



FCC RADIO TEST REPORT

FCC ID : PY321100529
Equipment : Netgear 5G MHS Travel Router
Brand Name : Netgear
Model Name : MR6500
Applicant : Netgear Inc
350 E. Plumeria Drive, San Jose, CA 95134,
United States
Manufacturer : Netgear Inc
350 E. Plumeria Drive, San Jose, CA 95134,
United States
Standard : FCC Part 15 Subpart E §15.407

The product was received on Nov. 03, 2021 and testing was performed from Nov. 03, 2021 to Dec. 20, 2021. We, Sporton International Inc. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

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

Louis Wu

Approved by: Louis Wu

Sporton International Inc. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan



Table of Contents

History of this test report..... 3

Summary of Test Result..... 4

1 General Description 5

 1.1 Product Feature of Equipment Under Test..... 5

 1.2 Modification of EUT 5

 1.3 Testing Location 6

 1.4 Applicable Standards..... 6

2 Test Configuration of Equipment Under Test 7

 2.1 Carrier Frequency and Channel 7

 2.2 Test Mode 8

 2.3 Connection Diagram of Test System 9

 2.4 Support Unit used in test configuration and system 9

 2.5 EUT Operation Test Setup 9

 2.6 Measurement Results Explanation Example..... 10

3 Test Result 11

 3.1 6dB and 26dB and 99% Occupied Bandwidth Measurement 11

 3.2 Maximum Conducted Output Power Measurement 16

 3.3 Power Spectral Density Measurement 17

 3.4 Unwanted Emissions Measurement 20

 3.5 AC Conducted Emission Measurement..... 25

 3.6 Antenna Requirements 27

4 List of Measuring Equipment..... 28

5 Uncertainty of Evaluation 30

Appendix A. Conducted Test Results

Appendix B. AC Conducted Emission Test Result

Appendix C. Radiated Spurious Emission

Appendix D. Radiated Spurious Emission Plots

Appendix E. Duty Cycle Plots

Appendix F. Setup Photographs



History of this test report

| Report No. | Version | Description | Issue Date |
|------------|---------|-------------------------|---------------|
| FR190614C | 01 | Initial issue of report | Jan. 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 | 15.36 dB under the limit at 17355.000 MHz |
| 3.5 | 15.207 | AC Conducted Emission | Pass | 17.20 dB under the limit at 0.600 MHz |
| 3.6 | 15.203 15.407(a) | Antenna Requirement | Pass | - |

| |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Declaration of Conformity: The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. |
| 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: Amy Chen



1 General Description

1.1 Product Feature of Equipment Under Test

LTE/5G NR, 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, and GPS

| Product Feature | |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Antenna Type | WWAN: <Ant. 1>: Monopole Antenna <Ant. 2>: Monopole Antenna WLAN: <Ant. 3>: Monopole Antenna <Ant. 4>: Monopole Antenna GPS: PIFA Antenna |

| Antenna information | | |
|---------------------|-----------------|------------------------------|
| 5725 MHz ~ 5850 MHz | Peak Gain (dBi) | Ant. 3: 2.90 Ant. 4: 1.95 |

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

1.2 Modification of EUT

No modifications made to the EUT during the testing.



1.3 Testing Location

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

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

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

FCC designation No.: TW1190 and TW3786

1.4 Applicable Standards

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

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

Remark:

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



2 Test Configuration of Equipment Under Test

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

2.1 Carrier Frequency and Channel

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

Note: Since the verify power, the smaller power can be covered by the higher power. The SISO Mode are covered by MIMO Mode.

| Test Cases | |
|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| AC Conducted Emission | Mode 1 : LTE Band 7 Link + WLAN (2.4GHz) Link – Master + WLAN (5GHz) Link – Master + USB Cable (Charging from AC Adapter) + Battery |
| Remark: For Radiated Test Cases, the tests were performed with Adapter 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. | 5G Wireless Test Platform | Anritsu | MT8000A | N/A | N/A | Unshielded, 1.8m |
| 2. | System Simulator | Anritsu | MT8820C | N/A | N/A | Unshielded, 1.8 m |
| 3. | Notebook | DELL | Latitude 3400 | FCC DoC | N/A | AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m |

2.5 EUT Operation Test Setup

The RF test items, utility “QSPR v5.0.00188” was installed in Notebook which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.



2.6 Measurement Results Explanation Example

For all conducted test items:

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

Example :

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

Offset = RF cable loss + attenuator factor.

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

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

3 Test Result

3.1 6dB and 26dB and 99% Occupied Bandwidth Measurement

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

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

26dB and 99% Occupied bandwidth are reporting only.

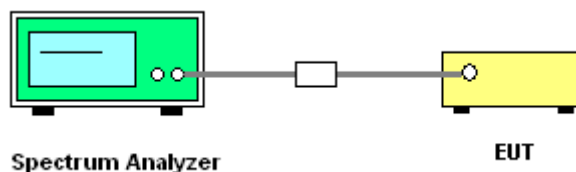
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section C) Emission bandwidth for the band 5.725-5.85 GHz
2. Set RBW = 100 kHz.
3. Set the VBW $\geq 3 \times$ RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 6 dB down from the peak of the emission.
7. Measure and record the results in the test report.

3.1.4 Test Setup

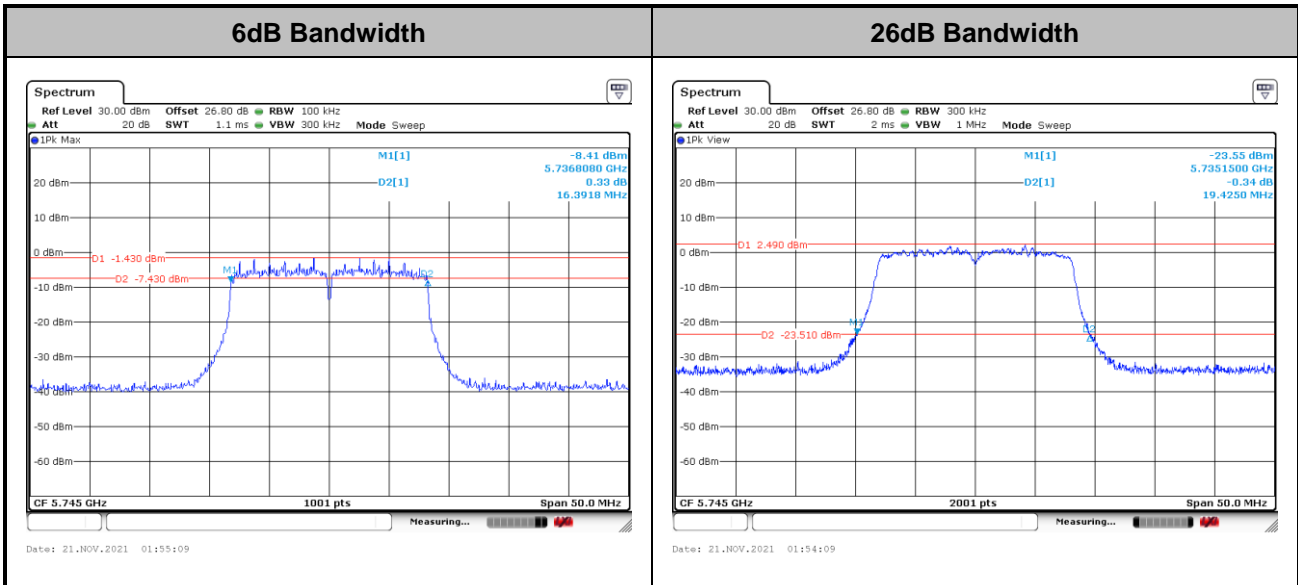


3.1.5 Test Result of 6dB and 26dB and 99% Occupied Bandwidth

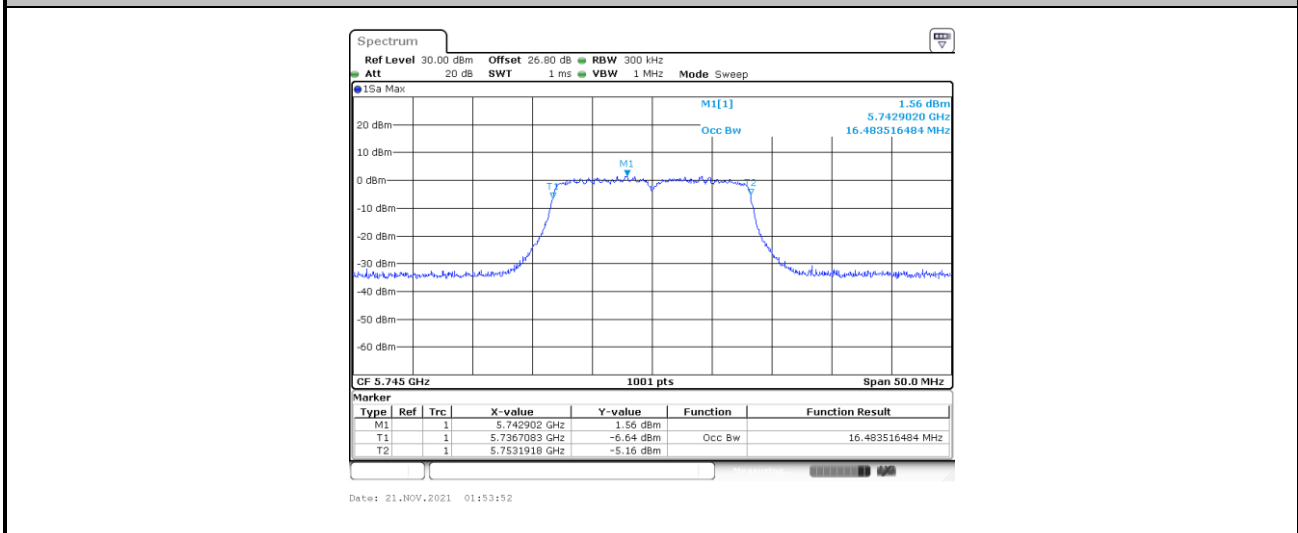
Please refer to Appendix A.



<802.11a>



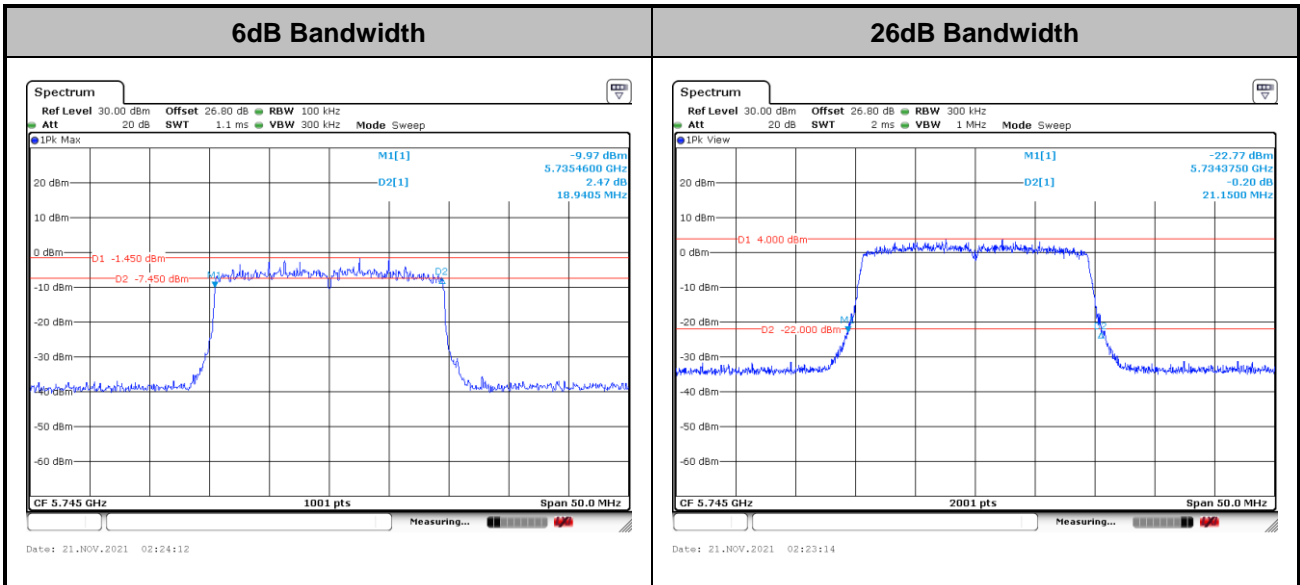
99% Occupied Bandwidth



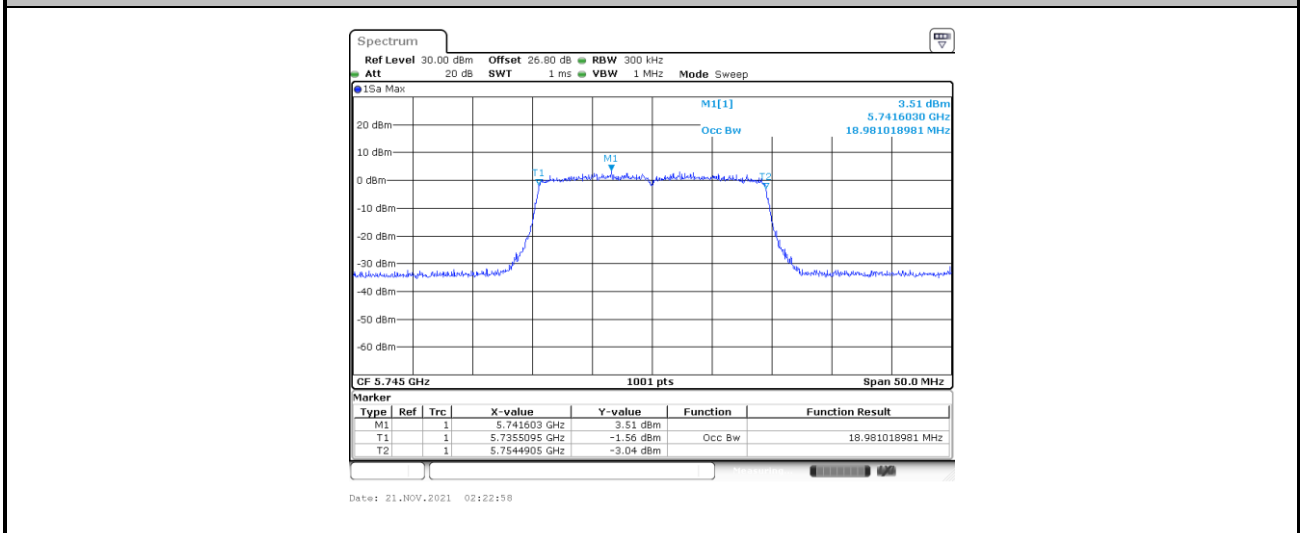
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.



