



RF MEASUREMENT REPORT

FCC ID: 2A82LSPOT-V1
Applicant: Nova Labs, Inc.
Product: Spot Mapper
Model No.: Spot-US
Brand Name: Helium
FCC Classification: Digital Transmission System (DTS)
FCC Rule Part(s): Part 15 Subpart C (Section 15.247)
Result: Complies
Test Date: 2022-10-22 ~ 2022-10-25

Reviewed By:

Sunny Sun

Sunny Sun

Approved By:

Robin Wu

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
2209RSU059-U1	Rev. 01	Initial Report	2023-01-04	Invalid
2209RSU059-U1	Rev. 02	Modify the Product Name	2023-01-06	Valid

CONTENTS

Description	Page
1. General Information	5
1.1. Applicant	5
1.2. Manufacturer	5
1.3. Testing Facility	5
1.4. Product Information.....	6
1.5. Radio Specification under Test	7
1.6. Working Frequencies	7
2. Test Configuration	8
2.1. Test System Connection Diagram.....	8
2.2. Test Software	9
2.3. Applied Standards.....	9
2.4. Test Environment Condition	9
3. Antenna Requirements	10
4. Measuring Instrument	11
5. Decision Rules and Measurement Uncertainty	12
5.1. Decision Rules	12
5.2. Measurement Uncertainty	12
6. Test Result.....	13
6.1. Summary	13
6.2. Output Power Measurement	14
6.2.1. Test Limit	14
6.2.2. Test Procedure	14
6.2.3. Test Setting	14
6.2.4. Test Setup	14
6.2.5. Test Result	14
6.3. Radiated Spurious Emission Measurement.....	15
6.3.1. Test Limit	15
6.3.2. Test Procedure	15
6.3.3. Test Setting	15
6.3.4. Test Setup	17
6.3.5. Test Result	18
6.4. Radiated Restricted Band Edge Measurement	19
6.4.1. Test Limit	19
6.4.2. Test Procedure	20
6.4.3. Test Setting	20

6.4.4.	Test Setup	21
6.4.5.	Test Result	21
Appendix A - Test Result.....		22
A.1	Output Power Test Result	22
A.2	Radiated Spurious Emission Test Result.....	23
A.3	Radiated Restricted Band Edge Test Result.....	28
Appendix B - Test Setup Photograph		52
Appendix C - EUT Photograph		53

1. General Information

1.1. Applicant

Nova Labs, Inc.

2202 South Figueroa #408, Los Angeles, California, United States

1.2. Manufacturer

Nova Labs, Inc.

2202 South Figueroa #408, Los Angeles, California, United States

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	Spot Mapper
Model No.	Spot-US
Brand Name	Helium
Test Serial No.	20220926Sample#08
E-UTRA Band	FDD Band: 2, 4, 5, 66, 71 TDD Band: 48
NR Band	TDD Band: n41, n48
Wi-Fi Specification	802.11 b/g/n/ac/ax
Bluetooth Specification	V5.1 dual mode
Lora Specification	902 ~ 928 MHz
Operating Temperature	-20 ~ 55 °C
Integrated WWAN Modular Information	
Model No.	RM505Q-AE
FCC ID	XMR2020RM505QAE
Brand Name	Quectel
Integrated BT & Wi-Fi Modular Information	
Model No.	FG50V
FCC ID	XMR202103FG50V
Brand Name	Quectel
Integrated Lora Modular Information	
Model No.	LoRa-E5-HF
FCC ID	Z4T-LORA-E5
Brand Name	Seeed
Accessories	
Rechargeable Li-ion Battery	Model No.: QDM044 Rated Voltage: 3.8V Rated Capacity: 4000mAh/15.2Wh Limited Charge Voltage: 4.35V
Remark:	
- The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer. - This device is based on certification module, FCC ID "XMR202103FG50V" to assessing the output power, radiated spurious emission.	

1.5. Radio Specification under Test

Bluetooth Frequency	2402 ~ 2480MHz
Channel Number	40
Type of modulation	GFSK
Data Rate	1Mbps, 2Mbps, 125kbps
Antenna Information	PIFA Antenna, 2.08dBi

1.6. Working Frequencies

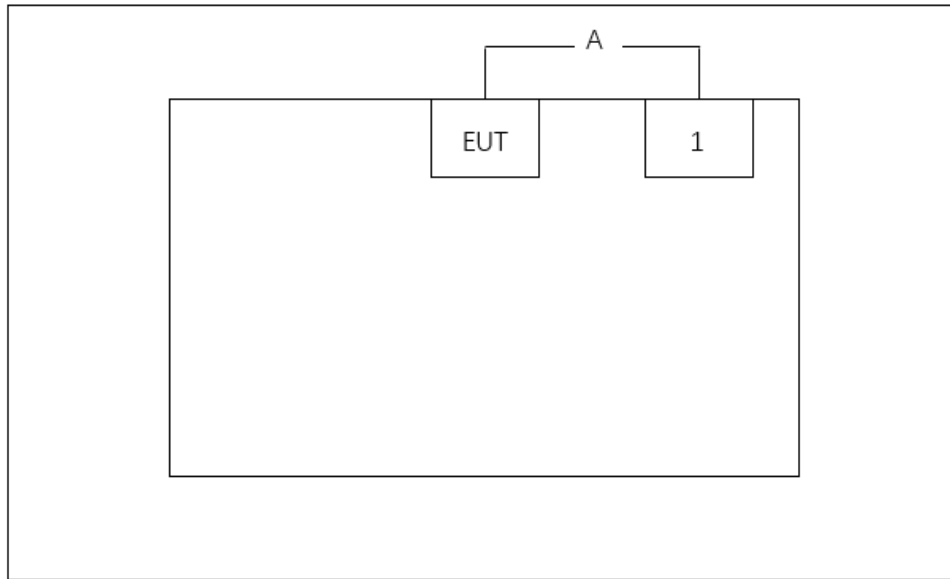
Channel	Frequency	Channel	Frequency	Channel	Frequency
00	2402 MHz	01	2404 MHz	02	2406 MHz
03	2408 MHz	04	2410 MHz	05	2412 MHz
06	2414 MHz	07	2416 MHz	08	2418 MHz
09	2420 MHz	10	2422 MHz	11	2424 MHz
12	2426 MHz	13	2428 MHz	14	2430 MHz
15	2432 MHz	16	2434 MHz	17	2436 MHz
18	2438 MHz	19	2440 MHz	20	2442 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.

Connection Diagram – Radiated Emission testing



Cable Type		Cable Description	
A	USB Cable	Shielded, 1.5m	
Product		Manufacturer	Model No.
1	Notebook	Lenovo	E431

2.2. Test Software

The test utility software used during testing was “QRCT”, and the version was 4.0.00175.0.

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 antenna of the device is **permanently attached**.
- There are no provisions for connection to an 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
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2022-12-29	WZ-AC1
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06023	1 year	2023-08-22	WZ-AC1
Preamplifier	Agilent	83017A	MRTSUE06076	1 year	2023-05-08	WZ-AC1
TRILOG Antenna	Schwarzbeck	VULB 9168	MRTSUE06172	1 year	2023-06-21	WZ-AC1
Anechoic Chamber	TDK	WZ-AC1	MRTSUE06212	1 year	2023-04-21	WZ-AC1
Thermohygrometer	testo	608-H1	MRTSUE06403	1 year	2023-06-06	WZ-AC1
Signal Analyzer	Keysight	N9010B	MRTSUE06607	1 year	2022-12-29	WZ-AC1
Thermohygrometer	testo	608-H1	MRTSUE11039	1 year	2022-11-11	WZ-AC1
Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06597	1 year	2022-12-01	WZ-AC1
Preamplifier	EMCI	EMC184045SE	MRTSUE06640	1 year	2023-01-13	WZ-AC1
Thermohygrometer	testo	608-H1	MRTSUE06402	1 year	2023-06-06	WZ-SR5
Shielding Room	HUAMING	WZ-SR5	MRTSUE06442	N/A	N/A	WZ-SR5
USB Power Sensor	Keysight	U2021XA	MRTSUE06446	1 year	2023-06-04	WZ-SR5

Software	Version	Function
EMI Software	V3.0.0	EMI Test Software
Controller_MF 7802	2.03C	RE Antenna & Turntable

5. Decision Rules and Measurement Uncertainty

5.1. Decision Rules

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4: 2012 Clause 8.2.
(Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

5.2. 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 $k = 2$.

Radiated Disturbance	
The maximum measurement uncertainty is evaluated as:	
Horizontal:	30MHz~200MHz: 3.85dB 200MHz~1GHz: 4.36dB 1GHz~25GHz: 4.98dB
Vertical:	30MHz~200MHz: 4.06dB 200MHz~1GHz: 5.28dB 1GHz~25GHz: 4.91dB
Output Power	
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 1.50dB	

6. Test Result

6.1. Summary

FCC Section(s)	Test Description	Test Condition	Verdict
15.247(b)(3)	Output Power	Conducted	Pass
15.205 15.209	General Field Strength (Restricted Bands and Radiated Emission)	Radiated	Pass

Notes:

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. Output Power Measurement

6.2.1. 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.

6.2.2. Test Procedure

ANSI C63.10 - 2013 - Section 11.9.1.3

ANSI C63.10 - 2013 - Section 11.9.2.3.2

6.2.3. Test Setting

Method PKPM1 (Peak Power Measurement of Signals with DTS BW $\leq$ 50MHz)

Peak power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The pulse sensor employs a VBW = 50MHz so this method was only used for signals whose DTS bandwidth was less than or equal to 50MHz.

Average Power Measurement

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.

6.2.4. Test Setup



6.2.5. Test Result

Refer to Appendix A.1.

6.3. Radiated Spurious Emission Measurement

6.3.1. 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

6.3.2. 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)

6.3.3. 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

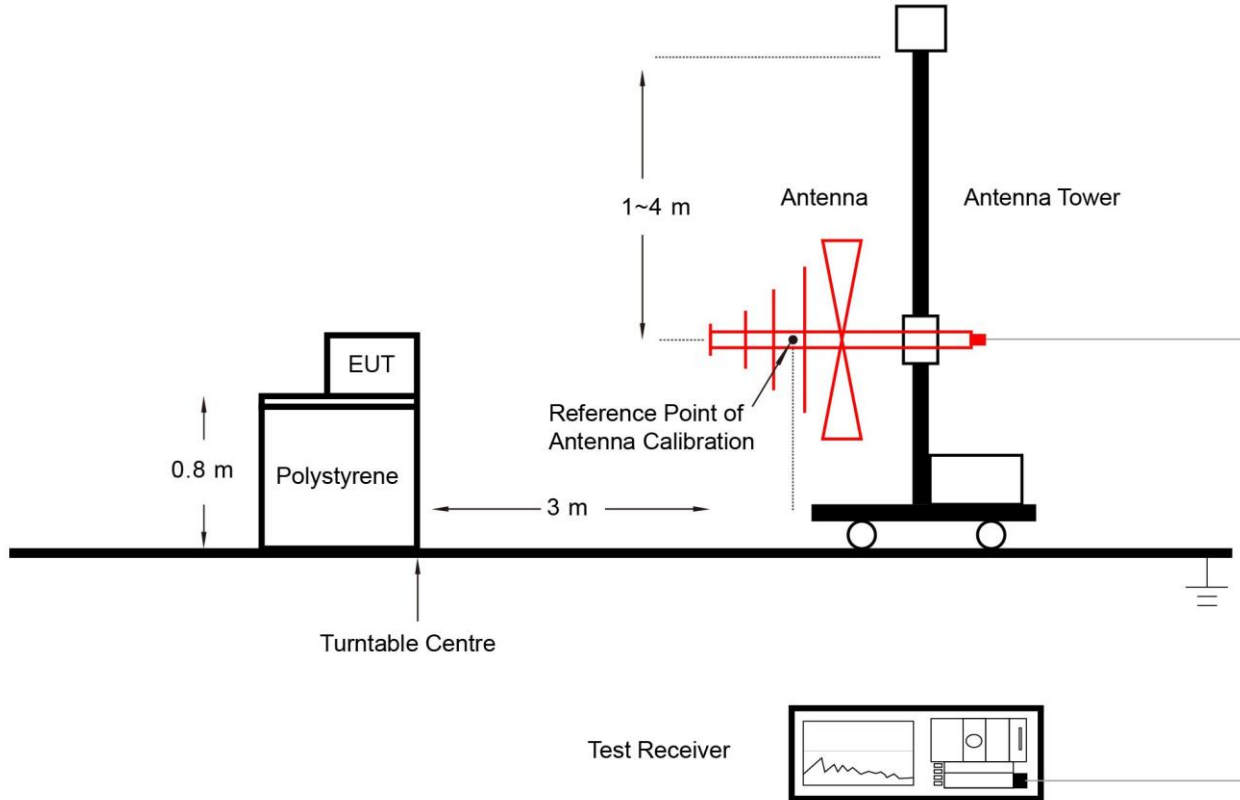
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Measurements above 1GHz (Method VB)

