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. 23, 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 (R.O.C.)

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 10
2.4 Support Unit used in test configuration and system 10
2.5 EUT Operation Test Setup 10
2.6 Measurement Results Explanation Example 11
3 Test Result **12**
3.1 26dB & 99% Occupied Bandwidth Measurement 12
3.2 Maximum Conducted Output Power Measurement 16
3.3 Power Spectral Density Measurement 18
3.4 Unwanted Emissions Measurement 22
3.5 AC Conducted Emission Measurement 27
3.6 Antenna Requirements 29
4 List of Measuring Equipment **30**
5 Uncertainty of Evaluation **32**
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
FR190614B	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)	26dB Bandwidth	Pass	-
3.1	2.1049	99% Occupied Bandwidth	Reporting only	-
3.2	15.407(a)	Maximum Conducted Output Power	Pass	-
3.3	15.407(a)	Power Spectral Density	Pass	-
3.4	15.407(b)	Unwanted Emissions	Pass	8.83 dB under the limit at 5759.960 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		
5150 MHz ~ 5250 MHz	Peak Gain (dBi)	Ant. 3: 3.29 Ant. 4: 2.59
5250 MHz ~ 5350 MHz	Peak Gain (dBi)	Ant. 3: 3.29 Ant. 4: 2.59
5470 MHz ~ 5725 MHz	Peak Gain (dBi)	Ant. 3: 3.29 Ant. 4: 2.59

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, 03CH16-HY (TAF Code: 3786)
Remark	The Radiated Spurious Emission for Band 2~3 and Conducted test item subcontracted to Sporton International Inc. Wensan Laboratory.

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

FCC designation No.: TW1190 and TW3786

1.4 Applicable Standards

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

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

Remark:

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

2 Test Configuration of Equipment Under Test

a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, the measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in three orthogonal axis (X: flat, Y: portrait, Z: landscape), and adjusting the measurement antenna orientation, following C63.10 exploratory test procedures and find X plane for band 1; Z plane for band 2~3 as worst plane.

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

2.1 Carrier Frequency and Channel

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

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5250-5350 MHz Band 2 (U-NII-2A)	52	5260	60	5300
	54*	5270	62*	5310
	56	5280	64	5320
	58#	5290		

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5470-5725 MHz Band 3 (U-NII-2C)	100	5500	112	5560
	102*	5510	116	5580
	104	5520	132	5660
	106#	5530	134*	5670
	108	5540	136	5680
	110*	5550	140	5700

Frequency Band	Channel	Freq. (MHz)
5150-5350 MHz	50@	5250
5470-5725 MHz	114@	5570

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
TDWR Channel	118*	5590	124	5620
	120	5600	126*	5630
	122#	5610	128	5640

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
Straddle Channel	138#	5690	144	5720
	142*	5710		

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.
3. The above Frequency and Channel with "@" are 802.11ac VHT160 and 802.11ax HE160.

2.2 Test Mode

The final test modes consider the modulation and the worst data rates as shown in the table below.
EUT supports AP mode and client mode. The same output power level is used on the two modes. Due to the limit of the client mode is more restrictive than the AP mode, the client mode test data also shows the compliance of the AP mode. Therefore, this report only shows the test data of client mode.

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**
802.11ac VHT160 (Covered by HE160)	**MCS0**
802.11ax HE20	**MCS0**
802.11ax HE40	**MCS0**
802.11ax HE80	**MCS0**
802.11ax HE160	**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 I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11a	802.11a	802.11a
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11ax HE20	802.11ax HE20	802.11ax HE20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

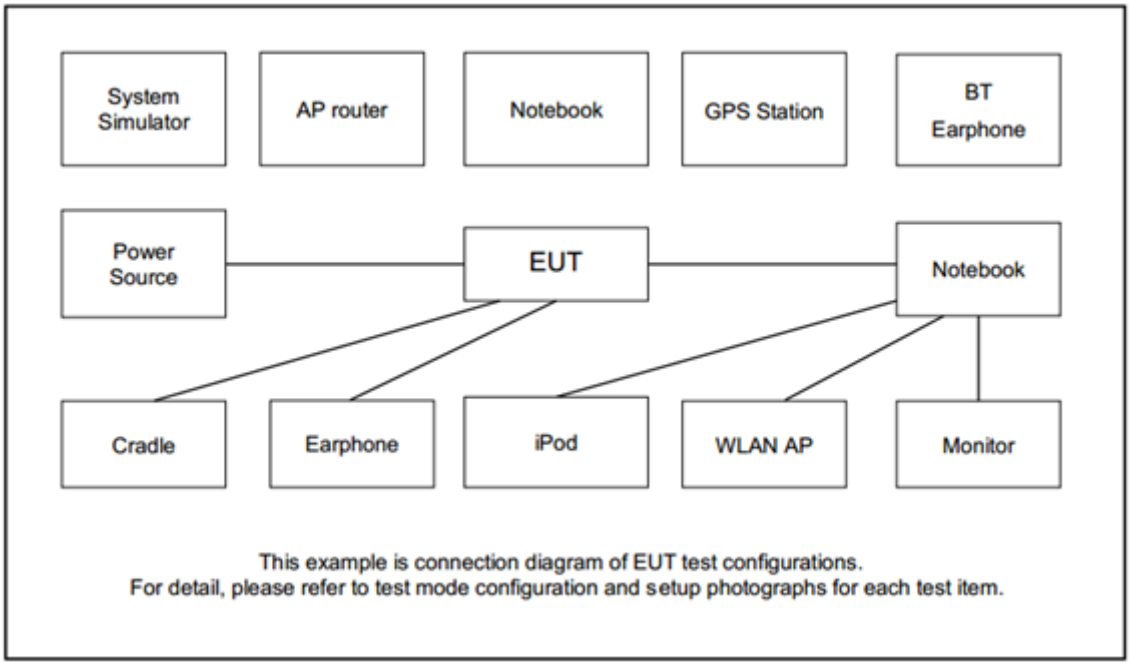
Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11ax HE40	802.11ax HE40	802.11ax HE40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134
Straddle		-	-	142

Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11ax HE80	802.11ax HE80	802.11ax HE80
L	Low	-	-	106
M	Middle	42	58	-
H	High	-	-	122
Straddle		-	-	138

BW160	5150-5350 MHz	5470-5725MHz
	802.11ax HE160	802.11ax HE160
Ch. #	50	114

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.

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).
= 4.2 + 10 = 14.2 (dB)

3 Test Result

3.1 26dB & 99% Occupied Bandwidth Measurement

3.1.1 Description of 26dB & 99% Occupied Bandwidth

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

For Straddle Channel, according to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, if the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

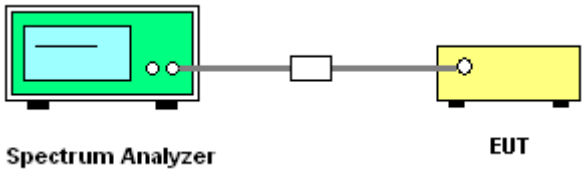
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section C) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the emission bandwidth and set the Video bandwidth (VBW) ≥ 3 * RBW.
8. Measure and record the results in the test report.

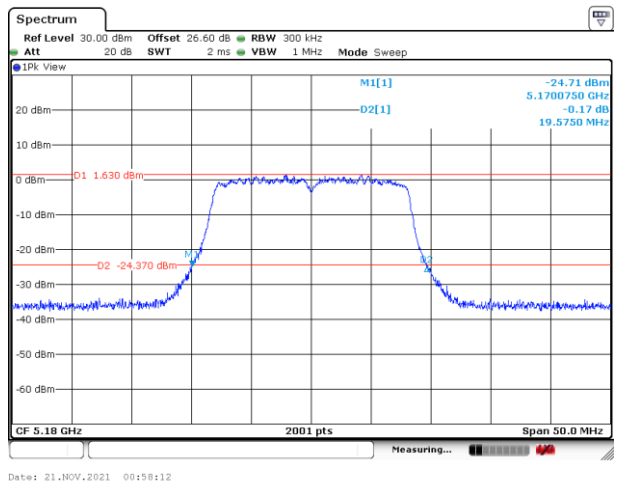
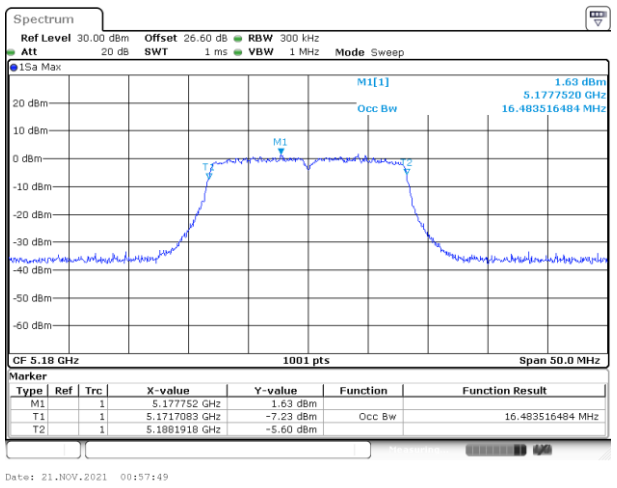
3.1.4 Test Setup



3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

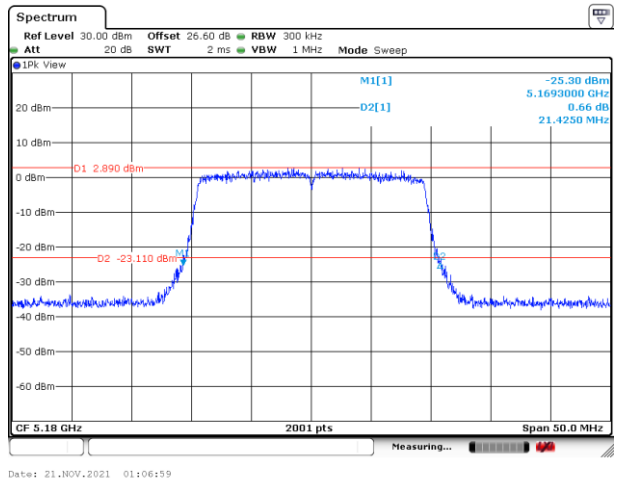
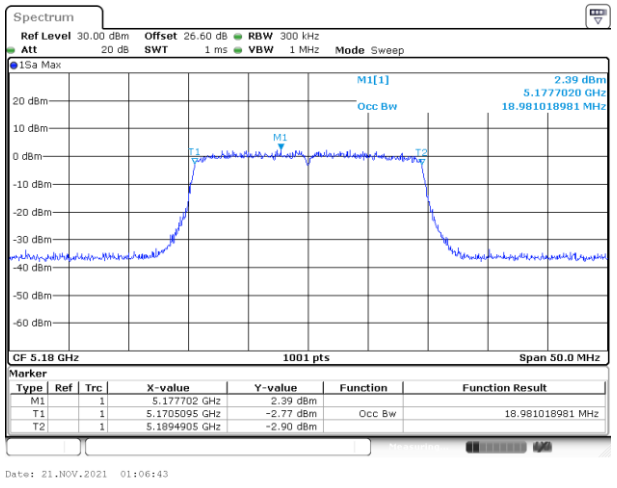
Please refer to Appendix A.

<802.11a>

26dB Bandwidth	99% Occupied Bandwidth
	

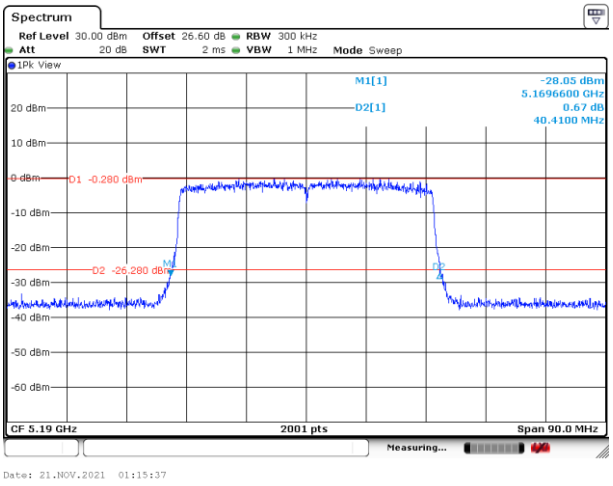
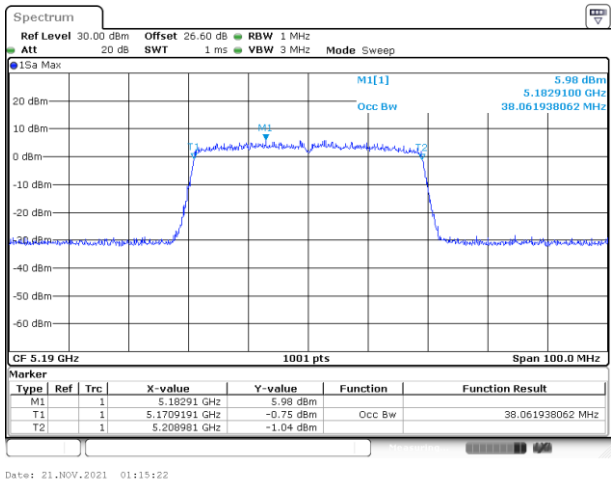
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<802.11ax HE20>

26dB Bandwidth	99% Occupied Bandwidth
	

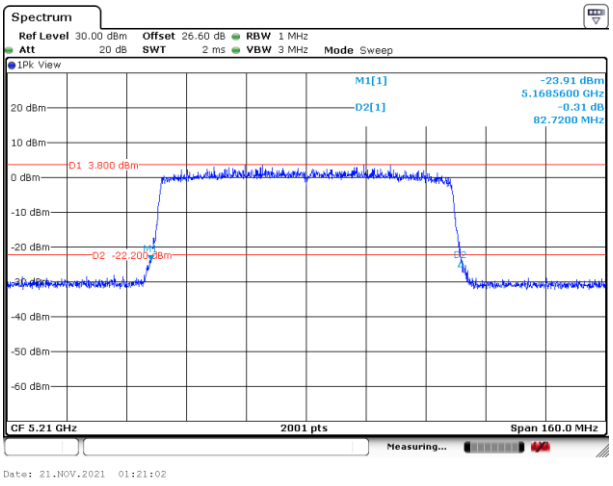
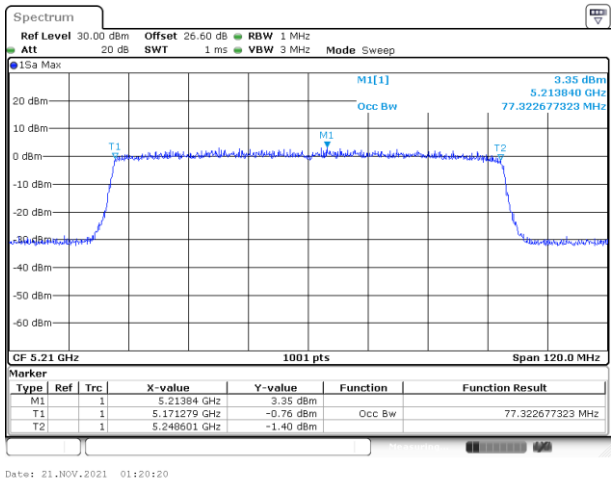
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<802.11ax HE40>

26dB Bandwidth	99% Occupied Bandwidth
	

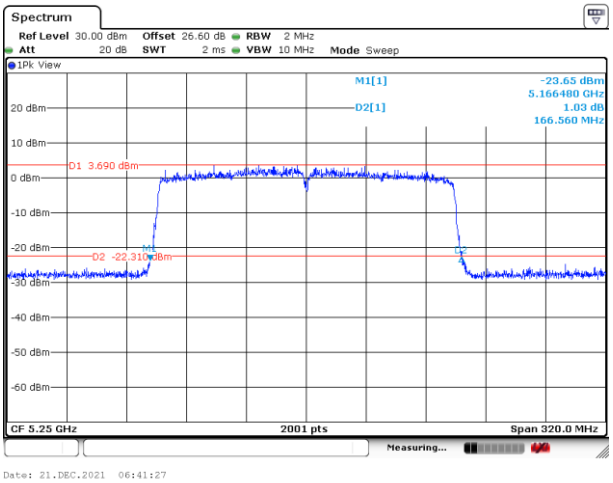
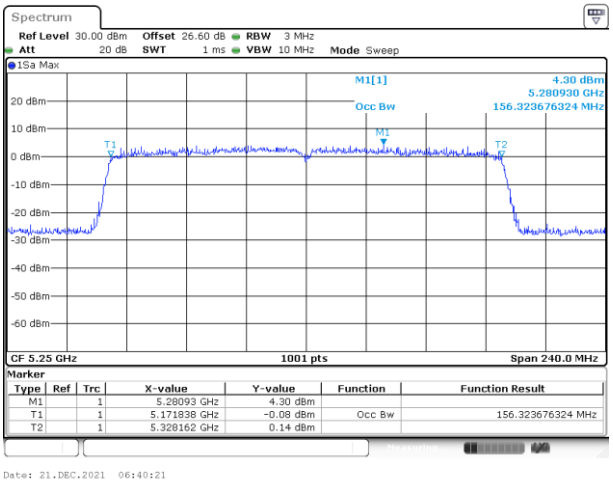
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<802.11ax HE80>

26dB Bandwidth	99% Occupied Bandwidth
	

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

<802.11ax HE160>

26dB Bandwidth	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

<FCC 14-30 CFR 15.407>

For the 5.15–5.25 GHz bands:

■ For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW. For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

For the 5.25–5.725 GHz bands:

■ The maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm 10 log B, where B is the 26 dB emission bandwidth in megahertz.

