



RF MEASUREMENT REPORT

FCC ID: XCO-QCC3031
Applicant: Hansong(Nanjing) Technology Ltd.
Product: Bluetooth Module
Model No.: HSBT3031-08-EA, HSBT3031-08-IA
Brand Name: Platin
FCC Classification: Digital Transmission System (DTS)
FCC Rule Part(s): Part 15 Subpart C (Section 15.247)
Test Date: January 20 ~ February 11, 2022

Reviewed By:

Jame Yuan

Approved By:

Robin Wu



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.10-2013. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
2112RSU099-U2	Rev. 01	Initial Report	02-23-2022	Valid

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1. General Information

1.1. Applicant

Hansong(Nanjing) Technology Ltd.

8th Kangping Road Jiangning Economy and Technology Development Zone Nanjing 211106 China

1.2. Manufacturer

Hansong(Nanjing) Technology Ltd.

8th Kangping Road Jiangning Economy and Technology Development Zone Nanjing 211106 China

1.3. Testing Facility

☒	Test Site – MRT Suzhou Laboratory Laboratory Location (Suzhou - Wuzhong) D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China Laboratory Location (Suzhou - SIP) 4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China Laboratory Accreditations A2LA: 3628.01 CNAS: L10551 FCC: CN1166 ISED: CN0001 VCCI: ☐ R-20025 ☐ G-20034 ☐ C-20020 ☐ T-20020 ☐ R-20141 ☐ G-20134 ☐ C-20103 ☐ T-20104
☐	Test Site – MRT Shenzhen Laboratory Laboratory Location (Shenzhen) 1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China Laboratory Accreditations A2LA: 3628.02 CNAS: L10551 FCC: CN1284 ISED: CN0105
☐	Test Site – MRT Taiwan Laboratory Laboratory Location (Taiwan) No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) Laboratory Accreditations TAF: L3261-190725 FCC: 291082, TW3261 ISED: TW3261

1.4. Product Information

Product Name	Bluetooth Module
Model No.	HSBT3031-08-EA, HSBT3031-08-IA
Brand Name	Platin
Sample No.	20211230Accessory#27
Bluetooth Specification	V5.1 (Dual mode)
Antenna Information	Refer to section 1.6
Working Voltage	3.3V
Remark: - The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer. - The difference between the above two models is the antenna type and the antenna's matching circuits.	

1.5. Radio Specification

Bluetooth Frequency	2402 ~ 2480MHz
Channel Number	40
Type of modulation	GFSK
Data Rate	1Mbps

Note: For other features of this EUT, test report will be issued separately.

1.6. Description of Available Antennas

Antenna Type	Frequency Band (GHz)	T _x Paths	Max Antenna Gain (dBi)
Bluetooth Antenna			
External Dipole Antenna	2402 ~ 2480	1	2.00
Onboard PCB Antenna	2402 ~ 2480	1	1.97
External PCB Antenna	2402 ~ 2480	1	4.15

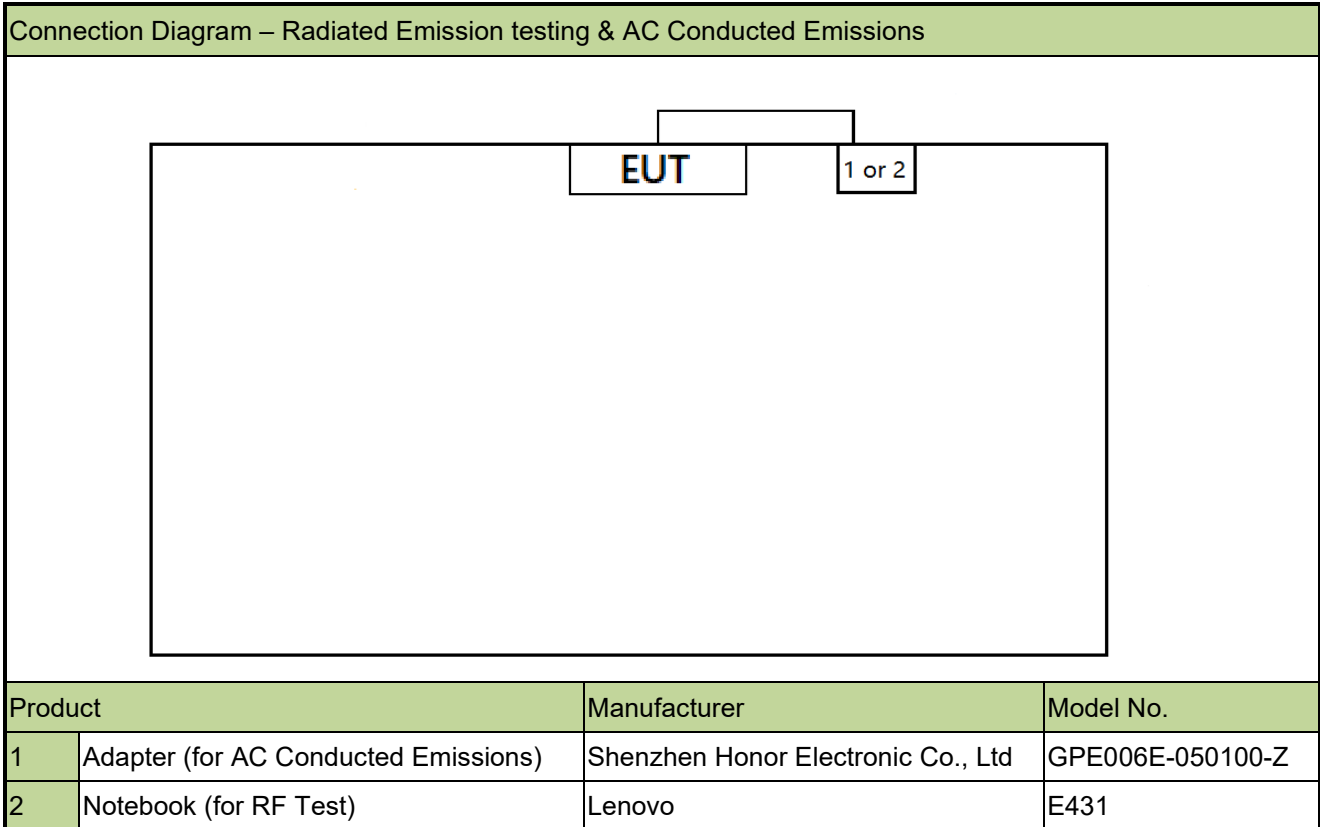
1.7. Working Frequencies

Channel	Frequency	Channel	Frequency	Channel	Frequency
00	2402 MHz	01	2404 MHz	02	2406 MHz
03	2408 MHz	04	2410 MHz	05	2412 MHz
06	2414 MHz	07	2416 MHz	08	2418 MHz
09	2420 MHz	10	2422 MHz	11	2424 MHz
12	2426 MHz	13	2428 MHz	14	2430 MHz
15	2432 MHz	16	2434 MHz	17	2436 MHz
18	2438 MHz	19	2440 MHz	20	2442 MHz
21	2444 MHz	22	2446 MHz	23	2448 MHz
24	2450 MHz	25	2452 MHz	26	2454 MHz
27	2456 MHz	28	2458 MHz	29	2460 MHz
30	2462 MHz	31	2464 MHz	32	2466 MHz
33	2468 MHz	34	2470 MHz	35	2472 MHz
36	2474 MHz	37	2476 MHz	38	2478 MHz
39	2480 MHz	--	--	--	--

2. Test Configuration

2.1. Test System Connection Diagram

The device was tested per the guidance ANSI C63.10: 2013 was used to reference the appropriate EUT setup for radiated emissions testing and AC line conducted testing.



2.2. Test Software

The test utility software used during testing was “BlueTest3”, and the version was 3.3.8.

2.3. Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15.247
- KDB 558074 D01v05r02
- ANSI C63.10-2013

2.4. Test Environment Condition

Ambient Temperature	15 ~ 35°C
Relative Humidity	20 ~75%RH

3. Antenna Requirements

Excerpt from §15.203 of the FCC Rules/Regulations:

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.”

- The antennas of the device are permanently attached or of a unique coupling to the device.
- There are no provisions for connection to a standard external antenna.

Conclusion:

The unit complies with the requirement of §15.203.

4. Measuring Instrument

Instrument	Manufacturer	Model No.	Asset No.	Cali. Interval	Cali. Due Date	Test Site
Two-Line V-Network	R&S	ENV216	MRTSUE06002	1 year	2022/6/8	WZ-SR2
Shielding Room	MIX-BEP	WZ-SR2	MRTSUE06215	/	/	WZ-SR2
Thermohygrometer	testo	608-H1	MRTSUE06404	1 year	2022/6/28	WZ-SR2
EMI Test Receiver	R&S	ESR3	MRTSUE06909	1 year	2022/11/1	WZ-SR2
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2022/12/29	WZ-AC1
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06023	1 year	2022/9/16	WZ-AC1
Preamplifier	Agilent	83017A	MRTSUE06076	1 year	2022/11/12	WZ-AC1
TRILOG Antenna	Schwarzbeck	VULB 9168	MRTSUE06172	1 year	2022/8/5	WZ-AC1
Thermohygrometer	Yuhuaze	HTC-2	MRTSUE06184	1 year	2022/8/10	WZ-AC1
Anechoic Chamber	TDK	WZ-AC1	MRTSUE06212	1 year	2022/4/29	WZ-AC1
Thermohygrometer	testo	608-H1	MRTSUE06403	1 year	2022/6/28	WZ-AC1
Signal Analyzer	Keysight	N9010B	MRTSUE06607	1 year	2022/12/29	WZ-AC1
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2022/10/28	WZ-AC1
Signal Analyzer	Agilent	N9020A	MRTSUE06106	1 year	2022/4/13	WZ-SR5
Thermohygrometer	testo	608-H1	MRTSUE06402	1 year	2022/6/28	WZ-SR5
USB Power Sensor	Agilent	U2021XA	MRTSUE06030	1 year	2022/10/10	WZ-SR5
Shielding Room	HUAMING	WZ-SR5	MRTSUE06442	/	/	WZ-SR5
Signal Analyzer	Keysight	N9010B	MRTSUE06457	1 year	2022/6/24	WZ-SR5

Software	Version	Function
EMI Software	V3	EMI Test Software

5. Measurement Uncertainty

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

AC Conducted Emission Measurement
Measurement Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 9kHz~150kHz: 3.74dB 150kHz~30MHz: 3.44dB
Radiated Disturbance
Measurement Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): Horizontal: 30MHz~300MHz: 5.04dB 300MHz~1GHz: 4.95dB 1GHz~40GHz: 6.40dB Vertical: 30MHz~300MHz: 5.24dB 300MHz~1GHz: 6.03dB 1GHz~40GHz: 6.40dB
Spurious Emissions, Conducted
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 0.78dB
Output Power
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 1.13dB
Power Spectrum Density
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 1.15dB
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 0.28%

6. Test Result

6.1. Summary

FCC Section(s)	Test Description	Test Condition	Verdict
15.247(a)(2)	6dB Bandwidth	Conducted	Pass
15.247(b)(3)	Output Power		Pass
15.247(e)	Power Spectral Density		Pass
15.247(d)	Band Edge / Out-of-Band Emissions		Pass
15.205 15.209	General Field Strength (Restricted Bands and Radiated Emission)	Radiated	Pass
15.207	AC Conducted Emissions 150kHz - 30MHz	Line Conducted	Pass

Remark:

1. The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.
2. For radiated emission test, every axis (X, Y, Z) was also verified. The test results shown in the following sections represent the worst-case emissions.

6.2. 6dB Bandwidth Measurement

6.2.1. Test Limit

The minimum 6dB bandwidth shall be at least 500 kHz.

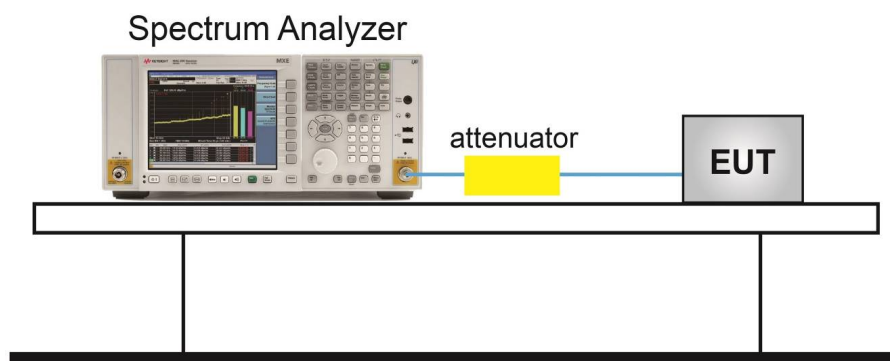
6.2.2. Test Procedure

ANSI C63.10 - 2013 - Section 11.8

6.2.3. Test Setting

1. The Spectrum's automatic bandwidth measurement capability was used to perform the 6dB bandwidth measurement. The "X" dB bandwidth parameter was set to $X = 6$. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. Set RBW = 100 kHz
3. $VBW \geq 3 \times RBW$
4. Detector = Peak
5. Trace mode = Max hold
6. Sweep = Auto couple
7. Allow the trace to stabilize

6.2.4. Test Setup



6.2.5. Test Result

Refer to Appendix A.1.

6.3. Output Power Measurement

6.3.1. Test Limit

The maximum output power shall be less 1 Watt (30dBm).

The conducted output power limit specified in paragraph FCC Part 15.247(b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs FCC Part 15.247(b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

6.3.2. Test Procedure

ANSI C63.10 - 2013 - Section 11.9.1.3

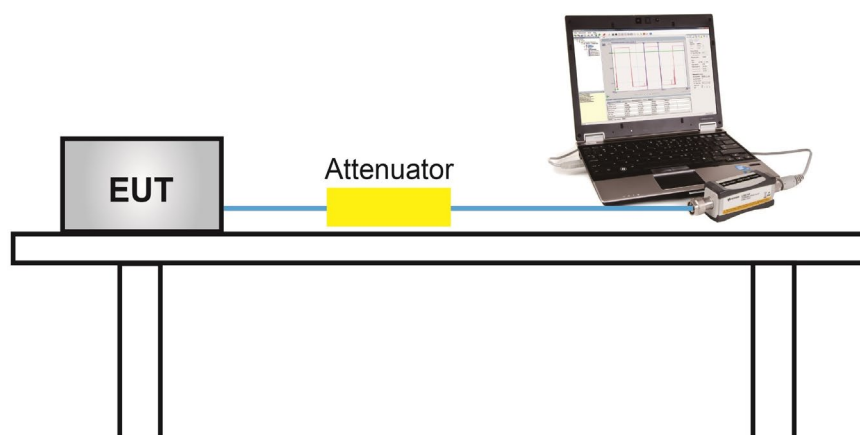
6.3.3. Test Setting

PKPM1 Peak power meter method

The maximum peak conducted output power may be measured using a broadband peak RF power meter.

The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall use a fast responding diode detector.

6.3.4. Test Setup



6.3.5. Test Result

Refer to Appendix A.2.

6.4. Power Spectral Density Measurement

6.4.1. Test Limit

The maximum permissible power spectral density is 8dBm in any 3 kHz band.

The same method of determining the conducted output power shall be used to determine the power spectral density.

