



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: 2022-10-16 ~ 2022-10-26

Reviewed By:



Sunny Sun

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
2209RSU059-U5	Rev. 01	Initial Report	2023-01-04	Invalid
2209RSU059-U5	Rev. 02	Modify the Product Name	2023-01-06	Valid

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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 FCC: CN1166 VCCI:
	CNAS: L10551 ISED: CN0001 ☐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 FCC: CN1284
	CNAS: L10551 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: 1. The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer. 2. This device is based on certification module, FCC ID "XMR202103FG50V" to assessing the output power, radiated spurious emission.	

1.5. Radio Specification under Test

Frequency Range	802.11b/g/n-HT20/ax-HE20: 2412 ~ 2462MHz 802.11n-HT40/ax-HE40: 2422 ~ 2452MHz
Channel Number	802.11b/g/n-HT20/ax-HE20: 11 802.11n-HT40/ax-HE40: 7
Type of Modulation	802.11b: DSSS 802.11g/n: OFDM 802.11g/n/ax: OFDMA
Data Rate	802.11b: 1/2/5.5/11Mbps 802.11g: 6/9/12/18/24/36/48/54Mbps 802.11n: up to 300Mbps 802.11ax: up to 573.6Mbps
Antenna Information	PIFA Antenna, 2*2 MIMO, 2.08dBi

1.6. Working Frequencies

802.11b/g/n-HT20/ax-HE20

Channel	Frequency	Channel	Frequency	Channel	Frequency
01	2412 MHz	02	2417 MHz	03	2422 MHz
04	2427 MHz	05	2432 MHz	06	2437 MHz
07	2442 MHz	08	2447 MHz	09	2452 MHz
10	2457 MHz	11	2462 MHz	--	--

802.11n-HT40/ax-HE40

Channel	Frequency	Channel	Frequency	Channel	Frequency
03	2422 MHz	04	2427 MHz	05	2432 MHz
06	2437 MHz	07	2442 MHz	08	2447 MHz
09	2452 MHz	--	--	--	--

2. Test Configuration

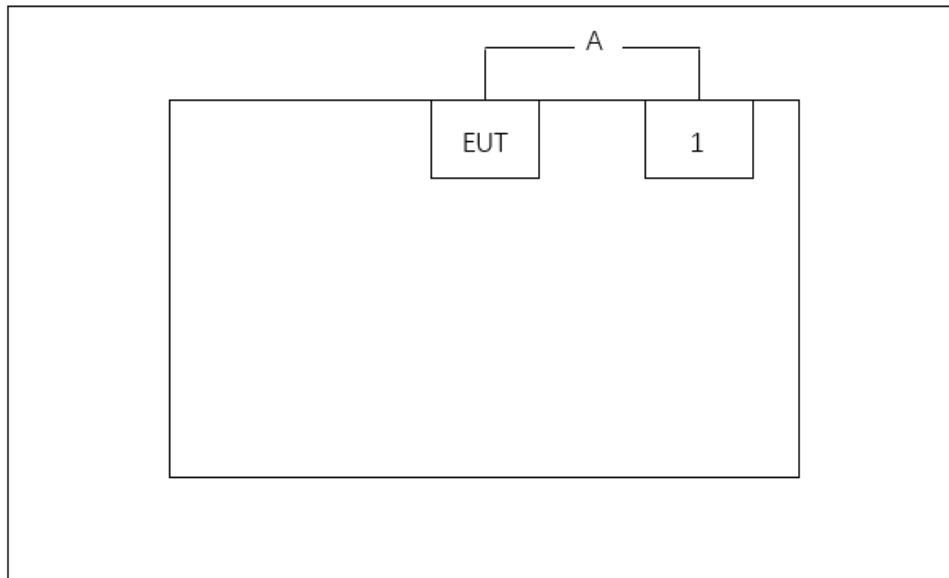
2.1. Test Mode

CDD Mode
Mode 1: Transmit by 802.11b_N _{SS} =1 (1Mbps) (MIMO Mode)
Mode 2: Transmit by 802.11g_N _{SS} =1 (6Mbps) (MIMO Mode)
Mode 3: Transmit by 802.11n-HT20 (MCS0)_N _{SS} =1 (MIMO Mode)
Mode 4: Transmit by 802.11n-HT40 (MCS0)_N _{SS} =1 (MIMO Mode)
Mode 5: Transmit by 802.11ax-HE20 (MCS0)_N _{SS} =1 (MIMO Mode)
Mode 6: Transmit by 802.11ax-HE40 (MCS0)_N _{SS} =1 (MIMO Mode)
Remark: 1. For radiated spurious emission, the modulation and the data rate extracted for testing are determined by the Max. RF conducted power. 2. This device supports 4 N_{SS} and power level is the same of spatial multiplexing. The worst case is N_{SS}=1. 3. RF power on each chain in MIMO mode is greater than SISO mode. The SISO Mode is covered by MIMO Mode. 4. After preliminary scan designated by the manufacturer, CDD mode is determined to be the worst case compared to Beamforming mode, hence, all the radiated test is performed in CDD mode. 5. EUT supports one configuration only in 802.11ax full RU mode.

2.2. 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

2.3. Test Software

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

2.4. 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
- KDB 662911 D01v02r01
- ANSI C63.10-2013

2.5. 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% ($U=2Uc(y)$):	
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 tests, 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 11.9.2.3.2

6.2.3. Test Setting

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

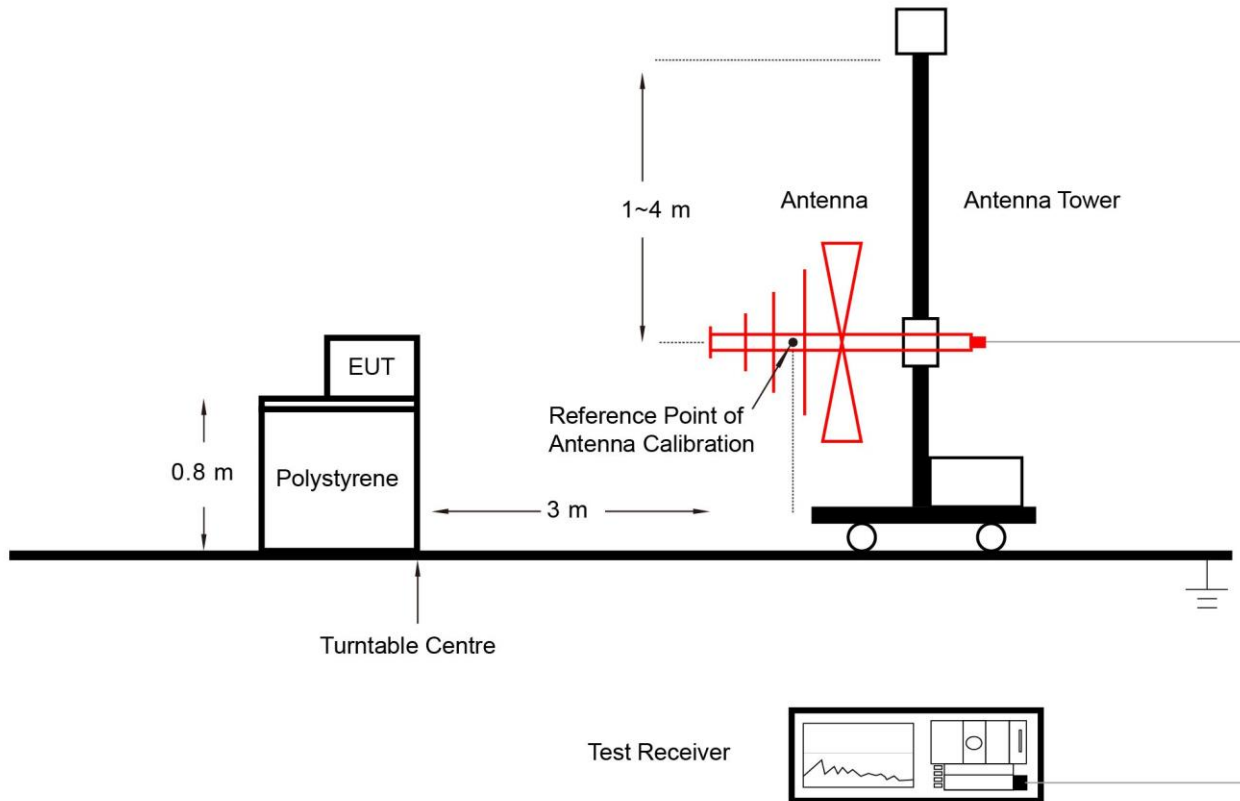
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Measurements above 1GHz (Method VB)

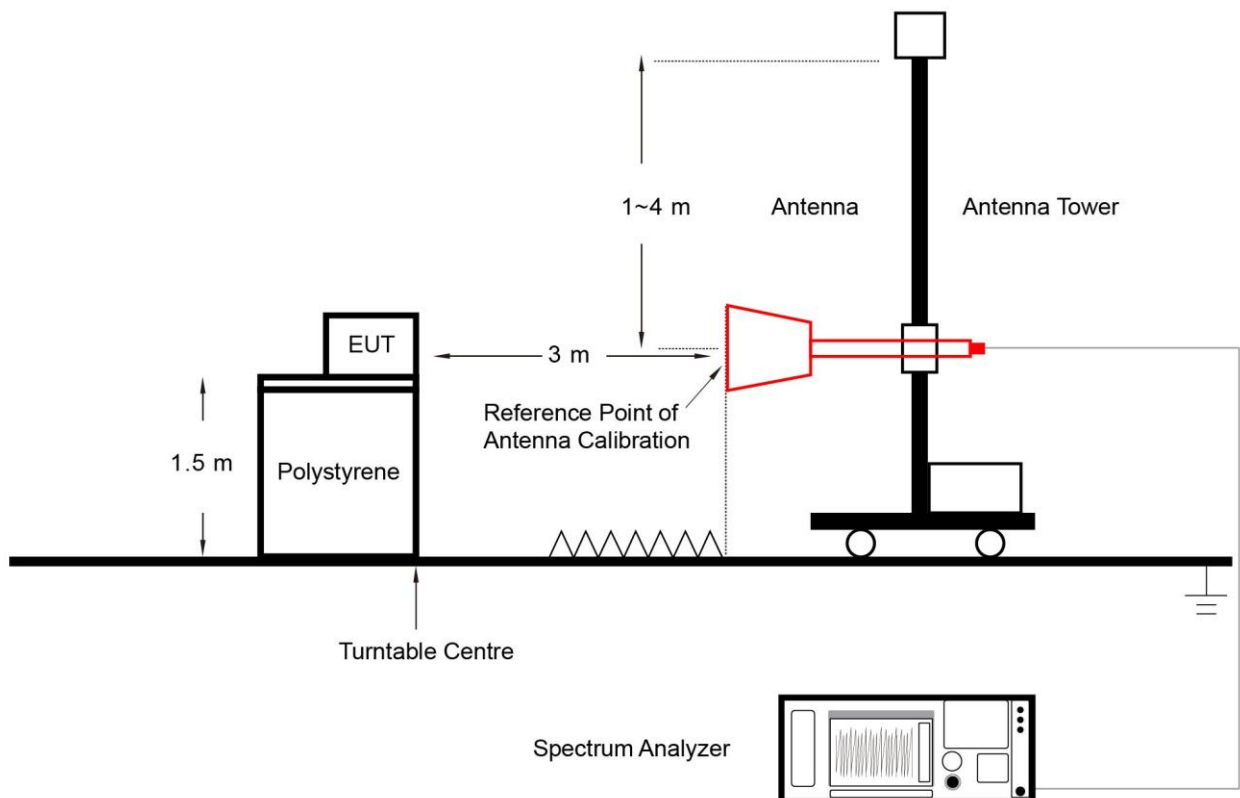
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10 Hz.
If the EUT duty cycle is $< 98\%$, set $\text{VBW} \geq 1/T$. T is the minimum transmission duration.
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

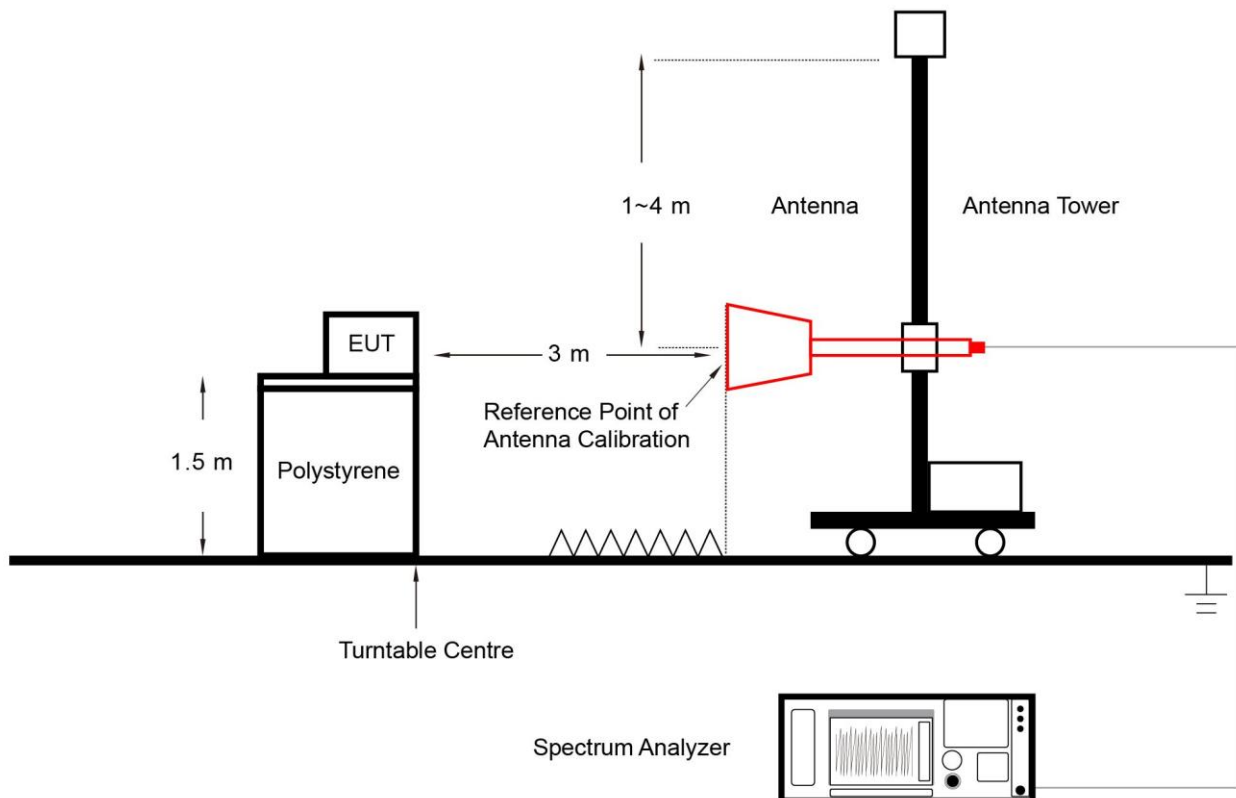
Peak Field Strength Measurements

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	2022-10-16		

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)		Total Average Power (dBm)	Limit
				Ant 0	Ant 1		
11b	1Mbps	01	2412	11.35	11.20	14.29	≤ 30.00
11b	1Mbps	06	2437	12.04	11.05	14.58	≤ 30.00
11b	1Mbps	11	2462	11.58	11.43	14.52	≤ 30.00
11g	6Mbps	01	2412	11.72	11.25	14.50	≤ 30.00
11g	6Mbps	06	2437	11.71	11.10	14.43	≤ 30.00
11g	6Mbps	11	2462	11.18	11.17	14.19	≤ 30.00
11n-HT20	MCS0	01	2412	11.98	11.46	14.74	≤ 30.00
11n-HT20	MCS0	06	2437	11.89	11.25	14.59	≤ 30.00
11n-HT20	MCS0	11	2462	11.47	11.30	14.40	≤ 30.00
11n-HT40	MCS0	03	2422	11.86	11.43	14.66	≤ 30.00
11n-HT40	MCS0	06	2437	12.21	11.24	14.76	≤ 30.00
11n-HT40	MCS0	09	2452	11.08	11.04	14.07	≤ 30.00
11ax-HE20	MCS0	01	2412	11.41	11.13	14.28	≤ 30.00
11ax-HE20	MCS0	06	2437	11.98	11.28	14.65	≤ 30.00
11ax-HE20	MCS0	11	2462	11.21	11.12	14.18	≤ 30.00
11ax-HE40	MCS0	03	2422	11.85	11.34	14.61	≤ 30.00
11ax-HE40	MCS0	06	2437	12.15	11.15	14.69	≤ 30.00
11ax-HE40	MCS0	09	2452	11.58	11.40	14.50	≤ 30.00

Note: Total Average Power (dBm) = $10 \cdot \log(10^{(\text{Ant 0 Average Power} / 10)} + 10^{(\text{Ant 1 Average Power} / 10)})$ (dBm)

A.2 Radiated Spurious Emission Test Result

Test Site	WZ-AC1	Test Engineer	Edith Yu
Test Date	2022-10-26	Test Mode:	802.11b
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
01	4799.5	39.1	2.9	42.0	74.0	-32.0	Peak	Horizontal
	9126.0	39.1	11.2	50.3	74.0	-23.7	Peak	Horizontal
	11489.0	38.0	13.2	51.2	74.0	-22.8	Peak	Horizontal
	11489.0	26.8	13.2	40.0	54.0	-14.0	Average	Horizontal
	4808.0	45.0	2.8	47.8	74.0	-26.2	Peak	Vertical
	8148.5	37.8	8.7	46.5	74.0	-27.5	Peak	Vertical
	10928.0	37.3	13.5	50.8	74.0	-23.2	Peak	Vertical
06	4995.0	38.6	3.3	41.9	74.0	-32.1	Peak	Horizontal
	7528.0	38.9	8.1	47.0	74.0	-27.0	Peak	Horizontal
	11514.5	38.0	13.0	51.0	74.0	-23.0	Peak	Horizontal
	11514.5	25.5	13.0	38.5	54.0	-15.5	Average	Horizontal
	5080.0	38.6	3.5	42.1	74.0	-31.9	Peak	Vertical
	8361.0	41.8	8.5	50.3	74.0	-23.7	Peak	Vertical
	12126.5	38.9	12.2	51.1	74.0	-22.9	Peak	Vertical
	12126.5	26.0	12.2	38.2	54.0	-15.8	Average	Vertical
11	3873.0	39.5	0.4	39.9	74.0	-34.1	Peak	Horizontal
	7502.5	38.3	8.2	46.5	74.0	-27.5	Peak	Horizontal
	11038.5	37.2	13.6	50.8	74.0	-23.2	Peak	Horizontal
	4000.5	39.8	0.5	40.3	74.0	-33.7	Peak	Vertical
	5037.5	37.8	3.4	41.2	74.0	-32.8	Peak	Vertical
	11047.0	37.1	13.7	50.8	74.0	-23.2	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	2022-10-26	Test Mode:	802.11g
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
01	5071.5	38.3	3.5	41.8	74.0	-32.2	Peak	Horizontal
	8216.5	37.9	8.6	46.5	74.0	-27.5	Peak	Horizontal
	11259.5	37.2	12.7	49.9	74.0	-24.1	Peak	Horizontal
	5054.5	45.5	3.5	49.0	74.0	-25.0	Peak	Vertical
	7443.0	38.4	8.2	46.6	74.0	-27.4	Peak	Vertical
	11514.5	36.9	13.0	49.9	74.0	-24.1	Peak	Vertical
06	5054.5	38.0	3.5	41.5	74.0	-32.5	Peak	Horizontal
	8352.5	39.0	8.5	47.5	74.0	-26.5	Peak	Horizontal
	11446.5	36.8	13.0	49.8	74.0	-24.2	Peak	Horizontal
	4782.5	38.6	2.7	41.3	74.0	-32.7	Peak	Vertical
	7468.5	37.5	8.2	45.7	74.0	-28.3	Peak	Vertical
	11497.5	36.0	13.3	49.3	74.0	-24.7	Peak	Vertical
11	4102.5	43.4	0.7	44.1	74.0	-29.9	Peak	Horizontal
	7604.5	38.5	7.9	46.4	74.0	-27.6	Peak	Horizontal
	11497.5	37.0	13.3	50.3	74.0	-23.7	Peak	Horizontal
	5063.0	38.6	3.5	42.1	74.0	-31.9	Peak	Vertical
	7460.0	38.2	8.2	46.4	74.0	-27.6	Peak	Vertical
	11574.0	37.4	12.7	50.1	74.0	-23.9	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	2022-10-26	Test Mode:	802.11n-HT20
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
01	3949.5	38.9	0.4	39.3	74.0	-34.7	Peak	Horizontal
	7434.5	37.9	8.1	46.0	74.0	-28.0	Peak	Horizontal
	10953.5	36.6	13.5	50.1	74.0	-23.9	Peak	Horizontal
	5071.5	38.0	3.5	41.5	74.0	-32.5	Peak	Vertical
	7468.5	37.8	8.2	46.0	74.0	-28.0	Peak	Vertical
	10851.5	37.6	13.5	51.1	74.0	-22.9	Peak	Vertical
	10851.5	26.1	13.5	39.6	54.0	-14.4	Average	Vertical
06	4340.5	42.8	1.4	44.2	74.0	-29.8	Peak	Horizontal
	8140.0	38.3	8.7	47.0	74.0	-27.0	Peak	Horizontal
	10945.0	36.6	13.6	50.2	74.0	-23.8	Peak	Horizontal
	3813.5	39.1	0.1	39.2	74.0	-34.8	Peak	Vertical
	7511.0	37.3	8.2	45.5	74.0	-28.5	Peak	Vertical
	10732.5	36.6	13.5	50.1	74.0	-23.9	Peak	Vertical
11	4612.5	40.2	2.1	42.3	74.0	-31.7	Peak	Horizontal
	7460.0	38.2	8.2	46.4	74.0	-27.6	Peak	Horizontal
	11438.0	37.2	13.0	50.2	74.0	-23.8	Peak	Horizontal
	5063.0	38.1	3.5	41.6	74.0	-32.4	Peak	Vertical
	7519.5	38.9	8.1	47.0	74.0	-27.0	Peak	Vertical
	11497.5	38.3	13.3	51.6	74.0	-22.4	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)

