





RF MEASUREMENT REPORT

FCC ID: Q9DAP21
Applicant: Hewlett Packard Enterprise Company
Product: ACCESS POINT
Model No.: APIN0503
Marketing Name: AP21
Trademark:  , 
FCC Classification: Unlicensed National Information Infrastructure (NII)
FCC Rule Part(s): Part 15 Subpart E (Section 15.407)
Result: Complies
Received Date: 2023-08-25
Test Date: 2023-09-22 ~ 2023-12-29

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 KDB789033 and KDB 291074. 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-U5	V01	Initial Report	2023-11-27	Invalid
2308RSU067-U5	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-U3. Spot-check tests were done on these items based on worst-case results reported in the original FCC ID filing.

Test Description	Verdict
Occupied Bandwidth	Data referencing with spot check
Output Power	Data referencing with spot check
Peak Power Spectral Density	Data referencing with spot check
Radiated Spurious Emission and Band Edge	Data referencing with spot check
AC Conducted Emissions 150kHz - 30MHz	Full test

CONTENTS

Description	Page
1. General Information	6
1.1. Applicant	6
1.2. Manufacturer	6
1.3. Testing Facility	6
1.4. Product Information.....	7
1.5. Radio Specification under Test	7
1.6. Working Frequencies	8
1.7. Antenna Details.....	8
2. Test Configuration	9
2.1. Test Mode.....	9
2.2. Test System Connection Diagram.....	9
2.3. Test Software	9
2.4. Applied Standards.....	10
2.5. Test Environment Condition	10
3. Antenna Requirements	11
4. Measuring Instrument	12
5. Decision Rules and Measurement Uncertainty	14
5.1. Decision Rules	14
5.2. Measurement Uncertainty	14
6. Test Result.....	15
6.1. Summary.....	15
6.2. 26dB & 99% Bandwidth Measurement	16
6.2.1. Test Limit	16
6.2.2. Test Procedure	16
6.2.3. Test Setting	16
6.2.4. Test Setup	16
6.2.5. Test Result	17
6.3. 6dB Bandwidth Measurement.....	18
6.3.1. Test Limit	18
6.3.2. Test Procedure	18
6.3.3. Test Setting	18
6.3.4. Test Setup	18
6.3.5. Test Result	18
6.4. Output Power Measurement	19
6.4.1. Test Limit	19

6.4.2.	Test Procedure	19
6.4.3.	Test Setting	19
6.4.4.	Test Setup	19
6.4.5.	Test Result	19
6.5.	Power Spectral Density Measurement	20
6.5.1.	Test Limit	20
6.5.2.	Test Procedure	20
6.5.3.	Test Setting	20
6.5.4.	Test Setup	20
6.5.5.	Test Result	20
6.6.	Frequency Stability Measurement	21
6.6.1.	Test Limit	21
6.6.2.	Test Procedure	21
6.6.3.	Test Setup	21
6.6.4.	Test Result	22
6.7.	Radiated Spurious Emission Measurement.....	23
6.7.1.	Test Limit	23
6.7.2.	Test Procedure	23
6.7.3.	Test Setting	24
6.7.4.	Test Setup	26
6.7.5.	Test Result	27
6.8.	Radiated Restricted Band Edge Measurement	28
6.8.1.	Test Limit	28
6.8.2.	Test Procedure	30
6.8.3.	Test Setting	30
6.8.4.	Test Setup	31
6.8.5.	Test Result	31
6.9.	AC Conducted Emissions Measurement	32
6.9.1.	Test Limit	32
6.9.2.	Test Setup	32
6.9.3.	Test Result	32
Appendix A – Test Result		33
A.1	Duty Cycle Test Result	33
A.2	26dB & 99% Bandwidth Test Result	34
A.3	6dB Bandwidth Test Result	35
A.4	Output Power Test Result	36
A.5	Power Spectral Density Test Result.....	37
A.6	Frequency Stability Test Result.....	40
A.7	Radiated Spurious Emission Test Result.....	41

A.8	Radiated Restricted Band Edge Test Result.....	58
A.9	AC Conducted Emissions Test Result	72
Appendix B – Test Setup Photograph		74
Appendix C – EUT Photograph		75

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	For 802.11a/n-HT20/ac-VHT20/ax-HE20: 5845MHz, 5865MHz, 5885MHz For 802.11n-HT40/ac-VHT40/ax-HE40: 5835MHz, 5875MHz For 802.11ac-VHT80/ax-HE80: 5855MHz	
Type of Modulation	802.11a/n/ac: OFDM 802.11ax: OFDMA	
Data Rate	802.11a: 6/9/12/18/24/36/48/54Mbps 802.11n: up to 300Mbps 802.11ac: up to 866.6Mbps 802.11ax: up to 1201Mbps	
Channel Puncturing Function	<input type="checkbox"/> Supported	<input checked="" type="checkbox"/> Unsupported
Support RU	<input checked="" type="checkbox"/> Full RU	<input type="checkbox"/> Partial RU

1.6. Working Frequencies

802.11a/n-HT20/ac-VHT20/ax-HE20

Channel	Frequency	Channel	Frequency	Channel	Frequency
169	5845 MHz	173	5865 MHz	177	5885 MHz

802.11n-HT40/ac-VHT40/ax-HE40

Channel	Frequency	Channel	Frequency	Channel	Frequency
167	5835 MHz	175	5875 MHz	--	--

802.11ac-VHT80/ax-HE80

Channel	Frequency	Channel	Frequency	Channel	Frequency
171	5855 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.

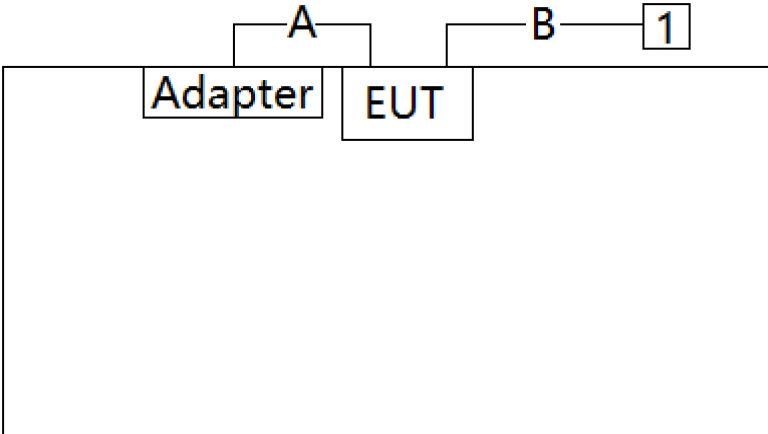
2. Test Configuration

2.1. Test Mode

Mode 1: Transmit by 802.11a_Nss=1 (6Mbps)
Mode 2: Transmit by 802.11ac-VHT20_Nss=1 (MCS0)
Mode 3: Transmit by 802.11ac-VHT40_Nss=1 (MCS0)
Mode 4: Transmit by 802.11ac-VHT80_Nss=1 (MCS0)
Mode 5: Transmit by 802.11ax-HE20_Nss=1 (MCS0)
Mode 6: Transmit by 802.11ax-HE40_Nss=1 (MCS0)
Mode 7: Transmit by 802.11ax-HE80_Nss=1 (MCS0)

Note: 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

Connection Diagram			
			
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 15.407
- KDB 789033 D02v02r01
- KDB 291074 D02v01
- 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

KDB 291074 DR01: An Indoor Access point in the U-NII-4 band (5.850-5.895 GHz) and U-NII -3 & -4 span channels must use an integrated antenna

- The antenna of the device is built in and locked inside the enclosure.

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% ($U=2Uc(y)$): 2.2dB
Output Power
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 1.4dB
Power Spectrum Density
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 2.2dB
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 2.7%

6. Test Result

6.1. Summary

FCC Section(s)	Test Description	Test Condition	Verdict
15.407(a)	26dB Bandwidth	Conducted	Pass
15.407(e)	6dB Bandwidth		Pass
15.407(a)(3)(ii)	Maximum Conducted Output Power		Pass
15.407(a)(3)(ii)(12)	Peak Power Spectral Density		Pass
15.407(b)(5)	Undesirable Emissions	Radiated	Pass
15.205, 15.209 15.407(b)(5)(i), (8), (9)	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)		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. 26dB & 99% Bandwidth Measurement

6.2.1. Test Limit

N/A

6.2.2. Test Procedure

KDB 789033 D02v02r01- Section C.1 (26dB Bandwidth)

KDB 789033 D02v02r01- Section D (99% Bandwidth)

6.2.3. Test Setting

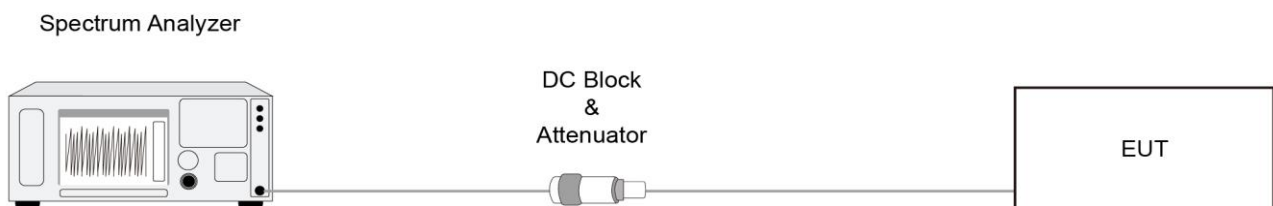
26dB Bandwidth

1. The analyzers' automatic bandwidth measurement capability was used to perform the 26dB bandwidth measurement. The "X" dB bandwidth parameter was set to $X = 26$. The automatic bandwidth measurement function also has the capability of simultaneously measuring the 99% occupied bandwidth. The bandwidth measurement was not influenced by any intermediated power nulls in the fundamental emission.
2. RBW = approximately 1% of the emission bandwidth.
3. VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold.

99% Bandwidth

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1% to 5% of the OBW
4. Set VBW $\geq 3 \times$ RBW
5. Detector = Peak.
6. Use the 99% power bandwidth function of the instrument.

6.2.4. Test Setup



6.2.5. Test Result

Refer to Appendix A.2.

6.3. 6dB Bandwidth Measurement

6.3.1. Test Limit

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

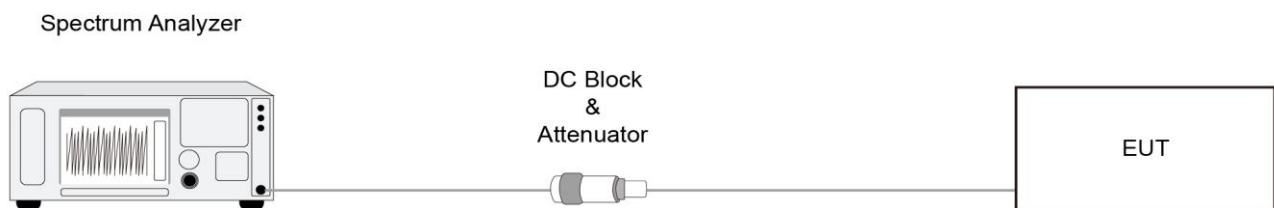
6.3.2. Test Procedure

KDB 789033 D02v02r01- Section C.2

6.3.3. Test Setting

1. Set center frequency to the nominal EUT channel center frequency.
2. 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.
8. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

6.3.4. Test Setup



6.3.5. Test Result

Refer to Appendix A.3.

6.4. Output Power Measurement

6.4.1. Test Limit

For an indoor access point operating in the 5.850-5.895 GHz band, the maximum e.i.r.p. over the frequency band of operation must not exceed 36 dBm. Indoor access points operating on a channel that spans the 5.725-5.850 GHz and 5.850-5.895 GHz bands must not exceed an e.i.r.p. of 36 dBm.

6.4.2. Test Procedure

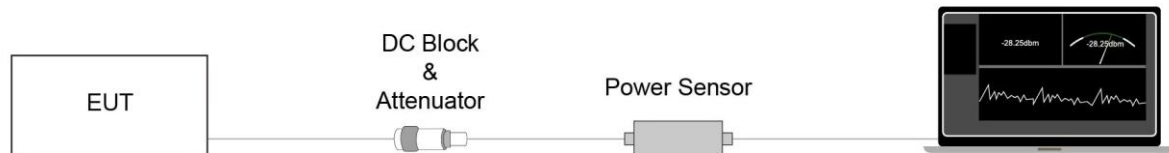
KDB 789033D02v02r01- Section E)3)b) Method PM-G

6.4.3. 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.

6.4.4. Test Setup



6.4.5. Test Result

Refer to Appendix A.4.

6.5. Power Spectral Density Measurement

6.5.1. Test Limit

For an indoor access point operating in the 5.850-5.895 GHz band, the maximum power spectral density must not exceed 20 dBm e.i.r.p. in any 1-megahertz band.

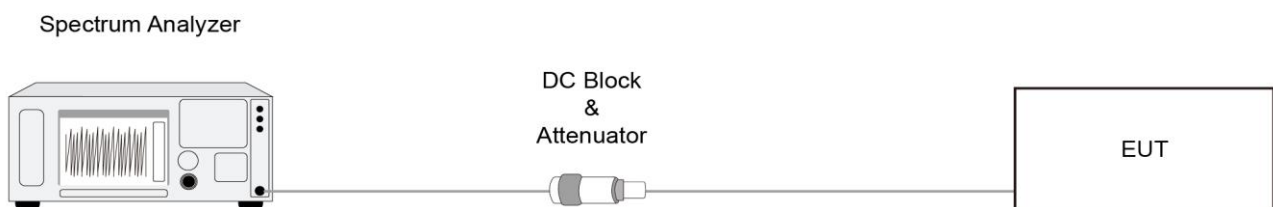
6.5.2. Test Procedure

KDB 789033 D02v02r01-SectionF

6.5.3. Test Setting

1. Analyzer was set to the center frequency of the UNII channel under investigation
2. Span was set to encompass the entire 26dB EBW of the signal.
3. RBW = 1MHz
4. VBW = 3 × RBW
5. Number of sweep points $\geq 2 \times (\text{span} / \text{RBW})$
6. Detector = power averaging (Average)
7. Sweep time = auto
8. Trigger = free run
9. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
10. Add $10 \cdot \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission). For example, add $10 \cdot \log(1/0.25) = 6$ dB if the duty cycle is 25 percent.

6.5.4. Test Setup



6.5.5. Test Result

Refer to Appendix A.5.

6.6. Frequency Stability Measurement

6.6.1. Test Limit

Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

6.6.2. Test Procedure

Frequency Stability Under Temperature Variations:

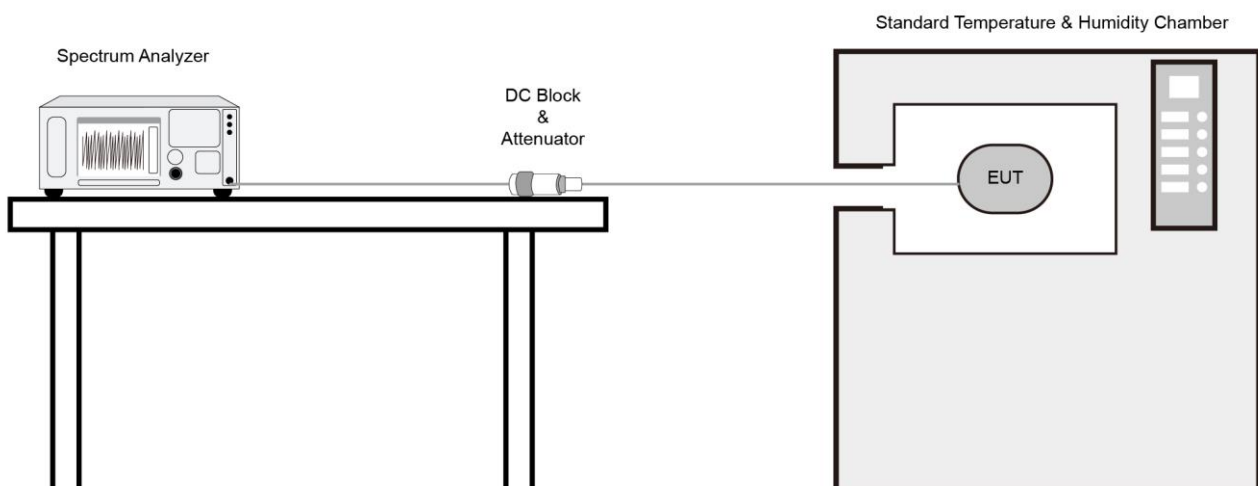
The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to highest. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C decreased per stage until the lowest temperature reached.

Frequency Stability Under Voltage Variations:

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation ($\pm 15\%$) and endpoint, record the maximum frequency change.

6.6.3. Test Setup



6.6.4. Test Result

Refer to Appendix A.6.

6.7. Radiated Spurious Emission Measurement

6.7.1. 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	Field Strength	Measured Distance
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

KDB 789033 D02v02r01- Section G.

6.7.3. 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.

