



FCC RADIO TEST REPORT

FCC ID : PKRISGM3000A
Equipment : M3000A
Brand Name : Inseego
Model Name : M3000A
Marketing Name : M3000
Applicant : Inseego Corp.
9710 Scranton Road Suite 200, San Diego,, CA 92121
Manufacturer : Inseego Corp.
9710 Scranton Road Suite 200, San Diego,, CA 92121
Standard : FCC Part 15 Subpart E §15.407

The product was received on Mar. 29, 2022 and testing was performed from Apr. 13, 2022 to Jun. 01, 2022. We, Sporton International Inc. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

Sporton International Inc. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)



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Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.403(i)	26dB Bandwidth	Pass	-
3.1	2.1049	99% Occupied Bandwidth	Reporting only	-
3.2	15.407(a)	Maximum Conducted Output Power	Pass	-
3.3	15.407(a)	Power Spectral Density	Pass	-
3.4	15.407(b)	Unwanted Emissions	Pass	1.37 dB under the limit at 5147.940 MHz
3.5	15.207	AC Conducted Emission	Pass	7.69 dB under the limit at 11.020 MHz
3.6	15.203 15.407(a)	Antenna Requirement	Pass	-

Declaration of Conformity:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results.

2. The measurement uncertainty please refer to this report "Uncertainty of Evaluation".

Comments and Explanations:

The product specifications of the EUT presented in the report are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: William Chen
Report Producer: Ruby Zou



1 General Description

1.1 Product Feature of Equipment Under Test

3G-WCDMA, 4G-LTE, 5G-FR1 & FR2, Wi-Fi 2.4GHz 802.11b/g/n/ax, Wi-Fi 5GHz 802.11a/n/ac/ax and GNSS.

Product Feature	
Antenna Type	WWAN: Fixed Internal Antenna WLAN <Ant. 0>: Internal Antenna <Ant. 1>: Internal Antenna GPS / Glonass / BDS / Galileo: Internal Antenna

Antenna information		
5150 MHz ~ 5250 MHz	Peak Gain (dBi)	Ant. 0: 3.1 Ant. 1: 4.5

Remark: The EUT's information above is declared by manufacturer. Please refer to Comments and Explanations in report summary.

1.2 Modification of EUT

No modifications made to the EUT during the testing.



1.3 Testing Location

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	Sporton Site No. CO05-HY, 03CH07-HY

Note: The test site complies with ANSI C63.4 2014 requirement.

Test Site	Sporton International Inc. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	Sporton Site No. TH05-HY (TAF Code: 3786)
Remark	The Conducted test item subcontracted to Sporton International Inc. Wensan Laboratory

FCC designation No.: TW1190 and TW3786

1.4 Applicable Standards

According to the specifications declared by the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ FCC Part 15 Subpart E
- ♦ FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01.
- ♦ FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ♦ ANSI C63.10-2013

Remark:

1. All the test items were validated and recorded in accordance with the standards without any modification during the testing.
2. The TAF code is not including all the FCC KDB listed without accreditation.
3. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.



2 Test Configuration of Equipment Under Test

- a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, the measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in three orthogonal axis (X: flat, Y: portrait, Z: landscape), and adjusting the measurement antenna orientation, following C63.10 exploratory test procedures and find X plane as worst plane.
- b. AC power line Conducted Emission was tested under maximum output power.

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5150-5250 MHz Band 1 (U-NII-1)	36	5180	44	5220
	38*	5190	46*	5230
	40	5200	48	5240
	42#	5210		

Note:

1. The above Frequency and Channel with "*" are 802.11n HT40 and 802.11ac VHT40 and 802.11ax HE40.
2. The above Frequency and Channel with "#" are 802.11ac VHT80 and 802.11ax HE80.



2.2 Test Mode

The 802.11ax mode is investigated among different tones, full resource units (RU), partial resource units. The partial RU has no higher power than full RU's, thus the full RU is chosen as main test configuration.

The CDD mode is chosen as worst case configuration for all test cases due to higher power than SISO mode.

The 802.11n/ac mode has no higher power and PSD than 802.11ax mode, thus the 802.11ax mode is chosen as main test configuration, and the 802.11n/ac mode is verified the power.

The final test modes consider the modulation and the worst data rates as shown in the table below.

MIMO Mode

Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20 (Covered by HE20)	MCS0
802.11n HT40 (Covered by HE40)	MCS0
802.11ac VHT20 (Covered by HE20)	MCS0
802.11ac VHT40 (Covered by HE40)	MCS0
802.11ac VHT80 (Covered by HE80)	MCS0
802.11ax HE20	MCS0
802.11ax HE40	MCS0
802.11ax HE80	MCS0

Test Cases	
AC Conducted Emission	Mode 1 : WLAN (5GHz) Link + LAN Link + USB Cable (Charging from Adapter)



Ch. #		Band I : 5150-5250 MHz
		802.11a
L	Low	36
M	Middle	44
H	High	48

Ch. #		Band I : 5150-5250 MHz
		802.11ax HE20
L	Low	36
M	Middle	44
H	High	48

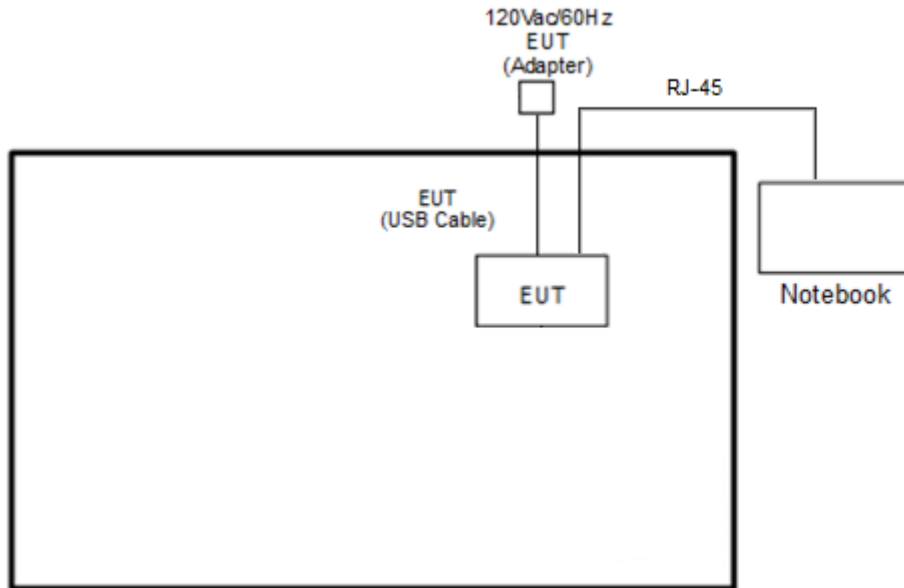
Ch. #		Band I : 5150-5250 MHz
		802.11ax HE40
L	Low	38
M	Middle	-
H	High	46

Ch. #		Band I : 5150-5250 MHz
		802.11ax HE80
L	Low	-
M	Middle	42
H	High	-

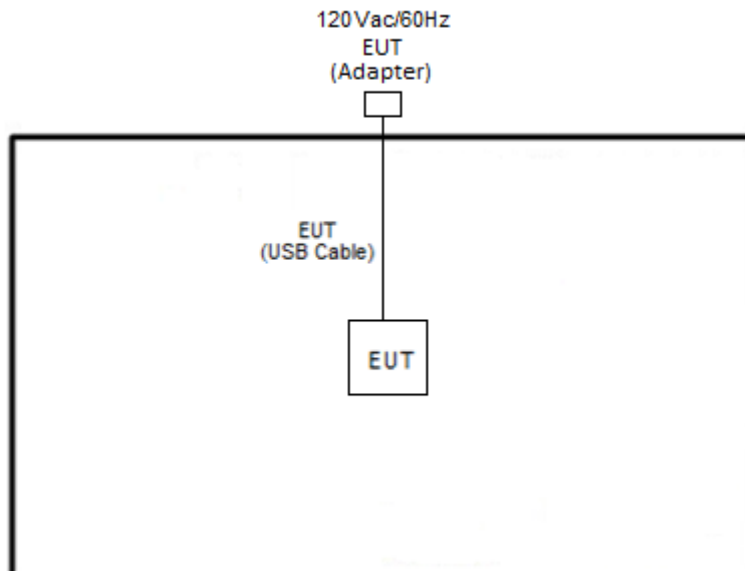
Remark: For radiation spurious emission, the modulation and the data rate picked for testing are determined by the Max. RF conducted power.

2.3 Connection Diagram of Test System

<AC Conducted Emission Mode>



<WLAN Tx Mode>





2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Notebook	Dell	Latitude 3400	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

2.5 EUT Operation Test Setup

The RF test items, utility "QRCT 4.0.00158.0" was installed in Notebook which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

2.6 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example :

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 4.2 dB and 10 dB attenuator.

$$\begin{aligned} \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)}. \\ &= 4.2 + 10 = 14.2 \text{ (dB)} \end{aligned}$$

3 Test Result

3.1 26dB & 99% Occupied Bandwidth Measurement

3.1.1 Description of 26dB & 99% Occupied Bandwidth

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

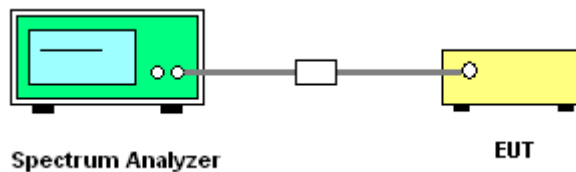
3.1.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section C) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the 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 peak 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%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the emission bandwidth and set the Video bandwidth (VBW) $\geq 3 * RBW$.
8. Measure and record the results in the test report.

3.1.4 Test Setup

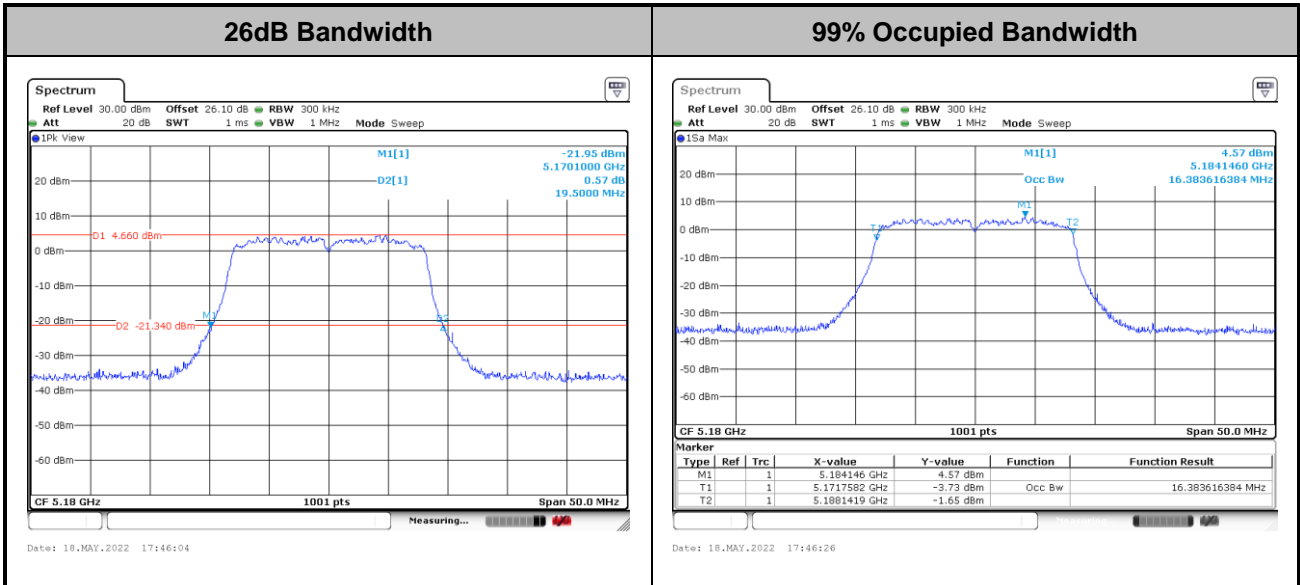


3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

Please refer to Appendix A.

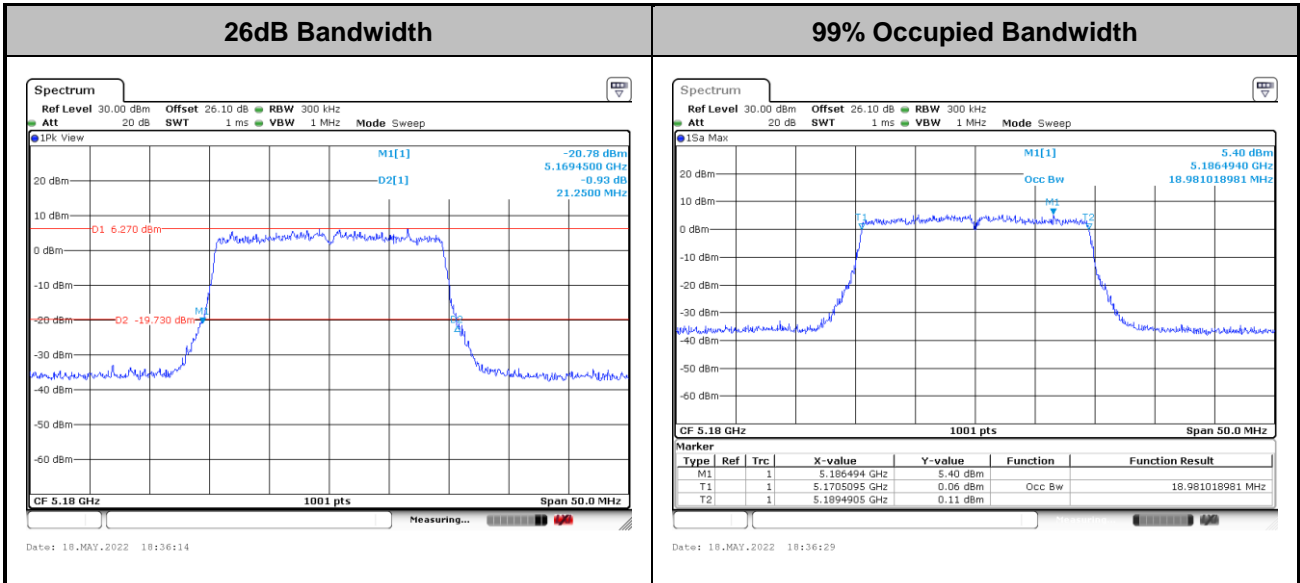


<802.11a>



Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

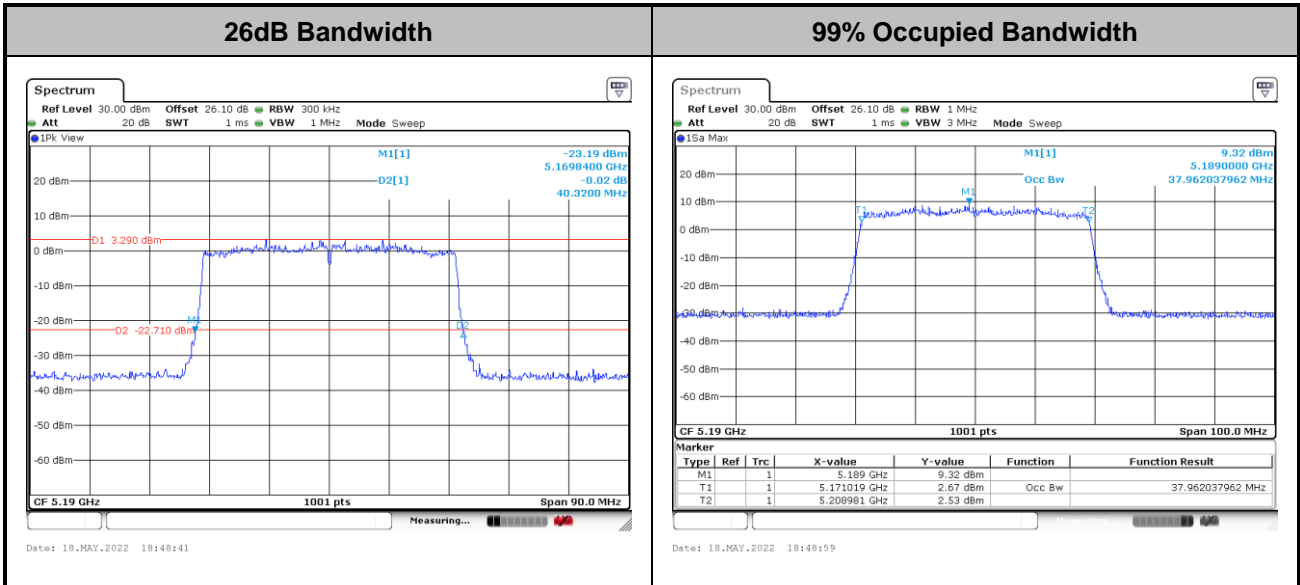
<802.11ax HE20>



Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

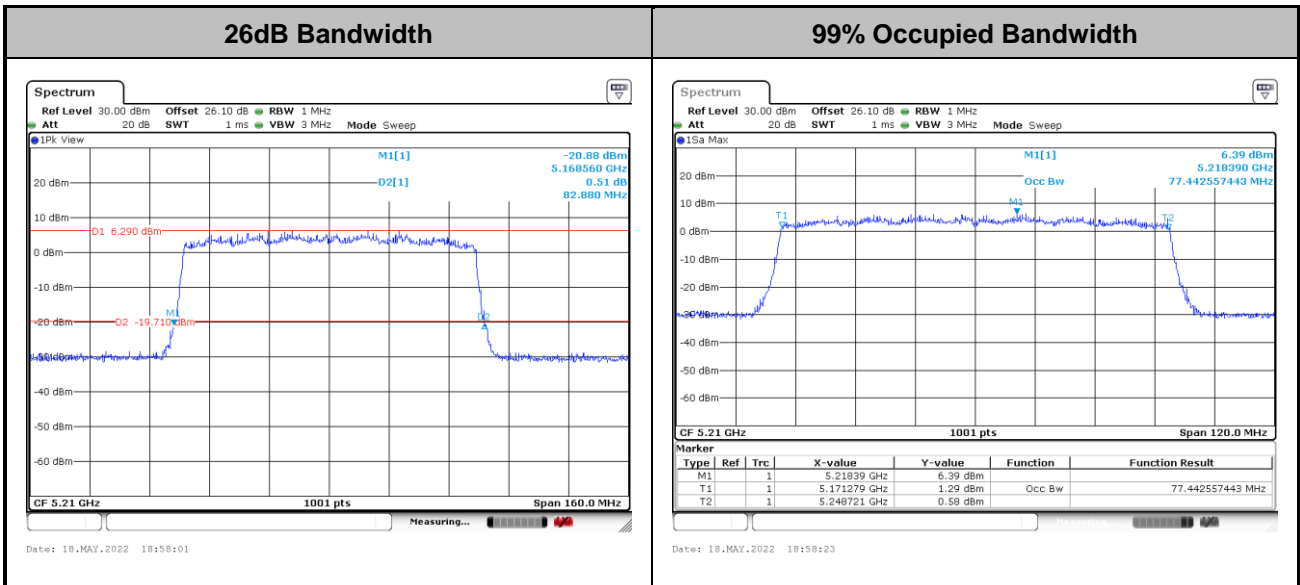


<802.11ax HE40>



Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<802.11ax HE80>



Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.



3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

<FCC 14-30 CFR 15.407>

For the 5.15–5.25 GHz bands:

For an outdoor access point operating in 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. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

3.2.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

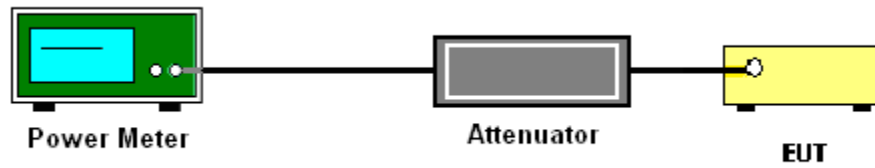
3.2.3 Test Procedures

The testing follows Method PM-G of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Method PM-G (Measurement using a gated RF average power meter):

1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit at its maximum power control level.
3. Measure the average power of the transmitter.
4. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.
5. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.



