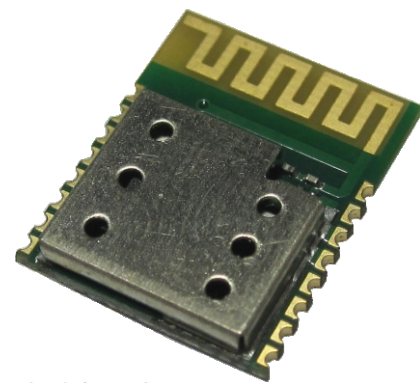


RC-CC2640-B

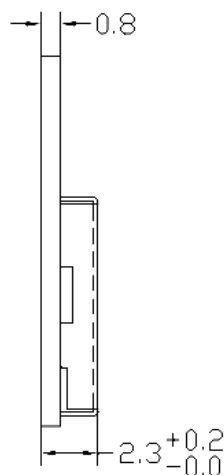
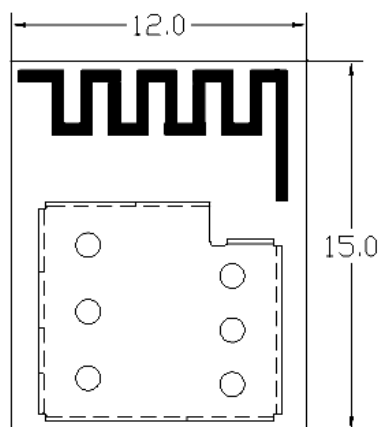
based on TI CC2640



IoT Bluetooth Module based on CC2640 Texas Instrument

RC-CC2640-A is designed based on CC2640R2F128 Bluetooth Smart (Bluetooth 4.2 and Bluetooth 5.0) System-on-Chip, fully supports the single mode Bluetooth Low Energy operation. The module provides the ability to either put your entire application into the integrated ARM Cortex M3 microcontroller, or use the module in Network Processor mode in conjunction with the microcontroller of your choice.

Mechanical Drawing and dimensions



Unit : mm

Feature

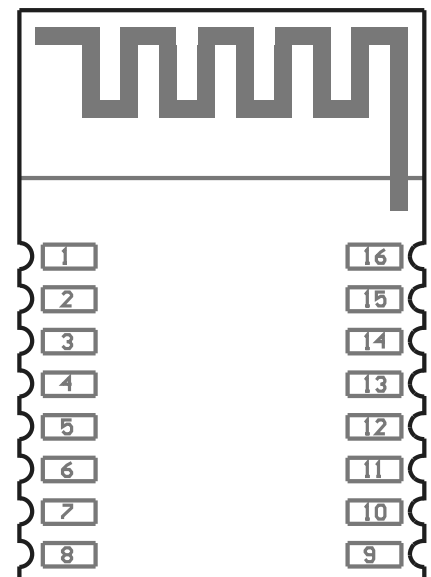
- Bluetooth 4.2, Single mode compliant-Supports master and slave modes
- Build in CC2640R2F128 Bluetooth Smart System-On-Chip
- RF Performance: TX Power: +5dBm RX Sensitivity: -87dBm -97dBm
- Ultra low current consumption
 - Transmit current(0dBm): 6.1mA
 - Receiving current: 5.9mA
- Size: 12mm×15mm×2.5mm

1.0 Technical Specifications

Characteristics	MIN	MAX	UNIT
Operation Voltage	1.8	3.8	VDC
Operating Temperature	-40	85	°C
Current Consumption TX Mode Output Power 0dBm		6.1	mA
Current Consumption TX Mode Output Power 5dBm		9.1	mA
Current Consumption RX Mode Output Power 0dBm	0.22	5.9	mA
Current Consumption RX Mode Output Power 5dBm	0.12	6.1	mA
Current Consumption Sleep Mode		1	μA
TX Power		5	dBm
RX Sensitivity		-97	dBm
Storage Temperature	- 40	150	°C

