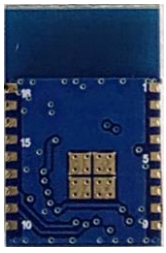
Bluetooth Low Energy Module Product Manual

Model : CC2640YJE

Ver : 1.3

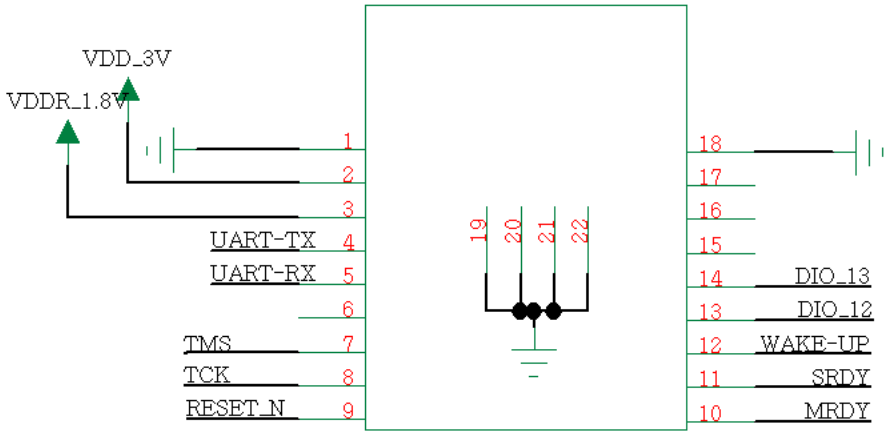
YJ SYSTEMS.Co.Ltd

1. CC2640YJE Module specifications

Item	CC2640YJE
Photo	
Bluetooth	Ver : BLE 5.1 Frequency Range : 2402 MHz ~ 2480 MHz Number of Channels : 40 Channels Modulation : GFSK
Temperature	-20 to +50℃
RF Power	+2dBm
Main chip	CC2640R2F
RF ANTENNA	SLDA62-2R640G-01TF
Power Supply	1.8V to 3.8V
Advertising interval 1s Current	~ 30uA
Broadcast Current	0.15~1mA
Connection Current	5.9mA
Interface	U-ART AT command provided
Outline Dimension	11.0 x 17.0mm
Other explanations	Chip antenna application Transmit and receive less than 25 meters BLE5.1 application
Made to order	Module: Sample and mass production available Chip delivery: Chip delivery after F/W writing HW design guide provided and RF matching
X-TAL	S2016A 24.000Mhz FC-12M 32.7680KA-A5
FCC ID	2BYOFC2YJ

2. CC2640YJE Module Interface

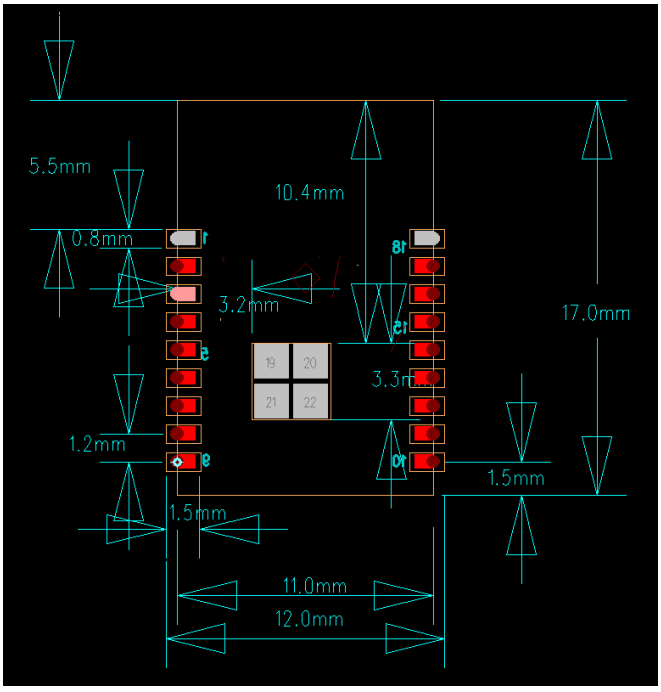
Module Pin Diagram (top view)



