RF MEASUREMENT REPORT

FCC ID:	Q9DAP21
Applicant:	Hewlett Packard Enterprise Company
Product:	ACCESS POINT
Model No.:	APIN0503
Marketing Name:	AP21
Trademark:	Hewlett Packard Enterprise , HPE aruba networking
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:	2023-09-20 ~ 2023-12-29

Reviewed By: Jame Yuan

Approved By: Robin Wu

ACCREDITED
TESTING LABORATORY
CERTIFICATE #3628.01

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. 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-U3	V01	Initial Report	2023-11-27	Invalid
2308RSU067-U3	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-U2. 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

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
Note: 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: 5180~5240MHz, 5260~5320MHz, 5500~5720MHz, 5745~5825MHz For 802.11n-HT40/ac-VHT40/ax-HE40: 5190~5230MHz, 5270~5310MHz, 5510~5710MHz, 5755~5795MHz For 802.11ac-VHT80/ax-HE80: 5210MHz, 5290MHz, 5530MHz, 5610 MHz, 5690MHz, 5775MHz	
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	☐ Supported	☒ Unsupported
Support RU	☒ Full RU	☐ Partial RU

1.6. Working Frequencies

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

Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180 MHz	40	5200 MHz	44	5220 MHz
48	5240 MHz	52	5260 MHz	56	5280 MHz
60	5300 MHz	64	5320 MHz	100	5500 MHz
104	5520 MHz	108	5540 MHz	112	5560 MHz
116	5580 MHz	120	5600 MHz	124	5620 MHz
128	5640 MHz	132	5660 MHz	136	5680 MHz
140	5700 MHz	144	5720 MHz	149	5745 MHz
153	5765 MHz	157	5785 MHz	161	5805 MHz
165	5825 MHz	--	--	--	--

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

Channel	Frequency	Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz	54	5270 MHz
62	5310 MHz	102	5510 MHz	110	5550MHz
118	5590 MHz	126	5630 MHz	134	5670 MHz
142	5710 MHz	151	5755 MHz	159	5795 MHz

802.11ac-VHT80/ax-HE80

Channel	Frequency	Channel	Frequency	Channel	Frequency
42	5210 MHz	58	5290 MHz	106	5530 MHz
122	5610 MHz	138	5690 MHz	155	5775 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 ~ 5850	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 gains, uncorrelated and correlated gains were provided by the manufacturer.

2. Test Configuration

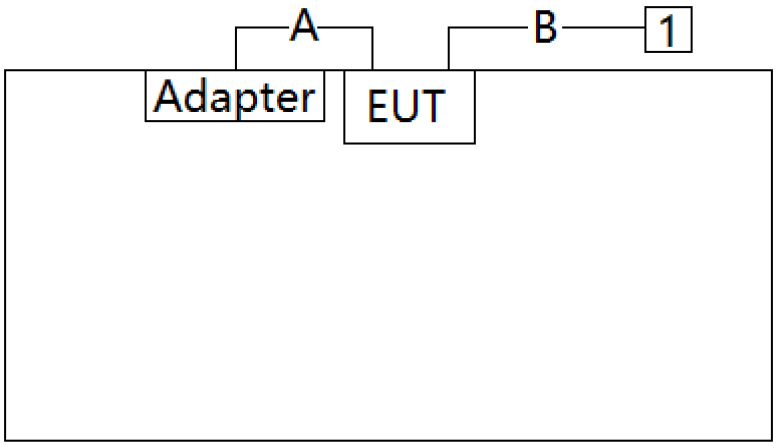
2.1. Test Mode

Mode 1: Transmit by 802.11a_ N_{SS}=1 (6Mbps)
Mode 2: Transmit by 802.11ac-VHT20_N_{SS}=1 (MCS0)
Mode 3: Transmit by 802.11ac-VHT40_N_{SS}=1 (MCS0)
Mode 4: Transmit by 802.11ac-VHT80_N_{SS}=1 (MCS0)
Mode 5: Transmit by 802.11ax-HE20_N_{SS}=1 (MCS0)
Mode 6: Transmit by 802.11ax-HE40_N_{SS}=1 (MCS0)
Mode 7: Transmit by 802.11ax-HE80_N_{SS}=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

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 15.407
- KDB 789033 D02v02r01
- 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=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)(1)(ii), (2), (3)(i)	Maximum Conducted Output Power		Pass
15.407(h)(1)	Transmit Power Control		Pass
15.407(g)	Frequency Stability		Pass
15.407(a)(1)(ii), (2), (3)(i), (12)	Peak Power Spectral Density		Pass
15.407(b)(1), (2), (3), (4)(i)	Undesirable Emissions		Pass
15.205, 15.209 15.407(b)(8), (9), (10)	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)	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. 26dB & 99% Bandwidth Measurement

6.2.1. Test Limit

N/A

6.2.2. Test Procedure

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

KDB 789033 D02v02r01- Section Ⅱ)D) (99% Bandwidth)

6.2.3. Test Setting

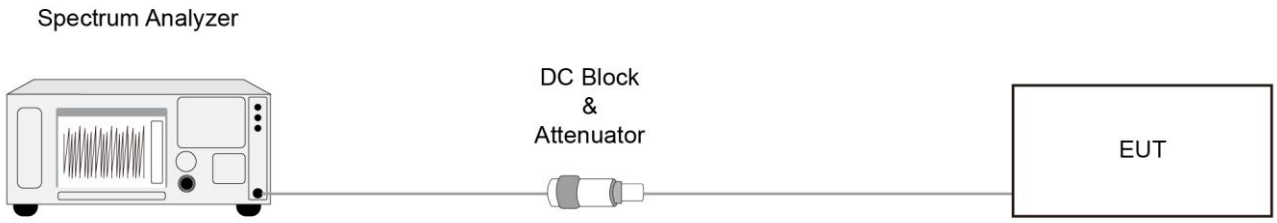
26dB Bandwidth

1. The analyzers' automatic bandwidth measurement capability was used to perform the 26dB bandwidth
2. RBW = approximately 1% of the emission bandwidth.
3. VBW > RBW
4. Detector = Peak.
5. Trace mode = max hold.
6. Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

99% Bandwidth

1. Set center frequency to the nominal EUT channel center frequency.
2. RBW = 1% to 5% of the OBW
3. VBW ≥ 3 × RBW
4. Span = 1.5 times to 5 times the OBW
5. Detector = peak
6. Trace mode = max hold
7. Allow the trace to stabilize
8. 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 6dBbandwidth shall be at least 500 kHz.

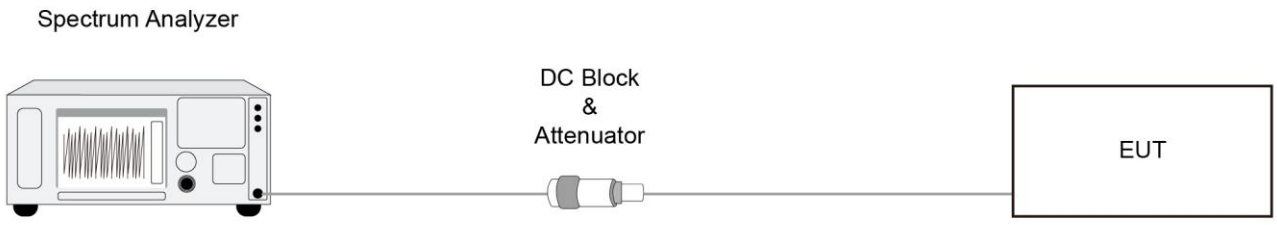
6.3.2. Test Procedure

KDB 789033 D02v02r01- Section II)C)2)

6.3.3. Test Setting

1. Set center frequency to the nominal EUT channel center frequency.
2. RBW = 100 kHz.
3. VBW ≥ 3 × 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 the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm).

If transmitting antennas of directional gain greater than 6dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

6.4.2. Test Procedure

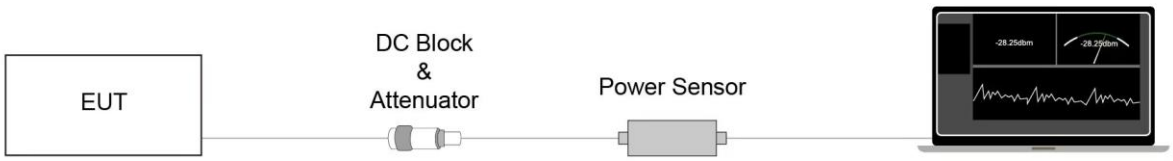
KDB 789033D02v02r01- Section II)E)3)b) Method PM-G

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. Transmit Power Control Measurement

6.5.1. Test Limit

The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm.

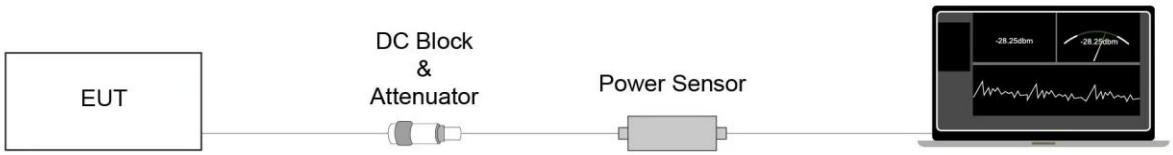
6.5.2. Test Procedure

KDB 789033 D02v01- Section II)E)3)b) Method PM-G

6.5.3. Test Setting

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. The trace was averaged over 100 traces to obtain the final measured average power.

6.5.4. Test Setup



6.5.5. Test Result

Device supports TPC mechanism, details refer to the operational description.

6.6. Power Spectral Density Measurement

6.6.1. Test Limit

For the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

If transmitting antennas of directional gain greater than 6dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

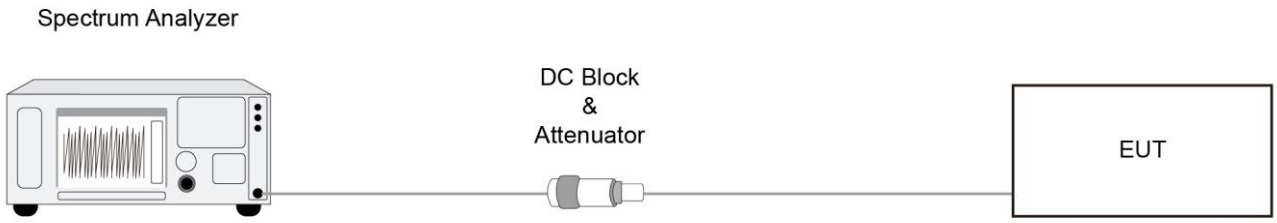
6.6.2. Test Procedure

KDB 789033 D02v02r01-Section Ⅱ)F)

6.6.3. 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 (510kHz, if measurement bandwidth of Maximum PSD is specified in 500 kHz)
4. VBW = 3 × RBW
5. Number of sweep points ≥ 2 × (span / RBW)
6. Detector = power averaging (Average)
7. Sweep time = auto
8. Trigger = free run
9. Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed to ensure that the average accurately represents the true average over the on and off periods of the transmitter.
10. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
11. Add 10*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*log(1/0.25) = 6 dB if the duty cycle is 25 percent.

6.6.4. Test Setup



6.6.5. Test Result

Refer to Appendix A.5.

6.7. Frequency Stability Measurement

6.7.1. 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.

6.7.2. Test Procedure

Frequency Stability Under Temperature Variations:

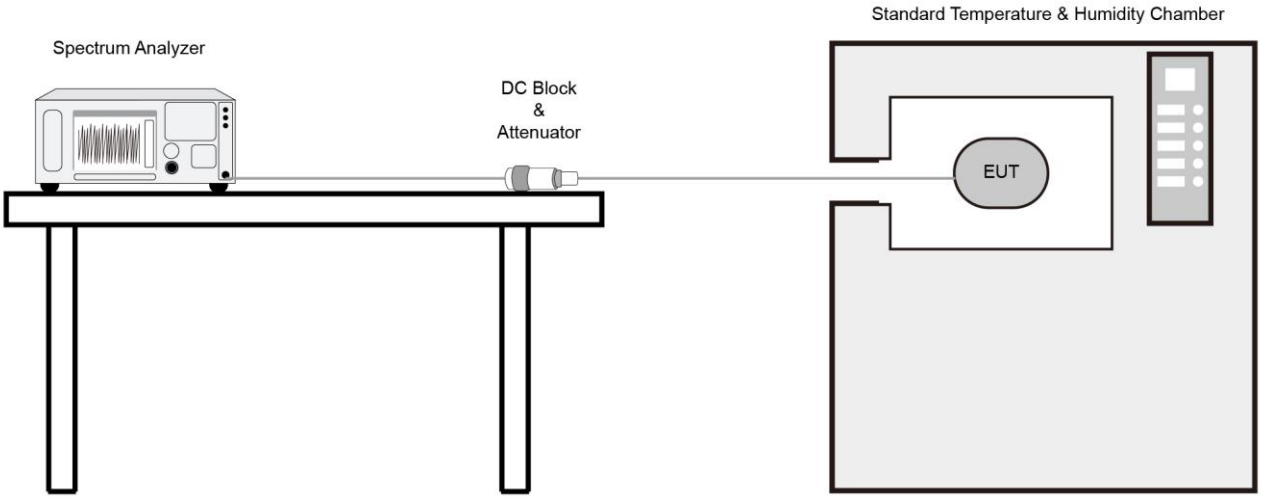
The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain 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 (±15%) and endpoint, recordthe maximum frequency change.

6.7.3. Test Setup



6.7.4. Test Result

Refer to Appendix A.6.

6.8. Radiated Spurious Emission Measurement

6.8.1. 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 [μV/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 II (G)

6.8.3. 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 ≥ 98%, set VBW = 10 Hz.

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

802.11a 6Mbps	VBW = 470Hz	802.11ac-VHT20 MCS0	VBW = 10Hz
802.11ac-VHT40 MCS0	VBW = 1kHz	802.11ac-VHT80 MCS0	VBW = 2.2KHz
802.11ax-HE20 MCS0	VBW = 680Hz	802.11ax-HE40 MCS0	VBW = 1.3kHz
802.11ax-HE80 MCS0	VBW = 2.4kHz		

4. Detector = Peak

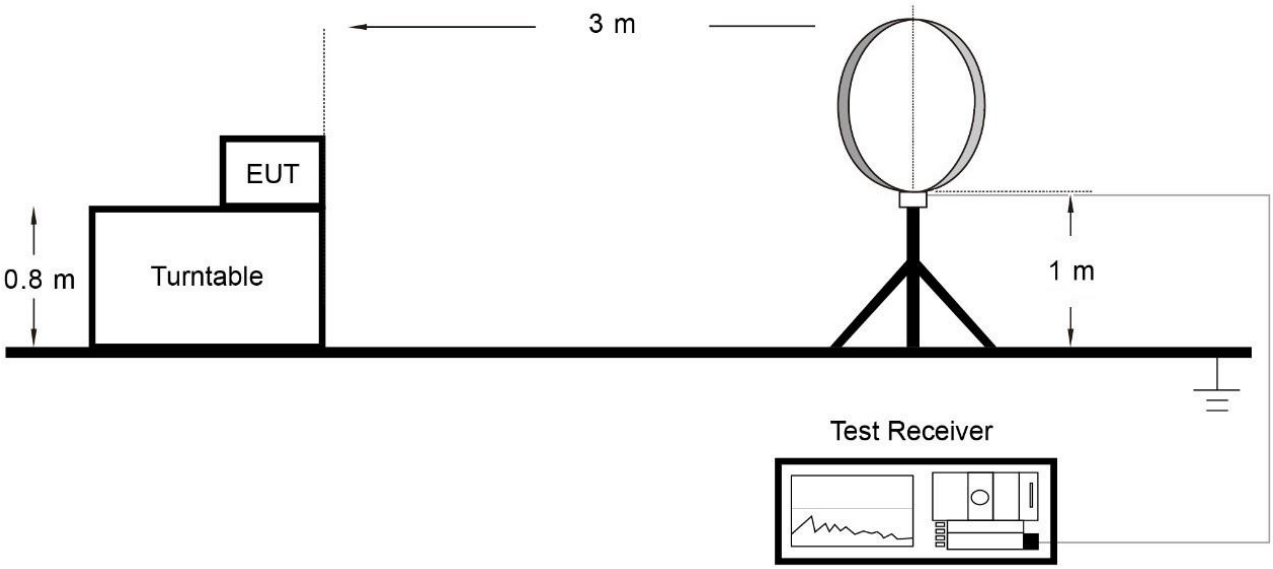
5. Sweep time = auto

6. Trace mode = max hold

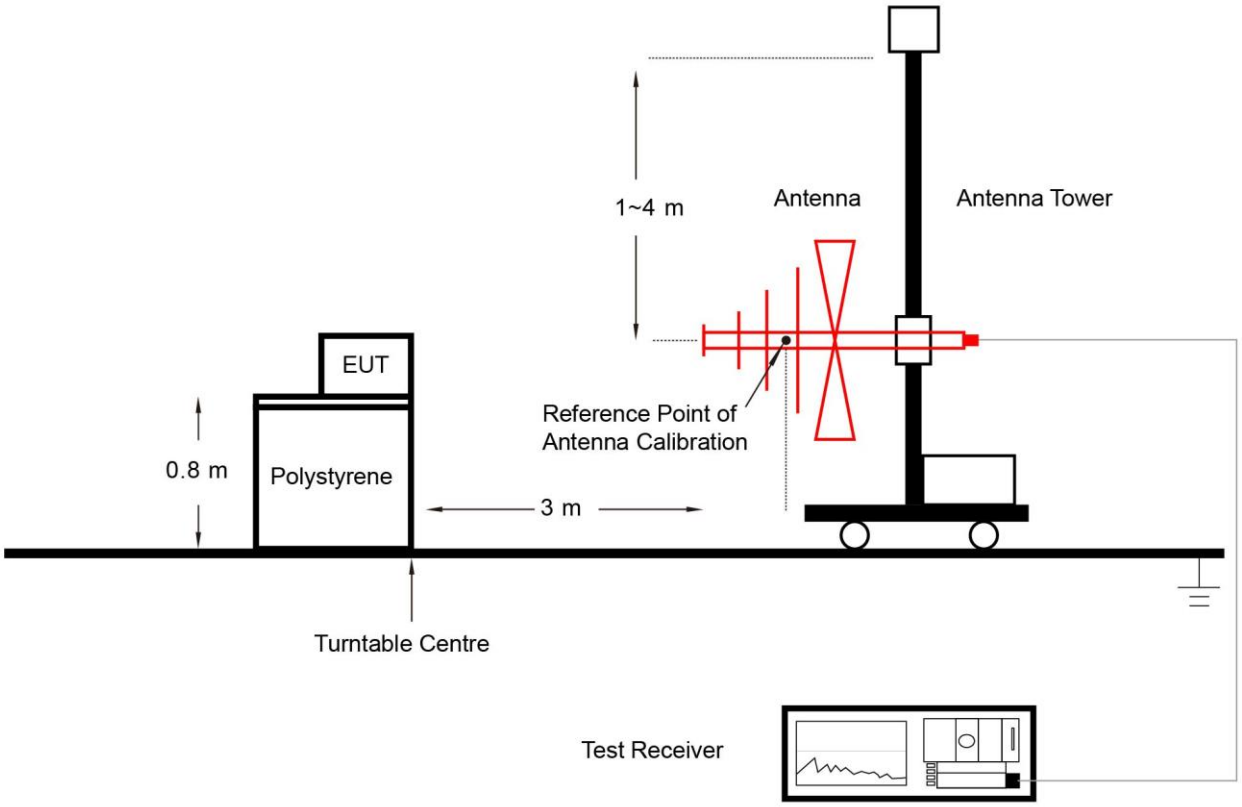
7. Trace was allowed to stabilize

6.8.4. Test Setup

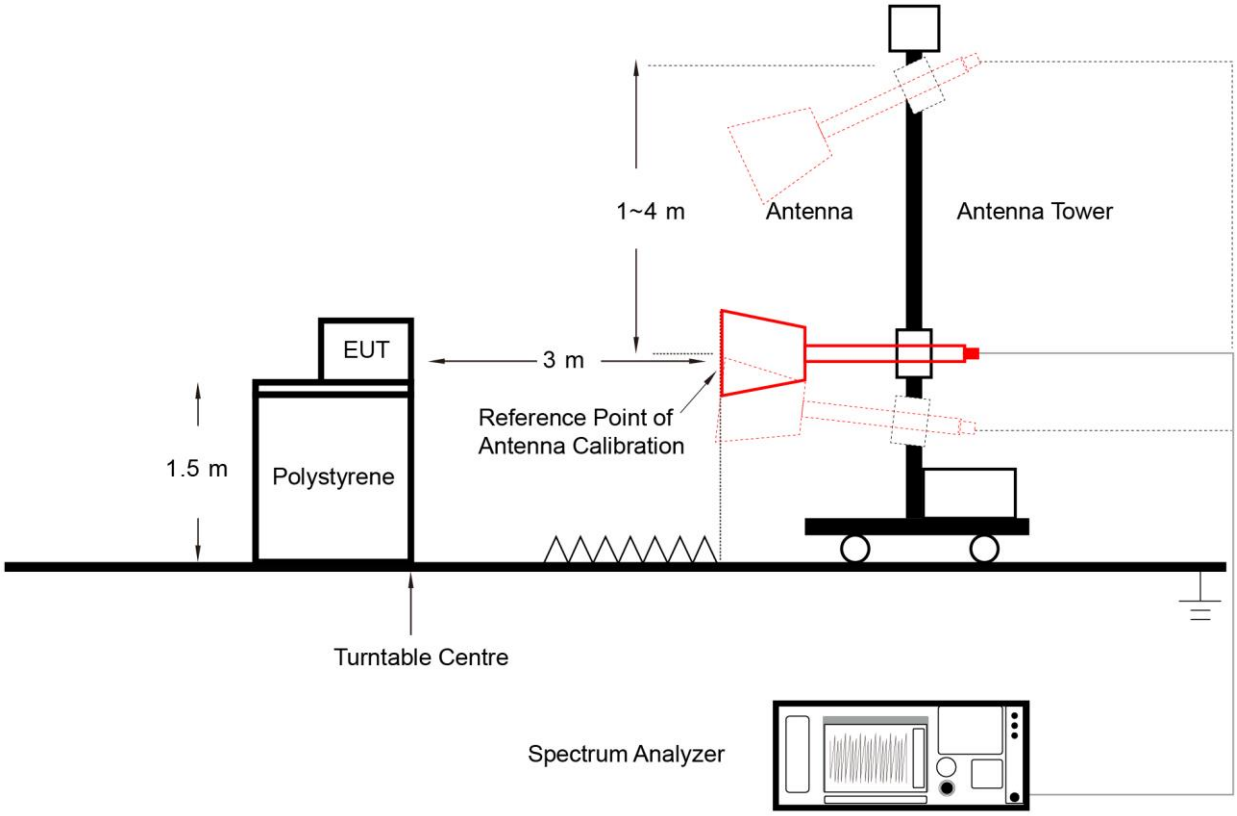
Below 30MHz Test Setup:



Below 1GHz Test Setup:



Above 1GHz Test Setup:



6.8.5. Test Result

Refer to Appendix A.7.

6.9. Radiated Restricted Band Edge Measurement

6.9.1. 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 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

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.

Refer to KDB 789033 D02v02r01 G)2)c), as specified in § 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a maximum emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in § 15.407(b)(4)). However, an out-of-band emission that complies with both the peak and average limits of § 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz maximum emission limit.