3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

<FCC 14-30 CFR 15.407>

For the 5.15–5.25 GHz bands:

For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.3.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section F) Maximum power spectral density.

Method SA-3

(power averaging (rms) detection with max hold):

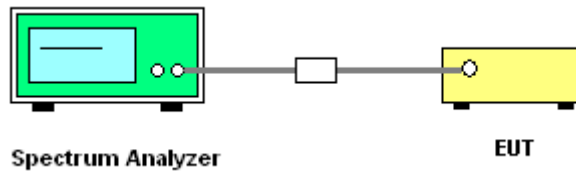
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz.
- Set VBW \geq 3 MHz.
- Number of points in sweep \geq 2 Span / RBW.
- Sweep time \leq (number of points in sweep) \times T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
Detector = power averaging (rms).
- Trace mode = max hold.
- Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.

1. The RF output of EUT is connected to the spectrum analyzer by a low loss cable.
2. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.
3. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

Method (a): Measure and sum the spectra across the outputs.

The total final Power Spectral Density is from a device with 2 transmitter outputs. The spectrum measurements of the individual outputs are all performed with the same span and number of points; the spectrum value in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 to obtain the value for the first frequency bin of the summed spectrum.

3.3.4 Test Setup

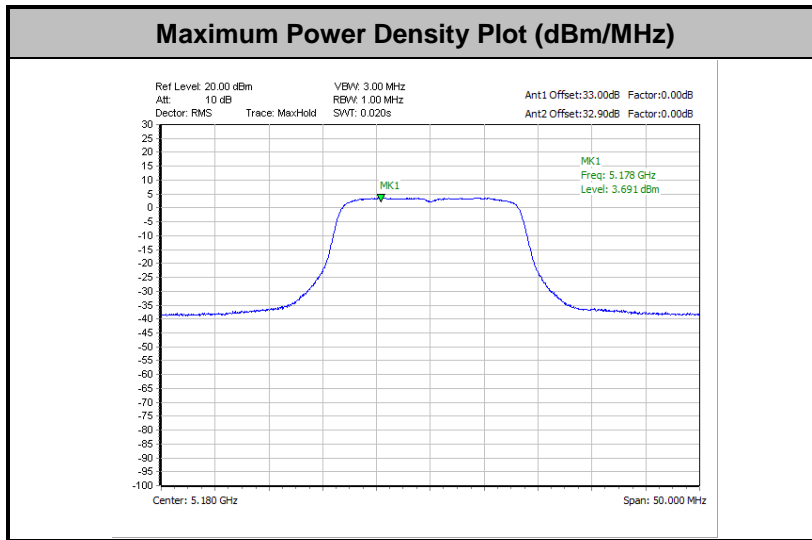


3.3.5 Test Result of Power Spectral Density

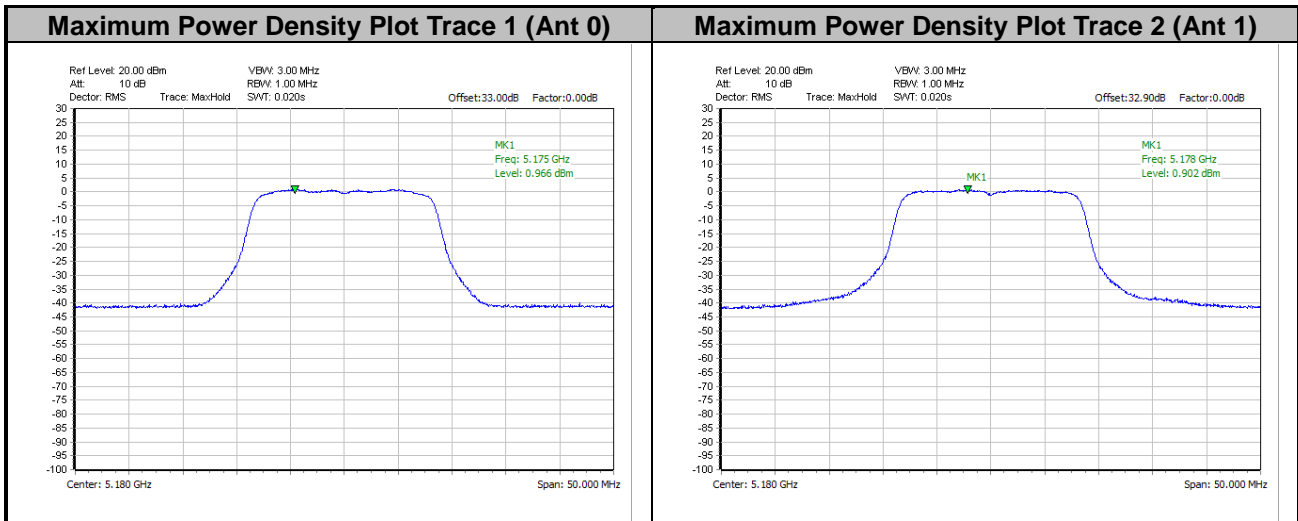
Please refer to Appendix A.



<802.11a>

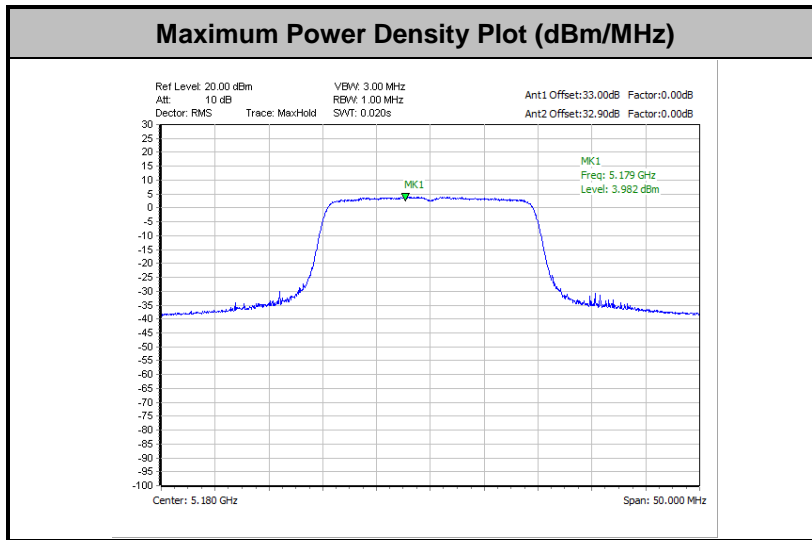


Remark: The test plot is showing a bin by bin combined result mathematically adds two traces.

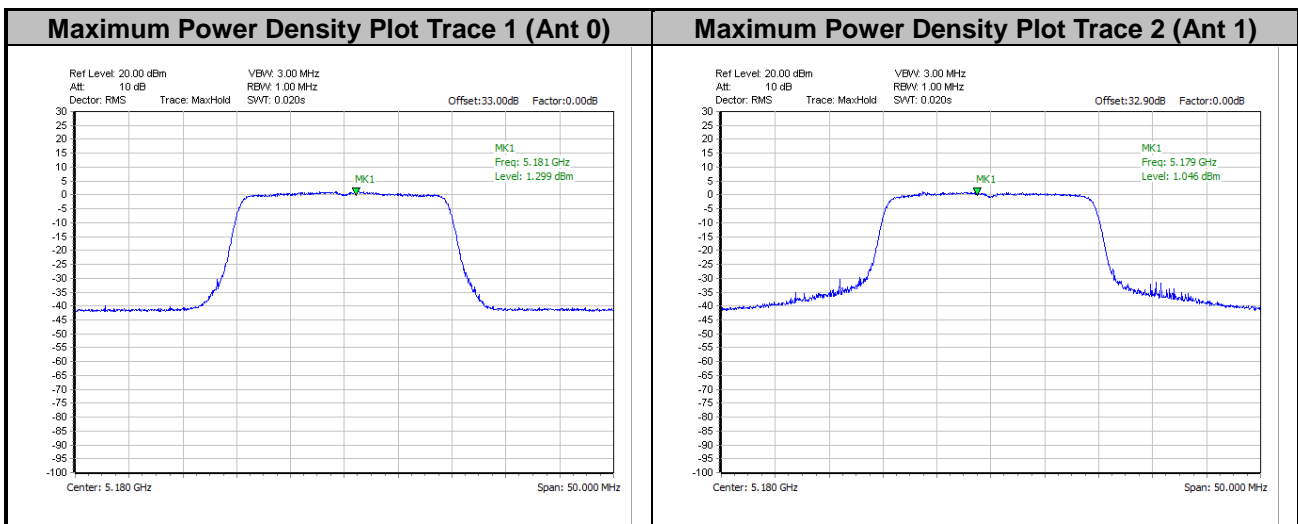




<802.11ax HE20>



Remark: The test plot is showing a bin by bin combined result mathematically adds two traces.





3.4 Unwanted Emissions Measurement

This section is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement.

3.4.1 Limit of Unwanted Emissions

- (1) For transmitters operating in the 5150-5250 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of -27dBm/MHz.
- (2) Unwanted spurious emissions falls in restricted bands shall comply with the general field strength limits as below table:

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

Note: The following formula is used to convert the EIRP to field strength.

$$E = \frac{1000000\sqrt{30P}}{3} \text{ } \mu\text{V/m, where P is the eirp (Watts)}$$

EIRP (dBm)	Field Strength at 3m (dBμV/m)
- 27	68.3

- (3) KDB789033 D02 v02r01 G)2)c)
 - (i) Sections 15.407(b)(1-3) specifies the unwanted emissions limit for the U-NII-1 and U-NII-2 bands. As specified, emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz.
 - (ii) Section 15.407(b)(4) specifies the unwanted emissions limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). The emission limits are based on the use of a peak detector.

3.4.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.



3.4.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section G) Unwanted emissions measurement.

(1) Procedure for Unwanted Emissions Measurements Below 1000 MHz

- RBW = 120 kHz
- VBW = 300 kHz
- Detector = Peak
- Trace mode = max hold

(2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz

- RBW = 1 MHz
- VBW \geq 3 MHz
- Detector = Peak
- Sweep time = auto
- Trace mode = max hold

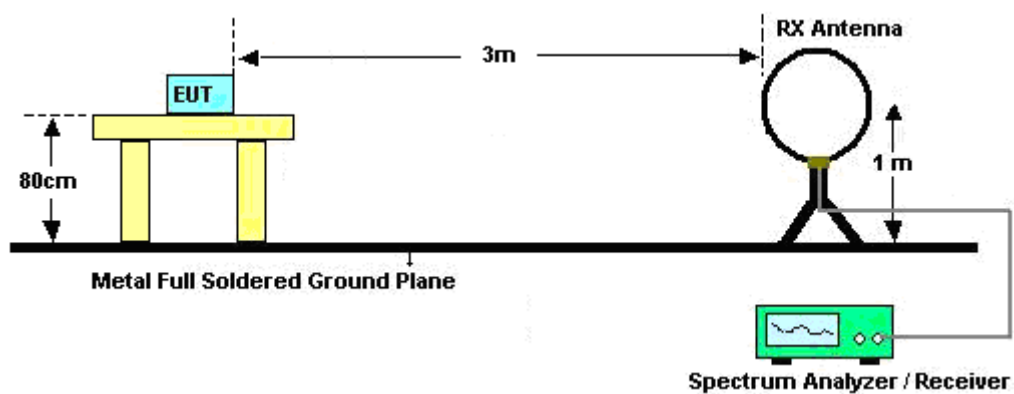
(3) Procedures for Average Unwanted Emissions Measurements Above 1000 MHz

- RBW = 1 MHz
- VBW = 10 Hz, when duty cycle is no less than 98 percent.
- VBW \geq 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

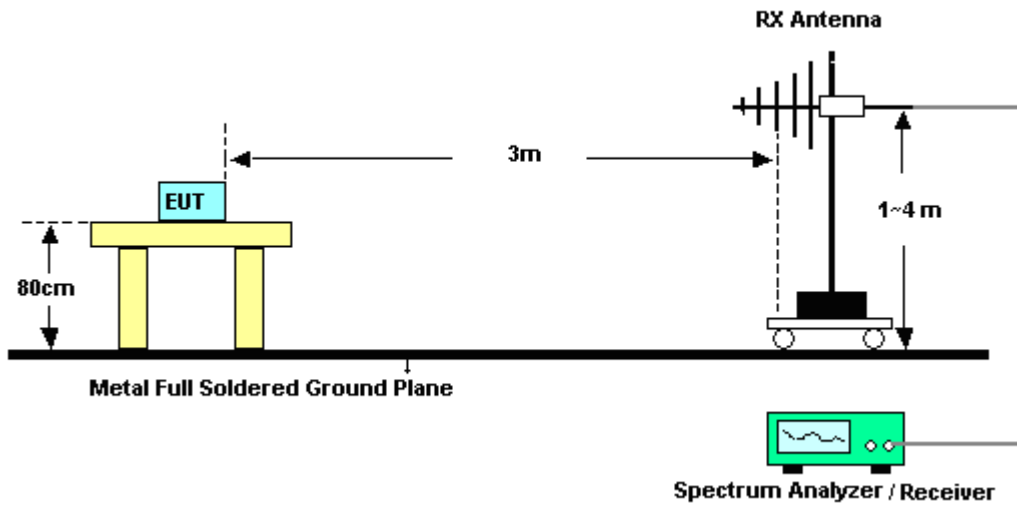
2. The EUT is placed on a turntable with 0.8 meter for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz respectively above ground.
3. The EUT is set 3 meters away from the receiving antenna which is mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT is arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. Radiated testing below 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading. When there is no suspected emission found and the emission level is with at least 6 dB margin against QP limit line, the position is marked as “-“.
7. Radiated testing above 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading for scanning all frequencies. When there is no suspected emission found and the harmonic emission level is with at least 6 dB margin against average limit line, the position is marked as “-“.

3.4.4 Test Setup

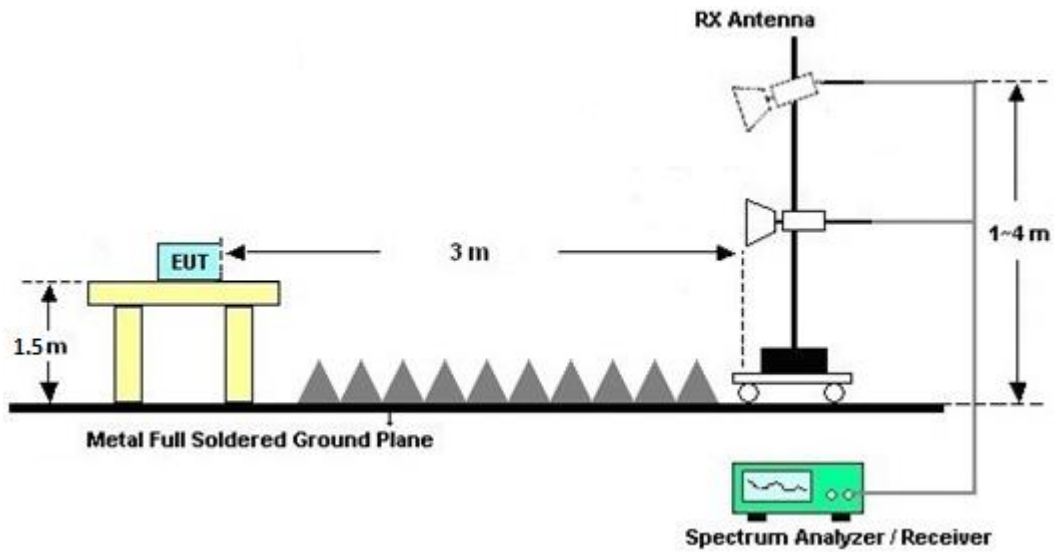
For radiated emissions below 30MHz



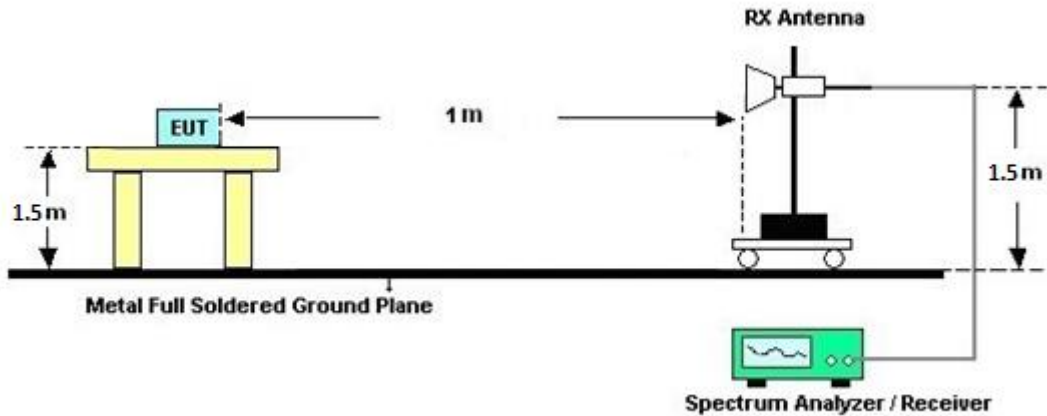
For radiated emissions from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



3.4.5 Test Results of Radiated Spurious Emissions (9 kHz ~ 30 MHz)

The low frequency, which starts from 9 kHz to 30 MHz, is pre-scanned and the result which is 20 dB lower than the limit line is not reported.

There is adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

3.4.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C and D.

3.4.7 Duty Cycle

Please refer to Appendix E.

3.4.8 Test Result of Radiated Spurious Emissions (30MHz ~ 10th Harmonic)

Please refer to Appendix C and D.



3.5 AC Conducted Emission Measurement

3.5.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dBµV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

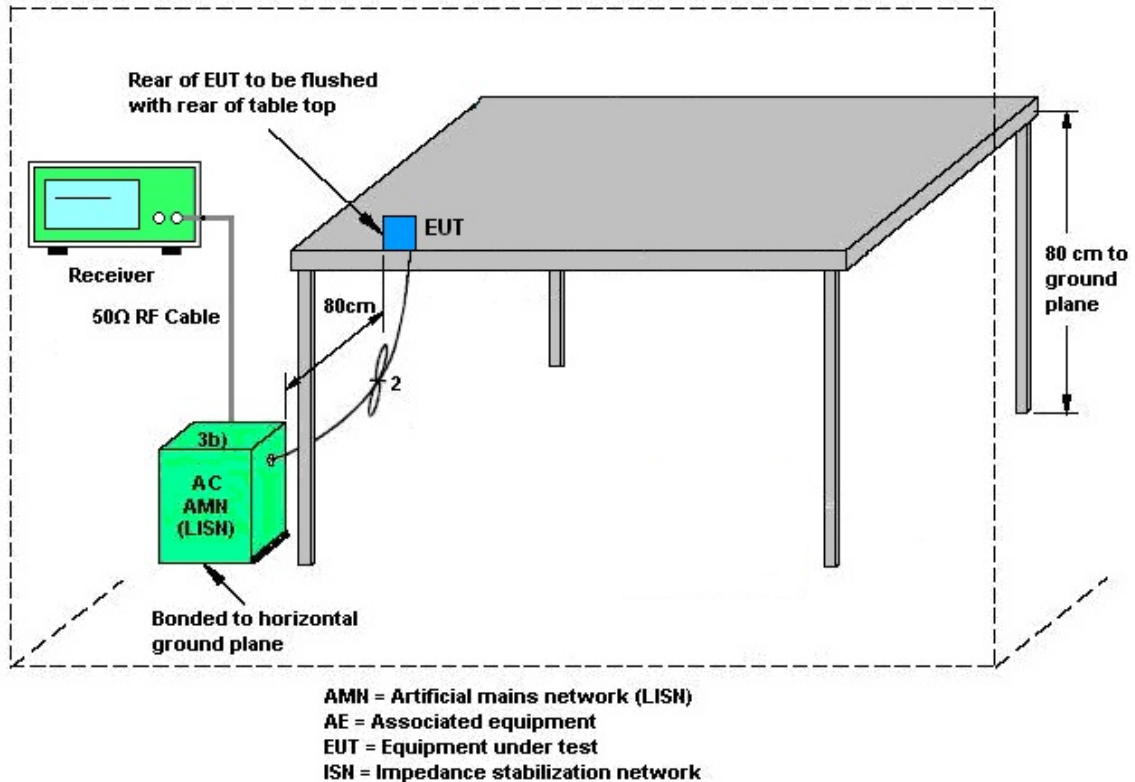
3.5.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.5.3 Test Procedures

1. The EUT is placed 0.4 meter away from the conducting wall of the shielding room, and is kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN shall be used.
6. Both Line and Neutral shall be tested in order to find out the maximum conducted emission.
7. The frequency range from 150 kHz to 30 MHz is scanned.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

3.5.4 Test Setup



3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.6 Antenna Requirements

3.6.1 Standard Applicable

If transmitting antenna directional gain is greater than 6 dBi, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.6.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.6.3 Antenna Gain

<CDD Modes >

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For power measurements on IEEE 802.11 devices,

Directional gain = G_{ANT} + Array Gain, where Array Gain is as follows:

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$.

