

**SenseCAP S2120**  
**LoRaWAN 8-in-1 Weather Station**





## PRODUCT DESCRIPTION

Scan-and-Play Simplicity, Easy Configuration via Bluetooth in Just 1 min. Built-in Bluetooth avoids time-consuming configuration works to bring no code experience to individuals with less or no technical background to quickly get started with weather detection.

## FEATURES

- 8-in-1 Weather Station: Collect air temperature, humidity, wind speed/direction, Rainfall Intensity, light intensity, UV index, and barometric pressure data in one device and upload them via LoRaWAN
- Bluetooth Configuration in 1 min & Remote Management: Simple configuration with just a few clicks, supports remote monitoring and managing real-time & historical data via the SenseCAP Mate App (Download here: 1. iOS; 2. Google Play; 3. App Center) and SenseCAP Portal
- Ultra-low Power Consumption, Easily Replaceable Battery & Expandable Capacity: Powered by 0.5W solar panel and 3\*standard 1.5V AA size dry batteries with up to 2 years service life (support external battery compartment with capacity for six batteries to double the service life)
- Reliable Performance: Suitable for outdoor harsh environments such as high UV exposure, heavy rain, dusty conditions, etc
- One-stop Deployment & Flexible Layout: Accessories include poles, mounting stand, etc. for quick installation and can be set up at almost any location

## APPLICATION

- Backyard and Garden: Measure air temperature and humidity, Rainfall Intensity, UV index, etc. in the backyard and garden to protect your family.
- Smart Agriculture: Enable farmers to obtain climate data and information in time, take scientific management measures into production, and improve agricultural production capacity and level.
- Meteorology: Support applications in the professional meteorological field, for example, timely reflect the changes of various abnormal meteorological conditions in the field of traffic and transportation to provide real-time scientific basis data for traffic management departments.
- Urban Weather: Provide real-time data for urban squares, parks, scenic spots, golf courses, and other urban areas.



## SPECIFICATIONS

### PRODUCT MODEL

Model	S2120
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### GENERAL PARAMETER

Microcontroller	WM-LR1110
Support Protocol	LoRaWAN v1.0.3 Class A
Built-in Bluetooth	App Tool to change parameters
LoRaWAN Channel Plan	IN865/EU868/US915/AU915/AS923/KR920/RU864
GPS	Need to customize
Max Transmitted Power	21dBm
Sensitivity	-141dBm@SF12 BW=125KHz
Communication Distance	2 to 10km (depending on gateway antenna and environments)
Protection grade	Suitable for outdoor scenes
Operating Temperature	-20 to +60 °C (Alkaline battery) -40 to +60 °C (Lithium battery)
Operating Humidity	0~99%RH
Device Weight	1.5 kg
Certification	CE / FCC / RoHS

### POWER SUPPLY

Solar Panel	0.5W (When there is sunlight, solar panels will be used first, otherwise batteries will be used)
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## POWER SUPPLY

Battery Type	AA size, 1.5V batteries (alkaline or non-rechargeable Lithium battery)
Number of Battery	Option1, built-in battery box: 3 * AA battery Option2, external battery box: 6 * AA battery
Battery Life	2 years (Solar Panel + 6*AA Battery, 1h/uplink)
External Battery Box	Support 6 * AA 1.5V batteries Cable: 2m IP Rating: IPX6

## AIR TEMPERATURE

Range	-40.0 ~ 80.0 °C
Accuracy	±0.5°C (0~80°C); ±0.6°C (-40~0°C)
Resolution	0.1°C

## AIR HUMIDITY

Range	1~99 %RH
Accuracy	±3% (1~90%RH); ±4% (90~99%RH)
Resolution	1%RH

## BEROMETRIC PRESSURE

Range	540 ~ 1100hPa
Accuracy	±5hPa(700~1100hPa); ±8hPa (540 ~ 699hPa)
Resolution	1hPa

**WIND SPEED**

Range	0~50.0m/s
Accuracy	±0.5m/s (<5m/s); ±10% (> 5m/s)
Resolution	0.1 m/s

**WIND DIRECTION**

Range	0~360°
Accuracy	± 8°
Resolution	1°

**LIGHT INTENSITY**

Range	0 ~ 200000 lux
Accuracy	± 10%
Resolution	1lux

**UV INDEX**

Range	0 ~ 16.0
Accuracy	±1.5
Resolution	0.1

**RAIN HOURLY**

Range	0 ~ 450 mm/h
Accuracy	± 7%
Resolution	0.254 mm/h