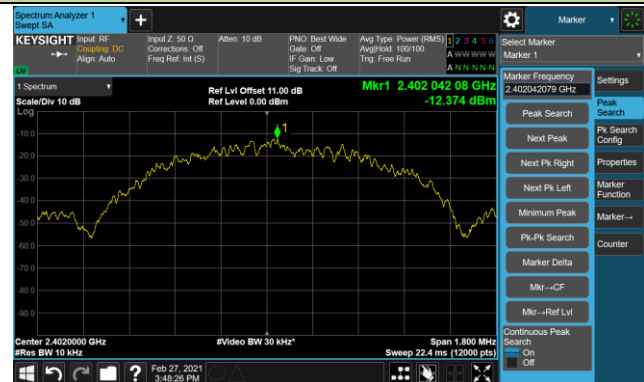
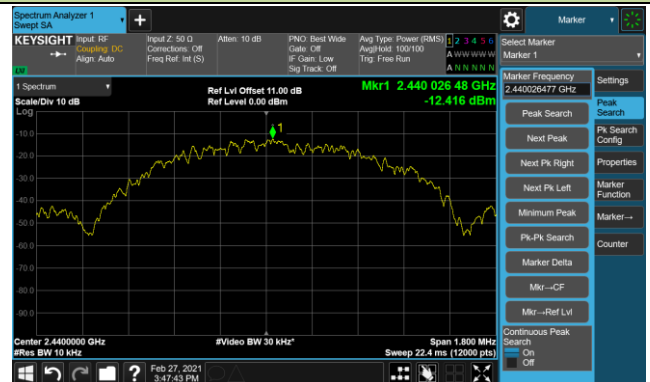


BLE 1Mbps AVGPDS - Bluetooth chip 1 (External Antenna)

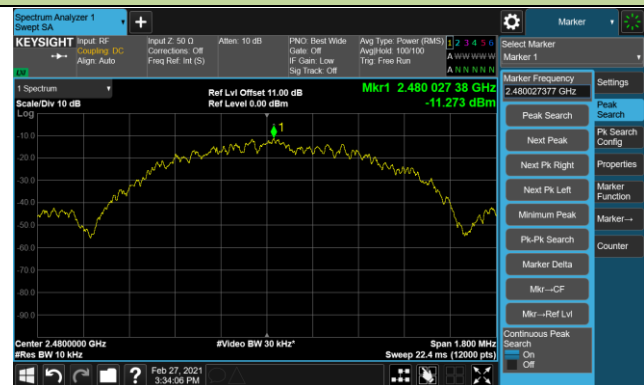
Channel 00 (2402MHz)



Channel 19 (2440MHz)



Channel 39 (2480MHz)



BLE 2Mbps AVGPDS - Bluetooth chip 1 (External Antenna)

Channel 00 (2402MHz)



Channel 19 (2440MHz)



Channel 39 (2480MHz)



7.5. Conducted Band Edge and Out-of-Band Emissions

7.5.1. Test Limit

The limit for out-of-band spurious emissions at the band edge is 30dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100kHz bandwidth per the PSD procedure.

7.5.2. Test Procedure Used

ANSI C63.10-2013 Section 11.11

7.5.3. Test Setting

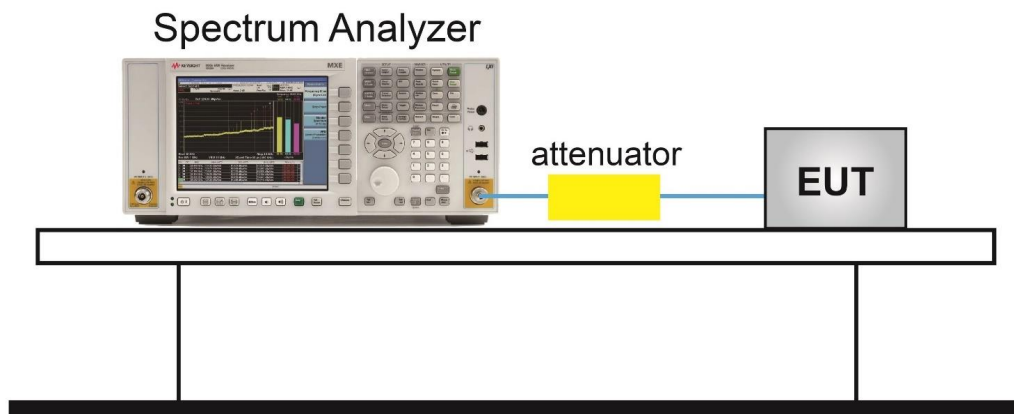
Reference level measurement

1. Set instrument center frequency to DTS channel center frequency
2. Set the span to ≥ 1.5 times the DTS bandwidth
3. Set the RBW = 100 kHz
4. Set the VBW $\geq 3 \times$ RBW
5. Detector = peak
6. Sweep time = auto couple
7. Trace mode = max hold
8. Allow trace to fully stabilize

Emission level measurement

1. Set the center frequency and span to encompass frequency range to be measured
2. RBW = 100kHz
3. VBW = 300kHz
4. Detector = Peak
5. Trace mode = max hold
6. Sweep time = auto couple
7. The trace was allowed to stabilize

7.5.4. Test Setup



7.5.5.Test Result

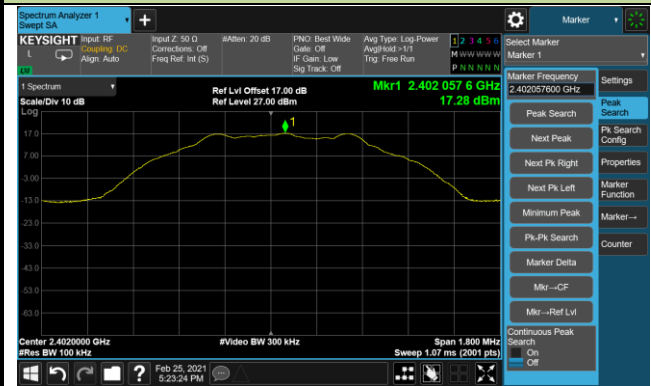
Product	Cassia Bluetooth Router	Temperature	23 ~ 25°C
Test Engineer	Kevin Ker	Relative Humidity	46 ~ 54%
Test Site	SR2	Test Date	2021/02/24~2021/02/27