Test Site	WZ-AC1	Test Engineer	Edith Yu
Test Date	2022-10-26	Test Mode:	802.11n-HT40
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
03	5097.0	38.1	3.5	41.6	74.0	-32.4	Peak	Horizontal
	7528.0	38.4	8.1	46.5	74.0	-27.5	Peak	Horizontal
	10885.5	37.1	13.4	50.5	74.0	-23.5	Peak	Horizontal
	4978.0	37.4	3.2	40.6	74.0	-33.4	Peak	Vertical
	7570.5	38.2	8.0	46.2	74.0	-27.8	Peak	Vertical
	11625.0	37.3	12.5	49.8	74.0	-24.2	Peak	Vertical
06	4876.0	36.7	2.8	39.5	74.0	-34.5	Peak	Horizontal
	7511.0	38.0	8.2	46.2	74.0	-27.8	Peak	Horizontal
	11497.5	35.9	13.3	49.2	74.0	-24.8	Peak	Horizontal
	3958.0	47.9	0.5	48.4	74.0	-25.6	Peak	Vertical
	7528.0	38.4	8.1	46.5	74.0	-27.5	Peak	Vertical
	11030.0	37.1	13.4	50.5	74.0	-23.5	Peak	Vertical
09	5029.0	38.3	3.3	41.6	74.0	-32.4	Peak	Horizontal
	7570.5	38.5	8.0	46.5	74.0	-27.5	Peak	Horizontal
	10962.0	36.8	13.5	50.3	74.0	-23.7	Peak	Horizontal
	4638.0	37.8	2.4	40.2	74.0	-33.8	Peak	Vertical
	7519.5	38.3	8.1	46.4	74.0	-27.6	Peak	Vertical
	10962.0	36.9	13.5	50.4	74.0	-23.6	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	2022-10-26	Test Mode:	802.11ax-HE20
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
01	5046.0	38.9	3.5	42.4	74.0	-31.6	Peak	Horizontal
	8301.5	38.3	8.4	46.7	74.0	-27.3	Peak	Horizontal
	11506.0	37.6	13.2	50.8	74.0	-23.2	Peak	Horizontal
	4646.5	38.1	2.4	40.5	74.0	-33.5	Peak	Vertical
	7460.0	38.6	8.2	46.8	74.0	-27.2	Peak	Vertical
	11659.0	38.2	12.5	50.7	74.0	-23.3	Peak	Vertical
06	4986.5	37.3	3.3	40.6	74.0	-33.4	Peak	Horizontal
	7468.5	37.8	8.2	46.0	74.0	-28.0	Peak	Horizontal
	11030.0	36.8	13.4	50.2	74.0	-23.8	Peak	Horizontal
	5080.0	37.7	3.5	41.2	74.0	-32.8	Peak	Vertical
	7477.0	37.9	8.3	46.2	74.0	-27.8	Peak	Vertical
	10936.5	36.9	13.6	50.5	74.0	-23.5	Peak	Vertical
11	4825.0	38.2	2.8	41.0	74.0	-33.0	Peak	Horizontal
	7562.0	38.1	8.0	46.1	74.0	-27.9	Peak	Horizontal
	10749.5	37.2	13.4	50.6	74.0	-23.4	Peak	Horizontal
	4723.0	37.8	2.6	40.4	74.0	-33.6	Peak	Vertical
	7528.0	38.1	8.1	46.2	74.0	-27.8	Peak	Vertical
	11064.0	37.4	13.3	50.7	74.0	-23.3	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)

Test Site	WZ-AC1	Test Engineer	Edith Yu
Test Date	2022-10-26	Test Mode:	802.11ax-HE40
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.		

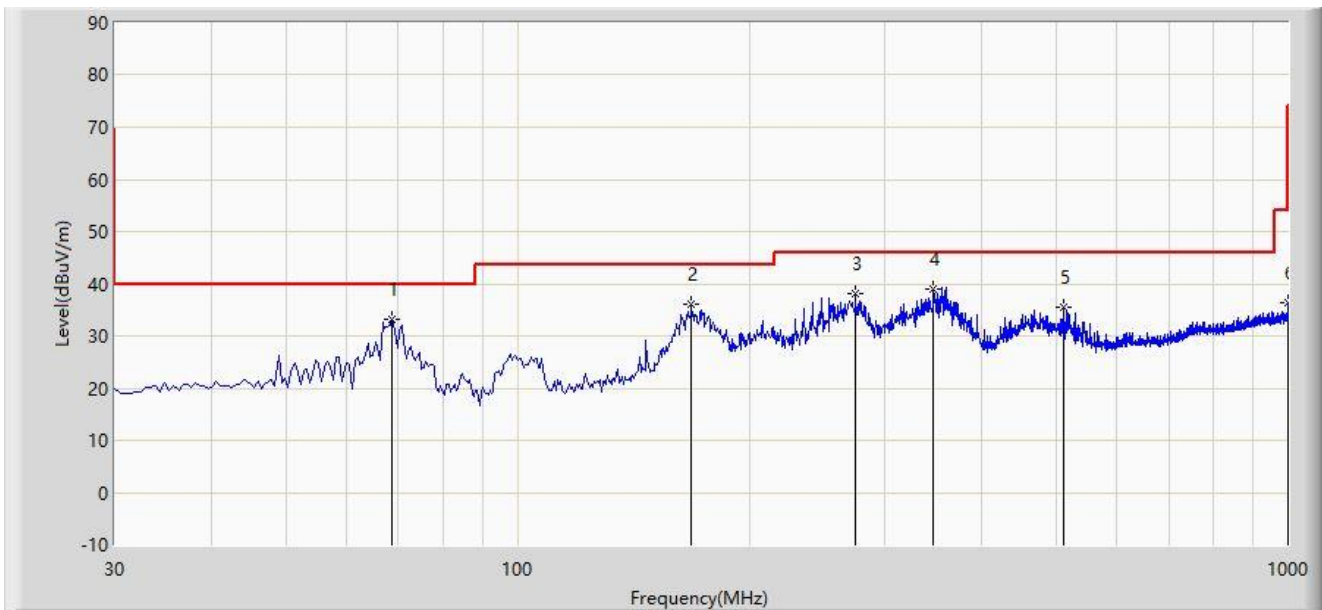
Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
01	5080.0	37.7	3.5	41.2	74.0	-32.8	Peak	Horizontal
	7536.5	36.9	8.2	45.1	74.0	-28.9	Peak	Horizontal
	11497.5	35.0	13.3	48.3	74.0	-25.7	Peak	Horizontal
	5097.0	37.7	3.5	41.2	74.0	-32.8	Peak	Vertical
	7468.5	37.4	8.2	45.6	74.0	-28.4	Peak	Vertical
	11523.0	36.8	12.9	49.7	74.0	-24.3	Peak	Vertical
06	5071.5	37.4	3.5	40.9	74.0	-33.1	Peak	Horizontal
	7630.0	38.2	8.0	46.2	74.0	-27.8	Peak	Horizontal
	11506.0	37.2	13.2	50.4	74.0	-23.6	Peak	Horizontal
	4952.5	37.3	3.0	40.3	74.0	-33.7	Peak	Vertical
	7528.0	37.8	8.1	45.9	74.0	-28.1	Peak	Vertical
	11497.5	36.0	13.3	49.3	74.0	-24.7	Peak	Vertical
11	7468.5	36.5	8.2	44.7	74.0	-29.3	Peak	Horizontal
	10962.0	36.4	13.5	49.9	74.0	-24.1	Peak	Horizontal
	14481.0	36.5	15.3	51.8	74.0	-22.2	Peak	Horizontal
	14481.0	25.0	15.3	40.3	54.0	-13.7	Average	Horizontal
	5054.5	38.1	3.5	41.6	74.0	-32.4	Peak	Vertical
	7400.5	37.7	8.2	45.9	74.0	-28.1	Peak	Vertical
	11055.5	36.1	13.5	49.6	74.0	-24.4	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: Carl Jiang
Probe: VULB 9168_25-2000MHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11n-HT40 at 2437MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	68.800	33.319	16.950	-6.681	40.000	16.369	PK
2		168.225	35.999	18.106	-7.501	43.500	17.893	PK
3		274.440	38.077	20.360	-7.923	46.000	17.717	PK
4		346.220	38.961	19.490	-7.039	46.000	19.471	PK
5		511.605	35.390	11.965	-10.610	46.000	23.425	PK
6		1000.000	36.315	5.976	-17.685	54.000	30.339	PK

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

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

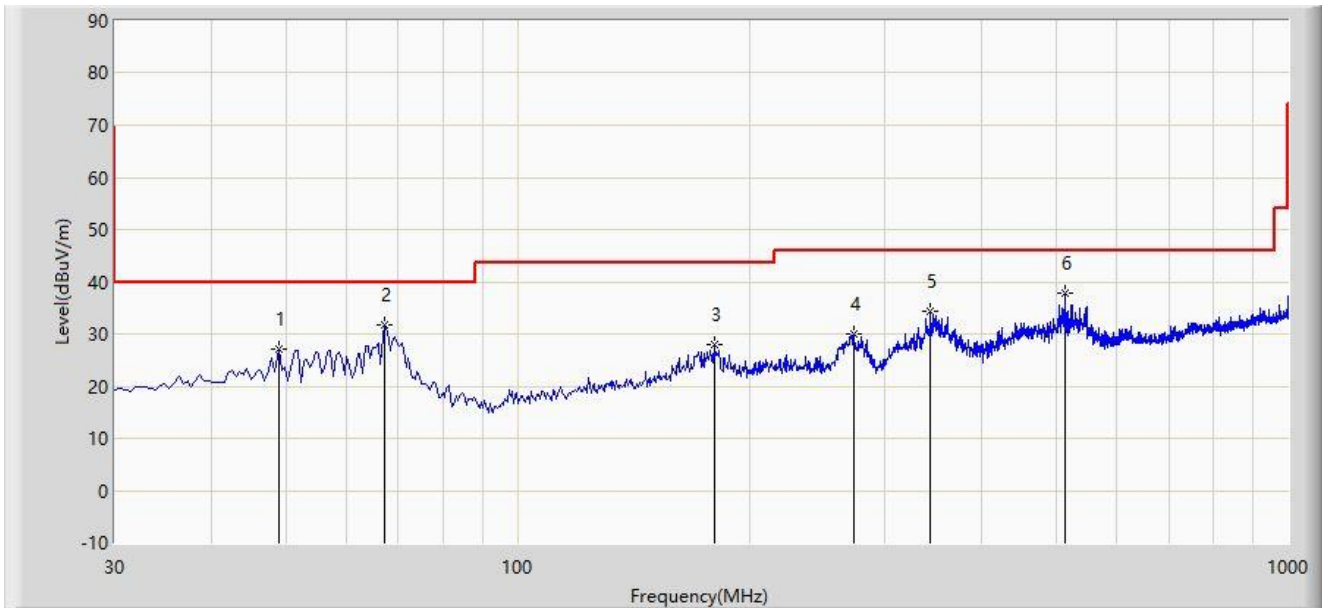
Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

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: Carl Jiang
Probe: VULB 9168_25-2000MHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11n-HT40 at 2437MHz	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1		48.915	27.109	8.827	-12.891	40.000	18.282	PK
2		67.345	31.672	15.077	-8.328	40.000	16.595	PK
3		179.865	28.101	11.433	-15.399	43.500	16.668	PK
4		272.985	30.110	12.468	-15.890	46.000	17.642	PK
5		343.310	34.281	14.805	-11.719	46.000	19.476	PK
6	*	513.545	37.902	14.422	-8.098	46.000	23.480	PK

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

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

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

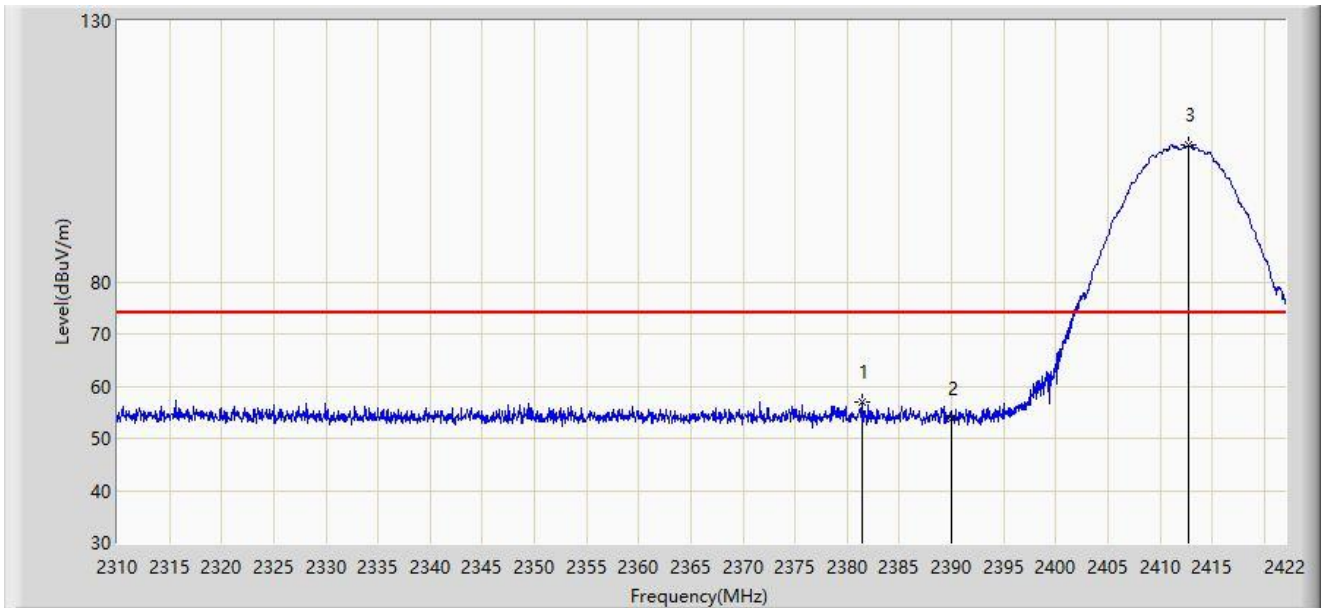
Note 4: Quasi-Peak measurement was not performed when peak measure level was lower than the quasi-peak limit.

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: 2022-10-16
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11b at 2412MHz	



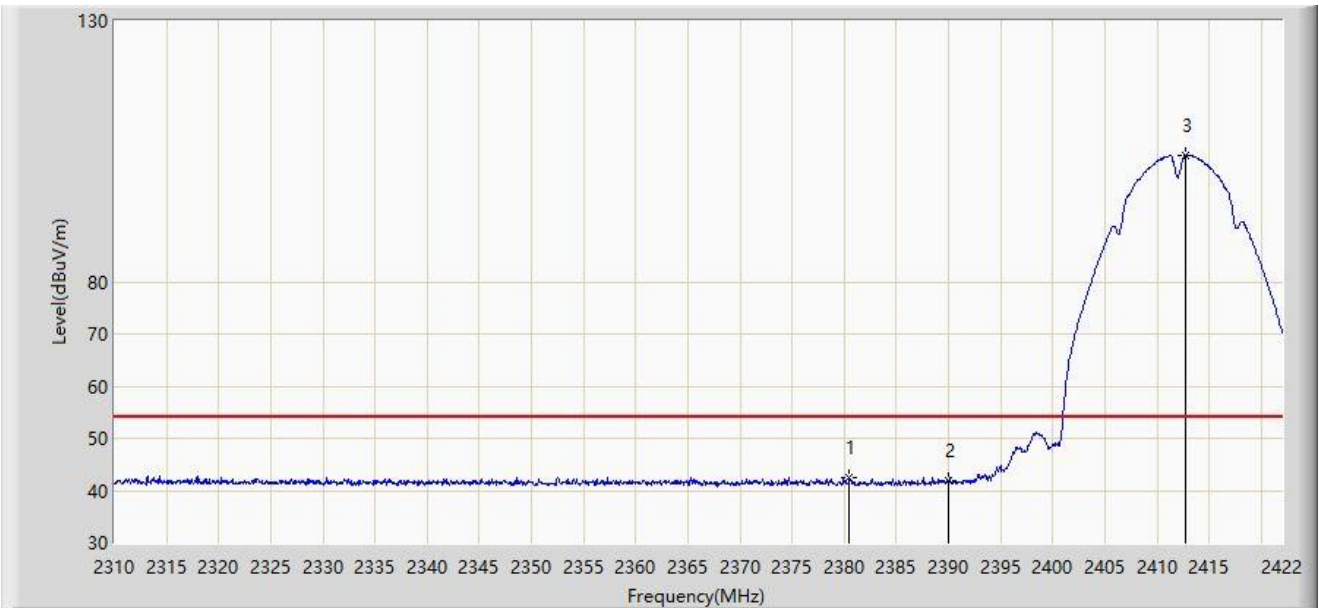
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2381.400	56.853	25.847	-17.147	74.000	31.007	PK
2		2390.000	53.865	22.873	-20.135	74.000	30.992	PK
3		2412.760	106.330	75.378	N/A	N/A	30.953	PK

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: 2022-10-16
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11b at 2412MHz	



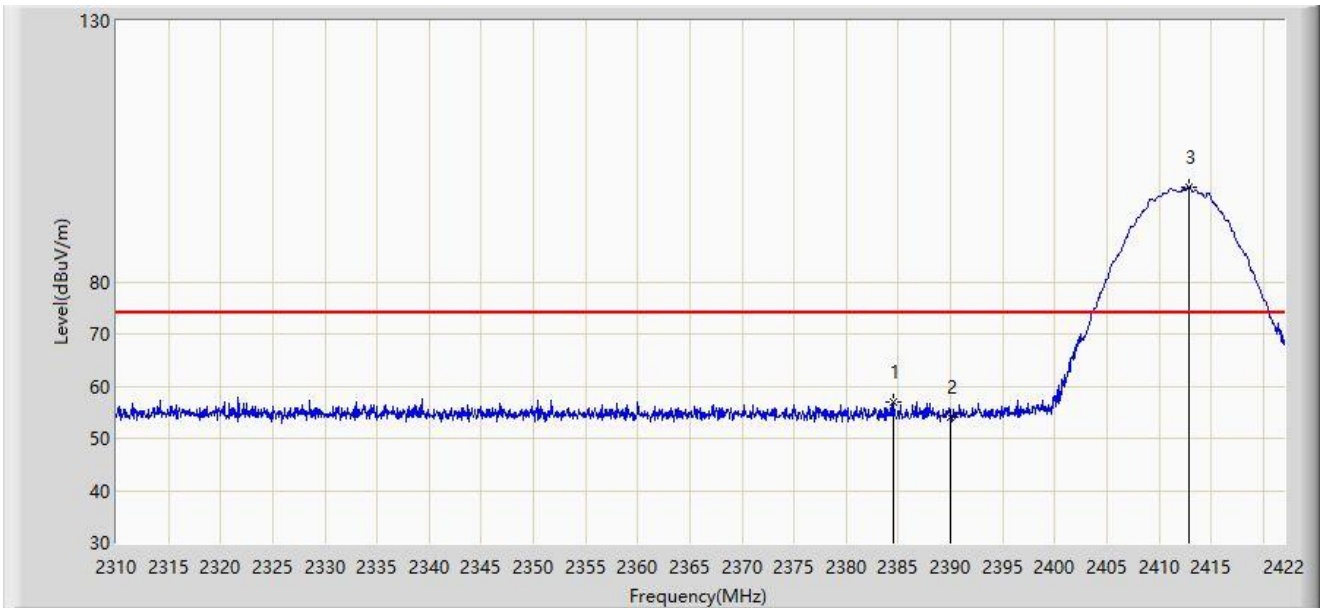
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2380.504	42.452	11.442	-11.548	54.000	31.010	AV
2		2390.000	41.892	10.900	-12.108	54.000	30.992	AV
3		2412.760	104.316	73.364	N/A	N/A	30.953	AV