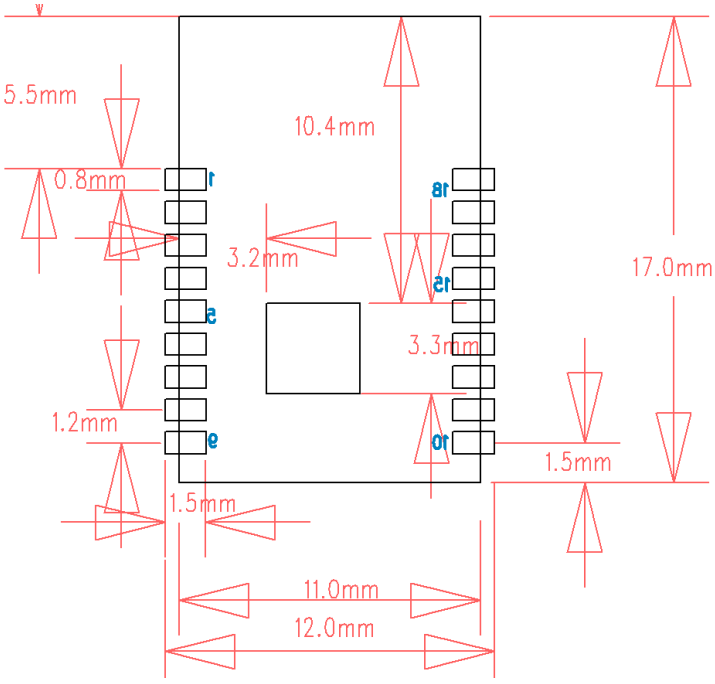
Pin Functions

PINNAME	PINNO.	PINTYPE	DESCRIPTION
GND	1	-	Ground
VDD 3.3V	2	Power	1.8V to 3.8V Main chip supply
VDDR 1.8V	3	Power	1.8V only
U-ART TX	4	Digital I/O	Host MCU – UART RX
U-ART RX	5	Digital I/O	Host MCU – UART TX
N,C	6	-	
TMS	7		JTAG TMSC, high-drive capability
TCK	8		JTAG TCKC
RESET_N	9	Digital input	
MRDY	10	Digital I/O	Write / Read
SRDY	11	Digital I/O	Read
WAKE-UP	12	Digital I/O	
DIO12	13	Digital I/O	General Output pin
DIO13	14	Digital I/O	General Output pin
NC	15	-	
NC	16	-	
NC	17	-	
GND	18	-	Ground
EGP	19,20,21,22		Ground–Exposed ground pad

