



## RF MEASUREMENT REPORT

---

**FCC ID:** VW3FAST5689E  
**Applicant:** SAGEMCOM BROADBAND SAS  
**Product:** Home Hub 4000  
**Model No.:** FAST 5689E  
**Brand Name:** SAGEMCOM  
**FCC Classification:** Digital Transmission System (DTS)  
**FCC Rule Part(s):** Part 15 Subpart C (Section 15.247)  
**Result:** Complies  
**Test Date:** 2022-06-28 ~ 2022-07-06

**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
2206RSU052-U2	Rev. 01	Initial Report	2022-07-26	Valid

Note: This report is complemented to FCC ID "VW3FAST5689E" modifying the 2.4G Wi-Fi FEM and related data.

---

## CONTENTS

Description	Page
<b>1. General Information .....</b>	<b>5</b>
1.1. Applicant.....	5
1.2. Manufacturer.....	5
1.3. Testing Facility .....	5
1.4. Product Information.....	6
1.5. Radio Specification under Test .....	6
1.6. Working Frequencies .....	7
1.7. Description of Available Antennas.....	8
<b>2. Test Configuration .....</b>	<b>9</b>
2.1. Test Mode .....	9
2.2. Test System Connection Diagram.....	10
2.3. Test Software.....	10
2.4. Applied Standards.....	10
2.5. Test Environment Condition.....	10
<b>3. Antenna Requirements .....</b>	<b>11</b>
<b>4. Measuring Instrument.....</b>	<b>12</b>
<b>5. Decision Rules and Measurement Uncertainty.....</b>	<b>13</b>
5.1. Decision Rules.....	13
5.2. Measurement Uncertainty .....	13
<b>6. Test Result.....</b>	<b>14</b>
6.1. Summary .....	14
6.2. Output Power Measurement.....	15
6.2.1. Test Limit .....	15
6.2.2. Test Procedure.....	15
6.2.3. Test Setting.....	15
6.2.4. Test Setup.....	15
6.2.5. Test Result.....	15
6.3. Radiated Spurious Emission Measurement .....	16
6.3.1. Test Limit .....	16
6.3.2. Test Procedure.....	16
6.3.3. Test Setting.....	16
6.3.4. Test Setup.....	18
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
<b>Appendix A – Test Result .....</b>	<b>22</b>
A.1 Output Power Test Result.....	22
A.2 Radiated Spurious Emission Test Result .....	25
A.3 Radiated Restricted Band Edge Test Result .....	34
<b>Appendix B – Test Setup Photograph.....</b>	<b>90</b>
<b>Appendix C – EUT Photograph .....</b>	<b>91</b>



#### 1.4. Product Information

Product Name	Home Hub 4000
Model No.	FAST 5689E
Wi-Fi Specification	802.11b/g/n/ac/ax
Zigbee Specification	802.15.4
Z-Wave Specification	800 ~ 900MHz radio frequency range
EUT Identification No.	20220627Sample02#
Antenna Information	Refer to Section 1.7
Power Type	AC Adapter
Operating Environment	Indoor Use
Accessories	
Adapter 1#	Model No.: NBS60E120500M2 Input: 100-127V, 50/60Hz, 1.5A Output: 12.0V=5.0A
Adapter 2#	Model No.: MS-Z5000R120-060C0-P Input: 100-127V, 50/60Hz, 1.5A Output: 12.0V=5.0A
Adapter 3#	Model No.: ADS-65HI-12A-2 12060E-L Input: 100-127V, 50/60Hz, 1.5A Output: 12.0V=5.0A
Remark: The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.	

#### 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 802.11ax: OFDMA
Data Rate	802.11b: 1/2/5.5/11Mbps 802.11g: 6/9/12/18/24/36/48/54Mbps 802.11n: up to 600Mbps 802.11ax: up to 1147.2Mbps

The EUT incorporates the CDD, Beamforming, MIMO function. Physically, the EUT provides 4 completed transmitters and 4 receivers.

Mode	CDD Mode	Beamforming	TX Function
802.11a	√	x	4T <sub>x</sub>
802.11ax-HE20	√	√	4T <sub>x</sub>
802.11ax-HE40	√	√	4T <sub>x</sub>

### 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	--	--	--	--

### 1.7. Description of Available Antennas

Antenna Type	Frequency Band (GHz)	Antenna Gain (dBi)				Directional Gain (dBi)	
		Ant 0	Ant 1	Ant 2	Ant 3	For Power	For PSD
Wi-Fi Antenna (4*4 MIMO)							
PIFA & Dipole	2.4 ~ 2.5	2.79	2.38	2.95	1.91	2.95	6.40
	5.15 ~ 5.85	4.89	4.53	3.51	3.88	4.89	6.90
	5.925 ~ 7.125	4.13	3.18	4.51	4.83	4.83	7.03
ZigBee Antenna							
Dipole	2.4 ~ 2.5	2.98					
Z-Wave Antenna							
Dipole	0.9 ~ 1	-0.34					
<p>Note 1: The antenna gain and directional gain refer to manufacturer's antenna specification.</p> <p>Note 2: Software automatically backs power down based on a <math>10\log(N)</math> factor for beamforming operation.</p> <p>Note 3: The EUT supports Cyclic Delay Diversity (CDD) mode, and CDD signals are correlated.</p> <ul style="list-style-type: none"> <li>For power measurements: Array Gain = 0 dB for <math>N_{ANT} \leq 4</math>, the directional gain = max antenna gain + array gain</li> <li>For power density measurements: the max directional gain (each angle) = <math>10 \cdot \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}]</math> dBi.</li> </ul>							



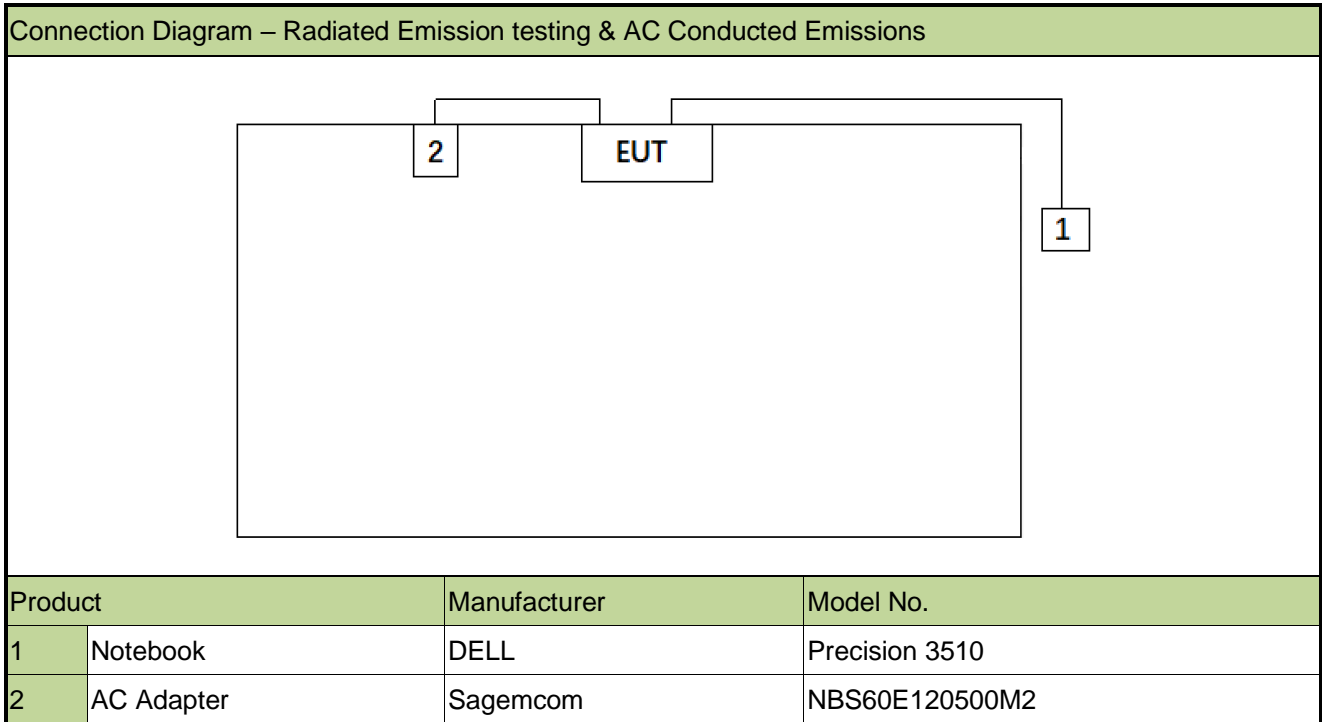
## 2. Test Configuration

### 2.1. Test Mode

CDD Mode
Mode 1: Transmit by 802.11b_N <sub>SS</sub> =1 (1Mbps) (MIMO Mode)
Mode 2: Transmit by 802.11g_N <sub>SS</sub> =1 (6Mbps) (MIMO Mode)
Mode 3: Transmit by 802.11n-HT20 (MCS0)_N <sub>SS</sub> =1 (MIMO Mode)
Mode 4: Transmit by 802.11n-HT40 (MCS0)_N <sub>SS</sub> =1 (MIMO Mode)
Mode 5: Transmit by 802.11ax-HE20 (MCS0)_N <sub>SS</sub> =1 (MIMO Mode)
Mode 6: Transmit by 802.11ax-HE40 (MCS0)_N <sub>SS</sub> =1 (MIMO Mode)
Mode 7: Transmit by 802.11b (1Mbps) - Ant 0 (SISO Mode)
Remark: <ol style="list-style-type: none"> <li>1. For radiated spurious emission, the modulation and the data rate picked for testing are determined by the Max. RF conducted power.</li> <li>2. Due to the same modulation between 802.11n and 802.11ac, so 802.11n are covered by 802.11ac in this report, meanwhile, power level for 802.11n will not be greater than 802.11ac.</li> <li>3. This device supports 4 N<sub>SS</sub> and power level is the same of spatial multiplexing. The worst case is N<sub>SS</sub>=1.</li> <li>4. RF power on each chain in MIMO mode is greater than SISO mode. The SISO Mode is covered by MIMO Mode.</li> <li>5. 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.</li> <li>6. For beamforming operation, manufacturer automatically backs power down based on a <math>10\log(N_{ANT})</math> factor based on CDD power. Therefore, only the CDD mode was evaluated in this report.</li> <li>7. EUT supports one configuration only in 802.11ax full RU mode.</li> </ol>

## 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 and AC line conducted testing.



## 2.3. Test Software

The test utility software used during testing was “accessMTool”, and the version was 3.2.1.3.

Note: Final power setting please refer to operational description.

## 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
- 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	2022-09-16	WZ-AC1
Preamplifier	Agilent	83017A	MRTSUE06076	1 year	2022-11-12	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	Testo 608-H1	MRTSUE11039	1 year	2022-11-11	WZ-AC1
Thermohygrometer	testo	608-H1	MRTSUE06402	1 year	2023-06-28	WZ-SR5
Directional Coupler	narda	4226-10	MRTSUE06562	1 year	2022-10-28	WZ-SR5
USB Power Sensor	Agilent	U2021XA	MRTSUE06030	1 year	2022-10-10	WZ-SR5
Attenuator	MVE	MVE2213	MRTSUE11066	1 year	2023-06-09	WZ-SR5
Attenuator	MVE	MVE2213	MRTSUE11093	1 year	2023-06-09	WZ-SR5
Shielding Room	HUAMING	WZ-SR5	MRTSUE06442	N/A	N/A	WZ-SR5

Software	Version	Function
EMI V3	V3.0.0	EMI Test Software
BenchVue Power Meter	2018.1	Power
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  $k = 2$ .

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

## 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

**Remark:**

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.

## 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**

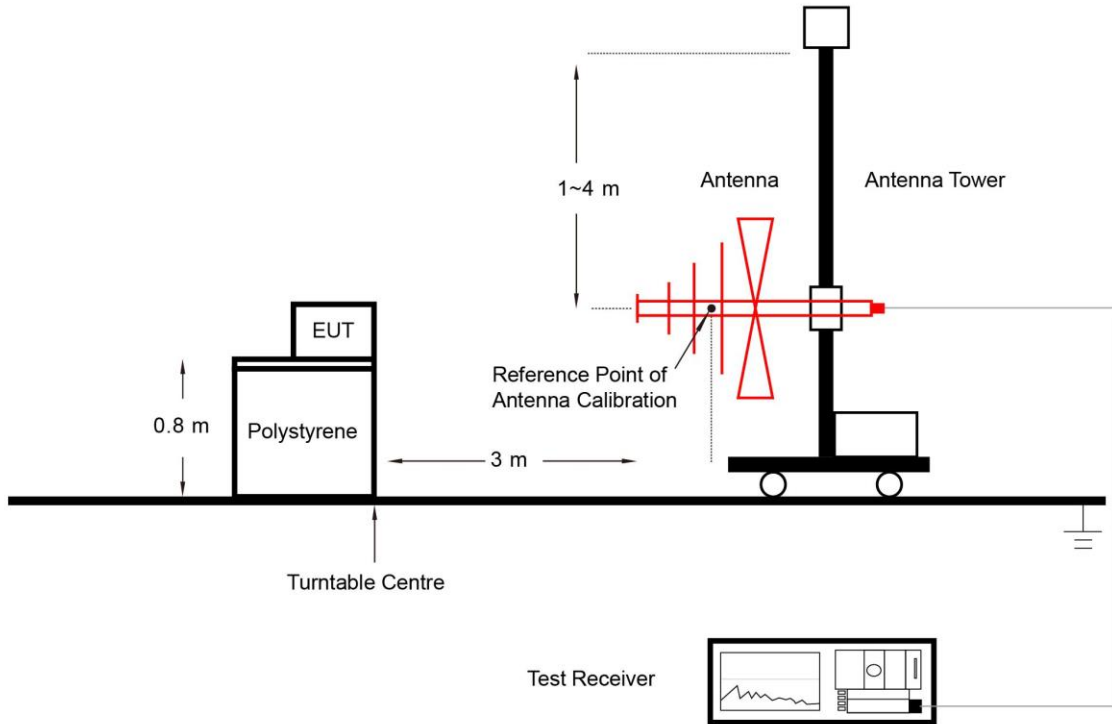
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

**Average Measurements above 1GHz (Method VB)**

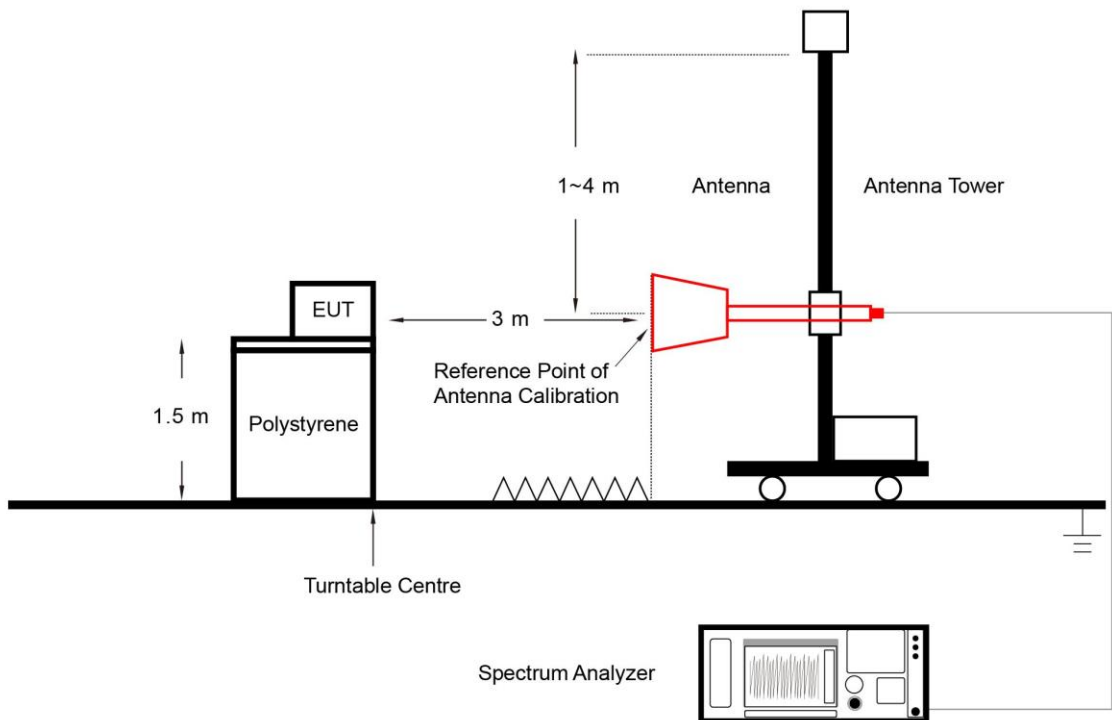
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle  $\geq 98\%$ , set VBW = 10 Hz.  
If the EUT duty cycle is  $< 98\%$ , set VBW  $\geq 1/T$ . T is the minimum transmission duration.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

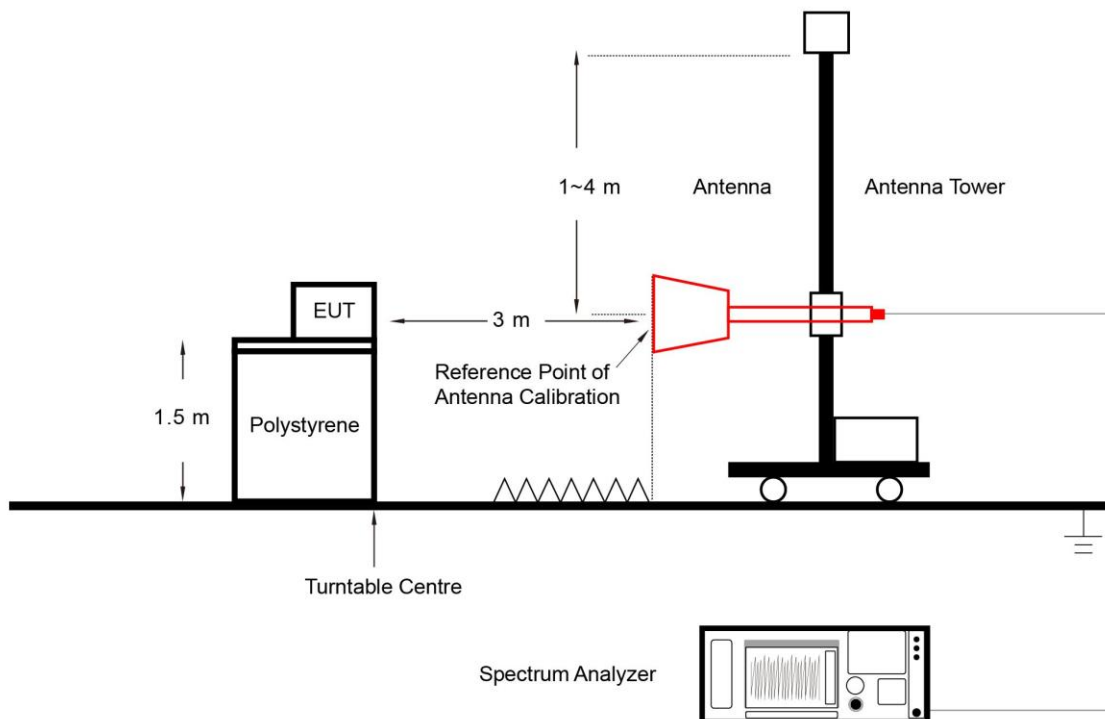
##### Peak Field Strength Measurements

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

Power output test was verified over all data rates of each mode shown as below, and then choose the maximum power output (gray marker) for final test of each channel.