2.0 Terminal description

Pads	Name	Description
1	DIO 0	GPIO, Sensor Controller, High drive capability
2	DIO 1	GPIO, Sensor Controller, High drive capability
3	DIO 2	GPIO, Sensor Controller, High drive capability
4	JTAG-TMSC	JTAG TMSC
5	JTAG-TCKC	JTAG TCKC
6	DIO 3	GPIO, High drive capability, JTAG_TDO
7	DIO 4	GPIO, High drive capability, JTAG_TDI
8	VDD	1.8V to 3.8V main chip supply
9	RESET_N	Reset, active low (No internal pullup)
10	DIO 5	GPIO, Sensor Controller, Analog
11	DIO 6	GPIO, Sensor Controller, Analog
12	DIO 7	GPIO, Sensor Controller, Analog
13	GND	Ground
14	GND	Ground
15	DIO 8	GPIO, Sensor Controller, Analog
16	DIO 9	GPIO, Sensor Controller, Analog

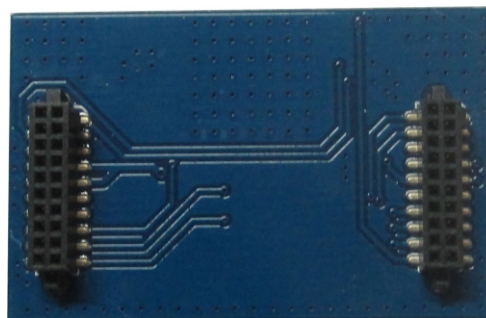


RC-CC2640-B Adapter board

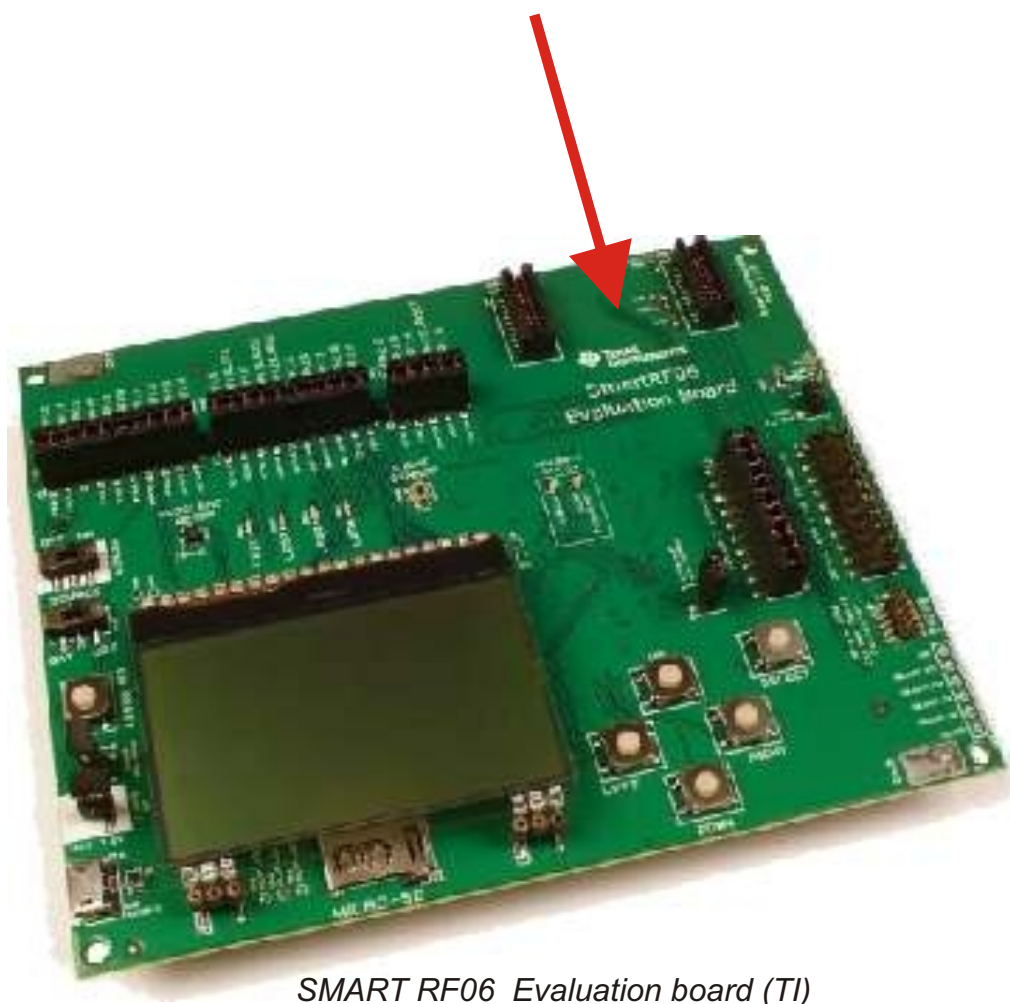
To make immediate usable the RC-CC2640-B module with TI development systems has been realized the following board adapter.