G_{ANT} is set equal to the gain of the antenna having the highest gain.

For PSD measurements, the directional gain calculation follows F)2)f)ii) of KDB 662911 D01 v02r01.

$$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

where

Each antenna is driven by no more than one spatial stream;

N_{SS} = the number of independent spatial streams of data;

N_{ANT} = the total number of antennas

$g_{j,k} = 10^{G_k/20}$ if the k th antenna is being fed by spatial stream j , or zero if it is not;
 G_k is the gain in dBi of the k th antenna.

As minimum $N_{SS}=1$ is supported by EUT, the formula can be simplified as:

$$Directional\ gain = 10 \cdot \log \left[\left(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20} \right)^2 / N_{ANT} \right] \text{ dBi}$$

Where G_1, G_2, \dots, G_N denote single antenna gain.

For example: If a device has two antenna, $G_{ANT1} = 3.6$ dBi; $G_{ANT2} = 4.2$ dBi

Directional gain of power measurement = $\max(3.6, 4.2) + 0 = 4.2$ dBi

Directional gain of PSD measurement = $10 \cdot \log \left[\left(10^{3.6/20} + 10^{4.2/20} \right)^2 / 2 \right] = 6.92$ dBi



The directional gain "DG" is calculated as following table.

<CDD Modes>						
			DG	DG	Power	PSD
			for	for	Limit	Limit
	Ant. 0	Ant. 1	Power	PSD	Reduction	Reduction
	(dBi)	(dBi)	(dBi)	(dBi)	(dB)	(dB)
Band I	3.10	4.50	4.50	6.84	0.00	0.84

Power limit reduction = Composite gain – 6dBi, (min = 0)

PSD limit reduction = Composite gain + PSD Array gain – 6dBi, (min = 0)

Calculation example:

The DG for PSD is derived from formula is

$$10 \times \log \left\{ \left[10^{(3.10 \text{ dBi} / 20)} + 10^{(4.50 \text{ dBi} / 20)} \right]^2 \right\} / 2$$

$$= 6.84 \text{ dBi}$$



4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Hygrometer	TECPEL	DTM-303A	TP201996	N/A	Nov. 16, 2021	Apr. 13, 2022~ Jun. 01, 2022	Nov. 15, 2022	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	16I00054SNO 12 (NO:113)	10MHz~6GHz	Dec. 16, 2021	Apr. 13, 2022~ Jun. 01, 2022	Dec. 15, 2022	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101566	10Hz~40GHz	Aug. 30, 2021	Apr. 13, 2022~ Jun. 01, 2022	Aug. 29, 2022	Conducted (TH05-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Jan. 07, 2022	Apr. 29, 2022~ May 13, 2022	Jan. 06, 2023	Radiation (03CH07-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N -06	35419 & 03	30MHz~1GHz	Apr. 24, 2022	Apr. 29, 2022~ May 13, 2022	Apr. 23, 2023	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	00075962	1GHz ~ 18GHz	Dec. 03, 2021	Apr. 29, 2022~ May 13, 2022	Dec. 02, 2022	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA917025 1	18GHz~40GHz	Nov. 30, 2021	Apr. 29, 2022~ May 13, 2022	Nov. 29, 2022	Radiation (03CH07-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1590075	1GHz~18GHz	Apr. 21, 2022	Apr. 29, 2022~ May 13, 2022	Apr. 20, 2023	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	10MHz~1GHz	Oct. 04, 2021	Apr. 29, 2022~ May 13, 2022	Oct. 03, 2022	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A02362	1GHz~26.5GHz	Oct. 04, 2021	Apr. 29, 2022~ May 13, 2022	Oct. 03, 2022	Radiation (03CH07-HY)
Preamplifier	EMEC	EM18G40G	0600789	18-40GHz	Jul. 23, 2021	Apr. 29, 2022~ May 13, 2022	Jul. 22, 2022	Radiation (03CH07-HY)
Spectrum Analyzer	Agilent	N9030A	MY52350276	3Hz~44GHz	Jul. 22, 2021	Apr. 29, 2022~ May 13, 2022	Jul. 21, 2022	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY15682/4	30MHz to 18GHz	Feb. 23, 2022	Apr. 29, 2022~ May 13, 2022	Feb. 22, 2023	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY24971/4	9kHz to 18GHz	Feb. 23, 2022	Apr. 29, 2022~ May 13, 2022	Feb. 22, 2023	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY28655/4	9kHz to 18GHz	Feb. 23, 2022	Apr. 29, 2022~ May 13, 2022	Feb. 22, 2023	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126	532078/126E	30MHz~18GHz	Sep. 17, 2021	Apr. 29, 2022~ May 13, 2022	Sep. 16, 2022	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2858/2	18GHz~40GHz	Feb. 23, 2022	Apr. 29, 2022~ May 13, 2022	Feb. 22, 2023	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	801606/2	9KHz ~ 40GHz	Apr. 14, 2022	Apr. 29, 2022~ May 13, 2022	Apr. 13, 2023	Radiation (03CH07-HY)
Antenna Mast	EMEC	AM-BS-4500E	N/A	Boresight mast 1M~4M	N/A	Apr. 29, 2022~ May 13, 2022	N/A	Radiation (03CH07-HY)
Turn Table	ChainTek	Chaintek 3000	N/A	0~360 Degree	N/A	Apr. 29, 2022~ May 13, 2022	N/A	Radiation (03CH07-HY)
Software	Audix	E3	N/A	N/A	N/A	Apr. 29, 2022~ May 13, 2022	N/A	Radiation (03CH07-HY)
USB Data Logger	TECPEL	TR-32	HE17XB1148	N/A	Oct. 25, 2021	Apr. 29, 2022~ May 13, 2022	Oct. 24, 2022	Radiation (03CH07-HY)



Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	May 05, 2022	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Dec. 01, 2021	May 05, 2022	Nov. 30, 2022	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Nov. 17, 2021	May 05, 2022	Nov. 16, 2022	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Dec. 03, 2021	May 05, 2022	Dec. 02, 2022	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32	N/A	N/A	N/A	May 05, 2022	N/A	Conduction (CO05-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-FN	00691	N/A	Jul. 28, 2021	May 05, 2022	Jul. 27, 2022	Conduction (CO05-HY)
LISN Cable	MVE	RG-400	260260	N/A	Dec. 30, 2021	May 05, 2022	Dec. 29, 2022	Conduction (CO05-HY)



5 Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.1 dB
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.1 dB
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.8 dB
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.0 dB
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Appendix A. Test Result of Conducted Test Items

Test Engineer:	Mina Liu/Jacob Yu	Temperature:	21~25	°C
Test Date:	2022/4/13~2022/06/01	Relative Humidity:	51~54	%

TEST RESULTS DATA
26dB and 99% OBW

Band I MIMO													
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		Note
					Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	
11a	6Mbps	2	36	5180	16.38	16.48	19.50	20.35	-	-	22.14	22.14	
11a	6Mbps	2	44	5220	16.43	16.48	19.70	20.65	-	-	22.16	22.16	
11a	6Mbps	2	48	5240	16.38	16.48	19.60	20.25	-	-	22.14	22.14	

TEST RESULTS DATA
Average Power Table

FCC Band I MIMO												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
					Ant 0	Ant 1	SUM	Ant 0	Ant 1	Ant 0	Ant 1	
11a	6Mbps	2	36	5180	11.80	11.90	14.86	16.50		4.50	Pass	
11a	6Mbps	2	44	5220	11.80	11.90	14.86	16.50		4.50	Pass	
11a	6Mbps	2	48	5240	11.70	11.70	14.71	16.50		4.50	Pass	
HT20	MCS0	2	36	5180	11.70	11.80	14.76	16.50		4.50	Pass	
HT20	MCS0	2	44	5220	11.40	11.70	14.56	16.50		4.50	Pass	
HT20	MCS0	2	48	5240	11.70	11.70	14.71	16.50		4.50	Pass	
HT40	MCS0	2	38	5190	11.70	11.70	14.71	16.50		4.50	Pass	
HT40	MCS0	2	46	5230	11.70	11.70	14.71	16.50		4.50	Pass	
VHT20	MCS0	2	36	5180	11.80	11.90	14.86	16.50		4.50	Pass	
VHT20	MCS0	2	44	5220	11.50	11.80	14.66	16.50		4.50	Pass	
VHT20	MCS0	2	48	5240	11.80	11.80	14.81	16.50		4.50	Pass	
VHT40	MCS0	2	38	5190	11.80	11.80	14.81	16.50		4.50	Pass	
VHT40	MCS0	2	46	5230	11.80	11.80	14.81	16.50		4.50	Pass	
VHT80	MCS0	2	42	5210	11.60	11.80	14.71	16.50		4.50	Pass	

TEST RESULTS DATA
Power Spectral Density

FCC Band I MIMO												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)		Pass /Fail
					Ant 0	Ant 1	SUM	Ant 0	Ant 1	Ant 0	Ant 1	
11a	6Mbps	2	36	5180			3.69	16.16		6.84	Pass	
11a	6Mbps	2	44	5220			3.58	16.16		6.84	Pass	
11a	6Mbps	2	48	5240			3.43	16.16		6.84	Pass	

TEST RESULTS DATA
26dB and 99% OBW

Band I MIMO														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		Note
						Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	
HE20	MCS0	2	36	5180	Full	18.98	18.98	21.25	21.60	-	-	22.78	22.78	
HE20	MCS0	2	44	5220	Full	18.98	18.98	21.75	21.95	-	-	22.78	22.78	
HE20	MCS0	2	48	5240	Full	18.98	18.93	21.80	21.60	-	-	22.77	22.77	
HE40	MCS0	2	38	5190	Full	37.96	37.96	40.32	40.50	-	-	23.01	23.01	
HE40	MCS0	2	46	5230	Full	38.06	38.16	40.14	40.41	-	-	23.01	23.01	
HE80	MCS0	2	42	5210	Full	77.44	77.32	82.88	82.88	-	-	23.01	23.01	

TEST RESULTS DATA
Average Power Table

FCC Band I MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
						Ant 0	Ant 1	SUM	Ant 0	Ant 1	Ant 0	Ant 1	
HE20	MCS0	2	36	5180	Full	11.90	12.00	14.96	16.50		4.50		Pass
HE20	MCS0	2	36	5180	26/0	3.30	3.20	6.26	16.50		4.50		Pass
HE20	MCS0	2	36	5180	52/37	6.10	6.20	9.16	16.50		4.50		Pass
HE20	MCS0	2	36	5180	106/53	8.70	9.10	11.91	16.50		4.50		Pass
HE20	MCS0	2	44	5220	Full	11.60	11.90	14.76	16.50		4.50		Pass
HE20	MCS0	2	44	5220	26/4	3.90	3.70	6.81	16.50		4.50		Pass
HE20	MCS0	2	44	5220	52/39	6.20	6.40	9.31	16.50		4.50		Pass
HE20	MCS0	2	44	5220	106/53	7.90	8.50	11.22	16.50		4.50		Pass
HE20	MCS0	2	48	5240	Full	11.90	11.90	14.91	16.50		4.50		Pass
HE20	MCS0	2	48	5240	26/8	3.10	3.20	6.16	16.50		4.50		Pass
HE20	MCS0	2	48	5240	52/40	5.70	6.00	8.86	16.50		4.50		Pass
HE20	MCS0	2	48	5240	106/54	8.40	8.70	11.56	16.50		4.50		Pass
HE40	MCS0	2	38	5190	Full	11.90	12.00	14.96	16.50		4.50		Pass
HE40	MCS0	2	38	5190	242/61	9.20	9.60	12.41	16.50		4.50		Pass
HE40	MCS0	2	46	5230	Full	11.90	12.00	14.96	16.50		4.50		Pass
HE40	MCS0	2	46	5230	242/62	9.10	9.60	12.37	16.50		4.50		Pass
HE80	MCS0	2	42	5210	Full	11.70	11.90	14.81	16.50		4.50		Pass
HE80	MCS0	2	42	5210	484/65	9.00	9.40	12.21	16.50		4.50		Pass

TEST RESULTS DATA
Power Spectral Density

FCC Band I MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)		Pass /Fail
						Ant 0	Ant 1	SUM	Ant 0	Ant 1	Ant 0	Ant 1	
HE20	MCS0	2	36	5180	Full			3.98	16.16	6.84		Pass	
HE20	MCS0	2	36	5180	26/0			3.68	16.16	6.84		Pass	
HE20	MCS0	2	36	5180	52/37			3.69	16.16	6.84		Pass	
HE20	MCS0	2	36	5180	106/53			3.82	16.16	6.84		Pass	
HE20	MCS0	2	44	5220	Full			3.50	16.16	6.84		Pass	
HE20	MCS0	2	44	5220	26/4			3.28	16.16	6.84		Pass	
HE20	MCS0	2	44	5220	52/39			3.43	16.16	6.84		Pass	
HE20	MCS0	2	44	5220	106/53			3.45	16.16	6.84		Pass	
HE20	MCS0	2	48	5240	Full			3.76	16.16	6.84		Pass	
HE20	MCS0	2	48	5240	26/8			3.33	16.16	6.84		Pass	
HE20	MCS0	2	48	5240	52/40			3.37	16.16	6.84		Pass	
HE20	MCS0	2	48	5240	106/54			3.25	16.16	6.84		Pass	
HE40	MCS0	2	38	5190	Full			0.82	16.16	6.84		Pass	
HE40	MCS0	2	38	5190	242/61			0.63	16.16	6.84		Pass	
HE40	MCS0	2	46	5230	Full			0.93	16.16	6.84		Pass	
HE40	MCS0	2	46	5230	242/62			0.80	16.16	6.84		Pass	
HE80	MCS0	2	42	5210	Full			-2.34	16.16	6.84		Pass	
HE80	MCS0	2	42	5210	484/65			-2.71	16.16	6.84		Pass	



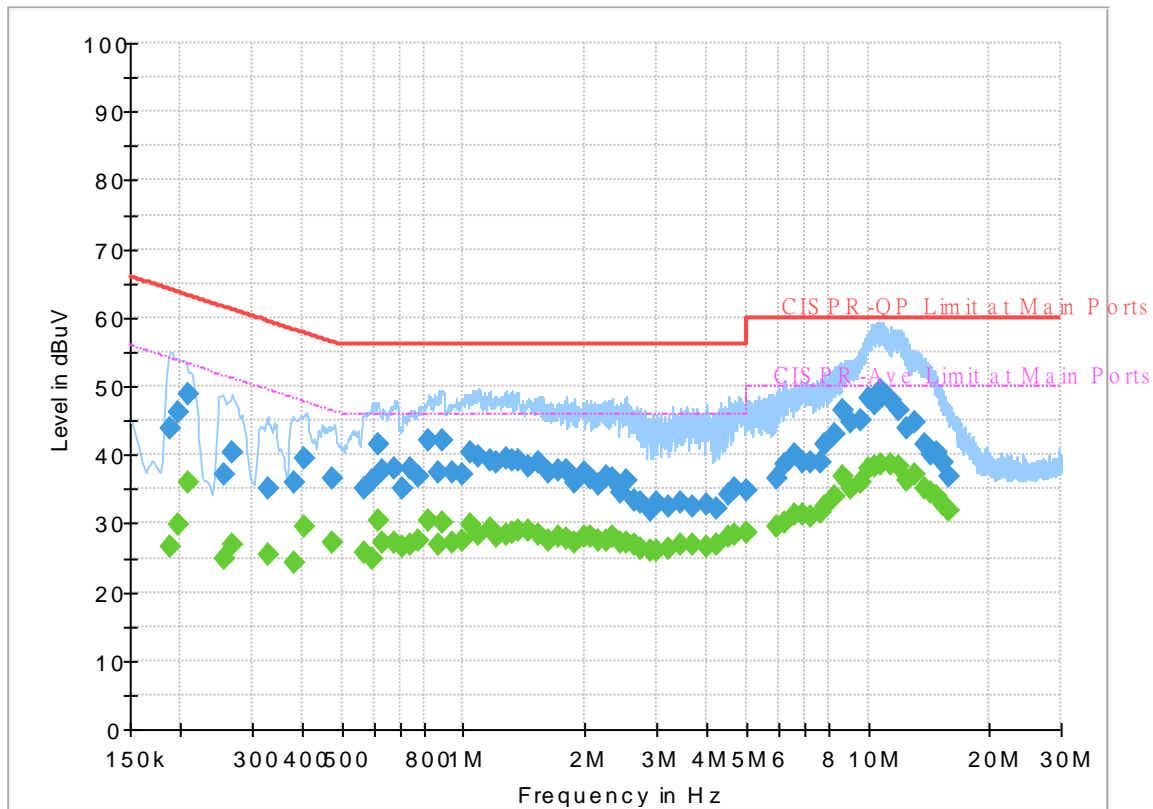
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Calvin Wang	Temperature :	23~26°C
		Relative Humidity :	45~55%

EUT Information

Report NO : 1D2414
 Test Mode : Mode 1
 Test Voltage : 120Vac/60Hz
 Phase : Line

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.188250	---	26.51	54.11	27.60	L1	OFF	19.6
0.188250	43.81	---	64.11	20.30	L1	OFF	19.6
0.197250	---	29.89	53.73	23.84	L1	OFF	19.6
0.197250	46.08	---	63.73	17.65	L1	OFF	19.6
0.208500	---	36.03	53.27	17.24	L1	OFF	19.6
0.208500	48.76	---	63.27	14.51	L1	OFF	19.6
0.255750	---	24.74	51.57	26.83	L1	OFF	19.6
0.255750	36.99	---	61.57	24.58	L1	OFF	19.6
0.267000	---	26.93	51.21	24.28	L1	OFF	19.6
0.267000	40.48	---	61.21	20.73	L1	OFF	19.6
0.327750	---	25.43	49.51	24.08	L1	OFF	19.6
0.327750	35.19	---	59.51	24.32	L1	OFF	19.6
0.384000	---	24.15	48.19	24.04	L1	OFF	19.6
0.384000	36.03	---	58.19	22.16	L1	OFF	19.6
0.404250	---	29.53	47.77	18.24	L1	OFF	19.6
0.404250	39.38	---	57.77	18.39	L1	OFF	19.6
0.471750	---	27.26	46.48	19.22	L1	OFF	19.6
0.471750	36.62	---	56.48	19.86	L1	OFF	19.6
0.570750	---	25.66	46.00	20.34	L1	OFF	19.6
0.570750	35.02	---	56.00	20.98	L1	OFF	19.6
0.593250	---	24.73	46.00	21.27	L1	OFF	19.6