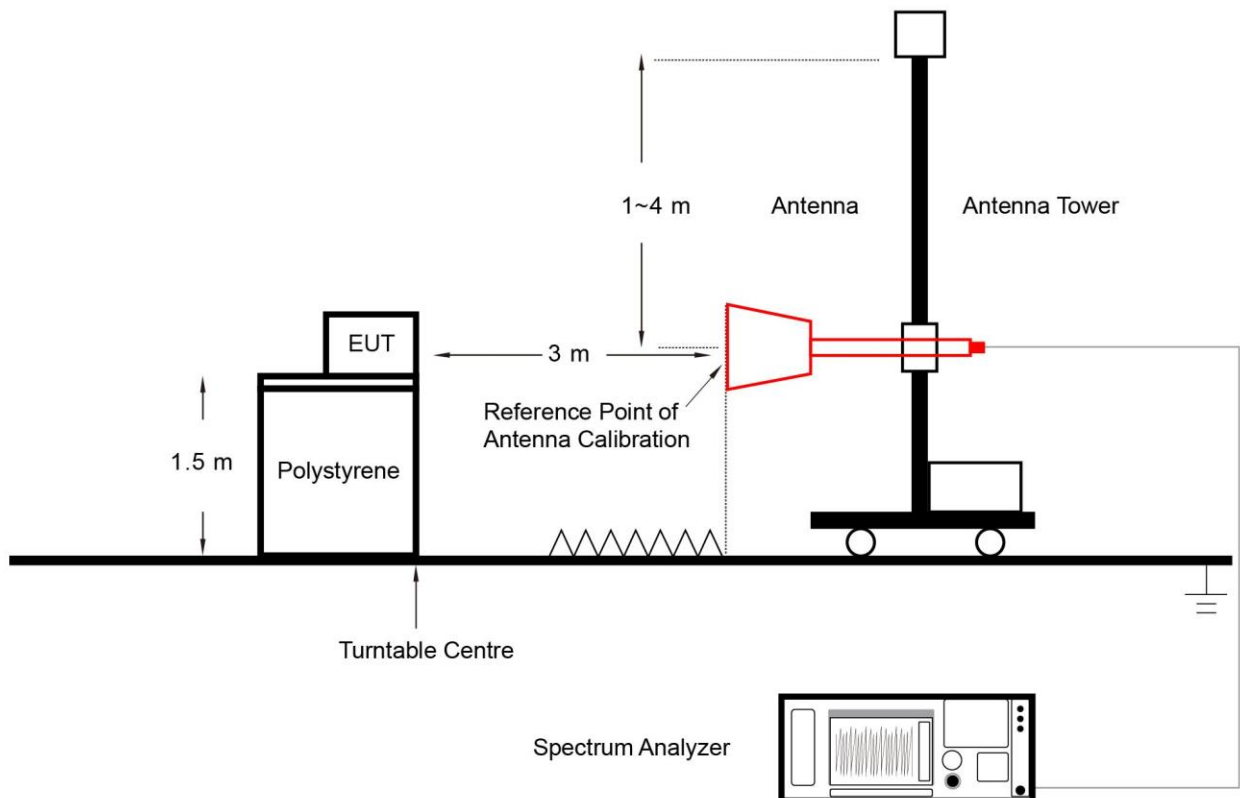
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10 Hz.
If the EUT duty cycle is $< 98\%$, set VBW $\geq 1/T$. T is the minimum transmission duration.
4.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

6.3.4. Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



6.3.5. Test Result

Refer to Appendix A.2.

6.4. Radiated Restricted Band Edge Measurement

6.4.1. 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

6.4.2. Test Procedure

ANSI C63.10-2013 Section 6.3 & 6.6 & 11.13

6.4.3. Test Setting

Peak Field Strength Measurements

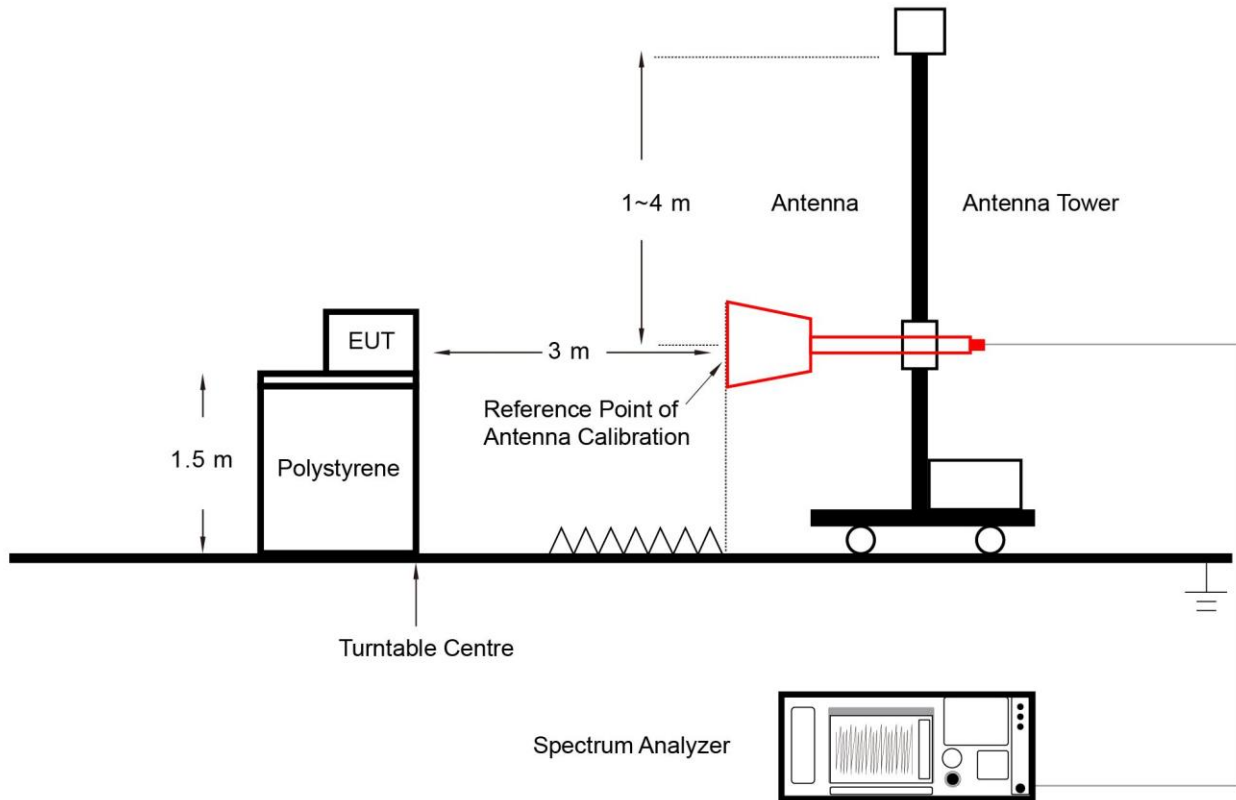
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

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

6.4.4. Test Setup



6.4.5. Test Result

Refer to Appendix A.3.

Appendix A - Test Result

A.1 Output Power Test Result

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2022-10-22		

Test Mode	Data Rate	Channel No.	Frequency (MHz)	Average Power (dBm)	Limit (dBm)	Result
BLE	1Mbps	00	2402	4.18	≤ 30.00	Pass
BLE	1Mbps	19	2440	5.47	≤ 30.00	Pass
BLE	1Mbps	39	2480	3.98	≤ 30.00	Pass
BLE	2Mbps	00	2402	4.18	≤ 30.00	Pass
BLE	2Mbps	19	2440	5.48	≤ 30.00	Pass
BLE	2Mbps	39	2480	4.01	≤ 30.00	Pass
BLE	125kbps	00	2402	4.19	≤ 30.00	Pass
BLE	125kbps	19	2440	5.49	≤ 30.00	Pass
BLE	125kbps	39	2480	4.03	≤ 30.00	Pass

A.2 Radiated Spurious Emission Test Result

Test Site	WZ-AC1	Test Engineer	Edith Yu
Test Date	2022-10-24	Test Mode:	BLE-1Mbps
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	4621.0	36.6	2.2	38.8	74.0	-35.2	Peak	Horizontal
	7638.5	36.0	7.9	43.9	74.0	-30.1	Peak	Horizontal
	11055.5	35.0	13.5	48.5	74.0	-25.5	Peak	Horizontal
	4893.0	36.7	3.0	39.7	74.0	-34.3	Peak	Vertical
	7298.5	36.9	8.1	45.0	74.0	-29.0	Peak	Vertical
	11463.5	35.5	13.0	48.5	74.0	-25.5	Peak	Vertical
19	4791.0	35.8	2.9	38.7	74.0	-35.3	Peak	Horizontal
	7536.5	36.3	8.2	44.5	74.0	-29.5	Peak	Horizontal
	10894.0	35.7	13.4	49.1	74.0	-24.9	Peak	Horizontal
	4808.0	36.1	2.8	38.9	74.0	-35.1	Peak	Vertical
	7553.5	37.3	8.1	45.4	74.0	-28.6	Peak	Vertical
	10885.5	35.3	13.4	48.7	74.0	-25.3	Peak	Vertical
39	4961.0	36.7	3.1	39.8	74.0	-34.2	Peak	Horizontal
	7477.0	36.6	8.3	44.9	74.0	-29.1	Peak	Horizontal
	10970.5	35.3	13.4	48.7	74.0	-25.3	Peak	Horizontal
	4884.5	36.7	2.9	39.6	74.0	-34.4	Peak	Vertical
	7494.0	36.1	8.3	44.4	74.0	-29.6	Peak	Vertical
	11106.5	35.9	13.1	49.0	74.0	-25.0	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)

Test Site	WZ-AC1	Test Engineer	Edith Yu
Test Date	2022-10-24	Test Mode:	BLE-2Mbps
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	4791.0	36.4	2.9	39.3	74.0	-34.7	Peak	Horizontal
	7604.5	36.4	7.9	44.3	74.0	-29.7	Peak	Horizontal
	11599.5	35.7	12.8	48.5	74.0	-25.5	Peak	Horizontal
	5012.0	36.1	3.1	39.2	74.0	-34.8	Peak	Vertical
	7570.5	36.6	8.0	44.6	74.0	-29.4	Peak	Vertical
	10928.0	36.1	13.5	49.6	74.0	-24.4	Peak	Vertical
19	4791.0	36.5	2.9	39.4	74.0	-34.6	Peak	Horizontal
	7477.0	35.9	8.3	44.2	74.0	-29.8	Peak	Horizontal
	11480.5	36.1	13.0	49.1	74.0	-24.9	Peak	Horizontal
	5114.0	36.4	3.4	39.8	74.0	-34.2	Peak	Vertical
	7494.0	36.0	8.3	44.3	74.0	-29.7	Peak	Vertical
	11540.0	35.2	12.9	48.1	74.0	-25.9	Peak	Vertical
39	4757.0	36.6	2.6	39.2	74.0	-34.8	Peak	Horizontal
	7630.0	36.7	8.0	44.7	74.0	-29.3	Peak	Horizontal
	11047.0	35.0	13.7	48.7	74.0	-25.3	Peak	Horizontal
	4629.5	36.7	2.4	39.1	74.0	-34.9	Peak	Vertical
	8361.0	35.2	8.5	43.7	74.0	-30.3	Peak	Vertical
	11497.5	35.6	13.3	48.9	74.0	-25.1	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)

Test Site	WZ-AC1	Test Engineer	Edith Yu
Test Date	2022-10-24	Test Mode:	BLE-125kbps
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.		

