RFDESIGN

RFD X-Series Enclosure Mounting Instructions

Contents

1   Overview

This black ABS injection moulded case is purpose built for an RFD900x or RFD868x modem, intended for use of both professionals and hobbyists alike. Built as the solution to address ease of mounting, protection, and security for the modem inside and connecting cables. Suitable for use in ground and air operations, working temperature ranging from -20 to 80°C; it allows for different output cable options and provides a range of mounting configurations.

- Four different mounting configurations:
  - o Tabs
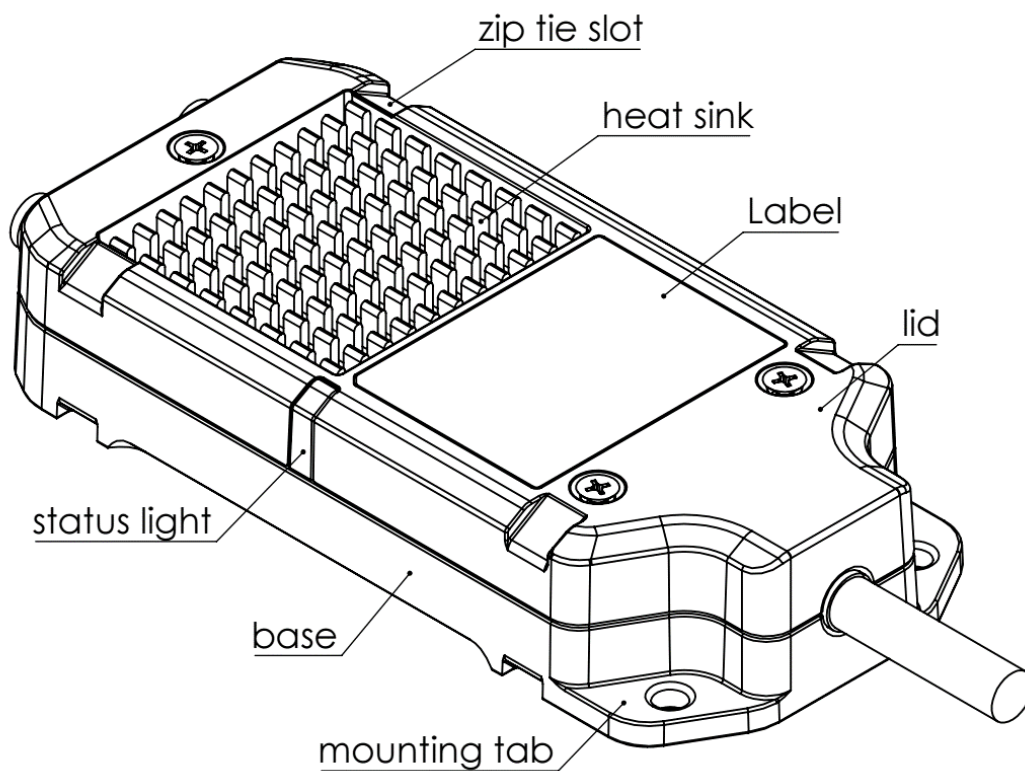 - o Zip tie
  - o From inside the case
  - o Custom mounting bracket

Other features of this enclosure include:

- LED status light visible from two sides
- Cable restraint
- FTDI and 900x Multi Cable compatibility (follow links to store)
- Fits RP-SMA antenna connectors
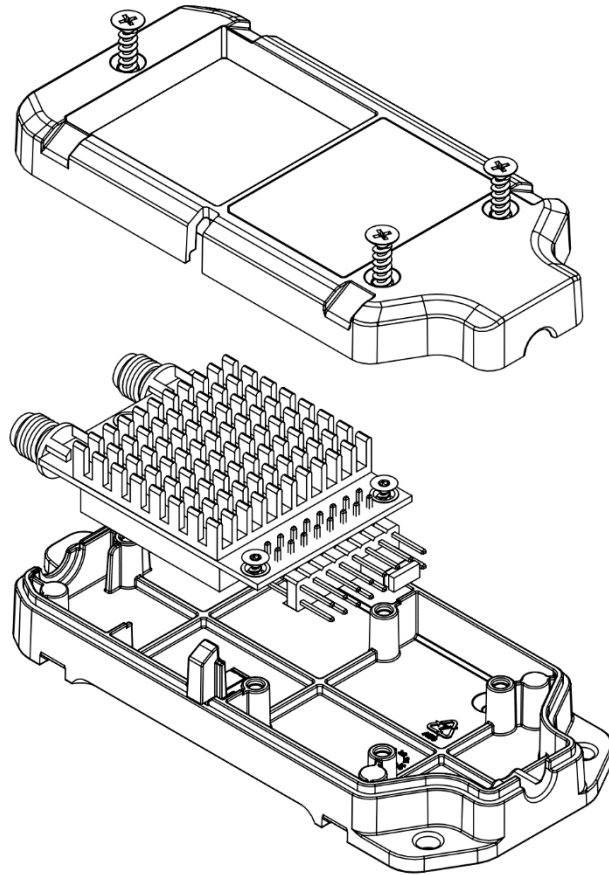- Robust case made of rigid plastic

