

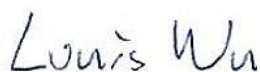


FCC RADIO TEST REPORT

FCC ID : 2AUS4-NFL1
Equipment : Accessory for video conferencing device
Brand Name : neat.
Model Name : NF-L1
Applicant : Neatframe Limited
Cannon Green, 27 Bush Lane, London,
EC4R 0AA, United Kingdom
Manufacturer : Neatframe Limited
Cannon Green, 27 Bush Lane, London,
EC4R 0AA, United Kingdom
Standard : FCC Part 15 Subpart E §15.407

The product was received on Jul. 18, 2023 and testing was performed from Jul. 26, 2023 to Sep. 07, 2023. We, Sporton International Inc. Wensan 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. Wensan Laboratory, the test report shall not be reproduced except in full.



Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory

No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)



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History of this test report

Report No.	Version	Description	Issue Date
FR371809E	01	Initial issue of report	Sep. 22, 2023
FR371809E	02	Revise Test Mode This report is an updated version, replacing the report issued on Sep. 22, 2023.	Sep. 27, 2023

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.403(i)	6dB & 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	8.07 dB under the limit at 9189.00 MHz
3.5	15.207	AC Conducted Emission	Pass	5.53 dB under the limit at 20.40 MHz
3.6	15.203	Antenna Requirement	Pass	-

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty".

Disclaimer:

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

Reviewed by: Keven Cheng

Report Producer: Ming Chen



1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature		
General Specs WLAN 11 a/b/g/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80/VHT160 WLAN 11ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE, Antenna Type WLAN: PIFA Antenna Bluetooth: PIFA Antenna		
Antenna information		
5725 MHz ~ 5850 MHz	Peak Gain (dBi)	Ant. 1: 4.00 Ant. 2: 3.80

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

1.1.1 Antenna Directional Gain

<For CDD Mode>

Follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01 F2)f)ii)

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

For power measurements on IEEE 802.11 devices,

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.

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

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

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



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

			DG	DG	Power	PSD
			for	for	Limit	Limit
	Ant 1	Ant 2	Power	PSD	Reduction	Reduction
	(dBi)	(dBi)	(dBi)	(dBi)	(dB)	(dB)
Band IV	4.00	3.80	4.00	6.91	0.00	0.91

Calculation example:

If a device has two antenna, $G_{ANT1} = 3.0\text{dBi}$; $G_{ANT2} = 3.2\text{dBi}$

Directional gain of power measurement = $\max(4.00, 3.80) + 0 = 3.20\text{ dBi}$

Directional gain of PSD derived from formula which is

$$10 \times \log \left\{ \left[10^{\frac{4.00\text{ dBi}}{20}} + 10^{\frac{3.80\text{ dBi}}{20}} \right]^2 \right\} / 2 \\ = 6.11\text{ dBi}$$

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

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 (TAF Code: 1190)
Remark	The AC Conducted Emission test item subcontracted to Sporton International Inc. EMC & Wireless Communications Laboratory.

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, 03CH16-HY

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

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 only the worst case emissions were reported in this report.
- 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)
5725-5850 MHz Band 4 (U-NII-3)	149	5745	157	5785
	151*	5755	159*	5795
	153	5765	161	5805
	155 [#]	5775	165	5825

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

This device support 26/52/106/242/484/996-tone RU but does not support 2x996-tone RU on 160MHz channel.

The PSD of partial RU is reduced to be smaller than full RU according to TCB workshop interim guidance Oct. 2018.

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 242-tone RU is covered by 20MHz channel, 484-tone RU is covered by 40MHz channel and 996-tone RU is covered by 80MHz channel.

The SISO mode conducted power is covered by MIMO mode per chain, so only the MIMO mode is tested.

The power for 802.11n and 802.11ac mode is smaller than 802.11ax mode, so all other conducted and radiated test is covered by 802.11ax mode.

The final test modes include the worst data rates for each modulation 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

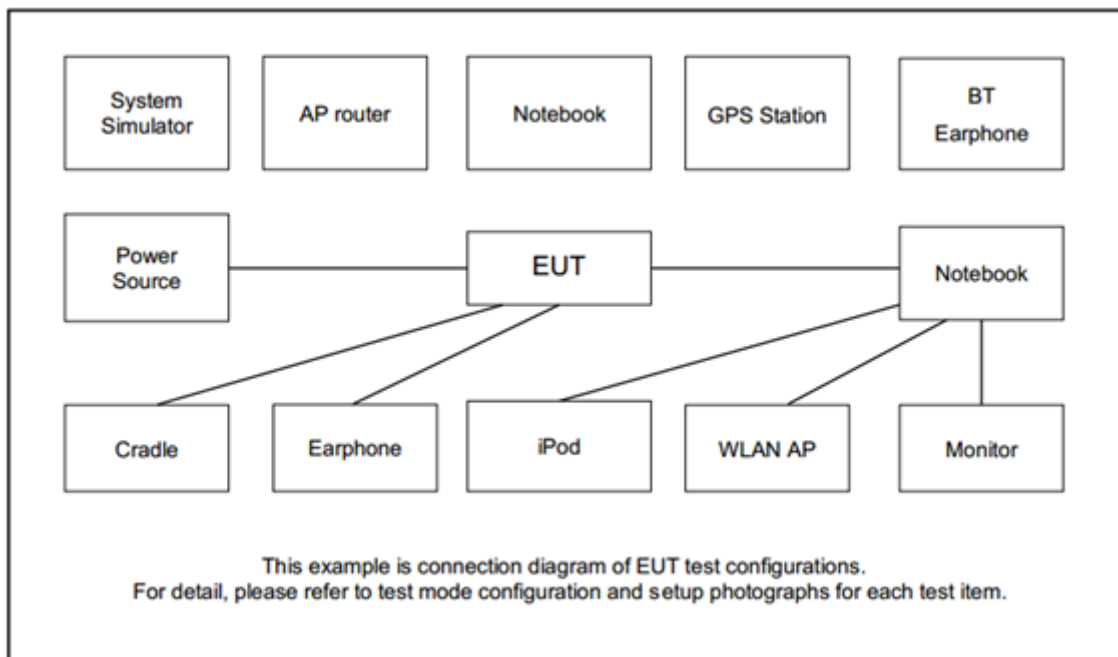
Remark: The conducted power level of each chain in MIMO mode is equal or higher than SISO mode.

Test Cases	
AC Conducted Emission	Mode 1 : WLAN (5GHz) Link + Bluetooth Link + Camera on + RJ45 Link + POE Adapter + USB (Load with Notebook)

Ch. #		Band IV : 5725-5850 MHz			
		802.11a	802.11ax HE20	802.11ax HE40	802.11ax HE80
L	Low	149	149	151	-
M	Middle	157	157	-	155
H	High	165	165	159	-

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



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Bluetooth Earphone	Sony Ericsson	MW600	PY700A2029	N/A	N/A
2.	WLAN AP	NETGEAR64	RAXE500	N/A	N/A	Unshielded, 1.8 m
3.	iPod	Apple	A1285	FCC DoC	Shielded, 1.0m	N/A
4.	Notebook	DELL	Latitude 3400	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
5.	Notebook	Allienware	m16 r1	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
6.	POE Adapter	PHIHONG	POE16R-1AFG6	FCC DoC	N/A	N/A

2.5 EUT Operation Test Setup

The RF test items, utility "QRCT V4.0 Version4.0211.0" 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 6dB and 26dB and 99% Occupied Bandwidth Measurement

3.1.1 Description of 6dB and 26dB and 99% Occupied Bandwidth

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

26dB and 99% Occupied bandwidth are reporting only.

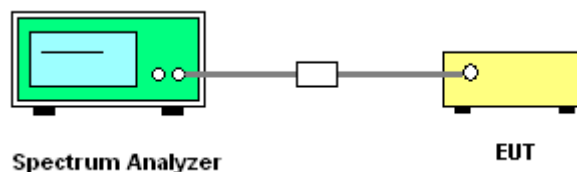
3.1.2 Measuring Instruments

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 for the band 5.725-5.85 GHz
2. Set RBW = 100 kHz.
3. Set the VBW $\geq 3 \times$ RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 6 dB down from the peak of the emission.
7. Measure and record the results in the test report.

3.1.4 Test Setup



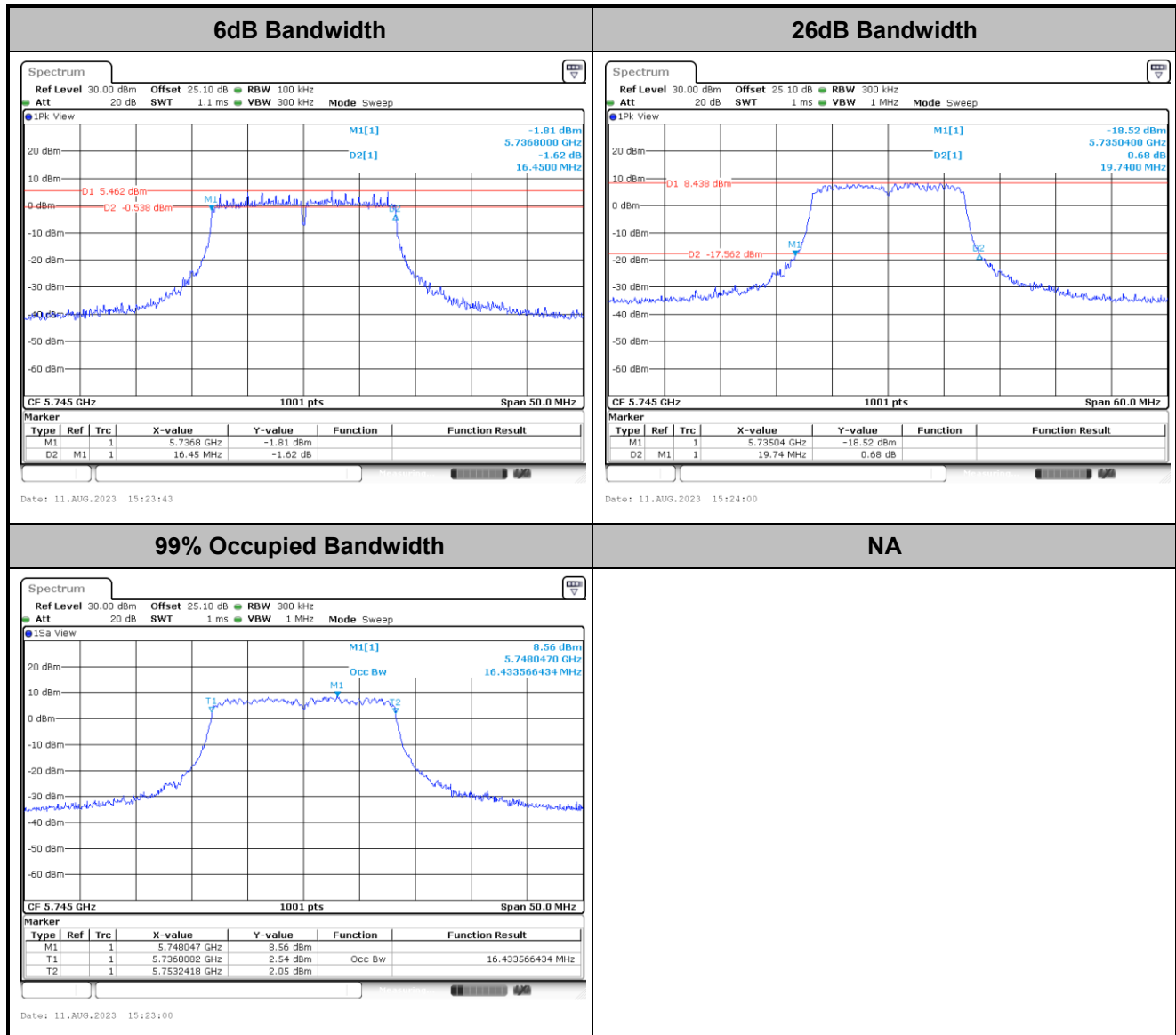
3.1.5 Test Result of 6dB and 26dB and 99% Occupied Bandwidth

Please refer to Appendix A.