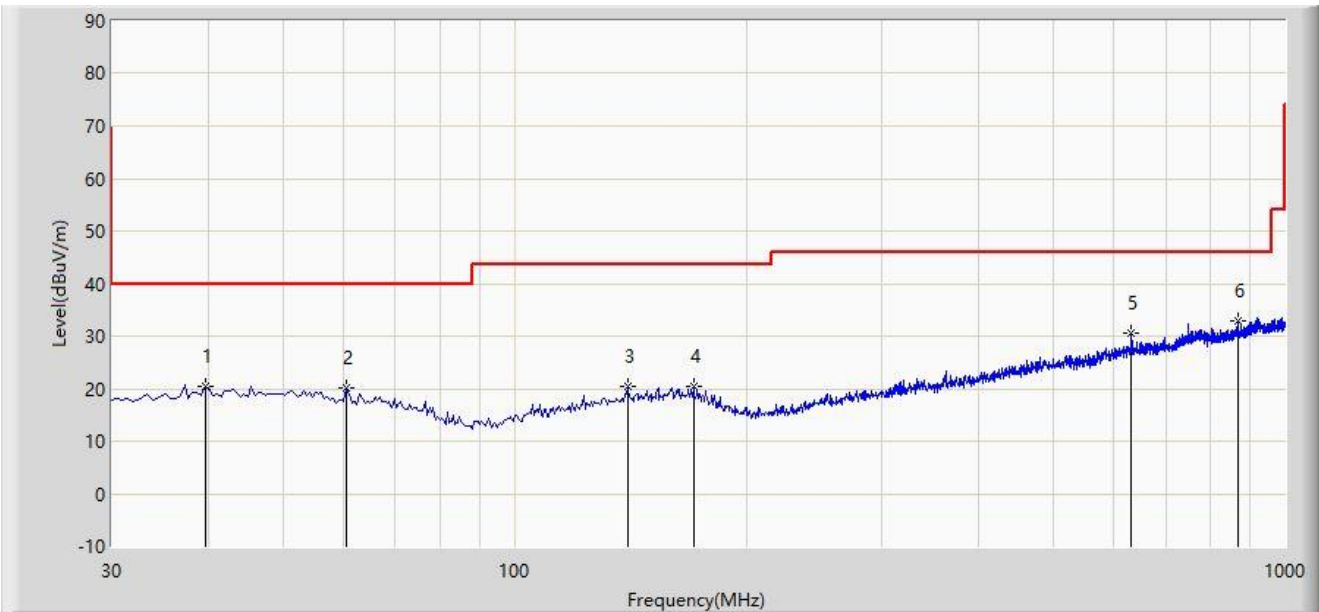
Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
00	5148.0	36.1	3.6	39.7	74.0	-34.3	Peak	Horizontal
	7494.0	36.1	8.3	44.4	74.0	-29.6	Peak	Horizontal
	11642.0	36.7	12.3	49.0	74.0	-25.0	Peak	Horizontal
	5054.5	37.1	3.5	40.6	74.0	-33.4	Peak	Vertical
	7545.0	36.0	8.2	44.2	74.0	-29.8	Peak	Vertical
	11004.5	36.0	13.5	49.5	74.0	-24.5	Peak	Vertical
19	5139.5	36.0	3.6	39.6	74.0	-34.4	Peak	Horizontal
	7519.5	36.3	8.1	44.4	74.0	-29.6	Peak	Horizontal
	10962.0	35.5	13.5	49.0	74.0	-25.0	Peak	Horizontal
	4791.0	35.7	2.9	38.6	74.0	-35.4	Peak	Vertical
	7570.5	36.3	8.0	44.3	74.0	-29.7	Peak	Vertical
	11497.5	36.0	13.3	49.3	74.0	-24.7	Peak	Vertical
39	4876.0	34.1	2.8	36.9	74.0	-37.1	Peak	Horizontal
	7443.0	35.2	8.2	43.4	74.0	-30.6	Peak	Horizontal
	11667.5	36.3	12.3	48.6	74.0	-25.4	Peak	Horizontal
	5054.5	35.8	3.5	39.3	74.0	-34.7	Peak	Vertical
	7621.5	35.8	7.9	43.7	74.0	-30.3	Peak	Vertical
	11667.5	36.3	12.3	48.6	74.0	-25.4	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 Date: 2022-10-25
Limit: FCC_Part15.209_RSE(3m)	Engineer: Edith Yu
Probe: VULB 9168_25-2000MHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 2Mbps at 2440MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		39.700	20.455	2.257	-19.545	40.000	18.198	PK
2		60.555	20.140	2.736	-19.860	40.000	17.404	PK
3		140.095	20.431	2.924	-23.069	43.500	17.507	PK
4		170.650	20.498	2.807	-23.002	43.500	17.691	PK
5		630.915	30.448	4.394	-15.552	46.000	26.054	PK
6	*	869.050	32.891	3.828	-13.109	46.000	29.063	PK

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

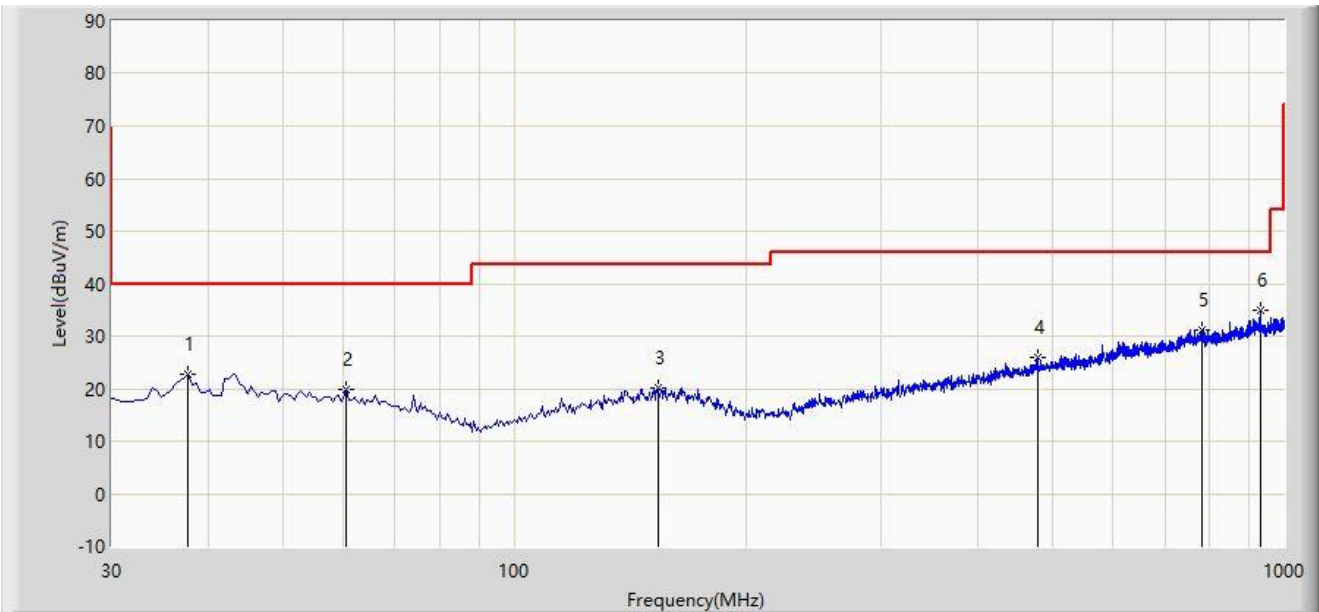
Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Note 4: Quasi-Peak measurement was not performed when peak measure level was lower than the quasi-peak limit.

Note 5: 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 Date: 2022-10-25
Limit: FCC_Part15.209_RSE(3m)	Engineer: Edith Yu
Probe: VULB 9168_25-2000MHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 2Mbps at 2440MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		37.760	22.780	4.749	-17.220	40.000	18.031	PK
2		60.555	19.977	2.573	-20.023	40.000	17.404	PK
3		153.675	20.286	2.148	-23.214	43.500	18.137	PK
4		478.625	25.922	3.156	-20.078	46.000	22.767	PK
5		780.780	31.189	2.986	-14.811	46.000	28.203	PK
6	*	931.615	34.869	5.012	-11.131	46.000	29.857	PK

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

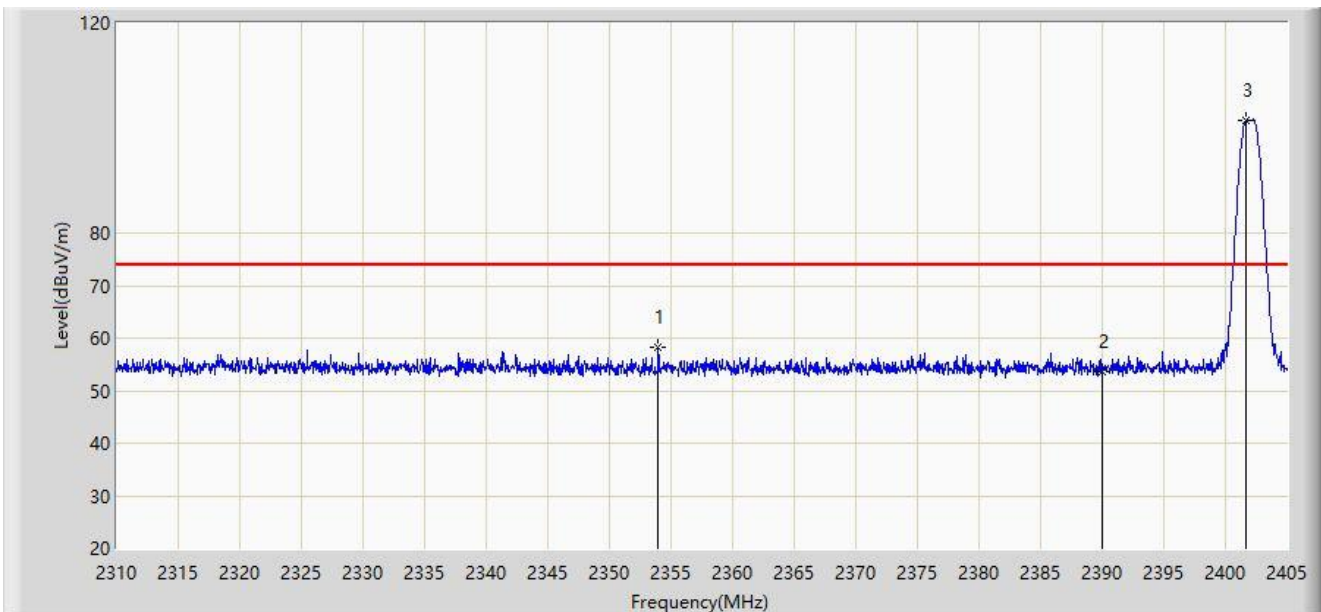
Note 4: Quasi-Peak measurement was not performed when peak measure level was lower than the quasi-peak limit.

Note 5: 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.3 Radiated Restricted Band Edge Test Result

Site: WZ-AC1	Test Date: 2022-10-24
Limit: FCC_2.4G_RE(3m)	Engineer: Edith Yu
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 1Mbps at 2402MHz	



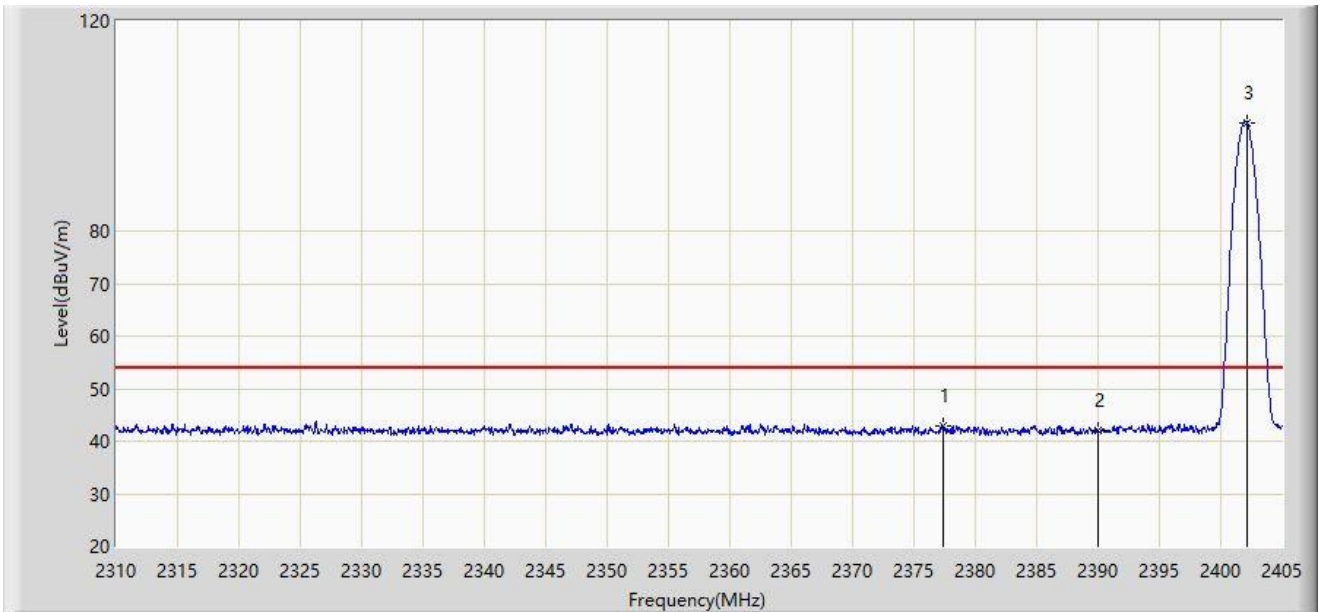
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2353.985	58.193	27.072	-15.807	74.000	31.120	PK
2		2390.000	53.500	22.508	-20.500	74.000	30.992	PK
3		2401.722	101.580	70.591	N/A	N/A	30.989	PK

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-10-24
Limit: FCC_2.4G_RE(3m)	Engineer: Edith Yu
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 1Mbps at 2402MHz	