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: 2022-10-16
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11b at 2412MHz	



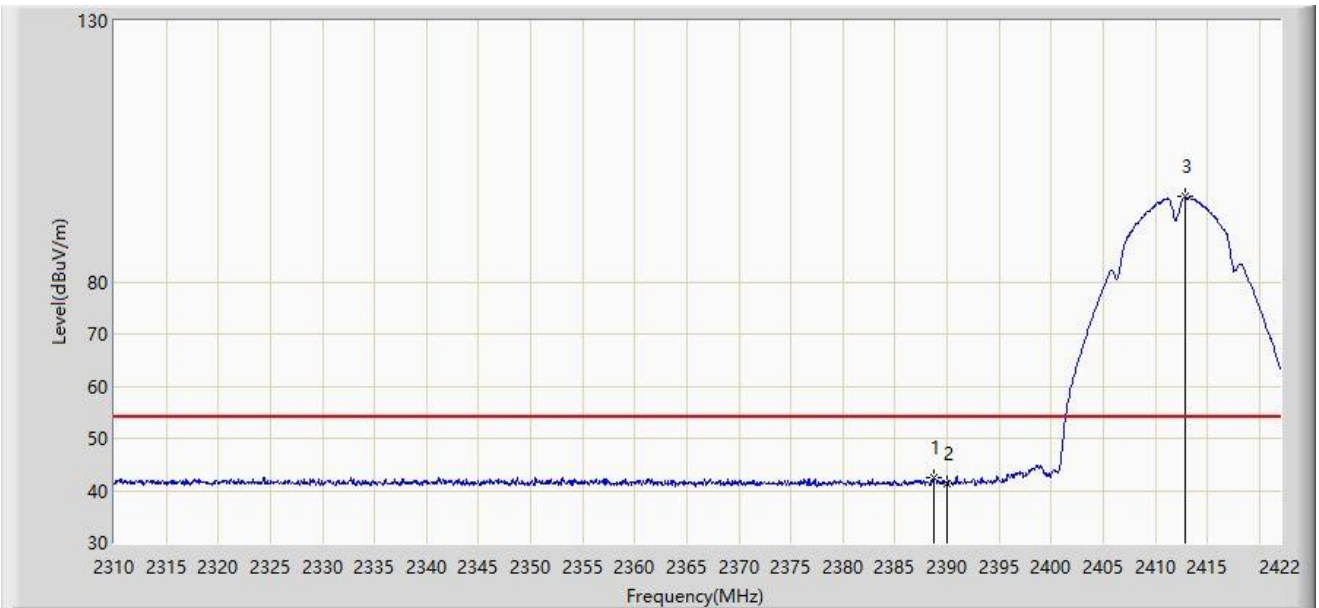
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2384.480	56.898	25.903	-17.102	74.000	30.995	PK
2		2390.000	54.117	23.125	-19.883	74.000	30.992	PK
3		2412.816	98.217	67.265	N/A	N/A	30.953	PK

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: 2022-10-16
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11b at 2412MHz	



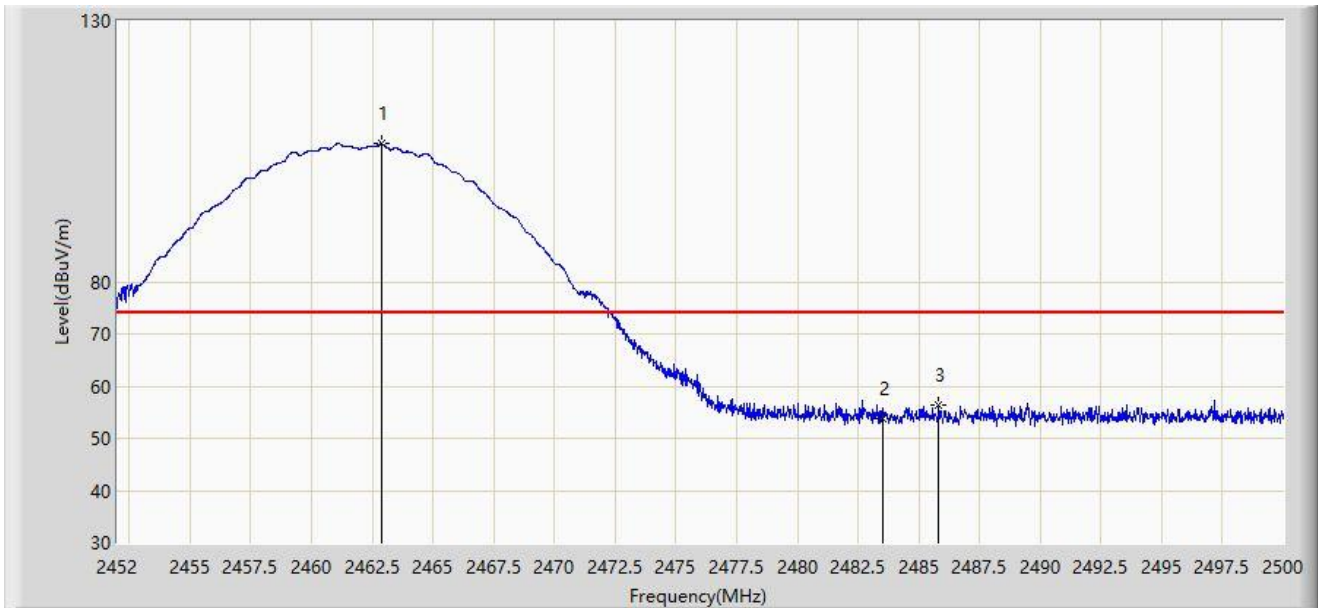
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2388.792	42.412	11.419	-11.588	54.000	30.993	AV
2		2390.000	41.378	10.386	-12.622	54.000	30.992	AV
3		2412.816	96.239	65.287	N/A	N/A	30.953	AV

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: 2022-10-16
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11b at 2462MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2462.896	106.392	75.508	N/A	N/A	30.884	PK
2		2483.500	53.821	22.930	-20.179	74.000	30.892	PK
3	*	2485.816	56.417	25.529	-17.583	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: 2022-10-16
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11b at 2462MHz	



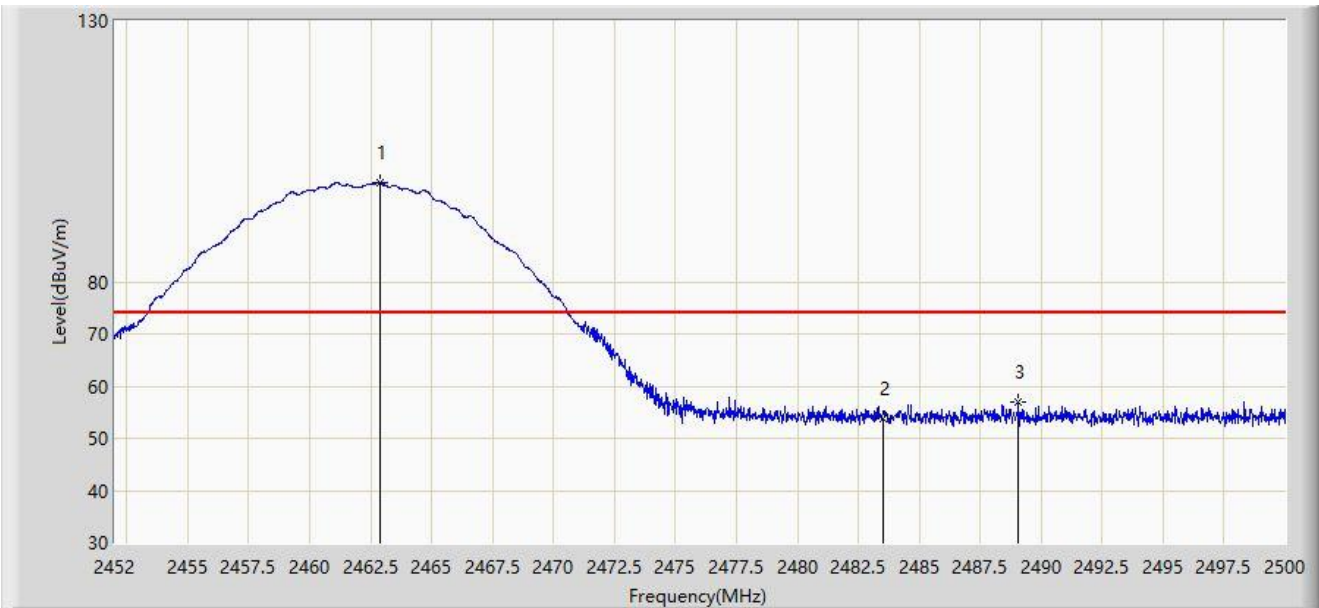
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2461.312	104.530	73.649	N/A	N/A	30.881	AV
2		2483.500	41.583	10.692	-12.417	54.000	30.892	AV
3	*	2484.520	42.295	11.405	-11.705	54.000	30.890	AV

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: 2022-10-16
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11b at 2462MHz	



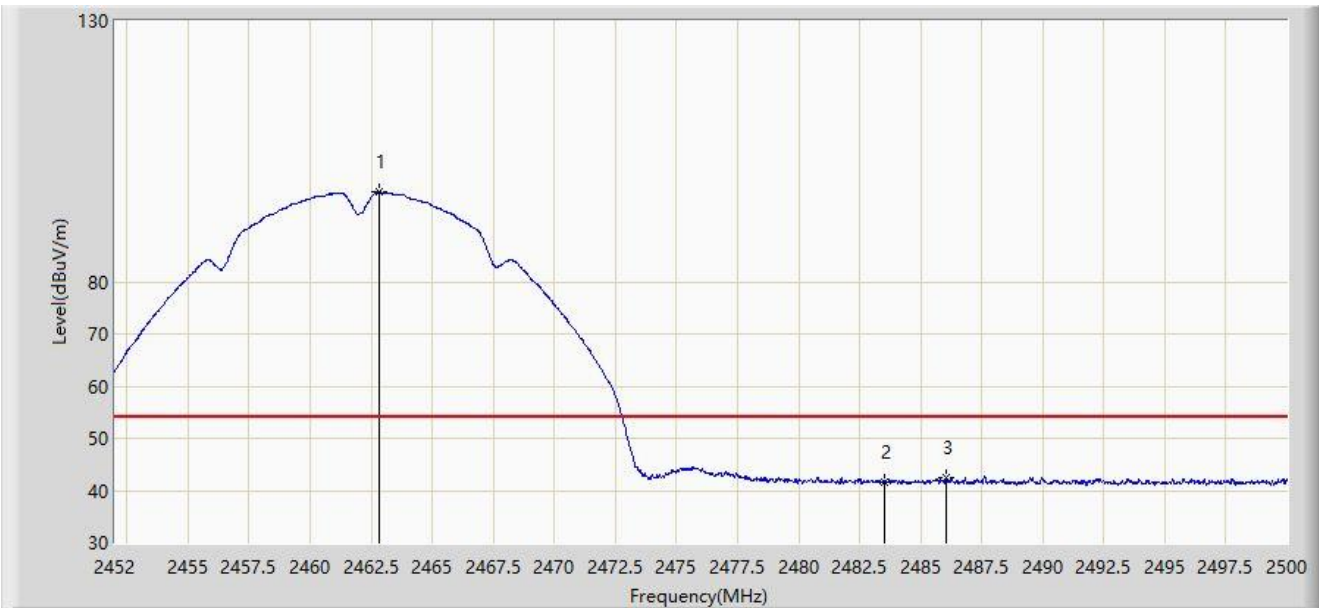
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2462.872	99.109	68.225	N/A	N/A	30.884	PK
2		2483.500	53.798	22.907	-20.202	74.000	30.892	PK
3	*	2489.056	56.932	26.050	-17.068	74.000	30.882	PK

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: 2022-10-16
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11b at 2462MHz	



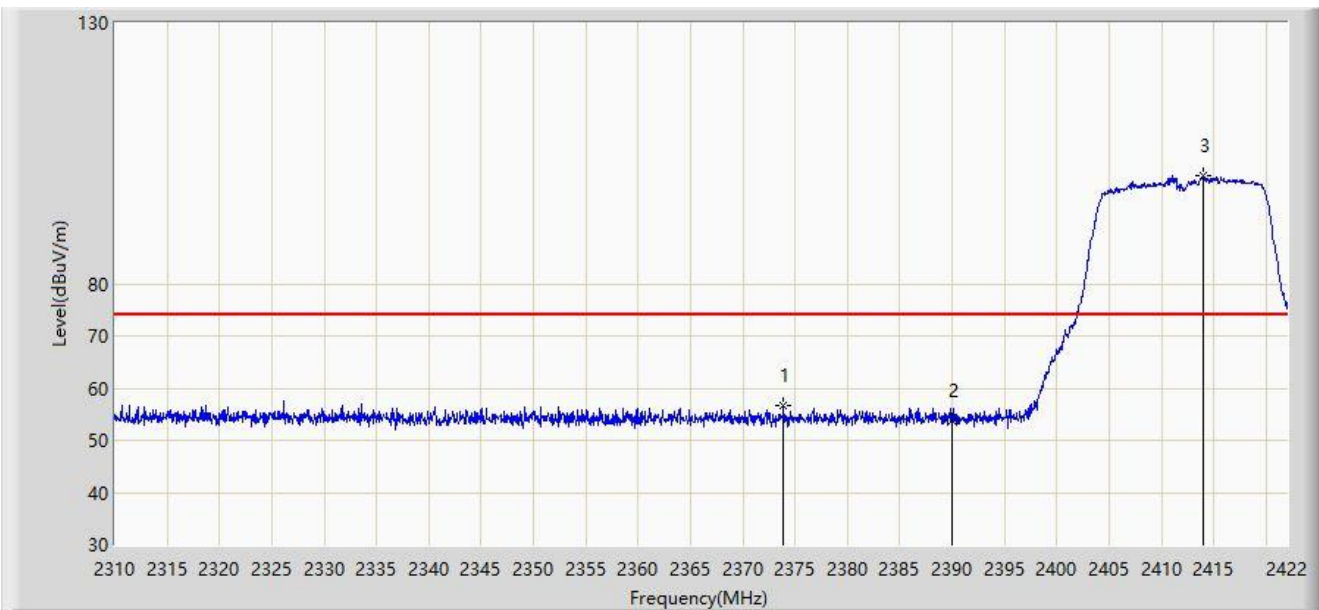
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2462.824	97.214	66.330	N/A	N/A	30.884	AV
2		2483.500	41.582	10.691	-12.418	54.000	30.892	AV
3	*	2486.056	42.393	11.506	-11.607	54.000	30.887	AV

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11g at 2412MHz	



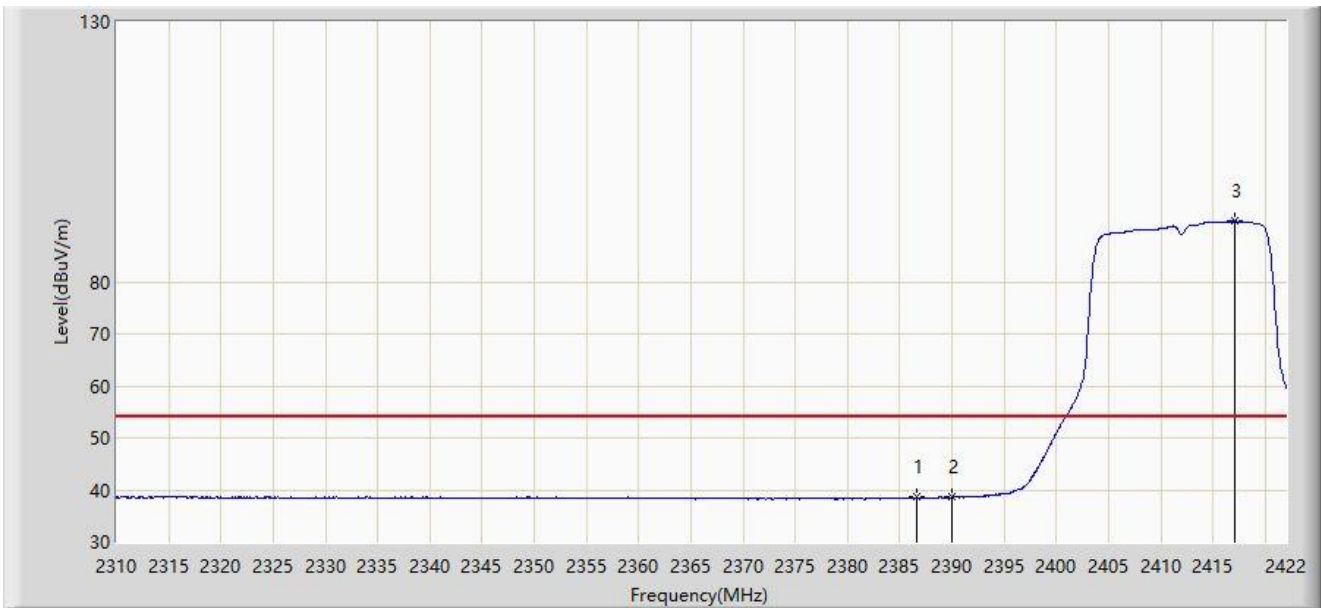
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2373.896	56.547	25.506	-17.453	74.000	31.041	PK
2		2390.000	53.882	22.890	-20.118	74.000	30.992	PK
3		2414.048	100.801	69.852	N/A	N/A	30.949	PK

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11g at 2412MHz	



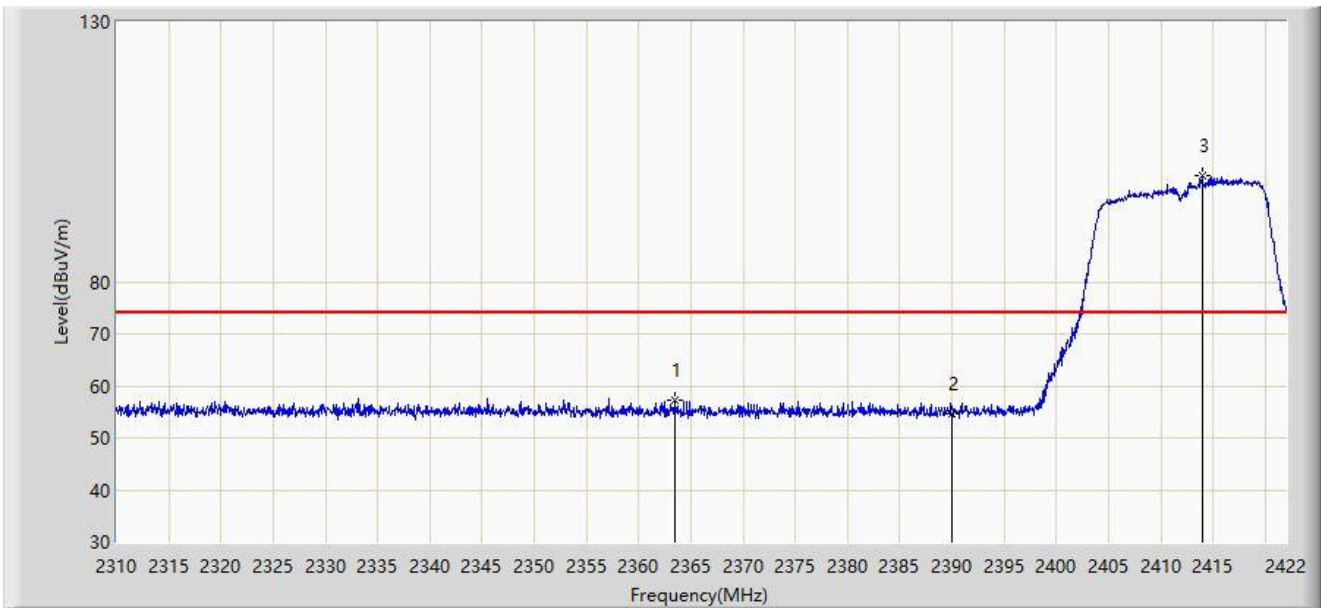
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2386.608	38.586	7.592	-15.414	54.000	30.994	AV
2		2390.000	38.569	7.577	-15.431	54.000	30.992	AV
3		2417.072	91.618	60.677	N/A	N/A	30.941	AV

