

RH10150

Temperature & humidity sensor module

Specifications:

- Operating voltage: 5VDC
- Humidity range: 20 ~ 90% RH
- Temp. range: 0°C to 50°C
- Humidity accuracy: ±5% RH
- Temp. accuracy: ±2°C

Features:

- Fully calibrated, digital output
- Excellent long-term stability
- Low power consumption

Applications:

- HVAC
- Automotive
- Consumer goods
- Weather stations
- Humidifiers
- Dehumidifiers
- Test & measurement
- Data logging
- Automation
- White goods
- Medical

**RH10158**

Triaxial acceleration sensor module

Specifications:

- Operating voltage: 5VDC
- Operating current: 145µA
- Standby current: 0.1µA
- Bandwidth: 1600Hz Max.
- Interface: SPI/I²C
- Measurement range: ±2g / ±4g / ±8g / ±16g
- Operating Temp.: -40°C to +85°C

Features:

- High resolution (4mg/LSB) enables measurement of inclination changes less than 1.0°
- Low power dissipation
- Power consumption scales automatically with bandwidth
- Flexible interrupt modes mappable to either interrupt pin
- Measurement ranges and bandwidth selectable via serial command

Applications:

- Handsets
- Medical instrumentation
- Gaming and pointing devices
- Personal navigation devices
- Hard disk drive (HDD) protection
- Fitness equipment

**RH10152**

Temperature sensor module

Specifications:

- Operating voltage: 5VDC
- Linear current output: 1µA/K
- Temp. range: -55°C to +150°C
- Two terminal device: Voltage in / current out
- Sensor isolation from case

Features:

It's a two-terminal integrated circuit temperature transducer that produces an output current proportional to absolute temperature. For supply voltages between 4V and 30V the device acts as a high impedance, constant current regulator passing 1 µA/K. Laser trimming of the chip's thin-film resistors is used to calibrate the device to 298.2 µA output at 298.2K (@25°C).

Applications:

- Floor control
- HVAC
- Test & measurement

**RH10160**

Combustible gas sensor module

Specifications:

- Operating voltage: 5VDC
- Detection range: 300 ~ 10000 ppm
- Heater power consumption: ≤900mW
- Sensitivity: $R_s(\text{in air}) / R_s(1,000\text{ppm C}_3\text{H}_8) \geq 5$

Features:

- Good sensitivity to combustible gas in wide range
- High sensitivity to methane, propane, and butane
- Long life

Applications:

- Domestic gas leakage detector
- Industrial combustible gas detector
- Portable gas detector

**RH10154**

Photoresistor light sensor module

Specifications:

- Operating voltage: 5VDC
- Voltage: 150VDC Max.
- Power dissipation: 125mW
- Operating Temp.: -25°C to +75°C
- Peak spectral response: 570nm

Features:

- Fast response
- Good reliability
- High sensitivity
- Good spectrum characteristic

Applications:

- Contrast control in TV sets
- Auto flash for cameras
- Room light control
- Electronic toys
- Industrial control
- Street light

**RH10162**

Sound sensor module

Specifications:

- Operating voltage: 5VDC
- Ranging distance: 0 ~ 500cm
- Input frequency: 500Hz ~ 40kHz
- S/N Ratio: 40dB or more
- Input sound pressure: 120dB SPL Max.
- Output model: Digital output (high / low level)

Features:

It's the most sensitive to the environment sound intensity, commonly used to detect the intensity of the sound of the surroundings. When module in the intensity of the sound environment can not reach set threshold, the OUT will output high level, when the intensity of the sound from the outside environment more than set threshold, the module OUT output low level.

Applications:

- Consumer electronics
- Security and monitoring systems
- Home automation
- Ambient sound recognition
- Sound level recognition

**RH10156**

Gyroscope sensor module

Specifications:

- Operating voltage: 5VDC
- Operating current: 6.1mA
- Power down current: 5µA
- Vlogic voltage: 1.71V ~ VDD+0.1
- Scale range: ±250/±500/±2000dps
- Sensitivity: 8.75 / 17.5 / 70 mdps/digit
- Digital output data rate: 100 / 200 / 400 / 800Hz

Features:

- It's a low-power three-axis angular rate sensor able to provide unprecedented stability of zero rate level and sensitivity over temperature and time
- I²C/SPI digital output interface
- 16 bit-rate value data output
- 8-bit temperature data output
- Embedded power-down and sleep mode
- Embedded temperature sensor
- Embedded FIFO
- High shock survivability

Applications:

- Gaming and virtual reality input devices
- Motion control with MMI (man-machine interface)
- GPS navigation systems
- Appliances and robotics

**RH10164**

Ultrasonic ranging sensor module

Specifications:

- Operating voltage: 5VDC
- Operating current: 15mA
- Operating frequency: 40kHz
- Sensing distance: 2 ~ 400cm
- Sensing angle: ≤15°
- Ranging accuracy: 3mm

Features:

It provides non-contact measurement function and includes ultrasonic transmitters, receiver and control circuit.

