



RF MEASUREMENT REPORT

FCC ID: Q9DAP21

Applicant: Hewlett Packard Enterprise Company

Product: ACCESS POINT

Model No.: APIN0503

Marketing Name: AP21

Trademark:  , 

FCC Classification: Digital Transmission System (DTS)

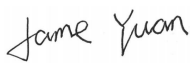
FCC Rule Part(s): Part 15 Subpart C (Section 15.247)

Result: Complies

Received Date: 2023-08-25

Test Date: 2023-09-14 ~ 2023-12-28

Reviewed By:



Jame Yuan

Approved By:



Robin Wu



The test results relate only to the samples tested.

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

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

Revision History

Report No.	Version	Description	Issue Date	Note
2308RSU067-U2	V01	Initial Report	2023-11-27	Invalid
2308RSU067-U2	V02	Add spot check test data	2024-01-05	Valid

Note 1: The product is a variation on the existing APIN0503 that had FCC approval (FCC ID: Q9DAPIN0503). The differences are shown in the table below.

Parts of Product	Modification
Top Cover	Yes, changed. ION style look.
Bottom Cover	1, Yes, changed. ION style look 2, Remove USB port 3, Add hole for DC jack
Antenna	No Change
PCB Top	1, Add DC Jack 2, Remove USB Port
PCB Bottom	Basically the same

The applicant remeasured a set of antenna gain that slightly different than before.

Frequency Range	Original Wi-Fi Antenna Gain	Current Wi-Fi Antenna Gain
	(dBi)	(dBi)
2400 ~ 2480	1.5	1.3
5150 ~ 5895	3.9	4.1

Note 2: Most test data refer to original test report no. 2212RSU034-U1. Spot-check tests were done on these items based on worst-case results reported in the original FCC ID filing.

Test Description	Verdict
6dB Bandwidth	Data referencing with spot check
Output Power	Data referencing with spot check
Power Spectral Density	Data referencing with spot check
Band Edge / Out-of-Band Emissions	Data referencing with spot check
General Field Strength (Restricted Bands and Radiated Emission)	Data referencing with spot check
AC Conducted Emissions 150kHz - 30MHz	Full test

CONTENTS

Description	Page
1. General Information	5
1.1. Applicant	5
1.2. Manufacturer	5
1.3. Testing Facility	5
1.4. Product Information.....	6
1.5. Radio Specification under Test	6
1.6. Working Frequencies	7
1.7. Antenna Details.....	7
2. Test Configuration	8
2.1. Test Mode.....	8
2.2. Test System Connection Diagram.....	8
2.3. Test Software	8
2.4. Applied Standards.....	9
2.5. Test Environment Condition	9
3. Antenna Requirements	10
4. Measuring Instrument	11
5. Decision Rules and Measurement Uncertainty	13
5.1. Decision Rules	13
5.2. Measurement Uncertainty	13
6. Test Result.....	14
6.1. Summary	14
6.2. 6dB Bandwidth 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. Output Power 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	16
6.3.5. Test Result	16
6.4. Power Spectral Density Measurement	17
6.4.1. Test Limit	17

6.4.2.	Test Procedure	17
6.4.3.	Test Setting	17
6.4.4.	Test Setup	17
6.4.5.	Test Result	18
6.5.	Conducted Band Edge and Out-of-Band Emissions Measurement	19
6.5.1.	Test Limit	19
6.5.2.	Test Procedure	19
6.5.3.	Test Setting	19
6.5.4.	Test Setup	20
6.5.5.	Test Result	20
6.6.	Radiated Spurious Emission Measurement.....	21
6.6.1.	Test Limit	21
6.6.2.	Test Procedure	21
6.6.3.	Test Setting	21
6.6.4.	Test Setup	23
6.6.5.	Test Result	24
6.7.	Radiated Restricted Band Edge Measurement	25
6.7.1.	Test Limit	25
6.7.2.	Test Procedure	26
6.7.3.	Test Setting	26
6.7.4.	Test Setup	27
6.7.5.	Test Result	27
6.8.	AC Conducted Emissions Measurement	28
6.8.1.	Test Limit	28
6.8.2.	Test Setup	28
6.8.3.	Test Result	28
Appendix A – Test Result.....		29
A.1	Duty Cycle Test Result	29
A.2	6dB Bandwidth Test Result	30
A.3	Output Power Test Result	31
A.4	Power Spectral Density Test Result.....	32
A.5	Conducted Band Edge and Out-of-Band Emissions Test Result.....	34
A.6	Radiated Spurious Emission Test Result.....	38
A.7	Radiated Restricted Band Edge Test Result.....	54
A.8	AC Conducted Emissions Test Result	78
Appendix B – Test Setup Photograph		80
Appendix C – EUT Photograph		81

1. General Information

1.1. Applicant

Hewlett Packard Enterprise Company

6280 America Center Drive, San Jose CA 95002, United States

1.2. Manufacturer

Hewlett Packard Enterprise Company

6280 America Center Drive, San Jose CA 95002, United States

1.3. Testing Facility

☒	Test Site – MRT Suzhou Laboratory
	Laboratory Location (Suzhou - Wuzhong) D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China
	Laboratory Location (Suzhou - SIP) 4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China
	Laboratory Accreditations
	A2LA: 3628.01 CNAS: L10551 FCC: CN1166 ISED: CN0001 VCCI: ☐ R-20025 ☐ G-20034 ☐ C-20020 ☐ T-20020 ☐ R-20141 ☐ G-20134 ☐ C-20103 ☐ T-20104
☐	Test Site – MRT Shenzhen Laboratory
	Laboratory Location (Shenzhen) 1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China
	Laboratory Accreditations
	A2LA: 3628.02 CNAS: L10551 FCC: CN1284 ISED: CN0105
☐	Test Site – MRT Taiwan Laboratory
	Laboratory Location (Taiwan) No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)
	Laboratory Accreditations
	TAF: 3261 FCC: 291082, TW3261 ISED: TW3261

1.4. Product Information

Product Name	ACCESS POINT
Model No.	APIN0503
Marketing Name	AP21
Serial No.	CNQRM1C013
Software Version	v0.1.1
Wi-Fi Specification	802.11a/b/g/n/ac/ax
Power Type	AC/DC Adapter or PoE Injector input
Operating Temp.	0 ~ 40 °C
Operating Environment	Indoor Use
Accessories	
AC/DC Adapter	Model: WB-18Q12R Input: 100-240V ~ 50/60Hz, 0.5A Max Output: 12.0V, 1.5A, 18W
PoE Injector	Model: PD-3501G/AC Input: 100-240V AC ~ 50/60Hz, 0.43A Output: 48V, 0.35A QS-6555-01 N A21
Notes: 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 300Mbps 802.11ax: up to 573.6Mbps	
Support RU	☒ Full RU	☐ Partial RU

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. Antenna Details

Antenna Type	Frequency Band	Tx Paths	Uncorrelated Gain (dBi)	Correlated Gain (dBi)
PIFA	2412 ~ 2462	2	1.30	4.30
PIFA	5150 ~ 5895	2	4.10	7.10

Note 1: In accordance with KDB 662911 D01v02r01, uncorrelated directional gain was applied for calculating max conducted output power limit and correlated directional gain was applied for calculating PSD limit.

Note 2: The directional gain calculation refers to antenna report provided by the applicant.

2. Test Configuration

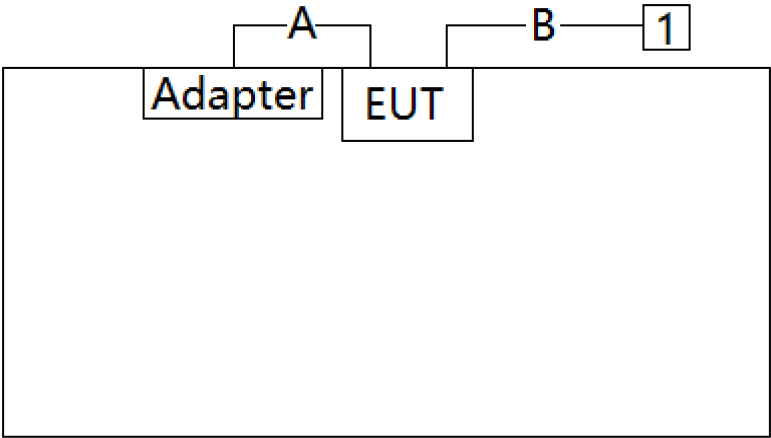
2.1. Test Mode

Mode 1: Transmit by 802.11b_Nss=1 (1Mbps)
Mode 2: Transmit by 802.11g_Nss=1 (6Mbps)
Mode 3: Transmit by 802.11n-HT20_Nss=1 (MCS0)
Mode 4: Transmit by 802.11n-HT40_Nss=1 (MCS0)
Mode 5: Transmit by 802.11ax-HE20_Nss=1 (MCS0)
Mode 6: Transmit by 802.11ax-HE40_Nss=1 (MCS0)

Remark: For Radiated Spurious Emission and Radiated Restricted Band Edge, the modulation and the data rate picked for testing are determined by the original report.

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.

Connection Diagram – Radiated Emission testing			
			
Cable Type		Cable Description	
A	Power Cable	Non shielded, 2.0m	
B	LAN Cable	Non shielded, 3.0m	
Product		Manufacturer	Model No.
1	Notebook	ThinkPad	E495

2.3. Test Software

The test utility software used during testing was “accessMTool” and the version was “3.2.1.5”.

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 Name	Manufacturer	Model No.	Asset No.	Cali. Interval	Cal. Due Date	Test Site
Anechoic Chamber	RIKEN	SIP-AC1	MRTSUE06554	1 year	2023-12-22	SIP-AC1
				1 year	2024-12-21	SIP-AC1
Signal Analyzer	Keysight	N9020B	MRTSUE06604	1 year	2024-10-23	SIP-AC1
Preamplifier	EMCI	EMC051845SE	MRTSUE06600	1 year	2024-11-02	SIP-AC1
Horn Antenna	R&S	HF907	MRTSUE06610	1 year	2024-06-17	SIP-AC1
Thermohygrometer	testo	608-H1	MRTSUE06616	1 year	2024-10-28	SIP-AC1
Thermohygrometer	testo	608-H1	MRTSUE06620	1 year	2024-11-03	SIP-AC1
TRILOG Antenna	Schwarzbeck	VULB 9168	MRTSUE06645	1 year	2024-07-13	SIP-AC1
EMI Test Receiver	R&S	ESR3	MRTSUE06185	1 year	2023-12-28	SIP-AC2
Preamplifier	EMCI	EMC184045SE	MRTSUE06602	1 year	2024-10-09	SIP-AC3
Loop Antenna	Schwarzbeck	FMZB 1519 B	MRTSUE06937	1 year	2024-02-26	SIP-AC2
Signal Analyzer	Keysight	N9010B	MRTSUE06559	1 year	2024-05-23	SIP-AC3
Thermohygrometer	testo	608-H1	MRTSUE06622	1 year	2023-11-27	SIP-AC2
				1 year	2024-11-03	SIP-AC2
TRILOG Antenna	Schwarzbeck	VULB 9168	MRTSUE06647	1 year	2024-06-17	SIP-AC2
Anechoic Chamber	RIKEN	SIP-AC2	MRTSUE06781	1 year	2023-12-22	SIP-AC2
				1 year	2024-12-21	SIP-AC2
Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06599	1 year	2024-09-24	SIP-AC3
Horn Antenna	R&S	HF907	MRTSUE06611	1 year	2024-07-14	SIP-AC3
Thermohygrometer	testo	608-H1	MRTSUE06619	1 year	2024-10-28	SIP-AC3
Preamplifier	EMCI	EMC012645SE	MRTSUE06642	1 year	2024-01-12	SIP-AC3
Anechoic Chamber	RIKEN	SIP-AC3	MRTSUE06782	1 year	2023-12-22	SIP-AC3
				1 year	2024-12-21	SIP-AC3
Thermohygrometer	testo	608-H1	MRTSUE11255	1 year	2024-08-13	SIP-AC3
Thermohygrometer	testo	608-H1	MRTSUE11022	1 year	2024-10-28	SIP-TR1
USB Power Sensor	Keysight	U2021XA	MRTSUE06596	1 year	2024-07-31	SIP-TR1
Signal Analyzer	Keysight	N9010B	MRTSUE07036	1 year	2024-02-29	SIP-TR1
Two-Line V-Network	R&S	ENV216	MRTSUE06003	1 year	2024-05-23	SIP-SR2
EMI Test Receiver	R&S	ESR3	MRTSUE06612	1 year	2024-05-23	SIP-SR2
Four-Line V-Network	R&S	ENV432	MRTSUE06614	1 year	2024-10-23	SIP-SR2
Thermohygrometer	testo	608-H1	MRTSUE06621	1 year	2024-11-03	SIP-SR2
Shielding Room	MIX-BEP	SIP-SR2	MRTSUE06949	5 years	2024-10-23	SIP-SR2

Software	Version	Function
EMI Software	V3.0.0	EMI Test Software
Controller_MF 7802BS	1.02	RE Antenna & Turntable
BenchVue Power Meter	2019	Power

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 $k = 2$.

AC Conducted Emission Measurement
The maximum measurement uncertainty is evaluated as: 9kHz~150kHz: 3.58dB 150kHz~30MHz: 3.20dB
Radiated Emission Measurement
The maximum measurement uncertainty is evaluated as: Coaxial: 9kHz~30MHz: 2.61dB Coplanar: 9kHz~30MHz: 2.62dB Horizontal: 30MHz~200MHz: 3.79dB 200MHz~1GHz: 3.91dB 1GHz~40GHz: 4.99dB Vertical: 30MHz~200MHz: 4.06dB 200MHz~1GHz: 5.21dB 1GHz~40GHz: 4.90dB
Spurious Emissions, Conducted
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 2.2dB
Output Power
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 1.4dB
Power Spectrum Density
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 2.2dB
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 2.7%

6. Test Result

6.1. Summary

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

Note: For Radiated Spurious Emission and Radiated Restricted Band Edge, the EUT setup for testing is determined by the original report.

6.2. 6dB Bandwidth Measurement

6.2.1. Test Limit

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

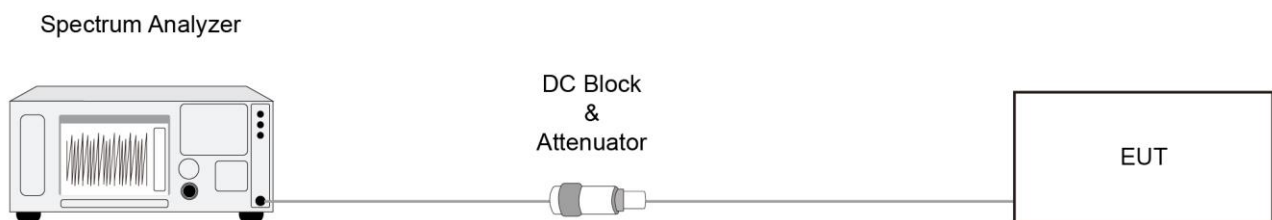
6.2.2. Test Procedure

ANSI C63.10 - 2013 - Section 11.8

6.2.3. Test Setting

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

6.2.4. Test Setup



6.2.5. Test Result

Refer to Appendix A.2.

6.3. Output Power Measurement

6.3.1. Test Limit

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

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

6.3.2. Test Procedure

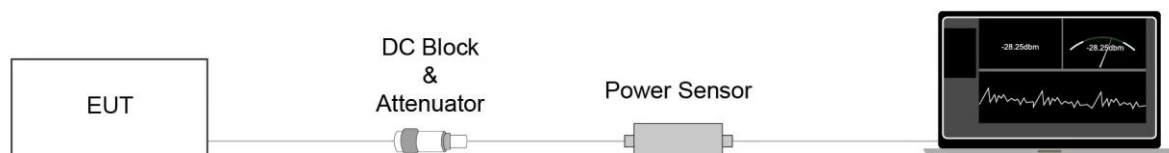
ANSI C63.10 - 2013 - Section 11.9.2.3.2

6.3.3. 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.

6.3.4. Test Setup



6.3.5. Test Result

Refer to Appendix A.3.

6.4. Power Spectral Density Measurement

6.4.1. Test Limit

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

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

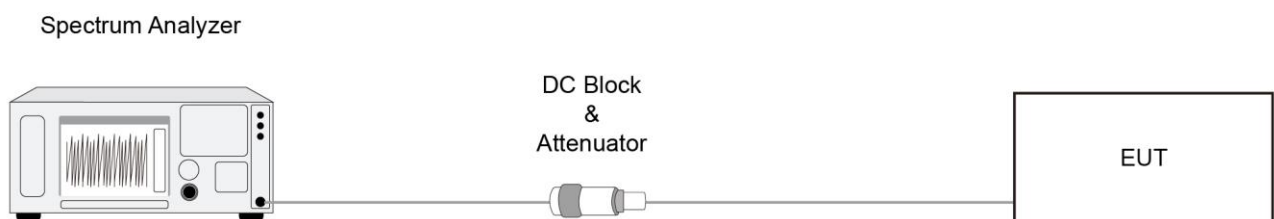
6.4.2. Test Procedure

ANSI C63.10 - 2013 - Section 11.10.5

6.4.3. Test Setting

1. Measure the duty cycle (x) of the transmitter output signal.
2. Set instrument center frequency to DTS channel center frequency.
3. Set span to at least 1.5 times the OBW.
4. RBW = 10 kHz.
5. VBW = 30 kHz.
6. Detector = RMS.
7. Ensure that the number of measurement points in the sweep $\geq 2 \times \text{span}/\text{RBW}$.
8. Sweep time = auto couple.
9. Don't use sweep triggering. Allow sweep to "free run".
10. Employ trace averaging (RMS) mode over a minimum of 100 traces.
11. Use the peak marker function to determine the maximum amplitude level.
12. Add $10 \log (1/x)$, where x is the duty cycle measured in step (a), to the measured PSD to compute the average PSD during the actual transmission time. If measured value exceeds requirement specified by regulatory agency, then reduce RBW (but no less than 3 kHz) and repeat (note that this may require zooming in on the emission of interest and reducing the span to meet the minimum measurement point requirement as the RBW is reduced).

6.4.4. Test Setup



6.4.5. Test Result

Refer to Appendix A.4.

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

6.5.1. Test Limit

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

6.5.2. Test Procedure

ANSI C63.10-2013 - Section 11.11

6.5.3. Test Setting

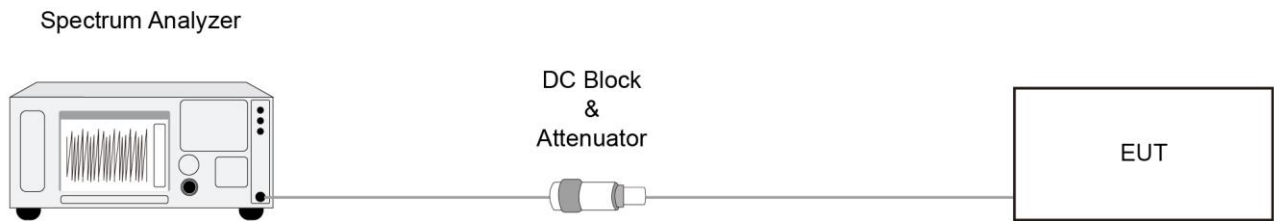
Reference level measurement

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

Emission level measurement

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

6.5.4. Test Setup



6.5.5. Test Result

Refer to Appendix A.5.