MIMO <Ant. 1+2>

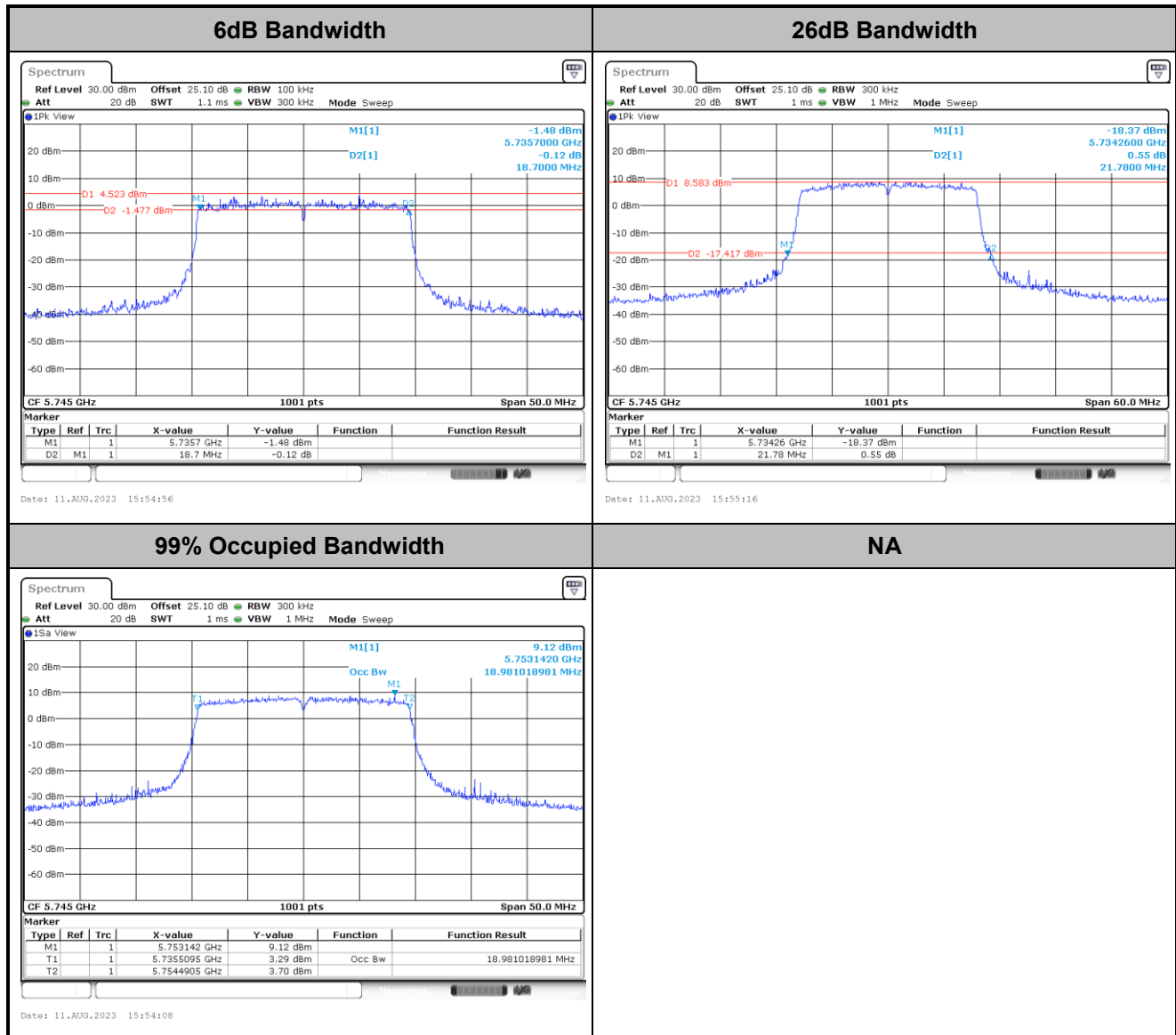
<802.11a>



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



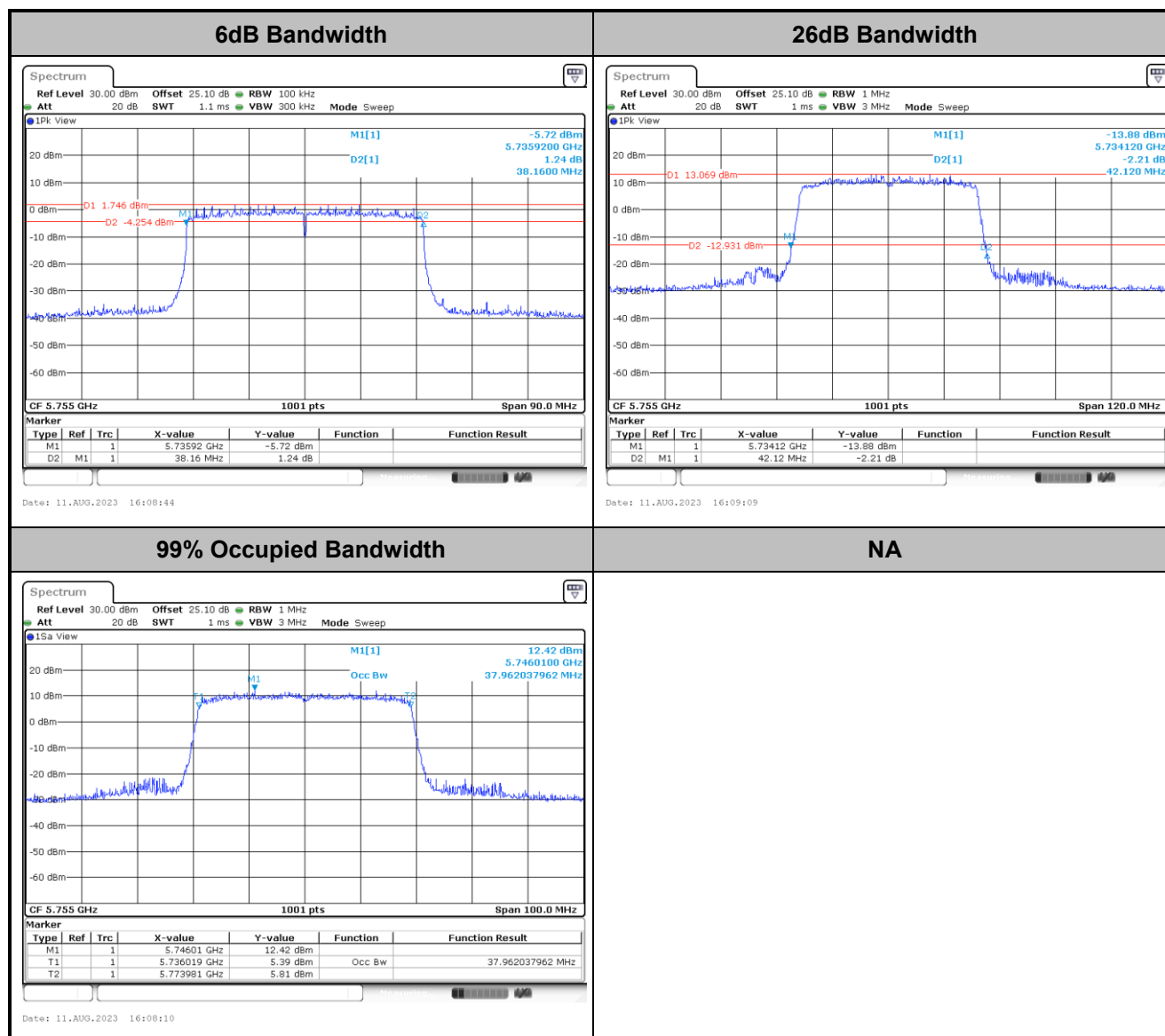
<802.11ax HE20>



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



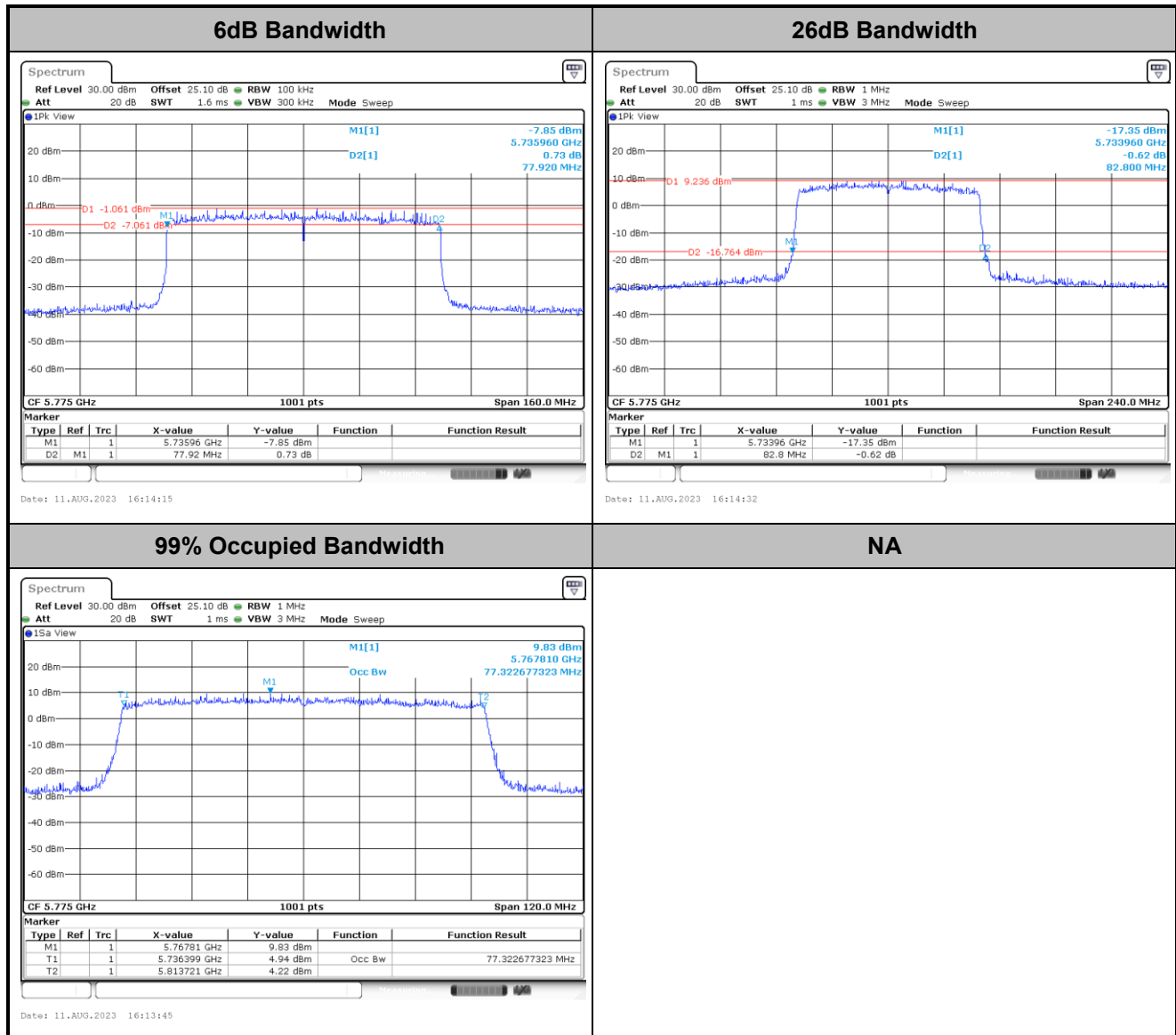
<802.11ax HE40>



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

For the band 5.725–5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

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

3.2.2 Measuring Instruments

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

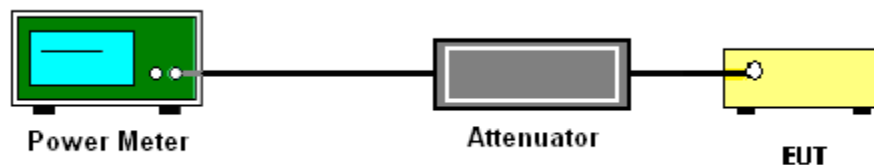
3.2.3 Test Procedures

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

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

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power 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-2

(trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

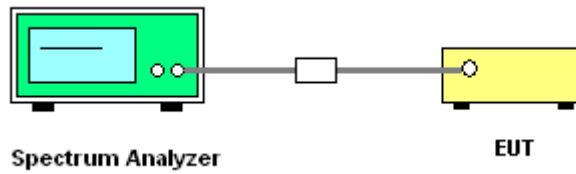
- Measure the duty cycle.
 - Set span to encompass the entire emission bandwidth (EBW) of the signal.
 - Set RBW = 300kHz.
 - Set VBW $\geq$ 1 MHz.
 - Add $10 \log(500 \text{ kHz/RBW})$ to the measured result, whereas RBW ($<500 \text{ kHz}$) is the reduced resolution bandwidth of the spectrum analyzer set during measurement
 - Number of points in sweep $\geq 2 \text{ Span} / \text{RBW}$.
 - Sweep time = auto.
 - Detector = RMS
 - Trace average at least 100 traces in power averaging mode.
 - Add $10 \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add $10 \log(1/0.25) = 6 \text{ dB}$ if the duty cycle is 25 percent.
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.

- For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

Method (c): Measure and add $10 \log(N_{\text{ANT}})$ dB.

With this technique, spectrum measurements are performed at each output of the device, but rather than summing the spectra or the spectral peaks across the outputs, the quantity $10 \log(N_{\text{ANT}})$ dB is added to each spectrum value before comparing to the emission limit. The addition of $10 \log(N_{\text{ANT}})$ dB serves to apportion the emission limit among the N_{ANT} outputs so that each output is permitted to contribute no more than $1/N_{\text{ANT}}$ th of the PSD limit.

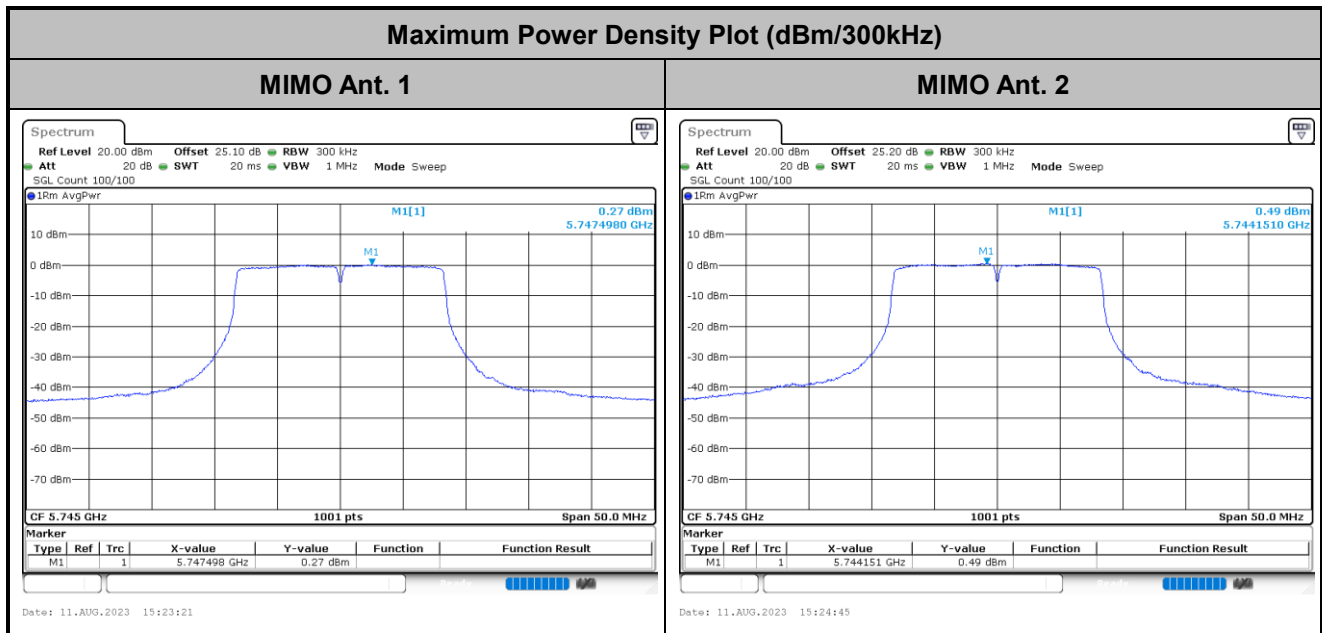
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

<802.11a>

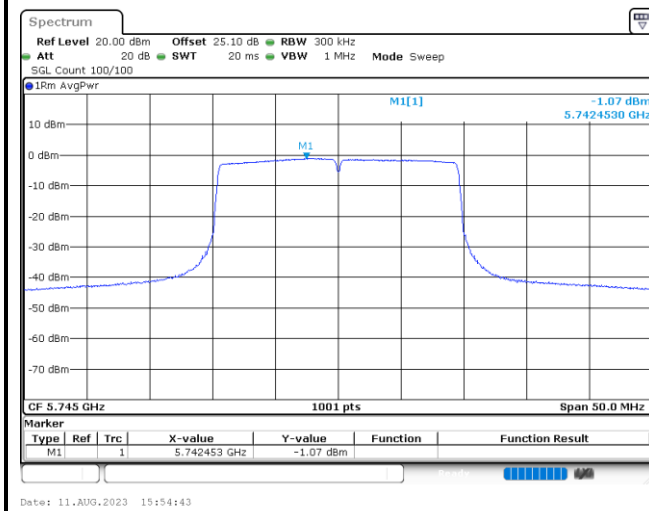




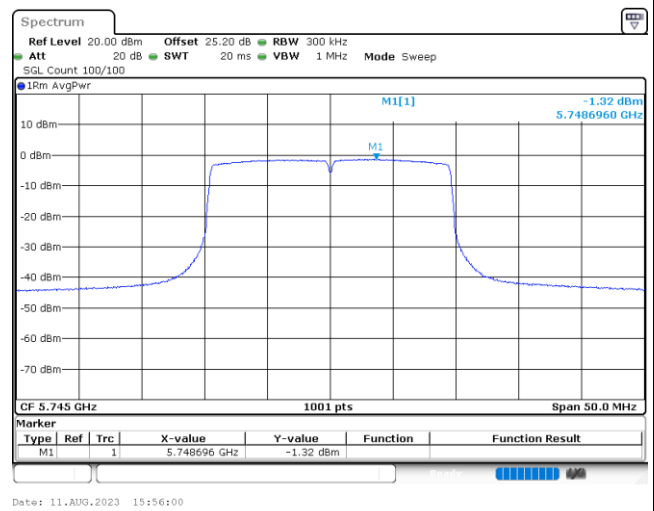
<802.11ax HE20>

Maximum Power Density Plot (dBm/300kHz)

MIMO Ant. 1



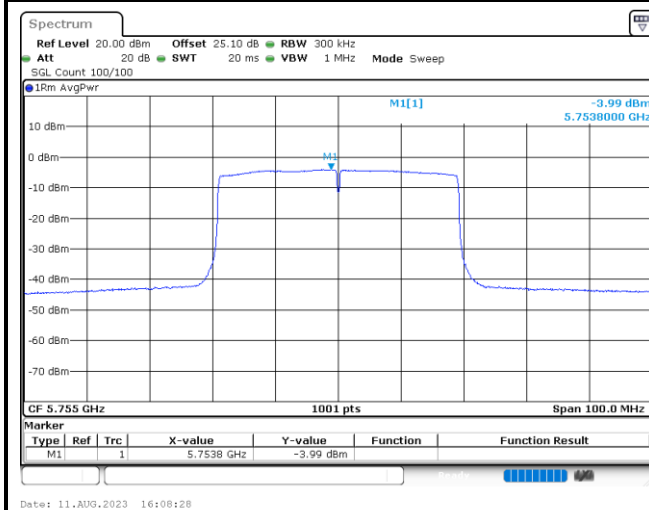
MIMO Ant. 2



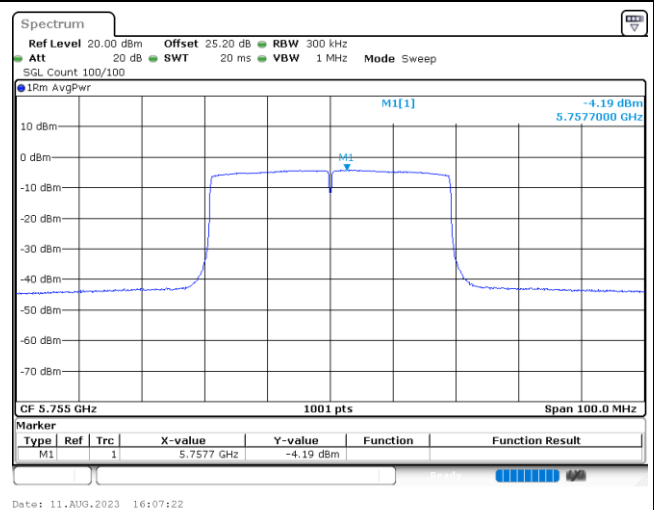
<802.11ax HE40>

Maximum Power Density Plot (dBm/300kHz)