Test Mode	Bandwidth (MHz)	Channel No.	Frequency (MHz)	Data Rate / MCS	Average Power (dBm)
802.11b	20	1	2412	1Mbps	20.76
				5.5Mbps	20.33
				11Mbps	20.21
802.11g	20	1	2412	6Mbps	23.08
				24Mbps	22.83
				54Mbps	22.47
802.11n	20	1	2412	MCS0	23.14
				MCS3	23.06
				MCS7	22.96
802.11n	40	3	2422	MCS0	23.82
				MCS3	23.68
				MCS7	23.65
802.11ax	20	1	2412	MCS0	23.04
				MCS5	22.86
				MCS11	22.74
802.11ax	40	3	2422	MCS0	23.46
				MCS5	23.16
				MCS11	23.06

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2022/06/30	Test Mode	MIMO Mode

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)				Total Average Power (dBm)	Limit (dBm)
				Ant 0	Ant 1	Ant 2	Ant 3		
11b	1Mbps	01	2412	20.76	21.18	21.36	20.91	27.08	≤ 30.00
11b	1Mbps	06	2437	22.20	23.02	23.06	22.44	28.72	≤ 30.00
11b	1Mbps	11	2462	20.16	20.37	20.38	20.11	26.28	≤ 30.00
11g	24Mbps	01	2412	23.08	23.58	23.11	23.46	29.33	≤ 30.00
11g	24Mbps	06	2437	22.65	23.52	22.71	23.12	29.03	≤ 30.00
11g	24Mbps	11	2462	22.49	23.04	22.37	22.55	28.64	≤ 30.00
11n-HT20	MCS0	01	2412	23.14	23.89	23.09	23.51	29.44	≤ 30.00
11n-HT20	MCS0	06	2437	22.82	23.87	23.27	23.47	29.39	≤ 30.00
11n-HT20	MCS0	11	2462	22.34	22.97	22.21	22.56	28.55	≤ 30.00
11n-HT40	MCS0	03	2422	23.82	23.41	23.93	24.12	29.85	≤ 30.00
11n-HT40	MCS0	06	2437	23.51	23.40	23.54	23.01	29.39	≤ 30.00
11n-HT40	MCS0	09	2452	23.60	23.43	23.64	23.99	29.69	≤ 30.00
11ax-HE20	MCS0	01	2412	23.04	23.72	23.10	23.41	29.35	≤ 30.00
11ax-HE20	MCS0	06	2437	23.03	24.03	23.53	23.69	29.61	≤ 30.00
11ax-HE20	MCS0	11	2462	22.38	22.85	22.19	22.46	28.50	≤ 30.00
11ax-HE40	MCS0	03	2422	23.46	23.17	23.55	23.95	29.56	≤ 30.00
11ax-HE40	MCS0	06	2437	23.57	23.53	23.64	23.95	29.70	≤ 30.00
11ax-HE40	MCS0	09	2452	23.32	23.18	23.27	23.68	29.39	≤ 30.00

---

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2022/06/30	Test Mode	SISO Mode

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)	Limit (dBm)
11b	1Mbps	01	2412	21.70	≤ 30.00
11b	1Mbps	06	2437	21.11	≤ 30.00
11b	1Mbps	11	2462	20.07	≤ 30.00



**A.2 Radiated Spurious Emission Test Result**

Test Site	WZ-AC1	Test Engineer	Carl Jiang
Test Date	2022/06/28	Test Mode:	802.11b – MIMO Mode
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	4825.0	47.5	3.1	50.6	74.0	-23.4	Peak	Horizontal
	10894.0	35.6	12.7	48.3	74.0	-25.7	Peak	Horizontal
	12305.0	37.2	12.2	49.4	74.0	-24.6	Peak	Horizontal
	4825.0	47.4	3.1	50.5	74.0	-23.5	Peak	Vertical
	10970.5	36.2	12.7	48.9	74.0	-25.1	Peak	Vertical
	12407.0	36.2	12.0	48.2	74.0	-25.8	Peak	Vertical
06	4876.0	45.3	3.2	48.5	74.0	-25.5	Peak	Horizontal
	11064.0	36.1	12.7	48.8	74.0	-25.2	Peak	Horizontal
	12356.0	36.5	12.2	48.7	74.0	-25.3	Peak	Horizontal
	4876.0	42.6	3.2	45.8	74.0	-28.2	Peak	Vertical
	8123.0	41.2	8.7	49.9	74.0	-24.1	Peak	Vertical
	12509.0	37.2	11.8	49.0	74.0	-25.0	Peak	Vertical
11	8208.0	37.7	8.9	46.6	74.0	-27.4	Peak	Horizontal
	11412.5	35.8	12.6	48.4	74.0	-25.6	Peak	Horizontal
	12271.0	36.2	12.1	48.3	74.0	-25.7	Peak	Horizontal
	8208.0	39.9	8.9	48.8	74.0	-25.2	Peak	Vertical
	11089.5	35.8	12.7	48.5	74.0	-25.5	Peak	Vertical
	12152.0	36.5	12.1	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)

Test Site	WZ-AC1	Test Engineer	Carl Jiang
Test Date	2022/06/28	Test Mode:	802.11g – MIMO Mode
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	4816.5	42.0	3.1	45.1	74.0	-28.9	Peak	Horizontal
	10877.0	35.0	12.8	47.8	74.0	-26.2	Peak	Horizontal
	12194.5	36.4	12.1	48.5	74.0	-25.5	Peak	Horizontal
	4825.0	44.5	3.1	47.6	74.0	-26.4	Peak	Vertical
	10868.5	35.2	12.7	47.9	74.0	-26.1	Peak	Vertical
	12271.0	36.3	12.1	48.4	74.0	-25.6	Peak	Vertical
06	4876.0	45.2	3.2	48.4	74.0	-25.6	Peak	Horizontal
	7298.5	42.2	8.2	50.4	74.0	-23.6	Peak	Horizontal
	11540.0	36.2	12.5	48.7	74.0	-25.3	Peak	Horizontal
	7317.6	45.7	8.1	53.8	74.0	-20.2	Peak	Vertical
	7317.6	40.4	8.0	48.4	54.0	-5.6	Average	Vertical
	8123.0	40.6	8.7	49.3	74.0	-24.7	Peak	Vertical
	11548.5	35.7	12.6	48.3	74.0	-25.7	Peak	Vertical
11	8208.0	38.2	8.9	47.1	74.0	-26.9	Peak	Horizontal
	10681.5	34.6	13.0	47.6	74.0	-26.4	Peak	Horizontal
	12186.0	35.6	12.1	47.7	74.0	-26.3	Peak	Horizontal
	8208.0	40.3	8.9	49.2	74.0	-24.8	Peak	Vertical
	11497.5	36.2	12.8	49.0	74.0	-25.0	Peak	Vertical
	12322.0	35.8	12.2	48.0	74.0	-26.0	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	Carl Jiang
Test Date	2022/06/28	Test Mode:	802.11n-HT20 – MIMO Mode
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	7519.5	38.4	8.0	46.4	74.0	-27.6	Peak	Horizontal
	10894.0	35.3	12.7	48.0	74.0	-26.0	Peak	Horizontal
	12339.0	35.8	12.1	47.9	74.0	-26.1	Peak	Horizontal
	4825.0	41.7	3.1	44.8	74.0	-29.2	Peak	Vertical
	10707.0	34.8	13.0	47.8	74.0	-26.2	Peak	Vertical
	12279.5	36.0	12.1	48.1	74.0	-25.9	Peak	Vertical
06	4876.0	44.9	3.2	48.1	74.0	-25.9	Peak	Horizontal
	7307.0	42.2	8.1	50.3	74.0	-23.7	Peak	Horizontal
	11608.0	35.7	12.3	48.0	74.0	-26.0	Peak	Horizontal
	7317.5	44.8	8.1	52.9	74.0	-21.1	Peak	Vertical
	7317.5	39.4	8.0	47.4	54.0	-6.6	Average	Vertical
	8123.0	40.0	8.7	48.7	74.0	-25.3	Peak	Vertical
	11582.5	36.5	12.2	48.7	74.0	-25.3	Peak	Vertical
11	8208.0	37.7	8.9	46.6	74.0	-27.4	Peak	Horizontal
	10953.5	35.7	12.9	48.6	74.0	-25.4	Peak	Horizontal
	12466.5	36.2	12.0	48.2	74.0	-25.8	Peak	Horizontal
	8208.0	39.4	8.9	48.3	74.0	-25.7	Peak	Vertical
	10962.0	35.5	12.8	48.3	74.0	-25.7	Peak	Vertical
	12407.0	35.3	12.0	47.3	74.0	-26.7	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	Carl Jiang
Test Date	2022/06/28	Test Mode:	802.11n-HT40 – MIMO Mode
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	8378.0	35.7	8.9	44.6	74.0	-29.4	Peak	Horizontal
	10894.0	35.9	12.7	48.6	74.0	-25.4	Peak	Horizontal
	12058.5	36.0	12.3	48.3	74.0	-25.7	Peak	Horizontal
	8072.0	39.9	8.9	48.8	74.0	-25.2	Peak	Vertical
	11565.5	36.8	12.3	49.1	74.0	-24.9	Peak	Vertical
	12271.0	35.9	12.1	48.0	74.0	-26.0	Peak	Vertical
06	8199.5	35.2	8.8	44.0	74.0	-30.0	Peak	Horizontal
	10987.5	34.7	12.9	47.6	74.0	-26.4	Peak	Horizontal
	12636.5	36.1	12.1	48.2	74.0	-25.8	Peak	Horizontal
	8123.0	40.1	8.7	48.8	74.0	-25.2	Peak	Vertical
	10996.0	34.8	12.9	47.7	74.0	-26.3	Peak	Vertical
	12381.5	35.7	12.0	47.7	74.0	-26.3	Peak	Vertical
09	8174.0	37.6	8.5	46.1	74.0	-27.9	Peak	Horizontal
	10749.5	34.8	13.0	47.8	74.0	-26.2	Peak	Horizontal
	12407.0	35.6	12.0	47.6	74.0	-26.4	Peak	Horizontal
	8174.0	39.0	8.5	47.5	74.0	-26.5	Peak	Vertical
	10690.0	34.9	13.2	48.1	74.0	-25.9	Peak	Vertical
	12509.0	36.1	11.8	47.9	74.0	-26.1	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	Carl Jiang
Test Date	2022/06/28	Test Mode:	802.11ax-HE20 – MIMO Mode
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	4816.5	40.7	3.1	43.8	74.0	-30.2	Peak	Horizontal
	10758.0	35.2	12.8	48.0	74.0	-26.0	Peak	Horizontal
	12177.5	35.8	12.1	47.9	74.0	-26.1	Peak	Horizontal
	4825.0	40.3	3.1	43.4	74.0	-30.6	Peak	Vertical
	11429.5	36.5	12.5	49.0	74.0	-25.0	Peak	Vertical
	12169.0	35.6	12.2	47.8	74.0	-26.2	Peak	Vertical
06	7324.0	41.9	8.0	49.9	74.0	-24.1	Peak	Horizontal
	10945.0	34.4	12.9	47.3	74.0	-26.7	Peak	Horizontal
	12602.5	35.6	12.0	47.6	74.0	-26.4	Peak	Horizontal
	7308.4	45.6	8.1	53.7	74.0	-20.3	Peak	Vertical
	7308.4	36.6	8.1	44.7	54.0	-9.3	Average	Vertical
	8123.0	39.5	8.7	48.2	74.0	-25.8	Peak	Vertical
	11582.5	36.0	12.2	48.2	74.0	-25.8	Peak	Vertical
11	8208.0	37.5	8.9	46.4	74.0	-27.6	Peak	Horizontal
	10741.0	34.0	13.1	47.1	74.0	-26.9	Peak	Horizontal
	12356.0	36.2	12.2	48.4	74.0	-25.6	Peak	Horizontal
	8208.0	39.4	8.9	48.3	74.0	-25.7	Peak	Vertical
	11038.5	35.3	12.9	48.2	74.0	-25.8	Peak	Vertical
	12228.5	35.9	12.1	48.0	74.0	-26.0	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	Carl Jiang
Test Date	2022/06/28	Test Mode:	802.11ax-HE40 – MIMO Mode
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	8420.5	36.0	8.9	44.9	74.0	-29.1	Peak	Horizontal
	10987.5	34.8	12.9	47.7	74.0	-26.3	Peak	Horizontal
	12424.0	36.1	12.1	48.2	74.0	-25.8	Peak	Horizontal
	8072.0	39.2	8.9	48.1	74.0	-25.9	Peak	Vertical
	11106.5	35.0	12.6	47.6	74.0	-26.4	Peak	Vertical
	12364.5	36.5	12.1	48.6	74.0	-25.4	Peak	Vertical
06	8097.5	37.0	9.0	46.0	74.0	-28.0	Peak	Horizontal
	11047.0	34.3	13.1	47.4	74.0	-26.6	Peak	Horizontal
	12330.5	36.2	12.2	48.4	74.0	-25.6	Peak	Horizontal
	8123.0	40.4	8.7	49.1	74.0	-24.9	Peak	Vertical
	10911.0	34.9	12.7	47.6	74.0	-26.4	Peak	Vertical
	12271.0	34.9	12.1	47.0	74.0	-27.0	Peak	Vertical
09	8259.0	34.8	8.8	43.6	74.0	-30.4	Peak	Horizontal
	10919.5	35.4	12.7	48.1	74.0	-25.9	Peak	Horizontal
	12339.0	36.2	12.1	48.3	74.0	-25.7	Peak	Horizontal
	8174.0	38.8	8.5	47.3	74.0	-26.7	Peak	Vertical
	10758.0	35.7	12.8	48.5	74.0	-25.5	Peak	Vertical
	12534.5	35.8	11.9	47.7	74.0	-26.3	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)

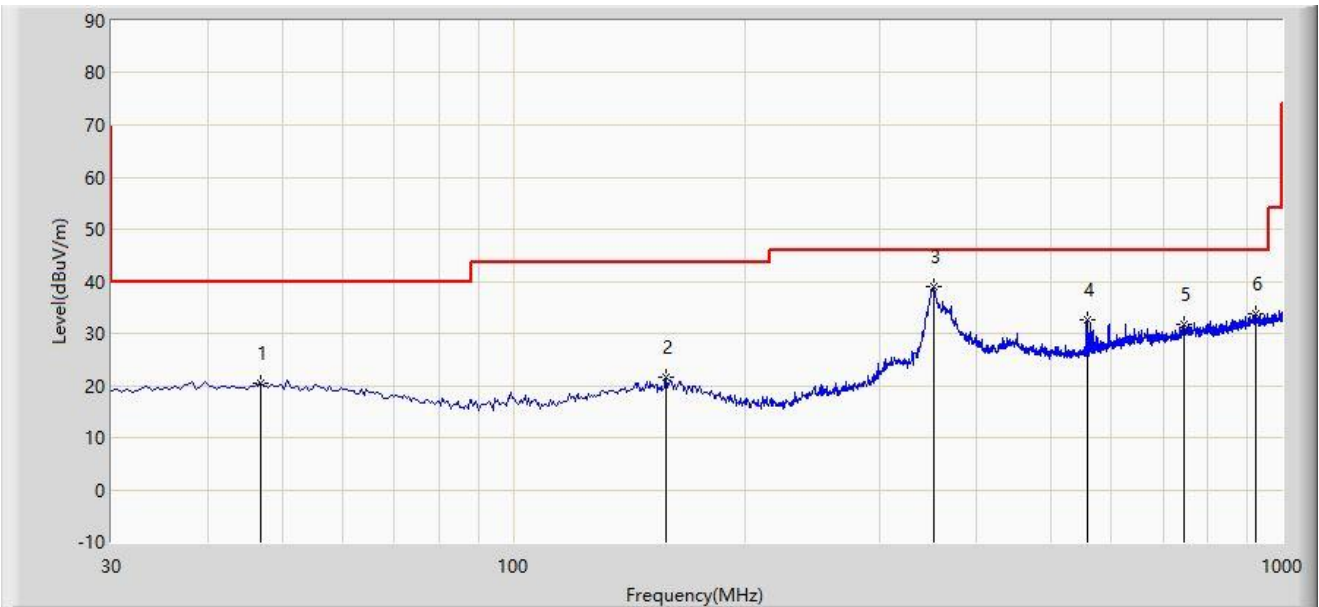
Test Site	WZ-AC1	Test Engineer	Carl Jiang
Test Date	2022/06/28	Test Mode:	802.11b – SISO Mode
Remark:	3. Average measurement was not performed if peak level lower than average limit. 4. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
01	4825.0	41.5	3.1	44.6	74.0	-29.4	Peak	Horizontal
	10979.0	34.8	12.7	47.5	74.0	-26.5	Peak	Horizontal
	12092.5	35.4	12.0	47.4	74.0	-26.6	Peak	Horizontal
	4825.0	43.5	3.1	46.6	74.0	-27.4	Peak	Vertical
	10953.5	34.6	12.9	47.5	74.0	-26.5	Peak	Vertical
	12330.5	35.3	12.2	47.5	74.0	-26.5	Peak	Vertical
06	8123.0	36.9	8.7	45.6	74.0	-28.4	Peak	Horizontal
	10962.0	34.9	12.8	47.7	74.0	-26.3	Peak	Horizontal
	12126.5	35.7	12.2	47.9	74.0	-26.1	Peak	Horizontal
	8123.0	40.3	8.7	49.0	74.0	-25.0	Peak	Vertical
	10826.0	33.1	12.8	45.9	74.0	-28.1	Peak	Vertical
	11557.0	36.3	12.4	48.7	74.0	-25.3	Peak	Vertical
11	7477.0	36.2	8.1	44.3	74.0	-29.7	Peak	Horizontal
	10962.0	34.8	12.8	47.6	74.0	-26.4	Peak	Horizontal
	11497.5	35.8	12.8	48.6	74.0	-25.4	Peak	Horizontal
	7383.5	38.4	8.3	46.7	74.0	-27.3	Peak	Vertical
	8208.0	40.0	8.9	48.9	74.0	-25.1	Peak	Vertical
	11370.0	36.0	12.3	48.3	74.0	-25.7	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)

Site: WZ-AC1	Time: 2022/07/06 - 19:07
Limit: FCC_Part15.209_RSE(3m)	Engineer: Bob Zhang
Probe: VULB 9168_25-2000MHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
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		46.975	20.414	2.067	-19.586	40.000	18.347	PK
2		158.040	21.511	3.359	-21.989	43.500	18.152	PK
3	*	352.525	38.871	19.315	-7.129	46.000	19.555	PK
4		557.195	32.598	8.537	-13.402	46.000	24.061	PK
5		743.920	31.624	3.703	-14.376	46.000	27.921	PK
6		925.310	33.665	3.729	-12.335	46.000	29.936	PK

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

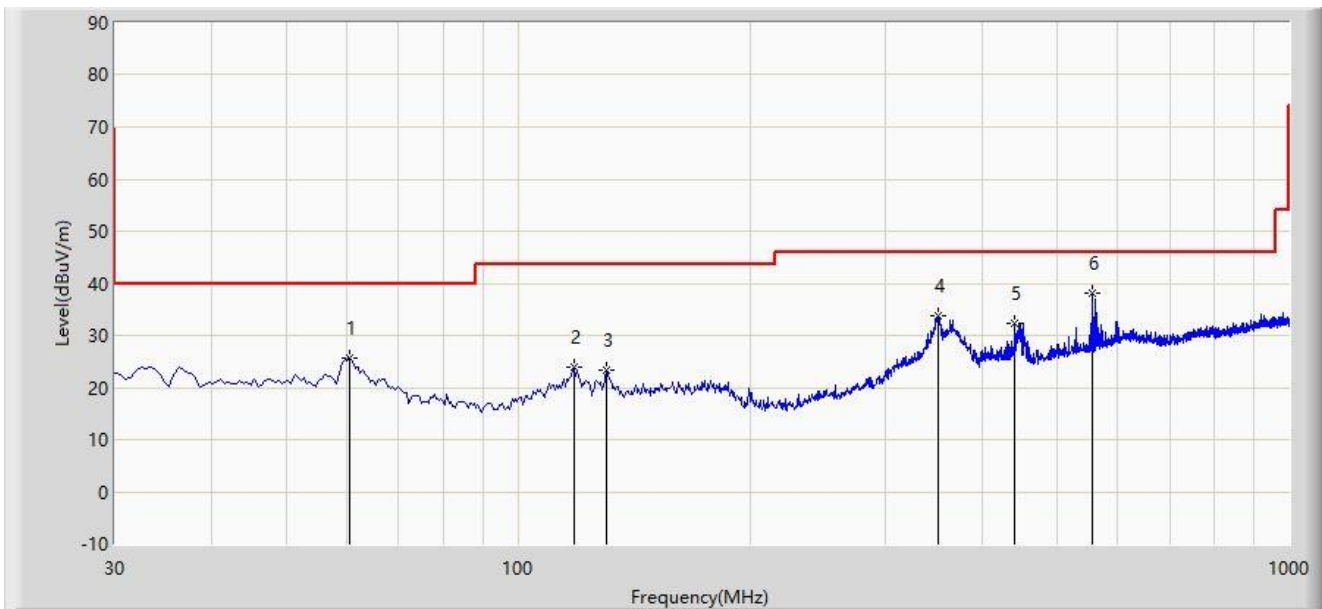
Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

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.