6.6. Radiated Spurious Emission Measurement

6.6.1. Test Limit

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

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

6.6.2. Test Procedure

ANSI C63.10 - 2013 - Section 11.11 & 11.12

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

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

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

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

6.6.3. Test Setting

Table 1 - RBW as a function of frequency

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

Quasi-Peak Measurements below 1GHz

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

Peak Measurements above 1GHz

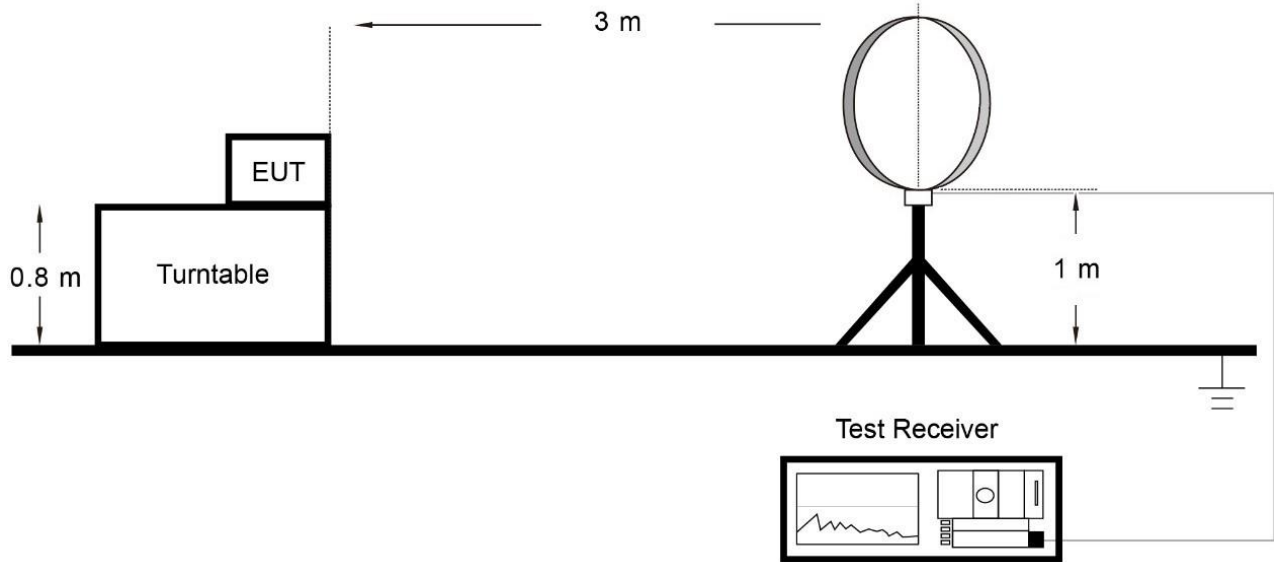
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Measurements above 1GHz (Method VB)

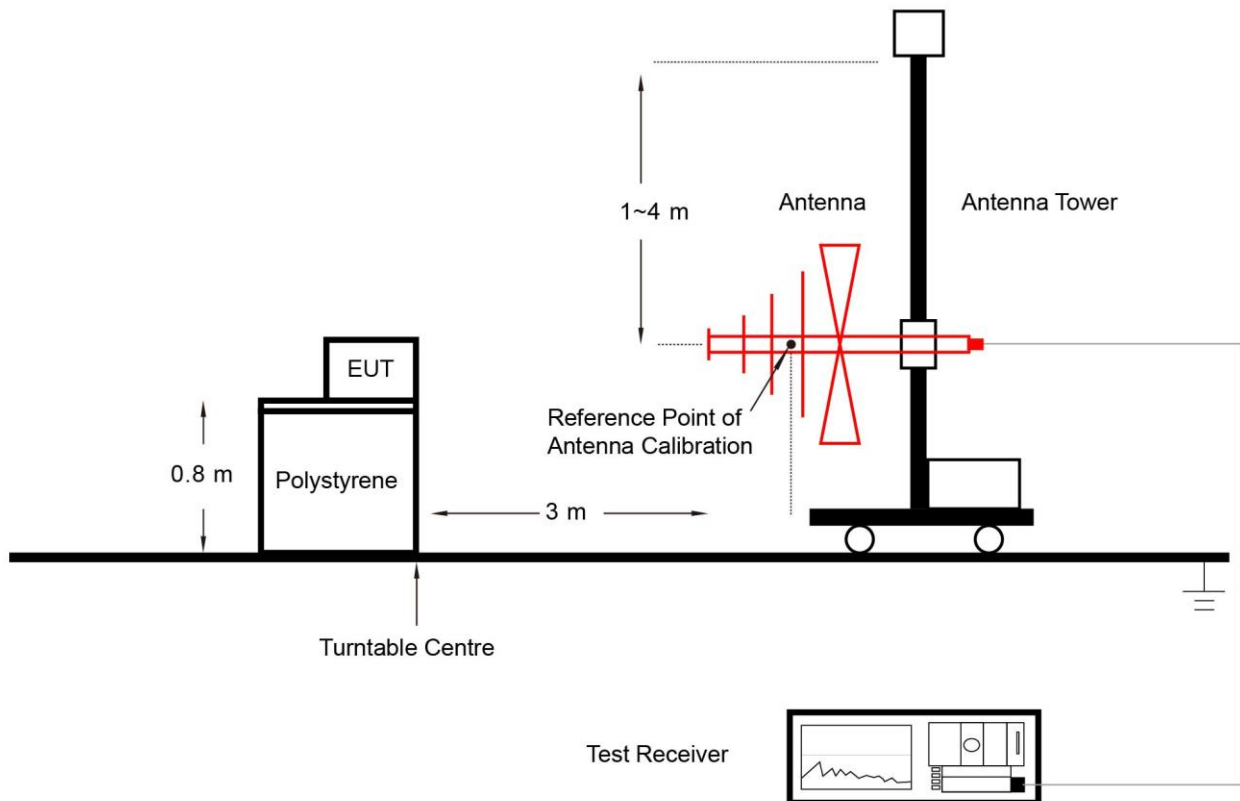
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10 Hz.
If the EUT duty cycle is $< 98\%$, set $\text{VBW} \geq 1/T$. T is the minimum transmission duration.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

6.6.4. Test Setup

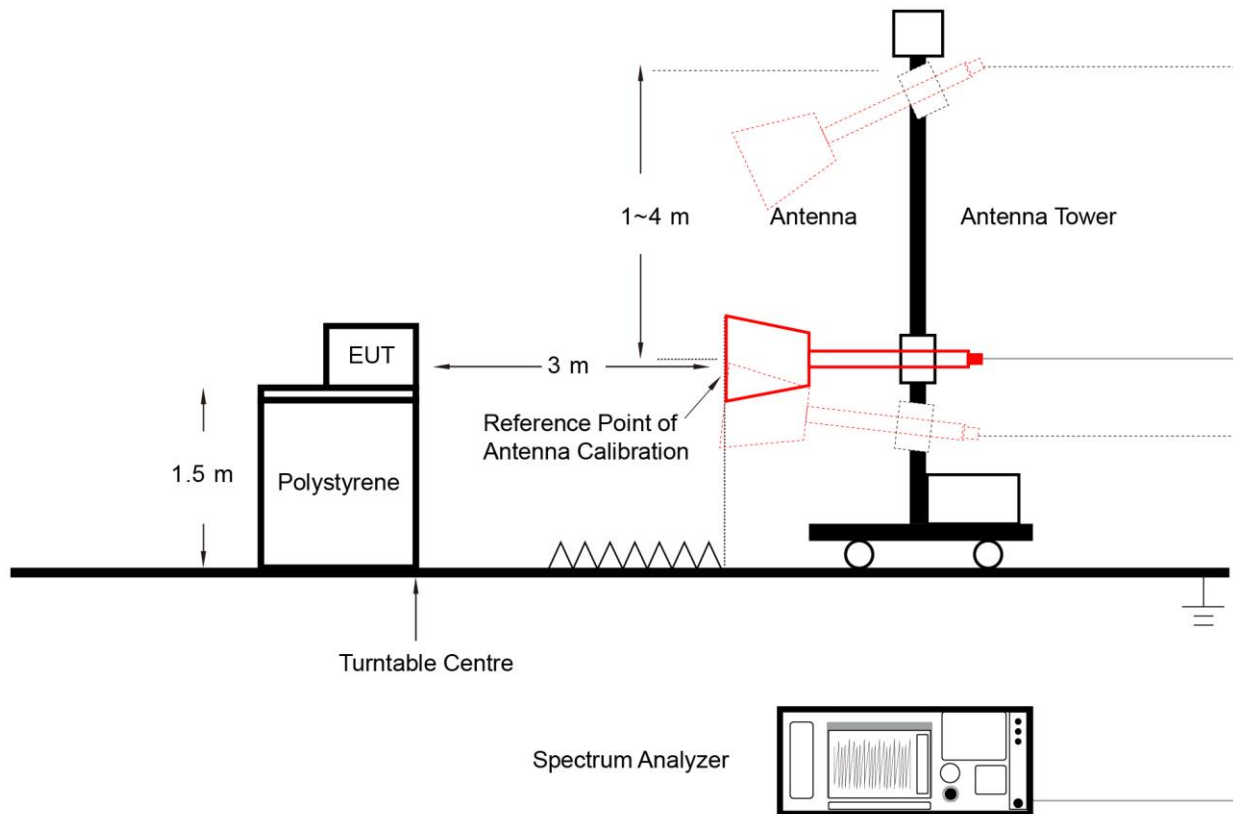
Below 30MHz Test Setup:



Below 1GHz Test Setup:



Above 1GHz Test Setup:



6.6.5. Test Result

Refer to Appendix A.6.

6.7. Radiated Restricted Band Edge Measurement

6.7.1. Test Limit

For 15.205 requirement:

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

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

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

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

6.7.2. Test Procedure

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

6.7.3. Test Setting

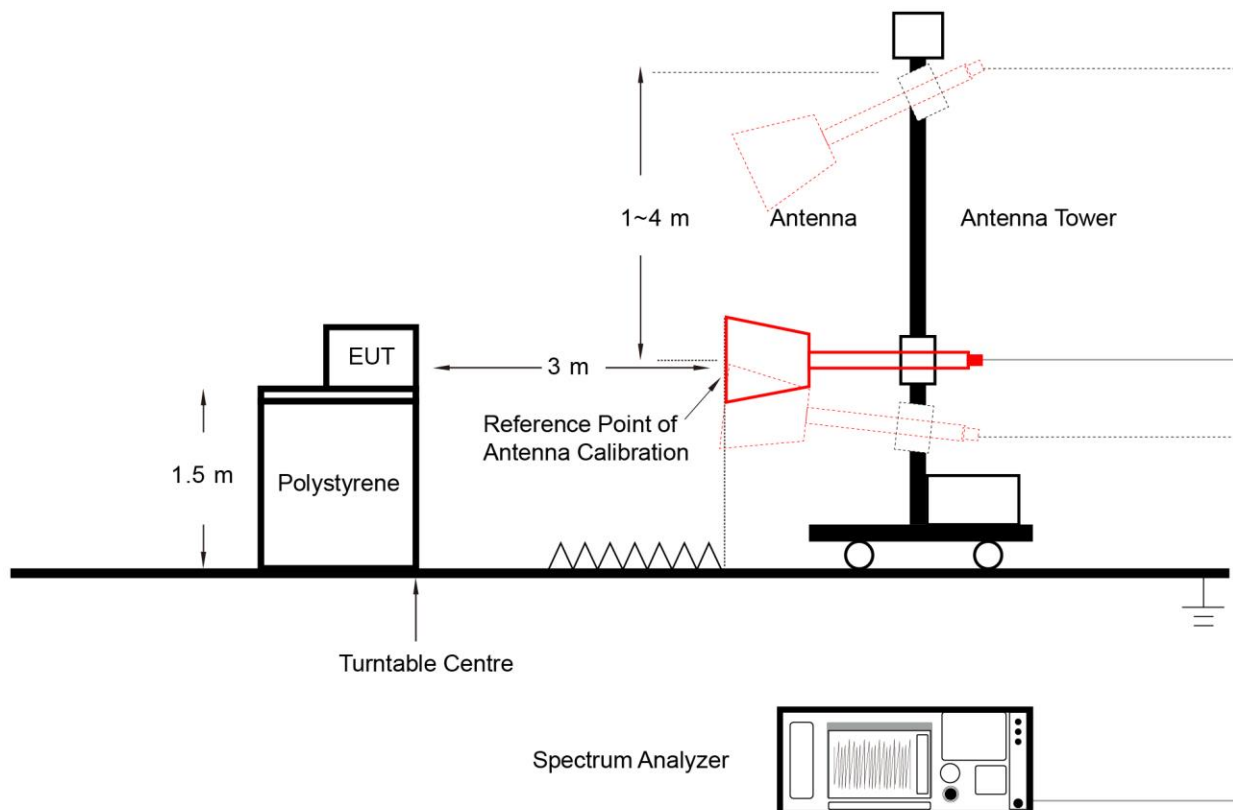
Peak Field Strength Measurements

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

Average Field Strength Measurements

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

6.7.4. Test Setup



6.7.5. Test Result

Refer to Appendix A.7.

6.8. AC Conducted Emissions Measurement

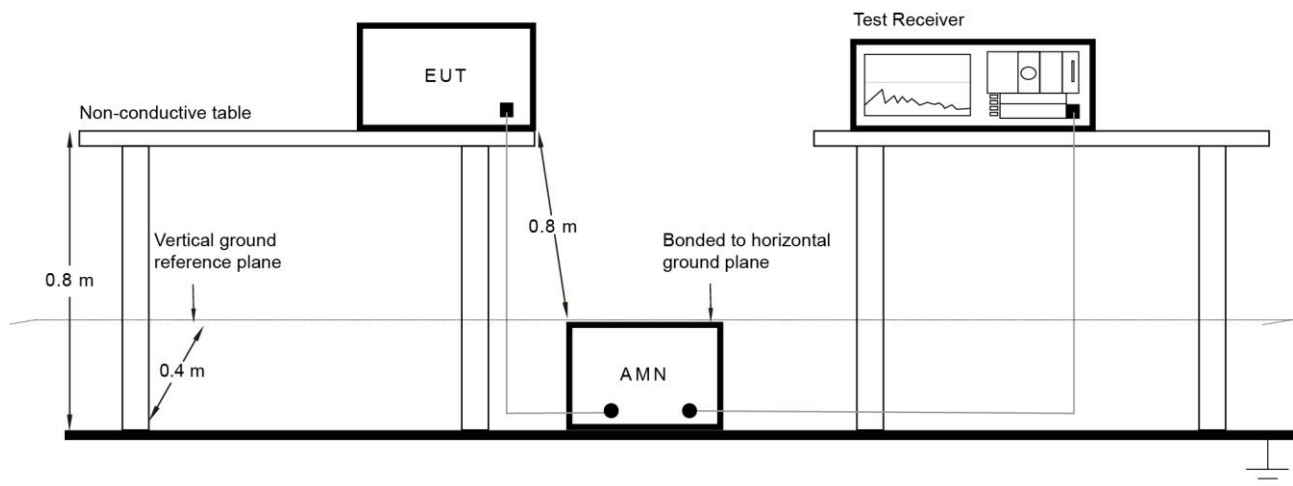
6.8.1. Test Limit

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

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

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

6.8.2. Test Setup



6.8.3. Test Result

Refer to Appendix A.8.

Appendix A – Test Result

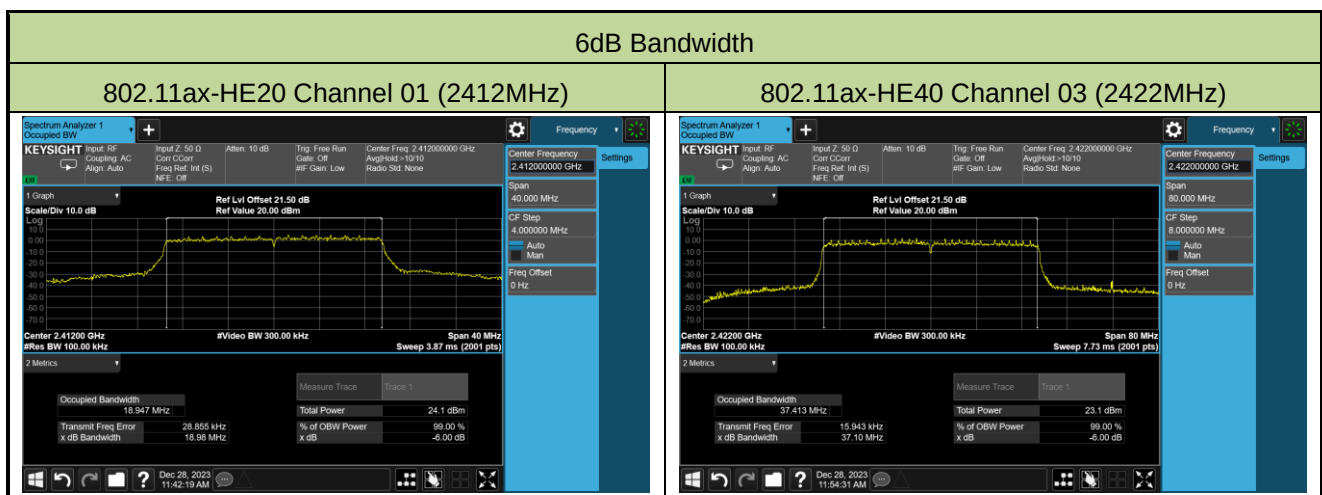
A.1 Duty Cycle Test Result

Refer to MRT report no. 2212RSU034-U1 Appendix A.1

A.2 6dB Bandwidth Test Result

Test Site	SIP-TR1	Test Engineer	Alisa Deng
Test Date	2023-12-28		
Remark	Spot Check		

Test Mode	Data Rate / MCS	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
11ax-HE20	MCS0	01	2412	18.98	≥ 0.5
11ax-HE40	MCS0	03	2422	37.10	≥ 0.5



A.3 Output Power Test Result

Test Site	SIP-TR1	Test Engineer	Alisa Deng
Test Date	2023-11-17		
Remark	Spot Check		

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 Output Power (dBm)	Ant 1 Output Power (dBm)	Output Power (dBm)	Limit (dBm)
b	1Mbps	1	2412	18.39	17.67	21.06	≤ 30.00
g	6Mbps	1	2412	15.88	15.51	18.71	≤ 30.00
n-HT20	MCS0	1	2412	17.05	16.14	19.63	≤ 30.00
n-HT40	MCS0	3	2422	16.38	16.12	19.26	≤ 30.00
ax-HE20	HE0NSS1	1	2412	15.81	15.51	18.67	≤ 30.00
ax-HE40	HE0NSS1	3	2422	15.74	15.71	18.74	≤ 30.00

Note: Output Power (dBm) = $10 \cdot \log(10^{(\text{Ant0 Output Power (dBm)}/10)} + 10^{(\text{Ant1 Output Power (dBm)}/10)})$.

A.4 Power Spectral Density Test Result

Test Site	SIP-TR1	Test Engineer	Alisa Deng
Test Date	2023-12-28		
Remark	Spot Check		

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	PSD (dBm/ 10kHz)		Duty Cycle (%)	Total PSD (dBm/10kHz)	Limit (dBm/3kHz)
				Ant 0	Ant 1			
11ax-HE20	MCS0	01	2412	-12.785	-13.727	97.57	-10.11	≤ 8.00
11ax-HE40	MCS0	03	2422	-14.978	-15.246	95.89	-11.92	≤ 8.00

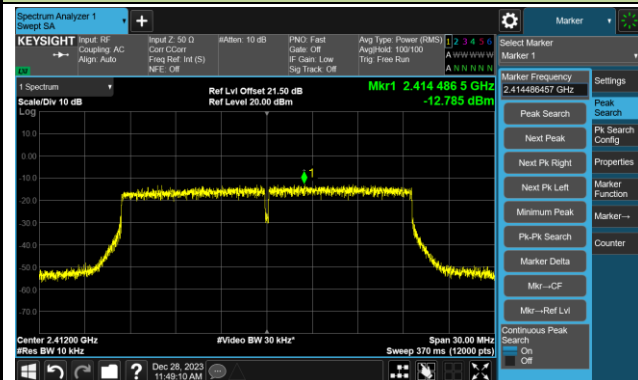
Note 1:

When EUT duty cycle ≥ 98%, Total PSD (dBm / 10kHz) = $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)}\}$ (dBm / 10kHz).

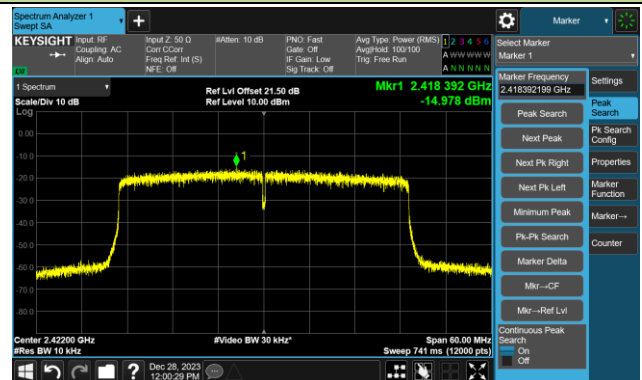
When EUT duty cycle < 98%, Total PSD (dBm / 10kHz) = $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)}\}$ (dBm / 10kHz)
+ $10 \cdot \log (1/\text{Duty Cycle})$.