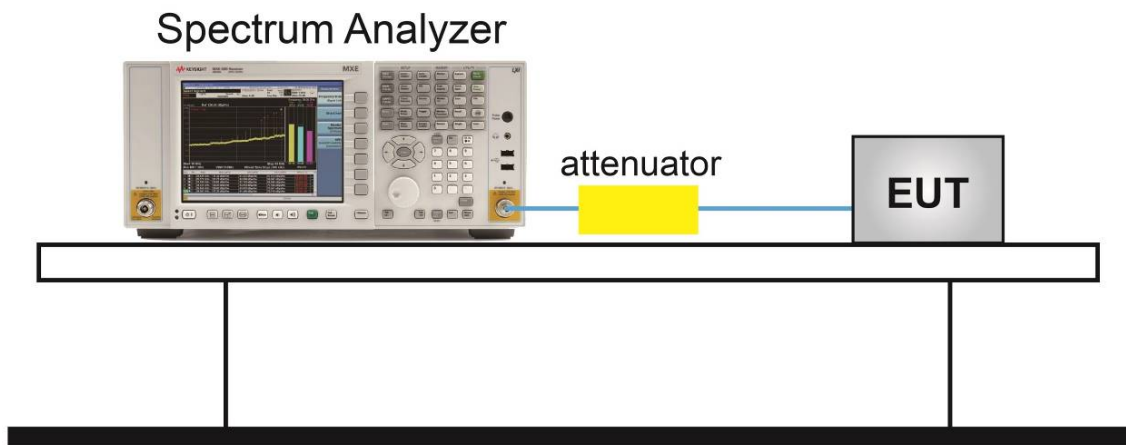
6.4.2. Test Procedure

ANSI C63.10 - 2013 - Section 11.10.2

6.4.3. Test Setting

1. Measure the duty cycle (x) of the transmitter output signal.
2. Set instrument center frequency to DTS channel center frequency.
3. Set span to at least 1.5 times the DTS bandwidth.
4. RBW = 3 kHz.
5. VBW = 10 kHz.
6. Detector = peak.
7. Sweep time = auto couple.
8. Trace mode = max-hold.
9. Allow trace to fully stabilize.
10. Use the peak marker function to determine the maximum amplitude level.
11. If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat.

6.4.4. Test Setup



6.4.5. Test Result

Refer to Appendix A.3.

6.5. Conducted Band Edge and Out-of-Band Emissions Measurement

6.5.1. Test Limit

The limit for out-of-band spurious emissions at the band edge is 20dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100 kHz bandwidth per the PSD procedure.

6.5.2. Test Procedure

ANSI C63.10-2013 - Section 11.11

6.5.3. Test Setting

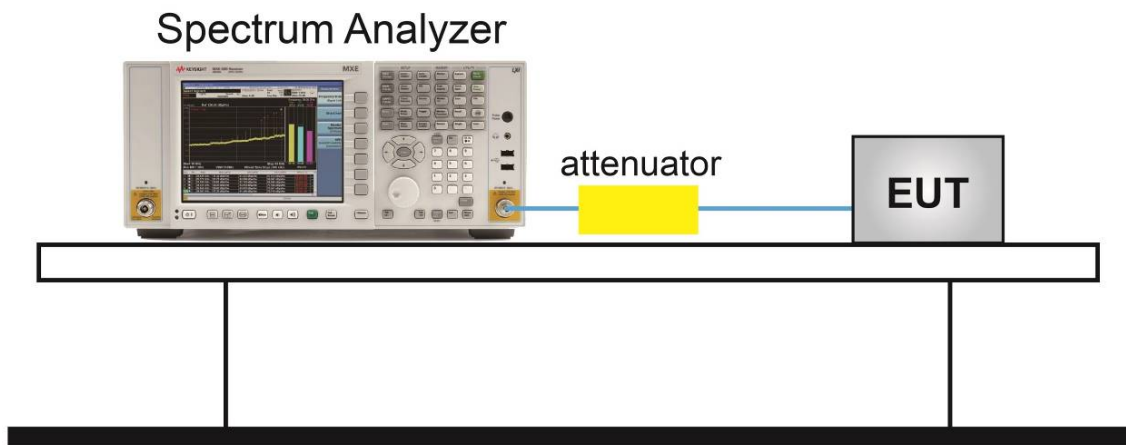
Reference level measurement

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

6.5.4. Test Setup



6.5.5. Test Result

Refer to Appendix A.4.

6.6. Radiated Spurious Emission Measurement

6.6.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [uV/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

6.6.2. Test Procedure

ANSI C63.10 - 2013 - Section 11.11 & 11.12

ANSI C63.10 - 2013 - Section 6.3 (General Requirements)

ANSI C63.10 - 2013 - Section 6.4 (Standard test method below 30MHz)

ANSI C63.10 - 2013 - Section 6.5 (Standard test method above 30MHz to 1GHz)

ANSI C63.10 - 2013 - Section 6.6 (Standard test method above 1GHz)

6.6.3. Test Setting

Table 1 - RBW as a function of frequency

Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000MHz	1MHz

Quasi-Peak Measurements below 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = as specified in Table 1
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

Peak Measurements above 1GHz

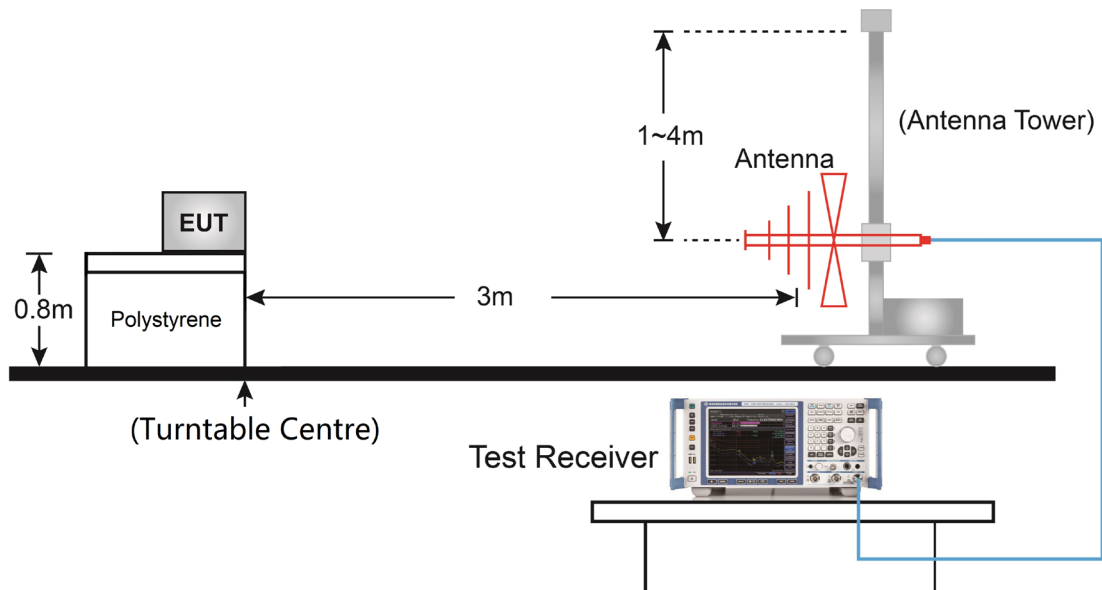
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Measurements above 1GHz (Method VB)

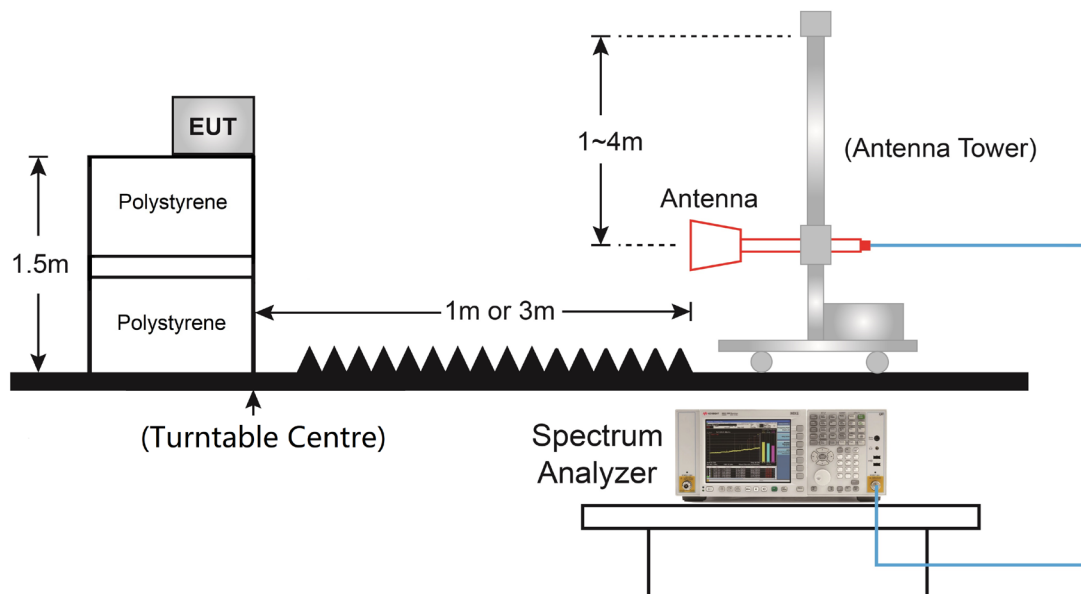
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10 Hz.
If the EUT duty cycle is $< 98\%$, set VBW $\geq 1/T$. T is the minimum transmission duration.
4. Detector = Peak
5. Sweep time = auto
6. Trace mode = max hold
7. Trace was allowed to stabilize

6.6.4. Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



6.6.5. Test Result

Refer to Appendix A.5.

6.7. Radiated Restricted Band Edge Measurement

6.7.1. Test Limit

For 15.205 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)
13.36 - 13.41	--	--	--

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [uV/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

6.7.2. Test Procedure

ANSI C63.10-2013 Section 6.3

ANSI C63.10-2013 Section 6.6

ANSI C63.10-2013 Section 11.13

6.7.3. Test Setting

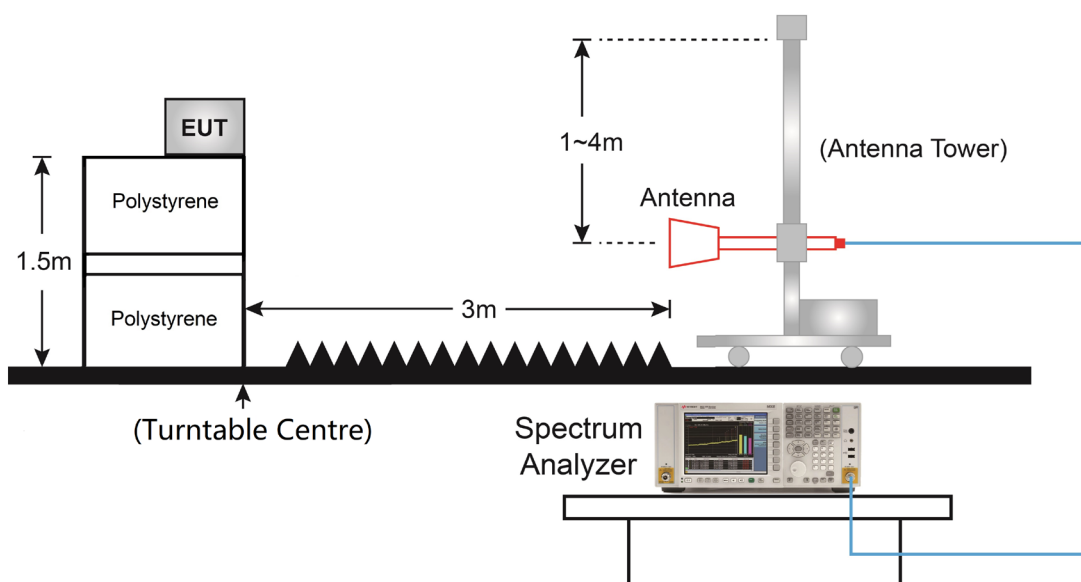
Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW $\geq 1/T$
4. As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to "Voltage" regardless of the display mode
5. Detector = Peak
6. Sweep time = auto
7. Trace mode = max hold
8. Allow max hold to run for at least 50 times (1/duty cycle) traces

6.7.4. Test Setup



6.7.5. Test Result

Refer to Appendix A.6.

6.8. AC Conducted Emissions Measurement

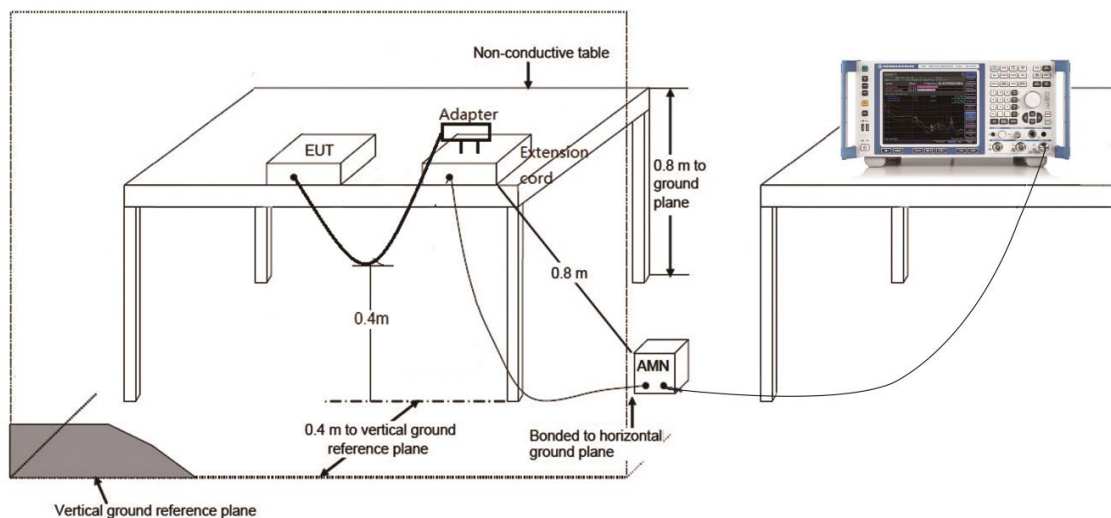
6.8.1. Test Limit

FCC Part 15 Subpart C Paragraph 15.207 Limits		
Frequency (MHz)	QP (dBuV)	AV (dBuV)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

6.8.2. Test Setup



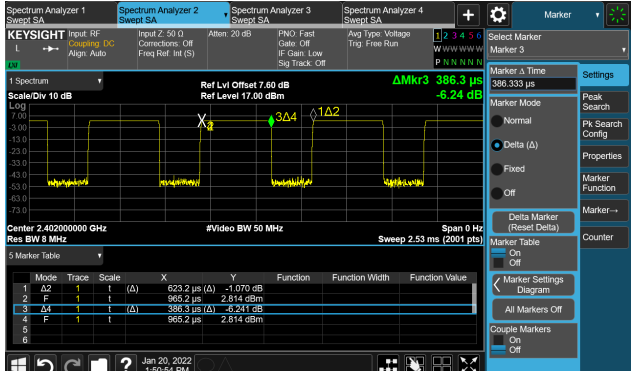
6.8.3. Test Result

Refer to Appendix A.7.

