

Specification for  
**Sticker Tracker**  
RAK2270



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# 1 General Description

## 1.1 Product Description

RAK2270 is an innovative battery-powered LoRaWAN<sup>®</sup> tracker designed with a sleek, label-like form factor. With its tear, peel, and stick functionality, you can easily attach RAK2270 to any product, enabling virtual real-time location tracking by leveraging the exceptional location estimator feature of the Helium network server.

### **Real-Time Location Tracking Made Simple:**

Experience the ease of real-time location tracking with RAK2270. Simply tear, peel, and stick this compact tracker to any item, and gain instant visibility into its whereabouts. Seamlessly integrate RAK2270 into your tracking ecosystem, enabling efficient monitoring of assets across various industries.

### **Temperature Monitoring and Data Upload:**

RAK2270 goes beyond location tracking with its built-in temperature sensor. It accurately measures temperatures ranging from -20°C to 60°C, offering precise temperature resolution of 0.1°C. Simultaneously, the device effortlessly uploads the temperature data to the server, ensuring you stay informed about the environmental conditions of your assets.

### **Intelligent Positioning Frequency:**

Equipped with an integrated 3-axis accelerometer, RAK2270 automatically adjusts its positioning frequency based on movement detection. Whether stationary or on the move, this intelligent device efficiently conserves battery life by reducing unnecessary usage time.

### **Wide Range of LoRaWAN<sup>®</sup> Band Support:**

RAK2270 supports a diverse range of LoRaWAN<sup>®</sup> bands, including IN865, EU868, AU915, US915, KR920, RU864, and AS923-1/2/3/4. This broad compatibility ensures seamless integration into various regional networks, allowing you to deploy RAK2270 effortlessly and enjoy uninterrupted tracking capabilities.

With RAK2270, tracking becomes effortless and efficient. Transform the way you monitor and locate your assets by leveraging its intuitive design and advanced features. Embrace the future of asset tracking today with RAK2270 and unlock endless possibilities.

## 1.2 Product Features

- Location based on LoRaWAN<sup>®</sup>
- Real-time location tracking
- Utilizes the Location Estimator functionality of the Helium network server
- Built-in temperature sensor
  - Temperature measurement: -20°C ~ 60°C
  - Temperature resolution: 0.1°C
  - Operating temperature: -20°C ~ 60°C
- Built-in 3-axis accelerometer that auto-adjusts the positioning frequency
- Battery-operated:
  - Type: LiMnO<sub>2</sub>
  - Battery capacity: 600 mAh
- LoRaWAN<sup>®</sup> supported bands: IN865, EU868, AU915, US915, KR920, RU864, and AS923-1/2/3/4
- Module size: 85 x 118 x 1.5 mm

## 2 Product Specifications

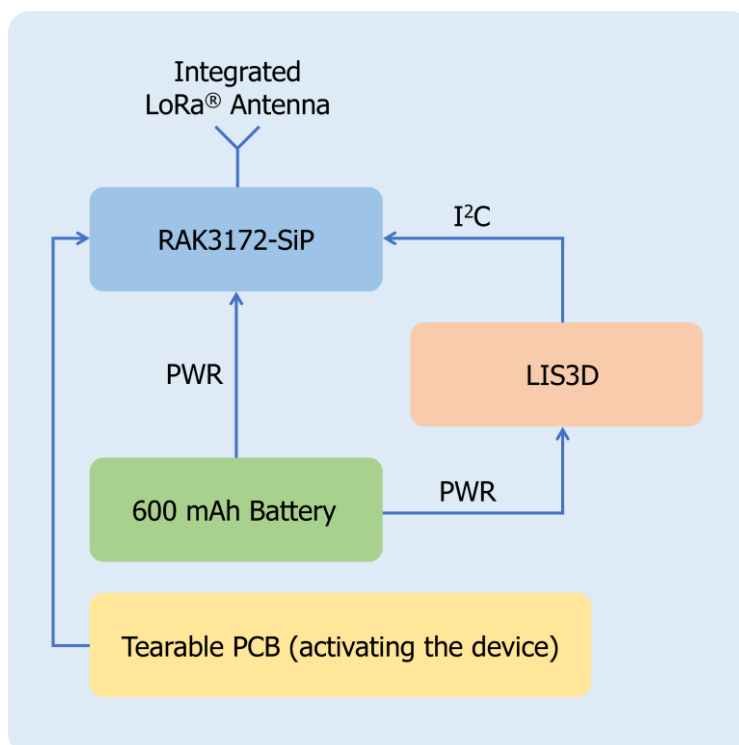
### 2.1 Block Diagram

RAK2270 integrates one RAK3172-SiP, one LIS3DHTR, and one LiMnO<sub>2</sub> battery.

RAK3172-SiP provides related LoRa<sup>®</sup> modem and processing functions.

LIS3DHTR is used for motion state judgment, determine the frequency of data transmission.

LiMnO<sub>2</sub> battery is used to power the system.



## 2.2 Main Specifications

Parameter		Values
Temperature	Measurement Range	-20°C ~ 60°C
	Resolution	0.1 °C
	Operating Temperature	-20°C ~ 60°C
Battery	Type	LiMnO2
	Nominal Battery Capacity	600 mAh
RF	Antenna Gain	2.0 dBi
	Maximum Output Power	22 dBm
Operating Temperature		-20°C ~ 60°C
Module Size		85 x 118 x 1.5 mm
Activation Method		Ri sensor (buttonless)

## 2.3 RF Characteristics

Operating Frequencies

Region	Frequency Band (MHz)
Europe	EU868
Canada	US915
North America	US915
Australia	AU915
Korea	KR920
India	IN865
Asia	AS923-1/2/3/4
Russia	RU864