AVGSPD - Ant 0

802.11ax-HE20 Channel 01 (2412MHz)



802.11ax-HE40 Channel 03 (2422MHz)

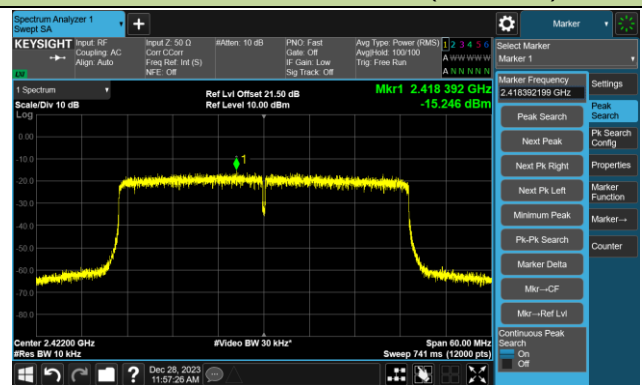


AVGSPD - Ant 1

802.11ax-HE20 Channel 01 (2412MHz)



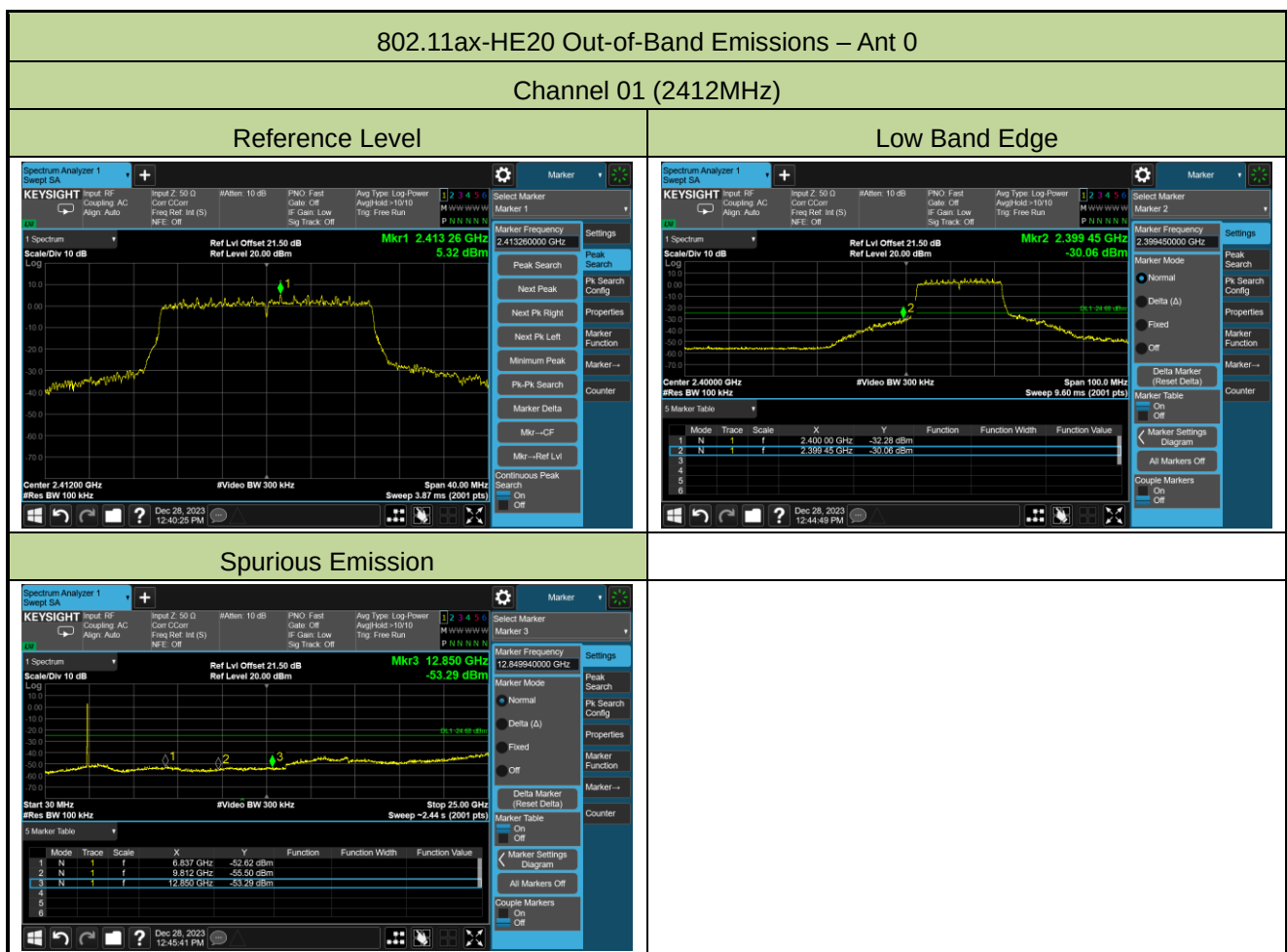
802.11ax-HE40 Channel 03 (2422MHz)



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

Test Site	SIP-TR1	Test Engineer	Alisa Deng
Test Date	2023-12-28		
Remark	Spot Check		

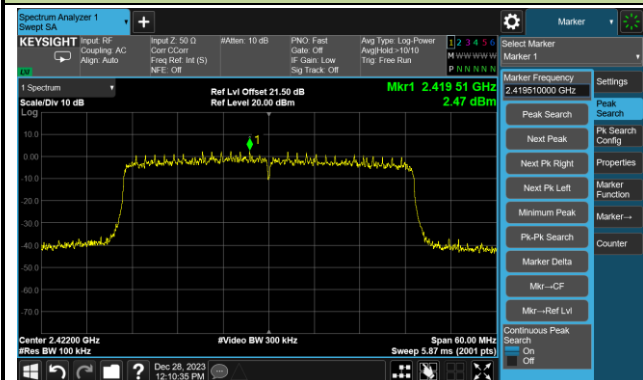
Test Mode	Data Rate / MCS	Channel No.	Frequency (MHz)	Limit
11ax-HE20	MCS0	01	2412	30dBc
11ax-HE40	MCS0	03	2422	30dBc



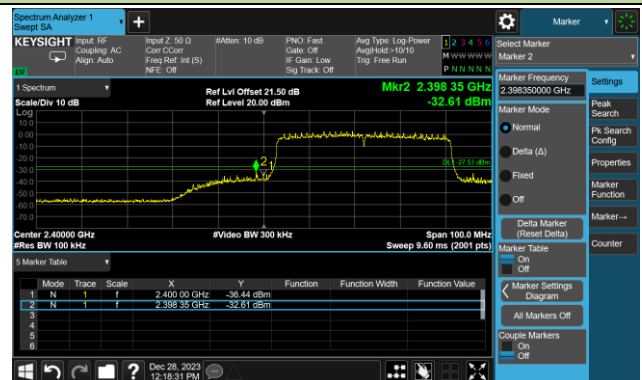
802.11ax-HE40 Out-of-Band Emissions – Ant 0

Channel 03 (2422MHz)

Reference Level



Low Band Edge



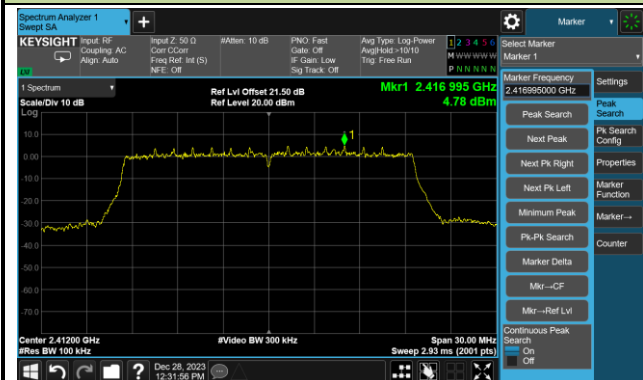
Spurious Emission



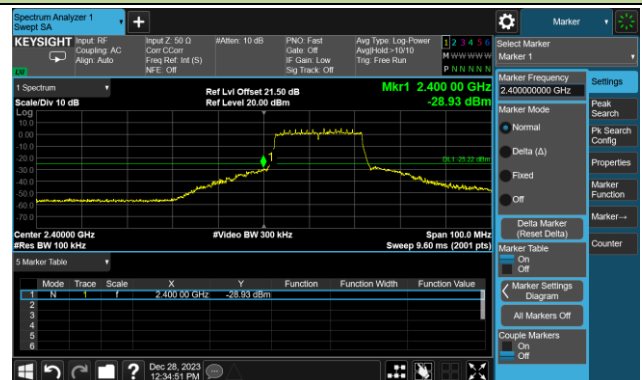
802.11ax-HE20 Out-of-Band Emissions – Ant 1

Channel 01 (2412MHz)

Reference Level



Low Band Edge



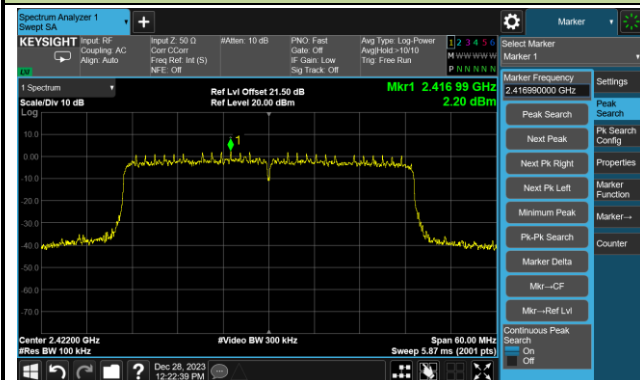
Spurious Emission



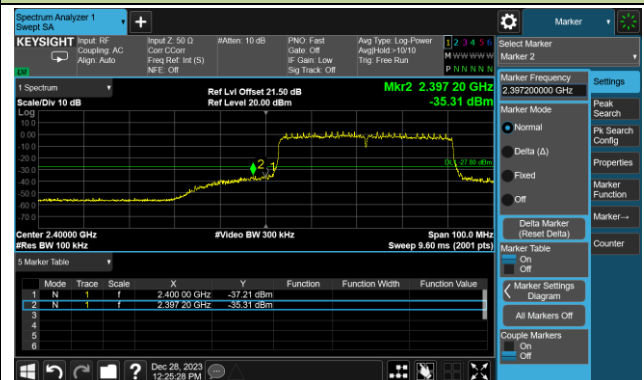
802.11ax-HE40 Out-of-Band Emissions – Ant 1

Channel 03 (2422MHz)

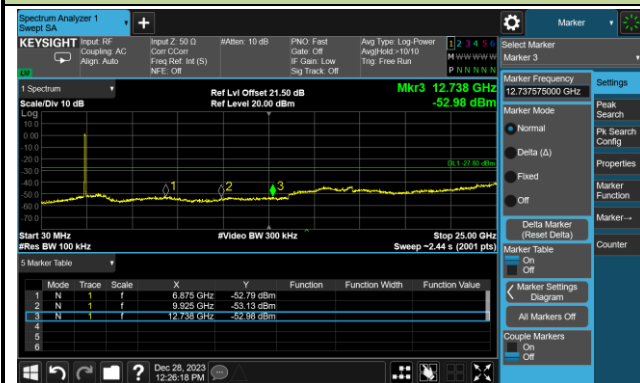
Reference Level



Low Band Edge



Spurious Emission



A.6 Radiated Spurious Emission Test Result

Test Site	SIP-AC3	Test Engineer	Barry Wu
Test Date	2023-09-15	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.		
Remark	Spot Check		

Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
01	7647.0	49.8	-4.3	45.5	74.0	-28.5	Peak	Horizontal
	11608.0	48.3	-1.6	46.7	74.0	-27.3	Peak	Horizontal
	17923.5	32.4	8.3	40.7	54.0	-13.3	AV	Horizontal
	7647.0	50.2	-4.3	45.9	74.0	-28.1	Peak	Vertical
	11812.0	48.6	-1.8	46.8	74.0	-27.2	Peak	Vertical
	17821.5	33.0	8.0	41.0	54.0	-13.0	AV	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	SIP-AC3	Test Engineer	Barry Wu
Test Date	2023-09-15	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.		
Remark	Spot Check		

Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
01	8216.5	48.7	-3.2	45.5	74.0	-28.5	Peak	Horizontal
	11718.5	47.9	-1.7	46.2	74.0	-27.8	Peak	Horizontal
	15688.0	44.7	4.8	49.5	74.0	-24.5	Peak	Horizontal
	4731.5	51.0	-7.5	43.5	74.0	-30.5	Peak	Vertical
	11174.5	48.0	-1.5	46.5	74.0	-27.5	Peak	Vertical
	15909.0	45.7	5.2	50.9	74.0	-23.1	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	SIP-AC3	Test Engineer	Barry Wu
Test Date	2023-09-15	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.		
Remark	Spot Check		

Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
01	4944.0	49.2	-7.5	41.7	74.0	-32.3	Peak	Horizontal
	11650.5	48.4	-1.7	46.7	74.0	-27.3	Peak	Horizontal
	15705.0	45.8	4.9	50.7	74.0	-23.3	Peak	Horizontal
	7519.5	48.8	-4.6	44.2	74.0	-29.8	Peak	Vertical
	11982.0	48.5	-1.8	46.7	74.0	-27.3	Peak	Vertical
	15883.5	45.2	5.1	50.3	74.0	-23.7	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	SIP-AC3	Test Engineer	Barry Wu
Test Date	2023-09-15	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.		
Remark	Spot Check		

Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
03	8293.0	48.1	-3.2	44.9	74.0	-29.1	Peak	Horizontal
	11200.0	48.2	-1.6	46.6	74.0	-27.4	Peak	Horizontal
	15807.0	45.3	4.9	50.2	74.0	-23.8	Peak	Horizontal
	7630.0	48.9	-4.3	44.6	74.0	-29.4	Peak	Vertical
	11803.5	48.4	-1.9	46.5	74.0	-27.5	Peak	Vertical
	15492.5	44.0	4.4	48.4	74.0	-25.6	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	SIP-AC3	Test Engineer	Barry Wu
Test Date	2023-09-15	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.		
Remark	Spot Check		

Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
01	7434.5	49.7	-4.8	44.9	74.0	-29.1	Peak	Horizontal
	11123.5	48.0	-1.4	46.6	74.0	-27.4	Peak	Horizontal
	15433.0	46.1	3.5	49.6	74.0	-24.4	Peak	Horizontal
	7672.5	48.5	-4.2	44.3	74.0	-29.7	Peak	Vertical
	11166.0	47.9	-1.3	46.6	74.0	-27.4	Peak	Vertical
	15569.0	44.3	4.6	48.9	74.0	-25.1	Peak	Vertical

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

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

Test Site	SIP-AC3	Test Engineer	Barry Wu
Test Date	2023-09-15	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.		
Remark	Spot Check		

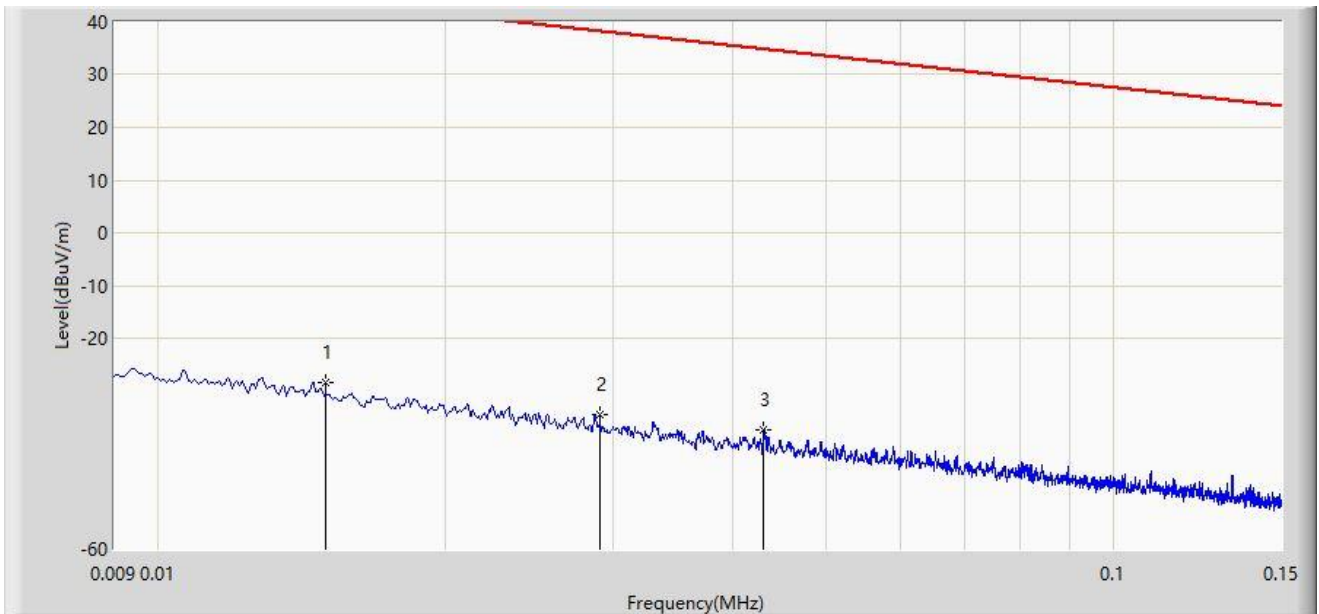
Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
03	4748.5	50.6	-7.6	43.0	74.0	-31.0	Peak	Horizontal
	11684.5	47.8	-1.6	46.2	74.0	-27.8	Peak	Horizontal
	15518.0	44.3	4.0	48.3	74.0	-25.7	Peak	Horizontal
	7698.0	49.4	-4.1	45.3	74.0	-28.7	Peak	Vertical
	11778.0	48.9	-1.9	47.0	74.0	-27.0	Peak	Vertical
	15790.0	45.0	5.0	50.0	74.0	-24.0	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)

The Result of Radiated Emission below 30MHz:

Site: SIP-AC1	Test Date: 2023-11-17
Limit: FCC_Part 15.209_RSE(3m)_PK(9k-30M)	Engineer: Barry Wu
Probe: FMZB1519B_9kHz-30MHz	Polarity: Coaxial
EUT: ACCESS POINT	Power: By PoE
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	*	0.015	-28.315	31.407	-72.380	44.065	-59.722	PK
2		0.029	-34.537	25.754	-72.879	38.342	-60.291	PK
3		0.043	-37.477	23.238	-72.400	34.923	-60.715	PK

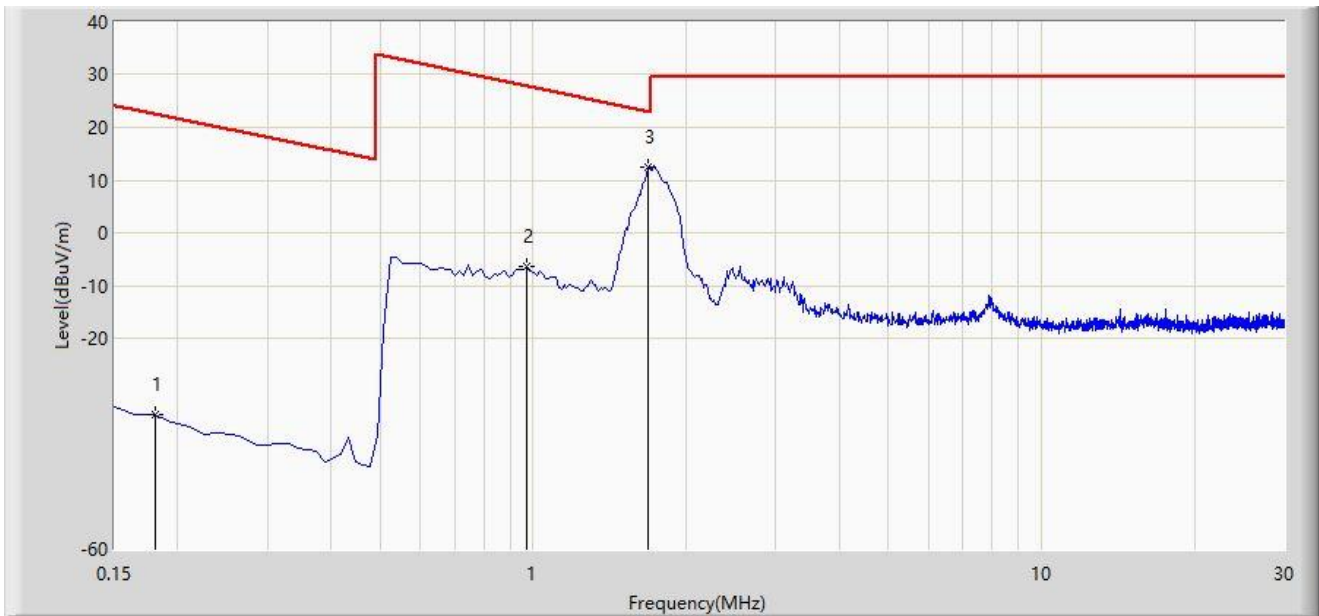
Note 1: " * ", means this data is the worst emission level.

