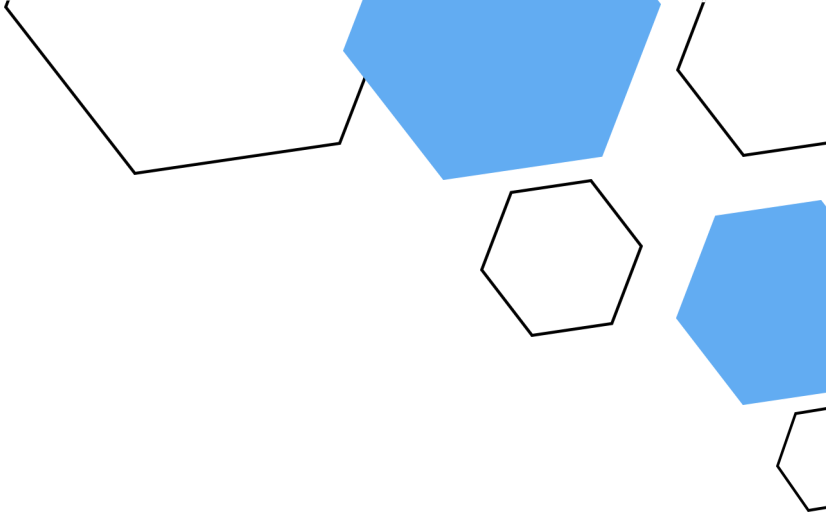
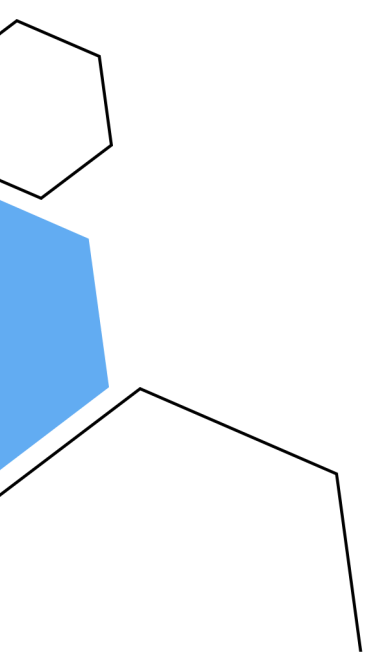




RDO21x



Waterproof LoRaWAN Data
Transmission Unit (DTU)

User Guide

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Introduction

- This manual provides detailed operational guidelines for the LoRaWAN waterproof DTU RDO214/RDO218 series, helping you install and use the device correctly.
- For quick sensor configuration, refer to the ManThink official website:
<https://www.manthink.cn>.
- Thank you for choosing ManThink products. We hope this manual provides the necessary support. For feedback or suggestions, please contact us.

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1.Product Introduction

1.1 Product Description

The RDO21x is a highly configurable, battery-powered, low-power Data Transmission Unit (DTU). It integrates a high-performance MCU and Semtech's LoRa RF chip, supporting RS-485/M-Bus interfaces for external device communication. Data is transmitted to the application platform via LoRa/LoRaWAN protocol.

RDO21xA: Uses RS-485 interface for device communication.

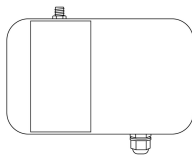
RDO21xC: Uses M-Bus interface for device communication.

1.2 Key Features

- ✓ IP65 protection rating
- ✓ Supports RS-485 interface
- ✓ Battery-powered operation
- ✓ Low-power LCD display
- ✓ Supports over-the-air (OTA) firmware upgrades
- ✓ Compliant with LoRaWAN standards:US902, AU915, AS923, EU868, EU433, CN470