Site: WZ-AC1	Time: 2022/07/06 - 19:29
Limit: FCC_Part15.209_RSE(3m)	Engineer: Bob Zhang
Probe: VULB 9168_25-2000MHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at 2422MHz	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1		60.555	25.710	8.306	-14.290	40.000	17.404	PK
2		118.270	24.022	8.417	-19.478	43.500	15.605	PK
3		130.395	23.470	6.718	-20.030	43.500	16.752	PK
4		350.100	33.866	14.365	-12.134	46.000	19.501	PK
5		440.795	32.226	10.202	-13.774	46.000	22.024	PK
6	*	556.710	38.241	14.186	-7.759	46.000	24.055	PK

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

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

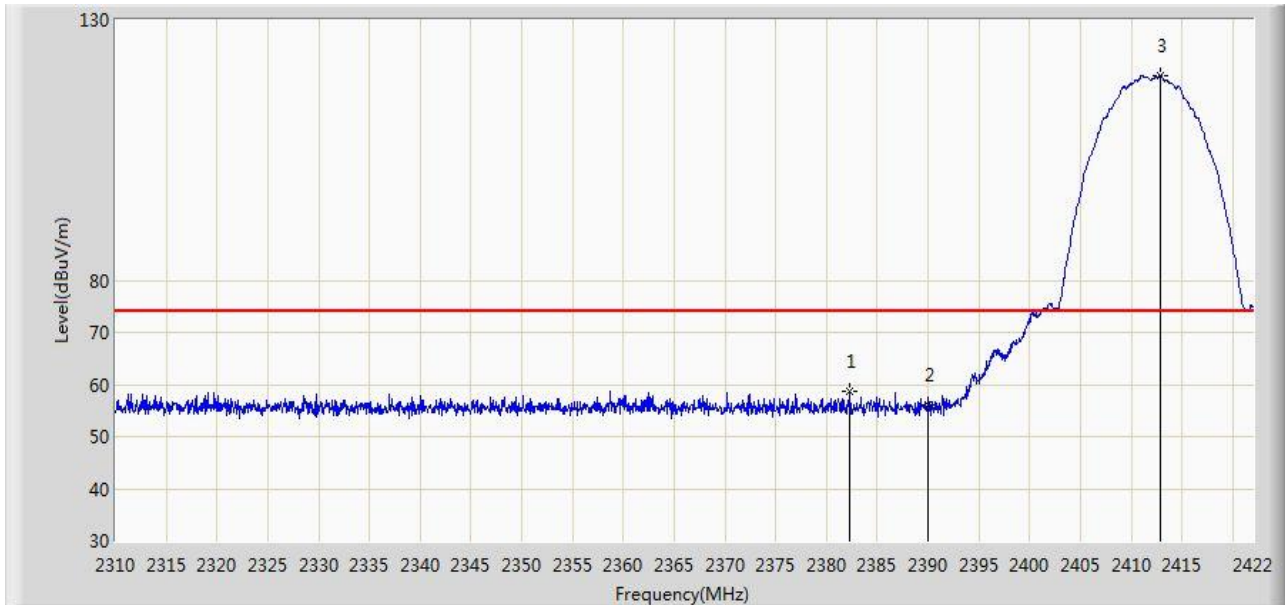
Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

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

### A.3 Radiated Restricted Band Edge Test Result

#### MIMO Mode

Site: WZ-AC1	Time: 2022/06/28 - 15:24
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2412MHz	



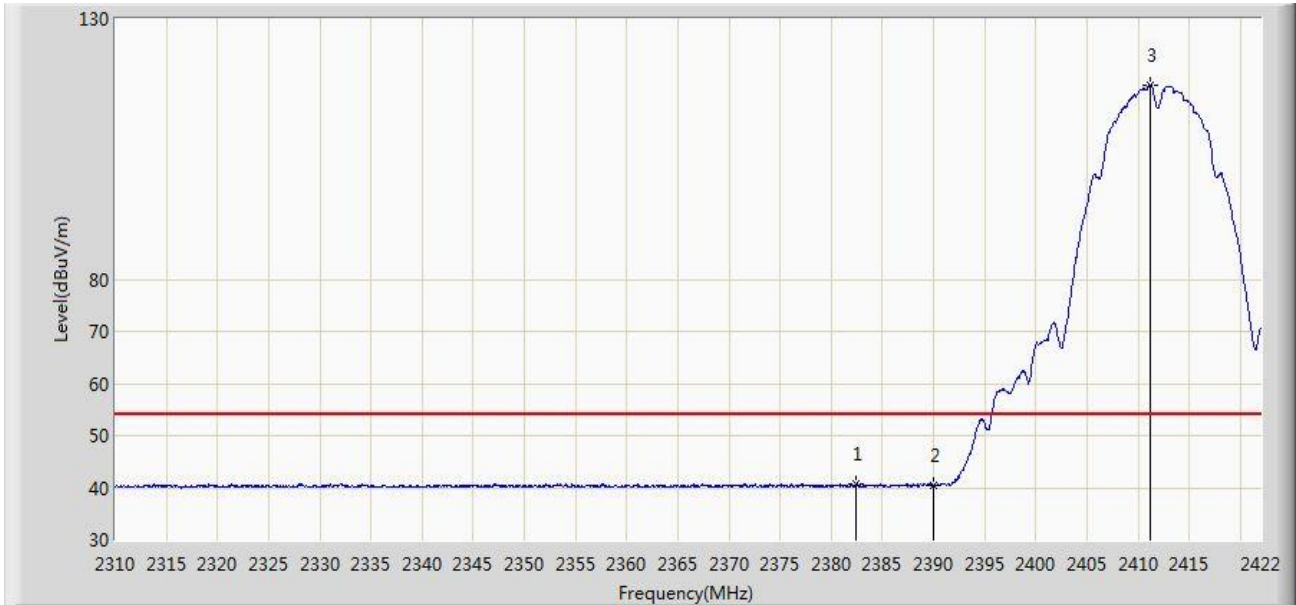
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2382.296	58.720	28.201	-15.280	74.000	30.519	PK
2		2390.000	56.068	25.542	-17.932	74.000	30.526	PK
3		2412.872	119.363	88.805	N/A	N/A	30.558	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 15:32
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2412MHz	



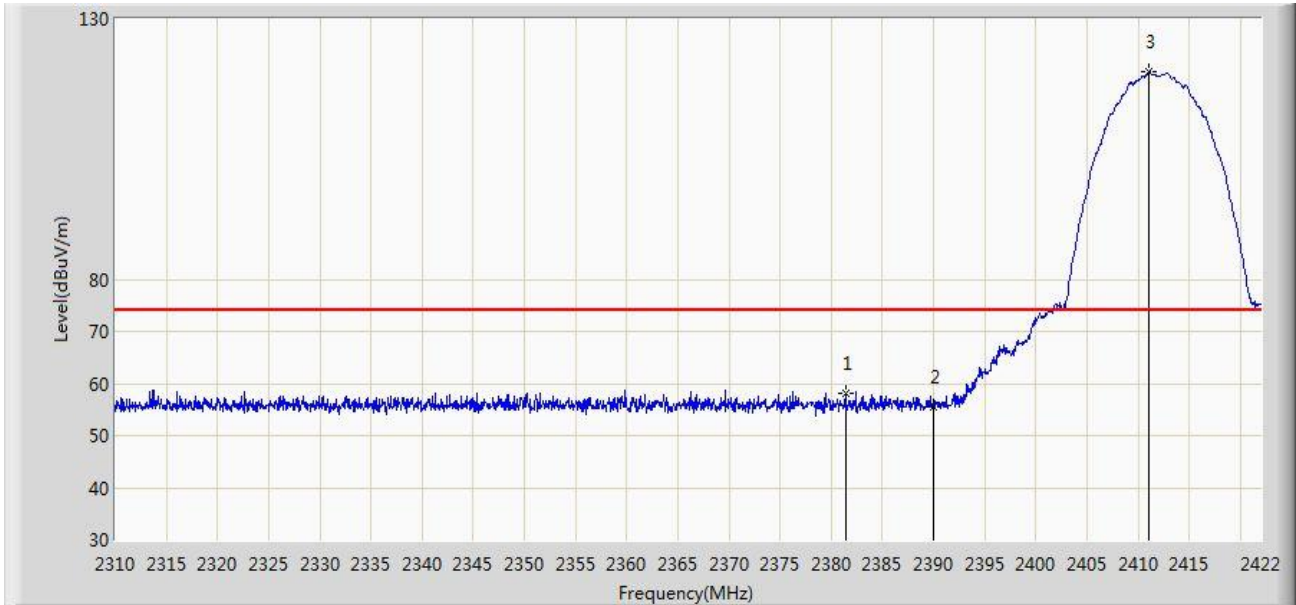
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2382.464	40.762	10.243	-13.238	54.000	30.519	AV
2		2390.000	40.305	9.779	-13.695	54.000	30.526	AV
3		2411.248	117.276	86.718	N/A	N/A	30.558	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 15:34
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2412MHz	



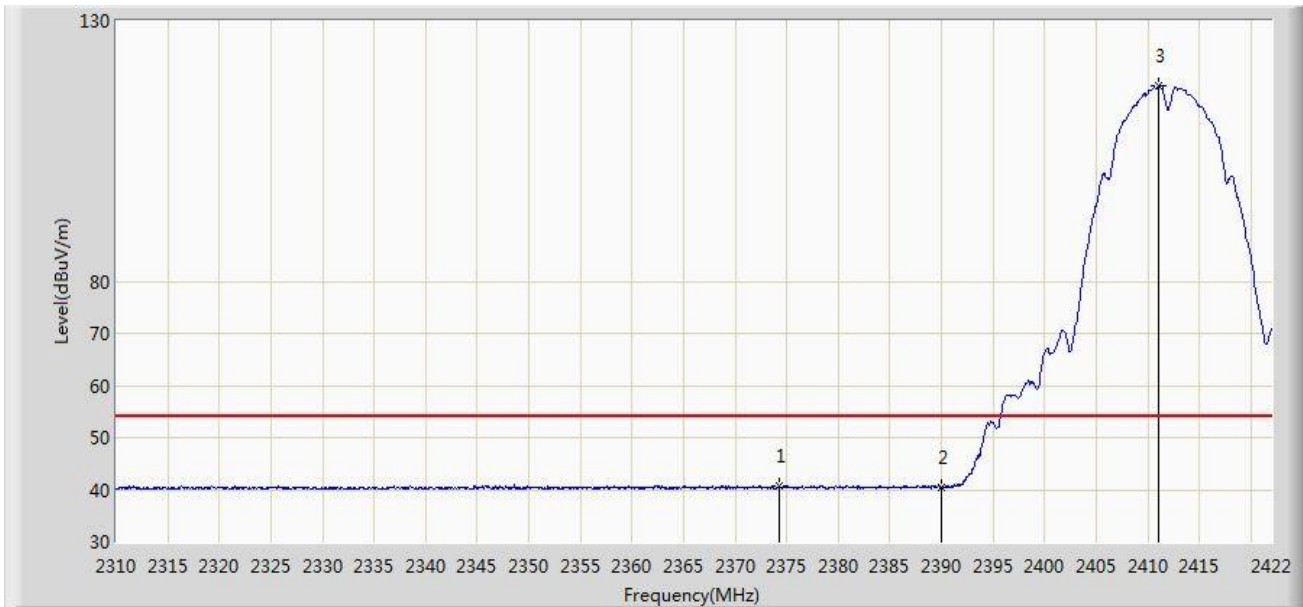
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2381.400	58.198	27.677	-15.802	74.000	30.522	PK
2		2390.000	55.636	25.110	-18.364	74.000	30.526	PK
3		2411.080	119.782	89.224	N/A	N/A	30.558	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 15:38
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2412MHz	



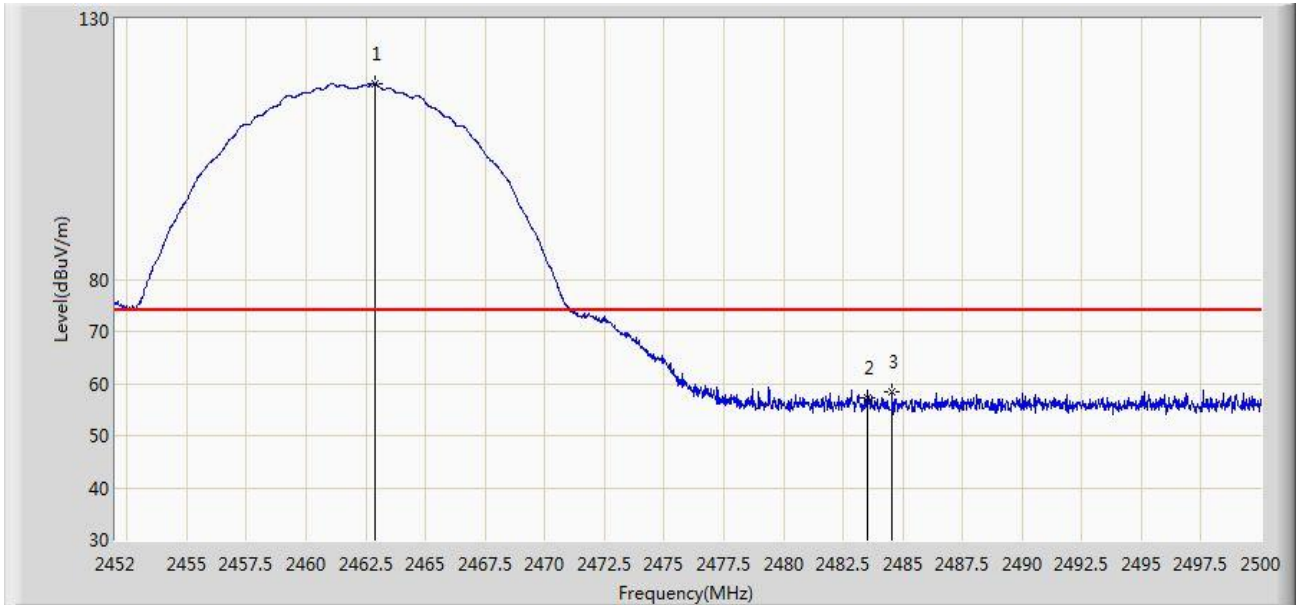
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2374.344	40.714	10.179	-13.286	54.000	30.535	AV
2		2390.000	40.510	9.984	-13.490	54.000	30.526	AV
3		2411.080	117.469	86.911	N/A	N/A	30.558	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 15:55
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2462MHz	



No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2462.872	117.530	86.890	N/A	N/A	30.640	PK
2		2483.500	57.151	26.448	-16.849	74.000	30.704	PK
3	*	2484.568	58.467	27.763	-15.533	74.000	30.704	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 16:00
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2462MHz	



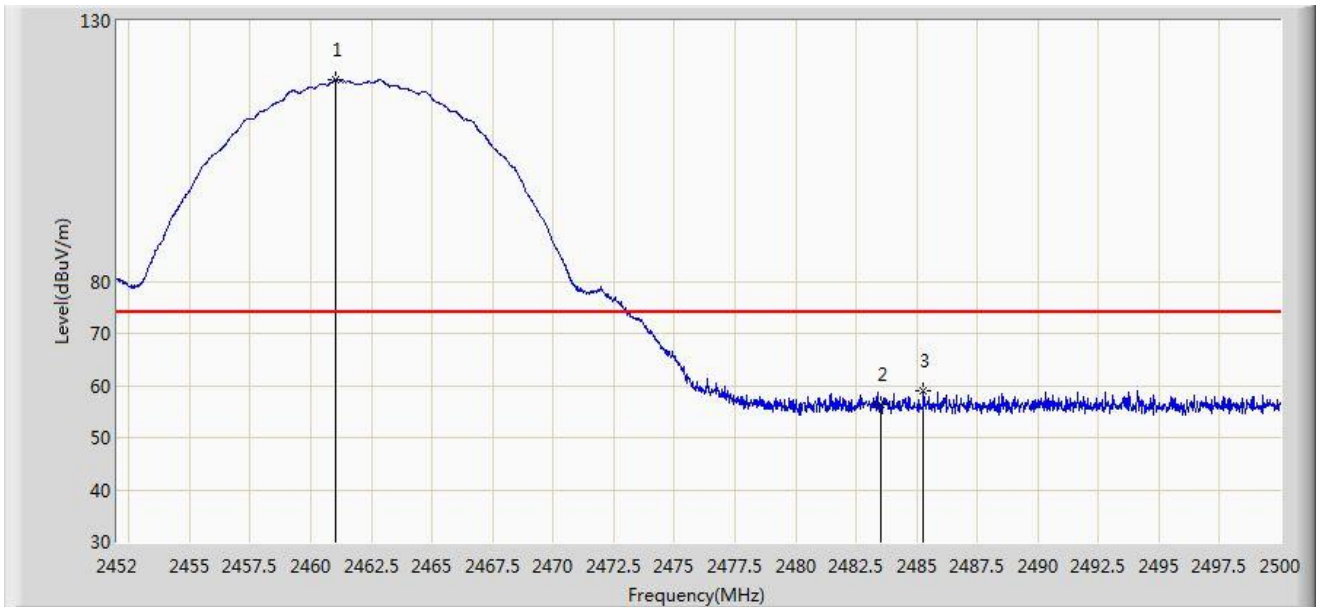
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2462.728	115.399	84.759	N/A	N/A	30.640	AV
2		2483.500	40.781	10.078	-13.219	54.000	30.704	AV
3	*	2484.112	40.972	10.268	-13.028	54.000	30.704	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 16:03
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2462MHz	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1		2461.024	118.689	88.058	N/A	N/A	30.631	PK
2		2483.500	56.250	25.547	-17.750	74.000	30.704	PK
3	*	2485.264	58.862	28.157	-15.138	74.000	30.705	PK

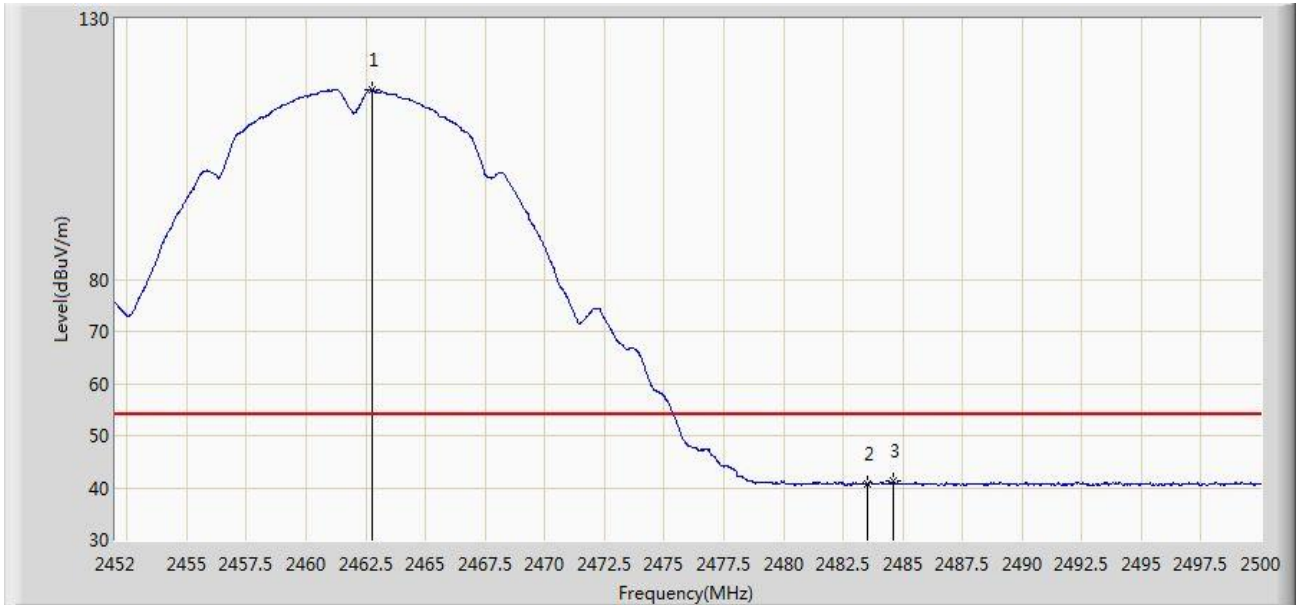
Note 1: " \* ", means this data is the worst emission level.

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

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



Site: WZ-AC1	Time: 2022/06/28 - 16:05
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2462MHz	



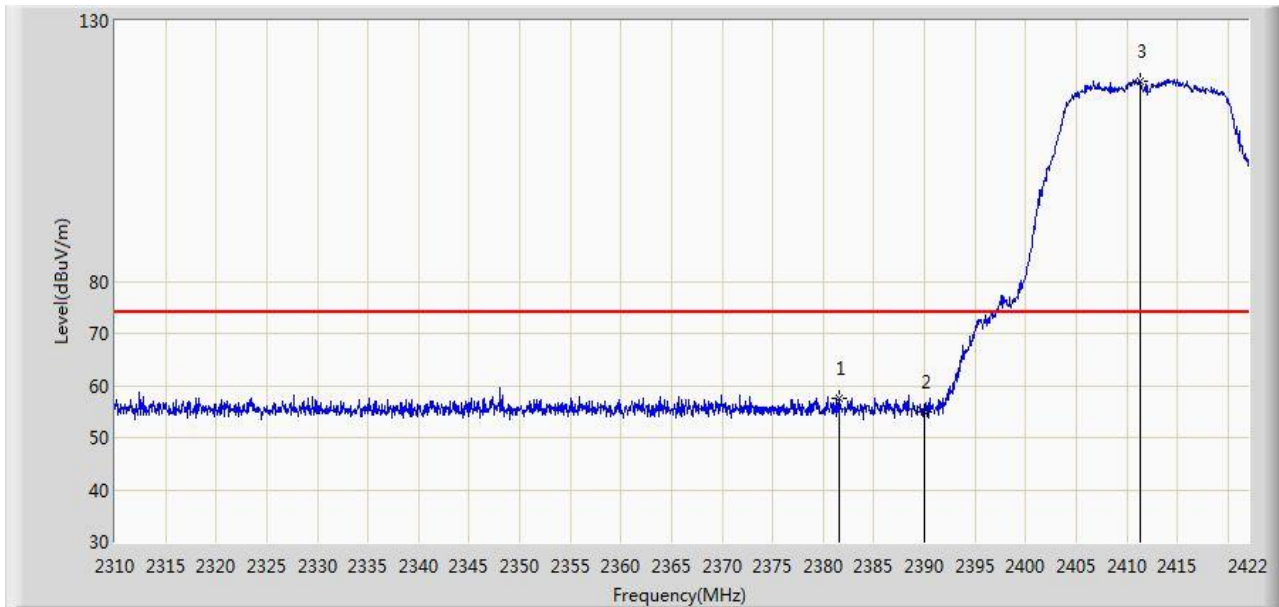
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2462.752	116.488	85.848	N/A	N/A	30.640	AV
2		2483.500	40.739	10.036	-13.261	54.000	30.704	AV
3	*	2484.592	41.220	10.516	-12.780	54.000	30.704	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 16:44
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2412MHz	



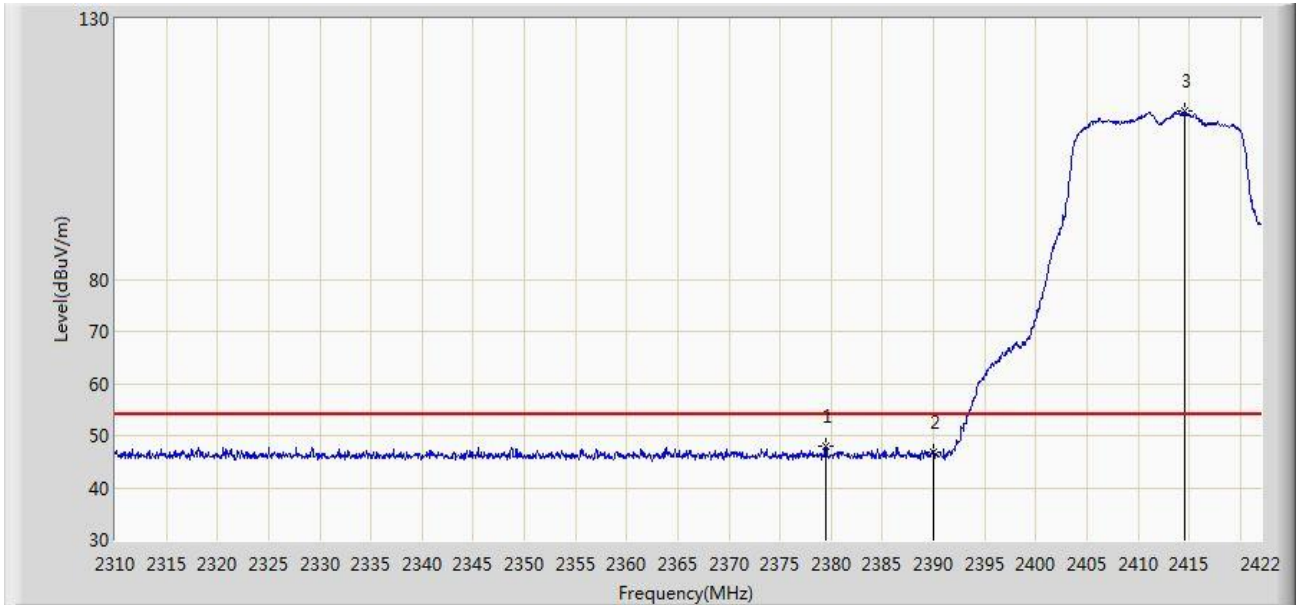
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2381.624	57.663	27.142	-16.337	74.000	30.520	PK
2		2390.000	55.016	24.490	-18.984	74.000	30.526	PK
3		2411.304	118.400	87.842	N/A	N/A	30.558	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 16:46
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2412MHz	