MIMO Ant. 1



MIMO Ant. 2

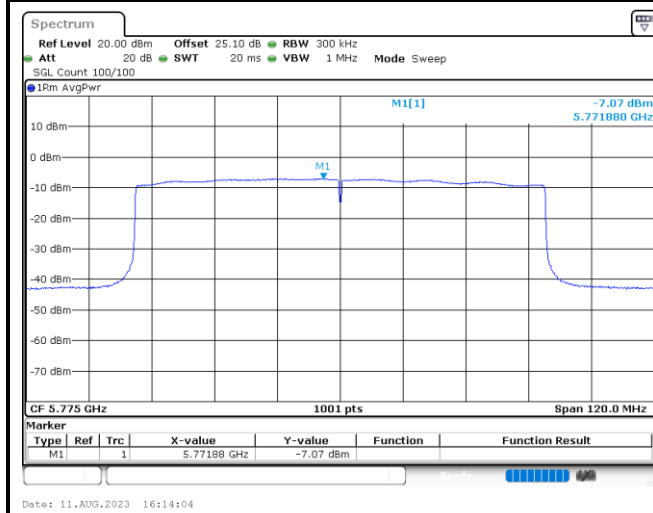




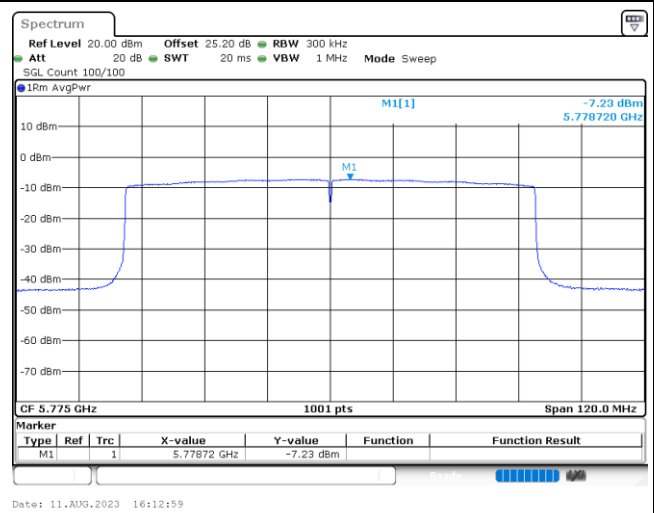
<802.11ax HE80>

Maximum Power Density Plot (dBm/300kHz)

MIMO Ant. 1



MIMO Ant. 2



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 5.725-5.85 GHz band:

15.407(b)(4)(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

- (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.

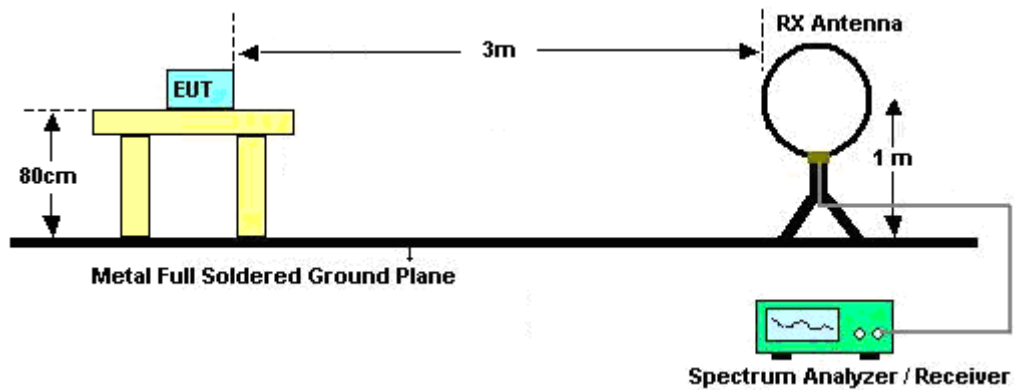
3.4.3 Test Procedures

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.

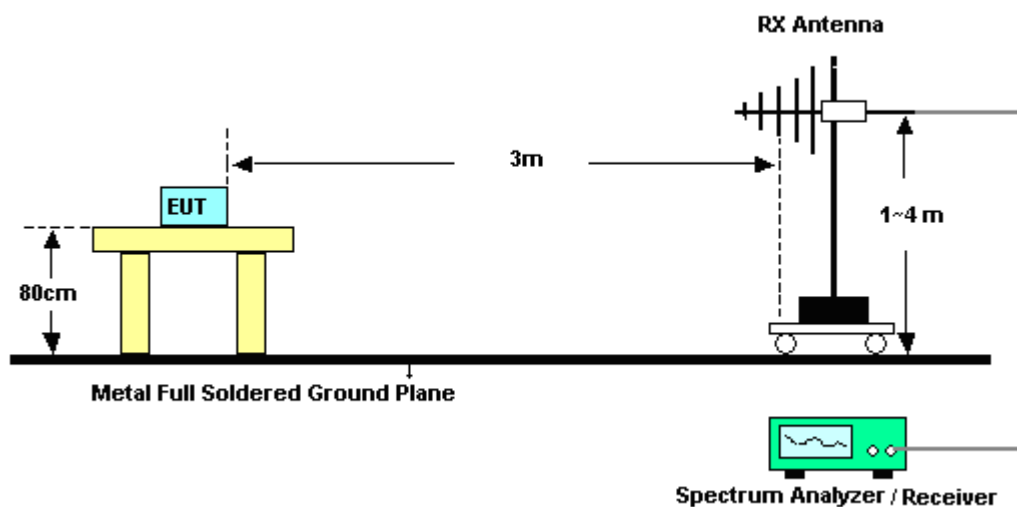
6. Radiated testing below 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading. When there is no suspected emission found and the emission level is with at least 6 dB margin against QP limit 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

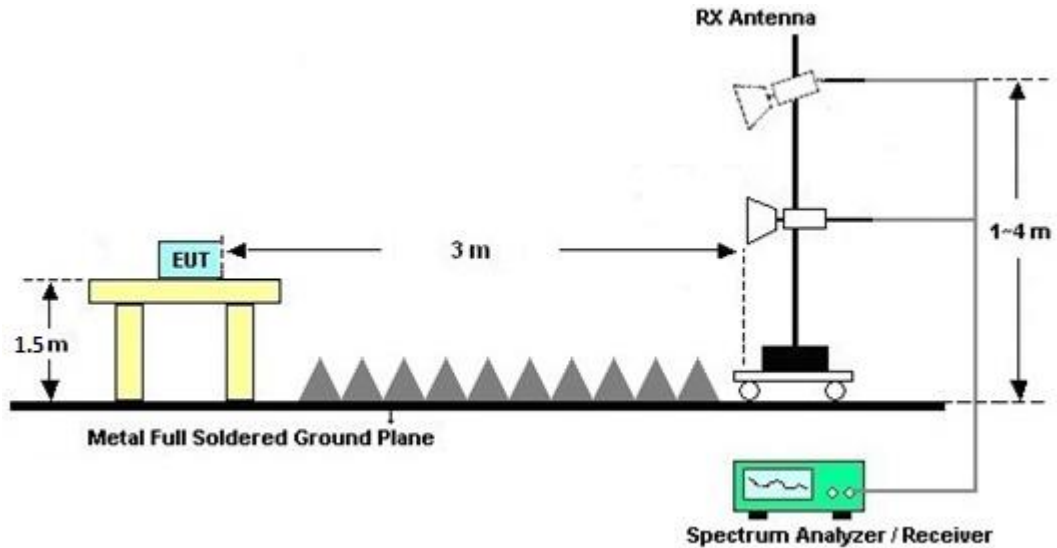
For radiated emissions below 30MHz



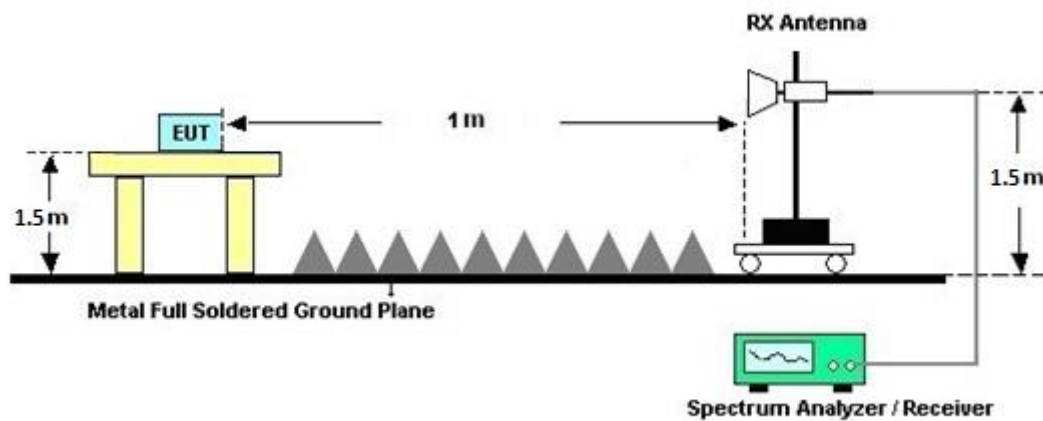
For radiated emissions from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



**3.4.5 Test Results of Radiated 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 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 Unwanted Radiated Emission (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 (dB μ V)	
	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.

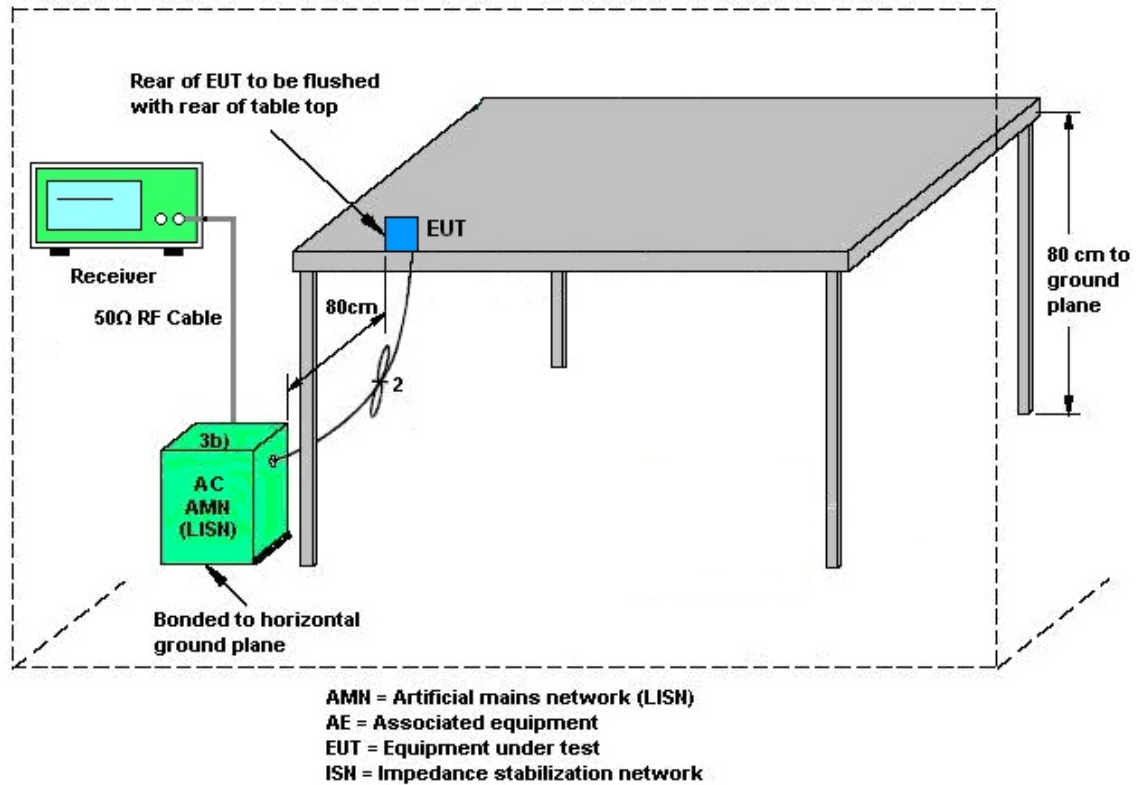
3.5.2 Measuring Instruments

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

The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the rule.

3.6.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.



4 List of Measuring Equipment

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	Jul. 27, 2023	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Dec. 01, 2022	Jul. 27, 2023	Nov. 30, 2023	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Nov. 17, 2022	Jul. 27, 2023	Nov. 16, 2023	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Dec. 01, 2022	Jul. 27, 2023	Nov. 30, 2023	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Nov. 17, 2022	Jul. 27, 2023	Nov. 16, 2023	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32	N/A	N/A	N/A	Jul. 27, 2023	N/A	Conduction (CO05-HY)
ISN Cable	MVE	RG-400	200260	N/A	Dec. 29, 2022	Jul. 27, 2023	Dec. 28, 2023	Conduction (CO05-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-F N	9561-F N00373	9kHz-200MHz	Nov. 01, 2022	Jul. 27, 2023	Oct. 31, 2023	Conduction (CO05-HY)
LISN Cable	MVE	RG-400	260260	N/A	Dec. 29, 2022	Jul. 27, 2023	Dec. 28, 2023	Conduction (CO05-HY)
Hygrometer	TECPEL	DTM-303A	TP201996	N/A	Nov. 17, 2022	Jul. 26, 2023~ Sep. 07, 2023	Nov. 16, 2023	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	16I00054SNO 12 (NO:113)	10MHz~6GHz	Dec. 13, 2022	Jul. 26, 2023~ Sep. 07, 2023	Dec. 12, 2023	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101564	10Hz ~ 40GHz	Sep. 13, 2022	Jul. 26, 2023~ Sep. 07, 2023	Sep. 12, 2023	Conducted (TH05-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Sep. 20, 2022	Aug. 02, 2023~ Sep. 06, 2023	Sep. 19, 2023	Radiation (03CH16-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz~40GHz	Dec. 07, 2022	Aug. 02, 2023~ Sep. 06, 2023	Dec. 06, 2023	Radiation (03CH16-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA9170	00993	18GHz-40GHz	Nov. 24, 2022	Aug. 02, 2023~ Sep. 06, 2023	Nov. 23, 2023	Radiation (03CH16-HY)
Amplifier	SONOMA	310N	371607	9kHz~1GHz	Jul. 03, 2023	Aug. 02, 2023~ Sep. 06, 2023	Jul. 02, 2024	Radiation (03CH16-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00802N1D01N-06	47020 & 06	30MHz~1GHz	Oct. 08, 2022	Aug. 02, 2023~ Sep. 06, 2023	Oct. 07, 2023	Radiation (03CH16-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY57290111	3Hz~26.5GHz	Dec. 15, 2022	Aug. 02, 2023~ Sep. 06, 2023	Dec. 14, 2023	Radiation (03CH16-HY)
EMI Test Receiver	Keysight	N9010B	MY60241055	3Hz~26.5GHz	Jul. 26, 2023	Aug. 02, 2023~ Sep. 06, 2023	Jul. 25, 2024	Radiation (03CH16-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY57290111	3Hz~26.5GHz	Dec. 15, 2022	Aug. 02, 2023~ Sep. 06, 2023	Dec. 14, 2023	Radiation (03CH16-HY)
Signal Analyzer	Keysight	N9010B	MY62170278	10Hz~44GHz	Sep. 11, 2022	Aug. 02, 2023~ Sep. 06, 2023	Sep. 10, 2023	Radiation (03CH16-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1522	1GHz~18GHz	Mar. 23, 2023	Aug. 02, 2023~ Sep. 06, 2023	Mar. 22, 2024	Radiation (03CH16-HY)
Preamplifier	Keysight	83017A	MY53270264	1GHz~26.5GHz	Dec. 09, 2022	Aug. 02, 2023~ Sep. 06, 2023	Dec. 08, 2023	Radiation (03CH16-HY)
Preamplifier	EMEC	EM1G18G	060812	1GHz~18GHz	Dec. 26, 2022	Aug. 02, 2023~ Sep. 06, 2023	Dec. 25, 2023	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	805935/4	N/A	Aug. 09, 2022	Aug. 02, 2023~ Aug. 07, 2023	Aug. 08, 2023	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	802434/4	N/A	Aug. 08, 2023	Aug. 08, 2023~ Sep. 06, 2023	Aug. 07, 2024	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	EC-A5-300-57 57	N/A	Aug. 09, 2022	Aug. 02, 2023~ Aug. 07, 2023	Aug. 08, 2023	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	EC-A5-300-57 57	N/A	Aug. 08, 2023	Aug. 08, 2023~ Sep. 06, 2023	Aug. 07, 2024	Radiation (03CH16-HY)