<802.11ax HE20>



99% Occupied Bandwidth

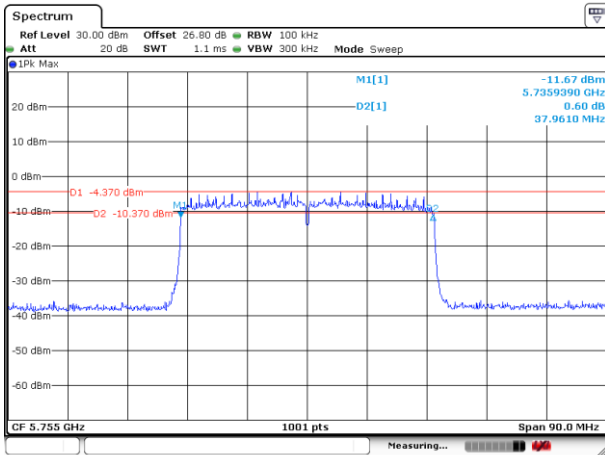


Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.



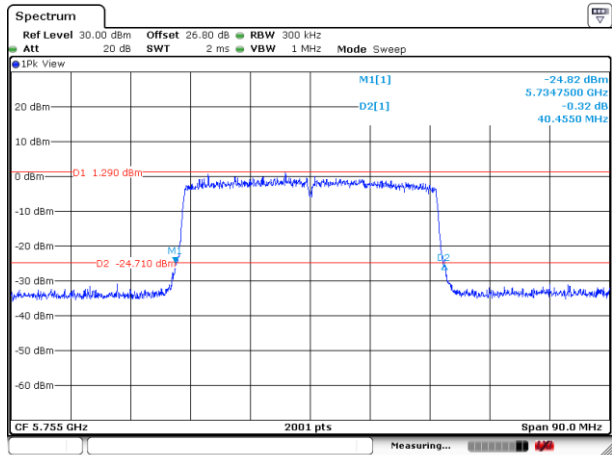
<802.11ax HE40>

6dB Bandwidth



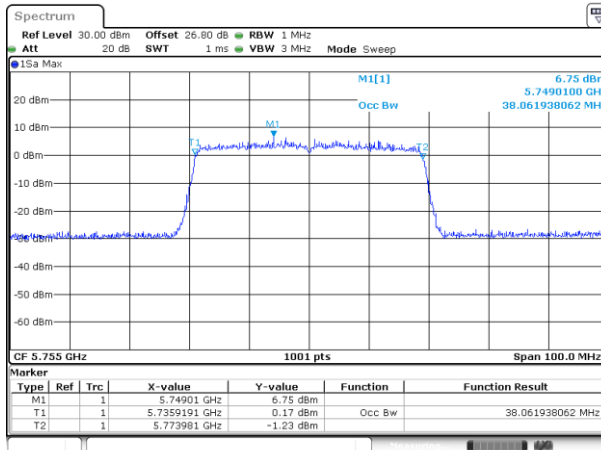
Date: 21.NOV.2021 02:43:23

26dB Bandwidth



Date: 21.NOV.2021 02:42:14

99% Occupied Bandwidth

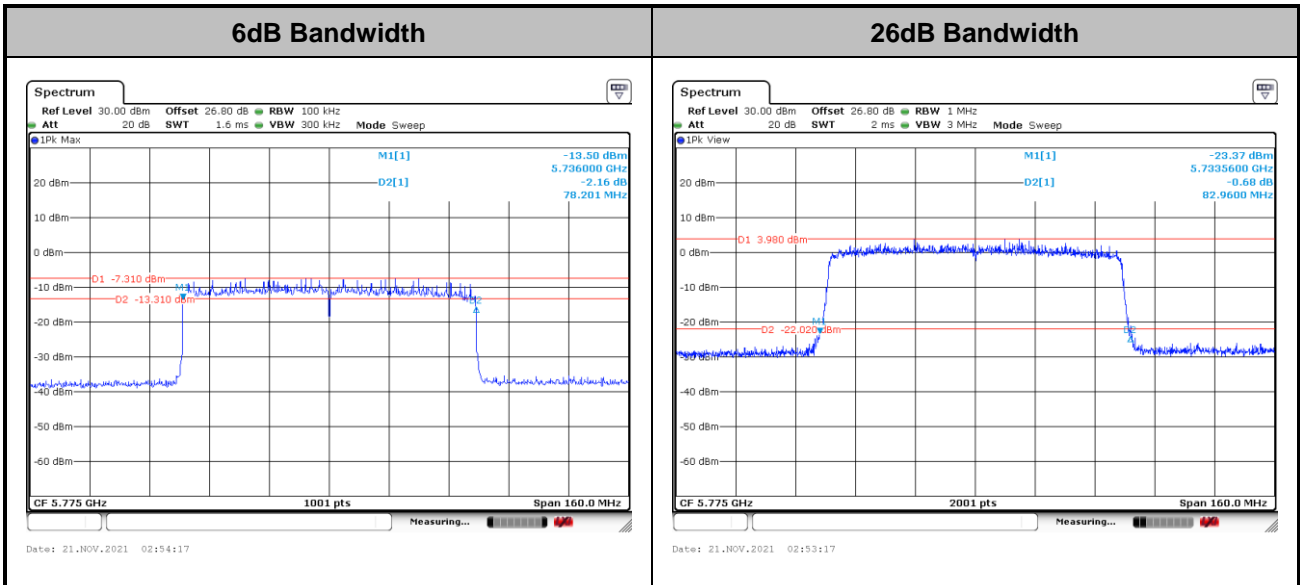


Date: 21.NOV.2021 02:41:57

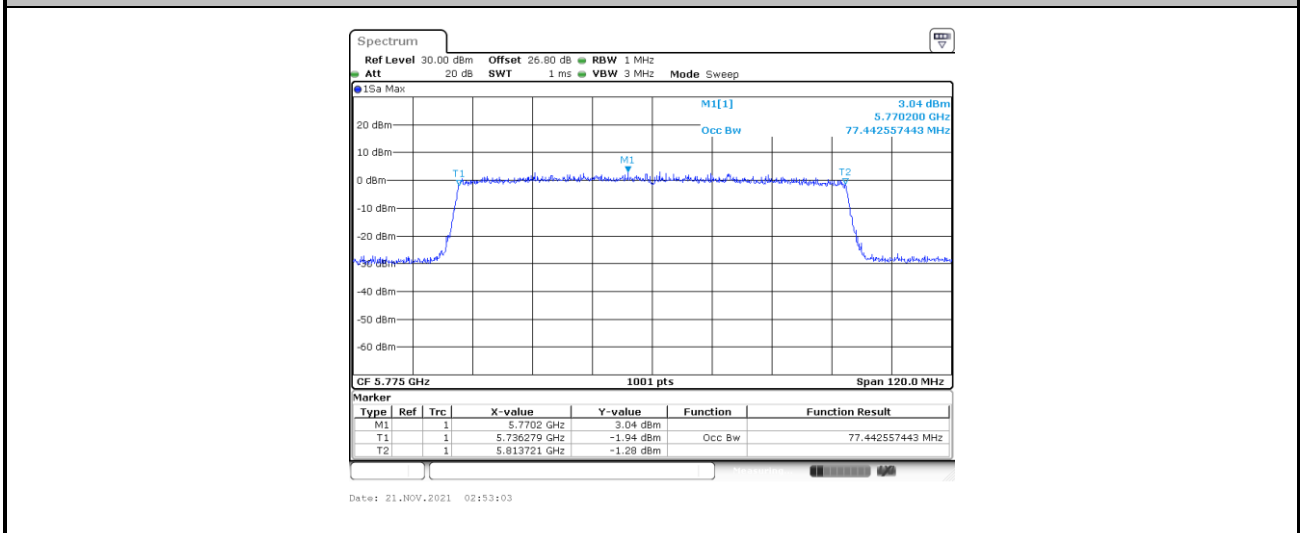
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.



<802.11ax HE80>



99% Occupied Bandwidth



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.

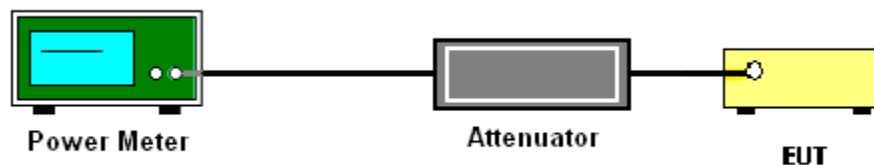
3.2.3 Test Procedures

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

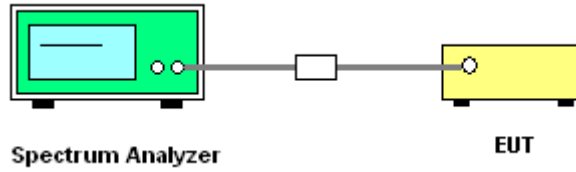
(power averaging (rms) detection with max hold):

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
 - Set RBW = 300 kHz.
 - Set VBW \geq 1 MHz.
 - Number of points in sweep \geq 2 Span / RBW.
 - Add $10 \log(500 \text{ kHz/RBW})$ to the measured result, whereas RBW ($<500 \text{ kHz}$) is the reduced resolution bandwidth of the spectrum analyzer set during measurement
 - Sweep time \leq (number of points in sweep) \times T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
Detector = power averaging (rms).
 - Trace mode = max hold.
 - Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.
1. The RF output of EUT is connected to the spectrum analyzer by a low loss cable.
 2. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.
 3. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

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

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

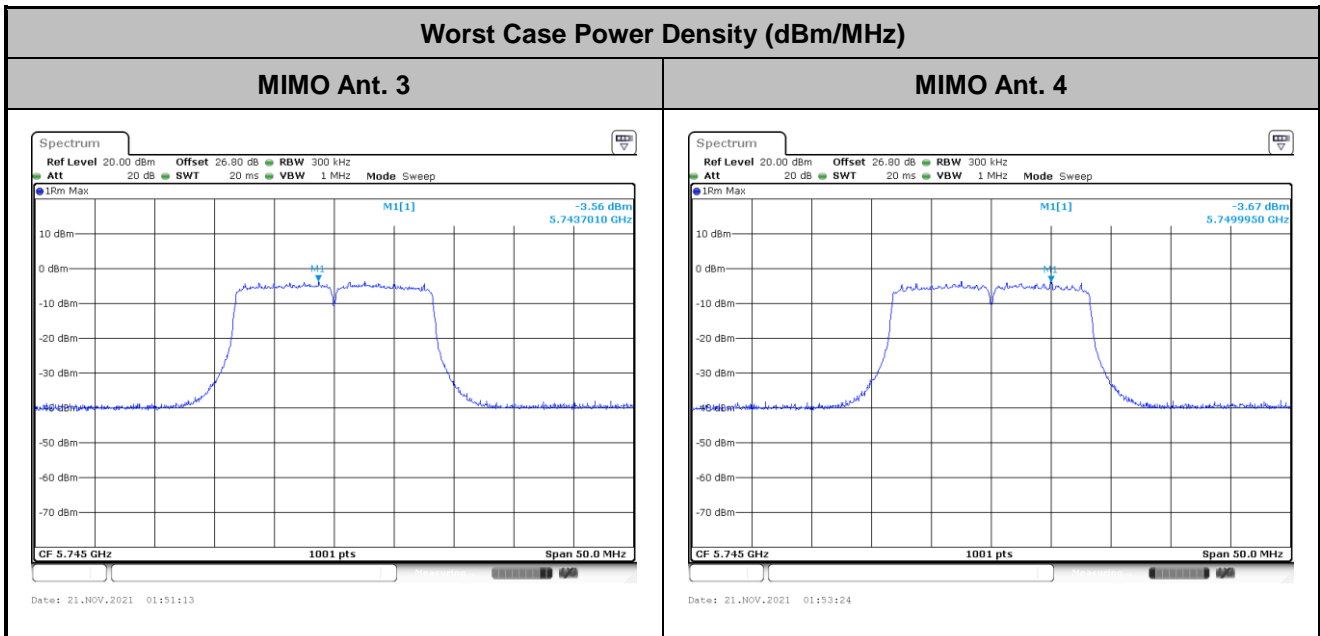
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

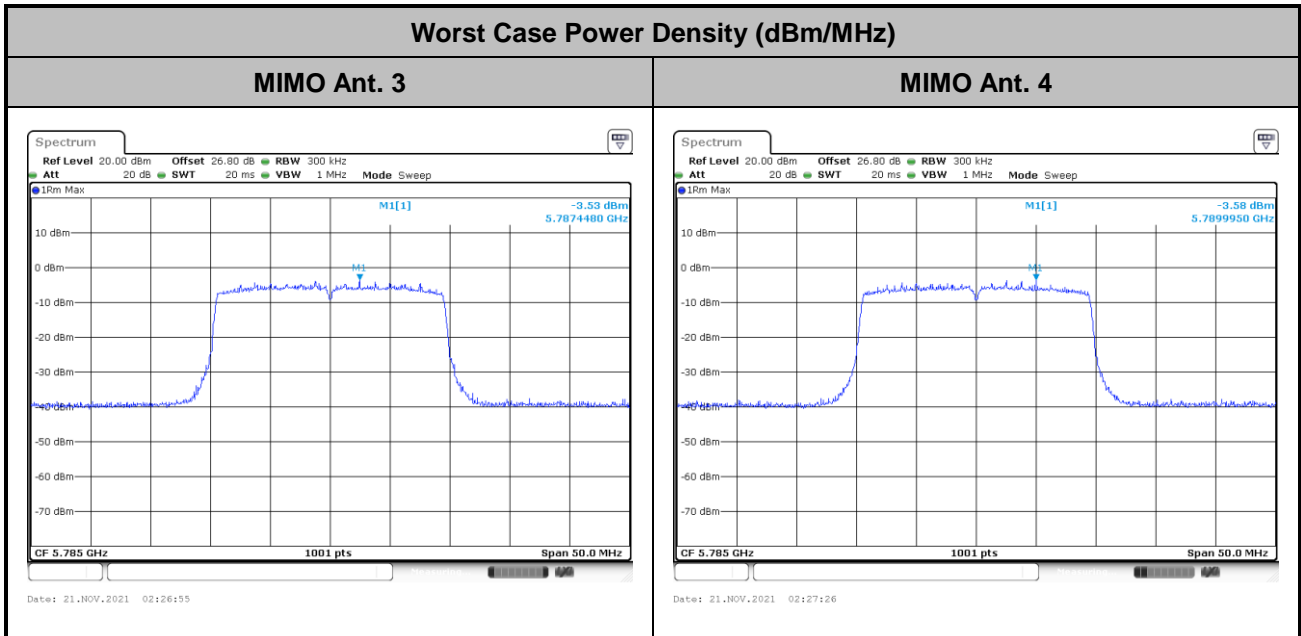
Please refer to Appendix A.