Adapter board front

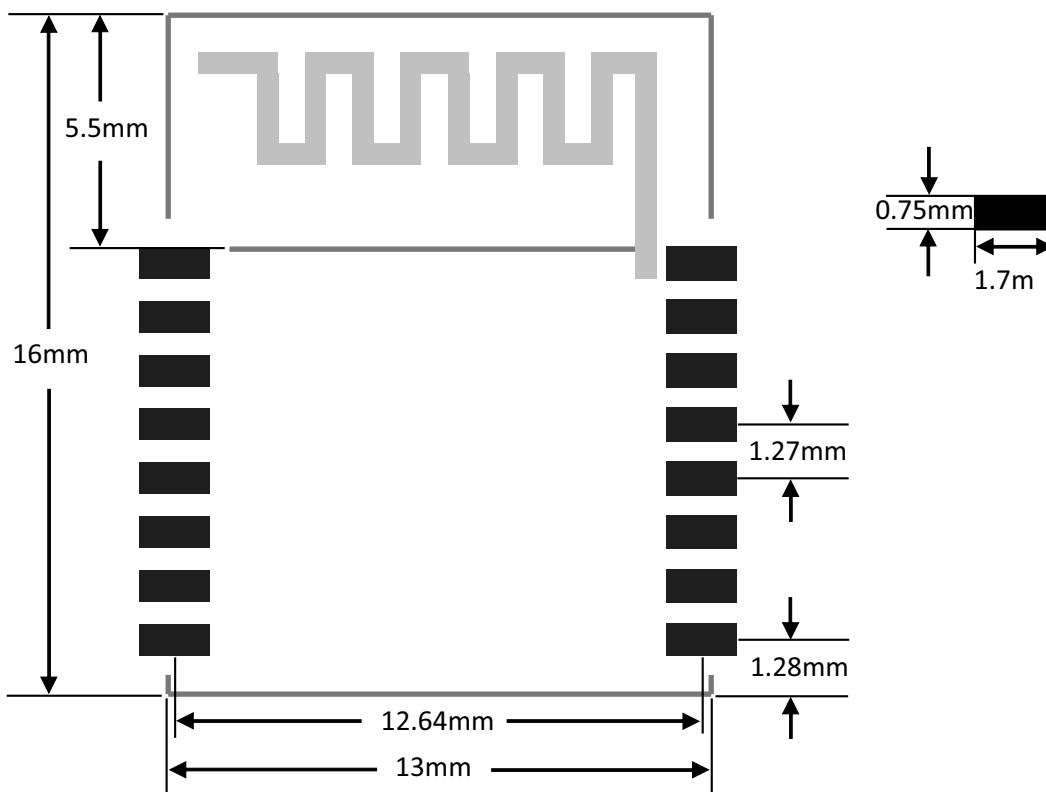


Adapter board rear



SMART RF06 Evaluation board (TI)

3.0 Recommended pcb layout



4.0 Soldering recommendations