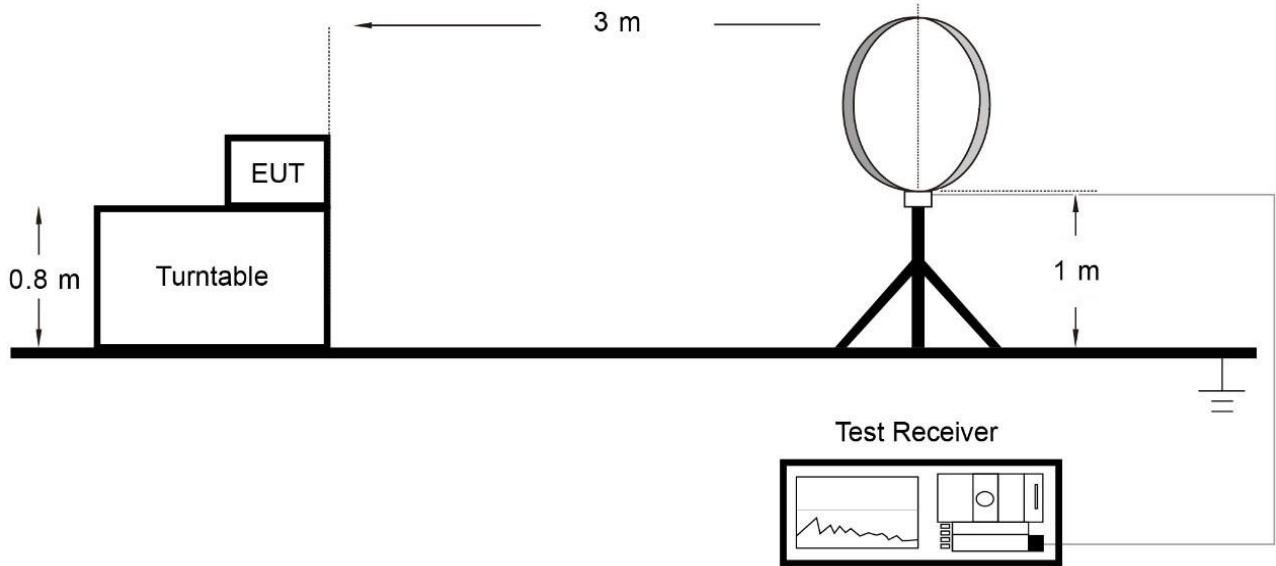
If the EUT duty cycle is $< 98\%$, set $VBW \geq 1/T$. T is the minimum transmission duration.

802.11a	VBW = 470Hz	802.11ax-HE20	VBW = 680Hz
802.11ac-VHT20	VBW = 510Hz	802.11ax-HE40	VBW = 1.3kHz
802.11ac-VHT40	VBW = 1.1kHz	802.11ax-HE80	VBW = 2.4kHz
802.11ac-VHT80	VBW = 2.2kHz		

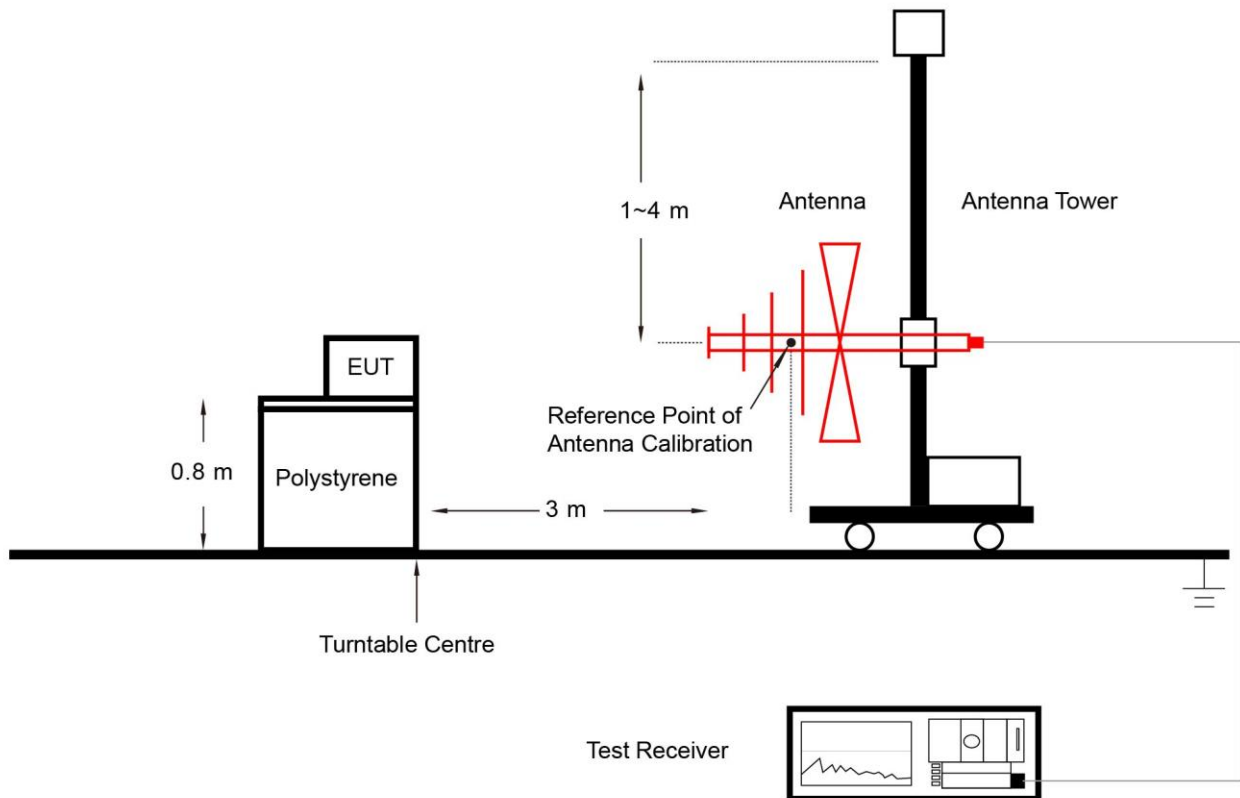
4. Detector = Peak
5. Sweep time = auto
6. Trace mode = max hold
7. Trace was allowed to stabilize

6.7.4. Test Setup

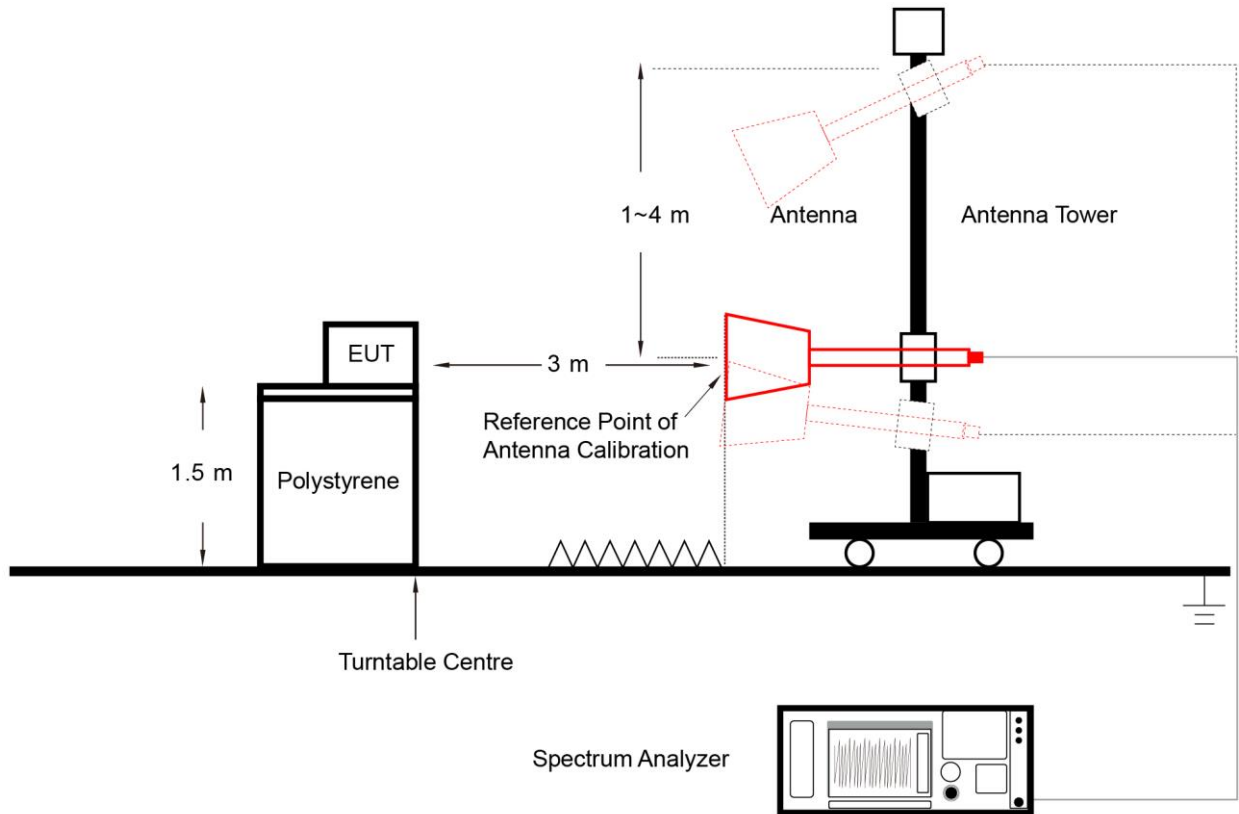
Below 30MHz Test Setup:



Below 1GHz Test Setup:



Above 1GHz Test Setup:



6.7.5. Test Result

Refer to Appendix A.7.

6.8. Radiated Restricted Band Edge Measurement

6.8.1. 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	--	--	--

For 15.407(b) requirement:

For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

For an indoor access point, all emissions at or above 5.895GHz shall not exceed an e.i.r.p. of 15 dBm/MHz and shall decrease linearly to an e.i.r.p. of -7 dBm/MHz at or above 5.925GHz.

For indoor access point or subordinate device, all emissions below 5.725 GHz shall not exceed an e.i.r.p. of -27 dBm/MHz at 5.65 GHz increasing linearly to 10 dBm/MHz at 5.7 GHz, and from 5.7 GHz increasing linearly to a level of 15.6 dBm/MHz at 5.72 GHz, and from 5.72 GHz increasing linearly to a level of 27 dBm/MHz at 5.725 GHz.

$E \text{ [dB}\mu\text{V/m]} = \text{EIRP [dBm]} + 95.2$, for example, $-27 \text{ dBm/MHz} = 68.2 \text{ dB}\mu\text{V/m}$

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

6.8.2. Test Procedure

KDB 789033 D02v02r01- Section G

6.8.3. Test Setting

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

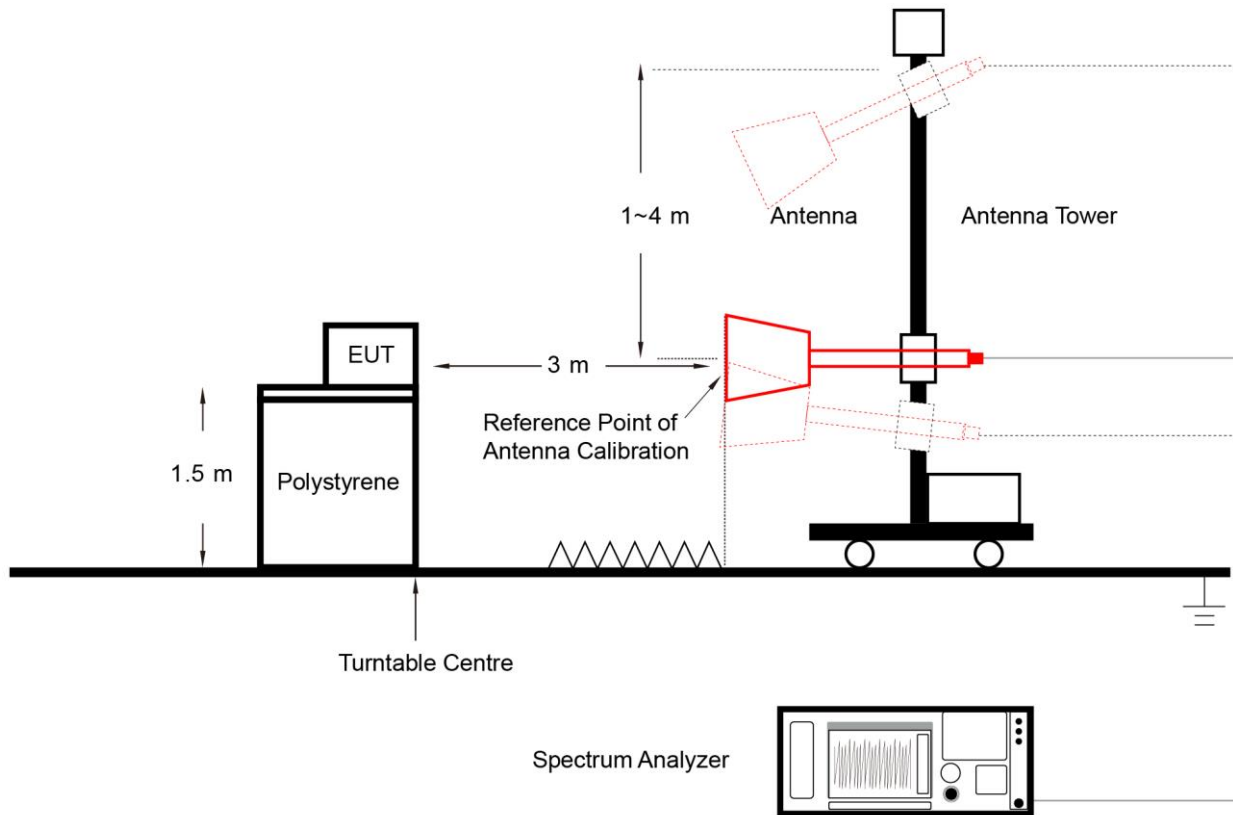
Average Measurements above 1GHz (Method VB)

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 = 10Hz
4. If the EUT duty cycle is $< 98\%$, set $VBW \geq 1/T$. T is the minimum transmission duration

802.11a	VBW = 470Hz	802.11ax-HE20	VBW = 680Hz
802.11ac-VHT20	VBW = 510Hz	802.11ax-HE40	VBW = 1.3kHz
802.11ac-VHT40	VBW = 1.1kHz	802.11ax-HE80	VBW = 2.4kHz
802.11ac-VHT80	VBW = 2.2kHz		

5. Detector = Peak
6. Sweep time = Auto
7. Trace mode = Max hold
8. Trace was allowed to stabilize

6.8.4. Test Setup



6.8.5. Test Result

Refer to Appendix A.8.

6.9. AC Conducted Emissions Measurement

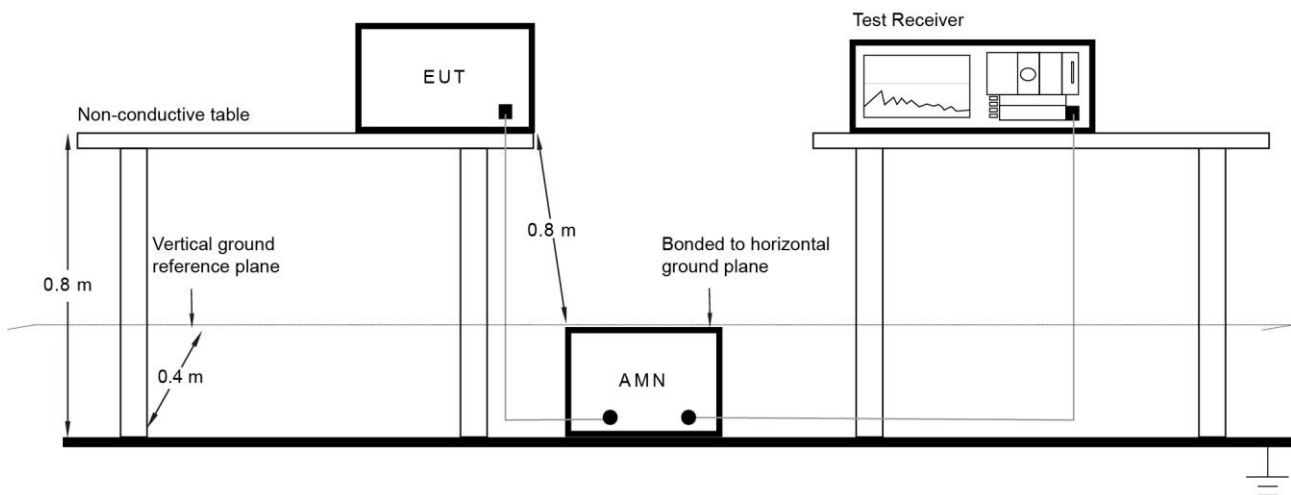
6.9.1. Test Limit

FCC Part 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.

6.9.2. Test Setup



6.9.3. Test Result

Refer to Appendix A.9.