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: SIP-AC1	Test Date: 2023-11-17
Limit: FCC_Part 15.209_RSE(3m)_PK(9k-30M)	Engineer: Barry Wu
Probe: FMZB1519B_9kHz-30MHz	Polarity: Coaxial
EUT: ACCESS POINT	Power: By PoE
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		0.180	-34.408	26.558	-56.902	22.494	-60.966	PK
2		0.971	-6.362	15.652	-34.238	27.876	-22.014	PK
3	*	1.687	12.442	34.112	-10.650	23.092	-21.670	PK

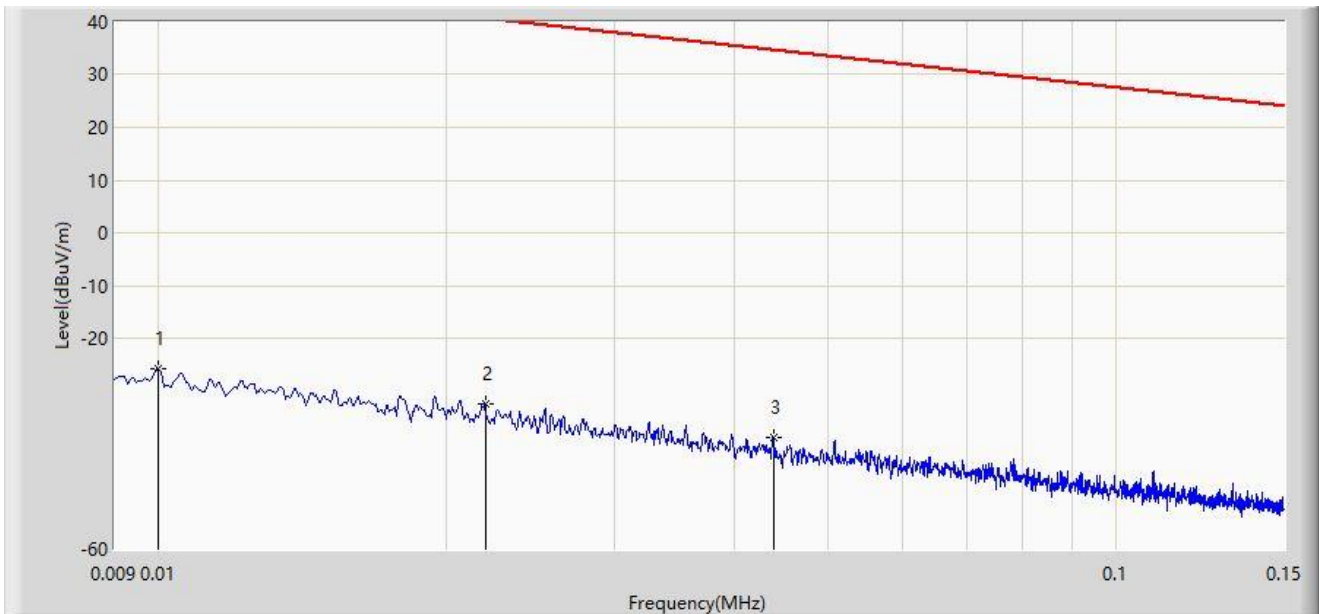
Note 1: " * ", means this data is the worst emission level.

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: SIP-AC1	Test Date: 2023-11-17
Limit: FCC_Part 15.209_RSE(3m)_PK(9k-30M)	Engineer: Barry Wu
Probe: FMZB1519B_9kHz-30MHz	Polarity: Coplanar
EUT: ACCESS POINT	Power: By PoE
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		0.010	-25.713	33.806	-73.298	47.585	-59.519	PK
2	*	0.022	-32.332	27.674	-73.073	40.741	-60.006	PK
3		0.044	-38.711	22.009	-73.434	34.723	-60.720	PK

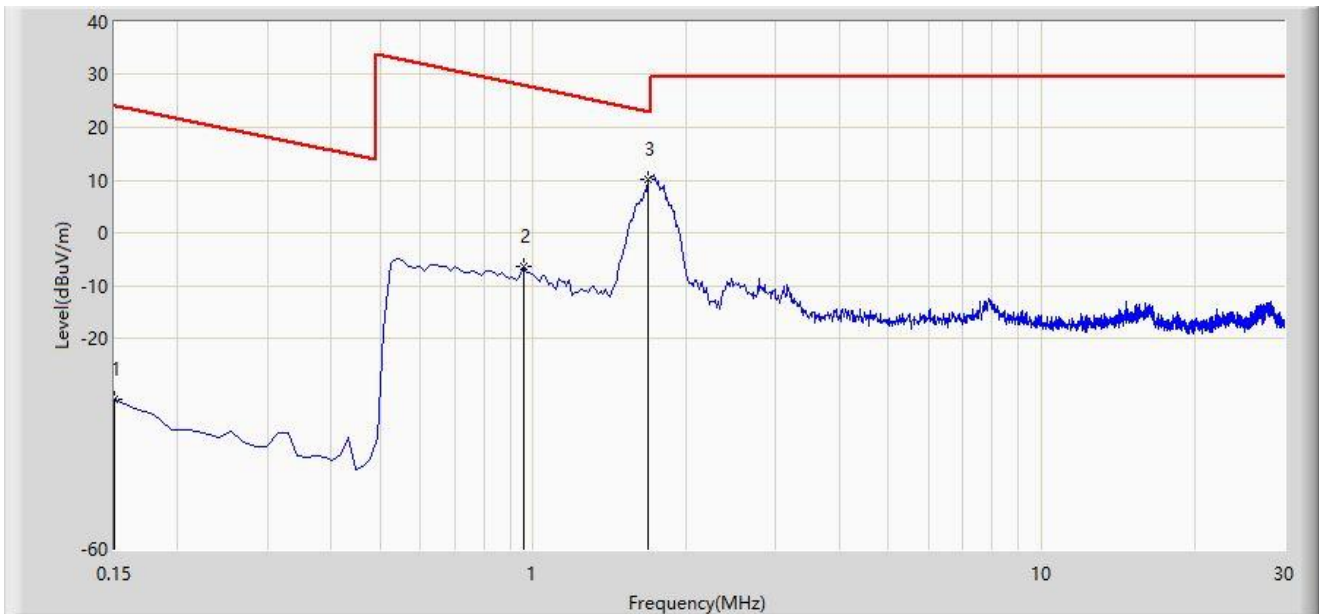
Note 1: " * ", means this data is the worst emission level.

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: SIP-AC1	Test Date: 2023-11-17
Limit: FCC_Part 15.209_RSE(3m)_PK(9k-30M)	Engineer: Barry Wu
Probe: FMZB1519B_9kHz-30MHz	Polarity: Coplanar
EUT: ACCESS POINT	Power: By PoE
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		0.150	-31.615	29.336	-55.691	24.076	-60.951	PK
2		0.956	-6.340	15.642	-34.351	28.011	-21.982	PK
3	*	1.687	10.166	31.836	-12.926	23.092	-21.670	PK

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

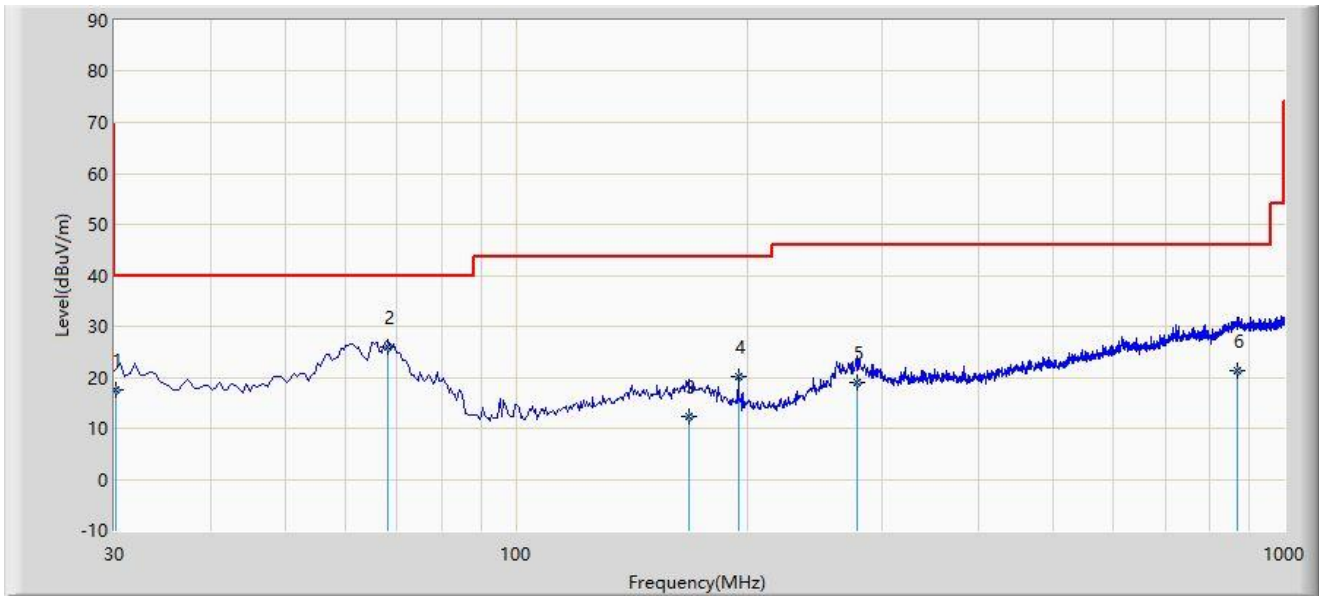
Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

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.

The Result of Radiated Emission below 1GHz:

Site: SIP-AC2	Test Date: 2023-09-28
Limit: FCC_Part15.209_RSE(3m)	Engineer: Mero Zhou
Probe: VULB 9168_00998_25-2000MHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
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		30.100	17.410	0.400	-22.590	40.000	17.010	QP
2	*	68.182	25.851	9.400	-14.149	40.000	16.451	QP
3		167.740	12.254	-5.800	-31.246	43.500	18.054	QP
4		194.900	20.281	5.000	-23.219	43.500	15.281	QP
5		278.300	19.048	0.800	-26.952	46.000	18.249	QP
6		870.505	21.285	-9.000	-24.715	46.000	30.285	QP

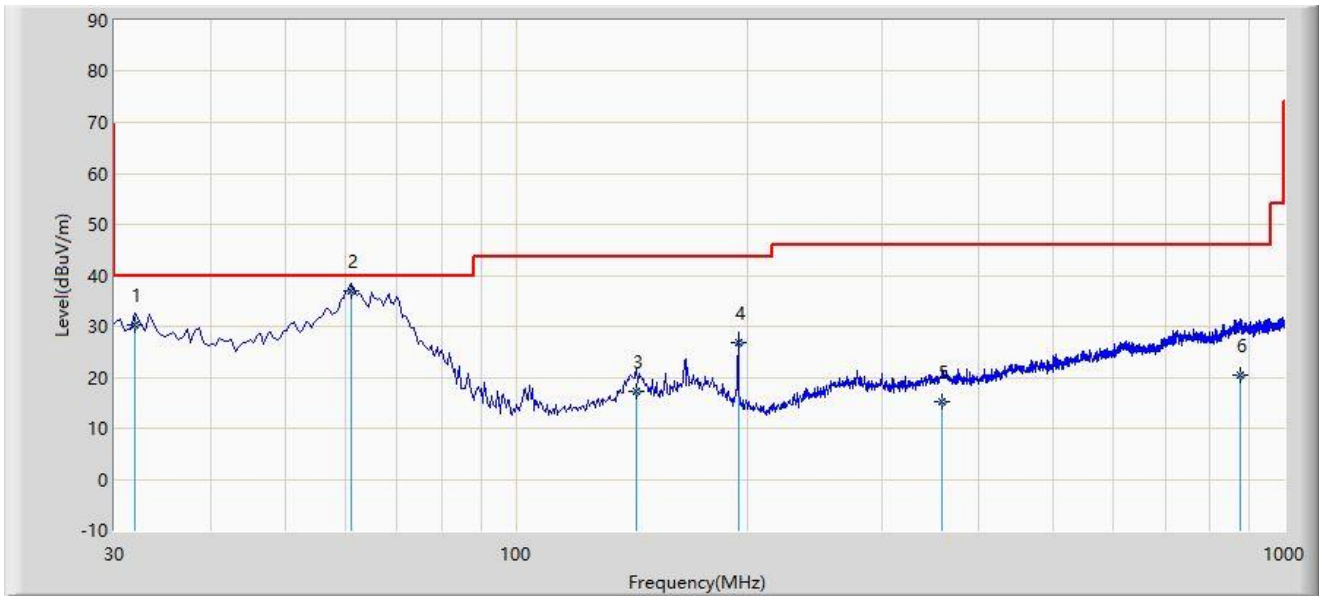
Note 1: " * ", means this data is the worst emission level.

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: SIP-AC2	Test Date: 2023-09-28
Limit: FCC_Part15.209_RSE(3m)	Engineer: Mero Zhou
Probe: VULB 9168_00998_25-2000MHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
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		31.940	30.403	13.500	-9.597	40.000	16.902	QP
2	*	61.040	36.869	19.300	-3.131	40.000	17.569	QP
3		143.410	17.376	-0.600	-26.124	43.500	17.975	QP
4		194.900	26.681	11.400	-16.819	43.500	15.281	QP
5		359.315	15.178	-4.900	-30.822	46.000	20.079	QP
6		877.780	20.423	-9.800	-25.577	46.000	30.223	QP

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

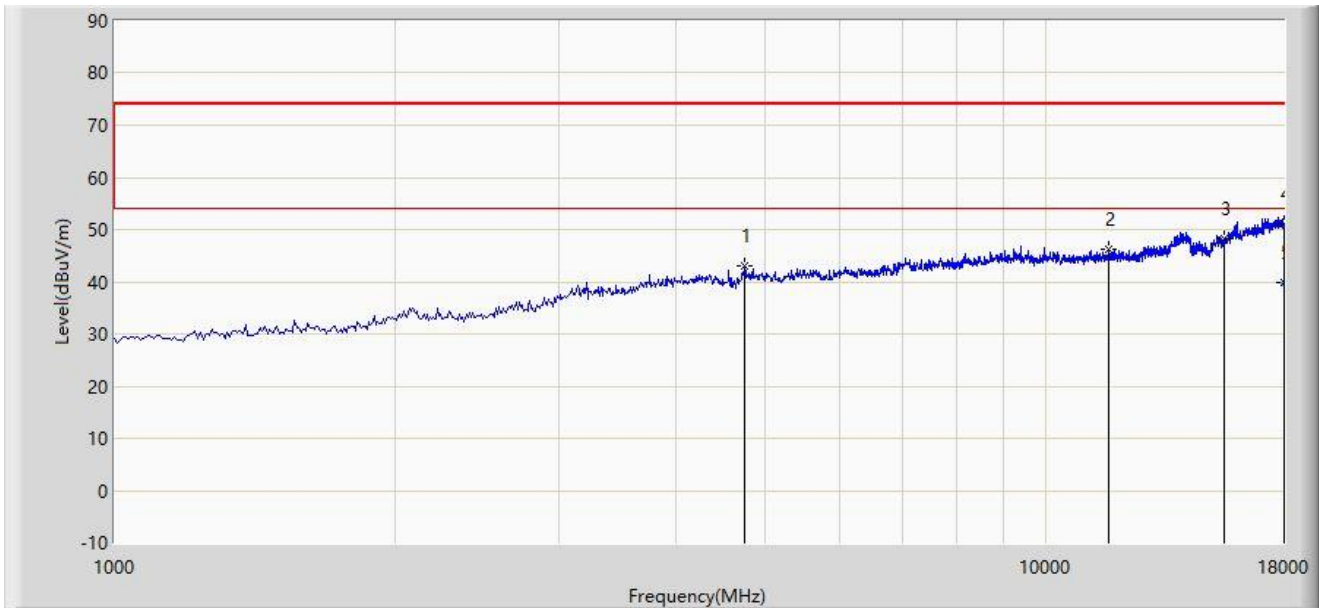
Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

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.

The Result of Radiated Emission between 1GHz ~ 18GHz:

Site: SIP-AC3	Test Date: 2023/11/18
Limit: FCC_Part15.209_RSE(3m)_2.4G	Engineer: Barry Wu
Probe: HF907_102861_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
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		4748.500	43.046	50.617	-30.954	74.000	-7.572	PK
2		11684.500	46.195	47.821	-27.805	74.000	-1.625	PK
3		15518.000	48.321	44.319	-25.679	74.000	4.002	PK
4		18000.000	51.157	51.157	-22.843	74.000	0.000	PK
5	*	18000.000	39.800	39.800	-14.200	54.000	0.000	AV

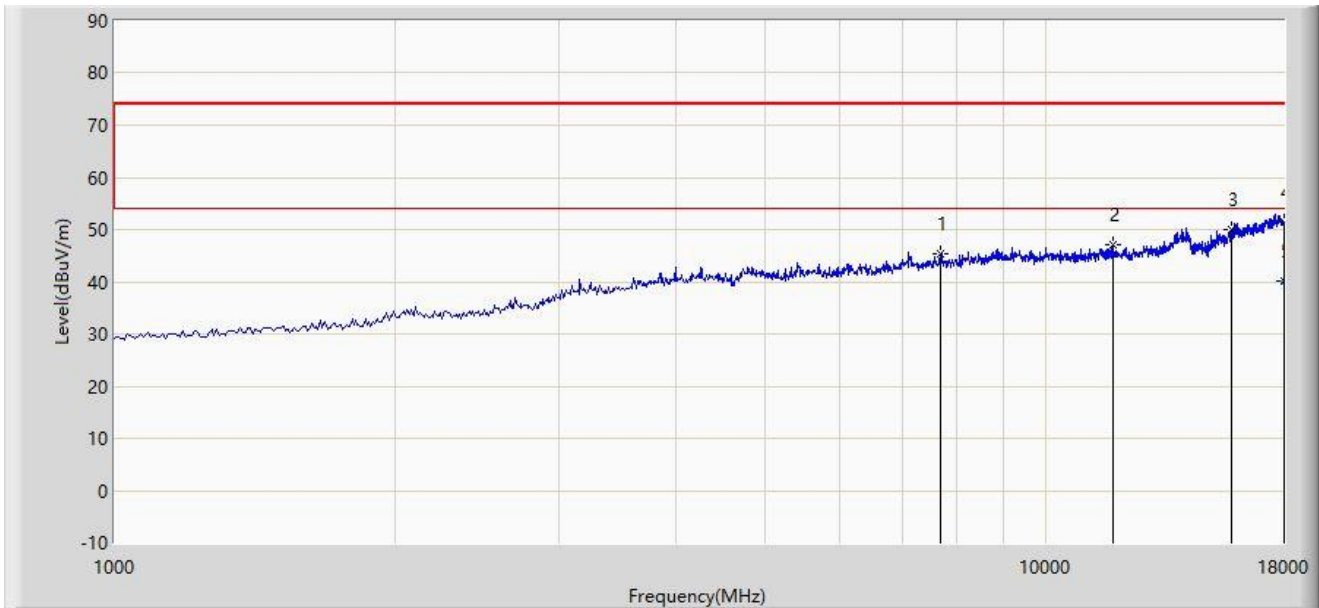
Note 1: " * ", means this data is the worst emission level.

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

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

Note 4: Average measurement was not performed when peak measure level was lower than the average limit.