For Straddle Channel, according to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, if the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

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.

Note that U-NII-2 band, devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

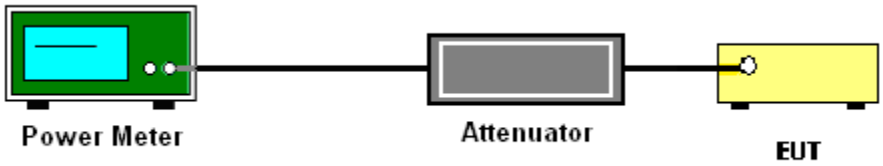
The testing follows Method PM-G of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

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

For Straddle Channel, according to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, if the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

<FCC 14-30 CFR 15.407>

For the 5.15–5.25 GHz bands:

For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1.0 MHz band. For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1.0 MHz band.

For the 5.25–5.725 GHz bands:

The maximum power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

For Straddle Channel, according to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, if the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

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):

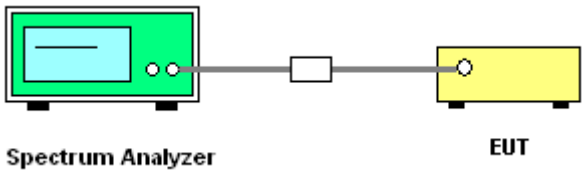
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz.
- Set VBW ≥ 3 MHz.
- Number of points in sweep ≥ 2 Span / RBW.
- Sweep time ≤ (number of points in sweep) × T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which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

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

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

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

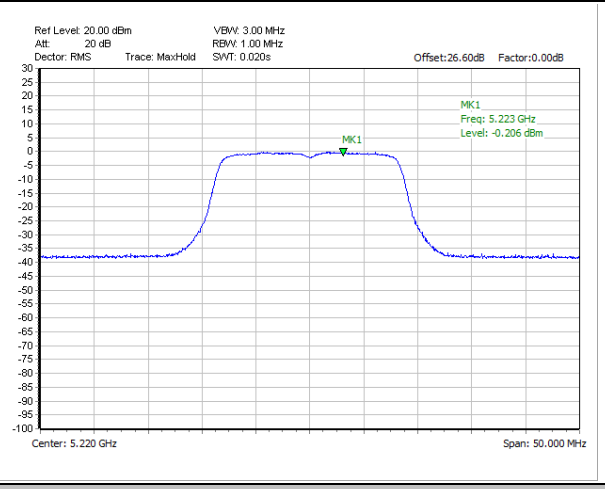
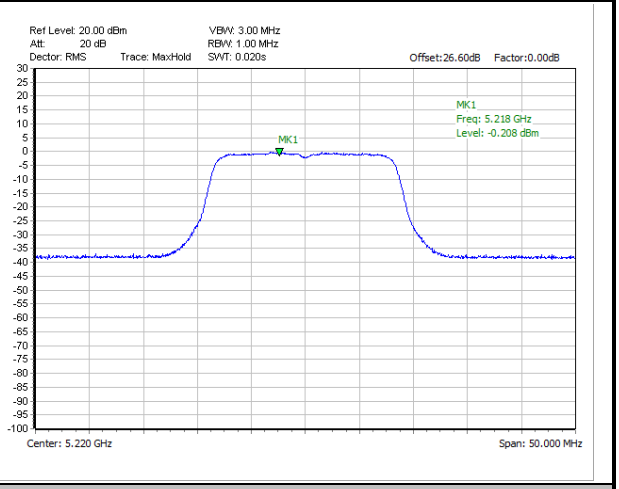
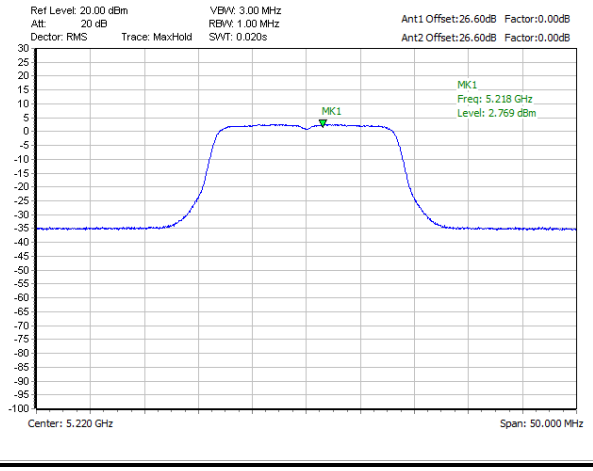
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

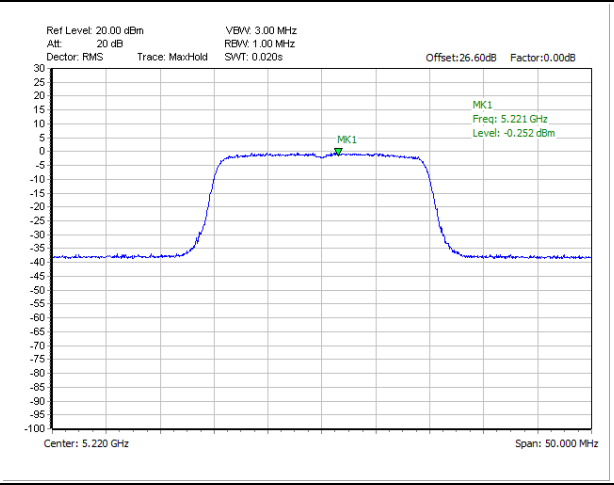
Please refer to Appendix A.

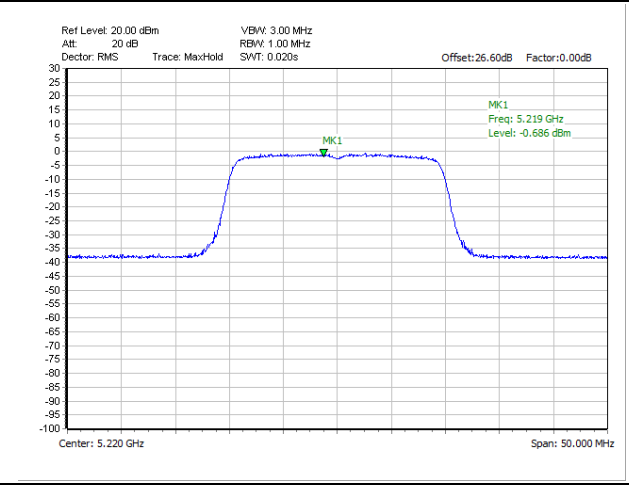
<802.11a Mode>

Worst Case Power Density (dBm/MHz)	
MIMO Ant. 3	**MIMO Ant. 4**
	
MIMO <Ant. 3+4>	
	

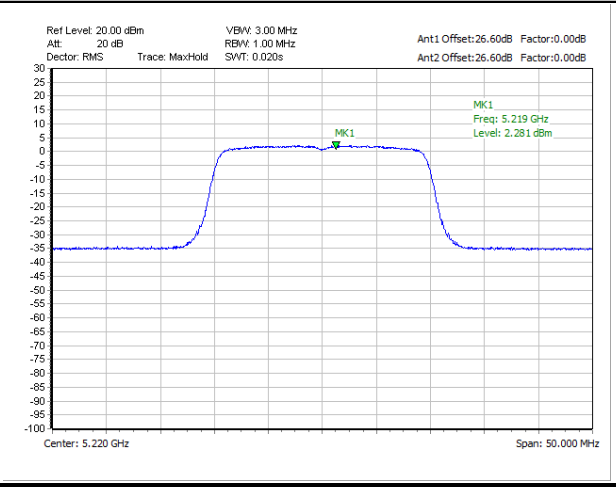
<802.11ax Mode>

Worst Case Power Density (dBm/MHz)	
MIMO Ant. 3	MIMO Ant. 4





MIMO <Ant. 3+4>



3.4 Unwanted Emissions Measurement

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

3.4.1 Limit of Unwanted Emissions

(1) For transmitters operating in the 5150-5250 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of –27dBm/MHz.

For transmitters operating in the 5250-5350 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5250-5350 MHz band that generate emissions in the 5150-5250 MHz band must meet all applicable technical requirements for operation in the 5150-5250 MHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5150-5250 MHz band.

For transmitters operating in the 5470-5600 MHz and 5650-5725MHz band: all emissions outside of the 5470-5600 MHz and 5650-5725MHz band shall not exceed an EIRP of -27 dBm/MHz.

(2) Unwanted spurious emissions falls in restricted bands shall comply with the general field strength limits as below table:

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

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

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

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

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

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

3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

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

(1) Procedure for Unwanted Emissions Measurements Below 1000 MHz

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

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

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

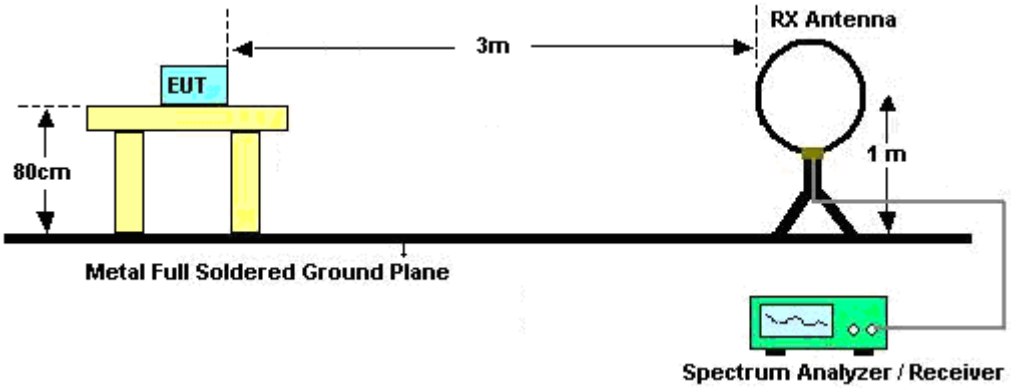
(3) Procedures for Average Unwanted Emissions Measurements Above 1000 MHz

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

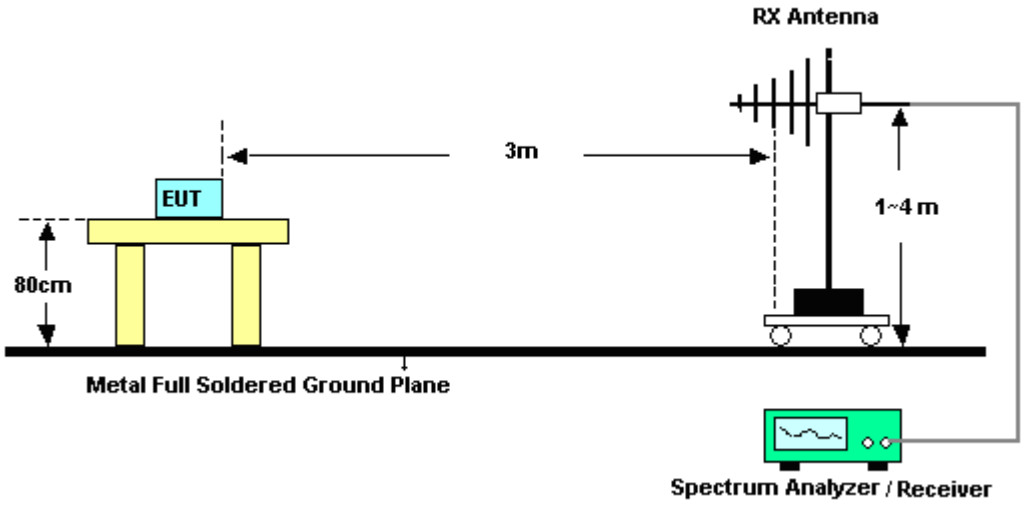
2. The EUT is placed on a turntable with 0.8 meter for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz respectively above ground.
3. The EUT is set 3 meters away from the receiving antenna which is mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna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

3.4.4 Test Setup

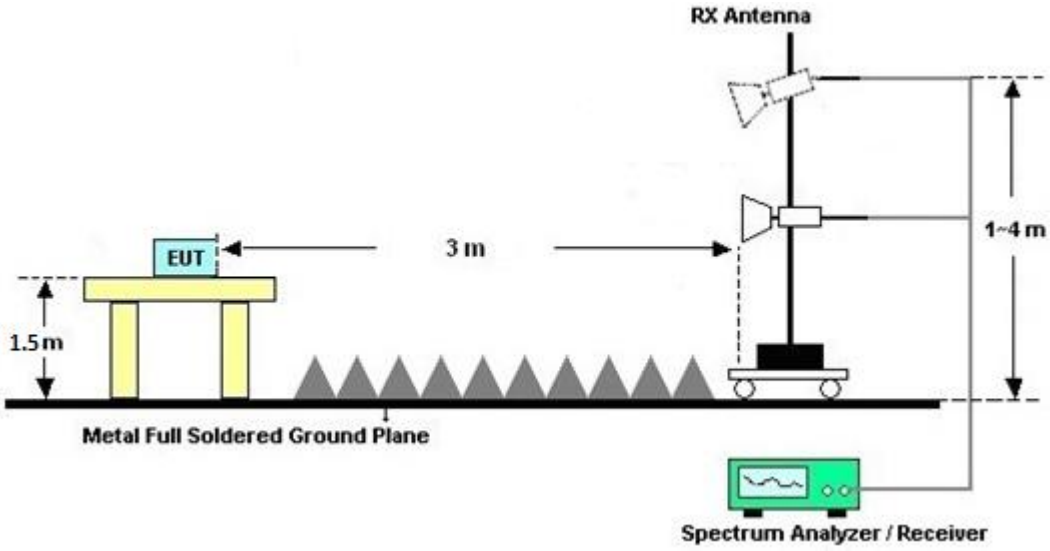
For radiated emissions below 30MHz



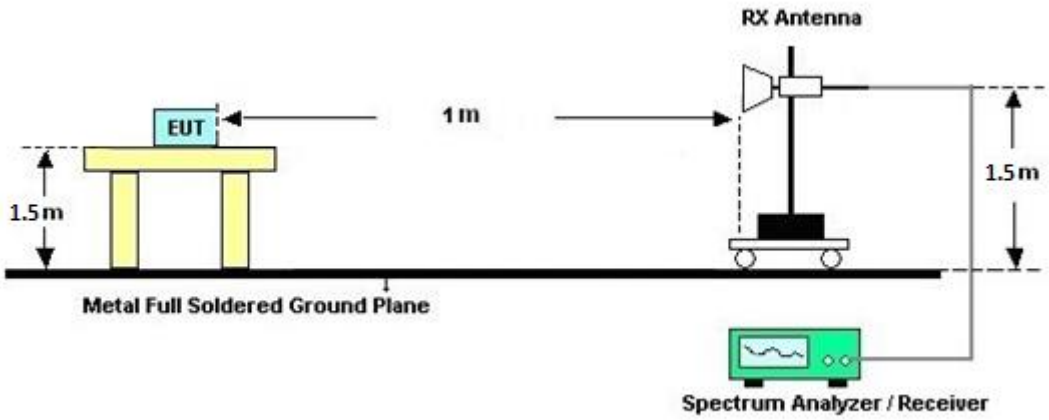
For radiated emissions from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



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

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

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

3.4.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C and D.

3.4.7 Duty Cycle

Please refer to Appendix E.

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

Please refer to Appendix C and D.

3.5 AC Conducted Emission Measurement

3.5.1 Limit of AC Conducted Emission

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

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

*Decreases with the logarithm of the frequency.