Appendix A – Test Result

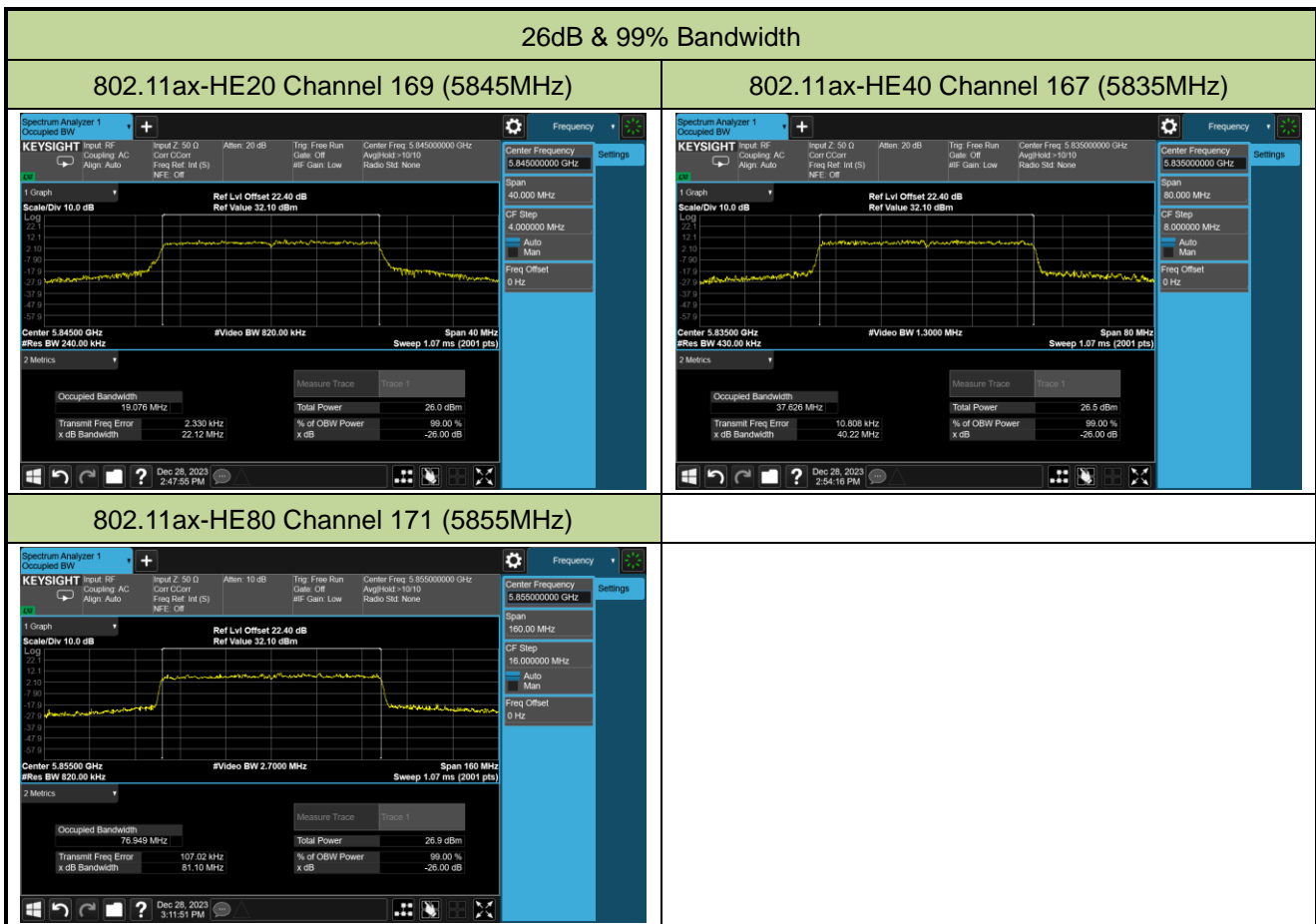
A.1 Duty Cycle Test Result

Refer to MRT report no. 2212RSU034-U3 Appendix A.1

A.2 26dB & 99% Bandwidth Test Result

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

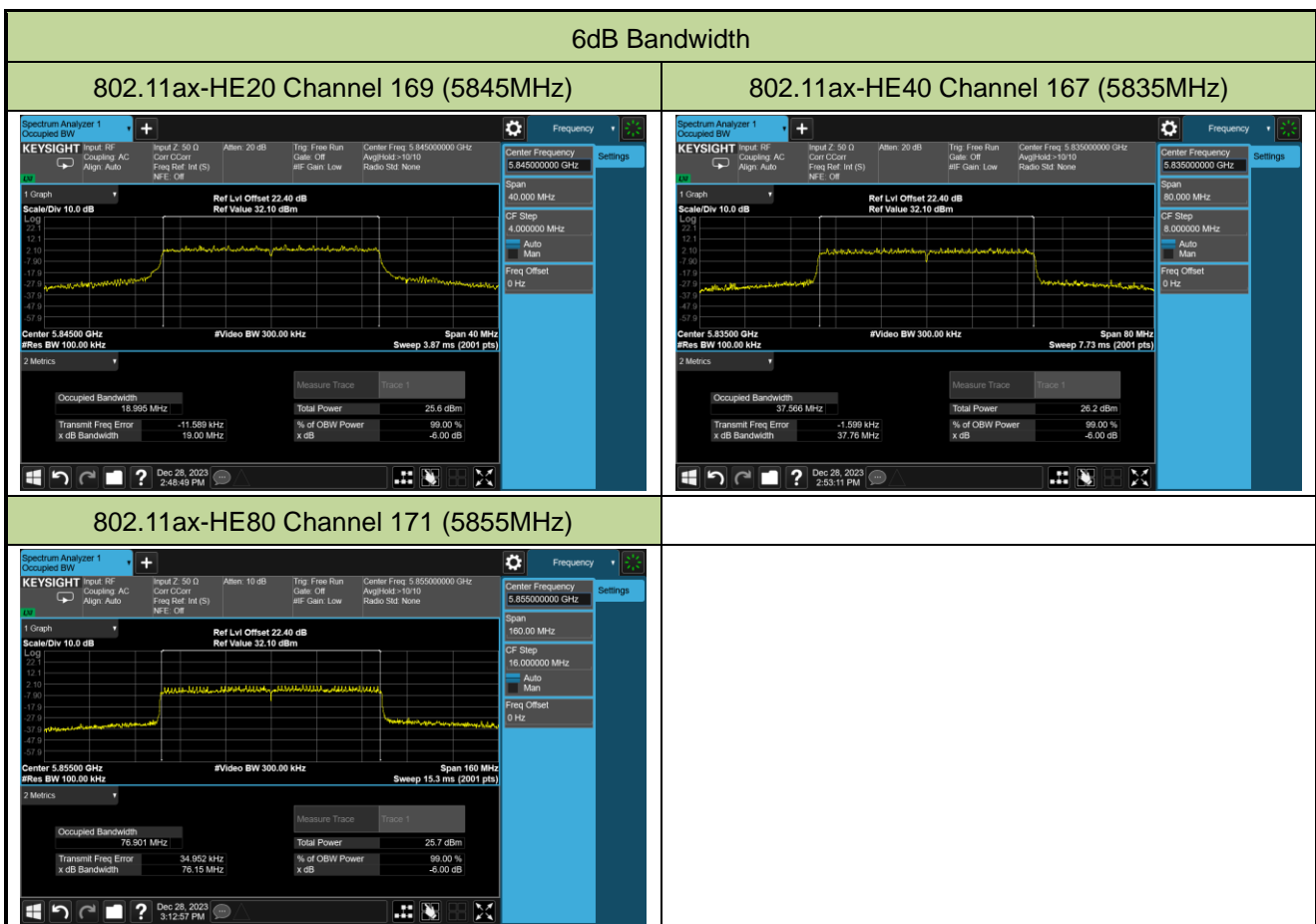
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
11ax-HE20	MCS0	169	5845	22.12	19.076
11ax-HE40	MCS0	167	5835	40.22	37.626
11ax-HE80	MCS0	171	5855	81.10	76.949



A.3 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	169	5845	19.00	≥ 0.5
11ax-HE40	MCS0	167	5835	37.76	≥ 0.5
11ax-HE80	MCS0	171	5855	76.15	≥ 0.5



A.4 Output Power Test Result

Test Site	SIP-TR1	Test Engineer	Alisa Deng
Test Date	2023-10-23		
Remark	Spot Check		

Test Mode	Data Rate MCS	Channel No.	Freq. (MHz)	Average Power (dBm)		Total Average Power (dBm)	Antenna Gain (dBi)	EIRP Power (dBm)	EIRP Power Limit (dBm)
				Ant 0	Ant 1				
11a	6Mbps	169	5845	18.03	17.98	21.02	4.10	25.12	≤ 36.00
11ac-VHT20	MCS0	169	5845	17.99	17.95	20.98	4.10	25.08	≤ 36.00
11ac-VHT40	MCS0	167	5835	18.21	18.26	21.25	4.10	25.35	≤ 36.00
11ac-VHT80	MCS0	171	5855	17.91	18.08	21.01	4.10	25.11	≤ 36.00
11ax-HE20	MCS0	169	5845	17.98	17.96	20.98	4.10	25.08	≤ 36.00
11ax-HE40	MCS0	167	5835	17.82	18.07	20.96	4.10	25.06	≤ 36.00
11ax-HE80	MCS0	171	5855	17.79	18.05	20.93	4.10	25.03	≤ 36.00

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

Note 2: EIRP Power (dBm) = Total Average Power (dBm) + Antenna Gain (dBi).

A.5 Power Spectral Density Test Result

Test Site	SIP-TR1	Test Engineer	Alisa Deng
Test Date	2023-12-28 ~ 2023-12-29		
Remark	Spot Check		

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	AVPSD (dBm/MHz)		Duty Cycle (%)	Total PSD (dBm/MHz)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)
				Ant 0	Ant 1				
11ax-HE20	MCS0	169	5845	6.067	6.186	97.24	9.26	16.36	≤ 20.00
11ax-HE40	MCS0	167	5835	3.476	3.404	95.85	6.63	13.73	≤ 20.00
11ax-HE80	MCS0	171	5855	0.422	0.495	92.25	3.82	10.92	≤ 20.00

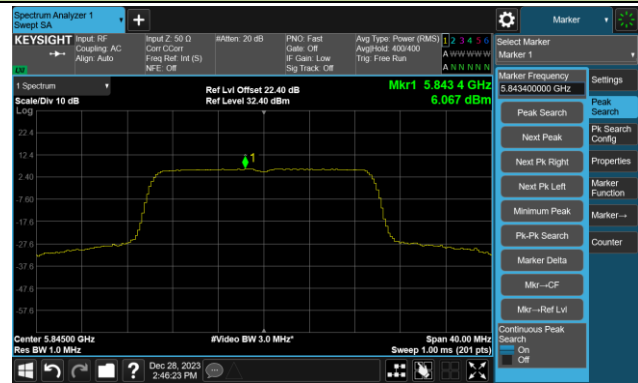
Note 1: When EUT duty cycle < 98%, the total PSD (dBm/MHz) = $10 \cdot \log \{10^{(\text{Ant 0 AVGPSD}/10)} + 10^{(\text{Ant 1 AVGPSD}/10)}\} + 10 \cdot \log (1/\text{Duty cycle})$.

Note 2: EIRP PSD (dBm/MHz) = Total PSD (dBm/MHz) + Directional Antenna Gain for PSD (dBi).

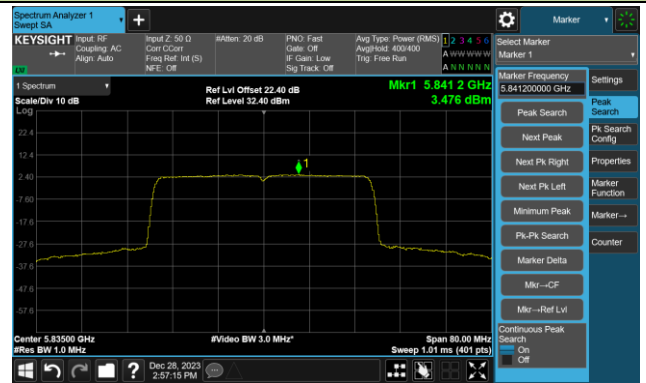
Note 3: For Channels span the 5.725-5.850 GHz and 5.850-5.895 GHz bands, we record the maximum level of 5.725-5.850 GHz and 5.850-5.895 GHz with RBW=1MHz, and the level complied with the 5.850-5.895 GHz EIRP PSD Limit.

Power Spectral Density - Ant 0

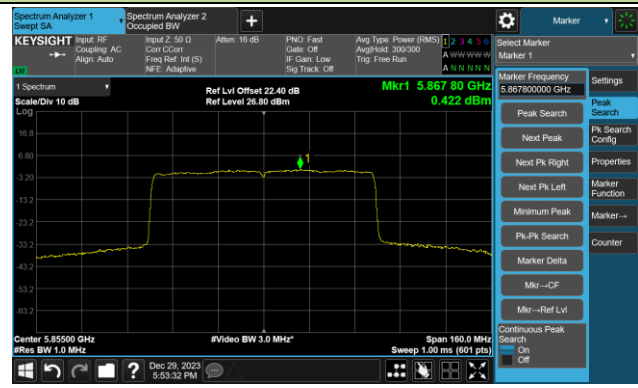
802.11ax-HE20 Channel 169 (5845MHz)



802.11ax-HE40 Channel 167 (5835MHz)

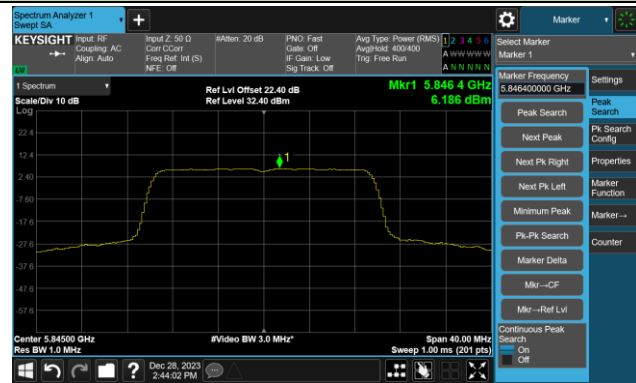


802.11ax-HE80 Channel 171 (5855MHz)

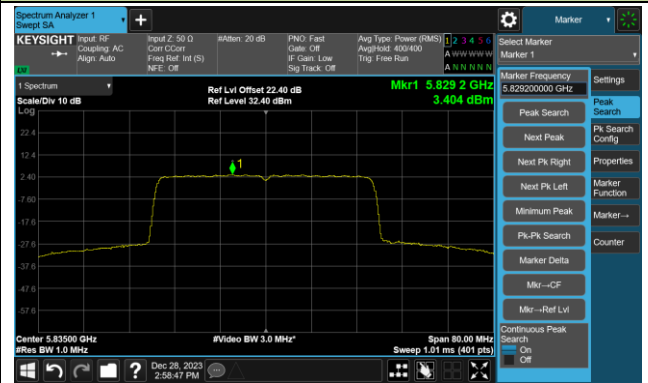


Power Spectral Density - Ant 1

802.11ax-HE20 Channel 169 (5845MHz)



802.11ax-HE40 Channel 167 (5835MHz)



802.11ax-HE80 Channel 171 (5855MHz)



A.6 Frequency Stability Test Result

Test Site	SIP-TR1	Test Engineer	Alisa Deng
Test Date	2023-12-29		
Test Mode	5845MHz (Carrier Mode)		

Voltage (%)	Power (VAC)	Temp (°C)	Frequency Tolerance (ppm)			
			0 minutes	2 minutes	5 minutes	10 minutes
100	120	- 20	11.61	11.61	11.61	11.60

Note: Frequency Tolerance (ppm) = $\{[\text{Measured Frequency (Hz)} - \text{Declared Frequency (Hz)}] / \text{Declared Frequency (Hz)}\} * 10^6$.

A.7 Radiated Spurious Emission Test Result

Test Site	SIP-AC3	Test Engineer	Fusco Pan
Test Date	2023-09-25	Test Mode	802.11a – Channel 169
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.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	11701.5	48.0	-1.6	46.4	74.0	-27.6	Peak	Horizontal
*	13852.0	47.1	2.4	49.5	108.2	-58.7	Peak	Horizontal
	15577.5	45.6	4.6	50.2	74.0	-23.8	Peak	Horizontal
*	16325.5	45.7	5.5	51.2	108.2	-57.0	Peak	Horizontal
	7698.0	49.9	-4.1	45.8	74.0	-28.2	Peak	Vertical
	11642.0	47.9	-1.7	46.2	74.0	-27.8	Peak	Vertical
*	14175.0	45.2	3.7	48.9	108.2	-59.3	Peak	Vertical
*	16504.0	44.8	6.3	51.1	108.2	-57.1	Peak	Vertical

Note 1: "*" is not in restricted band.

Note 2: 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	Fusco Pan
Test Date	2023-09-25	Test Mode	802.11ac-VHT20 – Channel 169
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.		

Mark	Frequency (MHz)	Reading Level (dB μ V)	Factor (dB/m)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB/m)	Detector	Polarization
	11888.5	48.1	-1.8	46.3	74.0	-27.7	Peak	Horizontal
*	14251.5	46.2	3.0	49.2	108.2	-59.0	Peak	Horizontal
	15892.0	45.1	5.0	50.1	74.0	-23.9	Peak	Horizontal
*	16716.5	44.5	6.7	51.2	108.2	-57.0	Peak	Horizontal
	11191.5	48.0	-1.7	46.3	74.0	-27.7	Peak	Vertical
*	13894.5	46.1	2.5	48.6	108.2	-59.6	Peak	Vertical
	15696.5	44.4	4.9	49.3	74.0	-24.7	Peak	Vertical
*	16614.5	44.6	6.2	50.8	108.2	-57.4	Peak	Vertical

Note 1: "*" is not in restricted band.

Note 2: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB/m)

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

Test Site	SIP-AC3	Test Engineer	Fusco Pan
Test Date	2023-09-25	Test Mode	802.11ac-VHT40 – Channel 167
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.		

Mark	Frequency (MHz)	Reading Level (dB μ V)	Factor (dB/m)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB/m)	Detector	Polarization
	11667.5	47.8	-1.7	46.1	74.0	-27.9	Peak	Horizontal
*	14056.0	46.6	3.0	49.6	108.2	-58.6	Peak	Horizontal
	15926.0	44.9	5.1	50.0	74.0	-24.0	Peak	Horizontal
*	16929.0	45.2	6.8	52.0	108.2	-56.2	Peak	Horizontal
	11234.0	47.4	-1.5	45.9	74.0	-28.1	Peak	Vertical
*	14047.5	46.7	2.8	49.5	108.2	-58.7	Peak	Vertical
	16002.5	45.0	5.3	50.3	74.0	-23.7	Peak	Vertical
*	16903.5	44.3	6.8	51.1	108.2	-57.1	Peak	Vertical

Note 1: "*" is not in restricted band.

Note 2: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB/m)

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

Test Site	SIP-AC3	Test Engineer	Fusco Pan
Test Date	2023-09-25	Test Mode	802.11ac-VHT80 – Channel 171
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.		

Mark	Frequency (MHz)	Reading Level (dB μ V)	Factor (dB/m)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB/m)	Detector	Polarization
	11931.0	47.9	-1.8	46.1	74.0	-27.9	Peak	Horizontal
*	14090.0	45.7	3.0	48.7	108.2	-59.5	Peak	Horizontal
	15671.0	45.1	4.6	49.7	74.0	-24.3	Peak	Horizontal
*	16903.5	44.4	6.8	51.2	108.2	-57.0	Peak	Horizontal
	11531.5	47.5	-1.5	46.0	74.0	-28.0	Peak	Vertical
*	13835.0	47.0	2.4	49.4	108.2	-58.8	Peak	Vertical
	15603.0	45.7	4.0	49.7	74.0	-24.3	Peak	Vertical
*	17056.5	46.0	6.4	52.4	108.2	-55.8	Peak	Vertical

Note 1: "*" is not in restricted band.

