FCC RADIO TEST REPORT

FCC ID	:	**MSQAI2202**
Equipment	:	**ASUS Phone(Mobile Phone)**
Brand Name	:	**ASUS**
Model Name	:	**ASUS_AI2202**
Applicant	:	**ASUSTeK COMPUTER INC.** **1F., No. 15, Lide Rd., Beitou Dist., Taipei City 112, Taiwan**
Manufacturer	:	**ASUSTeK COMPUTER INC.** **1F., No. 15, Lide Rd., Beitou Dist., Taipei City 112, Taiwan**
Standard	:	**FCC Part 15 Subpart E §15.407**

The product was received on May 03, 2022 and testing was performed from May 28, 2022 to Jul. 12, 2022. 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.

Louis Wu

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
FR210409F	01	Initial issue of report	Jul. 28, 2022

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	4.48 dB under the limit at 5645.000 MHz
3.5	15.207	AC Conducted Emission	Pass	15.91 dB under the limit at 9.476 MHz
3.6	15.203 15.407(a)	Antenna Requirement	Pass	-

Declaration of Conformity:
1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results. 2. The measurement uncertainty please refer to this report "Uncertainty of Evaluation".
Comments and Explanations:
The product specifications of the EUT presented in the report are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Avis Chuang

Report Producer: Cindy Liu

1 General Description

1.1 Product Feature of Equipment Under Test

GSM/WCDMA/LTE/5G NR, Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n/ac/ax, Wi-Fi 5GHz 802.11a/n/ac/ax, Wi-Fi 6GHz 802.11a/n/ac/ax, NFC, and GNSS.

Product Feature	
Antenna Type	WWAN: PIFA Antenna WLAN <Ant. 7>: PIFA Antenna <Ant. 8>: PIFA Antenna Bluetooth <Ant. 7>: PIFA Antenna <Ant. 8>: PIFA Antenna GPS / Glonass / BDS / Galileo / SBAS: PIFA Antenna NFC: Loop Antenna

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

Antenna information		
5725 MHz ~ 5850 MHz	Peak Gain (dBi)	Ant. 7: -0.27 Ant. 8: -0.76

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

1.2 Modification of EUT

No modifications made to the EUT during the testing.

1.3 Testing Location

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

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, 03CH20-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 find Y plane as worst plane.

b. AC power line Conducted Emission was tested under maximum output power.

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
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

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

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

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

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

MIMO Mode

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

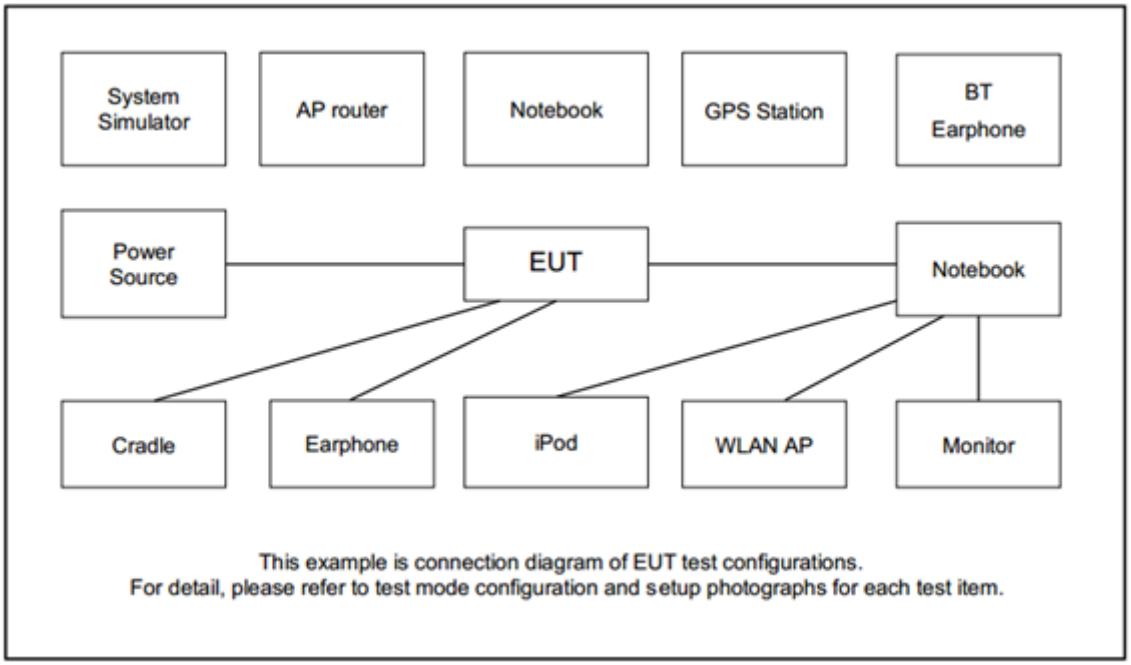
Remark: The conducted power level of each chain in MIMO mode is equal or higher than SISO mode.

Test Cases	
AC Conducted Emission	Mode 1 : GSM850 Idle + Bluetooth Link + WLAN (5GHz) Link + Camera (Front) + NFC On + USB Cable 1 (Charging from Adapter 1) + SIM 1
Remark: For Radiated Test Cases, the tests were performed with Adapter 1 and USB Cable 1.	

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.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	Bluetooth Earphone	Sony Ericsson	MW600	PY700A2029	N/A	N/A
3.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8m
4.	Notebook	Dell	Latitude 3400	FCC DoC	N/A	AC I/P：Unshielded, 1.2m DC O/P：Shielded, 1.8m
5.	Earphone	ASUS	EA010B	N/A	N/A	N/A

2.5 EUT Operation Test Setup

The RF test items, utility “QRCT 4.0.00193.0” 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.

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 4.2 + 10 = 14.2 (dB)

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.

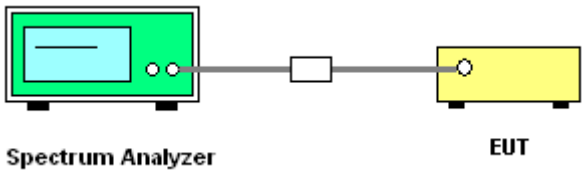
3.1.2 Measuring Instruments

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 ≥ 3 x 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

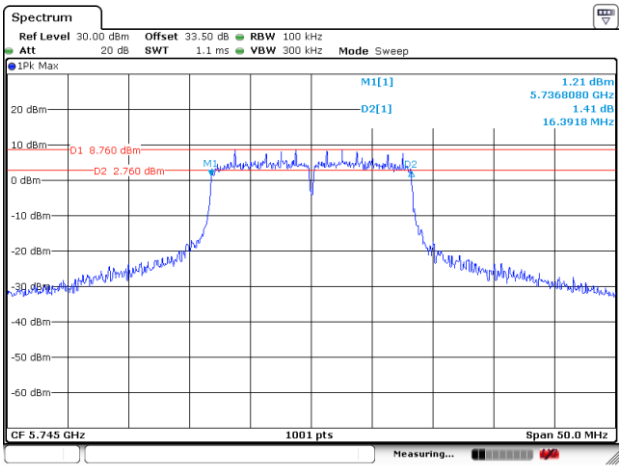
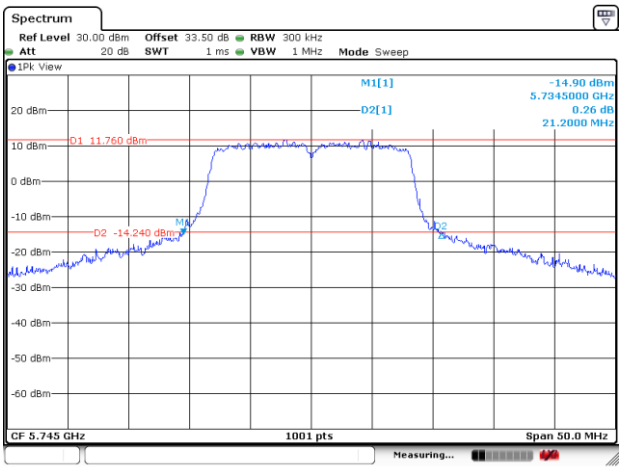
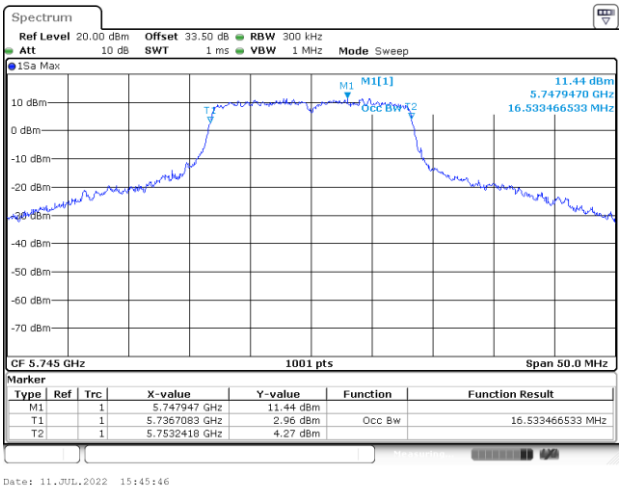


3.1.5 Test Result of 6dB and 26dB and 99% Occupied Bandwidth

Please refer to Appendix A.

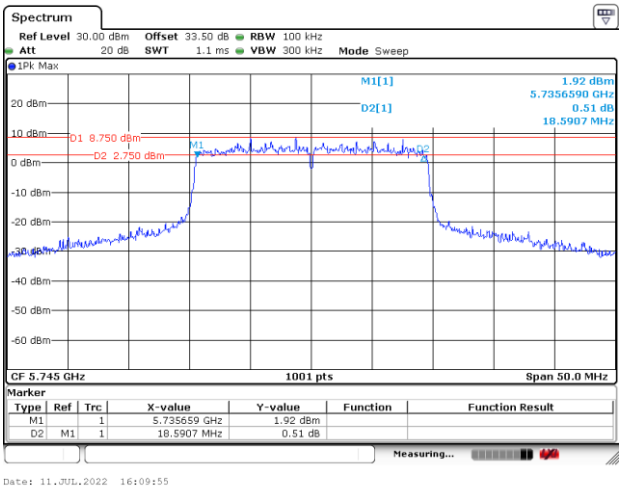
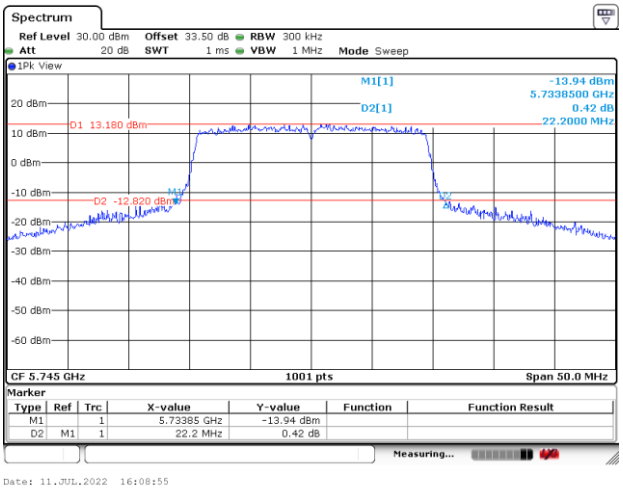
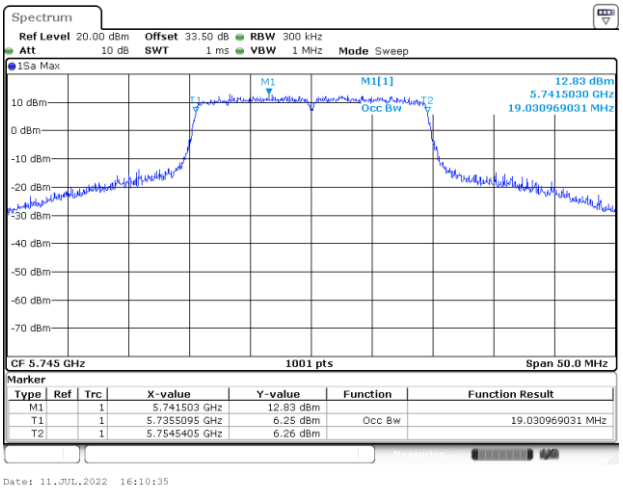
MIMO <Ant. 7+8>

<802.11a>

6dB Bandwidth	26dB Bandwidth
	
99% Occupied Bandwidth	**NA**
	

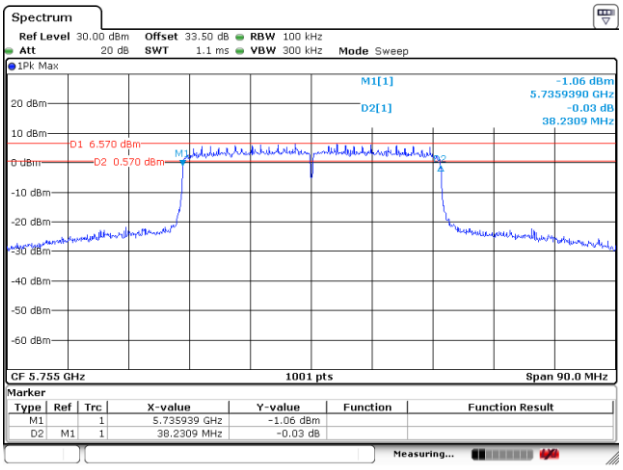
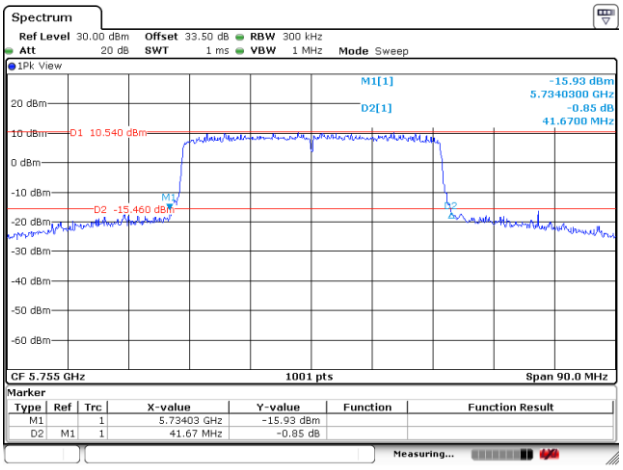
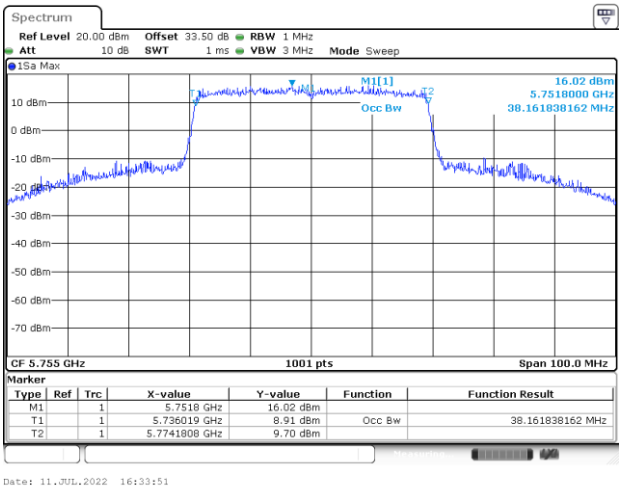
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<802.11ax HE20>

6dB Bandwidth	26dB Bandwidth
	
99% Occupied Bandwidth	**NA**
	

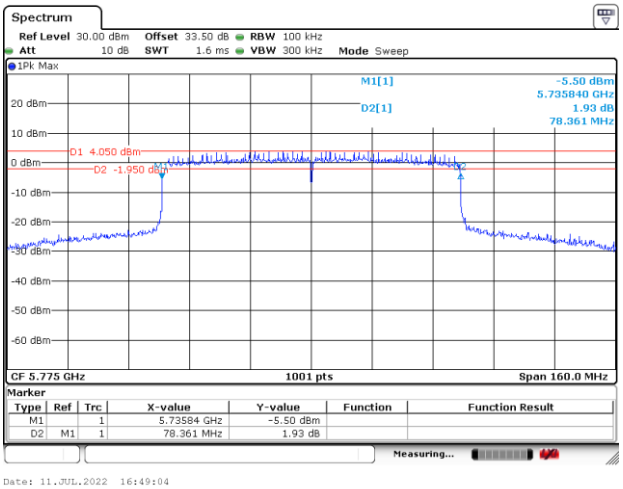
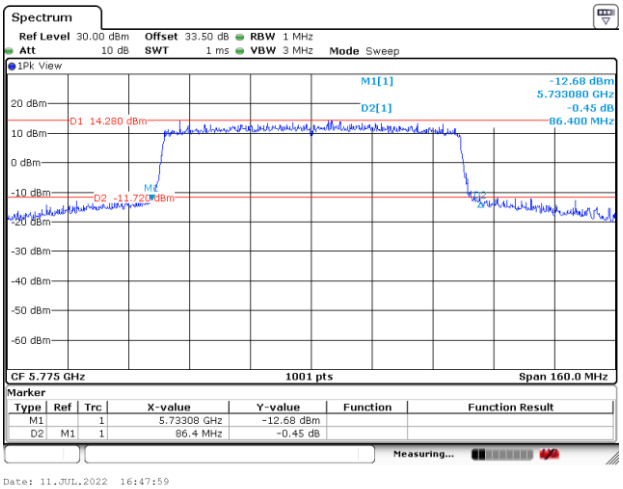
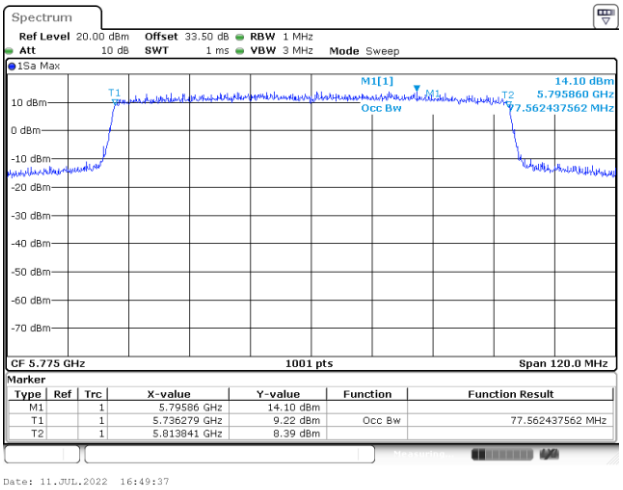
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<802.11ax HE40>

6dB Bandwidth	26dB Bandwidth
	
99% Occupied Bandwidth	**NA**
	

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

<802.11ax HE80>

6dB Bandwidth	26dB Bandwidth
	
99% Occupied Bandwidth	**NA**
	

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.