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11g at 2412MHz	



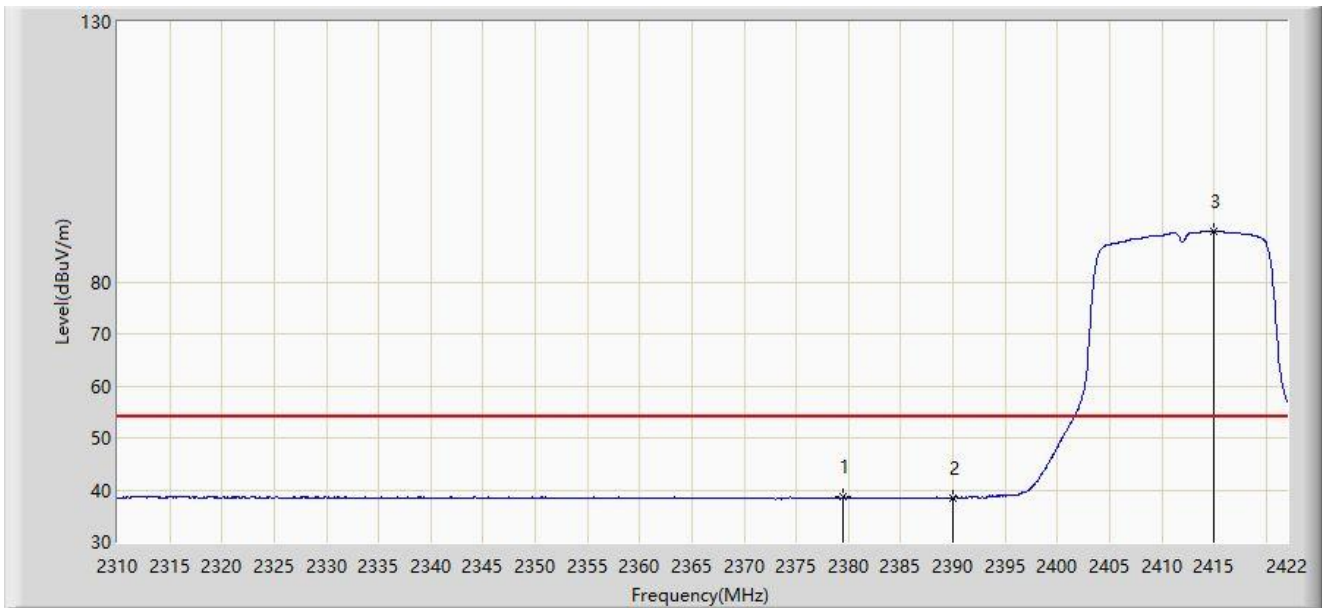
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2363.424	57.200	26.112	-16.800	74.000	31.089	PK
2		2390.000	54.518	23.526	-19.482	74.000	30.992	PK
3		2413.936	100.356	69.407	N/A	N/A	30.949	PK

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11g at 2412MHz	



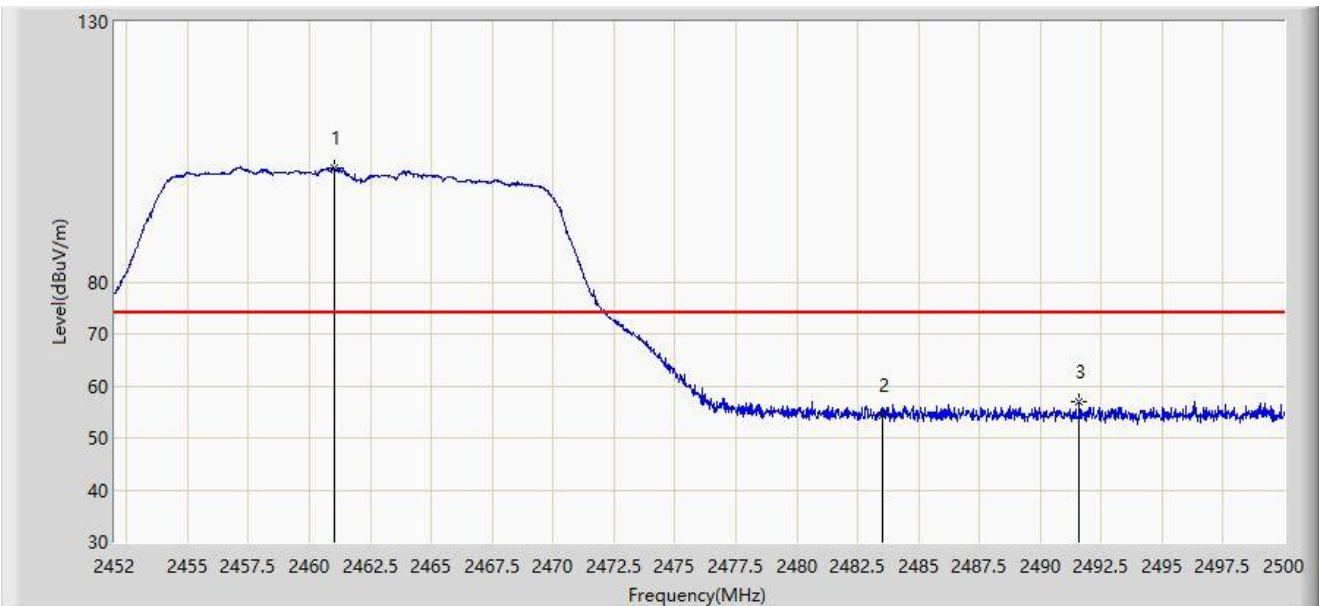
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2379.440	38.555	7.540	-15.445	54.000	31.015	AV
2		2390.000	38.478	7.486	-15.522	54.000	30.992	AV
3		2415.000	89.803	58.857	N/A	N/A	30.946	AV

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11g at 2462MHz	



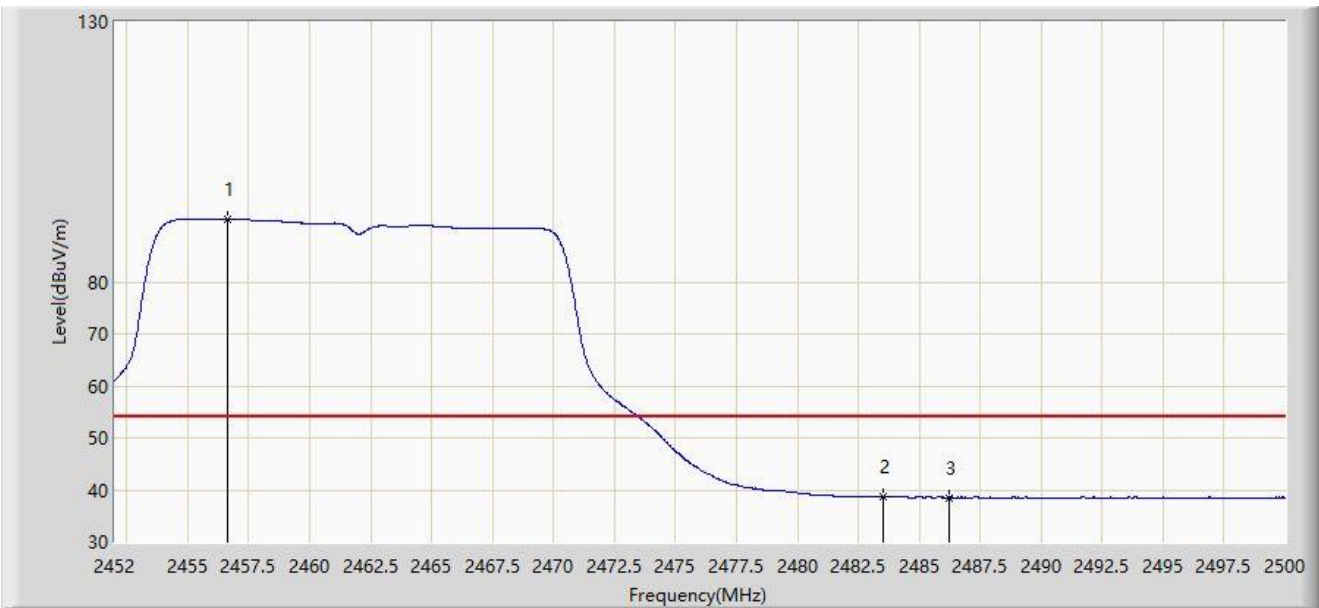
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2461.024	101.937	71.057	N/A	N/A	30.880	PK
2		2483.500	54.436	23.545	-19.564	74.000	30.892	PK
3	*	2491.600	56.912	26.034	-17.088	74.000	30.878	PK

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11g at 2462MHz	



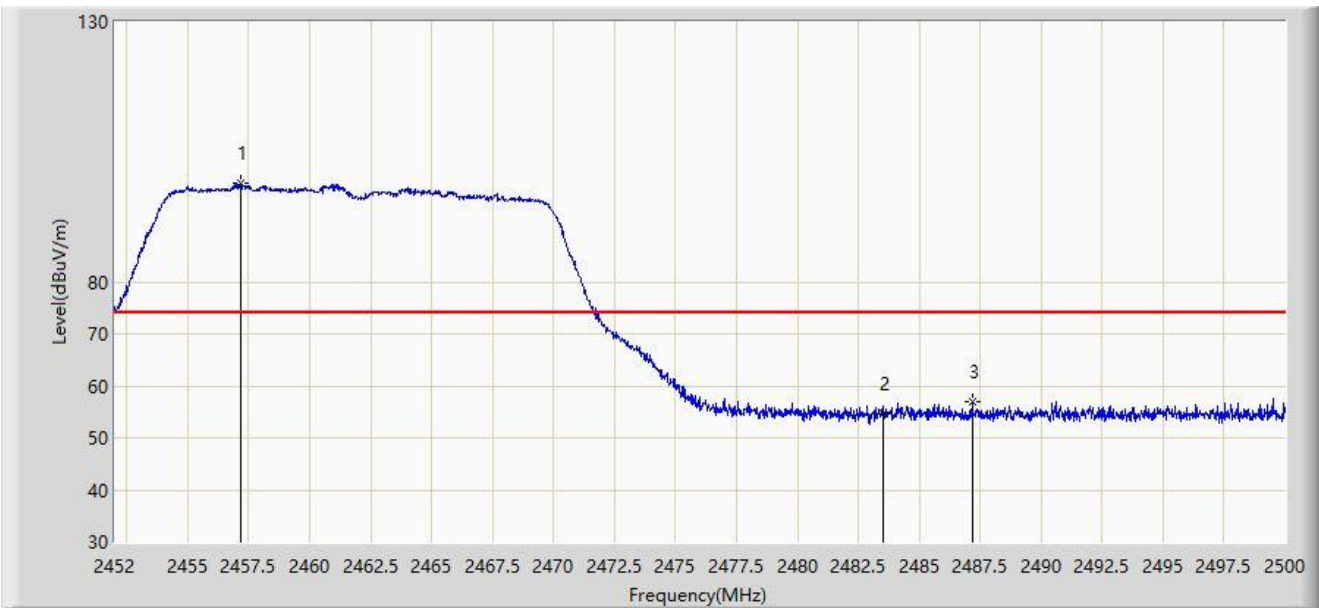
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2456.608	91.943	61.071	N/A	N/A	30.872	AV
2	*	2483.500	38.661	7.770	-15.339	54.000	30.892	AV
3		2486.248	38.541	7.654	-15.459	54.000	30.887	AV

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11g at 2462MHz	



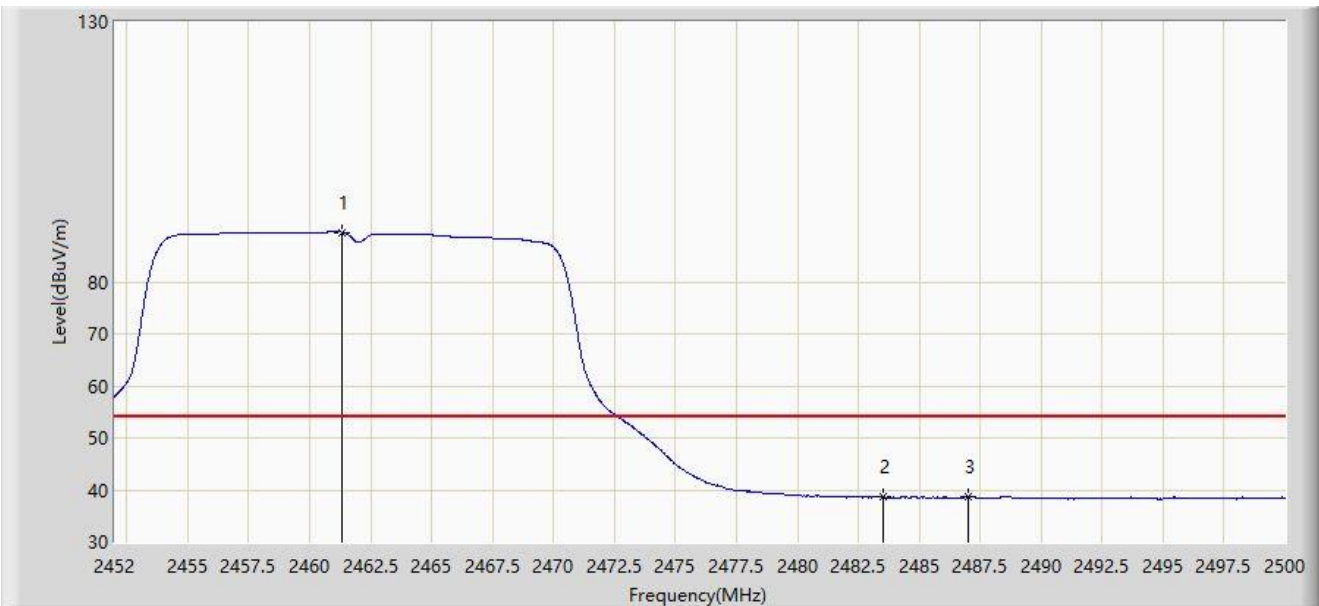
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2457.160	98.875	68.002	N/A	N/A	30.874	PK
2		2483.500	54.539	23.648	-19.461	74.000	30.892	PK
3	*	2487.160	56.917	26.032	-17.083	74.000	30.885	PK

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11g at 2462MHz	



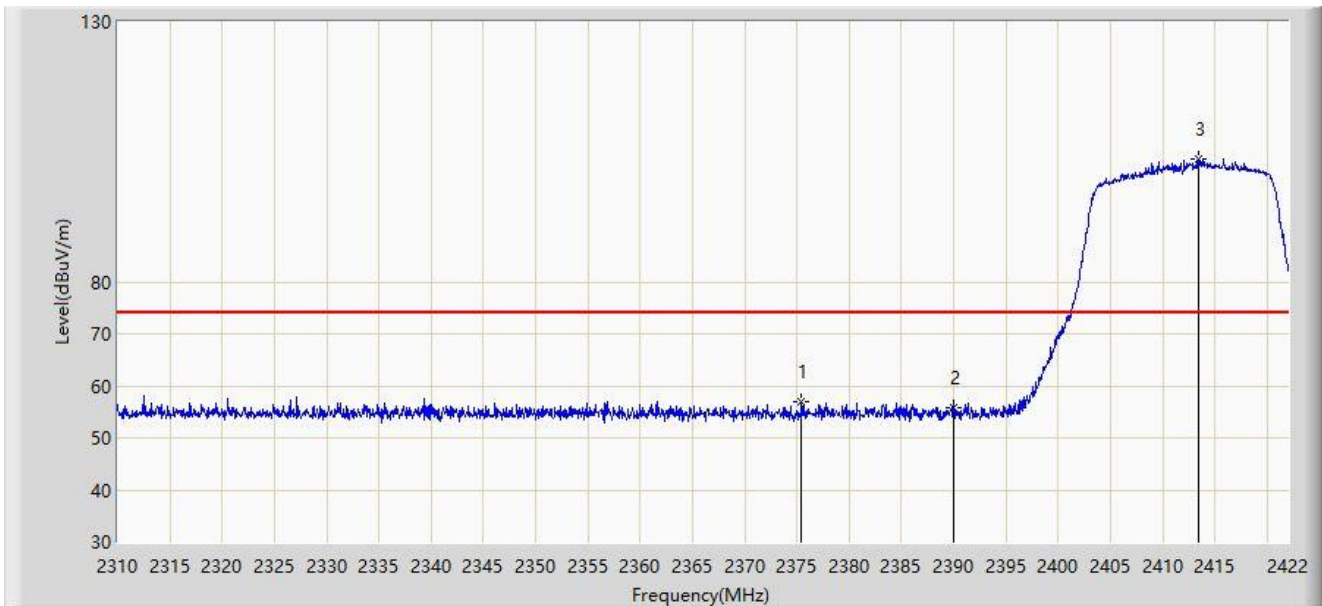
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2461.312	89.560	58.679	N/A	N/A	30.881	AV
2	*	2483.500	38.677	7.786	-15.323	54.000	30.892	AV
3		2486.992	38.588	7.702	-15.412	54.000	30.886	AV

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11n-HT20 at 2412MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2375.408	56.887	25.854	-17.113	74.000	31.034	PK
2		2390.000	55.824	24.832	-18.176	74.000	30.992	PK
3		2413.376	103.551	72.600	N/A	N/A	30.951	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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11n-HT20 at 2412MHz	



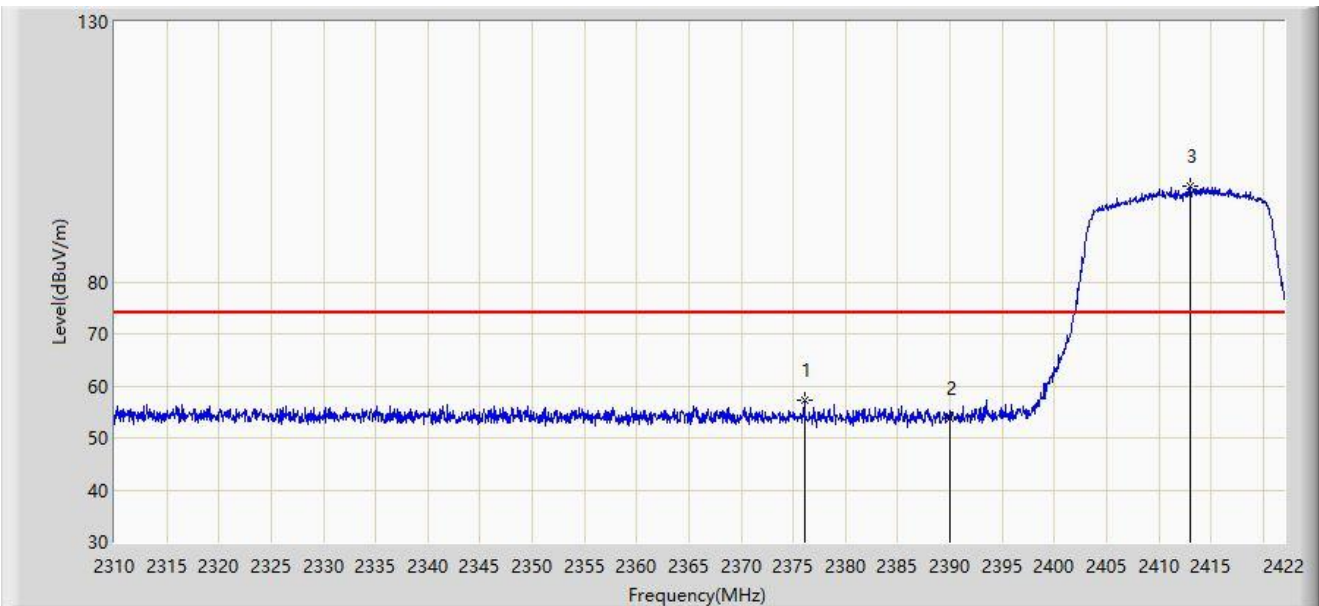
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2390.000	38.672	7.680	-15.328	54.000	30.992	AV
2		2415.840	93.411	62.467	N/A	N/A	30.944	AV

