

## Product Brief

**Model: LAS-603V2**

Ver.1.2

### *LoRaWAN Temperature Sensor*



## 1. Description

According to the worldwide HACCP topic, food safety is key important for customers. LAS- 603V2 T/RH (Temperature and Relative Humidity) sensor is designed for refrigerator wireless temperature monitoring. We may use this device to track ambient changes in temperature and humidity, and then stream the temperature data using wireless technology via LoRa. With LoRaWAN wireless module, this T/RH sensor status will be sent to the network server via gateways. Finally, authenticated users can monitor the status remotely. It is optional for frequencies 915MHz(USA), 920MHz(Taiwan, Japan, Singapore, Indonesia, Thailand) As it is with an algorithm of low power consumption, the internal battery will work for 5 years. And due to the embedded magnetic design, it is extremely easy for device setup.

## 2. Features

- Ambient temperature monitoring and remote reporting
- One-Time Lithium Battery
- Embedded magnet design to any iron metal face or equipment, plug, and play.
- Sensirion Digital temperature sensor IC SHT-31, fully calibrated, linearized, and temperature compensated digital output.
- Wild sensing operates temperature, 0~70°C
- Power-saving Long-Range (LoRa) transmission mode
- Low drift, high response, small size, easy installation, working stable
- Water-resistant level: IP65
- Long life, operation time at least up to 5 years with embedded battery.
- Configurable LoRa Parameters, time interval, SF, Frequency.

## 3. Applications

- Open show case temperature monitoring
- Walk-in refrigerator temperature monitoring
- Warehouse temperature monitoring
- Cold chain temperature monitoring
- Carry refrigerator temperature monitoring
- Greenhouse temperature monitoring

## 4. Product Specifications

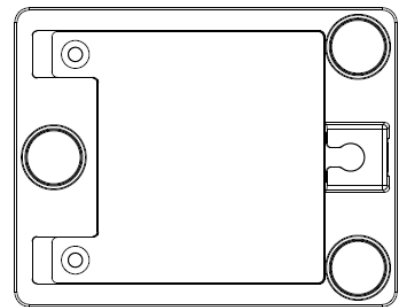
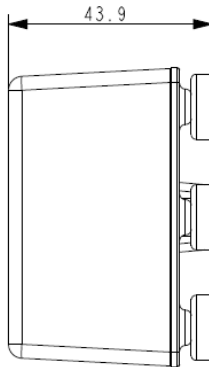
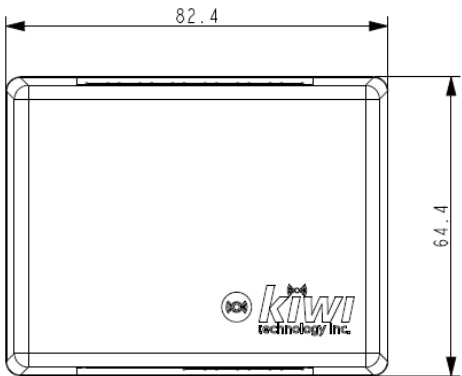
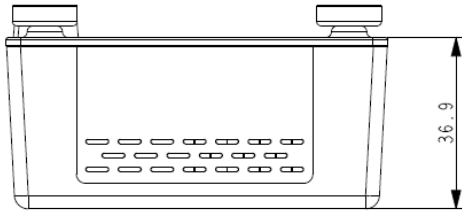
TECHNICAL SPEC	
TEMPERATURE MEASUREMENT RANGE	0 ~ 70°C
TEMPERATURE ACCURACY	Typ. ± 0.3 °C Max. ± 0.5 °C
TEMPERATURE RESOLUTION	0.1 °C
RELATIVE HUMIDITY MEASUREMENT RANGE	0~100%
RELATIVE HUMIDITY ACCURACY <sup>1</sup>	Typ. ± 2% Max. ± 3%
RELATIVE HUMIDITY RESOLUTION	0.1%
MEASURING INTERVAL	5 minutes. It can be adjusted via LoRaWAN cloud server
TRANSMISSION INTERVAL	1 hours. It can be adjusted via LoRaWAN cloud server
LORA	LoRa Module (certificate)
LORA FREQUENCY RANGE	920.6~ 928.0 MHz, Japan 920.0~ 925.0 MHz, Taiwan
LORA ANTENNA	Embedded antenna
POWER INPUT	Embedded battery, Lithium battery two cells pack, 4800mAh.
OPERATION LIFETIME <sup>2</sup>	5 years
MECHANISM	
Color	White Gray back cover
DIMENSION (mm)	82.4 x 64.4 x 36.9
WEIGHT (g)	140
ACCESSORIES IN PACKAGE	Screw x 2
ENVIRONMENT	
OPERATION TEMPERATURE	0 ~ 70°C
STORAGE TEMPERATURE	-40 ~ 85°C
OPERATING RELATIVE HUMIDITY	0~100%
CERTIFICATE	TELEC, VCCI, NCC, BSMI, FCC, RoHS, REACH

<sup>1</sup> Relative humidity accuracy defined under 0~90% RH range.

<sup>2</sup> Operation lifetime is considered under 0°C, measuring interval 5 minutes, and transmission interval 1 hour.

## 5. Mechanical Drawing

Unit: mm



## History

Date	Version	Revision Description	Writer
2021/08/04	v1.2	<ul style="list-style-type: none"><li>- Format update</li><li>- Correct wrong spec. and description</li></ul>	Chris Chuang