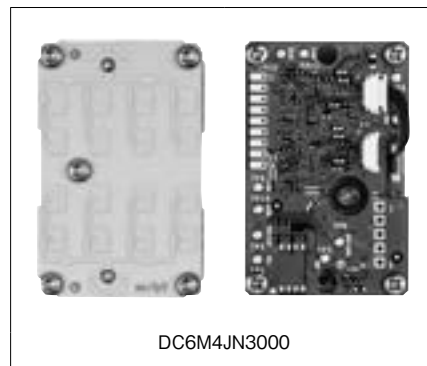


■ Non-contact Vital & Motion Sensor Module

◆ Features

- (1) Measures heart and breathing rate without contact using the Doppler effect.
- (2) The module can be embedded in products as sensing is possible through obstructions (except in cases where the obstructions are metal or metal plated).
- (3) Enables stable measurement without being affected by factors such as temperature, direct sunlight, or reflector color.



◆ Standard Specifications

Model No.	☆DC6M4JN3000
Output frequency (GHz)	24.05 to 24.5
Output interface	UART interface (baud rate: 115 200; data bit length: 8 bits)
Applications	Heart rate / Breathing rate / Body motion
Measurable distance (m)	MAX. 1 (heart rate and breathing rate)
Antenna	Planar antenna with 8 patch Tx / Rx antenna elements
Antenna pattern (deg.)	30 (azimuth), 26 (elevation)
Power supply (V)	3.3
Dissipation current (mA)	100 (including signal processing)
Outline dimensions (W)×(D)×(H) (mm)	RF module: 31 × 47.5 × 14.5 Signal processor: 30.0 × 46.5 × 5.0

■ Ionizing Radiation Sensor Module

◆ Features

- (1) Low-noise amplifier to efficiently amplify weak currents
- (2) Built-in circuit to eliminate noise caused by vibration and shock
- (3) Compact module size thanks to a newly developed dedicated IC (25 × 20 × 2.5 mm)
- (4) Low power consumption (7.5 mW at normal operation)



◆ Standard Specifications

Model No.	QM1H0M0058
Object to be detected	Gamma ray (γ-ray) (Detector: PIN photodiode)
Measuring range (μSv/h)	0.05 to 20
Output interface	I ² C output
Power supply voltage	DC 5 V (Photodiode), 2.75 V (Analog), 1.8 V (Digital)
Power consumption (mW)	7.5 (at normal operation)
Outline dimensions (mm)	25 × 20 × 2.5

Notice

In the absence of confirmation by device specification sheets, SHARP takes no responsibility for any defects that may occur in equipment using any SHARP devices shown in catalogs, data books, etc. Contact SHARP in order to obtain the latest device specification sheets before using any SHARP device.

■ PM2.5 Sensor Module

◆ Features

- (1) Easy assembly for use in air purifiers and other products thanks to small size of 53 × 40 × 51 mm
- (2) Industry's shortest*1 detection time of 10 seconds
- (3) Digital output model is also part of line-up

*1: As of May 1, 2015 (measured by Sharp)



◆ Standard Specifications

Model No.	DN7C3CA006 / 007 [Overseas]	☆DN7C3CD015 [Japan / Overseas]
Measuring range (μg/m ³)	25 to 500	25 to 500
Output type	Analog voltage	Digital PWM
Power supply voltage (Vcc/fan)	DC5 V / DC5 V	DC5 V / DC5 V
Power consumption (mW) (TYP.)	At sensor: 55, At fan: 700 [JA001, CA006] 450 [CA007]	At sensor: 75, At fan: 450
Output voltage range (V)	0 to 3.4 (MIN.)	Vhigh: Vcc-1.5 (MIN.), Vlow: 1.3 (MAX.)
Operating temperature range (°C)	-10 to +60	-10 to +60
Outline dimensions (mm)	53.0 × 40.0 × 51.0 (excluding protruding parts)	53.0 × 40.0 × 51.0 (excluding protruding parts)

■ Temperature and Humidity Sensor

◆ Features

- (1) Package: 3.0 x 3.0 x 0.8 mm, reflowable, QFN
- (2) High-speed response: Approx. 7 sec.*1
- (3) Interface: I²C

*1: For 63% of humidity change



◆ Standard Specifications

	Humidity sensor	Temperature sensor
Type	Macromolecule capacity	Semiconductor
Measuring range	0 to 100% RH	-20 to +85°C
Accuracy	±2% RH (25°C)	±0.3°C
Resolution	0.01% RH	0.02°C
Interface	I ² C	

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■ Barometer Sensor

◆ Features

- (1) High sensitive detection: ± 0.08 hPa (relative accuracy)
- (2) Wide measurement range: 300 to 1 100 hPa
- (3) Ultra small, thin SMT package: $2.78 \times 2.23 \times 0.70$ mm
- (4) Low power consumption: 750 μ A at measurement, 1 μ A at idle



◆ Standard Specifications

Model No.	QM1H0P0075
Pressure range (hPa)	300 to 1 100
Absolute accuracy (hPa)	± 3
Relative accuracy (hPa)	± 0.08
Supply voltage	DC1.7 to 3.6 V
Dissipation current (μ A)	750 (at measurement), 1 (at idle)
Interface	I ² C, SPI
Operating temperature range (°C)	-20 to +85
Outline dimensions (mm)	$2.78 \times 2.23 \times 0.70$

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