<802.11a Mode>





<802.11ax mode>





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.

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

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

(3) KDB789033 D02 v02r01 G)2)c)

(i) Sections 15.407(b)(1-3) specifies the unwanted emissions limit for the U-NII-1 and U-NII-2 bands. As specified, emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz.

(ii) Section 15.407(b)(4) specifies the unwanted emissions limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). The emission limits are based on the use of a peak detector.



3.4.2 Measuring Instruments

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

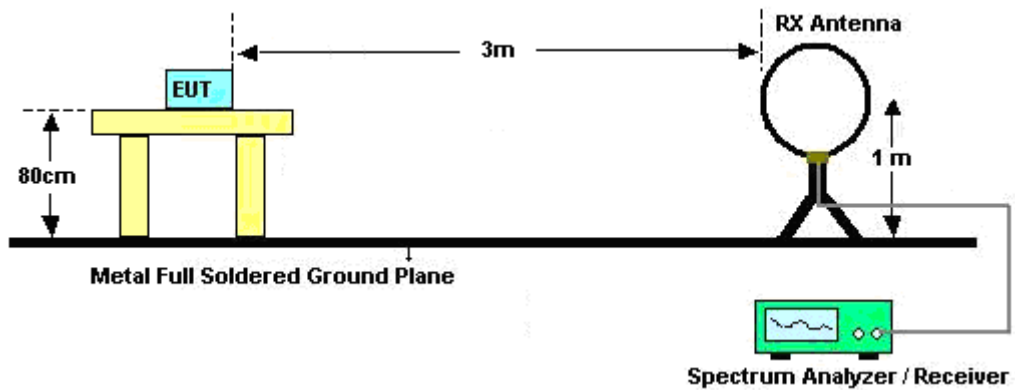
3.4.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section G) Unwanted emissions measurement.
 - (1) Procedure for Unwanted Emissions Measurements Below 1000 MHz
 - RBW = 120 kHz
 - VBW = 300 kHz
 - Detector = Peak
 - Trace mode = max hold
 - (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
 - RBW = 1 MHz
 - VBW \geq 3 MHz
 - Detector = Peak
 - Sweep time = auto
 - Trace mode = max hold
 - (3) Procedures for Average Unwanted Emissions Measurements Above 1000 MHz
 - RBW = 1 MHz
 - VBW = 10 Hz, when duty cycle is no less than 98 percent.
 - VBW \geq 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
2. The EUT is placed on a turntable with 0.8 meter for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz respectively above ground.
3. The EUT is set 3 meters away from the receiving antenna which is mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT is arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.

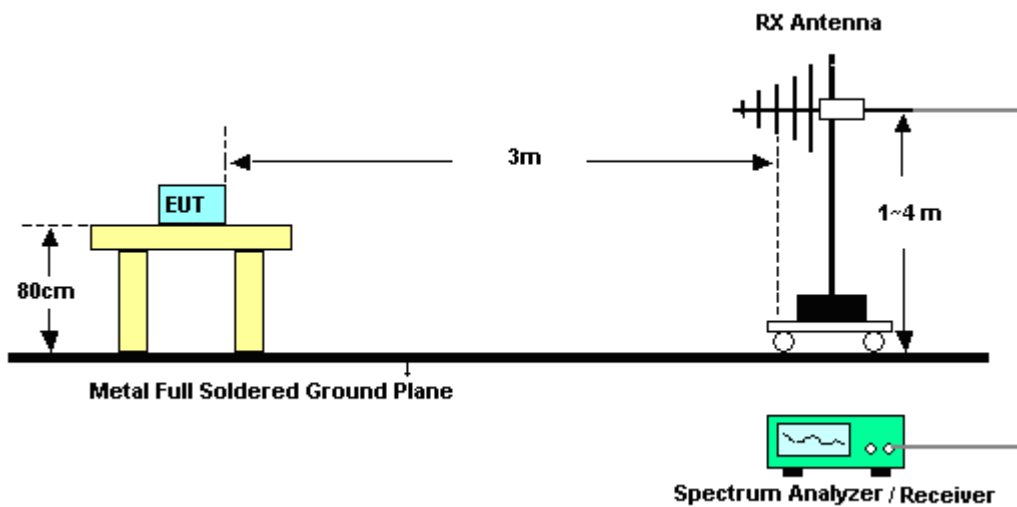
6. Radiated testing below 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading. When there is no suspected emission found and the emission level is with at least 6 dB margin against QP limit line, the position is marked as “-“.
7. Radiated testing above 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading for scanning all frequencies. When there is no suspected emission found and the harmonic emission level is with at least 6 dB margin against average limit line, the position is marked as “-“.

3.4.4 Test Setup

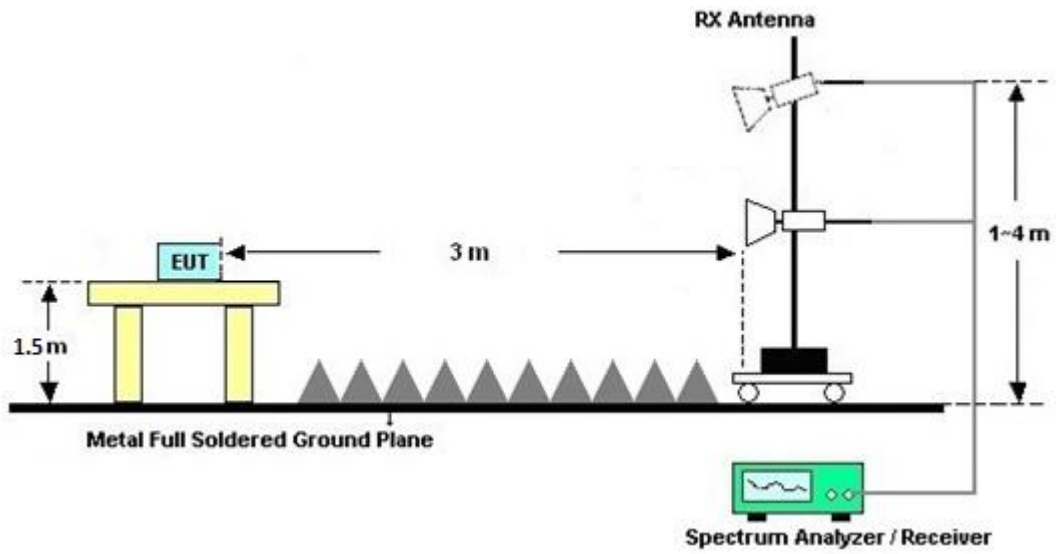
For radiated emissions below 30MHz



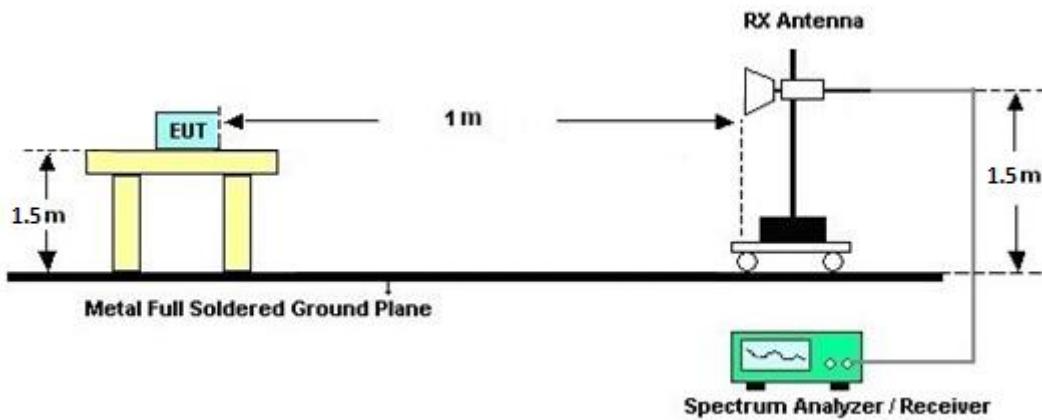
For radiated emissions from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz





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

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

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

3.4.6 Test Result of Radiated Band Edges

Please refer to Appendix C and D.

3.4.7 Duty Cycle

Please refer to Appendix E.

3.4.8 Test Result of Unwanted Radiated Emission (30MHz ~ 10th Harmonic)

Please refer to Appendix C and D.



3.5 AC Conducted Emission Measurement

3.5.1 Limit of AC Conducted Emission

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

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

*Decreases with the logarithm of the frequency.

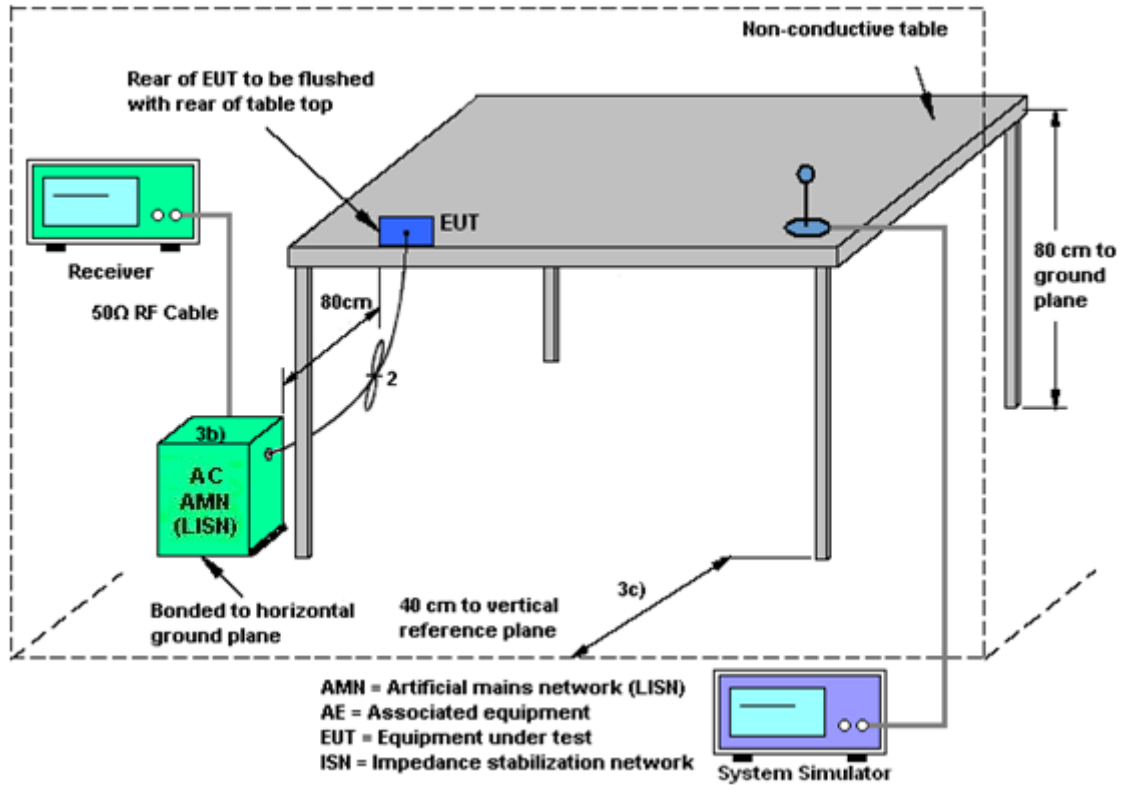
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

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

3.5.4 Test Setup



3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.



3.6 Antenna Requirements

3.6.1 Standard Applicable

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 CDD transmissions, directional gain is calculated as

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

For power spectral density (PSD) measurements on all devices,

Array Gain = $10 \log(N_{ANT}/N_{SS}=1)$ dB.

For power measurements on IEEE 802.11 devices,

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

Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain;

The EUT supports CDD mode.

For power, the directional gain G_{ANT} is set equal to the antenna having the highest gain, i.e., F)2)f)i).