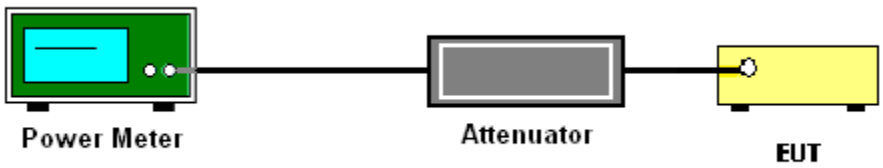
3.2.3 Test Procedures

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.

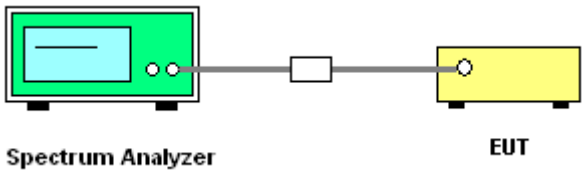
 # Method SA-3 #

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

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 300 kHz.
- Set VBW ≥ 1 MHz.
- Number of points in sweep ≥ 2 Span / RBW.
- Add 10 log (500 kHz/RBW) to the measured result, whereas RBW (<500 kHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement
- Sweep time ≤ (number of points in sweep) × T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
  Detector = power averaging (rms).
- Trace mode = max hold.
- Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.

1. The RF output of EUT is connected to the spectrum analyzer by a low loss cable.
2. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.
3. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
   Method (c): Measure and add 10 log(N_{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_{ANT}) dB is added to each spectrum value before comparing to the emission limit. The addition of 10 log(N_{ANT}) dB serves to apportion the emission limit among the N_{ANT} outputs so that each output is permitted to contribute no more than $1/N_{ANT}$ th of the PSD limit.

3.3.4 Test Setup

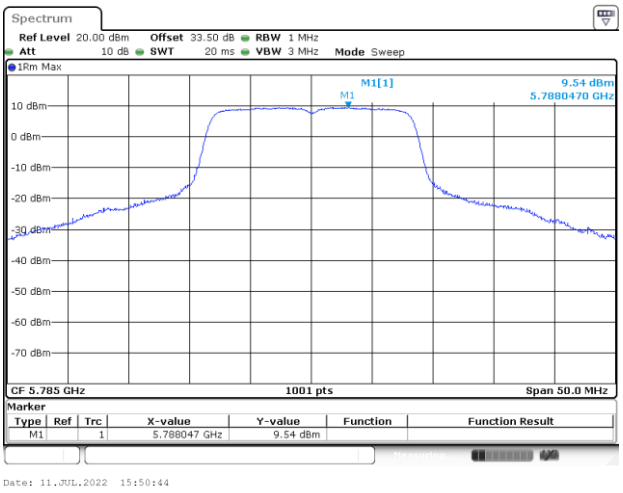
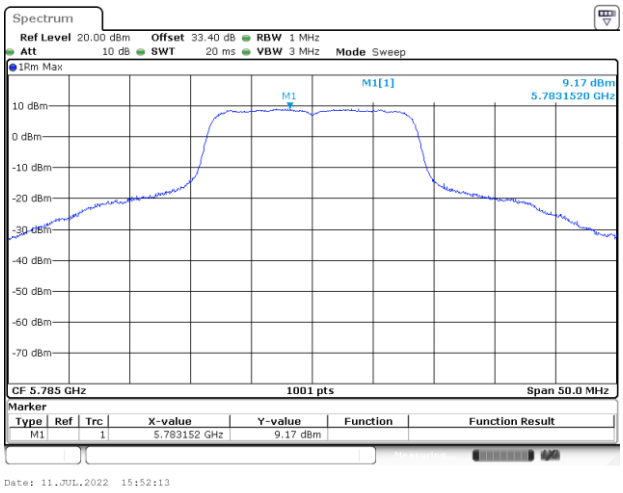


3.3.5 Test Result of Power Spectral Density

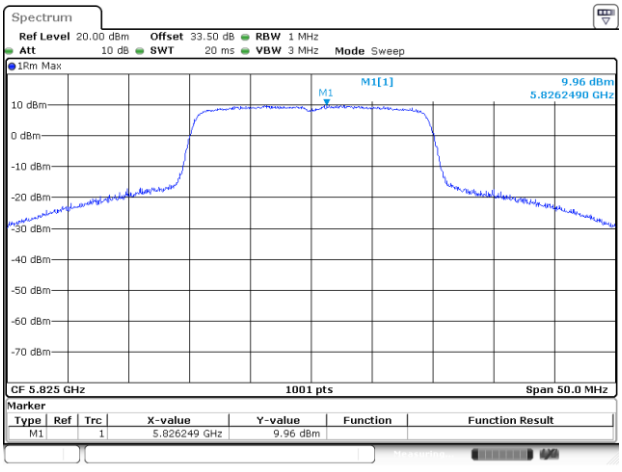
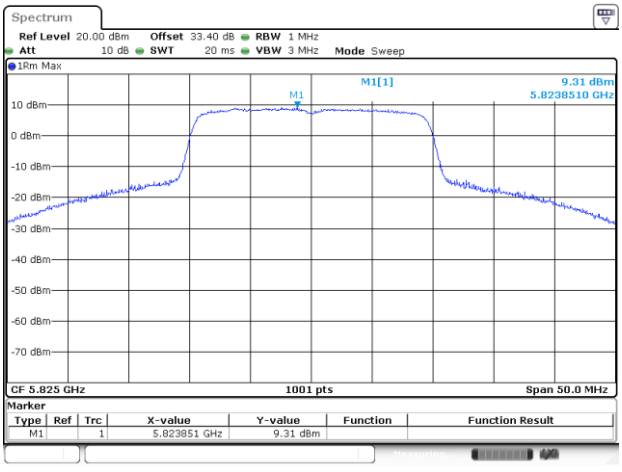
Please refer to Appendix A.

MIMO <Ant. 7+8>

<802.11a>

Maximum Power Density Plot (dBm/MHz)	
MIMO Ant. 7	**MIMO Ant. 8**
	

<802.11ax HE20>

Maximum Power Density Plot (dBm/MHz)	
MIMO Ant. 7	**MIMO Ant. 8**
	

<802.11ax HE40>

Maximum Power Density Plot (dBm/MHz)	
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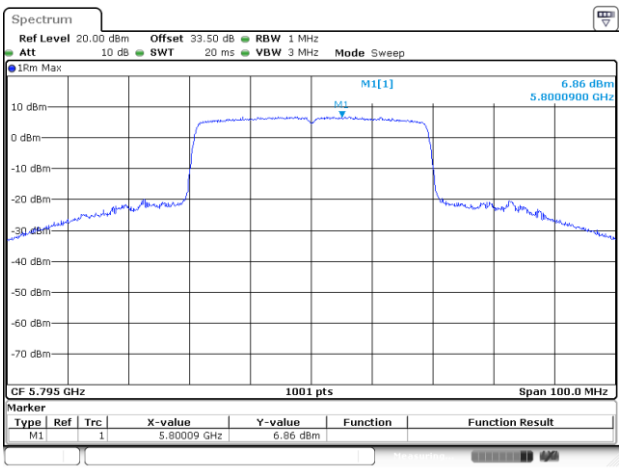	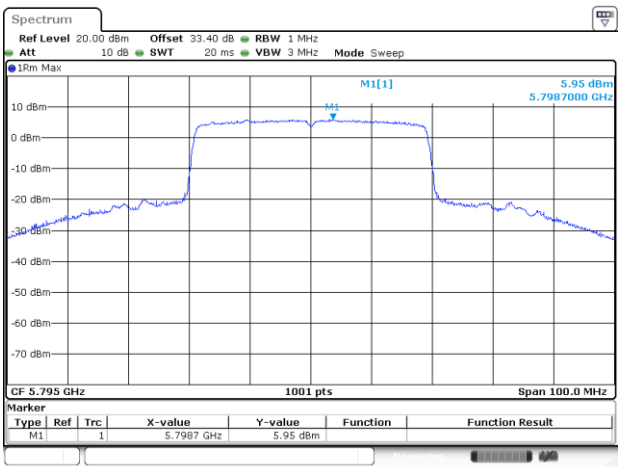

<802.11ax HE80>

Maximum Power Density Plot (dBm/MHz)	
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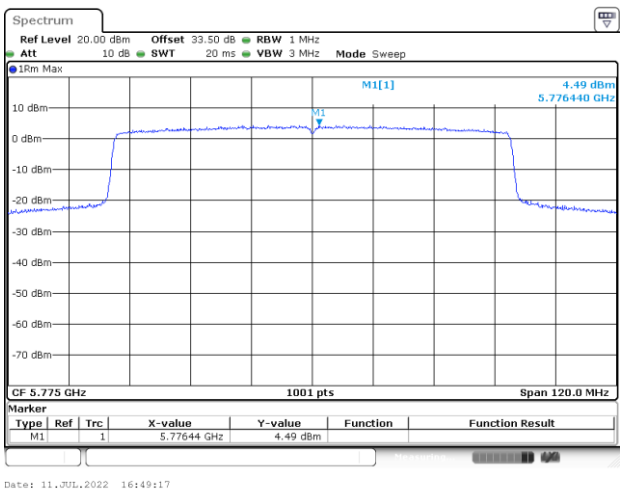
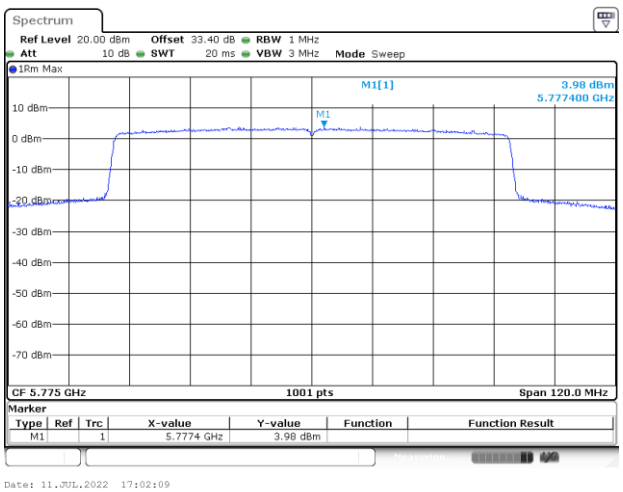
	

3.4 Unwanted Emissions Measurement

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.

$$E=\frac{1000000\sqrt{30P}}{3}$$ μV/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 ≥ 3 MHz
   - Detector = Peak
   - Sweep time = auto
   - Trace mode = max hold

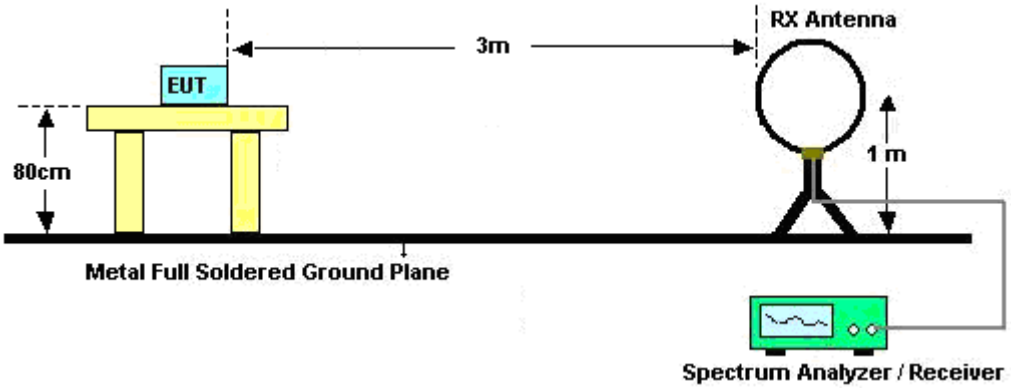
   (3) Procedures for Average Unwanted Emissions Measurements Above 1000 MHz

   - RBW = 1 MHz
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 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.

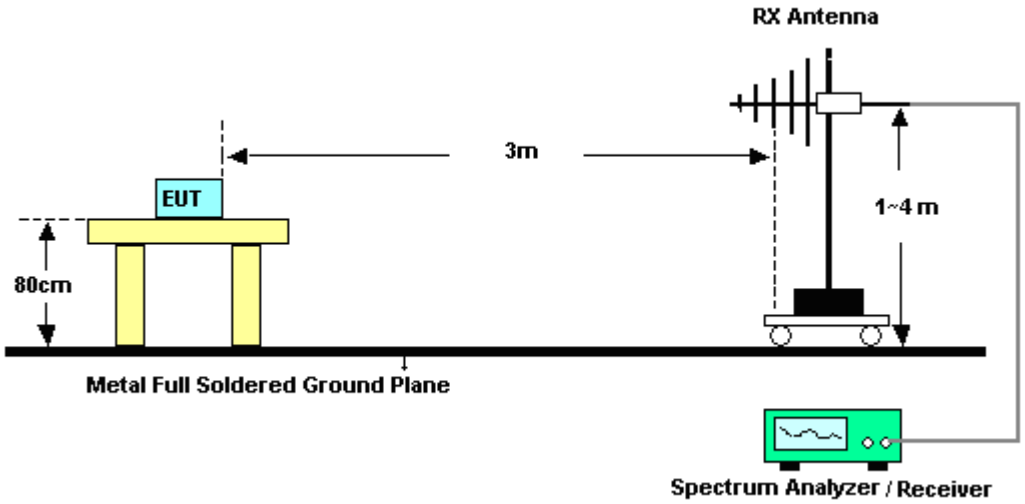
6. Radiated testing below 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading. When there is no suspected emission found and the emission level is with at least 6 dB margin against QP limit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