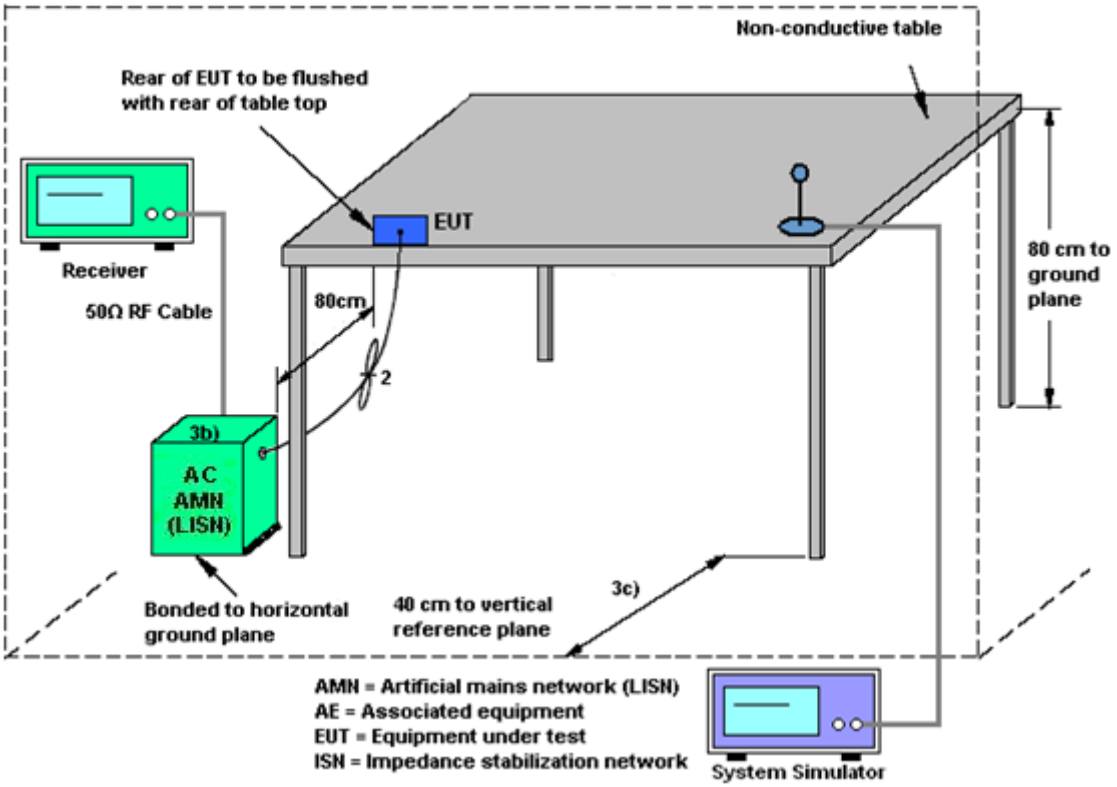
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

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

3.5.4 Test Setup



3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.6 Antenna Requirements

3.6.1 Standard Applicable

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

3.6.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.6.3 Antenna Gain

<CDD Modes >

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For 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>

	Ant. 3 (dBi)	Ant. 4 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
Band I	3.29	2.59	3.29	5.96	0.00	0.00
Band II	3.29	2.59	3.29	5.96	0.00	0.00
Band III	3.29	2.59	3.29	5.96	0.00	0.00

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

PSD limit reduction = Composite gain + PSD Array gain – 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
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-02114	1G~18GHz	Aug. 04, 2021	Dec. 22, 2021~ Dec. 23, 2021	Aug. 03, 2022	Radiation (03CH16-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1522	1G~18GHz	Oct. 12, 2021	Dec. 22, 2021~ Dec. 23, 2021	Oct. 11, 2022	Radiation (03CH16-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	00991	18GHz ~40GHz	May 12, 2021	Dec. 22, 2021~ Dec. 23, 2021	May 11, 2022	Radiation (03CH16-HY)
Amplifier	EMCI	EMC051845SE	980729	1-18GHz	Jul. 09, 2021	Dec. 22, 2021~ Dec. 23, 2021	Jul. 08, 2022	Radiation (03CH16-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	Jun. 22, 2021	Dec. 22, 2021~ Dec. 23, 2021	Jun. 21, 2022	Radiation (03CH16-HY)
Preamplifier	Keysight	83017A	MY53270264	1GHz~26.5GHz	Dec. 09, 2021	Dec. 22, 2021~ Dec. 23, 2021	Dec. 08, 2022	Radiation (03CH16-HY)
EMI Test Receiver	Keysight	N9038A	MY59053012	3Hz~26.5GHz	Nov. 18, 2021	Dec. 22, 2021~ Dec. 23, 2021	Nov. 17, 2022	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY11680/4PE	NA	Aug. 28, 2021	Dec. 22, 2021~ Dec. 23, 2021	Aug. 27, 2022	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY11688/4PE	NA	Aug. 28, 2021	Dec. 22, 2021~ Dec. 23, 2021	Aug. 27, 2022	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	EC-A5-300-5757	NA	Aug. 28, 2021	Dec. 22, 2021~ Dec. 23, 2021	Aug. 27, 2022	Radiation (03CH16-HY)
Software	Audix	E3 6.2009-8-24	RK-001136	N/A	N/A	Dec. 22, 2021~ Dec. 23, 2021	N/A	Radiation (03CH16-HY)
Controller	ChainTek	3000-1	N/A	Control Turn table & Ant Mast	N/A	Dec. 22, 2021~ Dec. 23, 2021	N/A	Radiation (03CH16-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Dec. 22, 2021~ Dec. 23, 2021	N/A	Radiation (03CH16-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Dec. 22, 2021~ Dec. 23, 2021	N/A	Radiation (03CH16-HY)
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~ Dec. 22, 2021	Feb. 28, 2022	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	13I00030SNO 31(NO:182)	10MHz~6GHz	Dec. 30, 2020	Nov. 09, 2021~ Dec. 22, 2021	Dec. 29, 2021	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101566	10Hz~40GHz	Aug. 30, 2021	Nov. 09, 2021~ Dec. 22, 2021	Aug. 29, 2022	Conducted (TH05-HY)
Switch Box & RF Cable	EM Electronics	EMSW18SE	SW191204 (BOX8)	N/A	Jan. 07, 2021	Nov. 09, 2021~ Dec. 22, 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))	**3.1dB**

<03CH07-HY>

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**

<03CH16-HY>

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

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

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

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

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Benny Ku and Shiming Liu	Temperature:	19.8~23.7	°C
Test Date:	2021/11/9~2021/12/22	Relative Humidity:	51.7~55.3	%

TEST RESULTS DATA
26dB and 99% OBW

Band I MIMO														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		99% Bandwidth Power Limit (dBm)		99% Bandwidth EIRP Limit (dBm)			Note
					Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4		
11a	6Mbps	2	36	5180	16.48	16.43	19.58	19.60	-		22.16			
11a	6Mbps	2	44	5220	16.48	16.43	19.78	19.68	-		22.16			
11a	6Mbps	2	48	5240	16.48	16.43	19.68	19.58	-		22.16			

TEST RESULTS DATA
Average Power Table

FCC Band I MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)			Pass/Fail
					Ant 3	Ant 4	SUM	Ant 3	Ant 4	Ant 3	Ant 4		
11a	6Mbps	2	36	5180	9.80	9.70	12.76	24.00		3.29			Pass
11a	6Mbps	2	44	5220	10.00	9.80	12.91	24.00		3.29			Pass
11a	6Mbps	2	48	5240	10.00	9.50	12.77	24.00		3.29			Pass
HT20	MCS0	2	36	5180	9.90	9.80	12.86	24.00		3.29			Pass
HT20	MCS0	2	44	5220	9.90	9.60	12.76	24.00		3.29			Pass
HT20	MCS0	2	48	5240	9.80	9.40	12.61	24.00		3.29			Pass
HT40	MCS0	2	38	5190	9.80	9.80	12.81	24.00		3.29			Pass
HT40	MCS0	2	46	5230	9.70	9.60	12.66	24.00		3.29			Pass
VHT20	MCS0	2	36	5180	9.90	9.80	12.86	24.00		3.29			Pass
VHT20	MCS0	2	44	5220	9.90	9.60	12.76	24.00		3.29			Pass
VHT20	MCS0	2	48	5240	9.80	9.40	12.61	24.00		3.29			Pass
VHT40	MCS0	2	38	5190	9.80	9.80	12.81	24.00		3.29			Pass
VHT40	MCS0	2	46	5230	9.70	9.60	12.66	24.00		3.29			Pass
VHT80	MCS0	2	42	5210	9.80	9.70	12.76	24.00		3.29			Pass

TEST RESULTS DATA
Power Spectral Density

FCC Band I MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 3	Ant 4	SUM	Ant 3	Ant 4	Ant 3	Ant 4		
11a	6Mbps	2	36	5180			2.35	11.00		5.96			Pass
11a	6Mbps	2	44	5220			2.77	11.00		5.96			Pass
11a	6Mbps	2	48	5240			2.36	11.00		5.96			Pass

TEST RESULTS DATA
26dB and 99% OBW

Band II MIMO															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		99% Bandwidth Power Limit (dBm)		99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		Note
					Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	
11a	6Mbps	2	52	5260	16.48	16.43	19.83	19.48	23.16		29.16		23.89		
11a	6Mbps	2	60	5300	16.48	16.43	19.80	19.63	23.16		29.16		23.93		
11a	6Mbps	2	64	5320	16.48	16.38	19.70	19.45	23.14		29.14		23.89		

TEST RESULTS DATA
Average Power Table

FCC Band II MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 3	Ant 4	SUM	Ant 3	Ant 4	Ant 3	Ant 4		
11a	6Mbps	2	52	5260	9.90	9.70	12.81	23.89		3.29		30	Pass
11a	6Mbps	2	60	5300	9.90	9.70	12.81	23.93		3.29		30	Pass
11a	6Mbps	2	64	5320	9.90	9.70	12.81	23.89		3.29		30	Pass
HT20	MCS0	2	52	5260	9.80	9.60	12.71	23.98		3.29		30	Pass
HT20	MCS0	2	60	5300	9.80	9.60	12.71	23.98		3.29		30	Pass
HT20	MCS0	2	64	5320	9.80	9.70	12.76	23.98		3.29		30	Pass
HT40	MCS0	2	54	5270	9.80	9.60	12.71	23.98		3.29		30	Pass
HT40	MCS0	2	62	5310	9.80	9.60	12.71	23.98		3.29		30	Pass
VHT20	MCS0	2	52	5260	9.80	9.60	12.71	23.98		3.29		30	Pass
VHT20	MCS0	2	60	5300	9.80	9.60	12.71	23.98		3.29		30	Pass
VHT20	MCS0	2	64	5320	9.80	9.70	12.76	23.98		3.29		30	Pass
VHT40	MCS0	2	54	5270	9.80	9.60	12.71	23.98		3.29		30	Pass
VHT40	MCS0	2	62	5310	9.80	9.60	12.71	23.98		3.29		30	Pass
VHT80	MCS0	2	58	5290	9.70	9.60	12.66	23.98		3.29		30	Pass

TEST RESULTS DATA
Power Spectral Density

Band II MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 3	Ant 4	SUM	Ant 3	Ant 4	Ant 3	Ant 4		
11a	6Mbps	2	52	5260			2.27	11.00		5.96			Pass
11a	6Mbps	2	60	5300			2.30	11.00		5.96			Pass
11a	6Mbps	2	64	5320			2.37	11.00		5.96			Pass

TEST RESULTS DATA
26dB and 99% OBW

Band III MIMO																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth In U-NII 2C (MHz)		26 dB Bandwidth In U-NII 2C (MHz)		99% Bandwidth Power Limit (dBm)		99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		6 dB Bandwidth for Straddle Channel (MHz)	
					Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4
11a	6Mbps	2	100	5500	16.48	16.43	19.85	19.53	23.16		29.16		23.91		----	----
11a	6Mbps	2	116	5580	16.48	16.43	19.83	19.55	23.16		29.16		23.91		----	----
11a	6Mbps	2	140	5700	16.48	16.43	19.65	19.53	23.16		29.16		23.91		----	----

Band III straddle channel MIMO																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth In U-NII 2C (MHz)		26 dB Bandwidth In U-NII 2C (MHz)		99% Bandwidth Power Limit (dBm)		99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		6 dB Bandwidth for Straddle Channel (MHz)	
					Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4
11a	6Mbps	2	144	5720	13.29	13.24	14.95	14.95	22.22		28.22		22.75		3.20	3.20

TEST RESULTS DATA
Average Power Table

FCC Band III MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 3	Ant 4	SUM	Ant 3	Ant 4	Ant 3	Ant 4		
11a	6Mbps	2	100	5500	9.80	9.80	12.81	23.91		3.29		30	Pass
11a	6Mbps	2	116	5580	9.70	9.80	12.76	23.91		3.29		30	Pass
11a	6Mbps	2	140	5700	9.70	9.80	12.76	23.91		3.29		30	Pass
HT20	MCS0	2	100	5500	9.60	9.60	12.61	23.98		3.29		30	Pass
HT20	MCS0	2	116	5580	9.60	9.60	12.61	23.98		3.29		30	Pass
HT20	MCS0	2	140	5700	9.70	9.60	12.66	23.98		3.29		30	Pass
HT40	MCS0	2	102	5510	9.70	9.60	12.66	23.98		3.29		30	Pass
HT40	MCS0	2	110	5550	9.70	9.60	12.66	23.98		3.29		30	Pass
HT40	MCS0	2	134	5670	9.60	9.70	12.66	23.98		3.29		30	Pass
VHT20	MCS0	2	100	5500	9.60	9.60	12.61	23.98		3.29		30	Pass
VHT20	MCS0	2	116	5580	9.60	9.60	12.61	23.98		3.29		30	Pass
VHT20	MCS0	2	140	5700	9.70	9.60	12.66	23.98		3.29		30	Pass
VHT40	MCS0	2	102	5510	9.70	9.60	12.66	23.98		3.29		30	Pass
VHT40	MCS0	2	110	5550	9.70	9.60	12.66	23.98		3.29		30	Pass
VHT40	MCS0	2	134	5670	9.60	9.70	12.66	23.98		3.29		30	Pass
VHT80	MCS0	2	106	5530	9.70	9.60	12.66	23.98		3.29		30	Pass
VHT80	MCS0	2	122	5610	9.60	9.60	12.61	23.98		3.29		30	Pass
VHT160	MCS0	2	114	5570	9.80	9.60	12.71	23.98		3.29		30	Pass

FCC Band III straddle channel MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 3	Ant 4	SUM	Ant 3	Ant 4	Ant 3	Ant 4		
11a	6Mbps	2	144	5720	9.90	9.90	12.91	22.75		3.29		30	Pass
HT20	MCS0	2	144	5720	9.70	9.70	12.71	23.98		3.29		30	Pass
HT40	MCS0	2	142	5710	9.70	9.60	12.66	23.98		3.29		30	Pass
VHT20	MCS0	2	144	5720	9.70	9.70	12.71	23.98		3.29		30	Pass
VHT40	MCS0	2	142	5710	9.70	9.60	12.66	23.98		3.29		30	Pass
VHT80	MCS0	2	138	5690	9.70	9.60	12.66	23.98		3.29		30	Pass

TEST RESULTS DATA
Power Spectral Density

Band III MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 3	Ant 4	SUM	Ant 3	Ant 4	Ant 3	Ant 4		
11a	6Mbps	2	100	5500			2.01	11.00		5.96			Pass
11a	6Mbps	2	116	5580			2.03	11.00		5.96			Pass
11a	6Mbps	2	140	5700			1.76	11.00		5.96			Pass

Band III straddle channel MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 3	Ant 4	SUM	Ant 3	Ant 4	Ant 3	Ant 4		
11a	6Mbps	2	144	5720			2.20	11.00		5.96			Pass

TEST RESULTS DATA
26dB and 99% OBW

Band I MIMO															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		99% Bandwidth Power Limit (dBm)		99% Bandwidth EIRP Limit (dBm)			Note
						Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4		
HE20	MCS0	2	36	5180	Full	18.98	18.98	21.43	21.35	-		22.78			
HE20	MCS0	2	44	5220	Full	18.93	18.93	21.45	21.23	-		22.77			
HE20	MCS0	2	48	5240	Full	18.93	18.98	21.45	21.43	-		22.77			
HE40	MCS0	2	38	5190	Full	38.06	38.06	40.41	40.19	-		23.01			
HE40	MCS0	2	46	5230	Full	37.96	37.96	40.50	40.41	-		23.01			
HE80	MCS0	2	42	5210	Full	77.32	77.20	82.72	82.72	-		23.01			
HE160	MCS0	2	50	5250	Full	156.32	156.80	166.56	166.08	-		23.01			

TEST RESULTS DATA
Average Power Table

FCC Band I MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
						Ant 3	Ant 4	SUM	Ant 3	Ant 4	Ant 3	Ant 4	
HE20	MCS0	2	36	5180	Full	10.00	9.90	12.96	24.00		3.29		Pass
HE20	MCS0	2	44	5220	Full	10.00	9.70	12.86	24.00		3.29		Pass
HE20	MCS0	2	48	5240	Full	9.90	9.50	12.71	24.00		3.29		Pass
HE40	MCS0	2	38	5190	Full	9.90	9.90	12.91	24.00		3.29		Pass
HE40	MCS0	2	46	5230	Full	9.80	9.70	12.76	24.00		3.29		Pass
HE80	MCS0	2	42	5210	Full	9.90	9.80	12.86	24.00		3.29		Pass
HE160	MCS0	2	50	5250	Full	9.90	9.80	12.86	24.00		3.29		Pass

TEST RESULTS DATA
Power Spectral Density

FCC Band I MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)		Pass /Fail
						Ant 3	Ant 4	SUM	Ant 3	Ant 4	Ant 3	Ant 4	
HE20	MCS0	2	36	5180	Full			2.12	11.00		5.96		Pass
HE20	MCS0	2	44	5220	Full			2.28	11.00		5.96		Pass
HE20	MCS0	2	48	5240	Full			2.08	11.00		5.96		Pass
HE40	MCS0	2	38	5190	Full			-0.57	11.00		5.96		Pass
HE40	MCS0	2	46	5230	Full			-0.71	11.00		5.96		Pass
HE80	MCS0	2	42	5210	Full			-3.38	11.00		5.96		Pass
HE160	MCS0	2	50	5250	Full			-6.49	11.00		5.96		Pass