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

The power and PSD limit should be modified if the directional gain of EUT is over 6 dBi,

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

| <CDD Modes> | | | | | | |
|-------------|--------|--------|-------|-------|-----------|-----------|
| | | | DG | DG | Power | PSD |
| | | | for | for | Limit | Limit |
| | Ant. 3 | Ant. 4 | Power | PSD | Reduction | Reduction |
| | (dBi) | (dBi) | (dBi) | (dBi) | (dB) | (dB) |
| Band IV | 2.90 | 1.95 | 2.90 | 5.45 | 0.00 | 0.00 |

$Power\ Limit\ Reduction = DG(Power) - 6dBi, (min = 0)$

$PSD\ Limit\ Reduction = DG(PSD) - 6dBi, (min = 0)$



4 List of Measuring Equipment

| Instrument | Brand Name | Model No. | Serial No. | Characteristics | Calibration Date | Test Date | Due Date | Remark |
|---------------------------|-----------------|----------------------------|--------------------|----------------------|------------------|------------------------------|---------------|-----------------------|
| Bilog Antenna | TESEQ | CBL 6111D & 00800N1D01N-06 | 35419 & 03 | 30MHz~1GHz | Apr. 28, 2021 | Dec. 17, 2021~ Dec. 20, 2021 | Apr. 27, 2022 | Radiation (03CH07-HY) |
| Double Ridge Horn Antenna | ESCO | 3117 | 00075962 | 1GHz ~ 18GHz | Dec. 03, 2021 | Dec. 17, 2021~ Dec. 20, 2021 | Dec. 02, 2022 | Radiation (03CH07-HY) |
| Loop Antenna | Rohde & Schwarz | HFH2-Z2 | 100315 | 9 kHz~30 MHz | Jan. 04, 2021 | Dec. 17, 2021~ Dec. 20, 2021 | Jan. 03, 2022 | Radiation (03CH07-HY) |
| Preamplifier | MITEQ | AMF-7D-0010 1800-30-10P | 1590075 | 1GHz~18GHz | Apr. 22, 2021 | Dec. 17, 2021~ Dec. 20, 2021 | Apr. 21, 2022 | Radiation (03CH07-HY) |
| Preamplifier | COM-POWER | PA-103A | 161241 | 10MHz~1GHz | Oct. 04, 2021 | Dec. 17, 2021~ Dec. 20, 2021 | Oct. 03, 2022 | Radiation (03CH07-HY) |
| Preamplifier | Agilent | 8449B | 3008A02362 | 1GHz~26.5GHz | Oct. 04, 2021 | Dec. 17, 2021~ Dec. 20, 2021 | Oct. 03, 2022 | Radiation (03CH07-HY) |
| Preamplifier | EMEC | EM18G40G | 0600789 | 18-40GHz | Jul. 23, 2021 | Dec. 17, 2021~ Dec. 20, 2021 | Jul. 22, 2022 | Radiation (03CH07-HY) |
| Spectrum Analyzer | Agilent | N9030A | MY52350276 | 3Hz~44GHz | Jul. 22, 2021 | Dec. 17, 2021~ Dec. 20, 2021 | Jul. 21, 2022 | Radiation (03CH07-HY) |
| RF Cable | HUBER + SUHNER | SUCOFLEX 104 | MY15682-4 | 30MHz to 18GHz | Feb. 24, 2021 | Dec. 17, 2021~ Dec. 20, 2021 | Feb. 23, 2022 | Radiation (03CH07-HY) |
| RF Cable | HUBER + SUHNER | SUCOFLEX 104 | MY24971-4 | 9kHz to 18GHz | Feb. 24, 2021 | Dec. 17, 2021~ Dec. 20, 2021 | Feb. 23, 2022 | Radiation (03CH07-HY) |
| RF Cable | HUBER + SUHNER | SUCOFLEX 104 | MY28655-4 | 9kHz to 18GHz | Feb. 24, 2021 | Dec. 17, 2021~ Dec. 20, 2021 | Feb. 23, 2022 | Radiation (03CH07-HY) |
| RF Cable | HUBER + SUHNER | SUCOFLEX 102 | MY2858/2,801 606/2 | 18GHz~40GHz | Feb. 24, 2021 | Dec. 17, 2021~ Dec. 20, 2021 | Feb. 23, 2022 | Radiation (03CH07-HY) |
| RF Cable | HUBER + SUHNER | SUCOFLEX 126 | 532078/126E | 30MHz~18GHz | Sep. 17, 2021 | Dec. 17, 2021~ Dec. 20, 2021 | Sep. 16, 2022 | Radiation (03CH07-HY) |
| RF Cable | HUBER + SUHNER | SUCOFLEX 102 | 801606/2 | 9KHz ~ 40GHz | Apr. 03, 2021 | Dec. 17, 2021~ Dec. 20, 2021 | Apr. 02, 2022 | Radiation (03CH07-HY) |
| Controller | EMEC | EM1000 | N/A | Control Ant Mast | N/A | Dec. 17, 2021~ Dec. 20, 2021 | N/A | Radiation (03CH07-HY) |
| Controller | MF | MF-7802 | N/A | Control Turn table | N/A | Dec. 17, 2021~ Dec. 20, 2021 | N/A | Radiation (03CH07-HY) |
| Antenna Mast | EMEC | AM-BS-4500E | N/A | Boresight mast 1M~4M | N/A | Dec. 17, 2021~ Dec. 20, 2021 | N/A | Radiation (03CH07-HY) |
| Turn Table | ChainTek | Chaintek 3000 | N/A | 0~360 Degree | N/A | Dec. 17, 2021~ Dec. 20, 2021 | N/A | Radiation (03CH07-HY) |
| Software | Audix | E3 | N/A | N/A | N/A | Dec. 17, 2021~ Dec. 20, 2021 | N/A | Radiation (03CH07-HY) |
| USB Data Logger | TECPEL | TR-32 | HE17XB2495 | N/A | Mar. 09, 2021 | Dec. 17, 2021~ Dec. 20, 2021 | Mar. 08, 2022 | Radiation (03CH07-HY) |
| SHF-EHF Horn Antenna | SCHWARZBECK | BBHA 9170 | BBHA9170251 | 18GHz~40GHz | Nov. 30, 2021 | Dec. 17, 2021~ Dec. 20, 2021 | Nov. 29, 2022 | Radiation (03CH07-HY) |



| Instrument | Brand Name | Model No. | Serial No. | Characteristics | Calibration Date | Test Date | Due Date | Remark |
|-----------------------|-----------------|---------------|---------------------------|-----------------|------------------|---------------------------------|---------------|----------------------|
| AC Power Source | ChainTek | APC-1000W | N/A | N/A | N/A | Nov. 03, 2021 | N/A | Conduction (CO05-HY) |
| EMI Test Receiver | Rohde & Schwarz | ESR3 | 102388 | 9kHz~3.6GHz | Nov. 30, 2020 | Nov. 03, 2021 | Nov. 29, 2021 | Conduction (CO05-HY) |
| Hygrometer | Testo | 608-H1 | 34913912 | N/A | Nov. 18, 2020 | Nov. 03, 2021 | Nov. 17, 2021 | Conduction (CO05-HY) |
| LISN | Rohde & Schwarz | ENV216 | 100080 | 9kHz~30MHz | Dec. 01, 2020 | Nov. 03, 2021 | Nov. 30, 2021 | Conduction (CO05-HY) |
| Software | Rohde & Schwarz | EMC32 V10.30 | N/A | N/A | N/A | Nov. 03, 2021 | N/A | Conduction (CO05-HY) |
| Pulse Limiter | SCHWARZBECK | VTSD 9561-F N | 00691 | N/A | Jul. 28, 2021 | Nov. 03, 2021 | Jul. 27, 2022 | Conduction (CO05-HY) |
| LISN Cable | MVE | RG-400 | 260260 | N/A | Dec. 31, 2020 | Nov. 03, 2021 | Dec. 30, 2021 | Conduction (CO05-HY) |
| Hygrometer | Testo | 608-H1 | 34893241 | N/A | Mar. 01, 2021 | Nov. 09, 2021~ Nov. 21, 2021 | Feb. 28, 2022 | Conducted (TH05-HY) |
| Power Sensor | DARE | RPR3006W | 13I00030SNO 31(NO:182) | 10MHz~6GHz | Dec. 30, 2020 | Nov. 09, 2021~ Nov. 21, 2021 | Dec. 29, 2021 | Conducted (TH05-HY) |
| Signal Analyzer | Rohde & Schwarz | FSV40 | 101566 | 10Hz~40GHz | Aug. 30, 2021 | Nov. 09, 2021~ Nov. 21, 2021 | Aug. 29, 2022 | Conducted (TH05-HY) |
| Switch Box & RF Cable | EM Electronics | EMSW18SE | SW191204 (BOX8) | N/A | Jan. 07, 2021 | Nov. 09, 2021~ Nov. 21, 2021 | Jan. 06, 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% ($U = 2Uc(y)$) | 5.1 dB |
|-------------------------------------------------------------------------|--------|

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

| | |
|-------------------------------------------------------------------------|--------|
| Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$) | 5.8 dB |
|-------------------------------------------------------------------------|--------|

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

| | |
|-------------------------------------------------------------------------|--------|
| Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$) | 4.0 dB |
|-------------------------------------------------------------------------|--------|

Appendix A. Test Result of Conducted Test Items

| | | | | |
|----------------|--------------------------|--------------------|-----------|----|
| Test Engineer: | Benny Ku and Shiming Liu | Temperature: | 24.2~26.3 | °C |
| Test Date: | 2021/11/9~2021/11/21 | Relative Humidity: | 65.8~71.2 | % |

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

| Band IV 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 3 | Ant 4 | Ant 3 | Ant 4 | Ant 3 | Ant 4 | | |
| 11a | 6Mbps | 2 | 149 | 5745 | 16.48 | 16.43 | 19.43 | 19.60 | 16.39 | 16.49 | 0.5 | Pass |
| 11a | 6Mbps | 2 | 157 | 5785 | 16.48 | 16.48 | 19.80 | 19.78 | 16.39 | 16.39 | 0.5 | Pass |
| 11a | 6Mbps | 2 | 165 | 5825 | 16.48 | 16.48 | 19.78 | 19.65 | 16.39 | 16.39 | 0.5 | Pass |

TEST RESULTS DATA
Average Power Table

| Band IV MIMO | | | | | | | | | | | | |
|--------------|-----------|-----|-----|-------------|-------------------------------|-------|-------|---------------------------------|-------|----------|-------|-----------|
| Mod. | Data Rate | NTX | CH. | Freq. (MHz) | Average Conducted Power (dBm) | | | FCC Conducted Power Limit (dBm) | | DG (dBi) | | Pass/Fail |
| | | | | | Ant 3 | Ant 4 | SUM | Ant 3 | Ant 4 | Ant 3 | Ant 4 | |
| 11a | 6Mbps | 2 | 149 | 5745 | 10.00 | 9.90 | 12.96 | 30.00 | | 2.90 | Pass | |
| 11a | 6Mbps | 2 | 157 | 5785 | 9.90 | 9.90 | 12.91 | 30.00 | | 2.90 | Pass | |
| 11a | 6Mbps | 2 | 165 | 5825 | 9.90 | 9.70 | 12.81 | 30.00 | | 2.90 | Pass | |
| HT20 | MCS0 | 2 | 149 | 5745 | 9.90 | 9.80 | 12.86 | 30.00 | | 2.90 | Pass | |
| HT20 | MCS0 | 2 | 157 | 5785 | 9.60 | 9.60 | 12.61 | 30.00 | | 2.90 | Pass | |
| HT20 | MCS0 | 2 | 165 | 5825 | 9.80 | 9.40 | 12.61 | 30.00 | | 2.90 | Pass | |
| HT40 | MCS0 | 2 | 151 | 5755 | 9.80 | 9.30 | 12.57 | 30.00 | | 2.90 | Pass | |
| HT40 | MCS0 | 2 | 159 | 5795 | 9.80 | 9.40 | 12.61 | 30.00 | | 2.90 | Pass | |
| VHT20 | MCS0 | 2 | 149 | 5745 | 9.90 | 9.80 | 12.86 | 30.00 | | 2.90 | Pass | |
| VHT20 | MCS0 | 2 | 157 | 5785 | 9.60 | 9.60 | 12.61 | 30.00 | | 2.90 | Pass | |
| VHT20 | MCS0 | 2 | 165 | 5825 | 9.80 | 9.40 | 12.61 | 30.00 | | 2.90 | Pass | |
| VHT40 | MCS0 | 2 | 151 | 5755 | 9.80 | 9.30 | 12.57 | 30.00 | | 2.90 | Pass | |
| VHT40 | MCS0 | 2 | 159 | 5795 | 9.80 | 9.40 | 12.61 | 30.00 | | 2.90 | Pass | |
| VHT80 | MCS0 | 2 | 155 | 5775 | 9.80 | 9.40 | 12.61 | 30.00 | | 2.90 | Pass | |

TEST RESULTS DATA
Power Spectral Density

| Band IV 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 3 | Ant 4 | Ant 3 | Ant 4 | SUM | Ant 3 | Ant 4 | Ant 3 | Ant 4 | |
| 11a | 6Mbps | 2 | 149 | 5745 | 2.22 | | -1.34 | -1.45 | 1.67 | 30.00 | | 5.45 | | Pass |
| 11a | 6Mbps | 2 | 157 | 5785 | 2.22 | | -1.37 | -1.54 | 1.64 | 30.00 | | 5.45 | | Pass |
| 11a | 6Mbps | 2 | 165 | 5825 | 2.22 | | -1.40 | -1.63 | 1.61 | 30.00 | | 5.45 | | Pass |

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

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

| Band IV 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 3 | Ant 4 | Ant 3 | Ant 4 | Ant 3 | Ant 4 | | |
| HE20 | MCS0 | 2 | 149 | 5745 | Full | 18.98 | 18.98 | 21.15 | 21.35 | 18.94 | 18.94 | 0.5 | Pass |
| HE20 | MCS0 | 2 | 157 | 5785 | Full | 18.98 | 18.98 | 21.20 | 21.15 | 18.69 | 18.84 | 0.5 | Pass |
| HE20 | MCS0 | 2 | 165 | 5825 | Full | 18.93 | 18.93 | 21.25 | 21.43 | 19.09 | 19.04 | 0.5 | Pass |
| HE40 | MCS0 | 2 | 151 | 5755 | Full | 38.06 | 38.06 | 40.46 | 40.77 | 37.96 | 37.87 | 0.5 | Pass |
| HE40 | MCS0 | 2 | 159 | 5795 | Full | 37.96 | 38.06 | 40.32 | 40.59 | 38.05 | 37.78 | 0.5 | Pass |
| HE80 | MCS0 | 2 | 155 | 5775 | Full | 77.44 | 77.44 | 82.96 | 83.04 | 78.20 | 77.88 | 0.5 | Pass |