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 [μV/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

6.9.2. Test Procedure

KDB 789033 D02v02r01- Section II (G)

6.9.3. 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

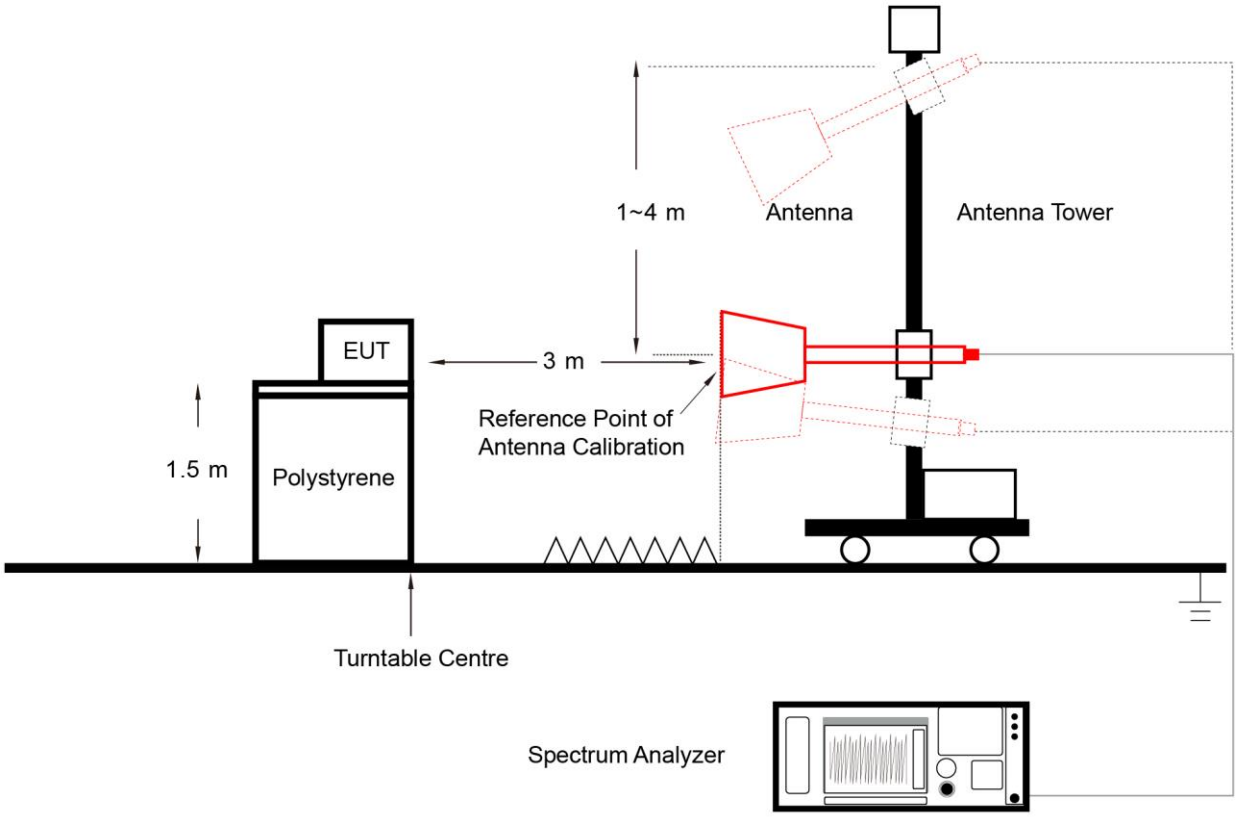
Average Measurements above 1GHz (Method VB)

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

802.11a 6Mbps	VBW = 470Hz	802.11ac-VHT20 MCS0	VBW = 10Hz
802.11ac-VHT40 MCS0	VBW = 1kHz	802.11ac-VHT80 MCS0	VBW = 2.2KHz
802.11ax-HE20 MCS0	VBW = 680Hz	802.11ax-HE40 MCS0	VBW = 1.3kHz
802.11ax-HE80 MCS0	VBW = 2.4kHz		

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

6.9.4. Test Setup



6.9.5. Test Result

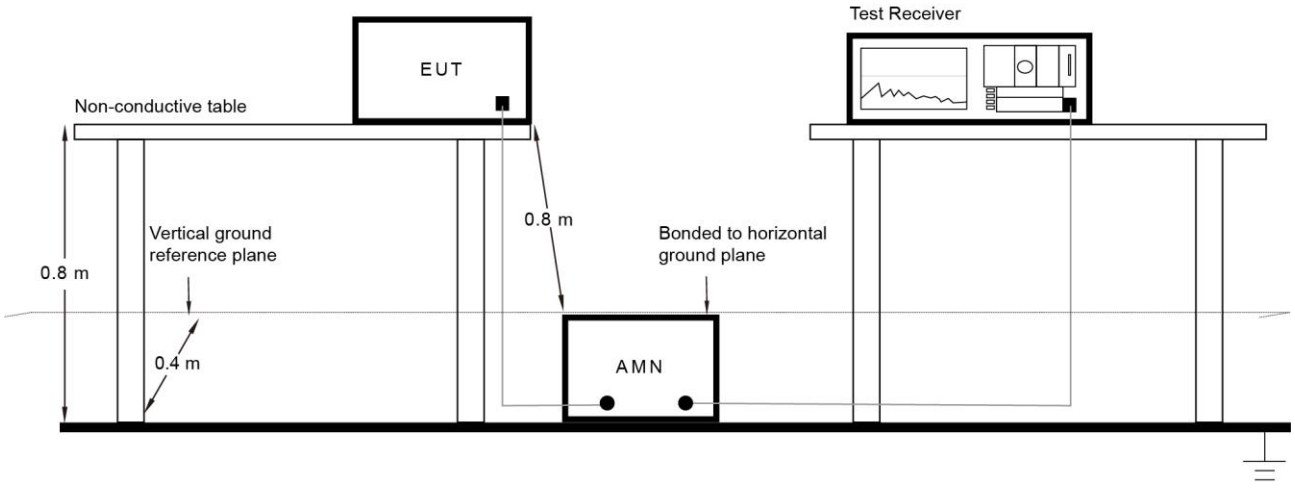
Refer to Appendix A.8.

6.10. AC Conducted Emissions Measurement

6.10.1. 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.		

6.10.2. Test Setup



6.10.3. Test Result

Refer to Appendix A.9.

Appendix A – Test Result

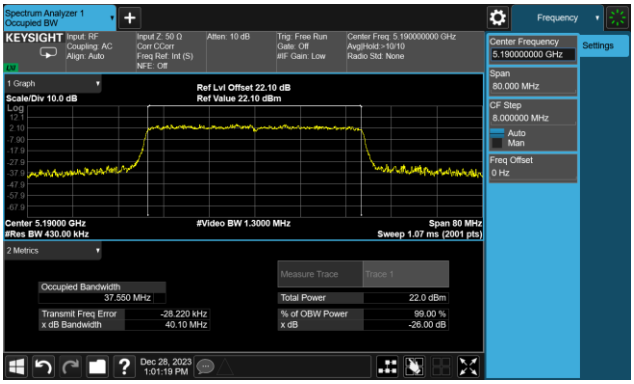
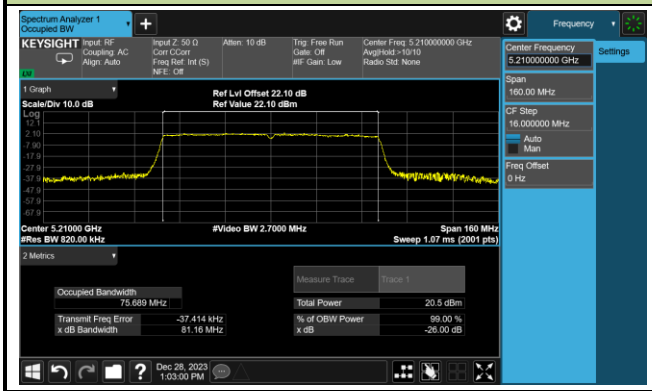
A.1 Duty Cycle Test Result

Refer to MRT report no. 2212RSU034-U2 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		

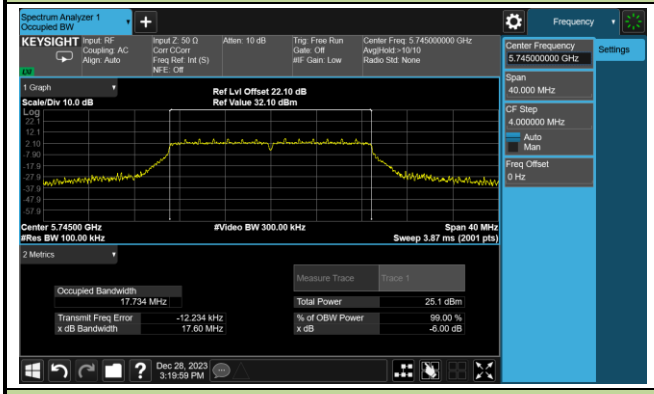
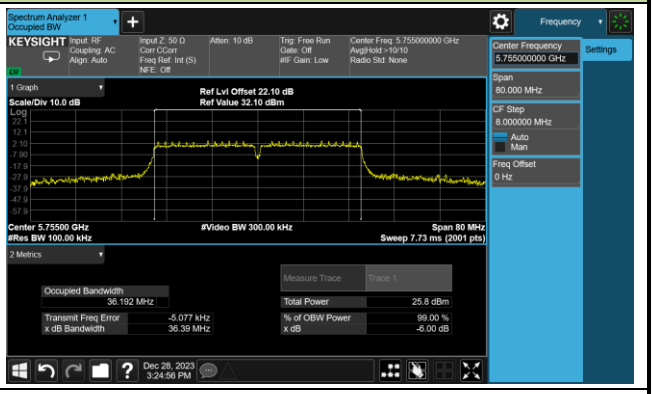
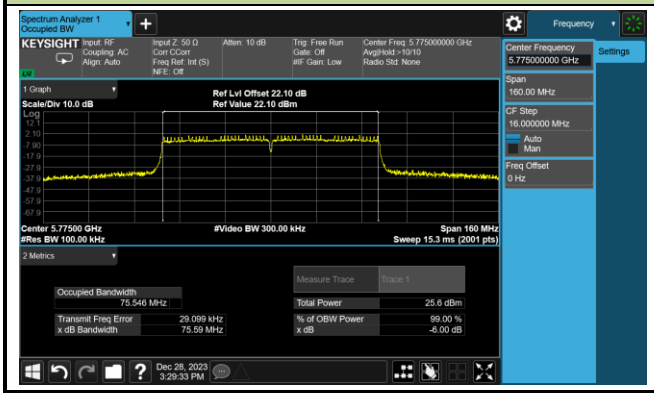
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
11ax-HE20	MCS0	36	5180	21.50	19.048
11ax-HE40	MCS0	38	5190	40.10	37.550
11ax-HE80	MCS0	42	5210	81.16	75.689

26dB & 99% Bandwidth	
802.11ax-HE20 Channel 36 (5180MHz)	802.11ax-HE40 Channel 38 (5190MHz)
	
802.11ax-HE80 Channel 42 (5210MHz)	
	

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)
11ac-VHT20	MCS0	149	5745	17.60	≥0.5
11ac-VHT40	MCS0	151	5755	36.39	≥0.5
11ac-VHT80	MCS0	155	5775	75.59	≥0.5

26dB & 99% Bandwidth	
802.11ac-VHT20 Channel 149 (5745MHz)	802.11ac-VHT40 Channel 151 (5755MHz)
	
802.11ac-VHT80 Channel 155 (5775MHz)	
	

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)	Limit (dBm)
				Ant 0	Ant 1		
a	6Mbps	36	5180	16.60	16.38	19.50	≤ 30.00
a	6Mbps	100	5500	14.56	14.41	17.50	≤ 23.98
a	6Mbps	149	5745	17.85	17.90	20.89	≤ 30.00
ac-VHT20	MCS0	100	5500	15.34	15.27	18.32	≤ 23.98
ac-VHT20	MCS0	149	5745	17.81	17.83	20.83	≤ 30.00
ac-VHT40	MCS0	151	5755	17.95	17.92	20.95	≤ 30.00
ac-VHT80	MCS0	42	5210	13.62	13.04	16.35	≤ 30.00
ac-VHT80	MCS0	106	5530	13.28	12.91	16.11	≤ 23.98
ac-VHT80	MCS0	155	5775	17.67	17.82	20.76	≤ 30.00
ax-HE20	MCS0	36	5180	17.15	17.06	20.12	≤ 30.00
ax-HE40	MCS0	38	5190	13.84	13.46	16.66	≤ 30.00
ax-HE40	MCS0	102	5510	13.68	13.77	16.74	≤ 23.98

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

A.5 Power Spectral Density Test Result

Test Site	SIP-TR1	Test Engineer	Alisa Deng
Test Date	2023-12-28		
Test Item	Power Spectral Density (UNII-Band 1)		
Remark	Spot Check		

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	AVPSD (dBm/ MHz)		Duty Cycle (%)	Total PSD (dBm/ MHz)	PSD Limit (dBm/MHz)
				Ant 0	Ant 1			
11ax-HE20	MCS0	36	5180	4.081	3.570	97.76	6.94	≤ 15.90
11ax-HE40	MCS0	38	5190	-1.158	-1.138	95.93	2.04	≤ 15.90
11ac-VHT80	MCS0	42	5210	-4.443	-5.188	92.45	-1.45	≤ 15.90

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

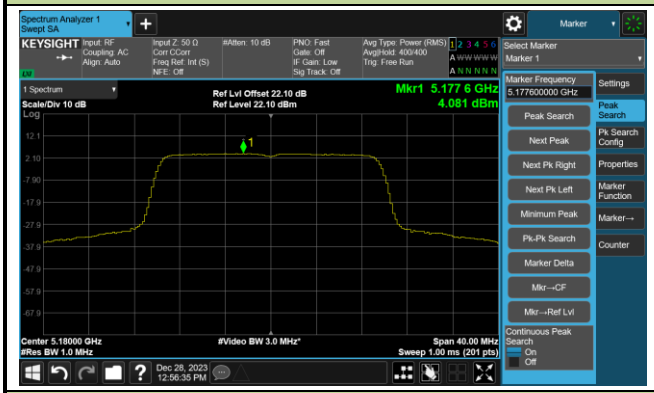
When EUT duty cycle ≥ 98%, the total PSD (dBm/MHz) =10*log {$10^{(\text{Ant 0 AVGPSD}/10)}$ + $10^{(\text{Ant 1 AVGPSD}/10)}$}.

Note 2:

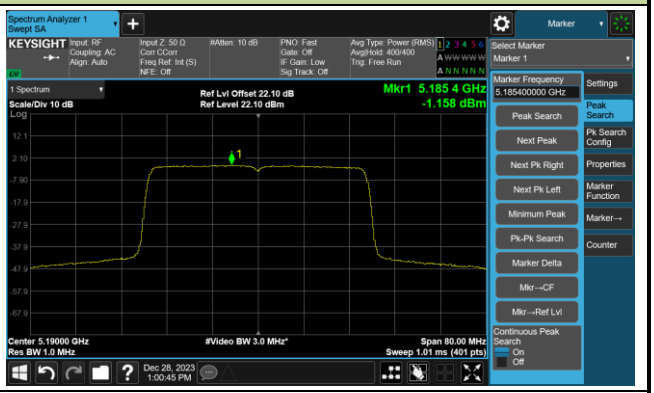
For 5125 - 5250MHz Band: PSD Limit (dBm/MHz) = 17 - (7.10 - 6) = 15.90dBm/MHz

Power Spectral Density- Ant 0

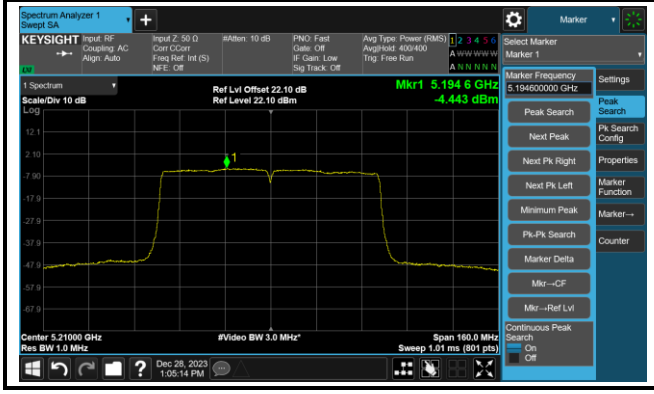
802.11ax-HE20 Channel 36 (5180MHz)

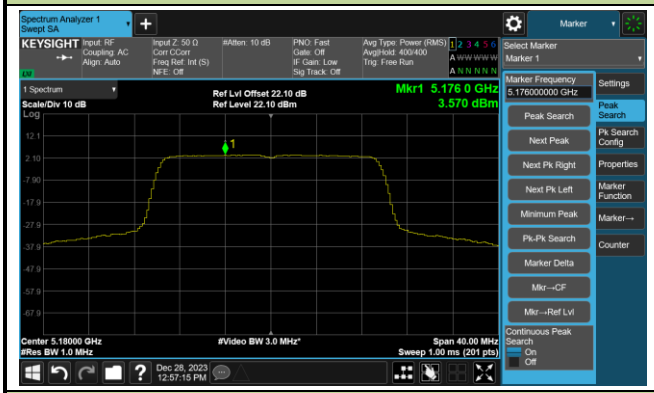
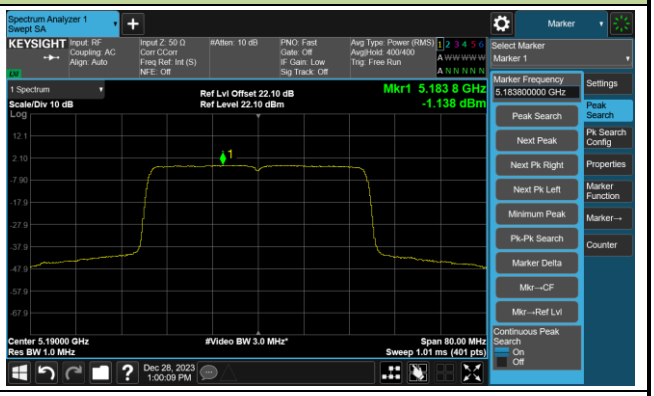
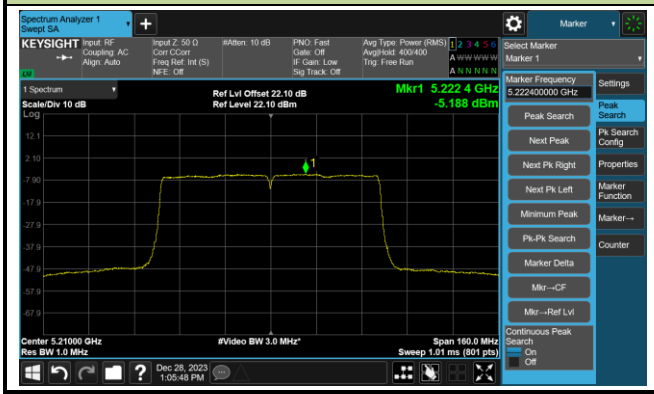


802.11ax-HE40 Channel 38 (5190MHz)



802.11ac-VHT80 Channel 42 (5210MHz)



Power Spectral Density- Ant 1	
802.11ax-HE20 Channel 36 (5180MHz)	802.11ax-HE40 Channel 38 (5190MHz)
	
802.11ac-VHT80 Channel 42 (5210MHz)	
	

A.6 Frequency Stability Test Result

Test Site	SIP-TR1	Test Engineer	Alisa Deng
Test Date	2023-12-29	Test Mode	5180MHz (Carrier Mode)
Remark	Spot Check		

Voltage (%)	Power (VAC)	Temp (°C)	Frequency Tolerance (ppm)			
			0 minutes	2 minutes	5 minutes	10 minutes
100	120	- 20	11.80	11.73	11.61	11.61

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

A.7 Radiated Spurious Emission Test Result

Test Site	SIP-AC3	Test Engineer	Fusco Pan
Test Date	2023-09-20	Test Mode	Transmit by 802.11a_NSS=1 (6Mbps) – Channel 36 – 5180MHz
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		

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB/m)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	10095.0	48.0	-1.6	46.4	68.2	-21.8	Peak	Horizontal
	11064.0	49.2	-1.6	47.6	74.0	-26.4	Peak	Horizontal
*	14166.5	46.7	3.4	50.1	68.2	-18.1	Peak	Horizontal
	15875.0	33.8	5.1	38.9	54.0	-15.1	Average	Horizontal
*	10120.5	48.1	-1.5	46.6	68.2	-21.6	Peak	Vertical
	11718.5	49.1	-1.7	47.4	74.0	-26.6	Peak	Vertical
*	14149.5	47.4	3.0	50.4	68.2	-17.8	Peak	Vertical
	15883.5	45.7	5.1	50.8	74.0	-23.2	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

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	2023-09-20	Test Mode	Transmit by 802.11a_NSS=1 (6Mbps) – Channel 100 – 5500MHz
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		

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB/m)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	8327.0	48.4	-3.4	45.0	74.0	-29.0	Peak	Horizontal
*	9984.5	48.0	-1.5	46.5	68.2	-21.7	Peak	Horizontal
	11531.5	48.7	-1.5	47.2	74.0	-26.8	Peak	Horizontal
*	13682.0	48.7	1.5	50.2	68.2	-18.0	Peak	Horizontal
	8429.0	48.7	-3.2	45.5	74.0	-28.5	Peak	Vertical
*	10154.5	48.3	-1.6	46.7	68.2	-21.5	Peak	Vertical
	12288.0	49.5	-1.7	47.8	74.0	-26.2	Peak	Vertical
*	14158.0	47.2	3.1	50.3	68.2	-17.9	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

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	2023-09-20	Test Mode	Transmit by 802.11a_NSS=1 (6Mbps) – Channel 149 – 5745MHz
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		

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB/m)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	8250.5	48.8	-3.2	45.6	74.0	-28.4	Peak	Horizontal
*	10035.5	48.5	-1.7	46.8	68.2	-21.4	Peak	Horizontal
	11514.5	49.0	-1.6	47.4	74.0	-26.6	Peak	Horizontal
*	13869.0	47.3	2.5	49.8	68.2	-18.4	Peak	Horizontal
	8480.0	50.0	-3.0	47.0	74.0	-27.0	Peak	Vertical
*	10035.5	48.0	-1.7	46.3	68.2	-21.9	Peak	Vertical
	10613.5	48.1	-1.3	46.8	74.0	-27.2	Peak	Vertical
*	14149.5	47.1	3.0	50.1	68.2	-18.1	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

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	2023-09-20	Test Mode	Transmit by802.11ac-VHT20_NSS=1 (MCS0) – Channel 36 – 5180MHz
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		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	8420.5	49.2	-3.2	46.0	74.0	-28.0	Peak	Horizontal
*	10137.5	48.7	-1.5	47.2	68.2	-21.0	Peak	Horizontal
	12449.5	49.0	-1.4	47.6	74.0	-26.4	Peak	Horizontal
*	14226.0	47.5	3.0	50.5	68.2	-17.7	Peak	Horizontal
	8412.0	49.1	-3.2	45.9	74.0	-28.1	Peak	Vertical
*	10095.0	48.8	-1.6	47.2	68.2	-21.0	Peak	Vertical
	12067.0	48.9	-1.6	47.3	74.0	-26.7	Peak	Vertical
*	14234.5	47.3	2.9	50.2	68.2	-18.0	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

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	2023-09-20	Test Mode	Transmit by802.11ac-VHT20_NSS=1 (MCS0) – Channel 100 – 5500MHz
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		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	8242.0	48.9	-3.2	45.7	74.0	-28.3	Peak	Horizontal
*	10231.0	47.2	-1.4	45.8	68.2	-22.4	Peak	Horizontal
	11234.0	49.2	-1.5	47.7	74.0	-26.3	Peak	Horizontal
*	14166.5	46.3	3.4	49.7	68.2	-18.5	Peak	Horizontal
	8488.5	48.9	-3.0	45.9	74.0	-28.1	Peak	Vertical
*	10137.5	48.0	-1.5	46.5	68.2	-21.7	Peak	Vertical
	12279.5	49.6	-1.7	47.9	74.0	-26.1	Peak	Vertical
*	14175.0	46.6	3.7	50.3	68.2	-17.9	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

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	2023-09-20	Test Mode	Transmit by802.11ac-VHT20_NSS=1 (MCS0) – Channel 149 – 5745MHz
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		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	8361.0	49.2	-3.4	45.8	74.0	-28.2	Peak	Horizontal
*	10103.5	48.6	-1.6	47.0	68.2	-21.2	Peak	Horizontal
	12322.0	49.3	-1.5	47.8	74.0	-26.2	Peak	Horizontal
*	14090.0	47.5	3.0	50.5	68.2	-17.7	Peak	Horizontal
	8446.0	48.8	-3.2	45.6	74.0	-28.4	Peak	Vertical
*	10035.5	47.9	-1.7	46.2	68.2	-22.0	Peak	Vertical
	11455.0	48.8	-1.5	47.3	74.0	-26.7	Peak	Vertical
*	14166.5	46.3	3.4	49.7	68.2	-18.5	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

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	2023-09-20	Test Mode	Transmit by802.11ac-VHT40_NSS=1 (MCS0) – Channel 38 – 5190MHz
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		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	8471.5	48.6	-3.1	45.5	74.0	-28.5	Peak	Horizontal
*	10324.5	47.6	-1.2	46.4	68.2	-21.8	Peak	Horizontal
	12135.0	49.5	-1.7	47.8	74.0	-26.2	Peak	Horizontal
*	14081.5	46.8	2.9	49.7	68.2	-18.5	Peak	Horizontal
	8412.0	48.7	-3.2	45.5	74.0	-28.5	Peak	Vertical
*	9678.5	47.4	-2.0	45.4	68.2	-22.8	Peak	Vertical
	11157.5	47.8	-1.3	46.5	74.0	-27.5	Peak	Vertical
*	13877.5	47.0	2.5	49.5	68.2	-18.7	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