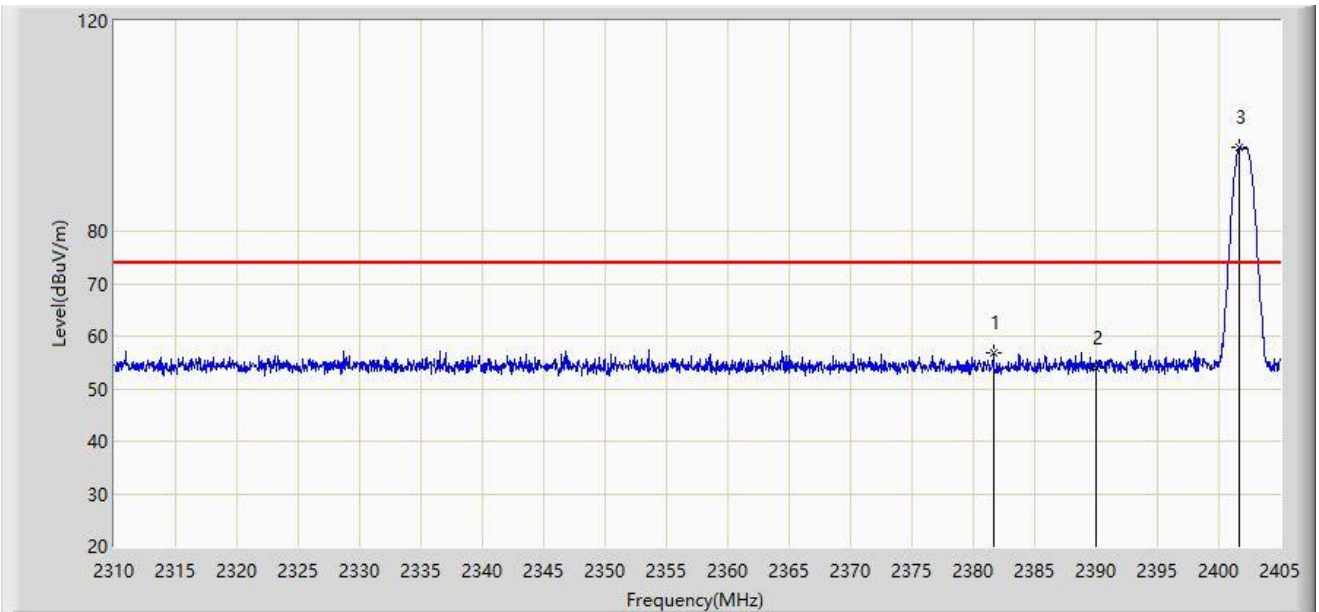
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2377.403	42.927	11.903	-11.073	54.000	31.024	AV
2		2390.000	41.920	10.928	-12.080	54.000	30.992	AV
3		2402.150	100.651	69.663	N/A	N/A	30.988	AV

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-10-24
Limit: FCC_2.4G_RE(3m)	Engineer: Edith Yu
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 1Mbps at 2402MHz	



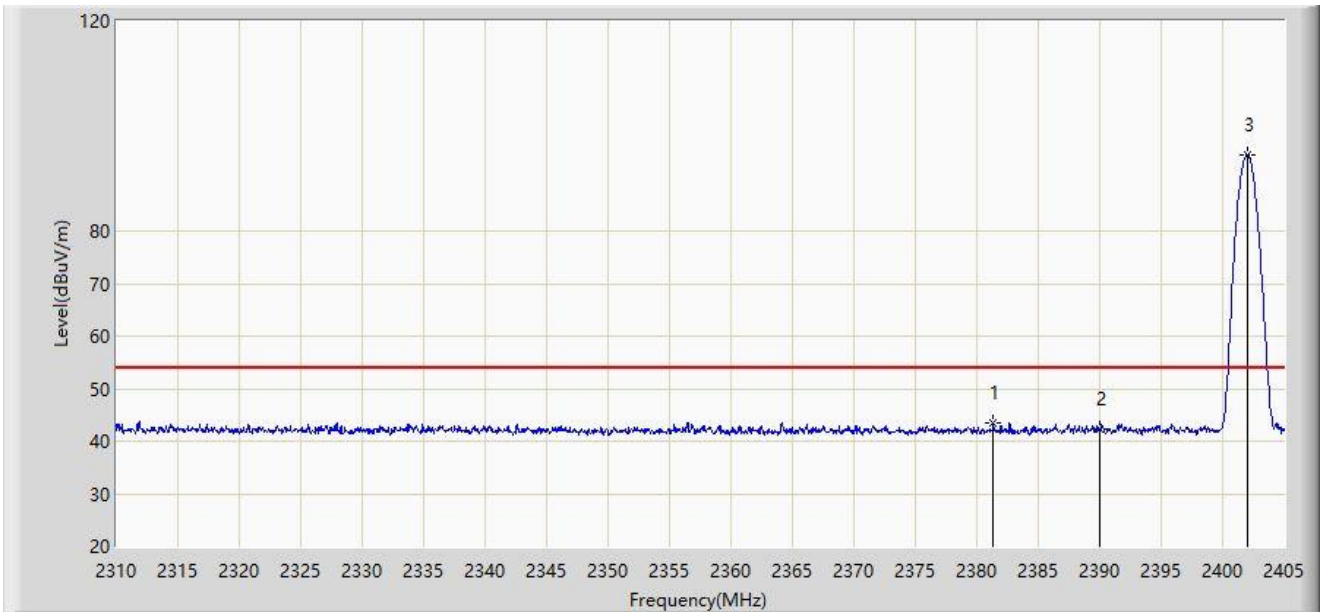
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2381.630	56.846	25.841	-17.154	74.000	31.005	PK
2		2390.000	53.899	22.907	-20.101	74.000	30.992	PK
3		2401.722	95.807	64.818	N/A	N/A	30.989	PK

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-10-24
Limit: FCC_2.4G_RE(3m)	Engineer: Edith Yu
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 1Mbps at 2402MHz	



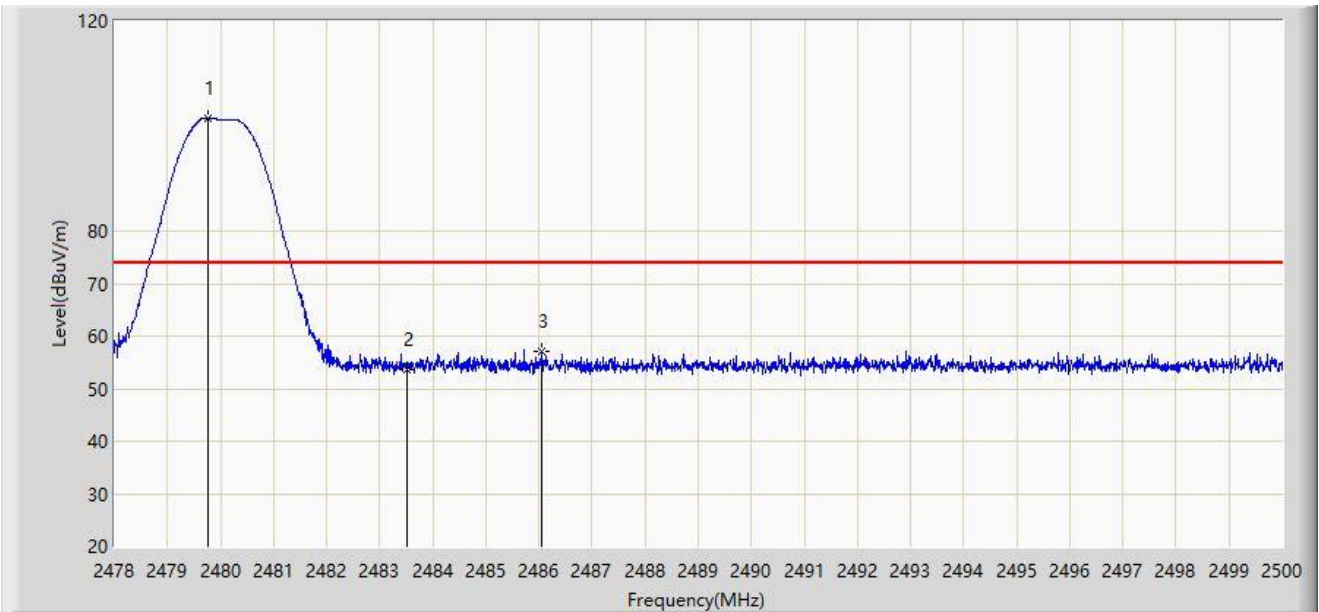
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2381.345	43.573	12.566	-10.427	54.000	31.007	AV
2		2390.000	42.181	11.189	-11.819	54.000	30.992	AV
3		2402.008	94.418	63.429	N/A	N/A	30.989	AV

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-10-24
Limit: FCC_2.4G_RE(3m)	Engineer: Edith Yu
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 1Mbps at 2480MHz	



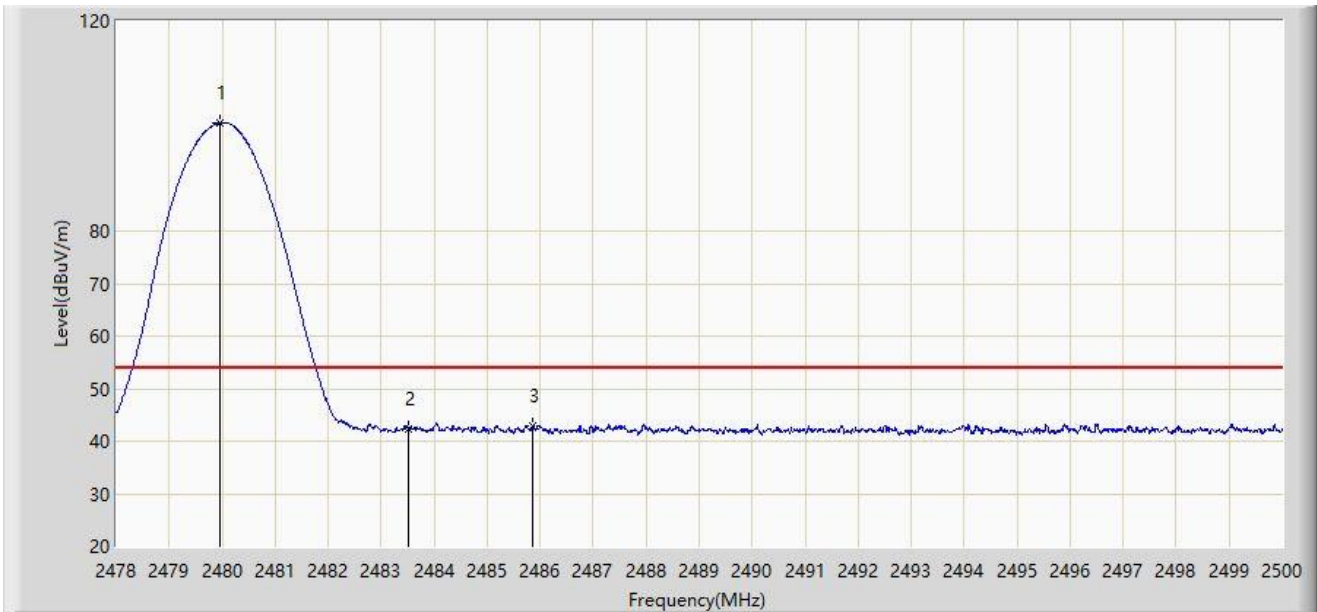
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2479.771	101.529	70.631	N/A	N/A	30.897	PK
2		2483.500	53.490	22.599	-20.510	74.000	30.892	PK
3	*	2486.063	57.196	26.309	-16.804	74.000	30.887	PK

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-10-24
Limit: FCC_2.4G_RE(3m)	Engineer: Edith Yu
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 1Mbps at 2480MHz	



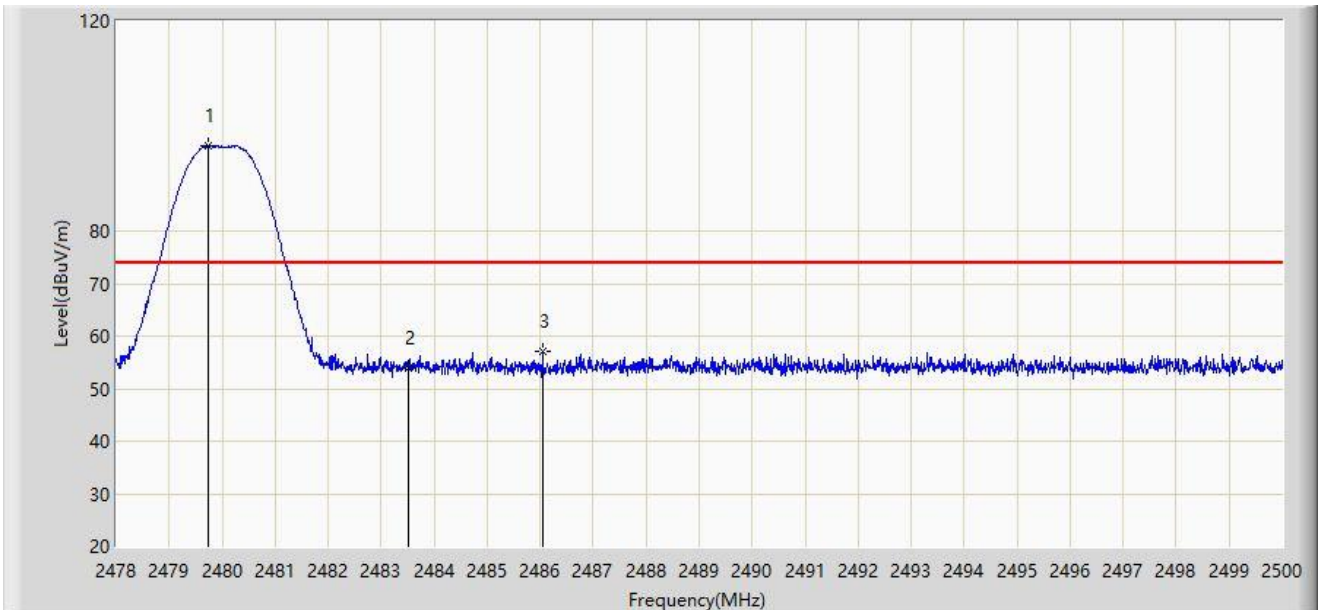
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2479.958	100.601	69.704	N/A	N/A	30.897	AV
2		2483.500	42.408	11.517	-11.592	54.000	30.892	AV
3	*	2485.854	42.878	11.990	-11.122	54.000	30.888	AV