Note 2: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB/m)

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

Test Site	SIP-AC3	Test Engineer	Fusco Pan
Test Date	2023-09-25	Test Mode	802.11ax-HE20 – Channel 169
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.		

Mark	Frequency (MHz)	Reading Level (dB μ V)	Factor (dB/m)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB/m)	Detector	Polarization
	11149.0	47.6	-1.4	46.2	74.0	-27.8	Peak	Horizontal
	12050.0	48.0	-1.7	46.3	74.0	-27.7	Peak	Horizontal
*	14064.5	46.3	2.9	49.2	108.2	-59.0	Peak	Horizontal
*	16835.5	44.7	6.5	51.2	108.2	-57.0	Peak	Horizontal
	11438.0	46.9	-1.4	45.5	74.0	-28.5	Peak	Vertical
*	13665.0	47.4	1.1	48.5	108.2	-59.7	Peak	Vertical
	15679.5	45.5	4.7	50.2	74.0	-23.8	Peak	Vertical
*	16393.5	45.0	5.8	50.8	108.2	-57.4	Peak	Vertical

Note 1: "*" is not in restricted band.

Note 2: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB/m)

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

Test Site	SIP-AC3	Test Engineer	Fusco Pan
Test Date	2023-09-25	Test Mode	802.11ax-HE40 – Channel 167
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.		

Mark	Frequency (MHz)	Reading Level (dB μ V)	Factor (dB/m)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB/m)	Detector	Polarization
	11812.0	48.5	-1.8	46.7	74.0	-27.3	Peak	Horizontal
*	13979.5	46.1	2.6	48.7	108.2	-59.5	Peak	Horizontal
	15705.0	44.8	4.9	49.7	74.0	-24.3	Peak	Horizontal
*	16393.5	45.7	5.8	51.5	108.2	-56.7	Peak	Horizontal
	12203.0	47.4	-1.6	45.8	74.0	-28.2	Peak	Vertical
*	13860.5	47.0	2.4	49.4	108.2	-58.8	Peak	Vertical
	15594.5	45.7	4.2	49.9	74.0	-24.1	Peak	Vertical
*	16937.5	44.9	6.8	51.7	108.2	-56.5	Peak	Vertical

Note 1: "*" is not in restricted band.

Note 2: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB/m)

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

Test Site	SIP-AC3	Test Engineer	Fusco Pan
Test Date	2023-09-25	Test Mode	802.11ax-HE80 – Channel 171
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.		

Mark	Frequency (MHz)	Reading Level (dB μ V)	Factor (dB/m)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB/m)	Detector	Polarization
	11667.5	47.6	-1.7	45.9	74.0	-28.1	Peak	Horizontal
*	14141.0	46.8	2.9	49.7	108.2	-58.5	Peak	Horizontal
	16002.5	45.1	5.3	50.4	74.0	-23.6	Peak	Horizontal
*	16954.5	44.9	6.8	51.7	108.2	-56.5	Peak	Horizontal
	12415.5	47.4	-1.0	46.4	74.0	-27.6	Peak	Vertical
*	14064.5	45.6	2.9	48.5	108.2	-59.7	Peak	Vertical
	15773.0	45.3	4.9	50.2	74.0	-23.8	Peak	Vertical
*	16691.0	44.3	6.4	50.7	108.2	-57.5	Peak	Vertical

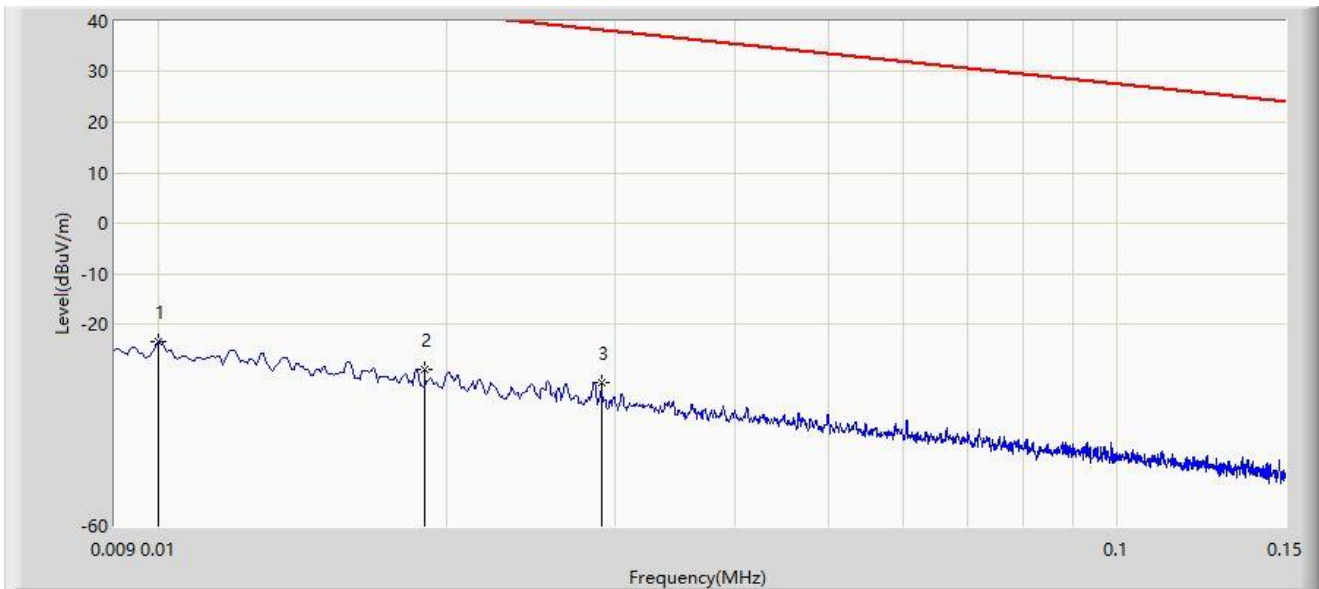
Note 1: "*" is not in restricted band.

Note 2: Measure Level (dB μ V/m) = Reading Level (dB μ V) + 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 802.11a at 5845MHz	



No	Mark	Frequency (MHz)	Measure Level (dB μ V/m)	Reading Level (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Factor (dB/m)	Type
1		0.010	-23.486	36.033	-71.071	47.585	-59.519	PK
2		0.019	-29.078	30.806	-71.092	42.013	-59.884	PK
3	*	0.029	-31.560	28.731	-69.902	38.342	-60.291	PK

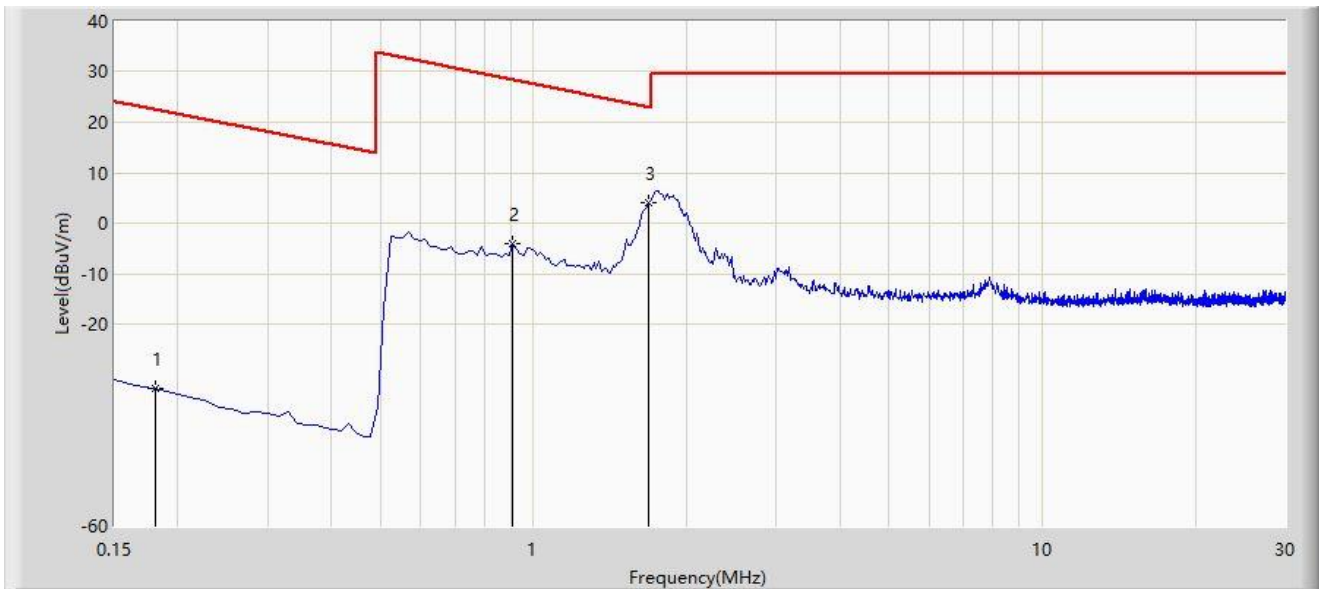
Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dB μ V/m) = Reading Level (dB μ V) + 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 802.11a at 5845MHz	



No	Mark	Frequency (MHz)	Measure Level (dB μ V/m)	Reading Level (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Factor (dB/m)	Type
1		0.180	-32.774	28.192	-55.268	22.494	-60.966	PK
2		0.911	-4.001	17.947	-32.430	28.429	-21.948	PK
3	*	1.687	4.015	25.685	-19.077	23.092	-21.670	PK

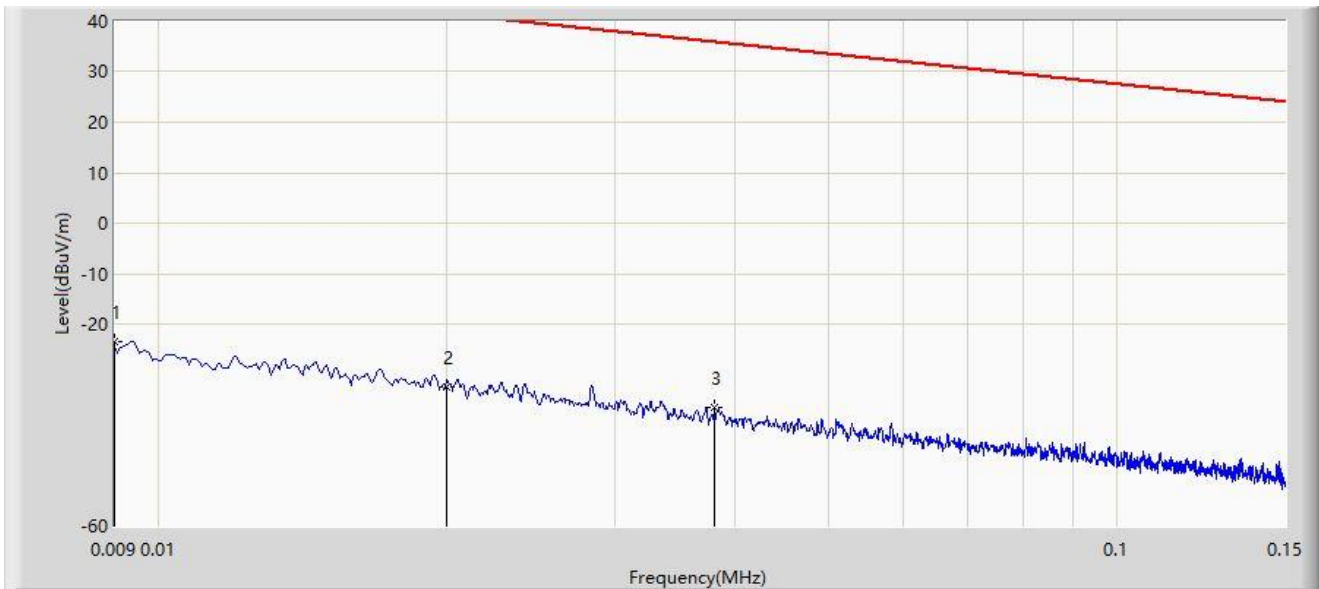
Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dB μ V/m) = Reading Level (dB μ V) + 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 802.11a at 5845MHz	



No	Mark	Frequency (MHz)	Measure Level (dB μ V/m)	Reading Level (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Factor (dB/m)	Type
1	*	0.009	-23.435	36.043	-71.935	48.500	-59.478	PK
2		0.020	-32.483	27.442	-74.051	41.568	-59.925	PK
3		0.038	-36.651	24.006	-72.647	35.996	-60.657	PK

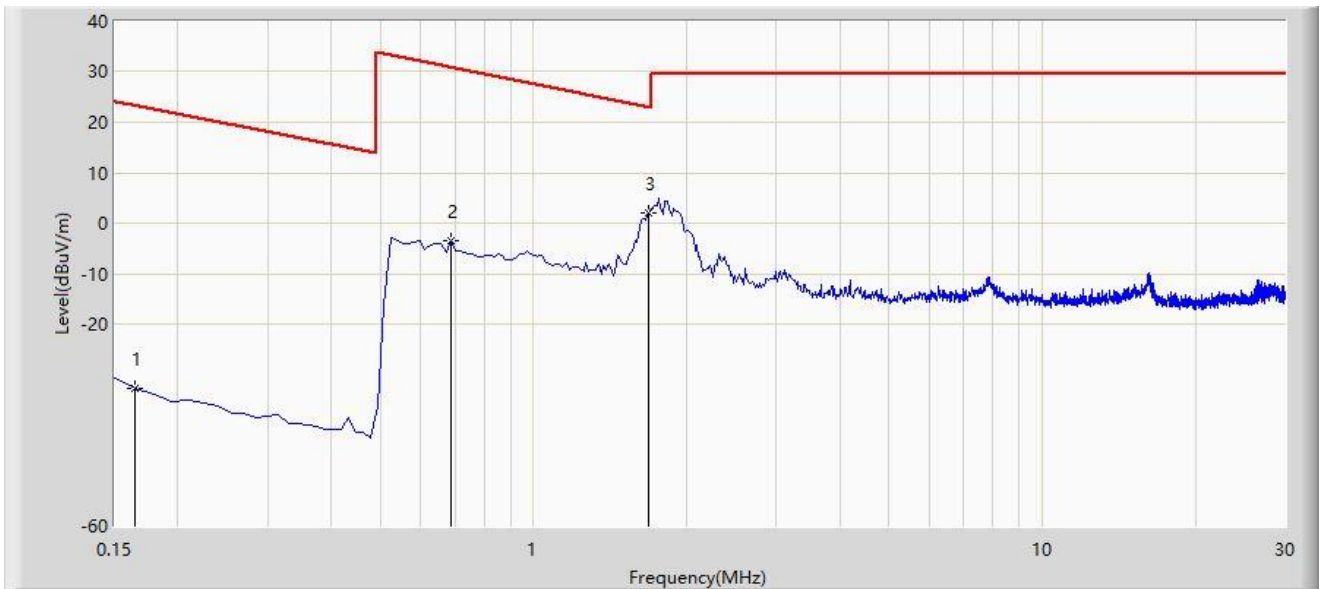
Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dB μ V/m) = Reading Level (dB μ V) + 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 802.11a at 5845MHz	



No	Mark	Frequency (MHz)	Measure Level (dB μ V/m)	Reading Level (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Factor (dB/m)	Type
1		0.165	-32.776	28.184	-56.025	23.249	-60.960	PK
2		0.687	-3.608	18.391	-34.481	30.873	-21.999	PK
3	*	1.687	1.947	23.617	-21.145	23.092	-21.670	PK

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

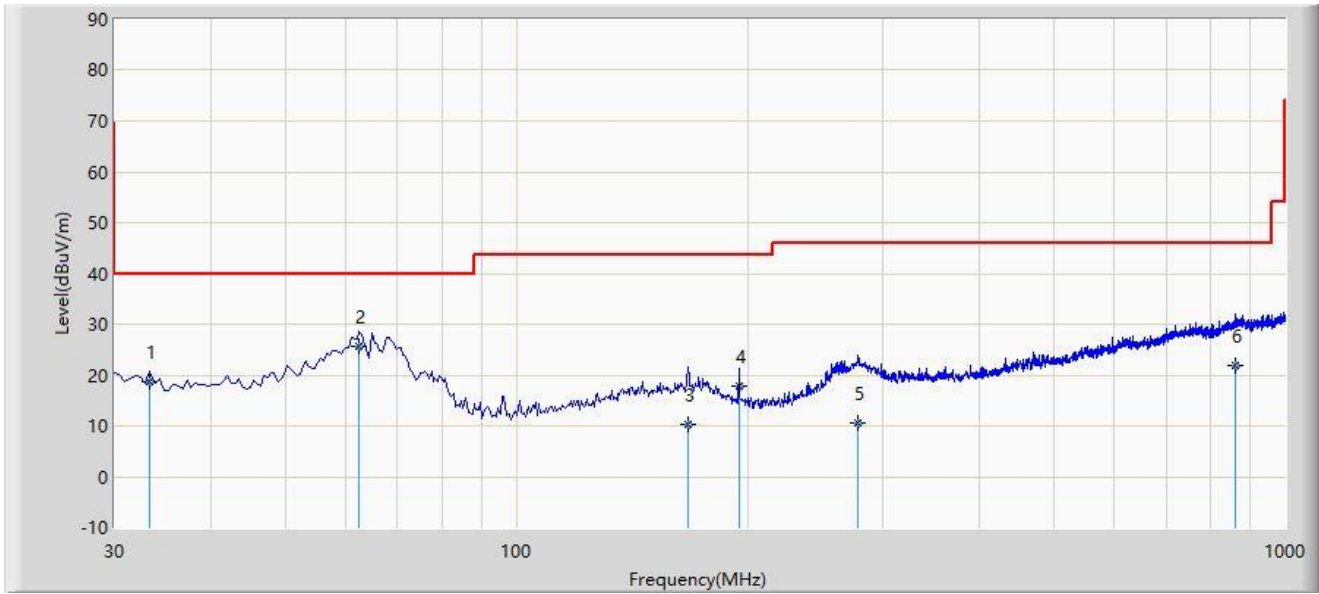
Note 2: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB/m).