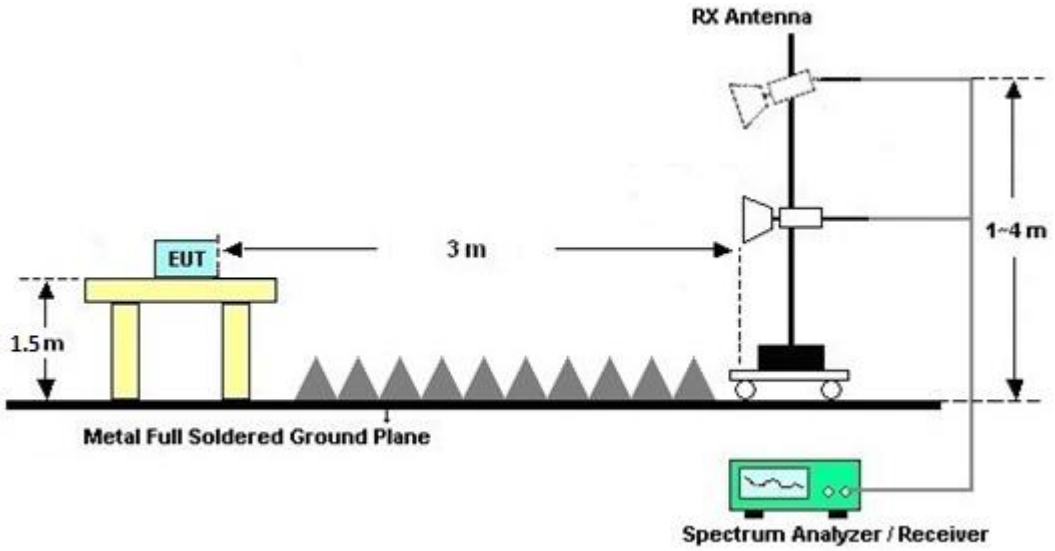
For radiated emissions below 30MHz



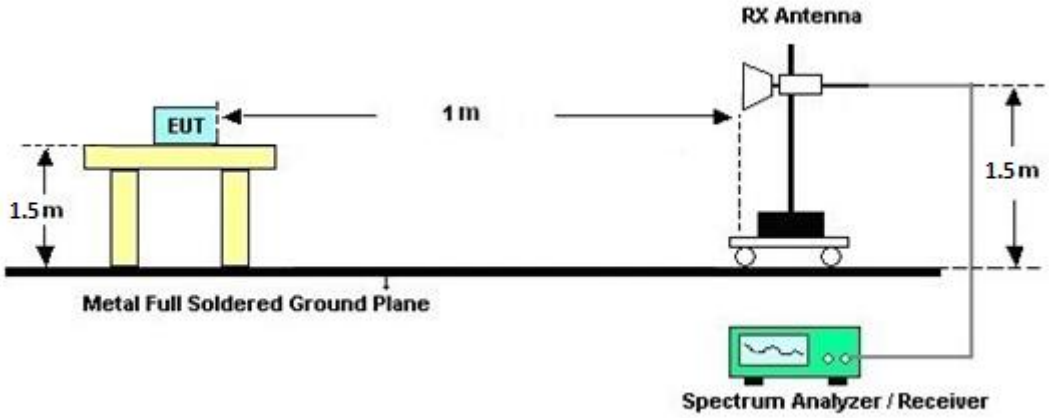
For radiated emissions from 30MHz to 1GHz



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 (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

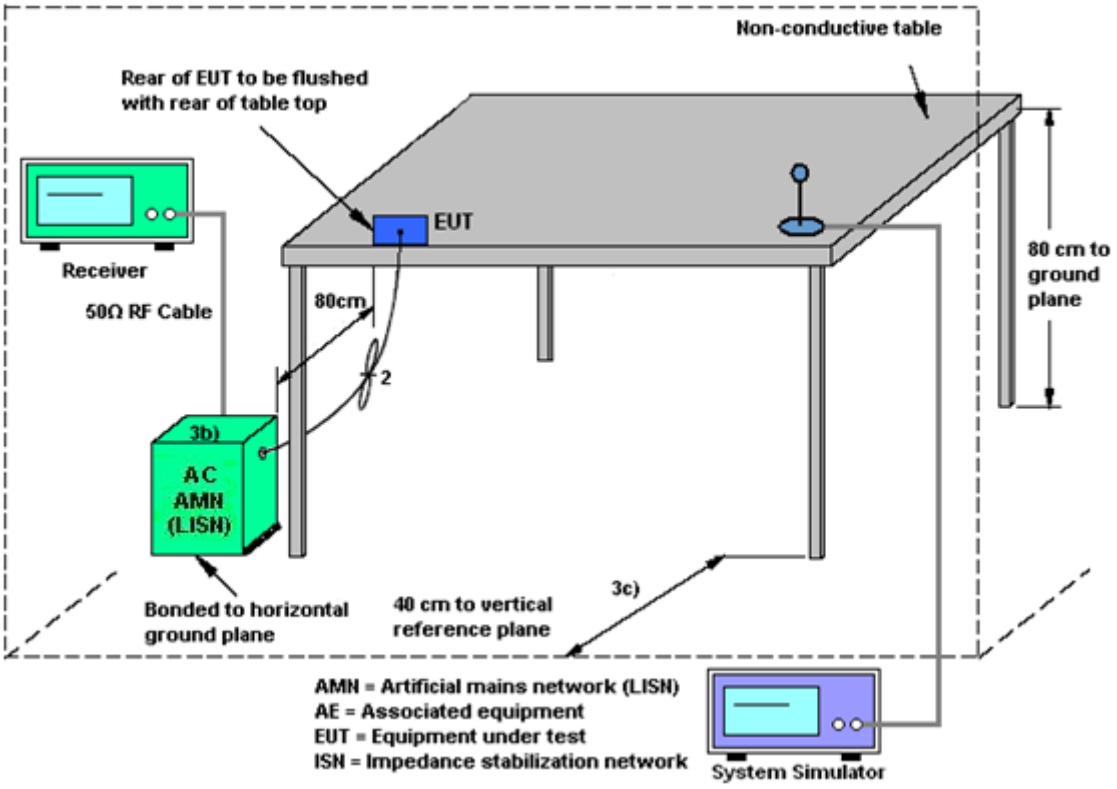
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

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

3.5.4 Test Setup



3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.6 Antenna Requirements

3.6.1 Standard Applicable

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

3.6.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.6.3 Antenna Gain

<CDD Modes >

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For power measurements on IEEE 802.11 devices,

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

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

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

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

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

where

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

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

N_{ANT} = the total number of antennas

$g_{j,k} = 10^{G_k/20}$ if the kth antenna is being fed by spatial stream j, or zero if it is not;

G_k is the gain in dBi of the kth antenna.

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

Directional gain = $10*\log[(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / N_{ANT}]$ dBi

Where G1, G2….GN denote single antenna gain.

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

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

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

The directional gain “DG” is calculated as following table.

<CDD Modes>						
			DG	DG	Power	PSD
			for	for	Limit	Limit
	Ant. 7	Ant. 8	Power	PSD	Reduction	Reduction
	(dBi)	(dBi)	(dBi)	(dBi)	(dB)	(dB)
Band IV	-0.27	-0.76	-0.27	2.50	0.00	0.00

Power Limit Reduction = DG(Power) – 6dBi, (min = 0)
PSD Limit Reduction = DG(PSD) – 6dBi, (min = 0)

Calculation example:
The DG for PSD is derived from formula is
10 x log { { [10^ (-0.27 dBi / 20) + 10^ (-0.76 dBi / 20)] ^ 2 } / 2 }
= 2.50 dBi

4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Test Receicver	Keysight	N9010B	MY60241055	10Hz~44GHz	Jul. 12, 2021	Jun. 23, 2022~ Jul. 02, 2022	Jul. 11, 2022	Radiation (03CH20-HY)
Preamplifier	COM-POWER	PAM-103	18020201	1MHz-1000MHz	Jan. 03, 2022	Jun. 23, 2022~ Jul. 02, 2022	Jan. 02, 2023	Radiation (03CH20-HY)
Amplifier	EMCI	EMC118A45SE	980792	N/A	Nov. 15, 2021	Jun. 23, 2022~ Jul. 02, 2022	Nov. 14, 2022	Radiation (03CH20-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz~40GHz	Dec. 24, 2021	Jun. 23, 2022~ Jul. 02, 2022	Dec. 23, 2022	Radiation (03CH20-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-02360	1GHz~18GHz	Nov. 02, 2021	Jun. 23, 2022~ Jul. 02, 2022	Nov. 01, 2022	Radiation (03CH20-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA9170	00994	18GHz-40GHz	Nov. 04, 2021	Jun. 23, 2022~ Jul. 02, 2022	Nov. 03, 2022	Radiation (03CH20-HY)
Hygrometer	TECPEL	DTM-303B	TP200728	N/A	Mar. 22, 2022	Jun. 23, 2022~ Jul. 02, 2022	Mar. 21, 2023	Radiation (03CH20-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	519229/2,804015/2,804027/2	N/A	Jan. 19, 2022	Jun. 23, 2022~ Jul. 02, 2022	Jan. 18, 2023	Radiation (03CH20-HY)
Software	Audix	E3 6.2009-8-24	RK-002156	N/A	N/A	Jun. 23, 2022~ Jul. 02, 2022	N/A	Radiation (03CH20-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Jun. 23, 2022~ Jul. 02, 2022	N/A	Radiation (03CH20-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Jun. 23, 2022~ Jul. 02, 2022	N/A	Radiation (03CH20-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Jun. 23, 2022~ Jul. 02, 2022	N/A	Radiation (03CH20-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	May 29, 2022	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Dec. 01, 2021	May 29, 2022	Nov. 30, 2022	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Nov. 17, 2021	May 29, 2022	Nov. 16, 2022	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Dec. 03, 2021	May 29, 2022	Dec. 02, 2022	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32	N/A	N/A	N/A	May 29, 2022	N/A	Conduction (CO05-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-F N	00691	N/A	Jul. 28, 2021	May 29, 2022	Jul. 27, 2022	Conduction (CO05-HY)
LISN Cable	MVE	RG-400	260260	N/A	Dec. 30, 2021	May 29, 2022	Dec. 29, 2022	Conduction (CO05-HY)
Hygrometer	TECPEL	DTM-303A	TP201996	N/A	Nov. 16, 2021	May 28, 2022~ Jul. 12, 2022	Nov. 15, 2022	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	16I00054SNO12 (NO:113)	10MHz~6GHz	Dec. 16, 2021	May 28, 2022~ Jul. 12, 2022	Dec. 15, 2022	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	1027253	300MHz~40GHz	Aug. 01, 2021	May 28, 2022~ Jul. 12, 2022	Jul. 31, 2022	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101566	10Hz~40GHz	Aug. 30, 2021	May 28, 2022~ Jul. 12, 2022	Aug. 29, 2022	Conducted (TH05-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.1 dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.9 dB**

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.2 dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.7 dB**

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Ching Chen/Mina Liu	Temperature:	21~25	°C
Test Date:	2022/5/28-2022/7/12	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 7	Ant 8	Ant 7	Ant 8	Ant 7	Ant 8		
11a	6Mbps	2	149	5745	16.53	16.53	21.20	25.30	16.39	16.44	0.5	Pass
11a	6Mbps	2	157	5785	16.58	16.58	21.70	25.00	16.34	16.39	0.5	Pass
11a	6Mbps	2	165	5825	16.53	16.53	21.00	23.60	16.39	16.39	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 7	Ant 8	SUM	Ant 7	Ant 8	Ant 7	Ant 8	
11a	6Mbps	2	149	5745	19.70	19.40	22.56	30.00		-0.27		Pass
11a	6Mbps	2	157	5785	19.80	19.40	22.61	30.00		-0.27		Pass
11a	6Mbps	2	165	5825	19.70	19.20	22.47	30.00		-0.27		Pass
HT20	MCS0	2	149	5745	19.60	19.30	22.46	30.00		-0.27		Pass
HT20	MCS0	2	157	5785	19.70	19.30	22.51	30.00		-0.27		Pass
HT20	MCS0	2	165	5825	19.90	19.40	22.67	30.00		-0.27		Pass
HT40	MCS0	2	151	5755	19.70	19.50	22.61	30.00		-0.27		Pass
HT40	MCS0	2	159	5795	19.80	19.10	22.47	30.00		-0.27		Pass
VHT20	MCS0	2	149	5745	19.60	19.30	22.46	30.00		-0.27		Pass
VHT20	MCS0	2	157	5785	19.70	19.30	22.51	30.00		-0.27		Pass
VHT20	MCS0	2	165	5825	19.90	19.40	22.67	30.00		-0.27		Pass
VHT40	MCS0	2	151	5755	19.70	19.50	22.61	30.00		-0.27		Pass
VHT40	MCS0	2	159	5795	19.80	19.10	22.47	30.00		-0.27		Pass
VHT80	MCS0	2	155	5775	19.80	19.40	22.61	30.00		-0.27		Pass

TEST RESULTS DATA
Power Spectral Density

U-NII-3 MIMO														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	10log (500kHz /RBW) Factor (dB)		Average Power Density (dBm/500kHz)			Average PSD Limit (dBm/500kHz)		DG (dBi)		Pass /Fail
					Ant 7	Ant 8	Ant 7	Ant 8	SUM	Ant 7	Ant 8	Ant 7	Ant 8	
11a	6Mbps	2	149	5745	2.22		11.74	11.40	14.75	30.00		2.50		Pass
11a	6Mbps	2	157	5785	2.22		11.76	11.39	14.77	30.00		2.50		Pass
11a	6Mbps	2	165	5825	2.22		11.75	11.16	14.76	30.00		2.50		Pass

Note: PSD Sum = Max PSD(Ant. 7, Ant. 8) + 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 7	Ant 8	Ant 7	Ant 8	Ant 7	Ant 8		
HE20	MCS0	2	149	5745	Full	19.03	19.08	22.20	26.30	18.59	18.89	0.5	Pass
HE20	MCS0	2	157	5785	Full	19.03	19.08	24.40	26.75	18.74	18.59	0.5	Pass
HE20	MCS0	2	165	5825	Full	19.03	19.08	23.50	26.30	18.74	18.73	0.5	Pass
HE40	MCS0	2	151	5755	Full	38.16	38.26	41.67	42.66	38.23	37.42	0.5	Pass
HE40	MCS0	2	159	5795	Full	38.16	38.26	41.94	43.47	38.23	37.69	0.5	Pass
HE80	MCS0	2	155	5775	Full	77.56	77.68	86.40	88.61	78.36	77.72	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 7	Ant 8	SUM	Ant 7	Ant 8	Ant 7	Ant 8	
HE20	MCS0	2	149	5745	Full	19.70	19.40	22.56	30.00		-0.27		Pass
HE20	MCS0	2	157	5785	Full	19.80	19.40	22.61	30.00		-0.27		Pass
HE20	MCS0	2	165	5825	Full	20.00	19.50	22.77	30.00		-0.27		Pass
HE40	MCS0	2	151	5755	Full	19.80	19.60	22.71	30.00		-0.27		Pass
HE40	MCS0	2	159	5795	Full	19.90	19.20	22.57	30.00		-0.27		Pass
HE80	MCS0	2	155	5775	Full	19.90	19.50	22.71	30.00		-0.27		Pass

TEST RESULTS DATA
Power Spectral Density

U-NII-3 MIMO														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	10log (500kHz /RBW) Factor (dB)		Average Power Density (dBm/500kHz)			Average PSD Limit (dBm/500kHz)		DG (dBi)		Pass /Fail
						Ant 7	Ant 8	Ant 7	Ant 8	SUM	Ant 7	Ant 8	Ant 7	Ant 8	
HE20	MCS0	2	149	5745	Full	2.22		11.81	11.20	14.82	30.00		2.50		Pass
HE20	MCS0	2	149	5745	26/0	2.22		11.41	10.90	14.42	30.00		2.50		Pass
HE20	MCS0	2	149	5745	52/37	2.22		11.09	10.79	14.10	30.00		2.50		Pass
HE20	MCS0	2	149	5745	106/53	2.22		11.64	11.16	14.65	30.00		2.50		Pass
HE20	MCS0	2	149	5745	242/61	2.22		11.24	10.83	14.25	30.00		2.50		Pass
HE20	MCS0	2	157	5785	Full	2.22		11.92	11.22	14.93	30.00		2.50		Pass
HE20	MCS0	2	157	5785	26/4	2.22		11.64	10.90	14.65	30.00		2.50		Pass
HE20	MCS0	2	157	5785	52/38	2.22		11.74	11.31	14.75	30.00		2.50		Pass
HE20	MCS0	2	157	5785	106/53	2.22		11.69	11.08	14.70	30.00		2.50		Pass
HE20	MCS0	2	157	5785	242/61	2.22		11.61	11.08	14.62	30.00		2.50		Pass
HE20	MCS0	2	165	5825	Full	2.22		12.18	11.53	15.19	30.00		2.50		Pass
HE20	MCS0	2	165	5825	26/8	2.22		12.14	11.51	15.15	30.00		2.50		Pass
HE20	MCS0	2	165	5825	52/40	2.22		11.87	10.82	14.88	30.00		2.50		Pass
HE20	MCS0	2	165	5825	106/54	2.22		11.75	10.90	14.76	30.00		2.50		Pass
HE20	MCS0	2	165	5825	242/61	2.22		11.72	11.09	14.73	30.00		2.50		Pass
HE40	MCS0	2	151	5755	Full	2.22		8.99	8.54	12.00	30.00		2.50		Pass
HE40	MCS0	2	151	5755	242/61	2.22		8.53	8.66	11.67	30.00		2.50		Pass
HE40	MCS0	2	151	5755	484/65	2.22		8.45	8.26	11.46	30.00		2.50		Pass
HE40	MCS0	2	159	5795	Full	2.22		9.08	8.17	12.09	30.00		2.50		Pass
HE40	MCS0	2	159	5795	242/62	2.22		8.83	8.08	11.84	30.00		2.50		Pass
HE40	MCS0	2	159	5795	484/65	2.22		8.51	7.84	11.52	30.00		2.50		Pass
HE80	MCS0	2	155	5775	Full	2.22		6.71	6.20	9.72	30.00		2.50		Pass
HE80	MCS0	2	155	5775	484/65	2.22		6.30	5.94	9.31	30.00		2.50		Pass
HE80	MCS0	2	155	5775	484/66	2.22		6.33	5.97	9.34	30.00		2.50		Pass
HE80	MCS0	2	155	5775	996/67	2.22		6.20	6.02	9.21	30.00		2.50		Pass

