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**Embedded Bluetooth BT 5.1 Module – RB8762C series****UART/SPI/I2S/PWM Interface**

Radicom's RB8762C embedded Bluetooth module series uses as simple as a Serial interface to add state of the art data/audio/keyscan BT 5.1 wireless operation to any system. The RB8762C BT Module integrates an ARM processor, RF, baseband, ADC, and embedded flash memory. Featuring a self-contained BT 5.1 subsystem, streamlined and simple connectivity and complete software development environment with varieties multi-I/O interfaces, the RB8762C allows OEM integrators to incorporate BT wireless technology into a broad range that previously did not feature wireless capabilities. It is designed to support interfaces, such as UART, SPI, I2S, PWM and GPIOs.

The RB8762C series is available in surface mount (SMD) or through-hole (DIP) hardware designs.

Models:

RB8762C-x-a-(G/-): SMD module with antenna onboard.

RB8762C-x-c-(G/-): SMD module with connector for external antenna.

RB8762EVK

-x represented different applications:

- R: Remote Control
- G: General
- J: Joystick
- K: Keyboard
- (G/-): with/without G-sensor
- A: Audio

Application:

- Remote Controller
- Toy
- Beacon
- Home Automation
- Key Fob
- Wristband & Wearable Device
- Long range audio

Features:

- BT 5.1 core specification
- Ultra low power consumption with intelligent PMU
- LE advertising extension
- LE long range
- LE L2CAP Connection Oriented Channel Support



RB8762x-a SMD Module
-a: with printed antenna



RB8762x-c SMD Module
-c: with U.FL connector



RB8762 EVK

- Support internal 32KHz OSC or external 32KHz clock input for low power mode
- Low power 3.3V operation
- Operating temperature: 0°C ~ +70°C
- Small size: RB8762C(SMD): 17.5 x 15.0 mm (LxW)
RB8762C EVK: 17.0 x 27.6 mm (LxW)
- No powerful host processor required
- Firmware upgradeable through serial port or OTA
- Integrated ARM processor and on chip memory for complete Bluetooth Smart device subsystem functionality
- High receive sensitivity
- FCC/IC/CE certified (pending)
- RoHS compliant

Support:

- AES128/192/256 encrypt/decrypt engine
- Maximum 34 GPIO pins available
- 3 configurable LED pins
- Embedded IR transceiver
- Real-time counters (RTC)
- 4 wire master/slave SPI, UART x 2
- I2C x 2, PWM x 8, Timer x 8
- 8 channel low power comparator
- 8 channel AUXADC
- Hardware Keyscan and Quad-decoder
- 2Mbps LE
- I2S/PCM interface for external audio mode
- 18080 for LCD interface