RC-CC2640-B

Bluetooth Module
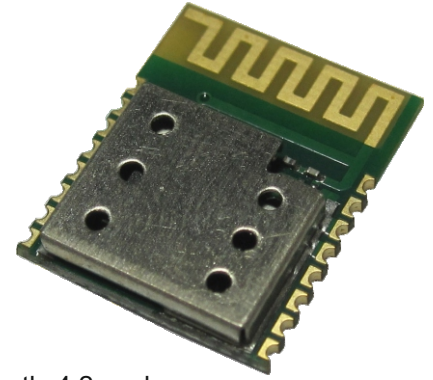
Radio((Controlli
**Wireless Modules**

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
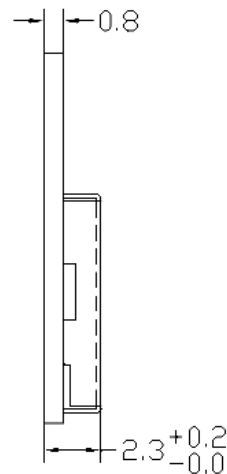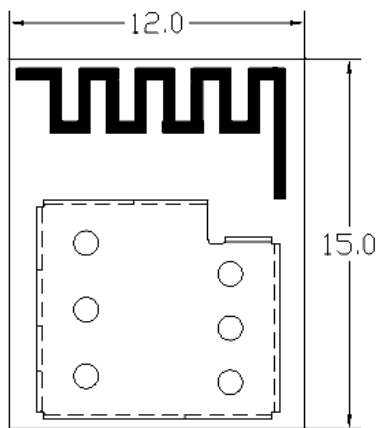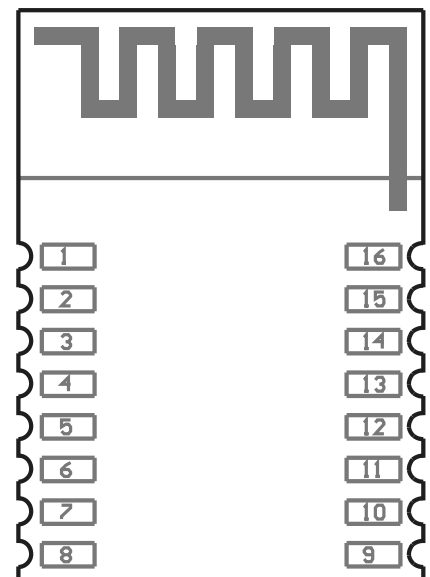
Unit：mm

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
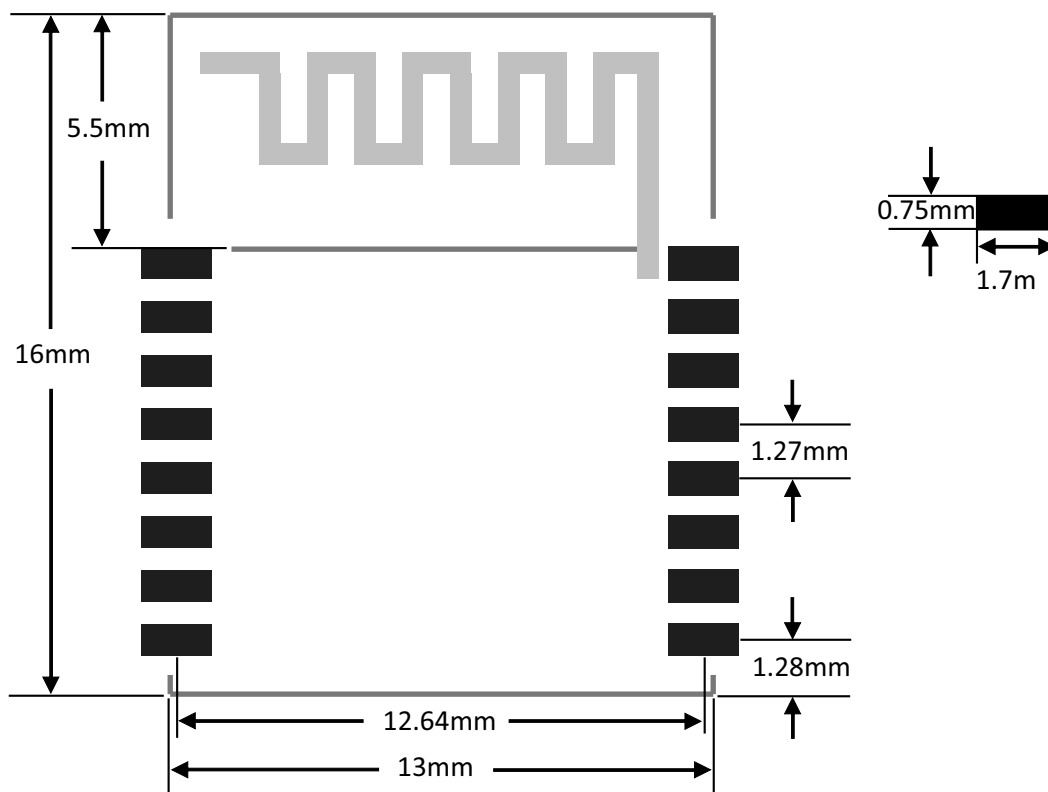   Receiving current：5.9mA

-Size: 12mm×15mm×2.5mm

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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

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3.0 Recommended pcb layout

5.5mm

16mm

0.75mm

1.7m

1.27mm

1.28mm

12.64mm

13mm

4.0 Soldering reccomendations