The basic principle of work:

- Using IO trigger for high level signal
- It automatically sends eight 40kHz and detect whether there is a pulse signal back
- If the signal back, through high level, time of high output IO duration is the time from sending ultrasonic to returning

Applications:

- Object distance measurement
- Level detection
- Security systems
- Vehicle detection / avoidance



RH10166

Touch sensor module

Specifications:

- Operating voltage: 5VDC
- Output: Active - high
- Touch resistance: <4MΩ

Features:

- Output IO ports can be connected directly to the microcontroller
- Long life and continuous work
- The standard 2.54mm pin input & output connector

Applications:

- Intelligent car
- Video game controllers


RH10174

Relay sensor module

Specifications:

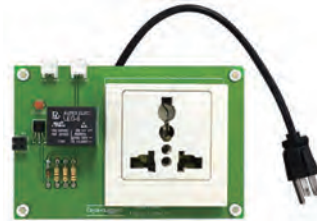
- Operating voltage: 5VDC
- Nominal current: 72mA
- Input voltage: 110 ~ 240VAC
- Resistance: 70Ω ± 10%
- Contact arrangement: 1NO1NC
- Relay input: High / low

Features:

- 10A cube relay
- Plastic material applied in high temperature and better chemical solution
- Sealed type for washing procedure

Applications:

- Home appliances (TV, fan, light ...etc.)
- Office machines
- Audio equipment
- Coffee pot
- Control units


RH10168

UV sensor module

Specifications:

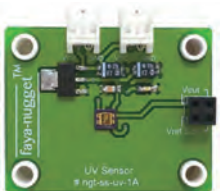
- Operating voltage: 5VDC
- Output voltage: 0.95 ~ 1.05VDC
- Operating current: 300μA
- Standby current: 0.1μA
- Response wavelength: 365nm
- Operating Temp.: -20 to +70°C

Features:

- Photodiode sensitive to UV-A and UV-B
- Embedded operational amplifier

Applications:

- UV tester
- UV index meter
- Outdoor UV monitoring equipment
- Germicidal lamp equipment
- Flame detection
- Weather station
- Bicycle navigation


RH10176

Bluetooth sensor module

Specifications:

- Operating voltage: 5VDC
- Protocol: Bluetooth V2.0 + EDR
- Default baud rate: 9600 bps
- Default state: Slave mode
- RF transmit power: +4dBm
- Sensitivity: -80dBm

Features:

- Easy to use bluetooth SPP (serial port protocol) module, designed for transparent wireless serial connection setup
- Fully qualified bluetooth V2.0 + EDR (enhanced data rate) 3Mbps modulation with complete 2.4GHz radio transceiver and baseband
- PIO control
- UART interface with programmable baud rate
- With integrated antenna

Applications:

- Wireless communication
- Data logging
- Consumer applications
- Wireless robots
- Home automation


RH10170

Passive infrared sensor module

Specifications:

- Operating voltage: 5VDC
- Spectral response : 5 ~ 14μm
- Transmittance: ≥75%
- Output signal: ≥3500mV
- Output balance: <10%
- Sensitivity: ≥3300V/W
- Operating Temp.: -30°C to +70°C

Features:

- The pyroelectric infrared sensor detects infrared radiation on the basis of the characteristics that the polarization of pyroelectric material changes with temperature.

Dual compensated sensing elements are applied to suppress the interference resulting from temperature variation with the EMI components.

Applications:

- Security system
- Burglar alarms
- Visitor acknowledgement
- Light switch control
- Intellectualized toy


RH10178

Wifi sensor module

Specifications:

- Operating voltage: 5VDC
- Operating current: 80mA Avg.
- Protocol: 802.11 b/g/n
- Frequency range: 2.4G ~ 2.5GHz
- Default baud rate: 115,200
- Default state: Slave mode
- Operating Temp.: -40°C to +125°C

Features:

- Defragmentation
- 2 x virtual Wi-Fi interface
- Automatic beacon monitoring (hardware TSF)
- Support infrastructure BSS station / softAP / promiscuous mode
- Antenna diversity

Applications:

- Home appliances & automation
- Smart plugs and lights
- Industrial wireless control
- IP cameras
- Sensor networks
- Wi-Fi location-aware devices
- Security ID tags
- Wi-Fi position system beacons


RH10172

Stepper motor sensor module

Specifications:

- Operating voltage: 5VDC
- Number of phase: 4
- DC resistance: 50Ω ± 7%
- Stride angle: 5.625°/64
- Pull-in torque: 300 gf-cm
- Insulated electricity power: 600VAC/1mA/1s

Features:

- ULN2003 stepper motor driver board
- High-quality stepper motor with gear reduction, low noise, smooth operation
- 5V can be driven to facilitate the use of SCM developers
- The standard interface can also be used to drive other stepper motors through this board

Applications:

- 51 / AVR / ARM and other platforms
- Necessary part for robot design and development