TEST RESULTS DATA
26dB and 99% OBW

Band II MIMO																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		99% Bandwidth Power Limit (dBm)		99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		Note
						Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	
HE20	MCS0	2	52	5260	Full	18.93	18.93	21.48	21.60	23.77		29.77		23.98		
HE20	MCS0	2	60	5300	Full	18.93	18.93	21.45	21.43	23.77		29.77		23.98		
HE20	MCS0	2	64	5320	Full	18.93	18.93	21.13	21.28	23.77		29.77		23.98		
HE40	MCS0	2	54	5270	Full	38.06	38.06	40.41	40.50	23.98		30.00		23.98		
HE40	MCS0	2	62	5310	Full	37.96	38.06	40.41	40.37	23.98		30.00		23.98		
HE80	MCS0	2	58	5290	Full	77.32	77.20	82.48	82.88	23.98		30.00		23.98		

TEST RESULTS DATA
Average Power Table

FCC Band II MIMO														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
						Ant 3	Ant 4	SUM	Ant 3	Ant 4	Ant 3	Ant 4		
HE20	MCS0	2	52	5260	Full	9.90	9.70	12.81	23.98		3.29		30	Pass
HE20	MCS0	2	60	5300	Full	9.90	9.70	12.81	23.98		3.29		30	Pass
HE20	MCS0	2	64	5320	Full	9.90	9.80	12.86	23.98		3.29		30	Pass
HE40	MCS0	2	54	5270	Full	9.90	9.70	12.81	23.98		3.29		30	Pass
HE40	MCS0	2	62	5310	Full	9.90	9.70	12.81	23.98		3.29		30	Pass
HE80	MCS0	2	58	5290	Full	9.80	9.70	12.76	23.98		3.29		30	Pass

TEST RESULTS DATA
Power Spectral Density

Band II MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)		Pass /Fail
						Ant 3	Ant 4	SUM	Ant 3	Ant 4	Ant 3	Ant 4	
HE20	MCS0	2	52	5260	Full			1.80	11.00		5.96		Pass
HE20	MCS0	2	60	5300	Full			1.97	11.00		5.96		Pass
HE20	MCS0	2	64	5320	Full			2.15	11.00		5.96		Pass
HE40	MCS0	2	54	5270	Full			-0.78	11.00		5.96		Pass
HE40	MCS0	2	62	5310	Full			-1.05	11.00		5.96		Pass
HE80	MCS0	2	58	5290	Full			-3.83	11.00		5.96		Pass

TEST RESULTS DATA
26dB and 99% OBW

Band III MIMO																	
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	99% Bandwidth In U-NII 2C (MHz)		26 dB Bandwidth In U-NII 2C (MHz)		99% Bandwidth Power Limit (dBm)		99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		6 dB Bandwidth for Straddle Channel (MHz)	
						Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4
HE20	MCS0	2	100	5500	Full	18.93	18.98	21.28	21.53	23.77		29.77		23.98		----	----
HE20	MCS0	2	116	5580	Full	18.93	18.93	21.33	21.25	23.77		29.77		23.98		----	----
HE20	MCS0	2	140	5700	Full	18.93	18.98	21.50	21.35	23.77		29.77		23.98		----	----
HE40	MCS0	2	102	5510	Full	37.96	37.96	40.28	40.50	23.98		30.00		23.98		----	----
HE40	MCS0	2	110	5550	Full	38.06	38.06	40.64	40.37	23.98		30.00		23.98		----	----
HE40	MCS0	2	134	5670	Full	38.06	38.06	40.32	40.32	23.98		30.00		23.98		----	----
HE80	MCS0	2	106	5530	Full	77.32	77.32	82.32	82.64	23.98		30.00		23.98		----	----
HE80	MCS0	2	122	5610	Full	77.32	77.32	82.64	82.72	23.98		30.00		23.98		----	----
HE160	MCS0	2	114	5570	Full	156.08	156.80	166.72	166.72	23.98		30.00		23.98		----	----

Band III straddle channel MIMO																	
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	99% Bandwidth In U-NII 2C (MHz)		26 dB Bandwidth In U-NII 2C (MHz)		99% Bandwidth Power Limit (dBm)		99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		6 dB Bandwidth for Straddle Channel (MHz)	
						Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4
HE20	MCS0	2	144	5720	Full	14.49	14.49	15.82	15.52	22.61		28.61		22.91		4.50	4.40
HE40	MCS0	2	142	5710	Full	34.08	33.98	35.25	35.30	23.98		30.00		23.98		3.81	3.99
HE80	MCS0	2	138	5690	Full	73.72	73.60	76.68	76.60	23.98		30.00		23.98		3.88	3.40

TEST RESULTS DATA
Average Power Table

FCC Band III MIMO														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
						Ant 3	Ant 4	SUM	Ant 3	Ant 4	Ant 3	Ant 4		
HE20	MCS0	2	100	5500	Full	9.70	9.70	12.71	23.98		3.29		30	Pass
HE20	MCS0	2	116	5580	Full	9.70	9.70	12.71	23.98		3.29		30	Pass
HE20	MCS0	2	140	5700	Full	9.80	9.70	12.76	23.98		3.29		30	Pass
HE40	MCS0	2	102	5510	Full	9.80	9.70	12.76	23.98		3.29		30	Pass
HE40	MCS0	2	110	5550	Full	9.80	9.70	12.76	23.98		3.29		30	Pass
HE40	MCS0	2	134	5670	Full	9.70	9.80	12.76	23.98		3.29		30	Pass
HE80	MCS0	2	106	5530	Full	9.80	9.70	12.76	23.98		3.29		30	Pass
HE80	MCS0	2	122	5610	Full	9.70	9.70	12.71	23.98		3.29		30	Pass
HE160	MCS0	2	114	5570	Full	9.90	9.70	12.81	23.98		3.29		30	Pass

FCC Band III straddle channel MIMO														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
						Ant 3	Ant 4	SUM	Ant 3	Ant 4	Ant 3	Ant 4		
HE20	MCS0	2	144	5720	Full	9.80	9.80	12.81	22.91		3.29		30	Pass
HE40	MCS0	2	142	5710	Full	9.80	9.70	12.76	23.98		3.29		30	Pass
HE80	MCS0	2	138	5690	Full	9.80	9.70	12.76	23.98		3.29		30	Pass

TEST RESULTS DATA
Power Spectral Density

Band III MIMO														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
						Ant 3	Ant 4	SUM	Ant 3	Ant 4	Ant 3	Ant 4		
HE20	MCS0	2	100	5500	Full			1.92	11.00		5.96			Pass
HE20	MCS0	2	116	5580	Full			1.80	11.00		5.96			Pass
HE20	MCS0	2	140	5700	Full			1.85	11.00		5.96			Pass
HE40	MCS0	2	102	5510	Full			-0.86	11.00		5.96			Pass
HE40	MCS0	2	110	5550	Full			-0.98	11.00		5.96			Pass
HE40	MCS0	2	134	5670	Full			-1.08	11.00		5.96			Pass
HE80	MCS0	2	106	5530	Full			-3.58	11.00		5.96			Pass
HE80	MCS0	2	122	5610	Full			-3.88	11.00		5.96			Pass
HE160	MCS0	2	114	5570	Full			-6.59	11.00		5.96			Pass

Band III straddle channel MIMO														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
						Ant 3	Ant 4	SUM	Ant 3	Ant 4	Ant 3	Ant 4		
HE20	MCS0	2	144	5720	Full			1.93	11.00		5.96			Pass
HE40	MCS0	2	142	5710	Full			-1.09	11.00		5.96			Pass
HE80	MCS0	2	138	5690	Full			-3.79	11.00		5.96			Pass

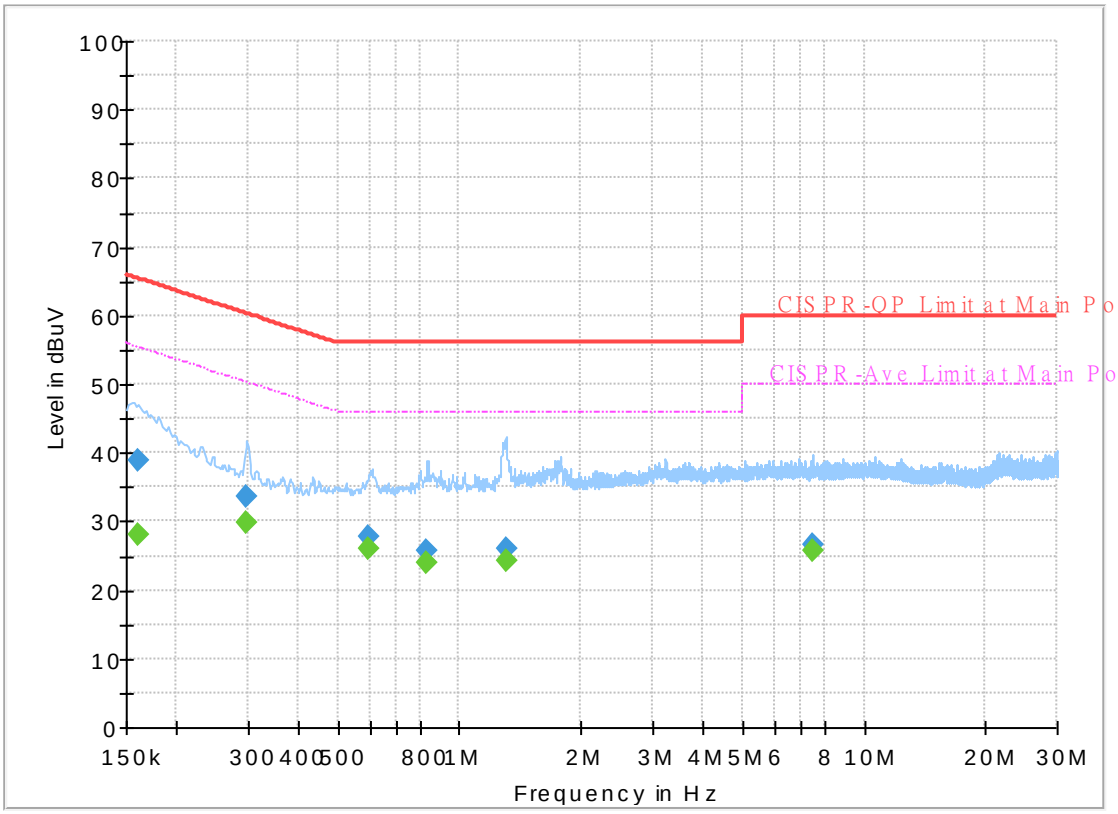
Appendix B. AC Conducted Emission Test Results

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

EUT Information

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

Full Spectrum



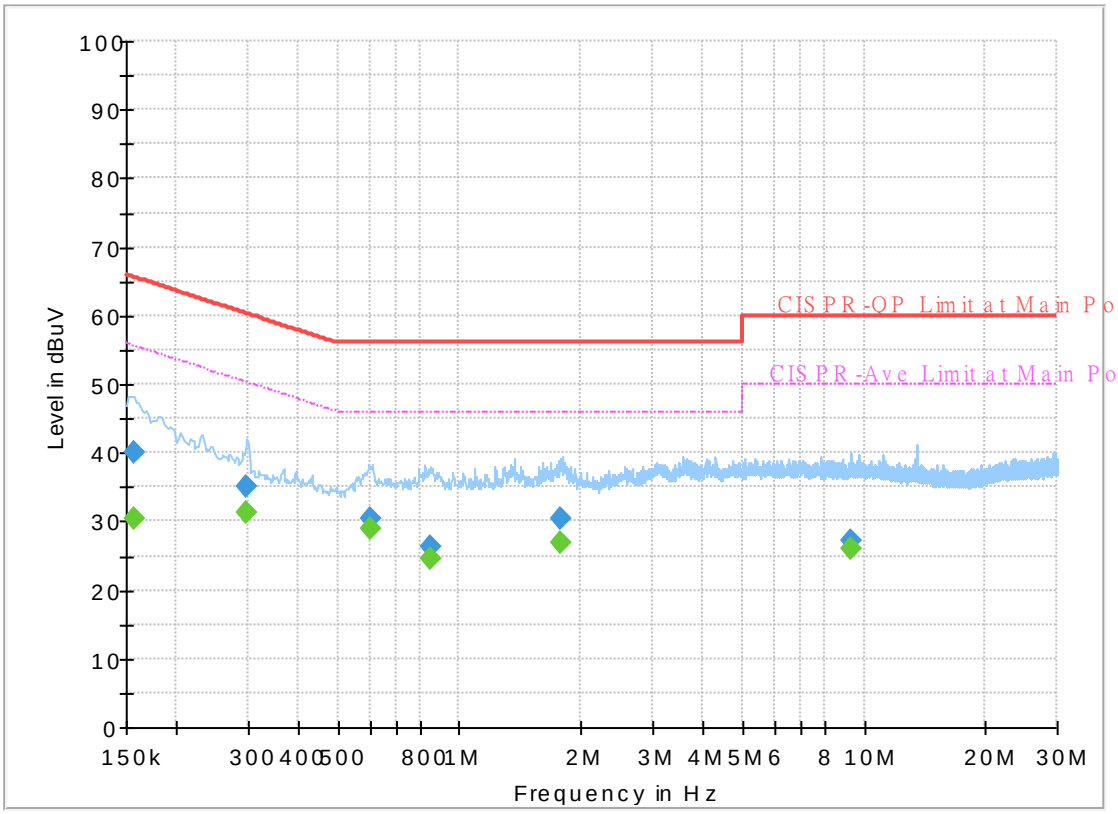
Final_Result

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 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
3+4		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5100.88	49.51	-24.49	74	38.67	34.4	11.74	35.3	100	93	P	H
		5148.46	40.13	-13.87	54	29.22	34.4	11.79	35.28	100	93	A	H
	*	5180	103.27	-	-	92.19	34.52	11.83	35.27	100	93	P	H
	*	5180	96.25	-	-	85.17	34.52	11.83	35.27	100	93	A	H
													H
													H
		5122.98	50.52	-23.48	74	39.65	34.4	11.76	35.29	100	295	P	V
		5148.98	40.43	-13.57	54	29.52	34.4	11.79	35.28	100	295	A	V
	*	5180	105.95	-	-	94.87	34.52	11.83	35.27	100	295	P	V
	*	5180	98.71	-	-	87.63	34.52	11.83	35.27	100	295	A	V
													V
													V
802.11a CH 44 5220MHz		5104.78	49.94	-24.06	74	39.1	34.4	11.74	35.3	100	92	P	H
		5130	40.07	-13.93	54	29.19	34.4	11.77	35.29	100	92	A	H
	*	5220	104.52	-	-	93.35	34.56	11.86	35.25	100	92	P	H
	*	5220	97.39	-	-	86.22	34.56	11.86	35.25	100	92	A	H
		5388.32	48.93	-25.07	74	37.43	34.71	11.96	35.17	100	92	P	H
		5458.88	39.56	-14.44	54	27.89	34.74	12.06	35.13	100	92	A	H
		5056.94	49.18	-24.82	74	38.59	34.23	11.69	35.33	105	296	P	V
		5148.46	40.27	-13.73	54	29.36	34.4	11.79	35.28	105	296	A	V
	*	5220	106.75	-	-	95.58	34.56	11.86	35.25	105	296	P	V
	*	5220	99.33	-	-	88.16	34.56	11.86	35.25	105	296	A	V
		5387.76	48.41	-25.59	74	36.92	34.7	11.96	35.17	105	296	P	V
		5458.6	39.57	-14.43	54	27.91	34.73	12.06	35.13	105	296	A	V