Note: PSD Sum = Max PSD(Ant. 7, Ant. 8) + 10 log (n)

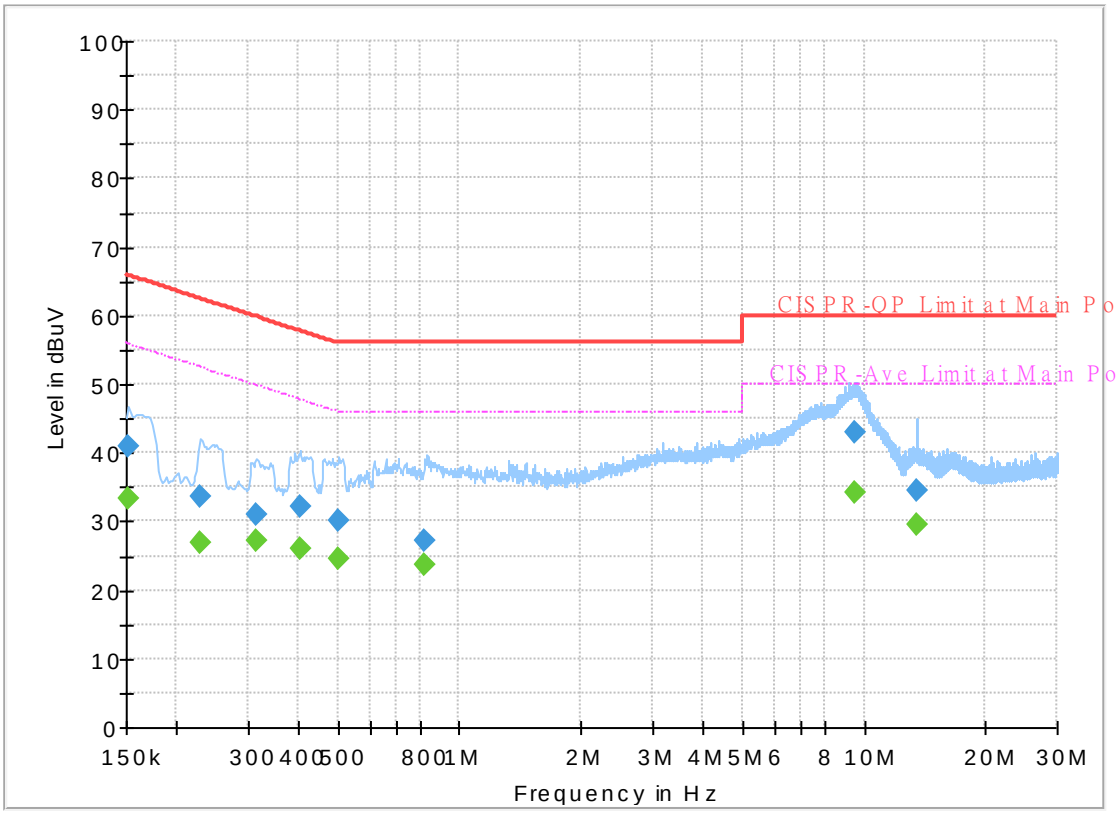
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Howard Huang	**Temperature :**	23~26℃
		Relative Humidity :	45~55%

EUT Information

Report NO :	210409
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

Full Spectrum



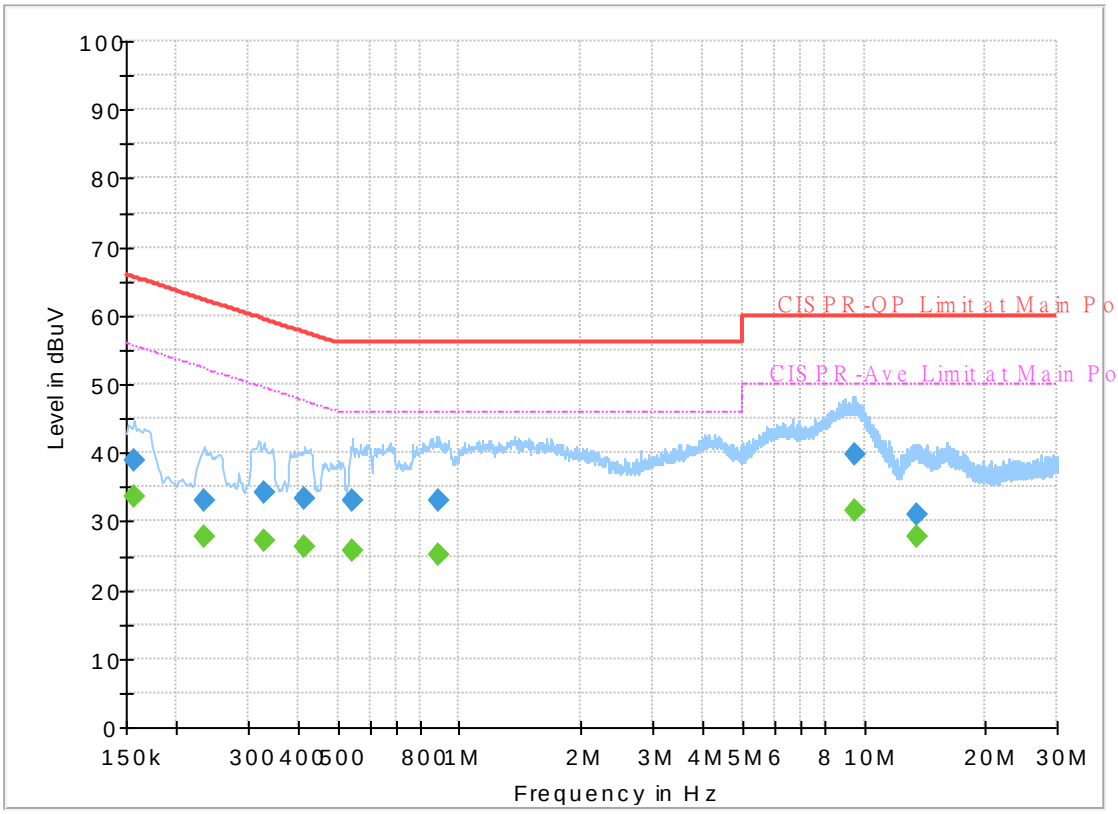
Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	33.35	55.88	22.53	L1	OFF	19.6
0.152250	40.95	---	65.88	24.93	L1	OFF	19.6
0.228750	---	26.76	52.50	25.74	L1	OFF	19.6
0.228750	33.52	---	62.50	28.98	L1	OFF	19.6
0.314250	---	27.10	49.86	22.76	L1	OFF	19.6
0.314250	30.97	---	59.86	28.89	L1	OFF	19.6
0.404250	---	25.91	47.77	21.86	L1	OFF	19.6
0.404250	32.07	---	57.77	25.70	L1	OFF	19.6
0.503250	---	24.70	46.00	21.30	L1	OFF	19.6
0.503250	30.19	---	56.00	25.81	L1	OFF	19.6
0.822750	---	23.75	46.00	22.25	L1	OFF	19.6
0.822750	27.13	---	56.00	28.87	L1	OFF	19.6
9.476250	---	34.09	50.00	15.91	L1	OFF	20.0
9.476250	43.07	---	60.00	16.93	L1	OFF	20.0
13.560000	---	29.43	50.00	20.57	L1	OFF	20.2
13.560000	34.56	---	60.00	25.44	L1	OFF	20.2

EUT Information

Report NO :	210409
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)
0.156750	---	33.53	55.63	22.10	N	OFF	19.6
0.156750	38.87	---	65.63	26.76	N	OFF	19.6
0.233250	---	27.92	52.33	24.41	N	OFF	19.6
0.233250	33.17	---	62.33	29.16	N	OFF	19.6
0.327750	---	27.33	49.51	22.18	N	OFF	19.6
0.327750	34.10	---	59.51	25.41	N	OFF	19.6
0.415500	---	26.31	47.54	21.23	N	OFF	19.6
0.415500	33.33	---	57.54	24.21	N	OFF	19.6
0.543750	---	25.79	46.00	20.21	N	OFF	19.6
0.543750	33.17	---	56.00	22.83	N	OFF	19.6
0.890250	---	25.06	46.00	20.94	N	OFF	19.6
0.890250	33.19	---	56.00	22.81	N	OFF	19.6
9.476250	---	31.69	50.00	18.31	N	OFF	20.0
9.476250	39.68	---	60.00	20.32	N	OFF	20.0
13.560000	---	27.63	50.00	22.37	N	OFF	20.2
13.560000	30.99	---	60.00	29.01	N	OFF	20.2

Appendix C. Radiated Spurious Emission

Test Engineer :	JC Liang, Bill Chang and Nick Yu	Temperature :	19~22°C
		Relative Humidity :	61~66%

Band 4 - 5725~5850MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
7+8		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5640.4	48.52	-19.68	68.2	39.68	33.2	13.54	37.9	263	311	P	H
		5689.2	54.63	-42.61	97.24	45.62	33.36	13.56	37.91	263	311	P	H
		5719.2	65.77	-44.81	110.58	56.57	33.55	13.57	37.92	263	311	P	H
		5724.4	71.95	-48.88	120.83	62.7	33.6	13.57	37.92	263	311	P	H
	*	5745	113.52	-	-	104.1	33.76	13.58	37.92	263	311	P	H
	*	5745	106.03	-	-	96.61	33.76	13.58	37.92	263	311	A	H
													H
802.11a													H
CH 149		5613.95	47.93	-20.27	68.2	39.1	33.2	13.53	37.9	308	76	P	V
5745MHz		5697.65	51.2	-52.27	103.47	42.16	33.39	13.56	37.91	308	76	P	V
		5719.025	61.69	-48.84	110.53	52.49	33.55	13.57	37.92	308	76	P	V
		5724.425	67.57	-53.32	120.89	58.32	33.6	13.57	37.92	308	76	P	V
	*	5745	110.96	-	-	101.54	33.76	13.58	37.92	308	76	P	V
	*	5745	103.23	-	-	93.81	33.76	13.58	37.92	308	76	A	V
													V
													V

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		5631.5	48.05	-20.15	68.2	39.22	33.2	13.53	37.9	256	313	P	H
		5698.5	48.16	-55.93	104.09	39.12	33.39	13.56	37.91	256	313	P	H
		5719.75	50.68	-60.05	110.73	41.47	33.56	13.57	37.92	256	313	P	H
		5724	52.15	-67.77	119.92	42.91	33.59	13.57	37.92	256	313	P	H
	*	5785	113.86	-	-	104.26	33.94	13.59	37.93	256	313	P	H
	*	5785	106.42	-	-	96.82	33.94	13.59	37.93	256	313	A	H
		5850	51.4	-70.8	122.2	41.37	34.3	13.68	37.95	256	313	P	H
		5858.5	49.7	-60.12	109.82	39.66	34.3	13.69	37.95	256	313	P	H
		5882.5	49.01	-50.62	99.63	38.93	34.3	13.73	37.95	256	313	P	H
		5928.5	47.89	-20.31	68.2	37.74	34.3	13.81	37.96	256	313	P	H
													H
802.11a CH 157 5785MHz													H
		5630.5	47.01	-21.19	68.2	38.18	33.2	13.53	37.9	303	74	P	V
		5686.5	48.97	-46.27	95.24	39.98	33.35	13.55	37.91	303	74	P	V
		5711	48.51	-59.77	108.28	39.38	33.49	13.56	37.92	303	74	P	V
		5722.5	47.99	-68.51	116.5	38.76	33.58	13.57	37.92	303	74	P	V
	*	5785	111.25	-	-	101.65	33.94	13.59	37.93	303	74	P	V
	*	5785	103.74	-	-	94.14	33.94	13.59	37.93	303	74	A	V
		5852	47.62	-70.02	117.64	37.59	34.3	13.68	37.95	303	74	P	V
		5859.25	48.06	-61.55	109.61	38.02	34.3	13.69	37.95	303	74	P	V
		5879	47.99	-54.24	102.23	37.91	34.3	13.73	37.95	303	74	P	V
		5932.5	48.55	-19.65	68.2	38.41	34.3	13.81	37.97	303	74	P	V
													V
													V

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
	*	5825	113.81	-	-	103.96	34.15	13.64	37.94	257	310	P	H
	*	5825	106.52	-	-	96.67	34.15	13.64	37.94	257	310	A	H
		5850.78	65.03	-55.39	120.42	55	34.3	13.68	37.95	257	310	P	H
		5855.085	59.51	-51.27	110.78	49.47	34.3	13.69	37.95	257	310	P	H
		5882.35	50.31	-49.43	99.74	40.23	34.3	13.73	37.95	257	310	P	H
		5925.605	49.88	-18.32	68.2	39.74	34.3	13.8	37.96	257	310	P	H
													H
802.11a													H
CH 165	*	5825	111.11	-	-	101.26	34.15	13.64	37.94	301	76	P	V
5825MHz	*	5825	103.17	-	-	93.32	34.15	13.64	37.94	301	76	A	V
		5849.96	62.1	-72.1	134.2	52.07	34.3	13.68	37.95	301	76	P	V
		5855.7	53.33	-57.27	110.6	43.29	34.3	13.69	37.95	301	76	P	V
		5907.565	49.21	-31.86	81.07	39.1	34.3	13.77	37.96	301	76	P	V
		5942.825	47.44	-20.76	68.2	37.28	34.3	13.83	37.97	301	76	P	V
													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 802.11a (Harmonic @ 3m)

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		11490	50.9	-23.1	74	34.47	39.13	19.94	42.64	211	309	P	H
		11490	40.64	-13.36	54	24.21	39.13	19.94	42.64	211	309	A	H
		12676	52.28	-21.72	74	35.16	39.38	20.97	43.23	-	-	P	H
		12676	41.86	-12.14	54	24.74	39.38	20.97	43.23	-	-	A	H
		13380	52.95	-21.05	74	34.43	40.12	21.57	43.17	-	-	P	H
		13380	42.68	-11.32	54	24.16	40.12	21.57	43.17	-	-	A	H
		17235	50.82	-17.38	68.2	33.39	37.97	24.2	44.74	-	-	P	H
		17967	56.09	-17.91	74	34.58	42.3	24.66	45.45	-	-	P	H
		17967	45.62	-8.38	54	24.11	42.3	24.66	45.45	-	-	A	H
													H
													H
802.11a													H
CH 149		11490	51.17	-22.83	74	34.74	39.13	19.94	42.64	316	52	P	V
5745MHz		11490	40.86	-13.14	54	24.43	39.13	19.94	42.64	316	52	A	V
		12588	51.77	-22.23	74	34.87	39.28	20.88	43.26	-	-	P	V
		12588	41.32	-12.68	54	24.42	39.28	20.88	43.26	-	-	A	V
		13391	53.07	-20.93	74	34.51	40.16	21.57	43.17	-	-	P	V
		13391	42.64	-11.36	54	24.08	40.16	21.57	43.17	-	-	A	V
		17235	50.87	-17.33	68.2	33.44	37.97	24.2	44.74	-	-	P	V
		17945	55.2	-18.8	74	33.81	42.17	24.65	45.43	-	-	P	V
		17945	44.75	-9.25	54	23.36	42.17	24.65	45.43	-	-	A	V
													V
													V
													V

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		11570	50.12	-23.88	74	33.8	39.03	20	42.71	208	307	P	H
		11570	40.28	-13.72	54	23.96	39.03	20	42.71	208	307	A	H
		12698	51.71	-22.29	74	34.54	39.4	20.99	43.22	-	-	P	H
		12698	41.51	-12.49	54	24.34	39.4	20.99	43.22	-	-	A	H
		13399	52.2	-21.8	74	33.59	40.2	21.58	43.17	-	-	P	H
		13399	41.86	-12.14	54	23.25	40.2	21.58	43.17	-	-	A	H
		17355	50.37	-17.83	68.2	32.8	38.21	24.27	44.91	-	-	P	H
		17989	56.02	-17.98	74	34.38	42.43	24.67	45.46	-	-	P	H
		17989	45.75	-8.25	54	24.11	42.43	24.67	45.46	-	-	A	H
													H
													H
802.11a													H
CH 157		11570	50.59	-23.41	74	34.27	39.03	20	42.71	321	45	P	V
5785MHz		11570	40.29	-13.71	54	23.97	39.03	20	42.71	321	45	A	V
		12621	51.85	-22.15	74	34.87	39.32	20.91	43.25	-	-	P	V
		12621	41.56	-12.44	54	24.58	39.32	20.91	43.25	-	-	A	V
		13325	52.54	-21.46	74	34.27	39.9	21.53	43.16	-	-	P	V
		13325	42.49	-11.51	54	24.22	39.9	21.53	43.16	-	-	A	V
		17355	50.29	-17.91	68.2	32.72	38.21	24.27	44.91	-	-	P	V
		17967	56.59	-17.41	74	35.08	42.3	24.66	45.45	-	-	P	V
		17967	45.89	-8.11	54	24.38	42.3	24.66	45.45	-	-	A	V
													V
													V
													V

