WISE-2200-M

LoRaWAN Single RS-485 I/O Module

NEW

Features

- LoRaWAN wireless technology with Less interference with high penetration rate capability
- Support Modbus/RTU communication protocol
- Support max. 128 address and 30 rule settings
- 5-50V$_{DC}$ wide input power design
- Compact design, suitable for plug and play applications
- Industrial design concept for different kinds of environment

KC NBTC ANATEL CE FCC RoHS COMPLIANT 2002/95/EC

Introduction

WISE-2200-M is a LoRaWAN Modbus read/write communication device powered by Advantech. WISE-2200-M supports maximum 128 address and 30 rule setting can easily connect to modbus sensors and meters for different kinds of applications.

Less interference with high penetration rate

LoRaWAN, created for machine-to-machine (M2M) and Internet of things (IoT) networks, is not a single technology, but a variety of low-power, wide area network technologies. Compare with traditional mobile network, LoRaWAN is known as lower cost with higher power efficiency. WISE-2200-M is the LoRaWAN which provides better connection compare with traditional wireless technology.

Common Specification

Wireless Communication

- **Frequency Band**   EU 863-870 (MHz) / RU 864-870 (MHz)
  US 902-928 (MHz) / AU 915-928 (MHz)
  AS 919-924 (MHz) / TH 920-925 (MHz)
  JP 920-928 (MHz) / CN470-520 (MHz)
- **Spreading Factor**   7~12
- **Transmit Power**   Up to 20dBm
- **Topology**   Star (LoRa/LoRaWAN)
- **Sensitivity**   -148dB
- **Data Rate**   50 kbps at FSK mode EU
  21.9 kbps at SF7 mode US/TW
  5.47 kbps at SF7 mode for JP

General

- **Channel**   1 (for RS-485 Modbus connection)
- **LED Indicator**   2
- **Power Input**   5-50V$_{DC}$ from Terminal Block
- **Power Consumption**   1.5W
- **Configuration Interface**   Micro-B USB
- **Mounting**   DIN 35 rail, wall, pole
- **Dimension (W x H x D)**   71 x 52 x 30 mm (without Antenna)
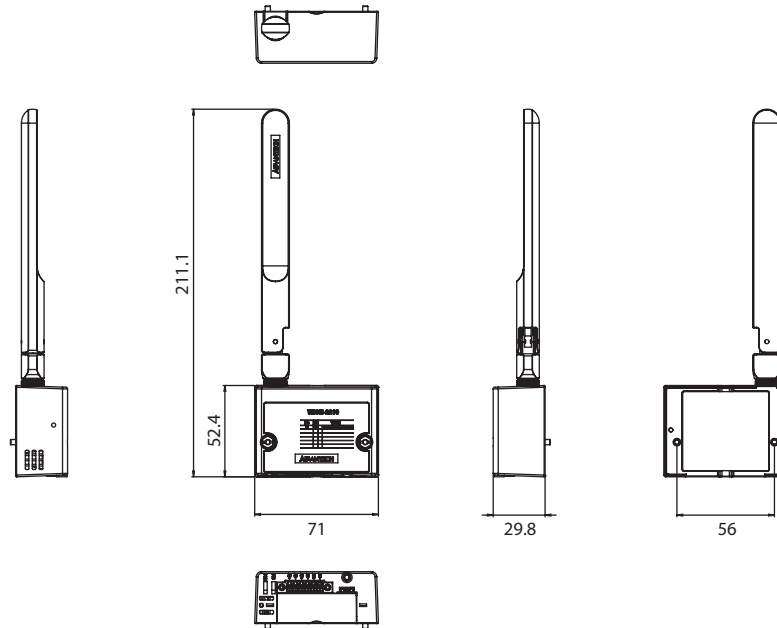- **Certification**   NCC, FCC, CE, ANATEL, NBTC, RCM, KC, TELEC

Environment

- **Operating Temperature**   -25~70 °C
- **Operating Humidity**   5~95% RH
- **Storage Temperature**   -40~85 °C
- **Storage Humidity**   0~95% RH

General

- **RS-485**   Data+, Data- (for query node data)
- **Messaging Protocol**   Modbus/RTU

Last updated: 27-Oct-2025

Dimensions

Unit: mm

211.1

52.4

71

29.8

56

Ordering Information

LoRaWAN Modbus Read/Write Communication Device

- **WISE-2200-MNA**   LoRaWAN Modbus R/W Communication Device (NA915)

Firmware Image (Optional)	
96632200K00	WISE-2200-MKA Patch (use for Korea)
96632200Z00	WISE-2200-MZA Patch (use for Brazil/AU/NZ)
96632200J00	WISE-2200-MJA Patch (use for Japan)

- **WISE-2200-MEA**   LoRaWAN Modbus R/W Communication Device (EU868)
- **WISE-2200-MTA**   LoRaWAN Modbus R/W Communication Device (AS923)
- **WISE-2200-MCA**   LoRaWAN Modbus R/W Communication Device (CN470)

LoRaWAN Gateway

- **WISE-6610-NB**   LoRaWAN gateway with NA915 MHz
- **WISE-6610-EB**   LoRaWAN gateway with EU868 MHz
- **WISE-6610-CB**   LoRaWAN gateway with CN470 MHz
- **WISE-6610-TB**   LoRaWAN gateway with AS923 MHz
- **WISE-6610-JB**   LoRaWAN gateway with JP923 MHz
- **WISE-6610-EL-NB**   LoRaWAN gateway with NA915 MHz and Edgelink
- **WISE-6610-EL-EB**   LoRaWAN gateway with EU868 MHz and Edgelink
- **WISE-6610-EL-TB**   LoRaWAN gateway with AS923 MHz and Edgelink
- **WISE-6610-EL-JB**   LoRaWAN gateway with JP923 MHz and Edgelink
- **WISE-6610-EL-CB**   LoRaWAN gateway with CN470 MHz and Edgelink

Accessories

- **1750008837-01***   902-928MHz Dipole Antenna for WISE-2200-MNA
- **1751000787-01***   470-520MHz Dipole Antenna for WISE-2200-MCA

* needs to order antenna separately for WISE-2200-MNA and WISE-2200-MCA part number