Site: SIP-AC3	Test Date: 2023/11/18
Limit: FCC_Part15.209_RSE(3m)_2.4G	Engineer: Barry Wu
Probe: HF907_102861_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
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		7698.000	45.261	49.374	-28.739	74.000	-4.113	PK
2		11778.000	46.969	48.871	-27.031	74.000	-1.902	PK
3		15790.000	49.917	44.954	-24.083	74.000	4.963	PK
4		18000.000	51.521	51.521	-22.479	74.000	0.000	PK
5	*	18000.000	40.200	40.200	-13.800	54.000	0.000	AV

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

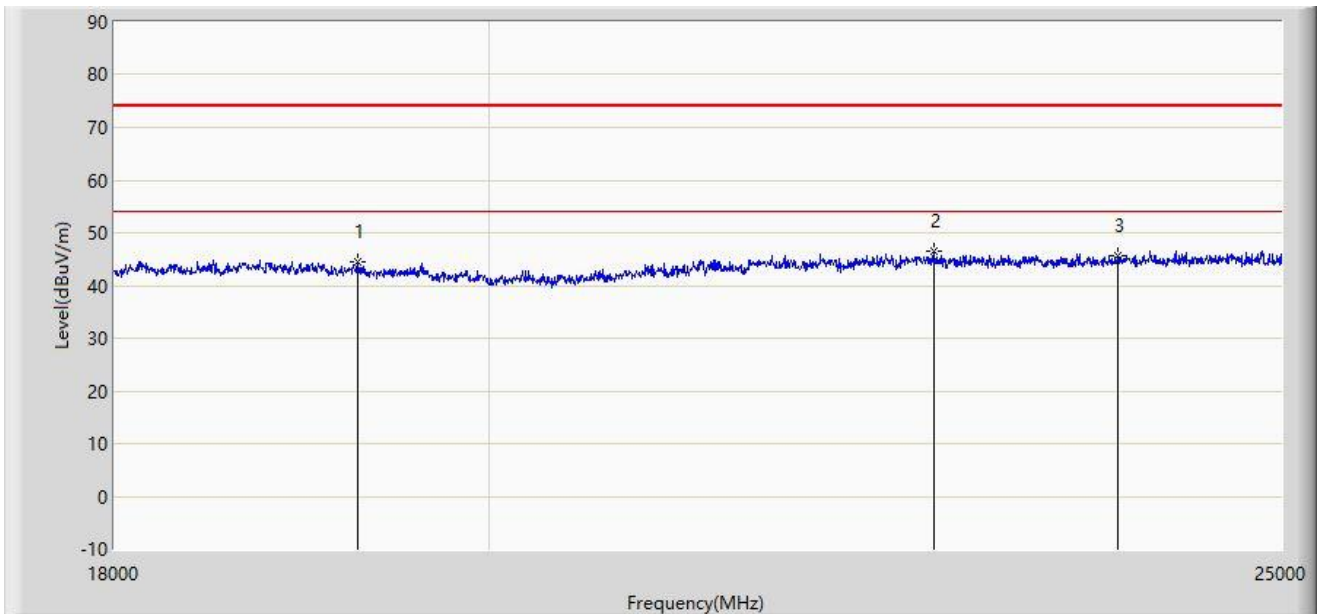
Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

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

Note 4: Average measurement was not performed when peak measure level was lower than the average limit.

The Result of Radiated Emission between 18GHz ~ 25GHz:

Site: SIP-AC2	Test Date: 2023/11/18
Limit: FCC_Part15.209_RSE(3m)_2.4G	Engineer: Arvin Ding
Probe: BBHA 9170_00934_18-40GHz-	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
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		19277.500	44.587	56.124	-29.413	74.000	-11.537	PK
2	*	22669.000	46.511	55.135	-27.489	74.000	-8.624	PK
3		23880.000	45.767	54.224	-28.233	74.000	-8.457	PK

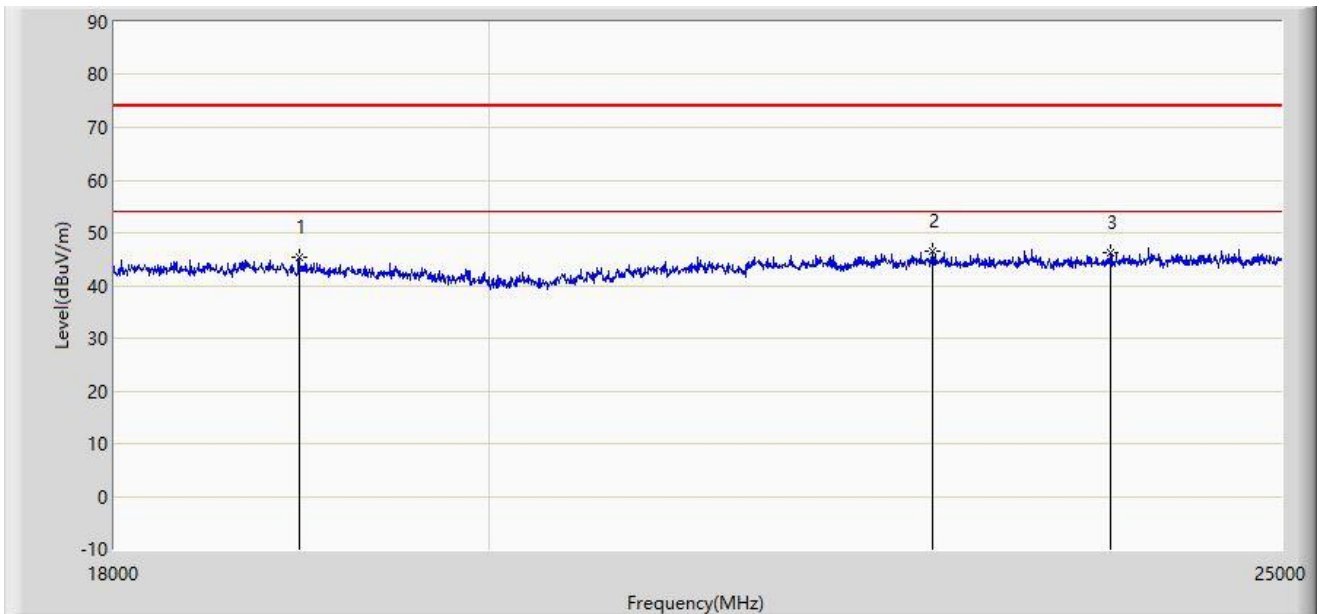
Note 1: " * ", means this data is the worst emission level.

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

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

Note 4: Average measurement was not performed when peak measure level was lower than the average limit.

Site: SIP-AC2	Test Date: 2023/11/18
Limit: FCC_Part15.209_RSE(3m)_2.4G	Engineer: Arvin Ding
Probe: BBHA 9170_00934_18-40GHz-	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
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		18962.500	45.376	56.503	-28.624	74.000	-11.127	PK
2	*	22658.500	46.437	55.043	-27.563	74.000	-8.606	PK
3		23831.000	46.325	54.511	-27.675	74.000	-8.187	PK

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

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

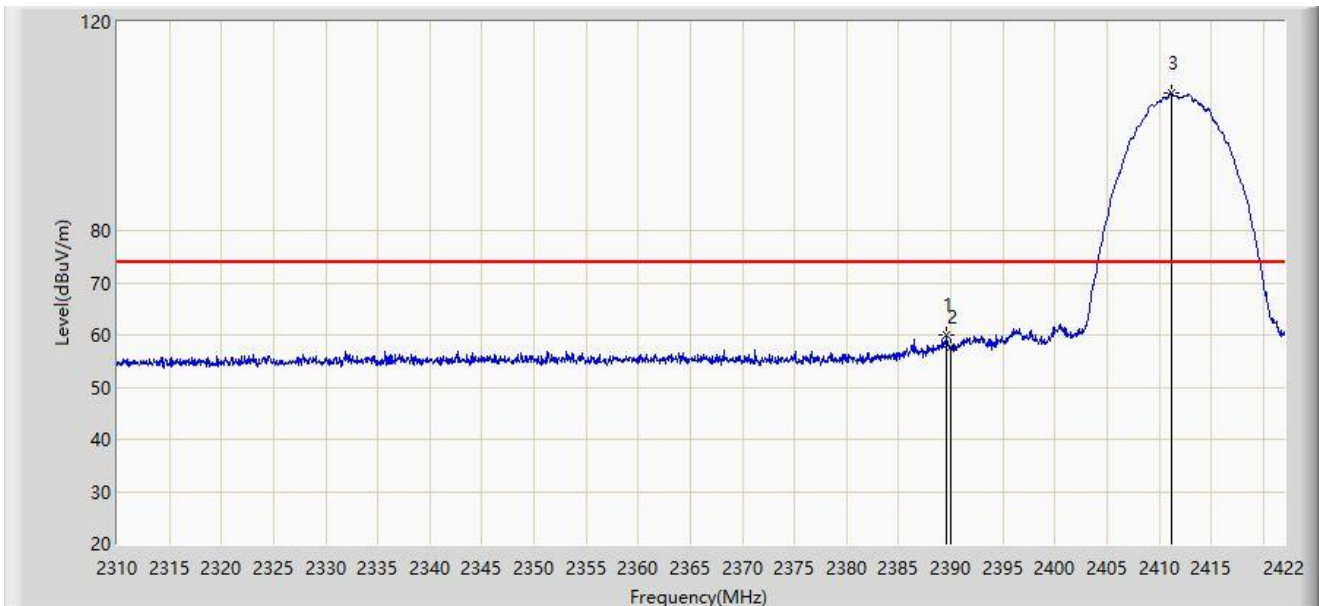
Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Note 4: Average measurement was not performed when peak measure level was lower than the average limit.

A.7 Radiated Restricted Band Edge Test Result

Spot Check Test Data

Site: SIP-AC1	Test Date: 2023-11-17
Limit: FCC_2.4G_RE(3m)	Engineer: Barry Wu
Probe: HF907_102862_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11b at 2412MHz	



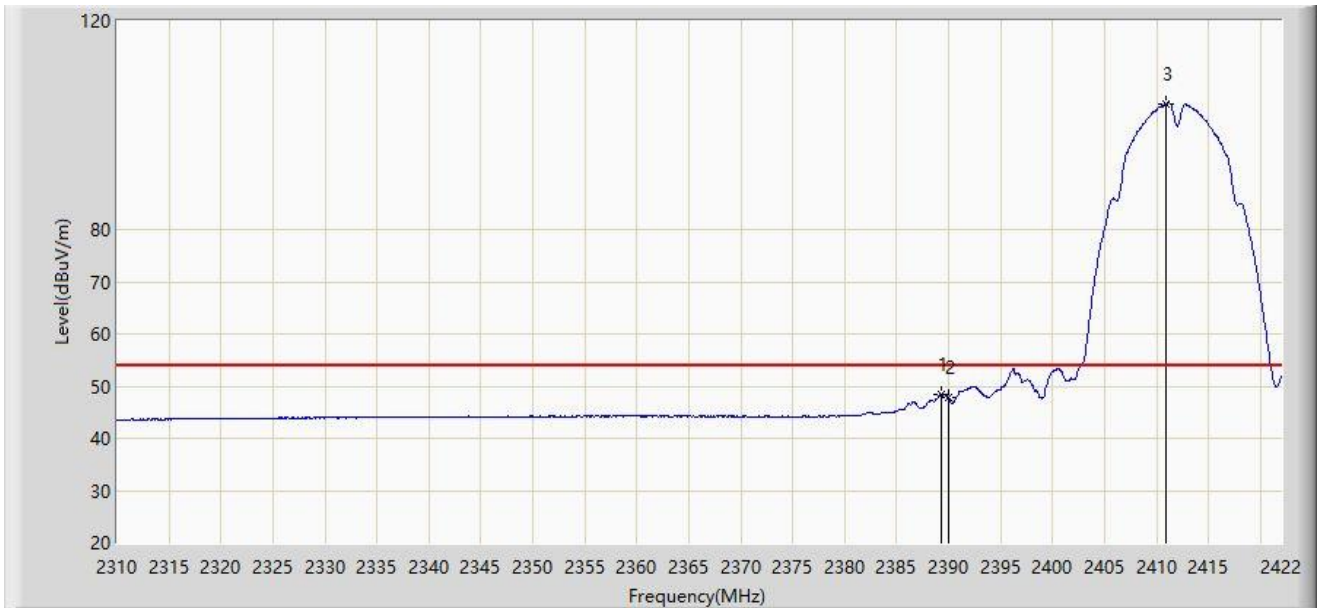
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2389.632	60.029	28.320	-13.971	74.000	31.709	PK
2		2390.000	57.649	25.934	-16.351	74.000	31.715	PK
3		2411.136	106.333	74.529	N/A	N/A	31.803	PK

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: SIP-AC1	Test Date: 2023-11-17
Limit: FCC_2.4G_RE(3m)	Engineer: Barry Wu
Probe: HF907_102862_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11b at 2412MHz	



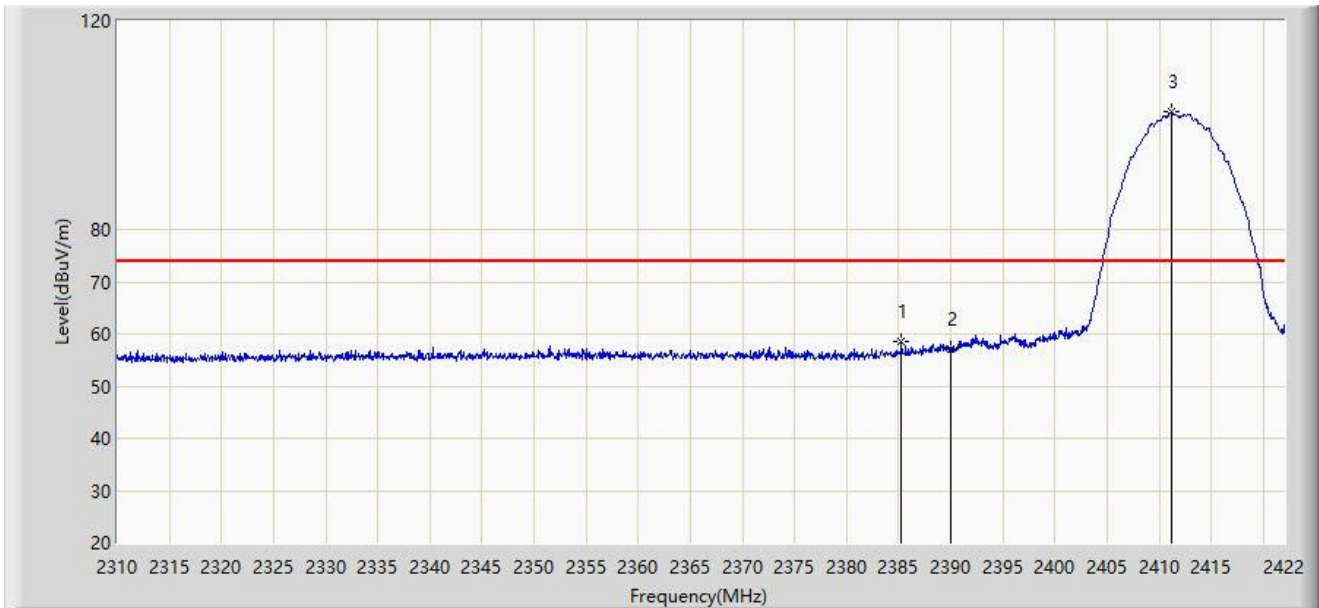
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2389.352	48.419	16.715	-5.581	54.000	31.704	AV
2		2390.000	47.770	16.055	-6.230	54.000	31.715	AV
3		2410.968	104.007	72.204	N/A	N/A	31.803	AV

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: SIP-AC1	Test Date: 2023-11-17
Limit: FCC_2.4G_RE(3m)	Engineer: Barry Wu
Probe: HF907_102862_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11b at 2412MHz	



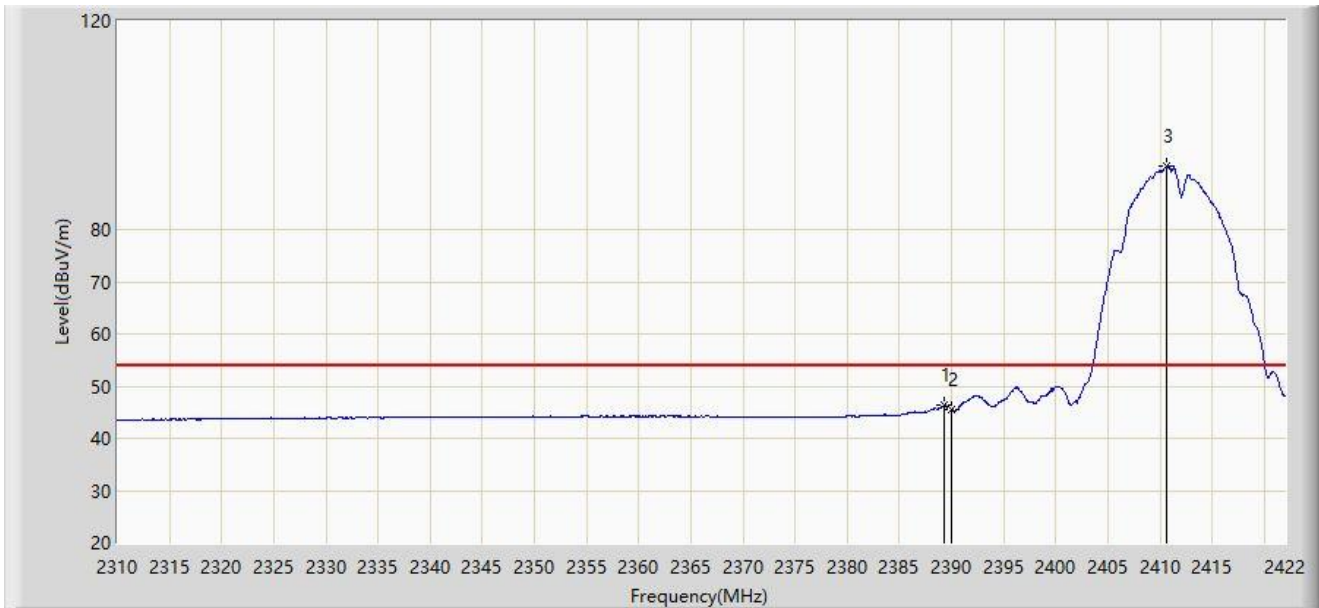
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2385.264	58.585	26.956	-15.415	74.000	31.629	PK
2		2390.000	57.069	25.354	-16.931	74.000	31.715	PK
3		2411.136	102.478	70.674	N/A	N/A	31.803	PK

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: SIP-AC1	Test Date: 2023-11-17
Limit: FCC_2.4G_RE(3m)	Engineer: Barry Wu
Probe: HF907_102862_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11b at 2412MHz	



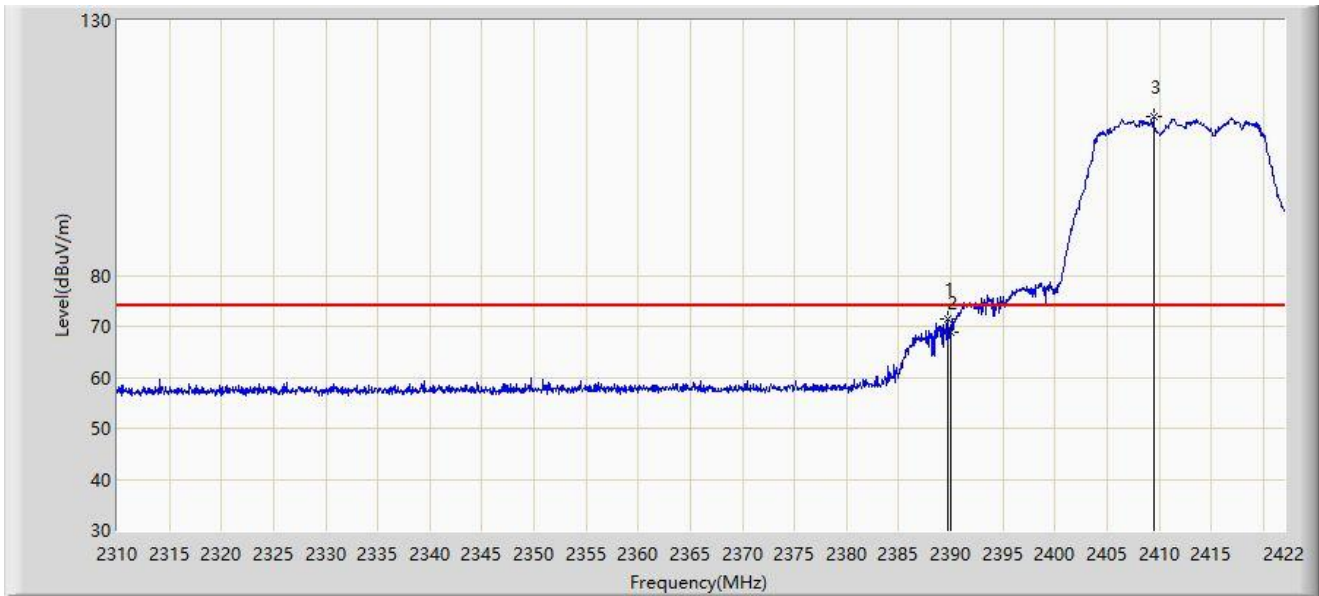
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2389.296	46.330	14.627	-7.670	54.000	31.703	AV
2		2390.000	45.545	13.830	-8.455	54.000	31.715	AV
3		2410.632	92.038	60.235	N/A	N/A	31.803	AV