Appendix A - Test Result

A.1 Duty Cycle Test Result

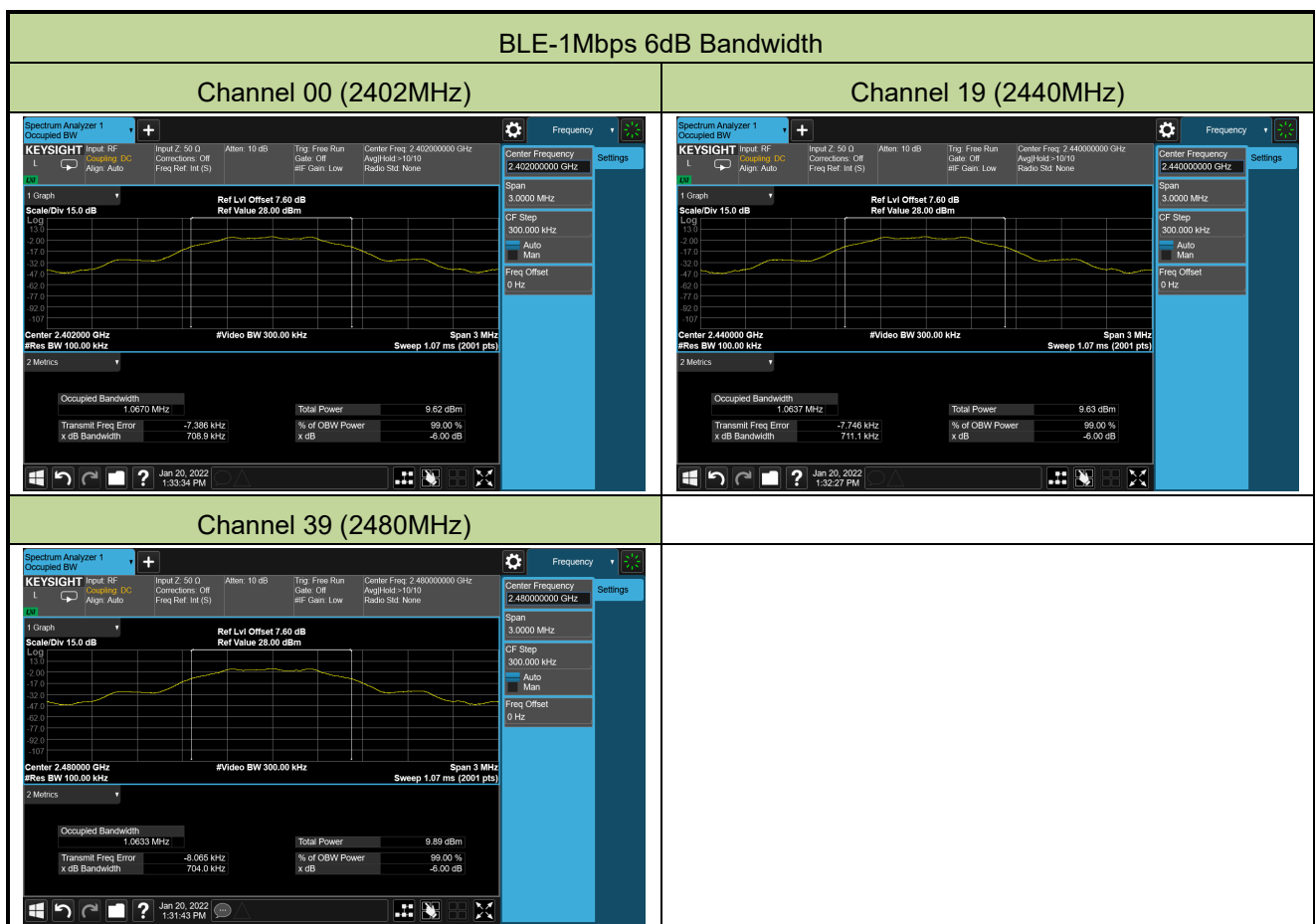
Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2022/01/20		

Test Mode	Duty Cycle
BLE-1Mbps	61.99%
Duty Cycle (T = Transmission Duration)	
BLE-1Mbps (T = 386.3μs)	
	

A.2 6dB Bandwidth Test Result

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2022/01/20		

Test Mode	Data Rate	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
BLE	1Mbps	00	2402	0.709	≥ 0.5
BLE	1Mbps	19	2440	0.711	≥ 0.5
BLE	1Mbps	39	2480	0.704	≥ 0.5



A.3 Output Power Test Result

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2022/01/20		

Test Result of Peak Output Power

Test Mode	Data Rate	Channel No.	Frequency (MHz)	Peak Power (dBm)	Limit (dBm)	Result
BLE	1Mbps	00	2402	2.77	≤ 30.00	Pass
BLE	1Mbps	19	2440	2.85	≤ 30.00	Pass
BLE	1Mbps	39	2480	2.98	≤ 30.00	Pass

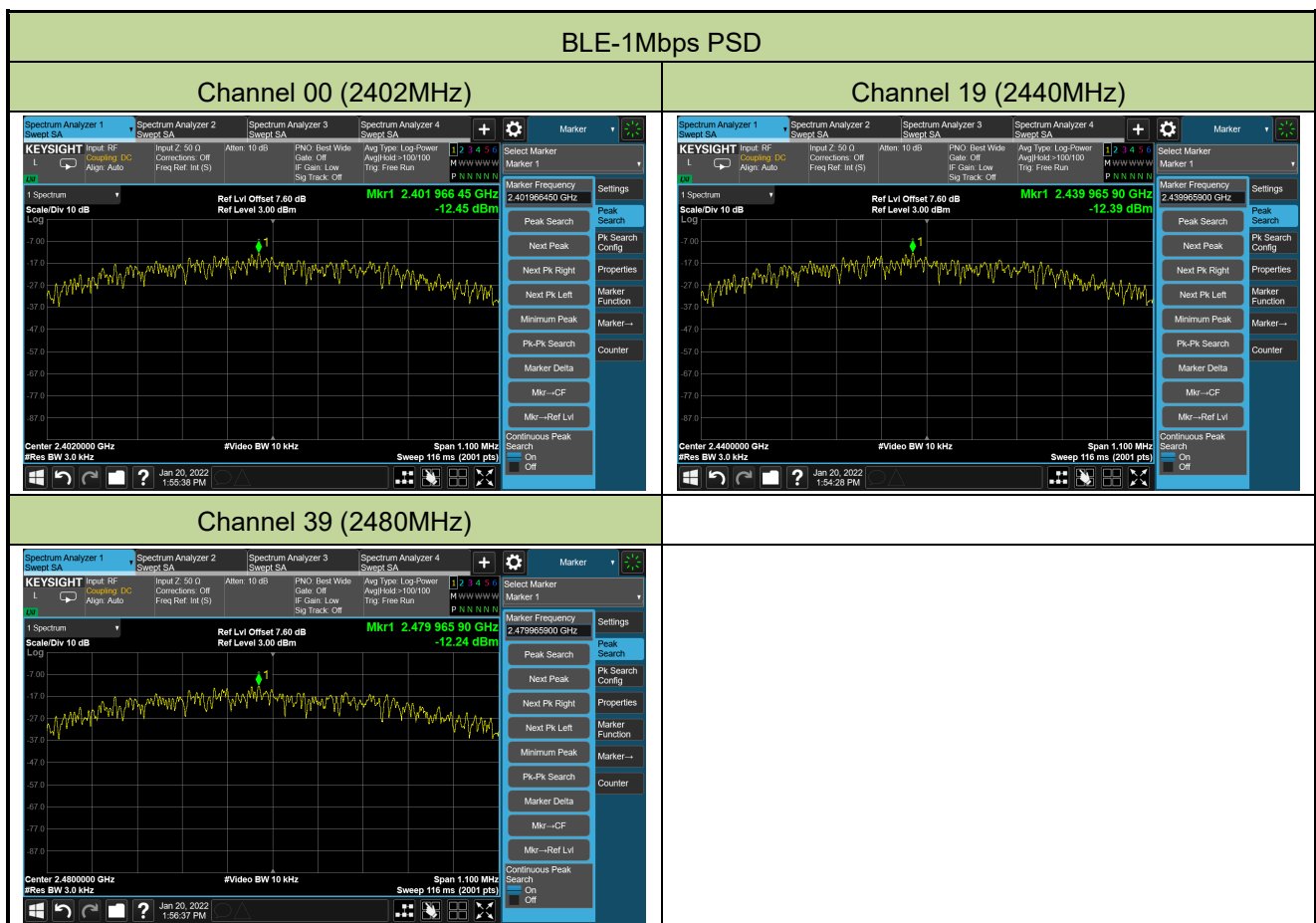
Test Result of Average Output Power (Reporting Only)

Test Mode	Data Rate	Channel No.	Frequency (MHz)	Average Power (dBm)	Limit (dBm)	Result
BLE	1Mbps	00	2402	2.51	≤ 30.00	Pass
BLE	1Mbps	19	2440	2.61	≤ 30.00	Pass
BLE	1Mbps	39	2480	2.72	≤ 30.00	Pass

A.4 Power Spectral Density Test Result

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2022/01/20		

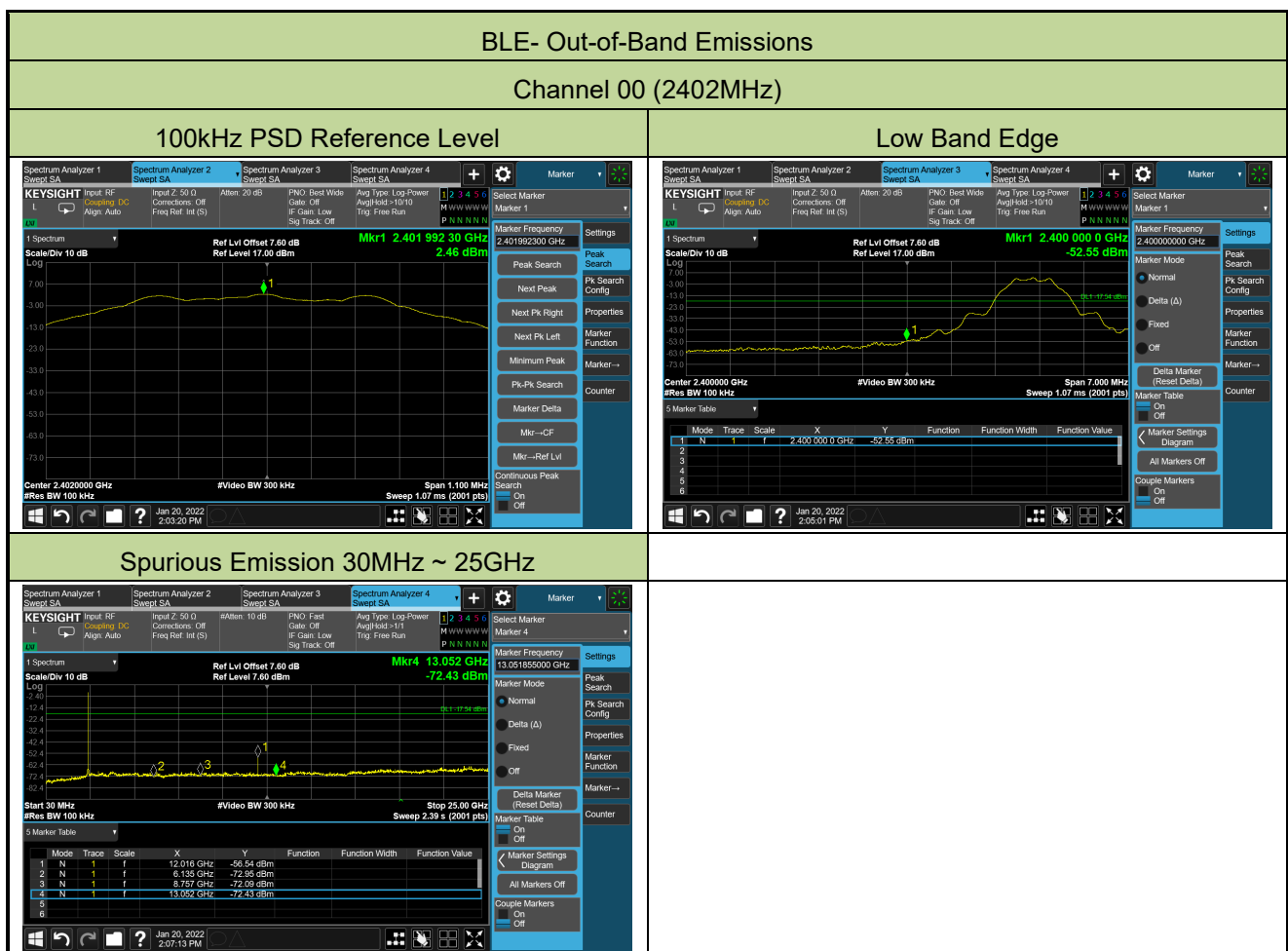
Test Mode	Data Rate	Channel No.	Frequency (MHz)	PSD Result (dBm / 3kHz)	Limit (dBm / 3kHz)	Result
BLE	1Mbps	00	2402	-12.45	≤ 8.00	Pass
BLE	1Mbps	19	2440	-12.39	≤ 8.00	Pass
BLE	1Mbps	39	2480	-12.24	≤ 8.00	Pass



A.5 Conducted Band Edge and Out-of-Band Emissions Test Result

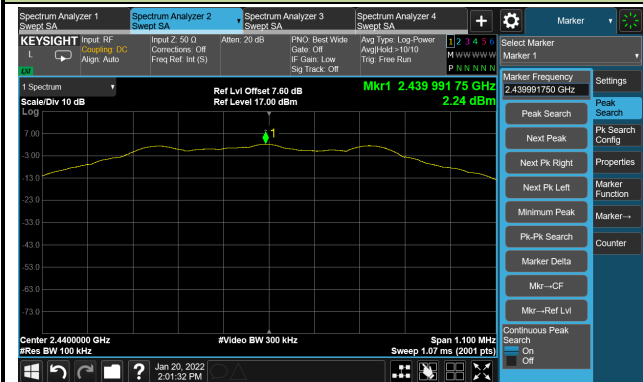
Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2022/01/20		

Test Mode	Data Rate / Mbps	Channel No.	Frequency (MHz)	Limit (dBc)	Result
BLE	1	00	2402	20	Pass
BLE	1	19	2440	20	Pass
BLE	1	39	2480	20	Pass

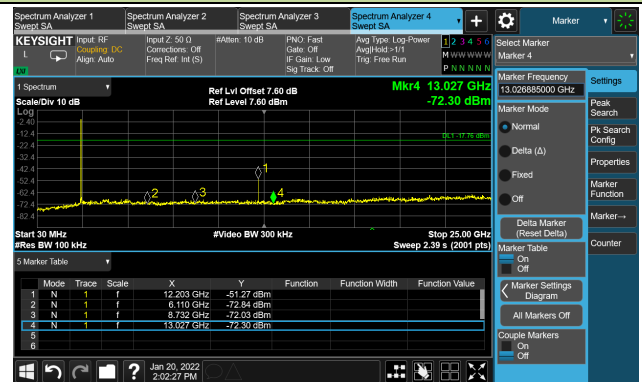


Channel 19 (2440MHz)