**FCC RADIO TEST REPORT****Report No. : FR371809E**

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Controller	ChainTek	3000-1	N/A	Control Turn table & Ant Mast	N/A	Aug. 02, 2023~ Sep. 06, 2023	N/A	Radiation (03CH16-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Aug. 02, 2023~ Sep. 06, 2023	N/A	Radiation (03CH16-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Aug. 02, 2023~ Sep. 06, 2023	N/A	Radiation (03CH16-HY)
Software	Audix	E3 6.2009-8-24	RK-001136	N/A	N/A	Aug. 02, 2023~ Sep. 06, 2023	N/A	Radiation (03CH16-HY)



5 Measurement Uncertainty

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.50 dB
--	---------

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	6.50 dB
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 6000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.60 dB
--	---------

Uncertainty of Radiated Emission Measurement (6000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.50 dB
--	---------

Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.60 dB
--	---------

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Junyu Jhou	Temperature:	21~25	°C
Test Date:	2023/7/26~2023/9/7	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 26dB EBW and 99% OBW

U-NII-3 MIMO												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26dB Bandwidth (MHz)		6 dB Bandwidth (MHz)		6 dB Bandwidth Min. Limit (MHz)	Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	2	149	5745	16.43	16.43	19.74	20.22	16.45	16.45	0.5	Pass
11a	6Mbps	2	157	5785	16.53	16.43	20.16	19.86	16.40	16.40	0.5	Pass
11a	6Mbps	2	165	5825	16.43	16.43	20.10	19.74	16.45	16.45	0.5	Pass

TEST RESULTS DATA
Average Power Table

U-NII-3 MIMO												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	2	149	5745	17.20	16.90	20.06	30.00		4.00		Pass
11a	6Mbps	2	157	5785	17.10	16.70	19.91	30.00		4.00		Pass
11a	6Mbps	2	165	5825	17.30	17.10	20.21	30.00		4.00		Pass
HT20	MCS0	2	149	5745	16.10	15.90	19.01	30.00		4.00		Pass
HT20	MCS0	2	157	5785	16.10	15.60	18.87	30.00		4.00		Pass
HT20	MCS0	2	165	5825	16.20	16.00	19.11	30.00		4.00		Pass
HT40	MCS0	2	151	5755	16.00	15.90	18.96	30.00		4.00		Pass
HT40	MCS0	2	159	5795	16.00	15.50	18.77	30.00		4.00		Pass
VHT20	MCS0	2	149	5745	16.10	15.90	19.01	30.00		4.00		Pass
VHT20	MCS0	2	157	5785	16.10	15.60	18.87	30.00		4.00		Pass
VHT20	MCS0	2	165	5825	16.20	16.00	19.11	30.00		4.00		Pass
VHT40	MCS0	2	151	5755	16.00	15.90	18.96	30.00		4.00		Pass
VHT40	MCS0	2	159	5795	16.00	15.50	18.77	30.00		4.00		Pass
VHT80	MCS0	2	155	5775	16.30	15.90	19.11	30.00		4.00		Pass

TEST RESULTS DATA
Power Spectral Density

U-NII-3 MIMO																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		10log (500kHz /RBW) Factor (dB)		Average Power Density with Duty Factor (dBm/500kHz)			Average PSD Limit (dBm/500kHz)		DG (dBi)		Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	2	149	5745	0.00	0.00	2.22		2.49	2.71	5.72	29.09		6.91		Pass
11a	6Mbps	2	157	5785	0.00	0.00	2.22		2.46	2.27	5.47	29.09		6.91		Pass
11a	6Mbps	2	165	5825	0.00	0.00	2.22		2.65	2.56	5.66	29.09		6.91		Pass

Note: PSD Sum = Max PSD(Ant. 1, Ant. 2) + 10 log (n)

TEST RESULTS DATA
6dB and 26dB EBW and 99% OBW

U-NII-3 MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config	99% Bandwidth (MHz)		26dB Bandwidth (MHz)		6 dB Bandwidth (MHz)		6 dB Bandwidth Min. Limit (MHz)	Pass/Fail
						Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2		
HE20	MCS0	2	149	5745	Full	18.98	18.88	21.78	21.48	18.70	18.90	0.5	Pass
HE20	MCS0	2	157	5785	Full	18.93	18.88	21.84	21.42	19.15	18.65	0.5	Pass
HE20	MCS0	2	165	5825	Full	18.98	18.88	21.36	21.18	19.00	19.00	0.5	Pass
HE40	MCS0	2	151	5755	Full	37.96	37.96	42.12	41.88	38.16	37.89	0.5	Pass
HE40	MCS0	2	159	5795	Full	37.96	37.96	41.76	42.00	38.16	37.80	0.5	Pass
HE80	MCS0	2	155	5775	Full	77.32	77.20	82.80	82.56	77.92	77.76	0.5	Pass

TEST RESULTS DATA
Average Power Table

U-NII-3 MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
						Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
HE20	MCS0	2	149	5745	Full	16.20	16.00	19.11	30.00		4.00		Pass
HE20	MCS0	2	149	5745	26/0	5.80	6.10	8.96	30.00		4.00		Pass
HE20	MCS0	2	149	5745	52/37	9.50	9.70	12.61	30.00		4.00		Pass
HE20	MCS0	2	149	5745	106/53	12.50	12.70	15.61	30.00		4.00		Pass
HE20	MCS0	2	157	5785	Full	16.20	15.70	18.97	30.00		4.00		Pass
HE20	MCS0	2	157	5785	26/4	5.20	5.50	8.36	30.00		4.00		Pass
HE20	MCS0	2	157	5785	52/38	9.30	8.70	12.02	30.00		4.00		Pass
HE20	MCS0	2	157	5785	106/53	12.10	12.00	15.06	30.00		4.00		Pass
HE20	MCS0	2	165	5825	Full	16.30	16.10	19.21	30.00		4.00		Pass
HE20	MCS0	2	165	5825	26/8	5.40	5.50	8.46	30.00		4.00		Pass
HE20	MCS0	2	165	5825	52/40	9.20	9.20	12.21	30.00		4.00		Pass
HE20	MCS0	2	165	5825	106/54	12.10	12.20	15.16	30.00		4.00		Pass
HE40	MCS0	2	151	5755	Full	16.10	16.00	19.06	30.00		4.00		Pass
HE40	MCS0	2	151	5755	242/61	13.50	13.00	16.27	30.00		4.00		Pass
HE40	MCS0	2	159	5795	Full	16.10	15.60	18.87	30.00		4.00		Pass
HE40	MCS0	2	159	5795	242/62	12.80	12.70	15.76	30.00		4.00		Pass
HE80	MCS0	2	155	5775	Full	16.40	16.00	19.21	30.00		4.00		Pass
HE80	MCS0	2	155	5775	484/65	13.10	12.60	15.87	30.00		4.00		Pass
HE80	MCS0	2	155	5775	484/66	13.00	12.60	15.81	30.00		4.00		Pass

TEST RESULTS DATA
Power Spectral Density

U-NII-3 MIMO																	
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	RU Config	Duty Factor (dB)		10log (500kHz /RBW) Factor (dB)		Average Power Density with Duty Factor (dBm/500kHz)			Average PSD Limit (dBm/500kHz)		DG (dBi)		Pass. /Fail
						Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
HE20	MCS0	2	149	5745	Full	0.00	0.00	2.22	1.15	0.90	4.16	29.09		6.91		Pass	
HE20	MCS0	2	149	5745	26/0	0.00	0.00	2.22	0.27	0.25	3.28	29.09		6.91		Pass	
HE20	MCS0	2	149	5745	52/37	0.00	0.00	2.22	0.71	0.82	3.83	29.09		6.91		Pass	
HE20	MCS0	2	149	5745	106/53	0.00	0.00	2.22	0.65	0.73	3.74	29.09		6.91		Pass	
HE20	MCS0	2	157	5785	Full	0.00	0.00	2.22	0.93	0.59	3.94	29.09		6.91		Pass	
HE20	MCS0	2	157	5785	26/4	0.00	0.00	2.22	-0.25	0.03	3.04	29.09		6.91		Pass	
HE20	MCS0	2	157	5785	52/38	0.00	0.00	2.22	0.60	0.15	3.61	29.09		6.91		Pass	
HE20	MCS0	2	157	5785	106/53	0.00	0.00	2.22	0.45	0.22	3.46	29.09		6.91		Pass	
HE20	MCS0	2	165	5825	Full	0.00	0.00	2.22	1.12	0.91	4.13	29.09		6.91		Pass	
HE20	MCS0	2	165	5825	26/8	0.00	0.00	2.22	-0.11	0.12	3.13	29.09		6.91		Pass	
HE20	MCS0	2	165	5825	52/40	0.00	0.00	2.22	0.70	0.54	3.71	29.09		6.91		Pass	
HE20	MCS0	2	165	5825	106/54	0.00	0.00	2.22	0.54	0.48	3.55	29.09		6.91		Pass	
HE40	MCS0	2	151	5755	Full	0.00	0.00	2.22	-1.77	-1.97	1.24	29.09		6.91		Pass	
HE40	MCS0	2	151	5755	242/61	0.00	0.00	2.22	-1.85	-2.48	1.16	29.09		6.91		Pass	
HE40	MCS0	2	159	5795	Full	0.00	0.00	2.22	-1.90	-2.32	1.11	29.09		6.91		Pass	
HE40	MCS0	2	159	5795	242/62	0.00	0.00	2.22	-2.18	-2.52	0.83	29.09		6.91		Pass	
HE80	MCS0	2	155	5775	Full	0.00	0.00	2.22	-4.85	-5.01	-1.84	29.09		6.91		Pass	
HE80	MCS0	2	155	5775	484/65	0.05	0.06	2.22	-5.08	-5.71	-2.07	29.09		6.91		Pass	
HE80	MCS0	2	155	5775	484/66	0.05	0.06	2.22	-4.89	-5.34	-1.88	29.09		6.91		Pass	

Note: PSD Sum = Max PSD(Ant. 1, Ant. 2) + 10 log (n)



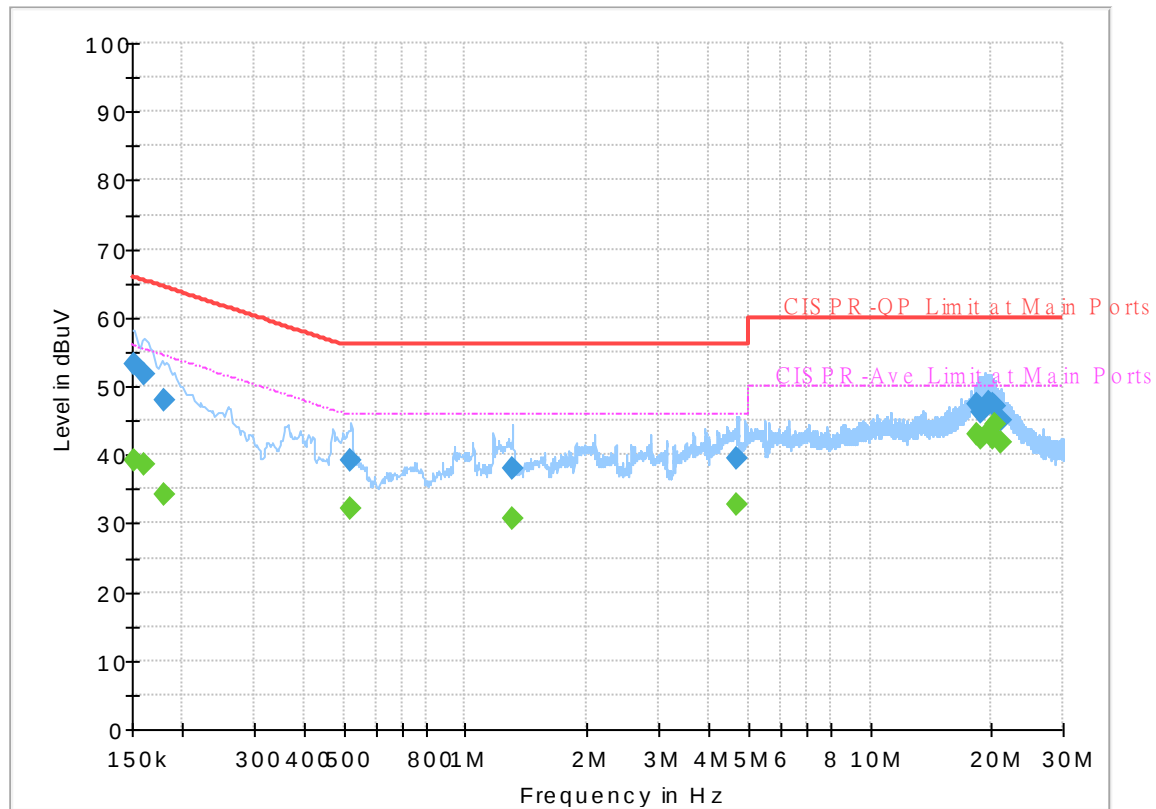
Appendix B. AC Conducted Emission Test Results

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

EUT Information

Report NO : 371809
 Test Mode : Mode 1
 Test Voltage : 120Vac/60Hz
 Phase : Line

Full Spectrum



Final_Result

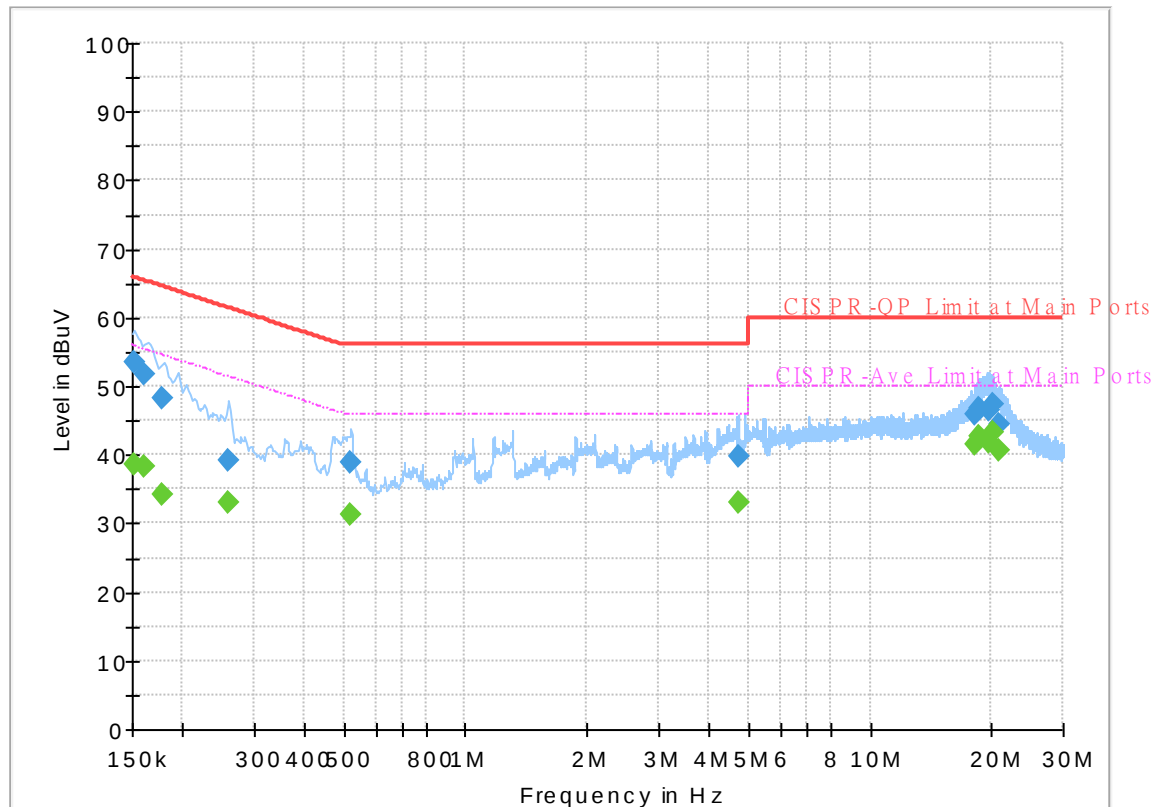
Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	39.11	55.88	16.77	L1	OFF	19.7
0.152250	53.32	---	65.88	12.56	L1	OFF	19.7
0.161250	---	38.50	55.40	16.90	L1	OFF	19.7
0.161250	51.73	---	65.40	13.67	L1	OFF	19.7
0.179250	---	34.17	54.52	20.35	L1	OFF	19.7
0.179250	48.09	---	64.52	16.43	L1	OFF	19.7
0.521250	---	32.05	46.00	13.95	L1	OFF	19.7
0.521250	39.23	---	56.00	16.77	L1	OFF	19.7
1.304250	---	30.71	46.00	15.29	L1	OFF	19.8
1.304250	38.01	---	56.00	17.99	L1	OFF	19.8
4.683750	---	32.74	46.00	13.26	L1	OFF	19.9
4.683750	39.48	---	56.00	16.52	L1	OFF	19.9
18.350250	---	43.12	50.00	6.88	L1	OFF	20.3
18.350250	47.23	---	60.00	12.77	L1	OFF	20.3
18.874500	---	42.52	50.00	7.48	L1	OFF	20.3
18.874500	46.15	---	60.00	13.85	L1	OFF	20.3
19.569750	---	43.21	50.00	6.79	L1	OFF	20.3
19.569750	47.80	---	60.00	12.20	L1	OFF	20.3
20.177250	---	42.36	50.00	7.64	L1	OFF	20.3
20.177250	47.31	---	60.00	12.69	L1	OFF	20.3
20.400000	---	44.47	50.00	5.53	L1	OFF	20.3

