

## Visualize Air Quality

PM2.5 Sensor

50  $\mu\text{g}/\text{m}^3$   
PM2.5 INDICATOR

\*The image is for illustrative purpose only.

### PM2.5 is...

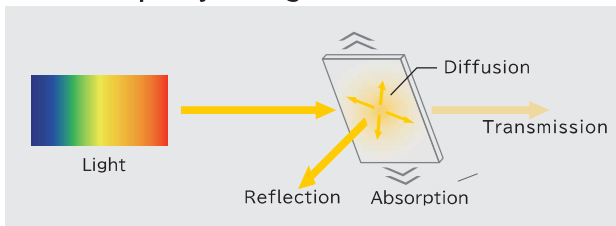
PM2.5 is a general term for fine particulate matter of 2.5  $\mu\text{m}$  or less that is suspended in the air.

It cannot be seen with the naked eye.

Some concerns have been raised about its influence to the human body, including its propensity to penetrate deep into the respiratory tract.

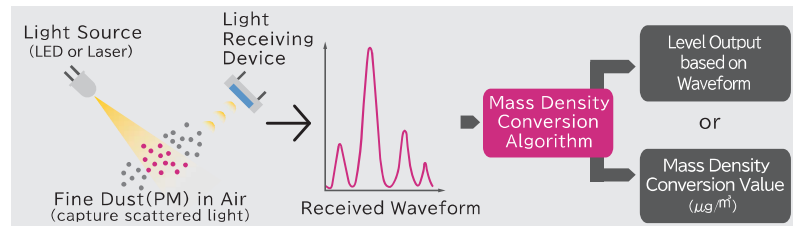
## PM2.5 Sensor, detects particle matter 2.5, which is invisible to the eye.

### Basic Property of Light



Light is reflected (diffused) or absorbed, and/or transmitted as described above when light is applied to substances. "Optical Sensor" is to measure and analyze the data which is received from the light from objects.


### What is PM Sensor?



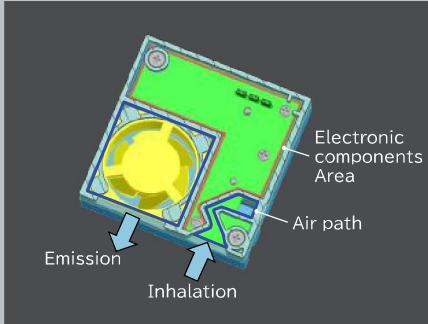
PM Sensor is a kind of optical sensor. Photodetector in PM sensor detects fine dust (particle matters) in air by capturing scattered light from objects.

The sensor contributes to "Visualize Air Quality."

### Product Lineup

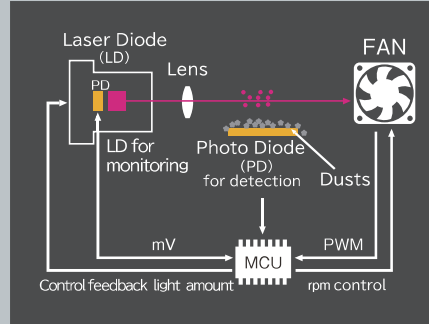
		SN-GCJA5
Appearance		
Type		Laser
Detectable Objects & Accuracy	PM1.0	Measurable
	PM2.5	35~1,000 $\mu\text{g}/\text{m}^3$ : $\pm 10\%$
	PM10	$\pm 10\%$
	Pollen	x
Concentration range		1~1000 $\mu\text{g}/\text{m}^3$
Minimum detectable particle size		0.3 $\mu\text{m}$
Life duration		5 years (keep accuracy)
Dimension		37 x 37 x 12mm
Operating temperature		-10°C~60°C
Output format		UART, I2C
Output		PM1.0/PM2.5/PM10 mass density ( $\mu\text{g}/\text{m}^3$ ) Number of counts by particle size (6 ranges) (pieces) Sensor status information
Packaging shield		Shielding function
Update interval / Averaging process		1sec. / 20sec.
Power source		5V (Data output: 3.3V)
DC fan motor		Equipped

Fouling Resistant



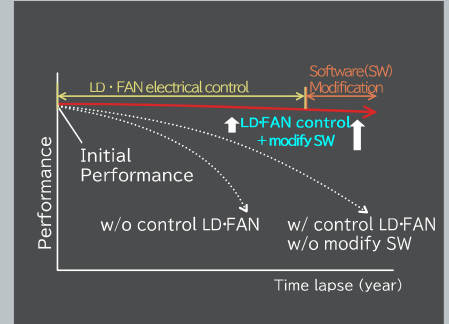
Special inside structure that the air containing fine particles dose not pass upper of PCB, can control performance deterioration.

Long Life



Long life has realized by avoiding unnecessary operation of key parts (Laser, FAN...etc.).

Keep Performance



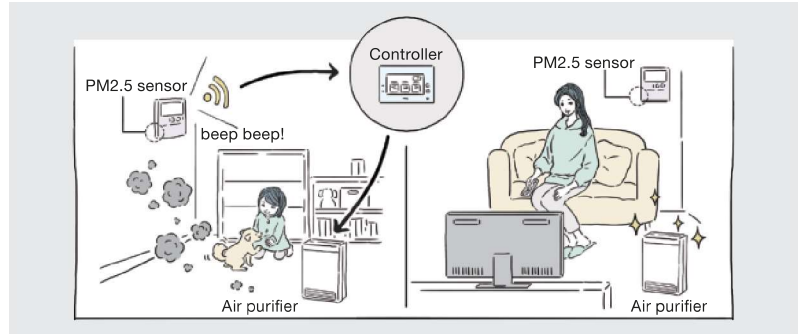
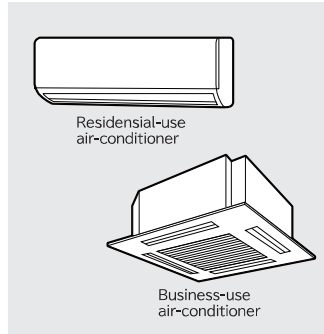
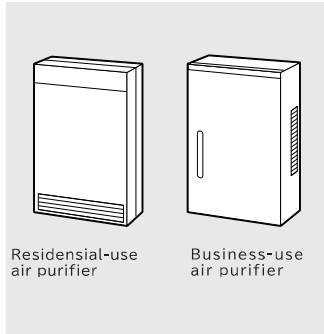
The performance can be maintained by unique correction technology to the parts those are degraded in accordance with the passage of time.

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.



For product inquiries

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Product site :

<https://panasonic.co.jp/ew/pldv/en/f-products/pm2.5/>