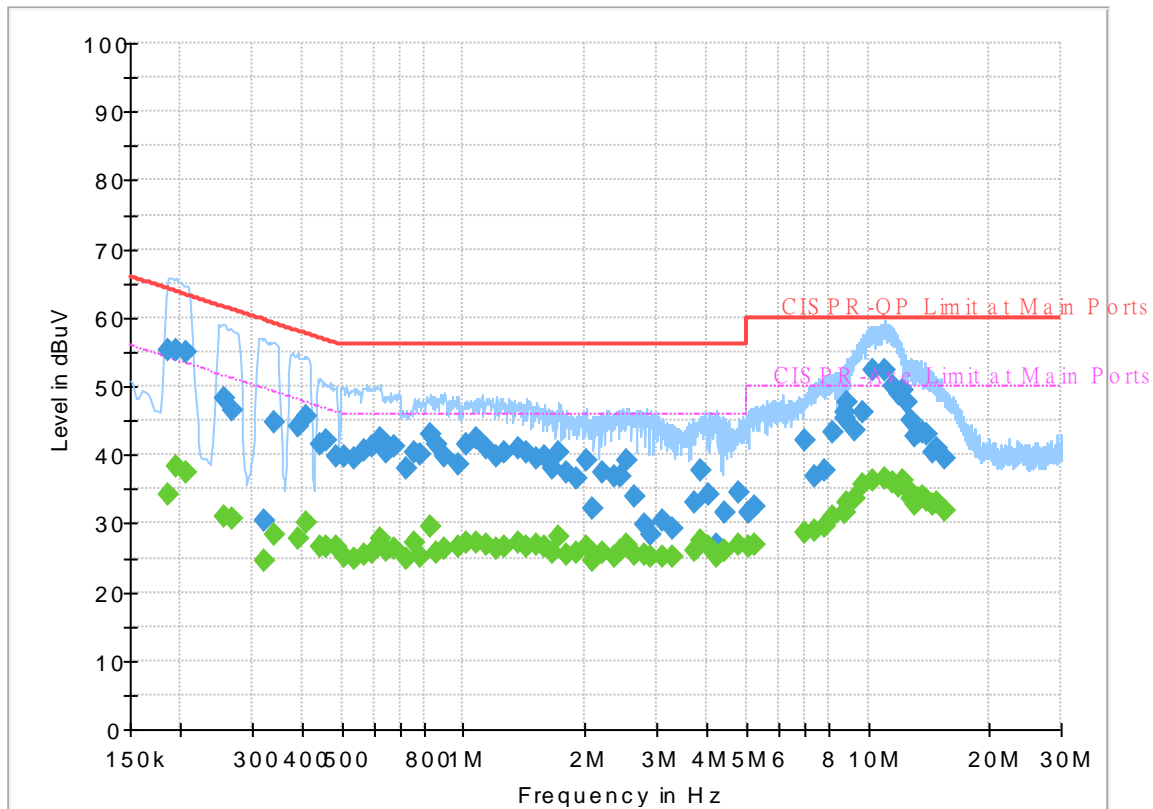
0.593250	36.34	---	56.00	19.66	L1	OFF	19.6
0.615750	---	30.51	46.00	15.49	L1	OFF	19.6
0.615750	41.48	---	56.00	14.52	L1	OFF	19.6
0.633750	---	27.25	46.00	18.75	L1	OFF	19.6
0.633750	37.73	---	56.00	18.27	L1	OFF	19.6
0.674250	---	27.05	46.00	18.95	L1	OFF	19.6
0.674250	37.95	---	56.00	18.05	L1	OFF	19.6
0.710250	---	26.56	46.00	19.44	L1	OFF	19.6
0.710250	35.05	---	56.00	20.95	L1	OFF	19.6
0.741750	---	27.01	46.00	18.99	L1	OFF	19.6
0.741750	37.92	---	56.00	18.08	L1	OFF	19.6
0.777750	---	27.40	46.00	18.60	L1	OFF	19.6
0.777750	36.89	---	56.00	19.11	L1	OFF	19.6
0.822750	---	30.32	46.00	15.68	L1	OFF	19.6
0.822750	41.97	---	56.00	14.03	L1	OFF	19.6
0.870000	---	26.95	46.00	19.05	L1	OFF	19.6
0.870000	37.53	---	56.00	18.47	L1	OFF	19.6
0.890250	---	30.21	46.00	15.79	L1	OFF	19.6
0.890250	42.13	---	56.00	13.87	L1	OFF	19.6
0.935250	---	27.21	46.00	18.79	L1	OFF	19.6
0.935250	37.46	---	56.00	18.54	L1	OFF	19.6
0.991500	---	27.50	46.00	18.50	L1	OFF	19.6
0.991500	37.08	---	56.00	18.92	L1	OFF	19.6
1.036500	---	29.84	46.00	16.16	L1	OFF	19.7
1.036500	40.24	---	56.00	15.76	L1	OFF	19.7
1.086000	---	28.50	46.00	17.50	L1	OFF	19.7
1.086000	39.85	---	56.00	16.15	L1	OFF	19.7
1.160250	---	29.10	46.00	16.90	L1	OFF	19.7
1.160250	39.15	---	56.00	16.85	L1	OFF	19.7
1.212000	---	28.20	46.00	17.80	L1	OFF	19.7
1.212000	38.99	---	56.00	17.01	L1	OFF	19.7
1.279500	---	28.44	46.00	17.56	L1	OFF	19.7
1.279500	39.45	---	56.00	16.55	L1	OFF	19.7
1.326750	---	28.80	46.00	17.20	L1	OFF	19.7
1.326750	39.06	---	56.00	16.94	L1	OFF	19.7
1.369500	---	29.07	46.00	16.93	L1	OFF	19.7
1.369500	39.23	---	56.00	16.77	L1	OFF	19.7
1.446000	---	28.96	46.00	17.04	L1	OFF	19.7
1.446000	38.19	---	56.00	17.81	L1	OFF	19.7
1.527000	---	28.46	46.00	17.54	L1	OFF	19.7
1.527000	38.83	---	56.00	17.17	L1	OFF	19.7
1.617000	---	27.53	46.00	18.47	L1	OFF	19.7
1.617000	37.36	---	56.00	18.64	L1	OFF	19.7
1.709250	---	28.08	46.00	17.92	L1	OFF	19.7
1.709250	37.77	---	56.00	18.23	L1	OFF	19.7
1.792500	---	27.85	46.00	18.15	L1	OFF	19.7
1.792500	37.59	---	56.00	18.41	L1	OFF	19.7
1.884750	---	27.18	46.00	18.82	L1	OFF	19.7
1.884750	35.97	---	56.00	20.03	L1	OFF	19.7
1.990500	---	27.93	46.00	18.07	L1	OFF	19.7
1.990500	37.44	---	56.00	18.56	L1	OFF	19.7
2.053500	---	28.03	46.00	17.97	L1	OFF	19.7
2.053500	36.59	---	56.00	19.41	L1	OFF	19.7
2.154750	---	27.59	46.00	18.41	L1	OFF	19.7
2.154750	35.70	---	56.00	20.30	L1	OFF	19.7
2.256000	---	27.56	46.00	18.44	L1	OFF	19.7
2.256000	36.79	---	56.00	19.21	L1	OFF	19.7
2.330250	---	28.01	46.00	17.99	L1	OFF	19.7
2.330250	36.67	---	56.00	19.33	L1	OFF	19.7
2.438250	---	27.19	46.00	18.81	L1	OFF	19.7
2.438250	34.57	---	56.00	21.43	L1	OFF	19.7
2.535000	---	27.16	46.00	18.84	L1	OFF	19.7
2.535000	36.27	---	56.00	19.73	L1	OFF	19.7
2.654250	---	26.92	46.00	19.08	L1	OFF	19.7
2.654250	33.31	---	56.00	22.69	L1	OFF	19.7
2.742000	---	26.33	46.00	19.67	L1	OFF	19.7
2.742000	32.93	---	56.00	23.07	L1	OFF	19.7
2.899500	---	26.13	46.00	19.87	L1	OFF	19.7
2.899500	31.91	---	56.00	24.09	L1	OFF	19.7
3.018750	---	26.11	46.00	19.89	L1	OFF	19.7
3.018750	32.93	---	56.00	23.07	L1	OFF	19.7

3.210000	---	26.45	46.00	19.55	L1	OFF	19.7
3.210000	32.48	---	56.00	23.52	L1	OFF	19.7
3.450750	---	26.80	46.00	19.20	L1	OFF	19.8
3.450750	33.02	---	56.00	22.98	L1	OFF	19.8
3.678000	---	26.76	46.00	19.24	L1	OFF	19.8
3.678000	32.56	---	56.00	23.44	L1	OFF	19.8
3.977250	---	26.54	46.00	19.46	L1	OFF	19.8
3.977250	32.71	---	56.00	23.29	L1	OFF	19.8
4.211250	---	26.95	46.00	19.05	L1	OFF	19.8
4.211250	32.27	---	56.00	23.73	L1	OFF	19.8
4.512750	---	28.14	46.00	17.86	L1	OFF	19.8
4.512750	34.12	---	56.00	21.88	L1	OFF	19.8
4.681500	---	28.43	46.00	17.57	L1	OFF	19.8
4.681500	35.04	---	56.00	20.96	L1	OFF	19.8
5.005500	---	28.62	50.00	21.38	L1	OFF	19.8
5.005500	34.89	---	60.00	25.11	L1	OFF	19.8
5.964000	---	29.59	50.00	20.41	L1	OFF	19.9
5.964000	36.68	---	60.00	23.32	L1	OFF	19.9
6.240750	---	30.26	50.00	19.74	L1	OFF	19.9
6.240750	38.47	---	60.00	21.53	L1	OFF	19.9
6.600750	---	31.17	50.00	18.83	L1	OFF	19.9
6.600750	40.16	---	60.00	19.84	L1	OFF	19.9
6.920250	---	31.17	50.00	18.83	L1	OFF	19.9
6.920250	38.85	---	60.00	21.15	L1	OFF	19.9
7.260000	---	30.93	50.00	19.07	L1	OFF	19.9
7.260000	38.86	---	60.00	21.14	L1	OFF	19.9
7.633500	---	31.55	50.00	18.45	L1	OFF	20.0
7.633500	38.96	---	60.00	21.04	L1	OFF	20.0
7.833750	---	32.47	50.00	17.53	L1	OFF	20.0
7.833750	41.43	---	60.00	18.57	L1	OFF	20.0
8.304000	---	33.83	50.00	16.17	L1	OFF	20.0
8.304000	42.92	---	60.00	17.08	L1	OFF	20.0
8.688750	---	36.78	50.00	13.22	L1	OFF	20.0
8.688750	46.49	---	60.00	13.51	L1	OFF	20.0
9.091500	---	35.23	50.00	14.77	L1	OFF	20.0
9.091500	44.87	---	60.00	15.13	L1	OFF	20.0
9.604500	---	36.03	50.00	13.97	L1	OFF	20.1
9.604500	45.06	---	60.00	14.94	L1	OFF	20.1
10.014000	---	38.13	50.00	11.87	L1	OFF	20.1
10.014000	48.21	---	60.00	11.79	L1	OFF	20.1
10.340250	---	38.31	50.00	11.69	L1	OFF	20.1
10.340250	47.40	---	60.00	12.60	L1	OFF	20.1
10.792500	---	38.52	50.00	11.48	L1	OFF	20.1
10.792500	49.34	---	60.00	10.66	L1	OFF	20.1
11.415750	---	38.59	50.00	11.41	L1	OFF	20.1
11.415750	48.01	---	60.00	11.99	L1	OFF	20.1
11.926500	---	38.20	50.00	11.80	L1	OFF	20.1
11.926500	46.40	---	60.00	13.60	L1	OFF	20.1
12.464250	---	36.27	50.00	13.73	L1	OFF	20.2
12.464250	43.82	---	60.00	16.18	L1	OFF	20.2
13.080750	---	37.02	50.00	12.98	L1	OFF	20.2
13.080750	44.71	---	60.00	15.29	L1	OFF	20.2
13.807500	---	35.13	50.00	14.87	L1	OFF	20.2
13.807500	41.45	---	60.00	18.55	L1	OFF	20.2
14.259750	---	34.48	50.00	15.52	L1	OFF	20.2
14.259750	40.09	---	60.00	19.91	L1	OFF	20.2
14.847000	---	34.02	50.00	15.98	L1	OFF	20.3
14.847000	40.38	---	60.00	19.62	L1	OFF	20.3
15.290250	---	32.85	50.00	17.15	L1	OFF	20.3
15.290250	38.90	---	60.00	21.10	L1	OFF	20.3
15.834750	---	31.76	50.00	18.24	L1	OFF	20.3
15.834750	36.77	---	60.00	23.23	L1	OFF	20.3

EUT Information

Report NO : 1D2414
 Test Mode : Mode 1
 Test Voltage : 120Vac/60Hz
 Phase : Neutral

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.186000	---	34.08	54.21	20.13	N	OFF	19.6
0.186000	55.29	---	64.21	8.92	N	OFF	19.6
0.195000	---	38.16	53.82	15.66	N	OFF	19.6
0.195000	55.16	---	63.82	8.66	N	OFF	19.6
0.206250	---	37.32	53.36	16.04	N	OFF	19.6
0.206250	54.88	---	63.36	8.48	N	OFF	19.6
0.255750	---	31.05	51.57	20.52	N	OFF	19.6
0.255750	48.23	---	61.57	13.34	N	OFF	19.6
0.269250	---	30.57	51.14	20.57	N	OFF	19.6
0.269250	46.50	---	61.14	14.64	N	OFF	19.6
0.323250	---	24.48	49.62	25.14	N	OFF	19.6
0.323250	30.36	---	59.62	29.26	N	OFF	19.6
0.339000	---	28.38	49.23	20.85	N	OFF	19.6
0.339000	44.80	---	59.23	14.43	N	OFF	19.6
0.388500	---	27.68	48.10	20.42	N	OFF	19.6
0.388500	44.13	---	58.10	13.97	N	OFF	19.6
0.411000	---	30.01	47.63	17.62	N	OFF	19.6
0.411000	45.67	---	57.63	11.96	N	OFF	19.6
0.442500	---	26.63	47.02	20.39	N	OFF	19.6
0.442500	41.44	---	57.02	15.58	N	OFF	19.6
0.460500	---	26.68	46.68	20.00	N	OFF	19.6

0.460500	42.03	---	56.68	14.65	N	OFF	19.6
0.485250	---	26.46	46.25	19.79	N	OFF	19.6
0.485250	39.90	---	56.25	16.35	N	OFF	19.6
0.510000	---	25.15	46.00	20.85	N	OFF	19.6
0.510000	39.66	---	56.00	16.34	N	OFF	19.6
0.534750	---	24.96	46.00	21.04	N	OFF	19.6
0.534750	39.59	---	56.00	16.41	N	OFF	19.6
0.566250	---	25.53	46.00	20.47	N	OFF	19.6
0.566250	40.54	---	56.00	15.46	N	OFF	19.6
0.597750	---	25.79	46.00	20.21	N	OFF	19.6
0.597750	41.21	---	56.00	14.79	N	OFF	19.6
0.622500	---	27.81	46.00	18.19	N	OFF	19.6
0.622500	42.31	---	56.00	13.69	N	OFF	19.6
0.645000	---	25.98	46.00	20.02	N	OFF	19.6
0.645000	40.41	---	56.00	15.59	N	OFF	19.6
0.676500	---	26.22	46.00	19.78	N	OFF	19.6
0.676500	41.22	---	56.00	14.78	N	OFF	19.6
0.723750	---	24.81	46.00	21.19	N	OFF	19.6
0.723750	38.07	---	56.00	17.93	N	OFF	19.6
0.753000	---	27.26	46.00	18.74	N	OFF	19.6
0.753000	40.30	---	56.00	15.70	N	OFF	19.6
0.784500	---	25.13	46.00	20.87	N	OFF	19.6
0.784500	40.03	---	56.00	15.97	N	OFF	19.6
0.825000	---	29.45	46.00	16.55	N	OFF	19.6
0.825000	42.84	---	56.00	13.16	N	OFF	19.6
0.856500	---	25.81	46.00	20.19	N	OFF	19.6
0.856500	41.48	---	56.00	14.52	N	OFF	19.6
0.901500	---	26.44	46.00	19.56	N	OFF	19.6
0.901500	39.80	---	56.00	16.20	N	OFF	19.6
0.969000	---	26.68	46.00	19.32	N	OFF	19.6
0.969000	38.59	---	56.00	17.41	N	OFF	19.6
1.023000	---	27.14	46.00	18.86	N	OFF	19.6
1.023000	41.47	---	56.00	14.53	N	OFF	19.6
1.077000	---	27.18	46.00	18.82	N	OFF	19.6
1.077000	42.29	---	56.00	13.71	N	OFF	19.6
1.135500	---	26.92	46.00	19.08	N	OFF	19.6
1.135500	41.05	---	56.00	14.95	N	OFF	19.6
1.200750	---	26.41	46.00	19.59	N	OFF	19.6
1.200750	39.67	---	56.00	16.33	N	OFF	19.6
1.266000	---	26.56	46.00	19.44	N	OFF	19.6
1.266000	40.49	---	56.00	15.51	N	OFF	19.6
1.365000	---	27.30	46.00	18.70	N	OFF	19.7
1.365000	40.88	---	56.00	15.12	N	OFF	19.7
1.432500	---	26.72	46.00	19.28	N	OFF	19.7
1.432500	40.27	---	56.00	15.73	N	OFF	19.7
1.520250	---	26.93	46.00	19.07	N	OFF	19.7
1.520250	39.55	---	56.00	16.45	N	OFF	19.7
1.592250	---	26.54	46.00	19.46	N	OFF	19.7
1.592250	39.80	---	56.00	16.20	N	OFF	19.7
1.662000	---	25.82	46.00	20.18	N	OFF	19.7
1.662000	37.87	---	56.00	18.13	N	OFF	19.7
1.718250	---	27.99	46.00	18.01	N	OFF	19.7
1.718250	40.36	---	56.00	15.64	N	OFF	19.7
1.799250	---	25.45	46.00	20.55	N	OFF	19.7
1.799250	37.49	---	56.00	18.51	N	OFF	19.7
1.907250	---	25.61	46.00	20.39	N	OFF	19.7
1.907250	36.49	---	56.00	19.51	N	OFF	19.7
2.008500	---	26.62	46.00	19.38	N	OFF	19.7
2.008500	39.10	---	56.00	16.90	N	OFF	19.7
2.080500	---	24.61	46.00	21.39	N	OFF	19.7
2.080500	32.26	---	56.00	23.74	N	OFF	19.7
2.217750	---	25.83	46.00	20.17	N	OFF	19.7
2.217750	37.38	---	56.00	18.62	N	OFF	19.7
2.350500	---	25.29	46.00	20.71	N	OFF	19.7
2.350500	36.90	---	56.00	19.10	N	OFF	19.7
2.451750	---	26.08	46.00	19.92	N	OFF	19.7
2.451750	36.99	---	56.00	19.01	N	OFF	19.7
2.541750	---	26.88	46.00	19.12	N	OFF	19.7
2.541750	39.19	---	56.00	16.81	N	OFF	19.7
2.643000	---	25.37	46.00	20.63	N	OFF	19.7
2.643000	33.79	---	56.00	22.21	N	OFF	19.7