TEST RESULTS DATA
Average Power Table

| Band IV MIMO | | | | | | | | | | | | | |
|--------------|-----------|-----|-----|-------------|-----------|-------------------------------|-------|-------|---------------------------------|-------|----------|-------|-----------|
| Mod. | Data Rate | NTX | CH. | Freq. (MHz) | RU Config | Average Conducted Power (dBm) | | | FCC Conducted Power Limit (dBm) | | DG (dBi) | | Pass/Fail |
| | | | | | | Ant 3 | Ant 4 | SUM | Ant 3 | Ant 4 | Ant 3 | Ant 4 | |
| HE20 | MCS0 | 2 | 149 | 5745 | Full | 10.00 | 9.90 | 12.96 | 30.00 | | 2.90 | | Pass |
| HE20 | MCS0 | 2 | 157 | 5785 | Full | 9.70 | 9.70 | 12.71 | 30.00 | | 2.90 | | Pass |
| HE20 | MCS0 | 2 | 165 | 5825 | Full | 9.90 | 9.50 | 12.71 | 30.00 | | 2.90 | | Pass |
| HE40 | MCS0 | 2 | 151 | 5755 | Full | 9.90 | 9.40 | 12.67 | 30.00 | | 2.90 | | Pass |
| HE40 | MCS0 | 2 | 159 | 5795 | Full | 9.90 | 9.50 | 12.71 | 30.00 | | 2.90 | | Pass |
| HE80 | MCS0 | 2 | 155 | 5775 | Full | 9.90 | 9.50 | 12.71 | 30.00 | | 2.90 | | Pass |

TEST RESULTS DATA
Power Spectral Density

| Band IV 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 3 | Ant 4 | Ant 3 | Ant 4 | SUM | Ant 3 | Ant 4 | Ant 3 | Ant 4 | |
| HE20 | MCS0 | 2 | 149 | 5745 | Full | 2.22 | -1.39 | -1.33 | 1.68 | 30.00 | 5.45 | Pass | | | |
| HE20 | MCS0 | 2 | 157 | 5785 | Full | 2.22 | -1.31 | -1.36 | 1.70 | 30.00 | 5.45 | Pass | | | |
| HE20 | MCS0 | 2 | 165 | 5825 | Full | 2.22 | -1.33 | -1.41 | 1.68 | 30.00 | 5.45 | Pass | | | |
| HE40 | MCS0 | 2 | 151 | 5755 | Full | 2.22 | -4.33 | -4.43 | -1.32 | 30.00 | 5.45 | Pass | | | |
| HE40 | MCS0 | 2 | 159 | 5795 | Full | 2.22 | -4.54 | -4.50 | -1.49 | 30.00 | 5.45 | Pass | | | |
| HE80 | MCS0 | 2 | 155 | 5775 | Full | 2.22 | -7.20 | -7.31 | -4.19 | 30.00 | 5.45 | Pass | | | |

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



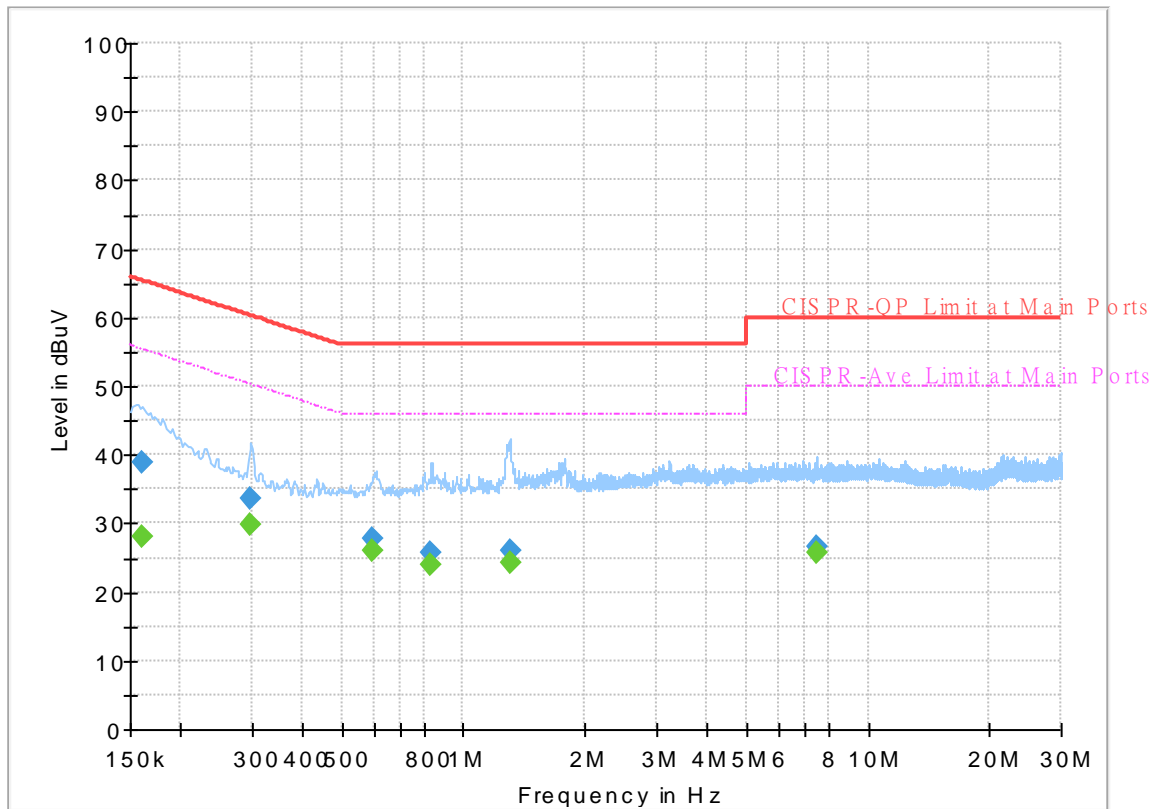
Appendix B. AC Conducted Emission Test Results

| | | | |
|-----------------|-------------|---------------------|---------|
| Test Engineer : | Calivn Wang | Temperature : | 23~26°C |
| | | Relative Humidity : | 45~55% |

EUT Information

Report NO : 190614
 Test Mode : Mode 1
 Test Voltage : 120Vac/60Hz
 Phase : Line

Full Spectrum



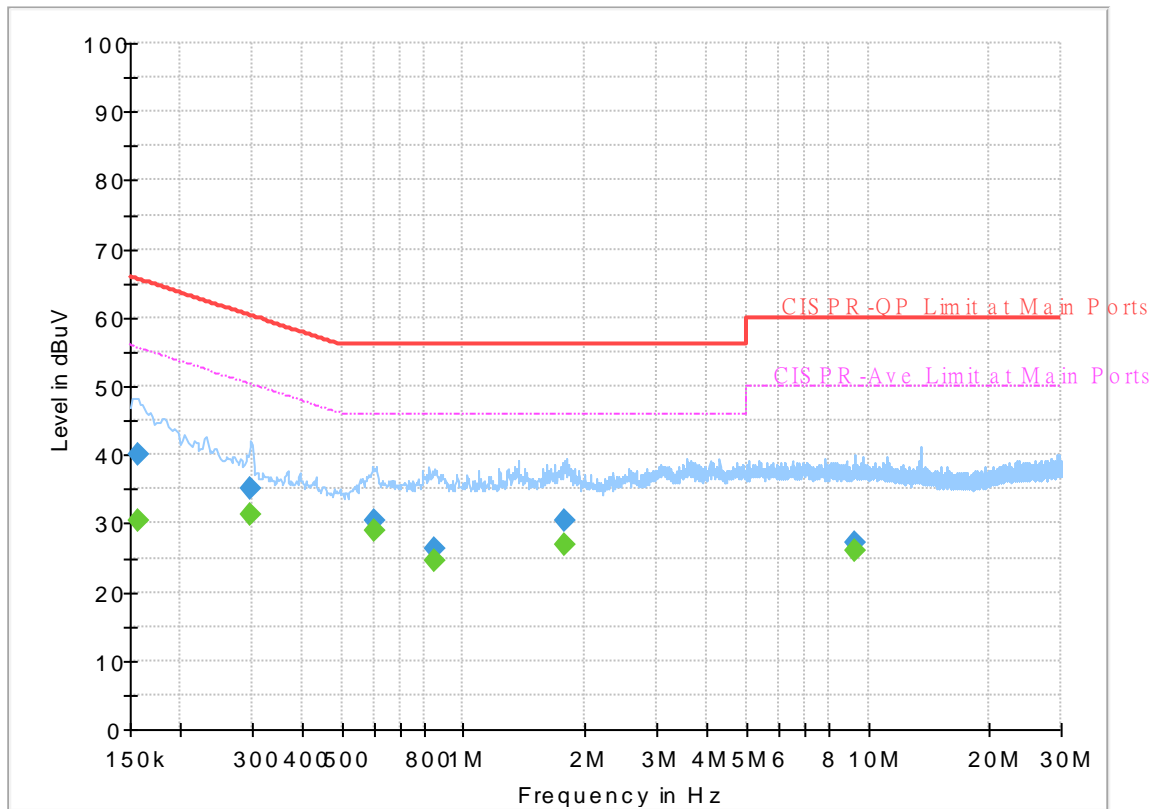
Final_Result

| Frequency (MHz) | QuasiPeak (dBuV) | CAverage (dBuV) | Limit (dBuV) | Margin (dB) | Line | Filter | Corr. (dB) |
|-----------------|------------------|-----------------|--------------|-------------|------|--------|------------|
| 0.161250 | --- | 28.17 | 55.40 | 27.23 | L1 | OFF | 19.7 |
| 0.161250 | 38.79 | --- | 65.40 | 26.61 | L1 | OFF | 19.7 |
| 0.297600 | --- | 29.90 | 50.31 | 20.41 | L1 | OFF | 19.7 |
| 0.297600 | 33.49 | --- | 60.31 | 26.82 | L1 | OFF | 19.7 |
| 0.597210 | --- | 25.89 | 46.00 | 20.11 | L1 | OFF | 19.9 |
| 0.597210 | 27.78 | --- | 56.00 | 28.22 | L1 | OFF | 19.9 |
| 0.829500 | --- | 23.92 | 46.00 | 22.08 | L1 | OFF | 20.1 |
| 0.829500 | 25.61 | --- | 56.00 | 30.39 | L1 | OFF | 20.1 |
| 1.301100 | --- | 24.39 | 46.00 | 21.61 | L1 | OFF | 20.2 |
| 1.301100 | 25.94 | --- | 56.00 | 30.06 | L1 | OFF | 20.2 |
| 7.489500 | --- | 25.74 | 50.00 | 24.26 | L1 | OFF | 20.1 |
| 7.489500 | 26.61 | --- | 60.00 | 33.39 | L1 | OFF | 20.1 |

EUT Information

Report NO : 190614
 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 | --- | 30.40 | 55.63 | 25.23 | N | OFF | 19.7 |
| 0.156750 | 40.08 | --- | 65.63 | 25.55 | N | OFF | 19.7 |
| 0.298500 | --- | 31.37 | 50.28 | 18.91 | N | OFF | 19.7 |
| 0.298500 | 35.15 | --- | 60.28 | 25.13 | N | OFF | 19.7 |
| 0.600000 | --- | 28.80 | 46.00 | 17.20 | N | OFF | 19.9 |
| 0.600000 | 30.50 | --- | 56.00 | 25.50 | N | OFF | 19.9 |
| 0.852000 | --- | 24.52 | 46.00 | 21.48 | N | OFF | 20.1 |
| 0.852000 | 26.39 | --- | 56.00 | 29.61 | N | OFF | 20.1 |
| 1.772250 | --- | 26.94 | 46.00 | 19.06 | N | OFF | 20.2 |
| 1.772250 | 30.34 | --- | 56.00 | 25.66 | N | OFF | 20.2 |
| 9.318750 | --- | 26.02 | 50.00 | 23.98 | N | OFF | 20.1 |
| 9.318750 | 27.14 | --- | 60.00 | 32.86 | N | OFF | 20.1 |



Appendix C. Radiated Spurious Emission

| | | | |
|-----------------|------------------------------------|---------------------|-------------|
| Test Engineer : | Jesse Wang, Stan Hsieh, and Ken Wu | Temperature : | 23.1~25.3°C |
| | | Relative Humidity : | 53.6~59.1% |

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

| WIFI Ant. | 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) | |
|------------------------------|------|-------------------|------------------|-------------------|-----------------------|---------------------|-------------------------|------------------|----------------------|----------------|-------------------|-------------------|--------------|---|
| 802.11a CH 149 5745MHz | | 5628.4 | 49.71 | -18.49 | 68.2 | 37.66 | 34.89 | 12.31 | 35.15 | 100 | 84 | P | H | |
| | | 5653.8 | 50.17 | -20.85 | 71.02 | 38.17 | 34.82 | 12.33 | 35.15 | 100 | 84 | P | H | |
| | | 5716.8 | 49.57 | -60.34 | 109.91 | 37.33 | 35 | 12.4 | 35.16 | 100 | 84 | P | H | |
| | | 5720.6 | 48.93 | -63.24 | 112.17 | 36.69 | 35 | 12.4 | 35.16 | 100 | 84 | P | H | |
| | * | 5745 | 104.31 | - | - | 92.06 | 35 | 12.42 | 35.17 | 100 | 84 | P | H | |
| | * | 5745 | 96.96 | - | - | 84.71 | 35 | 12.42 | 35.17 | 100 | 84 | A | H | |
| | | | | | | | | | | | | | | H |
| | | | | | | | | | | | | | | H |
| | | | 5606.4 | 49.84 | -18.36 | 68.2 | 37.72 | 34.97 | 12.29 | 35.14 | 100 | 262 | P | V |
| | | | 5660.8 | 50.15 | -26.07 | 76.22 | 38.12 | 34.84 | 12.34 | 35.15 | 100 | 262 | P | V |
| | | | 5709 | 50.71 | -57.01 | 107.72 | 38.48 | 35 | 12.39 | 35.16 | 100 | 262 | P | V |
| | | | 5724.2 | 50.57 | -69.81 | 120.38 | 38.33 | 35 | 12.4 | 35.16 | 100 | 262 | P | V |
| | * | 5745 | 106.81 | - | - | 94.56 | 35 | 12.42 | 35.17 | 100 | 262 | P | V | |
| | * | 5745 | 98.66 | - | - | 86.41 | 35 | 12.42 | 35.17 | 100 | 262 | A | V | |
| | | | | | | | | | | | | | | V |
| | | | | | | | | | | | | | | V |