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-10-24
Limit: FCC_2.4G_RE(3m)	Engineer: Edith Yu
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 1Mbps at 2480MHz	



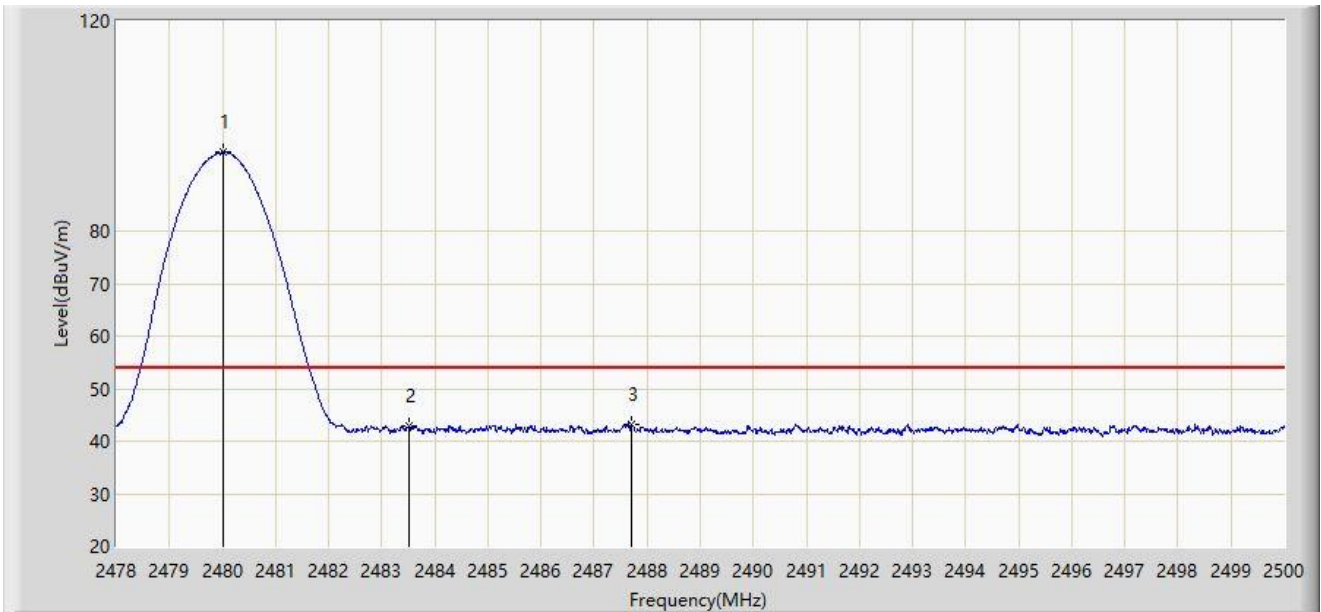
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2479.738	96.247	65.349	N/A	N/A	30.897	PK
2		2483.500	53.880	22.989	-20.120	74.000	30.892	PK
3	*	2486.041	57.221	26.334	-16.779	74.000	30.887	PK

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-10-24
Limit: FCC_2.4G_RE(3m)	Engineer: Edith Yu
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 1Mbps at 2480MHz	



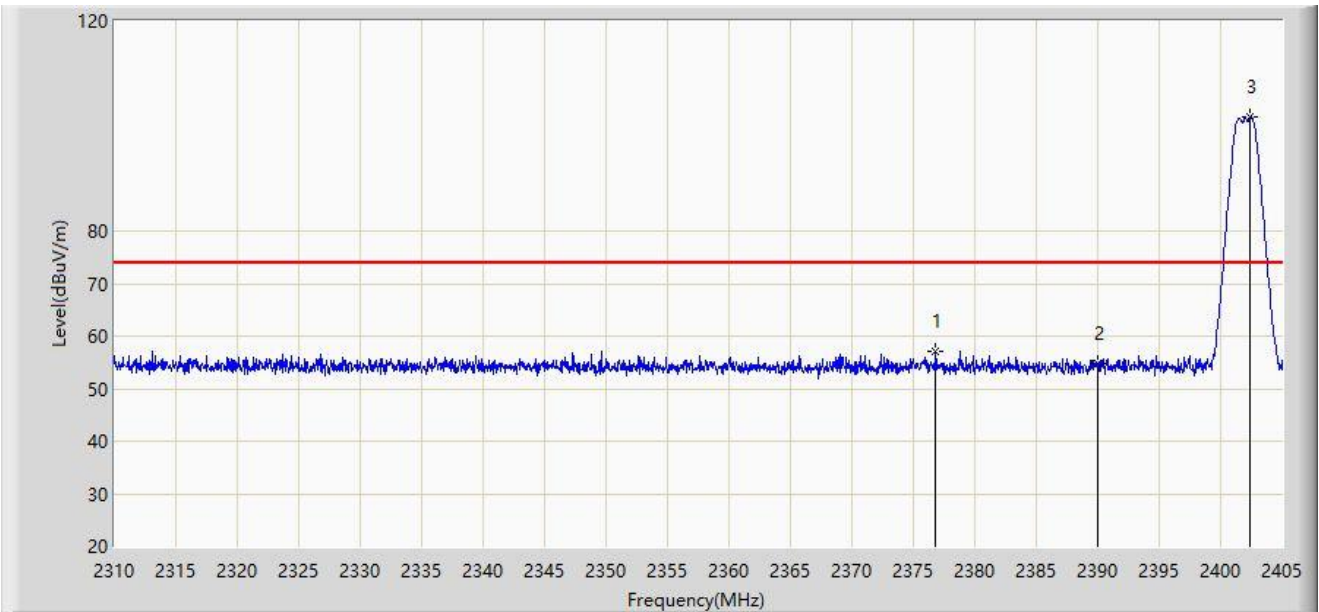
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2480.002	94.958	64.061	N/A	N/A	30.897	AV
2		2483.500	42.953	12.062	-11.047	54.000	30.892	AV
3	*	2487.713	43.160	12.275	-10.840	54.000	30.885	AV

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-10-24
Limit: FCC_2.4G_RE(3m)	Engineer: Edith Yu
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 2Mbps at 2402MHz	



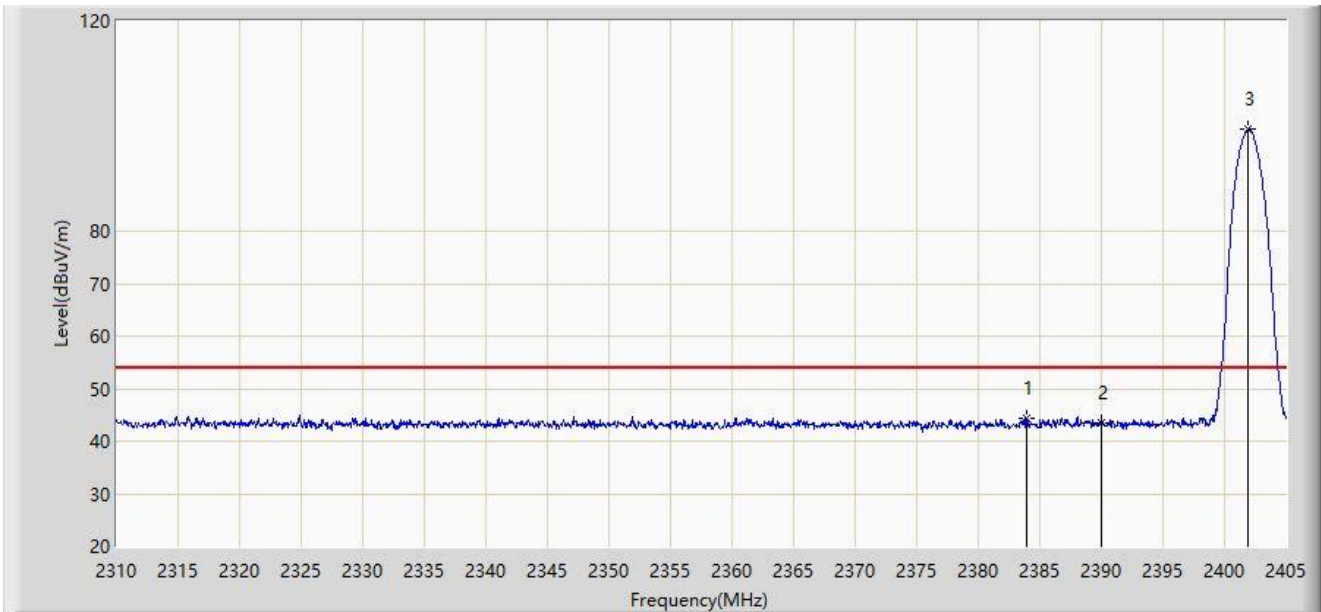
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2376.833	57.170	26.144	-16.830	74.000	31.027	PK
2		2390.000	54.734	23.742	-19.266	74.000	30.992	PK
3		2402.435	101.619	70.632	N/A	N/A	30.988	PK

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-10-24
Limit: FCC_2.4G_RE(3m)	Engineer: Edith Yu
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 2Mbps at 2402MHz	



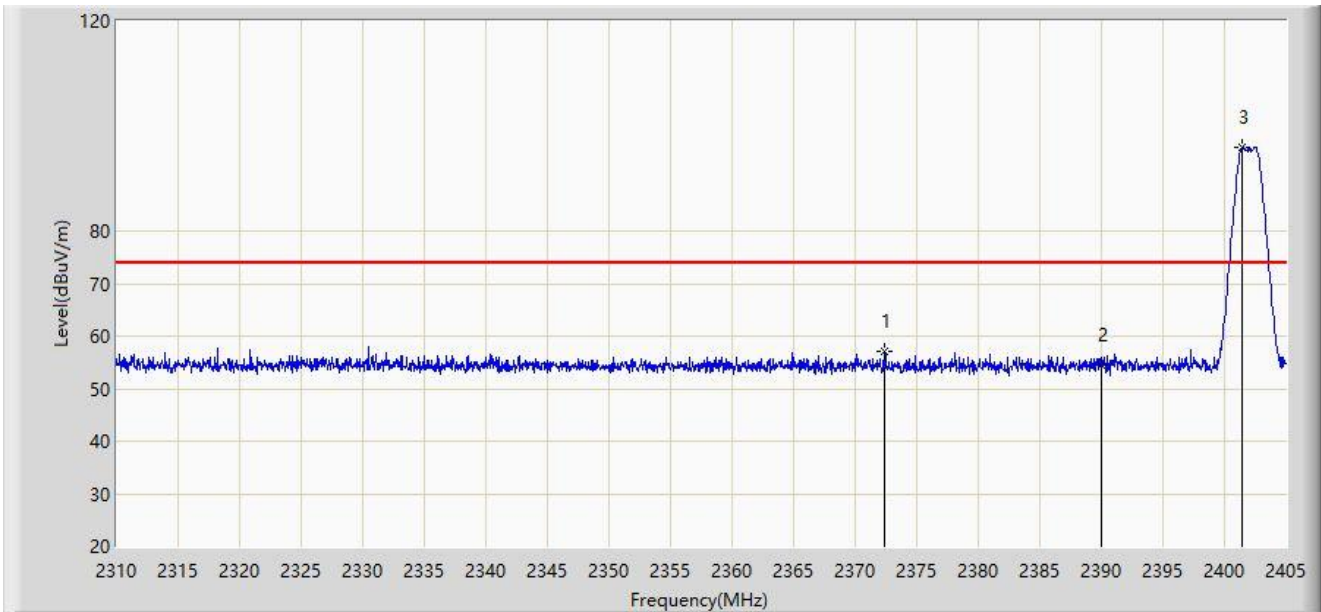
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2383.910	44.461	13.465	-9.539	54.000	30.995	AV
2		2390.000	43.554	12.562	-10.446	54.000	30.992	AV
3		2401.960	99.404	68.415	N/A	N/A	30.989	AV