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 802.11a at 5845MHz	



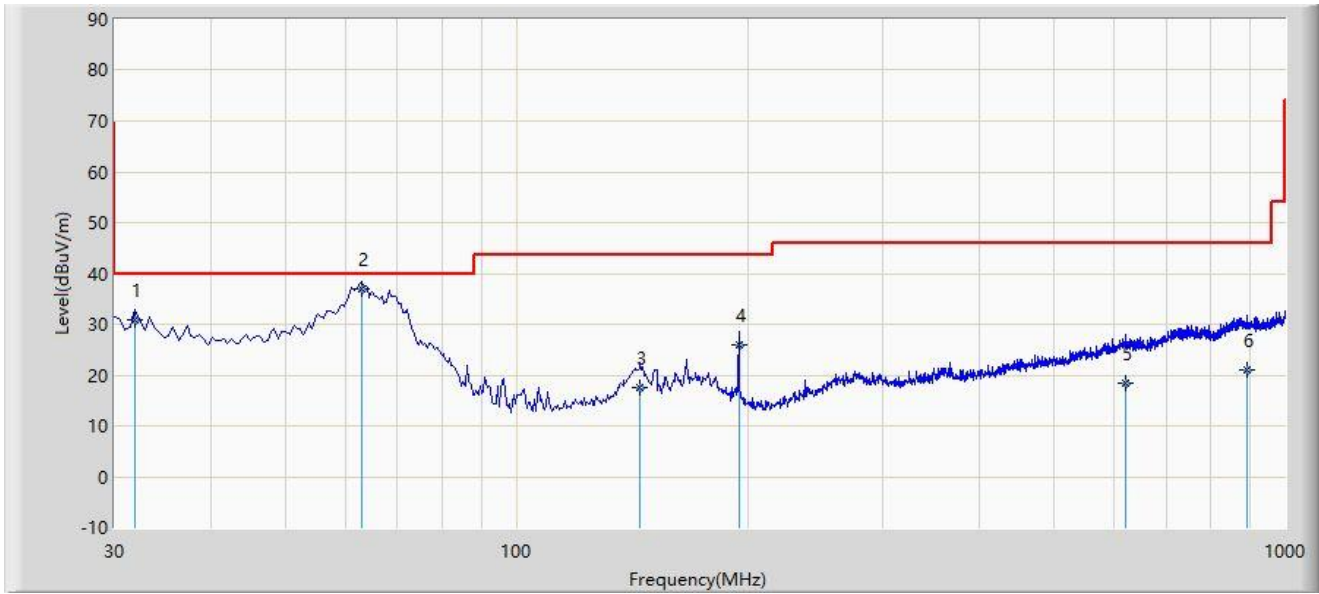
No	Mark	Frequency (MHz)	Measure Level (dB μ V/m)	Reading Level (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Factor (dB/m)	Type
1		33.395	18.750	1.800	-21.250	40.000	16.950	QP
2	*	62.495	25.562	8.200	-14.438	40.000	17.362	QP
3		167.255	10.176	-7.900	-33.324	43.500	18.077	QP
4		194.900	17.881	2.600	-25.619	43.500	15.281	QP
5		278.320	10.649	-7.600	-35.351	46.000	18.250	QP
6		859.835	21.748	-8.300	-24.252	46.000	30.047	QP

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

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

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

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 802.11a at 5845MHz	



No	Mark	Frequency (MHz)	Measure Level (dB μ V/m)	Reading Level (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Factor (dB/m)	Type
1		31.940	30.903	14.000	-9.097	40.000	16.902	QP
2	*	62.980	37.088	19.800	-2.912	40.000	17.288	QP
3		144.945	17.638	-0.400	-25.862	43.500	18.038	QP
4		194.900	25.981	10.700	-17.519	43.500	15.281	QP
5		620.245	18.375	-8.600	-27.625	46.000	26.975	QP
6		892.815	21.027	-9.100	-24.973	46.000	30.127	QP

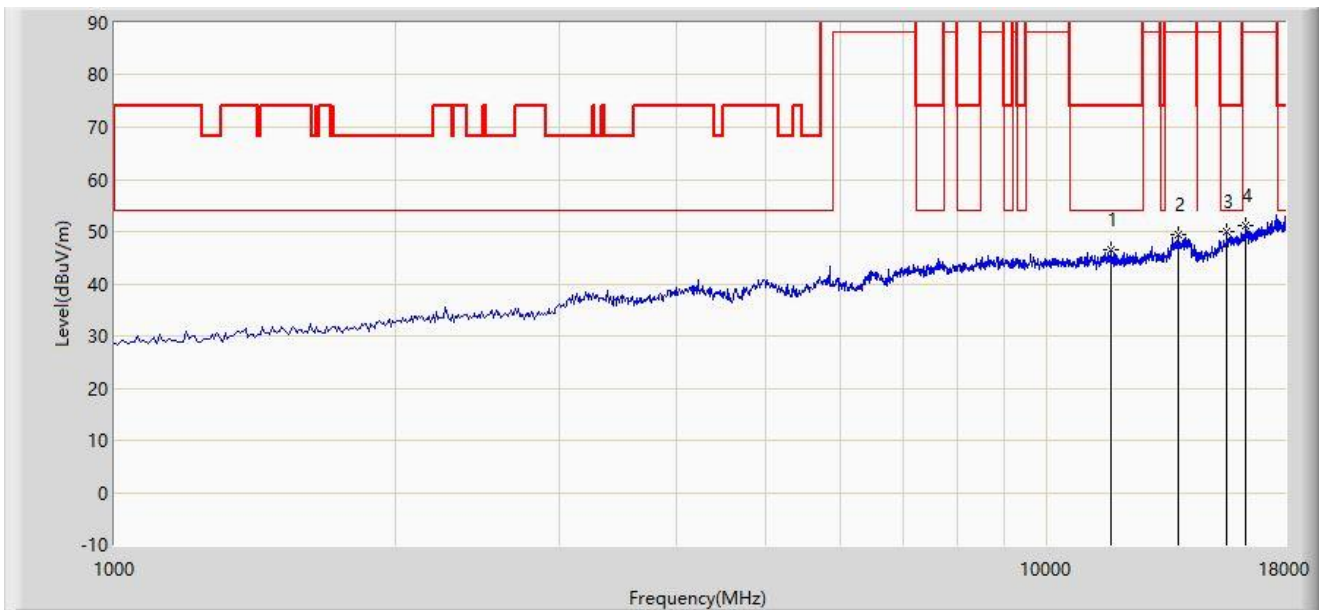
Note 1: " * ", means this data is the worst emission level.

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

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

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

Site: SIP-AC3	Test Date: 2023/09/25
Limit: FCC_Part15.209_RSE(3m)_5.9G	Engineer: Fusco Pan
Probe: HF907_102861_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11a at 5845MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		11701.500	46.416	48.014	-27.584	74.000	-1.598	PK
2		13852.000	49.453	47.090	-58.747	108.200	2.363	PK
3	*	15577.500	50.144	45.574	-23.856	74.000	4.570	PK
4		16325.500	51.193	45.666	-57.007	108.200	5.527	PK

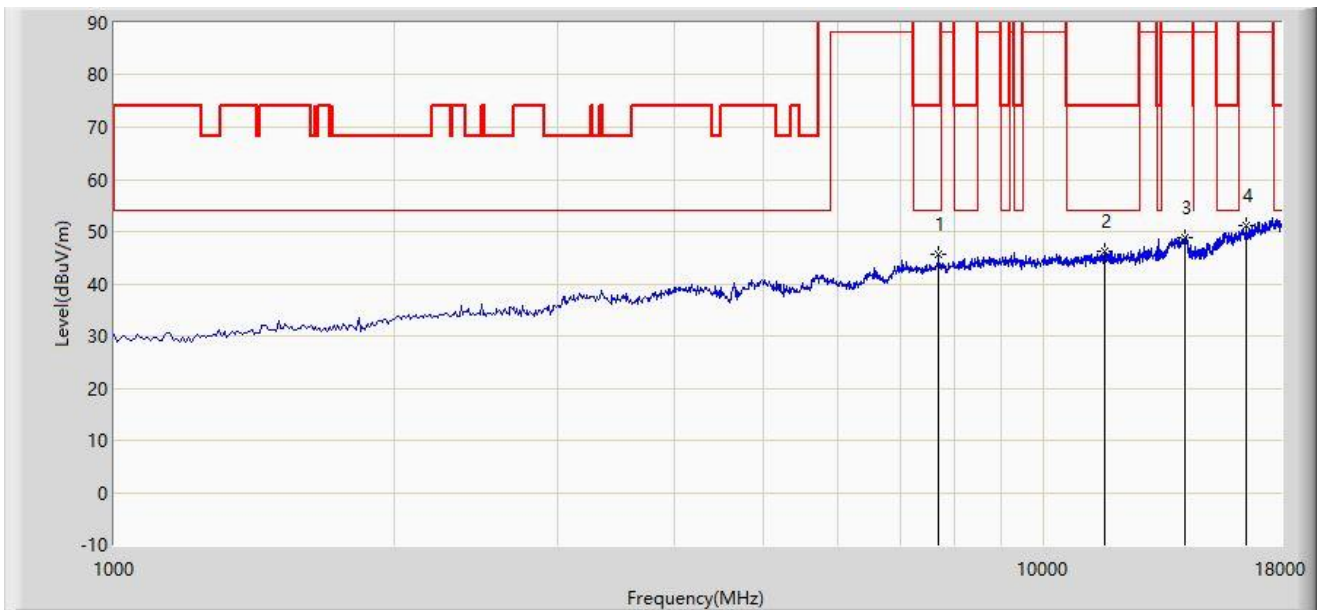
Note 1: " * ", means this data is the worst emission level.

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-AC3	Test Date: 2023/09/25
Limit: FCC_Part15.209_RSE(3m)_5.9G	Engineer: Fusco Pan
Probe: HF907_102861_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11a at 5845MHz	



No	Mark	Frequency (MHz)	Measure Level (dB μ V/m)	Reading Level (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Factor (dB/m)	Type
1		7698.000	45.785	49.898	-28.215	74.000	-4.113	PK
2	*	11642.000	46.174	47.905	-27.826	74.000	-1.731	PK
3		14175.000	48.909	45.213	-59.291	108.200	3.696	PK
4		16504.000	51.111	44.828	-57.089	108.200	6.283	PK

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

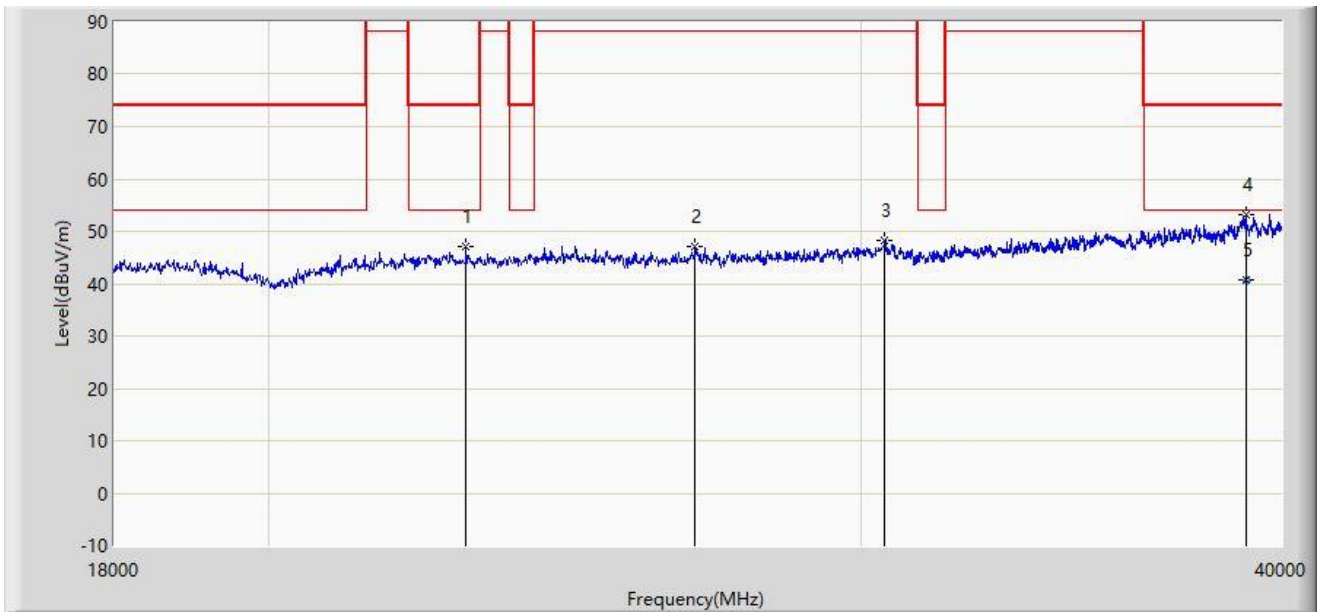
Note 2: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB/m).

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 ~ 40GHz:

Site: SIP-AC2	Test Date: 2023/11/18
Limit: FCC_Part15.209_RSE(3m)_5.9G	Engineer: Arvin Ding
Probe: BBHA 9170_00934_18-40GHz-	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11ac-VHT40 at 5835MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		22906.000	47.172	56.039	-26.828	74.000	-8.867	PK
2		26789.000	47.145	55.562	-61.055	108.200	-8.417	PK
3		30496.000	48.251	56.790	-59.949	108.200	-8.539	PK
4		39054.000	53.209	53.655	-20.791	74.000	-0.446	PK
5	*	39054.000	40.794	41.240	-13.206	54.000	-0.446	AV

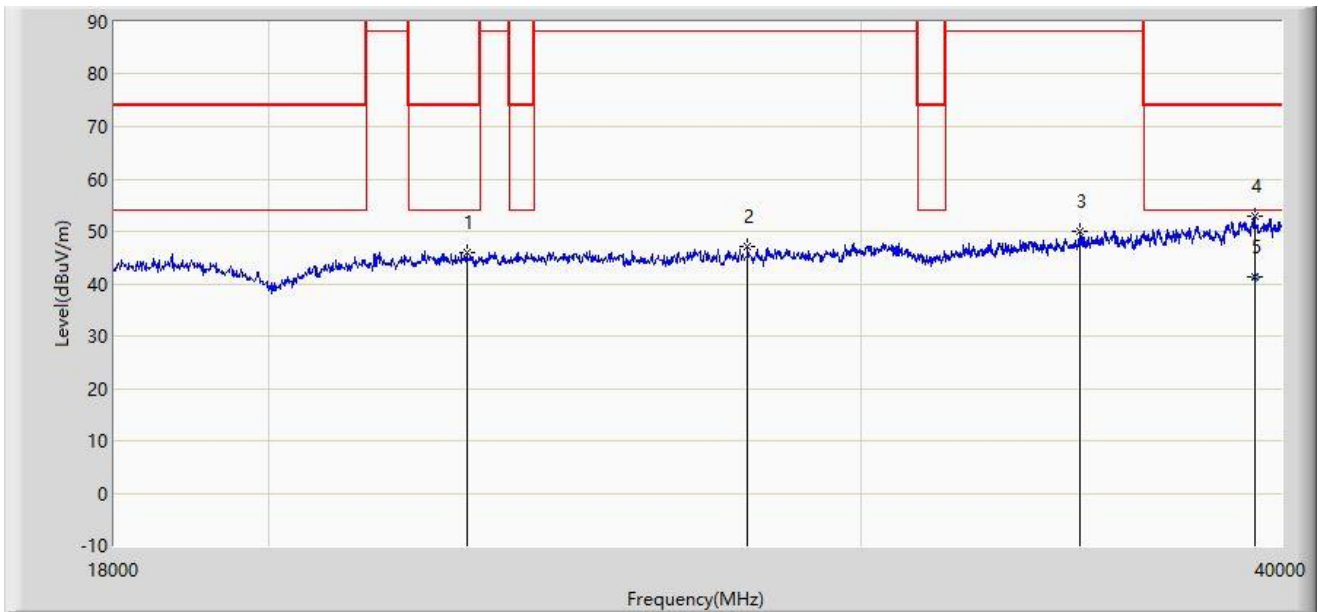
Note 1: " * ", means this data is the worst emission level.

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-AC2	Test Date: 2023/11/18
Limit: FCC_Part15.209_RSE(3m)_5.9G	Engineer: Arvin Ding
Probe: BBHA 9170_00934_18-40GHz-	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11ac-VHT40 at 5835MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		22917.000	46.073	54.857	-27.927	74.000	-8.784	PK
2		27768.000	47.144	56.482	-61.056	108.200	-9.338	PK
3		34863.000	50.016	57.524	-58.184	108.200	-7.508	PK
4		39296.000	52.859	52.606	-21.141	74.000	0.253	PK
5	*	39296.000	41.323	41.070	-12.677	54.000	0.253	AV

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

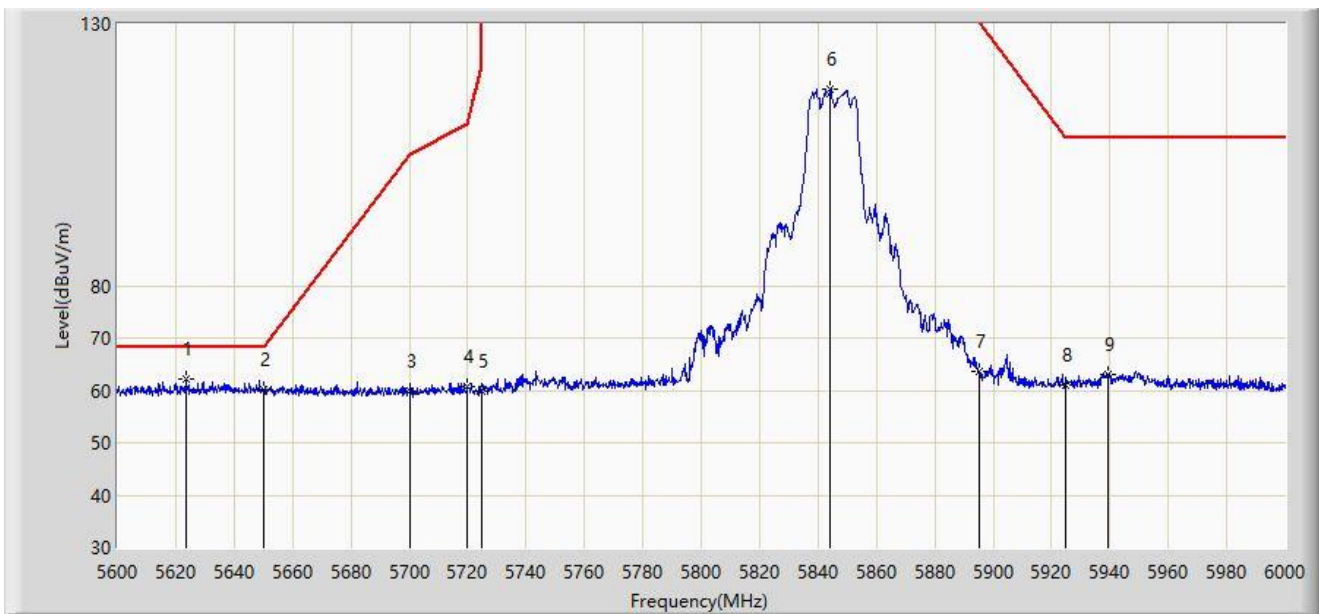
Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

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.

