

# **Wireless Activity Event Counter R718MBB Data Sheet**

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Wireless Sensor Network Based on LoRa Technology



**R718MBB**

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The specifications are subject to change without prior notice.

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## Wireless Activity Event Counter

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### General Description

The device detects the number of movements or vibrations (such as detecting the motor a few times a day), the maximum number of movements or vibrations can reach  $2^{32}$  times (theoretical value), and sends the information of the number of movements or vibrations to the gateway for processing. Apply SX1276 wireless communication module.

### Example Applications

- Smart Home
- Industry and Commercial
- Objects to be detected movements or vibrations

### Features of NETVOX Sensors

- LoRaWAN™ Class A compatible
- Frequency Hopping Spread Spectrum (FHSS)
- Improved interference immunity
- Improved power management for longer battery life
- Encrypt-RF™ Security (Diffie-Hellman Key Exchange + AES-128 CBC for sensor data messages)
- Battery Life\*2:

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.

- 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
- R718X series carry magnets which can be attached to ferromagnetic materials and objects

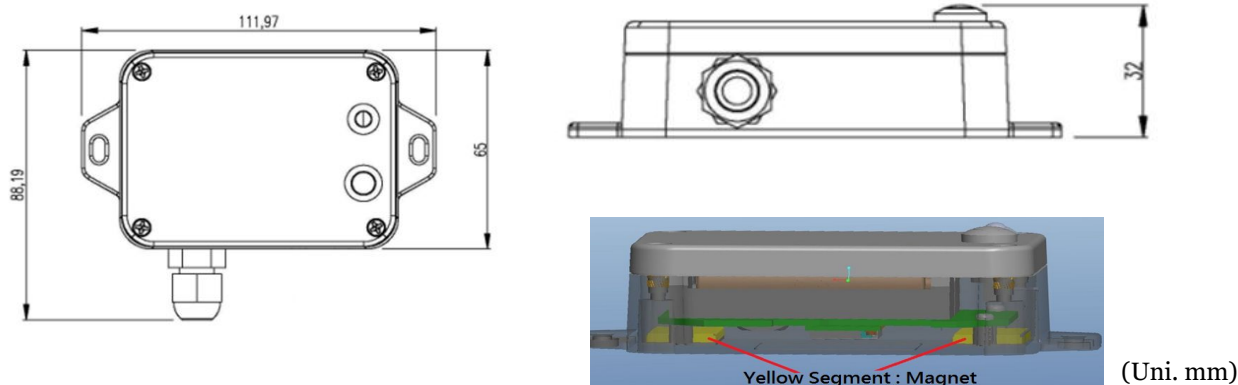
\*1. Actual range may vary depending on environment.

\*2. Battery life is determined by sensor reporting frequency and other variables.

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**Technical Specifications (Main Part)**

**Electric**

Input Power	2 x 3.6V ER14505 AA lithium batteries (3.6V 2400mah/section)
Sleeping Mode	76 uA
Wake up Mode	6.3mA@3.3V
Receiving Current (max)	11mA @3.3V
Transmitting Current (max)	120mA/3.3V
Battery Voltage Measurement Accuracy	±0.1V
Low Voltage Threshold	3.2V

\* Specific electrical characteristics may vary depending on the power supply voltage.

**Frequency**

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)

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**Physical**

Dimension	Main Part: L: 112mm*W: 65mm*H: 32mm
Weight	141g
Environment Temperature Range	-20°C ~ 55°C
Environment Humidity Range	<90% RH (No condensation)
Storage Temperature	-40°C ~ 85°C

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