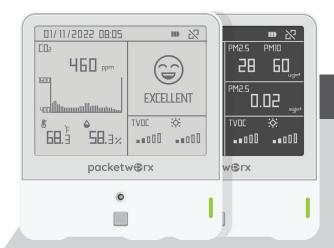# packetSENSE

Indoor Air Quality Sensor

The **packetSENSE Indoor Air Quality Sensor** is a highly efficient device designed to monitor various indoor air quality parameters, including particulate matter (PM 2.5 and PM 10), CO2 levels, volatile organic compounds, formaldehyde, temperature, and humidity. It collects data regularly and presents it in an easy-to-understand format via the packetVIEW dashboard or third-party platforms. Utilizing the LoRaWAN® protocol, it enables wireless data transmission and provides timely air quality updates to users.

By monitoring the air quality in real-time, the packetSENSE sensor plays a crucial role in maintaining a healthy work environment, thereby enhancing employee well-being and productivity. It supports compliance with health and safety standards set by the DOH and DOLE, improves comfort, reduces the risk of sick building syndrome, and helps in mitigating the spread of COVID-19.

Features

- LoRaWAN®-compatible
- Optimized as IoT end-node
- Periodic status update
- Powered by a 5V plugged connection
- CO_2 monitoring, TVOC Index (Total Volatile Organic Compound Index), temperature, humidity, and dust level sensors
- Fit for indoor installation

Applications

- Air quality monitoring
- Smart Office
- Smart Building
- Pollution control
- Office automation
- Carbon emission monitoring

Technical Specification

LoRa Properties

Technology	LoRaWAN®
Work Mode	Class C
Sensitivity	-137 dBm @300 bps
Frequency	EU868/AS923-3
Tx Power	16 dBm

Sensors

Temperature

Range	-20˚C~60˚C
Accuracy	± 0.2˚C
Resolutions	±0.1 ˚C

Humidity

Range	0% ~ 100% RH
Accuracy	± 2% RH
Resolutions	±0.5% RH

TVOC

Range	1.00 ~ 5.00 (IAQ Index)
Accuracy	±1

Carbon Dioxide (CO_2)

Range	400 ~ 2000 ppm
Accuracy	± (50 ppm+ 5% of reading)
Resolutions	1ppm

PM2.5 & PM10

Range	0 ~ 1000 µg/m3
Accuracy	0~100(±10µg/m3), 100~1000(±10 %) (-10˚C~60˚C)
Resolutions	1µg/m3

Formaldehyde *(Optional)*

Range	0 ~ 1.25 mg/m3
Accuracy	±10 %
Resolutions	0.01 mg/m3

Ozone *(Optional)*

Range	0 ~10 ppm
Accuracy	±5 %FS
Resolutions	0.01 ppm

Display & Configuration

Configuration	PC Software via USB Type-C port

Physical Characteristics

Power Supply	5V/1A by Type-C port
Operating Temperature	-20 ˚C – 60 ˚C
Relative Humidity	10% – 90% (non-condensing)
Ingress Protection	IP30
Dimension	100.8 x 114 x 22 mm3
Installation	3M Tape Mounting, Wall Screw Mounting

packetworx

WE CONNECT THINGS

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