| WIFI Ant. 3+4 | 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) | |
|------------------------------|------|-------------------|------------------|-------------------|-----------------------|---------------------|-------------------------|------------------|----------------------|----------------|-------------------|-------------------|--------------|---|
| 802.11a CH 157 5785MHz | | 5619.4 | 50.27 | -17.93 | 68.2 | 38.19 | 34.92 | 12.3 | 35.14 | 100 | 82 | P | H | |
| | | 5697.6 | 49.96 | -53.47 | 103.43 | 37.75 | 34.99 | 12.38 | 35.16 | 100 | 82 | P | H | |
| | | 5701.6 | 49.3 | -56.35 | 105.65 | 37.08 | 35 | 12.38 | 35.16 | 100 | 82 | P | H | |
| | | 5722.8 | 49.15 | -68.03 | 117.18 | 36.91 | 35 | 12.4 | 35.16 | 100 | 82 | P | H | |
| | * | 5785 | 104.35 | - | - | 92.2 | 34.86 | 12.46 | 35.17 | 100 | 82 | P | H | |
| | * | 5785 | 97.05 | - | - | 84.9 | 34.86 | 12.46 | 35.17 | 100 | 82 | A | H | |
| | | 5854.8 | 49.12 | -62.14 | 111.26 | 36.96 | 34.82 | 12.52 | 35.18 | 100 | 82 | P | H | |
| | | 5862.8 | 49.88 | -58.73 | 108.61 | 37.7 | 34.85 | 12.52 | 35.19 | 100 | 82 | P | H | |
| | | 5888.8 | 50.76 | -44.2 | 94.96 | 38.45 | 34.96 | 12.54 | 35.19 | 100 | 82 | P | H | |
| | | 5926 | 51.54 | -16.66 | 68.2 | 39.13 | 35.05 | 12.56 | 35.2 | 100 | 82 | P | H | |
| | | | | | | | | | | | | | | H |
| | | | | | | | | | | | | | | H |
| | | | 5616.4 | 49.56 | -18.64 | 68.2 | 37.47 | 34.93 | 12.3 | 35.14 | 100 | 335 | P | V |
| | | | 5678 | 49.81 | -39.15 | 88.96 | 37.69 | 34.91 | 12.36 | 35.15 | 100 | 335 | P | V |
| | | | 5701.8 | 50.26 | -55.44 | 105.7 | 38.04 | 35 | 12.38 | 35.16 | 100 | 335 | P | V |
| | | | 5722.8 | 50.12 | -67.06 | 117.18 | 37.88 | 35 | 12.4 | 35.16 | 100 | 335 | P | V |
| | * | | 5785 | 105.95 | - | - | 93.8 | 34.86 | 12.46 | 35.17 | 100 | 335 | P | V |
| | * | | 5785 | 98.35 | - | - | 86.2 | 34.86 | 12.46 | 35.17 | 100 | 335 | A | V |
| | | | 5851 | 50.04 | -69.88 | 119.92 | 37.91 | 34.8 | 12.51 | 35.18 | 100 | 335 | P | V |
| | | | 5875 | 50.26 | -54.94 | 105.2 | 38.02 | 34.9 | 12.53 | 35.19 | 100 | 335 | P | V |
| | | | 5896.8 | 51.74 | -37.29 | 89.03 | 39.4 | 34.99 | 12.54 | 35.19 | 100 | 335 | P | V |
| | | | 5929.4 | 51.35 | -16.85 | 68.2 | 38.93 | 35.06 | 12.56 | 35.2 | 100 | 335 | P | V |
| | | | | | | | | | | | | | V | |
| | | | | | | | | | | | | | V | |



| WiFi Ant. 3+4 | 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) | |
|------------------------------|---------------------------------------------------------------------------------------------|-------------------|------------------|-------------------|-----------------------|---------------------|-------------------------|------------------|----------------------|----------------|-------------------|-------------------|--------------|---|
| 802.11a CH 165 5825MHz | * | 5825 | 105.04 | - | - | 92.92 | 34.8 | 12.5 | 35.18 | 100 | 84 | P | H | |
| | * | 5825 | 97.52 | - | - | 85.4 | 34.8 | 12.5 | 35.18 | 100 | 84 | A | H | |
| | | 5851 | 49.84 | -70.08 | 119.92 | 37.71 | 34.8 | 12.51 | 35.18 | 100 | 84 | P | H | |
| | | 5874.8 | 50.66 | -54.6 | 105.26 | 38.42 | 34.9 | 12.53 | 35.19 | 100 | 84 | P | H | |
| | | 5903.6 | 51.05 | -32.95 | 84 | 38.68 | 35.01 | 12.55 | 35.19 | 100 | 84 | P | H | |
| | | 5947.4 | 51.17 | -17.03 | 68.2 | 38.7 | 35.09 | 12.58 | 35.2 | 100 | 84 | P | H | |
| | | | | | | | | | | | | | | H |
| | | | | | | | | | | | | | | H |
| | * | 5825 | 106.02 | - | - | 93.9 | 34.8 | 12.5 | 35.18 | 100 | 331 | 331 | P | V |
| | * | 5825 | 98.52 | - | - | 86.4 | 34.8 | 12.5 | 35.18 | 100 | 331 | 331 | A | V |
| | | 5853.6 | 52.25 | -61.74 | 113.99 | 40.11 | 34.81 | 12.51 | 35.18 | 100 | 331 | 331 | P | V |
| | | 5870.2 | 50.94 | -55.6 | 106.54 | 38.72 | 34.88 | 12.53 | 35.19 | 100 | 331 | 331 | P | V |
| | | 5881.4 | 50.98 | -49.47 | 100.45 | 38.71 | 34.93 | 12.53 | 35.19 | 100 | 331 | 331 | P | V |
| | | 5937.2 | 51.04 | -17.16 | 68.2 | 38.6 | 35.07 | 12.57 | 35.2 | 100 | 331 | 331 | 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. 3+4 | 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) |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------|-------------------|-----------------------|---------------------|-------------------------|------------------|----------------------|----------------|-------------------|-----------------|------------|
| 802.11a CH 149 5745MHz | | 11490 | 45.08 | -28.92 | 74 | 44.74 | 38.38 | 19.5 | 57.54 | - | - | P | H |
| | | 17235 | 51.29 | -16.91 | 68.2 | 40.67 | 42.2 | 24.93 | 56.51 | - | - | P | H |
| | | | | | | | | | | | | | H |
| | | | | | | | | | | | | | H |
| | | 11490 | 46.32 | -27.68 | 74 | 45.98 | 38.38 | 19.5 | 57.54 | - | - | P | V |
| | | 17235 | 51.43 | -16.77 | 68.2 | 40.81 | 42.2 | 24.93 | 56.51 | - | - | P | V |
| | | | | | | | | | | | | | V |
| 802.11a CH 157 5785MHz | | 11570 | 45.57 | -28.43 | 74 | 44.87 | 38.54 | 19.57 | 57.41 | - | - | P | H |
| | | 17355 | 51.29 | -16.91 | 68.2 | 40.49 | 42.15 | 25.05 | 56.4 | - | - | P | H |
| | | | | | | | | | | | | | H |
| | | | | | | | | | | | | | H |
| | | 11570 | 45.71 | -28.29 | 74 | 45.01 | 38.54 | 19.57 | 57.41 | - | - | P | V |
| | | 17355 | 50.83 | -17.37 | 68.2 | 40.03 | 42.15 | 25.05 | 56.4 | - | - | P | V |
| | | | | | | | | | | | | | V |
| 802.11a CH 165 5825MHz | | 11650 | 46.08 | -27.92 | 74 | 45.07 | 38.65 | 19.64 | 57.28 | - | - | P | H |
| | | 17475 | 50.89 | -17.31 | 68.2 | 39.86 | 42.17 | 25.16 | 56.3 | - | - | P | H |
| | | | | | | | | | | | | | H |
| | | | | | | | | | | | | | H |
| | | 11650 | 46.39 | -27.61 | 74 | 45.38 | 38.65 | 19.64 | 57.28 | - | - | P | V |
| | | 17475 | 51.14 | -17.06 | 68.2 | 40.11 | 42.17 | 25.16 | 56.3 | - | - | P | 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. | | | | | | | | | | | | |



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

| WIFI Ant. 3+4 | 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 HE20 Full CH 149 5745MHz | | 5623 | 50.76 | -17.44 | 68.2 | 38.69 | 34.91 | 12.3 | 35.14 | 100 | 84 | P | H | |
| | | 5686.8 | 49.75 | -45.71 | 95.46 | 37.59 | 34.95 | 12.37 | 35.16 | 100 | 84 | P | H | |
| | | 5705.4 | 49.74 | -56.97 | 106.71 | 37.51 | 35 | 12.39 | 35.16 | 100 | 84 | P | H | |
| | | 5724.6 | 50.23 | -71.06 | 121.29 | 37.99 | 35 | 12.4 | 35.16 | 100 | 84 | P | H | |
| | * | 5745 | 104.76 | - | - | 92.51 | 35 | 12.42 | 35.17 | 100 | 84 | P | H | |
| | * | 5745 | 96.66 | - | - | 84.41 | 35 | 12.42 | 35.17 | 100 | 84 | A | H | |
| | | | | | | | | | | | | | | H |
| | | | | | | | | | | | | | | H |
| | | | 5623.6 | 50.7 | -17.5 | 68.2 | 38.63 | 34.91 | 12.3 | 35.14 | 100 | 262 | P | V |
| | | | 5691.4 | 50.33 | -48.53 | 98.86 | 38.15 | 34.97 | 12.37 | 35.16 | 100 | 262 | P | V |
| | | | 5719.2 | 50.24 | -60.34 | 110.58 | 38 | 35 | 12.4 | 35.16 | 100 | 262 | P | V |
| | | | 5723.8 | 49.81 | -69.65 | 119.46 | 37.57 | 35 | 12.4 | 35.16 | 100 | 262 | P | V |
| | * | | 5745 | 108.46 | - | - | 96.21 | 35 | 12.42 | 35.17 | 100 | 262 | P | V |
| | * | | 5745 | 98.66 | - | - | 86.41 | 35 | 12.42 | 35.17 | 100 | 262 | A | V |
| | | | | | | | | | | | | | V | |
| | | | | | | | | | | | | | V | |



| WIFI Ant. 3+4 | 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 HE20 Full CH 165 5825MHz | * | 5825 | 106.82 | - | - | 94.7 | 34.8 | 12.5 | 35.18 | 100 | 84 | P | H | |
| | * | 5825 | 96.62 | - | - | 84.5 | 34.8 | 12.5 | 35.18 | 100 | 84 | A | H | |
| | | 5851.6 | 51.04 | -67.51 | 118.55 | 38.9 | 34.81 | 12.51 | 35.18 | 100 | 84 | P | H | |
| | | 5860.2 | 50.6 | -58.74 | 109.34 | 38.43 | 34.84 | 12.52 | 35.19 | 100 | 84 | P | H | |
| | | 5920.4 | 51.82 | -19.77 | 71.59 | 39.42 | 35.04 | 12.56 | 35.2 | 100 | 84 | P | H | |
| | | 5938.4 | 50.91 | -17.29 | 68.2 | 38.46 | 35.08 | 12.57 | 35.2 | 100 | 84 | P | H | |
| | | | | | | | | | | | | | | H |
| | | | | | | | | | | | | | | H |
| | * | 5825 | 108.22 | - | - | 96.1 | 34.8 | 12.5 | 35.18 | 100 | 331 | 331 | P | V |
| | * | 5825 | 97.82 | - | - | 85.7 | 34.8 | 12.5 | 35.18 | 100 | 331 | 331 | A | V |
| | | 5851.8 | 50.77 | -67.33 | 118.1 | 38.63 | 34.81 | 12.51 | 35.18 | 100 | 331 | 331 | P | V |
| | | 5872.4 | 50.76 | -55.17 | 105.93 | 38.53 | 34.89 | 12.53 | 35.19 | 100 | 331 | 331 | P | V |
| | | 5882.4 | 52.39 | -47.31 | 99.7 | 40.12 | 34.93 | 12.53 | 35.19 | 100 | 331 | 331 | P | V |
| | | 5939.2 | 51.16 | -17.04 | 68.2 | 38.71 | 35.08 | 12.57 | 35.2 | 100 | 331 | 331 | 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. 3+4 | 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 HE20 Full CH 157 5785MHz | | 11570 | 45.76 | -28.24 | 74 | 45.06 | 38.54 | 19.57 | 57.41 | - | - | P | H | |
| | | 17355 | 51.66 | -16.54 | 68.2 | 40.86 | 42.15 | 25.05 | 56.4 | - | - | P | H | |
| | | | | | | | | | | | | | H | |
| | | | | | | | | | | | | | H | |
| | | | 11570 | 45.87 | -28.13 | 74 | 45.17 | 38.54 | 19.57 | 57.41 | - | - | P | V |
| | | | 17355 | 52.84 | -15.36 | 68.2 | 42.04 | 42.15 | 25.05 | 56.4 | - | - | P | 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. | | | | | | | | | | | | | |



