviced by professional skilled personnel only.
- **Q: What should I do if I encounter RF radiation exposure concerns?**
  - A: Ensure that there is a minimum distance of 20cm between the radiator of the device and your body to comply with FCC radiation exposure limits.

- **Q: How can I dispose of this product?**
  - A: Follow proper disposal guidelines in your area for electronic equipment to dispose of this product responsibly.

Documents / Resources

Cohda Wireless MK6 RSU Unit [pdf] User Guide
MK6 RSU Unit, MK6, RSU Unit, Unit

References

- **Cohda Wireless**
- **User Manual**