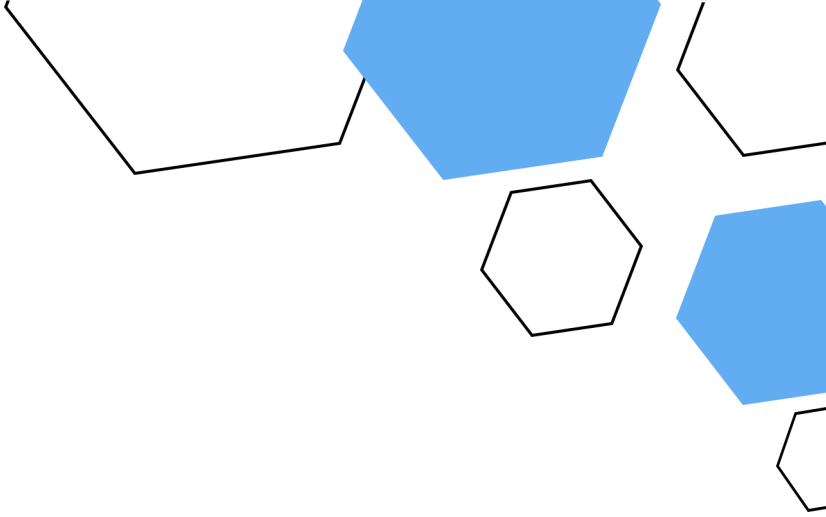




RDO21x



Waterproof LoRaWAN Data
Transmission Unit (DTU)

Specification

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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 Applications

- ✓ Industrial field monitoring
- ✓ Water meter reading
- ✓ Industrial metering
- ✓ Hydrological & meteorological monitoring
- ✓ Environmental protection, municipal monitoring, and related scenarios

1.3 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. Product Specifications

2.1 Product Diagram



2.2 Technical Specifications

2.2.1 Electrical Parameters

Operating Voltage	3.6V Li-SOCl ₂ Battery
Operating Temperature	-40℃ to 85℃
Operating Humidity	0% to 95% RH
Protection Rating	IP65
M-Bus Load Capacity	Recommended ≤ 3 devices

2.2.2 RF Parameters

Frequency Range	410-510MHz / 860-1020MHz
Transmit Power	5~20dBm
Receiver Sensitivity	-139dBm @292bps

Data Rate	0.3~4.5kbps
Modulation	LoRa
Supported LoRaWAN Bands	CN470, EU868, AS923, EU433, AU915
Supported LinkWAN Bands	CN470, AS923
Antenna Impedance	50Ω

3. 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

4. Default Frequency Points

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

5.Contact Us

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