2.798250	---	25.45	46.00	20.55	N	OFF	19.7
2.798250	29.71	---	56.00	26.29	N	OFF	19.7
2.910750	---	25.27	46.00	20.73	N	OFF	19.7
2.910750	28.38	---	56.00	27.62	N	OFF	19.7
3.111000	---	25.06	46.00	20.94	N	OFF	19.7
3.111000	30.50	---	56.00	25.50	N	OFF	19.7
3.288750	---	25.19	46.00	20.81	N	OFF	19.7
3.288750	29.23	---	56.00	26.77	N	OFF	19.7
3.729750	---	26.06	46.00	19.94	N	OFF	19.8
3.729750	33.12	---	56.00	22.88	N	OFF	19.8
3.864750	---	27.40	46.00	18.60	N	OFF	19.8
3.864750	37.62	---	56.00	18.38	N	OFF	19.8
4.053750	---	26.52	46.00	19.48	N	OFF	19.8
4.053750	34.09	---	56.00	21.91	N	OFF	19.8
4.227000	---	25.10	46.00	20.90	N	OFF	19.8
4.227000	26.96	---	56.00	29.04	N	OFF	19.8
4.438500	---	26.05	46.00	19.95	N	OFF	19.8
4.438500	31.51	---	56.00	24.49	N	OFF	19.8
4.807500	---	26.98	46.00	19.02	N	OFF	19.8
4.807500	34.56	---	56.00	21.44	N	OFF	19.8
5.046000	---	26.59	50.00	23.41	N	OFF	19.8
5.046000	31.44	---	60.00	28.56	N	OFF	19.8
5.253000	---	26.77	50.00	23.23	N	OFF	19.8
5.253000	32.48	---	60.00	27.52	N	OFF	19.8
6.992250	---	28.77	50.00	21.23	N	OFF	19.9
6.992250	42.24	---	60.00	17.76	N	OFF	19.9
7.386000	---	28.93	50.00	21.07	N	OFF	19.9
7.386000	36.73	---	60.00	23.27	N	OFF	19.9
7.811250	---	29.59	50.00	20.41	N	OFF	20.0
7.811250	37.86	---	60.00	22.14	N	OFF	20.0
8.175750	---	30.89	50.00	19.11	N	OFF	20.0
8.175750	43.40	---	60.00	16.60	N	OFF	20.0
8.733750	---	31.58	50.00	18.42	N	OFF	20.0
8.733750	46.05	---	60.00	13.95	N	OFF	20.0
8.803500	---	31.46	50.00	18.54	N	OFF	20.0
8.803500	45.27	---	60.00	14.73	N	OFF	20.0
8.859750	---	33.06	50.00	16.94	N	OFF	20.0
8.859750	47.63	---	60.00	12.37	N	OFF	20.0
9.282750	---	33.54	50.00	16.46	N	OFF	20.0
9.282750	43.65	---	60.00	16.35	N	OFF	20.0
9.757500	---	35.53	50.00	14.47	N	OFF	20.1
9.757500	46.09	---	60.00	13.91	N	OFF	20.1
10.322250	---	36.33	50.00	13.67	N	OFF	20.1
10.322250	52.21	---	60.00	7.79	N	OFF	20.1
11.019750	---	36.61	50.00	13.39	N	OFF	20.1
11.019750	52.31	---	60.00	7.69	N	OFF	20.1
11.499000	---	36.09	50.00	13.91	N	OFF	20.1
11.499000	49.93	---	60.00	10.07	N	OFF	20.1
11.917500	---	35.47	50.00	14.53	N	OFF	20.1
11.917500	48.97	---	60.00	11.03	N	OFF	20.1
12.165000	---	36.22	50.00	13.78	N	OFF	20.2
12.165000	49.27	---	60.00	10.73	N	OFF	20.2
12.486750	---	35.03	50.00	14.97	N	OFF	20.2
12.486750	47.59	---	60.00	12.41	N	OFF	20.2
12.750000	---	33.53	50.00	16.47	N	OFF	20.2
12.750000	45.00	---	60.00	15.00	N	OFF	20.2
13.060500	---	32.72	50.00	17.28	N	OFF	20.2
13.060500	42.81	---	60.00	17.19	N	OFF	20.2
13.382250	---	33.59	50.00	16.41	N	OFF	20.2
13.382250	43.16	---	60.00	16.84	N	OFF	20.2
13.677000	---	34.06	50.00	15.94	N	OFF	20.2
13.677000	43.24	---	60.00	16.76	N	OFF	20.2
14.032500	---	33.21	50.00	16.79	N	OFF	20.2
14.032500	42.96	---	60.00	17.04	N	OFF	20.2
14.433000	---	32.83	50.00	17.17	N	OFF	20.2
14.433000	40.30	---	60.00	19.70	N	OFF	20.2
14.826750	---	33.09	50.00	16.91	N	OFF	20.3
14.826750	40.86	---	60.00	19.14	N	OFF	20.3
15.564750	---	31.80	50.00	18.20	N	OFF	20.3
15.564750	39.42	---	60.00	20.58	N	OFF	20.3



Appendix C. Radiated Spurious Emission

Test Engineer :	Jesse Wang, Stan Hsieh and Ken Wu	Temperature :	20~26.9°C
		Relative Humidity :	54.1~67.6%



Band 1 - 5150~5250MHz
WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.	
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.		
0+1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)	
802.11a CH 36 5180MHz		5148.46	50.55	-23.45	74	39.89	34.1	11.84	35.28	108	20	P	H	
		5150	42.53	-11.47	54	31.87	34.1	11.84	35.28	108	20	A	H	
	*	5180	106.4	-	-	95.57	34.22	11.88	35.27	108	20	P	H	
	*	5180	99.13	-	-	88.3	34.22	11.88	35.27	108	20	A	H	
													H	
													H	
			5147.16	56.1	-17.9	74	45.44	34.1	11.84	35.28	100	255	P	V
			5150	45.22	-8.78	54	34.56	34.1	11.84	35.28	100	255	A	V
	*		5180	106.75	-	-	95.92	34.22	11.88	35.27	100	255	P	V
	*		5180	99.33	-	-	88.5	34.22	11.88	35.27	100	255	A	V
														V
														V
802.11a CH 44 5220MHz		5143	49	-25	74	38.36	34.1	11.83	35.29	107	20	P	H	
		5102.18	39.89	-14.11	54	29.3	34.1	11.79	35.3	107	20	A	H	
	*	5220	106.98	-	-	95.94	34.38	11.91	35.25	107	20	P	H	
	*	5220	99.64	-	-	88.6	34.38	11.91	35.25	107	20	A	H	
			5395.88	48.29	-25.71	74	36.76	34.69	12.01	35.17	107	20	P	H
			5457.48	39.49	-14.51	54	27.84	34.7	12.08	35.13	107	20	A	H
			5113.36	49.5	-24.5	74	38.9	34.1	11.8	35.3	110	261	P	V
			5101.92	40.03	-13.97	54	29.44	34.1	11.79	35.3	110	261	A	V
	*		5220	106.63	-	-	95.59	34.38	11.91	35.25	110	261	P	V
	*		5220	99.24	-	-	88.2	34.38	11.91	35.25	110	261	A	V
			5395.6	48.86	-25.14	74	37.33	34.69	12.01	35.17	110	261	P	V
			5460	39.41	-14.59	54	27.76	34.7	12.08	35.13	110	261	A	V



802.11a CH 48 5240MHz		5132.86	49.48	-24.52	74	38.85	34.1	11.82	35.29	102	19	P	H
		5118.56	39.87	-14.13	54	29.25	34.1	11.81	35.29	102	19	A	H
	*	5240	105.24	-	-	94.1	34.46	11.92	35.24	102	19	P	H
	*	5240	98.74	-	-	87.6	34.46	11.92	35.24	102	19	A	H
		5443.76	48.82	-25.18	74	37.2	34.7	12.06	35.14	102	19	P	H
		5459.72	39.48	-14.52	54	27.83	34.7	12.08	35.13	102	19	A	H
		5130.78	49	-25	74	38.37	34.1	11.82	35.29	103	260	P	V
		5121.16	40.04	-13.96	54	29.42	34.1	11.81	35.29	103	260	A	V
	*	5240	106.96	-	-	95.82	34.46	11.92	35.24	103	260	P	V
	*	5240	99.44	-	-	88.3	34.46	11.92	35.24	103	260	A	V
		5400.36	48.74	-25.26	74	37.19	34.7	12.01	35.16	103	260	P	V
		5460	39.42	-14.58	54	27.77	34.7	12.08	35.13	103	260	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz
WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 0+1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
802.11a CH 36 5180MHz		10360	43.09	-25.11	68.2	46.16	37.32	18.42	58.81	-	-	P	H	
		13380	47.61	-26.39	74	45.44	39.04	21.07	57.94	-	-	P	H	
		14480	47.97	-26.03	74	43.98	39.56	21.96	57.53	-	-	P	H	
		15540	46.07	-27.93	74	40.02	40.2	22.59	56.74	-	-	P	H	
		17912	51.69	-22.31	74	40.92	41.41	24.45	55.09	-	-	P	H	
		17912	41.82	-12.18	54	31.05	41.41	24.45	55.09	-	-	A	H	
														H
														H
														H
														H
														H
														H
			10360	43.17	-25.03	68.2	46.24	37.32	18.42	58.81	-	-	P	V
			13369	47.94	-26.06	74	45.76	39.06	21.06	57.94	-	-	P	V
			14480	47.99	-26.01	74	44	39.56	21.96	57.53	-	-	P	V
			15540	46.62	-27.38	74	40.57	40.2	22.59	56.74	-	-	P	V
			17736	51.47	-22.53	74	40.79	41.54	24.31	55.17	-	-	P	V
			17736	41.61	-12.39	54	30.93	41.54	24.31	55.17	-	-	A	V
													V	
													V	
													V	
													V	
													V	
													V	



WIFI Ant. 0+1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
802.11a CH 44 5220MHz		10440	45.5	-22.7	68.2	48.22	37.52	18.48	58.72	-	-	P	H	
		13358	47.66	-26.34	74	45.47	39.08	21.05	57.94	-	-	P	H	
		14491	47.61	-26.39	74	43.59	39.58	21.96	57.52	-	-	P	H	
		15660	46.84	-27.16	74	40.4	40.32	22.67	56.55	-	-	P	H	
		17780	51.73	-22.27	74	40.96	41.58	24.34	55.15	-	-	P	H	
		17780	42.48	-11.52	54	31.71	41.58	24.34	55.15	-	-	A	H	
														H
														H
														H
														H
														H
														H
			10440	44.55	-23.65	68.2	47.27	37.52	18.48	58.72	-	-	P	V
			13369	47.43	-26.57	74	45.25	39.06	21.06	57.94	-	-	P	V
			14499	47.92	-26.08	74	43.87	39.6	21.97	57.52	-	-	P	V
			15660	46.54	-27.46	74	40.1	40.32	22.67	56.55	-	-	P	V
			17725	51.9	-22.1	74	41.25	41.53	24.3	55.18	-	-	P	V
			17725	42.1	-11.9	54	31.45	41.53	24.3	55.18	-	-	A	V
													V	
													V	
													V	
													V	
													V	
													V	



WIFI Ant. 0+1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
802.11a CH 48 5240MHz		10480	45.11	-23.09	68.2	47.64	37.64	18.51	58.68	-	-	P	H	
		13399	47.98	-26.02	74	45.84	39	21.09	57.95	-	-	P	H	
		14491	47.98	-26.02	74	43.96	39.58	21.96	57.52	-	-	P	H	
		15720	48.19	-25.81	74	41.48	40.46	22.7	56.45	-	-	P	H	
		15720	38.03	-15.97	54	31.32	40.46	22.7	56.45	-	-	A	H	
		17714	51.7	-22.3	74	41.08	41.51	24.29	55.18	-	-	P	H	
		17714	41.46	-12.54	54	30.84	41.51	24.29	55.18	-	-	A	H	
														H
														H
														H
														H
														H
			10480	45.08	-23.12	68.2	47.61	37.64	18.51	58.68	-	-	P	V
			13347	47.94	-26.06	74	45.73	39.11	21.04	57.94	-	-	P	V
			14499	47.85	-26.15	74	43.8	39.6	21.97	57.52	-	-	P	V
			15720	48.39	-25.61	74	41.68	40.46	22.7	56.45	-	-	P	V
			15720	38.24	-15.76	54	31.53	40.46	22.7	56.45	-	-	A	V
			17758	51.38	-22.62	74	40.66	41.56	24.32	55.16	-	-	P	V
			17758	41.58	-12.42	54	30.86	41.56	24.32	55.16	-	-	A	V
														V
													V	
													V	
													V	
													V	
Remark	<ol style="list-style-type: none"> No other spurious found. All results are PASS against Peak and Average limit line. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only. The emission level close to 18GHz is checked that the average emission level is noise floor only. 													



Band 1 5150~5250MHz
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

WIFI Ant. 0+1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
802.11ax HE20 Full CH 36 5180MHz		5148.2	56.24	-17.76	74	45.58	34.1	11.84	35.28	100	21	P	H	
		5150	45.83	-8.17	54	35.17	34.1	11.84	35.28	100	21	A	H	
	*	5180	108.66	-	-	97.83	34.22	11.88	35.27	100	21	P	H	
	*	5180	99.71	-	-	88.88	34.22	11.88	35.27	100	21	A	H	
													H	
														H
			5146.64	58.72	-15.28	74	48.06	34.1	11.84	35.28	100	256	P	V
			5150	49.02	-4.98	54	38.36	34.1	11.84	35.28	100	256	A	V
		*	5180	108.93	-	-	98.1	34.22	11.88	35.27	100	256	P	V
		*	5180	100.06	-	-	89.23	34.22	11.88	35.27	100	256	A	V
													V	
													V	
802.11ax HE20 Full CH 44 5220MHz		5099.32	49.08	-24.92	74	38.5	34.1	11.78	35.3	107	20	P	H	
		5107.12	39.91	-14.09	54	29.32	34.1	11.79	35.3	107	20	A	H	
		* 5220	108.74	-	-	97.7	34.38	11.91	35.25	107	20	P	H	
		* 5220	99.44	-	-	88.4	34.38	11.91	35.25	107	20	A	H	
			5422.48	48.99	-25.01	74	37.41	34.7	12.04	35.16	107	20	P	H
			5454.96	39.51	-14.49	54	27.87	34.7	12.07	35.13	107	20	A	H
			5109.2	49.75	-24.25	74	39.15	34.1	11.8	35.3	111	261	P	V
			5117.78	40.05	-13.95	54	29.44	34.1	11.81	35.3	111	261	A	V
		*	5220	108.64	-	-	97.6	34.38	11.91	35.25	111	261	P	V
		*	5220	99.64	-	-	88.6	34.38	11.91	35.25	111	261	A	V
		5417.44	47.55	-26.45	74	35.98	34.7	12.03	35.16	111	261	P	V	
		5455.8	39.42	-14.58	54	27.78	34.7	12.07	35.13	111	261	A	V	



802.11ax HE20 Full CH 48 5240MHz		5070.46	50.3	-23.7	74	39.82	34.04	11.75	35.31	102	19	P	H
		5102.7	39.89	-14.11	54	29.3	34.1	11.79	35.3	102	19	A	H
	*	5240	107.34	-	-	96.2	34.46	11.92	35.24	102	19	P	H
	*	5240	98.84	-	-	87.7	34.46	11.92	35.24	102	19	A	H
		5423.88	48.53	-25.47	74	36.95	34.7	12.04	35.16	102	19	P	H
		5460	39.49	-14.51	54	27.84	34.7	12.08	35.13	102	19	A	H
		5103.74	49.34	-24.66	74	38.75	34.1	11.79	35.3	103	260	P	V
		5087.36	40.06	-13.94	54	29.53	34.07	11.77	35.31	103	260	A	V
	*	5240	109.04	-	-	97.9	34.46	11.92	35.24	103	260	P	V
	*	5240	99.58	-	-	88.44	34.46	11.92	35.24	103	260	A	V
		5380.48	49.22	-24.78	74	37.73	34.66	12	35.17	103	260	P	V
		5459.72	39.41	-14.59	54	27.76	34.7	12.08	35.13	103	260	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz

WIFI 802.11ax HE20 Full (Harmonic @ 3m)

WIFI Ant. 0+1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
802.11ax HE20 Full CH 36 5180MHz		10360	43.04	-25.16	68.2	46.11	37.32	18.42	58.81	-	-	P	H	
		13369	47.83	-26.17	74	45.65	39.06	21.06	57.94	-	-	P	H	
		14480	47.95	-26.05	74	43.96	39.56	21.96	57.53	-	-	P	H	
		15540	45.39	-28.61	74	39.34	40.2	22.59	56.74	-	-	P	H	
		17791	52.02	-21.98	74	41.23	41.59	24.35	55.15	-	-	P	H	
		17791	42.04	-11.96	54	31.25	41.59	24.35	55.15	-	-	A	H	
														H
														H
														H
														H
														H
														H
														H
														H
														H
			10360	43.98	-24.22	68.2	47.05	37.32	18.42	58.81	-	-	P	V
			13347	47.91	-26.09	74	45.7	39.11	21.04	57.94	-	-	P	V
			14491	47.6	-26.4	74	43.58	39.58	21.96	57.52	-	-	P	V
		15540	45.46	-28.54	74	39.41	40.2	22.59	56.74	-	-	P	V	
		17791	51.78	-22.22	74	40.99	41.59	24.35	55.15	-	-	P	V	
		17791	41.94	-12.06	54	31.15	41.59	24.35	55.15	-	-	A	V	
													V	
													V	
													V	
													V	
													V	
													V	



WIFI Ant. 0+1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
802.11ax HE20 Full CH 44 5220MHz		10440	44.98	-23.22	68.2	47.7	37.52	18.48	58.72	-	-	P	H	
		13380	48.06	-25.94	74	45.89	39.04	21.07	57.94	-	-	P	H	
		13380	38.8	-15.2	54	36.63	39.04	21.07	57.94	-	-	A	H	
		14499	48.52	-25.48	74	44.47	39.6	21.97	57.52	-	-	P	H	
		14499	39.17	-14.83	54	35.12	39.6	21.97	57.52	-	-	A	H	
		15660	46.97	-27.03	74	40.53	40.32	22.67	56.55	-	-	P	H	
		17835	51.73	-22.27	74	40.95	41.53	24.38	55.13	-	-	P	H	
		17835	41.04	-12.96	54	30.26	41.53	24.38	55.13	-	-	A	H	
														H
														H
														H
														H
			10440	44.29	-23.91	68.2	47.01	37.52	18.48	58.72	-	-	P	V
			13369	48	-26	74	45.82	39.06	21.06	57.94	-	-	P	V
			13369	37.29	-16.71	54	35.11	39.06	21.06	57.94	-	-	A	V
			14499	48.08	-25.92	74	44.03	39.6	21.97	57.52	-	-	P	V
			14499	38.06	-15.94	54	34.01	39.6	21.97	57.52	-	-	A	V
			15660	45.68	-28.32	74	39.24	40.32	22.67	56.55	-	-	P	V
		17824	51.75	-22.25	74	40.96	41.55	24.37	55.13	-	-	P	V	
		17824	41.02	-12.98	54	30.23	41.55	24.37	55.13	-	-	A	V	
													V	
													V	
													V	
													V	



WIFI Ant. 0+1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
802.11ax HE20 Full CH 48 5240MHz		10480	44.78	-23.42	68.2	47.31	37.64	18.51	58.68	-	-	P	H	
		13347	48.57	-25.43	74	46.36	39.11	21.04	57.94	-	-	P	H	
		13347	40.1	-13.9	54	37.89	39.11	21.04	57.94	-	-	A	H	
		14499	48.17	-25.83	74	44.12	39.6	21.97	57.52	-	-	P	H	
		14499	38.63	-15.37	54	34.58	39.6	21.97	57.52	-	-	A	H	
		15720	47.32	-26.68	74	40.61	40.46	22.7	56.45	-	-	P	H	
		17791	51.27	-22.73	74	40.48	41.59	24.35	55.15	-	-	P	H	
		17791	41.81	-12.19	54	31.02	41.59	24.35	55.15	-	-	A	H	
														H
														H
														H
														H
			10480	44.51	-23.69	68.2	47.04	37.64	18.51	58.68	-	-	P	V
			13358	47.83	-26.17	74	45.64	39.08	21.05	57.94	-	-	P	V
			14499	48.05	-25.95	74	44	39.6	21.97	57.52	-	-	P	V
			14499	37.74	-16.26	54	33.69	39.6	21.97	57.52	-	-	A	V
			15720	47.74	-26.26	74	41.03	40.46	22.7	56.45	-	-	P	V
			17780	51.8	-22.2	74	41.03	41.58	24.34	55.15	-	-	P	V
			17780	41.85	-12.15	54	31.08	41.58	24.34	55.15	-	-	A	V
													V	
													V	
													V	
													V	
													V	
Remark	<ol style="list-style-type: none"> No other spurious found. All results are PASS against Peak and Average limit line. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only. The emission level close to 18GHz is checked that the average emission level is noise floor only. 													



**Band 1 5150~5250MHz
WIFI 802.11ax HE20 Partial 26 (Band Edge @ 3m)**

WIFI Ant. 0+1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
802.11ax HE20 Partial 26/0 CH 36 5180MHz		5143.78	51.88	-22.12	74	41.22	34.1	11.84	35.28	100	15	P	H	
		5132.08	43.92	-10.08	54	33.29	34.1	11.82	35.29	100	15	A	H	
	*	5180	116.21	-	-	105.38	34.22	11.88	35.27	100	15	P	H	
	*	5180	109.7	-	-	98.87	34.22	11.88	35.27	100	15	A	H	
													H	
														H
			5084.24	50.77	-23.23	74	40.24	34.07	11.77	35.31	100	255	P	V
			5132.34	44.25	-9.75	54	33.62	34.1	11.82	35.29	100	255	A	V
	*		5180	116.66	-	-	105.83	34.22	11.88	35.27	100	255	P	V
	*		5180	109.55	-	-	98.72	34.22	11.88	35.27	100	255	A	V
														V
														V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.													