802.11a CH 48 5240MHz		5078	49.86	-24.14	74	39.15	34.31	11.71	35.31	100	94	P	H
		5117.78	40	-14	54	29.14	34.4	11.76	35.3	100	94	A	H
	*	5240	104.9	-	-	93.75	34.52	11.87	35.24	100	94	P	H
	*	5240	97.48	-	-	86.33	34.52	11.87	35.24	100	94	A	H
		5424.72	48.37	-25.63	74	36.75	34.75	12.01	35.14	100	94	P	H
		5458.04	39.55	-14.45	54	27.89	34.73	12.06	35.13	100	94	A	H
		5122.2	48.88	-25.12	74	38.01	34.4	11.76	35.29	100	296	P	V
		5131.56	40.15	-13.85	54	29.27	34.4	11.77	35.29	100	296	A	V
	*	5240	106.49	-	-	95.34	34.52	11.87	35.24	100	296	P	V
	*	5240	99.4	-	-	88.25	34.52	11.87	35.24	100	296	A	V
		5378.8	48.87	-25.13	74	37.45	34.63	11.96	35.17	100	296	P	V
		5458.6	39.61	-14.39	54	27.95	34.73	12.06	35.13	100	296	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 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 36 5180MHz		10360	44.28	-23.92	68.2	47.36	37.66	18.57	59.31	-	-	P	H
		15540	47.51	-26.49	74	40.31	41.1	23.33	57.23	-	-	P	H
													H
													H
		10360	45.27	-22.93	68.2	48.35	37.66	18.57	59.31	-	-	P	V
		15540	46.86	-27.14	74	39.66	41.1	23.33	57.23	-	-	P	V
													V
													V
802.11a CH 44 5220MHz		10440	45.63	-22.57	68.2	48.54	37.66	18.64	59.21	-	-	P	H
		15660	47.88	-26.12	74	40.39	41.16	23.45	57.12	-	-	P	H
													H
													H
		10440	45.39	-22.81	68.2	48.3	37.66	18.64	59.21	-	-	P	V
		15660	47.79	-26.21	74	40.3	41.16	23.45	57.12	-	-	P	V
													V
													V
802.11a CH 48 5240MHz		10480	45.21	-22.99	68.2	48.08	37.62	18.67	59.16	-	-	P	H
		15720	48.87	-25.13	74	41.14	41.3	23.5	57.07	-	-	P	H
		15720	39.06	-14.94	54	31.33	41.3	23.5	57.07	-	-	A	H
													H
		10480	46.68	-21.52	68.2	49.55	37.62	18.67	59.16	-	-	P	V
		15720	48.99	-25.01	74	41.26	41.3	23.5	57.07	-	-	P	V
		15720	39.13	-14.87	54	31.4	41.3	23.5	57.07	-	-	A	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 1 5150~5250MHz

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)
		5043.68	49.35	-24.65	74	38.8	34.21	11.67	35.33	100	93	P	H
		5149.24	40.46	-13.54	54	29.55	34.4	11.79	35.28	100	93	A	H
	*	5180	104.61	-	-	93.53	34.52	11.83	35.27	100	93	P	H
	*	5180	96.1	-	-	85.02	34.52	11.83	35.27	100	93	A	H
802.11ax													H
HE20 Full													H
CH 36		5125.58	50.86	-23.14	74	39.99	34.4	11.76	35.29	100	295	P	V
5180MHz		5147.94	41.05	-12.95	54	30.14	34.4	11.79	35.28	100	295	A	V
	*	5180	107.04	-	-	95.96	34.52	11.83	35.27	100	295	P	V
	*	5180	98.62	-	-	87.54	34.52	11.83	35.27	100	295	A	V
													V
													V
		5121.94	49.22	-24.78	74	38.35	34.4	11.76	35.29	100	95	P	H
		5120.64	40	-14	54	29.13	34.4	11.76	35.29	100	95	A	H
	*	5240	106.37	-	-	95.22	34.52	11.87	35.24	100	95	P	H
	*	5240	97.23	-	-	86.08	34.52	11.87	35.24	100	95	A	H
802.11ax		5440.4	48.04	-25.96	74	36.43	34.72	12.03	35.14	100	95	P	H
HE20 Full		5459.72	39.56	-14.44	54	27.89	34.74	12.06	35.13	100	95	A	H
CH 48		5069.42	49.52	-24.48	74	38.85	34.28	11.7	35.31	100	296	P	V
5240MHz		5128.96	40.12	-13.88	54	29.24	34.4	11.77	35.29	100	296	A	V
	*	5240	108.38	-	-	97.23	34.52	11.87	35.24	100	296	P	V
	*	5240	99.27	-	-	88.12	34.52	11.87	35.24	100	296	A	V
		5410.16	48.48	-25.52	74	36.87	34.78	11.99	35.16	100	296	P	V
		5460	39.58	-14.42	54	27.91	34.74	12.06	35.13	100	296	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ax HE20 Full (Harmonic @ 3m)

WIFI Ant. 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)
		10440	44.79	-23.41	68.2	47.7	37.66	18.64	59.21	-	-	P	H
		15660	48.67	-25.33	74	41.18	41.16	23.45	57.12	-	-	P	H
802.11ax		15660	38.85	-15.15	54	31.36	41.16	23.45	57.12	-	-	A	H
HE20 Full													H
CH 44		10440	45.34	-22.86	68.2	48.25	37.66	18.64	59.21	-	-	P	V
5220MHz		15660	47.81	-26.19	74	40.32	41.16	23.45	57.12	-	-	P	V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

Band 1 5150~5250MHz

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)
		5076.18	49.94	-24.06	74	39.24	34.3	11.71	35.31	100	93	P	H
		5150	40.41	-13.59	54	29.5	34.4	11.79	35.28	100	93	A	H
	*	5190	101.67	-	-	90.54	34.56	11.84	35.27	100	93	P	H
	*	5190	94.13	-	-	83	34.56	11.84	35.27	100	93	A	H
802.11ax		5458.6	48.47	-25.53	74	36.81	34.73	12.06	35.13	100	93	P	H
HE40 Full		5459.44	39.54	-14.46	54	27.87	34.74	12.06	35.13	100	93	A	H
CH 38		5124.28	49.15	-24.85	74	38.28	34.4	11.76	35.29	100	296	P	V
5190MHz		5150	40.85	-13.15	54	29.94	34.4	11.79	35.28	100	296	A	V
	*	5190	104.63	-	-	93.5	34.56	11.84	35.27	100	296	P	V
	*	5190	96.66	-	-	85.53	34.56	11.84	35.27	100	296	A	V
		5381.32	48.5	-25.5	74	37.06	34.65	11.96	35.17	100	296	P	V
		5460	39.6	-14.4	54	27.93	34.74	12.06	35.13	100	296	A	V
		5136.76	49.18	-24.82	74	38.29	34.4	11.78	35.29	100	96	P	H
		5118.82	40.22	-13.78	54	29.35	34.4	11.76	35.29	100	96	A	H
	*	5230	100.77	-	-	89.6	34.54	11.87	35.24	100	96	P	H
	*	5230	93.57	-	-	82.4	34.54	11.87	35.24	100	96	A	H
802.11ax		5361.44	47.65	-26.35	74	36.39	34.49	11.95	35.18	100	96	P	H
HE40 Full		5458.04	39.56	-14.44	54	27.9	34.73	12.06	35.13	100	96	A	H
CH 46		5053.82	49.47	-24.53	74	38.9	34.22	11.68	35.33	100	287	P	V
5230MHz		5128.7	40.56	-13.44	54	29.68	34.4	11.77	35.29	100	287	A	V
	*	5230	104.57	-	-	93.4	34.54	11.87	35.24	100	287	P	V
	*	5230	96.27	-	-	85.1	34.54	11.87	35.24	100	287	A	V
		5403.16	47.79	-26.21	74	36.19	34.79	11.97	35.16	100	287	P	V
		5459.72	39.58	-14.42	54	27.91	34.74	12.06	35.13	100	287	A	V

Remark

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

Band 1 5150~5250MHz

WIFI 802.11ax HE80 Full (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 HE80 Full CH 42 5210MHz		5121.42	50.19	-23.81	74	39.32	34.4	11.76	35.29	100	88	P	H
		5137.54	40.63	-13.37	54	29.74	34.4	11.78	35.29	100	88	A	H
	*	5210	99.74	-	-	88.55	34.58	11.86	35.25	100	88	P	H
	*	5210	90.88	-	-	79.69	34.58	11.86	35.25	100	88	A	H
		5439	48.9	-25.1	74	37.29	34.72	12.03	35.14	100	88	P	H
		5458.88	39.65	-14.35	54	27.98	34.74	12.06	35.13	100	88	A	H
		5139.1	50.45	-23.55	74	39.56	34.4	11.78	35.29	113	292	P	V
		5146.64	41.08	-12.92	54	30.17	34.4	11.79	35.28	113	292	A	V
	*	5210	101.72	-	-	90.53	34.58	11.86	35.25	113	292	P	V
	*	5210	93.38	-	-	82.19	34.58	11.86	35.25	113	292	A	V
		5388.88	48.54	-25.46	74	37.04	34.71	11.96	35.17	113	292	P	V
		5457.48	39.78	-14.22	54	28.12	34.73	12.06	35.13	113	292	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

WIFI 802.11ax HE80 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 HE80 Full LF		52.41	27.48	-12.52	40	42.98	13.2	1.31	30.01	-	-	P	H
		90.21	34.41	-9.09	43.5	48.14	14.67	1.59	29.99	-	-	P	H
		160.95	30.7	-12.8	43.5	42.09	16.47	2.12	29.98	-	-	P	H
		760.6	29.65	-16.35	46	27.3	27.73	4.28	29.66	-	-	P	H
		855.1	31.21	-14.79	46	26.98	28.82	4.62	29.21	-	-	P	H
		955.2	33.26	-12.74	46	26.51	30.55	4.89	28.69	-	-	P	H
		30	33.23	-6.77	40	37.79	24.57	0.9	30.03	-	-	P	V
		52.95	33.46	-6.54	40	49.17	12.98	1.32	30.01	-	-	P	V
		86.43	33.08	-6.92	40	47.3	14.19	1.59	30	-	-	P	V
		763.4	29.65	-16.35	46	27.29	27.73	4.29	29.66	-	-	P	V
		857.2	31.42	-14.58	46	27.18	28.82	4.62	29.2	-	-	P	V
		953.8	33.15	-12.85	46	26.47	30.49	4.89	28.7	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line. 3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.												

Test Engineer :	Andy Yang, Karl Hou, and Wilson Wu	Temperature :	20~25°C
		Relative Humidity :	50~60%

Band 2 - 5250~5350MHz

WIFI 802.11a (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)
802.11a CH 52 5260MHz		5122.4	53.56	-20.44	74	37.95	33.07	11.99	29.45	259	261	P	H
		5098.26	42.14	-11.86	54	26.44	33.19	11.95	29.44	259	261	A	H
	*	5260	107.77	-	-	92.03	32.92	12.31	29.49	259	261	P	H
	*	5260	99.69	-	-	83.95	32.92	12.31	29.49	259	261	A	H
		5415.6	55.44	-18.56	74	39.28	32.9	12.8	29.54	259	261	P	H
		5397.36	42.55	-11.45	54	26.42	32.89	12.78	29.54	259	261	A	H
		5084.66	53.18	-20.82	74	37.61	33.08	11.93	29.44	101	95	P	V
		5098.94	42.08	-11.92	54	26.38	33.19	11.95	29.44	101	95	A	V
	*	5260	105.54	-	-	89.8	32.92	12.31	29.49	101	95	P	V
	*	5260	97.86	-	-	82.12	32.92	12.31	29.49	101	95	A	V
		5433.12	54.17	-19.83	74	38.02	32.9	12.8	29.55	101	95	P	V
		5408.88	42.49	-11.51	54	26.34	32.9	12.79	29.54	101	95	A	V
802.11a CH 60 5300MHz		5004.76	53.88	-20.12	74	38.41	33.07	11.81	29.41	265	263	P	H
		5099.96	42.05	-11.95	54	26.34	33.2	11.95	29.44	265	263	A	H
	*	5300	107.57	-	-	91.63	33	12.45	29.51	265	263	P	H
	*	5300	99.92	-	-	83.98	33	12.45	29.51	265	263	A	H
		5401.92	54.46	-19.54	74	38.31	32.9	12.79	29.54	265	263	P	H
		5397.6	42.59	-11.41	54	26.45	32.9	12.78	29.54	265	263	A	H
		5119.34	53.83	-20.17	74	38.22	33.08	11.98	29.45	100	95	P	V
		5104.04	42.04	-11.96	54	26.34	33.18	11.96	29.44	100	95	A	V
	*	5300	105.71	-	-	89.77	33	12.45	29.51	100	95	P	V
	*	5300	97.57	-	-	81.63	33	12.45	29.51	100	95	A	V
		5441.52	53.74	-20.26	74	37.58	32.9	12.81	29.55	100	95	P	V
		5399.76	42.51	-11.49	54	26.36	32.9	12.79	29.54	100	95	A	V

802.11a CH 64 5320MHz	*	5320	108.27	-	-	92.34	32.92	12.52	29.51	264	260	P	H
	*	5320	100.37	-	-	84.44	32.92	12.52	29.51	264	260	A	H
		5378.72	54.74	-19.26	74	38.69	32.86	12.72	29.53	264	260	P	H
		5398.4	42.8	-11.2	54	26.66	32.9	12.78	29.54	264	260	A	H
													H
													H
	*	5320	105.35	-	-	89.42	32.92	12.52	29.51	100	92	P	V
	*	5320	97.74	-	-	81.81	32.92	12.52	29.51	100	92	A	V
		5450.88	55.03	-18.97	74	38.87	32.9	12.81	29.55	100	92	P	V
		5403.04	42.62	-11.38	54	26.47	32.9	12.79	29.54	100	92	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

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 52 5260MHz		10520	50.86	-17.34	68.2	48.74	38.68	18.93	55.49	-	-	P	H
		15780	46.54	-27.46	74	41.06	37.7	22.83	55.05	-	-	P	H
													H
													H
		10520	54.25	-13.95	68.2	52.13	38.68	18.93	55.49	-	-	P	V
		15780	46.37	-27.63	74	40.89	37.7	22.83	55.05	-	-	P	V
													V
													V
802.11a CH 60 5300MHz		10600	52.72	-21.28	74	50.24	39	18.95	55.47	398	41	P	H
		10600	42.72	-11.28	54	40.24	39	18.95	55.47	398	41	A	H
		15900	46.82	-27.18	74	41.25	37.9	22.9	55.23	-	-	P	H
													H
		10600	53.71	-20.29	74	51.23	39	18.95	55.47	223	0	P	V
		10600	44.39	-9.61	54	41.91	39	18.95	55.47	223	0	A	V
		15900	47.67	-26.33	74	42.1	37.9	22.9	55.23	-	-	P	V
													V
802.11a CH 64 5320MHz		10640	52	-22	74	49.51	39	18.95	55.46	397	38	P	H
		10640	42.2	-11.8	54	39.71	39	18.95	55.46	397	38	A	H
		15960	46.15	-27.85	74	40.8	37.72	22.95	55.32	-	-	P	H
													H
		10640	54.2	-19.8	74	51.71	39	18.95	55.46	236	359	P	V
		10640	44.4	-9.6	54	41.91	39	18.95	55.46	236	359	A	V
		15960	45.39	-28.61	74	40.04	37.72	22.95	55.32	-	-	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 2 5250~5350MHz

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)
		5094.18	53.09	-20.91	74	37.43	33.15	11.95	29.44	268	258	P	H
		5102.34	42.13	-11.87	54	26.42	33.19	11.96	29.44	268	258	A	H
	*	5260	110.51	-	-	94.77	32.92	12.31	29.49	268	258	P	H
	*	5260	99.44	-	-	83.7	32.92	12.31	29.49	268	258	A	H
802.11ax		5369.04	54.41	-19.59	74	38.42	32.84	12.68	29.53	268	258	P	H
HE20 Full		5399.76	42.59	-11.41	54	26.44	32.9	12.79	29.54	268	258	A	H
CH 52		5110.5	53.62	-20.38	74	37.96	33.14	11.97	29.45	101	100	P	V
5260MHz		5100.98	42.12	-11.88	54	26.41	33.19	11.96	29.44	101	100	A	V
	*	5260	107.78	-	-	92.04	32.92	12.31	29.49	101	100	P	V
	*	5260	97.58	-	-	81.84	32.92	12.31	29.49	101	100	A	V
		5403.36	54.46	-19.54	74	38.31	32.9	12.79	29.54	101	100	P	V
		5400.48	42.52	-11.48	54	26.37	32.9	12.79	29.54	101	100	A	V
	*	5320	112.39	-	-	96.46	32.92	12.52	29.51	262	261	P	H
	*	5320	99.94	-	-	84.01	32.92	12.52	29.51	262	261	A	H
		5433.92	54.21	-19.79	74	38.05	32.9	12.81	29.55	262	261	P	H
		5395.04	42.64	-11.36	54	26.52	32.89	12.77	29.54	262	261	A	H
802.11ax													H
HE20 Full													H
CH 64	*	5320	108.88	-	-	92.95	32.92	12.52	29.51	100	98	P	V
5320MHz	*	5320	97.15	-	-	81.22	32.92	12.52	29.51	100	98	A	V
		5418.24	54.62	-19.38	74	38.46	32.9	12.8	29.54	100	98	P	V
		5400.16	42.54	-11.46	54	26.39	32.9	12.79	29.54	100	98	A	V
													V
													V

Remark

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

Band 2 5250~5350MHz

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)
		10600	51.89	-22.11	74	49.41	39	18.95	55.47	396	38	P	H
		10600	42.14	-11.86	54	39.66	39	18.95	55.47	396	38	A	H
802.11ax		15900	46.36	-27.64	74	40.79	37.9	22.9	55.23	-	-	P	H
HE20 Full													H
CH 60		10600	55.45	-18.55	74	52.97	39	18.95	55.47	222	1	P	V
5300MHz		10600	43.76	-10.24	54	41.28	39	18.95	55.47	222	1	A	V
		15900	46.99	-27.01	74	41.42	37.9	22.9	55.23	-	-	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 2 5250~5350MHz