100kHz PSD Reference Level

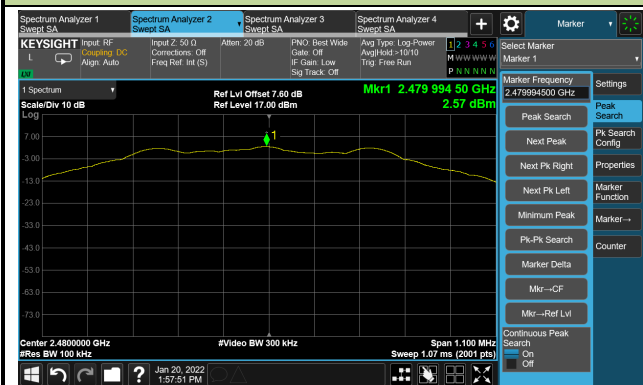


Spurious Emission 30MHz ~ 25GHz

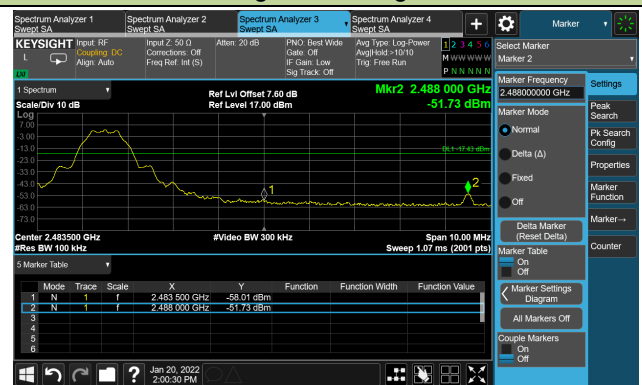


Channel 39 (2480MHz)

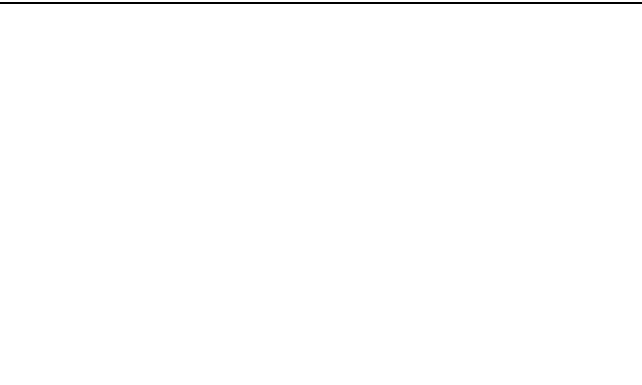
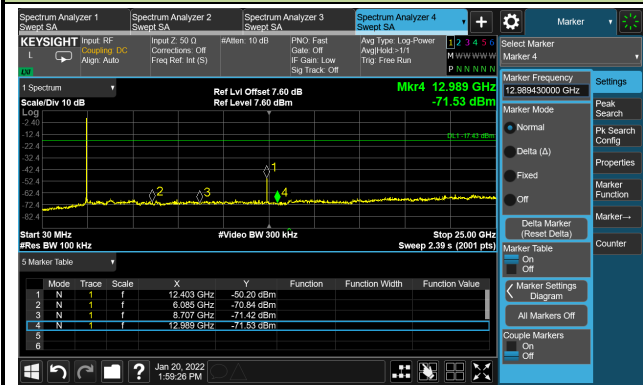
100kHz PSD Reference Level



High Band Edge



Spurious Emission 30MHz ~ 25GHz



A.6 Radiated Spurious Emission Test Result

External PCB Antenna – Transmit Mode

Test Site	WZ-AC1	Test Engineer	Lucas Wang
Test Date	2022/01/22	Test Mode:	BLE
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
00	9160.0	37.3	11.8	49.0	74.0	-25.0	Peak	Horizontal
	11106.5	37.4	13.5	50.9	74.0	-23.1	Peak	Horizontal
	12254.0	37.5	12.9	50.4	74.0	-23.6	Peak	Horizontal
	8352.5	38.1	9.5	47.6	74.0	-26.4	Peak	Vertical
	11098.0	37.3	13.5	50.8	74.0	-23.2	Peak	Vertical
	11438.0	36.6	13.5	50.1	74.0	-23.9	Peak	Vertical
19	8276.0	36.3	9.5	45.8	74.0	-28.2	Peak	Horizontal
	9457.5	34.2	12.4	46.6	74.0	-27.4	Peak	Horizontal
	10792.0	36.0	13.9	49.9	74.0	-24.1	Peak	Horizontal
	7324.0	38.8	9.2	48.0	74.0	-26.0	Peak	Vertical
	8361.0	37.5	9.6	47.1	74.0	-26.9	Peak	Vertical
	10945.0	36.4	13.9	50.3	74.0	-23.7	Peak	Vertical
39	7732.0	37.3	8.8	46.1	74.0	-27.9	Peak	Horizontal
	8293.0	36.6	9.5	46.0	74.0	-28.0	Peak	Horizontal
	10953.5	35.7	13.8	49.5	74.0	-24.5	Peak	Horizontal
	7443.0	39.0	8.9	47.9	74.0	-26.1	Peak	Vertical
	8335.5	37.4	9.4	46.8	74.0	-27.2	Peak	Vertical
	11183.0	36.5	13.4	49.9	74.0	-24.1	Peak	Vertical

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

External Dipole Antenna – Transmit Mode

Test Site	WZ-AC1	Test Engineer	Lucas Wang
Test Date	2022/01/26	Test Mode:	BLE
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

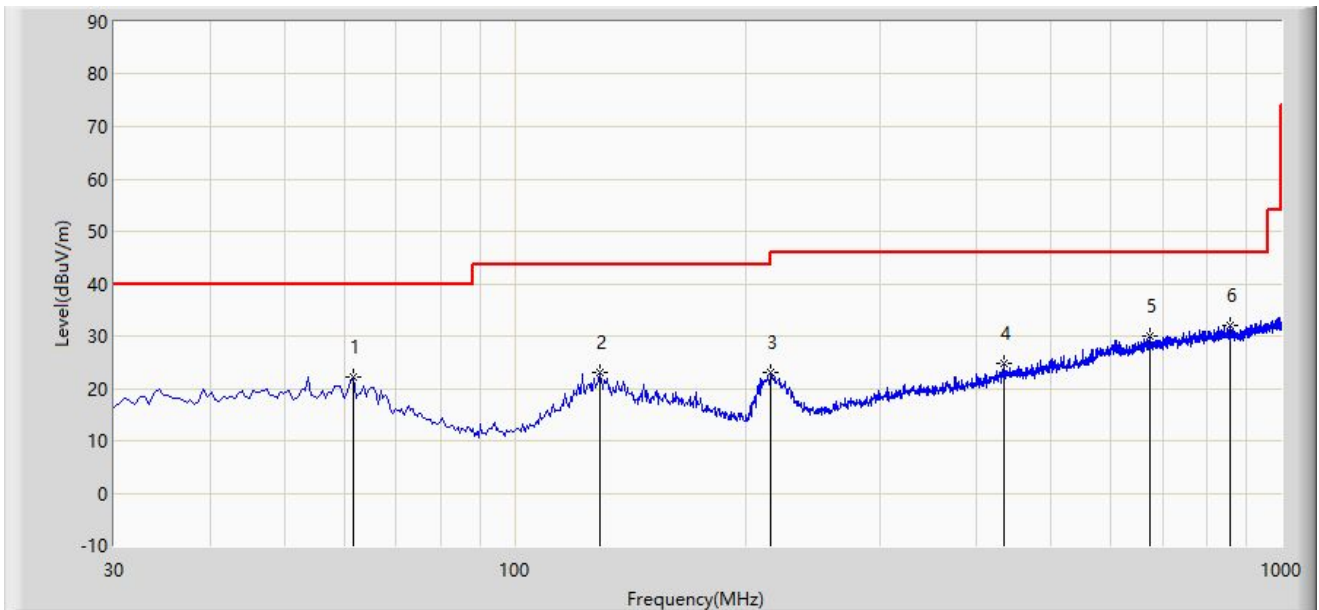
Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
00	8769.0	35.9	11.2	47.1	74.0	-26.9	Peak	Horizontal
	10035.5	34.7	12.9	47.6	74.0	-26.4	Peak	Horizontal
	12007.5	38.4	12.7	51.1	74.0	-22.9	Peak	Horizontal
	7953.0	38.6	9.5	48.1	74.0	-25.9	Peak	Vertical
	9721.0	34.6	12.7	47.3	74.0	-26.7	Peak	Vertical
	12305.0	36.9	12.9	49.8	74.0	-24.2	Peak	Vertical
19	8862.5	37.0	11.3	48.3	74.0	-25.7	Peak	Horizontal
	10486.0	36.0	13.9	49.9	74.0	-24.1	Peak	Horizontal
	11174.5	37.9	13.4	51.3	74.0	-22.7	Peak	Horizontal
	6380.5	39.7	6.6	46.3	74.0	-27.7	Peak	Vertical
	7987.0	39.0	9.5	48.5	74.0	-25.5	Peak	Vertical
	10928.0	36.4	13.9	50.3	74.0	-23.7	Peak	Vertical
39	8820.0	36.5	11.2	47.7	74.0	-26.3	Peak	Horizontal
	9874.0	35.8	12.9	48.7	74.0	-25.3	Peak	Horizontal
	12160.5	38.1	12.8	50.9	74.0	-23.1	Peak	Horizontal
	7978.5	40.1	9.6	49.7	74.0	-24.3	Peak	Vertical
	8879.5	38.1	11.3	49.4	74.0	-24.6	Peak	Vertical
	12245.5	36.7	13.0	49.7	74.0	-24.3	Peak	Vertical

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

The Result of Radiated Emission below 1GHz:

Site: WZ-AC1	Test Data: 2022/01/26
Limit: FCC_Part 15.209_RE(3m)	Engineer: Lucas Wang
Probe: WZ-AC1_VULB9168	Polarity: Horizontal
EUT: Bluetooth Module	Power: By PC
Test Mode: Transmit by BLE at channel 2480MHz – External PCB Antenna	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			61.525	22.191	4.688	-17.809	40.000	17.502	PK
2			128.940	22.939	6.733	-20.561	43.500	16.206	PK
3			215.755	22.940	8.481	-20.560	43.500	14.459	PK
4			435.460	24.868	2.937	-21.132	46.000	21.931	PK
5			673.595	30.024	3.534	-15.976	46.000	26.490	PK
6		*	855.955	32.022	3.060	-13.978	46.000	28.962	PK

Note 1: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

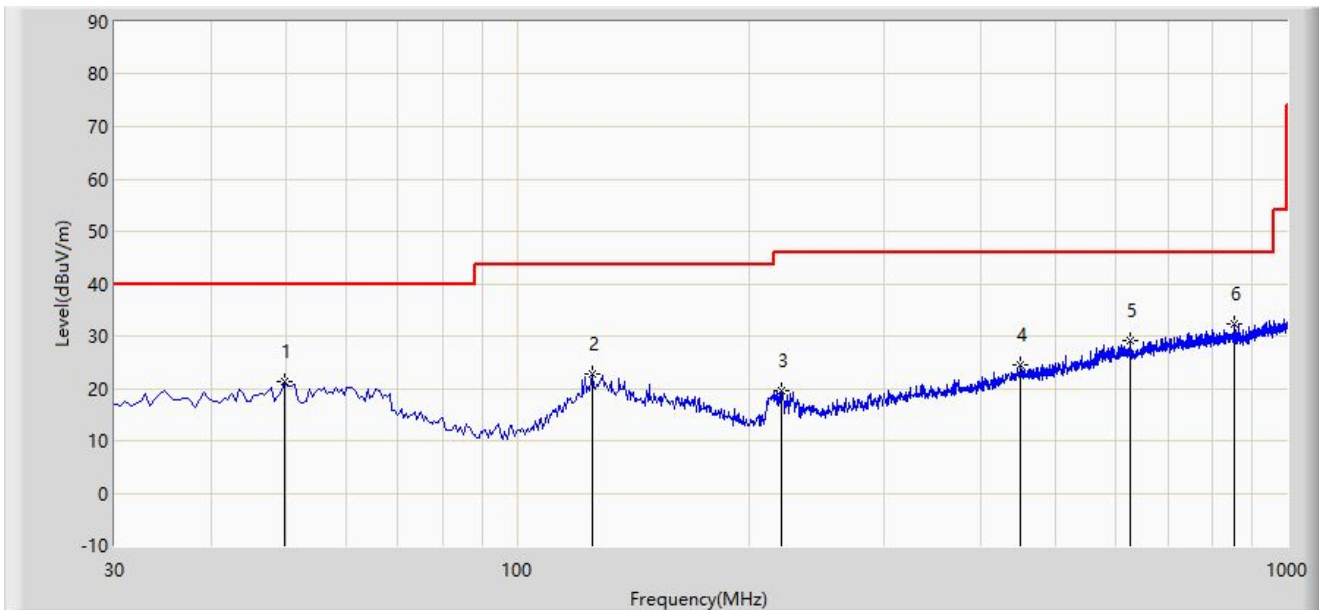
Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: QP measurement was not performed when peak measure level was lower than the QP limit.

Note 3: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value.

Therefore, the data is not presented in the report.

Site: WZ-AC1	Test Data: 2022/01/26
Limit: FCC_Part 15.209_RE(3m)	Engineer: Lucas Wang
Probe: WZ-AC1_VULB9168	Polarity: Vertical
EUT: Bluetooth Module	Power: By PC
Test Mode: Transmit by BLE at channel 2440MHz – External PCB Antenna	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1			49.885	21.198	2.612	-18.802	40.000	18.585	PK
2			125.060	22.746	6.988	-20.754	43.500	15.758	PK
3			220.605	19.431	4.977	-26.569	46.000	14.454	PK
4			450.980	24.488	2.231	-21.512	46.000	22.257	PK
5			625.580	29.160	3.294	-16.840	46.000	25.866	PK
6		*	855.470	32.400	3.433	-13.600	46.000	28.967	PK

Note 1: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB/m)

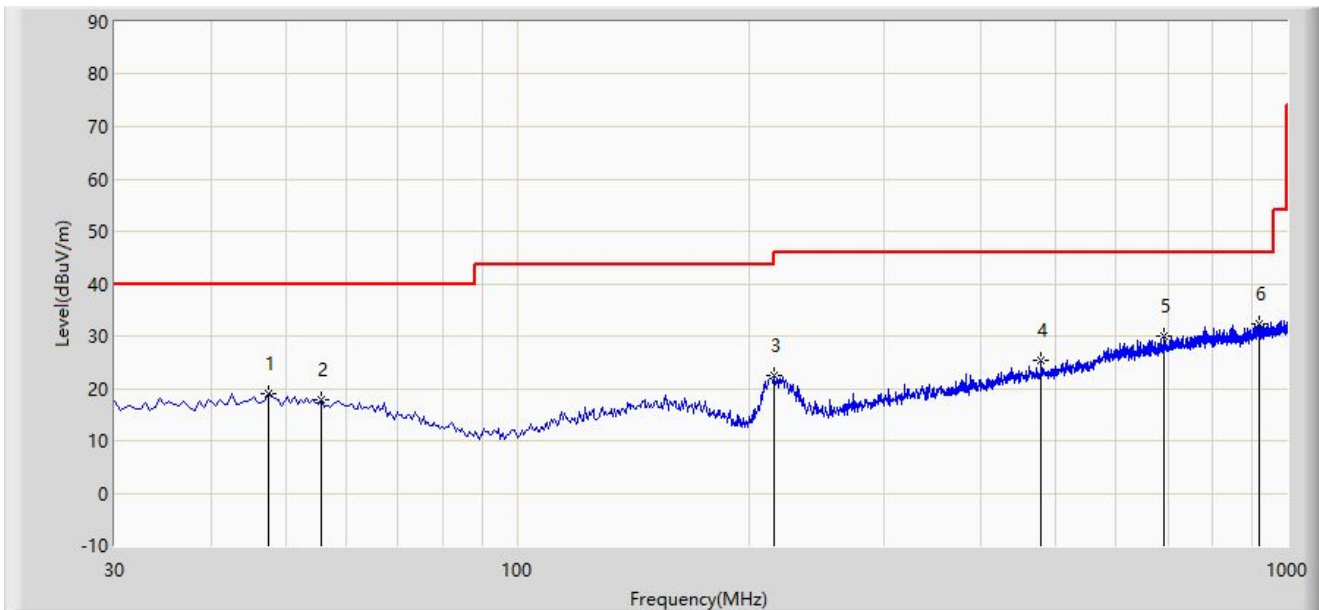
Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: QP measurement was not performed when peak measure level was lower than the QP limit.