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: SIP-AC3	Test Date: 2023-09-14
Limit: FCC_2.4G_RE(3m)	Engineer: Barry Wu
Probe: HF907_102861_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit 802.11g at 2412MHz	



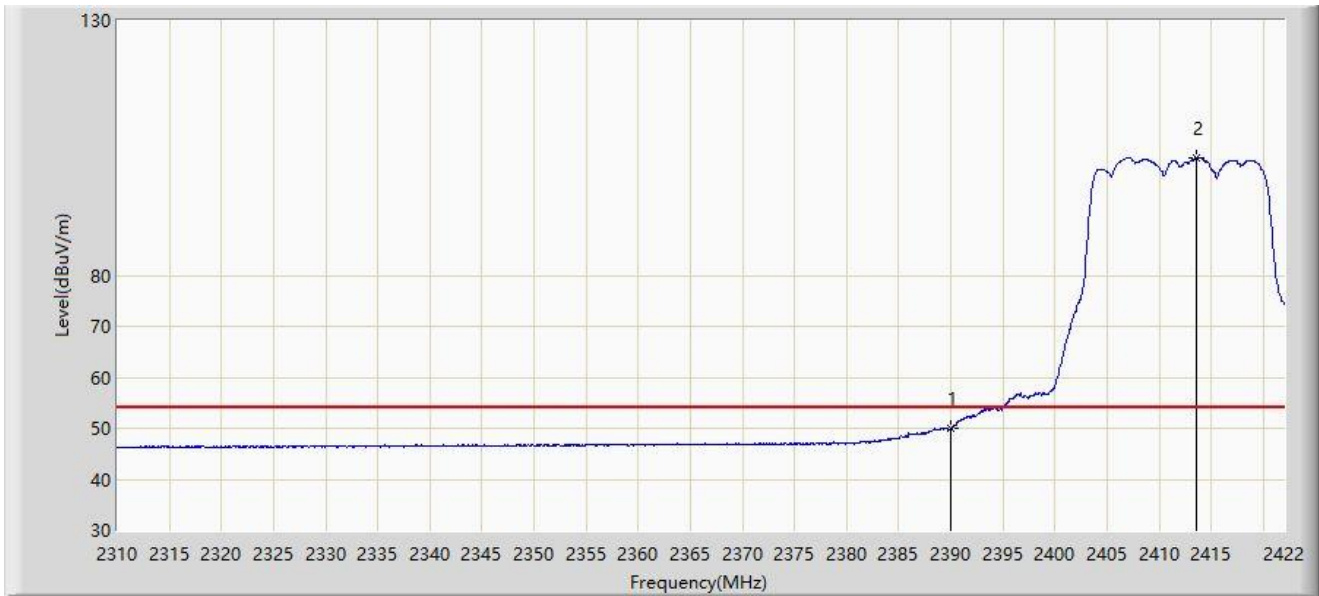
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2389.688	71.561	39.539	-2.439	74.000	32.022	PK
2		2390.000	68.718	36.695	-5.282	74.000	32.023	PK
3		2409.456	111.074	79.030	N/A	N/A	32.043	PK

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: SIP-AC3	Test Date: 2023-09-14
Limit: FCC_2.4G_RE(3m)	Engineer: Barry Wu
Probe: HF907_102861_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit 802.11g at 2412MHz	



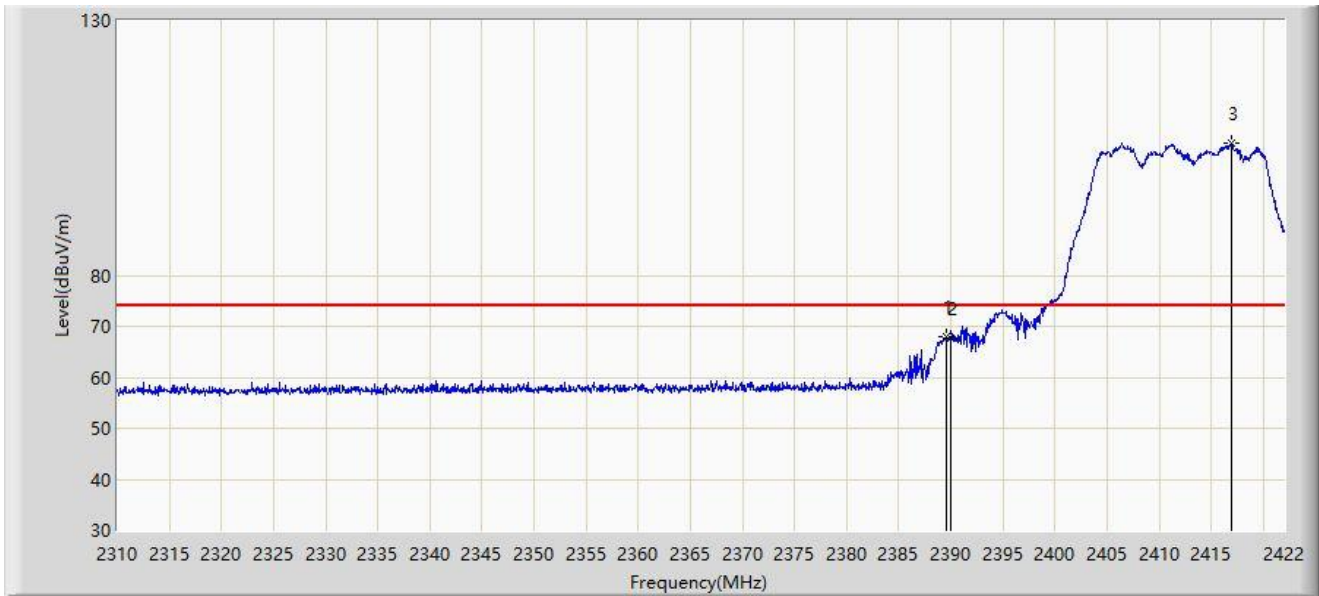
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2390.000	50.060	18.037	-3.940	54.000	32.023	AV
2		2413.600	103.092	71.047	N/A	N/A	32.045	AV

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: SIP-AC3	Test Date: 2023-09-14
Limit: FCC_2.4G_RE(3m)	Engineer: Barry Wu
Probe: HF907_102861_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit 802.11g at 2412MHz	



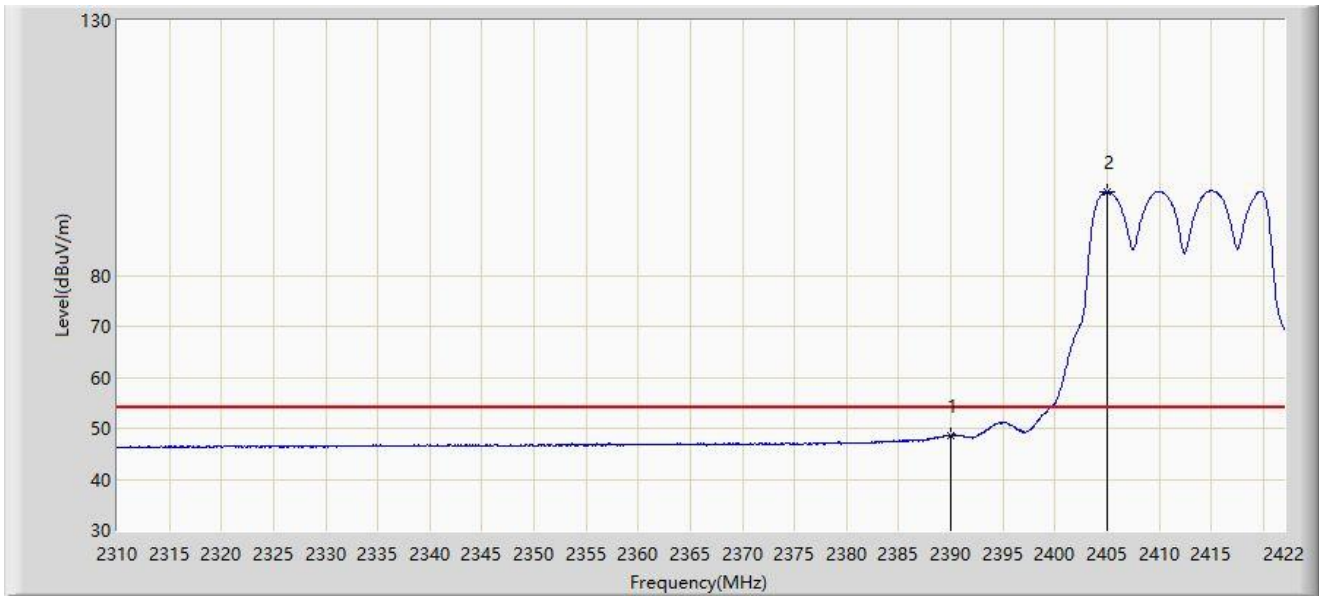
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2389.520	67.945	35.923	-6.055	74.000	32.022	PK
2		2390.000	67.563	35.540	-6.437	74.000	32.023	PK
3		2416.904	106.031	73.986	N/A	N/A	32.046	PK

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: SIP-AC3	Test Date: 2023-09-14
Limit: FCC_2.4G_RE(3m)	Engineer: Barry Wu
Probe: HF907_102861_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit 802.11g at 2412MHz	



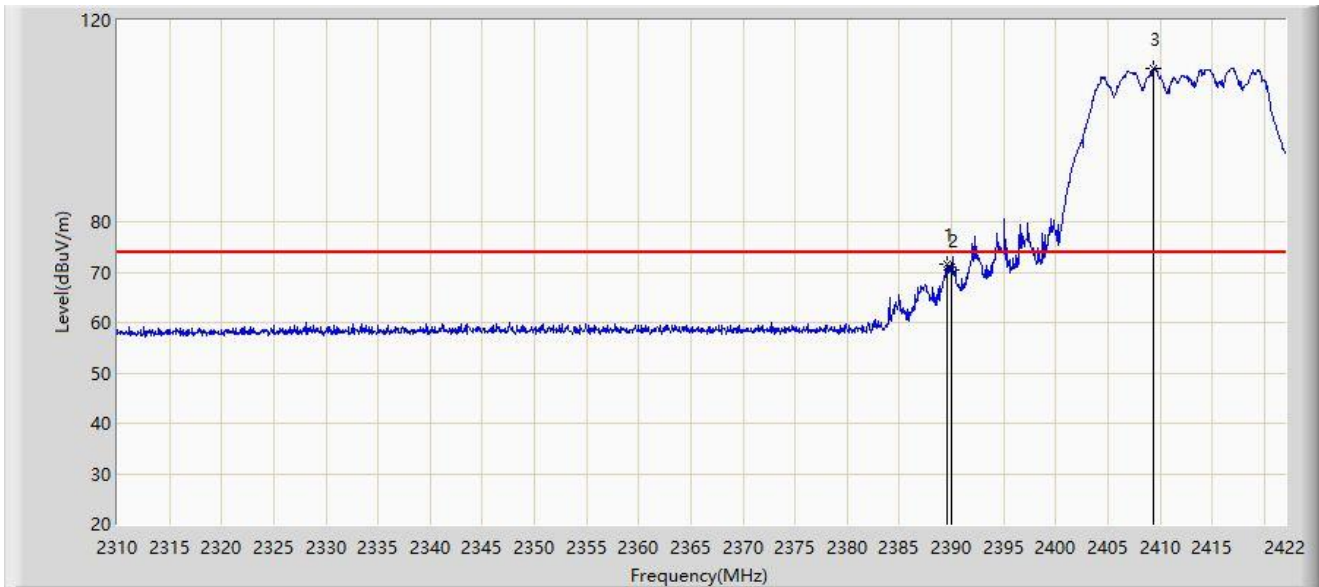
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2390.000	48.656	16.633	-5.344	54.000	32.023	AV
2		2405.032	96.404	64.364	N/A	N/A	32.040	AV

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: SIP-AC1	Test Date: 2023-11-17
Limit: FCC_2.4G_RE(3m)	Engineer: Barry Wu
Probe: HF907_102862_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11n-HT20 at 2412MHz	



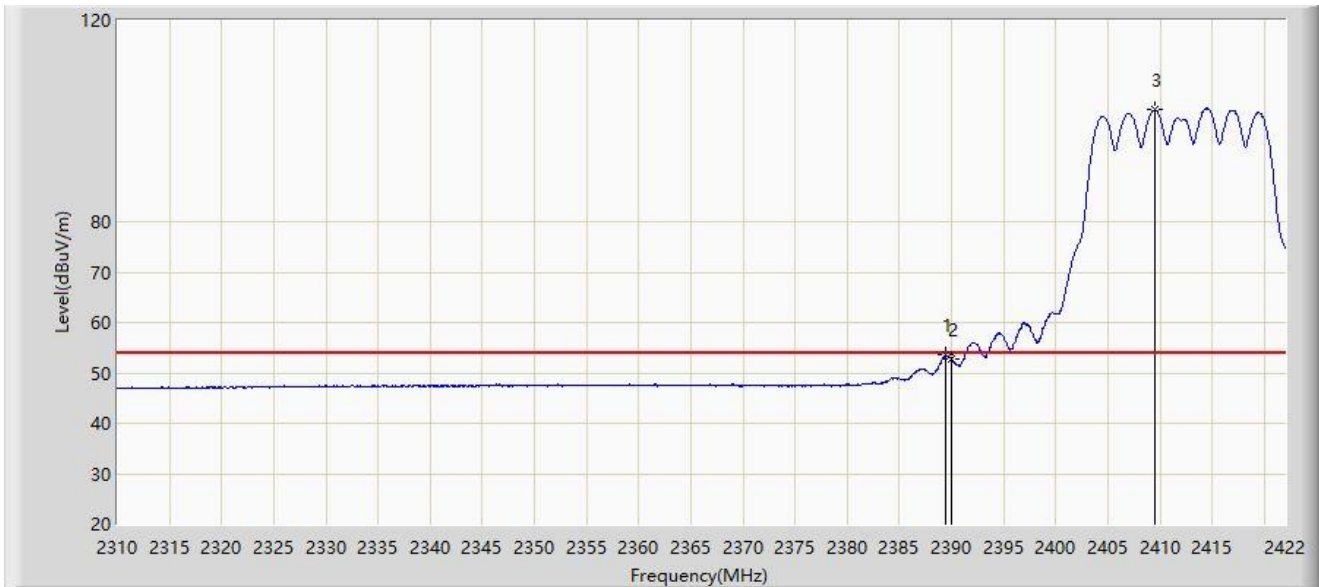
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2389.576	71.531	39.823	-2.469	74.000	31.708	PK
2		2390.000	70.351	38.636	-3.649	74.000	31.715	PK
3		2409.400	110.544	78.742	N/A	N/A	31.802	PK

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: SIP-AC1	Test Date: 2023-11-17
Limit: FCC_2.4G_RE(3m)	Engineer: Barry Wu
Probe: HF907_102862_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
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	*	2389.464	53.506	21.800	-0.494	54.000	31.705	AV
2		2390.000	52.872	21.157	-1.128	54.000	31.715	AV
3		2409.456	102.185	70.383	N/A	N/A	31.802	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: SIP-AC1	Test Date: 2023-11-17
Limit: FCC_2.4G_RE(3m)	Engineer: Barry Wu
Probe: HF907_102862_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11n-HT20 at 2412MHz	



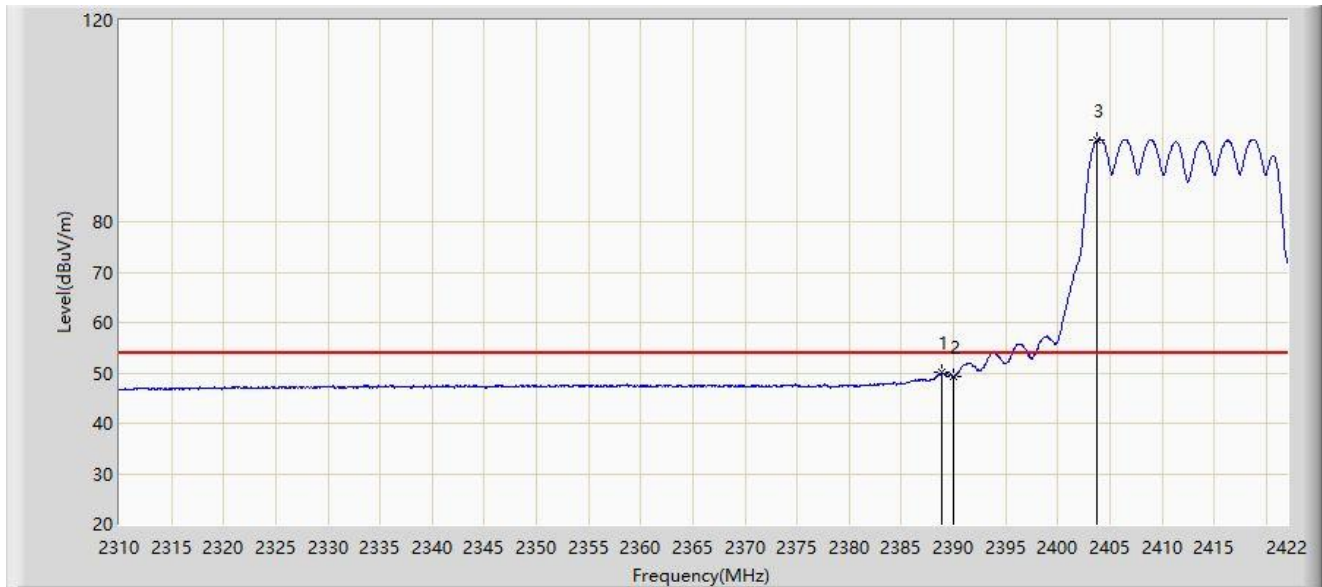
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2389.072	71.173	39.474	-2.827	74.000	31.698	PK
2		2390.000	63.818	32.103	-10.182	74.000	31.715	PK
3		2418.192	105.501	73.681	N/A	N/A	31.820	PK

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: SIP-AC1	Test Date: 2023-11-17
Limit: FCC_2.4G_RE(3m)	Engineer: Barry Wu
Probe: HF907_102862_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11n-HT20 at 2412MHz	