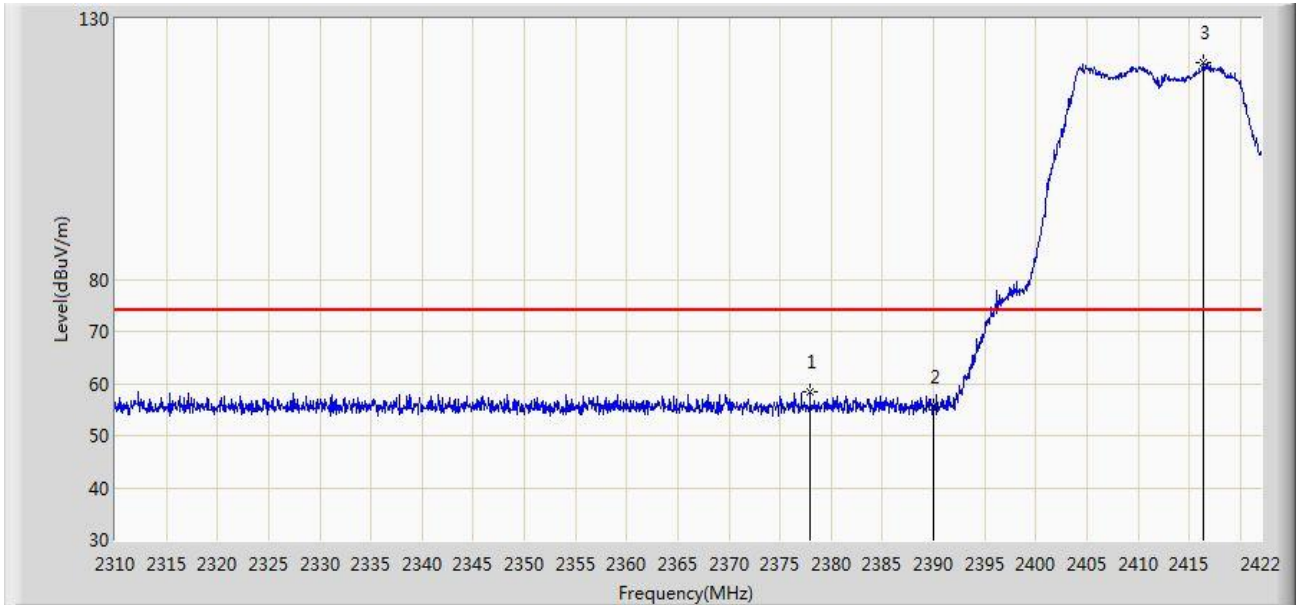
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2379.440	47.917	17.392	-6.083	54.000	30.525	AV
2		2390.000	46.946	16.420	-7.054	54.000	30.526	AV
3		2414.552	112.245	81.686	N/A	N/A	30.559	AV

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	Time: 2022/06/28 - 16:43
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2412MHz	



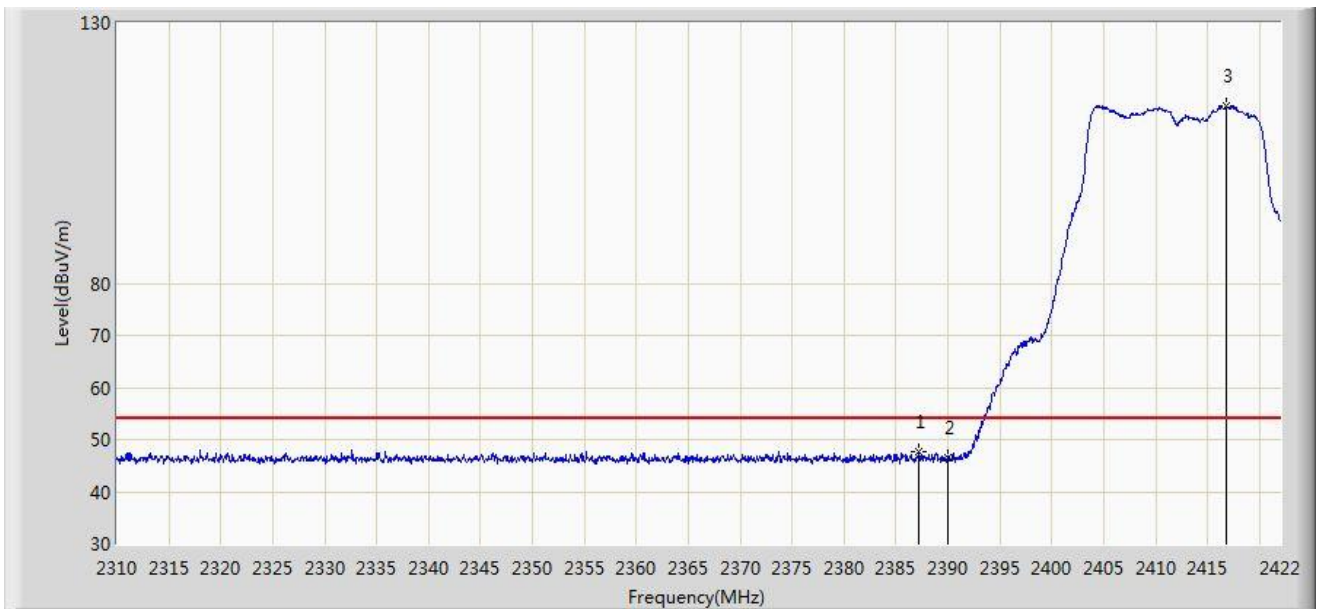
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2377.928	58.539	28.010	-15.461	74.000	30.528	PK
2		2390.000	55.641	25.115	-18.359	74.000	30.526	PK
3		2416.456	121.535	90.976	N/A	N/A	30.559	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 16:41
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2412MHz	



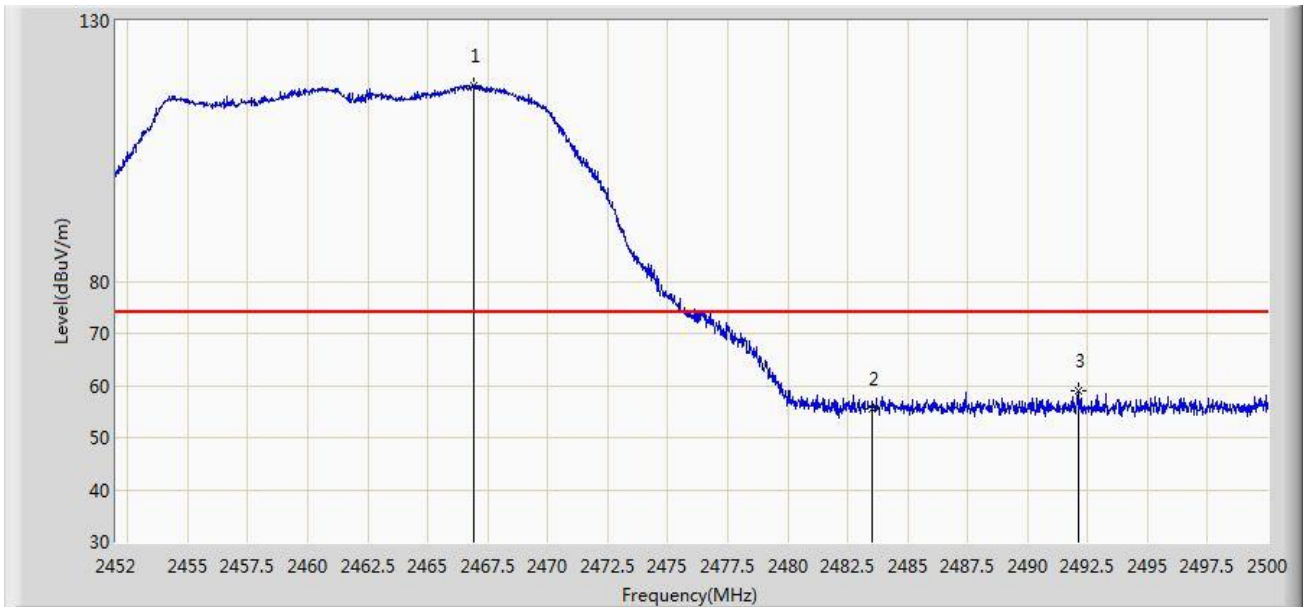
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2387.224	47.619	17.098	-6.381	54.000	30.521	AV
2		2390.000	46.650	16.124	-7.350	54.000	30.526	AV
3		2416.848	114.070	83.511	N/A	N/A	30.559	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 17:15
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2462MHz	



No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2466.928	117.567	86.906	N/A	N/A	30.661	PK
2		2483.500	55.579	24.876	-18.421	74.000	30.704	PK
3	*	2492.104	59.088	28.378	-14.912	74.000	30.710	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 17:17
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2462MHz	



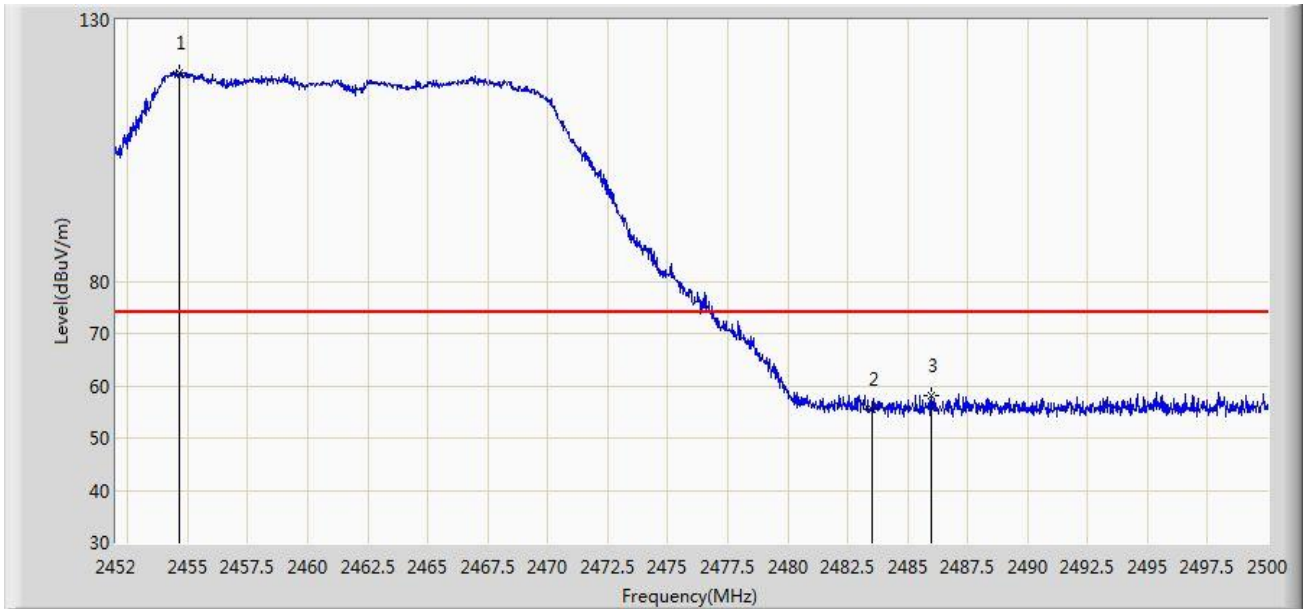
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2466.688	110.946	80.286	N/A	N/A	30.660	AV
2		2483.500	46.688	15.985	-7.312	54.000	30.704	AV
3	*	2484.184	47.875	17.171	-6.125	54.000	30.704	AV

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	Time: 2022/06/28 - 17:13
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2462MHz	



No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2454.664	119.987	89.385	N/A	N/A	30.602	PK
2		2483.500	55.618	24.915	-18.382	74.000	30.704	PK
3	*	2486.008	58.171	27.466	-15.829	74.000	30.705	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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



Site: WZ-AC1	Time: 2022/06/28 - 17:10
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2462MHz	



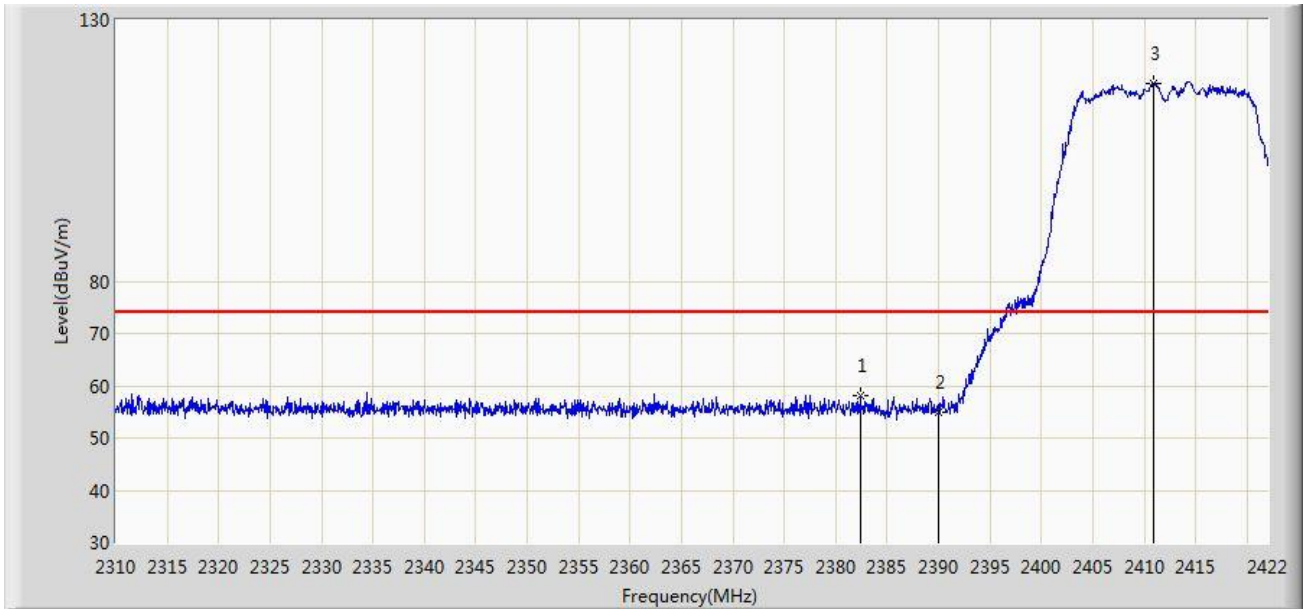
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2454.376	113.591	82.990	N/A	N/A	30.601	AV
2		2483.500	47.073	16.370	-6.927	54.000	30.704	AV
3	*	2493.544	48.519	17.803	-5.481	54.000	30.716	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 17:47
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at 2412MHz	



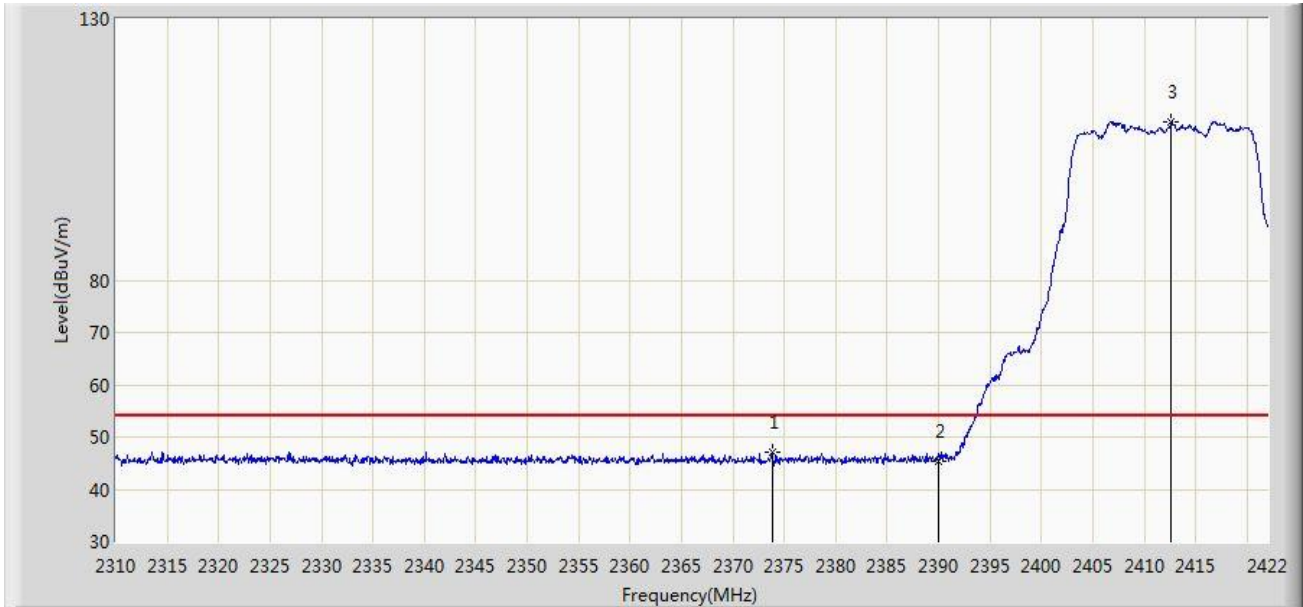
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2382.408	58.125	27.606	-15.875	74.000	30.519	PK
2		2390.000	54.808	24.282	-19.192	74.000	30.526	PK
3		2410.856	117.808	87.250	N/A	N/A	30.558	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 17:45
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at 2412MHz	



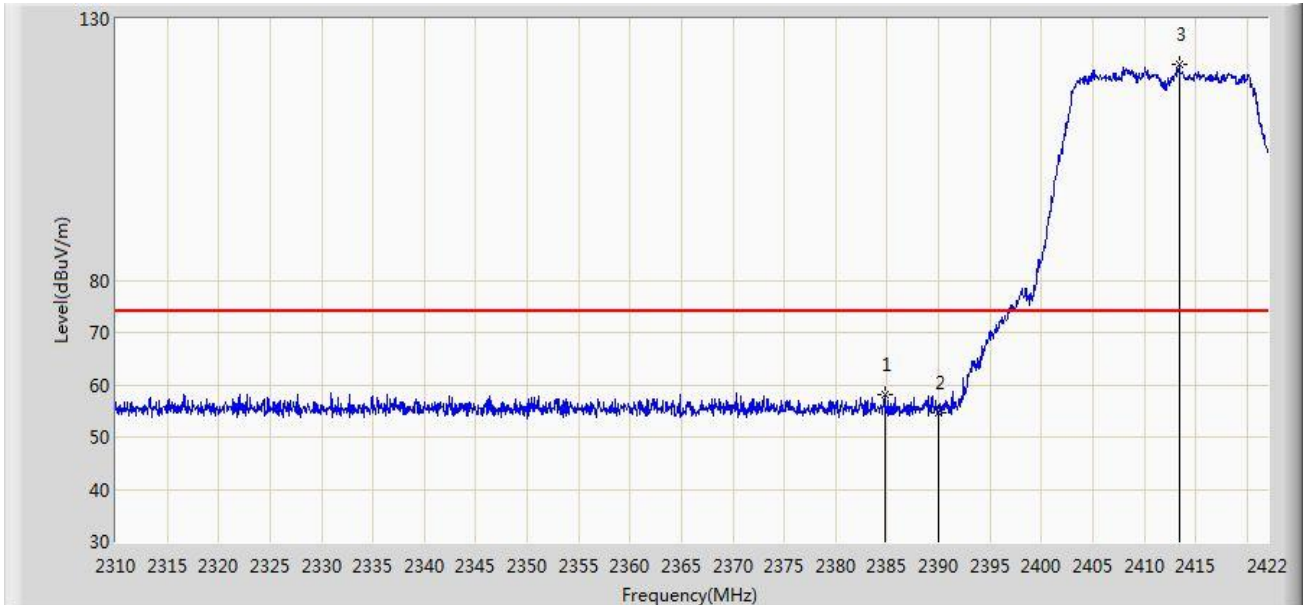
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2373.840	47.044	16.508	-6.956	54.000	30.536	AV
2		2390.000	45.442	14.916	-8.558	54.000	30.526	AV
3		2412.648	110.313	79.755	N/A	N/A	30.559	AV

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	Time: 2022/06/28 - 17:50
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at 2412MHz	



