

packetSENSE Indoor Air Quality

The packetSENSE Indoor Air Quality Sensor is a compact, LoRaWAN®-enabled device that continuously monitors key indoor air parameters, including PM2.5, PM10, CO₂, VOCs, formaldehyde, temperature, and humidity. Data is transmitted wirelessly and visualized through the packetVIEW dashboard or third-party platforms for easy analysis and reporting.

By providing real-time air quality insights, the device helps maintain a healthy and productive indoor environment, supporting DOH and DOLE compliance while reducing the risk of sick building syndrome and airborne health concerns.



Features

- **LoRaWAN®-compatible** for seamless IoT integration
- **Optimized** end-node design for reliable data transmission
- **Periodic** status updates for real-time monitoring
- **5V DC** powered for continuous operation
- **Measures** CO₂, TVOC, temperature, humidity, and dust levels
- **Compact design** ideal for indoor installation

Applications

- **Indoor air quality** monitoring
- **Smart offices** and buildings
- **Pollution** and emission control
- **Office automation** systems
- **Environmental** and carbon tracking

Technical Specification

Data Communication Supported

Technology	LoRaWAN®
Frequency	AS923-3 (915 MHz)
Tx Power	16 dBm

Sensor Specifications

Temperature

Range	-20°C to 60°C
Accuracy	± 0.2°C
Resolution	±0.1 °C

Humidity

Range	0% to 100% RH
Accuracy	± 2% RH
Resolution	±0.5% RH

TVOC

Range	1.00 to 5.00 (IAQ Index)
Accuracy	±1

Carbon Dioxide (CO₂)

Range	400 to 2000 ppm
Accuracy	± (50 ppm+ 5% of reading)
Resolution	1ppm

PM2.5 & PM10

Range	0 to 1000 µg/m ₃
Accuracy	0~100(±10µg/m ₃), 100~1000(±10 %) (-10°C~60°C)
Resolution	1µg/m ₃

Formaldehyde (Optional)

Range	0 to 1.25 mg/m ₃
Accuracy	±10 %
Resolution	0.01 mg/m ₃

Ozone (Optional)

Range	0 to 10 ppm
Accuracy	±5 %FS
Resolution	0.01 ppm

Display & Configuration

Configuration	PC Software via USB Type-C port
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Electrical

Power Supply	5V/1A by Type-C port
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General Characteristics

Power Supply	-20 °C to 60 °C
Relative Humidity	10% – 90% (non-condensing)
Ingress Protection	IP30
Dimension	100.8 x 114 x 22 mm ³
Mounting	3M Tape Mounting, Wall Screw Mounting

LoRa Alliance Member

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