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

| WIFI Ant. 3+4 | 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) |
|------------------|------|-------------------|------------------|-------------------|-----------------------|---------------------|-------------------------|------------------|----------------------|----------------|-------------------|-------------------|--------------|
| | | 5631.4 | 50.25 | -17.95 | 68.2 | 38.22 | 34.87 | 12.31 | 35.15 | 100 | 82 | P | H |
| | | 5663 | 50.49 | -27.36 | 77.85 | 38.45 | 34.85 | 12.34 | 35.15 | 100 | 82 | P | H |
| | | 5704.8 | 50.08 | -56.47 | 106.55 | 37.86 | 35 | 12.38 | 35.16 | 100 | 82 | P | H |
| | | 5720.2 | 49.32 | -61.94 | 111.26 | 37.08 | 35 | 12.4 | 35.16 | 100 | 82 | P | H |
| | * | 5755 | 104.15 | - | - | 91.91 | 34.98 | 12.43 | 35.17 | 100 | 82 | P | H |
| | * | 5755 | 94.65 | - | - | 82.41 | 34.98 | 12.43 | 35.17 | 100 | 82 | A | H |
| | | 5854.4 | 51.35 | -60.82 | 112.17 | 39.19 | 34.82 | 12.52 | 35.18 | 100 | 82 | P | H |
| | | 5862.2 | 51.14 | -57.64 | 108.78 | 38.96 | 34.85 | 12.52 | 35.19 | 100 | 82 | P | H |
| | | 5898.4 | 50.57 | -37.28 | 87.85 | 38.23 | 34.99 | 12.54 | 35.19 | 100 | 82 | P | H |
| | | 5933.8 | 51.29 | -16.91 | 68.2 | 38.85 | 35.07 | 12.57 | 35.2 | 100 | 82 | P | H |
| 802.11ax | | | | | | | | | | | | | H |
| HE40 Full | | | | | | | | | | | | | H |
| CH 151 | | 5618.4 | 49.82 | -18.38 | 68.2 | 37.73 | 34.93 | 12.3 | 35.14 | 101 | 296 | P | V |
| 5755MHz | | 5663.4 | 50.15 | -28 | 78.15 | 38.11 | 34.85 | 12.34 | 35.15 | 101 | 296 | P | V |
| | | 5715.8 | 51.03 | -58.6 | 109.63 | 38.79 | 35 | 12.4 | 35.16 | 101 | 296 | P | V |
| | | 5724.6 | 50.64 | -70.65 | 121.29 | 38.4 | 35 | 12.4 | 35.16 | 101 | 296 | P | V |
| | * | 5755 | 104.26 | - | - | 92.02 | 34.98 | 12.43 | 35.17 | 101 | 296 | P | V |
| | * | 5755 | 95.65 | - | - | 83.41 | 34.98 | 12.43 | 35.17 | 101 | 296 | A | V |
| | | 5850.6 | 50.5 | -70.33 | 120.83 | 38.37 | 34.8 | 12.51 | 35.18 | 101 | 296 | P | V |
| | | 5857 | 50.77 | -59.47 | 110.24 | 38.6 | 34.83 | 12.52 | 35.18 | 101 | 296 | P | V |
| | | 5912.8 | 50.81 | -26.39 | 77.2 | 38.43 | 35.03 | 12.55 | 35.2 | 101 | 296 | P | V |
| | | 5932 | 50.49 | -17.71 | 68.2 | 38.06 | 35.06 | 12.57 | 35.2 | 101 | 296 | P | V |
| | | | | | | | | | | | | | V |
| | | | | | | | | | | | | | V |



| WIFI Ant. 3+4 | 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) |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------|-------------------|-----------------------|---------------------|-------------------------|------------------|----------------------|----------------|-------------------|-------------------|--------------|
| | | 5602.4 | 50.4 | -17.8 | 68.2 | 38.27 | 34.99 | 12.28 | 35.14 | 100 | 85 | P | H |
| | | 5654.4 | 49.88 | -21.59 | 71.47 | 37.88 | 34.82 | 12.33 | 35.15 | 100 | 85 | P | H |
| | | 5716.4 | 50.22 | -59.57 | 109.79 | 37.98 | 35 | 12.4 | 35.16 | 100 | 85 | P | H |
| | | 5721.6 | 50.17 | -64.28 | 114.45 | 37.93 | 35 | 12.4 | 35.16 | 100 | 85 | P | H |
| | * | 5795 | 103.67 | - | - | 91.55 | 34.82 | 12.47 | 35.17 | 100 | 85 | P | H |
| | * | 5795 | 94.42 | - | - | 82.3 | 34.82 | 12.47 | 35.17 | 100 | 85 | A | H |
| | | 5852.6 | 49.81 | -66.46 | 116.27 | 37.67 | 34.81 | 12.51 | 35.18 | 100 | 85 | P | H |
| | | 5863.6 | 50.89 | -57.5 | 108.39 | 38.71 | 34.85 | 12.52 | 35.19 | 100 | 85 | P | H |
| | | 5893 | 51.17 | -40.67 | 91.84 | 38.85 | 34.97 | 12.54 | 35.19 | 100 | 85 | P | H |
| | | 5942.8 | 51.02 | -17.18 | 68.2 | 38.56 | 35.09 | 12.57 | 35.2 | 100 | 85 | P | H |
| 802.11ax | | | | | | | | | | | | | H |
| HE40 Full | | | | | | | | | | | | | H |
| CH 159 | | 5609.8 | 50.28 | -17.92 | 68.2 | 38.17 | 34.96 | 12.29 | 35.14 | 100 | 265 | P | V |
| 5795MHz | | 5698 | 50.6 | -53.13 | 103.73 | 38.39 | 34.99 | 12.38 | 35.16 | 100 | 265 | P | V |
| | | 5709.4 | 50.37 | -57.46 | 107.83 | 38.14 | 35 | 12.39 | 35.16 | 100 | 265 | P | V |
| | | 5721.2 | 50.14 | -63.4 | 113.54 | 37.9 | 35 | 12.4 | 35.16 | 100 | 265 | P | V |
| | * | 5795 | 104.14 | - | - | 92.02 | 34.82 | 12.47 | 35.17 | 100 | 265 | P | V |
| | * | 5795 | 95.32 | - | - | 83.2 | 34.82 | 12.47 | 35.17 | 100 | 265 | A | V |
| | | 5854.4 | 49.22 | -62.95 | 112.17 | 37.06 | 34.82 | 12.52 | 35.18 | 100 | 265 | P | V |
| | | 5870.8 | 50.86 | -55.51 | 106.37 | 38.64 | 34.88 | 12.53 | 35.19 | 100 | 265 | P | V |
| | | 5907.6 | 50.85 | -30.19 | 81.04 | 38.47 | 35.02 | 12.55 | 35.19 | 100 | 265 | P | V |
| | | 5931.8 | 52.47 | -15.73 | 68.2 | 40.04 | 35.06 | 12.57 | 35.2 | 100 | 265 | P | V |
| | | | | | | | | | | | | | V |
| | | | | | | | | | | | | | V |
| Remark | <ol style="list-style-type: none"> No other spurious found. All results are PASS against Peak and Average limit line. | | | | | | | | | | | | |



Band 4 5725~5850MHz

WIFI 802.11ax HE80_Full (Band Edge @ 3m)

| WIFI Ant. 3+4 | 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) |
|---------------|---------------------------------------------------------------------------------------------|-------------------|------------------|-------------------|-----------------------|---------------------|-------------------------|------------------|----------------------|----------------|-------------------|-----------------|------------|
| | | 5613.8 | 49.72 | -18.48 | 68.2 | 37.63 | 34.94 | 12.29 | 35.14 | 100 | 83 | P | H |
| | | 5686.6 | 50.67 | -44.65 | 95.32 | 38.51 | 34.95 | 12.37 | 35.16 | 100 | 83 | P | H |
| | | 5705.8 | 49.77 | -57.06 | 106.83 | 37.54 | 35 | 12.39 | 35.16 | 100 | 83 | P | H |
| | | 5720.8 | 49.3 | -63.32 | 112.62 | 37.06 | 35 | 12.4 | 35.16 | 100 | 83 | P | H |
| | * | 5775 | 101.46 | - | - | 89.28 | 34.9 | 12.45 | 35.17 | 100 | 83 | P | H |
| | * | 5775 | 91.99 | - | - | 79.81 | 34.9 | 12.45 | 35.17 | 100 | 83 | A | H |
| | | 5852.4 | 51.56 | -65.17 | 116.73 | 39.42 | 34.81 | 12.51 | 35.18 | 100 | 83 | P | H |
| | | 5871.8 | 50.61 | -55.48 | 106.09 | 38.38 | 34.89 | 12.53 | 35.19 | 100 | 83 | P | H |
| | | 5917.2 | 51.34 | -22.61 | 73.95 | 38.95 | 35.03 | 12.56 | 35.2 | 100 | 83 | P | H |
| | | 5938.8 | 50.97 | -17.23 | 68.2 | 38.52 | 35.08 | 12.57 | 35.2 | 100 | 83 | P | H |
| 802.11ax | | | | | | | | | | | | | H |
| HE80 Full | | | | | | | | | | | | | H |
| CH 155 | | 5619.2 | 50.59 | -17.61 | 68.2 | 38.51 | 34.92 | 12.3 | 35.14 | 105 | 263 | P | V |
| 5775MHz | | 5663.4 | 50.59 | -27.56 | 78.15 | 38.55 | 34.85 | 12.34 | 35.15 | 105 | 263 | P | V |
| | | 5704 | 51.09 | -55.23 | 106.32 | 38.87 | 35 | 12.38 | 35.16 | 105 | 263 | P | V |
| | | 5721.2 | 50 | -63.54 | 113.54 | 37.76 | 35 | 12.4 | 35.16 | 105 | 263 | P | V |
| | * | 5775 | 101.48 | - | - | 89.3 | 34.9 | 12.45 | 35.17 | 105 | 263 | P | V |
| | * | 5775 | 93.29 | - | - | 81.11 | 34.9 | 12.45 | 35.17 | 105 | 263 | A | V |
| | | 5852.6 | 50.72 | -65.55 | 116.27 | 38.58 | 34.81 | 12.51 | 35.18 | 105 | 263 | P | V |
| | | 5859.4 | 50.39 | -59.18 | 109.57 | 38.22 | 34.84 | 12.52 | 35.19 | 105 | 263 | P | V |
| | | 5893 | 51.04 | -40.8 | 91.84 | 38.72 | 34.97 | 12.54 | 35.19 | 105 | 263 | P | V |
| | | 5936.8 | 51.62 | -16.58 | 68.2 | 39.18 | 35.07 | 12.57 | 35.2 | 105 | 263 | P | V |
| | | | | | | | | | | | | | V |
| | | | | | | | | | | | | | V |
| Remark | 1. No other spurious found. 2. All results are PASS against Peak and Average limit line. | | | | | | | | | | | | |



**Emission below 1GHz
5GHz WIFI 802.11ax HE20 Full (LF @ 3m)**

| WIFI Ant. 3+4 | 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 HE20 Full LF | | 52.41 | 27.95 | -12.05 | 40 | 43.45 | 13.2 | 1.31 | 30.01 | - | - | P | H |
| | | 90.75 | 33.98 | -9.52 | 43.5 | 47.66 | 14.71 | 1.6 | 29.99 | - | - | P | H |
| | | 162.03 | 31.1 | -12.4 | 43.5 | 42.55 | 16.41 | 2.12 | 29.98 | - | - | P | H |
| | | 769.7 | 30.25 | -15.75 | 46 | 27.84 | 27.75 | 4.31 | 29.65 | - | - | P | H |
| | | 876.1 | 31.33 | -14.67 | 46 | 26.97 | 28.79 | 4.64 | 29.07 | - | - | P | H |
| | | 958 | 32.95 | -13.05 | 46 | 26.02 | 30.71 | 4.9 | 28.68 | - | - | P | H |
| | | 30 | 33.25 | -6.75 | 40 | 37.81 | 24.57 | 0.9 | 30.03 | - | - | P | V |
| | | 52.41 | 33.98 | -6.02 | 40 | 49.48 | 13.2 | 1.31 | 30.01 | - | - | P | V |
| | | 86.43 | 33.51 | -6.49 | 40 | 47.73 | 14.19 | 1.59 | 30 | - | - | P | V |
| | | 774.6 | 30.23 | -15.77 | 46 | 27.75 | 27.8 | 4.32 | 29.64 | - | - | P | V |
| | | 860.7 | 31.51 | -14.49 | 46 | 27.23 | 28.84 | 4.62 | 29.18 | - | - | P | V |
| | | 944 | 33.09 | -12.91 | 46 | 27.13 | 29.86 | 4.84 | 28.74 | - | - | P | V |
| Remark | <ol style="list-style-type: none"> No other spurious found. All results are PASS against limit line. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only. | | | | | | | | | | | | |



Note symbol

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



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

| WIFI | Note | Frequency | Level | Over | Limit | Read | Antenna | Path | Preamp | Ant | Table | Peak | Pol. |
|---------|------|-----------|------------|--------|------------|----------|----------|--------|--------|--------|---------|---------|---------|
| Ant. | | | | Limit | Line | Level | Factor | Loss | Factor | Pos | Pos | Avg. | |
| 3+4 | | (MHz) | (dBμV/m) | (dB) | (dBμV/m) | (dBμV) | (dB/m) | (dB) | (dB) | (cm) | (deg) | (P/A) | (H/V) |
| 802.11b | | 2390 | 55.45 | -18.55 | 74 | 54.51 | 32.22 | 4.58 | 35.86 | 103 | 308 | P | H |
| CH 01 | | | | | | | | | | | | | |
| 2412MHz | | 2390 | 43.54 | -10.46 | 54 | 42.6 | 32.22 | 4.58 | 35.86 | 103 | 308 | A | 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 @ 2390MHz:

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

For Average Limit @ 2390MHz:

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

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



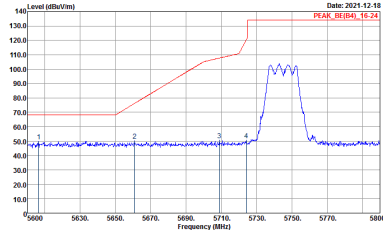
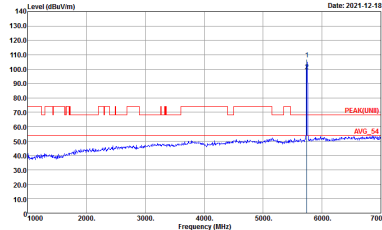
Appendix D. Radiated Spurious Emission Plots

| | | | |
|-----------------|------------------------------------|---------------------|-------------|
| Test Engineer : | Jesse Wang, Stan Hsieh, and Ken Wu | Temperature : | 23.1~25.3°C |
| | | Relative Humidity : | 53.6~59.1% |

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

| | | |
|------|----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| WIFI | Band 4 5725~5850MHz Band Edge @ 3m | |
| ANT | 802.11a CH149 5745MHz | |
| 3+4 | Horizontal | Fundamental |
| Peak | <p>Site Condition : : 03CX07-4H : PEAK_BE(B4)_16-24 3m HF_ANT_00056584 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> | <p>Site Condition : : 03CX07-4H : PEAK(LIN1) 3m HF_ANT_00056584 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |



| | | |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WIFI | Band 4 5725~5850MHz Band Edge @ 3m | |
| ANT | 802.11a CH149 5745MHz | |
| 3+4 | Vertical | Fundamental |
| Peak |  <p>Date: 2021-12-18 PEAK_REF(16)_16-24</p> <p>Site : 03CH07-HY Condition : :PEAK_REF(16)_16-24 3m HF_ANT_0006658A VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWF:Auto</p> |  <p>Date: 2021-12-18 PEAK(16)</p> <p>Site : 03CH07-HY Condition : :PEAK(16) 3m HF_ANT_0006658A VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWF:Auto</p> |