Note 3: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value.

Therefore, the data is not presented in the report.

Site: WZ-AC1	Test Data: 2022/01/26
Limit: FCC_Part 15.209_RE(3m)	Engineer: Lucas Wang
Probe: WZ-AC1_VULB9168	Polarity: Horizontal
EUT: Bluetooth Module	Power: By PC
Test Mode: Receive by BLE at channel 2480MHz – External PCB Antenna	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1			47.460	19.093	0.313	-20.907	40.000	18.780	PK
2			55.705	17.910	-0.231	-22.090	40.000	18.141	PK
3			215.270	22.527	8.076	-20.973	43.500	14.451	PK
4			479.595	25.482	2.766	-20.518	46.000	22.716	PK
5			692.995	30.110	3.295	-15.890	46.000	26.815	PK
6		*	919.005	32.423	2.476	-13.577	46.000	29.947	PK

Note 1: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB/m)

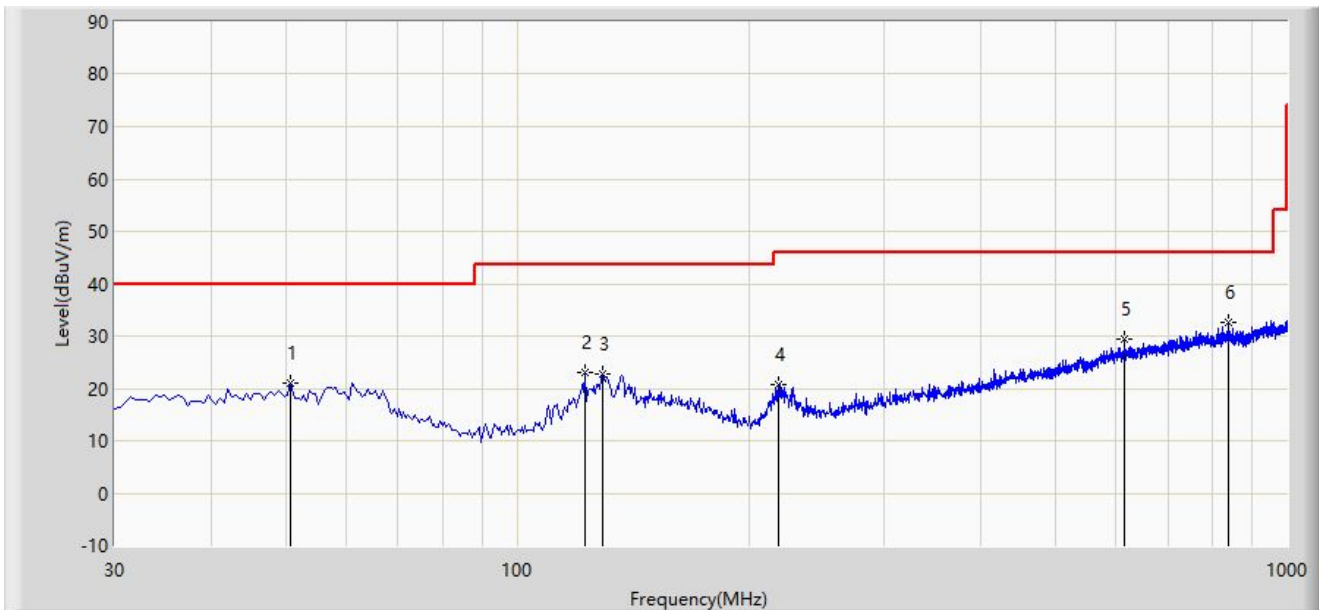
Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: QP measurement was not performed when peak measure level was lower than the QP limit.

Note 3: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value.

Therefore, the data is not presented in the report.

Site: WZ-AC1	Test Data: 2022/01/26
Limit: FCC_Part 15.209_RE(3m)	Engineer: Lucas Wang
Probe: WZ-AC1_VULB9168	Polarity: Vertical
EUT: Bluetooth Module	Power: By PC
Test Mode: Receive by BLE at channel 2440MHz – External PCB Antenna	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1			50.855	20.956	2.495	-19.044	40.000	18.461	PK
2			122.635	22.918	7.355	-20.582	43.500	15.563	PK
3			128.940	22.797	6.591	-20.703	43.500	16.206	PK
4			218.665	20.669	6.190	-25.331	46.000	14.479	PK
5			614.425	29.528	3.481	-16.472	46.000	26.047	PK
6		*	837.525	32.746	3.665	-13.254	46.000	29.081	PK

Note 1: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: QP measurement was not performed when peak measure level was lower than the QP limit.

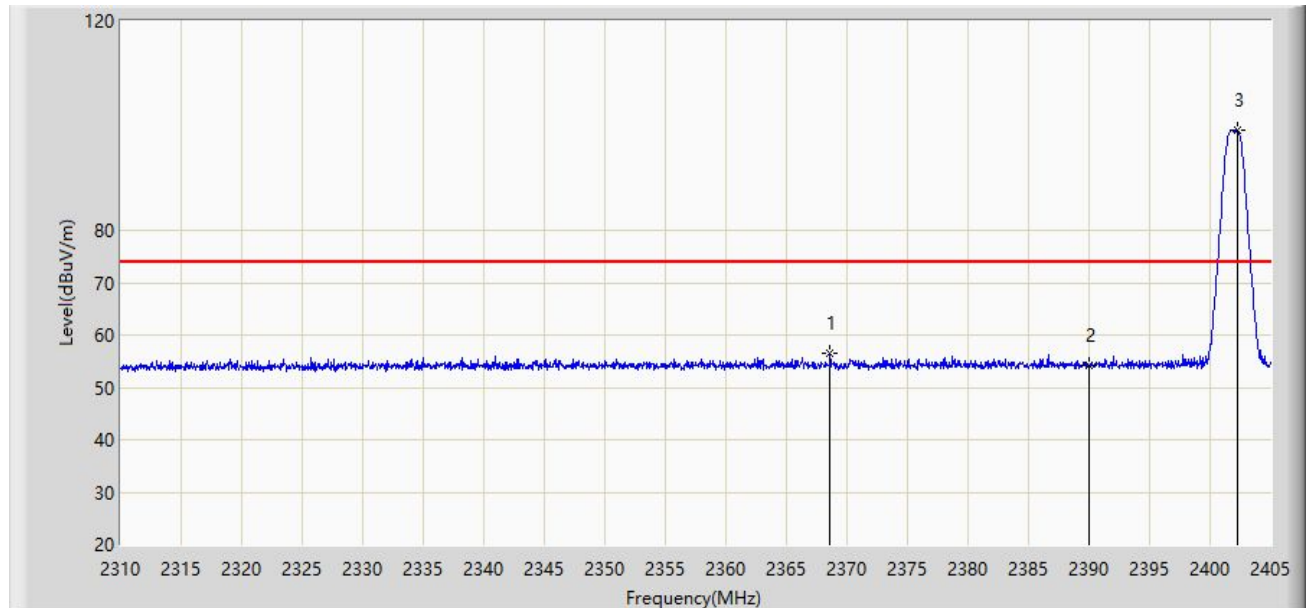
Note 3: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value.

Therefore, the data is not presented in the report.

A.7 Radiated Restricted Band Edge Test Result

External PCB Antenna

Site: WZ-AC1	Time: 2022/01/26
Limit: FCC_Part15.209_RE(3m)	Engineer: Charles Zhang
Probe: WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Bluetooth Module	Power: By PC
Test Mode: Transmit by BLE at Channel 2402MHz	

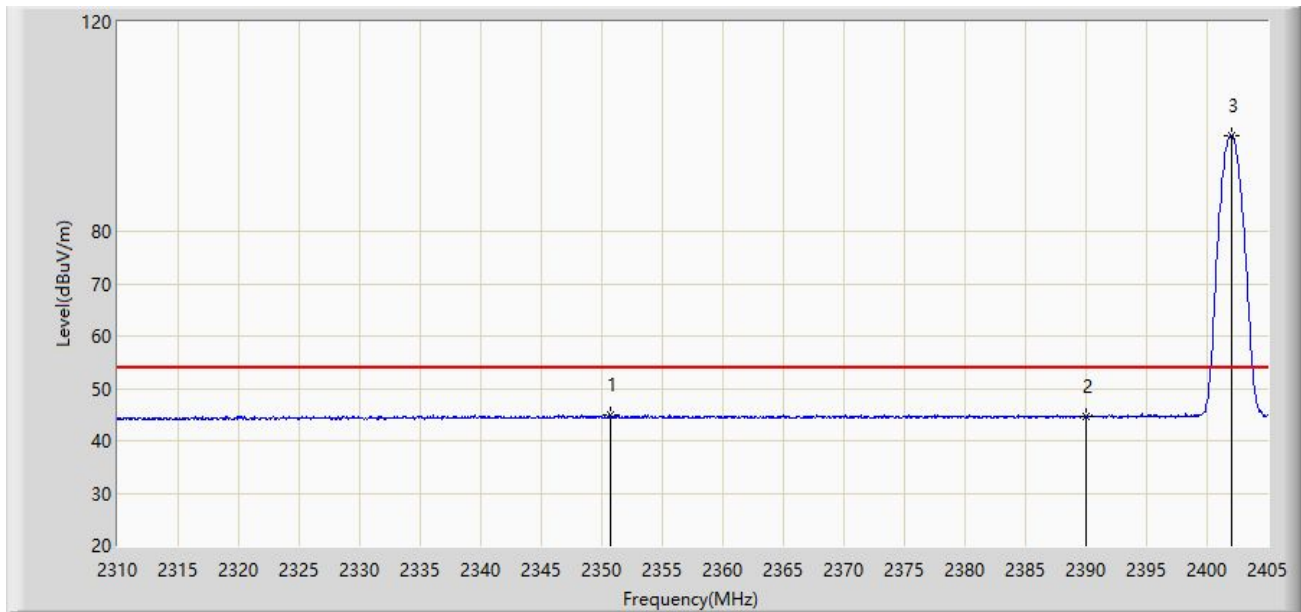


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2368.615	56.608	25.820	-17.392	74.000	30.788	PK
2			2390.000	54.140	23.324	-19.860	74.000	30.816	PK
3		*	2402.245	99.166	68.327	N/A	N/A	30.839	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: WZ-AC1	Time: 2022/01/26
Limit: FCC_Part15.209_RE(3m)	Engineer: Charles Zhang
Probe: WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Bluetooth Module	Power: By PC
Test Mode: Transmit by BLE at Channel 2402MHz	

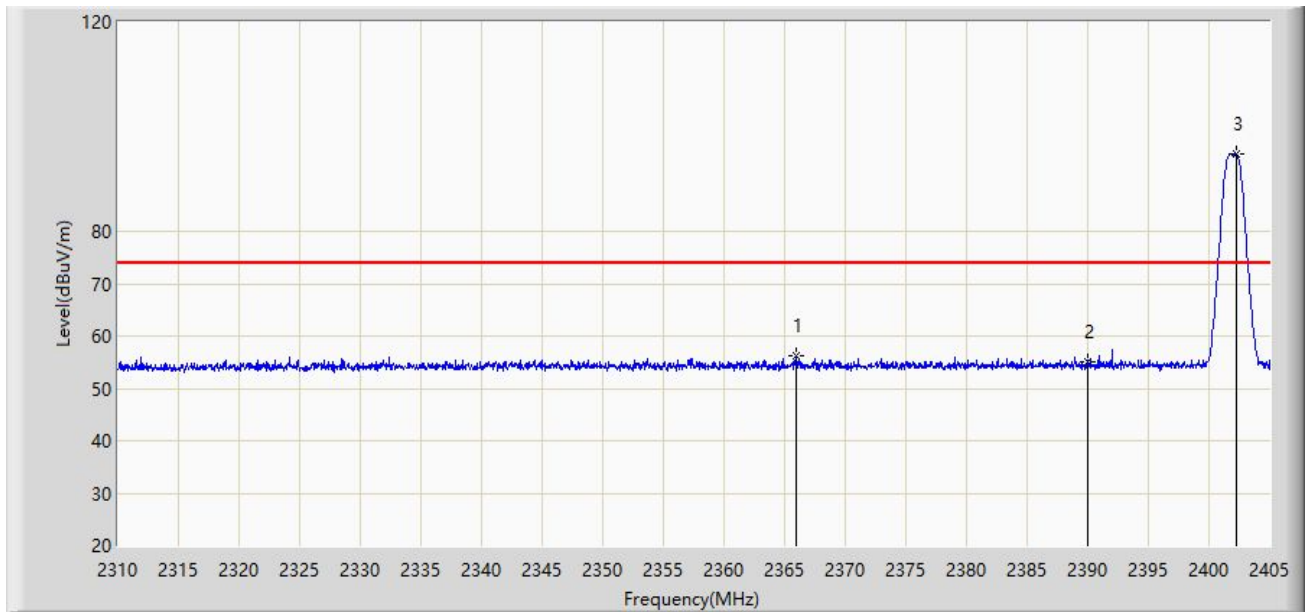


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2350.660	44.980	14.137	-9.020	54.000	30.842	AV
2			2390.000	44.541	13.725	-9.459	54.000	30.816	AV
3		*	2402.008	98.354	67.515	N/A	N/A	30.839	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: WZ-AC1	Time: 2022/01/26
Limit: FCC_Part15.209_RE(3m)	Engineer: Charles Zhang
Probe: WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Bluetooth Module	Power: By PC
Test Mode: Transmit by BLE at Channel 2402MHz	

