

BM05: Bluetooth Low Energy LGA Module

Product Description:

BM05 series built in the latest Bluetooth 4.0 Low Energy technology inside together with Texas Instrument® CC2541 as the core. The CC2541 combines the leading edge RF transceiver with an industry-standard enhanced MCU, which does not require an external micro controller. BM05 series is a single-mode module designed especially for applications communicate with other Bluetooth devices and requested for ultralow power consumption performance.

Key Features:

- Pin-to-pin compaitable with InnoComm CC2530 ZigBee Module
- Compact LGA module size with antenna
- Extra low power RF
- Up to date certificated BLE software stack



Specifications

- **RF**
 - 2.4-GHz Bluetooth low energy compliance
 - Supports 250-kbps, 500-kbps, 1-Mbps, 2- Mbps Data Rates
 - Output power: 0dBm(conductive mode)
 - Receiver sensitivity: -94dBm at 1Mbps(conductive mode)
 - Suitable for system targeting compliance with worldwide radio frequency regulations:
 - ETSI EN 300 328 and EN 300 440 Class 2(Europe)
 - FCC CFR47 Part 15(US)
 - ARIB STD-T66 (Japan)
- **Memory**
 - In-System-Programmable 256KB Flash
 - 8-KB RAM With Retention in All Power Modes
- **Operating Temperature**
 - -25°C to +75°C
- **Mounting Method**
 - SMD
- **Power Supply**
 - Voltage Range: 2V ~ 3.6V
- **Power Consumption**
 - Active-Mode RX: 17.9 mA
 - Active-Mode TX (0 dBm): 18.2 mA
 - Power Mode 1(4-µs Wake-Up): 270 µA
 - Power Mode 2 (Sleep Timer On): 1 µA
 - Power Mode 3 (External Interrupts): 0.5 µA

Target Applications

- Health & Fitness
- Toys
- Mobile Phone Accessories
- Home Automation
- Cable Replacement
- ...

Software Features

- Bluetooth v4.0 Compliant Protocol Stack
- Complete Power-Optimized Stack, including controller and host
 - GAP - Central, Peripheral, Observer, or Broadcaster (Including Combination Roles)
 - ATT/GATT - Client and Server
 - SMP - AES-128 Encryption and Decryption
 - L2CAP
- Sample Applications and Profiles supported

Support & Service

- Evaluation board
- Upper layer protocol and application development tool can be downloaded from TI's website <http://www.ti.com/product/cc2541>
- BLE stack can be download from <http://www.ti.com/tool/ble-stack>



Product List

	BM05	BM05_AN	BM05_PA	BM05_AN_PA
Description	BLE module	BLE module with on board chip antenna	BLE module with PA	BLE module with on board chip antenna and PA
Size (mm)	13.0 x10.5x1.9	18.0 x10.5x1.9	17.0 x10.5x1.9	22.0 x10.5x1.9
Pin count	26	26	26	26
I/O	I2C x1, GPIO x20 (Can be configured to Max. 4x UART)	I2C x1, GPIO x20 (Can be configured to Max. 4x UART)	I2C x1, GPIO x15 (Can be configured to Max. 4x UART)	I2C x1, GPIO x15 (Can be configured to Max. 4x UART)
Power (dBm)	-3 dBm	-3 dBm	14 dBm	14 dBm

Ordering information

Please email to innocomm@innocomm.com or call +886-3-5781868 for more information.

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