A.8 Radiated Restricted Band Edge Test Result

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5.9G_RE(3m)	Engineer: Fusco Pan
Probe: BBHA 9120D_02042_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11a at 5845MHz	



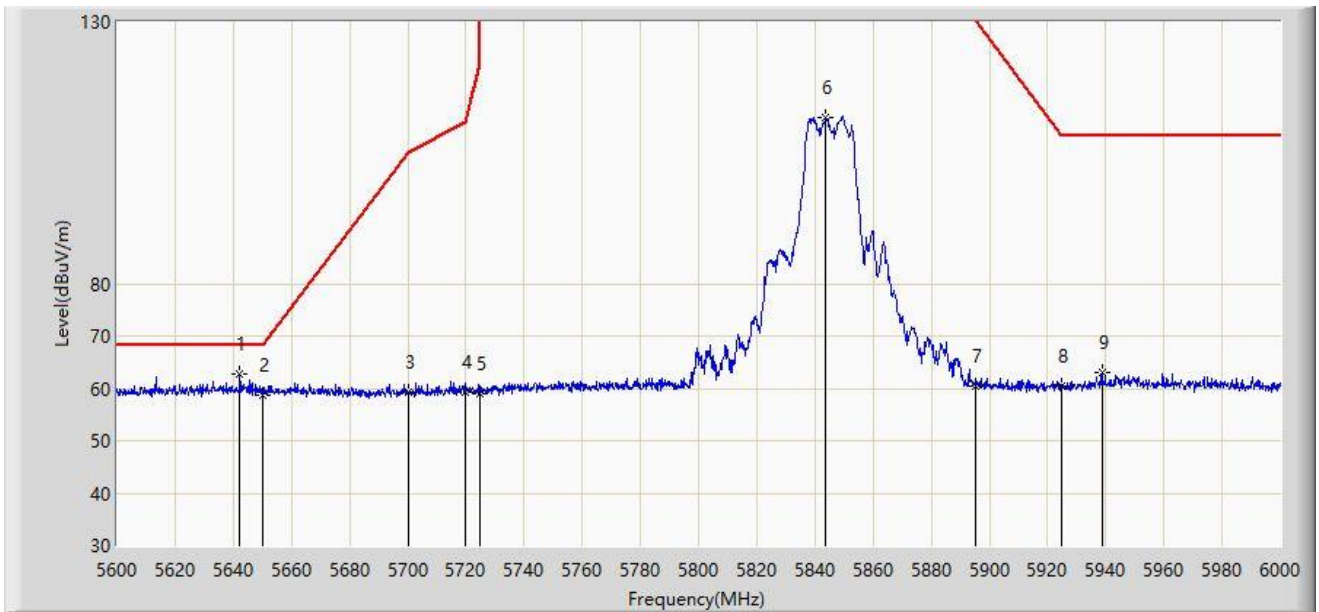
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1	*	5623.400	62.258	66.647	-5.942	68.200	-4.390	PK
2		5650.000	60.011	64.246	-8.189	68.200	-4.235	PK
3		5700.000	59.777	64.208	-45.423	105.200	-4.431	PK
4		5720.000	60.729	64.888	-50.071	110.800	-4.159	PK
5		5725.000	59.971	64.089	-62.229	122.200	-4.118	PK
6		5844.200	117.478	121.088	N/A	N/A	-3.610	PK
7		5895.000	63.496	67.189	-66.704	130.200	-3.693	PK
8		5925.000	61.116	64.716	-47.084	108.200	-3.600	PK
9		5939.200	63.171	66.390	-45.029	108.200	-3.218	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) - Pre_Amplifier Gain (dB).

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5.9G_RE(3m)	Engineer: Fusco Pan
Probe: BBHA 9120D_02042_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11a at 5845MHz	



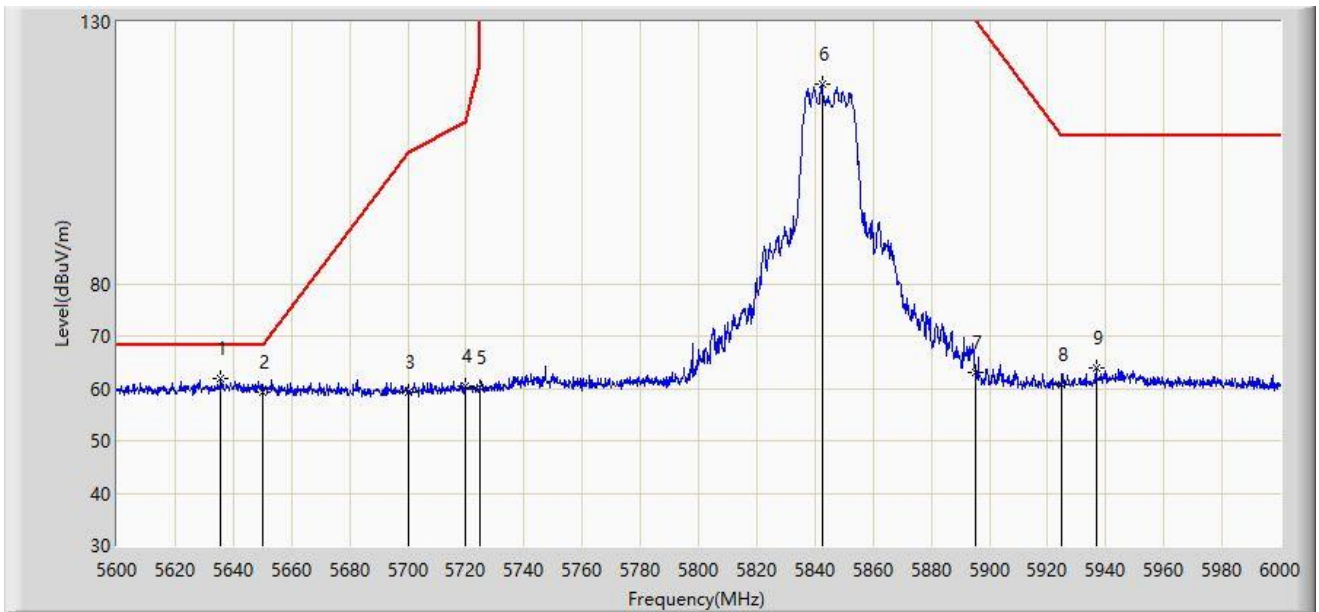
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	5642.200	62.755	66.892	-5.445	68.200	-4.137	PK
2		5650.000	58.660	62.895	-9.540	68.200	-4.235	PK
3		5700.000	59.328	63.759	-45.872	105.200	-4.431	PK
4		5720.000	59.418	63.577	-51.382	110.800	-4.159	PK
5		5725.000	59.019	63.137	-63.181	122.200	-4.118	PK
6		5843.800	111.844	115.450	N/A	N/A	-3.606	PK
7		5895.000	60.370	64.063	-69.830	130.200	-3.693	PK
8		5925.000	60.517	64.117	-47.683	108.200	-3.600	PK
9		5938.600	62.961	66.198	-45.239	108.200	-3.237	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).

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5.9G_RE(3m)	Engineer: Fusco Pan
Probe: BBHA 9120D_02042_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11ac-VHT20 at 5845MHz	



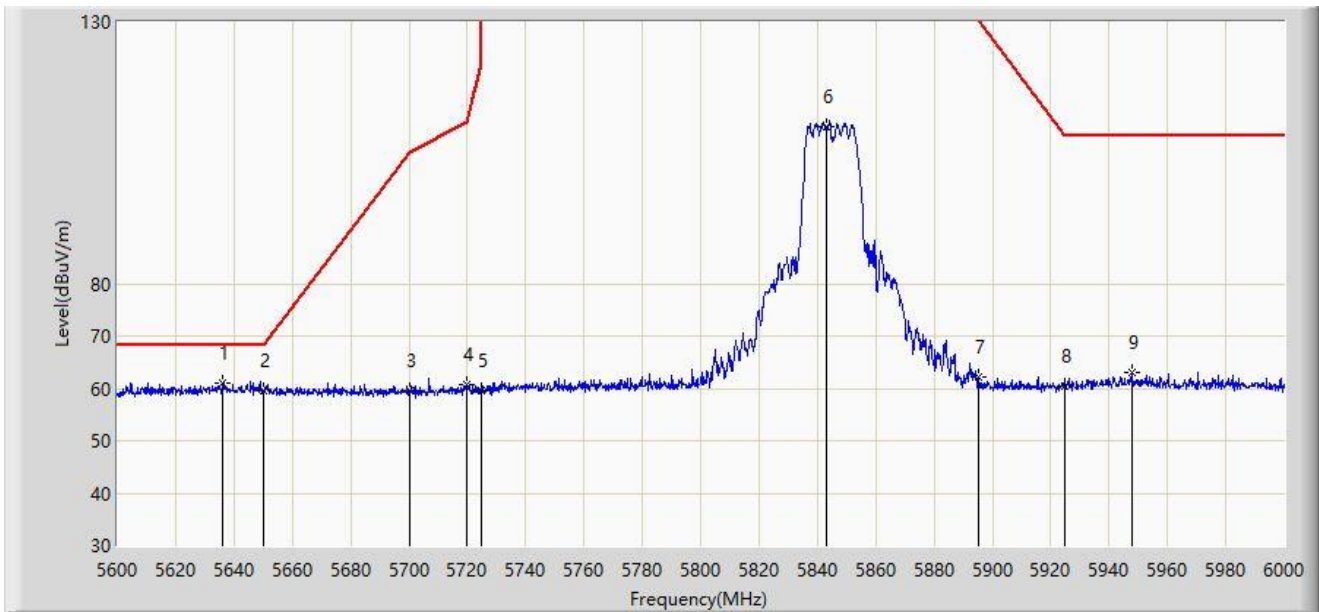
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	5635.800	61.835	66.038	-6.365	68.200	-4.204	PK
2		5650.000	59.254	63.489	-8.946	68.200	-4.235	PK
3		5700.000	59.248	63.679	-45.952	105.200	-4.431	PK
4		5720.000	60.421	64.580	-50.379	110.800	-4.159	PK
5		5725.000	60.196	64.314	-62.004	122.200	-4.118	PK
6		5842.400	118.024	121.619	N/A	N/A	-3.594	PK
7		5895.000	63.007	66.700	-67.193	130.200	-3.693	PK
8		5925.000	60.670	64.270	-47.530	108.200	-3.600	PK
9		5936.800	64.006	67.297	-44.194	108.200	-3.291	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).

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5.9G_RE(3m)	Engineer: Fusco Pan
Probe: BBHA 9120D_02042_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11ac-VHT20 at 5845MHz	



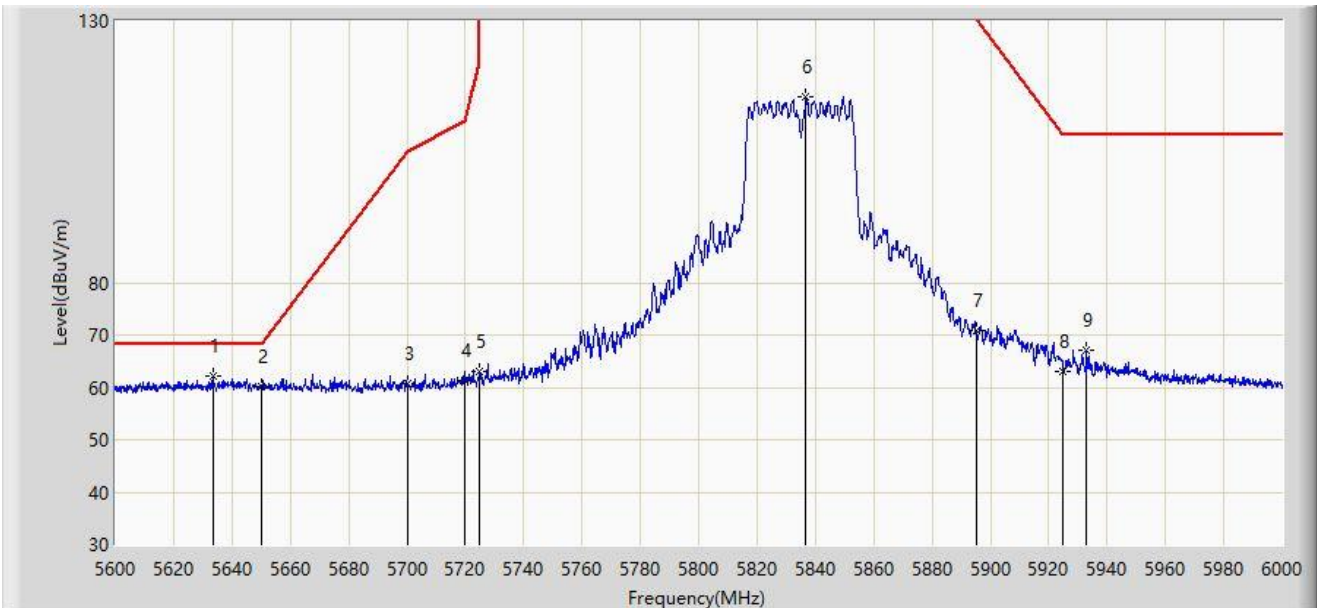
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	5636.000	61.136	65.336	-7.064	68.200	-4.200	PK
2		5650.000	59.677	63.912	-8.523	68.200	-4.235	PK
3		5700.000	59.431	63.862	-45.769	105.200	-4.431	PK
4		5720.000	60.587	64.746	-50.213	110.800	-4.159	PK
5		5725.000	59.581	63.699	-62.619	122.200	-4.118	PK
6		5843.000	110.057	113.657	N/A	N/A	-3.600	PK
7		5895.000	62.083	65.776	-68.117	130.200	-3.693	PK
8		5925.000	60.452	64.052	-47.748	108.200	-3.600	PK
9		5947.800	63.181	66.169	-45.019	108.200	-2.988	PK

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

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

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

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5.9G_RE(3m)	Engineer: Fusco Pan
Probe: BBHA 9120D_02042_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11ac-VHT40 at 5835MHz	



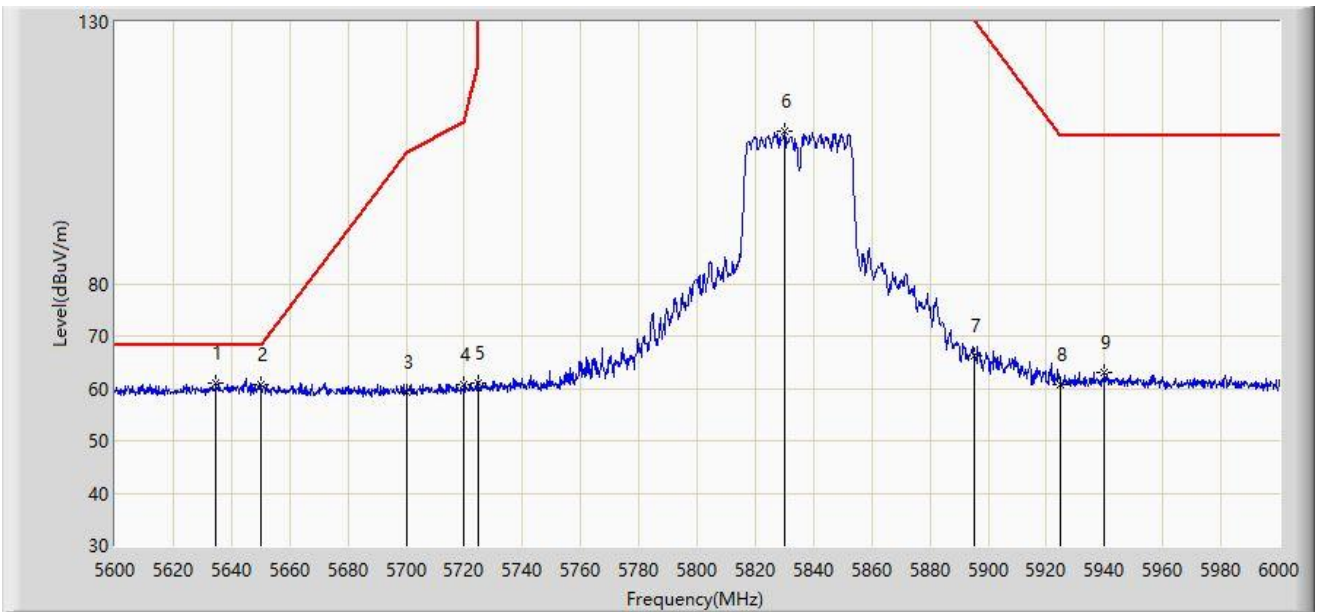
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	5633.400	62.033	66.274	-6.167	68.200	-4.241	PK
2		5650.000	60.147	64.382	-8.053	68.200	-4.235	PK
3		5700.000	60.763	65.194	-44.437	105.200	-4.431	PK
4		5720.000	61.406	65.565	-49.394	110.800	-4.159	PK
5		5725.000	63.022	67.140	-59.178	122.200	-4.118	PK
6		5836.800	115.425	118.973	N/A	N/A	-3.548	PK
7		5895.000	70.780	74.473	-59.420	130.200	-3.693	PK
8		5925.000	63.160	66.760	-45.040	108.200	-3.600	PK
9		5933.000	66.994	70.401	-41.206	108.200	-3.406	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).