2.RDO21x Components

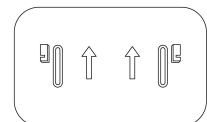
2.1 Accessories List



RDO21x×1



LoRa antenna×1



Bracket×1

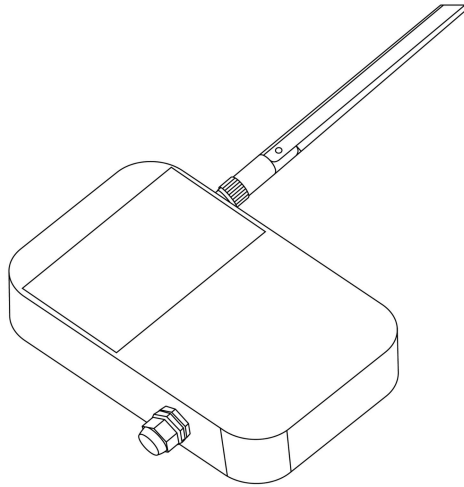


Certificate & warranty card ×1

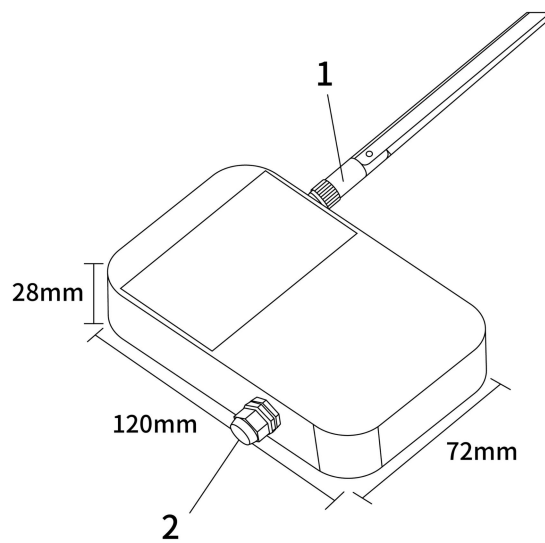


User Guide ×1

2.2 Main part of RD021x



2.2.1 Dimensions



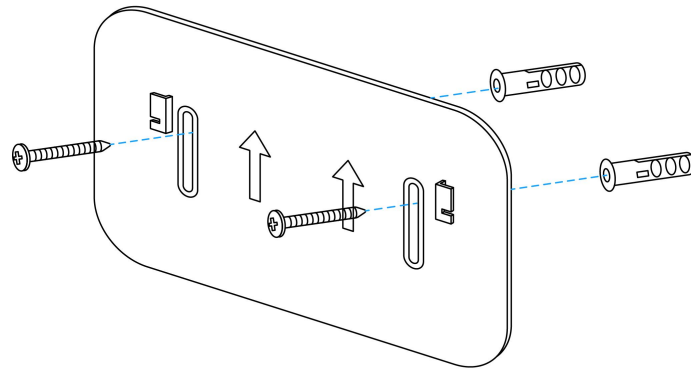
2.2.2 Interface Guide

1	LoRa antenna port
2	Wiring terminal

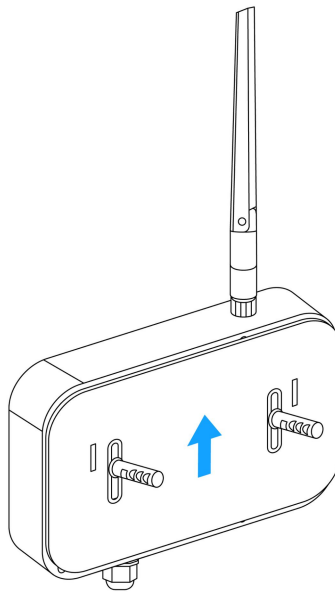
3.Installation and Fixing

3.1 Wall Mounting

·Drill holes and fix the bracket to the wall (arrow facing up).



·Align the DTU's grooves with the bracket's protrusions and slide downward.



3.2 Free Placement

Place the DTU on any stable surface.

4.Data Transmission

- Power on the RDO21x.
- Install the gateway and connect it to the network.
- For ManThink servers, refer to: [MD-AN06 NMS Platform User Guide](#).
- For third-party platforms, contact your service provider.

5.Model List

Model	Description
RDO214-A1-CN470-N	CN470 standard, RS-485 interface, 10,000mAh battery
RDO214-A1-EU433-N	EU433 standard, RS-485 interface, 10,000mAh battery
RDO218-A1-AS923-N	AS923 standard, RS-485 interface, 10,000mAh battery
RDO218-A1-EU868-N	EU868 standard, RS-485 interface, 10,000mAh battery
RDO218-A1-AU915-N	AU915 standard, RS-485 interface, 10,000mAh battery
RDO218-A1-US902-N	US902 standard, RS-485 interface, 10,000mAh battery
RDO214-A2-CN470-N	CN470 standard, RS-485 interface, DC 12V power supply
RDO214-A2-EU433-N	EU433 standard, RS-485 interface, DC 12V power supply
RDO218-A2-AS923-N	AS923 standard, RS-485 interface, DC 12V power supply
RDO218-A2-EU868-N	EU868 standard, RS-485 interface, DC 12V power supply
RDO218-A2-AU915-N	AU915 standard, RS-485 interface, DC 12V power supply
RDO218-A2-US902-N	US902 standard, RS-485 interface, DC 12V power supply
RDO214-C1-CN470-N	CN470 standard, M-Bus interface, 10,000mAh battery
RDO214-C1-EU433-N	EU433 standard, M-Bus interface, 10,000mAh battery
RDO218-C1-EU868-N	EU868 standard, M-Bus interface, 10,000mAh battery
RDO218-C1-AU915-N	AU915 standard, M-Bus interface, 10,000mAh battery

RDO218-C1-AS923-N	AS923 standard, M-Bus interface, 10,000mAh battery
RDO218-C1-US902-N	US902 standard, M-Bus interface, 10,000mAh battery
RDO214-C2-CN470-N	CN470 standard, M-Bus interface, DC 12V power supply
RDO214-C2-EU433-N	EU433 standard, M-Bus interface, DC 12V power supply
RDO218-C2-AS923-N	AS923 standard, M-Bus interface, DC 12V power supply
RDO218-C2-EU868-N	EU868 standard, M-Bus interface, DC 12V power supply
RDO218-C2-AU915-N	AU915 standard, M-Bus interface, DC 12V power supply
RDO218-C2-US902-N	US902 standard, M-Bus interface, DC 12V power supply

6.Default Frequency Points

For detailed frequency information, please refer to: [《ManThink Default Frequency Band Information》](#)

7.Contact Us

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