

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

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 CO₂ 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

✓ Up to 5 years powerful battery

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: -40°C – 80°C; Accuracy: ±0.5°C
- Humidity: 0% ~100% RH; Accuracy: ±3%RH
- Carbon Dioxide (CO₂): Range: 400~5000PPM; Resolution: 1PPM; Accuracy: ±5%

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

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Specification

Wireless 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	-20°C to +70°C
	Accuracy	0°C to +70°C (+/- 0.3°C), -20°C to 0°C (+/- 0.6°C)
	Resolution	0.1°C
Humidity	Humidity Range	0% to 100% RH
	Accuracy	10% to 90% RH (± 3%), below 10% and above 90% RH (± 5%)
	Resolution	0.5% RH
Carbon Dioxide (CO2)	Carbon Dioxide (CO2) Range	400 to 5000 ppm
	Accuracy	± (50 ppm + 5 % of reading)
	Resolution	1 ppm
Physical 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	