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11n-HT20 at 2412MHz	



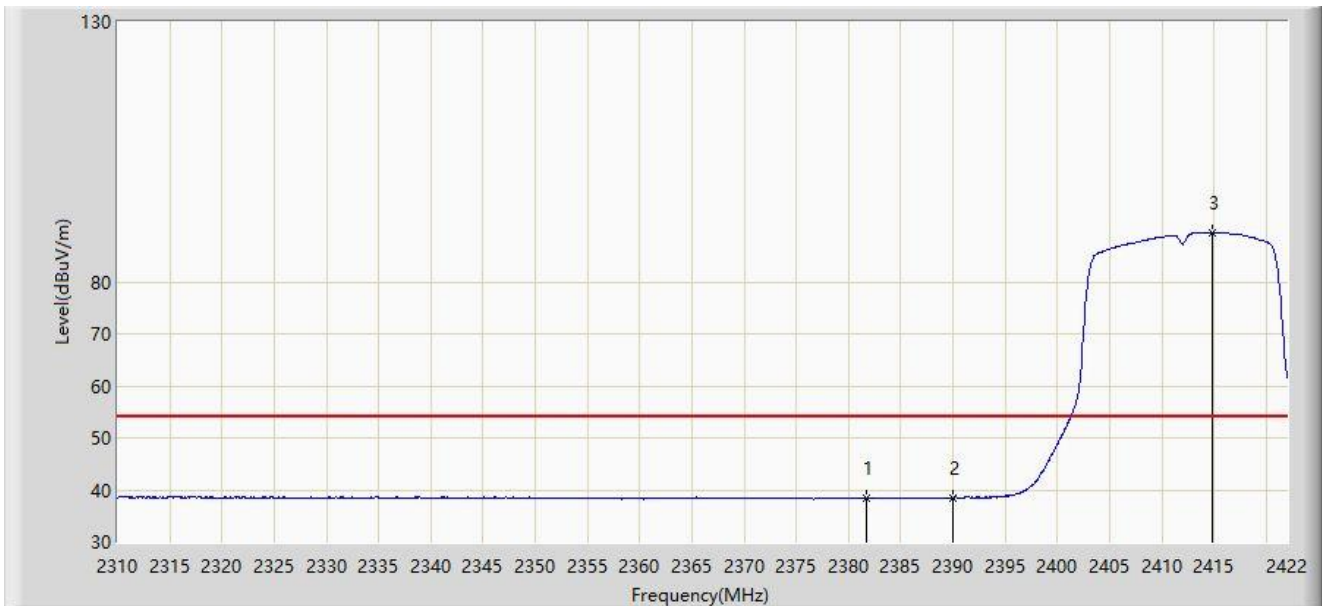
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2376.080	57.152	26.122	-16.848	74.000	31.030	PK
2		2390.000	53.687	22.695	-20.313	74.000	30.992	PK
3		2412.984	98.356	67.404	N/A	N/A	30.951	PK

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11n-HT20 at 2412MHz	



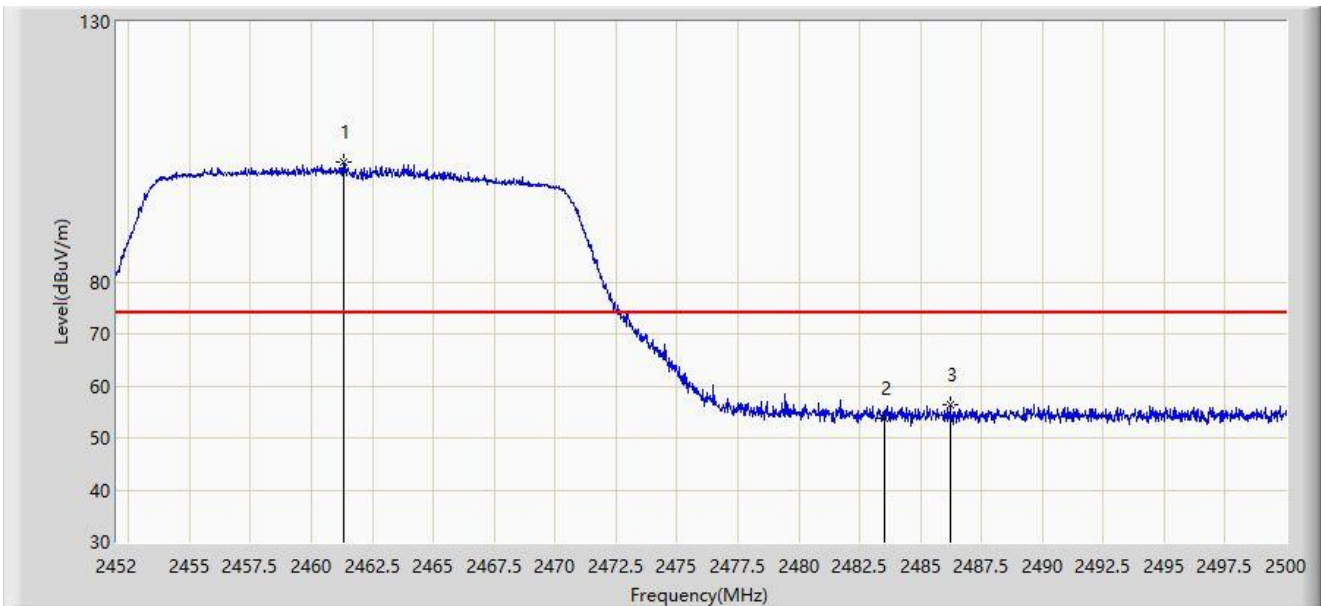
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2381.736	38.549	7.544	-15.451	54.000	31.005	AV
2		2390.000	38.480	7.488	-15.520	54.000	30.992	AV
3		2414.776	89.515	58.568	N/A	N/A	30.947	AV

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11n-HT20 at 2462MHz	



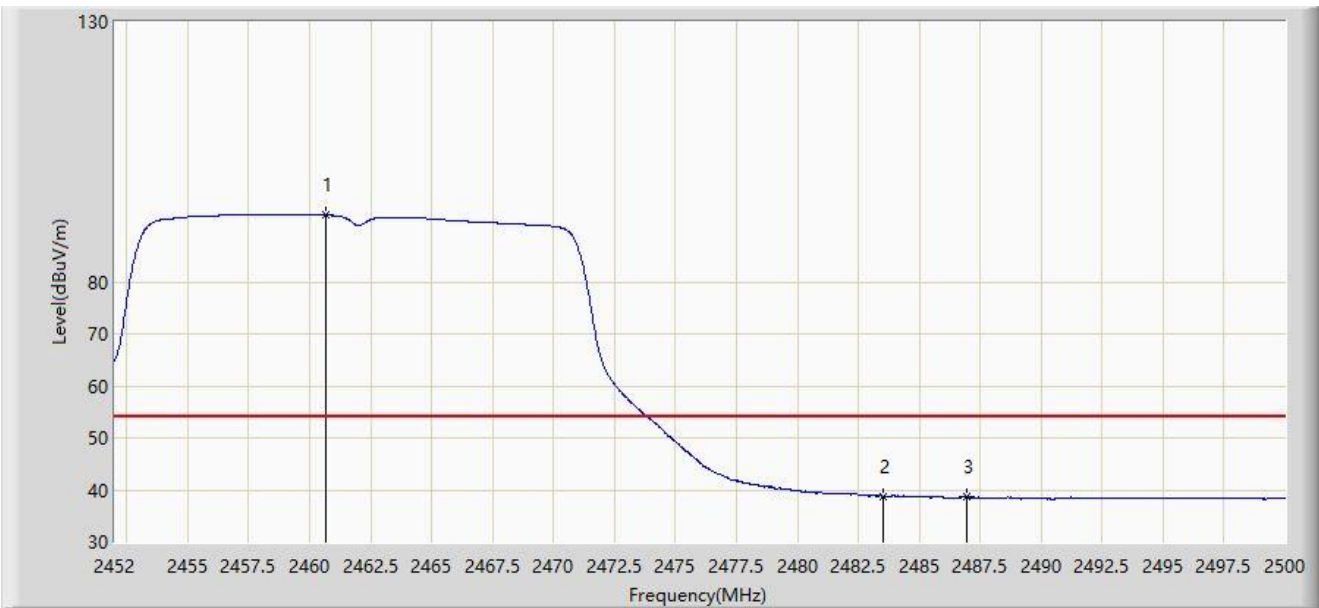
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2461.336	102.980	72.099	N/A	N/A	30.881	PK
2		2483.500	53.848	22.957	-20.152	74.000	30.892	PK
3	*	2486.200	56.367	25.480	-17.633	74.000	30.887	PK

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11n-HT20 at 2462MHz	



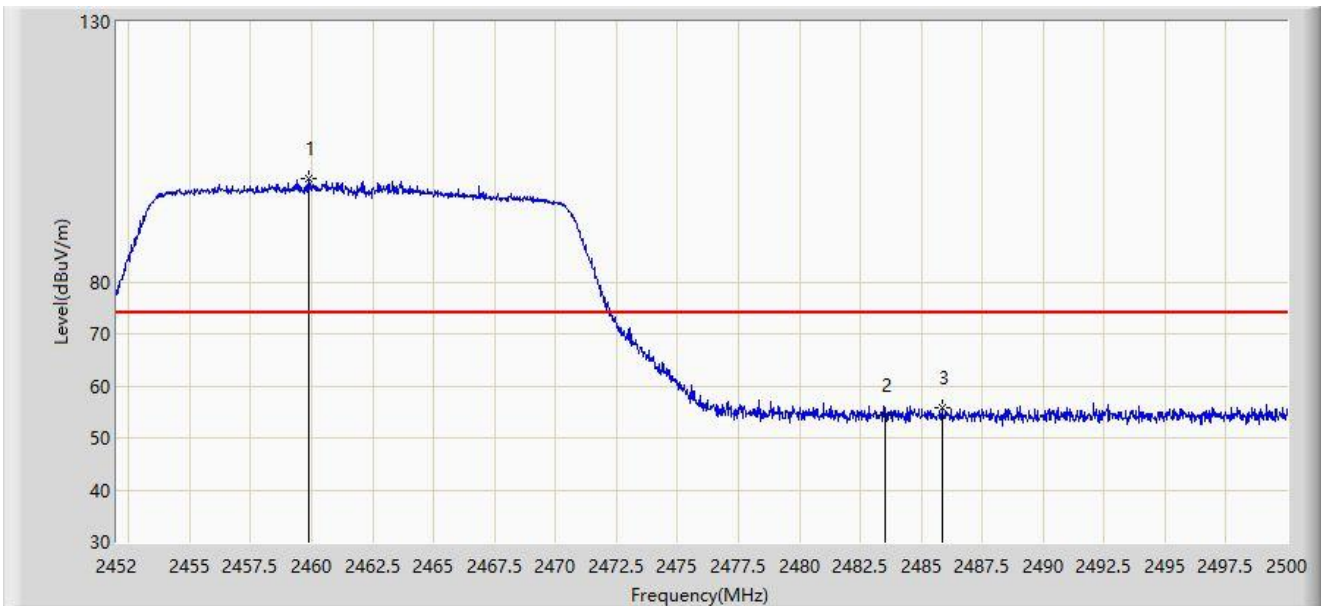
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2460.640	92.847	61.968	N/A	N/A	30.879	AV
2	*	2483.500	38.776	7.885	-15.224	54.000	30.892	AV
3		2486.920	38.608	7.722	-15.392	54.000	30.886	AV

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11n-HT20 at 2462MHz	



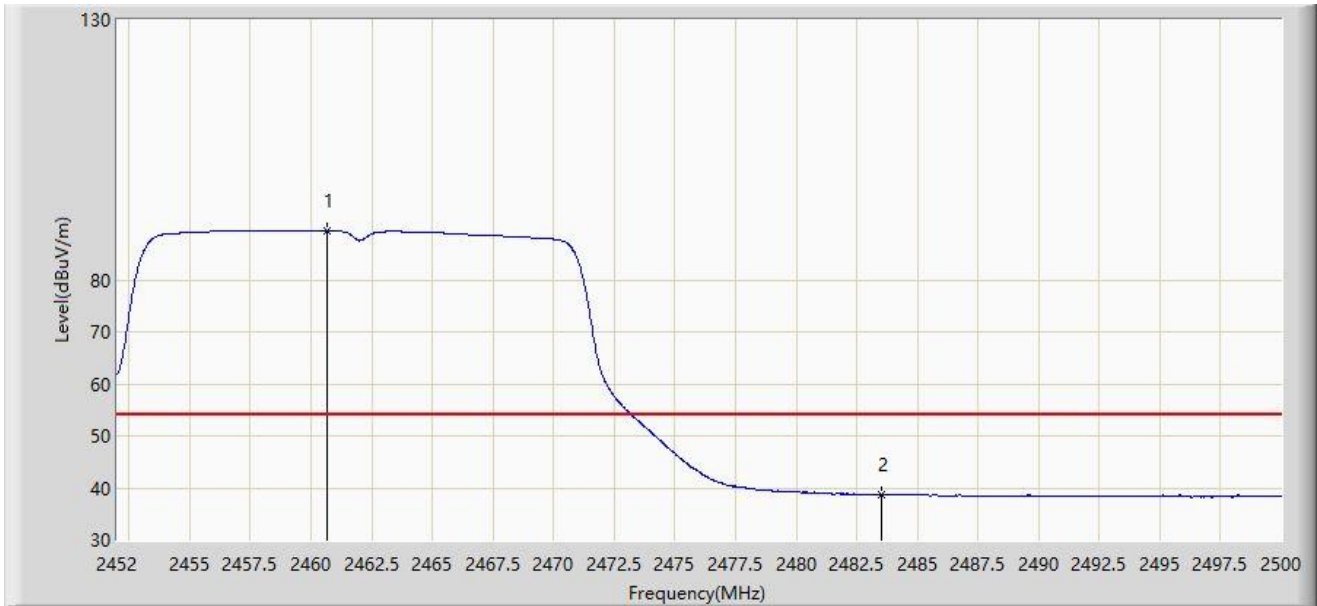
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2459.872	99.728	68.850	N/A	N/A	30.878	PK
2		2483.500	54.401	23.510	-19.599	74.000	30.892	PK
3	*	2485.840	55.693	24.805	-18.307	74.000	30.888	PK

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11n-HT20 at 2462MHz	



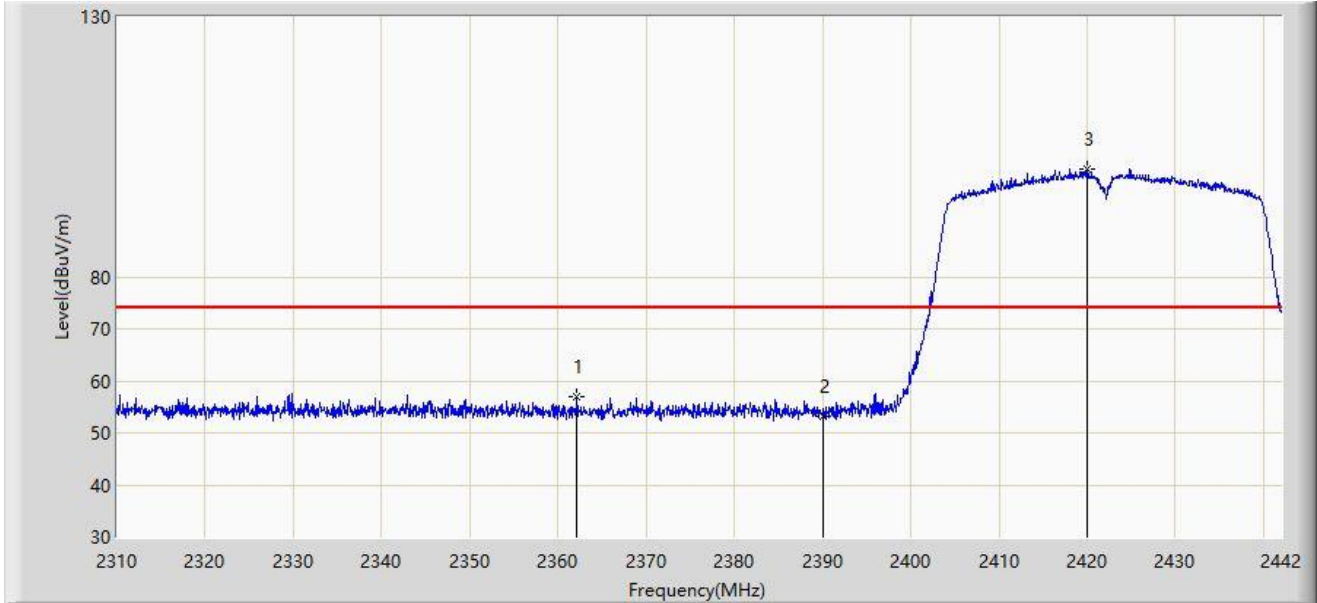
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2460.640	89.527	58.648	N/A	N/A	30.879	AV
2	*	2483.500	38.694	7.803	-15.306	54.000	30.892	AV

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11n-HT40 at 2422MHz	



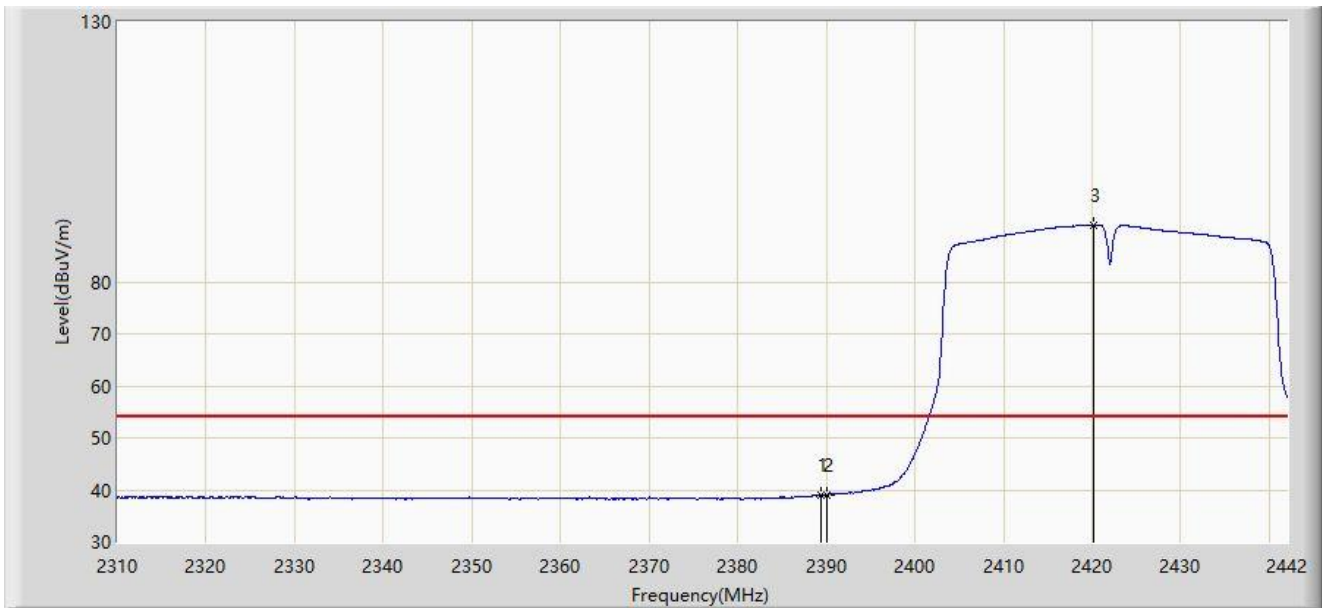
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2362.140	56.978	25.886	-17.022	74.000	31.092	PK
2		2390.000	53.078	22.086	-20.922	74.000	30.992	PK
3		2419.956	100.770	69.837	N/A	N/A	30.933	PK