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	2023-09-20	Test Mode	Transmit by802.11ac-VHT40_NSS=1 (MCS0) – Channel 102 – 5510MHz
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		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	8225.0	49.7	-3.3	46.4	74.0	-27.6	Peak	Horizontal
*	10154.5	48.0	-1.6	46.4	68.2	-21.8	Peak	Horizontal
	12007.5	49.0	-1.8	47.2	74.0	-26.8	Peak	Horizontal
*	14166.5	46.9	3.4	50.3	68.2	-17.9	Peak	Horizontal
	8344.0	48.2	-3.4	44.8	74.0	-29.2	Peak	Vertical
*	10282.0	48.2	-1.4	46.8	68.2	-21.4	Peak	Vertical
	12313.5	49.1	-1.4	47.7	74.0	-26.3	Peak	Vertical
*	13971.0	47.5	2.6	50.1	68.2	-18.1	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

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	2023-09-20	Test Mode	Transmit by802.11ac-VHT40_NSS=1 (MCS0) – Channel 151 – 5755MHz
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		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	8157.0	48.9	-3.4	45.5	74.0	-28.5	Peak	Horizontal
	10605.0	48.6	-1.1	47.5	74.0	-26.5	Peak	Horizontal
	11795.0	48.4	-2.0	46.4	74.0	-27.6	Peak	Horizontal
*	13767.0	48.9	2.1	51.0	68.2	-17.2	Peak	Horizontal
	8267.5	48.8	-3.3	45.5	74.0	-28.5	Peak	Vertical
*	9959.0	48.6	-1.6	47.0	68.2	-21.2	Peak	Vertical
	11948.0	48.6	-1.6	47.0	74.0	-27.0	Peak	Vertical
*	14175.0	46.4	3.7	50.1	68.2	-18.1	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

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	2023-09-20	Test Mode	Transmit by802.11ac-VHT80_NSS=1 (MCS0) – Channel 42 – 5210MHz
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		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	8276.0	48.9	-3.3	45.6	74.0	-28.4	Peak	Horizontal
*	10069.5	48.5	-1.5	47.0	68.2	-21.2	Peak	Horizontal
	11421.0	48.3	-1.5	46.8	74.0	-27.2	Peak	Horizontal
*	14175.0	45.9	3.7	49.6	68.2	-18.6	Peak	Horizontal
	8225.0	49.1	-3.3	45.8	74.0	-28.2	Peak	Vertical
*	10129.0	47.7	-1.4	46.3	68.2	-21.9	Peak	Vertical
	11948.0	48.8	-1.6	47.2	74.0	-26.8	Peak	Vertical
*	14149.5	46.8	3.0	49.8	68.2	-18.4	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

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	2023-09-20	Test Mode	Transmit by802.11ac-VHT80_NSS=1 (MCS0) – Channel 151 – 5530MHz
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		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	8412.0	49.3	-3.2	46.1	74.0	-27.9	Peak	Horizontal
*	10435.0	48.3	-1.3	47.0	68.2	-21.2	Peak	Horizontal
	12415.5	48.4	-1.0	47.4	74.0	-26.6	Peak	Horizontal
*	14183.5	47.2	3.2	50.4	68.2	-17.8	Peak	Horizontal
	8216.5	48.7	-3.2	45.5	74.0	-28.5	Peak	Vertical
*	10324.5	47.8	-1.2	46.6	68.2	-21.6	Peak	Vertical
	11727.0	48.8	-1.7	47.1	74.0	-26.9	Peak	Vertical
*	13775.5	47.6	2.1	49.7	68.2	-18.5	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

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	2023-09-20	Test Mode	Transmit by802.11ac-VHT80_NSS=1 (MCS0) – Channel 155 – 5775MHz
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		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	8284.5	48.5	-3.3	45.2	74.0	-28.8	Peak	Horizontal
*	10231.0	47.8	-1.4	46.4	68.2	-21.8	Peak	Horizontal
	11718.5	49.0	-1.7	47.3	74.0	-26.7	Peak	Horizontal
*	14183.5	46.7	3.2	49.9	68.2	-18.3	Peak	Horizontal
	8488.5	49.1	-3.0	46.1	74.0	-27.9	Peak	Vertical
*	9959.0	48.4	-1.6	46.8	68.2	-21.4	Peak	Vertical
	11523.0	48.6	-1.5	47.1	74.0	-26.9	Peak	Vertical
*	13699.0	47.7	1.7	49.4	68.2	-18.8	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

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	2023-09-20	Test Mode	Transmit by 802.11ax-HE20_NSS=1 (MCS0) – Channel 36 – 5180MHz
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		

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB/m)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	8225.0	49.0	-3.3	45.7	74.0	-28.3	Peak	Horizontal
*	9967.5	48.4	-1.6	46.8	68.2	-21.4	Peak	Horizontal
	11727.0	49.5	-1.7	47.8	74.0	-26.2	Peak	Horizontal
*	14243.0	47.0	2.8	49.8	68.2	-18.4	Peak	Horizontal
	8242.0	49.0	-3.2	45.8	74.0	-28.2	Peak	Vertical
*	10086.5	48.1	-1.6	46.5	68.2	-21.7	Peak	Vertical
	12296.5	48.6	-1.5	47.1	74.0	-26.9	Peak	Vertical
*	13758.5	47.5	2.1	49.6	68.2	-18.6	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

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	2023-09-20	Test Mode	Transmit by802.11ax-HE20_NSS=1 (MCS0) – Channel 100 – 5500MHz
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		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	8412.0	49.1	-3.2	45.9	74.0	-28.1	Peak	Horizontal
*	9993.0	47.4	-1.5	45.9	68.2	-22.3	Peak	Horizontal
	12177.5	48.6	-1.6	47.0	74.0	-27.0	Peak	Horizontal
*	14175.0	45.9	3.7	49.6	68.2	-18.6	Peak	Horizontal
	8199.5	48.6	-3.3	45.3	74.0	-28.7	Peak	Vertical
*	9984.5	47.6	-1.5	46.1	68.2	-22.1	Peak	Vertical
	12101.0	49.0	-1.8	47.2	74.0	-26.8	Peak	Vertical
*	14081.5	46.7	2.9	49.6	68.2	-18.6	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

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	2023-09-20	Test Mode	Transmit by802.11ax-HE20_NSS=1 (MCS0) – Channel 149 – 5745MHz
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		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	8208.0	48.7	-3.1	45.6	74.0	-28.4	Peak	Horizontal
*	10154.5	48.4	-1.6	46.8	68.2	-21.4	Peak	Horizontal
	12279.5	49.6	-1.7	47.9	74.0	-26.1	Peak	Horizontal
*	14175.0	45.8	3.7	49.5	68.2	-18.7	Peak	Horizontal
	8318.5	48.9	-3.3	45.6	74.0	-28.4	Peak	Vertical
*	10520.0	47.7	-1.3	46.4	68.2	-21.8	Peak	Vertical
	11642.0	48.8	-1.7	47.1	74.0	-26.9	Peak	Vertical
*	14209.0	46.9	3.0	49.9	68.2	-18.3	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

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	2023-09-20	Test Mode	Transmit by802.11ax-HE40_NSS=1 (MCS0) – Channel 38 – 5190MHz
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		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	10358.5	47.1	-1.6	45.5	68.2	-22.7	Peak	Horizontal
	11710.0	47.9	-1.6	46.3	74.0	-27.7	Peak	Horizontal
*	13979.5	46.6	2.6	49.2	68.2	-19.0	Peak	Horizontal
	15569.0	44.6	4.6	49.2	74.0	-24.8	Peak	Horizontal
*	9644.5	47.6	-2.1	45.5	68.2	-22.7	Peak	Vertical
	11429.5	46.3	-1.5	44.8	74.0	-29.2	Peak	Vertical
*	14183.5	46.1	3.2	49.3	68.2	-18.9	Peak	Vertical
	15688.0	44.1	4.8	48.9	74.0	-25.1	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

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	2023-09-20	Test Mode	Transmit by802.11ax-HE40_NSS=1 (MCS0) – Channel 102 – 5510MHz
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		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	10129.0	46.9	-1.4	45.5	68.2	-22.7	Peak	Horizontal
	11455.0	47.5	-1.5	46.0	74.0	-28.0	Peak	Horizontal
*	14081.5	46.3	2.9	49.2	68.2	-19.0	Peak	Horizontal
	15713.5	44.7	4.8	49.5	74.0	-24.5	Peak	Horizontal
*	10146.0	47.1	-1.6	45.5	68.2	-22.7	Peak	Vertical
	11055.5	47.6	-1.5	46.1	74.0	-27.9	Peak	Vertical
*	14073.0	45.7	2.9	48.6	68.2	-19.6	Peak	Vertical
	16011.0	45.2	5.1	50.3	74.0	-23.7	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

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	2023-09-20	Test Mode	Transmit by802.11ax-HE40_NSS=1 (MCS0) – Channel 151 – 5755MHz
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		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	10333.0	46.9	-1.2	45.7	68.2	-22.5	Peak	Horizontal
	11140.5	47.0	-1.4	45.6	74.0	-28.4	Peak	Horizontal
*	13979.5	46.6	2.6	49.2	68.2	-19.0	Peak	Horizontal
	15552.0	45.3	4.5	49.8	74.0	-24.2	Peak	Horizontal
*	10384.0	48.0	-1.5	46.5	68.2	-21.7	Peak	Vertical
	11523.0	47.4	-1.5	45.9	74.0	-28.1	Peak	Vertical
*	14056.0	45.9	3.0	48.9	68.2	-19.3	Peak	Vertical
	15696.5	45.6	4.9	50.5	74.0	-23.5	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

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	2023-09-20	Test Mode	Transmit by802.11ax-HE80_NSS=1 (MCS0) – Channel 42 – 5210MHz
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		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	10112.0	47.6	-1.6	46.0	68.2	-22.2	Peak	Horizontal
	12407.0	47.2	-1.2	46.0	74.0	-28.0	Peak	Horizontal
*	14175.0	45.3	3.7	49.0	68.2	-19.2	Peak	Horizontal
	15679.5	44.8	4.7	49.5	74.0	-24.5	Peak	Horizontal
*	9661.5	47.2	-2.0	45.2	68.2	-23.0	Peak	Vertical
	11123.5	47.3	-1.4	45.9	74.0	-28.1	Peak	Vertical
*	14064.5	45.8	2.9	48.7	68.2	-19.5	Peak	Vertical
	15696.5	44.2	4.9	49.1	74.0	-24.9	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

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	2023-09-20	Test Mode	Transmit by802.11ax-HE80_NSS=1 (MCS0) – Channel 151 – 5530MHz
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		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	10307.5	46.8	-1.5	45.3	68.2	-22.9	Peak	Horizontal
	11608.0	47.5	-1.6	45.9	74.0	-28.1	Peak	Horizontal
*	14175.0	45.5	3.7	49.2	68.2	-19.0	Peak	Horizontal
	15951.5	45.6	4.4	50.0	74.0	-24.0	Peak	Horizontal
*	10086.5	46.5	-1.6	44.9	68.2	-23.3	Peak	Vertical
	11149.0	46.7	-1.4	45.3	74.0	-28.7	Peak	Vertical
*	14056.0	45.9	3.0	48.9	68.2	-19.3	Peak	Vertical
	15696.5	44.4	4.9	49.3	74.0	-24.7	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

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	2023-09-20	Test Mode	Transmit by802.11ax-HE80_NSS=1 (MCS0) – Channel 155 – 5775MHz
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		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	10248.0	46.8	-1.5	45.3	68.2	-22.9	Peak	Horizontal
	11608.0	47.5	-1.6	45.9	74.0	-28.1	Peak	Horizontal
*	14175.0	45.5	3.7	49.2	68.2	-19.0	Peak	Horizontal
	15951.5	45.6	4.4	50.0	74.0	-24.0	Peak	Horizontal
*	10086.5	46.5	-1.6	44.9	68.2	-23.3	Peak	Vertical
	11149.0	46.7	-1.4	45.3	74.0	-28.7	Peak	Vertical
*	14056.0	45.9	3.0	48.9	68.2	-19.3	Peak	Vertical
	15696.5	44.4	4.9	49.3	74.0	-24.7	Peak	Vertical

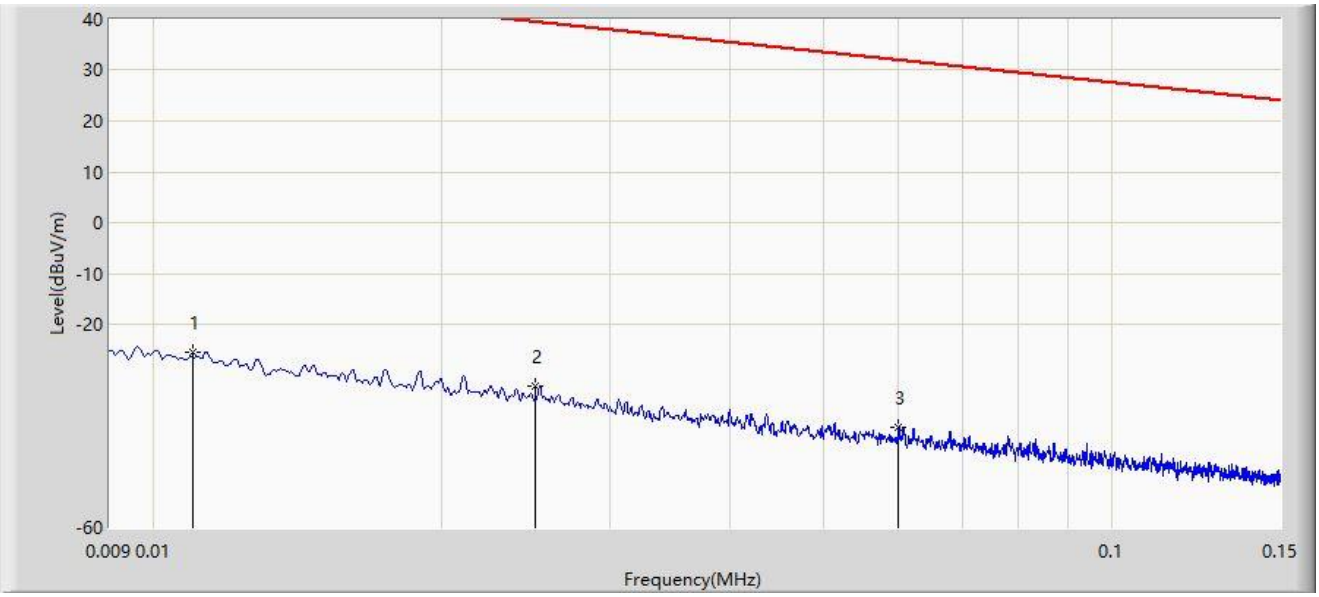
Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

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)

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 802.11ac-VHT40 at 5755MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		0.011	-25.448	34.111	-72.206	46.758	-59.559	PK
2	*	0.025	-32.295	27.833	-71.926	39.631	-60.128	PK
3		0.060	-40.191	20.602	-72.222	32.031	-60.793	PK

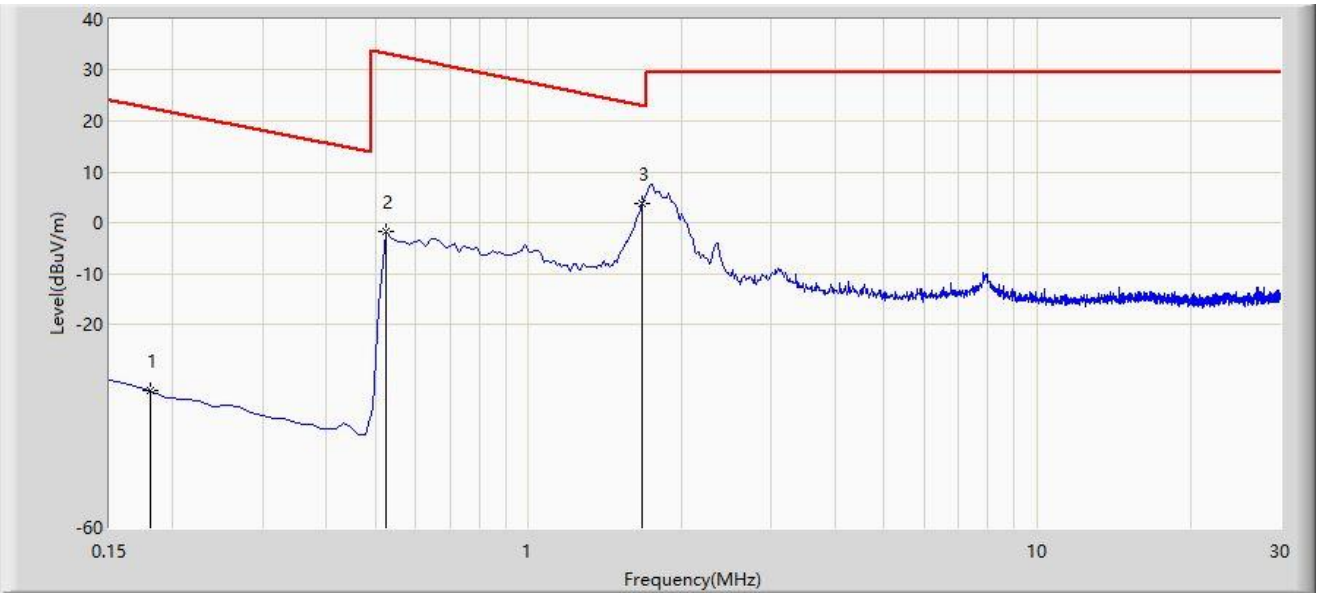
Note 1: " * ", means this data is the worst emission level.

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 802.11ac-VHT40 at 5755MHz	



No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1		0.180	-33.132	27.834	-55.626	22.494	-60.966	PK
2		0.523	-1.787	20.181	-35.022	33.235	-21.968	PK
3	*	1.672	3.797	25.476	-19.372	23.169	-21.679	PK

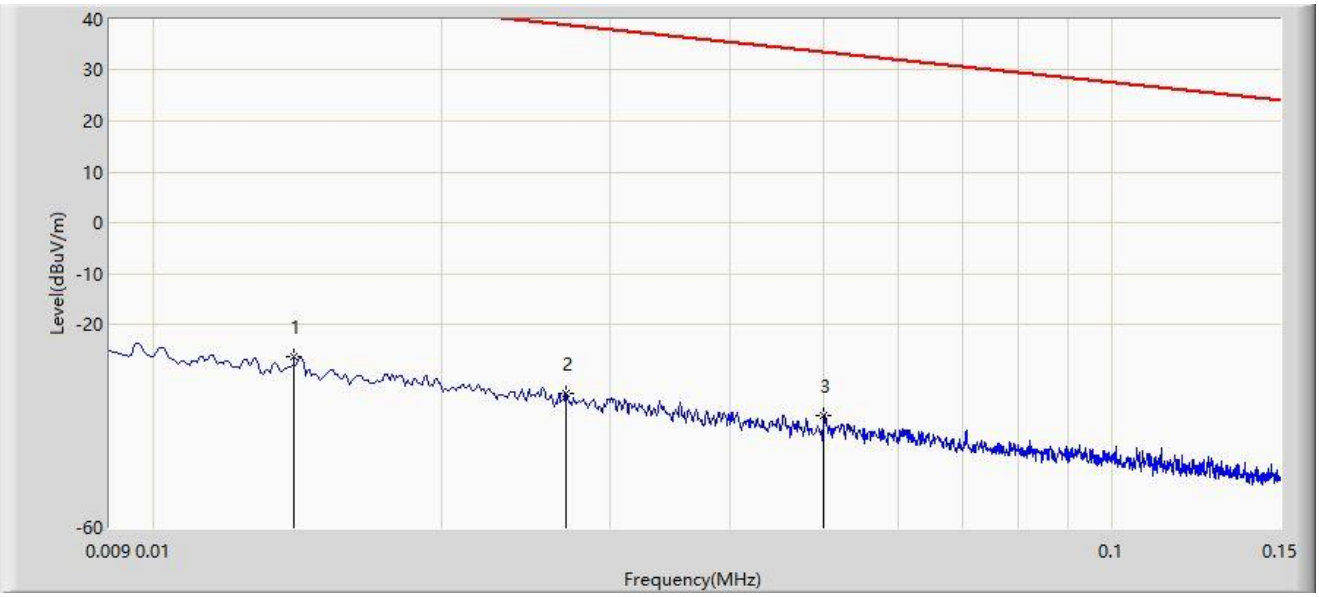
Note 1: " * ", means this data is the worst emission level.

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 802.11ac-VHT40 at 5755MHz	



No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	0.014	-26.370	33.311	-71.035	44.664	-59.681	PK
2		0.027	-33.683	26.527	-72.645	38.963	-60.210	PK
3		0.050	-38.004	22.743	-71.618	33.614	-60.747	PK

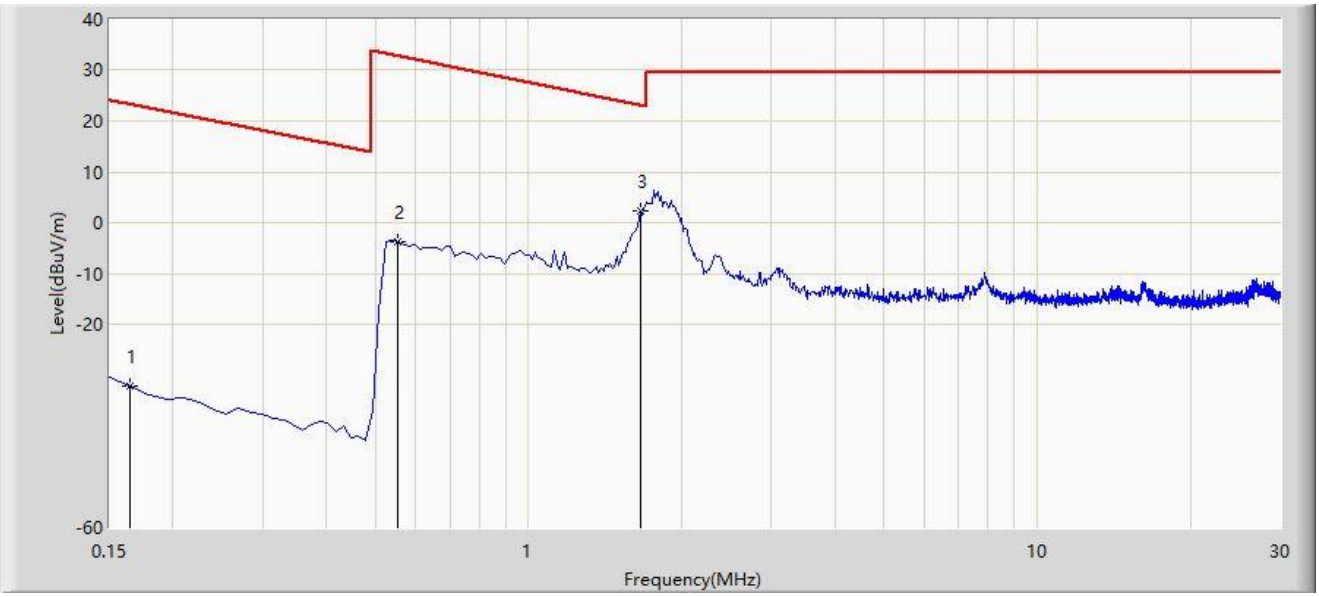
Note 1: " * ", means this data is the worst emission level.

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 802.11ac-VHT40 at 5755MHz	



No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1		0.165	-32.179	28.781	-55.428	23.249	-60.960	PK
2		0.553	-3.911	18.063	-36.664	32.752	-21.974	PK
3	*	1.657	2.218	23.906	-21.029	23.247	-21.688	PK

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

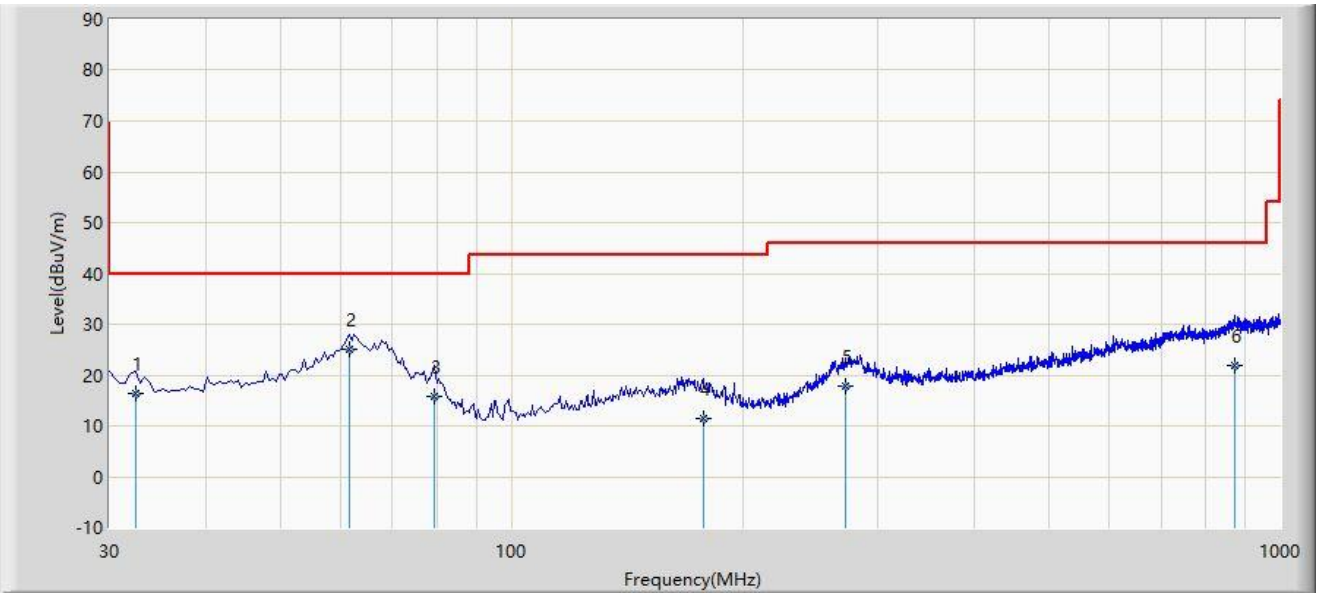
Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB/m).