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	Limit	Result
Bluetooth chip 0 (Internal Antenna)					
BLE	1	00	2402	30dBc	Pass
BLE	1	19	2440	30dBc	Pass
BLE	1	39	2480	30dBc	Pass
BLE	2	00	2402	30dBc	Pass
BLE	2	19	2440	30dBc	Pass
BLE	2	39	2480	30dBc	Pass
Bluetooth chip 1 (Internal Antenna)					
BLE	1	00	2402	30dBc	Pass
BLE	1	19	2440	30dBc	Pass
BLE	1	39	2480	30dBc	Pass
BLE	2	00	2402	30dBc	Pass
BLE	2	19	2440	30dBc	Pass
BLE	2	39	2480	30dBc	Pass
Bluetooth chip 0 (External Antenna)					
BLE	1	00	2402	30dBc	Pass
BLE	1	19	2440	30dBc	Pass
BLE	1	39	2480	30dBc	Pass
BLE	2	00	2402	30dBc	Pass
BLE	2	19	2440	30dBc	Pass
BLE	2	39	2480	30dBc	Pass
Bluetooth chip 1 (External Antenna)					
BLE	1	00	2402	30dBc	Pass
BLE	1	19	2440	30dBc	Pass
BLE	1	39	2480	30dBc	Pass
BLE	2	00	2402	30dBc	Pass
BLE	2	19	2440	30dBc	Pass
BLE	2	39	2480	30dBc	Pass

BLE 1Mbps Out-of-Band Emissions - Bluetooth chip 0 (Internal Antenna) - Ant 0

Channel 00 (2402MHz)

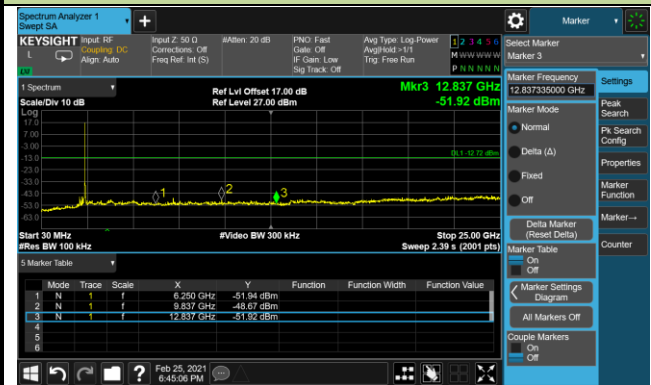
100kHz PSD reference Level



Low Band Edge

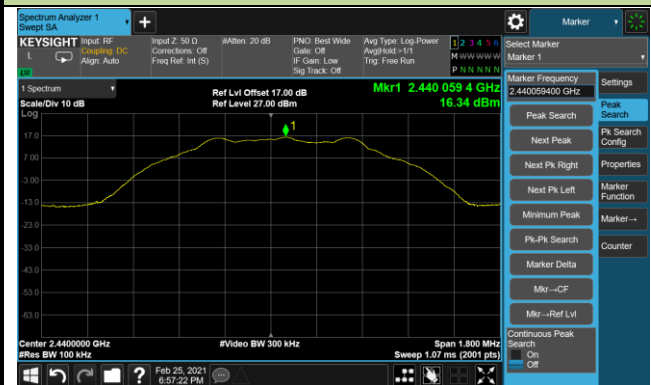


Spurious Emission



Channel 19 (2440MHz)

100kHz PSD reference Level

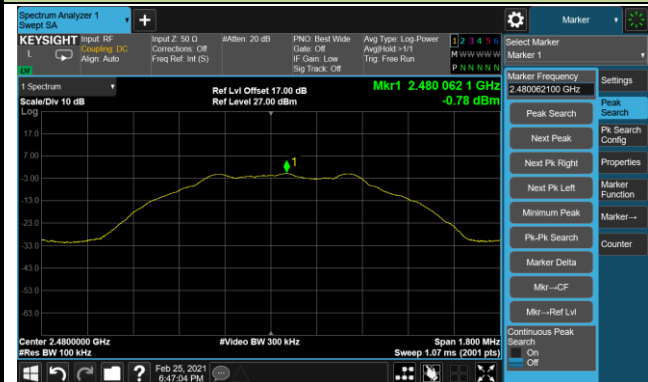


Spurious Emission

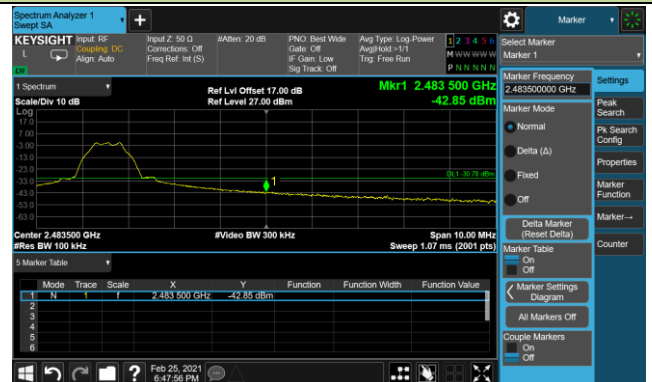


Channel 39 (2480MHz)