WIFI Ant. 0+1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE20 Partial 26/8 CH 48 5240MHz		5087.36	48.88	-25.12	74	38.35	34.07	11.77	35.31	100	35	P	H
		5146.9	40.01	-13.99	54	29.35	34.1	11.84	35.28	100	35	A	H
	*	5240	114.51	-	-	103.37	34.46	11.92	35.24	100	35	P	H
	*	5240	108.15	-	-	97.01	34.46	11.92	35.24	100	35	A	H
		5400.36	48.21	-25.79	74	36.66	34.7	12.01	35.16	100	35	P	H
		5402.6	40.05	-13.95	54	28.5	34.7	12.01	35.16	100	35	A	H
		5097.24	50.08	-23.92	74	39.51	34.09	11.78	35.3	100	268	P	V
		5127.4	40.17	-13.83	54	29.54	34.1	11.82	35.29	100	268	A	V
	*	5240	114.47	-	-	103.33	34.46	11.92	35.24	100	268	P	V
	*	5240	107.57	-	-	96.43	34.46	11.92	35.24	100	268	A	V
		5411	47.71	-26.29	74	36.15	34.7	12.02	35.16	100	268	P	V
		5402.6	39.37	-14.63	54	27.82	34.7	12.01	35.16	100	268	A	V
Remark	<ol style="list-style-type: none"> No other spurious found. All results are PASS against Peak and Average limit line. 												



Band 1 5150~5250MHz
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

WIFI Ant. 0+1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
802.11ax HE40 Full CH 38 5190MHz		5150	59.09	-14.91	74	48.43	34.1	11.84	35.28	100	19	P	H	
		5150	50.11	-3.89	54	39.45	34.1	11.84	35.28	100	19	A	H	
	*	5190	104.48	-	-	93.6	34.26	11.89	35.27	100	19	P	H	
	*	5190	95.38	-	-	84.5	34.26	11.89	35.27	100	19	A	H	
		5365.08	48.5	-25.5	74	37.06	34.63	11.99	35.18	100	19	P	H	
		5453	39.13	-14.87	54	27.49	34.7	12.07	35.13	100	19	A	H	
		5145.6	60.43	-13.57	74	49.77	34.1	11.84	35.28	100	275	P	V	
		5150	51.85	-2.15	54	41.19	34.1	11.84	35.28	100	275	A	V	
	*	5190	105.11	-	-	94.23	34.26	11.89	35.27	100	275	P	V	
	*	5190	95.78	-	-	84.9	34.26	11.89	35.27	100	275	A	V	
		5458.6	48.15	-25.85	74	36.5	34.7	12.08	35.13	100	275	P	V	
		5459.44	39.02	-14.98	54	27.37	34.7	12.08	35.13	100	275	A	V	
	802.11ax HE40 Full CH 46 5230MHz		5147.68	49.49	-24.51	74	38.83	34.1	11.84	35.28	100	23	P	H
			5146.9	40.53	-13.47	54	29.87	34.1	11.84	35.28	100	23	A	H
*		5230	105.4	-	-	94.3	34.42	11.92	35.24	100	23	P	H	
*		5230	96.7	-	-	85.6	34.42	11.92	35.24	100	23	A	H	
		5394.48	49.43	-24.57	74	37.9	34.69	12.01	35.17	100	23	P	H	
		5387.48	39.66	-14.34	54	28.16	34.67	12	35.17	100	23	A	H	
		5099.32	49.65	-24.35	74	39.07	34.1	11.78	35.3	107	261	P	V	
		5150	41.6	-12.4	54	30.94	34.1	11.84	35.28	107	261	A	V	
*		5230	106.94	-	-	95.84	34.42	11.92	35.24	107	261	P	V	
*		5230	97.6	-	-	86.5	34.42	11.92	35.24	107	261	A	V	
	5392.52	49.45	-24.55	74	37.92	34.69	12.01	35.17	107	261	P	V		
	5456.36	39.46	-14.54	54	27.82	34.7	12.07	35.13	107	261	A	V		
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.													



Band 1 5150~5250MHz

WIFI 802.11ax HE40 Full (Harmonic @ 3m)

WIFI Ant. 0+1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
802.11ax HE40 Full CH 38 5190MHz		10380	43.34	-24.86	68.2	46.33	37.36	18.44	58.79	-	-	P	H	
		13347	47.23	-26.77	74	45.02	39.11	21.04	57.94	-	-	P	H	
		14499	48.04	-25.96	74	43.99	39.6	21.97	57.52	-	-	P	H	
		14499	37.74	-16.26	54	33.69	39.6	21.97	57.52	-	-	A	H	
		15570	46.48	-27.52	74	40.36	40.2	22.62	56.7	-	-	P	H	
		17835	51.8	-22.2	74	41.02	41.53	24.38	55.13	-	-	P	H	
		17835	41.37	-12.63	54	30.59	41.53	24.38	55.13	-	-	A	H	
														H
														H
														H
														H
														H
			10380	44.02	-24.18	68.2	47.01	37.36	18.44	58.79	-	-	P	V
			13391	47.94	-26.06	74	45.78	39.02	21.08	57.94	-	-	P	V
			14499	48.36	-25.64	74	44.31	39.6	21.97	57.52	-	-	P	V
			14499	38.3	-15.7	54	34.25	39.6	21.97	57.52	-	-	A	V
			15570	46.95	-27.05	74	40.83	40.2	22.62	56.7	-	-	P	V
			17736	51.36	-22.64	74	40.68	41.54	24.31	55.17	-	-	P	V
		17736	40.62	-13.38	54	29.94	41.54	24.31	55.17	-	-	A	V	
													V	
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WIFI Ant. 0+1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
802.11ax HE40 Full CH 46 5230MHz		10460	44.95	-23.25	68.2	47.57	37.58	18.5	58.7	-	-	P	H	
		13347	47.59	-26.41	74	45.38	39.11	21.04	57.94	-	-	P	H	
		14499	48.17	-25.83	74	44.12	39.6	21.97	57.52	-	-	P	H	
		14499	38.27	-15.73	54	34.22	39.6	21.97	57.52	-	-	A	H	
		15690	46.41	-27.59	74	39.84	40.38	22.69	56.5	-	-	P	H	
		17747	51.31	-22.69	74	40.62	41.55	24.31	55.17	-	-	P	H	
		17747	40.79	-13.21	54	30.1	41.55	24.31	55.17	-	-	A	H	
														H
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														H
														H
														H
			10460	46.16	-22.04	68.2	48.78	37.58	18.5	58.7	-	-	P	V
			13380	48.76	-25.24	74	46.59	39.04	21.07	57.94	-	-	P	V
			13380	39.32	-14.68	54	37.15	39.04	21.07	57.94	-	-	A	V
			14499	47.97	-26.03	74	43.92	39.6	21.97	57.52	-	-	P	V
			15690	47.08	-26.92	74	40.51	40.38	22.69	56.5	-	-	P	V
			17846	51.81	-22.19	74	41.03	41.51	24.39	55.12	-	-	P	V
		17846	41.65	-12.35	54	30.87	41.51	24.39	55.12	-	-	A	V	
													V	
													V	
													V	
													V	
													V	
Remark	<ol style="list-style-type: none"> No other spurious found. All results are PASS against Peak and Average limit line. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only. The emission level close to 18GHz is checked that the average emission level is noise floor only. 													



Band 1 5150~5250MHz
WIFI 802.11ax HE80 Full (Band Edge @ 3m)

WIFI Ant. 0+1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE80 Full CH 42 5210MHz		5148.72	60.23	-13.77	74	49.57	34.1	11.84	35.28	100	24	P	H
		5150	50.91	-3.09	54	40.25	34.1	11.84	35.28	100	24	A	H
	*	5210	99.92	-	-	88.92	34.34	11.91	35.25	100	24	P	H
	*	5210	91.89	-	-	80.89	34.34	11.91	35.25	100	24	A	H
		5419.68	48.76	-25.24	74	37.19	34.7	12.03	35.16	100	24	P	H
		5350	39.49	-14.51	54	28.09	34.6	11.98	35.18	100	24	A	H
		5148.2	62.18	-11.82	74	51.52	34.1	11.84	35.28	109	262	P	V
		5147.94	52.63	-1.37	54	41.97	34.1	11.84	35.28	109	262	A	V
	*	5210	101.06	-	-	90.06	34.34	11.91	35.25	109	262	P	V
	*	5210	92.67	-	-	81.67	34.34	11.91	35.25	109	262	A	V
		5358.36	49.36	-24.64	74	37.93	34.62	11.99	35.18	109	262	P	V
		5349.96	39.56	-14.44	54	28.16	34.6	11.98	35.18	109	262	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz

WIFI 802.11ax HE80 Full (Harmonic @ 3m)

WIFI Ant. 0+1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
802.11ax HE80 Full CH 42 5210MHz		10420	44.11	-24.09	68.2	46.92	37.46	18.47	58.74	-	-	P	H	
		13369	47.8	-26.2	74	45.62	39.06	21.06	57.94	-	-	P	H	
		14499	48.34	-25.66	74	44.29	39.6	21.97	57.52	-	-	P	H	
		14499	38.83	-15.17	54	34.78	39.6	21.97	57.52	-	-	A	H	
		15630	46.19	-27.81	74	39.88	40.26	22.65	56.6	-	-	P	H	
		17725	52.12	-21.88	74	41.47	41.53	24.3	55.18	-	-	P	H	
		17725	41.01	-12.99	54	30.36	41.53	24.3	55.18	-	-	A	H	
														H
														H
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														H
														H
														H
			10420	43.75	-24.45	68.2	46.56	37.46	18.47	58.74	-	-	P	V
			13251	47.54	-26.46	74	45.47	39.05	20.95	57.93	-	-	P	V
			14499	48.49	-25.51	74	44.44	39.6	21.97	57.52	-	-	P	V
		14499	39.07	-14.93	54	35.02	39.6	21.97	57.52	-	-	A	V	
		15630	47.42	-26.58	74	41.11	40.26	22.65	56.6	-	-	P	V	
		17967	51.55	-22.45	74	40.66	41.47	24.49	55.07	-	-	P	V	
		17967	41.01	-12.99	54	30.12	41.47	24.49	55.07	-	-	A	V	
													V	
													V	
													V	
													V	
													V	
													V	
Remark	<ol style="list-style-type: none"> No other spurious found. All results are PASS against Peak and Average limit line. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only. The emission level close to 18GHz is checked that the average emission level is noise floor only. 													



Emission above 18GHz

WIFI 802.11ax HE80 Full (SHF @ 1m)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
0+1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ax HE80 Full SHF		39846	41.49	-32.51	74	40.63	44.6	14.77	58.51	-	-	P	H
													H
													H
													H
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			39626	41.41	-32.59	74	41.18	44.5	14.68	58.95	-	-	P
													V
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													V
													V
													V
													V
													V
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													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line. 3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.												



Emission below 1GHz

WIFI 802.11ax HE80 Full (LF @ 3m)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.	
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.		
0+1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)	
802.11ax HE80 Full LF		31.89	22.59	-17.41	40	28.31	23.39	0.99	30.1	-	-	P	H	
		92.37	31.31	-12.19	43.5	44.6	15.01	1.71	30.01	-	-	P	H	
		168.51	28.02	-15.48	43.5	39.84	15.71	2.33	29.86	-	-	P	H	
		787.9	30.43	-15.57	46	26.94	27.82	4.96	29.29	-	-	P	H	
		877.5	31.75	-14.25	46	26.6	28.76	5.31	28.92	-	-	P	H	
		934.9	33.5	-12.5	46	27.31	29.37	5.52	28.7	-	-	P	H	
														H
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														H
														H
														H
			30	32.11	-7.89	40	36.64	24.57	1.01	30.11	-	-	P	V
			58.62	24.35	-15.65	40	41.3	11.8	1.29	30.04	-	-	P	V
			91.02	31.1	-12.4	43.5	44.7	14.73	1.7	30.03	-	-	P	V
			736.1	30.77	-15.23	46	28.22	27.27	4.74	29.46	-	-	P	V
			862.1	32.66	-13.34	46	27.58	28.87	5.21	29	-	-	P	V
			955.9	34.21	-11.79	46	26.68	30.59	5.57	28.63	-	-	P	V
														V
														V
													V	
													V	
													V	

Remark

- No other spurious found.
- All results are PASS against limit line.
- The emission position marked as "-" means no suspected emission found and emission level has at least 6dB margin against limit or emission is noise floor only.



Note symbol

*	Fundamental Frequency which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is over limit line.
P/A	Peak or Average
H/V	Horizontal or Vertical



A calculation example for radiated spurious emission is shown as below:

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
0+1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a		5150	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 36		5150	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H
5180MHz													

1. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dBμV/m) = Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
3. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 5150MHz:

1. Level(dBμV/m)
= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)
= 55.45 (dBμV/m)
2. Over Limit(dB)
= Level(dBμV/m) – Limit Line(dBμV/m)
= 55.45(dBμV/m) – 74(dBμV/m)
= -18.55(dB)

For Average Limit @ 5150MHz:

1. Level(dBμV/m)
= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)
= 43.54 (dBμV/m)
2. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)
= 43.54(dBμV/m) – 54(dBμV/m)
= -10.46(dB)

Both peak and average measured complies with the limit line, so test result is “PASS”.



Appendix D. Radiated Spurious Emission

Test Engineer :	Jesse Wang, Stan Hsieh and Ken Wu	Temperature :	20~26.9°C
		Relative Humidity :	54.1~67.6%

Note symbol

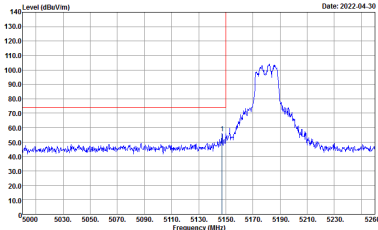
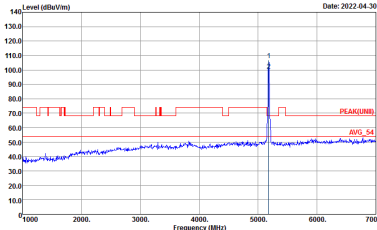
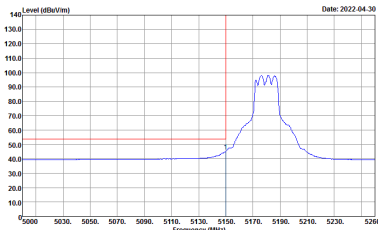
-L	Low channel location
-R	High channel location



Band 1 - 5150~5250MHz
WIFI 802.11a (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
0+1	Horizontal	Fundamental
Peak	<p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>	<p>Site : 03CH07-HY Condition : PEAK(UNIT) 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>
Avg.	<p>Site : 03CH07-HY Condition : AVG_BE_34 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:0.010kHz SWTA:Auto</p>	<p>Left blank</p>

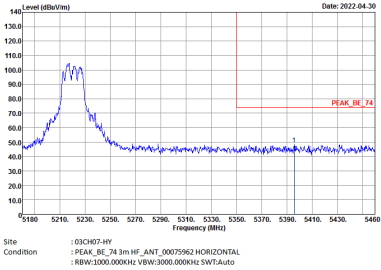
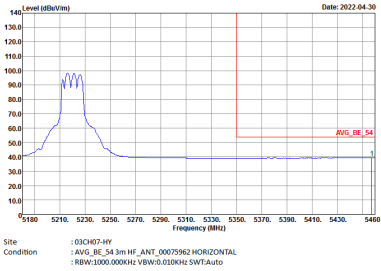


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
0+1	Vertical	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>	 <p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>
Avg.	 <p>Site : 03CH07-HY Condition : AVG_BE_24 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:0.010kHz SWTA:Auto</p>	Left blank

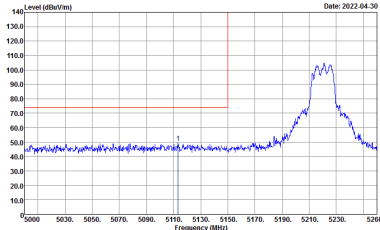
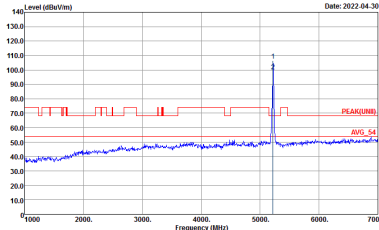
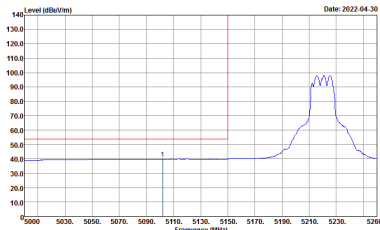


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
0+1	Horizontal	Fundamental
Peak	<p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>	<p>Site : 03CH07-HY Condition : PEAK(LIN)I 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>
Avg.	<p>Site : 03CH07-HY Condition : AVG_BE_24 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:0.010kHz SWTA:Auto</p>	Left blank

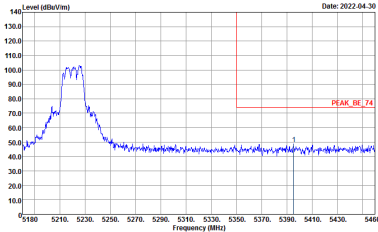
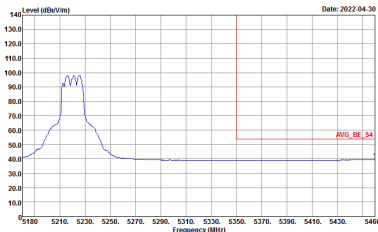


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
0+1	Horizontal	Fundamental
<p>Peak</p>		<p>Left blank</p>
<p>Avg.</p>		<p>Left blank</p>

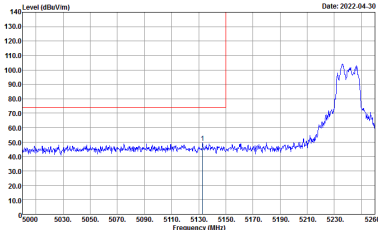
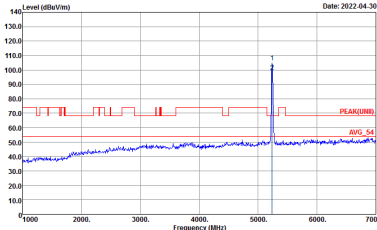
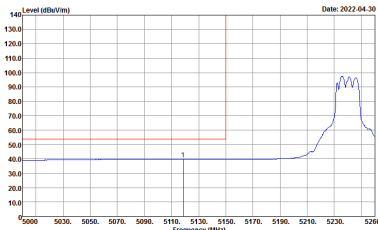


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
0+1	Vertical	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>	 <p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>
Avg.	 <p>Site : 03CH07-HY Condition : AVG_BE_24 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:0.010kHz SWTA:Auto</p>	Left blank

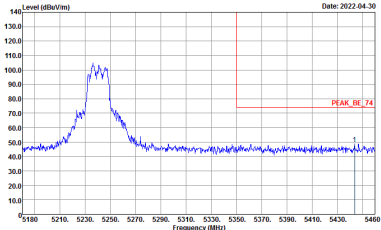
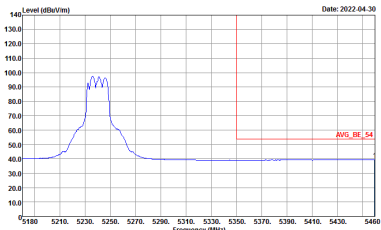


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
0+1	Vertical	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p>	Left blank
Avg.	 <p>Site : 03CH07-HY Condition : AVG_BE_54 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:0.010kHz SWT:Auto</p>	Left blank

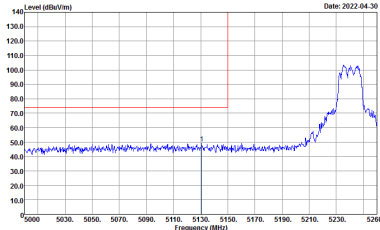
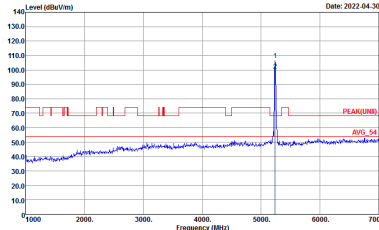
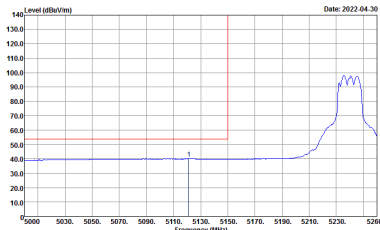