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 802.11ac-VHT40 at 5755MHz	



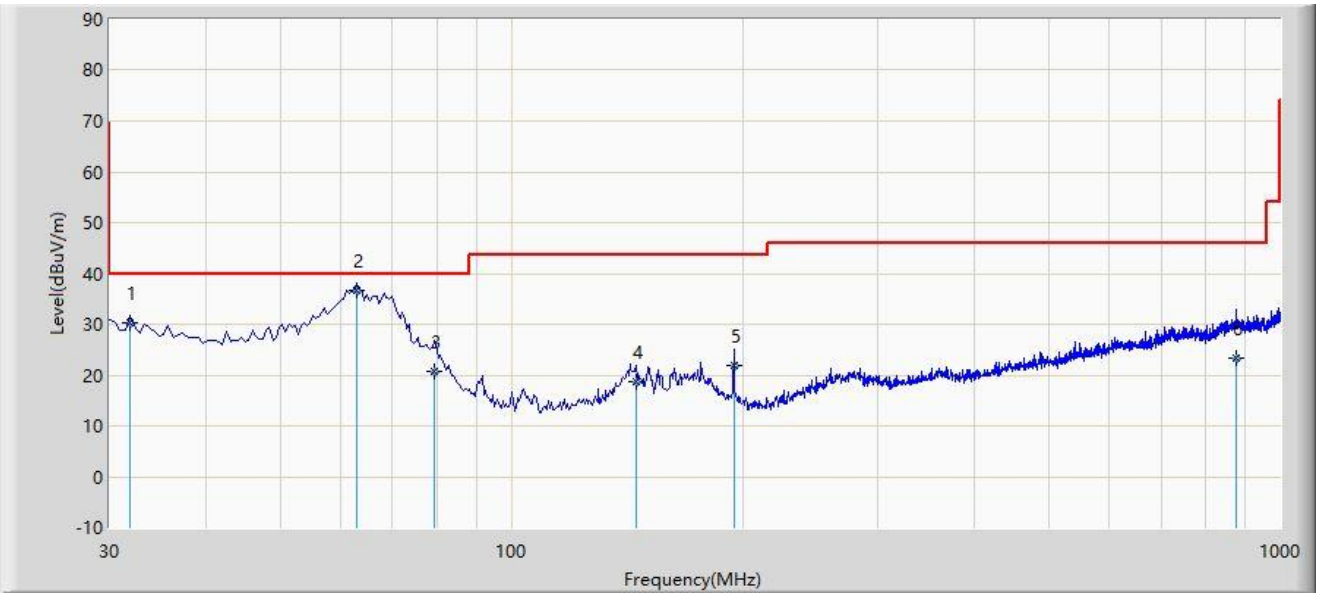
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		32.425	16.410	-0.500	-23.590	40.000	16.910	QP
2	*	61.525	25.202	7.700	-14.798	40.000	17.502	QP
3		79.470	15.720	1.600	-24.280	40.000	14.120	QP
4		177.440	11.311	-5.800	-32.189	43.500	17.112	QP
5		271.530	17.958	0.100	-28.042	46.000	17.859	QP
6		873.415	21.979	-8.300	-24.021	46.000	30.279	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).

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 802.11ac-VHT40 at 5755MHz	



No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1		31.940	30.303	13.400	-9.697	40.000	16.902	QP
2	*	62.980	36.588	19.300	-3.412	40.000	17.288	QP
3		79.470	20.820	6.700	-19.180	40.000	14.120	QP
4		145.430	18.645	0.600	-24.855	43.500	18.045	QP
5		194.900	21.881	6.600	-21.619	43.500	15.281	QP
6		875.840	23.345	-6.900	-22.655	46.000	30.245	QP

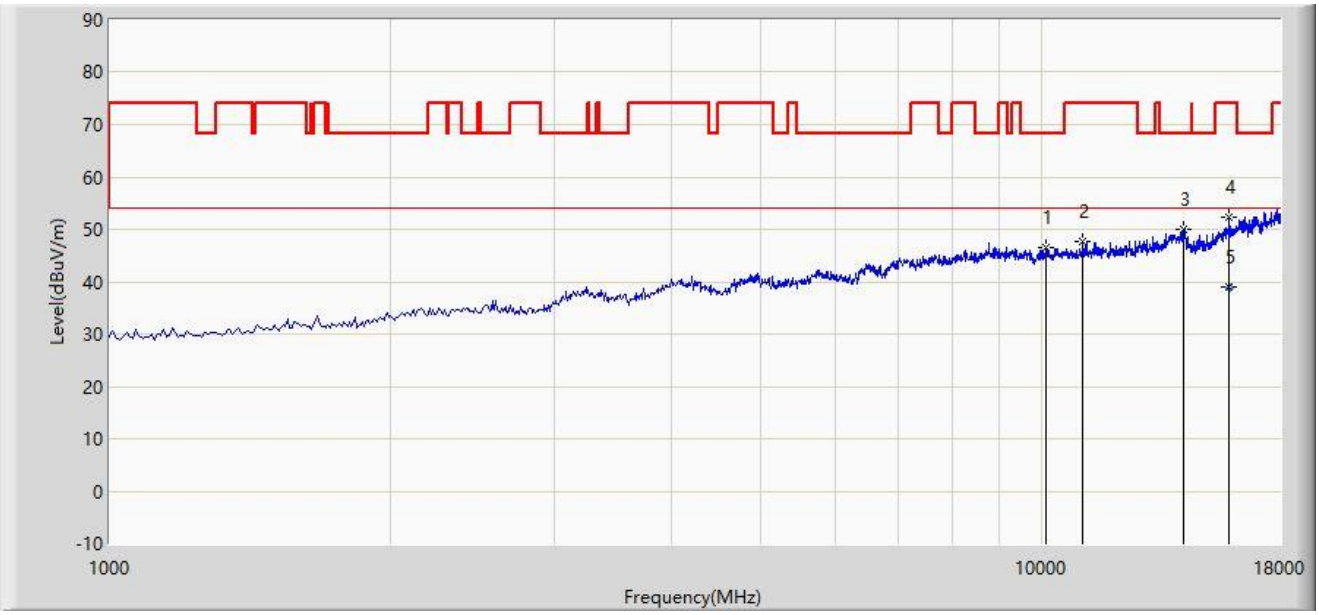
Note 1: " * ", means this data is the worst emission level.

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

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

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

Site: SIP-AC3	Test Date: 2023-09-20
Limit: FCC_Part15.209_RSE(3m)	Engineer: Fusco Pan
Probe: HF907_102861_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11a at 5180MHz	



No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1		10095.000	46.427	47.980	-21.773	68.200	-1.553	PK
2		11064.000	47.617	49.247	-26.383	74.000	-1.630	PK
3		14166.500	50.093	46.691	-18.107	68.200	3.403	PK
4		15875.000	52.372	47.253	-21.628	74.000	5.119	PK
5	*	15875.000	38.869	33.750	-15.131	54.000	5.119	AV

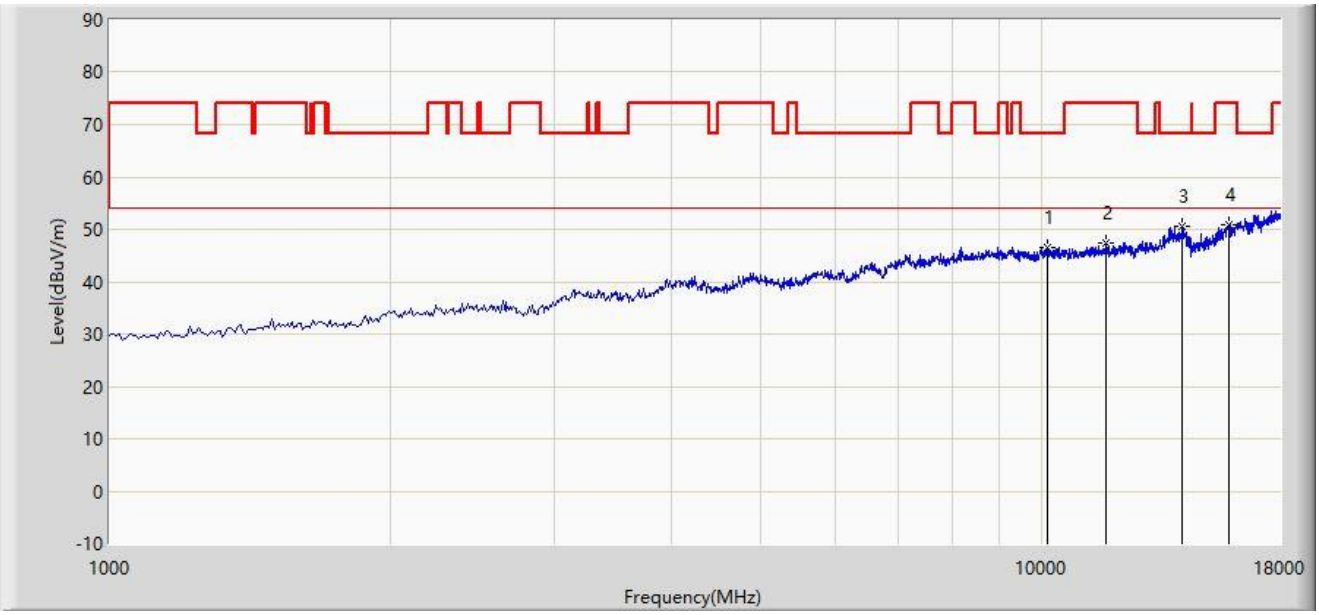
Note 1: " * ", means this data is the worst emission level.

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: 2023-09-20
Limit: FCC_Part15.209_RSE(3m)	Engineer: Fusco Pan
Probe: HF907_102861_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11a at 5180MHz	



No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1		10120.500	46.525	48.068	-21.675	68.200	-1.543	PK
2		11718.500	47.420	49.107	-26.580	74.000	-1.686	PK
3	*	14149.500	50.439	47.446	-17.761	68.200	2.993	PK
4		15883.500	50.772	45.721	-23.228	74.000	5.050	PK

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

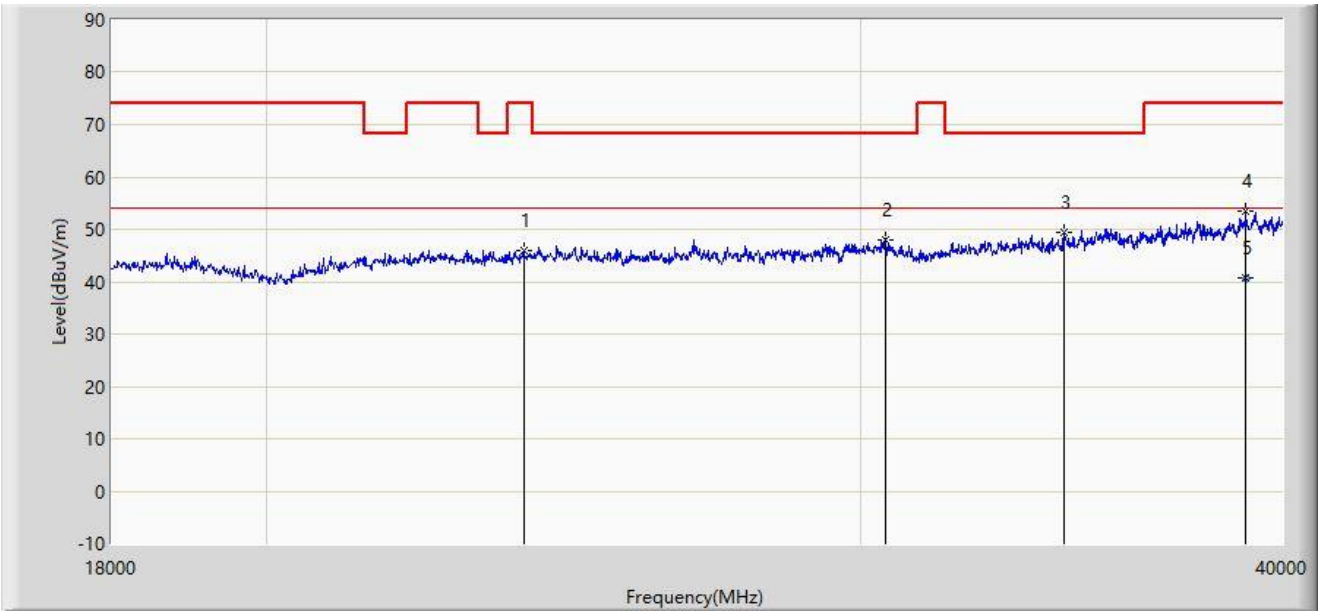
Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB/m).

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.

The Result of Radiated Emission between 18GHz ~ 40GHz:

Site: SIP-AC2	Test Date: 2023-11-18
Limit: FCC_Part15.209_RSE(3m)	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 5755MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		23841.000	45.913	54.317	-28.087	74.000	-8.405	PK
2		30507.000	48.082	56.490	-20.118	68.200	-8.408	PK
3		34456.000	49.300	58.286	-18.900	68.200	-8.986	PK
4		39010.000	53.341	53.836	-20.659	74.000	-0.495	PK
5	*	39010.000	40.825	41.320	-13.175	54.000	-0.495	AV

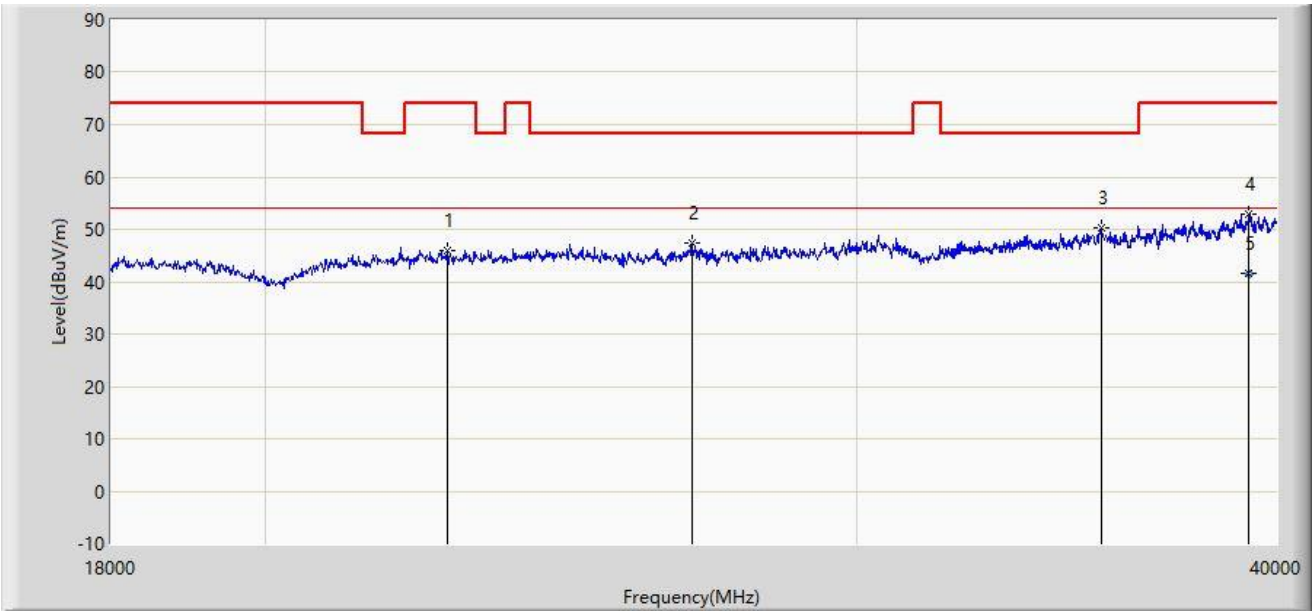
Note 1: " * ", means this data is the worst emission level.

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)	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 5755MHz	



No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1		22664.000	45.805	54.354	-28.195	74.000	-8.549	PK
2		26811.000	47.496	56.107	-20.704	68.200	-8.610	PK
3		35490.000	50.310	56.360	-17.890	68.200	-6.050	PK
4		39263.000	53.007	52.600	-20.993	74.000	0.407	PK
5	*	39263.000	41.657	41.250	-12.343	54.000	0.407	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

Spot Check

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5G_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 5180MHz	

No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	5150.000	73.517	73.695	-0.483	74.000	-0.178	PK
2		5184.790	115.624	77.189	N/A	N/A	38.434	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_5G_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 5180MHz	

No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	5150.000	52.272	52.450	-1.728	54.000	-0.178	AV
2		5182.810	107.809	67.299	N/A	N/A	40.510	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).

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5G_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 5180MHz	

No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5149.870	68.503	68.701	-5.497	74.000	-0.198	PK
2		5150.000	67.965	68.143	-6.035	74.000	-0.178	PK
3		5183.170	110.066	70.111	N/A	N/A	39.956	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_5G_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 5180MHz	

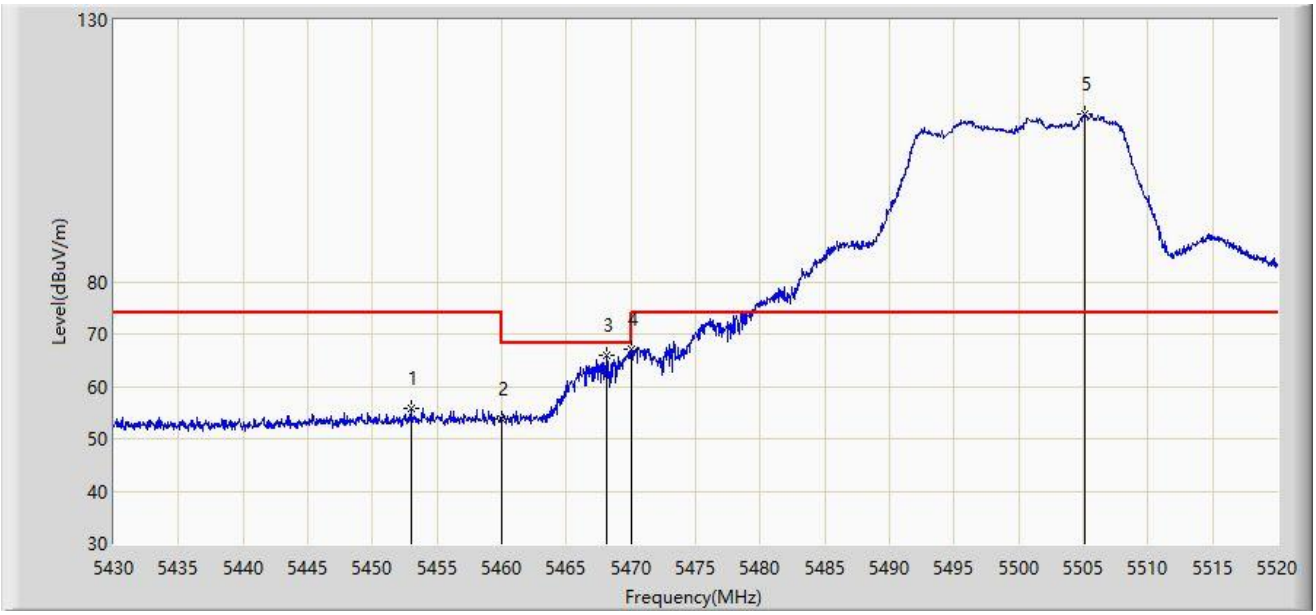
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5150.000	48.767	48.945	-5.233	54.000	-0.178	AV
2		5181.370	103.177	60.071	N/A	N/A	43.106	AV

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).

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5G_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 5500MHz	



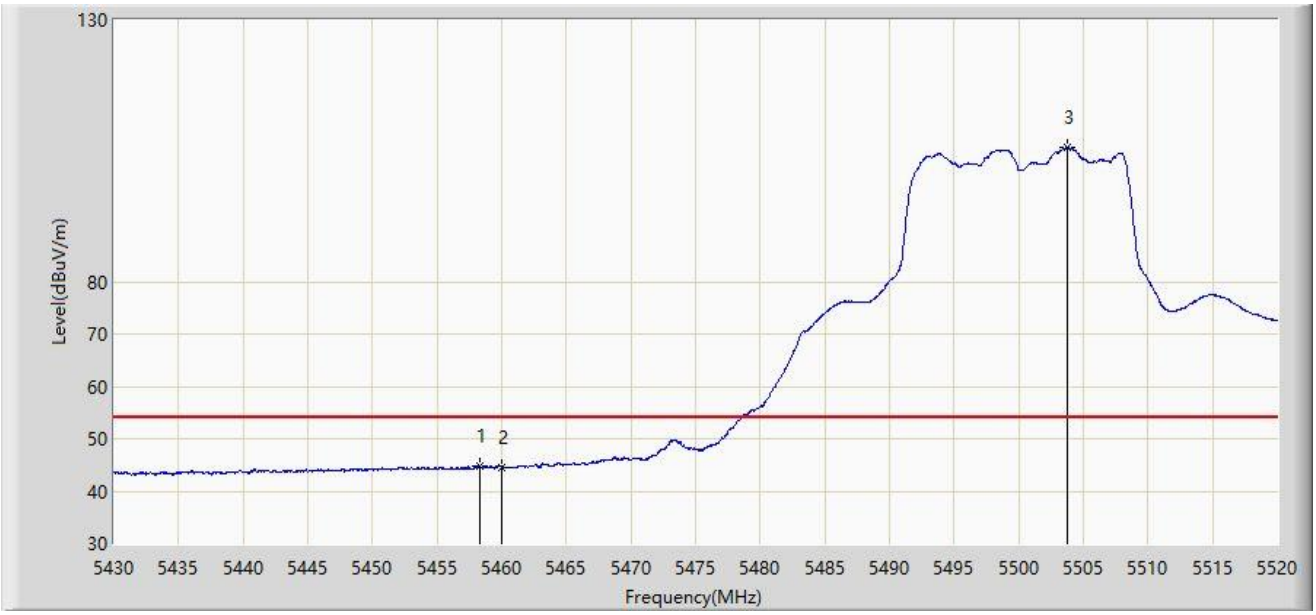
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1		5452.995	55.792	56.968	-18.208	74.000	-1.177	PK
2		5460.000	53.679	54.446	-14.521	68.200	-0.767	PK
3		5468.070	65.911	65.431	-2.289	68.200	0.481	PK
4	*	5470.000	66.974	66.033	-1.226	68.200	0.941	PK
5		5505.060	111.961	64.472	N/A	N/A	47.488	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_5G_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 5500MHz	



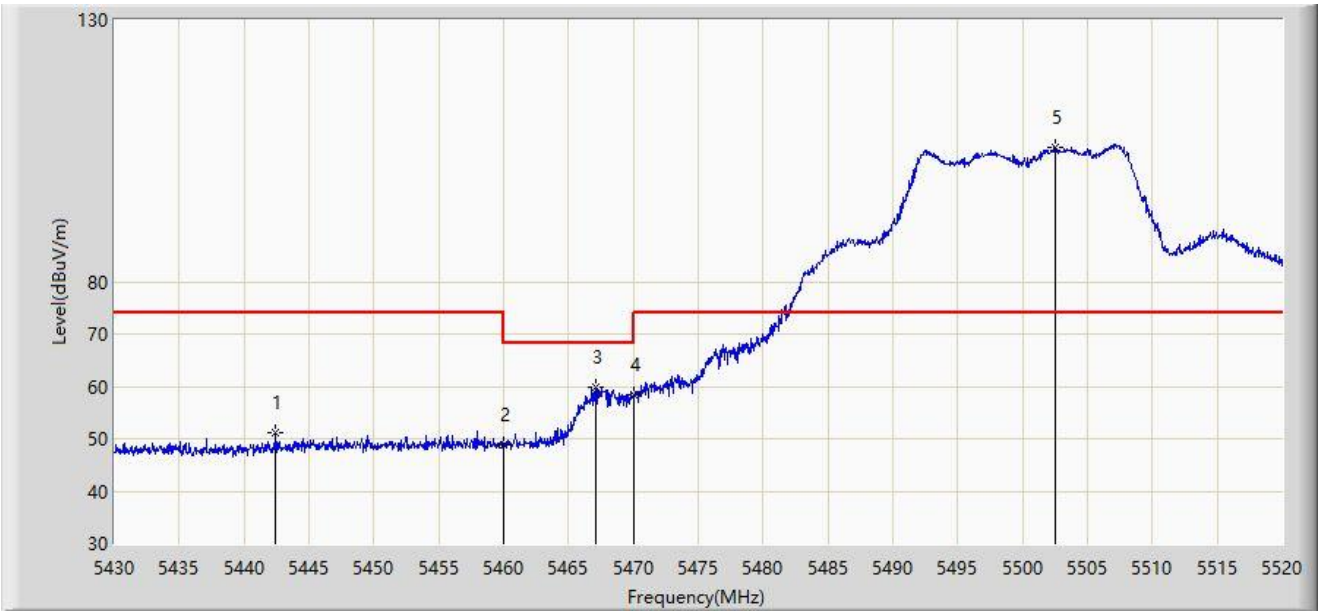
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5458.260	44.850	45.731	-9.150	54.000	-0.880	AV
2		5460.000	44.627	45.394	-9.373	54.000	-0.767	AV
3		5503.710	105.672	59.886	N/A	N/A	45.786	AV

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).

