

Wireless Asset Sensor R311D Data Sheet

Wireless Sensor Network Based on LoRa Technology



R311D

Copyright©Netvox Technology Co., Ltd.

This document contains proprietary technical information which is the property of NETVOX Technology. It shall be maintained in strict confidence and shall not be disclosed to other parties, in whole or in part, without written permission of NETVOX Technology.

The specifications are subject to change without prior notice.

Wireless Asset Sensor

General Description

The device is a simple positioning function (which can detect the position status of the device), periodically reports RSSI and SNR information to the gateway for processing and can locate the position status of the device according to the reported RSSI and SNR information, and adopts SX1276 wireless communication module.

Main Property

- 2 sections of 3V CR2450 button batteries
- Compatible with LoRaWAN protocol
- Adopt SX1276 wireless communication module

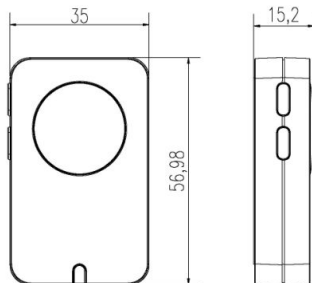
Example Applications

- Smart home
- Positioning
- Other

Features of NETVOX Sensors

- LoRaWAN™ Class A compatible
 - Frequency Hopping Spread Spectrum (FHSS)
 - Improved interference immunity
 - Improved power management for longer battery life
 - Battery Life*2:
 - Please refer to web: http://www.netvox.com.tw/electric/electric_calc.html
 - At this website, users can find battery life time for varier models at different configurations.
 - Over-the-air updates (future)
 - Third-Party online wireless sensor monitoring and notification system to configure sensors, view data and set alerts via SMS text and email (optional)
 - Available third-party platform: Actility/ThingPark, TTN, MyDevices/Cayenne
- *1. Actual range may vary depending on environment.
*2. Battery life is determined by sensor reporting frequency and other variables

Wireless Asset Sensor

Technical Specifications


Main Body

(Unit: mm)

Electric

Input Power	2pcs 3.0V CR2450 button battery
Working Voltage	DC 2.4V~3.0V
Standby Current	16uA / 3.0V
Transmitting Current (max)	120mA / 3.0V
Receiving Current (max)	11mA / 3.0V
Battery Voltage Measurement Accuracy	±0.1V

Frequency

Frequency Range	863MHz-928MHz 470MHz-510MHz
TX Power	19dBm±1dBm
Rx Sensitivity	-136dBm (LoRa, Spreading Factor=12, Bit Rate=293bps) -121dBm (FSK, Frequency deviation=5kHz, Bit Rate=1.2kbps)
Antenna Type	Build-in antenna
Communication Range	Up to 10 km, the actual transmission distance depends on the environment.
Data Transfer Rate	0.3kbps~50kbps
Spread Technique	LoRa/FSK
Available Frequency	EU863-870, US902-928, AU915-928, KR920-923, AS923, CN470-510 Configured before shipment

Wireless Asset Sensor

Physical

Main Body Dimension	57mm x 35mm x 15.2mm
Weight	48.9 g
Operating Temperature	-20°C ~ 55°C
Environment Humidity Range	<90% RH (No condensation)
Storage Temperature	-40°C ~ 85°C

Contact:**NETVOX TECHNOLOGY CO., LTD.****TEL: 886-6-2617641****FAX: 886-6-2656120****E-mail: sales@netvox.com.tw****WEB: www.netvox.com.tw****NETVOX TECHNOLOGY CO., LTD (XIAMEN)****TEL: 86-592-5717188****FAX: 86-592-5717180****E-mail: dyx@netvox.com.cn****WEB: www.netvox.com.cn**