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		11650	49.97	-24.03	74	33.73	38.95	20.06	42.77	216	312	P	H
		11650	39.68	-14.32	54	23.44	38.95	20.06	42.77	216	312	A	H
		12676	51.92	-22.08	74	34.8	39.38	20.97	43.23	-	-	P	H
		12676	41.76	-12.24	54	24.64	39.38	20.97	43.23	-	-	A	H
		13347	52.62	-21.38	74	34.24	39.99	21.55	43.16	-	-	P	H
		13347	42.39	-11.61	54	24.01	39.99	21.55	43.16	-	-	A	H
		17475	52.15	-16.05	68.2	34.43	38.45	24.35	45.08	-	-	P	H
		17945	55.47	-18.53	74	34.08	42.17	24.65	45.43	-	-	P	H
		17945	45.29	-8.71	54	23.9	42.17	24.65	45.43	-	-	A	H
													H
													H
802.11a													H
CH 165		11650	49.96	-24.04	74	33.72	38.95	20.06	42.77	318	42	P	V
5825MHz		11650	39.86	-14.14	54	23.62	38.95	20.06	42.77	318	42	A	V
		12522	51.68	-22.32	74	35.01	39.14	20.82	43.29	-	-	P	V
		12522	41.56	-12.44	54	24.89	39.14	20.82	43.29	-	-	A	V
		13399	53.13	-20.87	74	34.52	40.2	21.58	43.17	-	-	P	V
		13399	42.68	-11.32	54	24.07	40.2	21.58	43.17	-	-	A	V
		17475	50.92	-17.28	68.2	33.2	38.45	24.35	45.08	-	-	P	V
		17978	55.41	-18.59	74	33.82	42.37	24.67	45.45	-	-	P	V
		17978	45.79	-8.21	54	24.2	42.37	24.67	45.45	-	-	A	V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 4 5725~5850MHz

WIFI 802.11ax HE20_Full (Band Edge @ 3m)

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		5626.775	48.23	-19.97	68.2	39.4	33.2	13.53	37.9	262	308	P	H
		5694.95	58.2	-43.28	101.48	49.17	33.38	13.56	37.91	262	308	P	H
		5719.925	67.8	-42.98	110.78	58.59	33.56	13.57	37.92	262	308	P	H
		5724.425	74.46	-46.43	120.89	65.21	33.6	13.57	37.92	262	308	P	H
	*	5745	114.52	-	-	105.1	33.76	13.58	37.92	262	308	P	H
	*	5745	105.52	-	-	96.1	33.76	13.58	37.92	262	308	A	H
802.11ax													H
HE20 Full													H
CH 149		5622.05	49.67	-18.53	68.2	40.84	33.2	13.53	37.9	309	75	P	V
5745MHz		5680.1	54.57	-35.94	90.51	45.61	33.32	13.55	37.91	309	75	P	V
		5719.025	64.38	-46.15	110.53	55.18	33.55	13.57	37.92	309	75	P	V
		5721.275	68.08	-45.63	113.71	58.86	33.57	13.57	37.92	309	75	P	V
	*	5745	112.54	-	-	103.12	33.76	13.58	37.92	309	75	P	V
	*	5745	105.92	-	-	96.5	33.76	13.58	37.92	309	75	A	V
													V
													V

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
	*	5825	115.67	-	-	105.82	34.15	13.64	37.94	258	305	P	H
	*	5825	106.23	-	-	96.38	34.15	13.64	37.94	258	305	A	H
		5852.83	67.16	-48.59	115.75	57.13	34.3	13.68	37.95	258	305	P	H
		5855.495	64.38	-46.28	110.66	54.34	34.3	13.69	37.95	258	305	P	H
		5878.045	54.39	-48.55	102.94	44.32	34.3	13.72	37.95	258	305	P	H
		5930.73	48.9	-19.3	68.2	38.75	34.3	13.81	37.96	258	305	P	H
802.11ax													H
HE20 Full													H
CH 165	*	5825	111.97	-	-	102.12	34.15	13.64	37.94	301	76	P	V
5825MHz	*	5825	103.27	-	-	93.42	34.15	13.64	37.94	301	76	A	V
		5850.165	67.23	-54.59	121.82	57.2	34.3	13.68	37.95	301	76	P	V
		5855.29	62.29	-48.43	110.72	52.25	34.3	13.69	37.95	301	76	P	V
		5880.71	49.25	-51.71	100.96	39.17	34.3	13.73	37.95	301	76	P	V
		5938.315	48.49	-19.71	68.2	38.34	34.3	13.82	37.97	301	76	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. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		11570	50.48	-23.52	74	34.16	39.03	20	42.71	-	-	P	H
		11570	40.21	-13.79	54	23.89	39.03	20	42.71	211	310	A	H
		12577	51.74	-22.26	74	34.89	39.25	20.87	43.27	-	-	P	H
		12577	41.39	-12.61	54	24.54	39.25	20.87	43.27	-	-	A	H
		13391	52.84	-21.16	74	34.28	40.16	21.57	43.17	-	-	P	H
		13391	42.56	-11.44	54	24	40.16	21.57	43.17	-	-	A	H
		17355	50.94	-17.26	68.2	33.37	38.21	24.27	44.91	-	-	P	H
		17934	55.82	-18.18	74	34.5	42.1	24.64	45.42	-	-	P	H
		17934	45.65	-8.35	54	24.33	42.1	24.64	45.42	-	-	A	H
													H
802.11ax													H
HE20 Full													H
CH 157		11570	49.78	-24.22	74	33.46	39.03	20	42.71	327	42	P	V
5785MHz		11570	39.89	-14.11	54	23.57	39.03	20	42.71	327	42	A	V
		12610	51.61	-22.39	74	34.66	39.31	20.9	43.26	-	-	P	V
		12610	41.37	-12.63	54	24.42	39.31	20.9	43.26	-	-	A	V
		13336	53.38	-20.62	74	35.06	39.94	21.54	43.16	-	-	P	V
		13336	43.18	-10.82	54	24.86	39.94	21.54	43.16	-	-	A	V
		17355	51.24	-16.96	68.2	33.67	38.21	24.27	44.91	-	-	P	V
		17945	56.02	-17.98	74	34.63	42.17	24.65	45.43	-	-	P	V
		17945	45.7	-8.3	54	24.31	42.17	24.65	45.43	-	-	A	V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 4 5725~5850MHz

WIFI 802.11ax HE20_Partial 242 (Band Edge @ 3m)

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		5649.5	48.19	-20.01	68.2	39.35	33.2	13.54	37.9	264	313	P	H
		5694.725	55.57	-45.74	101.31	46.54	33.38	13.56	37.91	264	313	P	H
		5716.325	72.43	-37.34	109.77	63.25	33.53	13.57	37.92	264	313	P	H
		5724.65	83.33	-38.07	121.4	74.08	33.6	13.57	37.92	264	313	P	H
	*	5745	115.07	-	-	105.65	33.76	13.58	37.92	264	313	P	H
802.11ax	*	5745	105.72	-	-	96.3	33.76	13.58	37.92	264	313	A	H
HE20													H
Partial													H
242/61		5605.175	46.8	-21.4	68.2	37.97	33.2	13.52	37.89	308	73	P	V
CH 149		5690.675	58.16	-40.16	98.32	49.15	33.36	13.56	37.91	308	73	P	V
5745MHz		5719.925	74.49	-36.29	110.78	65.28	33.56	13.57	37.92	308	73	P	V
		5722.175	76.65	-39.11	115.76	67.42	33.58	13.57	37.92	308	73	P	V
	*	5745	111.96	-	-	102.54	33.76	13.58	37.92	308	73	P	V
	*	5745	102.92	-	-	93.5	33.76	13.58	37.92	308	73	A	V
													V
													V

Band 4 5725~5850MHz

WIFI 802.11ax HE20_Partial 106 (Band Edge @ 3m)

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		5638.25	48.68	-19.52	68.2	39.84	33.2	13.54	37.9	254	314	P	H
		5683.025	50.26	-42.41	92.67	41.29	33.33	13.55	37.91	254	314	P	H
		5715.875	64.67	-44.98	109.65	55.49	33.53	13.57	37.92	254	314	P	H
		5724.65	74.22	-47.18	121.4	64.97	33.6	13.57	37.92	254	314	P	H
	*	5745	117.98	-	-	108.56	33.76	13.58	37.92	254	314	P	H
802.11ax	*	5745	107.79	-	-	98.37	33.76	13.58	37.92	254	314	A	H
HE20													H
Partial													H
106/53		5637.575	48.11	-20.09	68.2	39.27	33.2	13.54	37.9	310	73	P	V
CH 149		5661.65	48.35	-28.5	76.85	39.47	33.25	13.54	37.91	310	73	P	V
5745MHz		5719.7	62.07	-48.65	110.72	52.86	33.56	13.57	37.92	310	73	P	V
		5723.75	64.83	-54.52	119.35	55.59	33.59	13.57	37.92	310	73	P	V
	*	5745	116.29	-	-	106.87	33.76	13.58	37.92	310	73	P	V
	*	5745	106.43	-	-	97.01	33.76	13.58	37.92	310	73	A	V
													V
													V

Band 4 5725~5850MHz

WIFI 802.11ax HE40_Full (Band Edge @ 3m)

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		5634	53.02	-15.18	68.2	44.19	33.2	13.53	37.9	263	314	P	H
		5694	63.63	-37.15	100.78	54.6	33.38	13.56	37.91	263	314	P	H
		5713.5	66.5	-42.48	108.98	57.34	33.51	13.57	37.92	263	314	P	H
		5724	76.63	-43.29	119.92	67.39	33.59	13.57	37.92	263	314	P	H
	*	5755	113.7	-	-	104.23	33.82	13.58	37.93	263	314	P	H
	*	5755	103.16	-	-	93.69	33.82	13.58	37.93	263	314	A	H
		5853.25	52.52	-62.27	114.79	42.48	34.3	13.69	37.95	263	314	P	H
		5864.25	53.23	-54.98	108.21	43.18	34.3	13.7	37.95	263	314	P	H
		5885.75	51.31	-45.91	97.22	41.22	34.3	13.74	37.95	263	314	P	H
		5925.75	48.32	-19.88	68.2	38.18	34.3	13.8	37.96	263	314	P	H
802.11ax													H
HE40 Full													H
CH 151		5648.75	52.79	-15.41	68.2	43.95	33.2	13.54	37.9	309	74	P	V
5755MHz		5693	57.24	-42.8	100.04	48.22	33.37	13.56	37.91	309	74	P	V
		5701.5	63.66	-41.96	105.62	54.6	33.41	13.56	37.91	309	74	P	V
		5722	68.38	-46.98	115.36	59.15	33.58	13.57	37.92	309	74	P	V
	*	5755	111.67	-	-	102.2	33.82	13.58	37.93	309	74	P	V
	*	5755	100.19	-	-	90.72	33.82	13.58	37.93	309	74	A	V
		5852	51.38	-66.26	117.64	41.35	34.3	13.68	37.95	309	74	P	V
		5862.75	51.02	-57.61	108.63	40.97	34.3	13.7	37.95	309	74	P	V
		5881.25	49.07	-51.49	100.56	38.99	34.3	13.73	37.95	309	74	P	V
		5930.25	47.72	-20.48	68.2	37.57	34.3	13.81	37.96	309	74	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. 7+8	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (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		11590	49.54	-24.46	74	33.25	39.01	20.01	42.73	208	305	P	H
		11590	39.68	-14.32	54	23.39	39.01	20.01	42.73	208	305	A	H
		12533	52	-22	74	35.29	39.17	20.83	43.29	-	-	P	H
		12533	41.68	-12.32	54	24.97	39.17	20.83	43.29	-	-	A	H
		13303	52.33	-21.67	74	34.16	39.81	21.51	43.15	-	-	P	H
		13303	42.18	-11.82	54	24.01	39.81	21.51	43.15	-	-	A	H
		17385	50.95	-17.25	68.2	33.34	38.27	24.29	44.95	-	-	P	H
		17956	55.66	-18.34	74	34.21	42.24	24.65	45.44	-	-	P	H
		17956	45.39	-8.61	54	23.94	42.24	24.65	45.44	-	-	A	H
													H
													H
													H
		11590	49.99	-24.01	74	33.7	39.01	20.01	42.73	323	45	P	V
		11590	39.71	-14.29	54	23.42	39.01	20.01	42.73	323	45	A	V
		12247	51.79	-22.21	74	35.29	39.1	20.56	43.16	-	-	P	V
		12247	41.55	-12.45	54	25.05	39.1	20.56	43.16	-	-	A	V
		13292	52.67	-21.33	74	34.51	39.81	21.5	43.15	-	-	P	V
		13292	42.49	-11.51	54	24.33	39.81	21.5	43.15	-	-	A	V
		17385	51.88	-16.32	68.2	34.27	38.27	24.29	44.95	-	-	P	V
		17989	55.62	-18.38	74	33.98	42.43	24.67	45.46	-	-	P	V
		17989	45.34	-8.66	54	23.7	42.43	24.67	45.46	-	-	A	V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 4 5725~5850MHz

WIFI 802.11ax HE40_Partial 484 (Band Edge @ 3m)

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		5649.5	53.71	-14.49	68.2	44.87	33.2	13.54	37.9	262	314	P	H
		5694.75	65.25	-36.08	101.33	56.22	33.38	13.56	37.91	262	314	P	H
		5719.5	80.78	-29.88	110.66	71.57	33.56	13.57	37.92	262	314	P	H
		5725	82.99	-39.21	122.2	73.74	33.6	13.57	37.92	262	314	P	H
	*	5755	111.72	-	-	102.25	33.82	13.58	37.93	262	314	P	H
	*	5755	103.05	-	-	93.58	33.82	13.58	37.93	262	314	A	H
		5853.5	54.85	-59.37	114.22	44.81	34.3	13.69	37.95	262	314	P	H
		5855.75	56.06	-54.53	110.59	46.02	34.3	13.69	37.95	262	314	P	H
		5894.5	51.23	-39.5	90.73	41.14	34.3	13.75	37.96	262	314	P	H
		5935.75	50.46	-17.74	68.2	40.31	34.3	13.82	37.97	262	314	P	H
802.11ax													
HE40													H
Partial													H
484/65		5606.25	49.46	-18.74	68.2	40.63	33.2	13.52	37.89	306	73	P	V
CH 151		5700	66.87	-38.33	105.2	57.82	33.4	13.56	37.91	306	73	P	V
5755MHz		5717.25	81.51	-28.52	110.03	72.32	33.54	13.57	37.92	306	73	P	V
		5721.25	78.32	-35.33	113.65	69.1	33.57	13.57	37.92	306	73	P	V
	*	5755	109.57	-	-	100.1	33.82	13.58	37.93	306	73	P	V
	*	5755	100.3	-	-	90.83	33.82	13.58	37.93	306	73	A	V
		5853	54.06	-61.3	115.36	44.03	34.3	13.68	37.95	306	73	P	V
		5857	51.74	-58.5	110.24	41.7	34.3	13.69	37.95	306	73	P	V
		5888.25	50.92	-44.44	95.36	40.84	34.3	13.74	37.96	306	73	P	V
		5937	48.45	-19.75	68.2	38.3	34.3	13.82	37.97	306	73	P	V
													V
													V

Band 4 5725~5850MHz

WIFI 802.11ax HE40_Partial 242 (Band Edge @ 3m)

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		5635.75	49.42	-18.78	68.2	40.59	33.2	13.53	37.9	200	308	P	H
		5686.5	61.05	-34.19	95.24	52.06	33.35	13.55	37.91	200	308	P	H
		5706.75	68.68	-38.41	107.09	59.59	33.45	13.56	37.92	200	308	P	H
		5725	76.87	-45.33	122.2	67.62	33.6	13.57	37.92	200	308	P	H
	*	5755	111.24	-	-	101.77	33.82	13.58	37.93	200	308	P	H
	*	5755	101.8	-	-	92.33	33.82	13.58	37.93	200	308	A	H
		5854.5	51.13	-60.81	111.94	41.09	34.3	13.69	37.95	200	308	P	H
		5856.25	51.82	-58.63	110.45	41.78	34.3	13.69	37.95	200	308	P	H
		5883	50.1	-49.16	99.26	40.02	34.3	13.73	37.95	200	308	P	H
802.11ax		5933.5	49.24	-18.96	68.2	39.1	34.3	13.81	37.97	200	308	P	H
HE40													H
Partial													H
242/61		5645.25	49.37	-18.83	68.2	40.53	33.2	13.54	37.9	308	71	P	V
CH 151		5698.25	59.37	-44.54	103.91	50.33	33.39	13.56	37.91	308	71	P	V
5755MHz		5717.25	80.02	-30.01	110.03	70.83	33.54	13.57	37.92	308	71	P	V
		5721.25	78.89	-34.76	113.65	69.67	33.57	13.57	37.92	308	71	P	V
	*	5755	110.56	-	-	101.09	33.82	13.58	37.93	308	71	P	V
	*	5755	100.86	-	-	91.39	33.82	13.58	37.93	308	71	A	V
		5852.25	51.59	-65.48	117.07	41.56	34.3	13.68	37.95	308	71	P	V
		5856.75	50.07	-60.24	110.31	40.03	34.3	13.69	37.95	308	71	P	V
		5920.25	50.11	-21.59	71.7	39.98	34.3	13.79	37.96	308	71	P	V
		5927.75	48.56	-19.64	68.2	38.42	34.3	13.8	37.96	308	71	P	V
													V
													V