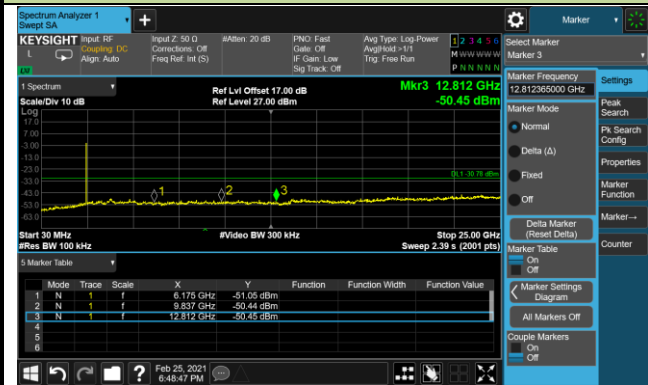
100kHz PSD reference Level



High Band Edge



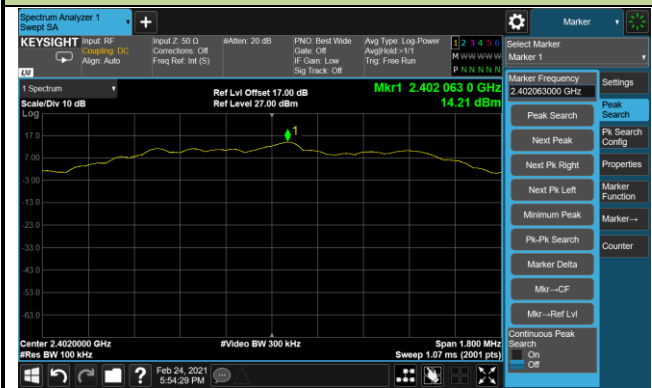
Spurious Emission



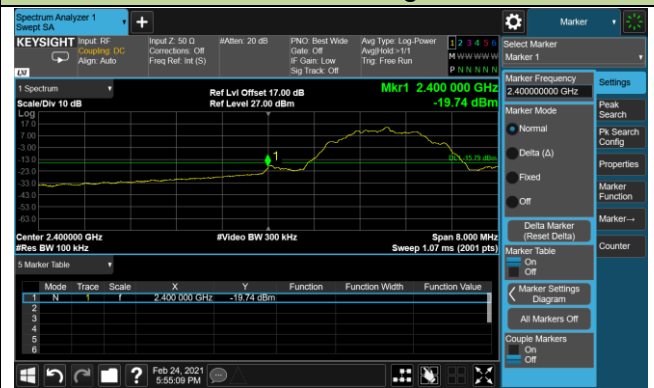
BLE 2Mbps Out-of-Band Emissions - Bluetooth chip 0 (Internal Antenna) - Ant 0

Channel 00 (2402MHz)

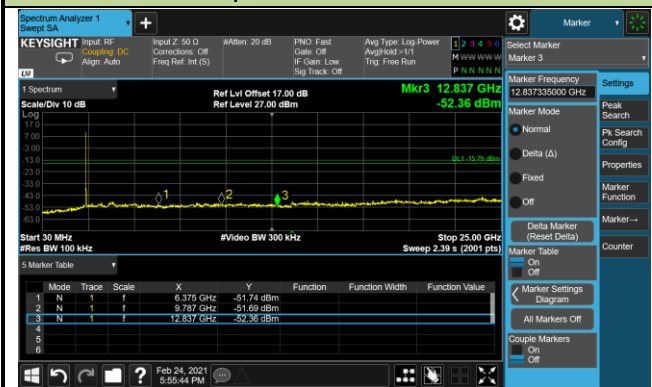
100kHz PSD reference Level



Low Band Edge

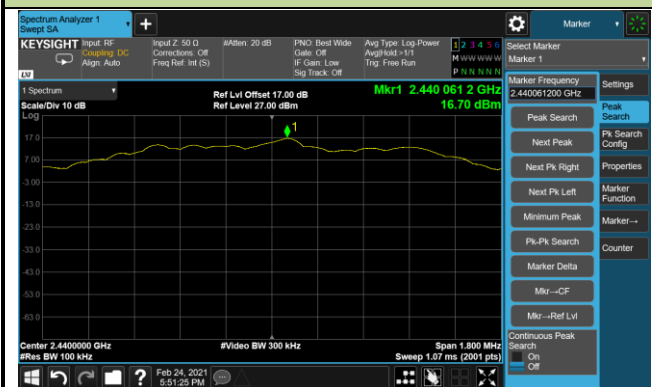


Spurious Emission

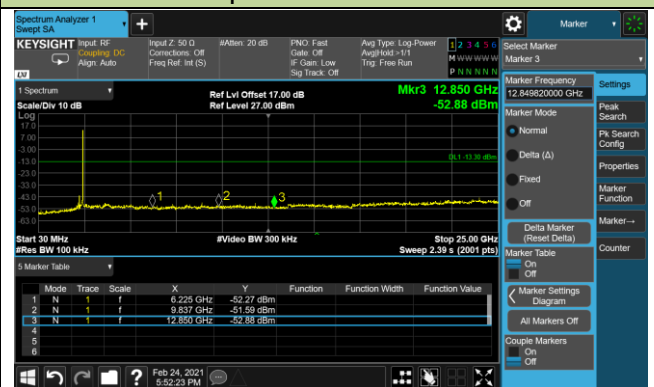


Channel 19 (2440MHz)

100kHz PSD reference Level

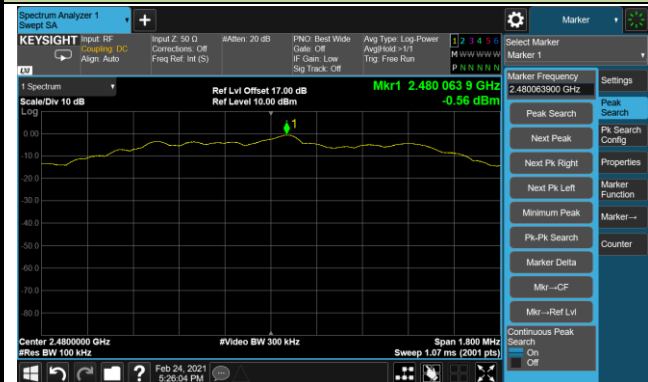


Spurious Emission



Channel 39 (2480MHz)