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5G_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 5500MHz	



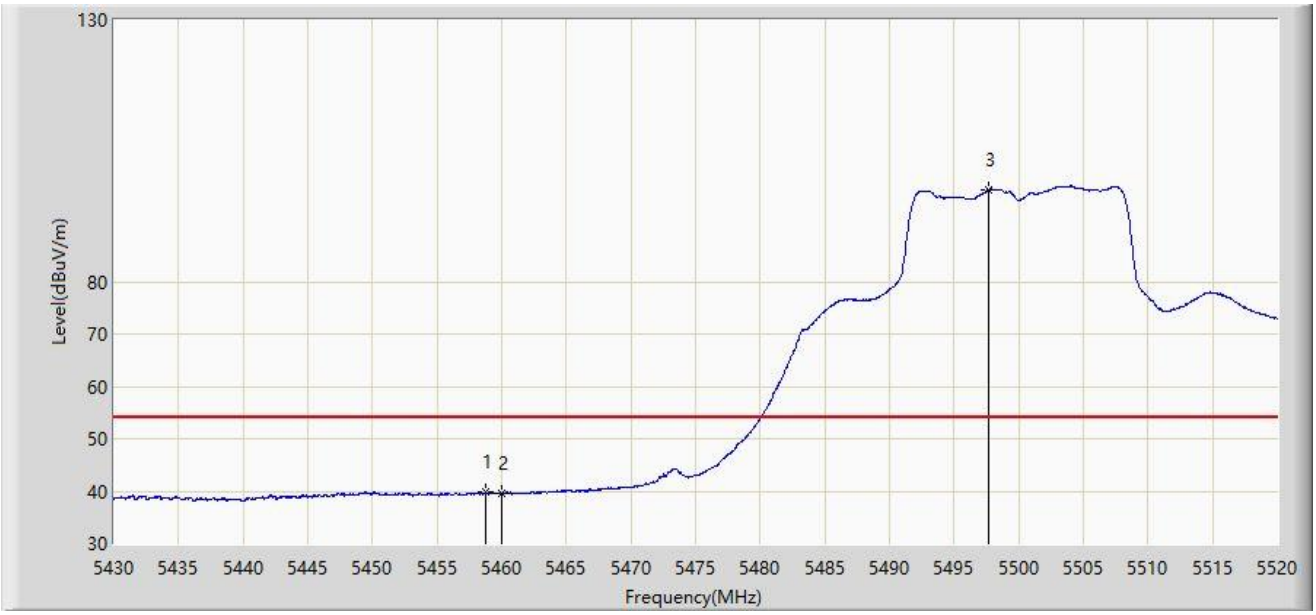
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1		5442.420	51.140	52.498	-22.860	74.000	-1.358	PK
2		5460.000	48.765	49.532	-19.435	68.200	-0.767	PK
3	*	5467.125	59.832	59.595	-8.368	68.200	0.238	PK
4		5470.000	58.371	57.430	-9.829	68.200	0.941	PK
5		5502.495	105.737	62.303	N/A	N/A	43.434	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_5G_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 5500MHz	



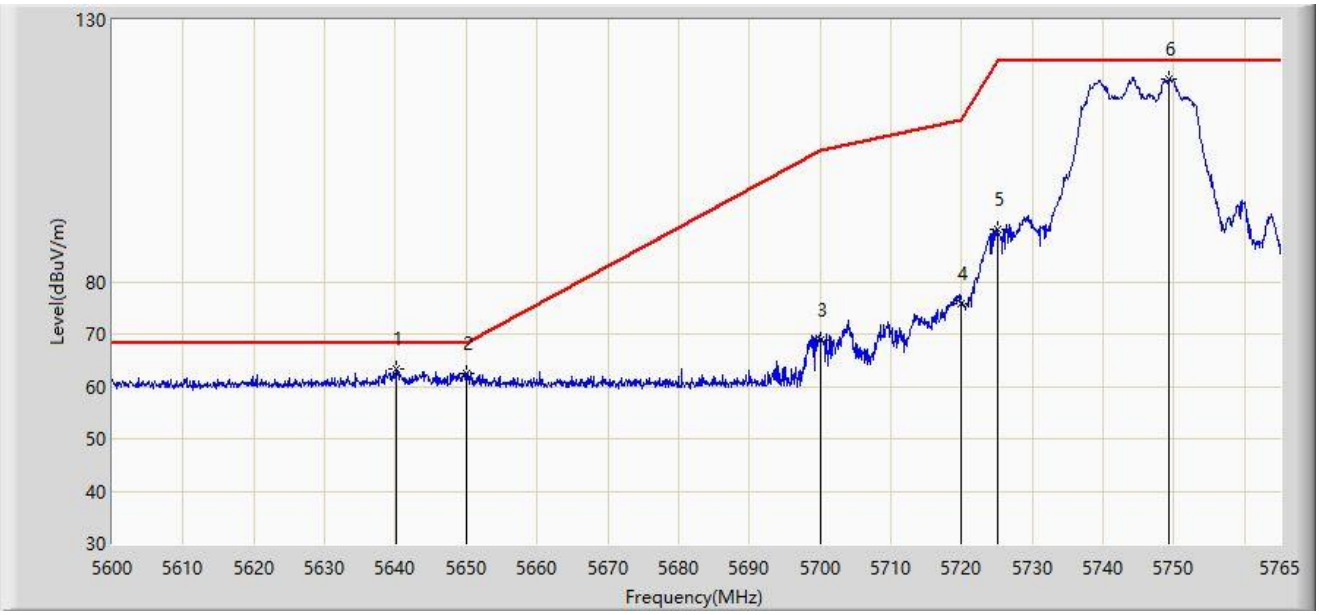
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5458.800	39.726	40.635	-14.274	54.000	-0.908	AV
2		5460.000	39.557	40.324	-14.443	54.000	-0.767	AV
3		5497.725	97.566	57.028	N/A	N/A	40.538	AV

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).

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5.8G_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 5745MHz	



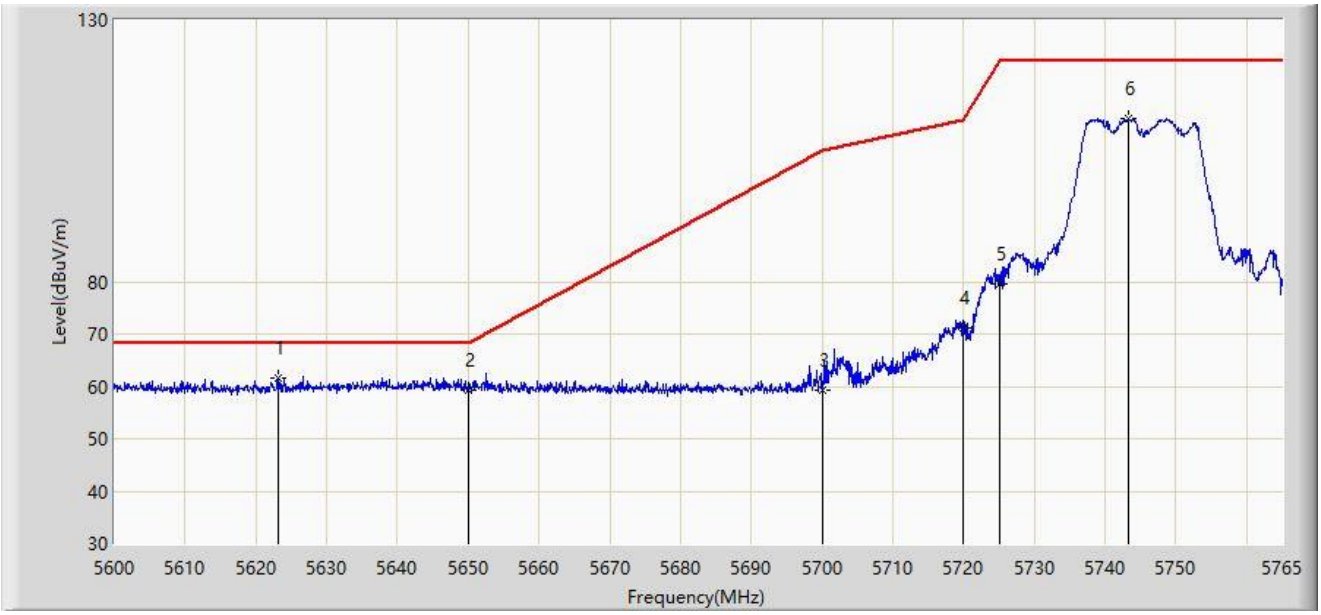
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5640.095	63.224	67.360	-4.976	68.200	-4.136	PK
2		5650.000	62.499	66.734	-5.701	68.200	-4.235	PK
3		5700.000	68.886	73.317	-36.314	105.200	-4.431	PK
4		5720.000	75.818	79.977	-34.982	110.800	-4.159	PK
5		5725.000	89.884	94.002	-32.316	122.200	-4.118	PK
6		5749.325	118.834	122.546	N/A	N/A	-3.712	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_5.8G_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 5745MHz	



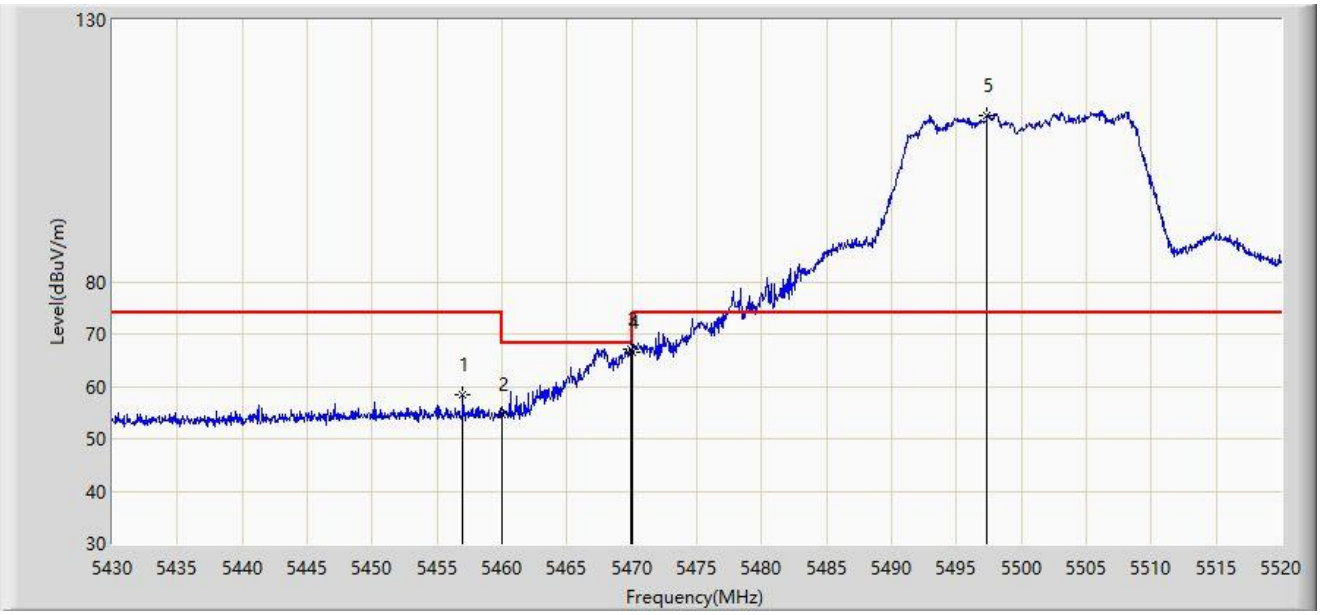
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5623.183	61.596	65.986	-6.604	68.200	-4.390	PK
2		5650.000	59.241	63.476	-8.959	68.200	-4.235	PK
3		5700.000	59.314	63.745	-45.886	105.200	-4.431	PK
4		5720.000	71.029	75.188	-39.771	110.800	-4.159	PK
5		5725.000	79.492	83.610	-42.708	122.200	-4.118	PK
6		5743.385	111.185	114.969	N/A	N/A	-3.784	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_5G_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 5500MHz	



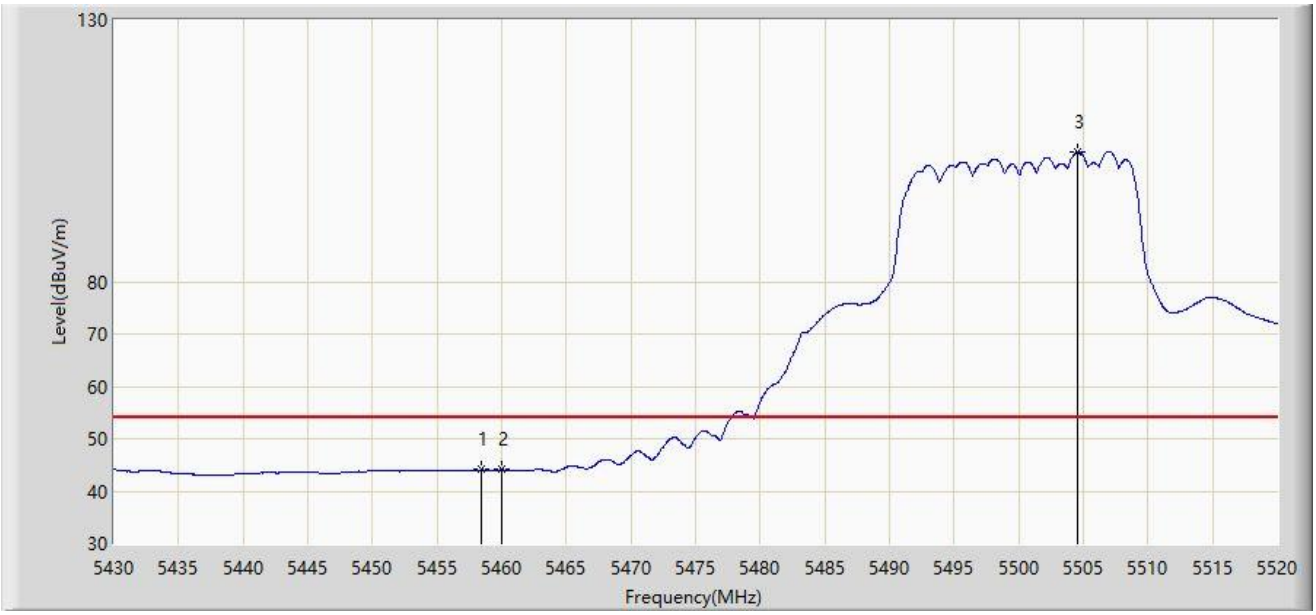
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1		5457.000	58.362	59.372	-15.638	74.000	-1.010	PK
2		5460.000	54.555	55.322	-13.645	68.200	-0.767	PK
3	*	5469.915	67.183	66.257	-1.017	68.200	0.927	PK
4		5470.000	66.503	65.562	-1.697	68.200	0.941	PK
5		5497.365	111.871	71.195	N/A	N/A	40.676	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_5G_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 5500MHz	



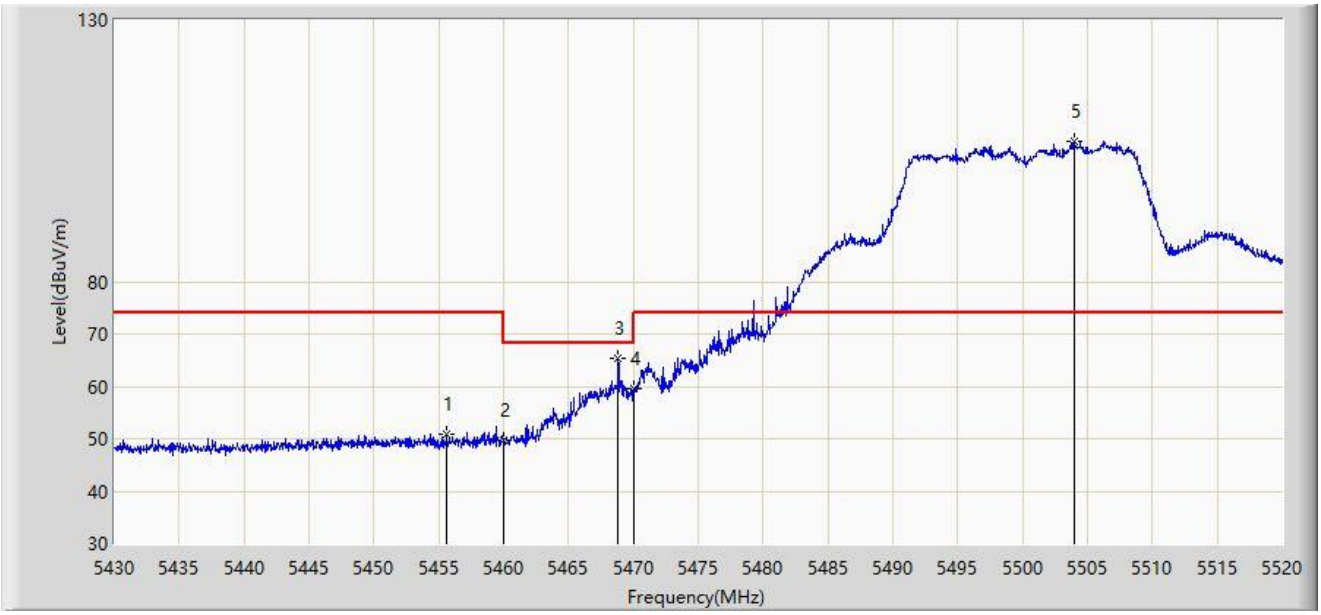
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5458.395	44.081	44.945	-9.919	54.000	-0.864	AV
2		5460.000	44.066	44.833	-9.934	54.000	-0.767	AV
3		5504.520	104.744	57.715	N/A	N/A	47.028	AV

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).

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5G_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 5500MHz	



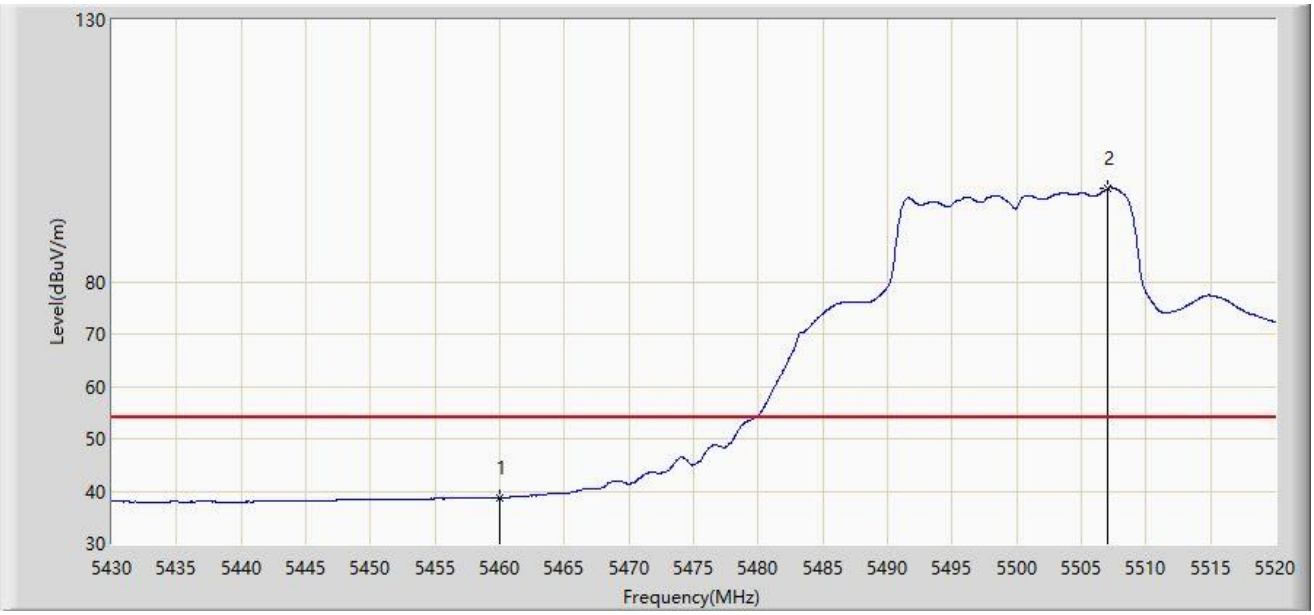
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1		5455.650	51.003	52.096	-22.997	74.000	-1.092	PK
2		5460.000	49.643	50.410	-18.557	68.200	-0.767	PK
3	*	5468.835	65.235	64.603	-2.965	68.200	0.632	PK
4		5470.000	59.427	58.486	-8.773	68.200	0.941	PK
5		5503.935	106.934	60.723	N/A	N/A	46.210	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_5G_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 5500MHz	



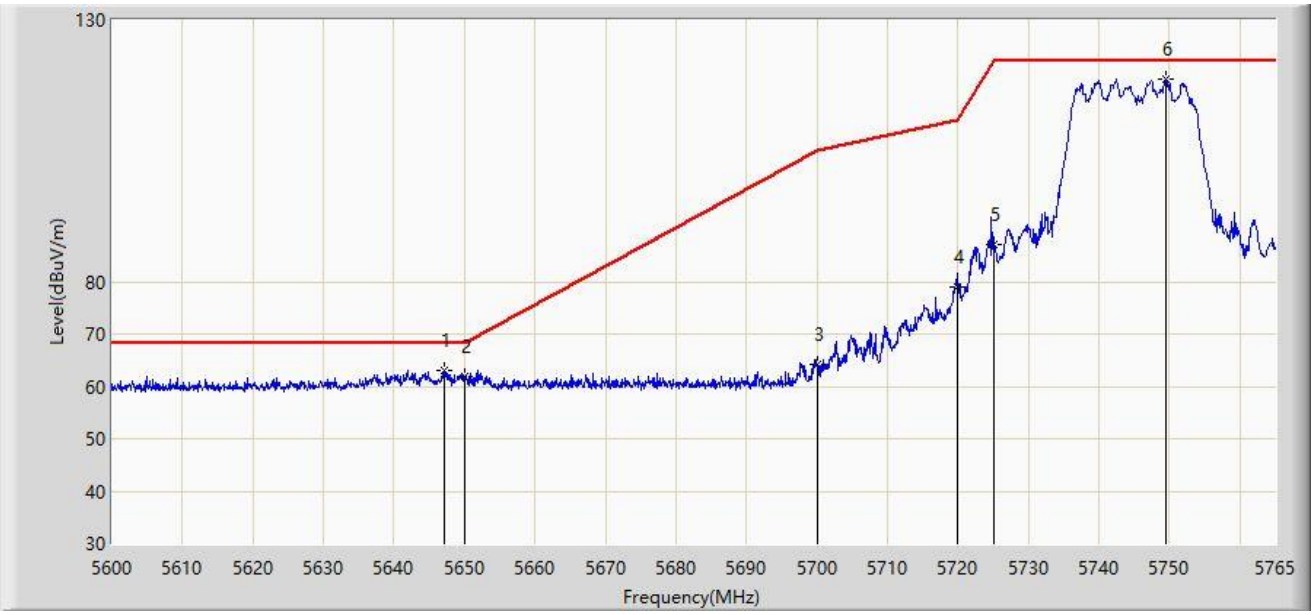
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5460.000	38.774	39.541	-15.226	54.000	-0.767	AV
2		5507.085	97.863	52.916	N/A	N/A	44.947	AV

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

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

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

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5.8G_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 5745MHz	



