#### atomsenses





## **Indoor Ambient Environment Sensor**

SKU: AS-201



The Atomsenses AS-201 is a highly accurate and competitively priced LoRaWAN sensor. It utilizes CMOSens® Technology for precise Carbon Dioxide measurements. It also features NDIR measurement technology for  $\rm CO_2$  detection with integrated humidity and temperature sensor.

Our special algorithms enable accurate measurement of ambient humidity and temperature by compensating for external heat sources without extra components.

The sensor has an Ultra-low Power design and smart firmware, allowing it to last up to 5 years with three AA-type batteries. It can transmit data over long distances to any brand of LoRaWAN gateway.

#### LoRaWAN communication

LoRaWAN communication standard to allow sensor connect to any LoRaWAN Gateway on the market

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Ultra-low power sensing technology with Ultra-low power wireless technology allowing the sensor to last up to 5 years with 03 x AA batteries

#### **⊘** Industrial Grade High Accuracy

Advanced ultrasonic sensor to deliver high accuracy and stable measurement

**⊘** Supports ODM & OEM



- Temperature: Range: -40°C ~ 125°C; Resolution: 0.01°C; Accuracy: ±0.2°C
- Humidity: Range: 0~100%RH; Resolution: 0.01%RH; Accuracy: ±1.8%RH
- Carbon Dioxide (CO<sub>2</sub>): Range: 0~5000PPM; Resolution:
  1PPM; Accuracy: ± (50 ppm + 5 % of reading)

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#### LoRaWAN 3-in-1 Temp / Humidity / CO2 Sensor

Smart Agriculture, Smart Building, Smart City, Smart Facility, Smart Factory, Smart Farm, Smart Healthcare, Smart Retail, Smart Transportation

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# **Specification**

	Wireles	ss Transmission
Technology		LoRaWAN®
Frequency		EU868/US915/AU915/KR920/AS923-1&2&3&4
Tx Power		16 dBm (868 MHz)/22 dBm (915 MHz)/19 dBm (470 MHz)
Sensitivity		-137dBm @300bps
Mode		OTAA/ABP Class A
		Sensors
Temperature	Temperature Range	-40°C to + 125°C
	Accuracy	±0.2°C
	Resolution	0.01°C
	Humidity Range	0% to 100% RH
Humidity	Accuracy	±1.8%RH
	Resolution	0.01% RH
	Carbon Dioxide (CO2) Range	400 to 5000 ppm
Carbon Dioxide (CO2)	Accuracy	± (50 ppm + 5 % of reading)
(002)	Resolution	1 ppm
	Physica	Il Characteristics
Power Supply		2 × 2700 mAh ER14505 Li-SOCI2 Replaceable Batteries
Battery Life		Up to 5 Years
Operating Temperature		-20°C to +60°C
Relative Humidity		0% to 95% (non-condensing)
Ingress Protection		IP30
Dimension		98 × 98 × 29.5 mm
Installation		Wall Mounting