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11n-HT40 at 2422MHz	



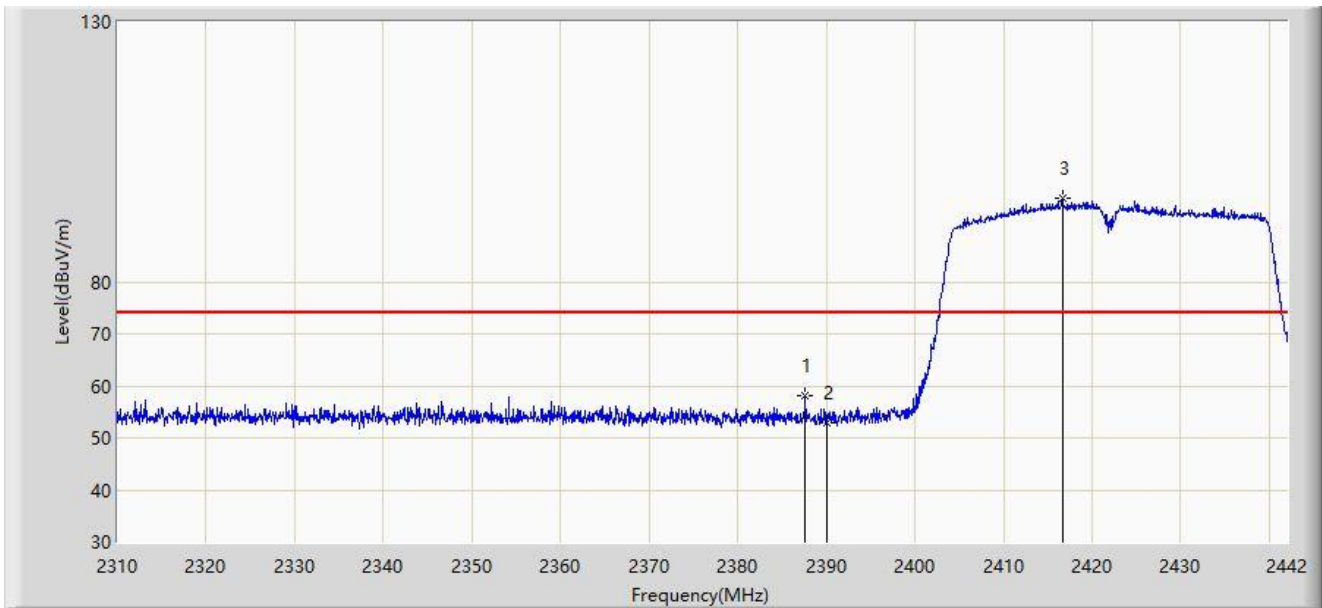
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2389.398	39.018	8.026	-14.982	54.000	30.993	AV
2		2390.000	38.984	7.992	-15.016	54.000	30.992	AV
3		2420.154	90.957	60.025	N/A	N/A	30.932	AV

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11n-HT40 at 2422MHz	



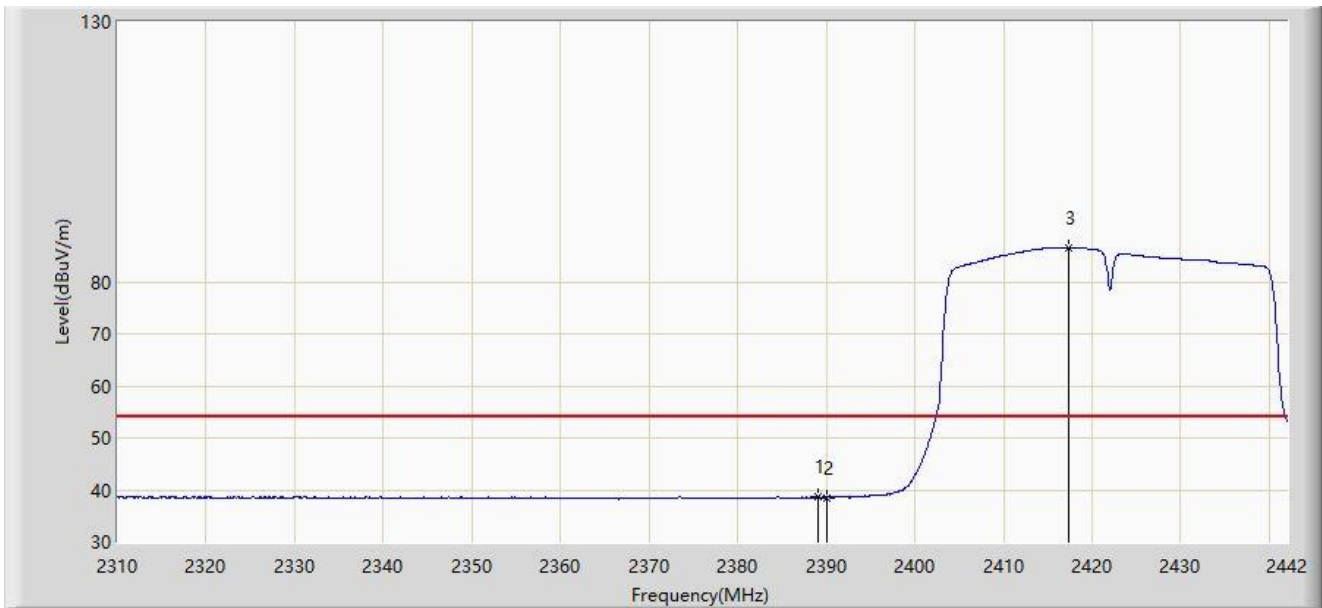
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2387.616	58.149	27.156	-15.851	74.000	30.993	PK
2		2390.000	52.949	21.957	-21.051	74.000	30.992	PK
3		2416.656	96.123	65.181	N/A	N/A	30.941	PK

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11n-HT40 at 2422MHz	



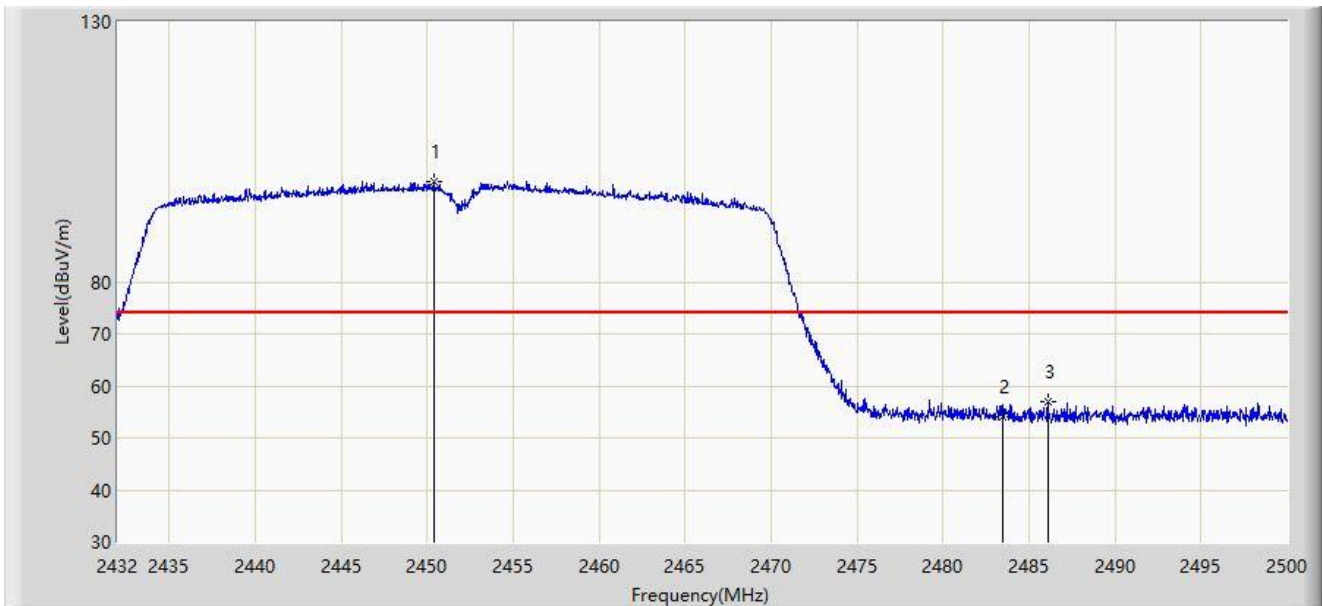
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2389.134	38.652	7.659	-15.348	54.000	30.993	AV
2		2390.000	38.479	7.487	-15.521	54.000	30.992	AV
3		2417.316	86.598	55.658	N/A	N/A	30.940	AV

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11n-HT40 at 2452MHz	



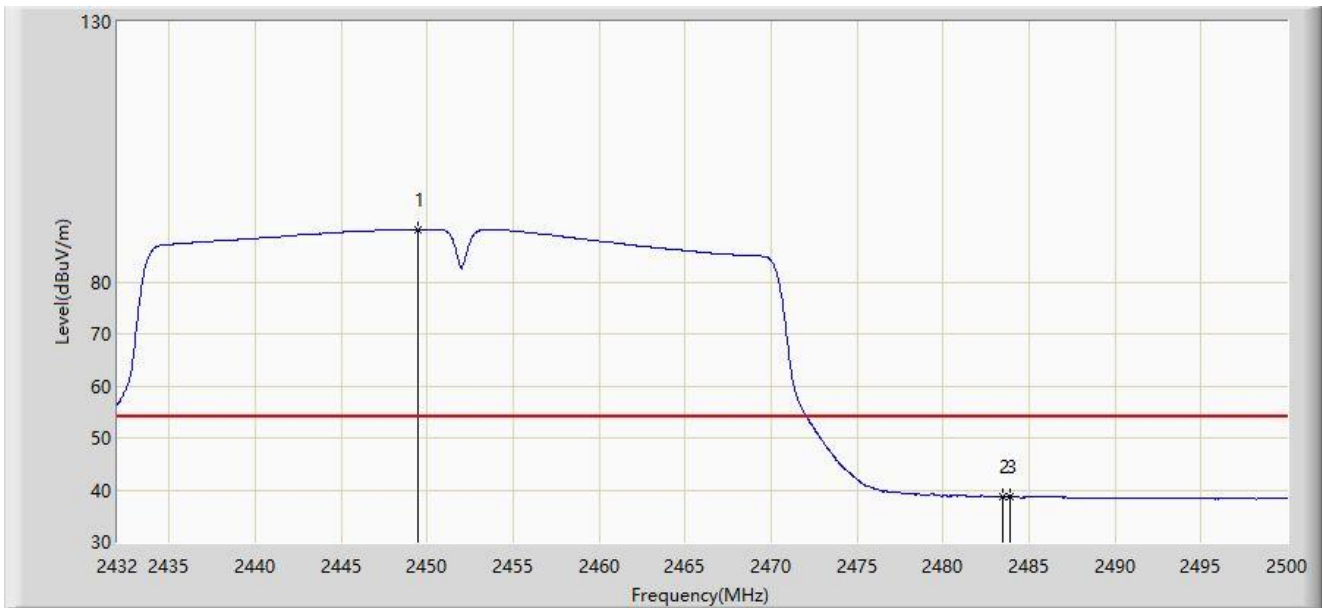
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2450.394	99.414	68.545	N/A	N/A	30.869	PK
2		2483.500	54.141	23.250	-19.859	74.000	30.892	PK
3	*	2486.094	57.073	26.186	-16.927	74.000	30.887	PK

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11n-HT40 at 2452MHz	



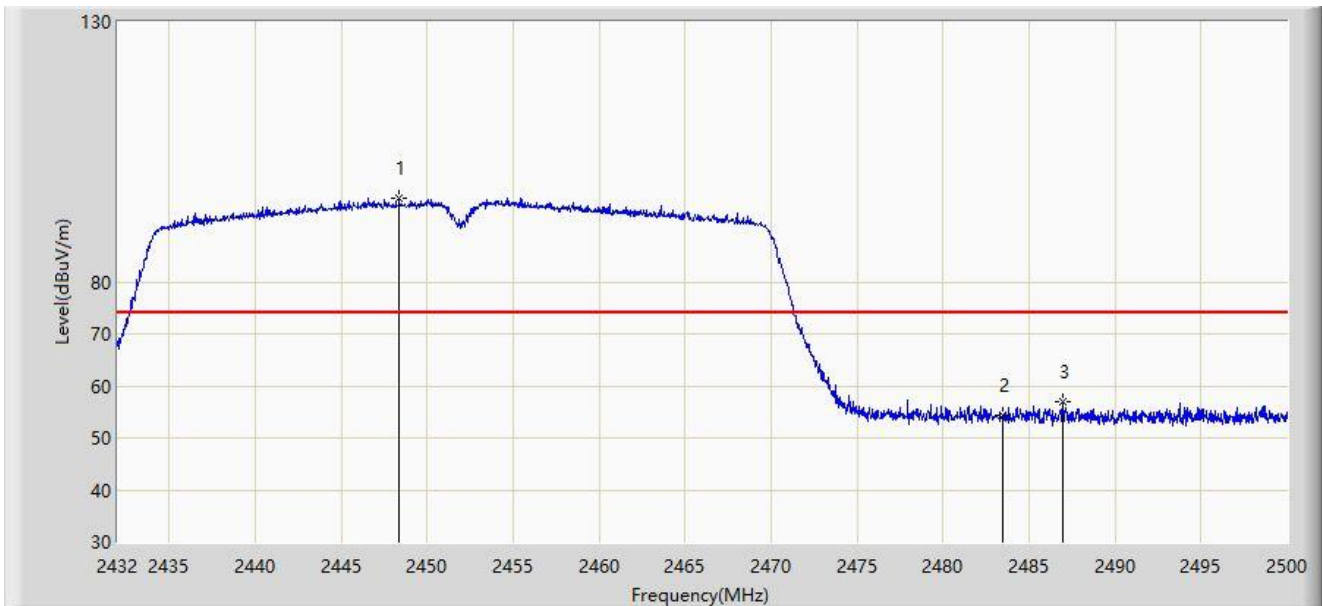
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2449.442	90.094	59.226	N/A	N/A	30.868	AV
2		2483.500	38.711	7.820	-15.289	54.000	30.892	AV
3	*	2483.884	38.825	7.934	-15.175	54.000	30.891	AV

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11n-HT40 at 2452MHz	



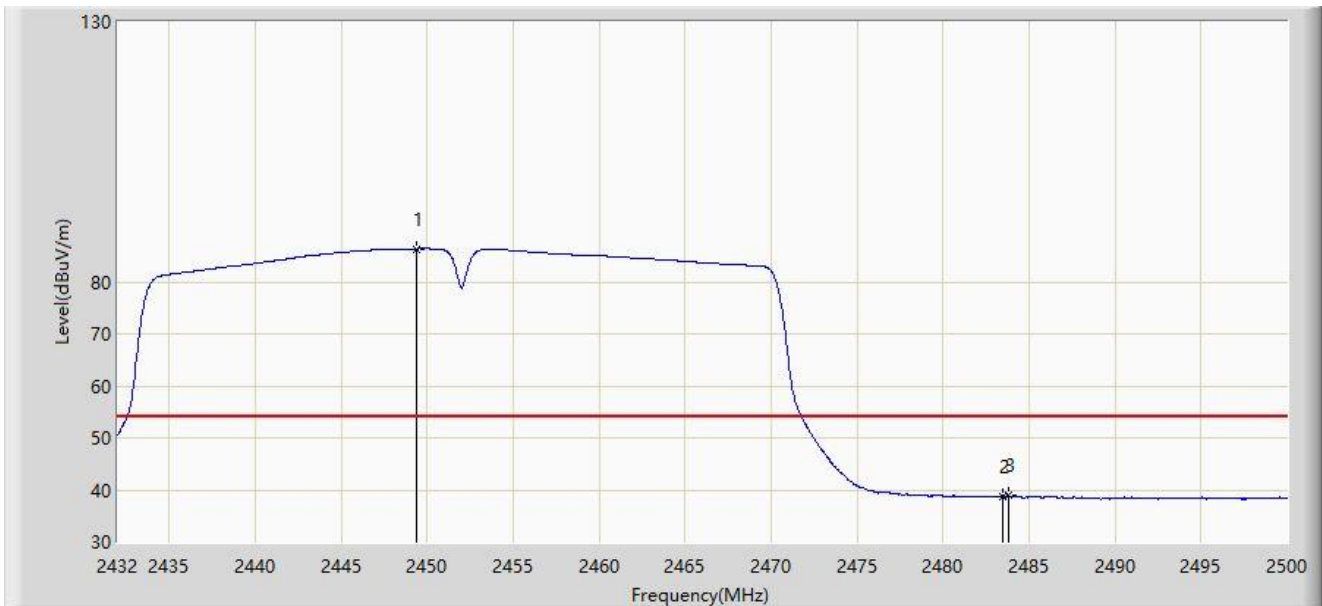
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2448.354	96.168	65.300	N/A	N/A	30.868	PK
2		2483.500	54.243	23.352	-19.757	74.000	30.892	PK
3	*	2486.944	57.039	26.153	-16.961	74.000	30.886	PK

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11n-HT40 at 2452MHz	



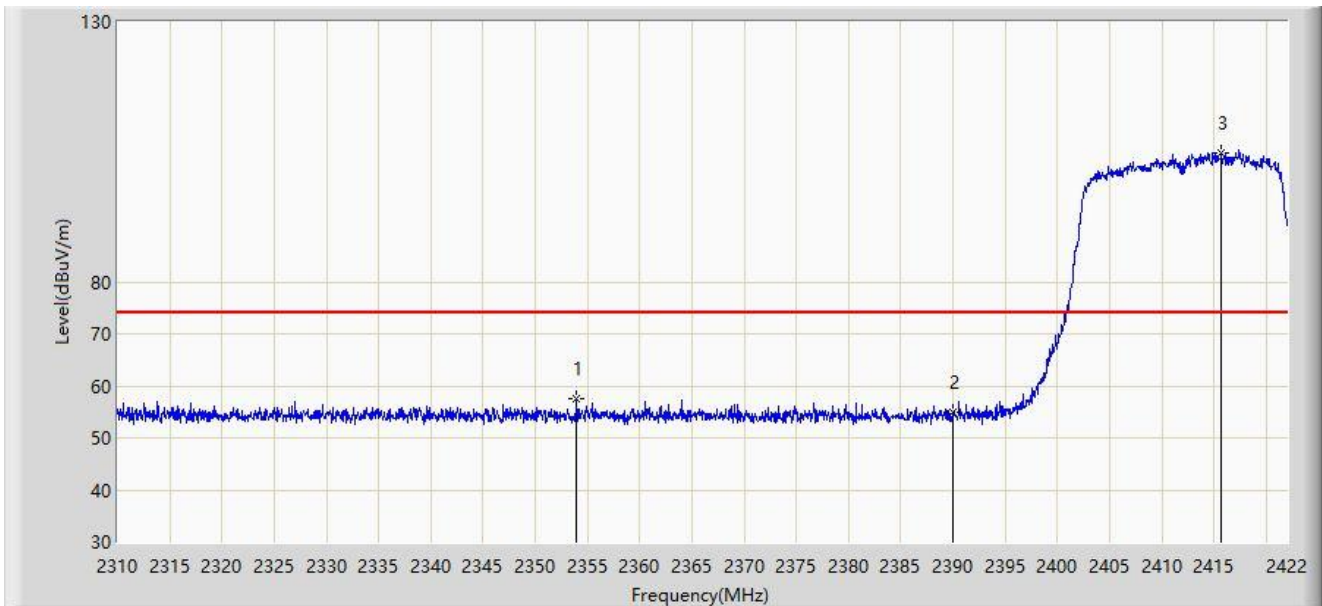
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2449.408	86.370	55.502	N/A	N/A	30.868	AV
2		2483.500	38.641	7.750	-15.359	54.000	30.892	AV
3	*	2483.816	38.863	7.972	-15.137	54.000	30.891	AV

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11ax-HE20 at 2412MHz	



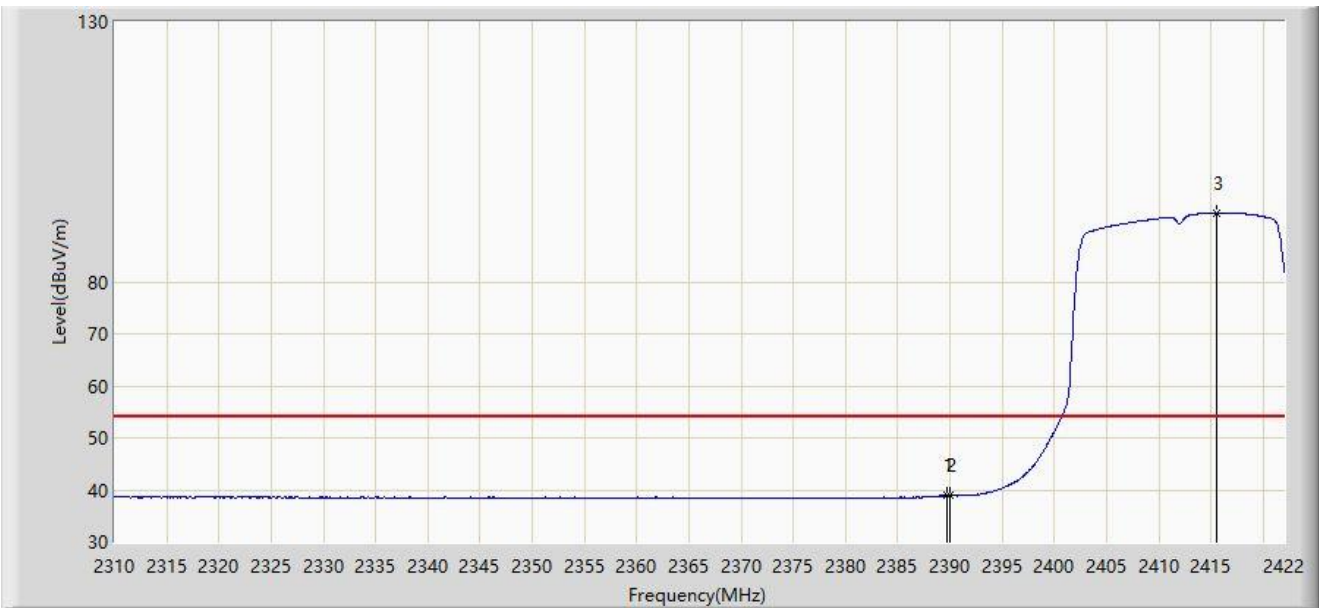
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2353.960	57.508	26.387	-16.492	74.000	31.120	PK
2		2390.000	54.801	23.809	-19.199	74.000	30.992	PK
3		2415.728	104.755	73.811	N/A	N/A	30.944	PK

