



MOKO SMART



## LW002-TH

Datasheet

Version 1.1

MOKO TECHNOLOGY LTD.  
[www.mokosmart.com](http://www.mokosmart.com)

# Content

1 Product Introduction.....	1
1.1 Application .....	1
1.2 Key Feature.....	1
2 Technical Parameter.....	2
3 Indicator & Button Status.....	3
4 Mechanical Size .....	4
5 Package Information .....	4
6 Order Information.....	5
7 Revision History .....	5

# 1 Product Introduction

LW002-TH is a LoRaWAN temperature and humidity sensor for measuring indoor and outdoor environment, and it is easily deployed and configured. It adopts dedicated digital module acquisition technology and temperature and humidity sensing technology to ensure high reliability and long-term stability of products. LW002-TH is powered by 12000mAh non-chargeable battery. The Battery life is estimated to be up to 5 years but depends on sample interval, transmit interval, data rate and environmental factors. LW002-TH could be applied to any type of environment, and ideally suited for a wide range of applications such as Intelligent agriculture, urban monitoring, air quality, industrial, environmental or farming projects.

LW002-TH supports external temperature and humidity probe.



SHT30 Probe Version



SHT30 Waterproof Probe Version



PT100 Waterproof Probe Version

## 1.1 Application

- Intelligent agriculture
- Greenhouse
- Animal husbandry
- Warehouse
- Fresh foods storage and transportation
- Machine room
- Medicine storage

## 1.2 Key Feature

- Supports external temperature and humidity probe (SHT30 probe, SHT30 Waterproof probe,

PT100 Waterproof probe)

- Based on standard LoRaWAN Protocol
- Support a wide range frequency plan
- Support both Class A and Class C mode
- built-in 12000mAh non-chargeable battery
- Ultra-Low Power, Max 5-year operating time
- Low battery indicator
- Support over threshold alarm
- Support both APP local configuration and server remote downlink configuration of device parameters
- Firmware update Over The Air (OTA)

## 2 Technical Parameter

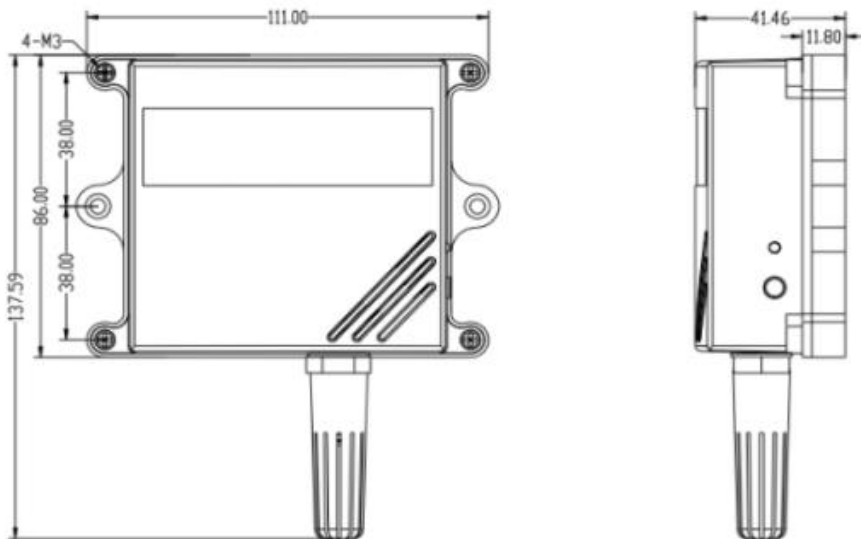
Categories	Parameter	Value
Wireless Parameter	LoRa Protocol	LoRaWAN
	LoRa Frequency	CN470/EU868/AU915/US915/AS923
	Max Transmitted Power	19dBm
	Sensitivity	-142.5dBm@SF12 300bps
Standard Version Sensor Specification	Humidity	10%~90% ( $\pm 3\%$ )
	Temperature	-10°C~50°C ( $\pm 1^\circ\text{C}$ )
SHT30 Probe & SHT30 Waterproof Probe Version Specification	Humidity	10%~90% ( $\pm 3\%$ )
	Temperature	-10°C~50°C ( $\pm 1^\circ\text{C}$ )
PT100 Waterproof Probe Version Specification	Humidity	none
	Temperature	-50°C~200°C ( $\pm 0.5^\circ\text{C}$ )
Physical Parameter	Dimension	110×85×42mm
Hardware Specification	Power Supply	12000mAH non-chargeable battery
	Sleep Mode Current	$\leq 20\mu\text{A}$

	Operating Current	Max 150mA@20dBm
	LoRa Communication Distance	≥1500m in urban area
Application Parameter	Host Operating Temperature	-10 ~ 50°C
	Host Operating Humidity	10% ~ 90%
	IP Rate	IP65

### 3 Indicator & Button Status

Item	Indicator status	Operation
Turn On	Solid blue and keep 3S	Press and hold the button for 5s
Turn Off	Red LED blink 3S	Press and hold the button for 5s
Enable Bluetooth Function	Blue LED blink one time every 3s	When Bluetooth function is off, press and hold the button for 2s
Disable Bluetooth Function	Blue LED go out	When Bluetooth function is on, press and hold the button for 2s
Low Power Prompt	Red LED blink one time every 30s	
Trigger The Alarm	Blue LED and Red LED blink one time together every 10s	The current temperature or humidity is beyond the threshold

## 4 Mechanical Size



All dimensions are in mm.

## 5 Package Information




## 6 Order Information


Product Type	Product Description
LW002-TH-US915	915MHZ LoRaWAN Temperature and Humidity sensor
LW002-TH-EU868	868MHZ LoRaWAN Temperature and Humidity sensor

## 7 Revision History

Revision	Description	Editor	Date
V1.0	Initial Release	Iris	2019.08.12
V1.1	Add probe version specification	Allen	2021.05.22

## MOKO TECHNOLOGY LTD.

 4F, Buidling2, Guanghui Technology Park,  
MinQing Rd, Longhua, Shenzhen, Guangdong, China

 Tel:86-755-23573370-829

 Support\_LoRa@mokotechnology.com

 <https://www.mokosmart.com>