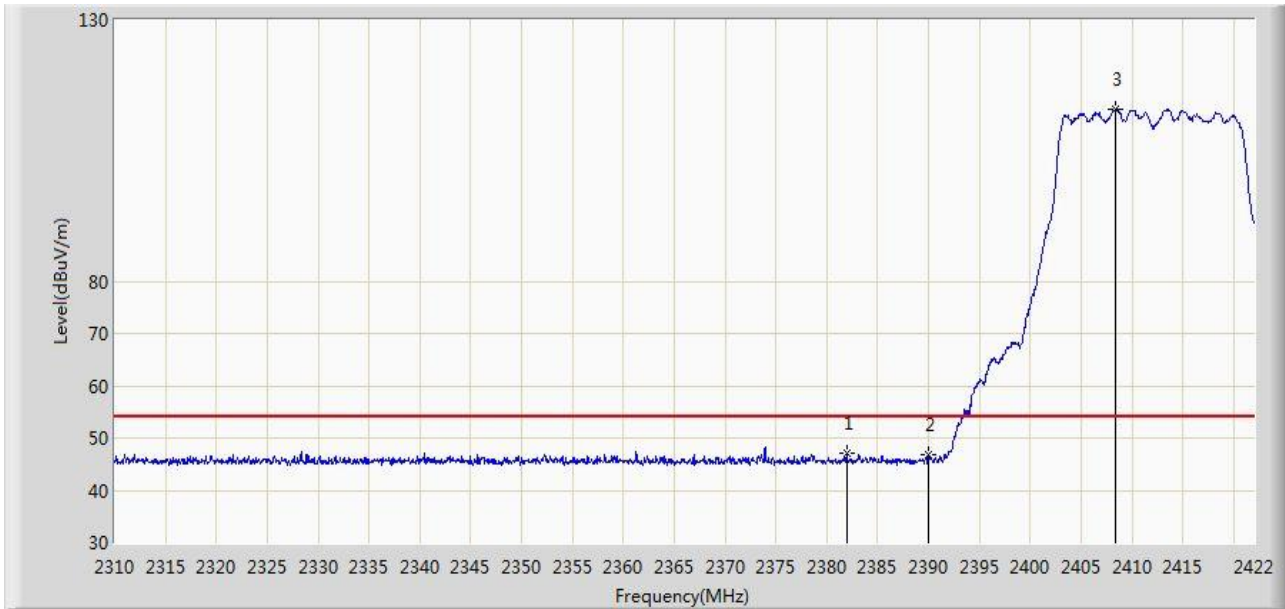
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2384.760	57.984	27.467	-16.016	74.000	30.517	PK
2		2390.000	54.577	24.051	-19.423	74.000	30.526	PK
3		2413.376	121.364	90.806	N/A	N/A	30.558	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 17:52
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at 2412MHz	



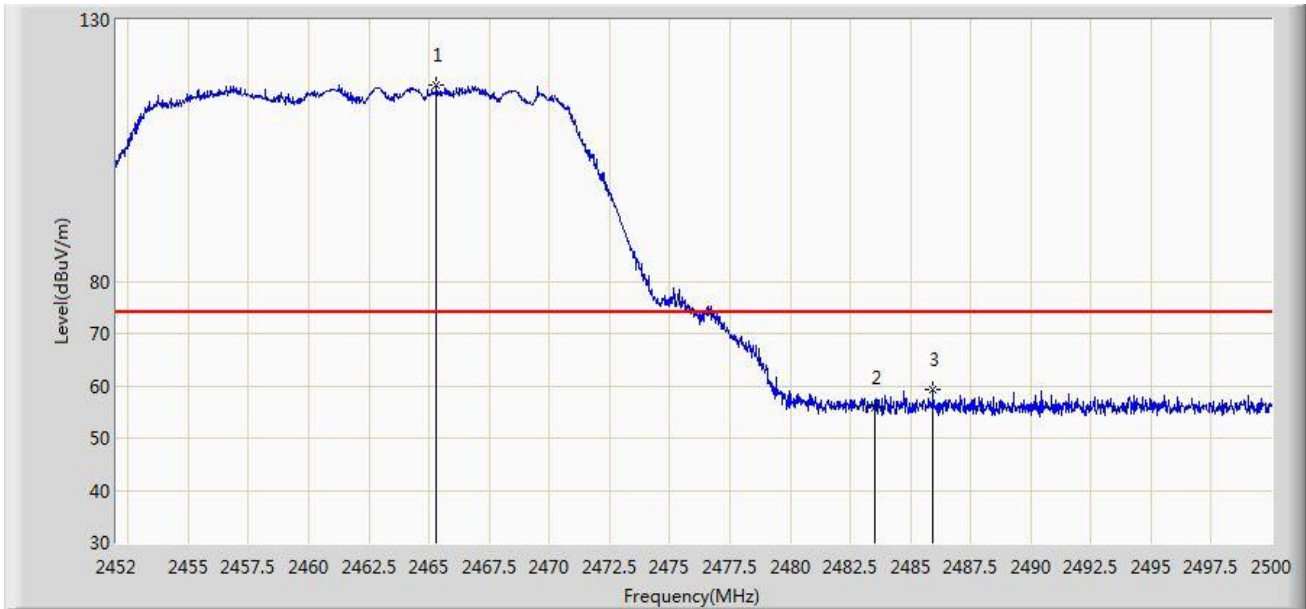
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2381.960	47.063	16.543	-6.937	54.000	30.520	AV
2		2390.000	46.705	16.179	-7.295	54.000	30.526	AV
3		2408.392	112.800	82.242	N/A	N/A	30.558	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 18:03
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
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		2465.296	117.426	86.773	N/A	N/A	30.653	PK
2		2483.500	55.749	25.046	-18.251	74.000	30.704	PK
3	*	2485.936	59.163	28.458	-14.837	74.000	30.705	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	Time: 2022/06/28 - 18:01
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at 2462MHz	



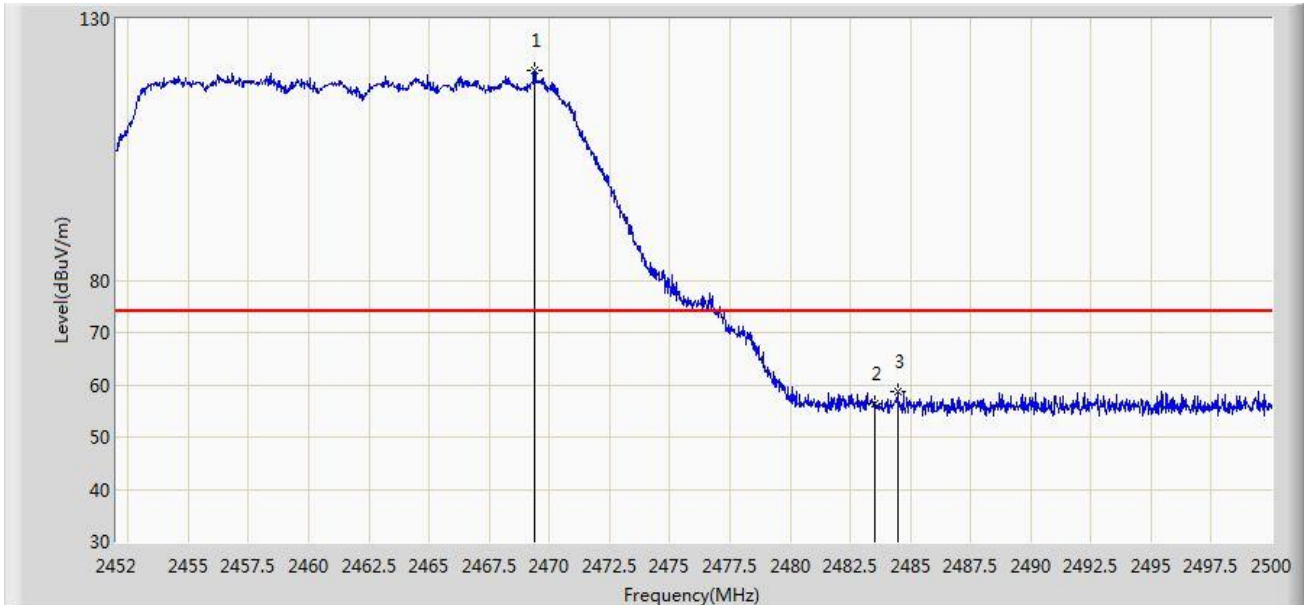
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2466.928	109.788	79.127	N/A	N/A	30.661	AV
2		2483.500	46.462	15.759	-7.538	54.000	30.704	AV
3	*	2483.704	47.090	16.386	-6.910	54.000	30.704	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 18:05
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at 2462MHz	



No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2469.376	120.263	89.589	N/A	N/A	30.674	PK
2		2483.500	56.284	25.581	-17.716	74.000	30.704	PK
3	*	2484.472	58.752	28.048	-15.248	74.000	30.704	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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



Site: WZ-AC1	Time: 2022/06/28 - 18:06
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at 2462MHz	



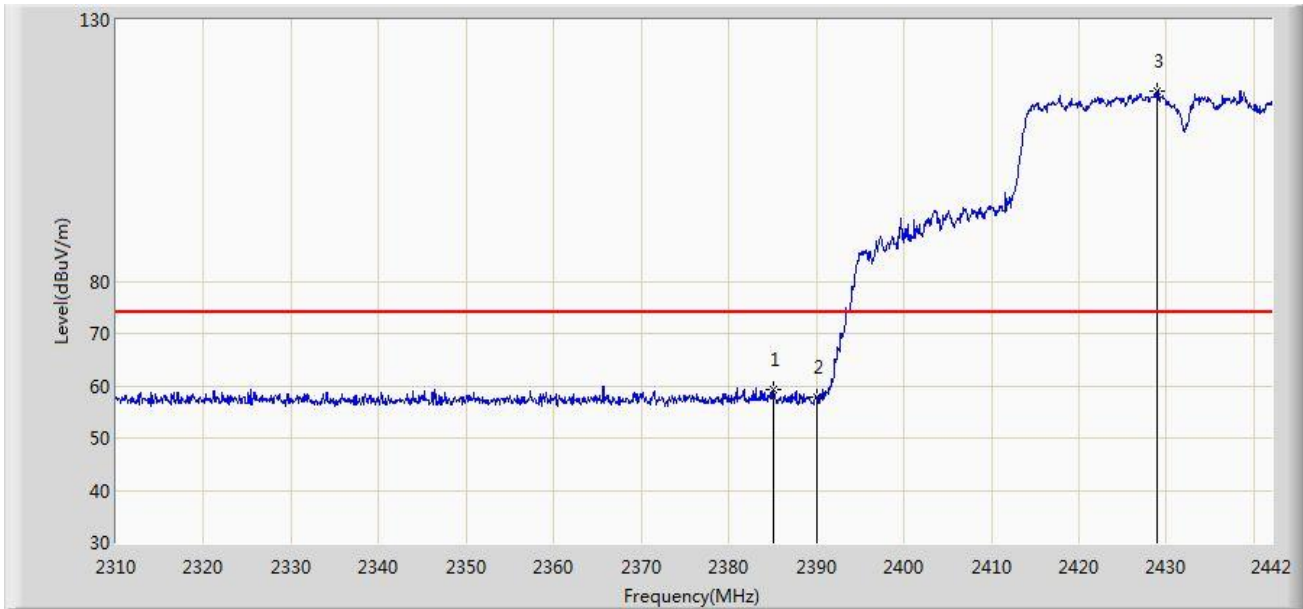
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2469.376	112.148	81.474	N/A	N/A	30.674	AV
2		2483.500	46.870	16.167	-7.130	54.000	30.704	AV
3	*	2484.064	48.225	17.521	-5.775	54.000	30.704	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 18:16
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at 2422MHz	



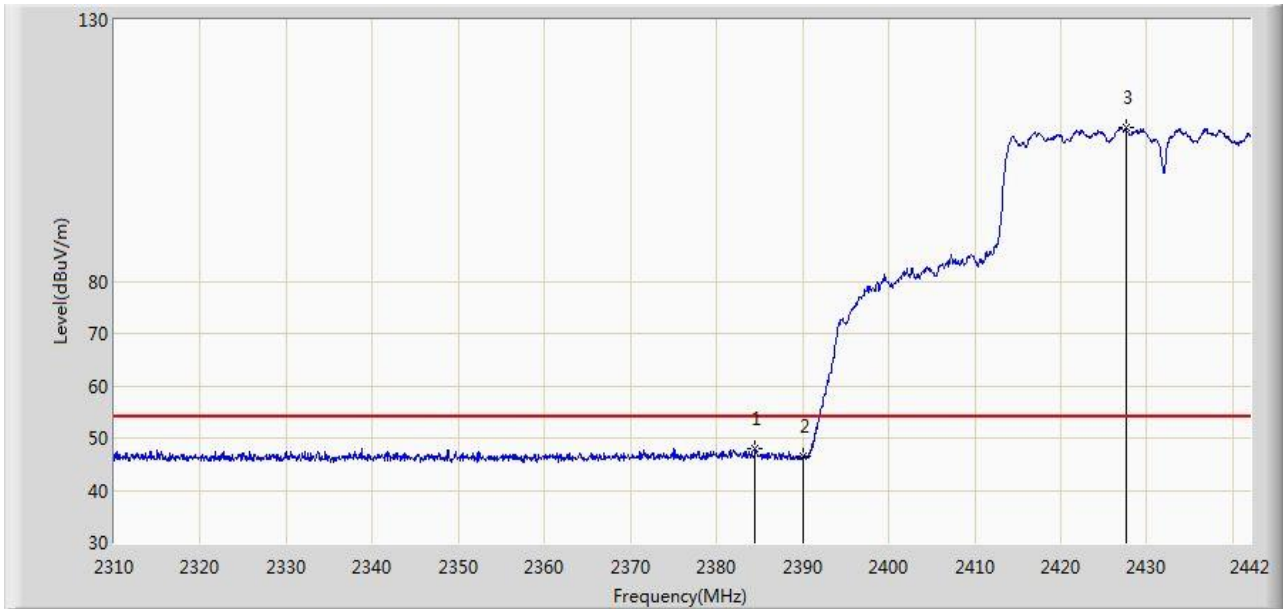
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2385.042	59.409	28.892	-14.591	74.000	30.518	PK
2		2390.000	57.813	27.287	-16.187	74.000	30.526	PK
3		2428.998	116.323	85.774	N/A	N/A	30.549	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 18:11
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at 2422MHz	



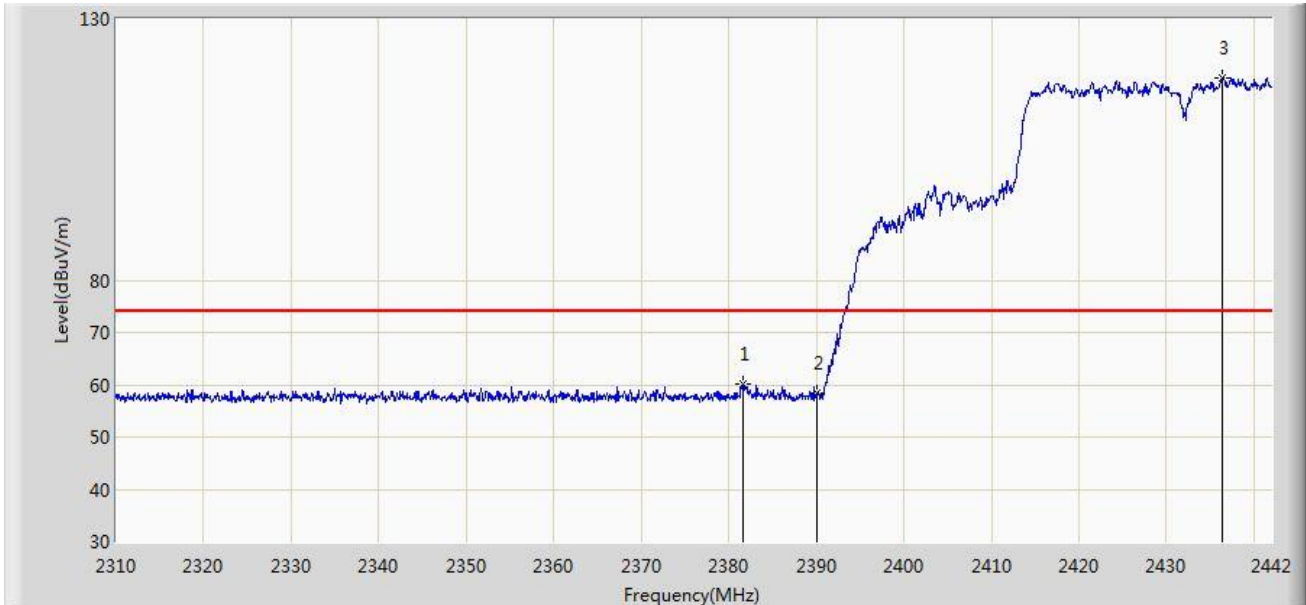
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2384.448	47.965	17.449	-6.035	54.000	30.516	AV
2		2390.000	46.413	15.887	-7.587	54.000	30.526	AV
3		2427.546	109.544	78.994	N/A	N/A	30.550	AV

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	Time: 2022/06/28 - 18:18
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at 2422MHz	



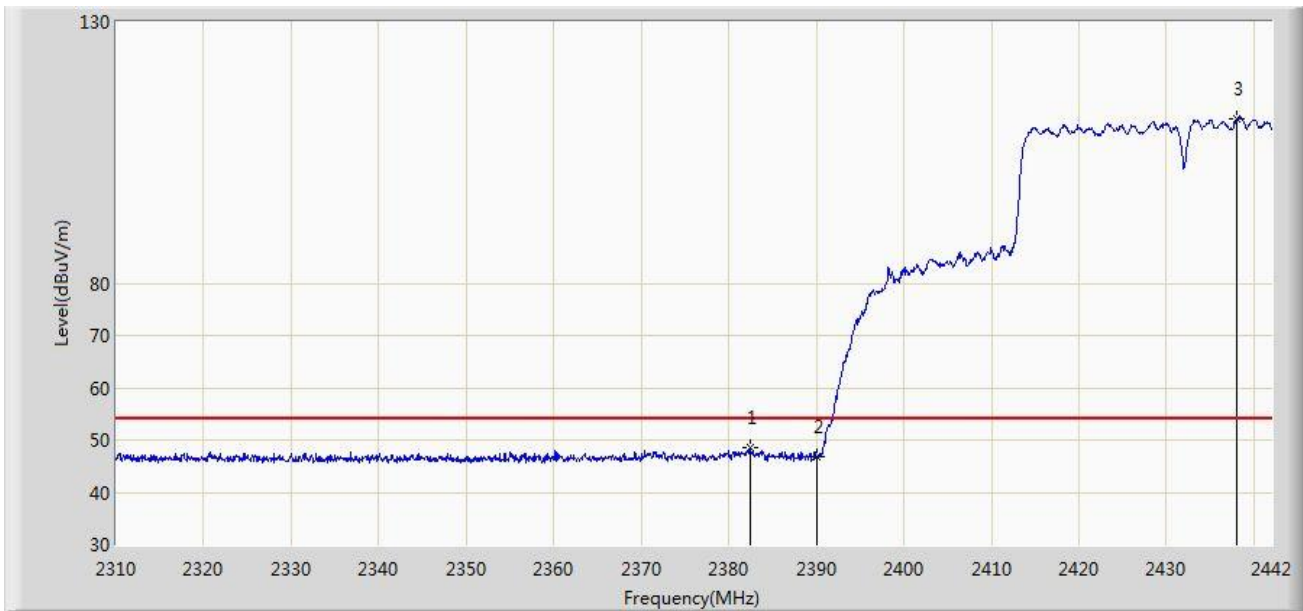
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2381.610	60.215	29.694	-13.785	74.000	30.520	PK
2		2390.000	58.266	27.740	-15.734	74.000	30.526	PK
3		2436.390	118.810	88.265	N/A	N/A	30.546	PK

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	Time: 2022/06/28 - 18:20
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at 2422MHz	



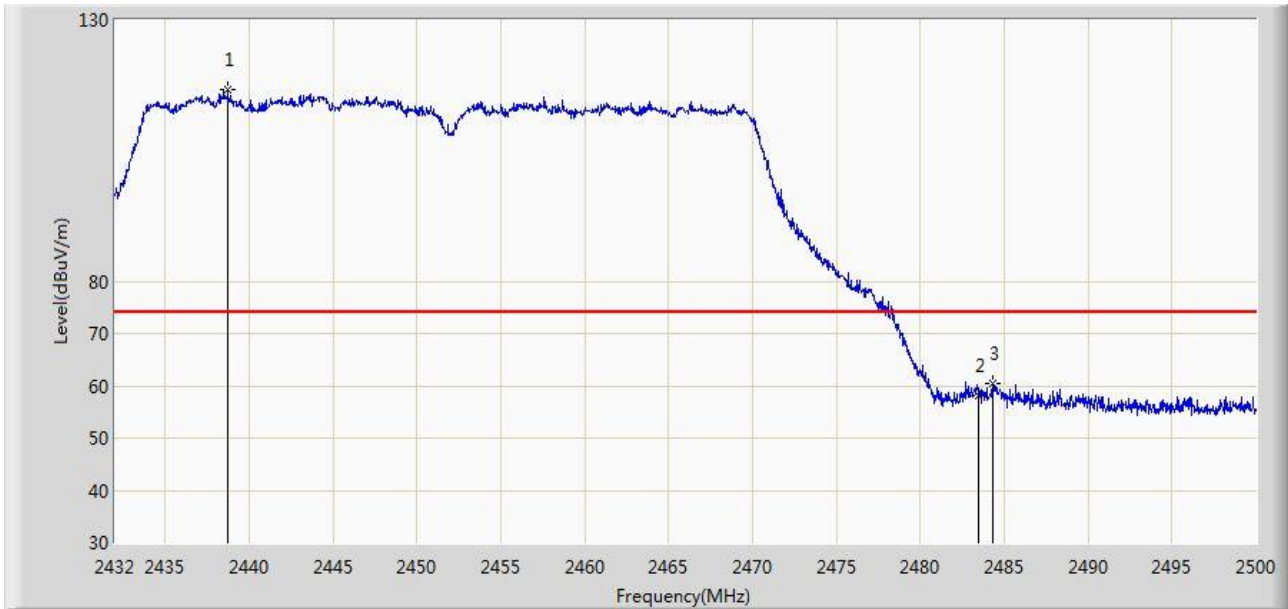
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2382.468	48.612	18.093	-5.388	54.000	30.519	AV
2		2390.000	46.702	16.176	-7.298	54.000	30.526	AV
3		2438.106	111.536	80.991	N/A	N/A	30.545	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 18:44
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at 2452MHz	