1.1   Components

- Enclosure lid
- Enclosure base
- Light pipe
- 2x M2.5 5mm screws
- 3x M2.5 14mm screws
- Hex key
- 2mm cable tie (for cable restraint)
- Compliance sticker (required in USA and Canada only)

1.2   Diagram

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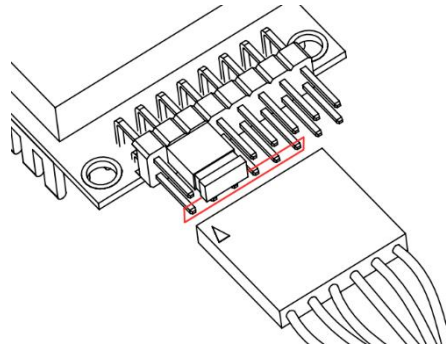
2 Assembly

2.1   Additional Items

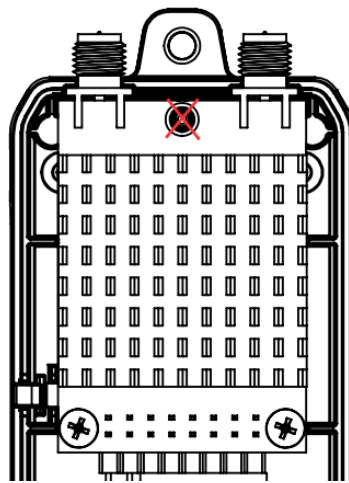Items that may be required for assembly (not provided):

- Up to 4.5mm wide cable ties (for mounting)
- Up to M3 screws (for mounting)
- RFD900x/868x Modem
- Cable

2.2   Steps

1. Decide on which mounting method to use (see section 3.2)
2. Find the base of the enclosure (if using mounting configurations C and D go to section 3.2C or 3.2D and follow mounting instructions)
3. Place light pipe inside slot of base and push into place.
4. Attach cable to modem pins (example: FTDI cable placement).

5. Place modem shield facedown into the base with the antennas coming out of the top.
6. Use the two short (5mm) screws to fix the modem onto the base. Do not screw in the top hole.

7. Apply cable restraint (see section 2.3).
8. Place the enclosure lid over the modem, ensuring the light pipe fits into the slot available and the cable comes out through the end of the enclosure.
9. Use the three remaining long screws to fasten the lid down.
10. Mount the modem (configurations A and B)

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2.3   Cable Restraint

Use a small zip tie (provided) to secure the cable in place before mounting the enclosure.

1. From the inside of the base, thread one end of the zip tie through one of the slots and up through the other side. Ensure the cable is positioned well with the heat shrink end aligned with the outer edge of the enclosure.
2. Draw the zip tie to a loose grip and position the head to one side of the cable.
3. Fully tighten the zip tie and ensure the cable is sufficiently secured in place to prevent it being tugged out.
4. Cut off the end the zip tie close to the head and place the enclosure lid over the top.

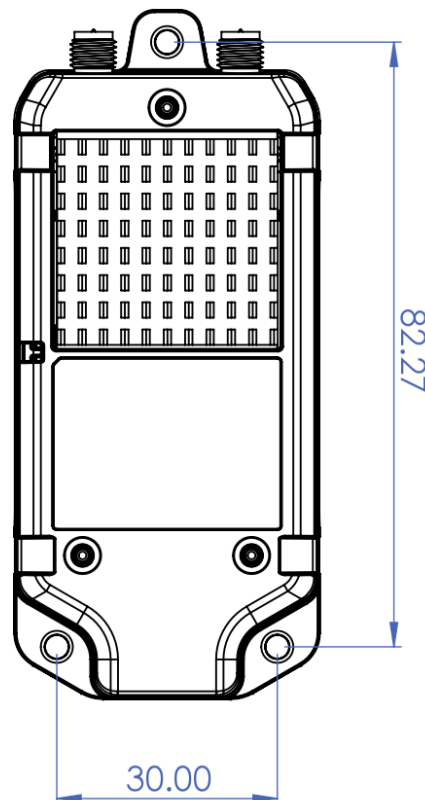RFDESIGN

3 Mounting

3.1 Considerations

- Consider a location which allows cabling to be kept short, and away from electrical noise sources.
- Be aware of anything pulling on the cable, consider securing cable with a zip tie (see section 2.3).
- Orient the modem so that the status light can be easily observed.
- Mount the modem with the heatsink facing outwards for optimised cooling.