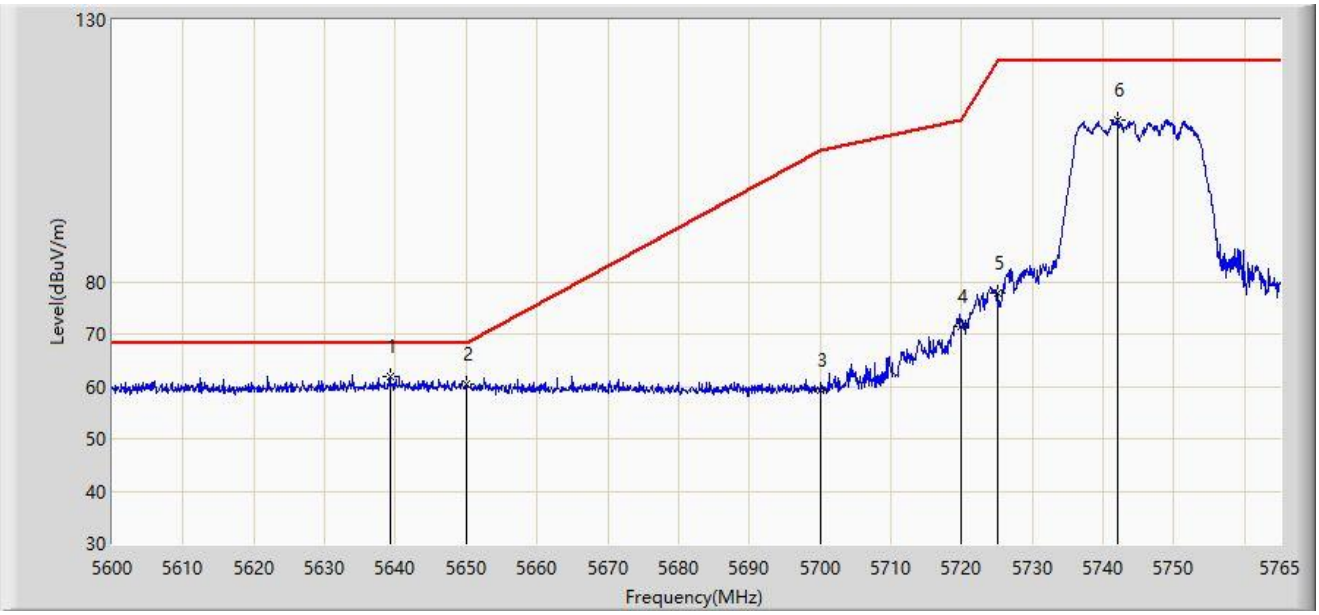
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5647.107	63.027	67.226	-5.173	68.200	-4.198	PK
2		5650.000	61.937	66.172	-6.263	68.200	-4.235	PK
3		5700.000	64.075	68.506	-41.125	105.200	-4.431	PK
4		5720.000	78.886	83.045	-31.914	110.800	-4.159	PK
5		5725.000	87.138	91.256	-35.062	122.200	-4.118	PK
6		5749.408	118.731	122.442	N/A	N/A	-3.711	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_5.8G_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 5745MHz	



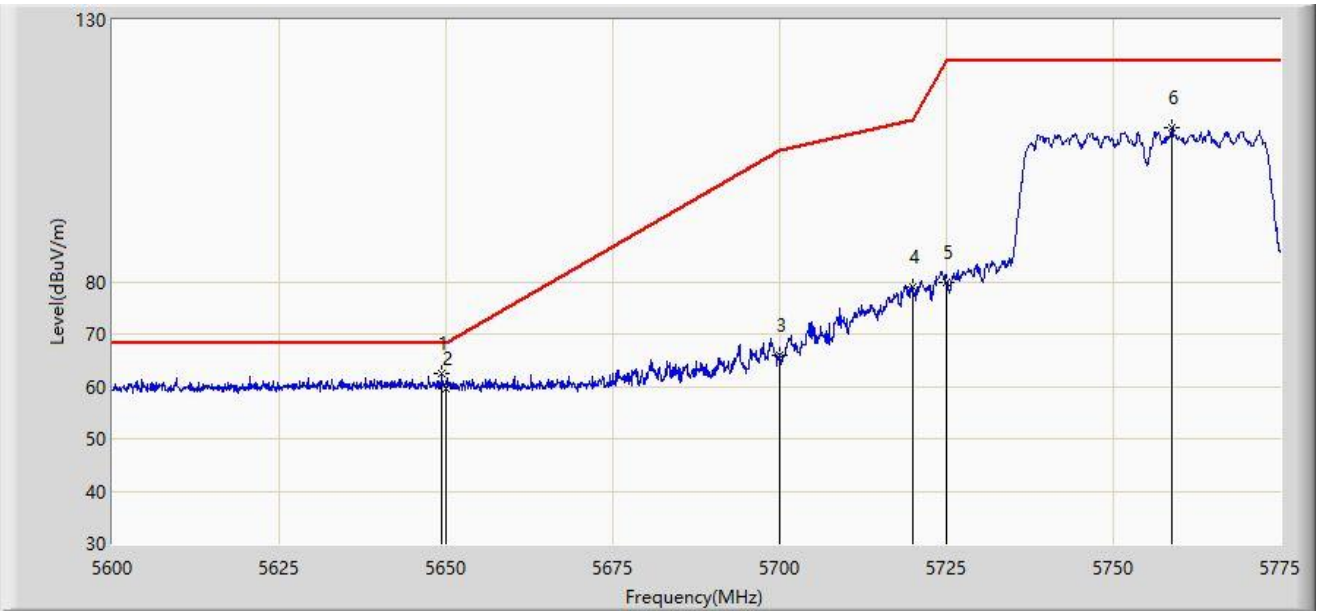
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5639.187	61.950	66.101	-6.250	68.200	-4.151	PK
2		5650.000	60.301	64.536	-7.899	68.200	-4.235	PK
3		5700.000	59.303	63.734	-45.897	105.200	-4.431	PK
4		5720.000	71.367	75.526	-39.433	110.800	-4.159	PK
5		5725.000	77.812	81.930	-44.388	122.200	-4.118	PK
6		5741.982	110.947	114.755	N/A	N/A	-3.809	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_5.8G_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 5755MHz	



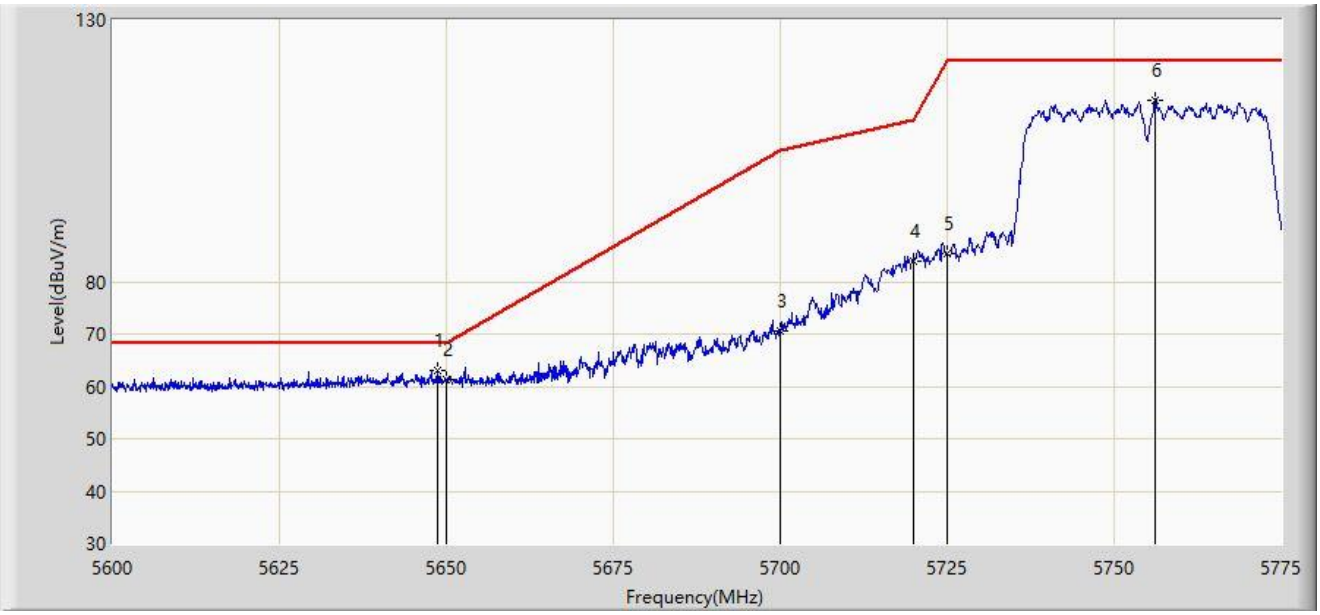
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5649.437	62.520	66.748	-5.680	68.200	-4.228	PK
2		5650.000	59.707	63.942	-8.493	68.200	-4.235	PK
3		5700.000	66.085	70.516	-39.115	105.200	-4.431	PK
4		5720.000	78.988	83.147	-31.812	110.800	-4.159	PK
5		5725.000	79.796	83.914	-42.404	122.200	-4.118	PK
6		5758.812	109.395	112.992	N/A	N/A	-3.596	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_5.8G_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 5755MHz	



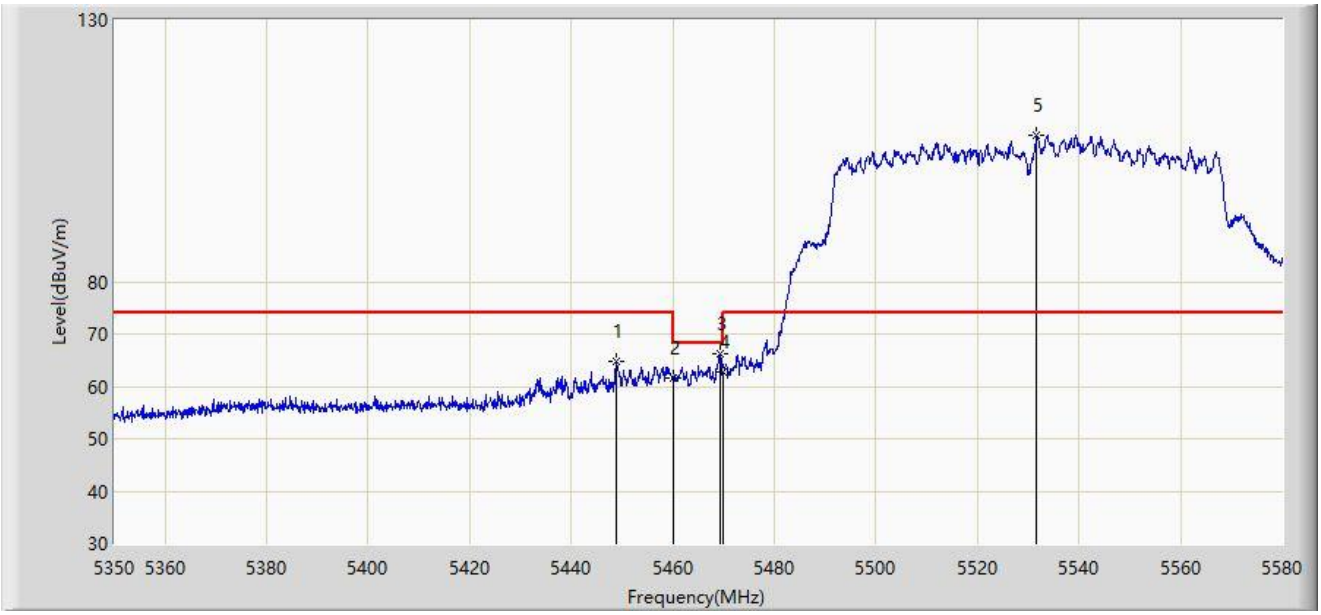
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5648.737	63.177	67.396	-5.023	68.200	-4.219	PK
2		5650.000	61.246	65.481	-6.954	68.200	-4.235	PK
3		5700.000	70.659	75.090	-34.541	105.200	-4.431	PK
4		5720.000	83.956	88.115	-26.844	110.800	-4.159	PK
5		5725.000	85.383	89.501	-36.817	122.200	-4.118	PK
6		5756.100	114.644	118.274	N/A	N/A	-3.630	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_5G_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 5530MHz	



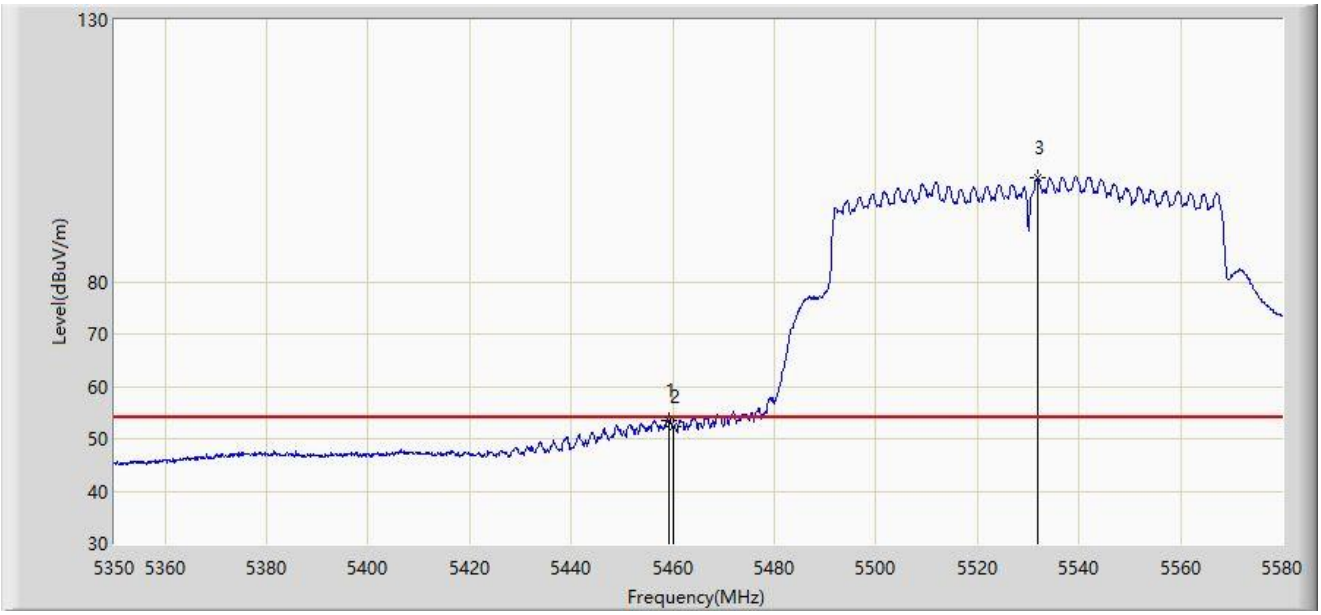
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1		5448.900	64.830	66.096	-9.170	74.000	-1.267	PK
2		5460.000	61.589	62.356	-6.611	68.200	-0.767	PK
3	*	5469.255	66.222	65.387	-1.978	68.200	0.835	PK
4		5470.000	62.696	61.755	-5.504	68.200	0.941	PK
5		5531.700	107.889	57.292	N/A	N/A	50.597	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_5G_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 5530MHz	



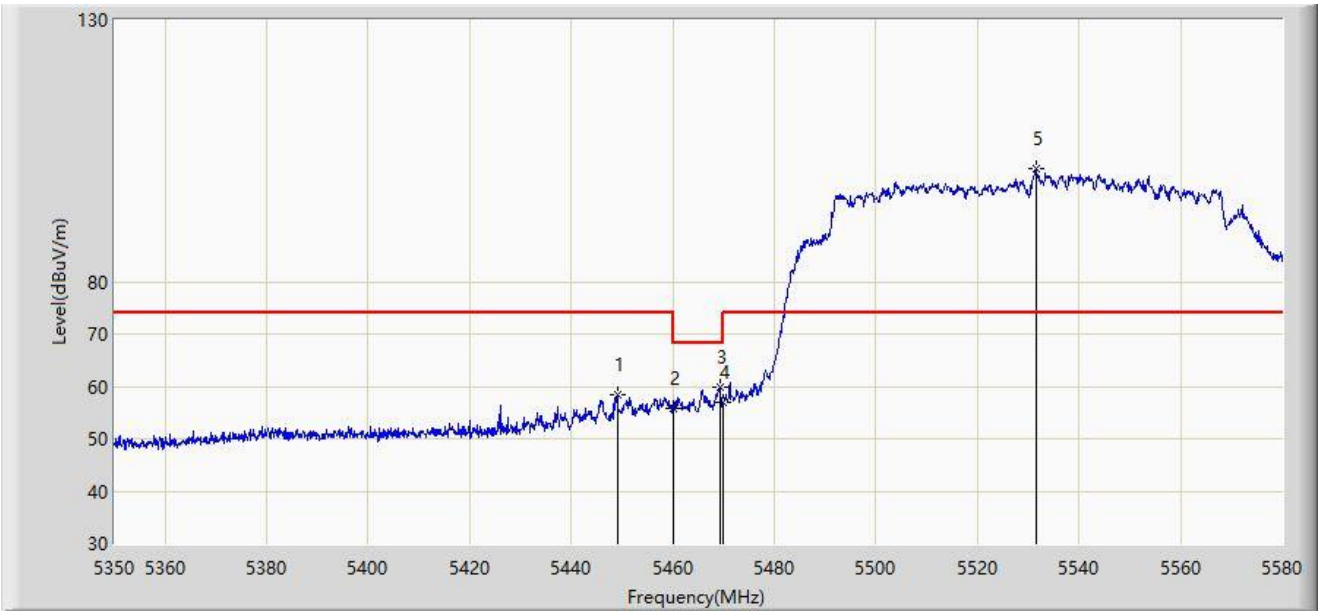
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5459.250	53.589	54.430	-0.411	54.000	-0.840	AV
2		5460.000	52.321	53.088	-1.679	54.000	-0.767	AV
3		5531.815	99.778	49.329	N/A	N/A	50.449	AV

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).

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5G_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 5530MHz	



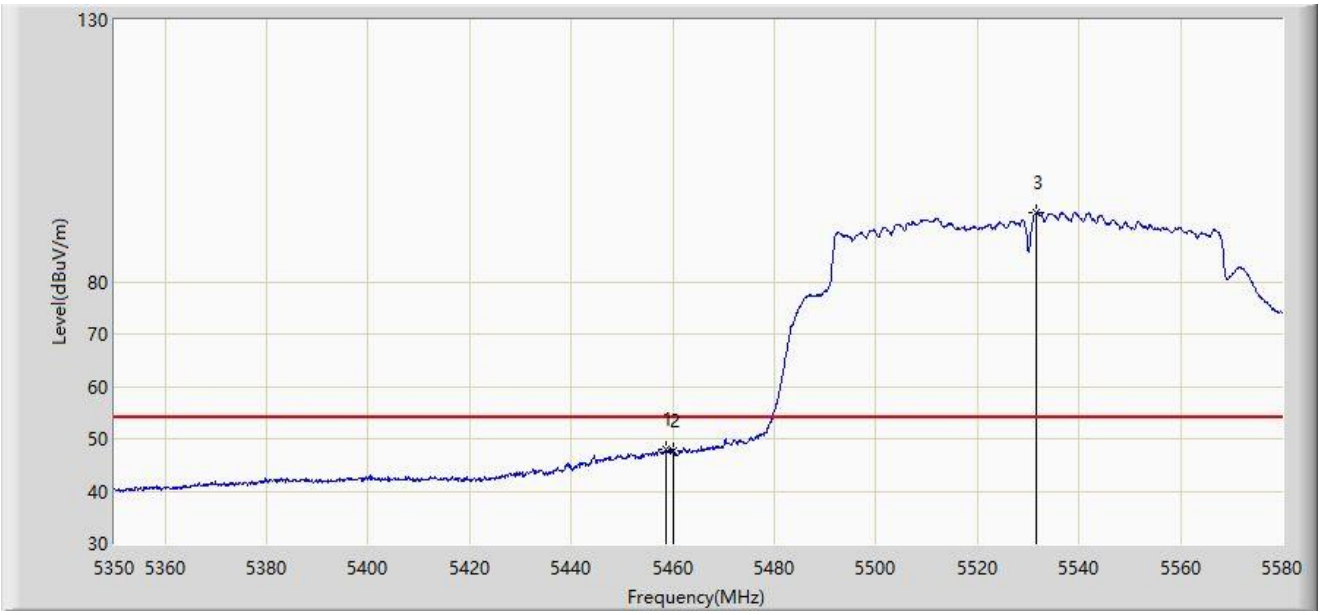
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1		5449.015	58.290	59.570	-15.710	74.000	-1.281	PK
2		5460.000	55.784	56.551	-12.416	68.200	-0.767	PK
3	*	5469.255	59.999	59.164	-8.201	68.200	0.835	PK
4		5470.000	56.949	56.008	-11.251	68.200	0.941	PK
5		5531.585	101.654	50.926	N/A	N/A	50.729	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_5G_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 5530MHz	



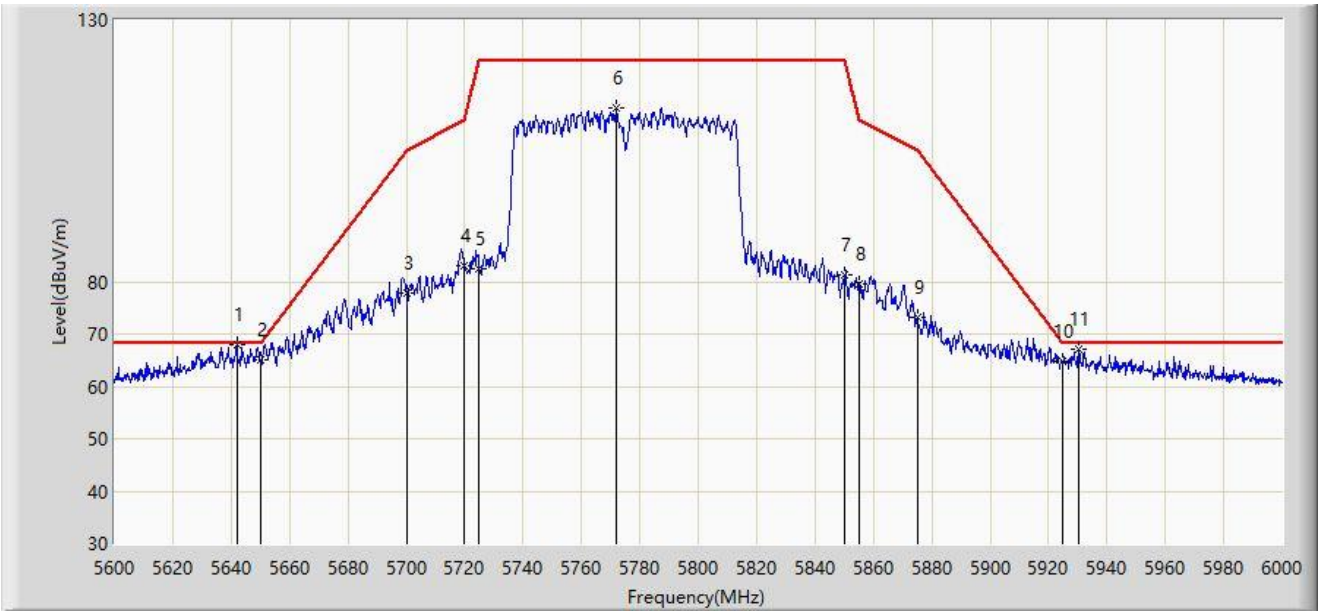
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5458.560	47.872	48.753	-6.128	54.000	-0.881	AV
2		5460.000	47.749	48.516	-6.251	54.000	-0.767	AV
3		5531.585	93.236	42.508	N/A	N/A	50.729	AV

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).