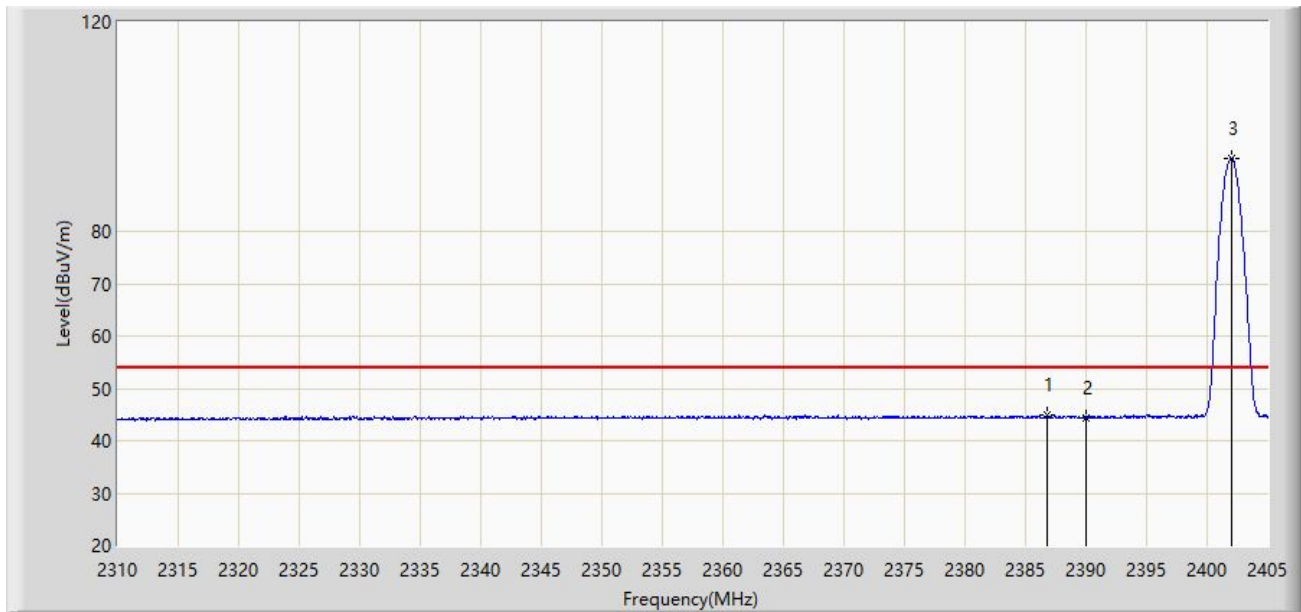


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2366.002	56.297	25.512	-17.703	74.000	30.785	PK
2			2390.000	55.027	24.211	-18.973	74.000	30.816	PK
3		*	2402.292	94.770	63.931	N/A	N/A	30.839	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: WZ-AC1	Time: 2022/01/26
Limit: FCC_Part15.209_RE(3m)	Engineer: Charles Zhang
Probe: WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Bluetooth Module	Power: By PC
Test Mode: Transmit by BLE at Channel 2402MHz	

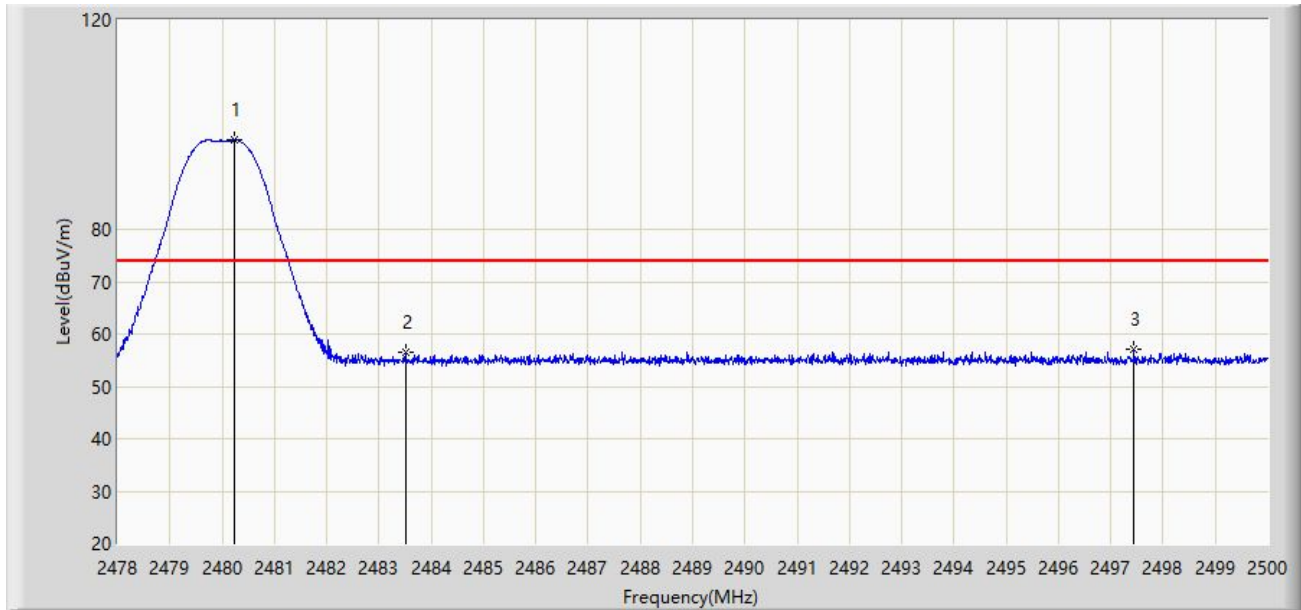


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2386.760	44.952	14.140	-9.048	54.000	30.813	AV
2			2390.000	44.492	13.676	-9.508	54.000	30.816	AV
3		*	2402.008	93.899	63.060	N/A	N/A	30.839	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: WZ-AC1	Time: 2022/01/26
Limit: FCC_Part15.209_RE(3m)	Engineer: Charles Zhang
Probe: WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Bluetooth Module	Power: By PC
Test Mode: Transmit by BLE at Channel 2480MHz	

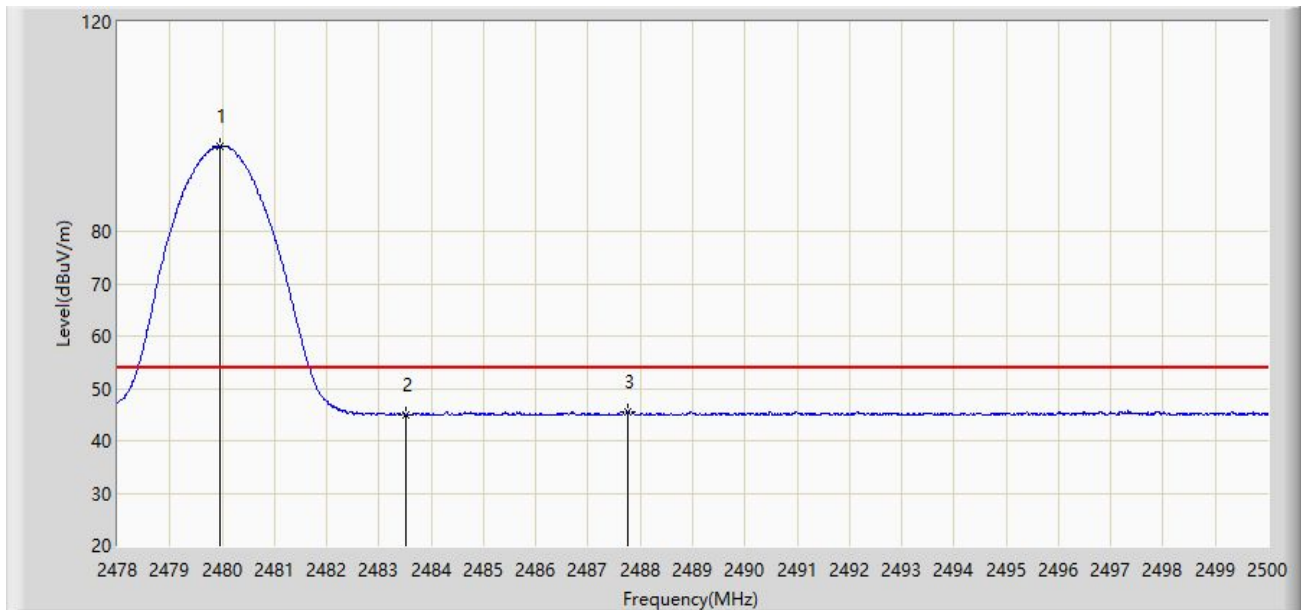


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		*	2480.244	97.053	66.046	N/A	N/A	31.007	PK
2			2483.500	56.463	25.442	-17.537	74.000	31.021	PK
3			2497.448	56.971	25.900	-17.029	74.000	31.071	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: WZ-AC1	Time: 2022/01/26
Limit: FCC_Part15.209_RE(3m)	Engineer: Charles Zhang
Probe: WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Bluetooth Module	Power: By PC
Test Mode: Transmit by BLE at Channel 2480MHz	

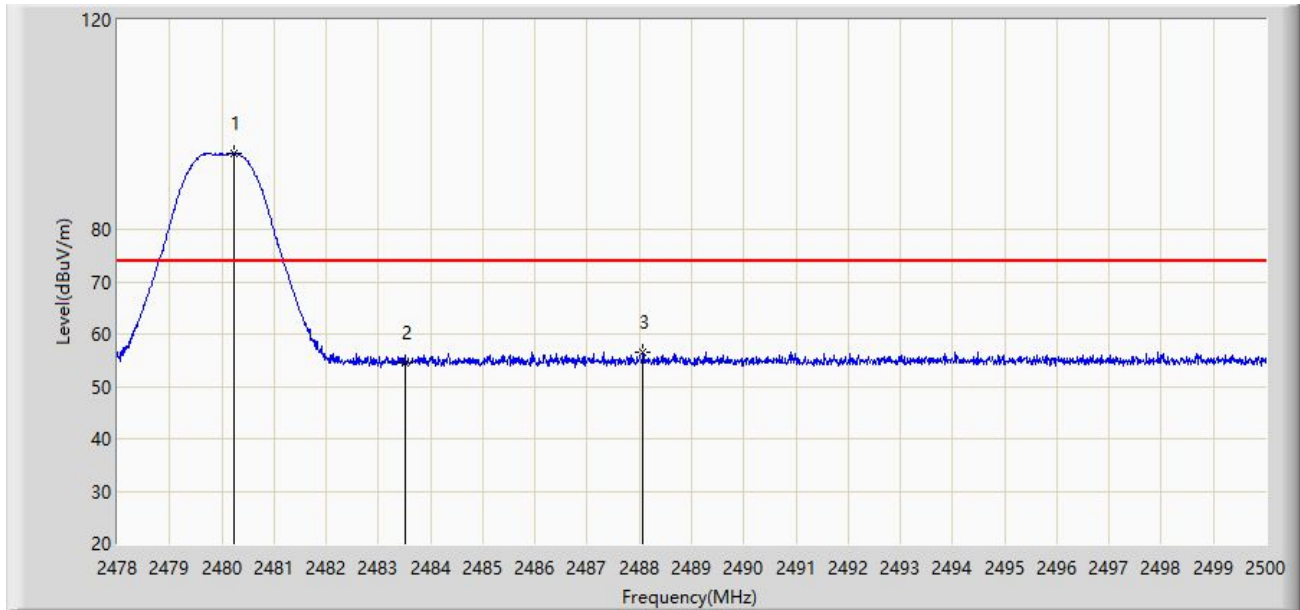


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1		*	2479.969	96.289	65.283	N/A	N/A	31.005	AV
2			2483.500	44.848	13.827	-9.152	54.000	31.021	AV
3			2487.768	45.469	14.430	-8.531	54.000	31.039	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: WZ-AC1	Time: 2022/01/26
Limit: FCC_Part15.209_RE(3m)	Engineer: Charles Zhang
Probe: WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Bluetooth Module	Power: By PC
Test Mode: Transmit by BLE at Channel 2480MHz	

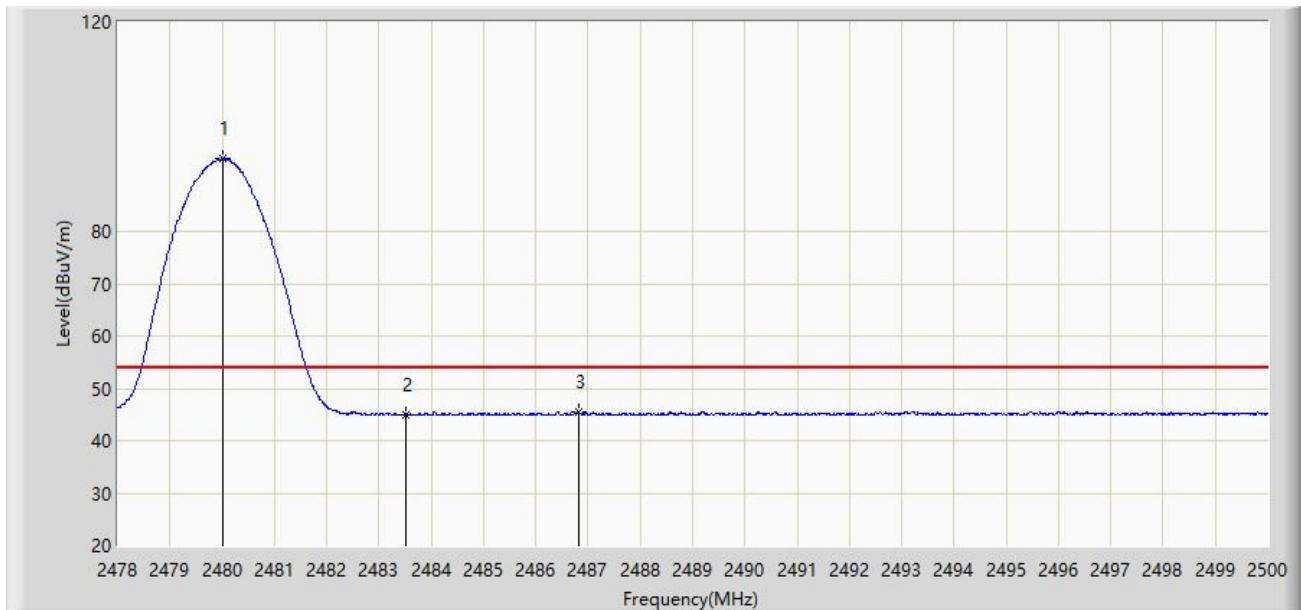


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		*	2480.233	94.509	63.502	N/A	N/A	31.007	PK
2			2483.500	54.564	23.543	-19.436	74.000	31.021	PK
3			2488.076	56.602	25.562	-17.398	74.000	31.040	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: WZ-AC1	Time: 2022/01/26
Limit: FCC_Part15.209_RE(3m)	Engineer: Charles Zhang
Probe: WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Bluetooth Module	Power: By PC
Test Mode: Transmit by BLE at Channel 2480MHz	



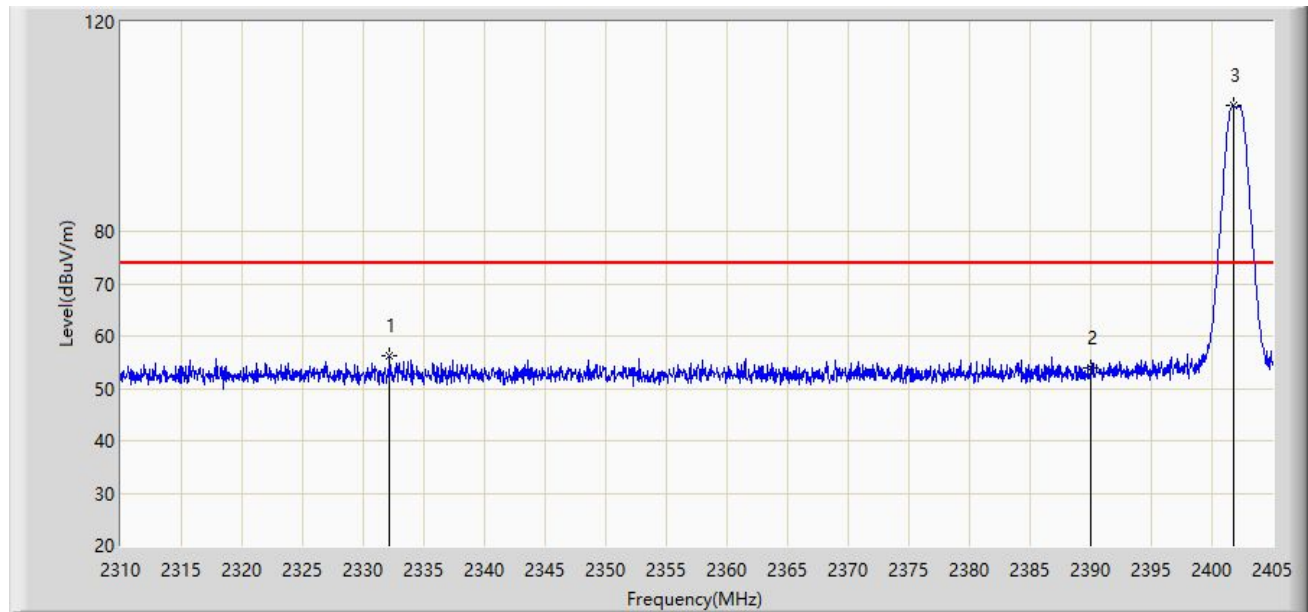
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1		*	2480.024	93.829	62.823	N/A	N/A	31.006	AV
2			2483.500	44.949	13.928	-9.051	54.000	31.021	AV
3			2486.811	45.449	14.414	-8.551	54.000	31.034	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