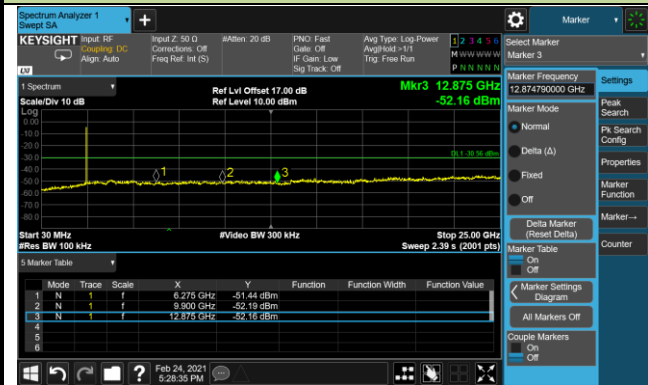
100kHz PSD reference Level



High Band Edge



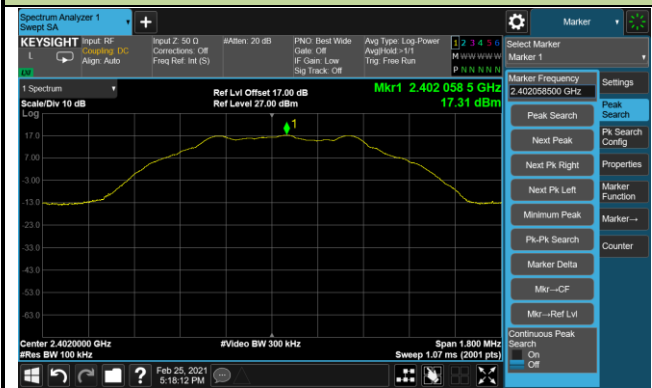
Spurious Emission



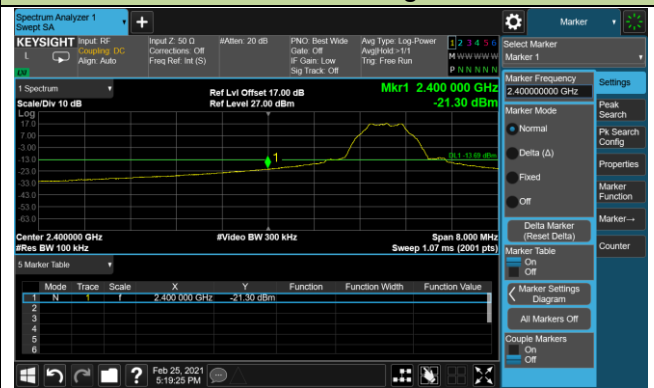
BLE 1Mbps Out-of-Band Emissions - Bluetooth chip 0 (Internal Antenna) - Ant 1

Channel 00 (2402MHz)

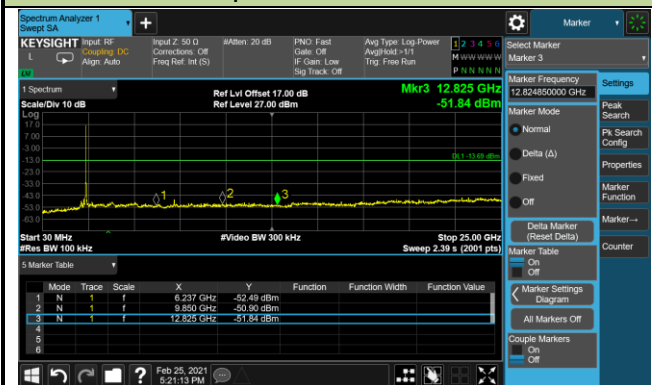
100kHz PSD reference Level



Low Band Edge

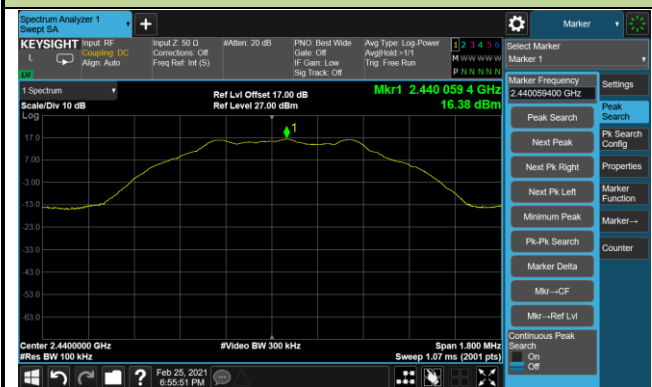


Spurious Emission

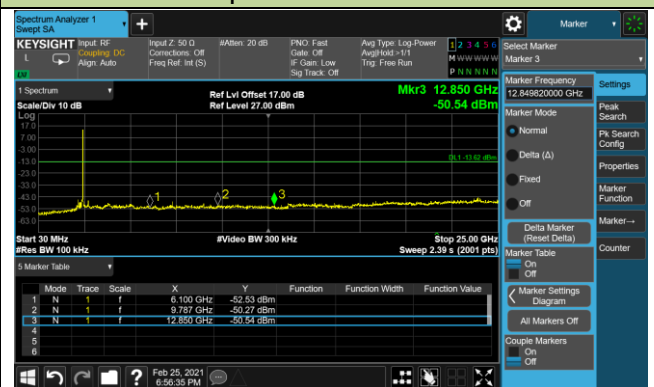


Channel 19 (2440MHz)

100kHz PSD reference Level

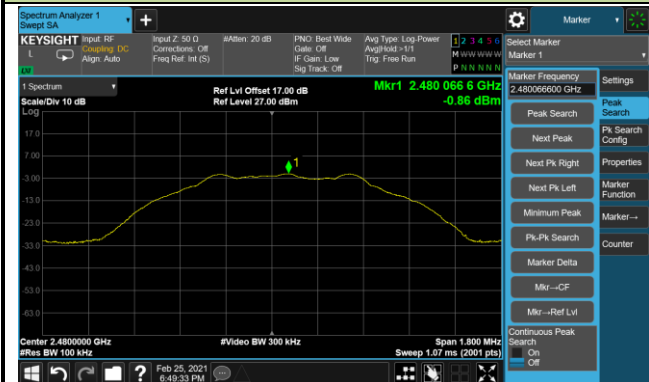


Spurious Emission



Channel 39 (2480MHz)

100kHz PSD reference Level



High Band Edge



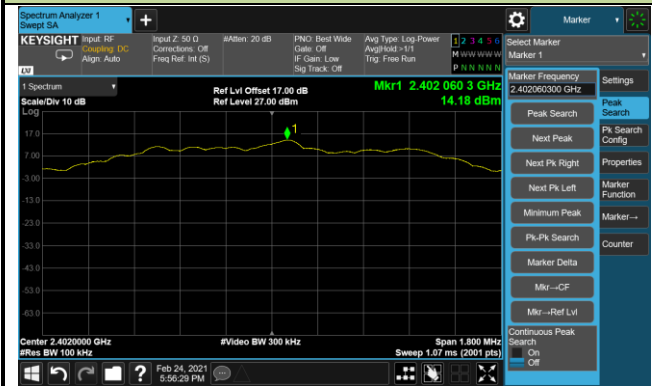
Spurious Emission



BLE 2Mbps Out-of-Band Emissions - Bluetooth chip 0 (Internal Antenna) - Ant 1

Channel 00 (2402MHz)