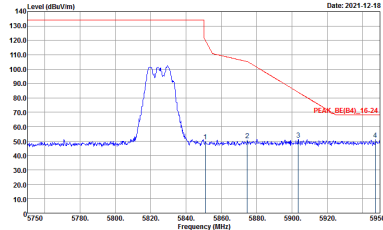
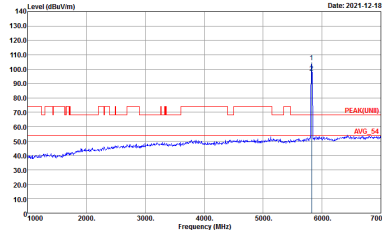


| WIFI | Band 4 5725~5850MHz Band Edge @ 3m | |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT | 802.11a CH157 5785MHz | |
| 3+4 | Horizontal | Fundamental |
| Peak | <p>Date: 2021-12-18</p> <p>Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_0006584 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> | <p>Date: 2021-12-18</p> <p>Site : 03CH07-HY Condition : PEAK(B4) 3m HF_ANT_0006584 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> |
| Peak | <p>Date: 2021-12-18</p> <p>Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_0006584 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> | Left blank |

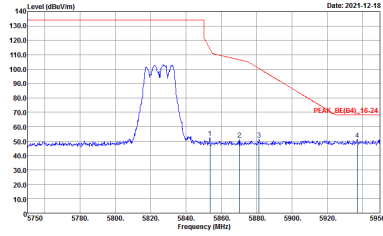
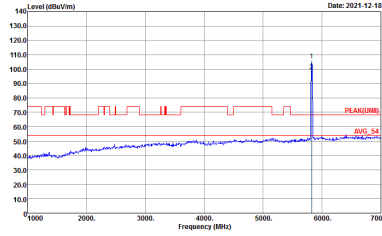


| | | |
|------|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| WIFI | Band 4 5725~5850MHz Band Edge @ 3m | |
| ANT | 802.11a CH157 5785MHz | |
| 3+4 | Vertical | Fundamental |
| Peak | <p>Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00066584 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> | <p>Site : 03CH07-HY Condition : PEAK(FUN) 3m HF_ANT_00066584 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> |
| Peak | <p>Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00066584 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> | Left blank |



| | | |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WIFI | Band 4 5725~5850MHz Band Edge @ 3m | |
| ANT | 802.11a CH165 5825MHz | |
| 3+4 | Horizontal | Fundamental |
| Peak |  <p>Site : 03CH07-HY Condition : :PEAK_BI(B4)_15-24 3m HF_ANT_00066584 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> |  <p>Site : 03CH07-HY Condition : :PEAK(BI) 3m HF_ANT_00066584 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> |



| | | |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WIFI | Band 4 5725~5850MHz Band Edge @ 3m | |
| ANT | 802.11a CH165 5825MHz | |
| 3+4 | Vertical | Fundamental |
| Peak |  <p>Site : 03CH07-HY Condition : :PEAK_BI(B4)_16-24 3m HF_ANT_0006658A VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> |  <p>Site : 03CH07-HY Condition : :PEAK(URB) 3m HF_ANT_0006658A VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> |



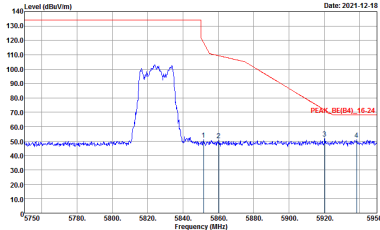
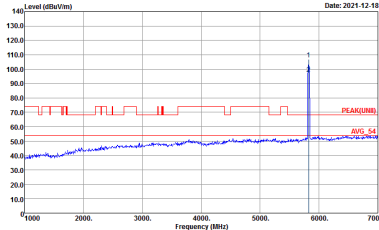
Band 4 5725~5850MHz
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

| | | |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| WIFI | Band 4 5725~5850MHz Band Edge @ 3m | |
| ANT | 802.11ax HE20 Full CH149 5745MHz | |
| 3+4 | Horizontal | Fundamental |
| Peak | <p>Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00066584 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p> | <p>Site : 03CH07-HY Condition : PEAK(LINI) 3m HF_ANT_00066584 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTA:Auto</p> |



| | | |
|------|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| WIFI | Band 4 5725~5850MHz Band Edge @ 3m | |
| ANT | 802.11ax HE20 Full CH149 5745MHz | |
| 3+4 | Vertical | Fundamental |
| Peak | <p>Site : 03CH07-HY Condition : :PEAK_REF(16)_16-24 3m HF_ANT_0006658A VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> | <p>Site : 03CH07-HY Condition : :PEAK(16) 3m HF_ANT_0006658A VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> |



| | | |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WIFI | Band 4 5725~5850MHz Band Edge @ 3m | |
| ANT | 802.11ax HE20 Full CH165 5825MHz | |
| 3+4 | Horizontal | Fundamental |
| Peak |  <p>Site : 03CH07-HY Condition : :PEAK_BI(B4)_16-24 3m HF_ANT_00066584 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> |  <p>Site : 03CH07-HY Condition : :PEAK(UWB) 3m HF_ANT_00066584 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> |



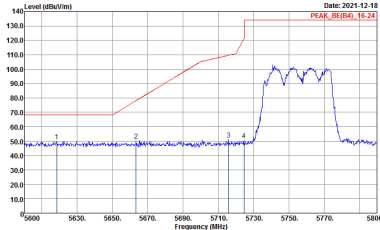
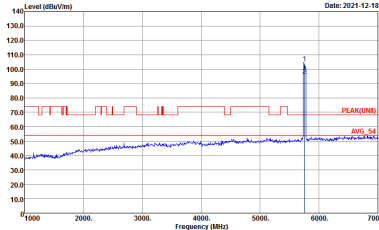
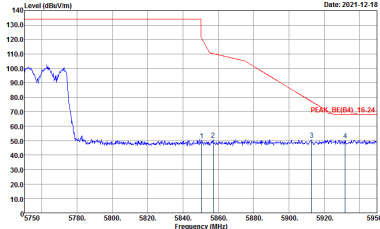
| | | |
|------|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| WIFI | Band 4 5725~5850MHz Band Edge @ 3m | |
| ANT | 802.11ax HE20 Full CH165 5825MHz | |
| 3+4 | Vertical | Fundamental |
| Peak | <p>Site : 03CH07-HY Condition : :PEAK_BREM_15-24 3m HF_ANT_0006658A VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> | <p>Site : 03CH07-HY Condition : :PEAK(FUN) 3m HF_ANT_0006658A VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> |



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 | |
| 3+4 | Horizontal | Fundamental |
| Peak | <p>Site : 03CH07-HY Condition : PEAK_BE(B4)_15-24 3m HF_ANT_00066584 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWFAuto</p> | <p>Site : 03CH07-HY Condition : PEAK(LIN1) 3m HF_ANT_00066584 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWFAuto</p> |
| Peak | <p>Site : 03CH07-HY Condition : PEAK_BE(B4)_15-24 3m HF_ANT_00066584 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWFAuto</p> | Left blank |



| | | |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WIFI | Band 4 5725~5850MHz Band Edge @ 3m | |
| ANT | 802.11ax HE40 Full CH151 5755MHz | |
| 3+4 | Vertical | Fundamental |
| Peak |  <p>Level (dBu/m) vs Frequency (MHz) plot showing a peak at 5755 MHz. The y-axis ranges from 10.0 to 140.0 dBu/m, and the x-axis ranges from 5600 to 5800 MHz. A red line indicates the peak level at 16.24 dBu/m. The plot is dated 2021-12-18.</p> <p>Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00066584 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> |  <p>Level (dBu/m) vs Frequency (MHz) plot showing a peak at 5755 MHz. The y-axis ranges from 10.0 to 140.0 dBu/m, and the x-axis ranges from 1000 to 7000 MHz. A red line indicates the peak level at 16.24 dBu/m. The plot is dated 2021-12-18.</p> <p>Site : 03CH07-HY Condition : PEAK(FUN) 3m HF_ANT_00066584 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> |
| Peak |  <p>Level (dBu/m) vs Frequency (MHz) plot showing a peak at 5755 MHz. The y-axis ranges from 10.0 to 140.0 dBu/m, and the x-axis ranges from 5750 to 5950 MHz. A red line indicates the peak level at 16.24 dBu/m. The plot is dated 2021-12-18.</p> <p>Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00066584 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> | Left blank |



| | | |
|------|---------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| WIFI | Band 4 5725~5850MHz Band Edge @ 3m | |
| ANT | 802.11ax HE40 Full CH159 5795MHz | |
| 3+4 | Horizontal | Fundamental |
| Peak | <p>Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_0006584 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> | <p>Site : 03CH07-HY Condition : PEAK(B4) 3m HF_ANT_0006584 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> |
| Peak | <p>Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_0006584 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> | Left blank |



| WIFI | Band 4 5725~5850MHz Band Edge @ 3m | |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT | 802.11ax HE40 Full CH159 5795MHz | |
| 3+4 | Vertical | Fundamental |
| Peak | <p>Date: 2021-12-18 PEAK_BE(B4)_16-24</p> <p>Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00066584 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> | <p>Date: 2021-12-18 PEAK(B4)</p> <p>Site : 03CH07-HY Condition : PEAK(B4) 3m HF_ANT_00066584 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> |
| Peak | <p>Date: 2021-12-18 PEAK_BE(B4)_16-24</p> <p>Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00066584 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> | 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 | |
| 3+4 | Horizontal | Fundamental |
| Peak | <p>Site : 03CH07-HY Condition : PEAK_BE(04)_16-24 3m HF_ANT_00066584 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> | <p>Site : 03CH07-HY Condition : PEAK(LIN1) 3m HF_ANT_00066584 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> |
| Peak | <p>Site : 03CH07-HY Condition : PEAK_BE(04)_16-24 3m HF_ANT_00066584 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> | Left blank |



| | | |
|------|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| WIFI | Band 4 5725~5850MHz Band Edge @ 3m | |
| ANT | 802.11ax HE80 Full CH155 5775MHz | |
| 3+4 | Vertical | Fundamental |
| Peak | <p>Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00060584 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> | <p>Site : 03CH07-HY Condition : PEAK(B4) 3m HF_ANT_00060584 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> |
| Peak | <p>Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00060584 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> | Left blank |



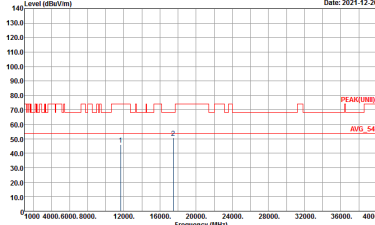
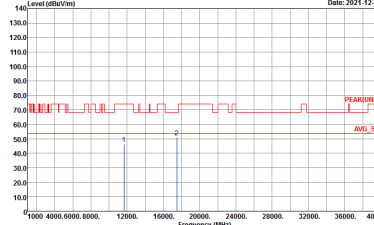
Band 4 - 5725~5850MHz
WIFI 802.11a (Harmonic @ 3m)

| | | |
|----------------------------|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| WIFI | Band 4 5725~5850MHz Harmonic @ 3m | |
| ANT | 802.11a CH149 5745MHz | |
| 3+4 | Horizontal | Vertical |
| Peak Avg. | <p>Site : 03CH07-HY Condition : PEAK(LIN1) 3m HF_ANT_00066584 HORIZONTAL</p> | <p>Site : 03CH07-HY Condition : PEAK(LIN1) 3m HF_ANT_00066584 VERTICAL</p> |



| | | |
|---------------------------------------|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| WIFI | Band 4 5725~5850MHz Harmonic @ 3m | |
| ANT | 802.11a CH157 5785MHz | |
| 3+4 | Horizontal | Vertical |
| <p>Peak</p> <p>Avg.</p> | <p>Site : 03CH07-HY Condition : PEAK(LIN1) 3m HF_ANT_00066584 HORIZONTAL</p> | <p>Site : 03CH07-HY Condition : PEAK(LIN1) 3m HF_ANT_00066584 VERTICAL</p> |



| | | |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WIFI | Band 4 5725~5850MHz Harmonic @ 3m | |
| ANT | 802.11a CH165 5825MHz | |
| 3+4 | Horizontal | Vertical |
| Peak Avg. |  <p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00066584 HORIZONTAL</p> |  <p>Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00066584 VERTICAL</p> |



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 | |
| 3+4 | Horizontal | Vertical |
| Peak Avg. | <p>Site : 03CN07-4H Condition : PEAK(UNII) 3m HF_ANT_00066584 HORIZONTAL</p> | <p>Site : 03CN07-4H Condition : PEAK(UNII) 3m HF_ANT_00066584 VERTICAL</p> |



Emission below 1GHz
 5GHz WIFI 802.11ax HE20 Full (LF @ 3m)

| | | |
|--------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| WIFI | 5GHz WIFI | |
| ANT | 802.11ax HE20 Full LF | |
| 3+4 | Horizontal | Vertical |
| QP / Peak | <p>Site : 03CH07-HY Condition : QP 3m LF-ANT-35419(6) HORIZONTAL</p> | <p>Site : 03CH07-HY Condition : QP 3m LF-ANT-35419(6) VERTICAL</p> |



Appendix E. Duty Cycle Plots

| Antenna | Band | Duty Cycle(%) | T(us) | 1/T(kHz) | VBW Setting |
|---------|----------------------------|---------------|-------|----------|-------------|
| 3+4 | 802.11a | 99.00 | - | - | 10Hz |
| 3+4 | 5GHz 802.11ax HE20 Full RU | 99.63 | - | - | 10Hz |
| 3+4 | 5GHz 802.11ax HE40 Full RU | 99.34 | - | - | 10Hz |
| 3+4 | 5GHz 802.11ax HE80 Full RU | 99.42 | - | - | 10Hz |

MIMO <Ant. 3+4>

