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Embedded BLE-Temperature/accelerator sensor system – RB8762 sensor series

SPI/UART

Radicom RB8762 Sensor System including low energy temperature and accelerator tags and an internet gateway device uses as a complete long time monitoring and recording from remote as well as can be immediately accessed from a smart phone to add state of the art noncontact short distance or long range remote monitoring application. The RB8762 Sensor tags integrate a low power ARM processor, RF, baseband, and 256KB embedded flash memory. Together with RB8762 internet gateway which is embedded a long range WiFi capability featuring a self-contained monitoring subsystem, streamlined and simple connectivity. With the smart phone app and easy software development environment for remote monitoring, the RB8762 sensor system allows OEM integrators to incorporate wireless and sensor technology into a broad range application that previously did not feature wireless sensing capabilities. It is designed to support single or multi-sensing system. The RB8762 thermometer tag is available in a standalone or PCBA which can be integrated into other system board easily for all kinds of different application.

Models:

RB8762-T/A: Tag with Temperature/accelerator sensor.

RB8762-R: Sensor receiver module.

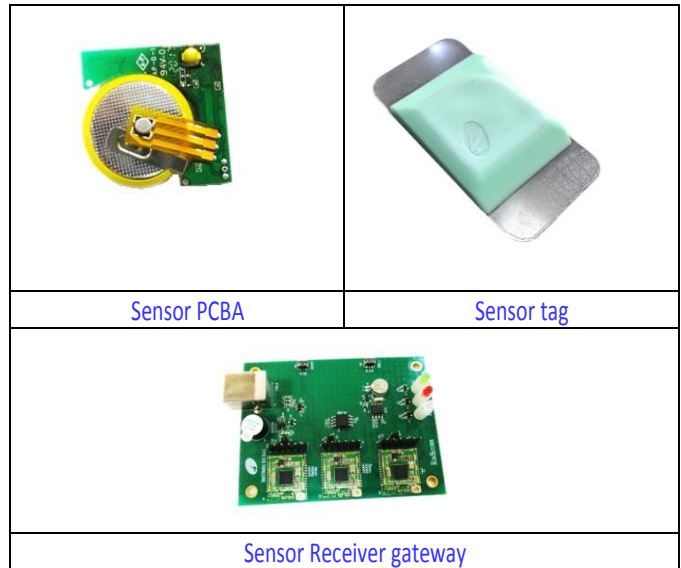
RB8762-I: Internet gate way of RB8762 system.

Application:

- Temperature/coughing and other sensor recorder.
- low energy monitoring tag
- Home care monitoring tag
- Health tracking tag
- Wristband, Wearable or Patchable Device

Features:

- Temperature Accuracy: $\pm 0.1^{\circ}\text{C}$ (Max.) from 30°C - 45°C
- Operating Current: 36uA(Typ.)during Temperature Conversion
- Average Current Consumption: 4.5uA(Typ.) with reading once temperature per second
- Standby Current: 10nA(Typ.), 30nA(Max.)
- Temperature Conversion time:120ms(Typ.)
- Various sensor measurement and long term recording transmitter
- Smartphone app configuration and receiver
- Power saving mode: up to 30 day records



- CR2032 battery power input
- Support OTA (Over-the-Air) programming
- Support internal 32KHz OSC or external 32KHz clock input for low power mode
- Low power 1.8V or 3.0V operation
- Configurable through smart phone APP or AT commands
- Storage temperature: $-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$
- Operating temperature: $-40^{\circ}\text{C} \sim +150^{\circ}\text{C}$
- Small size: RB8762(SMD): 25mm x 25 mm x 5 mm
- No powerful host processor required to read from tag
- Firmware upgradeable through serial port
- Serial port or SPI port configuration
- Single or multiple sensors in a device
- Ultra low power consumption with intelligent PMU

- FCC/IC/CE
- RoHS compliant

Support:

- WiFi, BLE and other wireless applications
- Internet capability
- Support MESH function
- Real-time counters (RTC)