

Wireless Door Bell Button

R313M Datasheet

Wireless Sensor Network Based on LoRa Technology



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Introduction

R313M is a wireless doorbell control device which can detect whether the wireless doorbell is triggered and send the doorbell status to the gateway. It adopts SX1276 wireless communication module. The wireless doorbell does not require wiring and is simple and flexible to install.

Main Characteristic

- 2 sections 3.0V CR2450 button batteries in parallel
- Compatible with LoRaWAN protocol
- Adopt SX1276 wireless communication module
- Compatible with LoRaWAN™ Class A
- Frequency hopping spread spectrum
- Configuration parameters can be configured through third-party software platforms, data can be read and alarms can be set via SMS text and email (optional)
- Applicable to the third-party platforms: Actility/ThingPark, TTN, MyDevices/Cayenne
- Low power consumption and long battery life

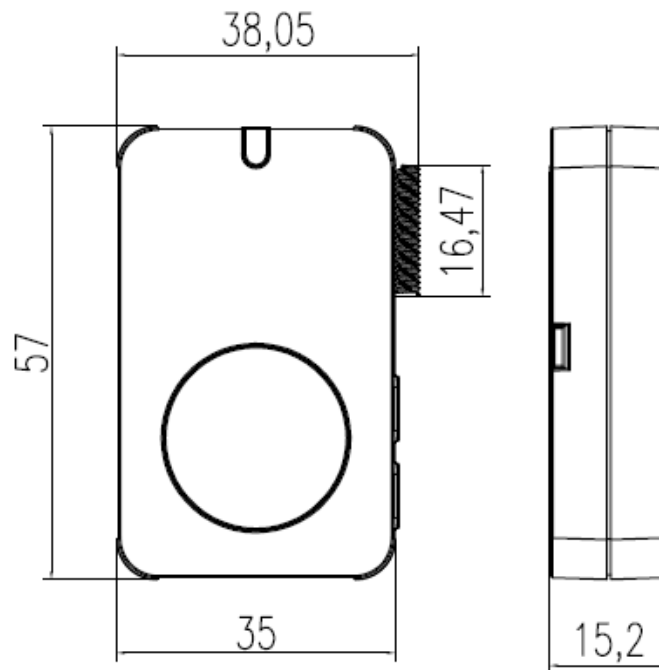
Note*: Battery life is determined by the sensor reporting frequency and other variables, please refer to http://www.netvox.com.tw/electric/electric_calc.html

On this website, users can find battery life of various models in different configurations.

Application

- Villa
- Office
- Hotel
- Apartment

Dimension



Electric

Input Power	2 x 3.0V CR2450 button batteries in parallel (The capacity of each CR2450 battery is 620mah.)
Operation Voltage Range	DC 2.4V to 3.0V
Low Battery Voltage Threshold	2.4V
Standby Current	14uA/3.0V
Emission Current (max)	120mA / 3.0V
Receiving Current (max)	11mA / 3.0V
Battery Measurement Accuracy	± 0.1V

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Frequency

Frequency Range	863MHz-928MHz 470MHz-510MHz
TX Power	US915 20dbm AS923 16dbm AU915 20dbm CN470 19.15dbm EU868 16dbm KR920 14dbm IN865 20dbm
Receiving Sensitivity	-136dBm (LoRa, Spreading Factor=12, Bit Rate = 293bps) -121dBm (FSK, Frequency deviation=5kHz, Bit Rate=1.2kbps)
Antenna Type	External antenna
Communication Distance	10 km (visible linear obstacle-free transmission distance, actual transmission distance depending on the environment)
Data Transfer Rate	LoRa: 0.3kbps~50kbps FSK: 1.2kbps~300kbps
Modulation Method	LoRa/FSK (Note: choose one of them)
Supportable LoRaWAN Frequency	EU863-870, US902-928, AU915-928, KR920-923, AS923-1, AS923-2, AS923-3, IN865-867, CN470-510 (Note: The frequency band is optional and needs to be configured before shipment)

Physical

Dimension	57 mm x38.05 mm x 15.2 mm
Weight	About 45g
Environment Humidity	<90 %RH (No condensation)
Operating Temperature	-20°C ~ 55 °C
Storage Temperature	-40°C ~ 85 °C