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5.9G_RE(3m)	Engineer: Fusco Pan
Probe: BBHA 9120D_02042_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11ac-VHT40 at 5835MHz	



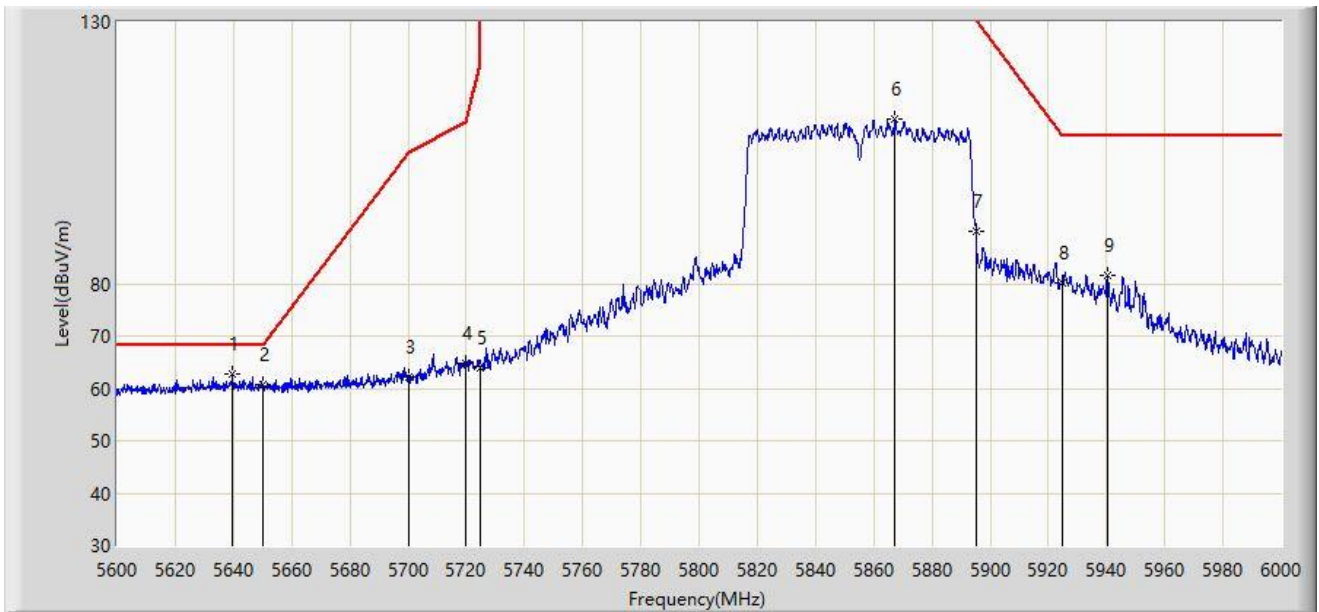
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	5634.600	61.015	65.237	-7.185	68.200	-4.222	PK
2		5650.000	60.599	64.834	-7.601	68.200	-4.235	PK
3		5700.000	59.176	63.607	-46.024	105.200	-4.431	PK
4		5720.000	60.708	64.867	-50.092	110.800	-4.159	PK
5		5725.000	60.879	64.997	-61.321	122.200	-4.118	PK
6		5830.200	109.074	112.566	N/A	N/A	-3.492	PK
7		5895.000	66.284	69.977	-63.916	130.200	-3.693	PK
8		5925.000	60.762	64.362	-47.438	108.200	-3.600	PK
9		5940.000	63.149	66.343	-45.051	108.200	-3.194	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).

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5.9G_RE(3m)	Engineer: Fusco Pan
Probe: BBHA 9120D_02042_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11ac-VHT80 at 5855MHz	



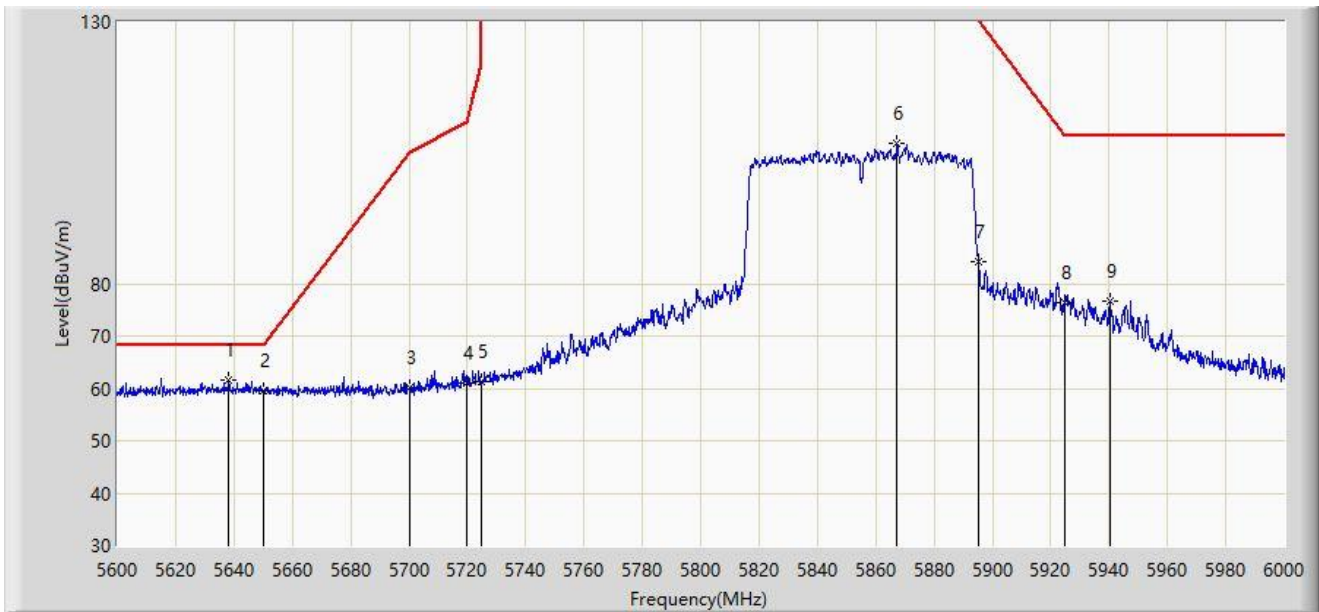
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	5639.800	62.637	66.778	-5.563	68.200	-4.141	PK
2		5650.000	60.594	64.829	-7.606	68.200	-4.235	PK
3		5700.000	62.201	66.632	-42.999	105.200	-4.431	PK
4		5720.000	64.687	68.846	-46.113	110.800	-4.159	PK
5		5725.000	63.812	67.930	-58.388	122.200	-4.118	PK
6		5867.400	111.395	114.989	N/A	N/A	-3.594	PK
7		5895.000	89.891	93.584	-40.309	130.200	-3.693	PK
8		5925.000	80.245	83.845	-27.955	108.200	-3.600	PK
9		5940.400	81.739	84.921	-26.461	108.200	-3.182	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).

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5.9G_RE(3m)	Engineer: Fusco Pan
Probe: BBHA 9120D_02042_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11ac-VHT80 at 5855MHz	



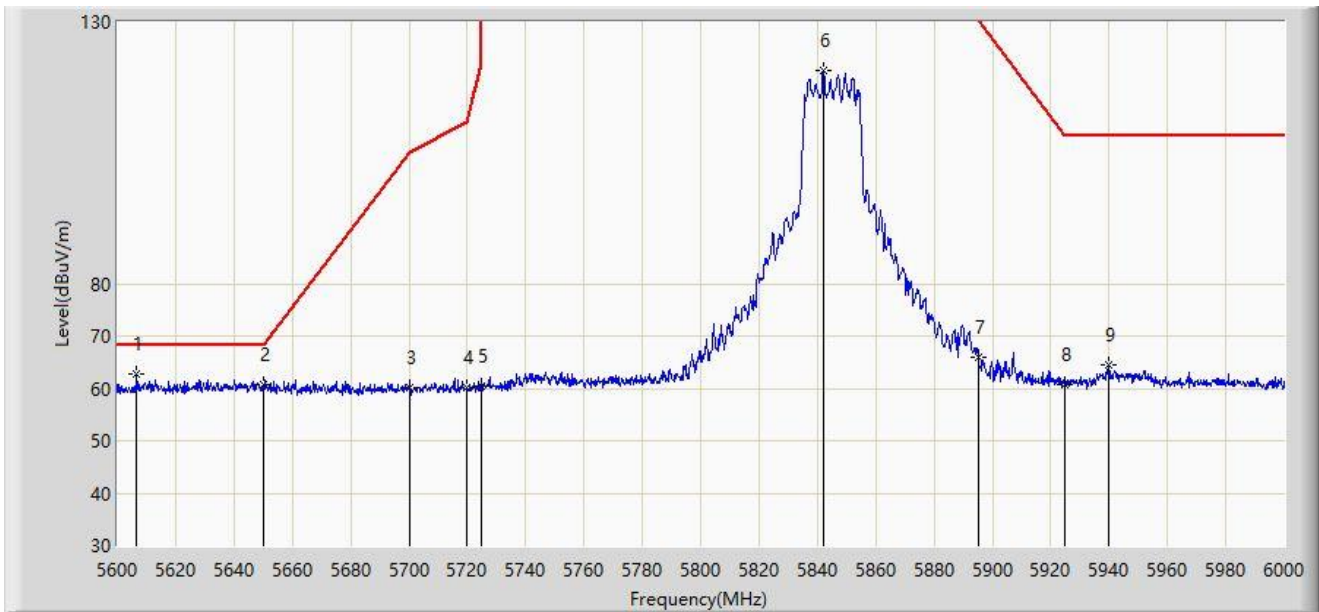
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	5638.200	61.474	65.640	-6.726	68.200	-4.166	PK
2		5650.000	59.634	63.869	-8.566	68.200	-4.235	PK
3		5700.000	60.178	64.609	-45.022	105.200	-4.431	PK
4		5720.000	61.020	65.179	-49.780	110.800	-4.159	PK
5		5725.000	61.199	65.317	-61.001	122.200	-4.118	PK
6		5867.400	106.674	110.268	N/A	N/A	-3.594	PK
7		5895.000	84.346	88.039	-45.854	130.200	-3.693	PK
8		5925.000	76.502	80.102	-31.698	108.200	-3.600	PK
9		5940.200	76.594	79.782	-31.606	108.200	-3.188	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).

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5.9G_RE(3m)	Engineer: Fusco Pan
Probe: BBHA 9120D_02042_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11ax-HE20 at 5845MHz	



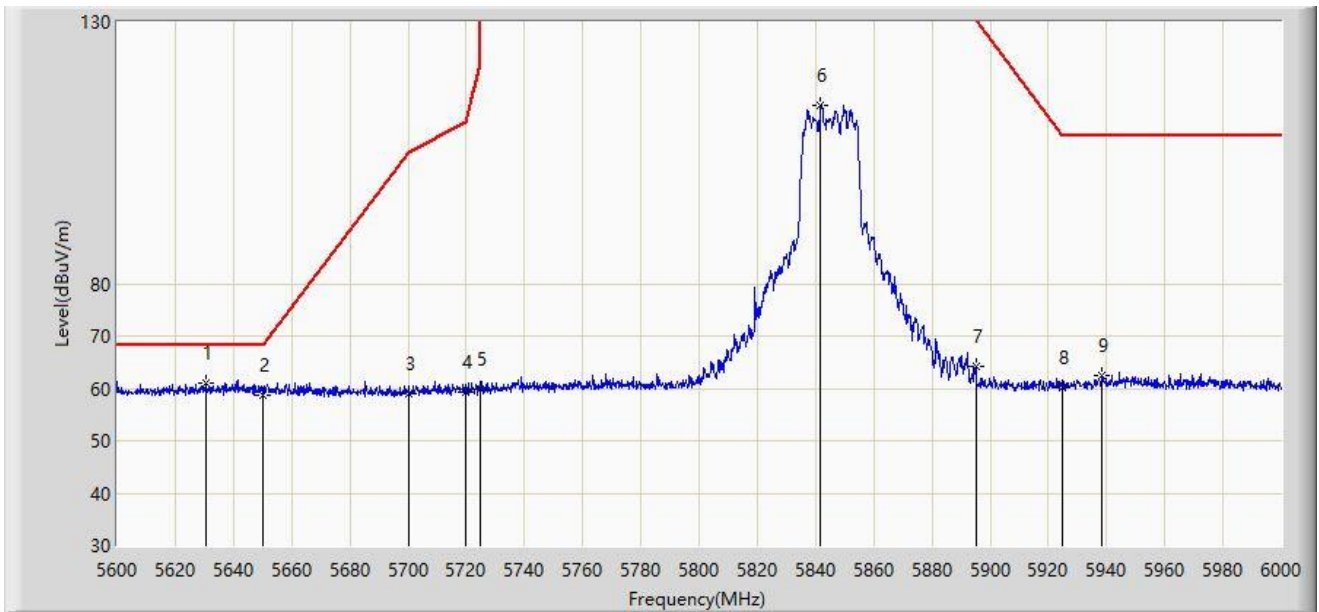
No	Mark	Frequency (MHz)	Measure Level (dB μ V/m)	Reading Level (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Factor (dB/m)	Type
1	*	5606.600	62.844	67.292	-5.356	68.200	-4.448	PK
2		5650.000	60.625	64.860	-7.575	68.200	-4.235	PK
3		5700.000	60.156	64.587	-45.044	105.200	-4.431	PK
4		5720.000	60.133	64.292	-50.667	110.800	-4.159	PK
5		5725.000	60.467	64.585	-61.733	122.200	-4.118	PK
6		5842.000	120.848	124.439	N/A	N/A	-3.591	PK
7		5895.000	65.907	69.600	-64.293	130.200	-3.693	PK
8		5925.000	60.638	64.238	-47.562	108.200	-3.600	PK
9		5940.000	64.480	67.674	-43.720	108.200	-3.194	PK

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

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

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

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5.9G_RE(3m)	Engineer: Fusco Pan
Probe: BBHA 9120D_02042_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11ax-HE20 at 5845MHz	



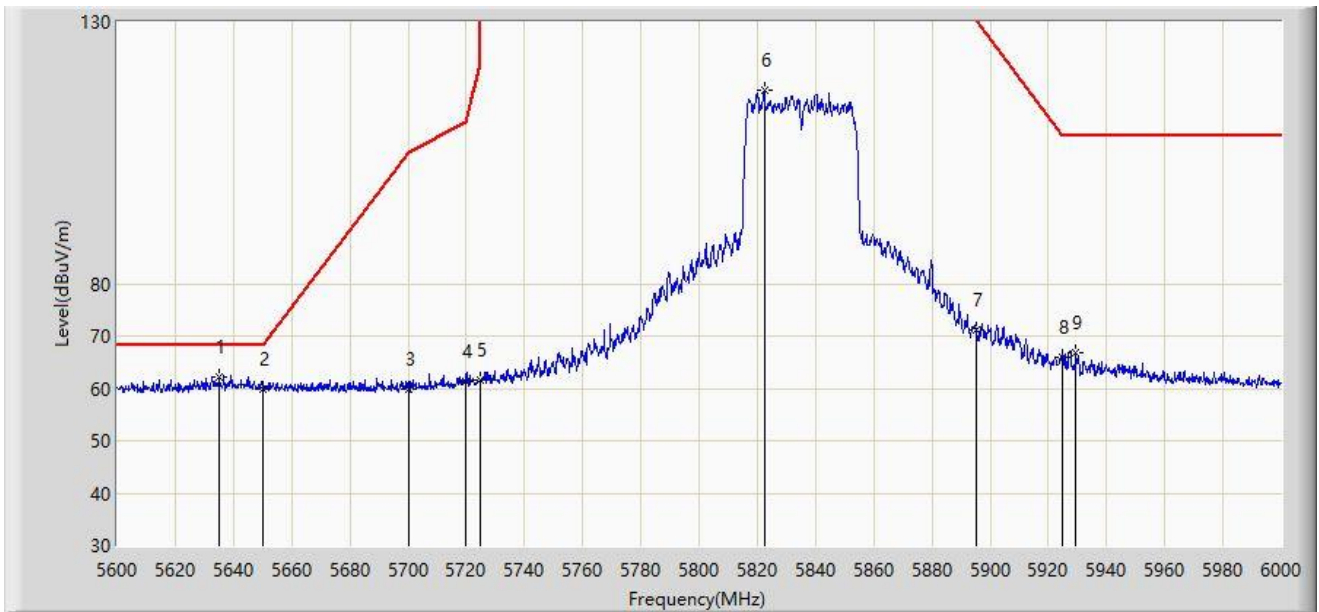
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1	*	5630.400	61.023	65.311	-7.177	68.200	-4.288	PK
2		5650.000	58.764	62.999	-9.436	68.200	-4.235	PK
3		5700.000	59.107	63.538	-46.093	105.200	-4.431	PK
4		5720.000	59.209	63.368	-51.591	110.800	-4.159	PK
5		5725.000	59.855	63.973	-62.345	122.200	-4.118	PK
6		5841.800	114.023	117.612	N/A	N/A	-3.590	PK
7		5895.000	64.084	67.777	-66.116	130.200	-3.693	PK
8		5925.000	60.161	63.761	-48.039	108.200	-3.600	PK
9		5938.400	62.552	65.795	-45.648	108.200	-3.243	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) - Pre_Amplifier Gain (dB).