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5.8G_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 5775MHz	



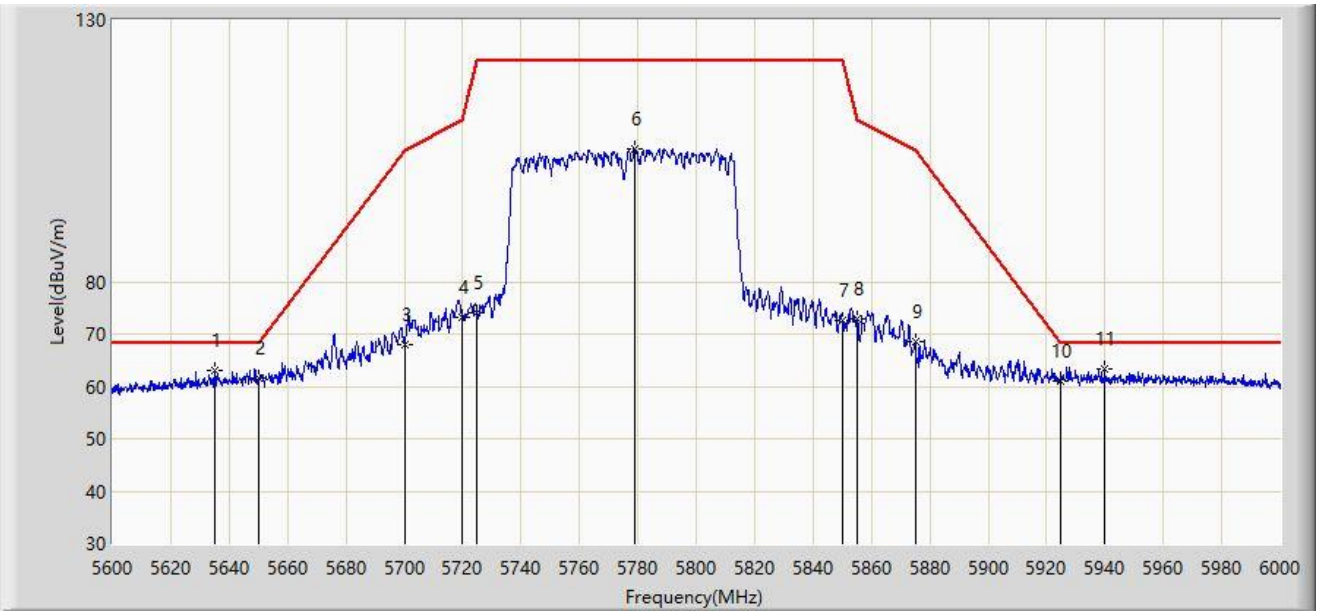
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5642.000	67.877	72.012	-0.323	68.200	-4.135	PK
2		5650.000	64.995	69.230	-3.205	68.200	-4.235	PK
3		5700.000	77.888	82.319	-27.312	105.200	-4.431	PK
4		5720.000	83.042	87.201	-27.758	110.800	-4.159	PK
5		5725.000	82.500	86.618	-39.700	122.200	-4.118	PK
6		5772.000	113.292	116.766	N/A	N/A	-3.475	PK
7		5850.000	81.427	85.010	-40.773	122.200	-3.582	PK
8		5855.000	79.502	83.051	-31.298	110.800	-3.549	PK
9		5875.000	73.243	76.966	-31.957	105.200	-3.722	PK
10		5925.000	64.778	68.378	-3.422	68.200	-3.600	PK
11		5930.400	66.968	70.454	-1.232	68.200	-3.486	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_5.8G_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 5775MHz	



No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1		5635.000	63.174	67.390	-5.026	68.200	-4.215	PK
2		5650.000	61.617	65.852	-6.583	68.200	-4.235	PK
3		5700.000	68.013	72.444	-37.187	105.200	-4.431	PK
4		5720.000	73.197	77.356	-37.603	110.800	-4.159	PK
5		5725.000	74.158	78.276	-48.042	122.200	-4.118	PK
6		5779.000	105.313	108.748	N/A	N/A	-3.436	PK
7		5850.000	72.702	76.285	-49.498	122.200	-3.582	PK
8		5855.000	72.925	76.474	-37.875	110.800	-3.549	PK
9		5875.000	68.657	72.380	-36.543	105.200	-3.722	PK
10		5925.000	60.938	64.538	-7.262	68.200	-3.600	PK
11	*	5940.000	63.399	66.593	-4.801	68.200	-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_5G_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 5180MHz	

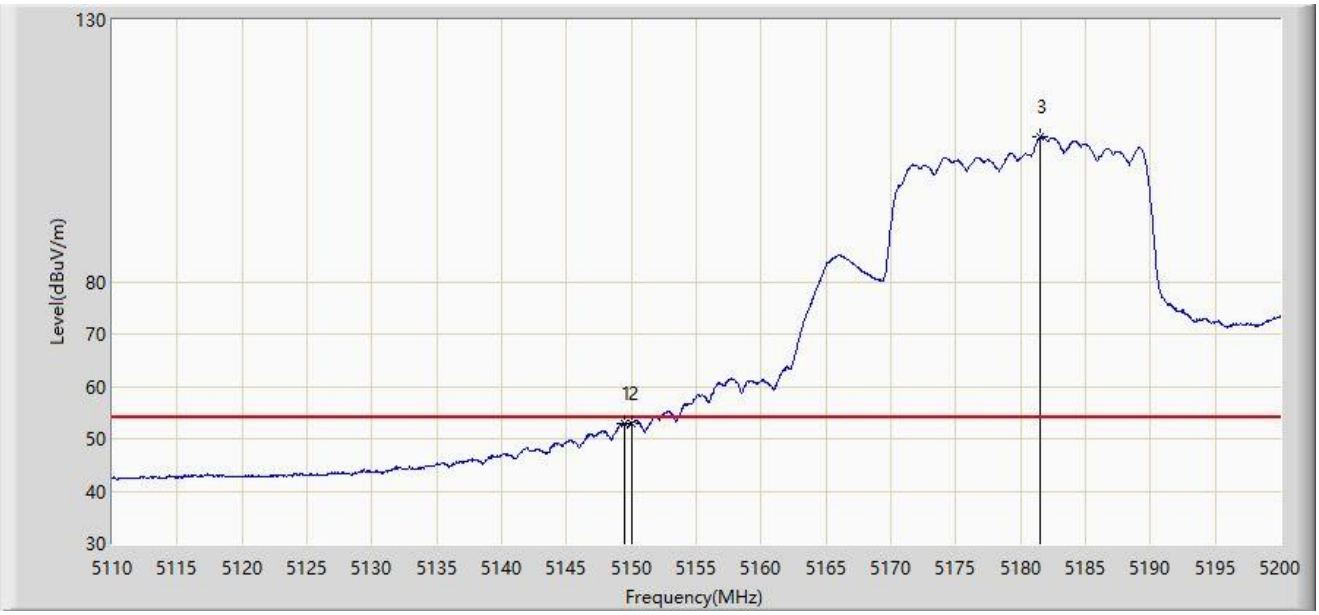
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5149.105	71.174	71.527	-2.826	74.000	-0.353	PK
2		5150.000	69.137	69.315	-4.863	74.000	-0.178	PK
3		5181.460	117.769	74.839	N/A	N/A	42.930	PK

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_5G_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 5180MHz	



No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5149.510	52.997	53.266	-1.003	54.000	-0.269	AV
2		5150.000	52.903	53.081	-1.097	54.000	-0.178	AV
3		5181.550	107.556	64.802	N/A	N/A	42.755	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).

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5G_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 5180MHz	

No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5149.150	65.385	65.728	-8.615	74.000	-0.344	PK
2		5150.000	63.451	63.629	-10.549	74.000	-0.178	PK
3		5181.505	111.342	68.500	N/A	N/A	42.842	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_5G_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 5180MHz	

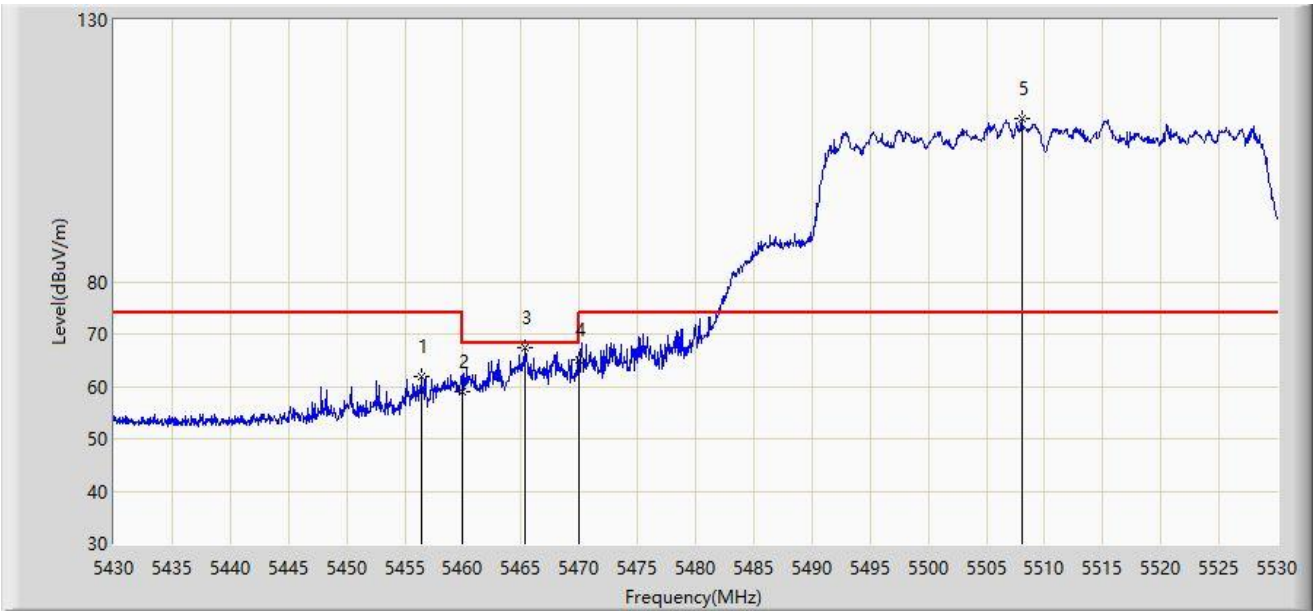
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5149.240	49.005	49.330	-4.995	54.000	-0.324	AV
2		5150.000	48.503	48.681	-5.497	54.000	-0.178	AV
3		5181.775	101.614	59.300	N/A	N/A	42.315	AV

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).

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5G_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 5510MHz	



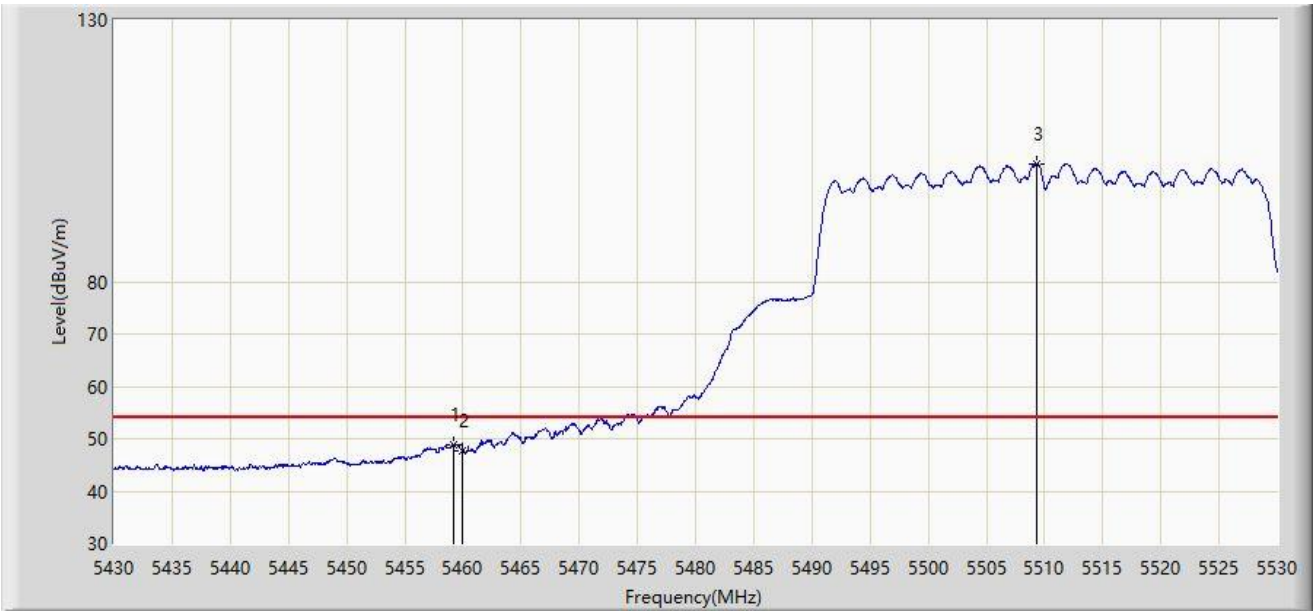
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1		5456.450	61.959	63.027	-12.041	74.000	-1.069	PK
2		5460.000	58.989	59.756	-9.211	68.200	-0.767	PK
3	*	5465.300	67.320	67.387	-0.880	68.200	-0.067	PK
4		5470.000	65.199	64.258	-3.001	68.200	0.941	PK
5		5508.050	111.247	67.885	N/A	N/A	43.362	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_5G_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 5510MHz	



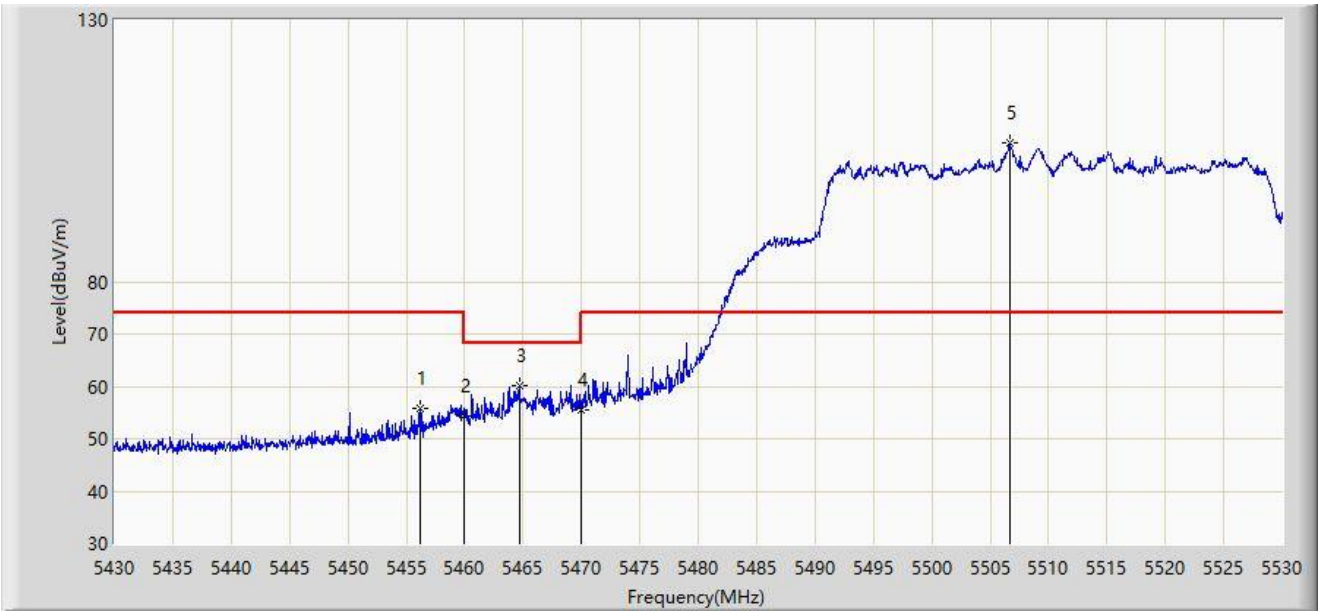
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	5459.200	48.884	49.731	-5.116	54.000	-0.847	AV
2		5460.000	47.802	48.569	-6.198	54.000	-0.767	AV
3		5509.300	102.517	60.247	N/A	N/A	42.271	AV

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).

Site: SIP-AC2	Test Date: 2023-11-19
Limit: FCC_5G_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 5510MHz	



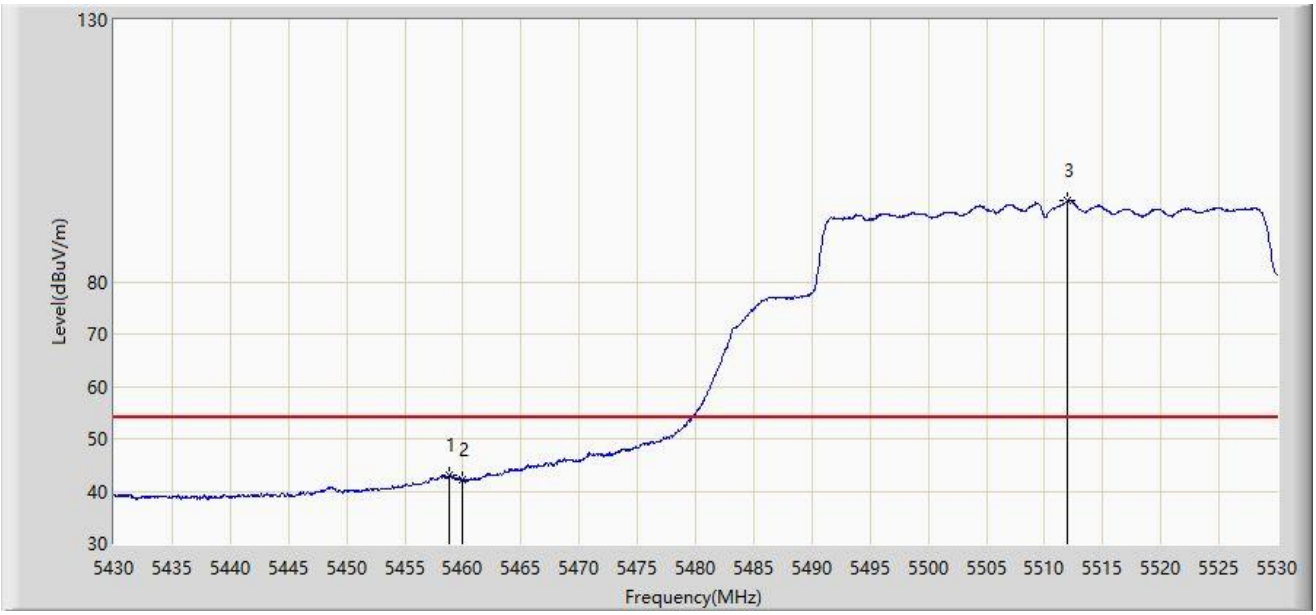
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1		5456.200	55.782	56.856	-18.218	74.000	-1.074	PK
2		5460.000	54.314	55.081	-13.886	68.200	-0.767	PK
3	*	5464.650	60.009	60.224	-8.191	68.200	-0.215	PK
4		5470.000	55.607	54.666	-12.593	68.200	0.941	PK
5		5506.650	106.442	60.770	N/A	N/A	45.672	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_5G_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 5510MHz	



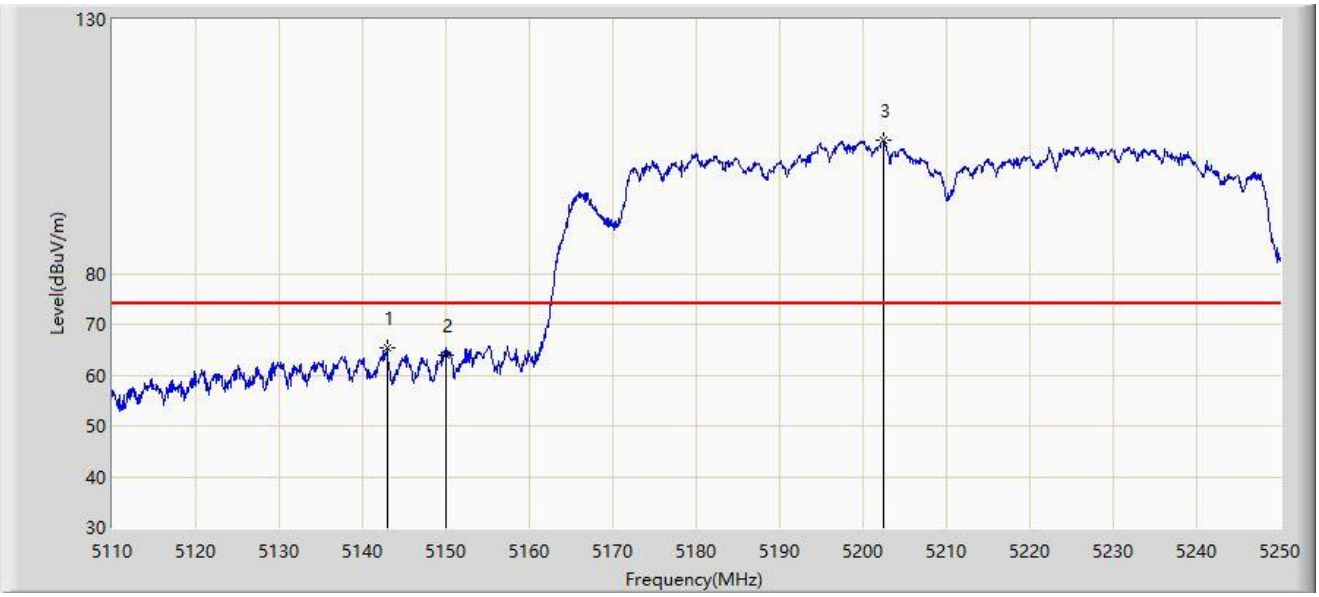
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5458.800	42.974	43.883	-11.026	54.000	-0.908	AV
2		5460.000	42.263	43.030	-11.737	54.000	-0.767	AV
3		5512.000	95.507	52.646	N/A	N/A	42.860	AV

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).

Site: SIP-AC3	Test Date: 2023-09-21
Limit: FCC_5G_RE(3m)	Engineer: Fusco Pan
Probe: HF907_102861_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11ac-VHT80 at 5210MHz	



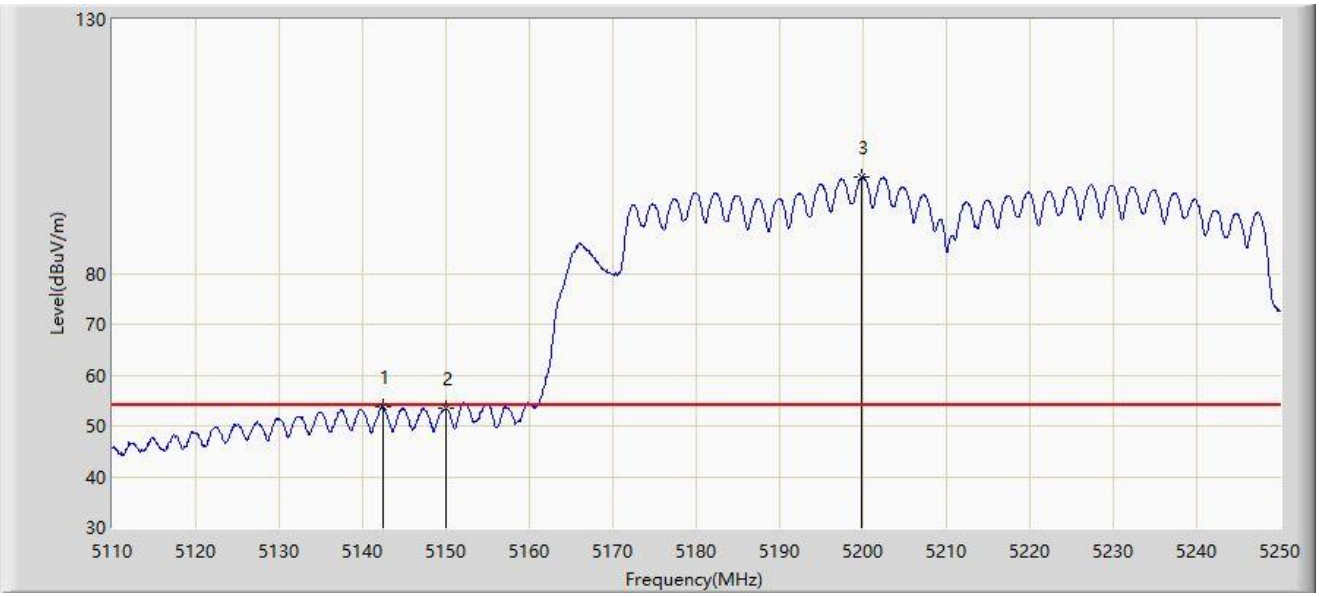
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5142.900	65.227	69.407	-8.773	74.000	-4.180	PK
2		5150.000	63.961	67.207	-10.039	74.000	-3.246	PK
3		5202.540	106.181	64.449	N/A	N/A	41.732	PK

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-AC3	Test Date: 2023-09-21
Limit: FCC_5G_RE(3m)	Engineer: Fusco Pan
Probe: HF907_102861_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11ac-VHT80 at 5210MHz	



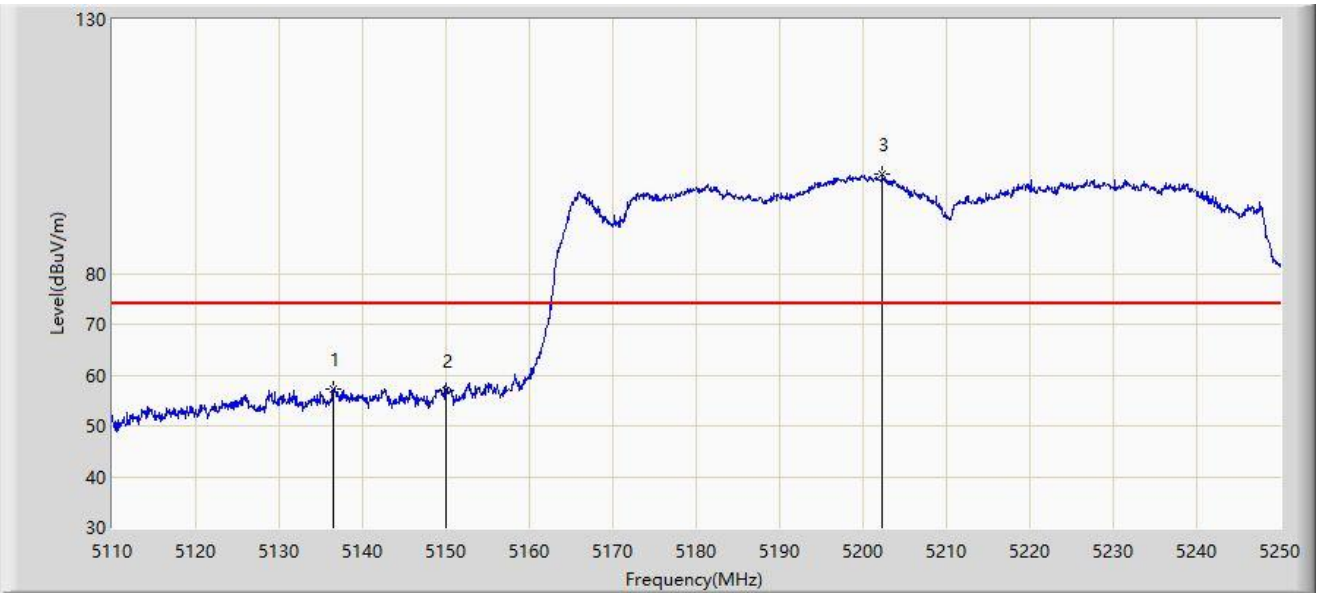
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5142.410	53.652	57.815	-0.348	54.000	-4.163	AV
2		5150.000	53.337	56.583	-0.663	54.000	-3.246	AV
3		5199.880	98.950	61.056	N/A	N/A	37.894	AV

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).