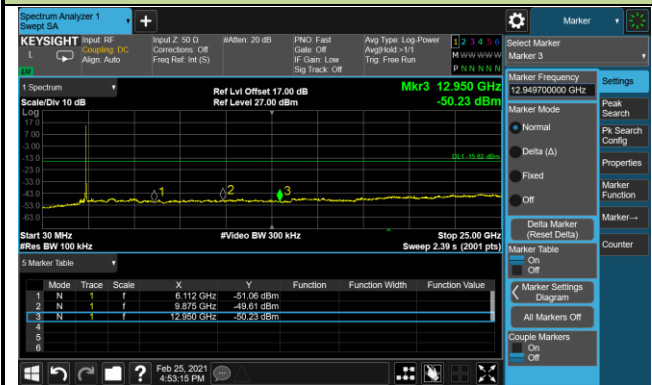
100kHz PSD reference Level



Low Band Edge

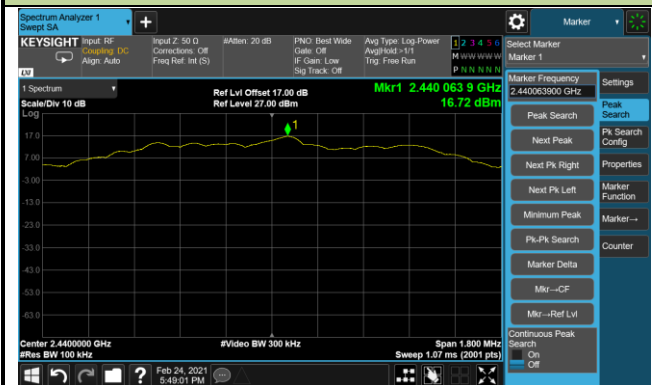


Spurious Emission

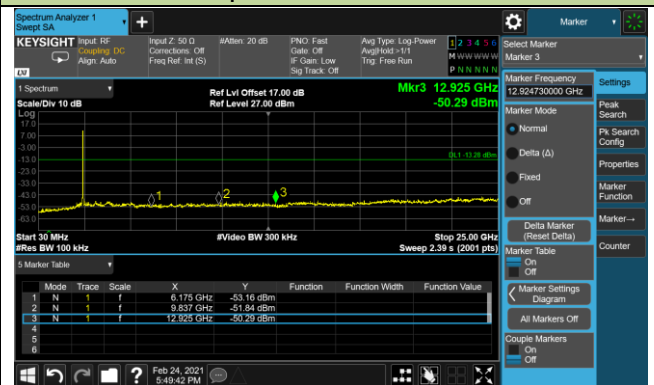


Channel 19 (2440MHz)

100kHz PSD reference Level

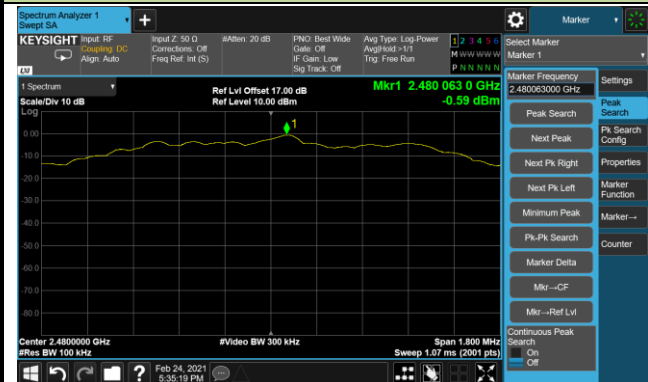


Spurious Emission



Channel 39 (2480MHz)

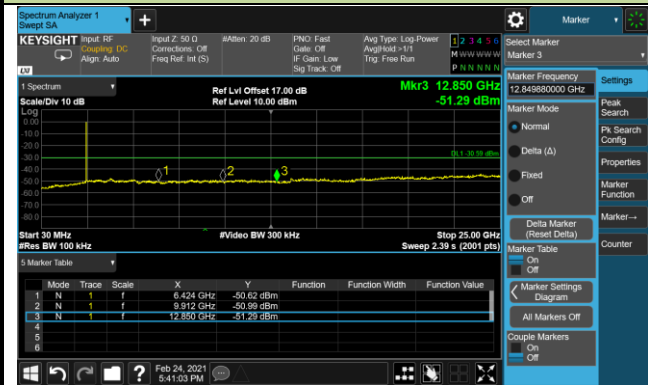
100kHz PSD reference Level



High Band Edge



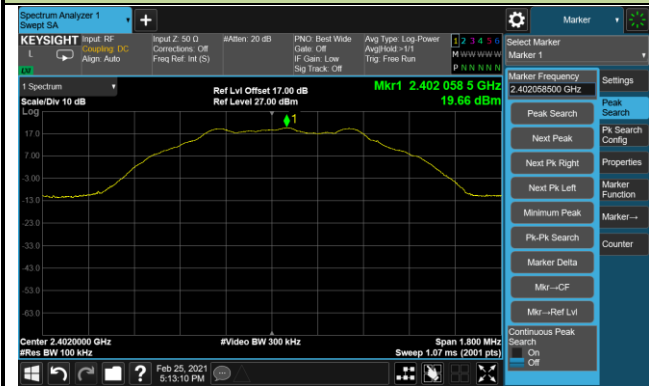
Spurious Emission



BLE 1Mbps Out-of-Band Emissions - Bluetooth chip 0 (Internal Antenna) - Ant 2

Channel 00 (2402MHz)

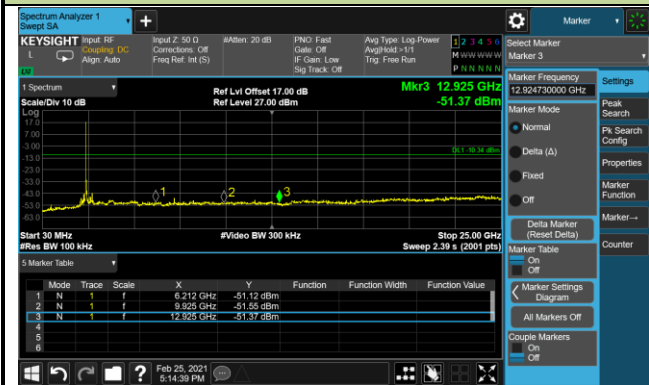
100kHz PSD reference Level



Low Band Edge

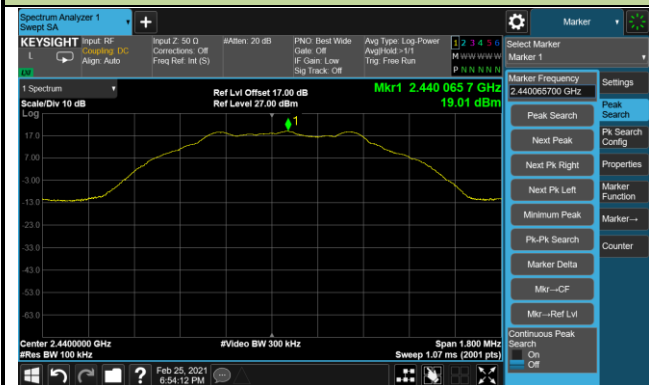


Spurious Emission



Channel 19 (2440MHz)