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11ax-HE20 at 2412MHz	



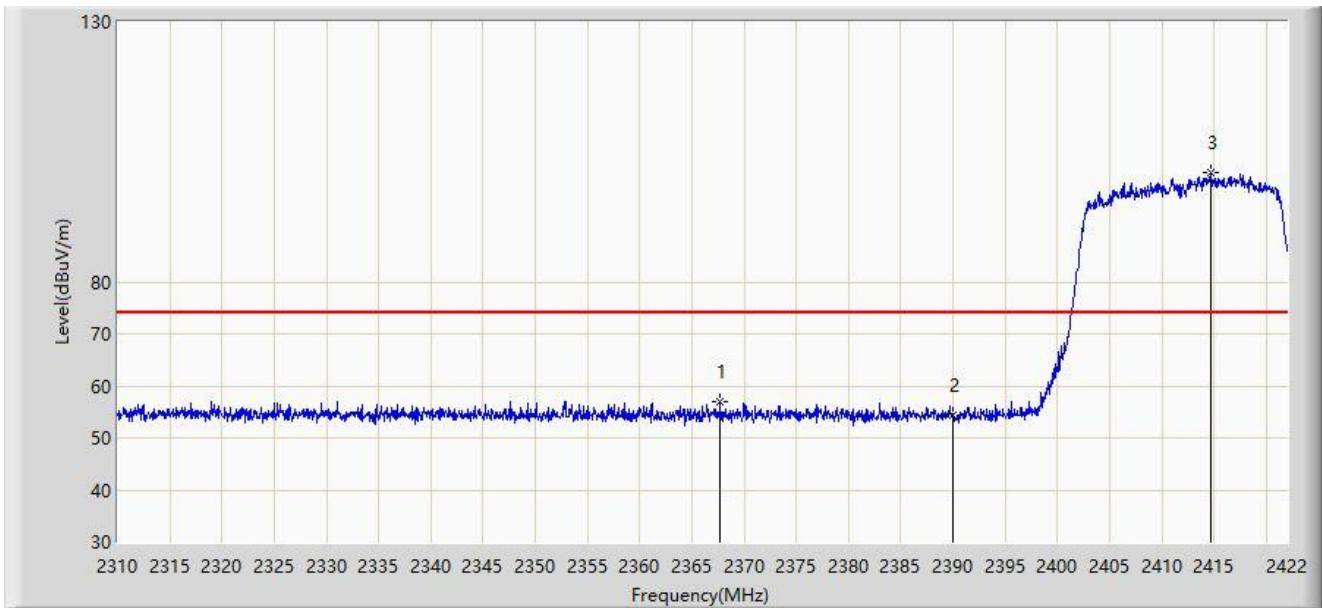
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2389.688	38.892	7.900	-15.108	54.000	30.992	AV
2		2390.000	38.872	7.880	-15.128	54.000	30.992	AV
3		2415.504	93.281	62.336	N/A	N/A	30.945	AV

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11ax-HE20 at 2412MHz	



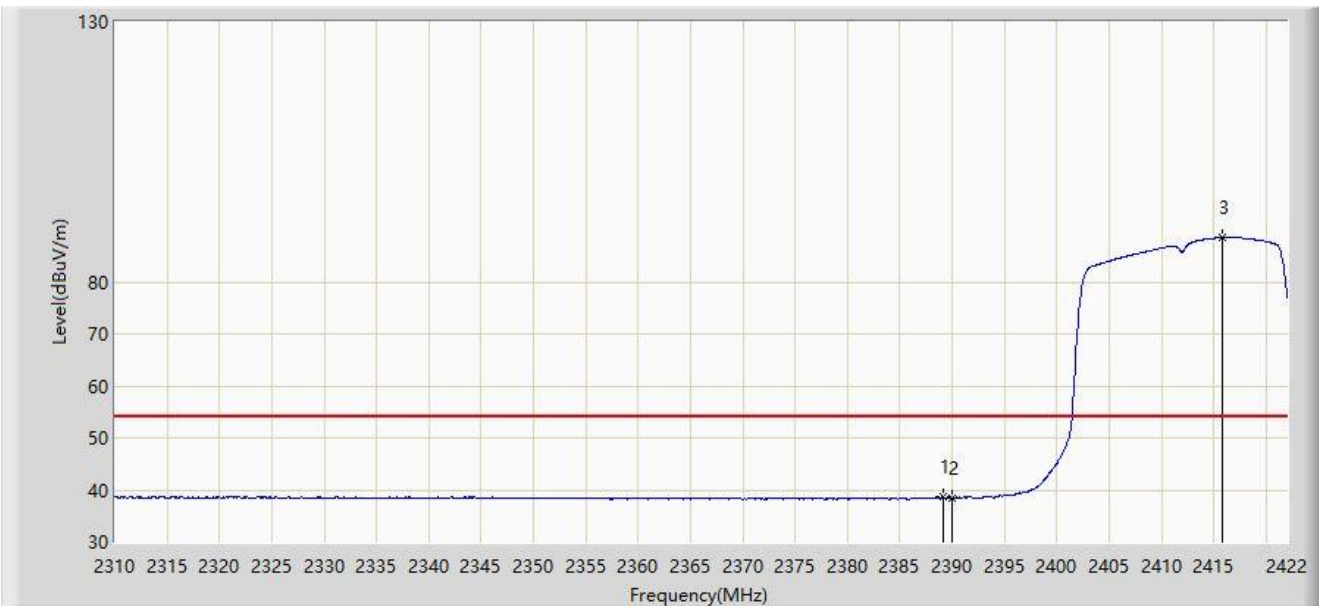
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2367.736	56.964	25.892	-17.036	74.000	31.072	PK
2		2390.000	54.470	23.478	-19.530	74.000	30.992	PK
3		2414.664	101.125	70.178	N/A	N/A	30.947	PK

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11ax-HE20 at 2412MHz	



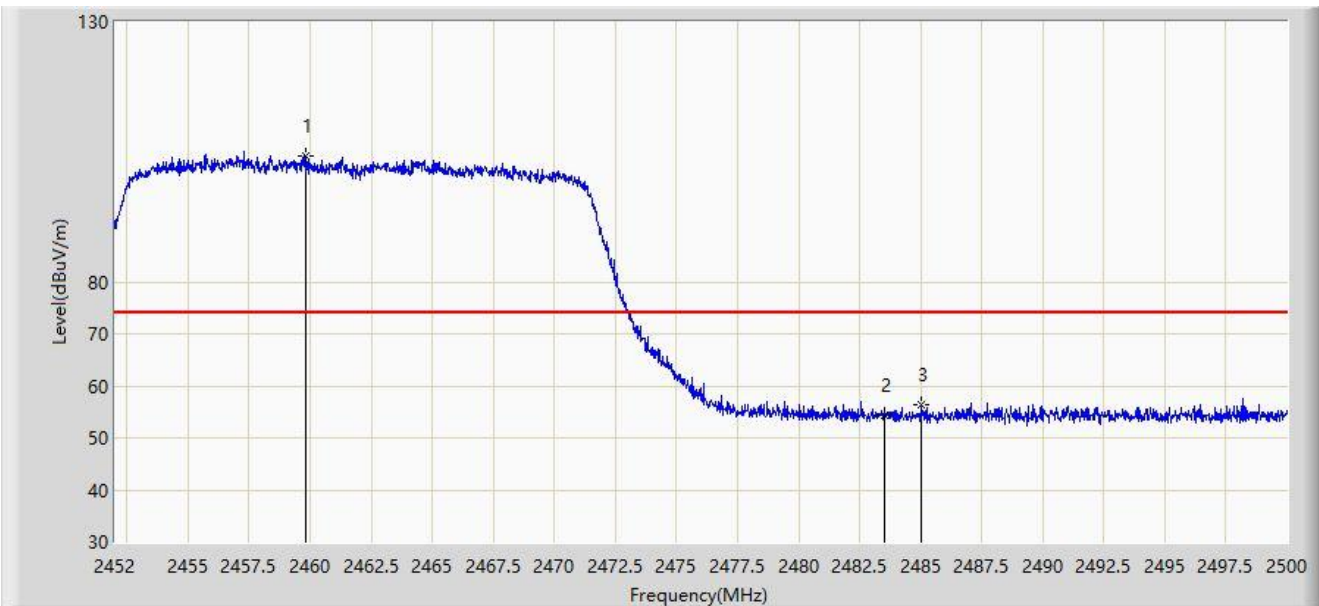
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2389.128	38.615	7.622	-15.385	54.000	30.993	AV
2		2390.000	38.413	7.421	-15.587	54.000	30.992	AV
3		2415.840	88.478	57.534	N/A	N/A	30.944	AV

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11ax-HE20 at 2462MHz	



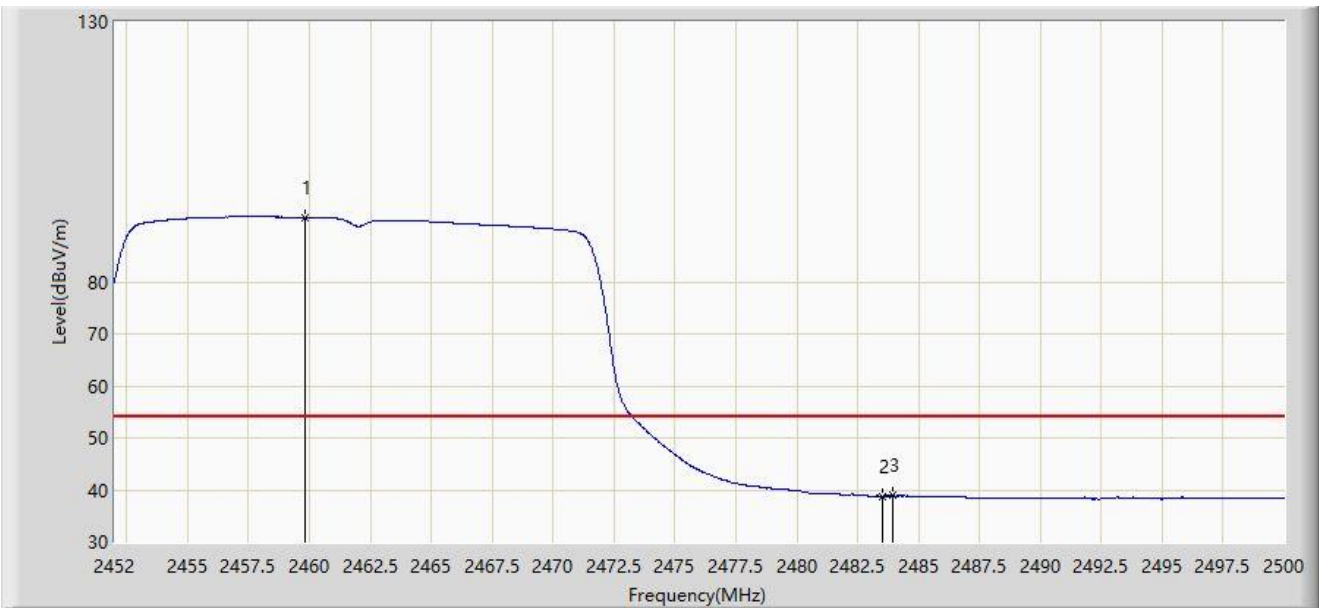
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2459.848	104.086	73.208	N/A	N/A	30.878	PK
2		2483.500	54.273	23.382	-19.727	74.000	30.892	PK
3	*	2485.048	56.267	25.378	-17.733	74.000	30.889	PK

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11ax-HE20 at 2462MHz	



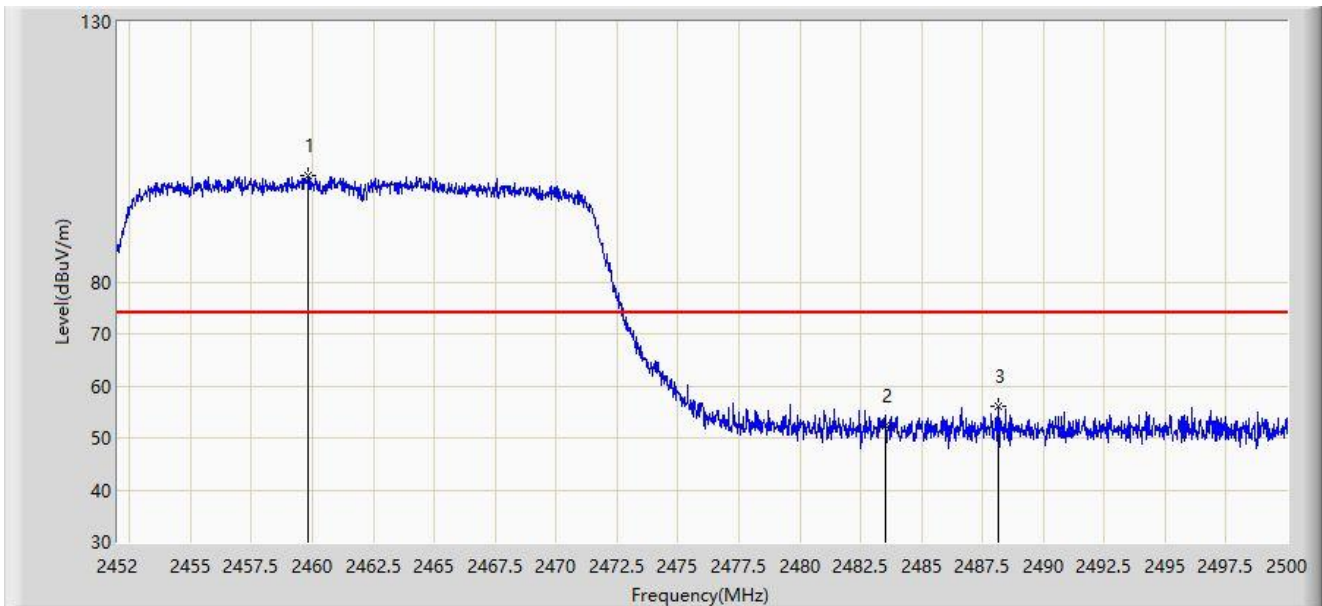
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2459.824	92.409	61.531	N/A	N/A	30.878	AV
2		2483.500	38.741	7.850	-15.259	54.000	30.892	AV
3	*	2483.920	38.968	8.077	-15.032	54.000	30.891	AV

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11ax-HE20 at 2462MHz	



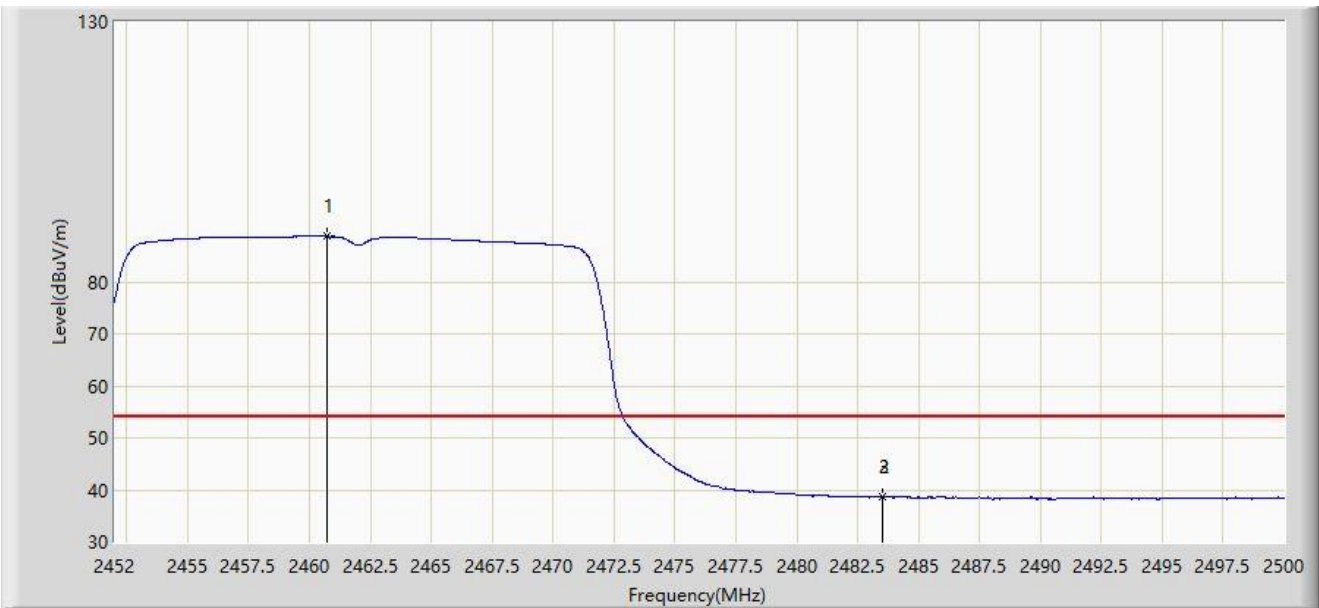
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2459.848	100.359	69.481	N/A	N/A	30.878	PK
2		2483.500	52.422	21.531	-21.578	74.000	30.892	PK
3	*	2488.168	56.188	25.304	-17.812	74.000	30.884	PK

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11ax-HE20 at 2462MHz	



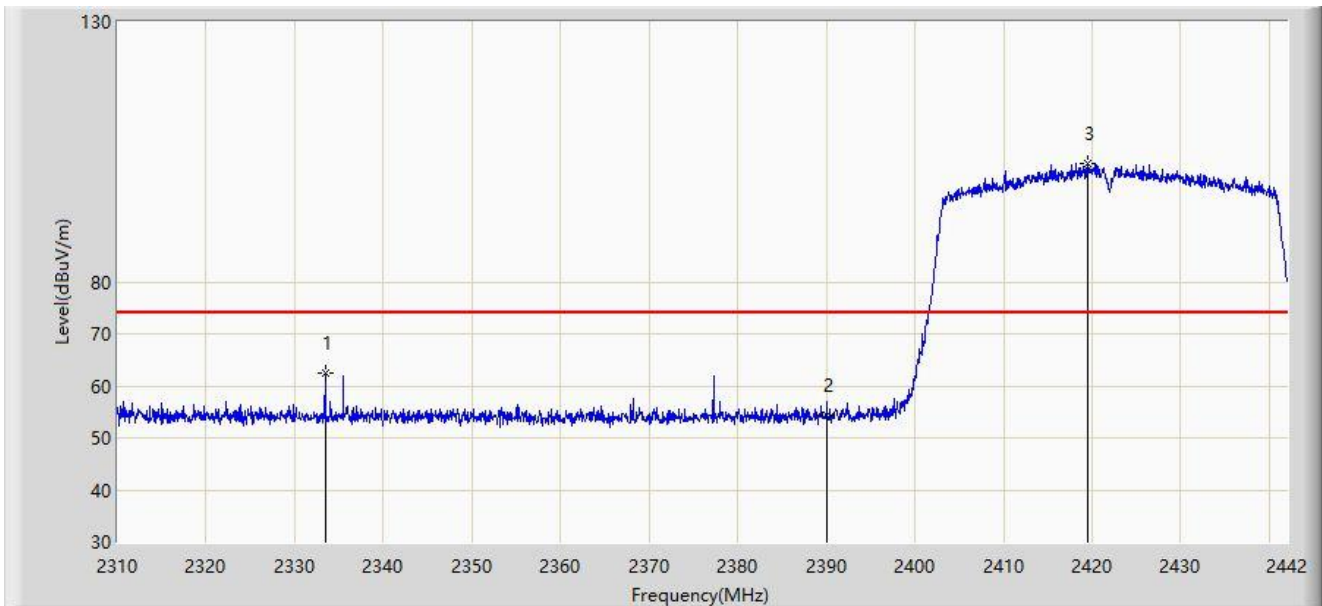
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2460.712	88.699	57.819	N/A	N/A	30.879	AV
2		2483.500	38.797	7.906	-15.203	54.000	30.892	AV
3	*	2483.536	38.834	7.943	-15.166	54.000	30.892	AV

