

Cypress Semiconductor

Class II Change Letter

Date: 2016-09-07

To whom it may concern,
Request for Class II Permissive Change

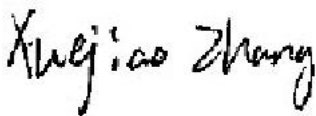
Product Name: EZ-BLE PSoC Module
FCC ID: WAP4008
Model No.: CYBLE-014008-00; CYBLE-214009-00;
CYBLE-214015-01
IC Certification Number: 7922A-4008

Modification:

1. Modules CYBLE-014008-00, CYBLE-214009-00 AND CYBLE-214015-01 have the same PCB, periphery parts and the encapsulation of the main chip. The difference of the main chip is Bluetooth version it supports.
2. We declare that we have applied for Existing Family for ISED: 7922A-4008. The model number is CYBLE-214015-01.

Module	IC Part Number	CPU Speed (MHz)	Flash Size (KB)	Package	Bluetooth version
CYBLE-014008-00	CY8C4247FNI-BL483	48	128	WLCSP-68	4.1
CYBLE-214009-00	CY8C4248FNI-BL483	48	256	WLCSP-76	4.1
CYBLE-214015-01	CY8C4248FNI-BL583	48	256	WLCSP-76	4.2

The RF character of these three modules is the same.



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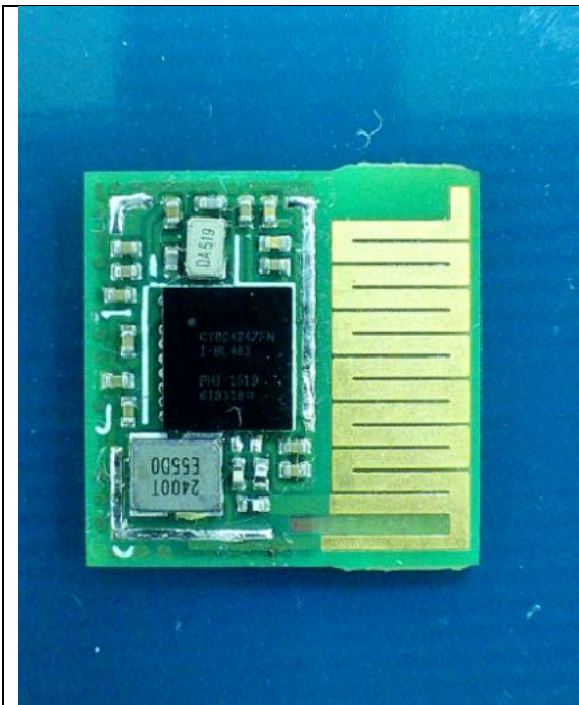
Specifications of EUT

Operating Frequency	2400-2483.5MHz
No. of channel	40
Channel Spacing	2 MHz
Modulation	GFSK
Transmit Power (ERP)	2.16 dBm / 1.64437 mW
Data Rate	1 Mbps
Antenna Type	PCB Antenna
Number of Antenna	One
Antenna Gain	-0.5 dBi
Supply Voltage	1.9 V to 5.5 V(3.3V nominal for test jig)
Dimension	11 mm x 11mm
Environmental	Operating: -40 °C to 85 °C

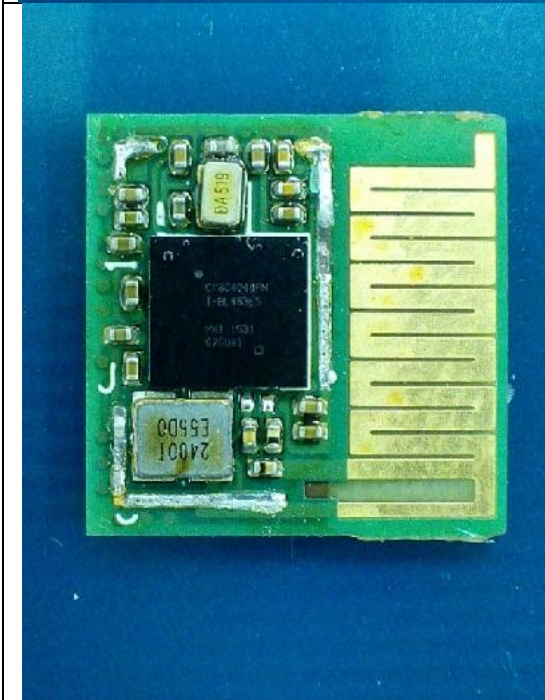
Below is detailed difference between BLE4.2 and BLE4.1 chip:

- 1) 4.2 has improved security compared to 4.1 – this is ECDH on top of AES-128 in 4.2, whereas 4.1 is AES-128 only. This allows for transfer without having to exchange keys over the air. ECDH essentially embeds the key changes into the data transfer.
- 2) 4.2 has improved privacy compared to 4.1 – MAC address changes after a period of time for the BLE device. This is the same in 4.1 and 4.2, however in 4.2 the MAC address changing is happening in the link layer (where it was done in the GATT layer in 4.1). This change makes it so that you can use the feature without waking the entire system/stack.
- 3) Increase the maximum packet length from 37 bytes to 255 bytes.

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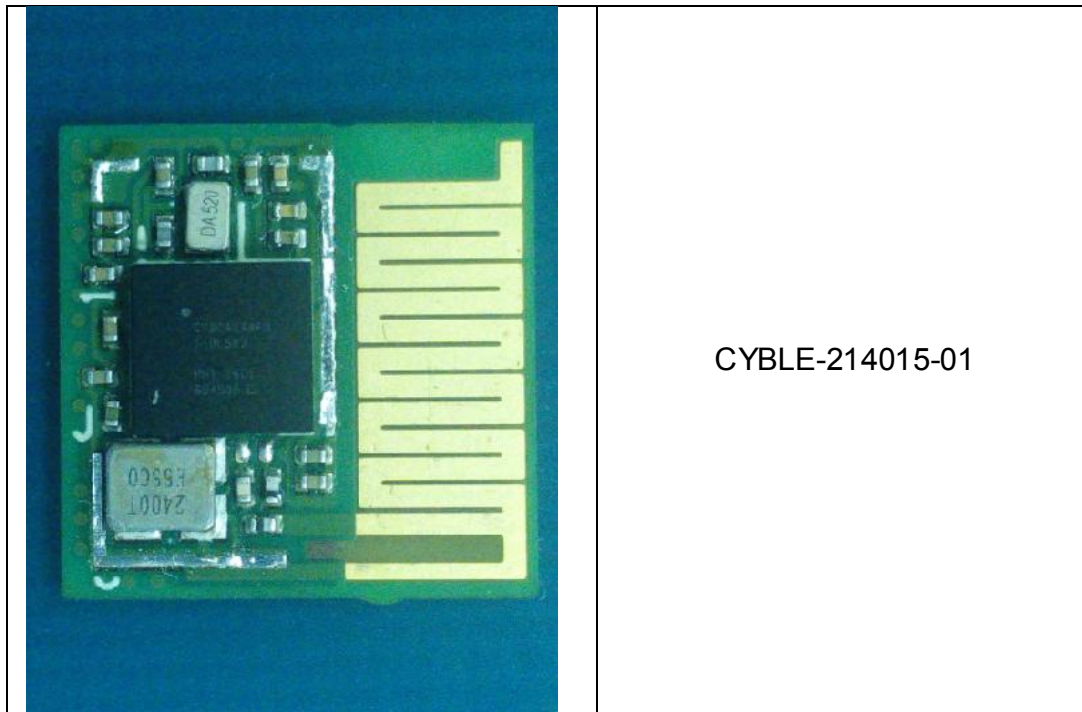


CYBLE-014008-00



CYBLE-214009-00

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