External Dipole Antenna

Site: WZ-AC1	Test Date: 2022/01/28
Limit: FCC_Part15.209_RE(3m)	Engineer: Lucas Wang
Probe: WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Bluetooth Module	Power: By PC
Note: Transmit by BLE at Channel 2402MHz	

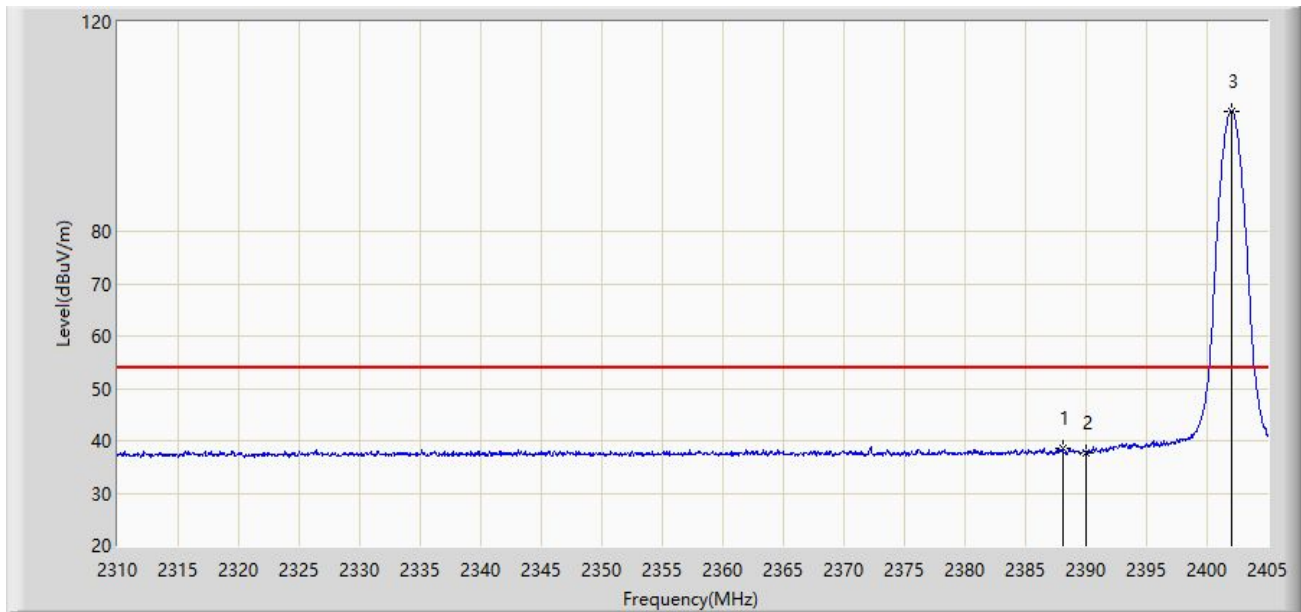


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1			2332.183	56.328	25.498	-17.672	74.000	30.830	PK
2			2390.000	53.830	23.014	-20.170	74.000	30.816	PK
3		*	2401.770	103.926	73.087	N/A	N/A	30.839	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: WZ-AC1	Test Date: 2022/01/28
Limit: FCC_Part15.209_RE(3m)	Engineer: Lucas Wang
Probe: WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Bluetooth Module	Power: By PC
Note: Transmit by BLE at Channel 2402MHz	

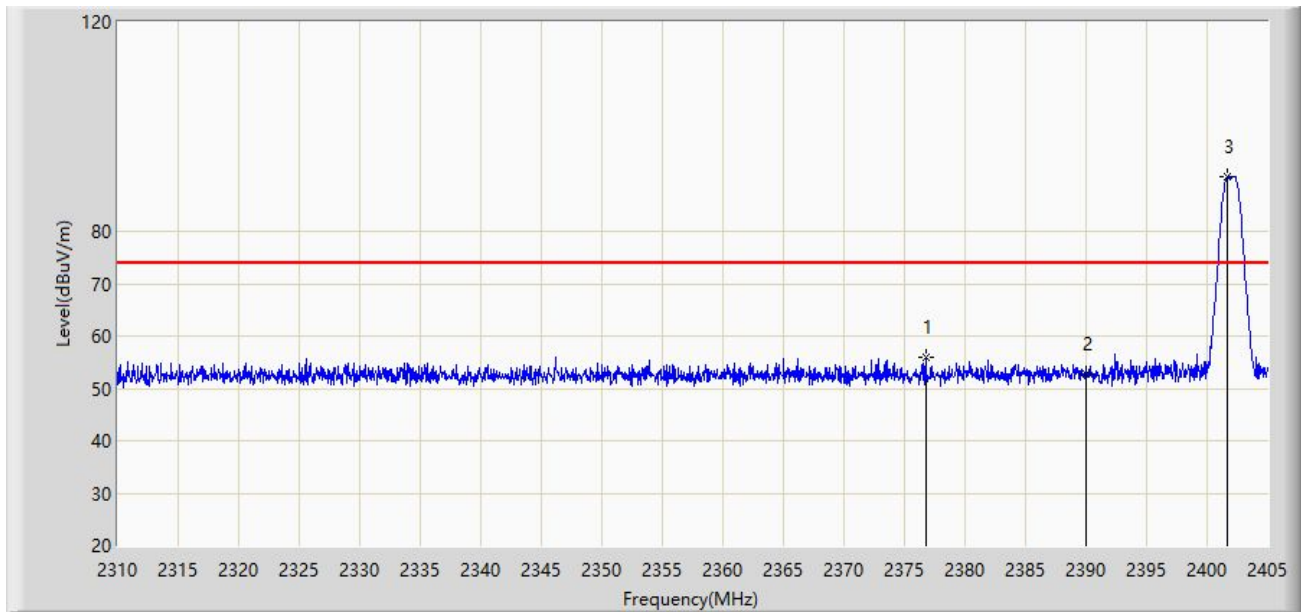


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2388.042	38.503	7.689	-15.497	54.000	30.814	AV
2			2390.000	37.816	7.000	-16.184	54.000	30.816	AV
3		*	2402.008	102.998	72.159	N/A	N/A	30.839	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: WZ-AC1	Test Date: 2022/01/28
Limit: FCC_Part15.209_RE(3m)	Engineer: Lucas Wang
Probe: WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Bluetooth Module	Power: By PC
Note: Transmit by BLE at Channel 2402MHz	

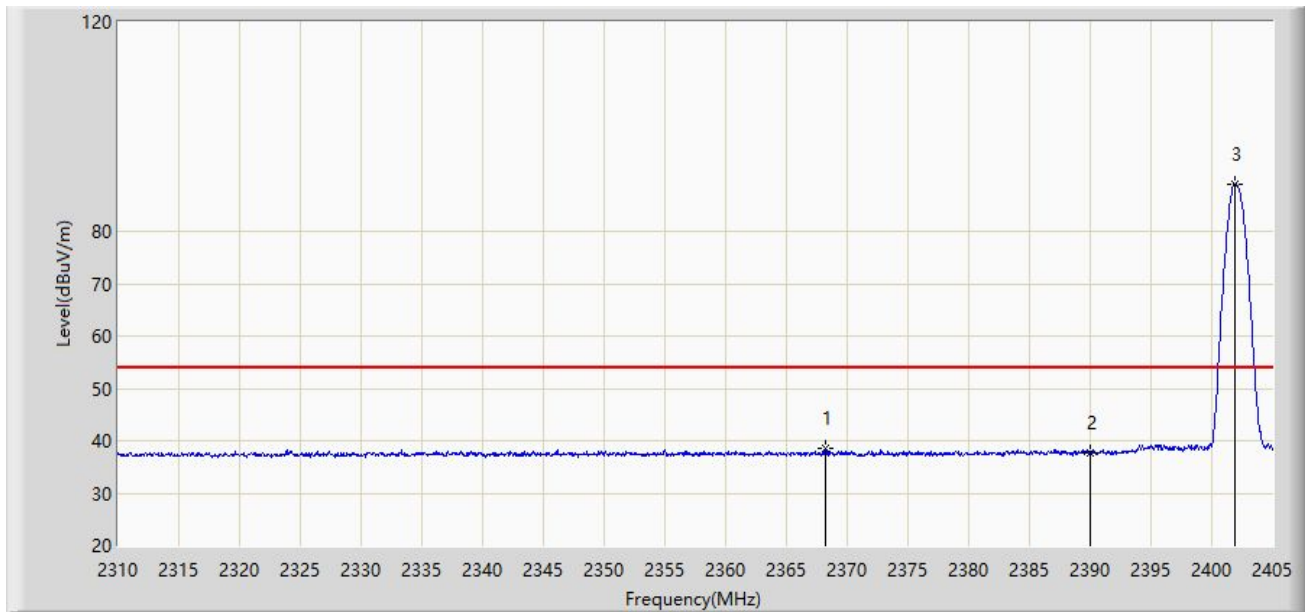


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2376.738	56.085	25.284	-17.915	74.000	30.801	PK
2			2390.000	52.810	21.994	-21.190	74.000	30.816	PK
3		*	2401.675	90.415	59.577	N/A	N/A	30.838	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: WZ-AC1	Test Date: 2022/01/28
Limit: FCC_Part15.209_RE(3m)	Engineer: Lucas Wang
Probe: WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Bluetooth Module	Power: By PC
Note: Transmit by BLE at Channel 2402MHz	

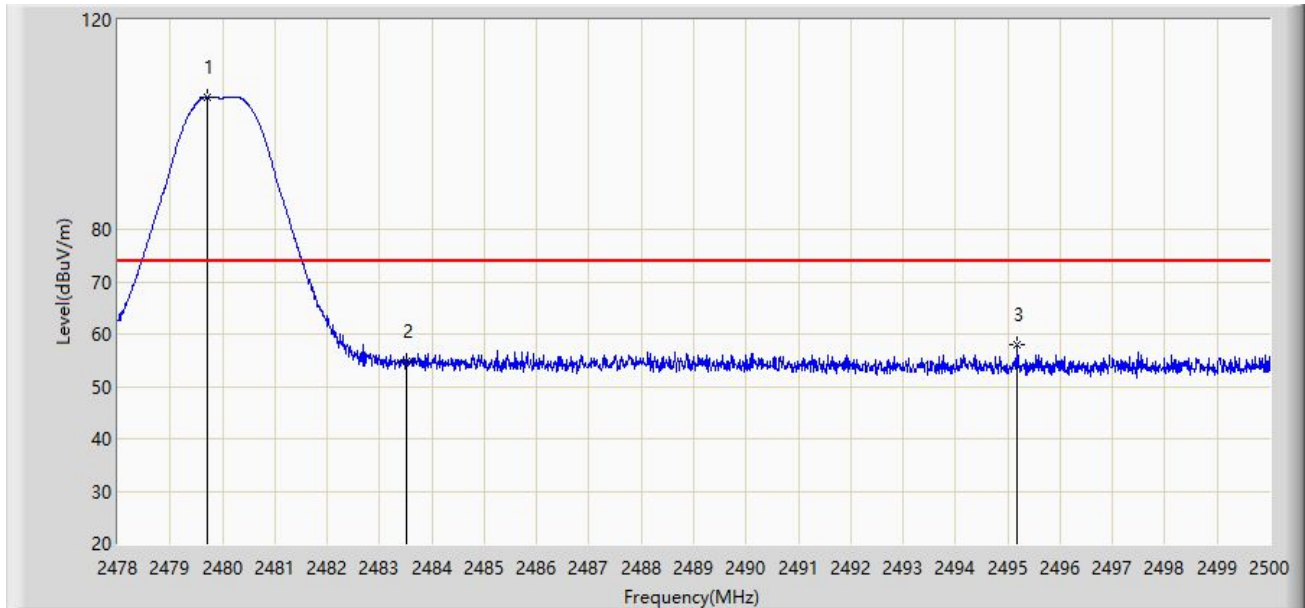


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2368.187	38.514	7.726	-15.486	54.000	30.788	AV
2			2390.000	37.805	6.989	-16.195	54.000	30.816	AV
3		*	2401.865	89.092	58.253	N/A	N/A	30.839	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: WZ-AC1	Test Date: 2022/01/28
Limit: FCC_Part15.209_RE(3m)	Engineer: Lucas Wang
Probe: WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Bluetooth Module	Power: By PC
Note: Transmit by BLE at Channel 2480MHz	

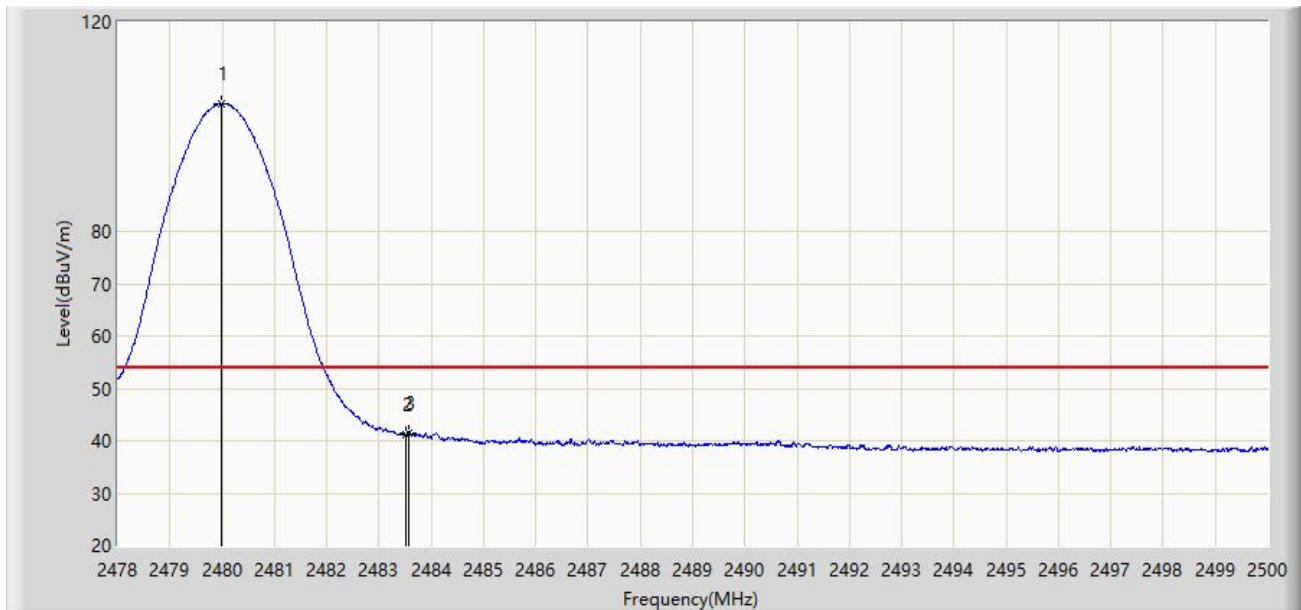


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		*	2479.716	105.323	74.318	N/A	N/A	31.005	PK
2			2483.500	54.664	23.643	-19.336	74.000	31.021	PK
3			2495.182	57.913	26.848	-16.087	74.000	31.065	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: WZ-AC1	Test Date: 2022/01/28
Limit: FCC_Part15.209_RE(3m)	Engineer: Lucas Wang
Probe: WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Bluetooth Module	Power: By PC
Note: Transmit by BLE at Channel 2480MHz	