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11ax-HE40 at 2422MHz	



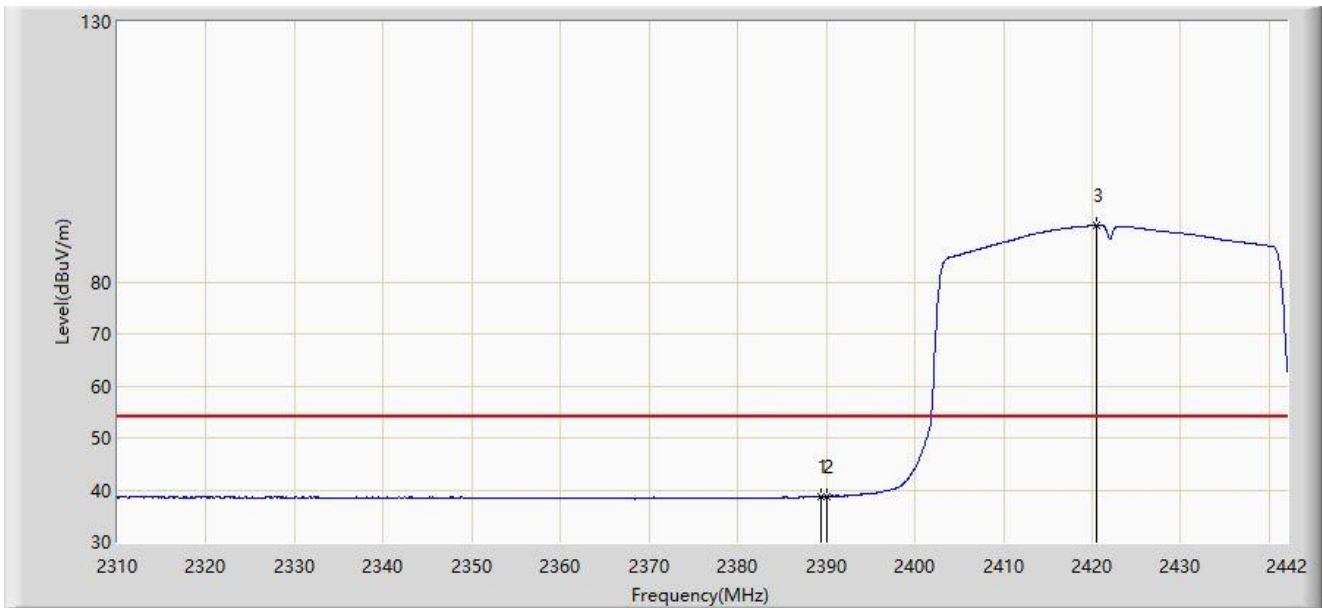
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2333.430	62.519	31.356	-11.481	74.000	31.163	PK
2		2390.000	54.339	23.347	-19.661	74.000	30.992	PK
3		2419.560	102.881	71.947	N/A	N/A	30.934	PK

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11ax-HE40 at 2422MHz	



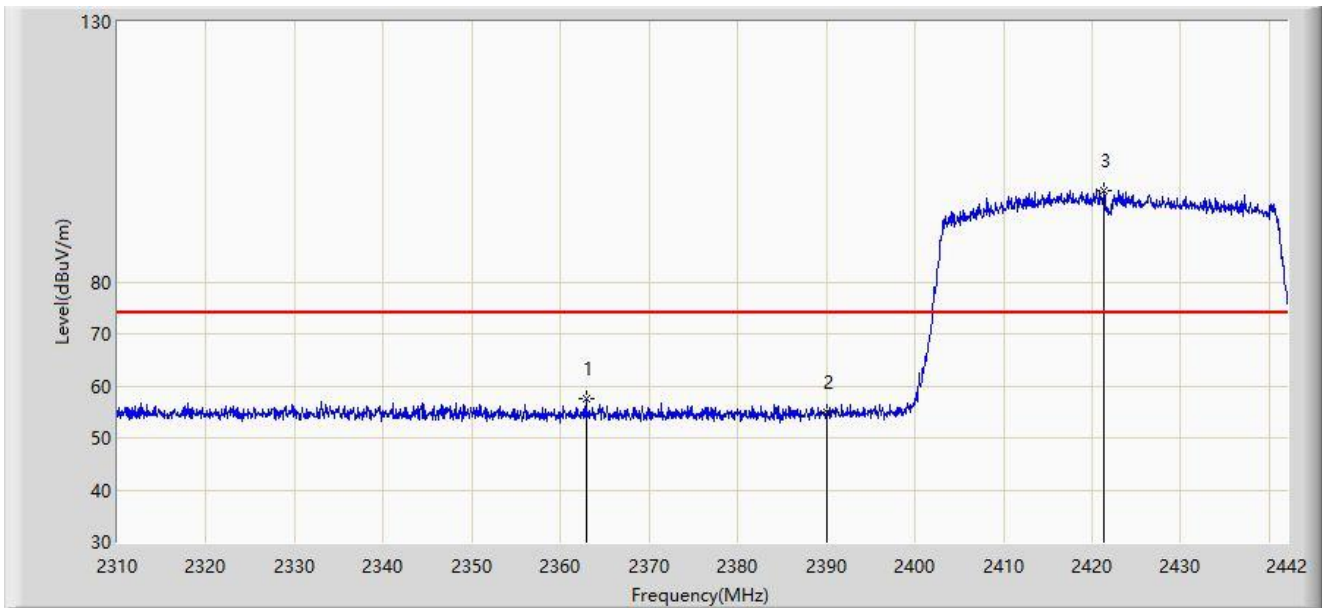
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2389.464	38.788	7.796	-15.212	54.000	30.993	AV
2		2390.000	38.708	7.716	-15.292	54.000	30.992	AV
3		2420.550	90.835	59.904	N/A	N/A	30.931	AV

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11ax-HE40 at 2422MHz	



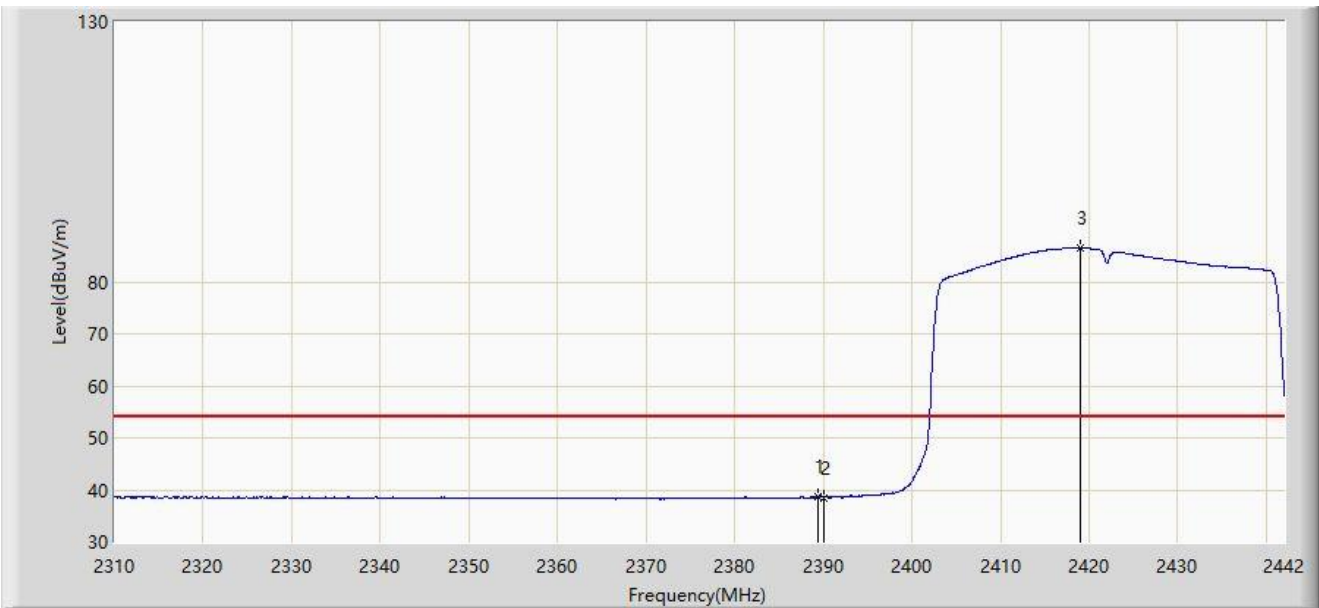
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2362.866	57.658	26.568	-16.342	74.000	31.091	PK
2		2390.000	55.068	24.076	-18.932	74.000	30.992	PK
3		2421.342	97.615	66.688	N/A	N/A	30.928	PK

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11ax-HE40 at 2422MHz	



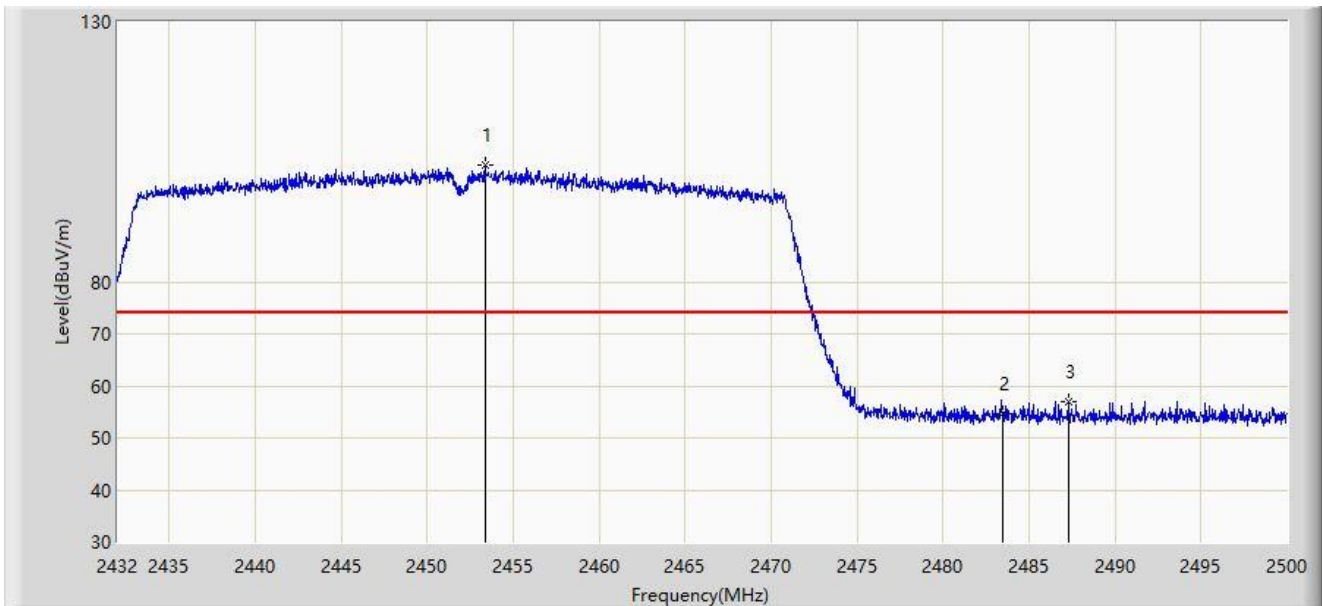
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2389.398	38.761	7.769	-15.239	54.000	30.993	AV
2		2390.000	38.493	7.501	-15.507	54.000	30.992	AV
3		2418.966	86.428	55.492	N/A	N/A	30.936	AV

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11ax-HE40 at 2452MHz	



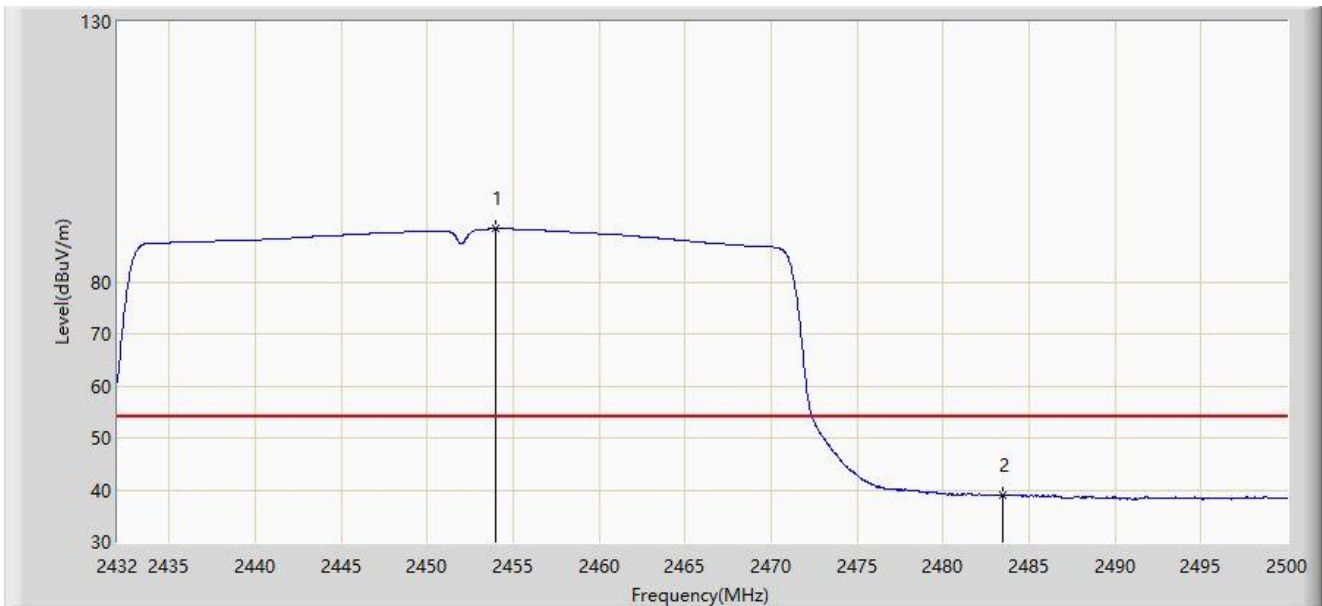
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2453.386	102.524	71.654	N/A	N/A	30.870	PK
2		2483.500	54.590	23.699	-19.410	74.000	30.892	PK
3	*	2487.284	56.888	26.003	-17.112	74.000	30.885	PK

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11ax-HE40 at 2452MHz	



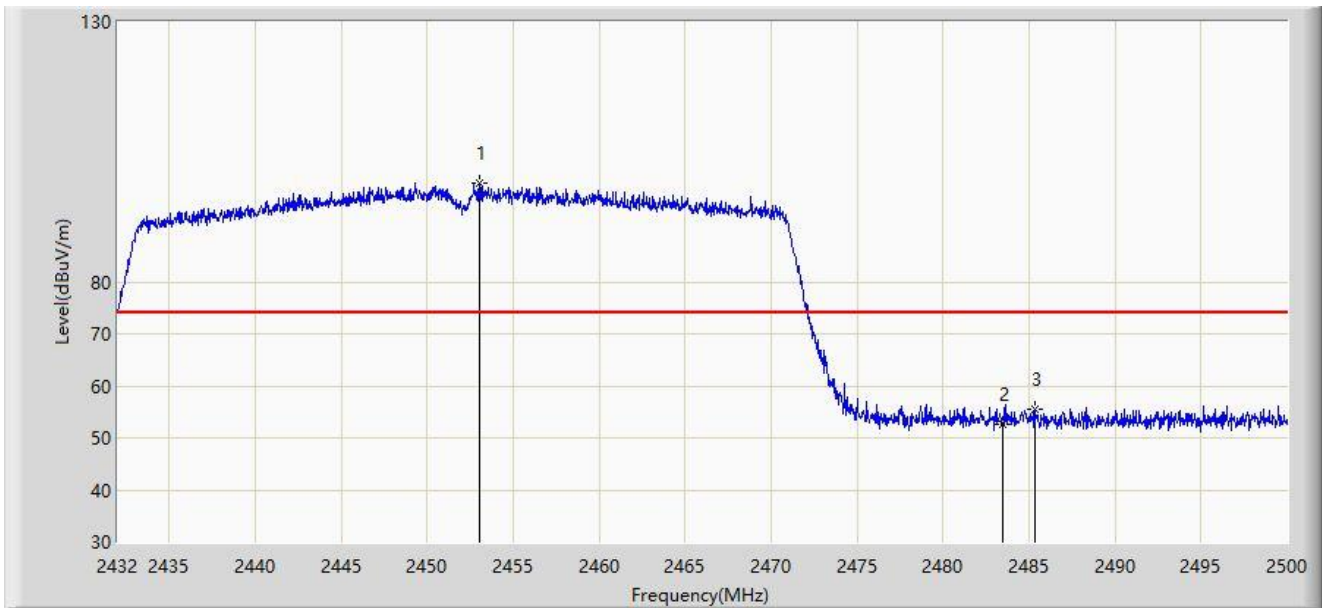
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2453.964	90.164	59.294	N/A	N/A	30.871	AV
2	*	2483.500	39.066	8.175	-14.934	54.000	30.892	AV

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11ax-HE40 at 2452MHz	



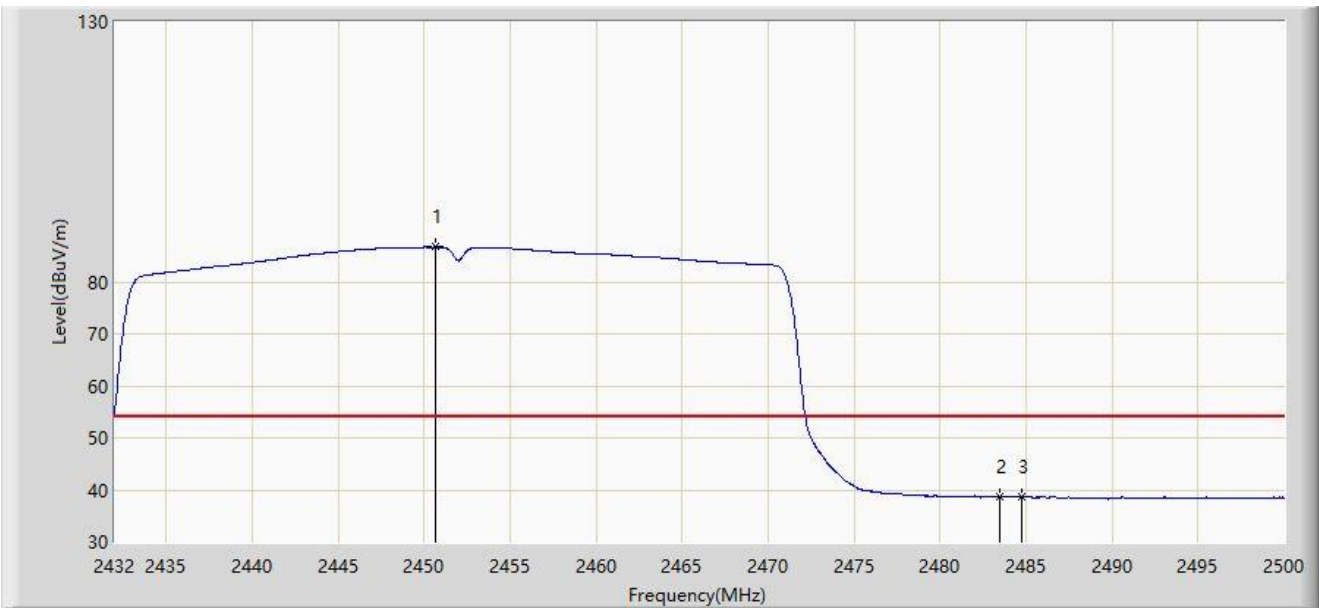
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2453.012	98.854	67.984	N/A	N/A	30.869	PK
2		2483.500	52.648	21.757	-21.352	74.000	30.892	PK
3	*	2485.380	55.646	24.758	-18.354	74.000	30.889	PK

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: 2022-10-26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Spot Mapper	Power: By USB Cable
Test Mode: Transmit by 802.11ax-HE40 at 2452MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2450.700	86.688	55.819	N/A	N/A	30.869	AV
2	*	2483.500	38.754	7.863	-15.246	54.000	30.892	AV
3		2484.734	38.736	7.847	-15.264	54.000	30.890	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