Site: SIP-AC3	Test Date: 2023-09-21
Limit: FCC_5G_RE(3m)	Engineer: Fusco Pan
Probe: HF907_102861_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11ac-VHT80 at 5210MHz	



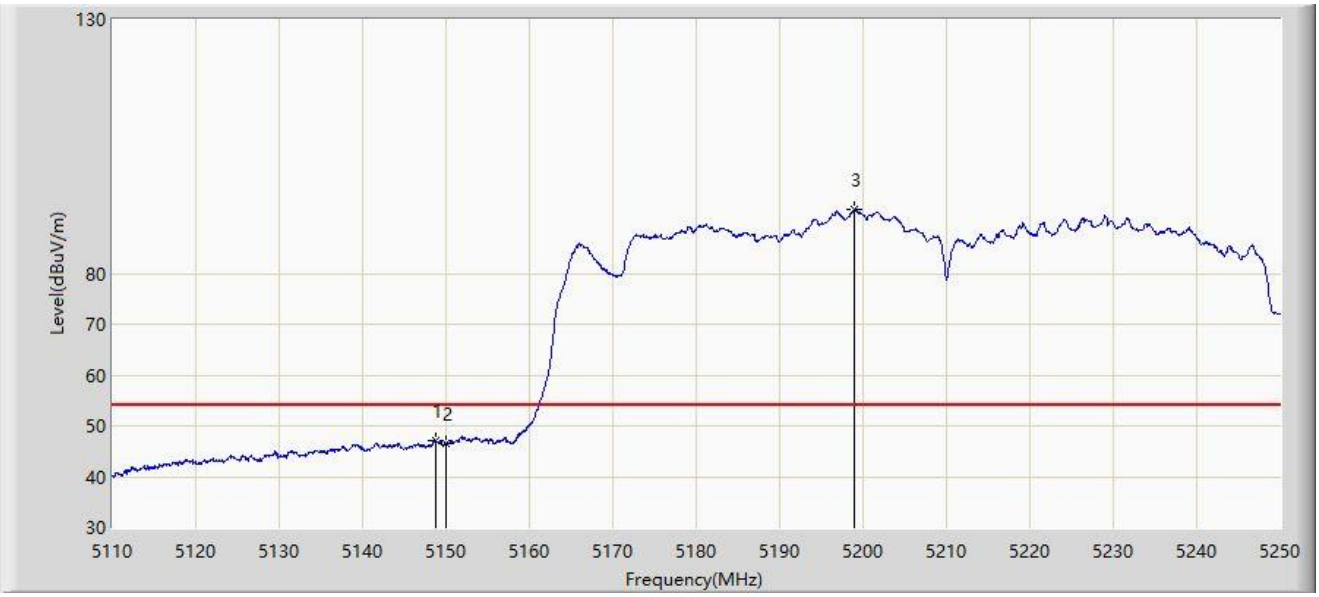
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5136.530	57.193	61.646	-16.807	74.000	-4.454	PK
2		5150.000	56.819	60.065	-17.181	74.000	-3.246	PK
3		5202.330	99.449	57.973	N/A	N/A	41.476	PK

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-AC3	Test Date: 2023-09-21
Limit: FCC_5G_RE(3m)	Engineer: Fusco Pan
Probe: HF907_102861_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11ac-VHT80 at 5210MHz	



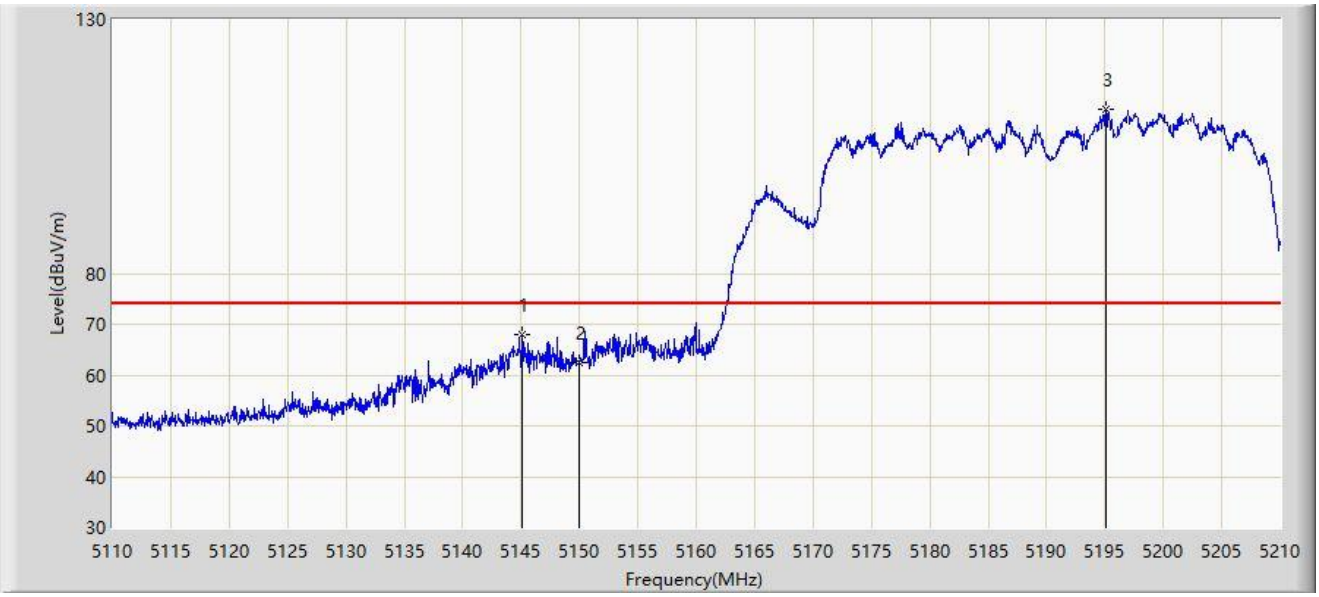
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5148.780	47.200	50.704	-6.800	54.000	-3.504	AV
2		5150.000	46.539	49.785	-7.461	54.000	-3.246	AV
3		5198.970	92.627	55.805	N/A	N/A	36.822	AV

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).

Site: SIP-AC3	Test Date: 2023-09-21
Limit: FCC_5G_RE(3m)	Engineer: Fusco Pan
Probe: HF907_102861_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11ax-HE40 at 5190MHz	



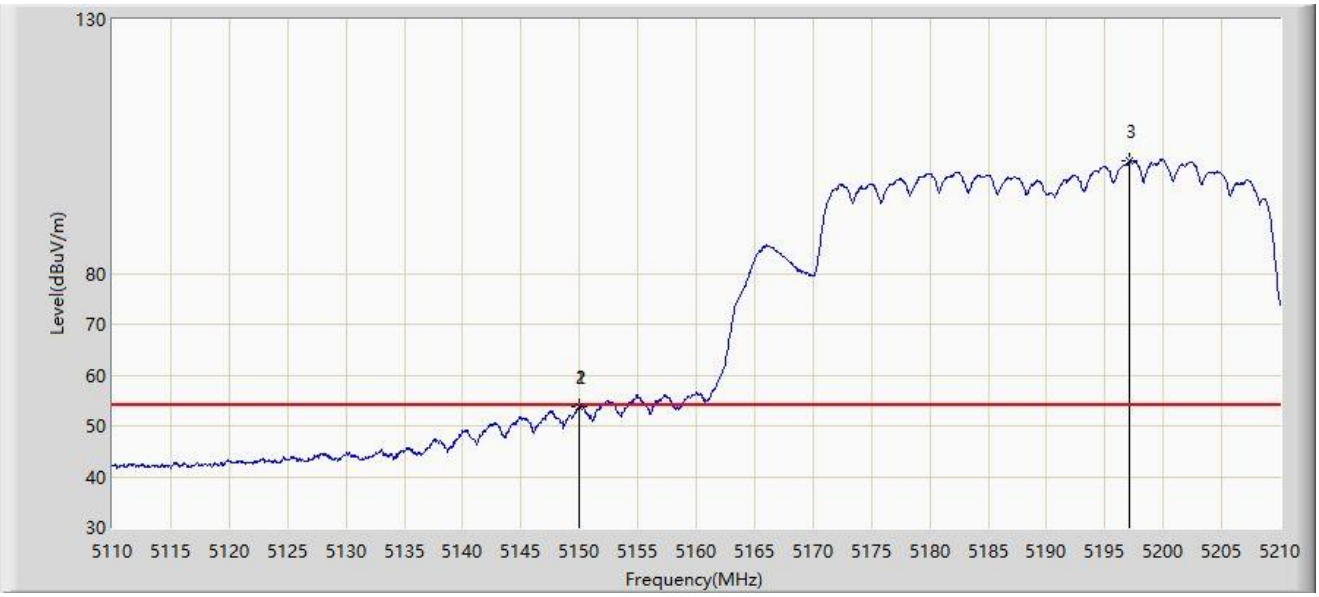
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5145.150	67.939	71.971	-6.061	74.000	-4.032	PK
2		5150.000	62.510	65.756	-11.490	74.000	-3.246	PK
3		5195.150	112.448	77.260	N/A	N/A	35.188	PK

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-AC3	Test Date: 2023-09-21
Limit: FCC_5G_RE(3m)	Engineer: Fusco Pan
Probe: HF907_102861_1-18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11ax-HE40 at 5190MHz	



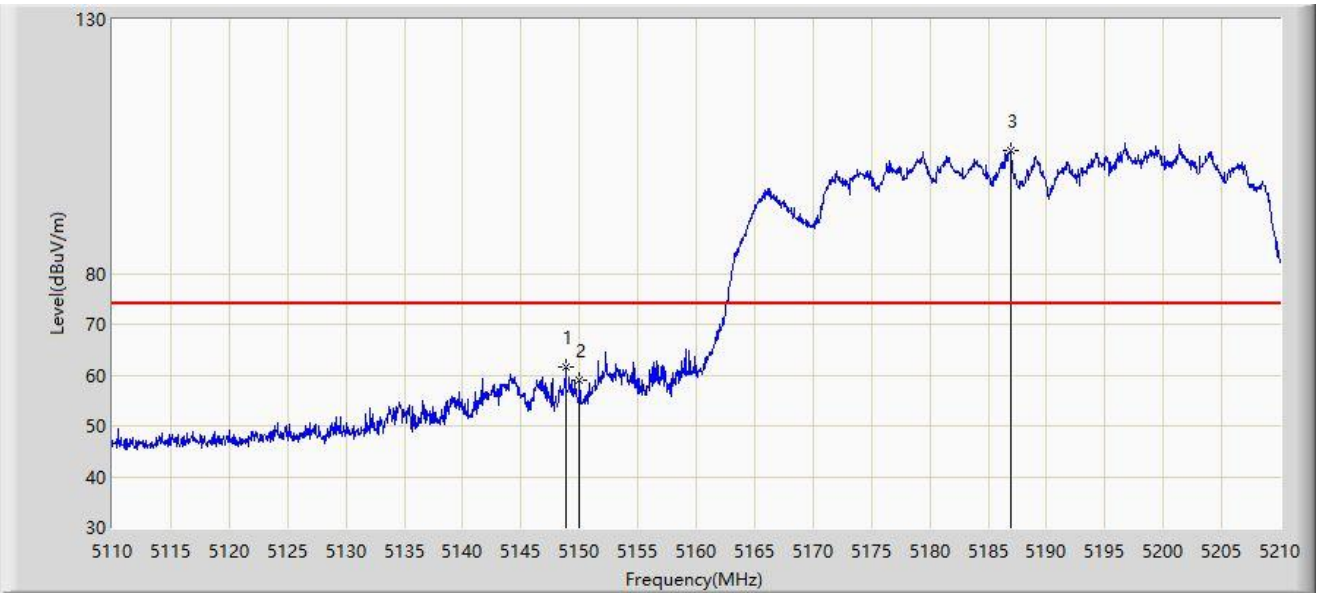
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5149.950	53.798	57.061	-0.202	54.000	-3.262	AV
2		5150.000	53.714	56.960	-0.286	54.000	-3.246	AV
3		5197.150	102.045	66.502	N/A	N/A	35.544	AV

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).

Site: SIP-AC3	Test Date: 2023-09-21
Limit: FCC_5G_RE(3m)	Engineer: Fusco Pan
Probe: HF907_102861_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11ax-HE40 at 5190MHz	



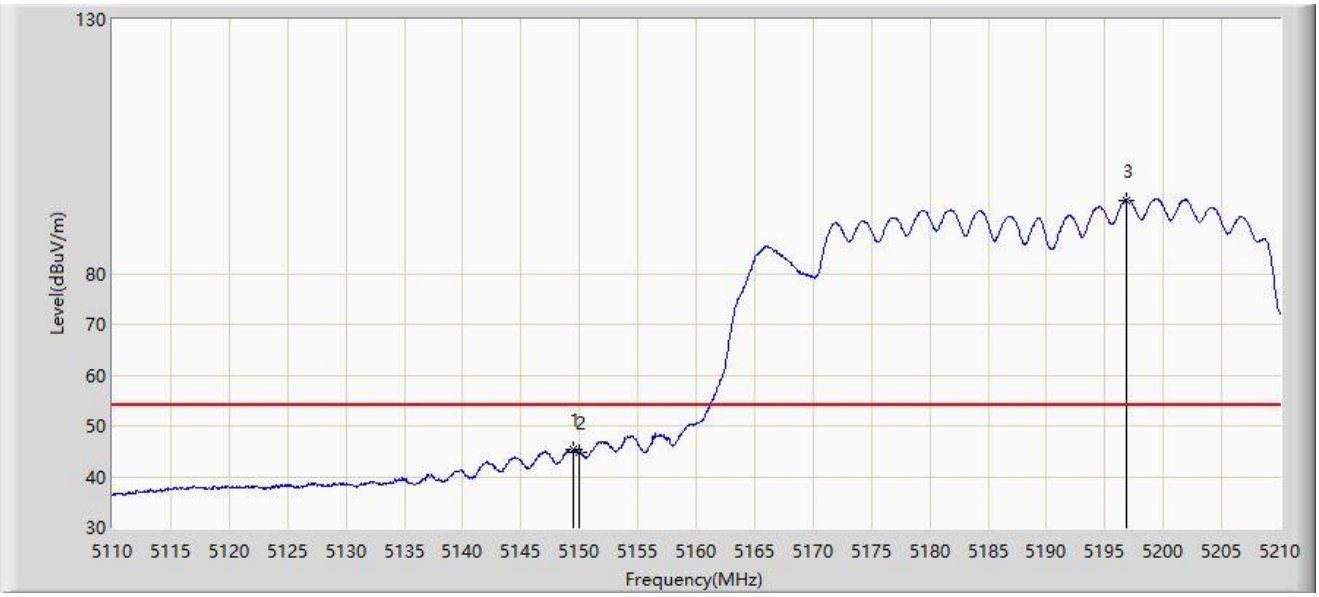
No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5148.850	61.566	65.056	-12.434	74.000	-3.489	PK
2		5150.000	58.915	62.161	-15.085	74.000	-3.246	PK
3		5186.900	104.205	69.152	N/A	N/A	35.053	PK

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-AC3	Test Date: 2023-09-21
Limit: FCC_5G_RE(3m)	Engineer: Fusco Pan
Probe: HF907_102861_1-18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: By PoE
Test Mode: Transmit by 802.11ax-HE40 at 5190MHz	



No	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB/m)	Type
1	*	5149.450	45.396	48.774	-8.604	54.000	-3.377	AV
2		5150.000	44.817	48.063	-9.183	54.000	-3.246	AV
3		5196.800	94.491	59.077	N/A	N/A	35.413	AV

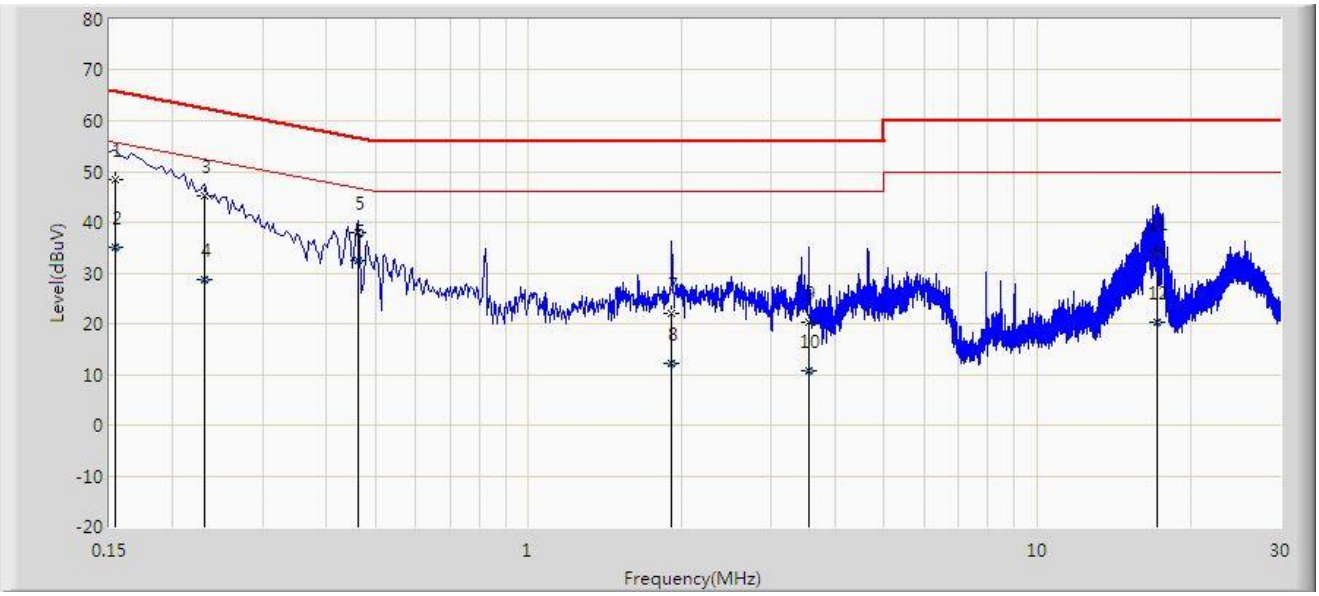
Note 1: " * ", means this data is the worst emission level.

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).

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: Neutral
EUT: ACCESS POINT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ac-VHT40 at 5755MHz	



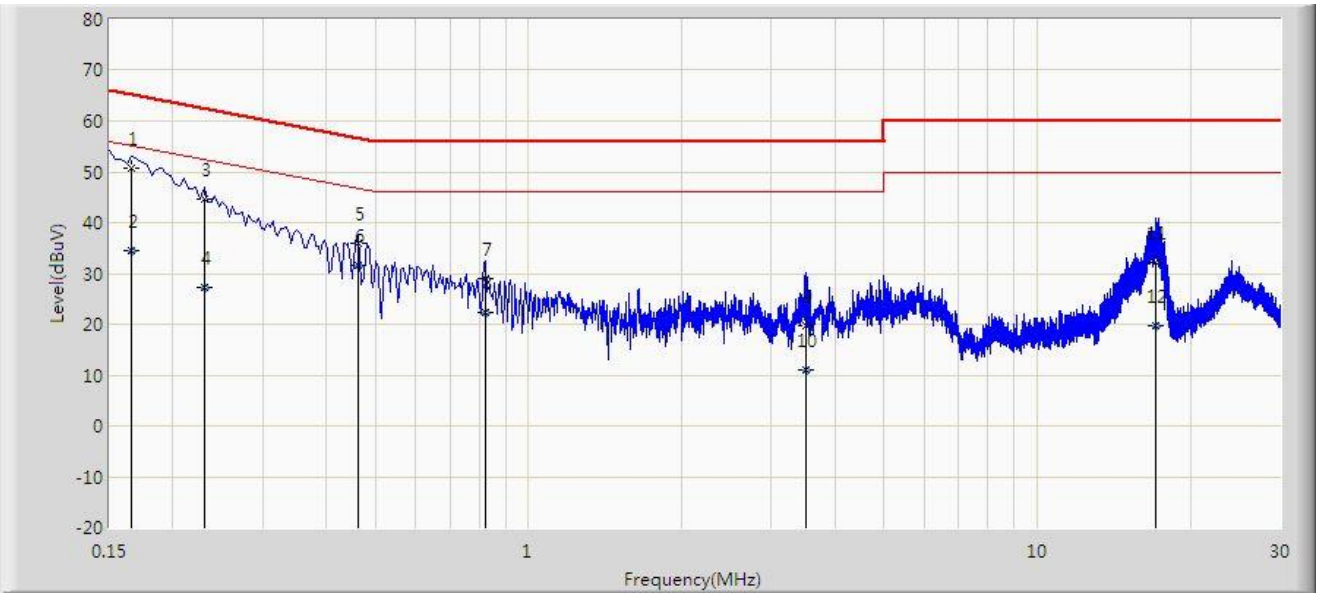
No	Mark	Frequency (MHz)	Measure Level (dBµV)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV)	Factor (dB)	Type
1		0.154	48.472	38.820	-17.310	65.781	9.651	QP
2		0.154	34.972	25.321	-20.809	55.781	9.651	AV
3		0.230	45.090	35.386	-17.360	62.450	9.704	QP
4		0.230	28.661	18.957	-23.789	52.450	9.704	AV
5		0.462	37.835	28.105	-18.822	56.657	9.730	QP
6	*	0.462	32.404	22.674	-14.253	46.657	9.730	AV
7		1.914	22.139	12.363	-33.861	56.000	9.777	QP
8		1.914	12.217	2.441	-33.783	46.000	9.777	AV
9		3.550	20.179	10.298	-35.821	56.000	9.881	QP
10		3.550	10.692	0.811	-35.308	46.000	9.881	AV
11		17.226	34.056	23.440	-25.944	60.000	10.616	QP
12		17.226	20.433	9.817	-29.567	50.000	10.616	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: Line
EUT: ACCESS POINT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ac-VHT40 at 5755MHz	



No	Mark	Frequency (MHz)	Measure Level (dBµV)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV)	Factor (dB)	Type
1	*	0.166	50.582	40.931	-14.576	65.158	9.651	QP
2		0.166	34.492	24.841	-20.666	55.158	9.651	AV
3		0.230	44.595	34.881	-17.855	62.450	9.714	QP
4		0.230	27.274	17.560	-25.176	52.450	9.714	AV
5		0.462	35.844	26.108	-20.813	56.657	9.736	QP
6		0.462	31.676	21.940	-14.980	46.657	9.736	AV
7		0.822	28.853	19.108	-27.147	56.000	9.745	QP
8		0.822	22.389	12.644	-23.611	46.000	9.745	AV
9		3.498	19.666	9.776	-36.334	56.000	9.890	QP
10		3.498	11.111	1.221	-34.889	46.000	9.890	AV
11		17.086	32.284	21.647	-27.716	60.000	10.637	QP
12		17.086	19.678	9.041	-30.322	50.000	10.637	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