

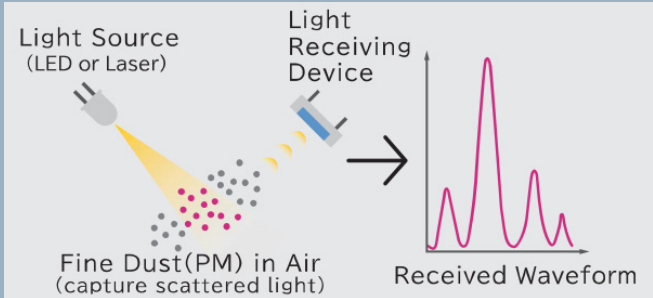


## New SN-GCQB1 Laser Type Air Quality Sensor

PM2.5 refers to fine particulate matter smaller than 2.5 micrometers suspended in the air and invisible to the naked eye. It raises health concerns due to its ability to penetrate the respiratory system. The SN-GCQB1 Sensor can measure temperature, humidity, total volatile organic compounds (TVOC), and equivalent carbon dioxide (eCO<sub>2</sub>) with onboard microprocessor, micro-fan, laser diode and VOC sensor.

## PM2.5 Sensor detects particulate matter 2.5, which is invisible to the eye

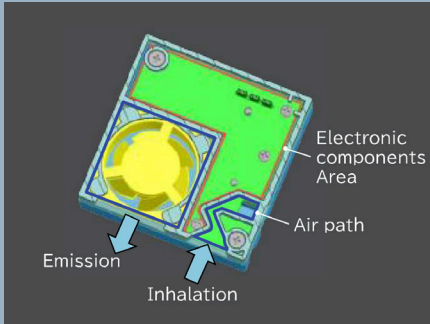
### What is PM Sensor?



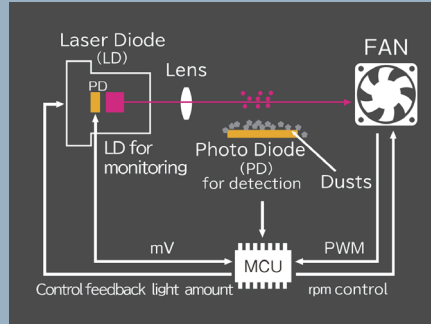
PM Sensor is a type of optical sensor. The Photodetector in a PM Sensor detects fine dust (particle matter) in air by capturing reflected light from objects.

### Product Lineup

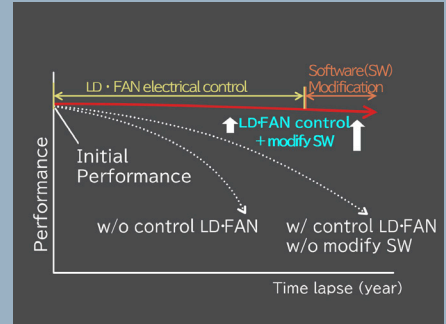
		SN-GCQB1
Appearance		
Type		Laser
Detectable	PM1.0	Measurable
Objects	PM2.5	35 ~ 1,000µg/m <sup>3</sup> : ± 10%
&	PM10	± 10%
Accuracy	Pollen	x
Concentration range		1 ~ 1,000µg/m <sup>3</sup>
Minimum detectable particle size		0.3 µm
Life Duration		10+ years
Dimension		37 x 37 x 12mm
Operating temperature		-10 °C ~ 60 °C
Output format		UART, I2C
PM Output		PM1.0/PM2.5/PM10 mass density (µg/ m <sup>3</sup> ) Number of counts by particle size (6 ranges) (pieces) Sensor status information
TVOC Output		IAQ Levels 1 ~ 5
eCO <sub>2</sub> Output		400 ~ 5,000 ppm
Humidity Output		0 ~ 95 %RH
Power Source		5V (data output: 3.3V)



A unique structure that prevents particles from entering the upper PCB



Long life is another key feature. It is made possible by minimizing unnecessary operations of vital parts (Laser, Fan, etc.)



The performance can be maintained by applying unique correction technology to the parts that typically degrade over time

## Applications



Visualization of air cleaning functionality of the air purifier



Visualization of air cleaning functionality of the air conditioner



Air environment monitoring in the HEMS (home energy management system) field

## Learn More:



<https://na.industrial.panasonic.com/products/sensors/sensors-automotive-industrial-applications/lineup/laser-type-pm-sensor>