Band 4 5725~5850MHz

WIFI 802.11ax HE80_Full (Band Edge @ 3m)

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		5645	63.72	-4.48	68.2	54.88	33.2	13.54	37.9	260	313	P	H
		5695	69.96	-31.55	101.51	60.93	33.38	13.56	37.91	260	313	P	H
		5712.75	69.15	-39.62	108.77	60	33.5	13.57	37.92	260	313	P	H
		5724.5	70.08	-50.98	121.06	60.83	33.6	13.57	37.92	260	313	P	H
	*	5775	110.98	-	-	101.42	33.9	13.59	37.93	260	313	P	H
	*	5775	100.38	-	-	90.82	33.9	13.59	37.93	260	313	A	H
		5854	73.84	-39.24	113.08	63.8	34.3	13.69	37.95	260	313	P	H
		5856	69.62	-40.9	110.52	59.58	34.3	13.69	37.95	260	313	P	H
		5875.25	66.18	-38.83	105.01	56.11	34.3	13.72	37.95	260	313	P	H
		5933.75	56.71	-11.49	68.2	46.57	34.3	13.81	37.97	260	313	P	H
802.11ax													H
HE80 Full													H
CH 155		5622.75	58.25	-9.95	68.2	49.42	33.2	13.53	37.9	306	75	P	V
5775MHz		5680.5	64.48	-26.33	90.81	55.52	33.32	13.55	37.91	306	75	P	V
		5711	65.95	-42.33	108.28	56.82	33.49	13.56	37.92	306	75	P	V
		5721.5	68.16	-46.06	114.22	58.94	33.57	13.57	37.92	306	75	P	V
	*	5775	107.94	-	-	98.38	33.9	13.59	37.93	306	75	P	V
	*	5775	97.7	-	-	88.14	33.9	13.59	37.93	306	75	A	V
		5852.75	67.72	-48.21	115.93	57.69	34.3	13.68	37.95	306	75	P	V
		5862	63.12	-45.72	108.84	53.07	34.3	13.7	37.95	306	75	P	V
		5893.25	60.62	-31.04	91.66	50.53	34.3	13.75	37.96	306	75	P	V
		5925	51.92	-16.28	68.2	41.78	34.3	13.8	37.96	306	75	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_Partial 996 (Band Edge @ 3m)

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		5644.25	63.67	-4.53	68.2	54.83	33.2	13.54	37.9	204	302	P	H
		5696.25	77.74	-24.7	102.44	68.7	33.39	13.56	37.91	204	302	P	H
		5716.75	82.51	-27.38	109.89	73.33	33.53	13.57	37.92	204	302	P	H
		5723.75	82.26	-37.09	119.35	73.02	33.59	13.57	37.92	204	302	P	H
	*	5775	110.28	-	-	100.72	33.9	13.59	37.93	204	302	P	H
	*	5775	100.26	-	-	90.7	33.9	13.59	37.93	204	302	A	H
		5850.75	78.45	-42.04	120.49	68.42	34.3	13.68	37.95	204	302	P	H
		5859.75	75.61	-33.86	109.47	65.56	34.3	13.7	37.95	204	302	P	H
		5875	70.63	-34.57	105.2	60.56	34.3	13.72	37.95	204	302	P	H
802.11ax		5925	57.23	-10.97	68.2	47.09	34.3	13.8	37.96	204	302	P	H
HE80													H
Partial													H
996/67		5650	59.46	-8.74	68.2	50.62	33.2	13.54	37.9	303	75	P	V
CH 155		5699.75	71.87	-33.15	105.02	62.82	33.4	13.56	37.91	303	75	P	V
5775MHz		5718.25	76.55	-33.76	110.31	67.35	33.55	13.57	37.92	303	75	P	V
		5723.75	77.23	-42.12	119.35	67.99	33.59	13.57	37.92	303	75	P	V
	*	5775	108.1	-	-	98.54	33.9	13.59	37.93	303	75	P	V
	*	5775	96.71	-	-	87.15	33.9	13.59	37.93	303	75	A	V
		5853.25	73.99	-40.8	114.79	63.95	34.3	13.69	37.95	303	75	P	V
		5858.25	72.98	-36.91	109.89	62.94	34.3	13.69	37.95	303	75	P	V
		5883.5	64.94	-33.95	98.89	54.86	34.3	13.73	37.95	303	75	P	V
		5931.5	54.39	-13.81	68.2	44.24	34.3	13.81	37.96	303	75	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_Partial 484 (Band Edge @ 3m)

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		5649.75	58.96	-9.24	68.2	50.12	33.2	13.54	37.9	261	314	P	H
		5679.75	74.81	-15.44	90.25	65.85	33.32	13.55	37.91	261	314	P	H
		5720	80.94	-29.86	110.8	71.73	33.56	13.57	37.92	261	314	P	H
		5724.75	83.53	-38.1	121.63	74.28	33.6	13.57	37.92	261	314	P	H
	*	5775	112.91	-	-	103.35	33.9	13.59	37.93	261	314	P	H
	*	5775	103.11	-	-	93.55	33.9	13.59	37.93	261	314	A	H
		5854.5	73.04	-38.9	111.94	63	34.3	13.69	37.95	261	314	P	H
		5865.75	72.54	-35.25	107.79	62.48	34.3	13.71	37.95	261	314	P	H
		5876.25	67.46	-36.81	104.27	57.39	34.3	13.72	37.95	261	314	P	H
802.11ax		5935.75	50.83	-17.37	68.2	40.68	34.3	13.82	37.97	261	314	P	H
HE80													H
Partial													H
484/65		5613.25	57.96	-10.24	68.2	49.12	33.2	13.53	37.89	308	76	P	V
CH 155		5684	73.41	-19.99	93.4	64.43	33.34	13.55	37.91	308	76	P	V
5775MHz		5720	76.87	-33.93	110.8	67.66	33.56	13.57	37.92	308	76	P	V
		5721.5	80.16	-34.06	114.22	70.94	33.57	13.57	37.92	308	76	P	V
	*	5775	108.56	-	-	99	33.9	13.59	37.93	308	76	P	V
	*	5775	99.89	-	-	90.33	33.9	13.59	37.93	308	76	A	V
		5854.5	69.68	-42.26	111.94	59.64	34.3	13.69	37.95	308	76	P	V
		5868.5	71.87	-35.15	107.02	61.81	34.3	13.71	37.95	308	76	P	V
		5876	62.66	-41.8	104.46	52.59	34.3	13.72	37.95	308	76	P	V
		5926.25	49.77	-18.43	68.2	39.63	34.3	13.8	37.96	308	76	P	V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.

Emission above 18GHz

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
7+8		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ax HE80 Full SHF		38680	53.36	-20.64	74	39.52	43.1	25.87	55.13	-	-	P	H
		38680	41.76	-12.24	54	27.92	43.1	25.87	55.13	-	-	A	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		39406	53.99	-20.01	74	38.58	43.96	26.13	54.68	-	-	P	V
		39406	43.63	-10.37	54	28.22	43.96	26.13	54.68	-	-	A	V
													V
													V
													V
													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 with sufficient margin against limit line or noise floor only.

Emission below 1GHz

5GHz WIFI 802.11ax HE80 Full (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
7+8		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ax HE80 Full LF		30	23.43	-16.57	40	33.54	24.37	1.18	35.66	-	-	P	H
		108.57	25.91	-17.59	43.5	42.43	16.9	2.1	35.52	-	-	P	H
		220.12	25.63	-20.37	46	42.9	15.18	2.89	35.34	-	-	P	H
		561.56	28.59	-17.41	46	32.59	25.92	4.52	34.44	-	-	P	H
		836.07	34.05	-11.95	46	33.54	28.37	5.57	33.43	-	-	P	H
		956.35	34.87	-11.13	46	31.2	30.63	6	32.96	-	-	P	H
													H
													H
													H
													H
													H
													H
		30.97	31.91	-8.09	40	42.47	23.9	1.2	35.66	-	-	P	V
		49.4	27.56	-12.44	40	47.19	14.53	1.49	35.65	-	-	P	V
		108.57	22.68	-20.82	43.5	39.2	16.9	2.1	35.52	-	-	P	V
		600.36	28.87	-17.13	46	33.09	25.47	4.69	34.38	-	-	P	V
		729.37	33.06	-12.94	46	34.53	27.26	5.09	33.82	-	-	P	V
		885.54	34.86	-11.14	46	33.53	28.7	5.81	33.18	-	-	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 **over limit** line.
P/A	**P**eak or **A**verage
H/V	**H**orizontal or **V**ertical

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
7+8		(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. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 5650MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 68.2(dBμV/m)

= -12.75 (dB)

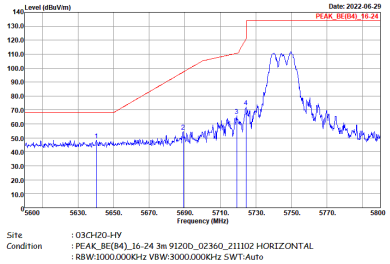
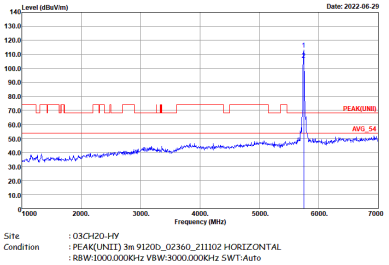
Peak measured complies with the limit line, so test result is “PASS”.

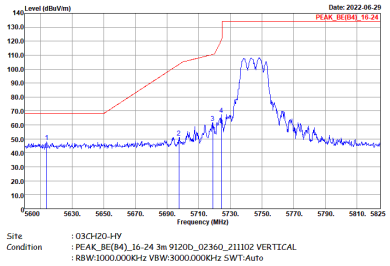
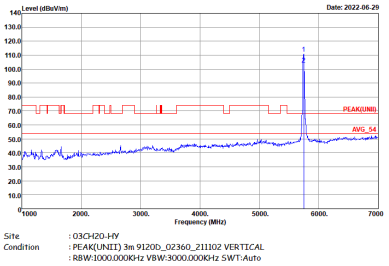
Appendix D. Radiated Spurious Emission Plots

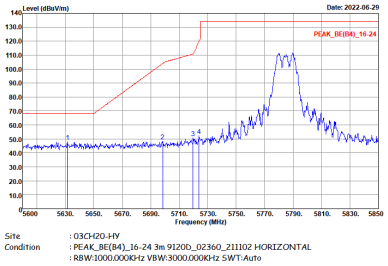
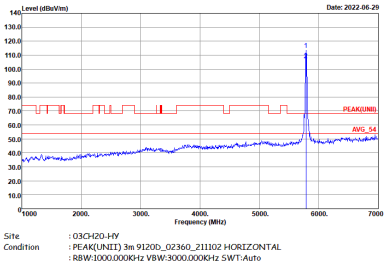
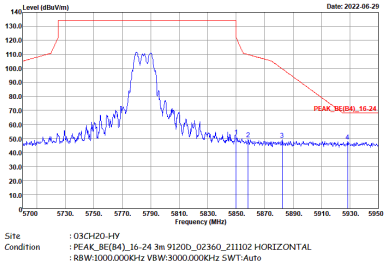
Test Engineer :	JC Liang, Bill Chang and Nick Yu	**Temperature :**	19~22°C
		Relative Humidity :	61~66%

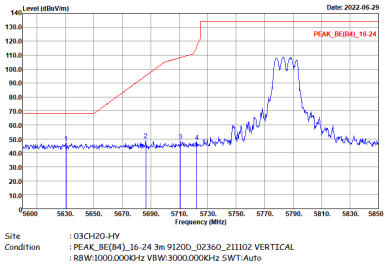
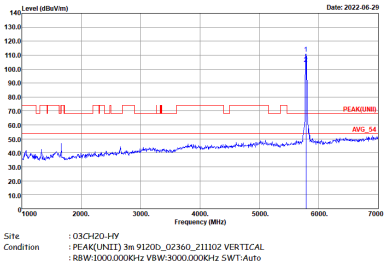
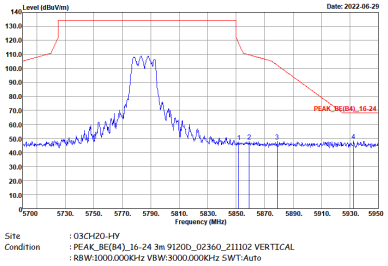
Band 4 - 5725~5850MHz

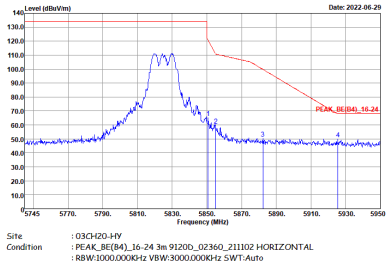
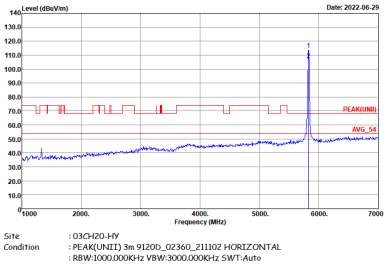
WIFI 802.11a (Band Edge @ 3m)

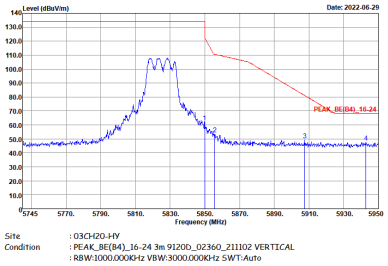
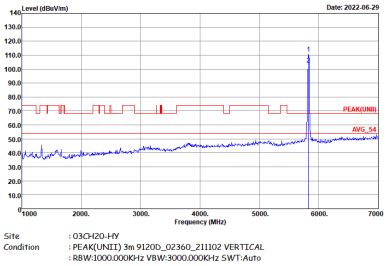
WIFI	**Band 4 5725~5850MHz Band Edge @ 3m**	
ANT	**802.11a CH149 5745MHz**	
7+8	**Horizontal**	**Fundamental**
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
7+8	Vertical	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
7+8	Horizontal	Fundamental
Peak		
Peak		Left blank

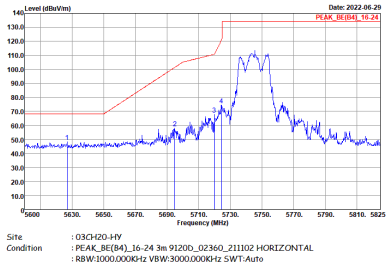
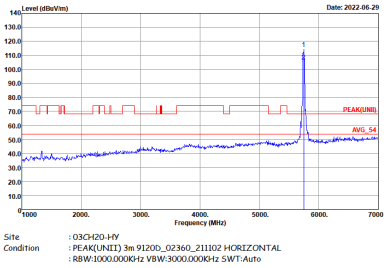
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
7+8	Vertical	Fundamental
Peak		
Peak		Left blank

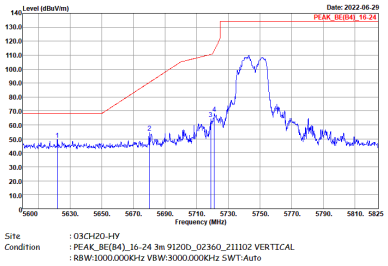
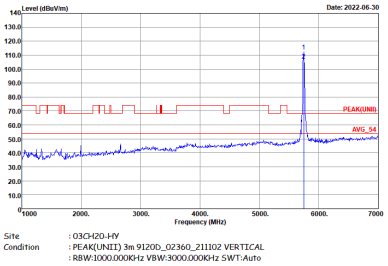
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
7+8	Horizontal	Fundamental
Peak		

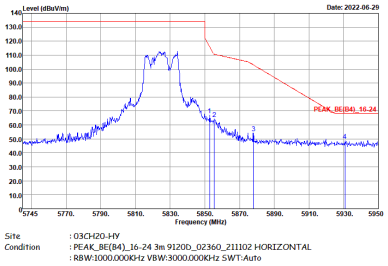
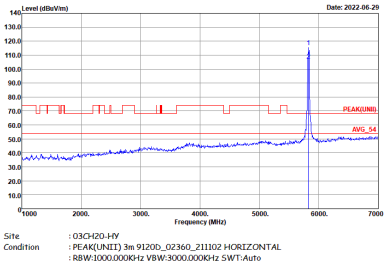
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
7+8	Vertical	Fundamental
Peak		