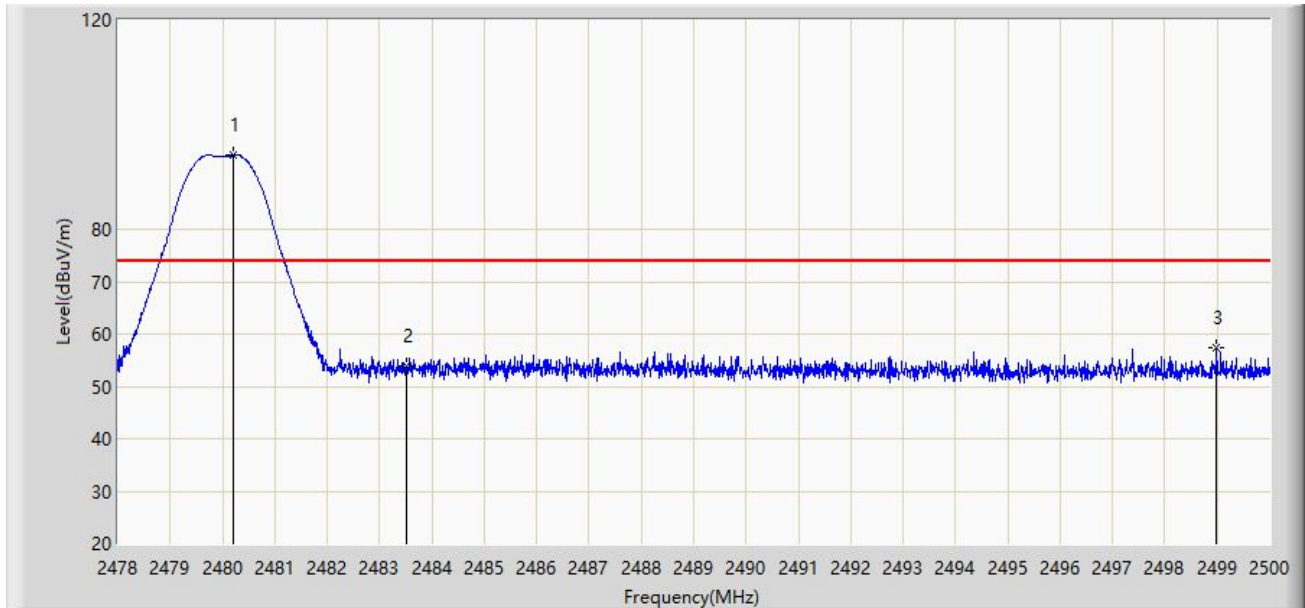


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		*	2479.980	104.400	73.394	N/A	N/A	31.005	AV
2			2483.500	41.283	10.262	-12.717	54.000	31.021	AV
3			2483.577	41.460	10.439	-12.540	54.000	31.021	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: WZ-AC1	Test Date: 2022/01/28
Limit: FCC_Part15.209_RE(3m)	Engineer: Lucas Wang
Probe: WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Bluetooth Module	Power: By PC
Note: Transmit by BLE at Channel 2480MHz	

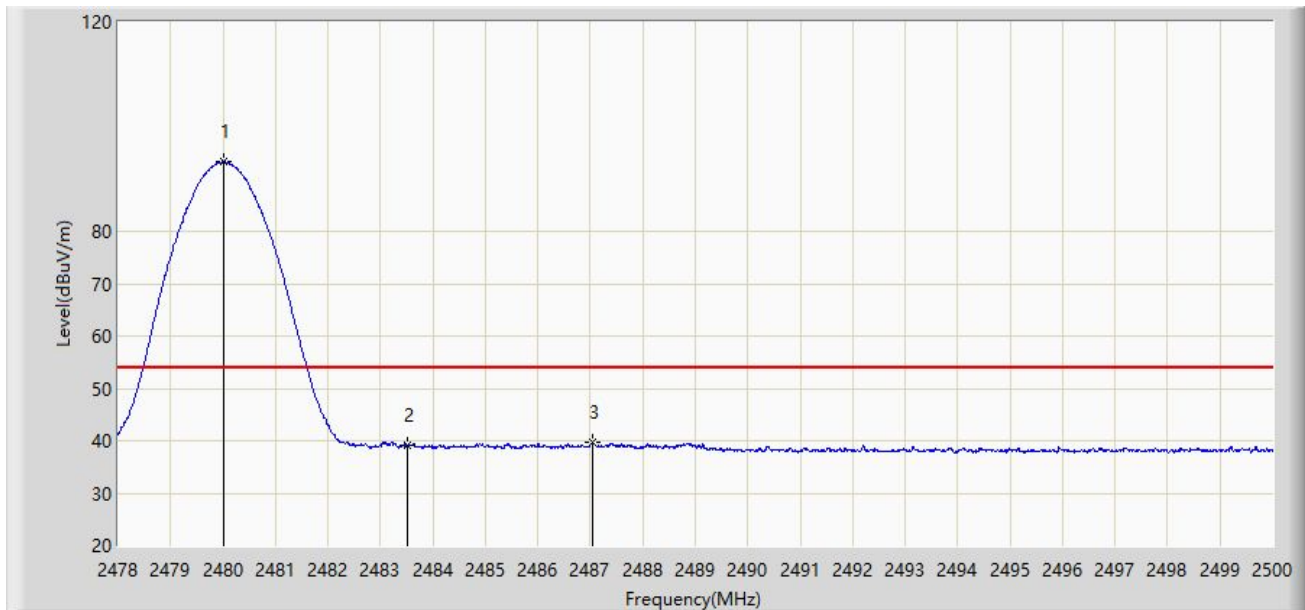


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		*	2480.211	94.156	63.149	N/A	N/A	31.007	PK
2			2483.500	53.824	22.803	-20.176	74.000	31.021	PK
3			2498.988	57.409	26.334	-16.591	74.000	31.076	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: WZ-AC1	Test Date: 2022/01/28
Limit: FCC_Part15.209_RE(3m)	Engineer: Lucas Wang
Probe: WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Bluetooth Module	Power: By PC
Note: Transmit by BLE at Channel 2480MHz	



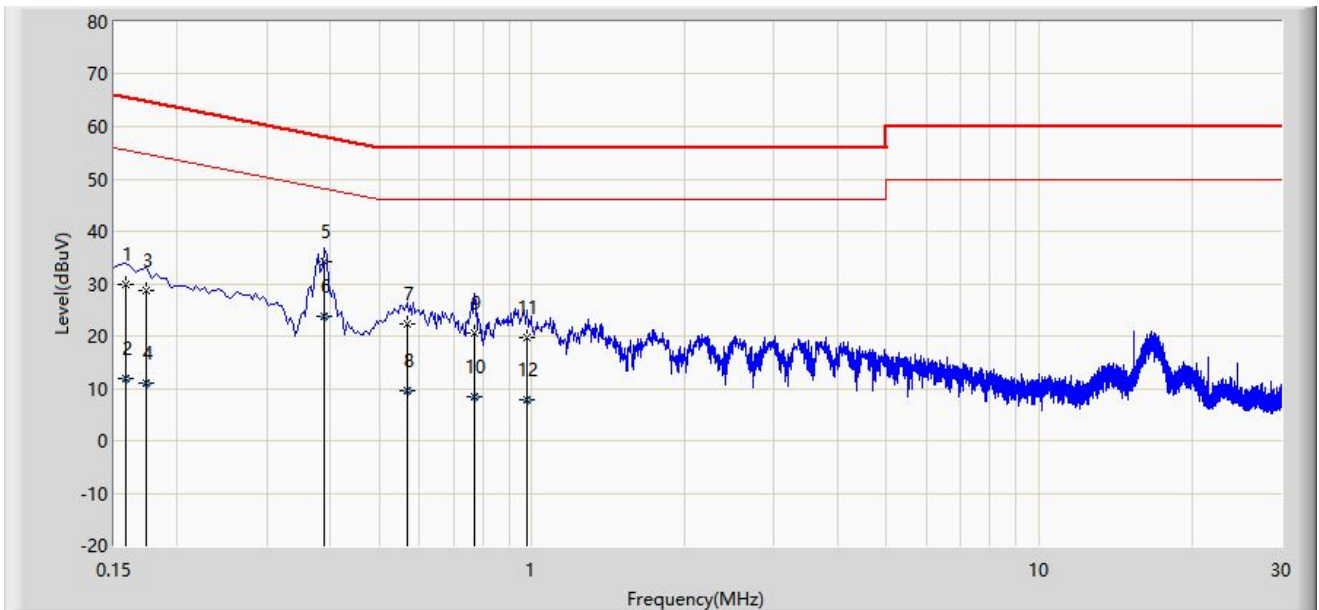
No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		*	2480.013	93.225	62.219	N/A	N/A	31.006	AV
2			2483.500	39.026	8.005	-14.974	54.000	31.021	AV
3			2487.042	39.723	8.687	-14.277	54.000	31.036	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

A.8 AC Conducted Emissions Test Result

Site: WZ-SR2	Time: 2022/02/11
Limit: FCC_Part15.207_CE_AC Power	Engineer: Helen Han
Probe: ENV216_101683_Filter Off_E	Polarity: Line
EUT: Bluetooth Module	Power: AC 120V/60Hz
Test Mode: Transmit by BLE at channel 2480MHz	

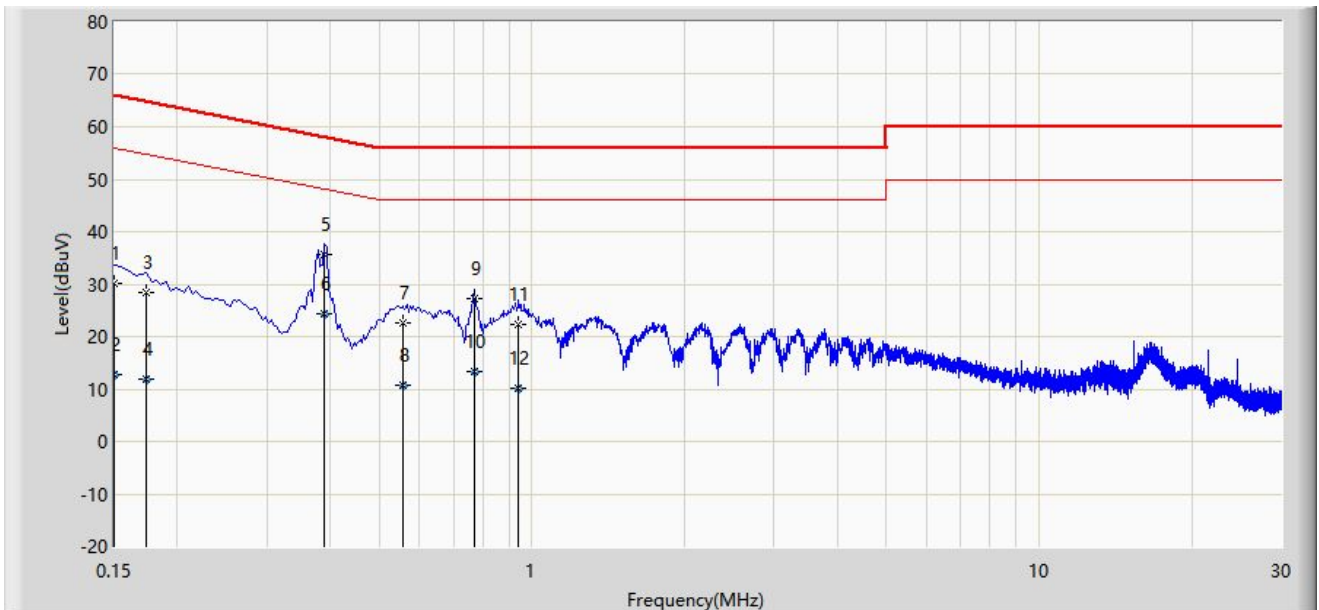


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1			0.158	29.935	20.035	-35.633	65.568	9.900	QP
2			0.158	11.803	1.903	-43.765	55.568	9.900	AV
3			0.174	28.734	18.834	-36.033	64.767	9.900	QP
4			0.174	11.028	1.128	-43.739	54.767	9.900	AV
5		*	0.390	34.205	24.292	-23.859	58.064	9.912	QP
6			0.390	23.666	13.753	-24.398	48.064	9.912	AV
7			0.566	22.437	12.514	-33.563	56.000	9.923	QP
8			0.566	9.629	-0.294	-36.371	46.000	9.923	AV
9			0.770	20.486	10.552	-35.514	56.000	9.933	QP
10			0.770	8.366	-1.567	-37.634	46.000	9.933	AV
11			0.978	19.607	9.658	-36.393	56.000	9.948	QP
12			0.978	7.712	-2.236	-38.288	46.000	9.948	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

Site: WZ-SR2	Time: 2022/02/11
Temperature: 22.7°C	Humidity: 36.8%
Limit: FCC_Part15.207_CE_AC Power	Engineer: Helen Han
Probe: ENV216_101683_Filter Off_E	Polarity: Neutral
EUT: Bluetooth Module	Power: AC 120V/60Hz
Test Mode: Transmit by BLE at channel 2480MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1			0.150	30.243	20.323	-35.757	66.000	9.920	QP
2			0.150	12.865	2.946	-43.135	56.000	9.920	AV
3			0.174	28.441	18.526	-36.326	64.767	9.915	QP
4			0.174	11.933	2.018	-42.834	54.767	9.915	AV
5		*	0.390	35.574	25.651	-22.490	58.064	9.922	QP
6			0.390	24.362	14.439	-23.702	48.064	9.922	AV
7			0.558	22.706	12.771	-33.294	56.000	9.935	QP
8			0.558	10.746	0.811	-35.254	46.000	9.935	AV
9			0.770	27.353	17.402	-28.647	56.000	9.951	QP
10			0.770	13.458	3.508	-32.542	46.000	9.951	AV
11			0.942	22.429	12.471	-33.571	56.000	9.958	QP
12			0.942	10.145	0.187	-35.855	46.000	9.958	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

Appendix B - Test Setup Photograph

Refer to “2112RSU099-UT” file.

Appendix C - EUT Photograph

Refer to "2112RSU099-UE" file.

————— The End —————