3.2 Configurations

Configuration A: Tabs

1. Attach modem to desired location using up to M3 screws (not provided) to fasten the modem in place. See below for hole pattern.

Configuration B: Zip Tie

1. Secure to desired location by placing two zip ties (up to 4.5mm wide) into the slots at the top and bottom end of the enclosure and tighten.

Configuration C: Inside case

1. Disassemble case, carefully setting aside components.
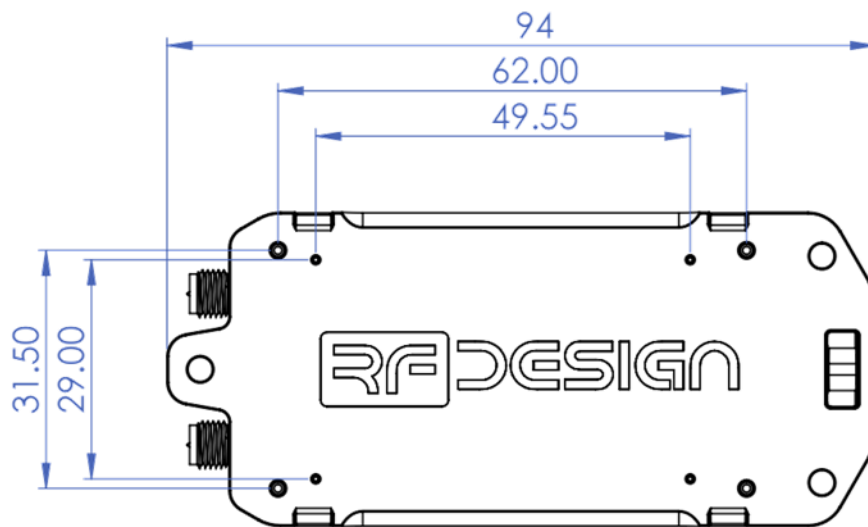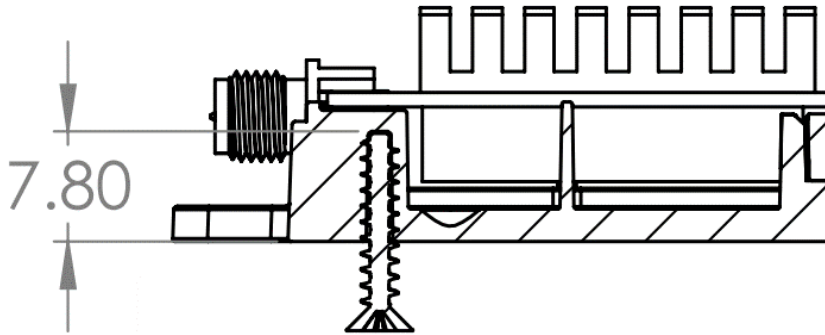2. Drill through the desired holes in the base of the enclosure (recommended M2).

Diagram is 1:1 scale of enclosure when printed on A4 paper, select 'Actual size' and can be used as a hole pattern template or for sizing.

3. Mount the enclosure base using M2 – 3 countersunk screws (not provided) to the desired location. Be aware of the heads of screws interfering with the modem or cable and ensure they are not touching any part as shorting may occur.
4. Assemble the enclosure (go to section 2.2.3 and follow steps).

Configuration D: Custom Mounting Bracket

1. Mount the base of the enclosure onto an external mounting board using M2 –
   2.2 self-tapping screws (not provided) through the mounting holes at the back of
   the base (see diagram in 3.2 C for dimensions), ensure screws do not penetrate
   more than 7.8 mm into the enclosure base.

2. Check for screws breaking through the bossed plastic inside. If plastic is
   damaged, undo the screws and try mounting options A, B or C.
3. Use this external board to mount in any configuration desired.

4   Labelling – USA and Canada

For equipment containing the RFD-900x where the RFD-900x label is not visible the following applies:

- Equipment using the RFD 900x in the **USA** must display a label referring to the enclosed module. This label must contain the words "Contains FCC ID: 2ADLE-900x2".
- Equipment using the RFD 900x in **Canada** must display a label referring to the enclosed module. This label must contain the words "Contains IC ID: 24610-900x2".

Please attach the appropriate label for use in USA or Cananda onto the outside of the modem enclosure and ensure it is visible for compliance purposes.

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