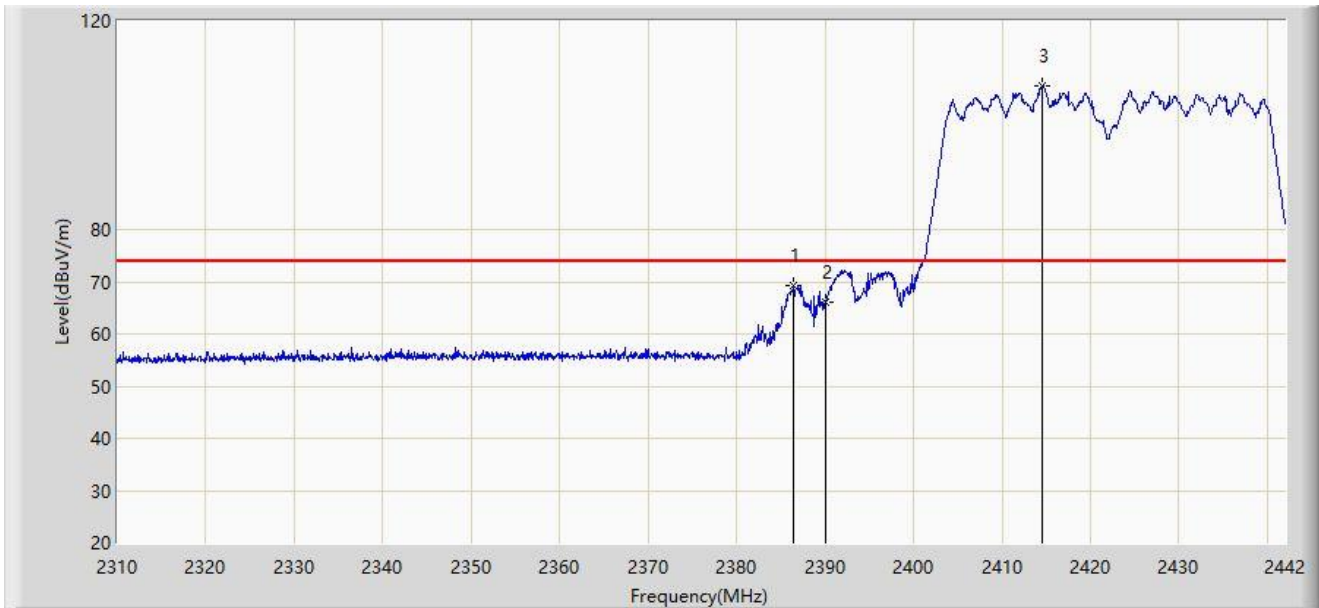
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2388.904	50.111	18.415	-3.889	54.000	31.696	AV
2		2390.000	49.269	17.554	-4.731	54.000	31.715	AV
3		2403.800	96.360	64.563	N/A	N/A	31.797	AV

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: SIP-AC1	Test Date: 2023-11-17
Limit: FCC_2.4G_RE(3m)	Engineer: Barry Wu
Probe: HF907_102862_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11n-HT40 at 2422MHz	



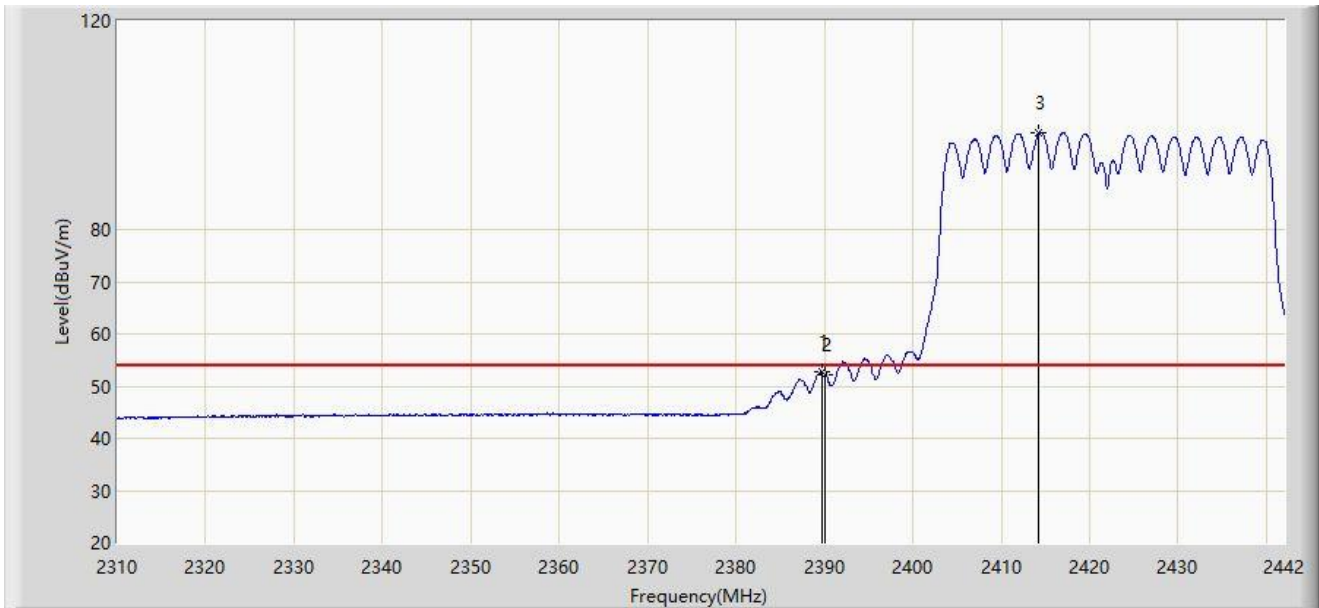
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2386.494	69.150	37.498	-4.850	74.000	31.651	PK
2		2390.000	66.048	34.333	-7.952	74.000	31.715	PK
3		2414.610	107.537	75.725	N/A	N/A	31.812	PK

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: SIP-AC1	Test Date: 2023-11-17
Limit: FCC_2.4G_RE(3m)	Engineer: Barry Wu
Probe: HF907_102862_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11n-HT40 at 2422MHz	



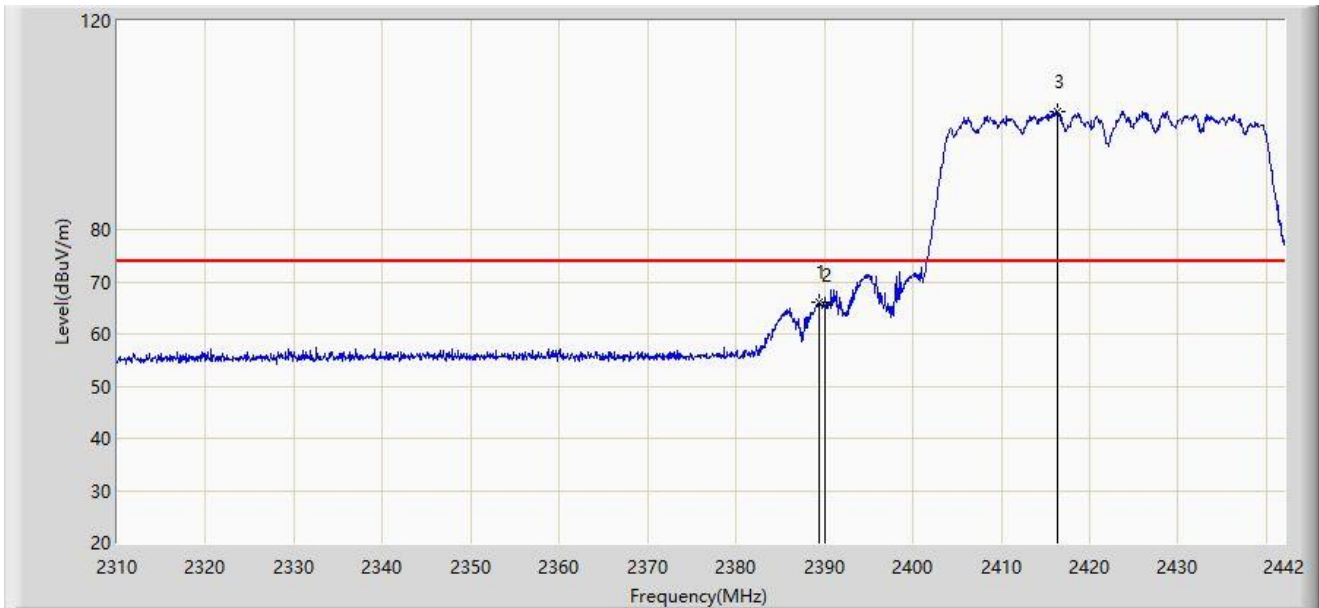
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2389.794	52.834	21.122	-1.166	54.000	31.711	AV
2		2390.000	52.240	20.525	-1.760	54.000	31.715	AV
3		2414.280	98.443	66.632	N/A	N/A	31.811	AV

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: SIP-AC1	Test Date: 2023-11-17
Limit: FCC_2.4G_RE(3m)	Engineer: Barry Wu
Probe: HF907_102862_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11n-HT40 at 2422MHz	



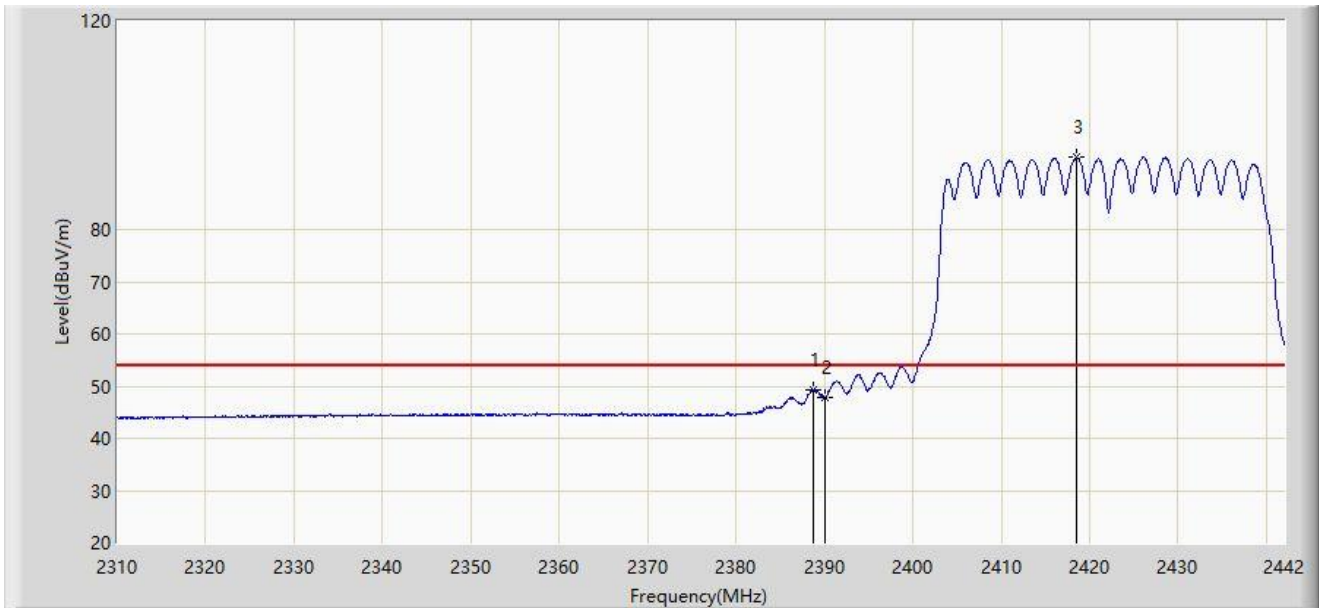
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2389.464	66.009	34.303	-7.991	74.000	31.705	PK
2		2390.000	65.422	33.707	-8.578	74.000	31.715	PK
3		2416.326	102.687	70.871	N/A	N/A	31.815	PK

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: SIP-AC1	Test Date: 2023-11-17
Limit: FCC_2.4G_RE(3m)	Engineer: Barry Wu
Probe: HF907_102862_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11n-HT40 at 2422MHz	



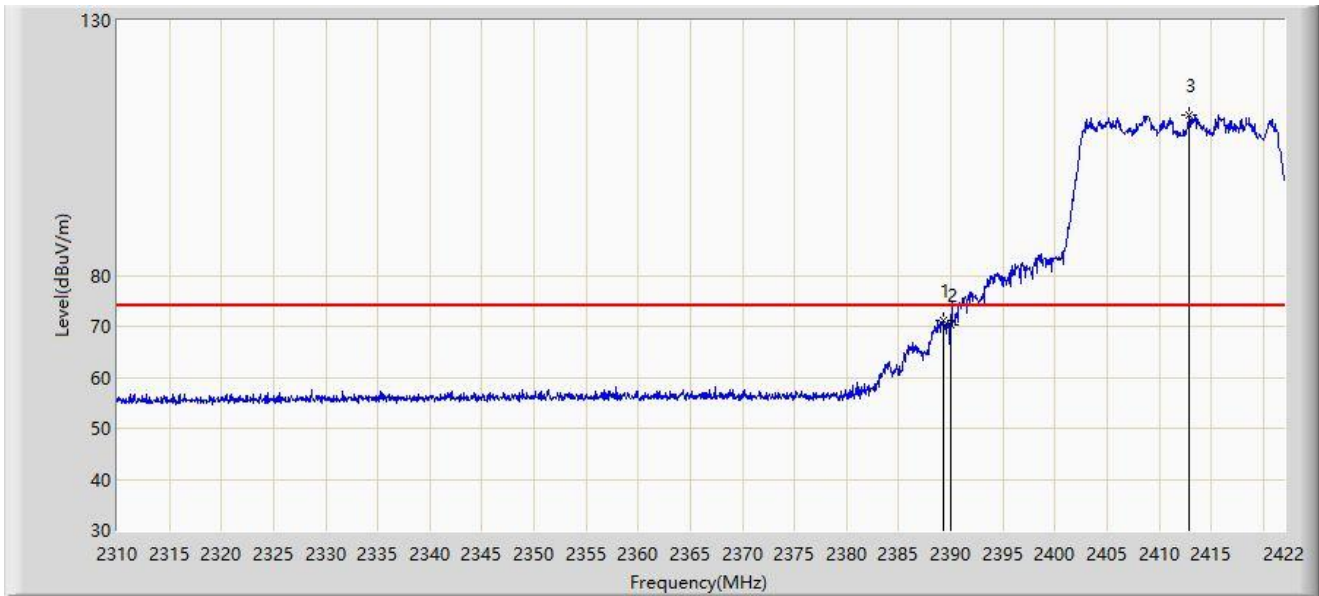
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2388.672	49.365	17.674	-4.635	54.000	31.691	AV
2		2390.000	47.809	16.094	-6.191	54.000	31.715	AV
3		2418.504	93.795	61.974	N/A	N/A	31.821	AV

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: SIP-AC3	Test Date: 2023-09-15
Limit: FCC_2.4G_RE(3m)	Engineer: Barry Wu
Probe: HF907_102861_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit 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	*	2389.352	71.184	39.162	-2.816	74.000	32.022	PK
2		2390.000	70.229	38.206	-3.771	74.000	32.023	PK
3		2412.928	111.527	79.482	N/A	N/A	32.045	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: SIP-AC3	Test Date: 2023-09-15
Limit: FCC_2.4G_RE(3m)	Engineer: Barry Wu
Probe: HF907_102861_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit 802.11ax-HE20 at 2412MHz	



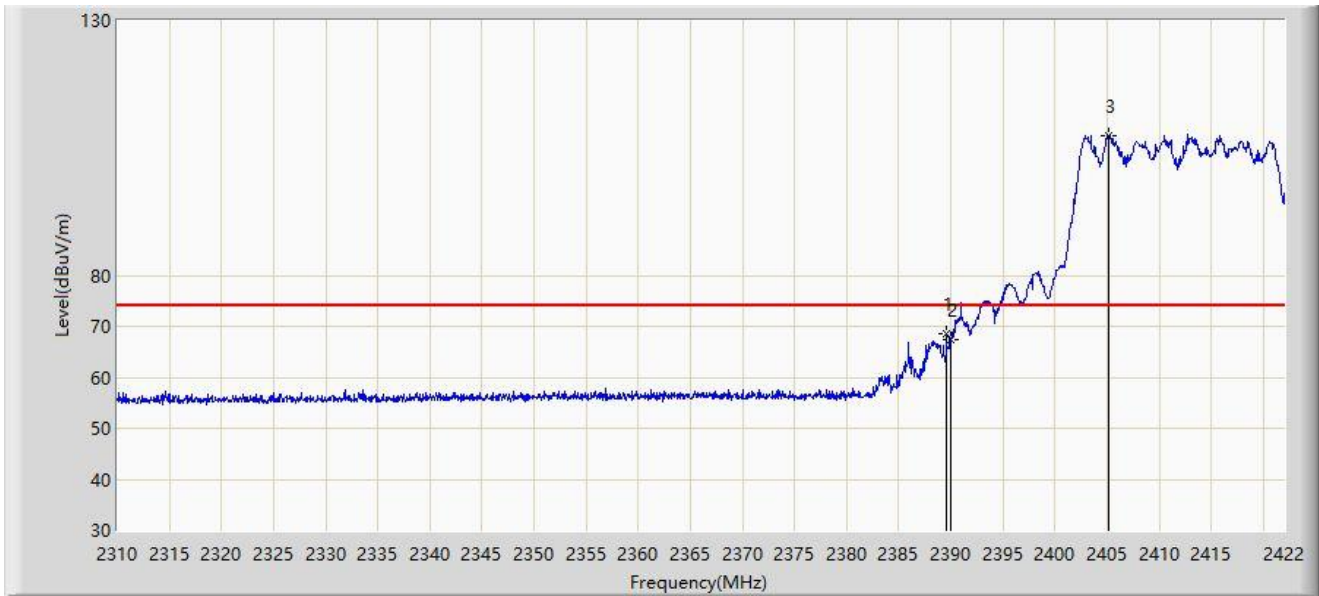
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2389.072	52.851	20.830	-1.149	54.000	32.021	AV
2		2390.000	50.285	18.262	-3.715	54.000	32.023	AV
3		2403.352	100.993	68.954	N/A	N/A	32.039	AV

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: SIP-AC3	Test Date: 2023-09-15
Limit: FCC_2.4G_RE(3m)	Engineer: Barry Wu
Probe: HF907_102861_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit 802.11ax-HE20 at 2412MHz	



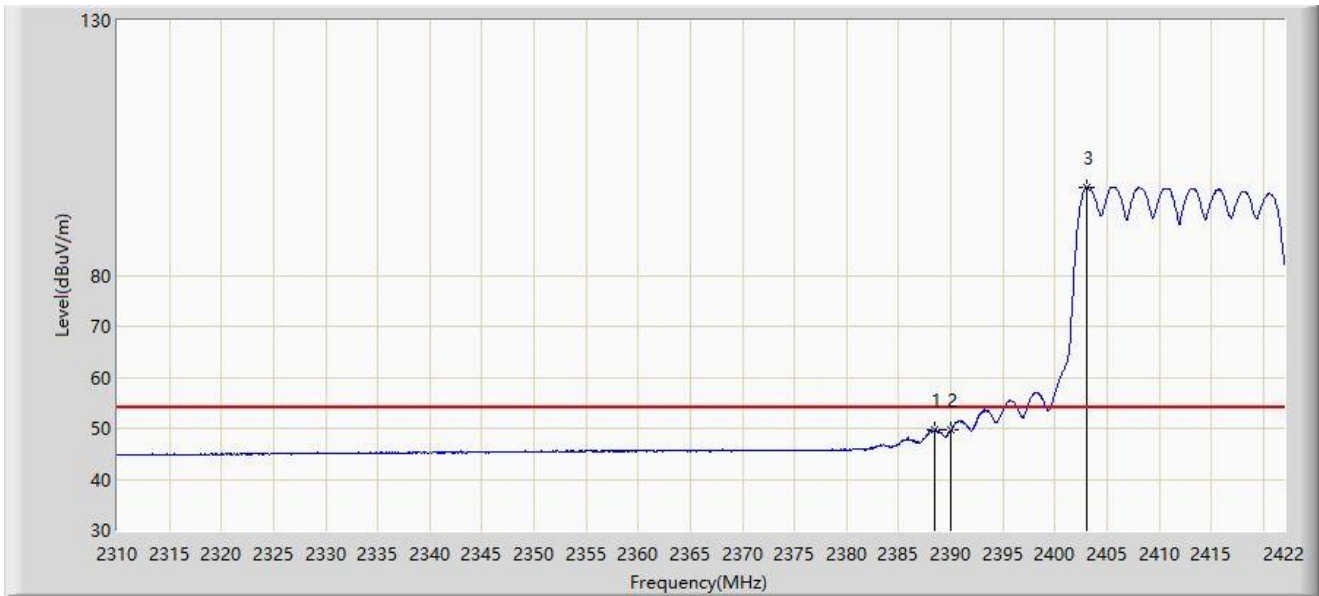
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2389.576	68.538	36.516	-5.462	74.000	32.022	PK
2		2390.000	67.348	35.325	-6.652	74.000	32.023	PK
3		2405.200	107.514	75.474	N/A	N/A	32.040	PK