20.400000	46.98	---	60.00	13.02	L1	OFF	20.3
21.007500	---	41.81	50.00	8.19	L1	OFF	20.3
21.007500	44.96	---	60.00	15.04	L1	OFF	20.3

EUT Information

Report NO : 371809
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)
0.152250	---	38.70	55.88	17.18	N	OFF	19.7
0.152250	53.39	---	65.88	12.49	N	OFF	19.7
0.161250	---	38.21	55.40	17.19	N	OFF	19.7
0.161250	51.78	---	65.40	13.62	N	OFF	19.7
0.177000	---	34.31	54.63	20.32	N	OFF	19.7
0.177000	48.22	---	64.63	16.41	N	OFF	19.7
0.258000	---	33.15	51.50	18.35	N	OFF	19.7
0.258000	39.09	---	61.50	22.41	N	OFF	19.7
0.521250	---	31.20	46.00	14.80	N	OFF	19.7
0.521250	38.78	---	56.00	17.22	N	OFF	19.7
4.710750	---	32.90	46.00	13.10	N	OFF	19.9
4.710750	39.66	---	56.00	16.34	N	OFF	19.9
18.091500	---	41.41	50.00	8.59	N	OFF	20.4
18.091500	45.96	---	60.00	14.04	N	OFF	20.4
18.613500	---	42.61	50.00	7.39	N	OFF	20.4
18.613500	46.65	---	60.00	13.35	N	OFF	20.4
19.574250	---	41.96	50.00	8.04	N	OFF	20.4
19.574250	46.61	---	60.00	13.39	N	OFF	20.4
20.177250	---	43.40	50.00	6.60	N	OFF	20.4
20.177250	47.28	---	60.00	12.72	N	OFF	20.4
20.793750	---	40.67	50.00	9.33	N	OFF	20.5

20.793750	44.49	---	60.00	15.51	N	OFF	20.5
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Appendix C. Radiated Spurious Emission

Test Engineer :	Jack Tasi, Gary Guo and Steven Wu	Temperature :	20~25°C
		Relative Humidity :	65~68%

Band 4 - 5725~5850MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 149 5745MHz		5632.8	53.05	-15.15	68.2	38.28	33.03	11.59	29.85	304	180	P	H
		5691.2	53.95	-44.76	98.71	38.82	33.35	11.66	29.88	304	180	P	H
		5718.4	58.84	-51.51	110.35	43.52	33.51	11.7	29.89	304	180	P	H
		5724.2	65.22	-55.16	120.38	49.85	33.55	11.71	29.89	304	180	P	H
	*	5745	109.11	-	-	93.61	33.67	11.73	29.9	304	180	P	H
	*	5745	103.61	-	-	88.11	33.67	11.73	29.9	304	180	A	H
													H
													H
		5649.8	53.18	-15.02	68.2	38.33	33.1	11.61	29.86	204	26	P	V
		5693.6	53.62	-46.86	100.48	38.47	33.36	11.67	29.88	204	26	P	V
		5719	58.16	-52.36	110.52	42.84	33.51	11.7	29.89	204	26	P	V
		5723.8	66.72	-52.74	119.46	51.37	33.54	11.7	29.89	204	26	P	V
	*	5745	113.27	-	-	97.77	33.67	11.73	29.9	204	26	P	V
	*	5745	106.34	-	-	90.84	33.67	11.73	29.9	204	26	A	V
													V
													V



WIFI Ant. 1+2	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 157 5785MHz		5613.8	52.24	-15.96	68.2	37.56	32.96	11.57	29.85	297	184	P	H
		5689.4	54.09	-43.29	97.38	38.97	33.34	11.66	29.88	297	184	P	H
		5705.6	54.23	-52.54	106.77	39	33.43	11.68	29.88	297	184	P	H
		5724.6	52.44	-68.85	121.29	37.07	33.55	11.71	29.89	297	184	P	H
	*	5785	110.1	-	-	94.39	33.84	11.78	29.91	297	184	P	H
	*	5785	102.97	-	-	87.26	33.84	11.78	29.91	297	184	A	H
		5850.2	54.17	-67.57	121.74	38.27	34	11.84	29.94	297	184	P	H
		5867.4	54.61	-52.72	107.33	38.64	34.07	11.85	29.95	297	184	P	H
		5887.8	54.53	-41.17	95.7	38.47	34.15	11.87	29.96	297	184	P	H
		5941.8	54.38	-13.82	68.2	38.25	34.2	11.91	29.98	297	184	P	H
													H
													H
		5604.4	52.79	-15.41	68.2	38.15	32.92	11.56	29.84	297	49	P	V
		5685.8	53.73	-40.99	94.72	38.63	33.31	11.66	29.87	297	49	P	V
		5713.4	53.66	-55.29	108.95	38.38	33.48	11.69	29.89	297	49	P	V
		5724	53.42	-66.5	119.92	38.07	33.54	11.7	29.89	297	49	P	V
	*	5785	112.8	-	-	97.09	33.84	11.78	29.91	297	49	P	V
	*	5785	106.31	-	-	90.6	33.84	11.78	29.91	297	49	A	V
		5854.4	54.61	-57.56	112.17	38.69	34.02	11.84	29.94	297	49	P	V
		5871.2	55.11	-51.15	106.26	39.13	34.08	11.85	29.95	297	49	P	V
		5882	54.92	-45.08	100	38.88	34.13	11.86	29.95	297	49	P	V
		5928.6	54.38	-13.82	68.2	38.25	34.2	11.9	29.97	297	49	P	V
													V
													V



WIFI Ant. 1+2	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 165 5825MHz	*	5825	110.89	-	-	95.05	33.95	11.82	29.93	307	184	P	H
	*	5825	103.39	-	-	87.55	33.95	11.82	29.93	307	184	A	H
		5851.8	60.4	-57.7	118.1	44.49	34.01	11.84	29.94	307	184	P	H
		5862.2	54.77	-54.01	108.78	38.81	34.05	11.85	29.94	307	184	P	H
		5886	55.23	-41.8	97.03	39.18	34.14	11.86	29.95	307	184	P	H
		5938.8	54.31	-13.89	68.2	38.19	34.2	11.9	29.98	307	184	P	H
													H
													H
	*	5825	111.98	-	-	96.14	33.95	11.82	29.93	298	51	P	V
	*	5825	106.28	-	-	90.44	33.95	11.82	29.93	298	51	A	V
		5850.4	60.71	-60.58	121.29	44.81	34	11.84	29.94	298	51	P	V
		5867.6	55.37	-51.9	107.27	39.4	34.07	11.85	29.95	298	51	P	V
		5909.2	54.68	-25.18	79.86	38.56	34.2	11.88	29.96	298	51	P	V
		5942.6	54.41	-13.79	68.2	38.28	34.2	11.91	29.98	298	51	P	V
													V
													V
													V
Remark - No other spurious found. - All results are PASS against Peak and Average limit line.													

**Band 4 5725~5850MHz****WIFI 802.11a (Harmonic @ 3m)**

WIFI Ant. 1+2	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 149 5745MHz		9189	50.6	-23.4	74	63.85	38.08	15.32	66.65	299	44	P	H
		9189	44.92	-9.08	54	58.17	38.08	15.32	66.65	299	44	A	H
		11490	47.86	-26.14	74	58.23	39	17.1	66.47	-	-	P	H
		17235	47.76	-20.44	68.2	54.4	38.2	21.32	66.16	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		9189	50.38	-23.62	74	63.63	38.08	15.32	66.65	300	331	P	V
		9189	44.71	-9.29	54	57.96	38.08	15.32	66.65	300	331	A	V
		11490	47.7	-26.3	74	58.07	39	17.1	66.47	-	-	P	V
		17235	48.14	-20.06	68.2	54.78	38.2	21.32	66.16	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V



WIFI Ant. 1+2	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 157 5785MHz		9255	50.55	-17.65	68.2	63.71	38.11	15.39	66.66	299	50	P	H
		11570	47.88	-26.12	74	58.29	38.86	17.16	66.43	-	-	P	H
		17355	47.48	-20.72	68.2	53.58	38.52	21.38	66	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		9255	49.16	-19.04	68.2	62.32	38.11	15.39	66.66	373	329	P	V
		11570	47.94	-26.06	74	58.35	38.86	17.16	66.43	-	-	P	V
		17355	47.19	-21.01	68.2	53.29	38.52	21.38	66	-	-	P	V
													V
													V
													V
													V
													V
													V
													V

[illegible]


Band 4 5725~5850MHz
WIFI 802.11ax HE20_Full (Band Edge @ 3m)

WIFI Ant. 1+2	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 149 5745MHz		5648.6	53.8	-14.4	68.2	38.96	33.09	11.61	29.86	301	179	P	H
		5699.6	53.74	-51.17	104.91	38.55	33.4	11.67	29.88	301	179	P	H
		5719.4	59.43	-51.2	110.63	44.1	33.52	11.7	29.89	301	179	P	H
		5722.8	63.34	-53.84	117.18	47.99	33.54	11.7	29.89	301	179	P	H
	*	5745	110.71	-	-	95.21	33.67	11.73	29.9	301	179	P	H
	*	5745	102.37	-	-	86.87	33.67	11.73	29.9	301	179	A	H
													H
													H
		5624.4	53.79	-14.41	68.2	39.06	33	11.58	29.85	193	28	P	V
		5685.6	54.94	-39.64	94.58	39.84	33.31	11.66	29.87	193	28	P	V
		5719.6	58.78	-51.91	110.69	43.45	33.52	11.7	29.89	193	28	P	V
		5723.6	65.53	-53.48	119.01	50.18	33.54	11.7	29.89	193	28	P	V
	*	5745	113.06	-	-	97.56	33.67	11.73	29.9	193	28	P	V
	*	5745	105.04	-	-	89.54	33.67	11.73	29.9	193	28	A	V
													V
													V



WIFI Ant. 1+2	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 157 5785MHz		5602.8	52.28	-15.92	68.2	37.66	32.91	11.55	29.84	302	140	P	H
		5651	53.72	-15.22	68.94	38.86	33.11	11.61	29.86	302	140	P	H
		5709.8	54.35	-53.6	107.95	39.08	33.46	11.69	29.88	302	140	P	H
		5722.6	52.68	-64.05	116.73	37.33	33.54	11.7	29.89	302	140	P	H
	*	5785	110.7	-	-	94.99	33.84	11.78	29.91	302	140	P	H
	*	5785	101.69	-	-	85.98	33.84	11.78	29.91	302	140	A	H
		5851.2	52.92	-66.54	119.46	37.02	34	11.84	29.94	302	140	P	H
		5862	53.79	-55.05	108.84	37.83	34.05	11.85	29.94	302	140	P	H
		5912.6	54.75	-22.6	77.35	38.64	34.2	11.88	29.97	302	140	P	H
		5929.6	54.16	-14.04	68.2	38.03	34.2	11.9	29.97	302	140	P	H
													H
													H
		5630.4	53.84	-14.36	68.2	39.08	33.02	11.59	29.85	102	22	P	V
		5695.4	53.21	-48.6	101.81	38.05	33.37	11.67	29.88	102	22	P	V
		5715.8	54.24	-55.39	109.63	38.95	33.49	11.69	29.89	102	22	P	V
		5720.6	52.35	-59.82	112.17	37.02	33.52	11.7	29.89	102	22	P	V
	*	5785	113.1	-	-	97.39	33.84	11.78	29.91	102	22	P	V
	*	5785	104.85	-	-	89.14	33.84	11.78	29.91	102	22	A	V
		5853.4	53.14	-61.31	114.45	37.23	34.01	11.84	29.94	102	22	P	V
		5860.8	54.18	-54.99	109.17	38.23	34.04	11.85	29.94	102	22	P	V
		5898.8	55.41	-32.14	87.55	39.3	34.2	11.87	29.96	102	22	P	V
		5939.4	54.42	-13.78	68.2	38.3	34.2	11.9	29.98	102	22	P	V
													V
													V



WIFI Ant. 1+2	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 165 5825MHz	*	5825	109.62	-	-	93.78	33.95	11.82	29.93	296	140	P	H
	*	5825	101.82	-	-	85.98	33.95	11.82	29.93	296	140	A	H
		5853.4	59.04	-55.41	114.45	43.13	34.01	11.84	29.94	296	140	P	H
		5859.4	55.21	-54.36	109.57	39.27	34.04	11.84	29.94	296	140	P	H
		5924	54.22	-14.72	68.94	38.1	34.2	11.89	29.97	296	140	P	H
		5925.8	55.01	-13.19	68.2	38.89	34.2	11.89	29.97	296	140	P	H
													H
													H
	*	5825	113.1	-	-	97.26	33.95	11.82	29.93	297	50	P	V
	*	5825	105.03	-	-	89.19	33.95	11.82	29.93	297	50	A	V
		5852.4	55.59	-61.14	116.73	39.68	34.01	11.84	29.94	297	50	P	V
		5855.4	55.08	-55.61	110.69	39.16	34.02	11.84	29.94	297	50	P	V
		5905.2	54.65	-28.16	82.81	38.53	34.2	11.88	29.96	297	50	P	V
		5938.4	54.85	-13.35	68.2	38.73	34.2	11.9	29.98	297	50	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

**Band 4 5725~5850MHz****WIFI 802.11ax HE20 Full (Harmonic @ 3m)**

WIFI Ant. 1+2	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 149 5745MHz		9189	51.39	-22.61	74	64.64	38.08	15.32	66.65	174	329	P	H
		9189	45.93	-8.07	54	59.18	38.08	15.32	66.65	174	329	A	H
		11490	47.91	-26.09	74	58.28	39	17.1	66.47	-	-	P	H
		17235	47.56	-20.64	68.2	54.2	38.2	21.32	66.16	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		9189	50.8	-23.2	74	64.05	38.08	15.32	66.65	301	332	P	V
		9189	43.98	-10.02	54	57.23	38.08	15.32	66.65	301	332	A	V
		11490	47.49	-26.51	74	57.86	39	17.1	66.47	-	-	P	V
		17235	47.49	-20.71	68.2	54.13	38.2	21.32	66.16	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V



