

Part Number: 101020613

Description: Grove - Laser PM2.5 Dust Sensor - Arduino Compatible - HM3301

The Grove - Laser PM2.5 Sensor (HM3301) is a new generation of laser dust detection sensor, which is used for continuous and real-time detection of dust in the air. With its stable output, low noise, and ultra-low power consumption, it is suitable for air conditioners, intelligent air purifiers, and other air quality-related IoT projects.

Different from the traditional pumping dust detection sensor, the HM-3301 innovatively uses fan blades to drive air, and the air flowing through the detection chamber is used as a test sample to perform a real-time and continuous test on dust of different particle sizes in the air.

This module is a perfect choice for dust detectors, intelligent air purifiers, intelligent air conditioners, intelligent ventilation fans, air quality testing, haze meters, environmental monitoring, and relative products and applications.

## Overview:

The Grove - Laser PM2.5 Sensor (HM3301) is a new generation of laser dust detection sensor, which is used for continuous and real-time detection of dust in the air. With its stable output, low noise, and ultra-low power consumption, it is suitable for air conditioners, intelligent air purifiers, and other air quality-related IoT projects.



## Product Details:

### Features:

- Real-time & continuous detection of dust concentration in the air
- High sensitivity on dust particles of 0.3  $\mu\text{m}$  or greater
- Based on laser light scattering technology, readings are accurate, stable, and consistent
- Low noise and Ultra-low power consumption.

## Typical Applications:

- Air purifier, air conditioner
- Air quality testing equipment
- Industrial PM value analysis
- Dust and smoke detection and analysis
- Real-time PM2.5, PM10, TSP detector
- Multichannel particle counter
- Environmental testing equipment.

## Pin Out:



- 4 GND: connect this module to the system GND
- 3 VCC: you can use 5V or 3.3V for this module
- 2 SDA: I<sup>2</sup>C serial data
- 1 SCL: I<sup>2</sup>C serial clock

### SET

Set the pin/TTL level @3.3V, high or floating for normal operation mode, low level for sleep mode

### RESET

Module reset signal / TTL level @3.3V, low reset

## Part List

Grove - Laser PM2.5 Sensor (HM3301)	1
Grove Cable	1

## ECCN/HTS

HSCODE	9031809090
USHSCODE	9031808070
UPC	841454121794