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: SIP-AC3	Test Date: 2023-09-15
Limit: FCC_2.4G_RE(3m)	Engineer: Barry Wu
Probe: HF907_102861_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit 802.11ax-HE20 at 2412MHz	



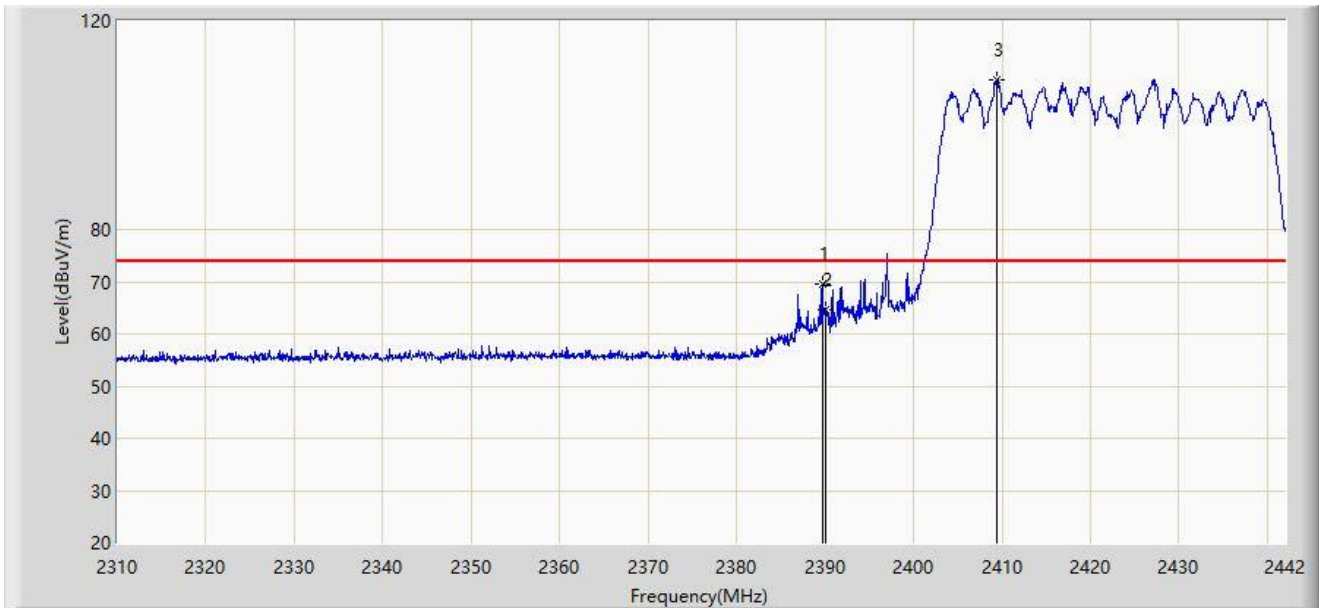
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2388.456	49.797	17.777	-4.203	54.000	32.020	AV
2		2390.000	49.640	17.617	-4.360	54.000	32.023	AV
3		2403.016	97.302	65.264	N/A	N/A	32.039	AV

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: SIP-AC1	Test Date: 2023-11-17
Limit: FCC_2.4G_RE(3m)	Engineer: Barry Wu
Probe: HF907_102862_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11ax-HE40 at 2422MHz	



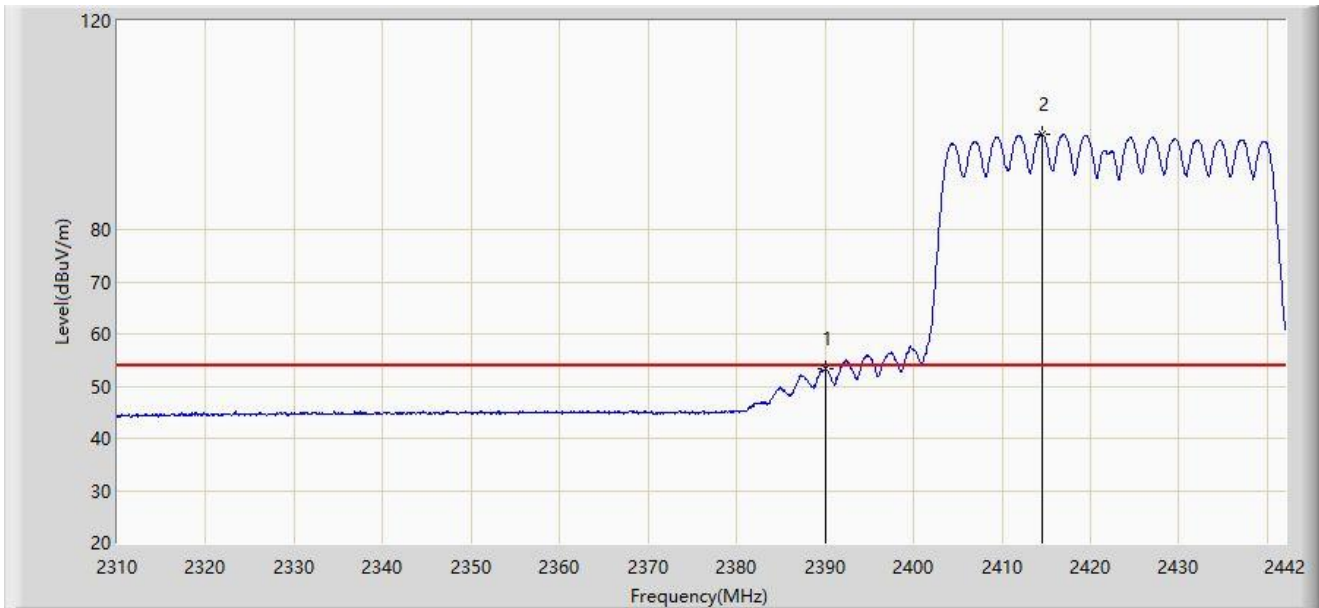
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2389.728	69.708	37.997	-4.292	74.000	31.710	PK
2		2390.000	64.682	32.967	-9.318	74.000	31.715	PK
3		2409.462	108.809	77.007	N/A	N/A	31.802	PK

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: SIP-AC1	Test Date: 2023-11-17
Limit: FCC_2.4G_RE(3m)	Engineer: Barry Wu
Probe: HF907_102862_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11ax-HE40 at 2422MHz	



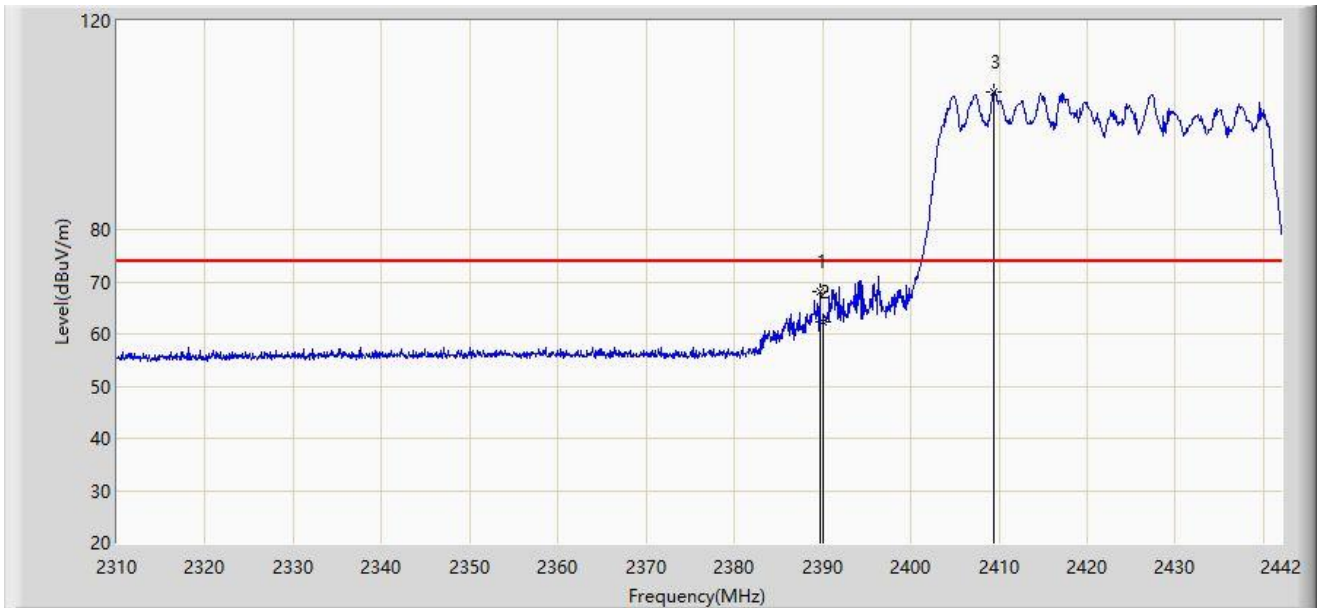
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2390.000	53.222	21.507	-0.778	54.000	31.715	AV
2		2414.610	98.187	66.375	N/A	N/A	31.812	AV

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: SIP-AC1	Test Date: 2023-11-17
Limit: FCC_2.4G_RE(3m)	Engineer: Barry Wu
Probe: HF907_102862_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11ax-HE40 at 2422MHz	



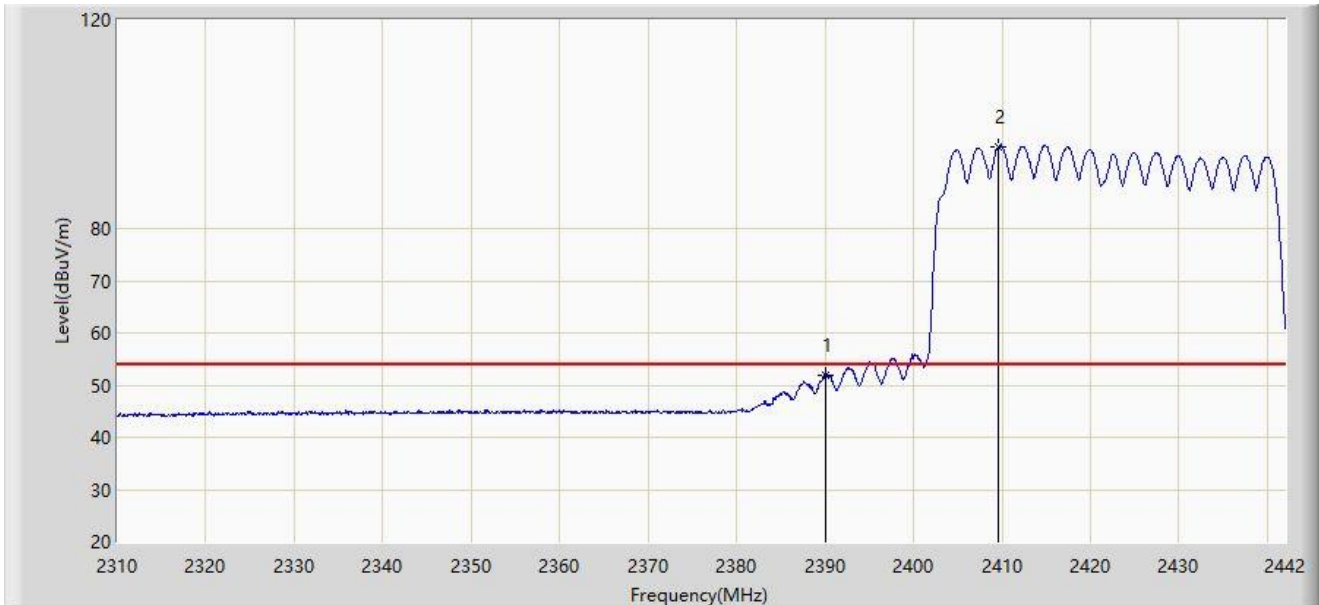
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2389.662	68.127	36.418	-5.873	74.000	31.709	PK
2		2390.000	62.400	30.685	-11.600	74.000	31.715	PK
3		2409.462	106.396	74.594	N/A	N/A	31.802	PK

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: SIP-AC1	Test Date: 2023-11-17
Limit: FCC_2.4G_RE(3m)	Engineer: Barry Wu
Probe: HF907_102862_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
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	*	2390.000	51.872	20.157	-2.128	54.000	31.715	AV
2		2409.594	95.669	63.867	N/A	N/A	31.802	AV

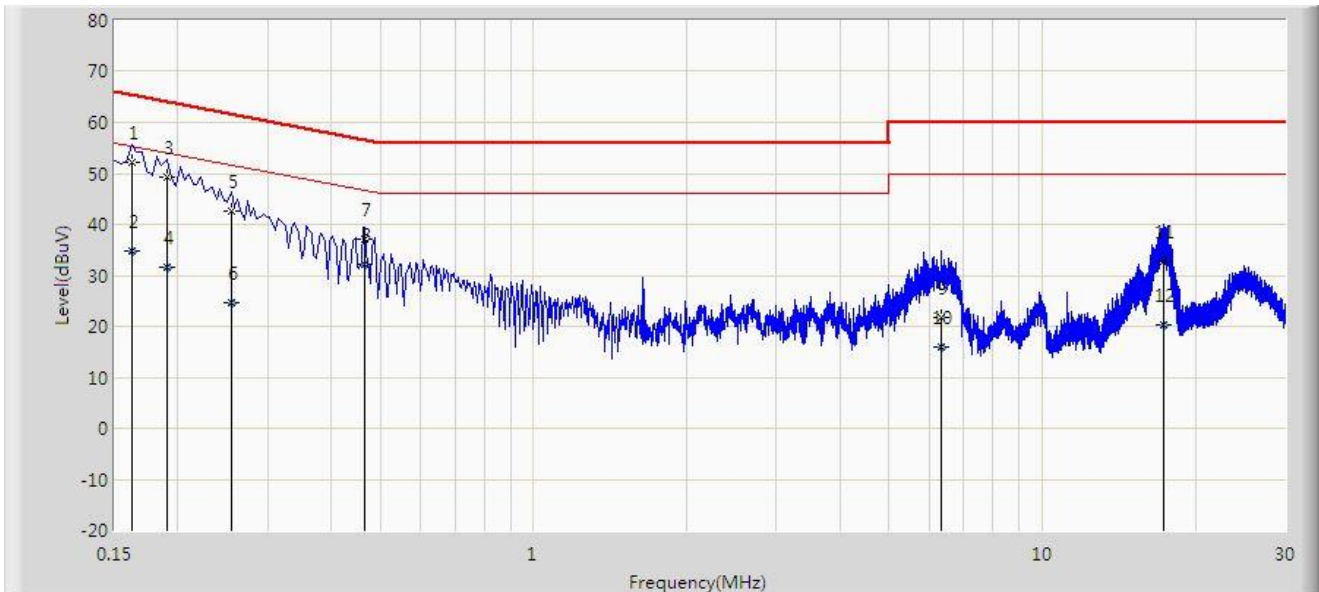
Note 1: " * ", means this data is the worst emission level.

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

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

A.8 AC Conducted Emissions Test Result

Site: SIP-SR2	Test Date: 2023-11-27
Temperature: 18.7°C	Humidity: 52.8%
Limit: FCC_Part15.207_CE_AC Power	Engineer: Mark Long
Probe: SIP-SR2-ENV216_101684_E	Polarity: Line
EUT: ACCESS POINT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2412MHz	



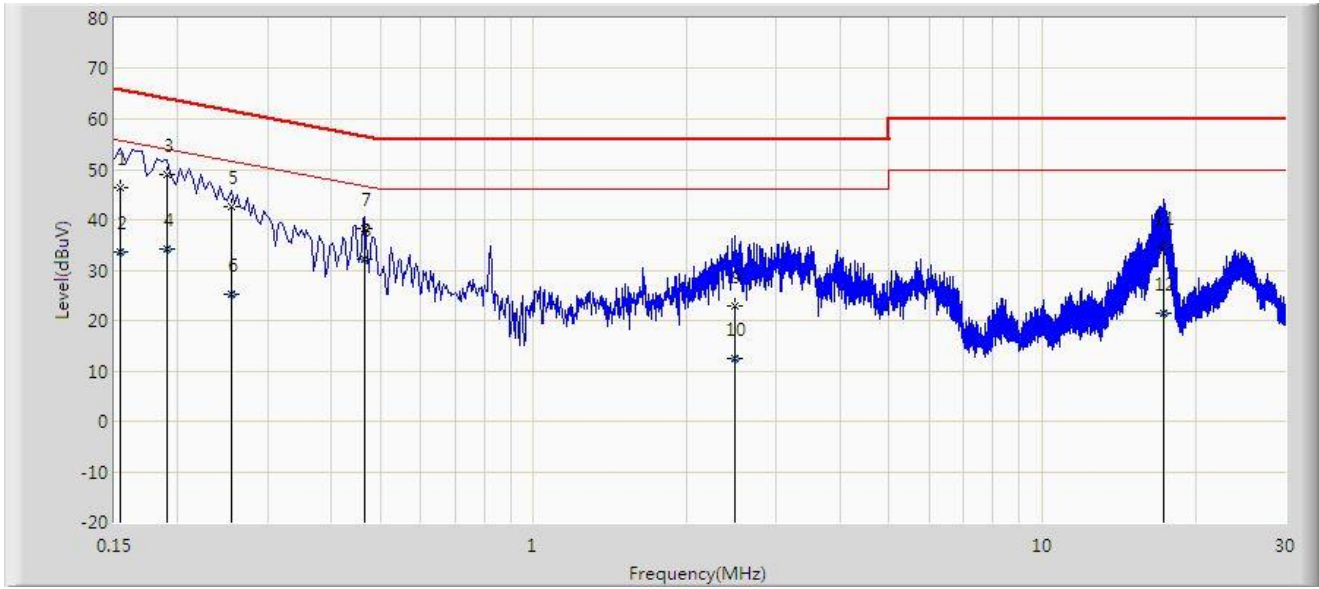
No	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1	*	0.162	52.153	42.503	-13.207	65.361	9.651	QP
2		0.162	34.846	25.195	-20.515	55.361	9.651	AV
3		0.190	49.341	39.671	-14.696	64.037	9.670	QP
4		0.190	31.599	21.929	-22.437	54.037	9.670	AV
5		0.254	42.744	33.025	-18.882	61.625	9.719	QP
6		0.254	24.664	14.945	-26.961	51.625	9.719	AV
7		0.466	36.985	27.249	-19.600	56.585	9.737	QP
8		0.466	32.132	22.395	-14.453	46.585	9.737	AV
9		6.346	21.734	11.697	-38.266	60.000	10.037	QP
10		6.346	16.057	6.020	-33.943	50.000	10.037	AV
11		17.346	32.718	22.049	-27.282	60.000	10.669	QP
12		17.346	20.390	9.721	-29.610	50.000	10.669	AV

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

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

Note 3: Factor (dB) = Cable Loss (dB) + LISN Factor (dB).

Site: SIP-SR2	Test Date: 2023-11-27
Temperature: 18.7°C	Humidity: 52.8%
Limit: FCC_Part15.207_CE_AC Power	Engineer: Mark Long
Probe: SIP-SR2-ENV216_101684_E	Polarity: Neutral
EUT: ACCESS POINT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2412MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1		0.154	46.477	36.826	-19.304	65.781	9.651	QP
2		0.154	33.661	24.010	-22.120	55.781	9.651	AV
3		0.190	48.851	39.187	-15.186	64.037	9.664	QP
4		0.190	34.183	24.519	-19.854	54.037	9.664	AV
5		0.254	42.673	32.963	-18.952	61.625	9.710	QP
6		0.254	25.279	15.569	-26.346	51.625	9.710	AV
7		0.466	38.177	28.447	-18.408	56.585	9.730	QP
8	*	0.466	32.154	22.424	-14.430	46.585	9.730	AV
9		2.482	22.849	13.059	-33.151	56.000	9.789	QP
10		2.482	12.378	2.589	-33.622	46.000	9.789	AV
11		17.314	34.364	23.754	-25.636	60.000	10.610	QP
12		17.314	21.489	10.879	-28.511	50.000	10.610	AV

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

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

Note 3: Factor (dB) = Cable Loss (dB) + LISN Factor (dB).

Appendix B – Test Setup Photograph

Refer to “2308RSU067-UT” file.

Appendix C – EUT Photograph

Refer to “2308RSU067-UE” file.

The End