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-10-24
Limit: FCC_2.4G_RE(3m)	Engineer: Edith Yu
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 2Mbps at 2402MHz	



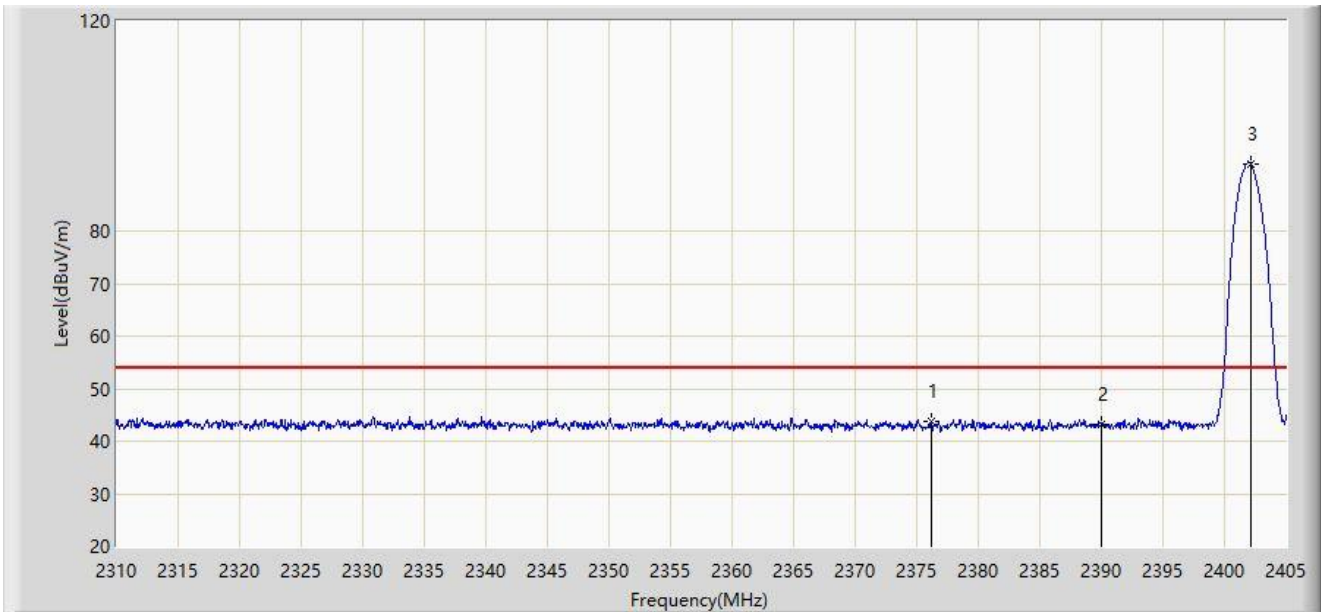
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2372.415	57.043	25.995	-16.957	74.000	31.049	PK
2		2390.000	54.362	23.370	-19.638	74.000	30.992	PK
3		2401.485	95.950	64.961	N/A	N/A	30.989	PK

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-10-24
Limit: FCC_2.4G_RE(3m)	Engineer: Edith Yu
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 2Mbps at 2402MHz	



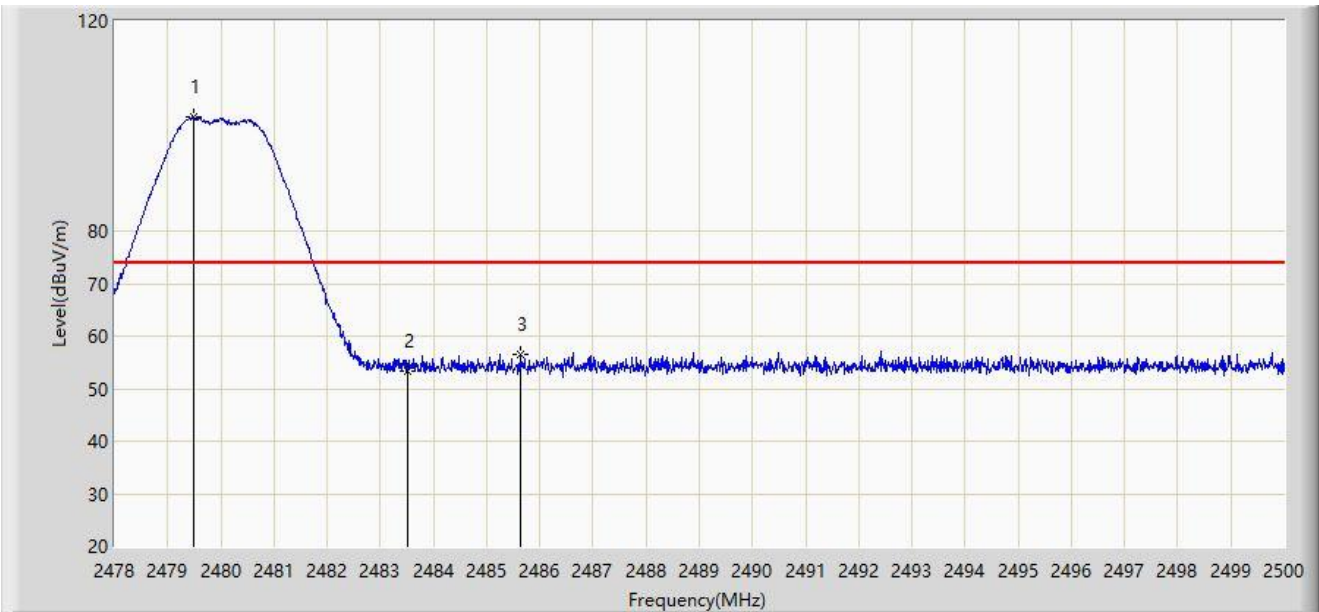
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2376.167	43.773	12.743	-10.227	54.000	31.030	AV
2		2390.000	43.161	12.169	-10.839	54.000	30.992	AV
3		2402.150	92.889	61.901	N/A	N/A	30.988	AV

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-10-24
Limit: FCC_2.4G_RE(3m)	Engineer: Edith Yu
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 2Mbps at 2480MHz	



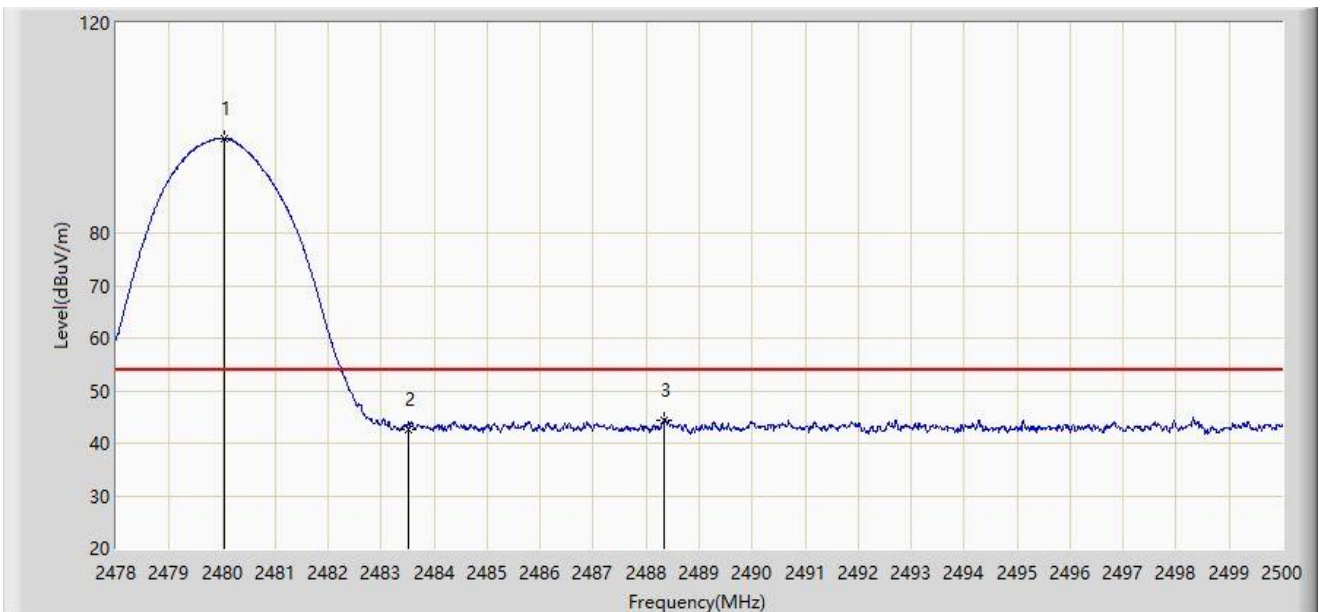
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2479.496	101.701	70.803	N/A	N/A	30.898	PK
2		2483.500	53.333	22.442	-20.667	74.000	30.892	PK
3	*	2485.645	56.559	25.671	-17.441	74.000	30.888	PK

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-10-24
Limit: FCC_2.4G_RE(3m)	Engineer: Edith Yu
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 2Mbps at 2480MHz	



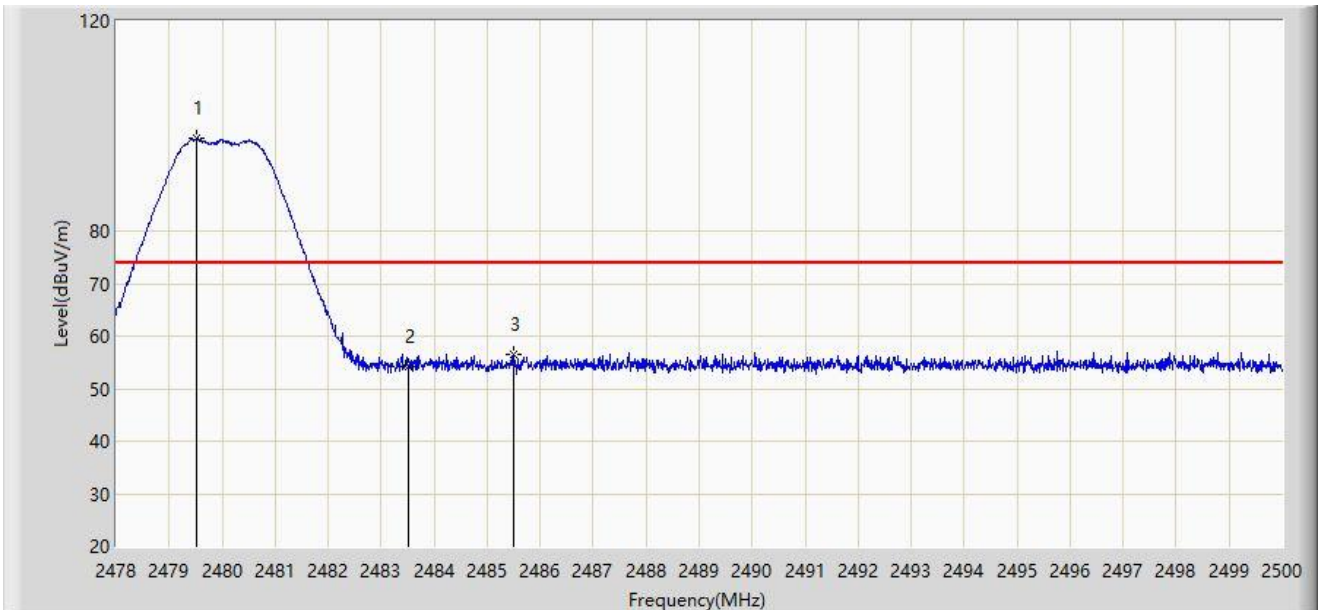
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2480.046	98.032	67.135	N/A	N/A	30.897	AV
2		2483.500	42.625	11.734	-11.375	54.000	30.892	AV
3	*	2488.340	44.473	13.589	-9.527	54.000	30.883	AV

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-10-24
Limit: FCC_2.4G_RE(3m)	Engineer: Edith Yu
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 2Mbps at 2480MHz	