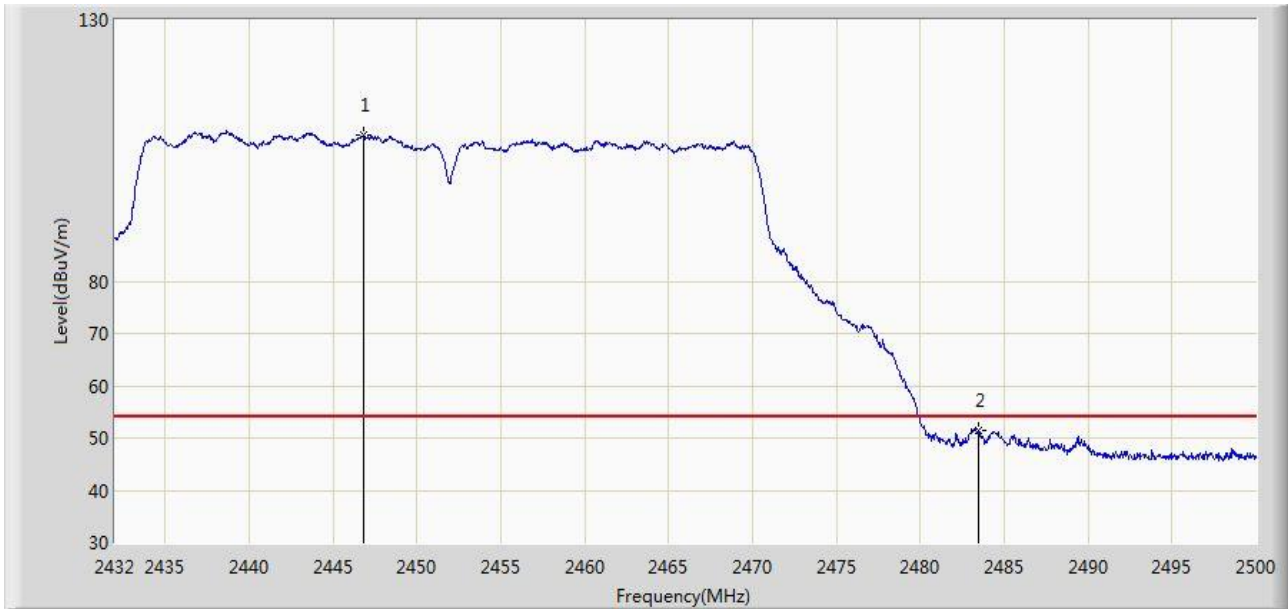
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2438.732	116.540	85.993	N/A	N/A	30.547	PK
2		2483.500	58.091	27.388	-15.909	74.000	30.704	PK
3	*	2484.292	60.339	29.635	-13.661	74.000	30.704	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 18:45
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at 2452MHz	



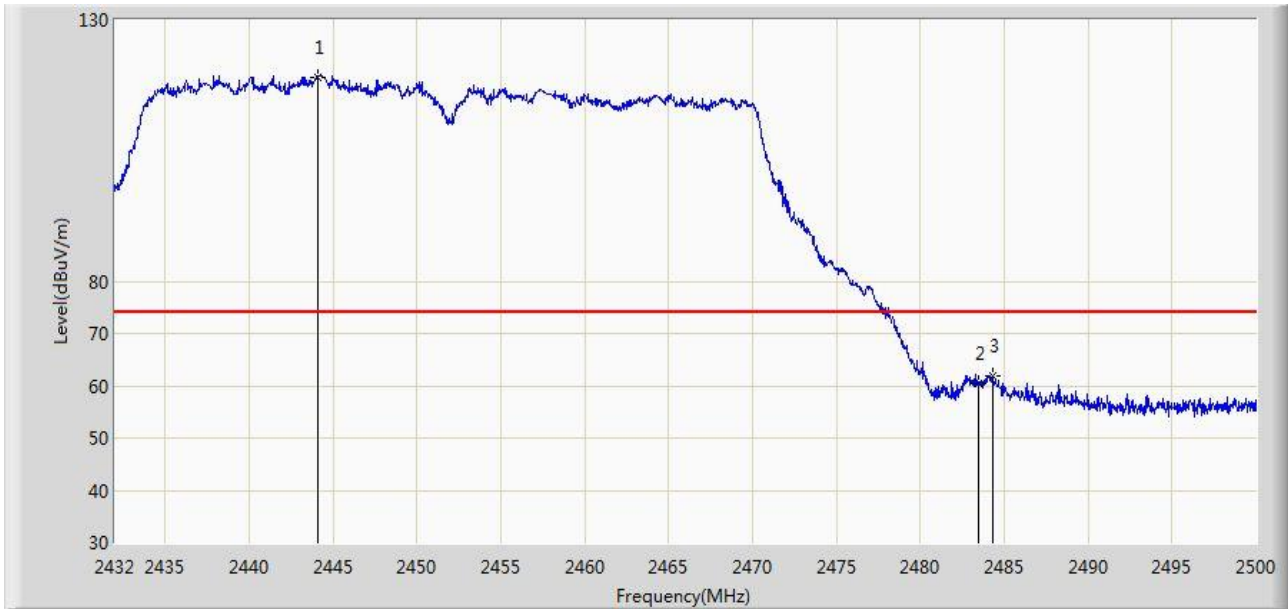
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2446.790	107.985	77.411	N/A	N/A	30.574	AV
2	*	2483.500	51.359	20.656	-2.641	54.000	30.704	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 18:42
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at 2452MHz	



No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2444.070	119.068	88.503	N/A	N/A	30.565	PK
2		2483.500	60.555	29.852	-13.445	74.000	30.704	PK
3	*	2484.360	61.943	31.239	-12.057	74.000	30.704	PK

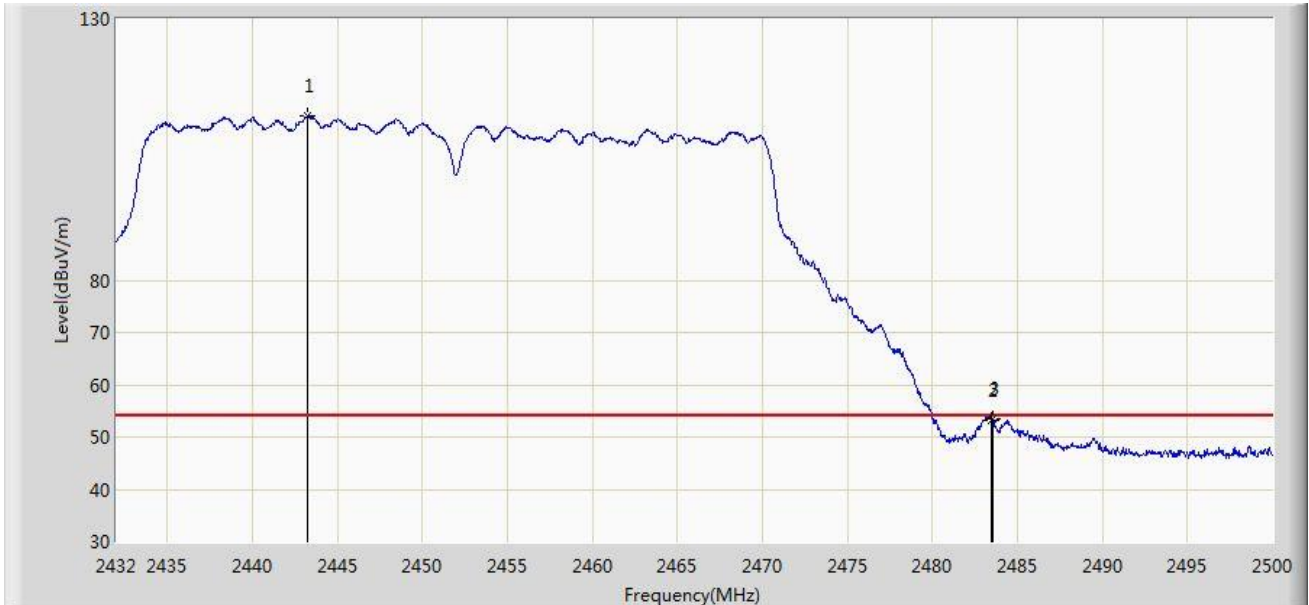
Note 1: " \* ", means this data is the worst emission level.

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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



Site: WZ-AC1	Time: 2022/06/28 - 18:39
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at 2452MHz	



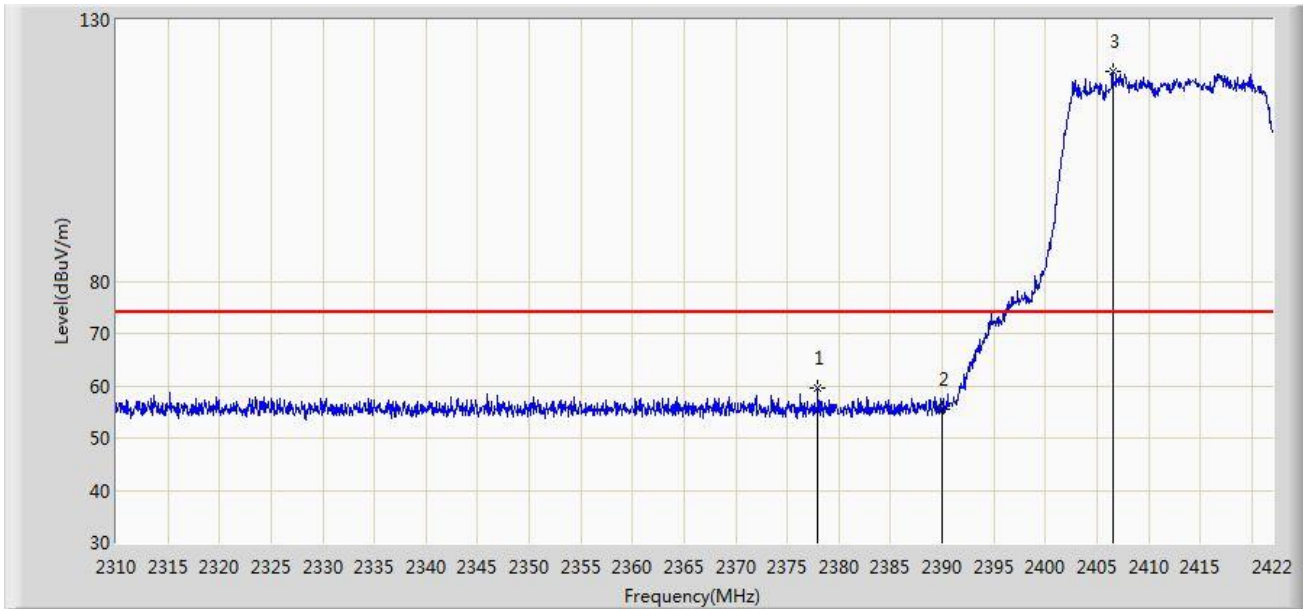
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2443.254	111.550	80.988	N/A	N/A	30.562	AV
2		2483.500	53.318	22.615	-0.682	54.000	30.704	AV
3	*	2483.544	53.480	22.776	-0.520	54.000	30.704	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 19:05
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ax-HE20 at 2412MHz	



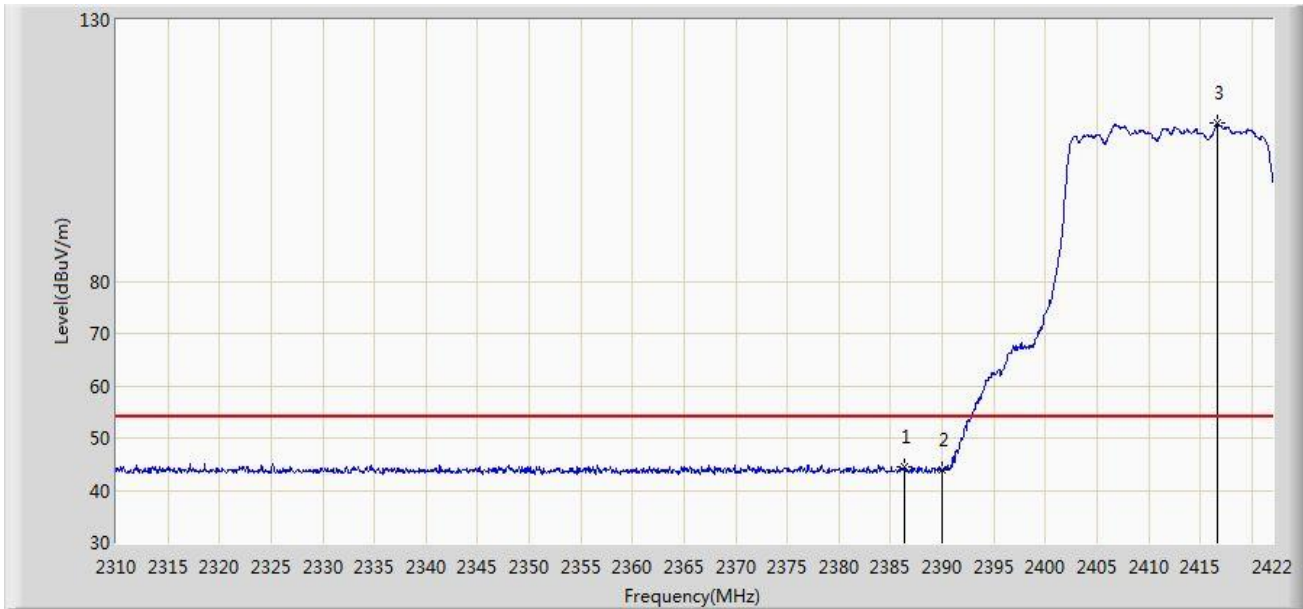
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2377.984	59.700	29.172	-14.300	74.000	30.528	PK
2		2390.000	55.555	25.029	-18.445	74.000	30.526	PK
3		2406.544	120.289	89.730	N/A	N/A	30.558	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 19:06
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ax-HE20 at 2412MHz	



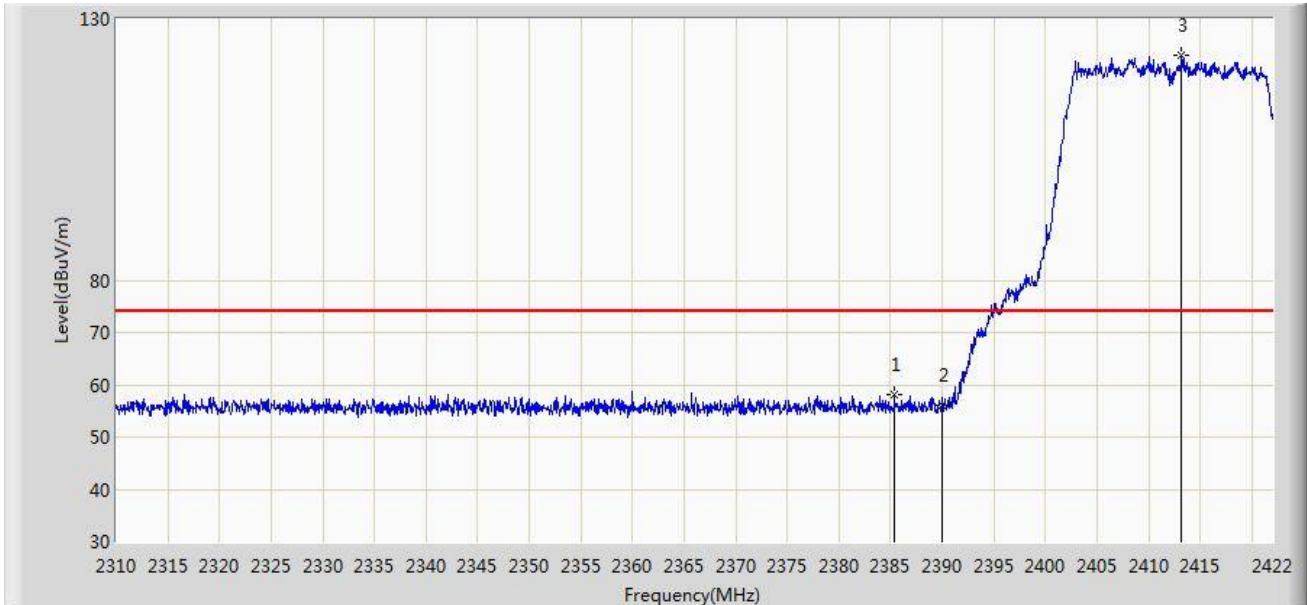
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2386.328	44.578	14.058	-9.422	54.000	30.520	AV
2		2390.000	43.880	13.354	-10.120	54.000	30.526	AV
3		2416.624	110.186	79.627	N/A	N/A	30.560	AV

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	Time: 2022/06/28 - 19:03
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ax-HE20 at 2412MHz	



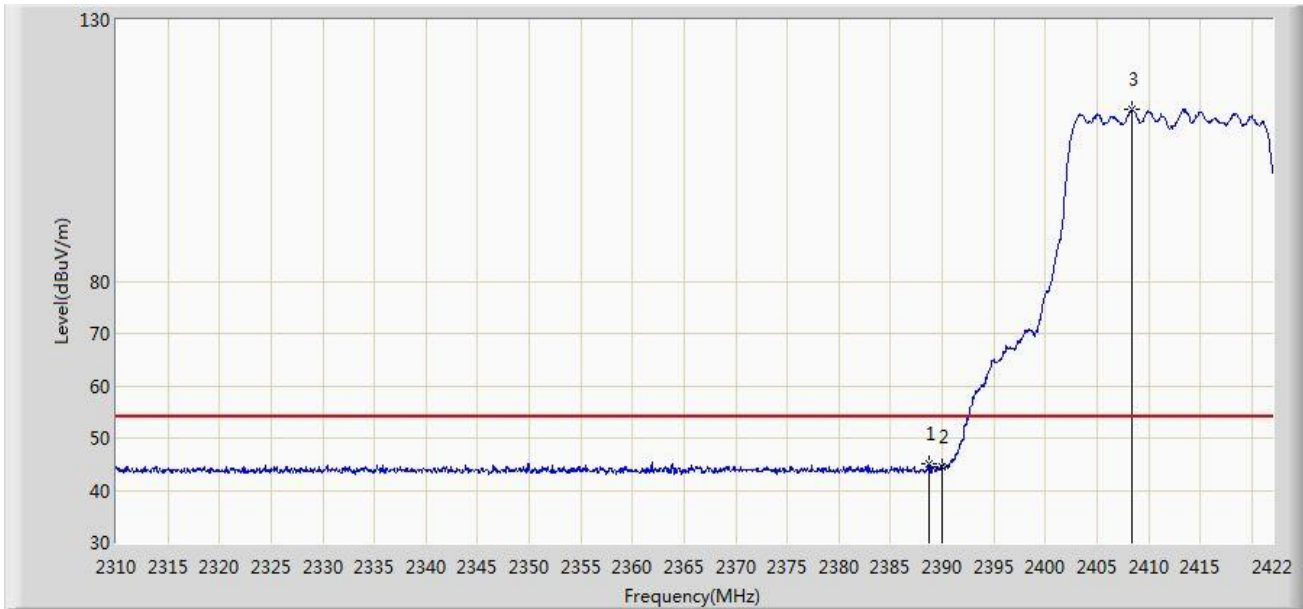
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2385.376	57.997	27.479	-16.003	74.000	30.518	PK
2		2390.000	55.947	25.421	-18.053	74.000	30.526	PK
3		2413.152	123.095	92.537	N/A	N/A	30.558	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 19:01
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ax-HE20 at 2412MHz	



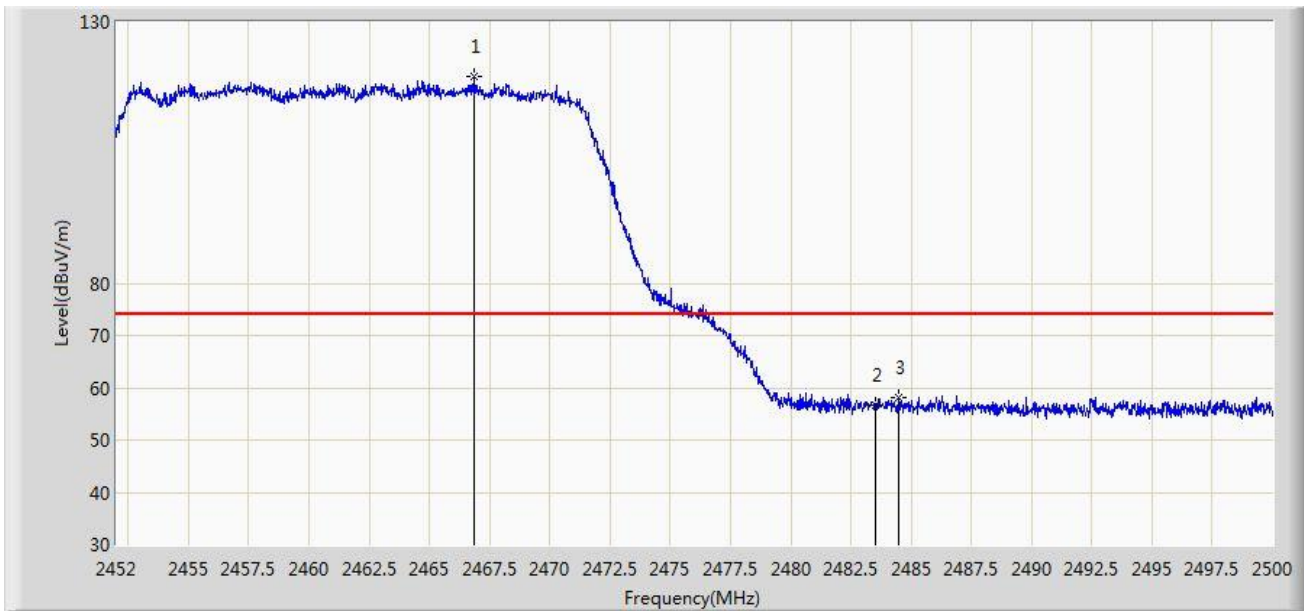
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2388.792	44.940	14.416	-9.060	54.000	30.524	AV
2		2390.000	44.385	13.859	-9.615	54.000	30.526	AV
3		2408.448	112.781	82.223	N/A	N/A	30.558	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 19:19
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ax-HE20 at 2462MHz	