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5.9G_RE(3m)	Engineer: Fusco Pan
Probe: BBHA 9120D_02042_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11ax-HE40 at 5835MHz	



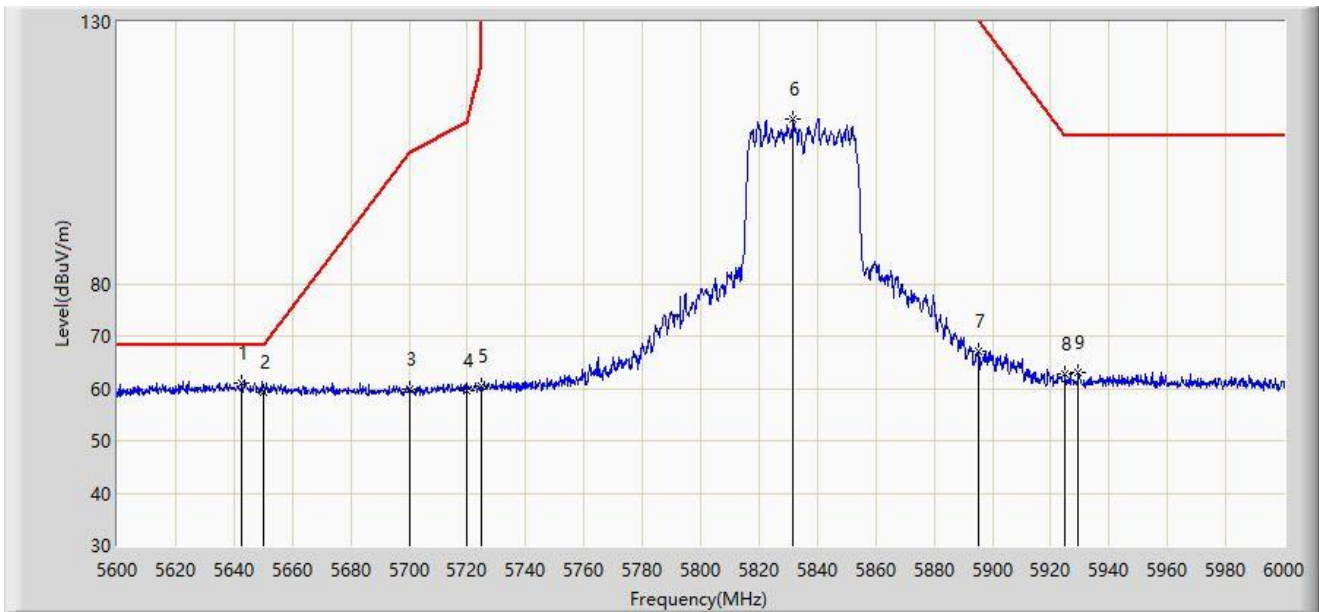
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1	*	5635.200	62.293	66.506	-5.907	68.200	-4.213	PK
2		5650.000	59.899	64.134	-8.301	68.200	-4.235	PK
3		5700.000	59.983	64.414	-45.217	105.200	-4.431	PK
4		5720.000	61.339	65.498	-49.461	110.800	-4.159	PK
5		5725.000	61.509	65.627	-60.691	122.200	-4.118	PK
6		5822.400	117.007	120.412	N/A	N/A	-3.406	PK
7		5895.000	71.247	74.940	-58.953	130.200	-3.693	PK
8		5925.000	65.955	69.555	-42.245	108.200	-3.600	PK
9		5929.400	66.887	70.397	-41.313	108.200	-3.511	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) - Pre_Amplifier Gain (dB).

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5.9G_RE(3m)	Engineer: Fusco Pan
Probe: BBHA 9120D_02042_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11ax-HE40 at 5835MHz	



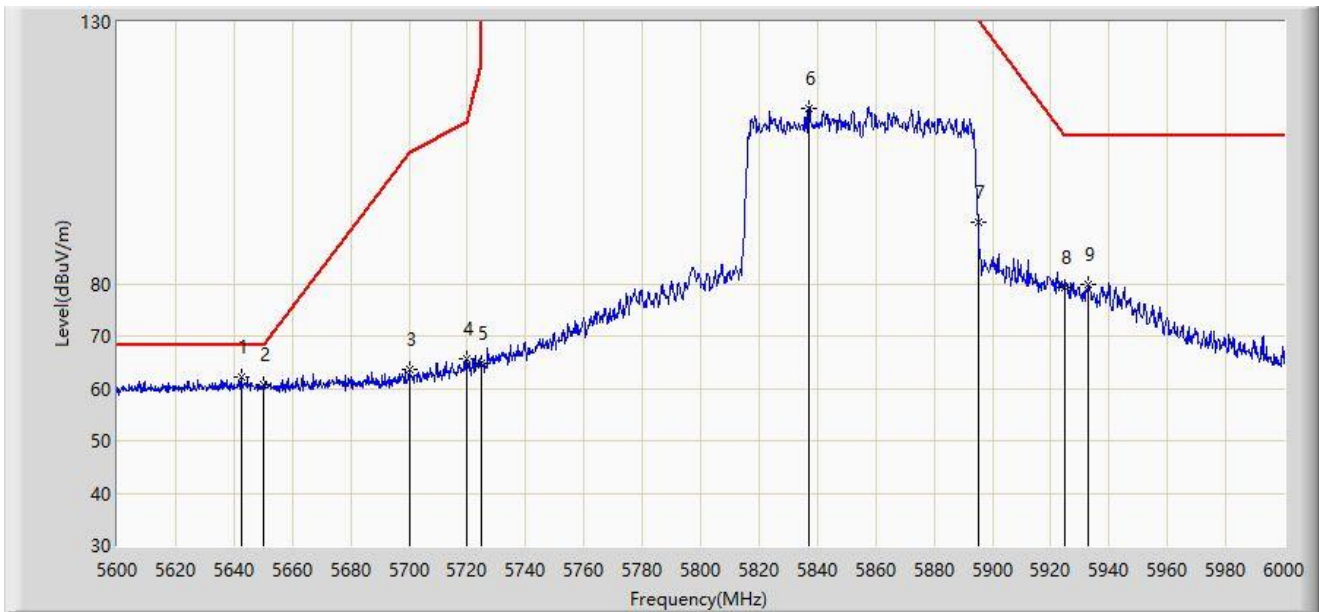
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1	*	5642.800	60.981	65.126	-7.219	68.200	-4.145	PK
2		5650.000	59.263	63.498	-8.937	68.200	-4.235	PK
3		5700.000	59.996	64.427	-45.204	105.200	-4.431	PK
4		5720.000	59.575	63.734	-51.225	110.800	-4.159	PK
5		5725.000	60.388	64.506	-61.812	122.200	-4.118	PK
6		5831.600	111.375	114.879	N/A	N/A	-3.504	PK
7		5895.000	67.034	70.727	-63.166	130.200	-3.693	PK
8		5925.000	62.647	66.247	-45.553	108.200	-3.600	PK
9		5929.400	63.067	66.577	-45.133	108.200	-3.511	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) - Pre_Amplifier Gain (dB).

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5.9G_RE(3m)	Engineer: Fusco Pan
Probe: BBHA 9120D_02042_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11ax-HE80 at 5855MHz	



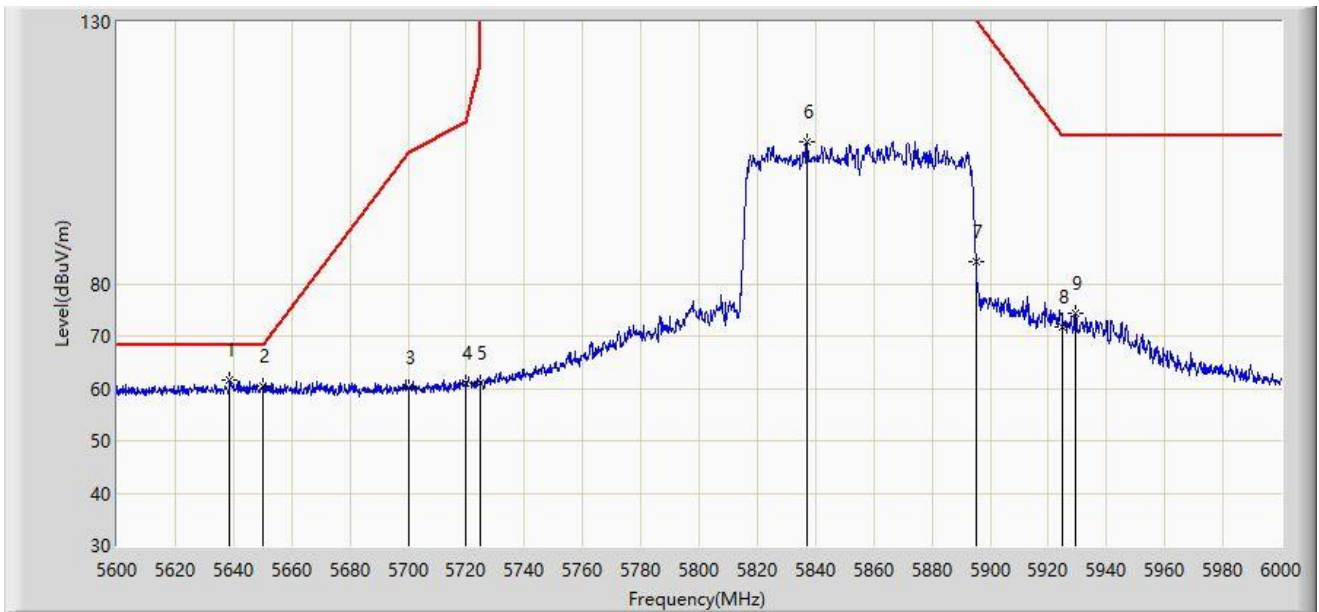
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	5642.800	62.029	66.174	-6.171	68.200	-4.145	PK
2		5650.000	60.865	65.100	-7.335	68.200	-4.235	PK
3		5700.000	63.745	68.176	-41.455	105.200	-4.431	PK
4		5720.000	65.513	69.672	-45.287	110.800	-4.159	PK
5		5725.000	64.896	69.014	-57.304	122.200	-4.118	PK
6		5837.000	113.466	117.015	N/A	N/A	-3.549	PK
7		5895.000	91.691	95.384	-38.509	130.200	-3.693	PK
8		5925.000	79.395	82.995	-28.805	108.200	-3.600	PK
9		5932.800	79.927	83.340	-28.273	108.200	-3.413	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).

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5.9G_RE(3m)	Engineer: Fusco Pan
Probe: BBHA 9120D_02042_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11ax-HE80 at 5855MHz	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1	*	5638.600	61.667	65.827	-6.533	68.200	-4.160	PK
2		5650.000	60.493	64.728	-7.707	68.200	-4.235	PK
3		5700.000	60.074	64.505	-45.126	105.200	-4.431	PK
4		5720.000	61.041	65.200	-49.759	110.800	-4.159	PK
5		5725.000	61.063	65.181	-61.137	122.200	-4.118	PK
6		5837.000	106.957	110.506	N/A	N/A	-3.549	PK
7		5895.000	84.279	87.972	-45.921	130.200	-3.693	PK
8		5925.000	71.600	75.200	-36.600	108.200	-3.600	PK
9		5929.200	74.466	77.980	-33.734	108.200	-3.515	PK

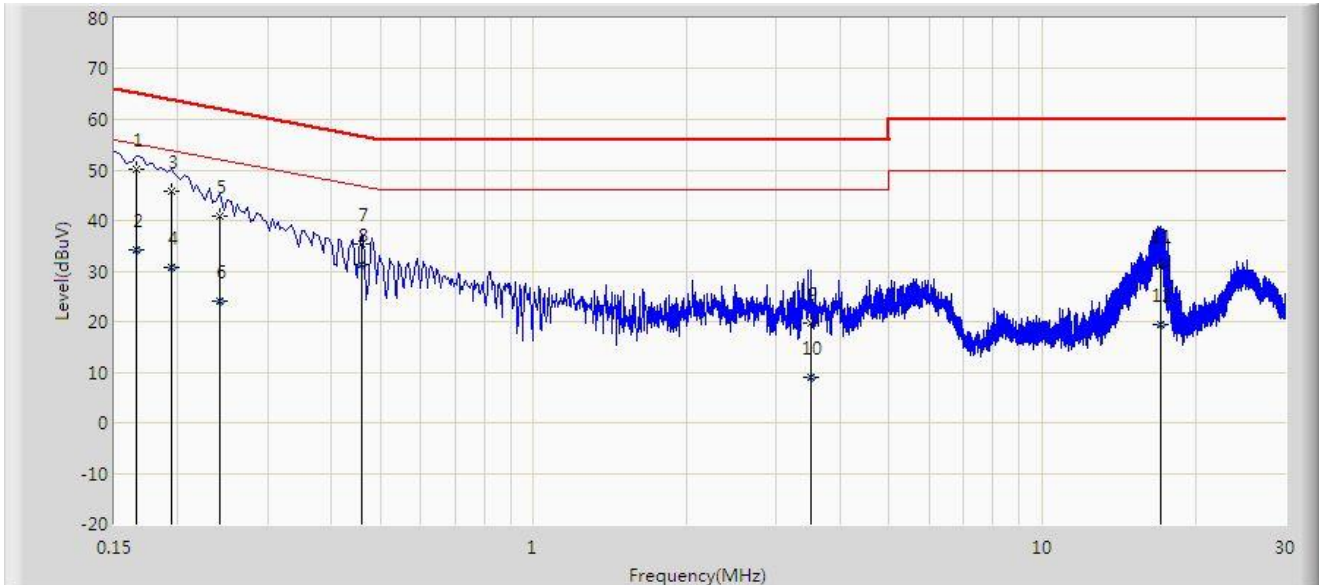
Note 1: " * ", means this data is the worst emission level.

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

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

A.9 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 802.11a at 5845MHz	



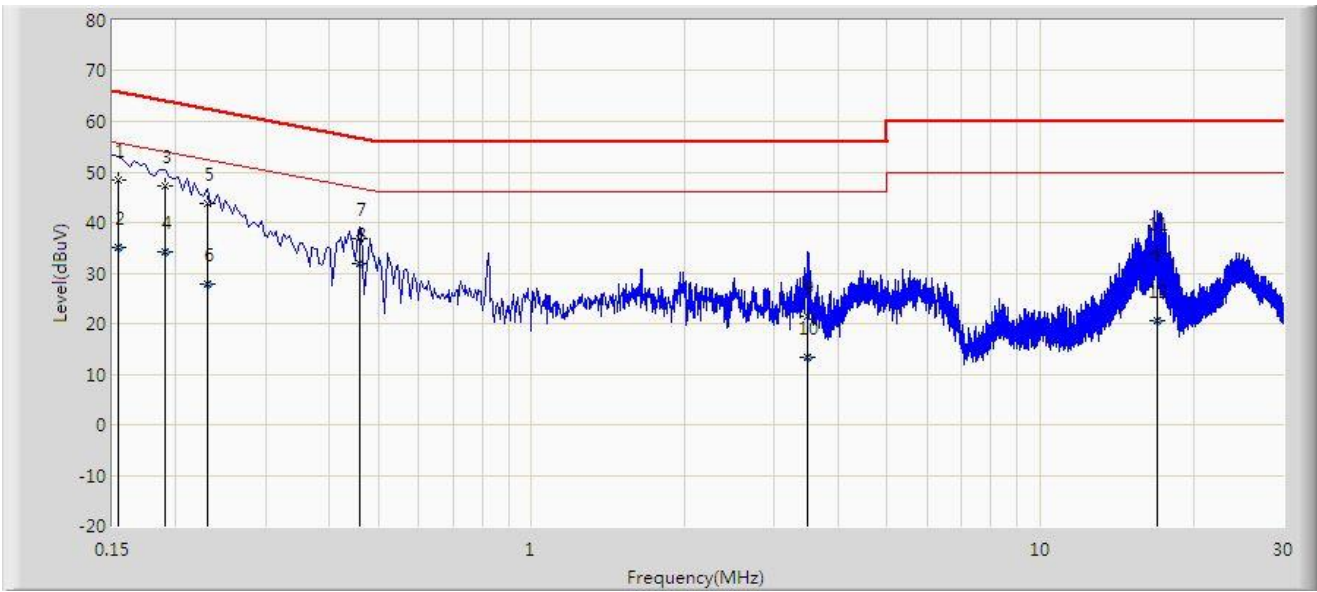
No	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1	*	0.166	50.074	40.422	-15.084	65.158	9.651	QP
2		0.166	34.088	24.436	-21.070	55.158	9.651	AV
3		0.194	45.803	36.127	-18.061	63.864	9.676	QP
4		0.194	30.697	21.021	-23.166	53.864	9.676	AV
5		0.242	40.962	31.242	-21.066	62.027	9.720	QP
6		0.242	24.032	14.312	-27.995	52.027	9.720	AV
7		0.458	35.422	25.686	-21.307	56.729	9.736	QP
8		0.458	31.227	21.491	-15.501	46.729	9.736	AV
9		3.518	19.712	9.822	-36.288	56.000	9.890	QP
10		3.518	8.911	-0.979	-37.089	46.000	9.890	AV
11		17.058	31.135	20.485	-28.865	60.000	10.650	QP
12		17.058	19.520	8.870	-30.480	50.000	10.650	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 802.11a at 5845MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1		0.154	48.462	38.810	-17.320	65.781	9.651	QP
2		0.154	34.948	25.297	-20.833	55.781	9.651	AV
3		0.190	47.292	37.629	-16.744	64.037	9.664	QP
4		0.190	34.163	24.500	-19.873	54.037	9.664	AV
5		0.230	43.759	34.055	-18.691	62.450	9.704	QP
6		0.230	27.700	17.997	-24.749	52.450	9.704	AV
7		0.458	36.719	26.989	-20.009	56.729	9.730	QP
8	*	0.458	31.811	22.081	-14.917	46.729	9.730	AV
9		3.494	21.463	11.583	-34.537	56.000	9.880	QP
10		3.494	13.271	3.391	-32.729	46.000	9.880	AV
11		16.918	33.780	23.181	-26.220	60.000	10.600	QP
12		16.918	20.631	10.032	-29.369	50.000	10.600	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 _____