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)
		5098.6	53.15	-20.85	74	37.45	33.19	11.95	29.44	270	259	P	H
		5103.7	42.11	-11.89	54	26.41	33.18	11.96	29.44	270	259	A	H
	*	5270	107.25	-	-	91.46	32.94	12.35	29.5	270	259	P	H
	*	5270	96.99	-	-	81.2	32.94	12.35	29.5	270	259	A	H
802.11ax		5427.6	55.11	-18.89	74	38.96	32.9	12.8	29.55	270	259	P	H
HE40 Full		5401.92	42.81	-11.19	54	26.66	32.9	12.79	29.54	270	259	A	H
CH 54		5112.54	53.36	-20.64	74	37.72	33.12	11.97	29.45	100	100	P	V
5270MHz		5104.04	42.01	-11.99	54	26.31	33.18	11.96	29.44	100	100	A	V
	*	5270	106.32	-	-	90.53	32.94	12.35	29.5	100	100	P	V
	*	5270	95.15	-	-	79.36	32.94	12.35	29.5	100	100	A	V
		5436	55.01	-18.99	74	38.85	32.9	12.81	29.55	100	100	P	V
		5403.12	42.46	-11.54	54	26.31	32.9	12.79	29.54	100	100	A	V
		5100.64	53.86	-20.14	74	38.14	33.2	11.96	29.44	263	262	P	H
		5103.36	42.17	-11.83	54	26.47	33.18	11.96	29.44	263	262	A	H
	*	5310	106.95	-	-	91.02	32.96	12.48	29.51	263	262	P	H
	*	5310	96.74	-	-	80.81	32.96	12.48	29.51	263	262	A	H
802.11ax		5393.04	54.61	-19.39	74	38.49	32.89	12.77	29.54	263	262	P	H
HE40 Full		5353.44	42.99	-11.01	54	27.07	32.81	12.63	29.52	263	262	A	H
CH 62		5044.88	54.1	-19.9	74	38.82	32.83	11.87	29.42	100	99	P	V
5310MHz		5104.38	42.16	-11.84	54	26.47	33.17	11.96	29.44	100	99	A	V
	*	5310	104.95	-	-	89.02	32.96	12.48	29.51	100	99	P	V
	*	5310	94.29	-	-	78.36	32.96	12.48	29.51	100	99	A	V
		5362.32	54.77	-19.23	74	38.82	32.82	12.66	29.53	100	99	P	V
		5397.36	42.63	-11.37	54	26.5	32.89	12.78	29.54	100	99	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

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)
802.11ax HE80 Full CH 58 5290MHz		5047.94	53.06	-20.94	74	37.81	32.81	11.87	29.43	268	259	P	H
		5105.4	42.41	-11.59	54	26.72	33.17	11.96	29.44	268	259	A	H
	*	5290	104.21	-	-	88.31	32.98	12.42	29.5	268	259	P	H
	*	5290	93.89	-	-	77.99	32.98	12.42	29.5	268	259	A	H
		5452.8	54.33	-19.67	74	38.18	32.89	12.81	29.55	268	259	P	H
		5354.16	43.26	-10.74	54	27.34	32.81	12.63	29.52	268	259	A	H
		5087.72	53.69	-20.31	74	38.09	33.1	11.94	29.44	100	98	P	V
		5105.74	42.27	-11.73	54	26.58	33.17	11.96	29.44	100	98	A	V
	*	5290	101.47	-	-	85.57	32.98	12.42	29.5	100	98	P	V
	*	5290	91.94	-	-	76.04	32.98	12.42	29.5	100	98	A	V
		5390.16	55.35	-18.65	74	39.24	32.88	12.76	29.53	100	98	P	V
		5399.04	42.69	-11.31	54	26.54	32.9	12.79	29.54	100	98	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1~2 5150~5350MHz

WIFI 802.11ax HE160 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 HE160 Full CH 50 5250MHz		5131.04	54.38	-19.62	74	38.82	33.01	12	29.45	220	55	P	H
		5110.24	44.52	-9.48	54	28.86	33.14	11.97	29.45	220	55	A	H
	*	5250	99.37	-	-	83.68	32.9	12.28	29.49	220	55	P	H
	*	5250	90.77	-	-	75.08	32.9	12.28	29.49	220	55	A	H
		5420.52	54.08	-19.92	74	37.92	32.9	12.8	29.54	220	55	P	H
		5369.84	45.06	-8.94	54	29.06	32.84	12.69	29.53	220	55	A	H
		5125.58	53.83	-20.17	74	38.24	33.05	11.99	29.45	100	103	P	V
		5128.7	44.35	-9.65	54	28.77	33.03	12	29.45	100	103	A	V
	*	5250	98.87	-	-	83.18	32.9	12.28	29.49	100	103	P	V
	*	5250	88.84	-	-	73.15	32.9	12.28	29.49	100	103	A	V
		5449.08	54.68	-19.32	74	38.52	32.9	12.81	29.55	100	103	P	V
		5397.28	44.37	-9.63	54	28.24	32.89	12.78	29.54	100	103	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (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)
802.11a CH 100 5500MHz		5418	54.74	-19.26	74	38.58	32.9	12.8	29.54	257	259	P	H
		5463.44	54.66	-13.54	68.2	38.53	32.87	12.82	29.56	257	259	P	H
		5406.32	42.97	-11.03	54	26.82	32.9	12.79	29.54	257	259	A	H
	*	5500	108.37	-	-	92.3	32.8	12.84	29.57	257	259	P	H
	*	5500	101.04	-	-	84.97	32.8	12.84	29.57	257	259	A	H
													H
		5451.28	55.88	-18.12	74	39.72	32.9	12.81	29.55	243	116	P	V
		5469.52	54.77	-13.43	68.2	38.65	32.86	12.82	29.56	243	116	P	V
		5400.56	42.94	-11.06	54	26.79	32.9	12.79	29.54	243	116	A	V
	*	5500	106.64	-	-	90.57	32.8	12.84	29.57	243	116	P	V
	*	5500	98.54	-	-	82.47	32.8	12.84	29.57	243	116	A	V
													V
802.11a CH 116 5580MHz		5442.4	54.67	-19.33	74	38.51	32.9	12.81	29.55	255	257	P	H
		5465.44	54.26	-13.94	68.2	38.13	32.87	12.82	29.56	255	257	P	H
		5402.08	42.95	-11.05	54	26.8	32.9	12.79	29.54	255	257	A	H
	*	5580	108.73	-	-	92.4	33.04	12.87	29.58	255	257	P	H
	*	5580	101.45	-	-	85.12	33.04	12.87	29.58	255	257	A	H
		5731.295	56.02	-12.18	68.2	39.19	33.49	12.95	29.61	255	257	P	H
		5434.72	55.21	-18.79	74	39.05	32.9	12.81	29.55	248	115	P	V
		5467.84	53.95	-14.25	68.2	37.83	32.86	12.82	29.56	248	115	P	V
		5399.2	42.89	-11.11	54	26.74	32.9	12.79	29.54	248	115	A	V
	*	5580	106.1	-	-	89.77	33.04	12.87	29.58	248	115	P	V
	*	5580	98.7	-	-	82.37	33.04	12.87	29.58	248	115	A	V
		5742.005	56.17	-12.03	68.2	39.27	33.55	12.96	29.61	248	115	P	V

802.11a CH 140 5700MHz	*	5700	107.93	-	-	91.31	33.3	12.93	29.61	256	259	P	H
	*	5700	100.52	-	-	83.9	33.3	12.93	29.61	256	259	A	H
		5759.8	56.52	-11.68	68.2	39.55	33.62	12.97	29.62	256	259	P	H
													H
													H
													H
	*	5700	104.69	-	-	88.07	33.3	12.93	29.61	244	119	P	V
	*	5700	97.55	-	-	80.93	33.3	12.93	29.61	244	119	A	V
		5728.68	56.16	-12.04	68.2	39.35	33.47	12.95	29.61	244	119	P	V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

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 100 5500MHz		11000	47.63	-26.37	74	45.09	38.9	19.01	55.37	-	-	P	H
		16500	47.8	-20.4	68.2	40.18	38.5	23.98	54.86	-	-	P	H
													H
													H
		11000	51.04	-22.96	74	48.5	38.9	19.01	55.37	205	5	P	V
		11000	41.35	-12.65	54	38.81	38.9	19.01	55.37	205	5	A	V
		16500	47.67	-20.53	68.2	40.05	38.5	23.98	54.86	-	-	P	V
													V
802.11a CH 116 5580MHz		11160	47.71	-26.29	74	44.91	38.96	19.09	55.25	-	-	P	H
		16740	49.62	-18.58	68.2	42.29	37.88	24.46	55.01	-	-	P	H
													H
													H
		11160	51.46	-22.54	74	48.66	38.96	19.09	55.25	208	8	P	V
		11160	41.02	-12.98	54	38.22	38.96	19.09	55.25	208	8	A	V
		16740	49.63	-18.57	68.2	42.3	37.88	24.46	55.01	-	-	P	V
													V
802.11a CH 140 5700MHz		11400	47.86	-26.14	74	44.54	39.2	19.19	55.07	-	-	P	H
		17100	48.63	-19.57	68.2	41.3	37.7	25.03	55.4	-	-	P	H
													H
													H
		11400	51.06	-22.94	74	47.74	39.2	19.19	55.07	203	3	P	V
		11400	40.01	-13.99	54	36.69	39.2	19.19	55.07	203	3	A	V
		17100	48.55	-19.65	68.2	41.22	37.7	25.03	55.4	-	-	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 3 - 5470~5725MHz

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)
		5388.4	54.31	-19.69	74	38.21	32.88	12.75	29.53	259	255	P	H
		5464.72	54.19	-14.01	68.2	38.06	32.87	12.82	29.56	259	255	P	H
		5454.64	42.57	-11.43	54	26.43	32.89	12.81	29.56	259	255	A	H
	*	5500	111.65	-	-	95.58	32.8	12.84	29.57	259	255	P	H
802.11ax	*	5500	100.27	-	-	84.2	32.8	12.84	29.57	259	255	A	H
HE20 Full		5430.32	55.32	-18.68	74	39.17	32.9	12.8	29.55	102	83	P	V
CH 100		5467.44	53.3	-14.9	68.2	37.17	32.87	12.82	29.56	102	83	P	V
5500MHz		5400.72	42.54	-11.46	54	26.39	32.9	12.79	29.54	102	83	A	V
	*	5500	106.57	-	-	90.5	32.8	12.84	29.57	102	83	P	V
	*	5500	95.9	-	-	79.83	32.8	12.84	29.57	102	83	A	V
													V
													V
	*	5700	109.12	-	-	92.5	33.3	12.93	29.61	100	253	P	H
	*	5700	98.24	-	-	81.62	33.3	12.93	29.61	100	253	A	H
		5764.04	56.12	-12.08	68.2	39.14	33.63	12.97	29.62	100	253	P	H
													H
802.11ax													H
HE20 Full													H
CH 140	*	5700	107.72	-	-	91.1	33.3	12.93	29.61	373	336	P	V
5700MHz	*	5700	96.87	-	-	80.25	33.3	12.93	29.61	373	336	A	V
		5725.16	56.42	-11.78	68.2	39.63	33.45	12.95	29.61	373	336	P	V
													V
													V
													V

Remark

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

Band 3 5470~5725MHz

WIFI 802.11ax HE20 (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)
		11160	51.06	-22.94	74	48.26	38.96	19.09	55.25	381	65	P	H
		11160	40.91	-13.09	54	38.11	38.96	19.09	55.25	381	65	A	H
802.11ax		16740	49.22	-18.98	68.2	41.89	37.88	24.46	55.01	-	-	P	H
HE20 Full													H
CH 116		11160	51.72	-22.28	74	48.92	38.96	19.09	55.25	300	359	P	V
5580MHz		11160	42.11	-11.89	54	39.31	38.96	19.09	55.25	300	359	A	V
		16740	48.32	-19.88	68.2	40.99	37.88	24.46	55.01	-	-	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 3 5470~5725MHz

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)
		5422	54.98	-19.02	74	38.83	32.9	12.8	29.55	288	256	P	H
		5464.48	53.42	-14.78	68.2	37.29	32.87	12.82	29.56	288	256	P	H
		5403.28	42.95	-11.05	54	26.8	32.9	12.79	29.54	288	256	A	H
	*	5510	107.46	-	-	91.39	32.8	12.84	29.57	288	256	P	H
802.11ax	*	5510	97.97	-	-	81.9	32.8	12.84	29.57	288	256	A	H
HE40 Full		5759.96	59.37	-8.83	68.2	42.4	33.62	12.97	29.62	288	256	P	H
CH 102		5449.12	55.19	-18.81	74	39.03	32.9	12.81	29.55	267	62	P	V
5510MHz		5461.36	54.52	-13.68	68.2	38.38	32.88	12.82	29.56	267	62	P	V
		5405.68	42.85	-11.15	54	26.7	32.9	12.79	29.54	267	62	A	V
	*	5510	104.58	-	-	88.51	32.8	12.84	29.57	267	62	P	V
	*	5510	94.99	-	-	78.92	32.8	12.84	29.57	267	62	A	V
		5745.47	55.7	-12.5	68.2	38.78	33.57	12.96	29.61	267	62	P	V
		5404.72	55.07	-18.93	74	38.92	32.9	12.79	29.54	282	255	P	H
		5462.08	54.25	-13.95	68.2	38.11	32.88	12.82	29.56	282	255	P	H
		5411.92	42.9	-11.1	54	26.74	32.9	12.8	29.54	282	255	A	H
	*	5550	107.15	-	-	91.07	32.8	12.86	29.58	282	255	P	H
802.11ax	*	5550	98.04	-	-	81.96	32.8	12.86	29.58	282	255	A	H
HE40 Full		5759.96	56.12	-12.08	68.2	39.15	33.62	12.97	29.62	282	255	P	H
CH 110		5387.44	54.69	-19.31	74	38.6	32.87	12.75	29.53	301	62	P	V
5550MHz		5469.28	53.18	-15.02	68.2	37.06	32.86	12.82	29.56	301	62	P	V
		5404	42.81	-11.19	54	26.66	32.9	12.79	29.54	301	62	A	V
	*	5550	104.73	-	-	88.65	32.8	12.86	29.58	301	62	P	V
	*	5550	95.03	-	-	78.95	32.8	12.86	29.58	301	62	A	V
		5760.59	56.54	-11.66	68.2	39.57	33.62	12.97	29.62	301	62	P	V

		5414.05	55.81	-18.19	74	39.65	32.9	12.8	29.54	300	247	P	H
		5469.7	53.85	-14.35	68.2	37.73	32.86	12.82	29.56	300	247	P	H
		5410.55	42.77	-11.23	54	26.62	32.9	12.79	29.54	300	247	A	H
	*	5670	106.06	-	-	89.44	33.3	12.92	29.6	300	247	P	H
802.11ax	*	5670	96.98	-	-	80.36	33.3	12.92	29.6	300	247	A	H
HE40 Full		5755.2	55.94	-12.26	68.2	38.98	33.61	12.97	29.62	300	247	P	H
CH 134		5420.7	55.15	-18.85	74	38.99	32.9	12.8	29.54	280	59	P	V
5670MHz		5460.6	53.8	-14.4	68.2	37.66	32.88	12.82	29.56	280	59	P	V
		5404.95	42.76	-11.24	54	26.61	32.9	12.79	29.54	280	59	A	V
	*	5670	105.21	-	-	88.59	33.3	12.92	29.6	280	59	P	V
	*	5670	94.4	-	-	77.78	33.3	12.92	29.6	280	59	A	V
		5756.775	55.82	-12.38	68.2	38.86	33.61	12.97	29.62	280	59	P	V

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

Band 3 5470~5725MHz

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)
		5406.16	54.56	-19.44	74	38.41	32.9	12.79	29.54	297	251	P	H
		5468.8	54.33	-13.87	68.2	38.21	32.86	12.82	29.56	297	251	P	H
		5455.84	42.97	-11.03	54	26.82	32.89	12.82	29.56	297	251	A	H
	*	5530	105.25	-	-	89.18	32.8	12.85	29.58	297	251	P	H
802.11ax	*	5530	94.47	-	-	78.4	32.8	12.85	29.58	297	251	A	H
HE80 Full		5759.96	56.13	-12.07	68.2	39.16	33.62	12.97	29.62	297	251	P	H
CH 106		5365.12	54.55	-19.45	74	38.58	32.83	12.67	29.53	254	117	P	V
5530MHz		5463.28	54.06	-14.14	68.2	37.93	32.87	12.82	29.56	254	117	P	V
		5400.88	42.86	-11.14	54	26.71	32.9	12.79	29.54	254	117	A	V
	*	5530	101.48	-	-	85.41	32.8	12.85	29.58	254	117	P	V
	*	5530	92.38	-	-	76.31	32.8	12.85	29.58	254	117	A	V
		5736.965	56.22	-11.98	68.2	39.35	33.52	12.96	29.61	254	117	P	V
		5447.65	54.93	-19.07	74	38.77	32.9	12.81	29.55	288	251	P	H
		5460.6	53.58	-14.62	68.2	37.44	32.88	12.82	29.56	288	251	P	H
		5400.75	42.88	-11.12	54	26.73	32.9	12.79	29.54	288	251	A	H
	*	5610	104.72	-	-	88.2	33.22	12.89	29.59	288	251	P	H
802.11ax	*	5610	94.68	-	-	78.16	33.22	12.89	29.59	288	251	A	H
HE80 Full		5734.9	55.35	-12.85	68.2	38.5	33.51	12.95	29.61	288	251	P	H
CH 122		5453.6	56.2	-17.8	74	40.06	32.89	12.81	29.56	249	115	P	V
5610MHz		5470	53.7	-14.5	68.2	37.58	32.86	12.82	29.56	249	115	P	V
		5402.5	42.81	-11.19	54	26.66	32.9	12.79	29.54	249	115	A	V
	*	5610	103.04	-	-	86.52	33.22	12.89	29.59	249	115	P	V
	*	5610	92.33	-	-	75.81	33.22	12.89	29.59	249	115	A	V
		5759.4	55.64	-12.56	68.2	38.67	33.62	12.97	29.62	249	115	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 5470~5725MHz