WIFI Ant. 1+2	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 157 5785MHz		9255	51.43	-16.77	68.2	64.59	38.11	15.39	66.66	187	329	P	H
		11570	47.64	-26.36	74	58.05	38.86	17.16	66.43	-	-	P	H
		17355	47.8	-20.4	68.2	53.9	38.52	21.38	66	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		11570	47.95	-26.05	74	58.36	38.86	17.16	66.43	-	-	P	V
		17355	47.92	-20.28	68.2	54.02	38.52	21.38	66	-	-	P	V
													V
													V
													V
													V
													V
													V
													V

[illegible]


Band 4 5725~5850MHz
WIFI 802.11ax HE20_Partial 106 (Band Edge @ 3m)

WIFI Ant. 1+2	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 106/53 CH 149 5745MHz		5638.4	53.65	-14.55	68.2	38.58	33.05	11.88	29.86	301	180	P	H
		5693	66.84	-33.2	100.04	51.44	33.36	11.92	29.88	301	180	P	H
		5712.8	77.27	-31.52	108.79	61.74	33.48	11.94	29.89	301	180	P	H
		5721	81.41	-31.67	113.08	65.82	33.53	11.95	29.89	301	180	P	H
	*	5745	114.47	-	-	98.73	33.67	11.97	29.9	301	180	P	H
	*	5745	106.29	-	-	90.55	33.67	11.97	29.9	301	180	A	H
													H
													H
		5640.4	54.95	-13.25	68.2	39.87	33.06	11.88	29.86	186	22	P	V
		5696	65.57	-36.68	102.25	50.14	33.38	11.93	29.88	186	22	P	V
		5717.8	74.96	-35.22	110.18	59.4	33.51	11.94	29.89	186	22	P	V
		5722.2	80.28	-35.54	115.82	64.69	33.53	11.95	29.89	186	22	P	V
	*	5745	117.35	-	-	101.61	33.67	11.97	29.9	186	22	P	V
	*	5745	109.31	-	-	93.57	33.67	11.97	29.9	186	22	A	V
													V
													V



Band 4 5725~5850MHz

WIFI 802.11ax HE40_Full (Band Edge @ 3m)

WIFI Ant. 1+2	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 151 5755MHz		5630.6	53.79	-14.41	68.2	39.03	33.02	11.59	29.85	300	179	P	H
		5699.6	55.39	-49.52	104.91	40.2	33.4	11.67	29.88	300	179	P	H
		5719.8	64.5	-46.24	110.74	49.17	33.52	11.7	29.89	300	179	P	H
		5723.6	70.18	-48.83	119.01	54.83	33.54	11.7	29.89	300	179	P	H
	*	5755	106.12	-	-	90.56	33.72	11.74	29.9	300	179	P	H
	*	5755	99.37	-	-	83.81	33.72	11.74	29.9	300	179	A	H
		5852.6	54.66	-61.61	116.27	38.75	34.01	11.84	29.94	300	179	P	H
		5855	54.64	-56.16	110.8	38.72	34.02	11.84	29.94	300	179	P	H
		5880.6	54.62	-46.42	101.04	38.59	34.12	11.86	29.95	300	179	P	H
		5936.4	54.5	-13.7	68.2	38.37	34.2	11.9	29.97	300	179	P	H
													H
													H
		5648.2	53.58	-14.62	68.2	38.74	33.09	11.61	29.86	290	50	P	V
		5695.6	54.06	-47.9	101.96	38.9	33.37	11.67	29.88	290	50	P	V
		5717	65.96	-44	109.96	50.65	33.5	11.7	29.89	290	50	P	V
		5725	68.6	-53.6	122.2	53.23	33.55	11.71	29.89	290	50	P	V
	*	5755	110.71	-	-	95.15	33.72	11.74	29.9	290	50	P	V
	*	5755	102.38	-	-	86.82	33.72	11.74	29.9	290	50	A	V
		5850.2	53.57	-68.17	121.74	37.67	34	11.84	29.94	290	50	P	V
		5859.8	55.05	-54.4	109.45	39.11	34.04	11.84	29.94	290	50	P	V
		5875.8	55.63	-48.98	104.61	39.62	34.1	11.86	29.95	290	50	P	V
		5948.4	54.5	-13.7	68.2	38.37	34.2	11.91	29.98	290	50	P	V
													V
													V



WIFI Ant. 1+2	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 159 5795MHz		5610	52.88	-15.32	68.2	38.22	32.94	11.56	29.84	300	230	P	H
		5693.2	54.33	-45.86	100.19	39.18	33.36	11.67	29.88	300	230	P	H
		5711.2	52.86	-55.48	108.34	37.58	33.47	11.69	29.88	300	230	P	H
		5723.8	52.63	-66.83	119.46	37.28	33.54	11.7	29.89	300	230	P	H
	*	5795	105.33	-	-	89.58	33.88	11.79	29.92	300	230	P	H
	*	5795	99.07	-	-	83.32	33.88	11.79	29.92	300	230	A	H
		5853.8	53.24	-60.3	113.54	37.32	34.02	11.84	29.94	300	230	P	H
		5861	53.81	-55.31	109.12	37.86	34.04	11.85	29.94	300	230	P	H
		5887.6	54.35	-41.5	95.85	38.29	34.15	11.87	29.96	300	230	P	H
		5930.8	54.14	-14.06	68.2	38.01	34.2	11.9	29.97	300	230	P	H
													H
													H
		5649.2	53.07	-15.13	68.2	38.22	33.1	11.61	29.86	100	25	P	V
		5676	53.66	-33.82	87.48	38.62	33.26	11.65	29.87	100	25	P	V
		5713.6	54.38	-54.63	109.01	39.1	33.48	11.69	29.89	100	25	P	V
		5722.6	53.16	-63.57	116.73	37.81	33.54	11.7	29.89	100	25	P	V
	*	5795	109.18	-	-	93.43	33.88	11.79	29.92	100	25	P	V
	*	5795	101.68	-	-	85.93	33.88	11.79	29.92	100	25	A	V
		5851	53.81	-66.11	119.92	37.91	34	11.84	29.94	100	25	P	V
		5868.2	56.21	-50.89	107.1	40.24	34.07	11.85	29.95	100	25	P	V
		5918.2	55.11	-18.1	73.21	38.99	34.2	11.89	29.97	100	25	P	V
		5935.8	55.7	-12.5	68.2	39.57	34.2	11.9	29.97	100	25	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

**Band 4 5725~5850MHz****WIFI 802.11ax HE40_Full (Harmonic @ 3m)**

WIFI Ant. 1+2	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 151 5755MHz		9211	50.92	-17.28	68.2	64.14	38.1	15.33	66.65	190	329	P	H
		11510	47.49	-26.51	74	57.87	38.98	17.11	66.47	-	-	P	H
		17265	48.33	-19.87	68.2	54.89	38.23	21.33	66.12	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		11510	47.49	-26.51	74	57.87	38.98	17.11	66.47	-	-	P	V
		17265	47.12	-21.08	68.2	53.68	38.23	21.33	66.12	-	-	P	V
													V
													V
													V
													V
													V
													V

[illegible]



Band 4 5725~5850MHz

WIFI 802.11ax HE80_Full (Band Edge @ 3m)

WIFI Ant. 1+2	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 155 5775MHz		5600.4	52.82	-15.38	68.2	38.21	32.9	11.55	29.84	303	228	P	H
		5695.8	60.17	-41.93	102.1	45.01	33.37	11.67	29.88	303	228	P	H
		5714.8	65.87	-43.48	109.35	50.58	33.49	11.69	29.89	303	228	P	H
		5725	63.84	-58.36	122.2	48.47	33.55	11.71	29.89	303	228	P	H
	*	5775	104.66	-	-	89	33.8	11.77	29.91	303	228	P	H
	*	5775	96.32	-	-	80.66	33.8	11.77	29.91	303	228	A	H
		5852.8	57.94	-57.88	115.82	42.03	34.01	11.84	29.94	303	228	P	H
		5864.4	57.54	-50.63	108.17	41.58	34.06	11.85	29.95	303	228	P	H
		5884.6	54.86	-43.21	98.07	38.81	34.14	11.86	29.95	303	228	P	H
		5940.6	54.18	-14.02	68.2	38.05	34.2	11.91	29.98	303	228	P	H
													H
													H
		5606.6	53.39	-14.81	68.2	38.74	32.93	11.56	29.84	100	23	P	V
		5688.8	60.84	-36.1	96.94	45.73	33.33	11.66	29.88	100	23	P	V
		5719.8	64.24	-46.5	110.74	48.91	33.52	11.7	29.89	100	23	P	V
		5721.2	64.14	-49.4	113.54	48.8	33.53	11.7	29.89	100	23	P	V
	*	5775	105.99	-	-	90.33	33.8	11.77	29.91	100	23	P	V
	*	5775	98.51	-	-	82.85	33.8	11.77	29.91	100	23	A	V
		5852	58.47	-59.17	117.64	42.56	34.01	11.84	29.94	100	23	P	V
		5867.4	60.42	-46.91	107.33	44.45	34.07	11.85	29.95	100	23	P	V
		5892.6	54.84	-37.3	92.14	38.76	34.17	11.87	29.96	100	23	P	V
		5935.4	54.35	-13.85	68.2	38.22	34.2	11.9	29.97	100	23	P	V
													V
													V
Remark	1. No other spurious found.												
	2. All results are PASS against Peak and Average limit line.												

Band 4 5725~5850MHz

WIFI 802.11ax HE80_Full (Harmonic @ 3m)

[illegible]

Emission below 1GHz

5GHz WIFI 802.11ax HE20 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.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ax HE20 Full LF		52.14	26.7	-13.3	40	44.8	13.32	1.02	32.44	-	-	P	H
		79.41	31.06	-8.94	40	48.89	13.38	1.19	32.4	-	-	P	H
		154.2	32.68	-10.82	43.5	46.42	16.93	1.75	32.42	-	-	P	H
		311.9	26.12	-19.88	46	36.45	19.46	2.63	32.42	-	-	P	H
		625.5	27.28	-18.72	46	30.3	25.9	3.78	32.7	-	-	P	H
		896.4	35.17	-10.83	46	33.98	28.55	4.59	31.95	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
		41.61	33.55	-6.45	40	46.64	18.51	0.87	32.47	100	12	Q	V
		51.87	36.73	-3.27	40	54.73	13.43	1.01	32.44	100	115	Q	V
		75.09	31.81	-8.19	40	50.24	12.81	1.15	32.39	-	-	P	V
		459.6	25.14	-20.86	46	31.26	23.25	3.18	32.55	-	-	P	V
		729.8	29.85	-16.15	46	31.06	27.23	4.17	32.61	-	-	P	V
		902	35.08	-10.92	46	33.75	28.63	4.61	31.91	-	-	P	V
													V
													V
													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 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 Margin limit line.
P/A	Peak or Av
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.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 149 5745MHz		5650	55.45	-12.75	68.2	54.51	32.22	4.58	35.86	103	308	P	H

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. Margin (dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

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. Margin(dB)
 = Level(dBμV/m) – Limit Line(dBμV/m)
 = 55.45(dBμV/m) – 68.2(dBμV/m)
 = -12.75 (dB)

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



Appendix D. Radiated Spurious Emission Plots

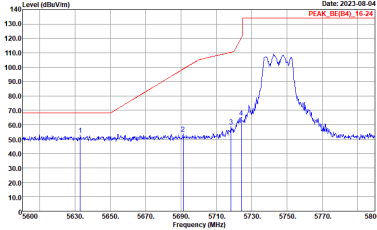
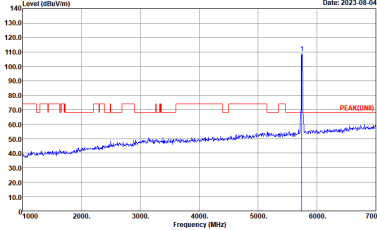
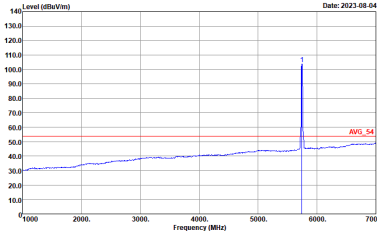
Test Engineer :	Jack Tasi, Gary Guo and Steven Wu	Temperature :	20~25°C
		Relative Humidity :	65~68%

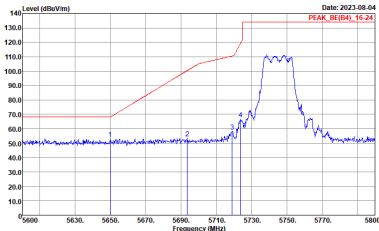
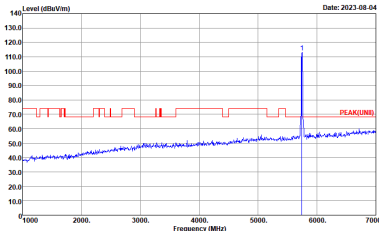
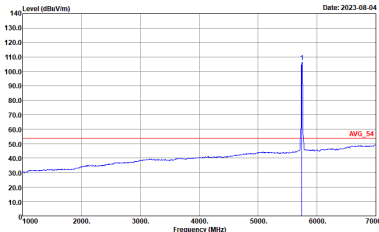
Note symbol

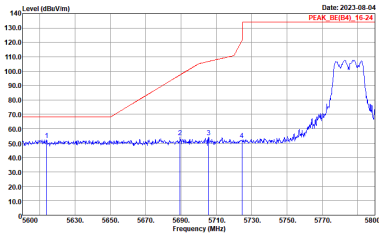
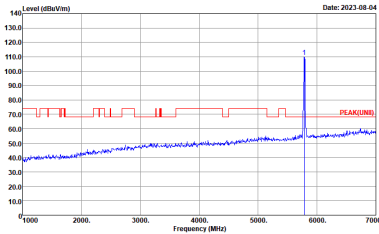
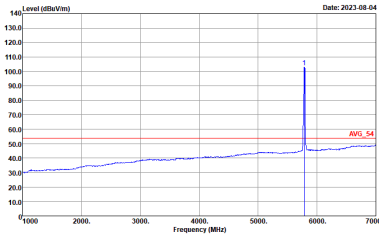
-L	Low channel location
-R	High channel location



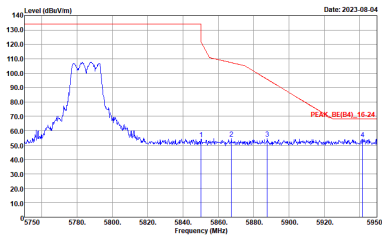
Band 4 - 5725~5850MHz
WIFI 802.11a (Band Edge @ 3m)

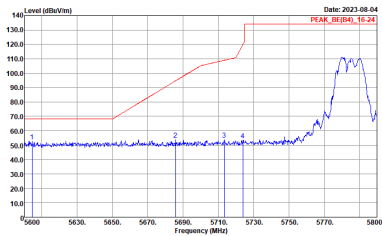
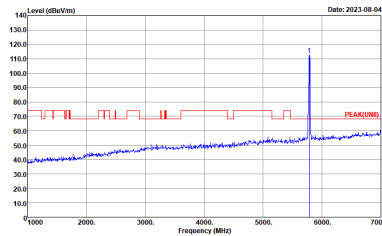
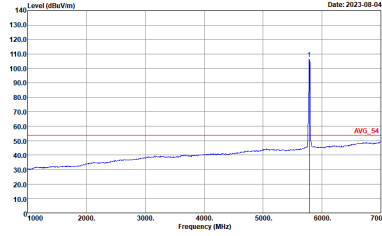
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE[84]_16-24 3m 91200_1522_230323 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK[UNIT] 3m 91200_1522_230323 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Left blank	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 91200_1522_230323 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(LINE) 3m 91200_1522_230323 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Left blank	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

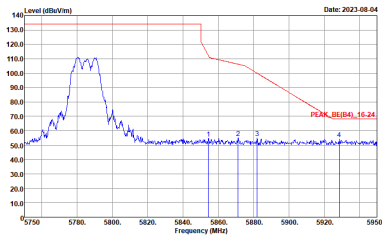
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 91200_1522_230323 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(LINE) 3m 91200_1522_230323 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Left blank	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

