Panasonic

SN-GCJA5 Particulate Matter Laser Sensor

- On board Laser Diode provides Particulate Matter detection for indoor air quality ($\pm 10\%$, from low to high concentrations ~ 1,000 μ gm3)
- Output mass-density value of PM1.0, Pm2.5 and PM10 (µgm3)
- Minimum detectable particle: 0.3µm ■ Very small footprint: 37×37×12mm
- Weight: 13g
- Extended lifetime optimized by S/W control
- Optimized air pathway design to minimize dust accumulation





■ SN-GCJA5

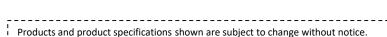




Power supply voltage	5.0V (±10%)
Consumption current	Below 100mA
Minimum detectable particle	0.3μm
Indicatable range	(UART) 0μg/m³ \sim 2,000μg/m³ (I²C) 0μg/m³ \sim x,xxxμg/m³
Maximum consistency error	$\pm 10\%$ 35 μ g/m³ $<$ 、 $<1,000\mu$ g/m³
Response time	1sec (Time to first reading 8sec)
External interface	I ² C & UART
Size	W37×D37×H12mm

■ Typical Sources of Particulate Matter:

- Dust, fly ash, soot, smoke, aerosols, fumes, mists and condensing vapors
- Combustion engines (diesel and petrol)
- Solid-fuel (coal burning, heavy oil and biomass)
- Cooking / smoking of plant matter, Fireplaces, Furnaces
- Construction materials
- Building, demolition, mining, manufacture of cement and smelting
- Pavement erosion by road traffic /abrasion of brakes and tires.
- Agriculture (source of ammonium).
- Nitrogen oxides (emitted by traffic and industrial processes)
- Sulfur dioxide (from the combustion of sulfur-containing fuels).
- Power-plant boilers to ship boilers, central steam-heat boilers
- Waste incineration / local field burning
- House and forest fires



Please contact your local Panasonic Technical Representative for the most up to date information.

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