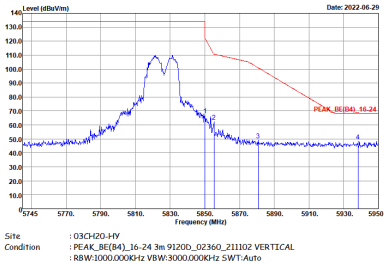
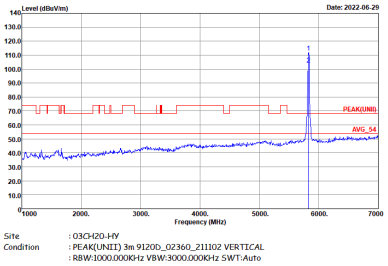
Band 4 5725~5850MHz

WIFI 802.11ax HE20 Full (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH149 5745MHz	
7+8	Horizontal	Fundamental
Peak		

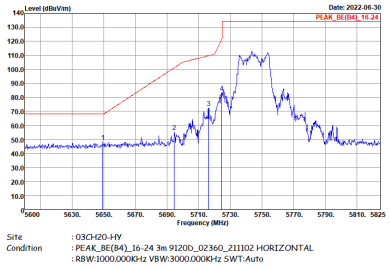
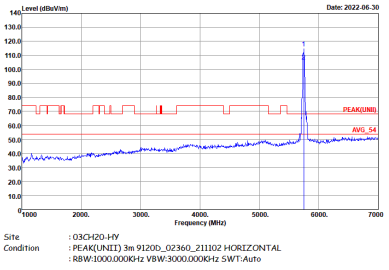
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH149 5745MHz	
7+8	Vertical	Fundamental
Peak		

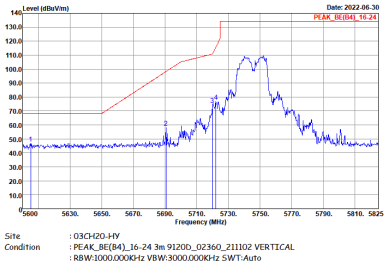
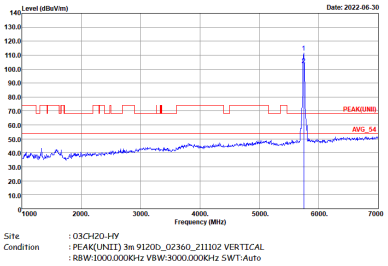
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH165 5825MHz	
7+8	Horizontal	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH165 5825MHz	
7+8	Vertical	Fundamental
Peak		

Band 4 5725~5850MHz

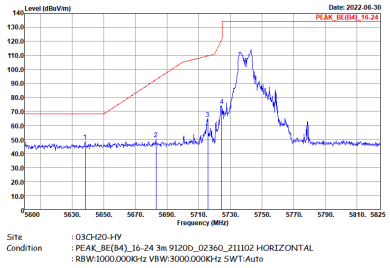
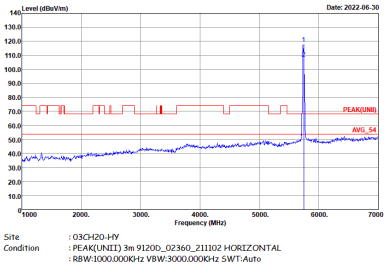
WIFI 802.11ax HE20 Partial 242(Band Edge @ 3m)

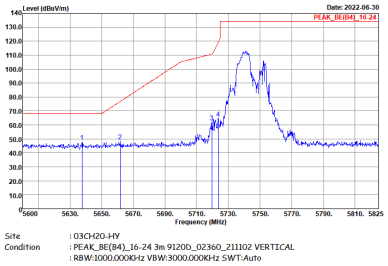
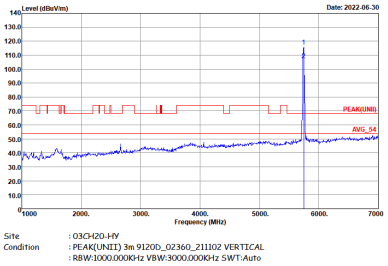
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 242/61 CH149 5745MHz	
7+8	Horizontal	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 52/37 CH149 5745MHz	
7+8	Vertical	Fundamental
Peak		

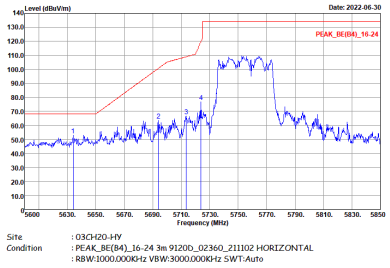
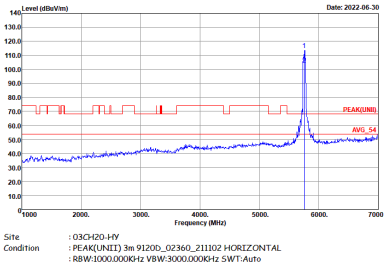
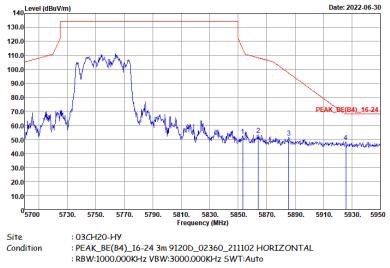
Band 4 5725~5850MHz

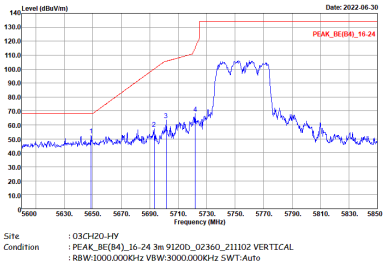
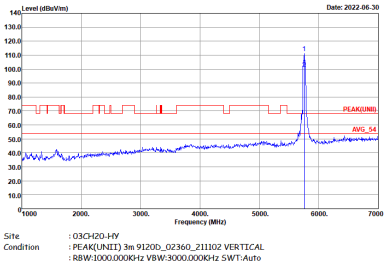
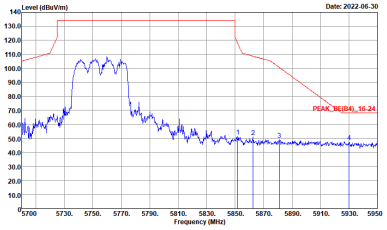
WIFI 802.11ax HE20 Partial 106 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 106/53 CH149 5745MHz	
7+8	Horizontal	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 106/53 CH149 5745MHz	
7+8	Vertical	Fundamental
Peak		

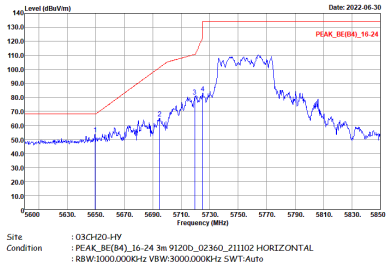
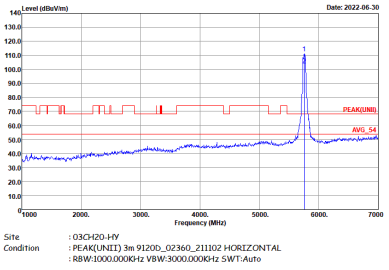
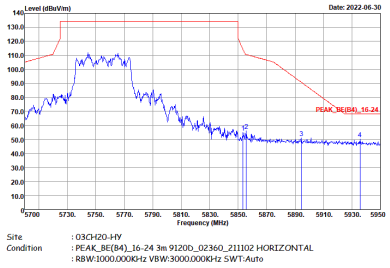
Band 4 5725~5850MHz
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

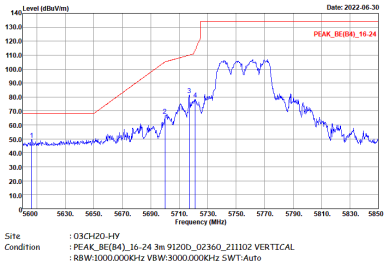
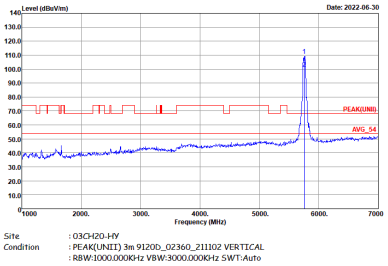
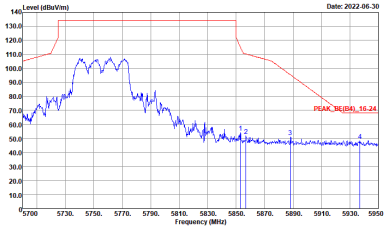
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
7+8	Horizontal	Fundamental
Peak		
Peak		Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
7+8	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_02360_211102 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(UNII) 3m 9120D_02360_211102 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Peak	 Site : 03CH20-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_02360_211102 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

Band 4 5725~5850MHz

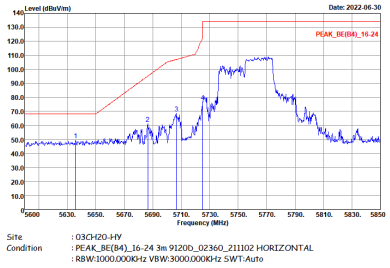
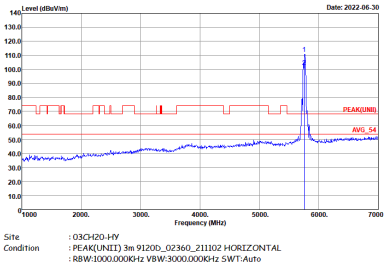
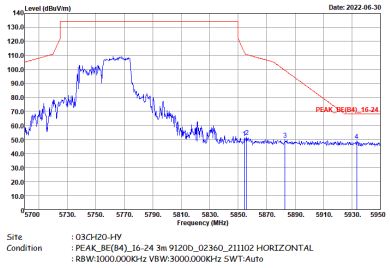
WIFI 802.11ax HE40 Partial 484 (Band Edge @ 3m)

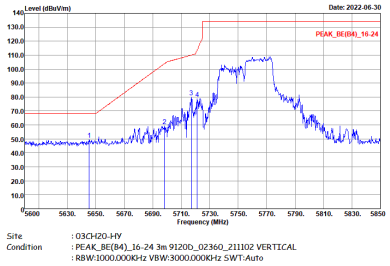
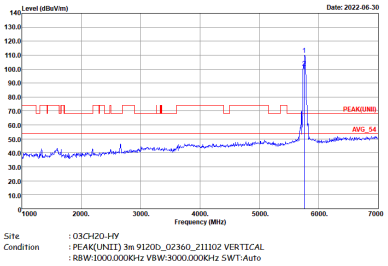
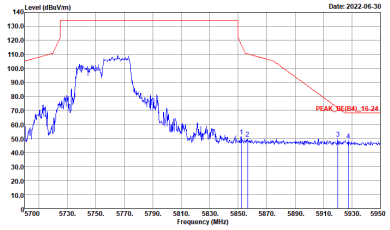
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 484/65 CH151 5755MHz	
7+8	Horizontal	Fundamental
Peak		
Peak		Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/61 CH151 5755MHz	
7+8	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_02360_211102 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(UNII) 3m 9120D_02360_211102 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Peak	 Site : 03CH20-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_02360_211102 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

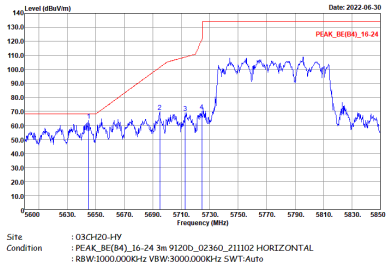
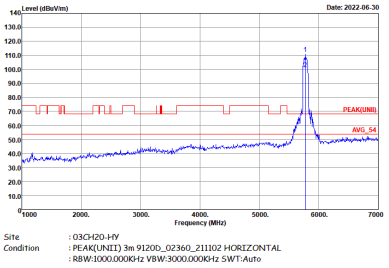
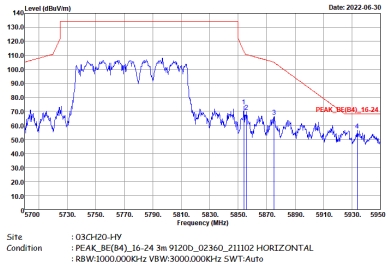
Band 4 5725~5850MHz

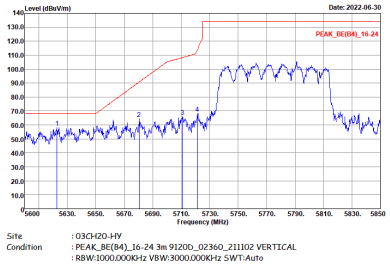
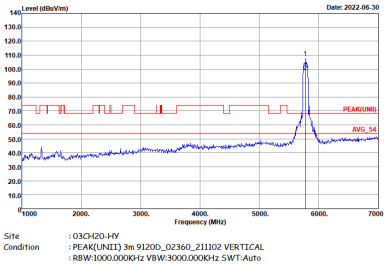
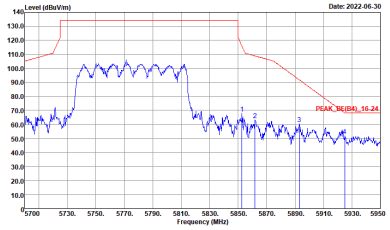
WIFI 802.11ax HE40 Partial 242 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/61 CH151 5755MHz	
7+8	Horizontal	Fundamental
Peak		
Peak		Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/61 CH151 5755MHz	
7+8	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_02360_211102 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(UNII) 3m 9120D_02360_211102 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Peak	 Site : 03CH20-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_02360_211102 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

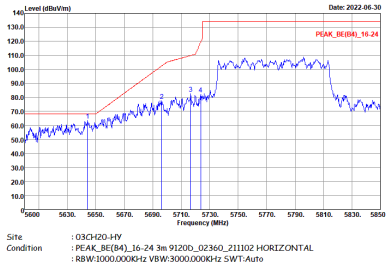
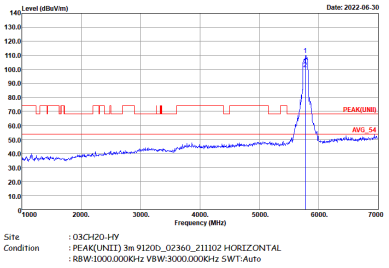
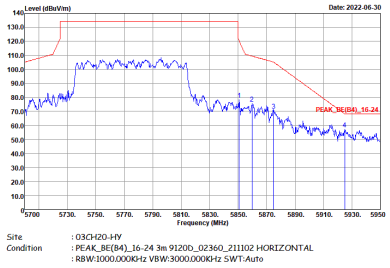
Band 4 5725~5850MHz
WIFI 802.11ax HE80 Full (Band Edge @ 3m)

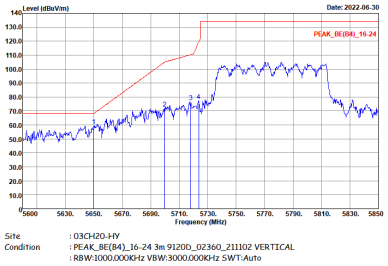
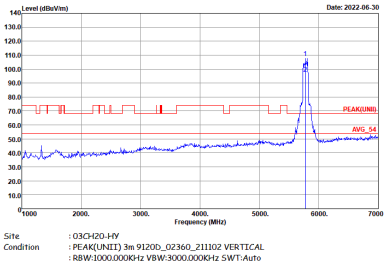
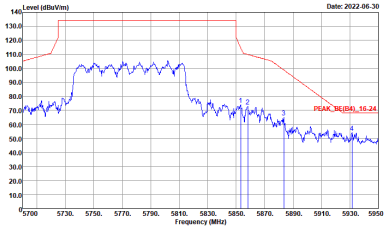
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
7+8	Horizontal	Fundamental
Peak		
Peak		Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
7+8	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_02360_211102 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(UNII) 3m 9120D_02360_211102 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Peak	 Site : 03CH20-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_02360_211102 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

Band 4 5725~5850MHz

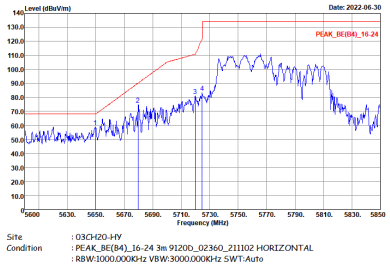
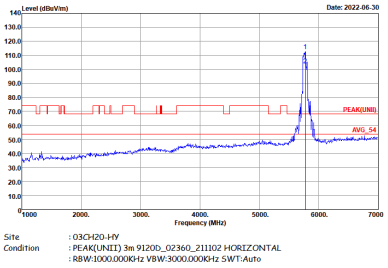
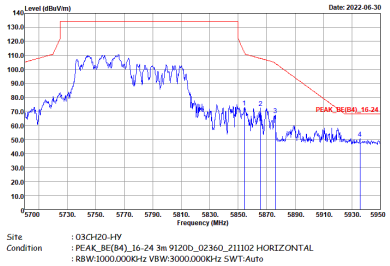
WIFI 802.11ax HE80 Partial 996 (Band Edge @ 3m)