WIFI 802.11ax HE160 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 HE160 Full CH 114 5570MHz		5447.92	54.87	-19.13	74	38.71	32.9	12.81	29.55	250	256	P	H
		5466.64	53.92	-14.28	68.2	37.79	32.87	12.82	29.56	250	256	P	H
		5445.28	43.37	-10.63	54	27.21	32.9	12.81	29.55	250	256	A	H
	*	5570	101.87	-	-	85.62	32.96	12.87	29.58	250	256	P	H
	*	5570	91.88	-	-	75.63	32.96	12.87	29.58	250	256	A	H
		5726.255	55.71	-12.49	68.2	38.91	33.46	12.95	29.61	250	256	P	H
		5442.16	54.74	-19.26	74	38.58	32.9	12.81	29.55	254	116	P	V
		5465.68	53.8	-14.4	68.2	37.67	32.87	12.82	29.56	254	116	P	V
		5452.72	43.37	-10.63	54	27.22	32.89	12.81	29.55	254	116	A	V
	*	5570	99.51	-	-	83.26	32.96	12.87	29.58	254	116	P	V
	*	5570	90.01	-	-	73.76	32.96	12.87	29.58	254	116	A	V
		5726.57	55.19	-13.01	68.2	38.39	33.46	12.95	29.61	254	116	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11a (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)
802.11a CH 144 5720MHz		5403.43	56.77	-17.23	74	40.62	32.9	12.79	29.54	278	250	P	H
		5468.56	55.54	-12.66	68.2	39.42	32.86	12.82	29.56	278	250	P	H
		5400.7	42.88	-11.12	54	26.73	32.9	12.79	29.54	278	250	A	H
	*	5720	107.59	-	-	90.83	33.42	12.95	29.61	278	250	P	H
	*	5720	100.42	-	-	83.66	33.42	12.95	29.61	278	250	A	H
		5924	57.34	-10.86	68.2	40.35	34.05	12.59	29.65	278	250	P	H
		5436.58	55.49	-18.51	74	39.33	32.9	12.81	29.55	250	114	P	V
		5465.05	55.46	-12.74	68.2	39.33	32.87	12.82	29.56	250	114	P	V
		5402.65	42.85	-11.15	54	26.7	32.9	12.79	29.54	250	114	A	V
	*	5720	104.78	-	-	88.02	33.42	12.95	29.61	250	114	P	V
	*	5720	97.63	-	-	80.87	33.42	12.95	29.61	250	114	A	V
		5880.25	58.2	-10	68.2	41.11	34	12.73	29.64	250	114	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

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 144 5720MHz		11440	47.59	-26.41	74	44.38	39.04	19.21	55.04	-	-	P	H
		17160	49.07	-19.13	68.2	41.84	37.7	25.06	55.53	-	-	P	H
													H
													H
		11440	50.62	-23.38	74	47.41	39.04	19.21	55.04	209	4	P	V
		11440	39.8	-14.2	54	36.59	39.04	19.21	55.04	209	4	A	V
		17160	48.9	-19.3	68.2	41.67	37.7	25.06	55.53	-	-	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 3 - Straddle Channel

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 144 5720MHz		5384.71	56.29	-17.71	74	40.21	32.87	12.74	29.53	263	248	P	H
		5463.1	56.19	-12.01	68.2	40.06	32.87	12.82	29.56	263	248	P	H
		5403.04	42.85	-11.15	54	26.7	32.9	12.79	29.54	263	248	A	H
	*	5720	111.01	-	-	94.25	33.42	12.95	29.61	263	248	P	H
	*	5720	99.98	-	-	83.22	33.42	12.95	29.61	263	248	A	H
		5916.5	56.86	-11.34	68.2	39.86	34.03	12.61	29.64	263	248	P	H
		5414.35	56.64	-17.36	74	40.48	32.9	12.8	29.54	290	48	P	V
		5460.76	56.18	-12.02	68.2	40.04	32.88	12.82	29.56	290	48	P	V
		5402.65	42.82	-11.18	54	26.67	32.9	12.79	29.54	290	48	A	V
	*	5720	108.9	-	-	92.14	33.42	12.95	29.61	290	48	P	V
	*	5720	98.57	-	-	81.81	33.42	12.95	29.61	290	48	A	V
		5908.25	57.9	-10.3	68.2	40.88	34.02	12.64	29.64	290	48	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

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)
		11440	47.62	-26.38	74	44.41	39.04	19.21	55.04	-	-	P	H
		17160	49.47	-18.73	68.2	42.24	37.7	25.06	55.53	-	-	P	H
802.11ax													H
HE20 Full													H
CH 144		11440	47.79	-26.21	74	44.58	39.04	19.21	55.04	-	-	P	V
5720MHz		17160	48.89	-19.31	68.2	41.66	37.7	25.06	55.53	-	-	P	V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

Band 3 - Straddle Channel

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)
802.11ax HE40 Full CH 142 5710MHz		5438.14	55.98	-18.02	74	39.82	32.9	12.81	29.55	283	249	P	H
		5459.98	54.97	-19.03	74	38.83	32.88	12.82	29.56	283	249	P	H
		5400.31	42.83	-11.17	54	26.68	32.9	12.79	29.54	283	249	A	H
	*	5710	106.89	-	-	90.2	33.36	12.94	29.61	283	249	P	H
	*	5710	97.33	-	-	80.64	33.36	12.94	29.61	283	249	A	H
		5948.5	57.62	-10.58	68.2	40.66	34.1	12.51	29.65	283	249	P	H
		5361.7	56.73	-17.27	74	40.78	32.82	12.66	29.53	288	48	P	V
		5461.54	55.69	-12.51	68.2	39.55	32.88	12.82	29.56	288	48	P	V
		5401.87	42.8	-11.2	54	26.65	32.9	12.79	29.54	288	48	A	V
	*	5710	105.8	-	-	89.11	33.36	12.94	29.61	288	48	P	V
	*	5710	95.82	-	-	79.13	33.36	12.94	29.61	288	48	A	V
		5865.25	57.47	-10.73	68.2	40.33	34	12.78	29.64	288	48	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ax HE40 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)
		11420	47.27	-26.73	74	44.01	39.12	19.2	55.06	-	-	P	H
		17130	48.58	-19.62	68.2	41.29	37.7	25.05	55.46	-	-	P	H
802.11ax													H
HE40 Full													H
CH 142		11420	47.5	-26.5	74	44.24	39.12	19.2	55.06	-	-	P	V
5710MHz		17130	48.45	-19.75	68.2	41.16	37.7	25.05	55.46	-	-	P	V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

Band 3 Straddle Channel

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)
802.11ax HE80 Full CH 138 5690MHz		5396.02	56.52	-17.48	74	40.39	32.89	12.78	29.54	300	247	P	H
		5464.66	56.17	-12.03	68.2	40.04	32.87	12.82	29.56	300	247	P	H
		5402.26	42.84	-11.16	54	26.69	32.9	12.79	29.54	300	247	A	H
	*	5690	103.6	-	-	86.97	33.3	12.93	29.6	300	247	P	H
	*	5690	94.12	-	-	77.49	33.3	12.93	29.6	300	247	A	H
		5901	58.08	-10.12	68.2	41.06	34	12.66	29.64	300	247	P	H
		5389.39	56.87	-17.13	74	40.77	32.88	12.75	29.53	279	48	P	V
		5465.05	54.36	-13.84	68.2	38.23	32.87	12.82	29.56	279	48	P	V
		5400.31	42.77	-11.23	54	26.62	32.9	12.79	29.54	279	48	A	V
	*	5690	101.64	-	-	85.01	33.3	12.93	29.6	279	48	P	V
	*	5690	92.77	-	-	76.14	33.3	12.93	29.6	279	48	A	V
		5935.75	58.13	-10.07	68.2	41.16	34.07	12.55	29.65	279	48	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ax HE80 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)
		11380	47.72	-26.28	74	44.43	39.2	19.18	55.09	-	-	P	H
		17070	49.13	-19.07	68.2	41.74	37.7	25.02	55.33	-	-	P	H
802.11ax													H
HE80 Full													H
CH 138		11380	47.57	-26.43	74	44.28	39.2	19.18	55.09	-	-	P	V
5690MHz		17070	48.4	-19.8	68.2	41.01	37.7	25.02	55.33	-	-	P	V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

Note symbol

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

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

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

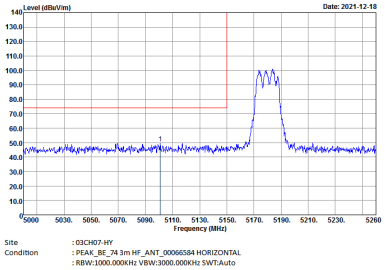
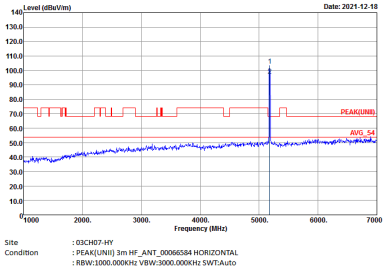
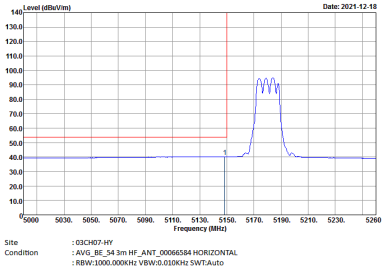
Test Engineer :	Jesse Wang, Stan Hsieh, and Ken Wu	**Temperature :**	23.1~25.3°C
		Relative Humidity :	53.6~59.1%

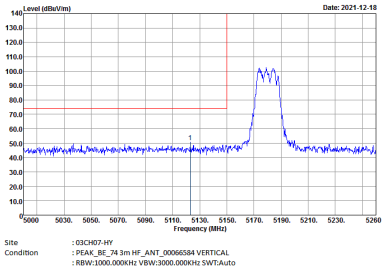
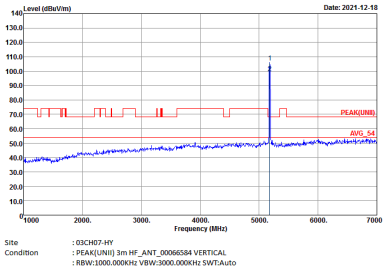
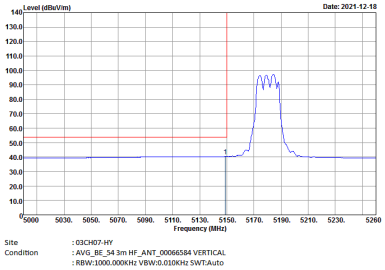
Note symbol

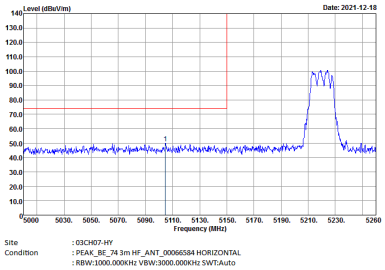
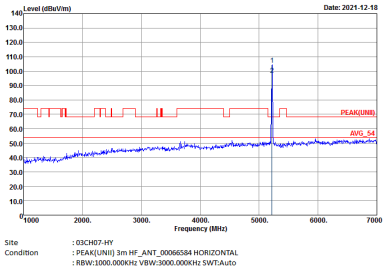
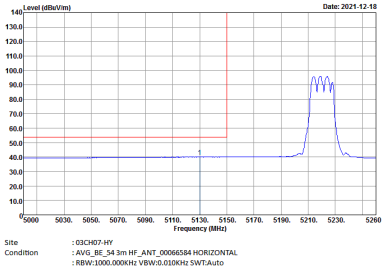
-L	**Low channel location**
-R	**High channel location**

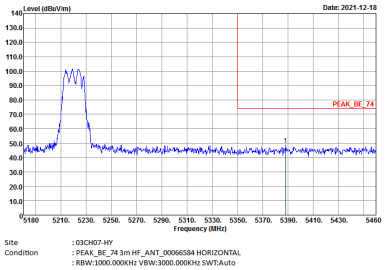
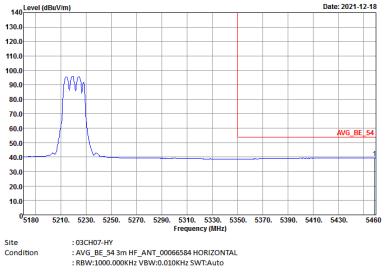
Band 1 - 5150~5250MHz

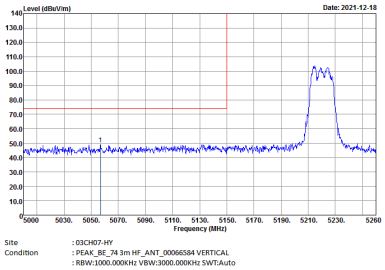
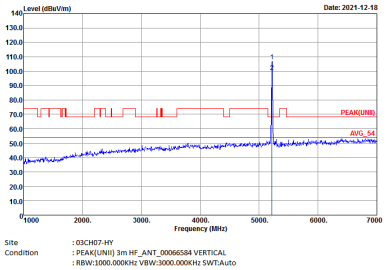
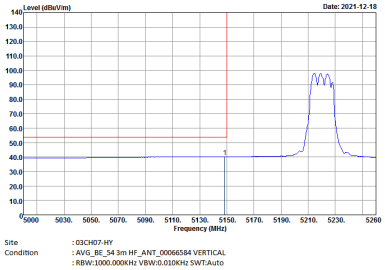
WIFI 802.11a (Band Edge @ 3m)

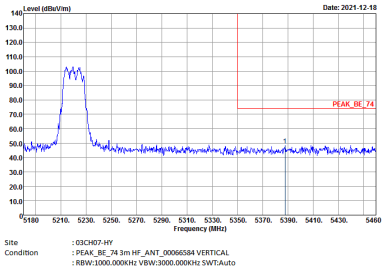
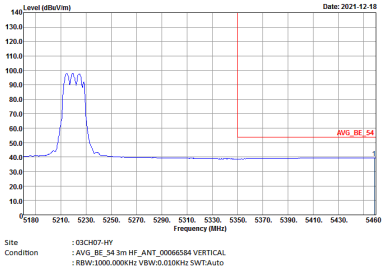
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
3+4	Horizontal	Fundamental
Peak		
Avg.		Left blank

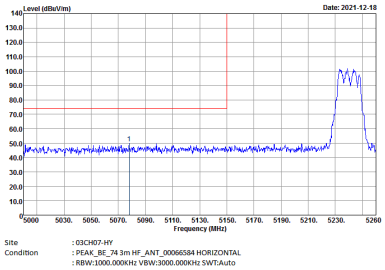
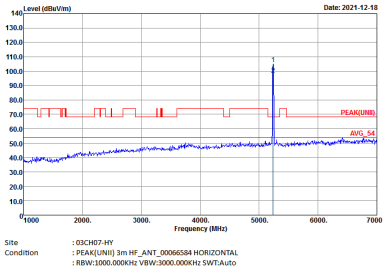
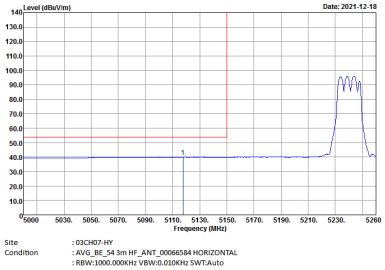
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
3+4	Vertical	Fundamental
Peak		
Avg.		Left blank

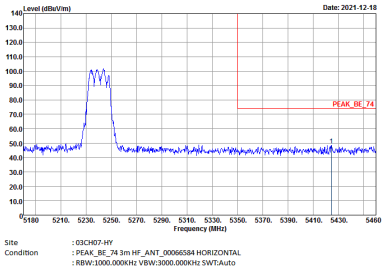
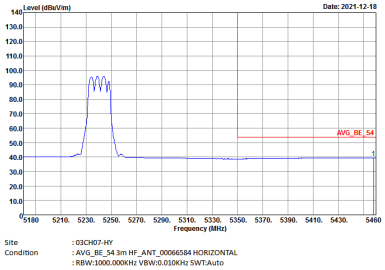
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
3+4	Horizontal	Fundamental
Peak		
Avg.		Left blank