100kHz PSD reference Level

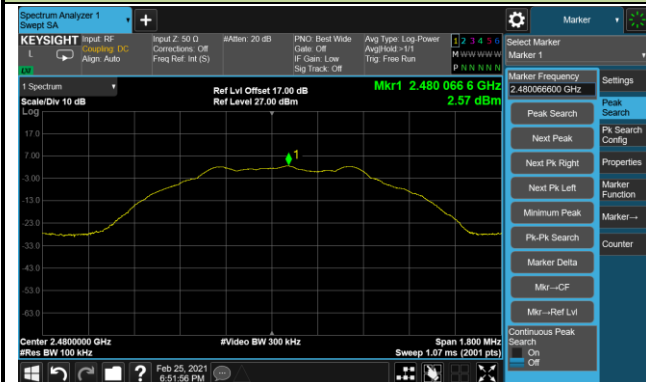


Spurious Emission

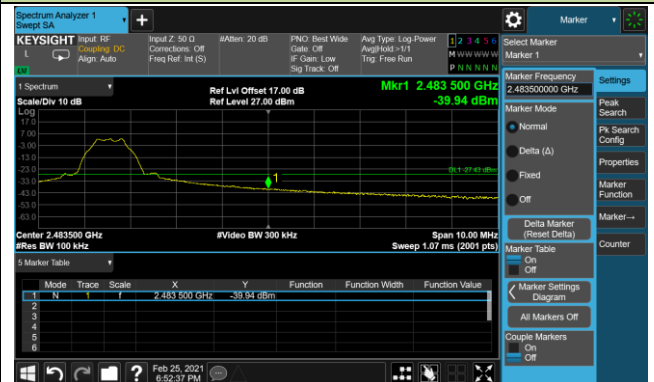


Channel 39 (2480MHz)

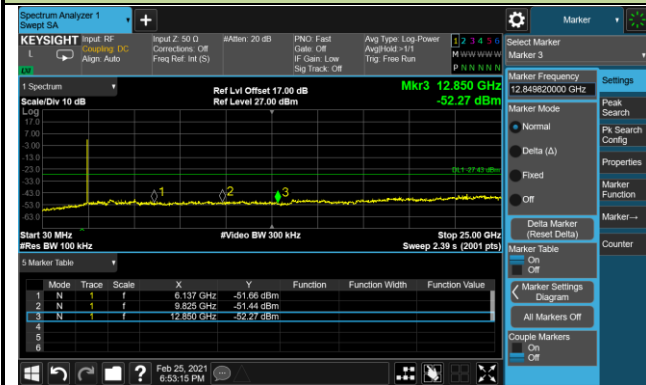
100kHz PSD reference Level



High Band Edge



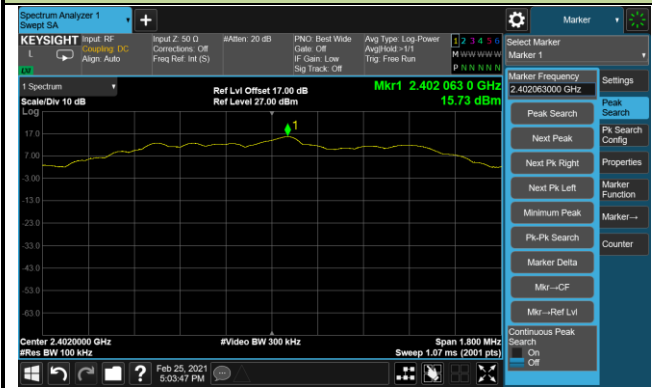
Spurious Emission



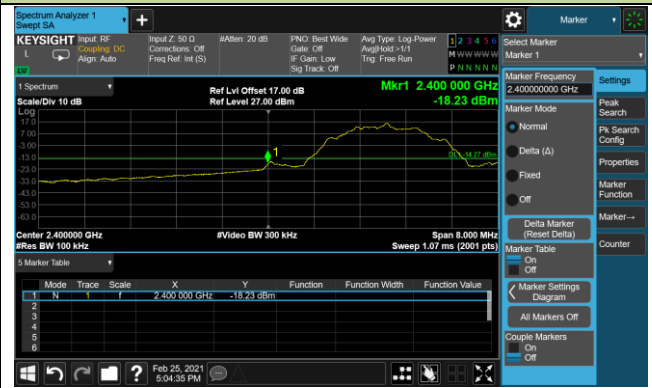
BLE 2Mbps Out-of-Band Emissions - Bluetooth chip 0 (Internal Antenna) - Ant 2

Channel 00 (2402MHz)