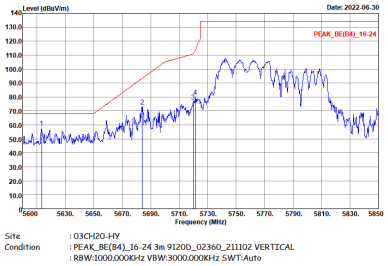
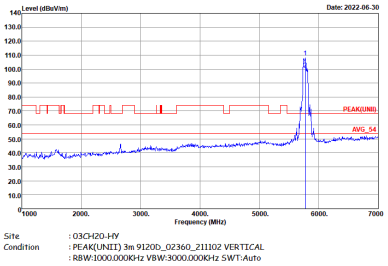
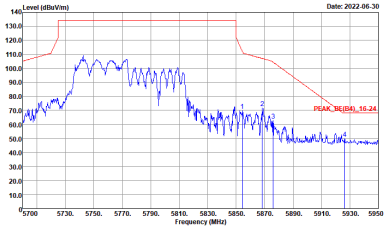
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 996/67 CH155 5775MHz	
7+8	Horizontal	Fundamental
Peak		
Peak		Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
7+8	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_02360_211102 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(UNII) 3m 9120D_02360_211102 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Peak	 Site : 03CH20-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_02360_211102 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

Band 4 5725~5850MHz

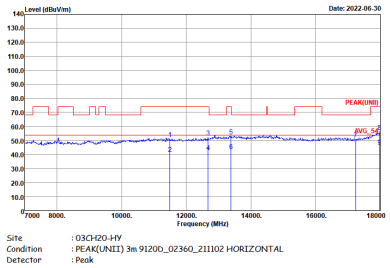
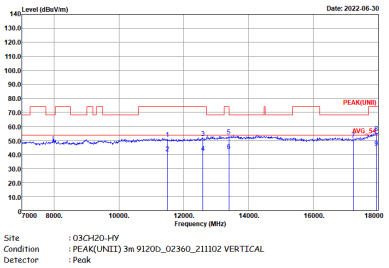
WIFI 802.11ax HE80 Partial 484 (Band Edge @ 3m)

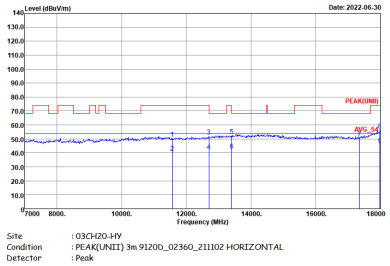
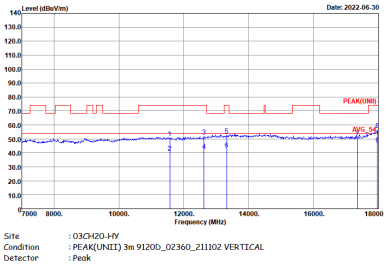
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
7+8	Horizontal	Fundamental
Peak		
Peak		Left blank

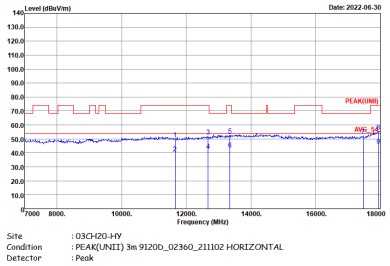
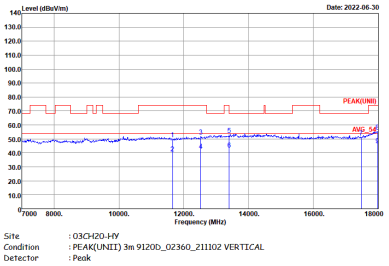
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
7+8	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_02360_211102 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(UNII) 3m 9120D_02360_211102 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Peak	 Site : 03CH20-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_02360_211102 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

Band 4 - 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

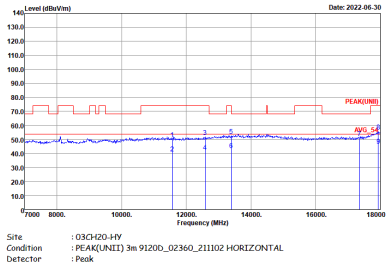
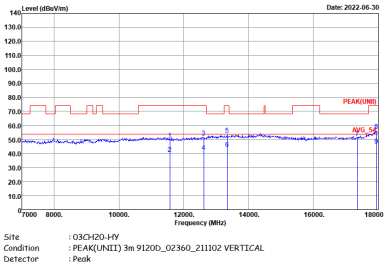
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
7+8	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
7+8	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH165 5825MHz	
7+8	Horizontal	Vertical
Peak Avg.		

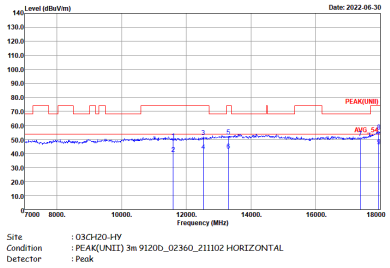
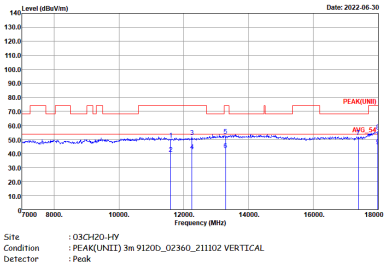
Band 4 5725~5850MHz

WIFI 802.11ax HE20 Full (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
7+8	Horizontal	Vertical
Peak Avg.		

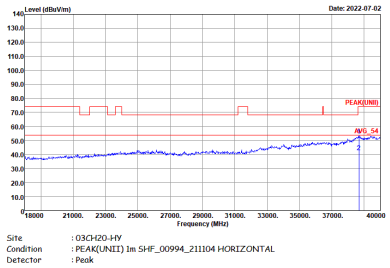
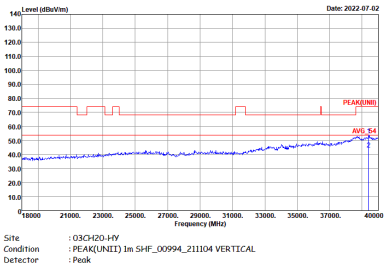
Band 4 5725~5850MHz

WIFI 802.11ax HE40 Full (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH159 5795MHz	
7+8	Horizontal	Vertical
Peak Avg.		

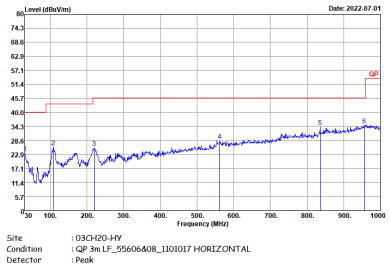
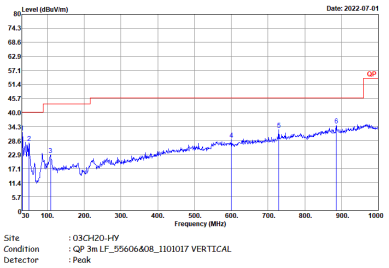
Emission above 18GHz

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

WIFI	5GHz WIFI	
ANT	802.11ax HE80 Full SHF	
7+8	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

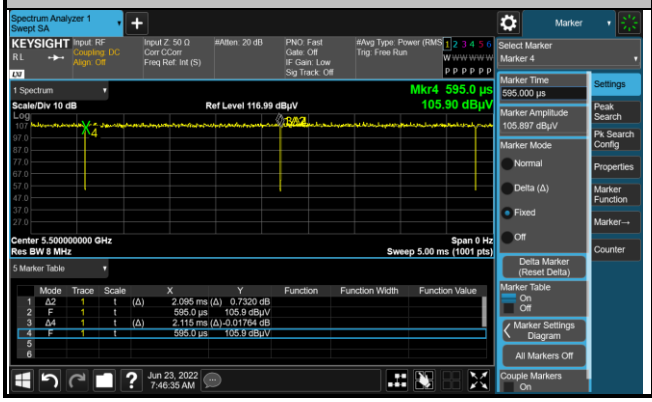
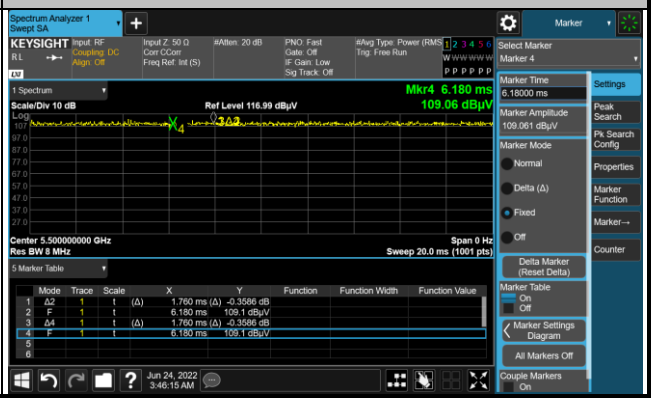
5GHz WIFI 802.11ax HE80 Full (LF @ 3m)

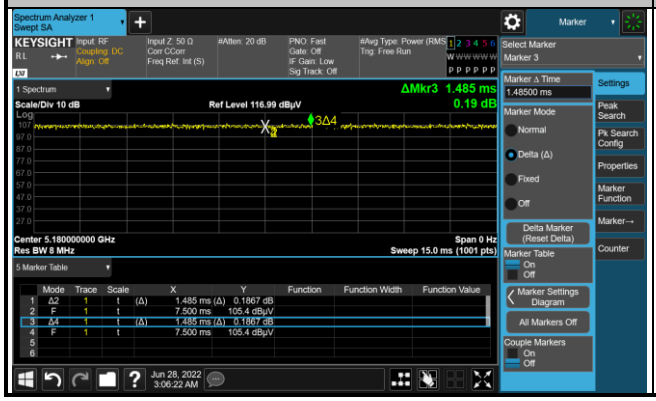
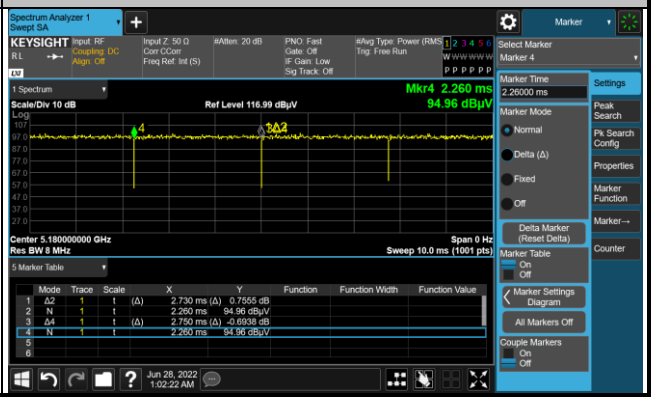
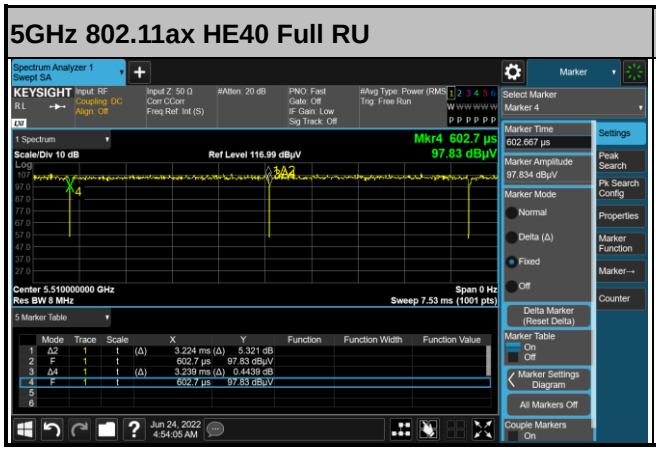
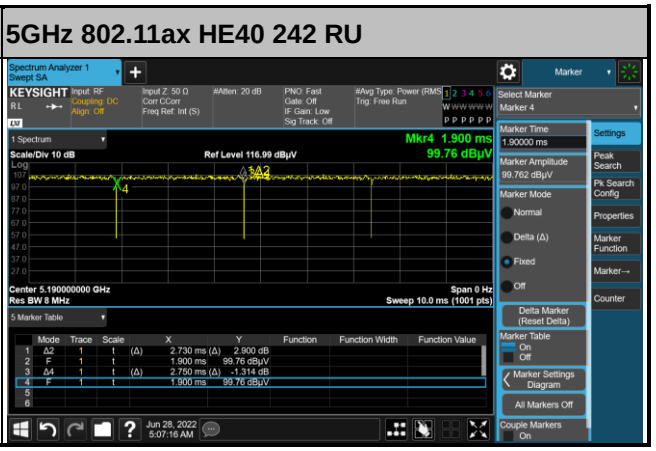
WIFI	5GHz WIFI	
ANT	802.11ax HE80 Full LF	
7+8	Horizontal	Vertical
QP / Peak		

Appendix E. Duty Cycle Plots

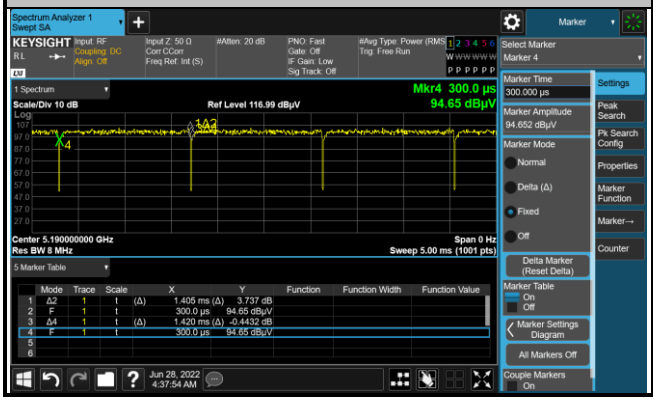
Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
7+8	802.11a	99.05	-	-	10Hz
7+8	5GHz 802.11ax HE20 Full RU	100.00	-	-	10Hz
7+8	5GHz 802.11ax HE20 106 RU	100.00	-	-	10Hz
7+8	5GHz 802.11ax HE20 242 RU	99.27	-	-	10Hz
7+8	5GHz 802.11ax HE40 Full RU	99.54	-	-	10Hz
7+8	5GHz 802.11ax HE40 242 RU	99.27	-	-	10Hz
7+8	5GHz 802.11ax HE40 484 RU	98.94	-	-	10Hz
7+8	5GHz 802.11ax HE80 Full RU	98.87	-	-	10Hz
7+8	5GHz 802.11ax HE80 484 RU	98.59	-	-	10Hz
7+8	5GHz 802.11ax HE80 996 RU	97.80	712	1.40	3kHz

MIMO <Ant. 7+8>

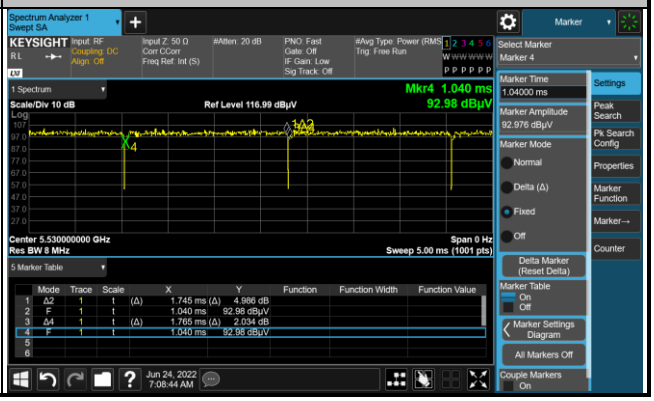
802.11a	5GHz 802.11ax HE20 Full RU
	

5GHz 802.11ax HE20 106 RU	5GHz 802.11ax HE20 242 RU
	
5GHz 802.11ax HE40 Full RU	**5GHz 802.11ax HE40 242 RU**
	

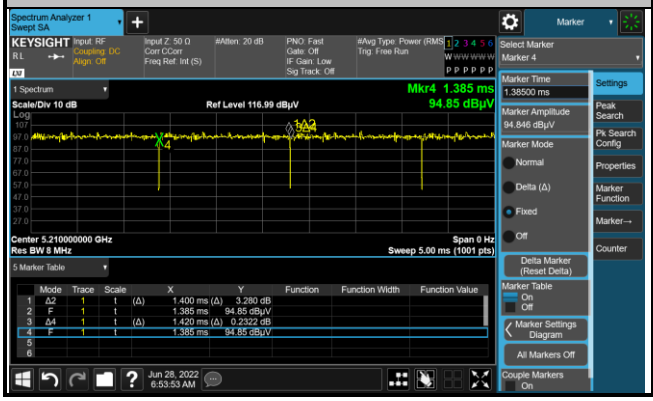
5GHz 802.11ax HE40 484 RU



5GHz 802.11ax HE80 Full RU



5GHz 802.11ax HE80 484 RU



5GHz 802.11ax HE80 996 RU