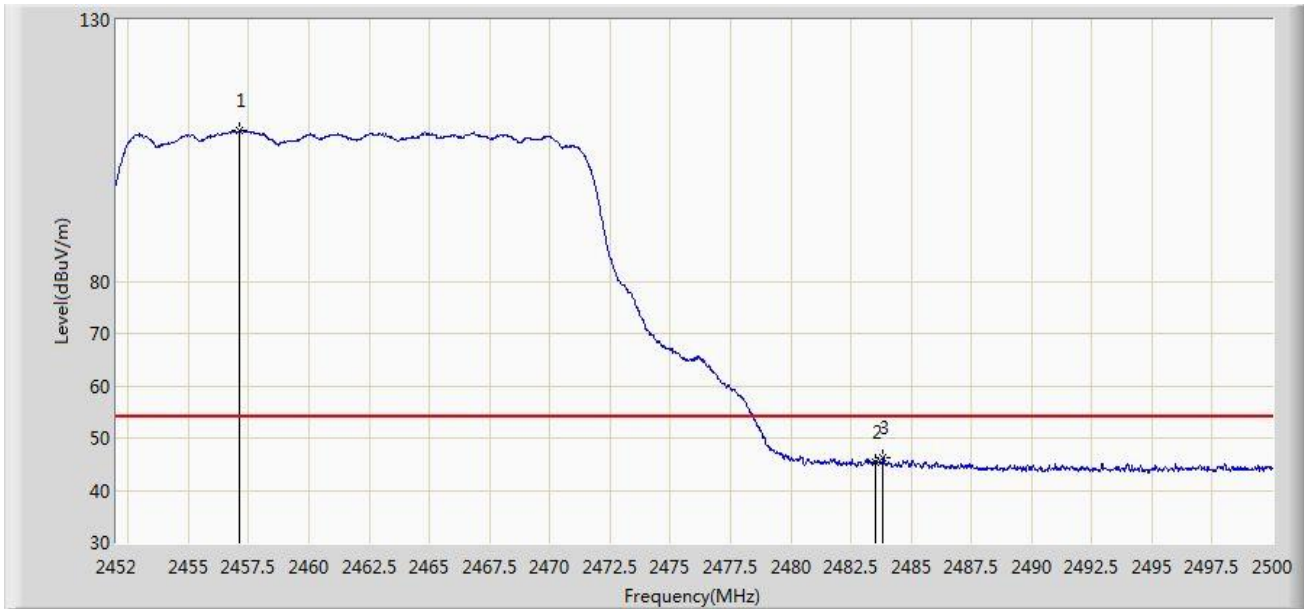
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2466.880	119.557	88.896	N/A	N/A	30.661	PK
2		2483.500	56.560	25.857	-17.440	74.000	30.704	PK
3	*	2484.496	58.110	27.406	-15.890	74.000	30.704	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 19:21
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ax-HE20 at 2462MHz	



No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2457.088	108.775	78.163	N/A	N/A	30.613	AV
2		2483.500	45.305	14.602	-8.695	54.000	30.704	AV
3	*	2483.848	46.236	15.532	-7.764	54.000	30.703	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 19:18
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ax-HE20 at 2462MHz	



No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2469.448	122.337	91.663	N/A	N/A	30.674	PK
2		2483.500	57.249	26.546	-16.751	74.000	30.704	PK
3	*	2484.976	58.307	27.603	-15.693	74.000	30.704	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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



Site: WZ-AC1	Time: 2022/06/28 - 19:13
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ax-HE20 at 2462MHz	



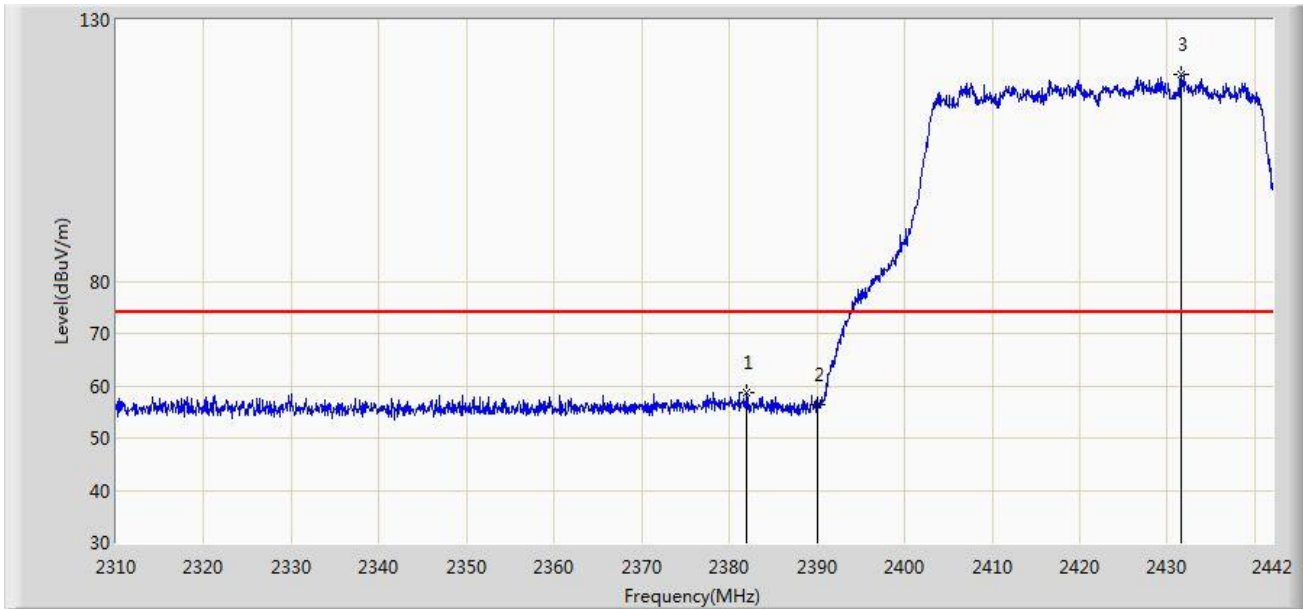
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2453.176	111.574	80.977	N/A	N/A	30.597	AV
2		2483.500	46.979	16.276	-7.021	54.000	30.704	AV
3	*	2483.536	47.461	16.757	-6.539	54.000	30.704	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 19:32
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ax-HE40 at 2422MHz	



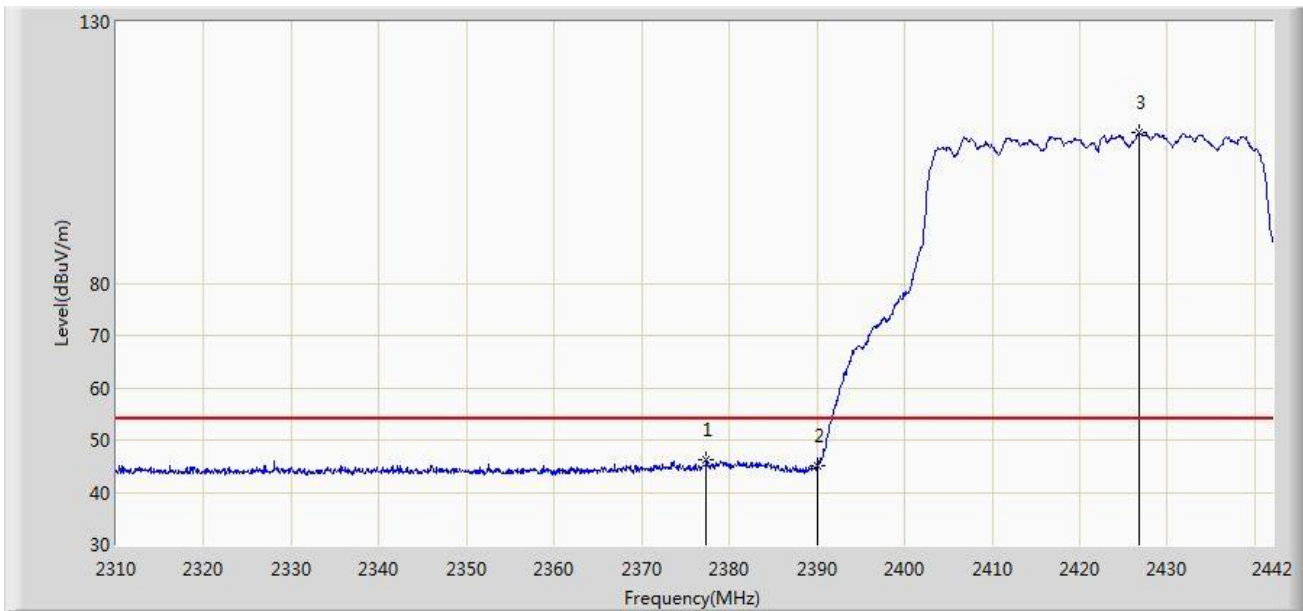
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2382.006	58.824	28.304	-15.176	74.000	30.520	PK
2		2390.000	56.497	25.971	-17.503	74.000	30.526	PK
3		2431.506	119.513	88.965	N/A	N/A	30.548	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 19:34
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ax-HE40 at 2422MHz	



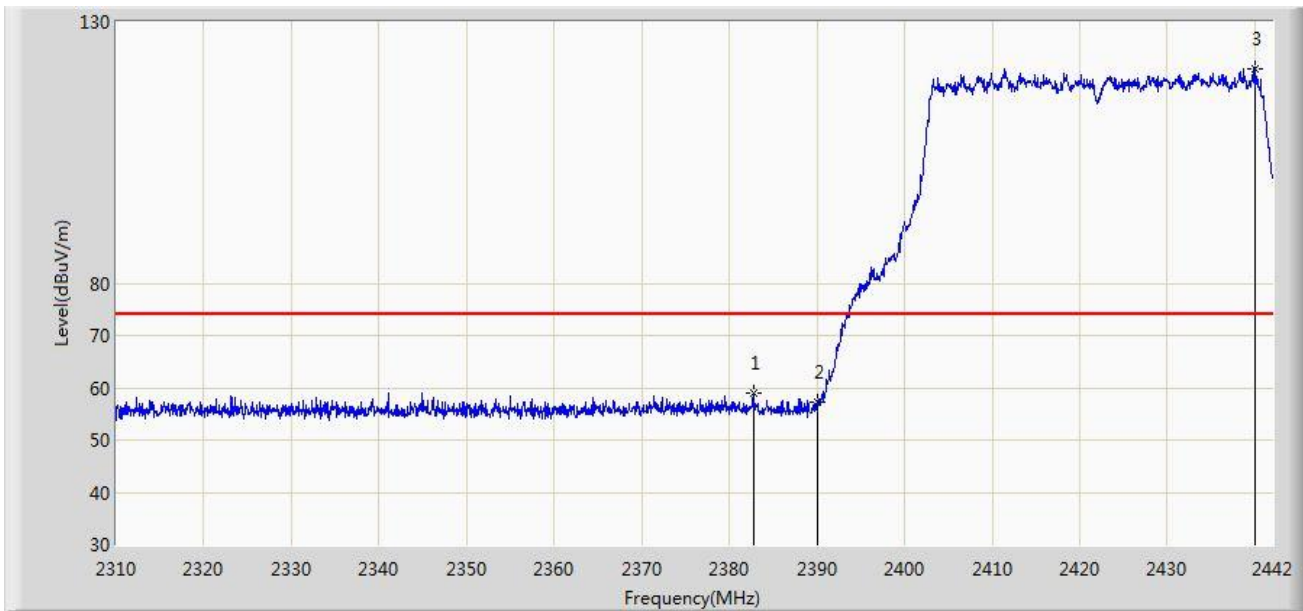
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2377.386	46.244	15.714	-7.756	54.000	30.530	AV
2		2390.000	45.058	14.532	-8.942	54.000	30.526	AV
3		2426.820	108.853	78.302	N/A	N/A	30.551	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 19:30
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ax-HE40 at 2422MHz	



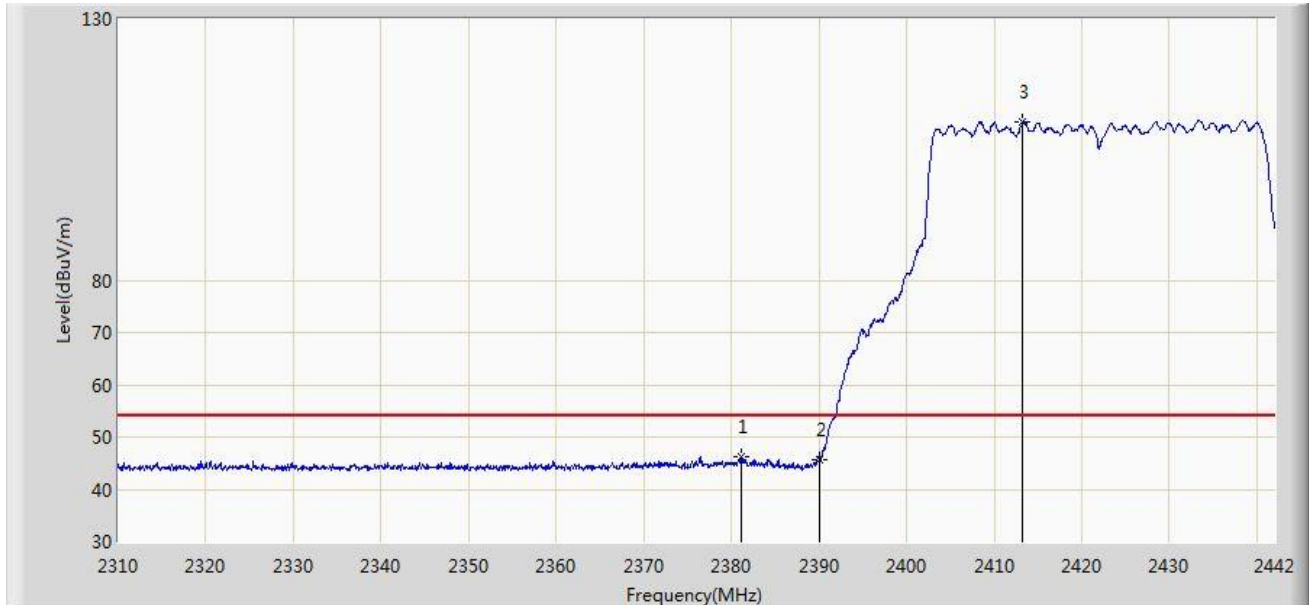
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2382.732	58.873	28.355	-15.127	74.000	30.519	PK
2		2390.000	57.354	26.828	-16.646	74.000	30.526	PK
3		2439.954	121.159	90.608	N/A	N/A	30.552	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 19:25
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ax-HE40 at 2422MHz	



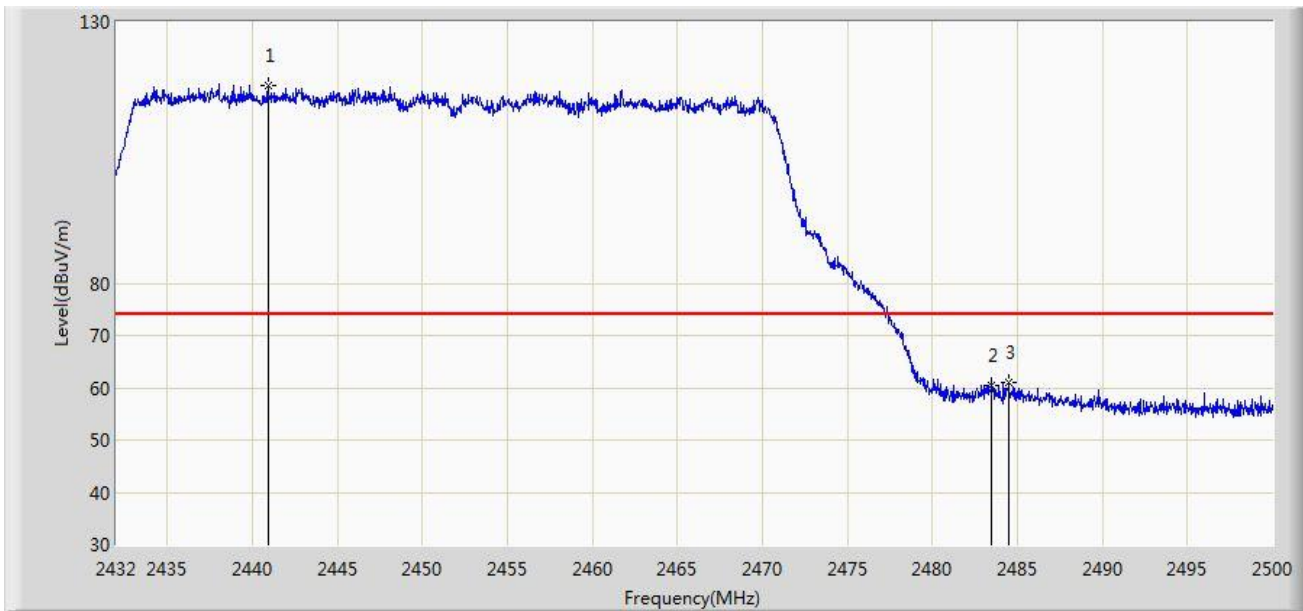
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2381.148	46.302	15.780	-7.698	54.000	30.522	AV
2		2390.000	45.723	15.197	-8.277	54.000	30.526	AV
3		2413.290	110.383	79.825	N/A	N/A	30.558	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 19:43
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ax-HE40 at 2452MHz	



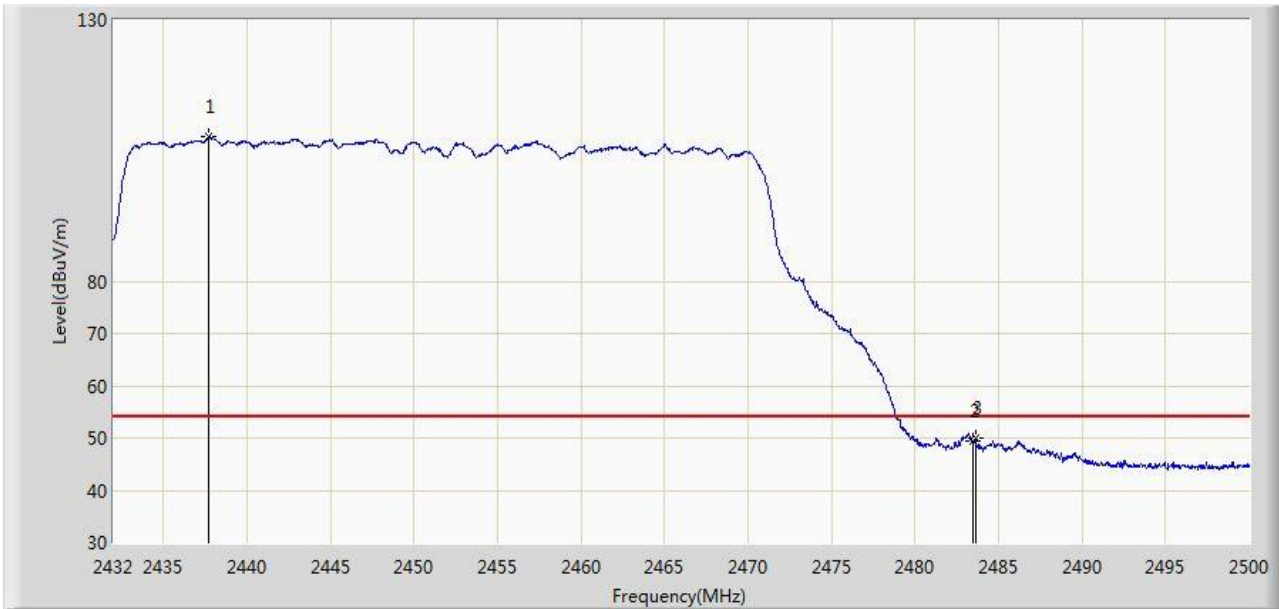
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2440.942	117.931	87.377	N/A	N/A	30.554	PK
2		2483.500	60.452	29.749	-13.548	74.000	30.704	PK
3	*	2484.496	61.016	30.312	-12.984	74.000	30.704	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 19:44
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ax-HE40 at 2452MHz	