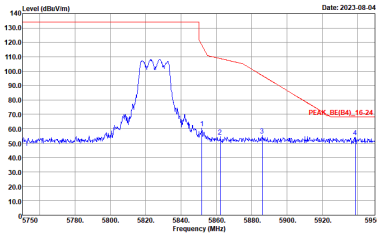
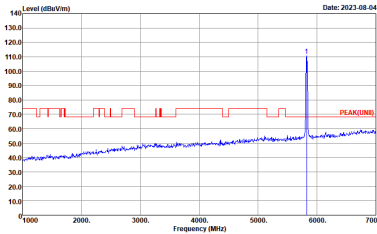
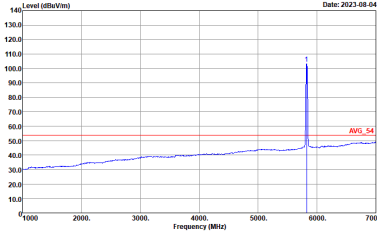


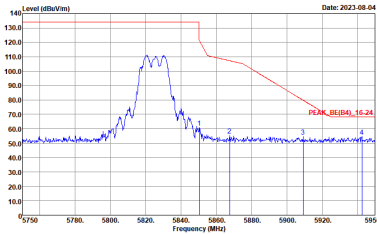
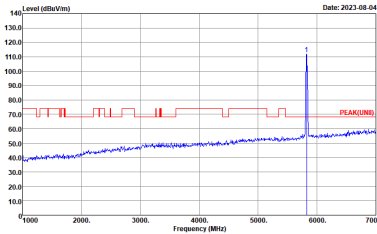
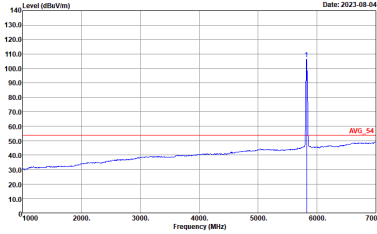
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 09CH16-HV Condition : PEAK_802.11a_15-24 3m 91200_1522_230923 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_15-24 3m 91200_1522_230323 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(FUNB) 3m 91200_1522_230323 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Left blank	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto



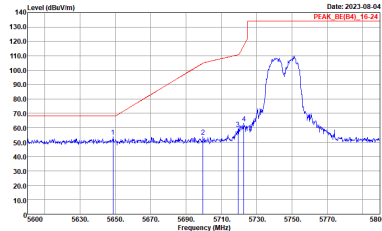
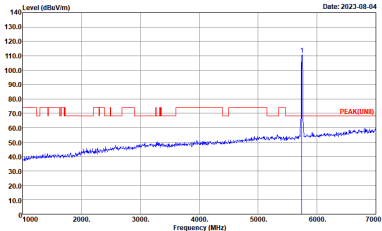
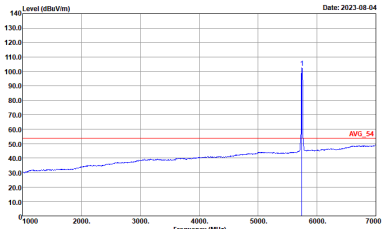
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
1+2	Vertical	Fundamental
Peak	 Site : 09CH16-HV Condition : PEAK_BC(BA)_16-24 91200_1522_230923 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_802.11a_16-24 3m 91200_1522_230323 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(FUND) 3m 91200_1522_230323 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Left blank	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

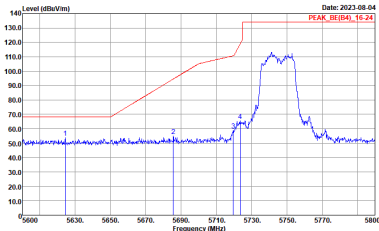
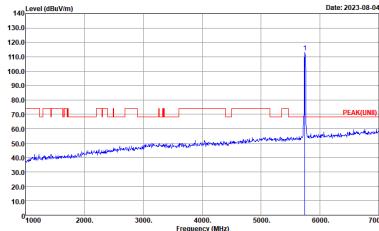
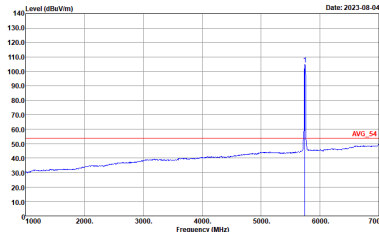
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_802.11a_16-24 3m 91200_1522_230323 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(FUND) 3m 91200_1522_230323 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Avg.	Left blank	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 VERTICAL RBW:1000.000kHz VBW:0.0100kHz SWT:Auto



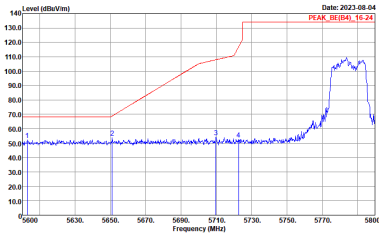
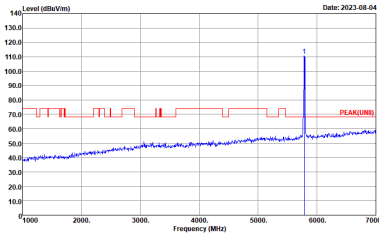
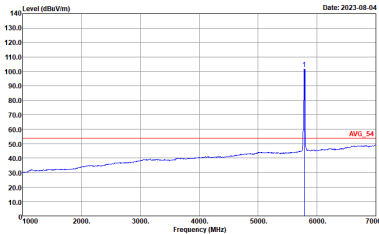
Band 4 5725~5850MHz
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH149 5745MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(84)_16-24 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(UNI) 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Left blank	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

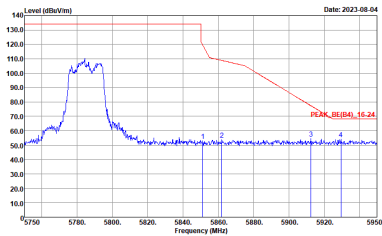


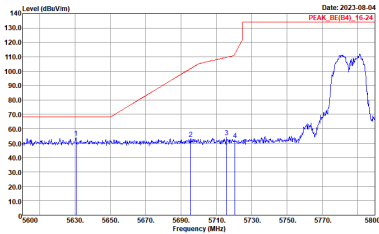
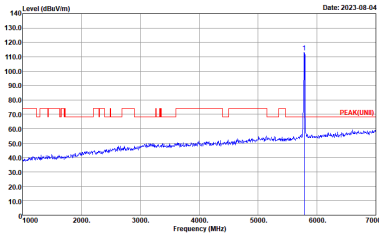
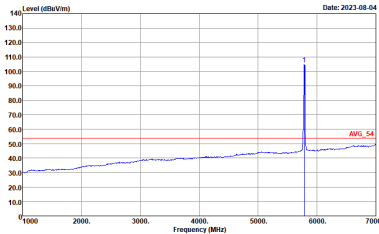
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH149 5745MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_8C(94)_16-24 3m 91200_1522_230323 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(LINE) 3m 91200_1522_230323 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Left blank	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto



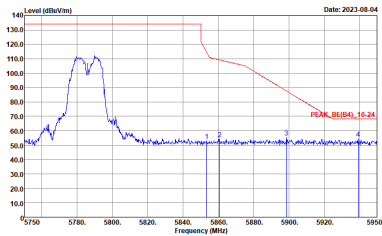
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_15-24 3m 91200_1522_230323 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(LINE) 3m 91200_1522_230323 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Left blank	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto



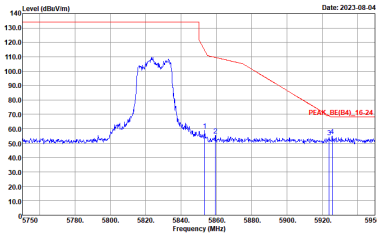
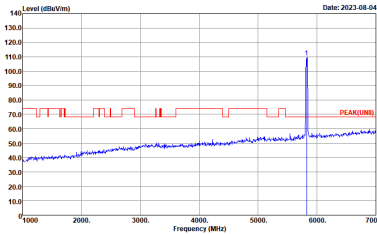
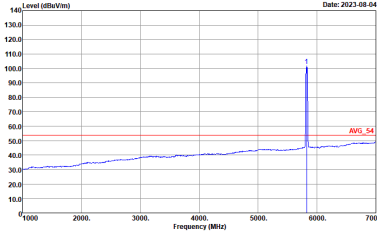
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 09CH16-HV Condition : PEAK_B4_16-24 3m 91200_1522_230923 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 91200_1522_230323 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(LINE) 3m 91200_1522_230323 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Left blank	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

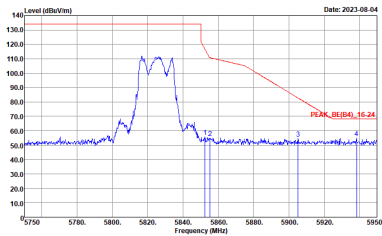
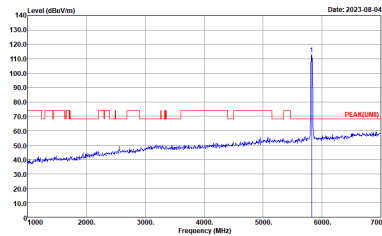
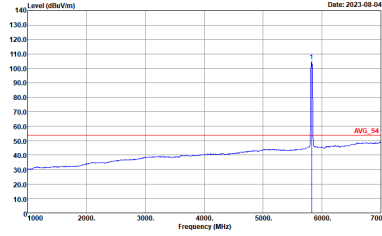


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
1+2	Vertical	Fundamental
Peak	 Site : 09CH16-HV Condition : PEAK_B4_16-24 3m 91200_1522_230923 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



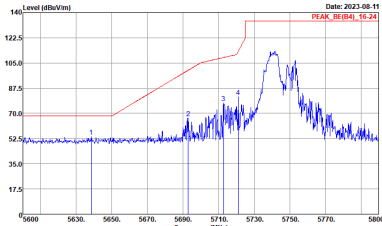
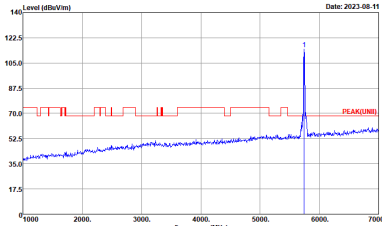
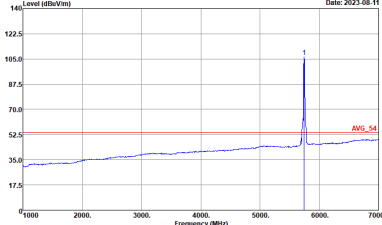
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH165 5825MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_8C[84]_16-24 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK[LINE] 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Left blank	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto



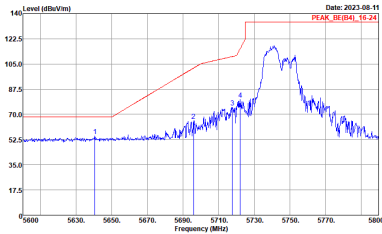
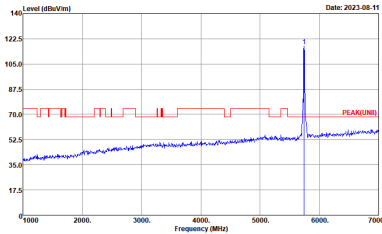
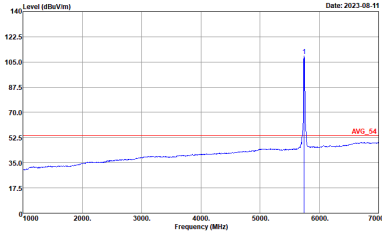
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH165 5825MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_8C(94)_16-24 3m 91200_1522_230323 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(LINE) 3m 91200_1522_230323 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Left blank	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto



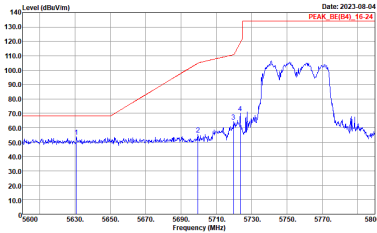
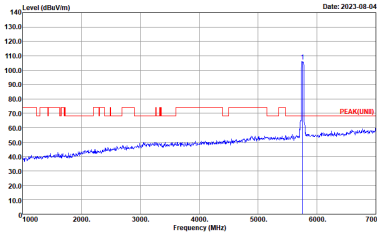
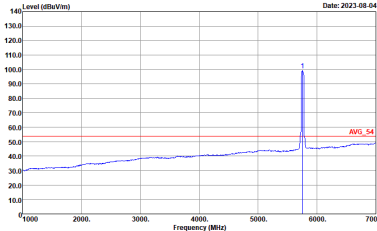
Band 4 5725~5850MHz
WIFI 802.11ax HE20 Partial 106 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 106/53 CH149 5745MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(84)_16-24 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Left blank	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

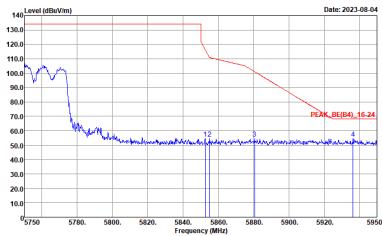


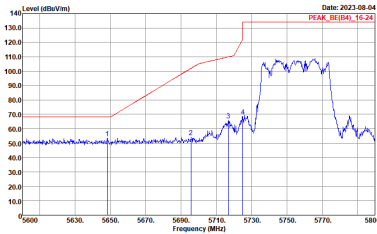
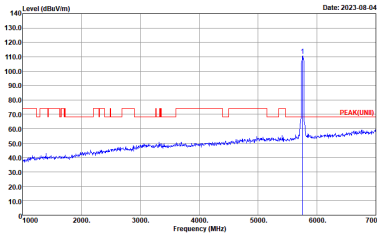
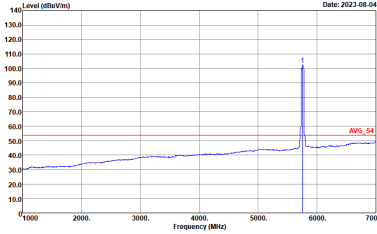
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 106/53 CH149 5745MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 91200_1522_230323 VERTICAL : RBW:3000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(FUND) 3m 91200_1522_230323 VERTICAL : RBW:3000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Left blank	 Site : 03CH16-HY Condition : AVG_F4 3m 91200_1522_230323 VERTICAL : RBW:3000.000KHz VBW:0.010KHz SWT:Auto

Band 4 5725~5850MHz
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

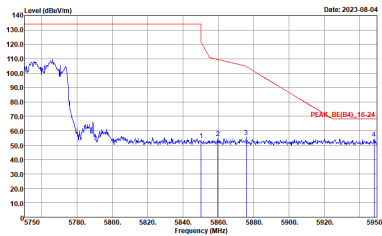
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(84)_16-24 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Left blank	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 09CH16-HV Condition : PEAK_802.11ax_16-24 3m 91200_1522_230923 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_15-24 3m 91200_1522_230323 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(LINE) 3m 91200_1522_230323 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Avg.	Left blank	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 VERTICAL RBW:1000.000kHz VBW:0.0100kHz SWT:Auto

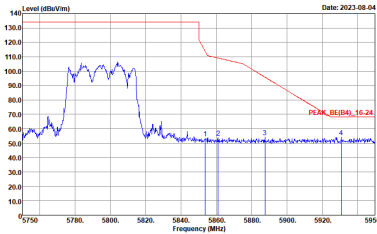


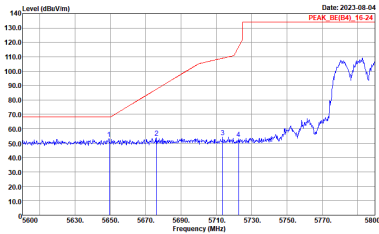
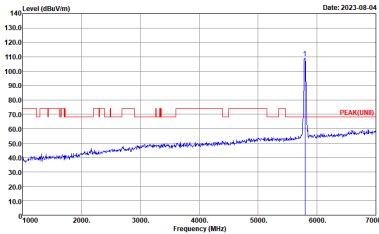
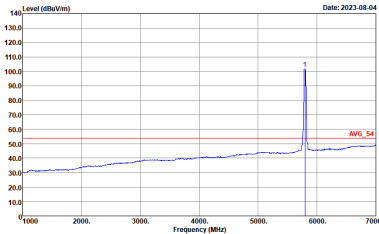
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
1+2	Vertical	Fundamental
Peak	 Site : 09CH16-HV Condition : PEAK_B4_16-24 3m 91200_1522_230923 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