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
0+1	Horizontal	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>	 <p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>
Avg.	 <p>Site : 03CH07-HY Condition : AVG_BE_24 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:0.010kHz SWTA:Auto</p>	Left blank

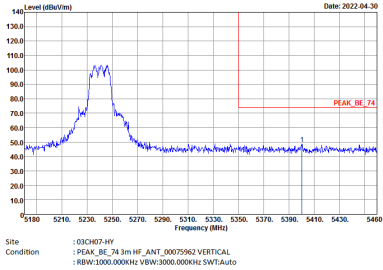
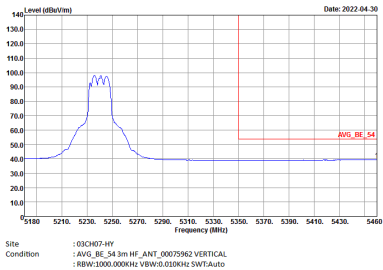


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
0+1	Horizontal	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>	Left blank
Avg.	 <p>Site : 03CH07-HY Condition : AVG_BE_54 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:0.010kHz SWTA:Auto</p>	Left blank



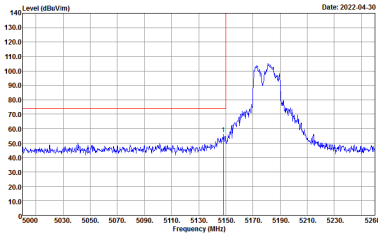
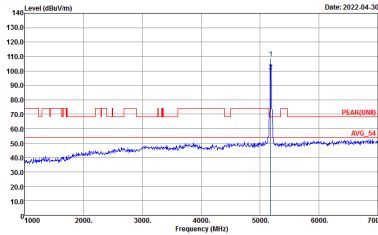
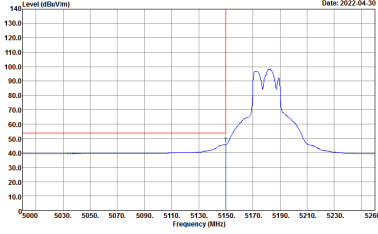
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
0+1	Vertical	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>	 <p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>
Avg.	 <p>Site : 03CH07-HY Condition : AVG_BE_24 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:0.010kHz SWTA:Auto</p>	Left blank



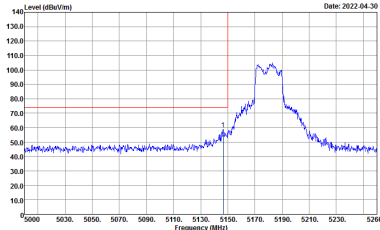
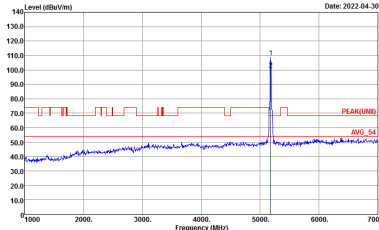
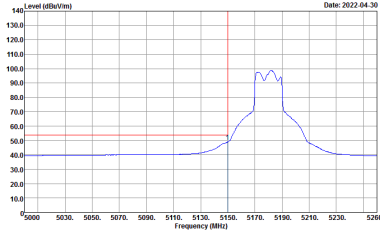
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
0+1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank



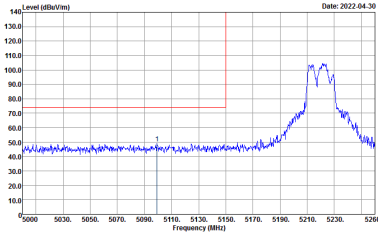
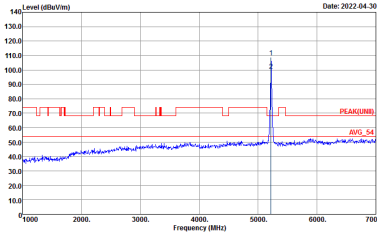
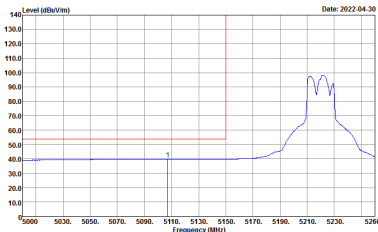
Band 1 5150~5250MHz
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH36 5180MHz	
0+1	Horizontal	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWF:Auto</p>	 <p>Site : 03CH07-HY Condition : : PEAK(FUN) 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWF:Auto</p>
Avg.	 <p>Site : 03CH07-HY Condition : : AVG_BE_54 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWF:Auto</p>	Left blank

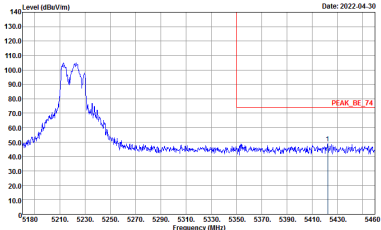
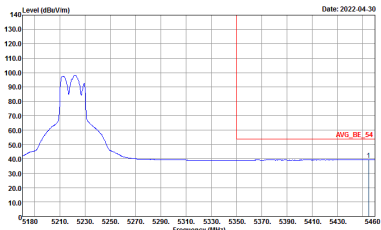


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH36 5180MHz	
0+1	Vertical	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>	 <p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>
Avg.	 <p>Site : 03CH07-HY Condition : AVG_BE_24 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:0.010kHz SWTA:Auto</p>	Left blank

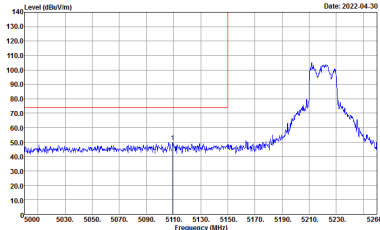
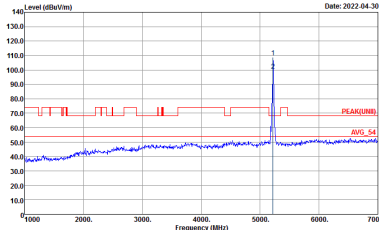
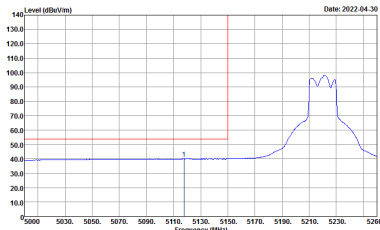


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH44 5220MHz - L	
0+1	Horizontal	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>	 <p>Site : 03CH07-HY Condition : PEAK(LIN)I 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>
Avg.	 <p>Site : 03CH07-HY Condition : AVG_BE_24 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:0.010kHz SWTA:Auto</p>	Left blank

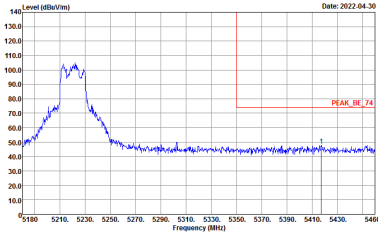
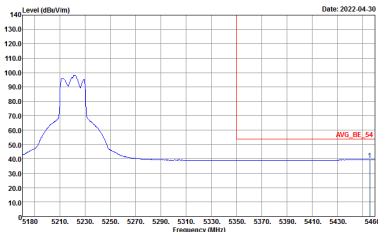


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH44 5220MHz - R	
0+1	Horizontal	Fundamental
Peak	 <p>Site : 03CHK7-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p>	Left blank
Avg.	 <p>Site : 03CHK7-HY Condition : AVG_BE_54 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:0.010kHz SWT:Auto</p>	Left blank

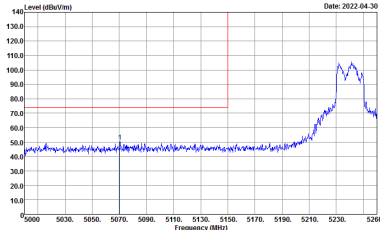
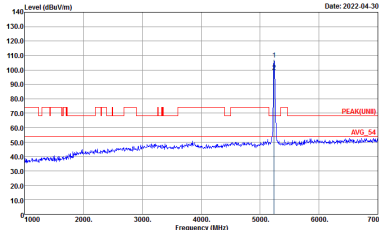
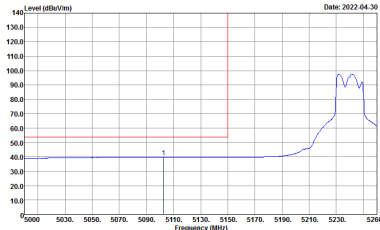


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH44 5220MHz - L	
0+1	Vertical	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>	 <p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>
Avg.	 <p>Site : 03CH07-HY Condition : AVG_BE_24 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:0.010kHz SWTA:Auto</p>	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH44 5220MHz - R	
0+1	Vertical	Fundamental
Peak	 <p>Site : 03CHK7-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p>	Left blank
Avg.	 <p>Site : 03CHK7-HY Condition : AVG_BE_54 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:0.010kHz SWT:Auto</p>	Left blank

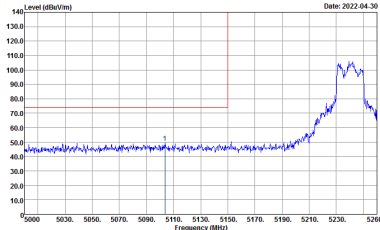
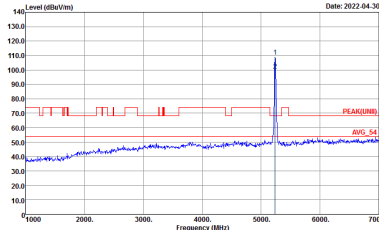
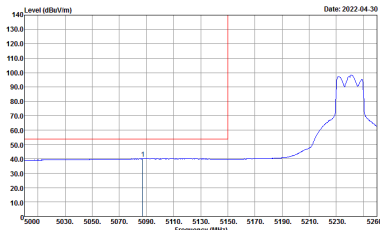


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH48 5240MHz - L	
0+1	Horizontal	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>	 <p>Site : 03CH07-HY Condition : PEAK(LIN1) 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>
Avg.	 <p>Site : 03CH07-HY Condition : AVG_BE_24 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:0.010kHz SWTA:Auto</p>	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH48 5240MHz - R	
0+1	Horizontal	Fundamental
Peak	<p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>	Left blank
Avg.	<p>Site : 03CH07-HY Condition : AVG_BE_54 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:0.010kHz SWTA:Auto</p>	Left blank



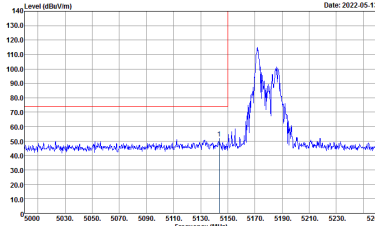
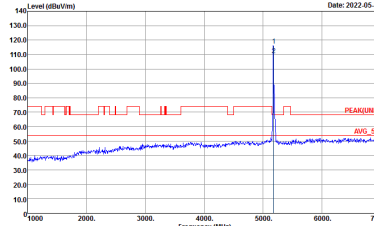
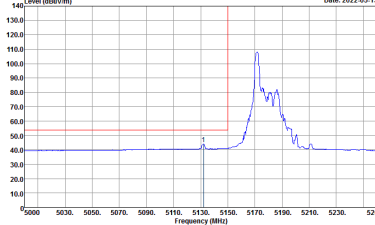
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH48 5240MHz - L	
0+1	Vertical	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>	 <p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>
Avg.	 <p>Site : 03CH07-HY Condition : AVG_BE_24 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:0.010kHz SWTA:Auto</p>	Left blank



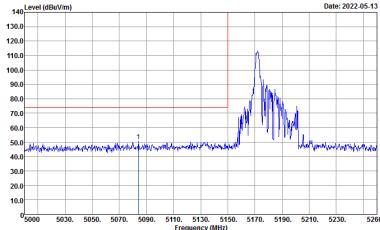
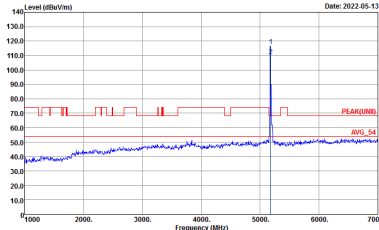
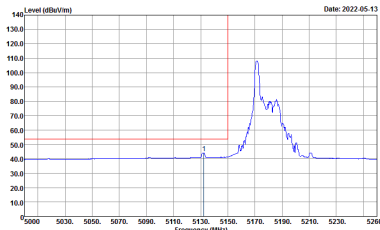
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH48 5240MHz - R	
0+1	Vertical	Fundamental
Peak	<p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p>	Left blank
Avg.	<p>Site : 03CH07-HY Condition : AVG_BE_54 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:0.010kHz SWT:Auto</p>	Left blank



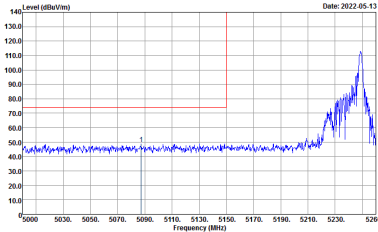
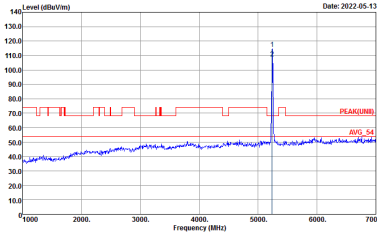
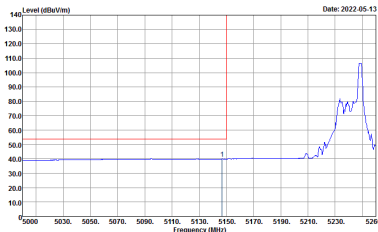
Band 1 5150~5250MHz
WIFI 802.11ax HE20 Partial 26 (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 26/0 CH36 5180MHz	
0+1	Horizontal	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : :PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWF:Auto</p>	 <p>Site : 03CH07-HY Condition : :PEAK(FUN) 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWF:Auto</p>
Avg.	 <p>Site : 03CH07-HY Condition : :AVG_BE_54 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWF:Auto</p>	Left blank

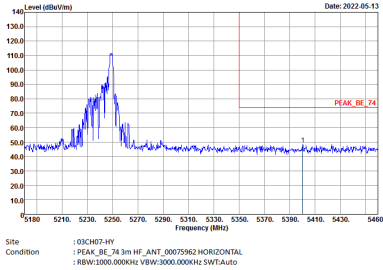
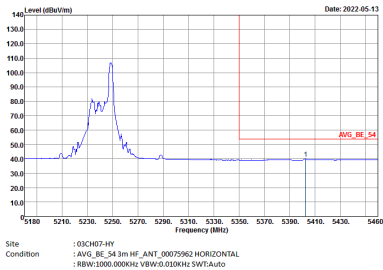


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 26/0 CH36 5180MHz	
0+1	Vertical	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>	 <p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>
Avg.	 <p>Site : 03CH07-HY Condition : AVG_BE_24 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:0.010kHz SWTA:Auto</p>	Left blank

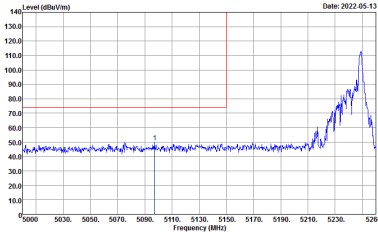
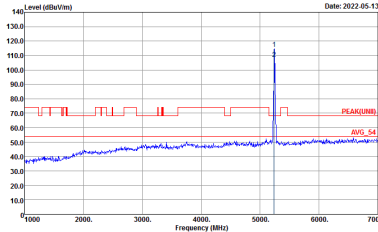
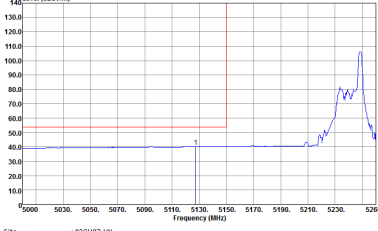


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 26/8 CH48 5240MHz - L	
0+1	Horizontal	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>	 <p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>
Avg.	 <p>Site : 03CH07-HY Condition : AVG_BE_24 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:0.010kHz SWTA:Auto</p>	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 26/8 CH48 5240MHz - R	
0+1	Horizontal	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWF:Auto</p>	Left blank
Avg.	 <p>Site : 03CH07-HY Condition : AVG_BE_54 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:0.010kHz SWF:Auto</p>	Left blank



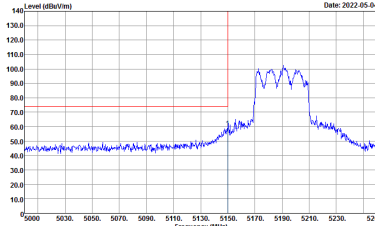
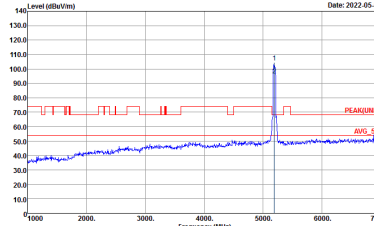
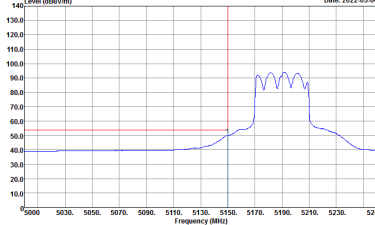
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 26/8 CH48 5240MHz - L	
0+1	Vertical	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>	 <p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>
Avg.	 <p>Site : 03CH07-HY Condition : AVG_BE_24 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:0.010kHz SWTA:Auto</p>	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 26/8 CH48 5240MHz - L	
0+1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank



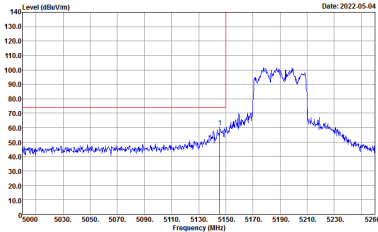
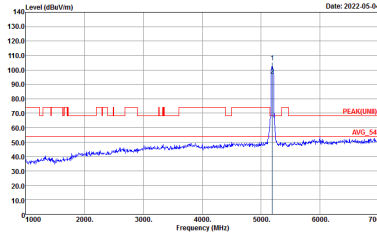
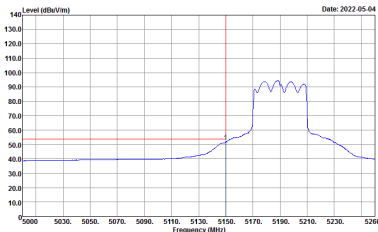
Band 1 5150~5250MHz
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH38 5190MHz - L	
0+1	Horizontal	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : : PEAK_BE_74 3m HE_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWF:Auto</p>	 <p>Site : 03CH07-HY Condition : : PEAK(FUN) 3m HE_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWF:Auto</p>
Avg.	 <p>Site : 03CH07-HY Condition : : AVG_BE_54 3m HE_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWF:Auto</p>	Left blank

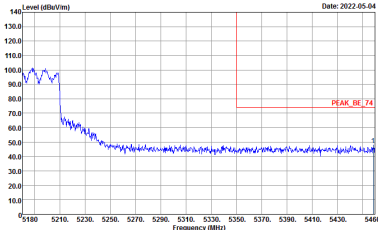
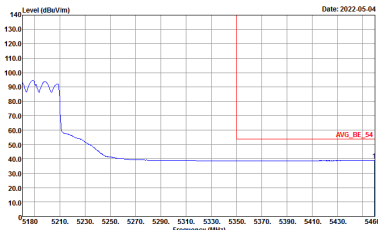


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH38 5190MHz - R	
0+1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

