

# Ambee Indoor Air Quality Monitor



The Mark

## What is it?

The AMBEE Indoor Air Quality Monitor is a smart device that measures various environmental parameters that affect air quality, such as:

Particulate matter (PM1.0, PM2.5, PM4 and PM10)

Carbon dioxide (CO2)

Total volatile organic compound (VOCs)

Carbon Monoxide(CO)

Temperature and humidity



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## Why do you need it?

Indoor air quality is important for your health, comfort, and productivity. Poor indoor air quality can cause various health problems, such as:

Respiratory infections
Allergies and asthma
Headaches and fatigue
Cognitive impairment
Increased risk of COVID-19 transmission



By monitoring the indoor air quality, you can take action to improve it and create a healthier environment for yourself and others. You can also save energy and money by optimizing your ventilation and air conditioning systems based on the real-time data.

#### How does it work?

The AMBEE Indoor Air Quality Monitor is easy to use and install. You just need to plug it into a power source and connect it to your Wi-Fi network. The device will start measuring the air quality parameters and display them on a 0.96 inch OLED screen optionally. You can also access the data remotely via the AMBEE MQTT broker or the REST API.

The device uses color codes to indicate the air quality level based on the AQI standards. You can also switch between individual parameters and see the historical trends. The device has a modular design that allows you to choose the sensors that suit your needs.



#### Where can you use it?

The AMBEE Indoor Air Quality Monitor can be used in various indoor environments, such as:

Homes and offices
Schools and universities
Hospitals and clinics
Hotels and restaurants
Gyms and spas
Shopping malls and cinemas



The device can help you monitor and improve the indoor air quality in any space where people spend time. It can also help you achieve healthy building certifications, such as RESET, WELL, or California Title 24.

### **Product Specification:**

Detail	Specification
Detection Parameter	PM1, PM2.5, PM4.0,PM10,TVOC Index, NO2 Index, CO2, Temperature and Humidity
Display(Optional)	0.96 inch OLED display LED Indicator for non display model
IAQ Monitor Power Supply	5V, 2A USB
Operating Temperature	0-70 °C
Humidity	0 to 90% Rh
Storage Condition	-10 to 50 °C
Output(Interface)	4G(LTE),Wi-Fi, BLE 4.2(Optional on custom request)
Dimensions	127 × 82 × 29 MM
Net Weight	<300gms
Enclosure and IP level	Polycarbonate (RoHS), IP55
Air Quality Index(AQI)	Display Model: Air quality index value and status are displayed on the OLED display. Non-Display Model: Air quality index status is indicated using a LED {Green (Good), Yellow (Moderate), and Red (Unhealthy)}

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### Sensor Specification(Base Package)

#### Particulate Matter Environmental Sensor Node

Parameter	Value
Mass concentration precision	±10%
Mass concentration range	0 - 1000 μg/m³
Particle size range	PM1.0, PM2.5, PM4 and PM10
Typ. temperature accuracy	0.45 °C
Operating temperature range	-10 - 50 °C
Typ. relative humidity accuracy	4.5 %RH
Operating relative humidity range	0 - 90 %RH
VOC sensor output	0-500 VOC Index
Measurement range	0 - 1000 ppm
NOx sensor output***	0-500 NOx Index
Supply voltage	4.5 V
Average supply current	63000 uA
Max. supply current	110000 uA
Size (LxWxH)	52.8 × 43.6 × 22.3 mm <sup>3</sup>

#### Particulate Matter Environmental Sensor Node

Parameter	Value
CO2 accuracy	± (40 ppm + 5% of reading) for 400 - 5000 ppm
Temperature accuracy	± 6 °C for 15 - 35 °C
Humidity accuracy	± 6 %RH for 15 - 35 °C, 20 - 65 %RH
Supply voltage	2.4 - 5.5 V
Apply Supply Current	15 uA
Size (LxWxH)	10.1 × 10.1 × 6.5 mm <sup>3</sup>