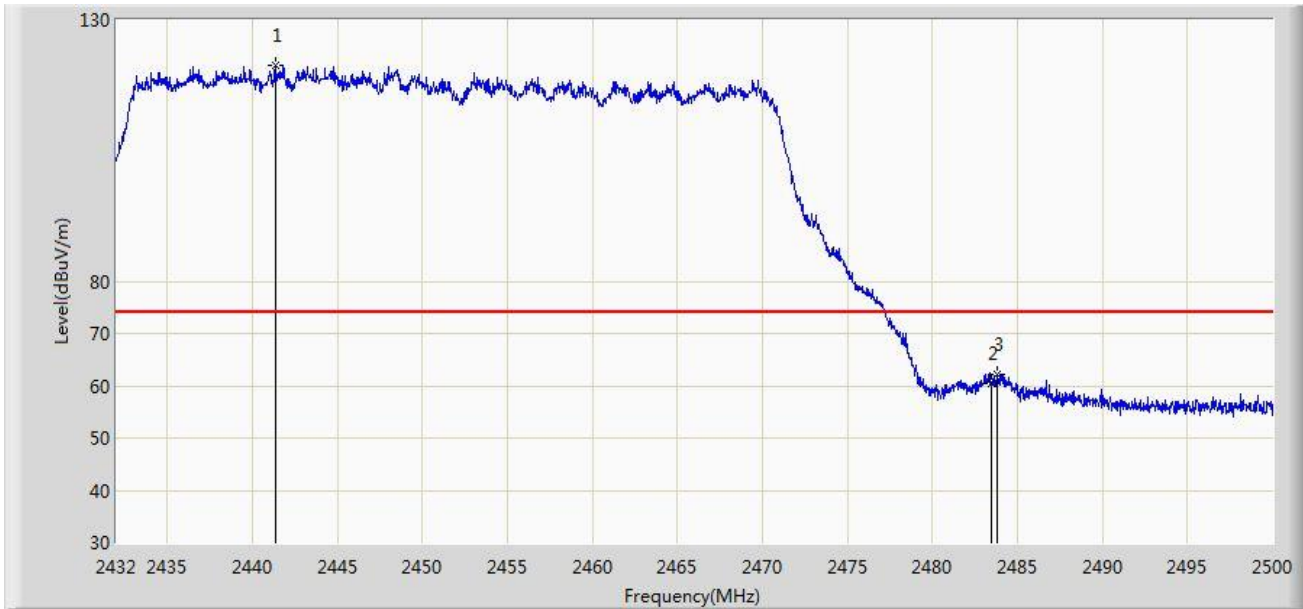
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2437.746	107.608	77.063	N/A	N/A	30.544	AV
2		2483.500	49.514	18.811	-4.486	54.000	30.704	AV
3	*	2483.612	49.864	19.160	-4.136	54.000	30.704	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 19:42
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ax-HE40 at 2452MHz	



No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2441.350	121.226	90.670	N/A	N/A	30.556	PK
2		2483.500	60.442	29.739	-13.558	74.000	30.704	PK
3	*	2483.850	62.226	31.522	-11.774	74.000	30.703	PK

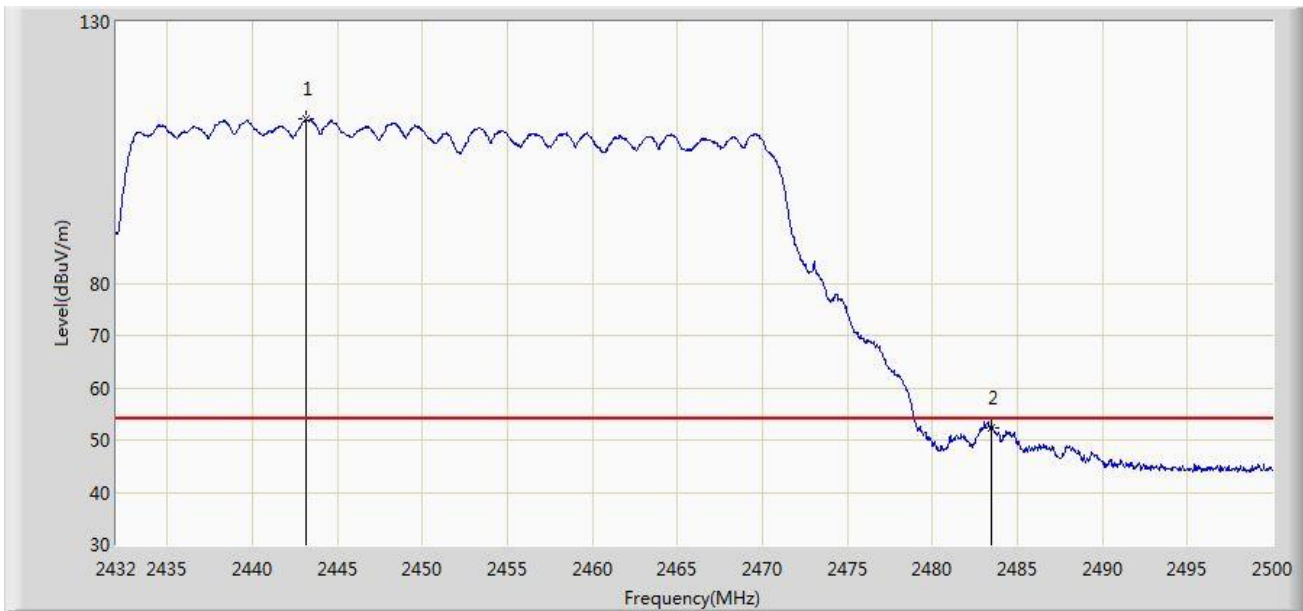
Note 1: " \* ", means this data is the worst emission level.

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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



Site: WZ-AC1	Time: 2022/06/28 - 19:40
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ax-HE40 at 2452MHz	



No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2443.152	111.330	80.768	N/A	N/A	30.562	AV
2	*	2483.500	52.418	21.715	-1.582	54.000	30.704	AV

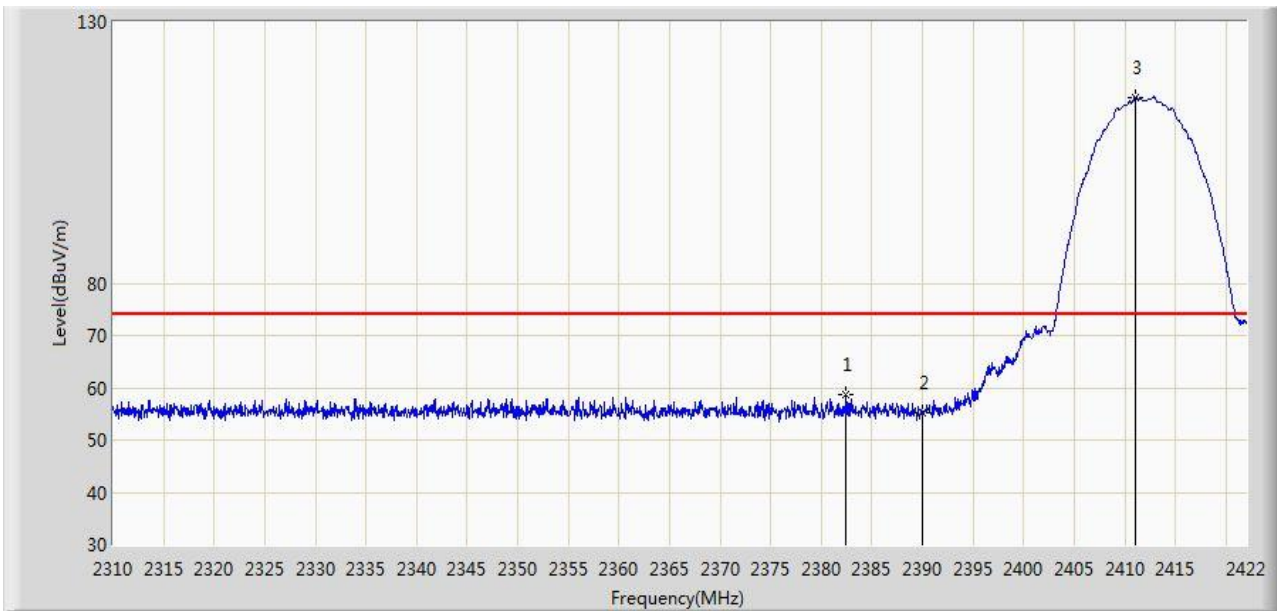
Note 1: " \* ", means this data is the worst emission level.

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

**SISO Mode**

Site: WZ-AC1	Time: 2022/06/28 - 19:55
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2412MHz	



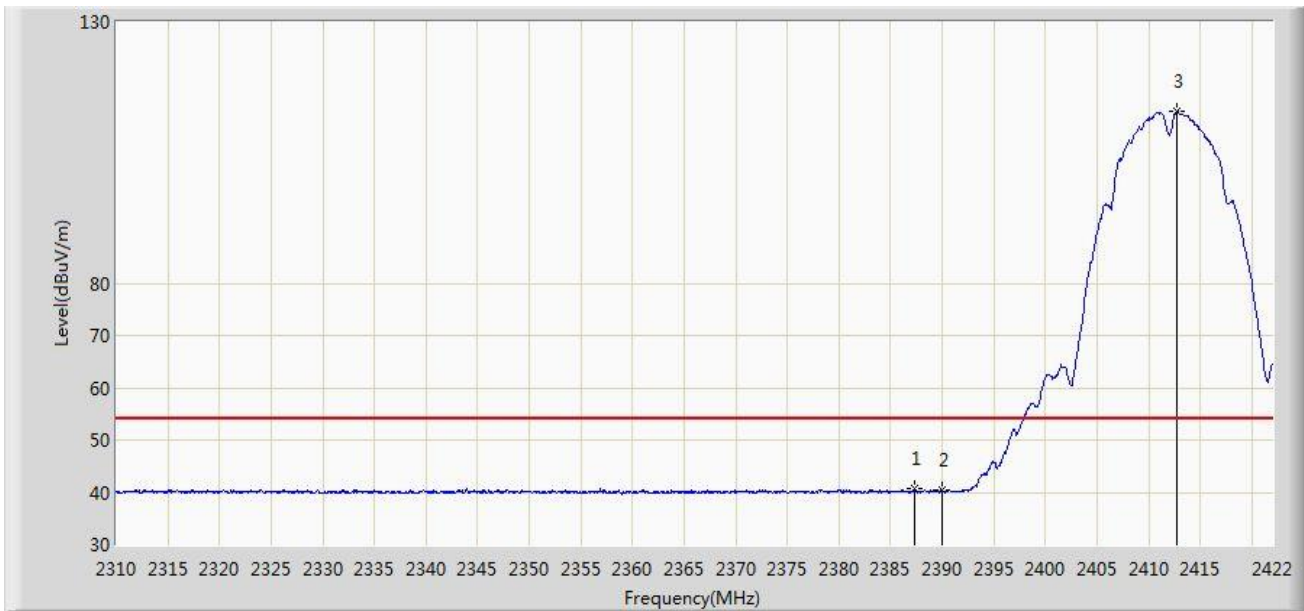
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2382.464	58.561	28.042	-15.439	74.000	30.519	PK
2		2390.000	55.227	24.701	-18.773	74.000	30.526	PK
3		2411.024	115.617	85.059	N/A	N/A	30.558	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 19:57
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2412MHz	



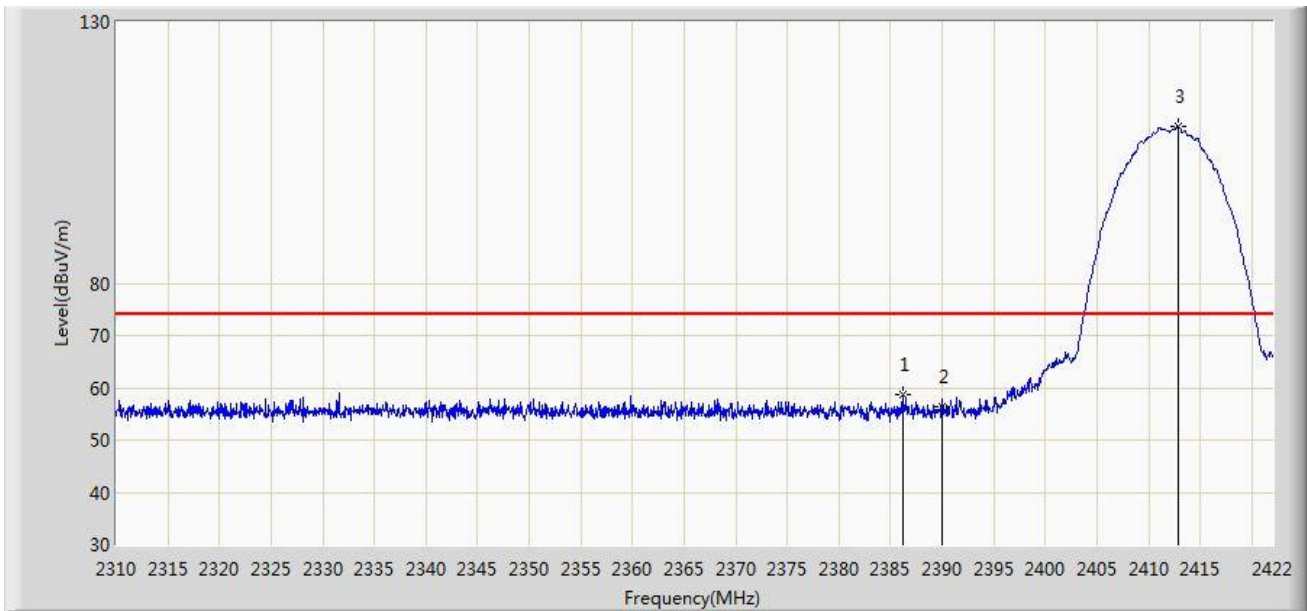
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2387.336	40.612	10.091	-13.388	54.000	30.521	AV
2		2390.000	40.293	9.767	-13.707	54.000	30.526	AV
3		2412.704	112.846	82.288	N/A	N/A	30.559	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 19:54
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2412MHz	



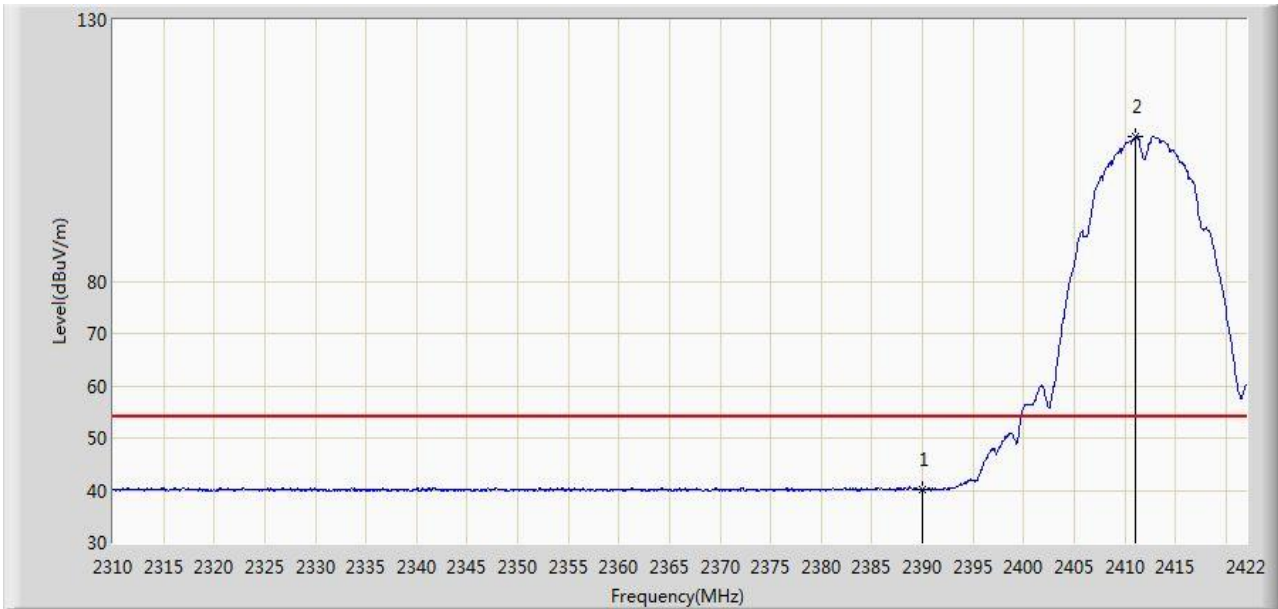
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2386.216	58.562	28.043	-15.438	74.000	30.520	PK
2		2390.000	56.440	25.914	-17.560	74.000	30.526	PK
3		2412.816	109.979	79.421	N/A	N/A	30.559	PK

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	Time: 2022/06/28 - 19:49
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2412MHz	



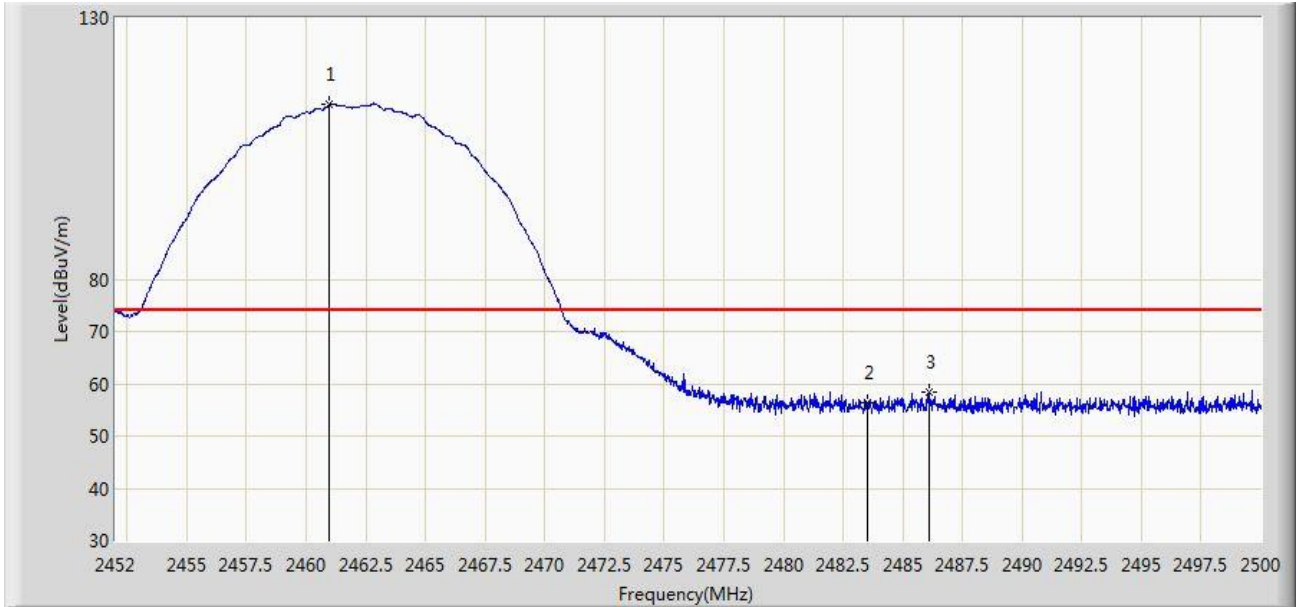
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2390.000	40.167	9.641	-13.833	54.000	30.526	AV
2		2411.080	107.593	77.035	N/A	N/A	30.558	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 20:03
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2462MHz	



No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2460.976	113.413	82.782	N/A	N/A	30.631	PK
2		2483.500	56.360	25.657	-17.640	74.000	30.704	PK
3	*	2486.128	58.353	27.648	-15.647	74.000	30.705	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 20:05
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2462MHz	



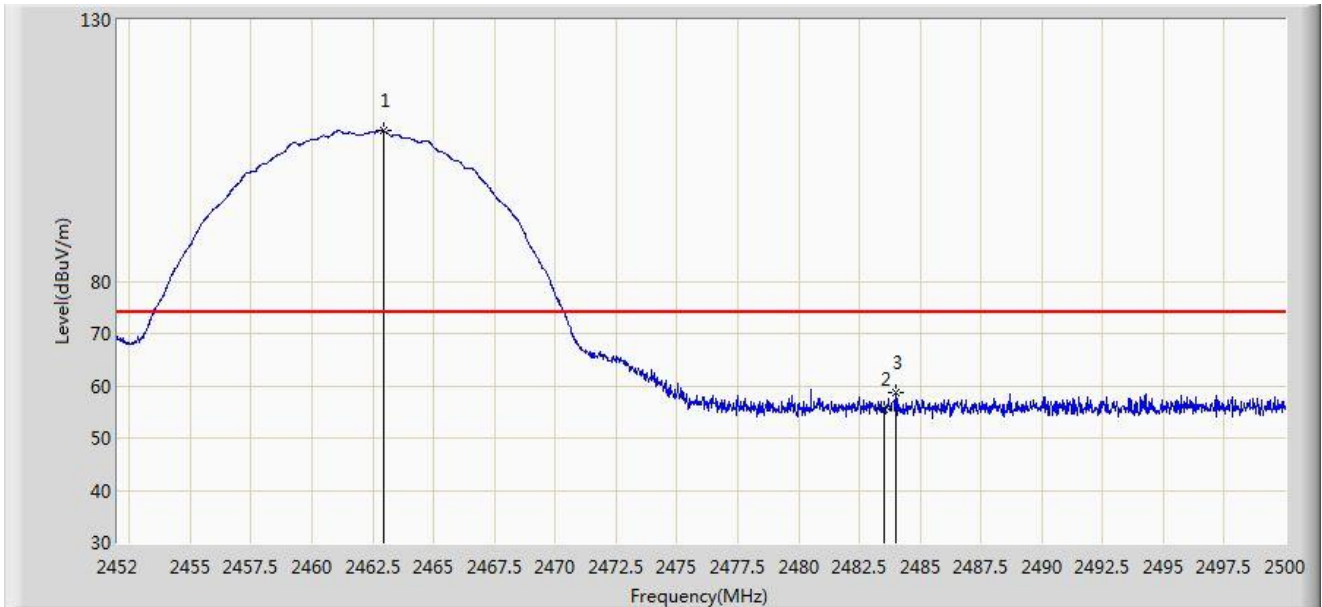
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2461.024	111.214	80.583	N/A	N/A	30.631	AV
2	*	2483.500	40.659	9.956	-13.341	54.000	30.704	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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

Site: WZ-AC1	Time: 2022/06/28 - 20:02
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2462MHz	



No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2462.944	108.798	78.157	N/A	N/A	30.640	PK
2		2483.500	55.566	24.863	-18.434	74.000	30.704	PK
3	*	2484.016	58.639	27.935	-15.361	74.000	30.704	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

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



Site: WZ-AC1	Time: 2022/06/28 - 20:00
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Home Hub 4000	Power: AC 120V/60Hz
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		2461.048	106.597	75.966	N/A	N/A	30.631	AV
2	*	2483.500	40.456	9.753	-13.544	54.000	30.704	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 “2206RSU052-UT” file.

## Appendix C – EUT Photograph

Refer to “2206RSU052-UE” file.

\_\_\_\_\_ The End \_\_\_\_\_