



# R712

## Wireless Outdoor Temperature and Humidity Sensor

### Datasheet

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## Wireless Outdoor Temperature and Humidity Sensor

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### General Description

The R712 is a Wireless Outdoor Temperature and Humidity Sensor for Netvox ClassA type devices based on the LoRaWAN open protocol and is compatible with the LoRaWAN protocol.

The R712 detects the temperature and humidity in air and carrying a waterproof cover.

### Main Characters

- 2 Section of AA alkaline batteries (1.5V / cells in series)
- Battery Measurement Accuracy  $\pm 0.1V$
- LoRaWAN™ Class A compatible
- Frequency Hopping Spread Spectrum (FHSS)
- 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  
Improved power management for longer battery life
- Battery Life:

Please refer to web: [http://www.netvox.com.tw/electric/electric\\_calc.html](http://www.netvox.com.tw/electric/electric_calc.html)

At this website, users can find battery life time for varier models at different configurations.

### Example Applications

- Temperature and humidity detection

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**Wireless Outdoor Temperature and Humidity Sensor**


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Electric

**R712**

Input Power	2 x 1.5V AA batteries
Operating Voltage	DC 2.3V~3V
Standby Current	12uA/3V
Wakeup Current	6.63mA (Typical value) Wakeup current range 0.8mA-20 mA * When not transmitting /receiving LoRa data)
Low Battery Voltage Threshold	2.4V
Battery Measurement Accuracy	±0.1V

**Module-R100H**

Wake-up Current	0.8mA - 8mA@3.3V
RF Receiving Current (max)	11mA/3.3V
RF Transmitting Current (max)	120mA/3.3V

## Temperature And Humidity Sensor Feature

Temperature Measuring Range	-20°C~55°C
Temperature Accuracy	±1.5°C @25°C
Humidity Measuring Range	0%RH~100%RH
Humidity Accuracy	±10%RH @25°C

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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;
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

### Physical

Dimension	Water cover: L:222mm*W:130mm*H:195mm Main part: L:112mm*W:34mm*H:17mm
Working Temperature	-20°C — 55°C
Storage Temperature	-40°C — 85°C
Working Humidity	<90% RH (no condensation)