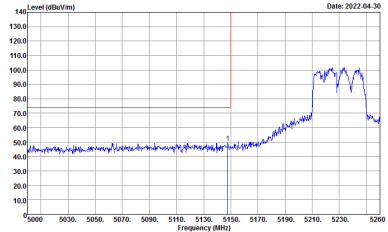
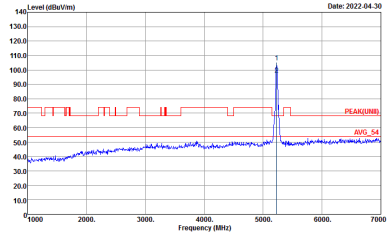
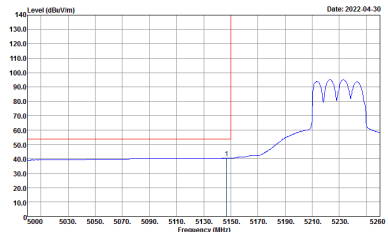


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH38 5190MHz - L	
0+1	Vertical	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>	 <p>Site : 03CH07-HY Condition : PEAK(LIN1) 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>
Avg.	 <p>Site : 03CH07-HY Condition : AVG_BE_24 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:0.010kHz SWTA:Auto</p>	Left blank

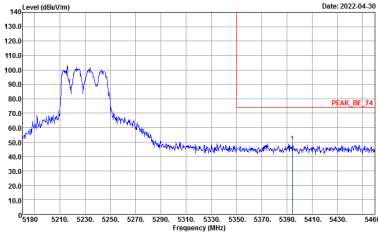
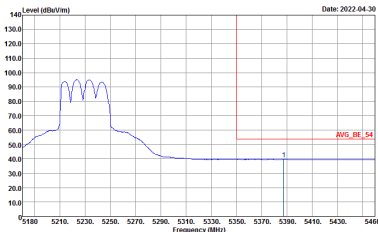


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH38 5190MHz - R	
0+1	Vertical	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>	Left blank
Avg.	 <p>Site : 03CH07-HY Condition : AVG_BE_54 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:0.010kHz SWTA:Auto</p>	Left blank

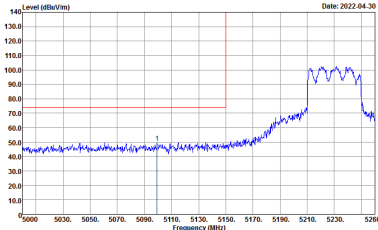
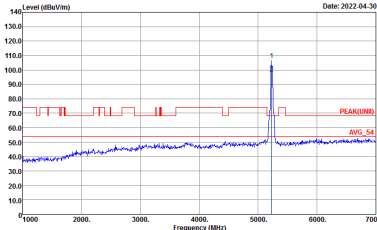
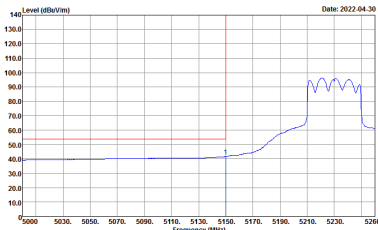


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH46 5230MHz - L	
0+1	Horizontal	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>	 <p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>
Avg.	 <p>Site : 03CH07-HY Condition : AVG_BE_24 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:0.010kHz SWTA:Auto</p>	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH46 5230MHz - R	
0+1	Horizontal	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>	Left blank
Avg.	 <p>Site : 03CH07-HY Condition : AVG_BE_54 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:0.010kHz SWTA:Auto</p>	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH46 5230MHz - L	
0+1	Vertical	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>	 <p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>
Avg.	 <p>Site : 03CH07-HY Condition : AVG_BE_24 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:0.010kHz SWTA:Auto</p>	Left blank



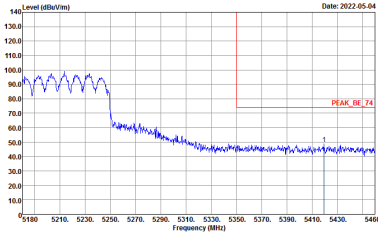
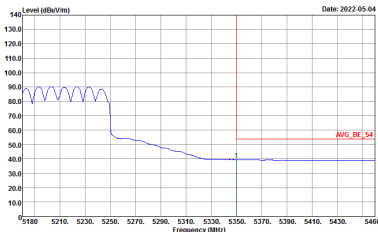
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH46 5230MHz - R	
0+1	Vertical	Fundamental
Peak	<p>Site : 03CHK7-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>	Left blank
Avg.	<p>Site : 03CHK7-HY Condition : AVG_BE_54 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:0.010kHz SWTA:Auto</p>	Left blank



Band 1 5150~5250MHz
WIFI 802.11ax HE80 Full (Band Edge @ 3m)

Table with 4 columns: WIFI, ANT, 0+1, and Peak/Avg. It contains spectral analysis graphs for Horizontal and Fundamental signals, and a Left blank graph. Each graph shows Level (dBV/m) vs Frequency (MHz) with specific test parameters.

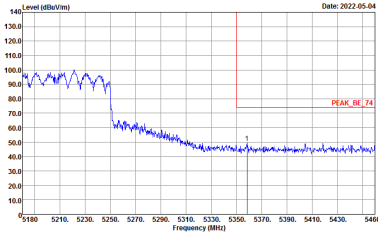
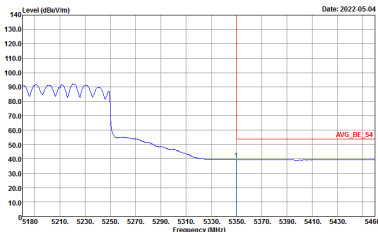


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH42 5210MHz - R	
0+1	Horizontal	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>	Left blank
Avg.	 <p>Site : 03CH07-HY Condition : AVG_BE_54 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:0.010kHz SWTA:Auto</p>	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH42 5210MHz - L	
0+1	Vertical	Fundamental
Peak	<p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>	<p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p>
Avg.	<p>Site : 03CH07-HY Condition : AVG_BE_24 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:0.010kHz SWTA:Auto</p>	Left blank



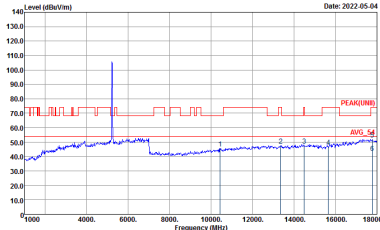
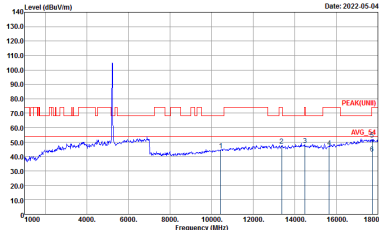
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH42 5210MHz - R	
0+1	Vertical	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p>	Left blank
Avg.	 <p>Site : 03CH07-HY Condition : AVG_BE_54 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:0.010kHz SWT:Auto</p>	Left blank



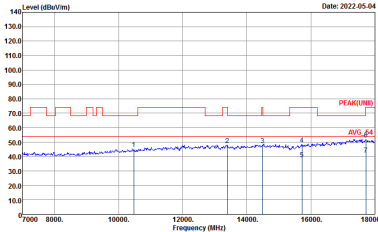
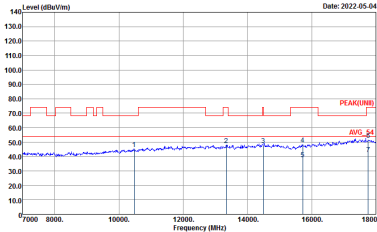
Band 1 - 5150~5250MHz
WIFI 802.11a (Harmonic @ 3m)

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH36 5180MHz	
0+1	Horizontal	Vertical
Peak Avg.	<p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 HORIZONTAL Detector : Peak</p>	<p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL Detector : Peak</p>



WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH44 5220MHz	
0+1	Horizontal	Vertical
<p>Peak Avg.</p>	 <p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 HORIZONTAL Detector : Peak</p>	 <p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL Detector : Peak</p>



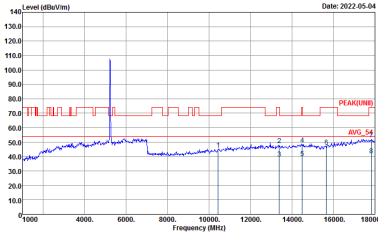
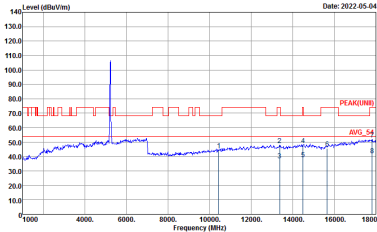
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH48 5240MHz	
0+1	Horizontal	Vertical
Peak Avg.	 <p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 HORIZONTAL Detector : Peak</p>	 <p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL Detector : Peak</p>



**Band 1 5150~5250MHz
WIFI 802.11ax HE20 Full (Harmonic @ 3m)**

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH36 5180MHz	
0+1	Horizontal	Vertical
Peak Avg.	<p>Site : 09CH07-HY Condition : PEAK(UWB) 3m HF_ANT_00075962 HORIZONTAL Detector : Peak</p>	<p>Site : 09CH07-HY Condition : PEAK(UWB) 3m HF_ANT_00075962 VERTICAL Detector : Peak</p>



WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH44 5220MHz	
0+1	Horizontal	Vertical
<p>Peak</p> <p>Avg.</p>	 <p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 HORIZONTAL Detector : Peak</p>	 <p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL Detector : Peak</p>



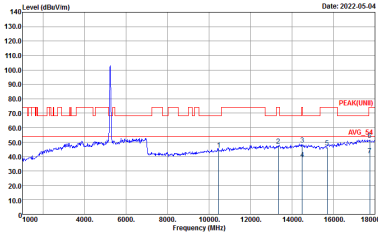
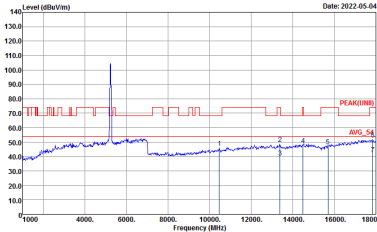
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH48 5240MHz	
0+1	Horizontal	Vertical
Peak Avg.	<p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 HORIZONTAL Detector : Peak</p>	<p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL Detector : Peak</p>



Band 1 5150~5250MHz
WIFI 802.11ax HE40 Full (Harmonic @ 3m)

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH38 5190MHz	
0+1	Horizontal	Vertical
Peak Avg.	<p>Site : 09CH07-HY Condition : PEAK(UWB) 3m HF_ANT_00075962 HORIZONTAL Detector : Peak</p>	<p>Site : 09CH07-HY Condition : PEAK(UWB) 3m HF_ANT_00075962 VERTICAL Detector : Peak</p>



WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH46 5230MHz	
0+1	Horizontal	Vertical
Peak Avg.	 <p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 HORIZONTAL Detector : Peak</p>	 <p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL Detector : Peak</p>



Band 1 5150~5250MHz
WIFI 802.11ax HE80 Full (Harmonic @ 3m)

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ax HE80 Full CH42 5210MHz	
0+1	Horizontal	Vertical
Peak Avg.	<p>Site : 09CH07-HY Condition : PEAK(AVG) 3m HF_ANT_00075962 HORIZONTAL Detector : Peak</p>	<p>Site : 09CH07-HY Condition : PEAK(AVG) 3m HF_ANT_00075962 VERTICAL Detector : Peak</p>



Emission above 18GHz
 5GHz WIFI 802.11ax HE80 Full (SHF @ 1m)

WIFI	5GHz WIFI	
ANT	802.11ax HE80 Full SHF	
0+1	Horizontal	Vertical
<p>Peak Avg.</p>	<p>Site : 03CH07-HY Condition : PEAK(LIM) 1m SHF-EHF_9170251 HORIZONTAL Detector : Peak</p>	<p>Site : 03CH07-HY Condition : PEAK(LIM) 1m SHF-EHF_9170251 VERTICAL Detector : Peak</p>



Emission below 1GHz
5GHz WIFI 802.11ax HE80 Full (LF)

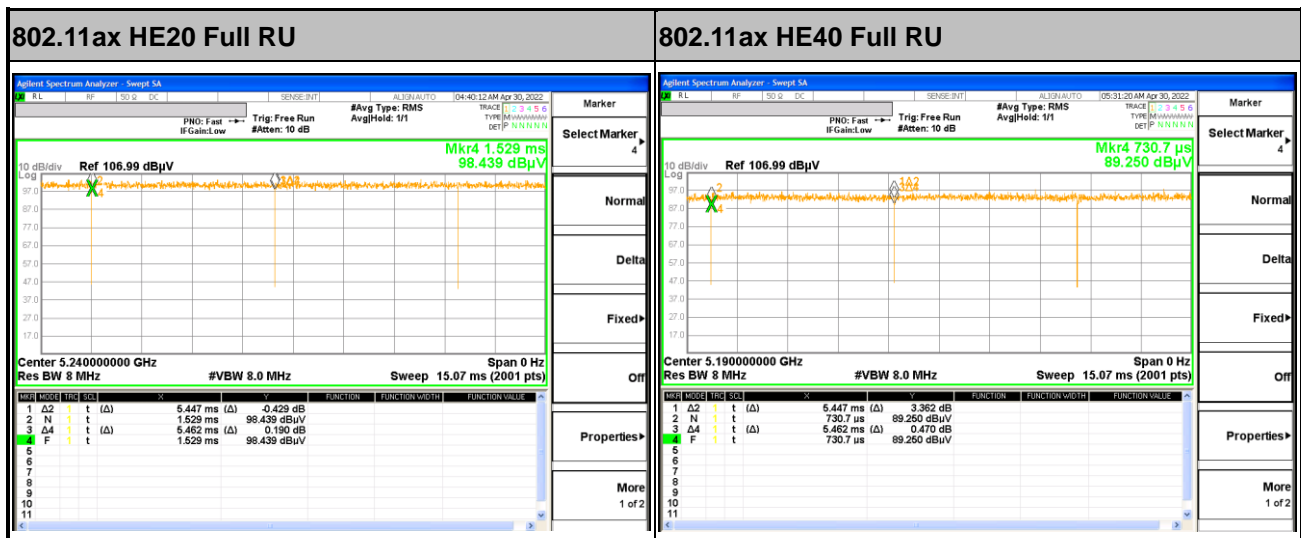
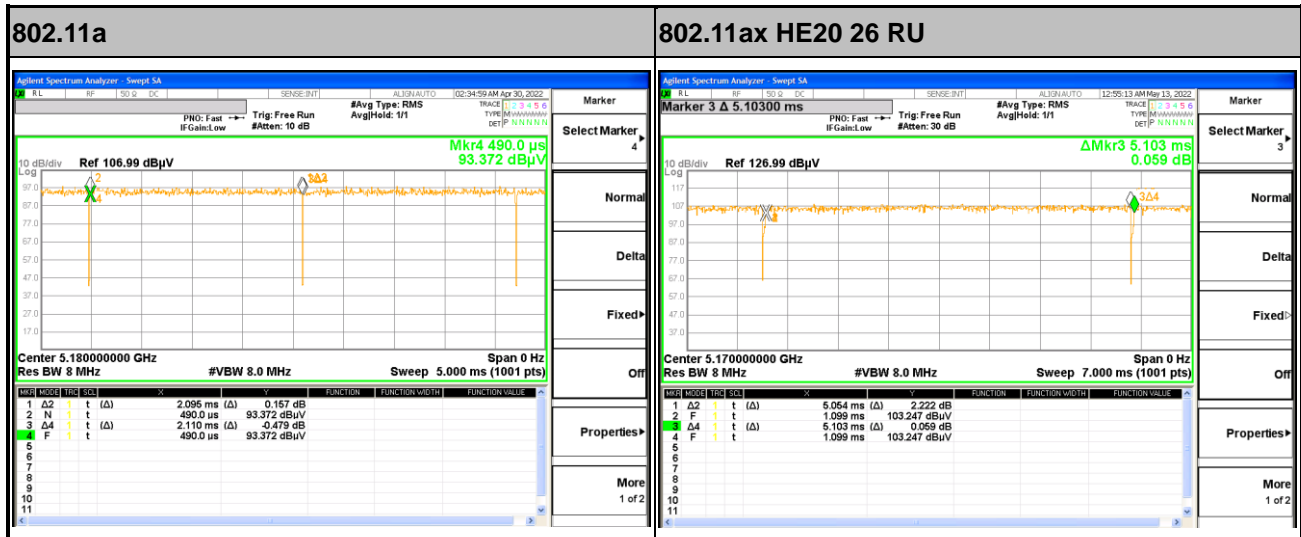
WIFI	5GHz WIFI	
ANT	802.11ax HE80 Full LF	
0+1	Horizontal	Vertical
QP / Peak	<p>Site : 03CH07-HY Condition : QP 3m LF-ANT-35415(6) HORIZONTAL Detector : Peak</p>	<p>Site : 03CH07-HY Condition : QP 3m LF-ANT-35415(6) VERTICAL Detector : Peak</p>

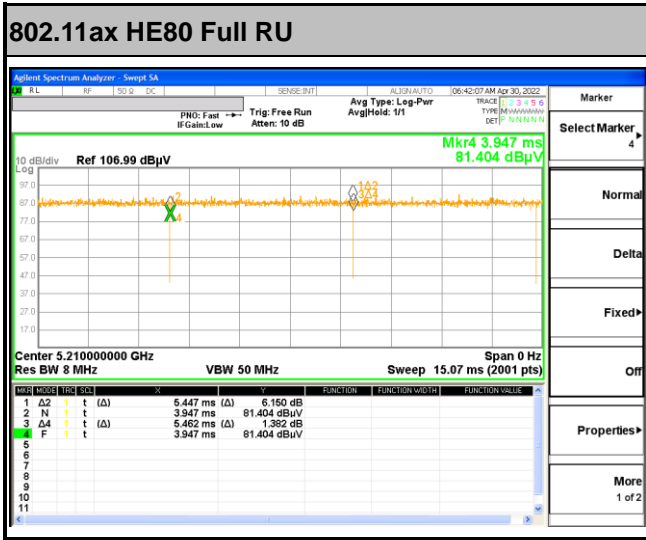


Appendix E. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
0+1	802.11a	99.29	-	-	10Hz
0+1	5GHz 802.11ax HE20 Full RU	99.73	-	-	10Hz
0+1	5GHz 802.11ax HE20 26 RU	99.04	-	-	10Hz
0+1	5GHz 802.11ax HE40 Full RU	99.73	-	-	10Hz
0+1	5GHz 802.11ax HE80 Full RU	99.73	-	-	10Hz

MIMO <Ant. 0+1>





Appendix F. Setup Photographs

<Conducted Emission>

Remote View





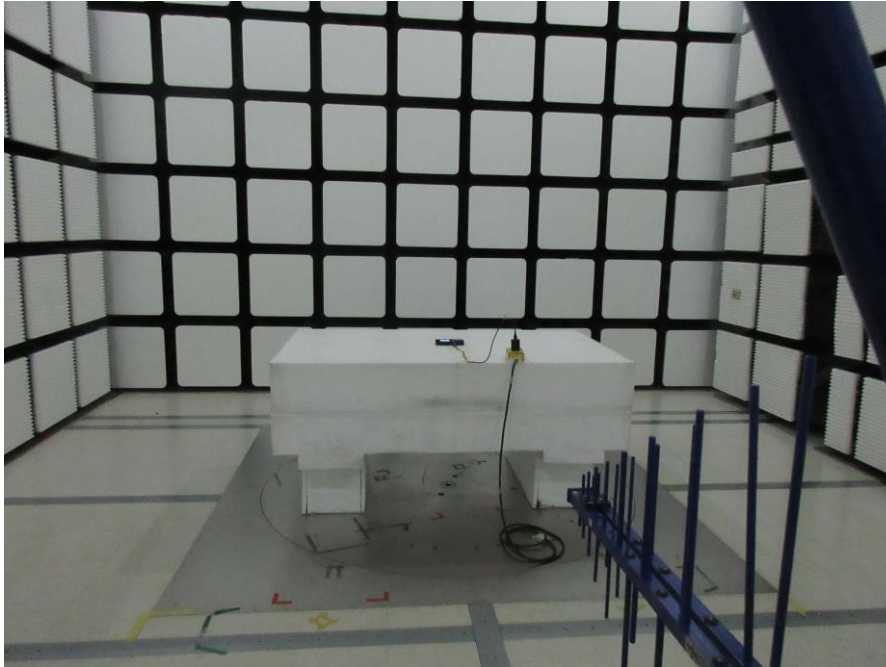
Rear View



<Radiated Emission>

X Plane

LF



HF



SHF



————THE END————