3. CC2640YJE Module PCB pad design guide

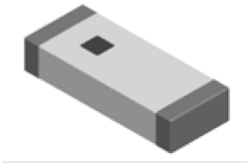


< Pad Top View >

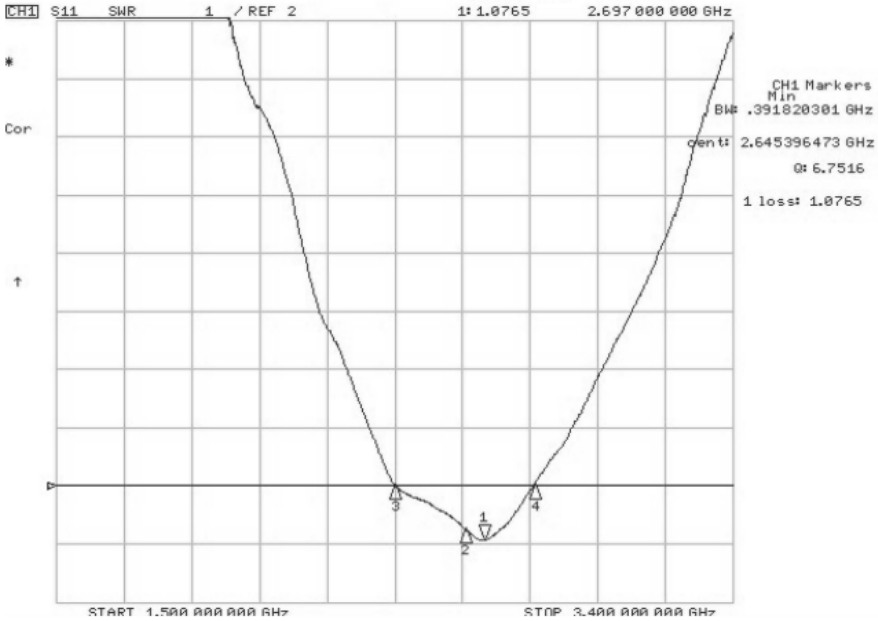


< Pad Top View >

4. RF Antenna



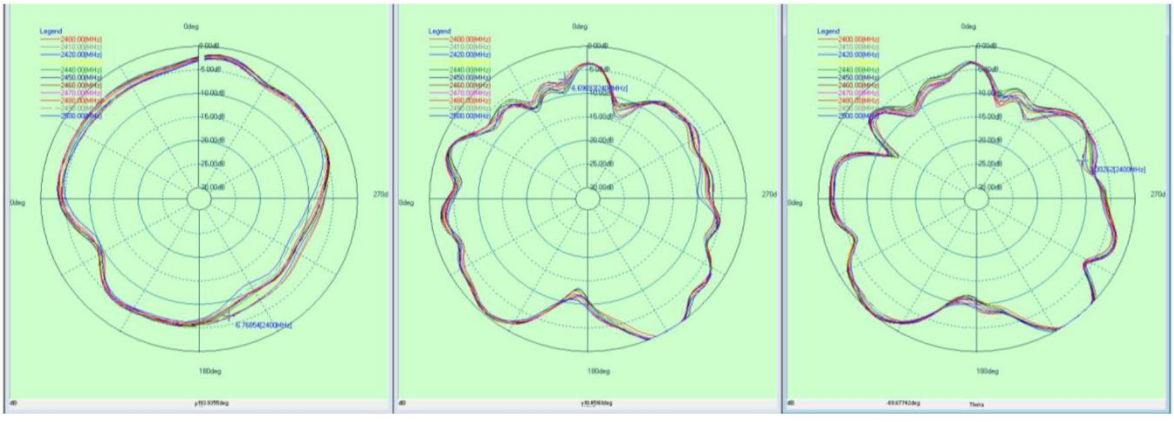
SLDA62-2R640G-01TF



< RETURN LOSS >

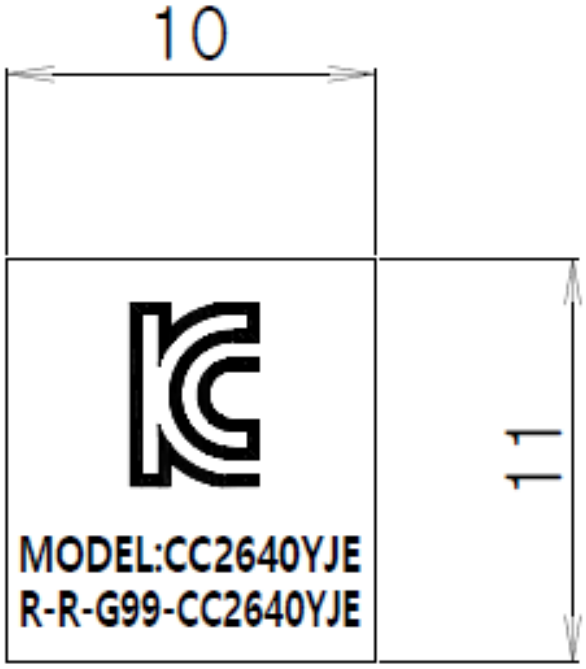
Part Number	Band Width	Peak Gain	Average Gain	VSWR	Impedance	Power Capacity
	MHz	V-XZ	V-XZ	In BW	Ω	W
SLDA62-2R640G-01TF	≥200	2.6dBi Typ.	0.7dBi Typ.	<2	50	3

< SPECIFICATION >



< Radiation pattern >

5. LABLE



Model : CC2640YJE
FCC ID : 2BYOFC2YJ

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions : (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

6. FCC Compliance Information

- Caution
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

- FCC RF Radiation Exposure Statement
This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.

- Conditions of Use
This device contains a transmitter module that has been granted modular approval by the FCC.
The module must be installed and operated in accordance with the conditions specified in its FCC authorization.
The following conditions apply to the use of this module:
This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter, except as permitted under the applicable FCC authorization.
The OEM integrator is responsible for ensuring that the final host product complies with all applicable FCC requirements, including RF exposure and simultaneous transmission requirements, where applicable.
The final host product may also require evaluation for compliance with FCC Part 15B requirements for unintentional radiators.

- End Product Labeling
If the module's FCC ID is not visible when installed inside the host product, the exterior of the host product must display the following statement:
Contains FCC ID: 2BYOFC2YJ

- Instructions to the OEM Integrator
The OEM integrator must ensure that the end-user documentation includes all applicable FCC statements and warnings, including the statements required by FCC Rules Sections 15.19 and 15.21.
The OEM integrator must also include the applicable RF exposure operating conditions in the host product's user manual.
The module must be installed in accordance with the module manufacturer's approved integration instructions. The end-user documentation must not instruct end users to remove or install the module if the module is approved for OEM installation only.

THANK YOU..