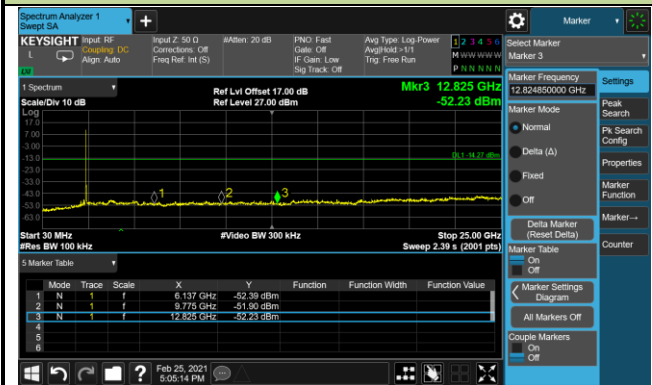
100kHz PSD reference Level



Low Band Edge

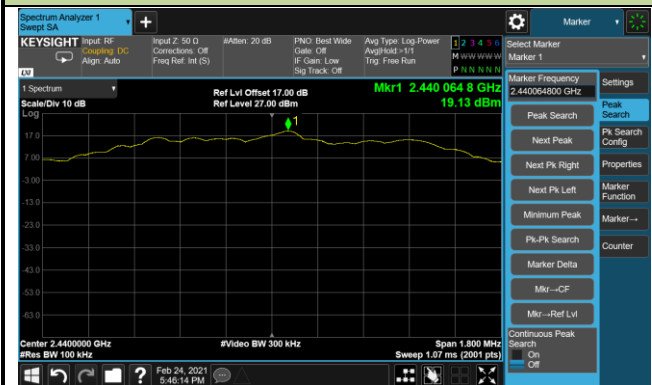


Spurious Emission

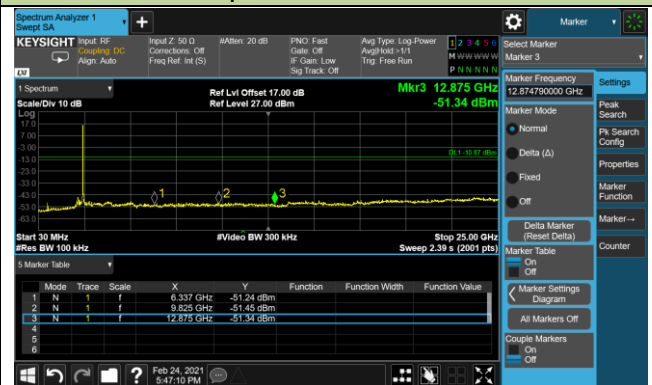


Channel 19 (2440MHz)

100kHz PSD reference Level

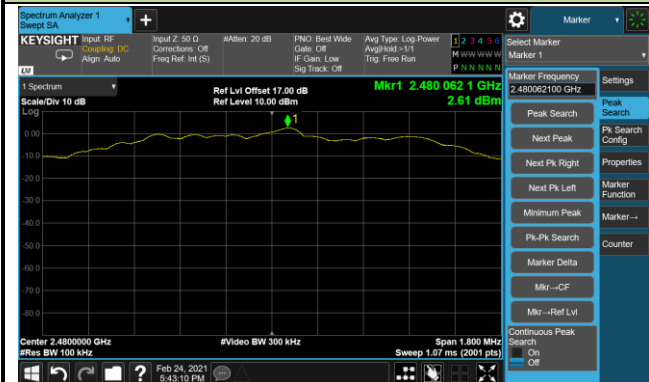


Spurious Emission



Channel 39 (2480MHz)

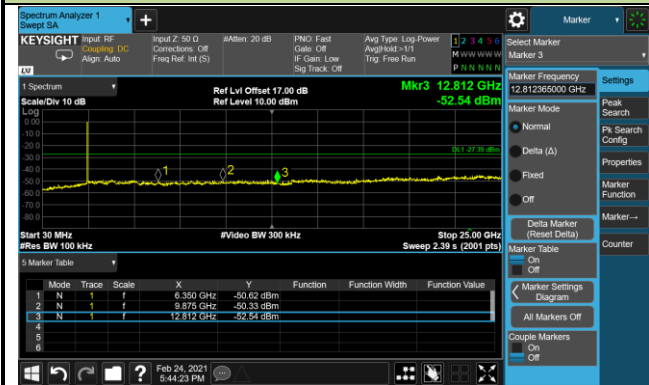
100kHz PSD reference Level



High Band Edge



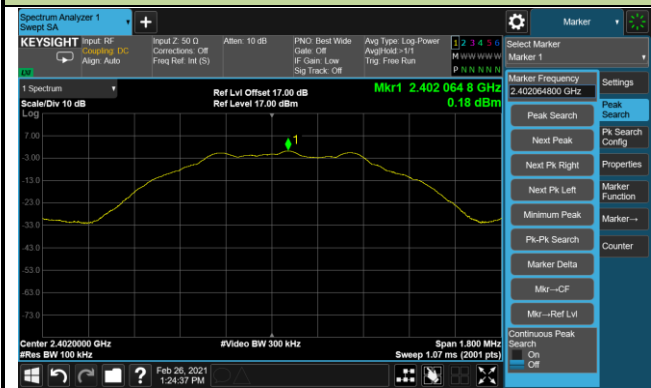
Spurious Emission



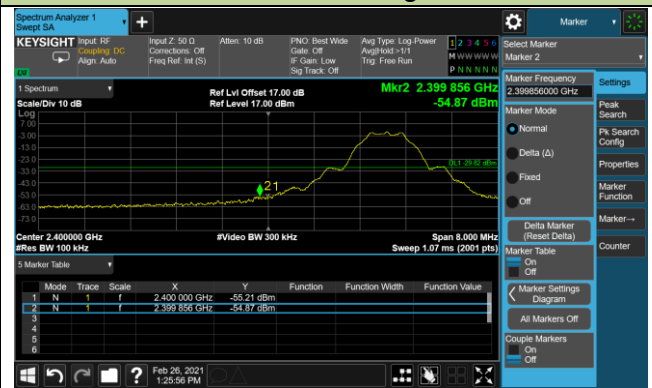
BLE 1Mbps Out-of-Band Emissions - Bluetooth chip 1 (Internal Antenna) - Ant 0

Channel 00 (2402MHz)