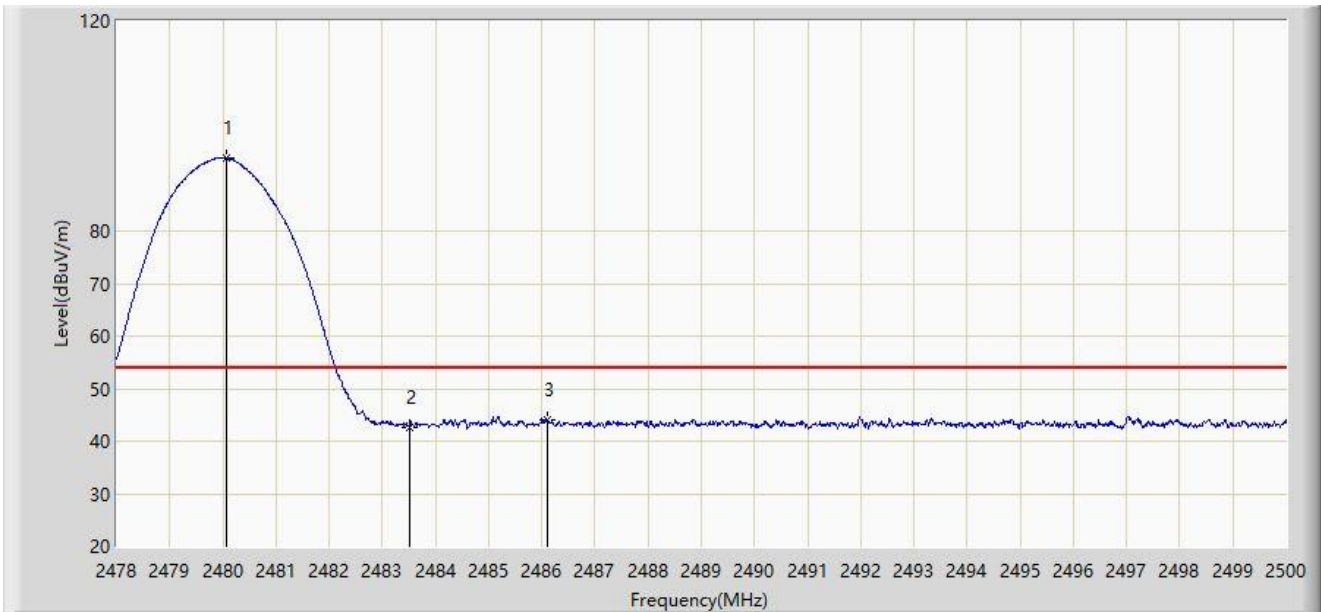
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2479.507	97.555	66.657	N/A	N/A	30.898	PK
2		2483.500	54.076	23.185	-19.924	74.000	30.892	PK
3	*	2485.491	56.611	25.723	-17.389	74.000	30.888	PK

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-10-24
Limit: FCC_2.4G_RE(3m)	Engineer: Edith Yu
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 2Mbps at 2480MHz	



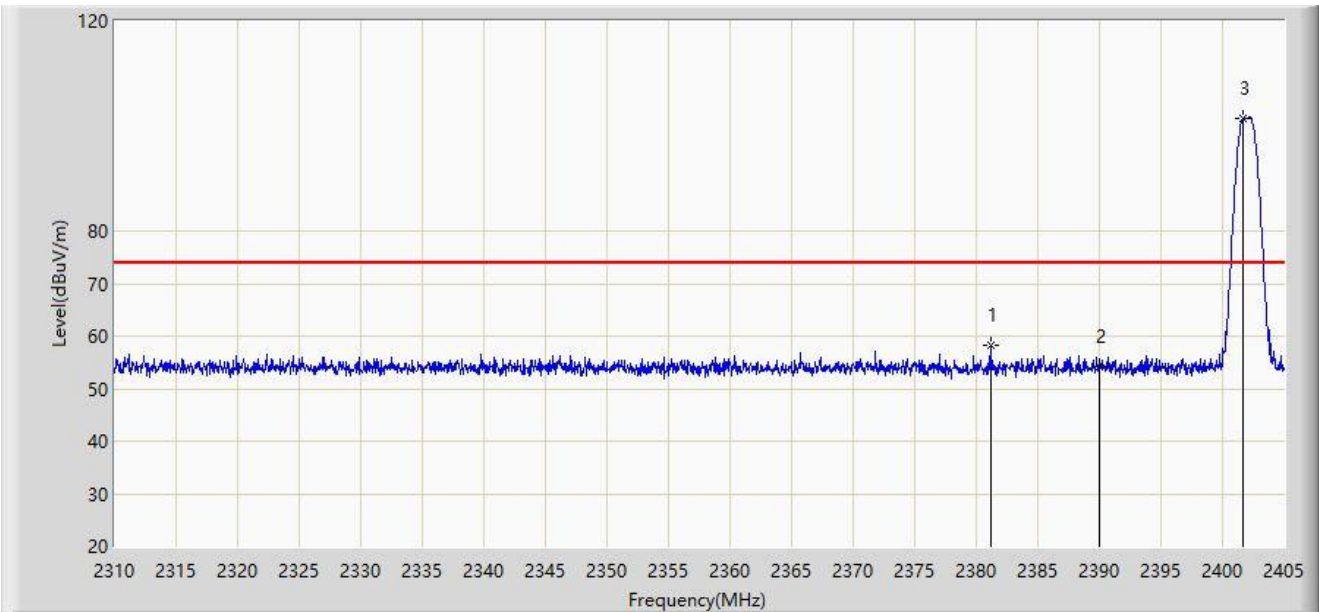
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2480.079	93.917	63.020	N/A	N/A	30.897	AV
2		2483.500	42.614	11.723	-11.386	54.000	30.892	AV
3	*	2486.096	44.076	13.189	-9.924	54.000	30.887	AV

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-10-24
Limit: FCC_2.4G_RE(3m)	Engineer: Edith Yu
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 125kbps at 2402MHz	



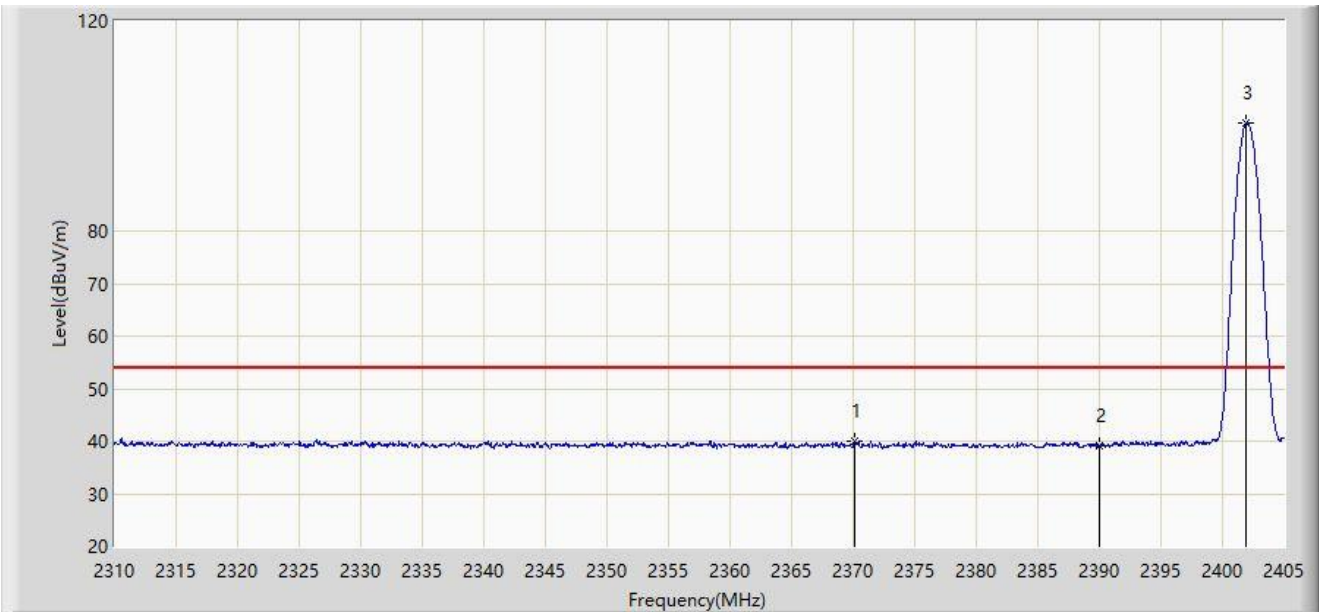
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2381.155	58.259	27.252	-15.741	74.000	31.008	PK
2		2390.000	54.099	23.107	-19.901	74.000	30.992	PK
3		2401.722	101.557	70.568	N/A	N/A	30.989	PK

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-10-24
Limit: FCC_2.4G_RE(3m)	Engineer: Edith Yu
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 125kbps at 2402MHz	



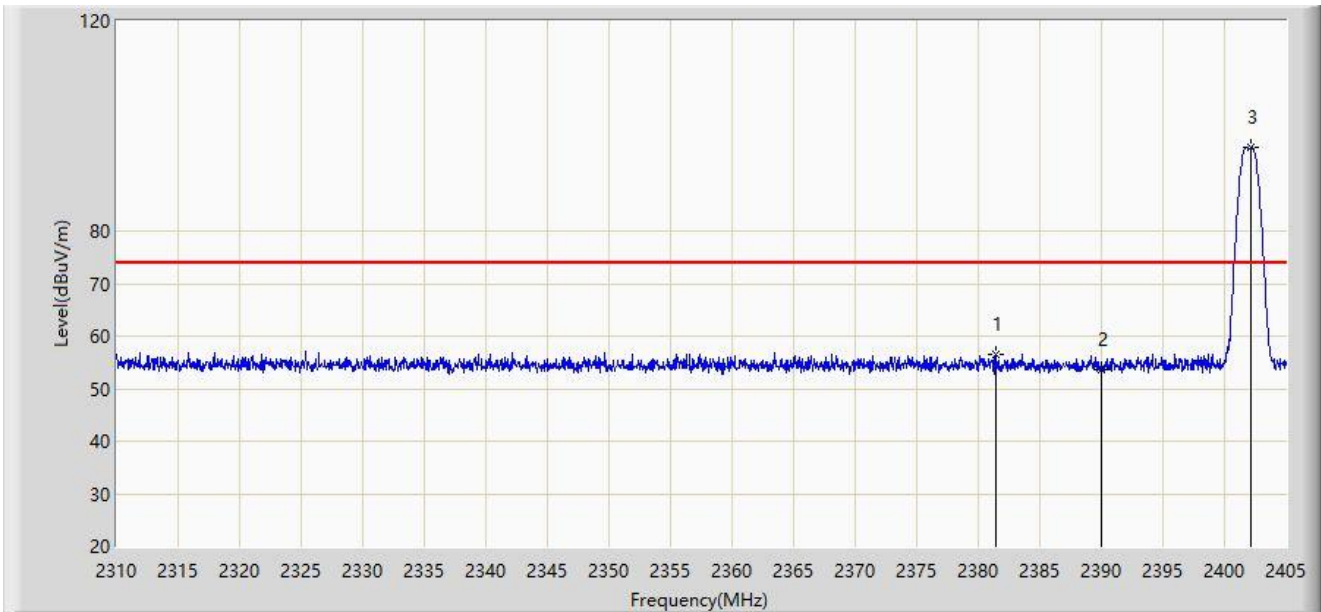
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2370.135	40.132	9.072	-13.868	54.000	31.060	AV
2		2390.000	39.240	8.248	-14.760	54.000	30.992	AV
3		2401.960	100.604	69.615	N/A	N/A	30.989	AV

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-10-24
Limit: FCC_2.4G_RE(3m)	Engineer: Edith Yu
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 125kbps at 2402MHz	



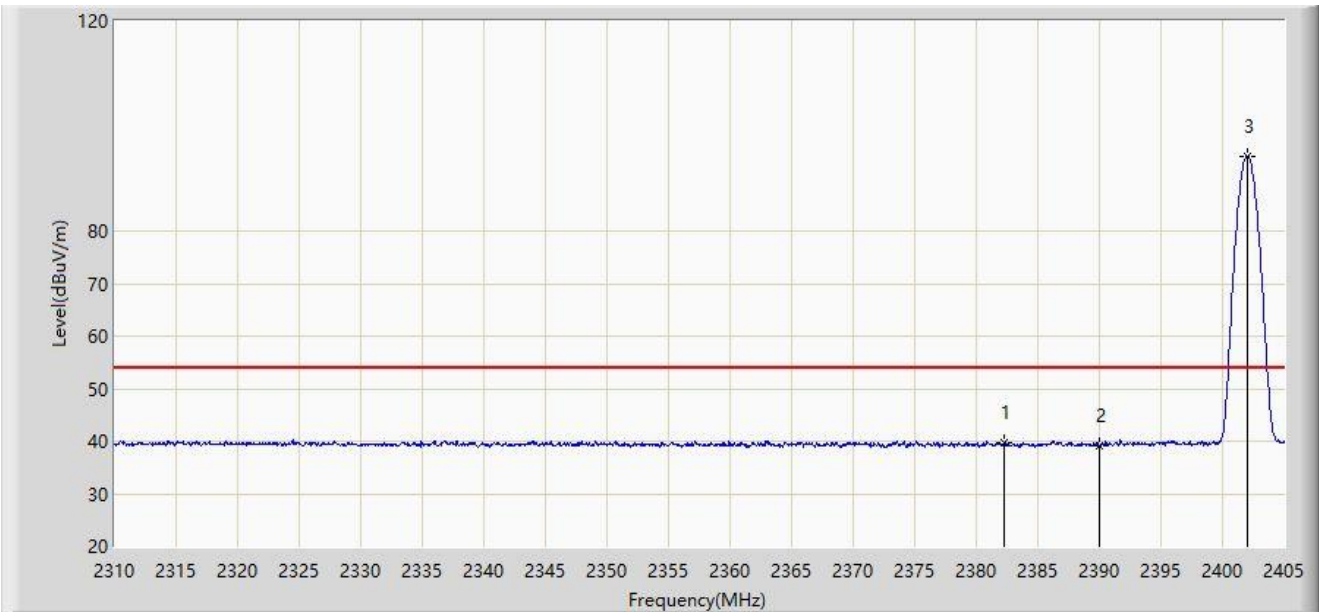
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2381.440	56.522	25.516	-17.478	74.000	31.007	PK
2		2390.000	53.526	22.534	-20.474	74.000	30.992	PK
3		2402.198	95.947	64.959	N/A	N/A	30.988	PK