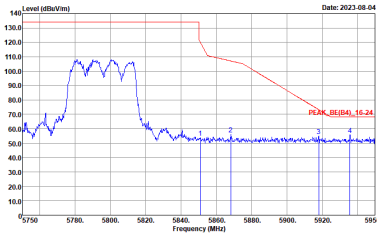
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full HT40 CH159 5795MHz	
1+2	Horizontal	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 91200_1522_230323 HORIZONTAL :	Site : 03CH16-HY Condition : PEAK(LNB) 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Left blank	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full HT40 CH159 5795MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 09CH16-HV Condition : PEAK_B4_16-24 3m 91200_1522_230923 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank

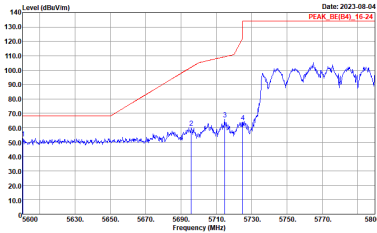
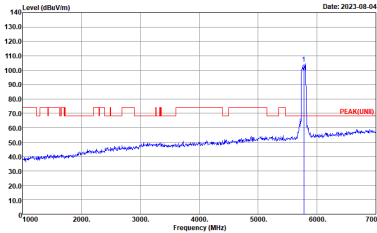
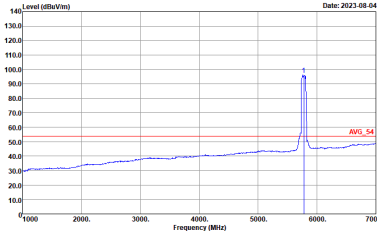
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH159 5795MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_8C(94)_16-24 3m 91200_1522_230323 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(LINE) 3m 91200_1522_230323 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Left blank	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto



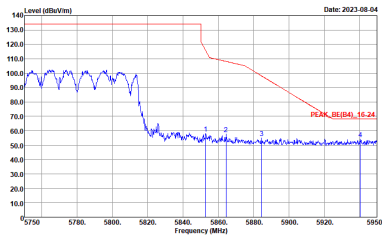
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH159 5795MHz	
1+2	Vertical	Fundamental
Peak	 Site : 09CH16-HV Condition : PEAK_B4(B4)_16-24 3m 91200_1522_230923 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



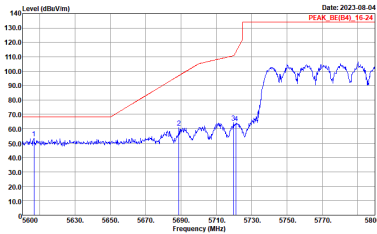
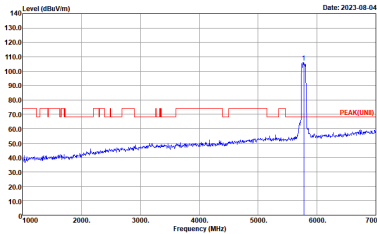
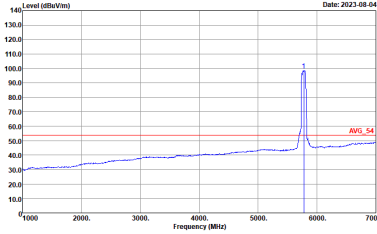
Band 4 5725~5850MHz
WIFI 802.11ax HE80 Full (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(84)_16-24 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(UNI) 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Left blank	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

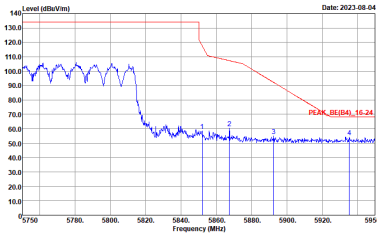


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 09CH16-HV Condition : PEAK_B4_16-24 3m 91200_1522_230923 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



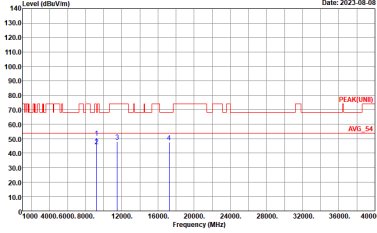
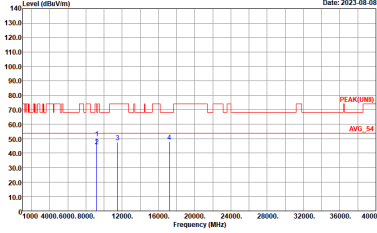
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_15-24 3m 91200_1522_230323 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(LINE) 3m 91200_1522_230323 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Left blank	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 VERTICAL RBW:1000.000KHz VBW:0.0100KHz SWT:Auto



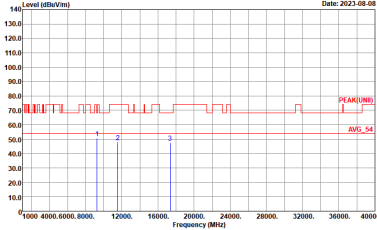
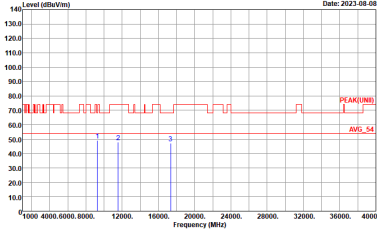
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
1+2	Vertical	Fundamental
Peak	 Site : 09CH16-HV Condition : PEAK_B4_16-24 3m 91200_1522_230923 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



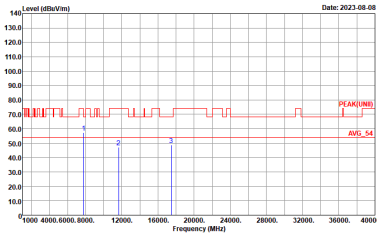
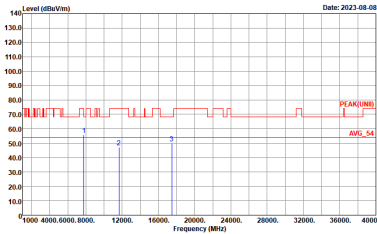
Band 4 - 5725~5850MHz
WIFI 802.11a (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_1522_230323 HORIZONTAL :	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_1522_230323 VERTICAL :



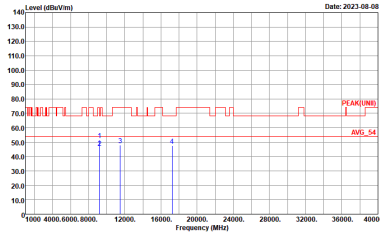
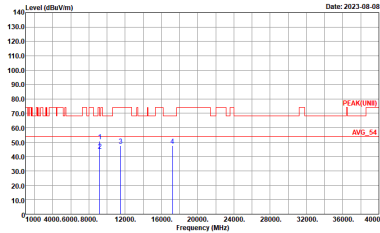
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_1522_230323 HORIZONTAL :	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_1522_230323 VERTICAL :



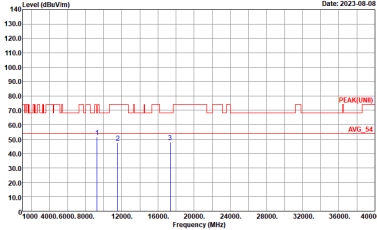
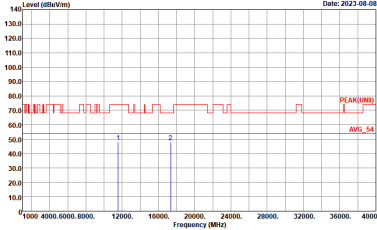
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH165 5825MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_1522_230323 HORIZONTAL :	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_1522_230323 VERTICAL :



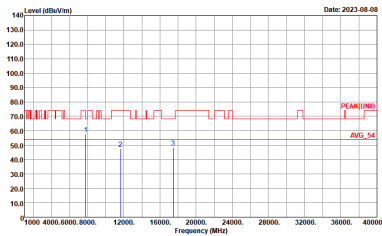
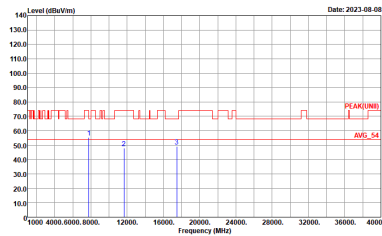
Band 4 5725~5850MHz
WIFI 802.11ax HE20 Full (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH149 5745MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_1522_230323 HORIZONTAL :	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_1522_230323 VERTICAL :



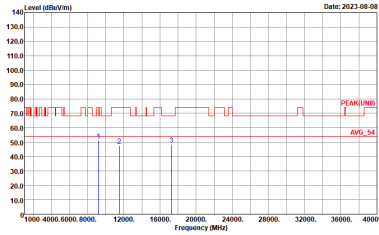
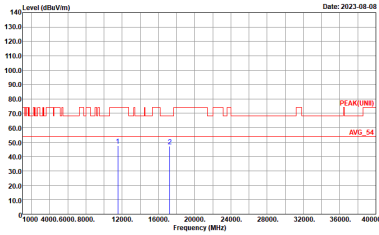
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_1522_230323 HORIZONTAL :	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_1522_230323 VERTICAL :



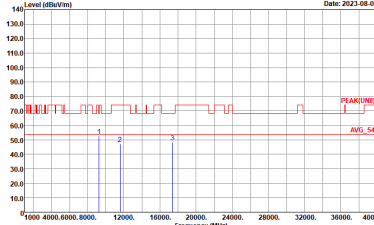
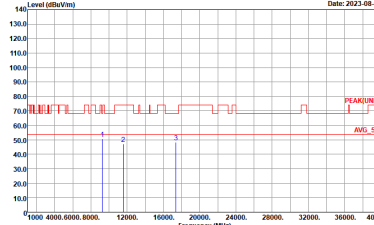
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH165 5825MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_1522_230323 HORIZONTAL :	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_1522_230323 VERTICAL :



Band 4 5725~5850MHz
WIFI 802.11ax HE40 Full (Harmonic @ 3m)

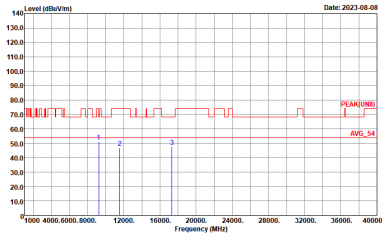
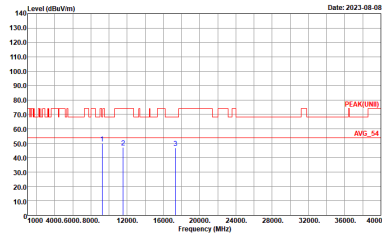
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_1522_230323 HORIZONTAL :	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_1522_230323 VERTICAL :



WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH159 5795MHz	
1+2	Horizontal	Vertical
Peak Avg.	Level (dBm/100MHz) Date: 2023-08-08  Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_1522_230323 HORIZONTAL	Level (dBm/100MHz) Date: 2023-08-08  Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_1522_230323 VERTICAL



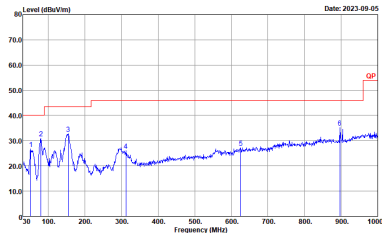
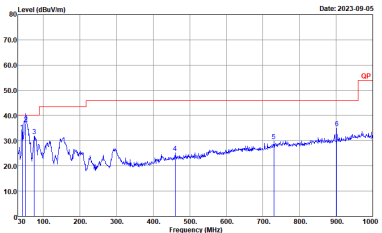
Band 4 5725~5850MHz
WIFI 802.11ax HE80 Full (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-14Y Condition : PEAK(UNIT) 3m 91200_1522_230323 HORIZONTAL	 Site : 03CH16-14Y Condition : PEAK(UNIT) 3m 91200_1522_230323 VERTICAL



Emission below 1GHz

5GHz WIFI 802.11ax HE20 Full (LF @ 3m)

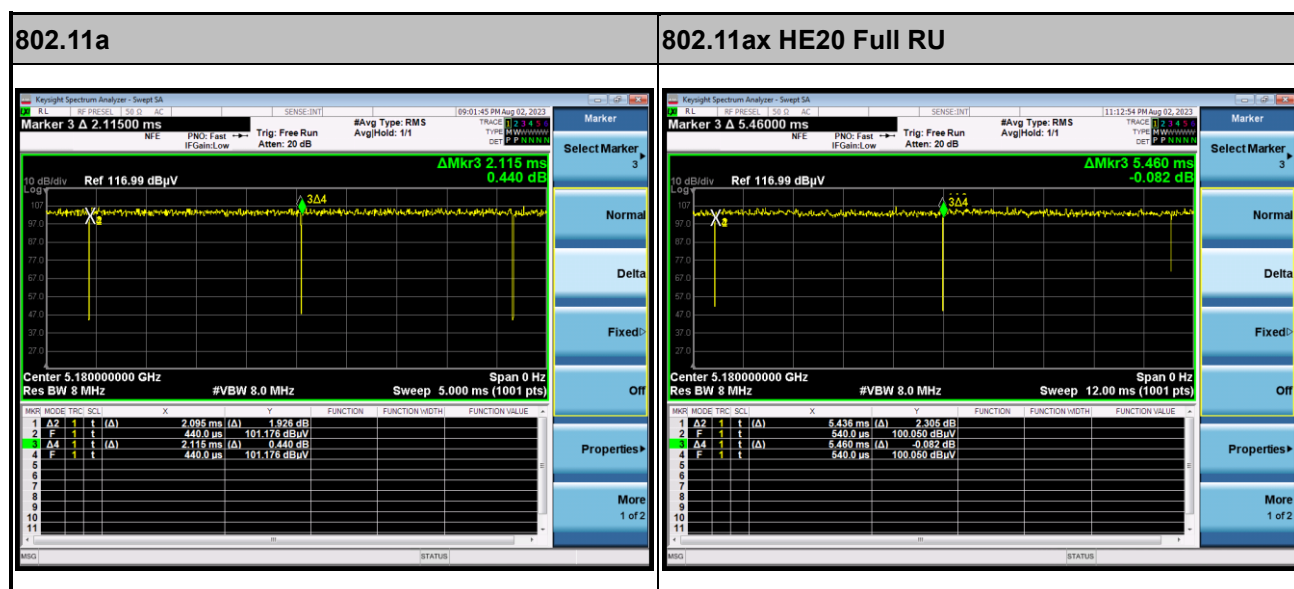
WIFI	5GHz WIFI	
ANT	802.11ax HE20 Full LF	
1+2	Horizontal	Vertical
QP / Peak	 Site : 03CH16-HY Condition : QP 3m 81LO6_47020_221008_H HORIZONTAL	 Site : 03CH16-HY Condition : QP 3m 81LO6_47020_221008_H VERTICAL



Appendix E. Duty Cycle Plots

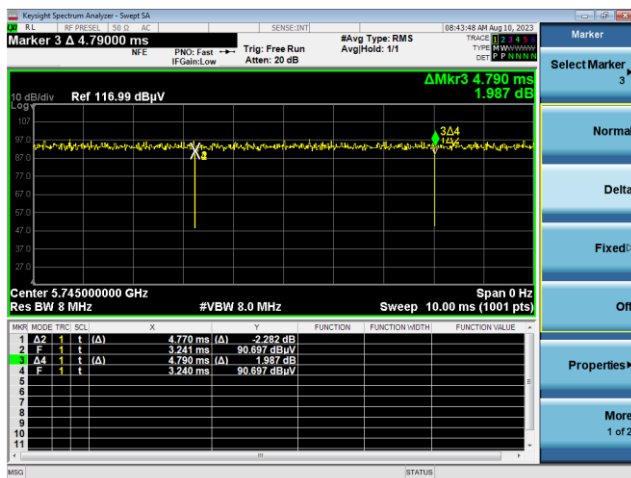
Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
1+2	802.11a	99.05	-	-	10Hz
1+2	5GHz 802.11ax HE20 Full RU	99.56	-	-	10Hz
1+2	5GHz 802.11ax HE20 106 RU	99.58	-	-	10Hz
1+2	5GHz 802.11ax HE40 Full RU	98.57	-	-	10Hz
1+2	5GHz 802.11ax HE80 Full RU	99.52	-	-	10Hz

MIMO <Ant. 1+2>





802.11ax HE20 106 RU



802.11ax HE40 Full RU



802.11ax HE80 Full RU