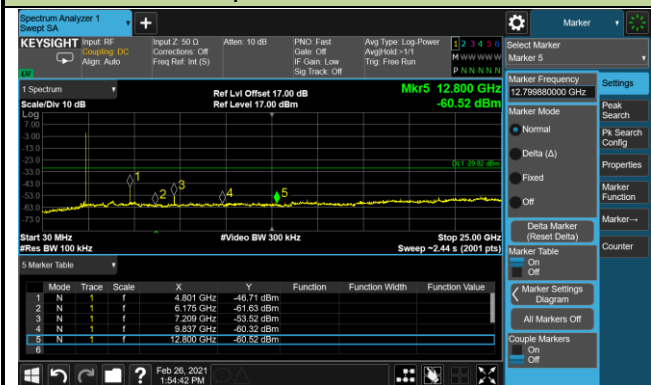
100kHz PSD reference Level



Low Band Edge

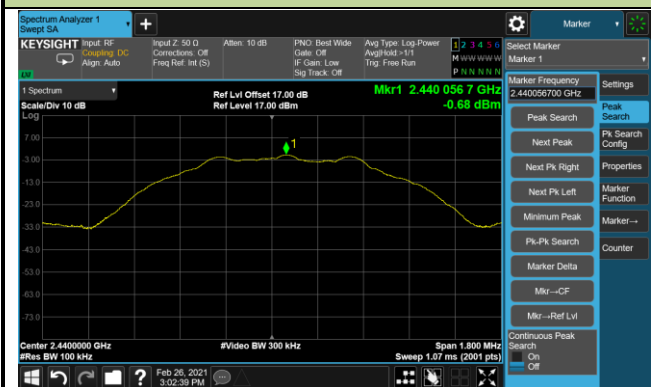


Spurious Emission

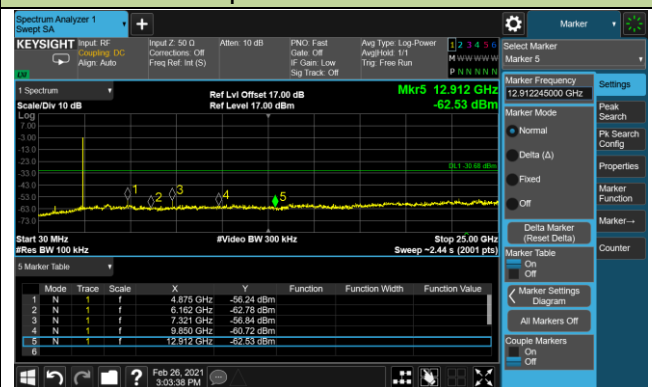


Channel 19 (2440MHz)

100kHz PSD reference Level

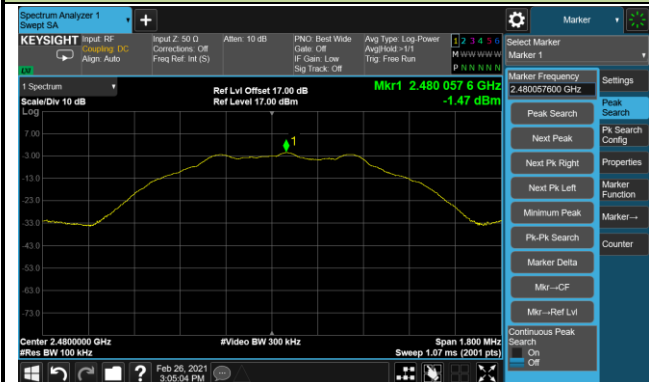


Spurious Emission



Channel 39 (2480MHz)

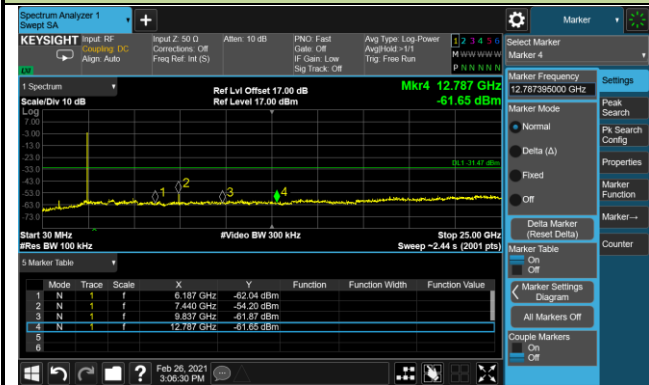
100kHz PSD reference Level



High Band Edge



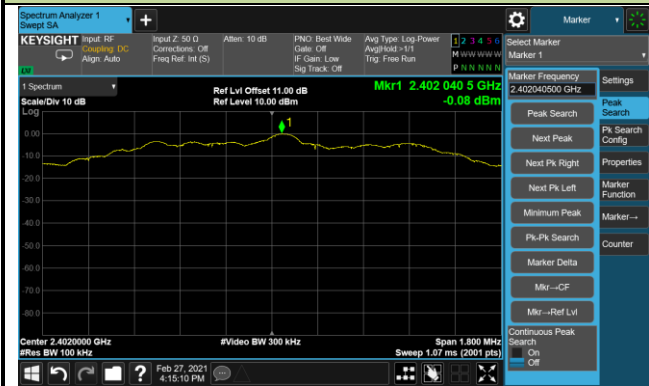
Spurious Emission



BLE 2Mbps Out-of-Band Emissions - Bluetooth chip 1 (Internal Antenna) - Ant 0

Channel 00 (2402MHz)

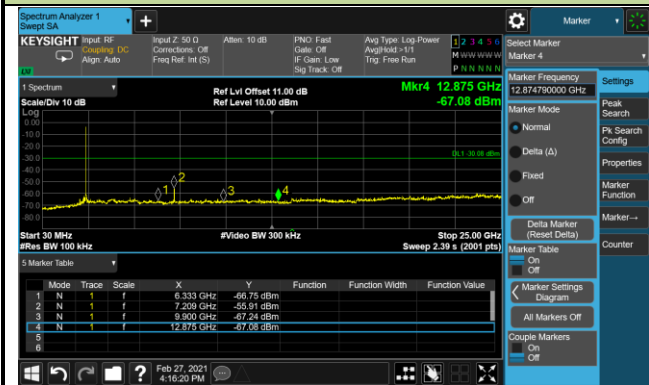
100kHz PSD reference Level



Low Band Edge

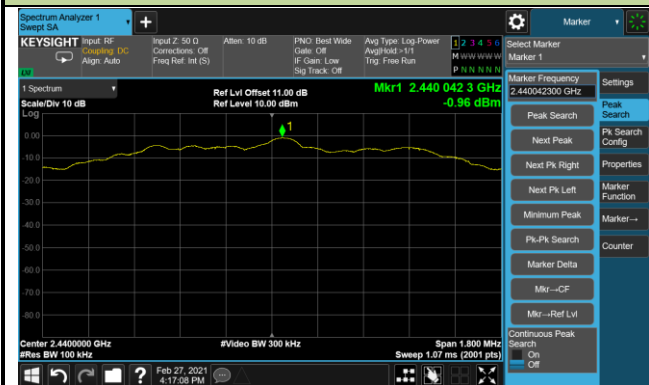


Spurious Emission



Channel 19 (2440MHz)

100kHz PSD reference Level



Spurious Emission