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-10-24
Limit: FCC_2.4G_RE(3m)	Engineer: Edith Yu
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 125kbps at 2402MHz	



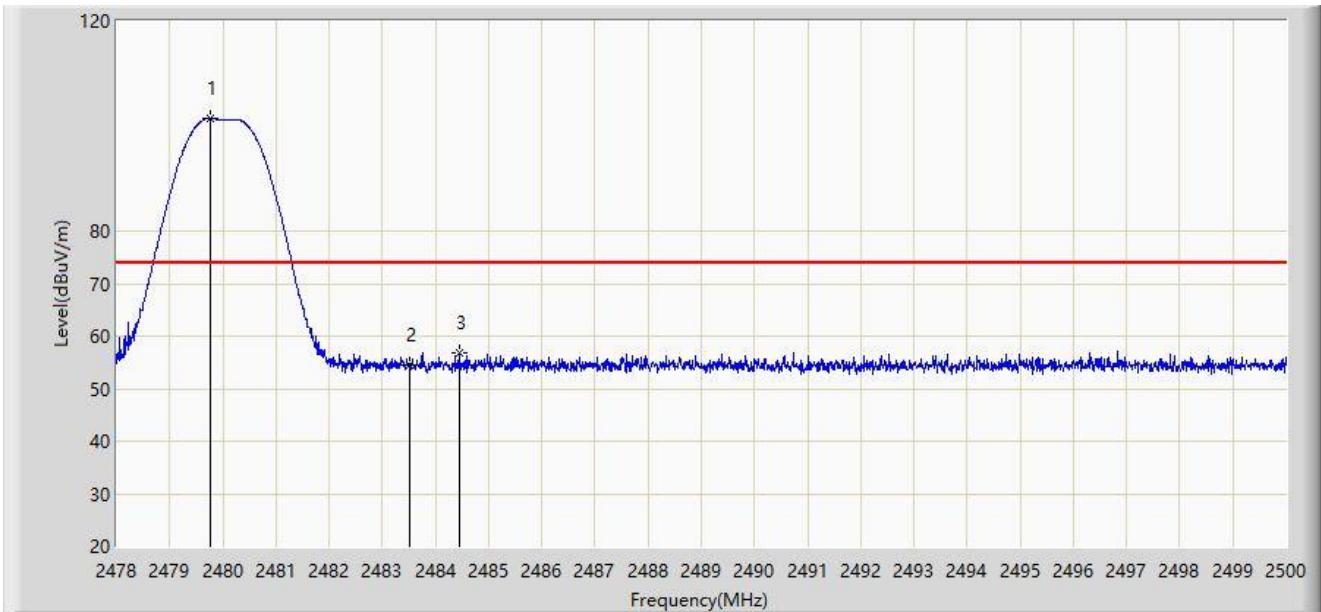
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2382.248	39.743	8.740	-14.257	54.000	31.002	AV
2		2390.000	39.081	8.089	-14.919	54.000	30.992	AV
3		2402.008	94.318	63.329	N/A	N/A	30.989	AV

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-10-24
Limit: FCC_2.4G_RE(3m)	Engineer: Edith Yu
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 125kbps at 2480MHz	



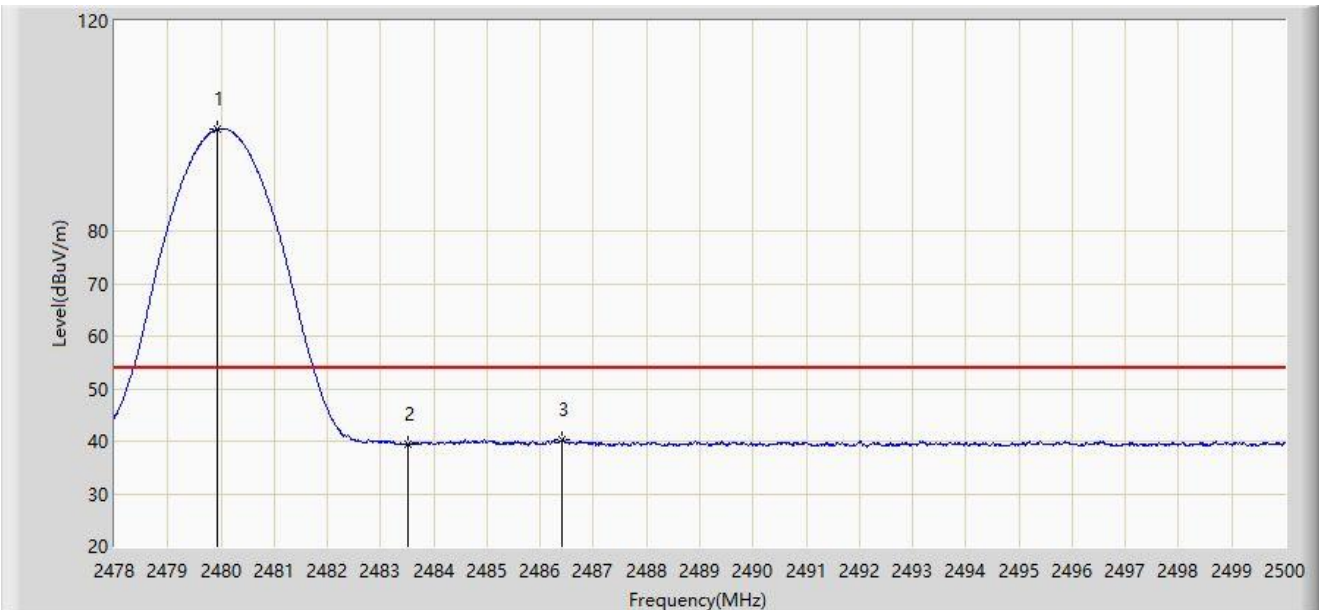
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2479.771	101.526	70.628	N/A	N/A	30.897	PK
2		2483.500	54.569	23.678	-19.431	74.000	30.892	PK
3	*	2484.446	56.885	25.995	-17.115	74.000	30.890	PK

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-10-24
Limit: FCC_2.4G_RE(3m)	Engineer: Edith Yu
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 125kbps at 2480MHz	



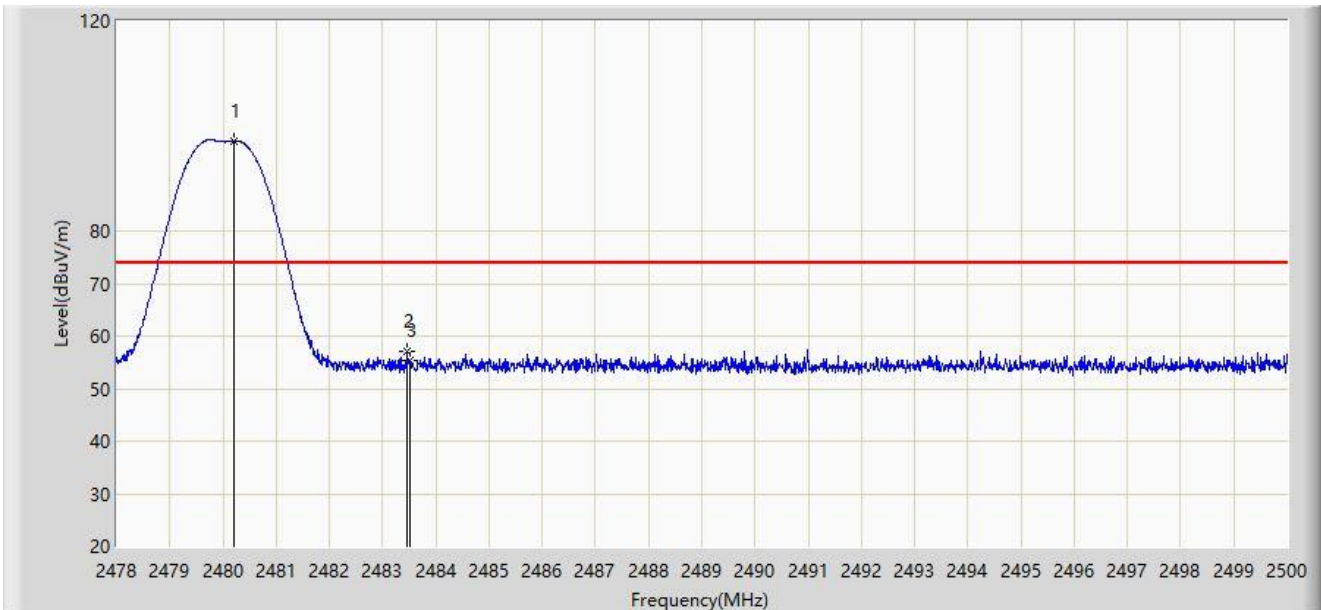
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2479.936	99.434	68.537	N/A	N/A	30.897	AV
2		2483.500	39.459	8.568	-14.541	54.000	30.892	AV
3	*	2486.415	40.361	9.474	-13.639	54.000	30.887	AV

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-10-24
Limit: FCC_2.4G_RE(3m)	Engineer: Edith Yu
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 125kbps at 2480MHz	



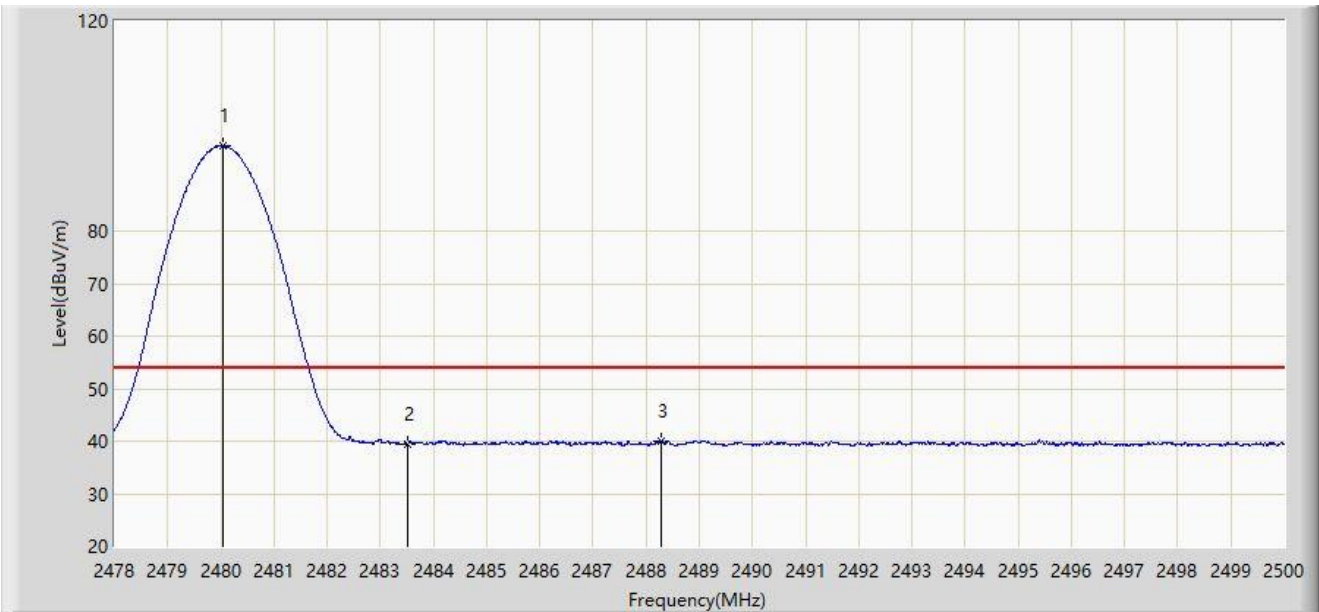
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2480.200	97.195	66.298	N/A	N/A	30.897	PK
2	*	2483.445	57.028	26.136	-16.972	74.000	30.892	PK
3		2483.500	55.346	24.455	-18.654	74.000	30.892	PK

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-10-24
Limit: FCC_2.4G_RE(3m)	Engineer: Edith Yu
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by BLE 125kbps at 2480MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2480.046	96.164	65.267	N/A	N/A	30.897	AV
2		2483.500	39.372	8.481	-14.628	54.000	30.892	AV
3	*	2488.285	40.033	9.149	-13.967	54.000	30.884	AV

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Appendix B - Test Setup Photograph

Refer to “2209RSU059-UT” file.

Appendix C - EUT Photograph

Refer to “2209RSU059-UE” file.

The End