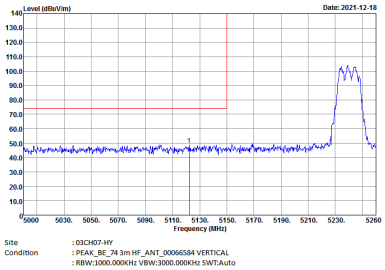
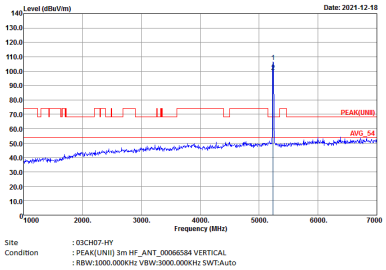
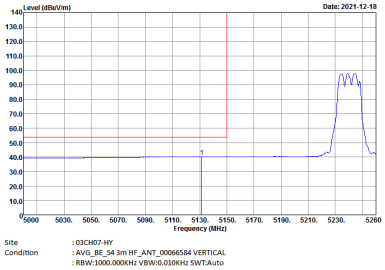
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
3+4	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

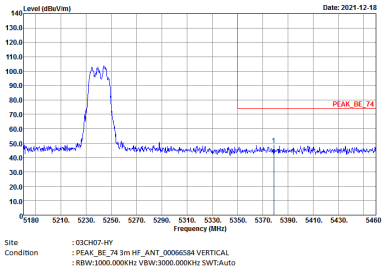
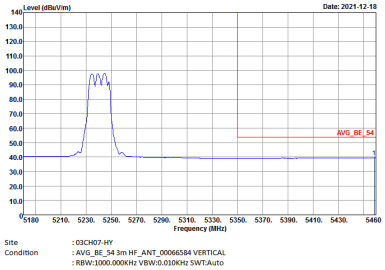
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
3+4	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
3+4	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

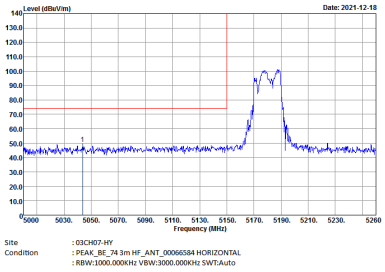
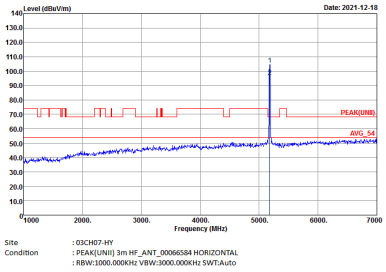
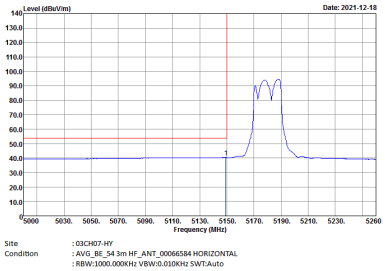
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
3+4	Horizontal	Fundamental
Peak		
Avg.		Left blank

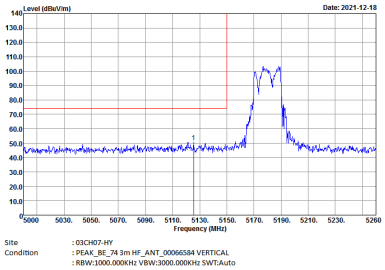
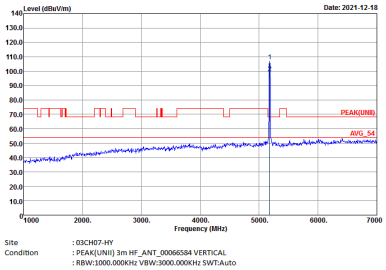
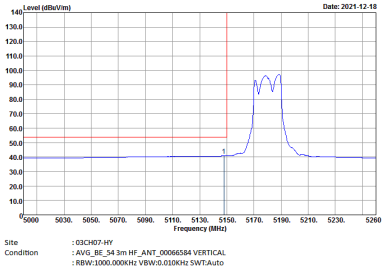
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
3+4	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

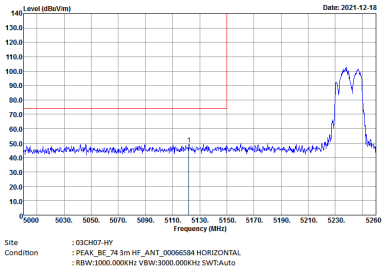
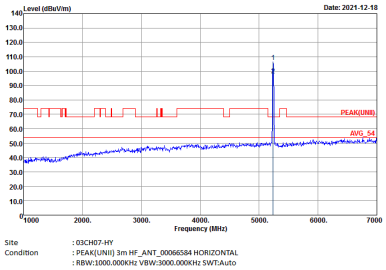
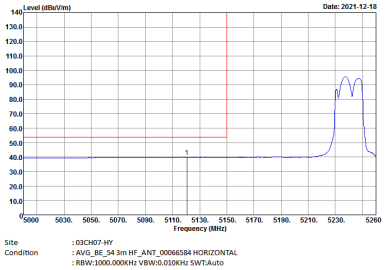
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
3+4	Vertical	Fundamental
Peak		
Avg.		Left blank

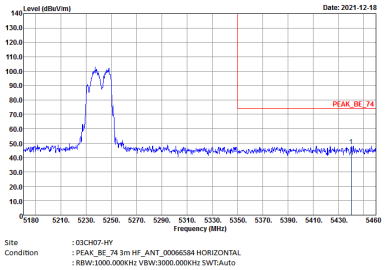
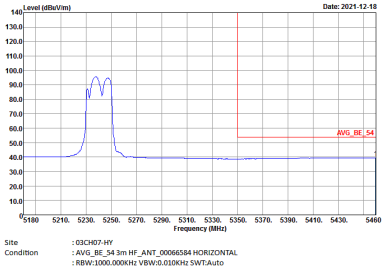
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
3+4	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

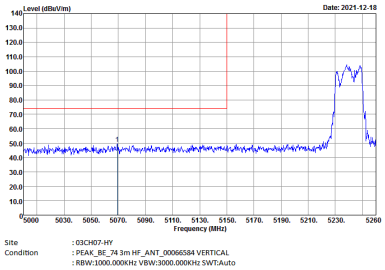
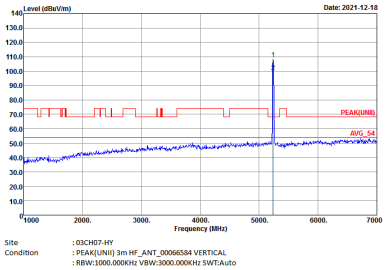
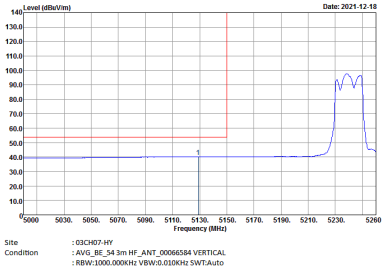
Band 1 5150~5250MHz
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

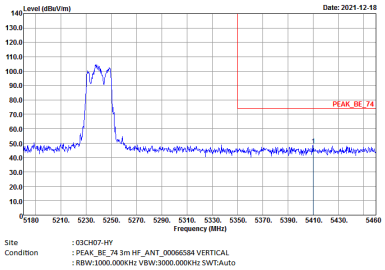
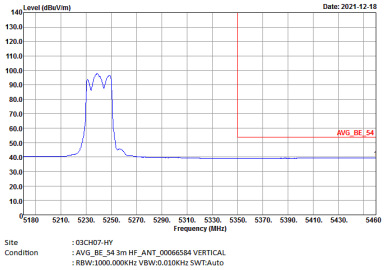
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH36 5180MHz	
3+4	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH36 5180MHz	
3+4	Vertical	Fundamental
Peak		
Avg.		Left blank

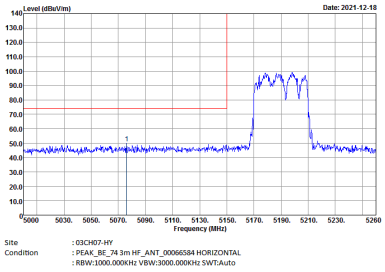
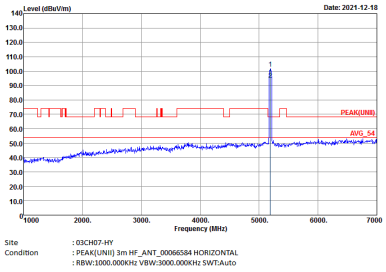
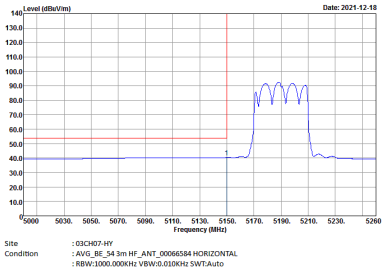
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH48 5240MHz - L	
3+4	Horizontal	Fundamental
Peak		
Avg.		Left blank

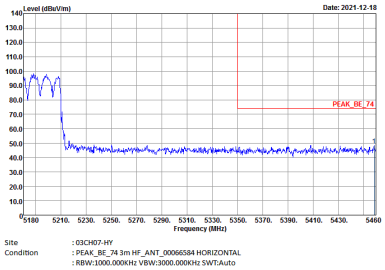
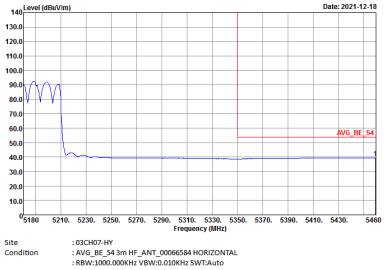
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH48 5240MHz - R	
3+4	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

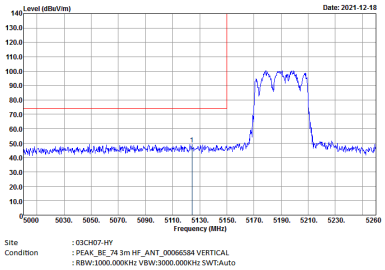
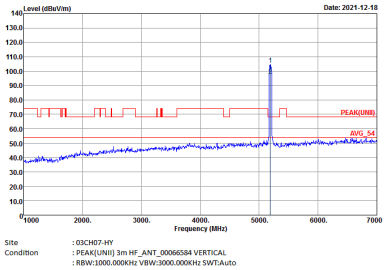
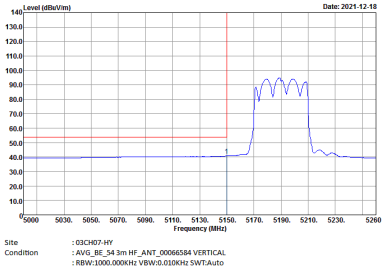
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH48 5240MHz - L	
3+4	Vertical	Fundamental
Peak		
Avg.		Left blank

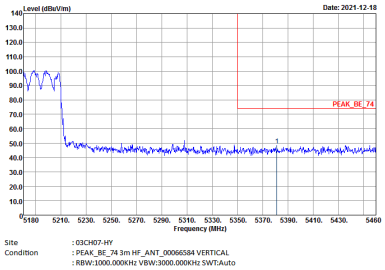
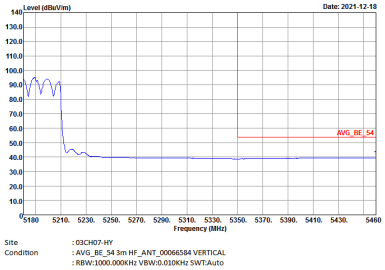
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH48 5240MHz - R	
3+4	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

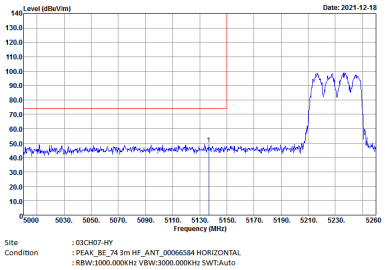
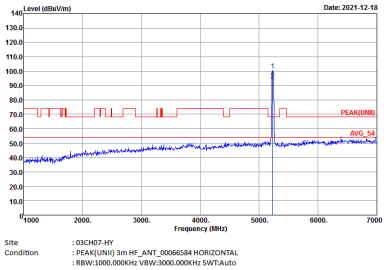
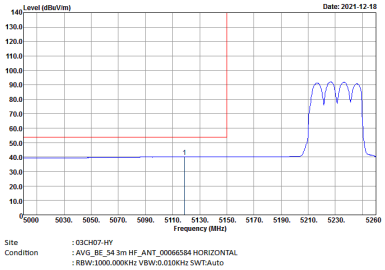
Band 1 5150~5250MHz
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

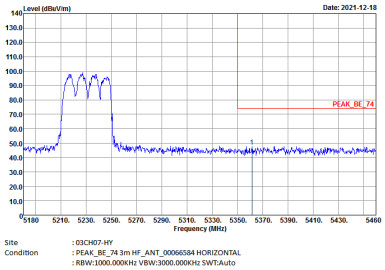
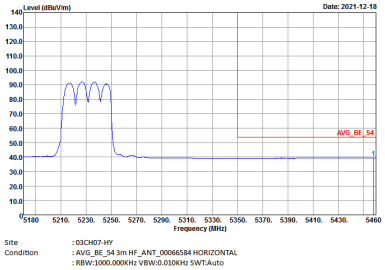
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH38 5190MHz - L	
3+4	Horizontal	Fundamental
Peak		
Avg.		Left blank

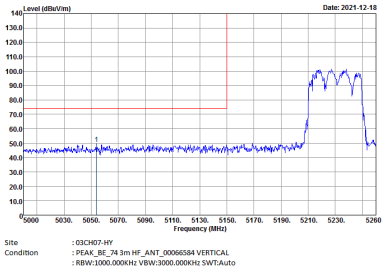
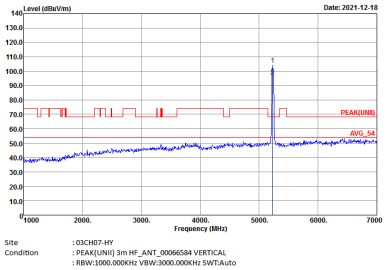
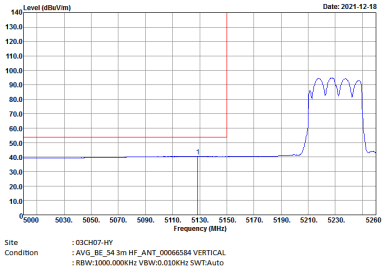
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH38 5190MHz - R	
3+4	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

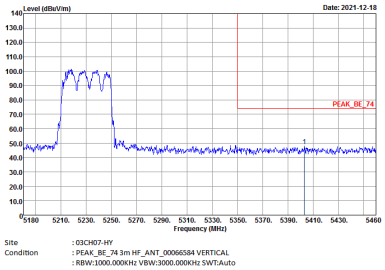
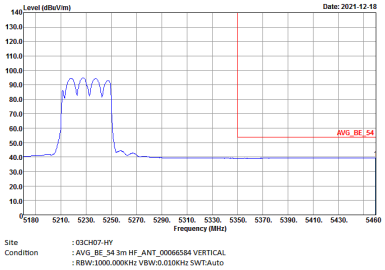
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH38 5190MHz - L	
3+4	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH38 5190MHz - R	
3+4	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

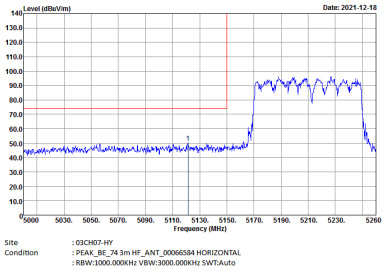
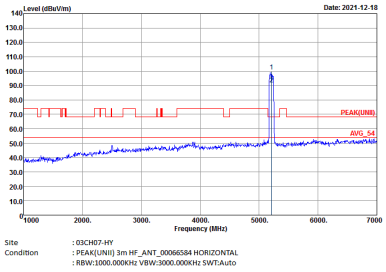
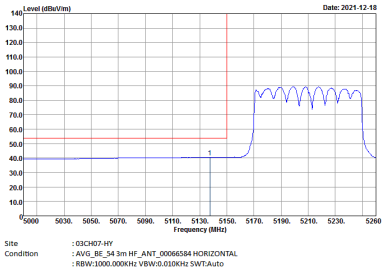
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH46 5230MHz - L	
3+4	Horizontal	Fundamental
Peak		
Avg.		Left blank

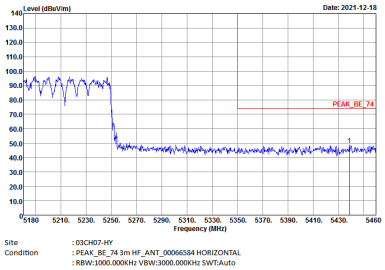
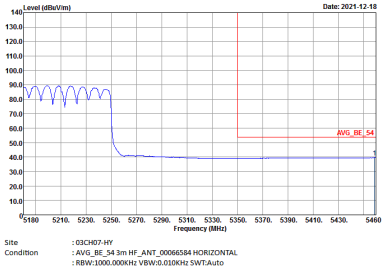
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH46 5230MHz - R	
3+4	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

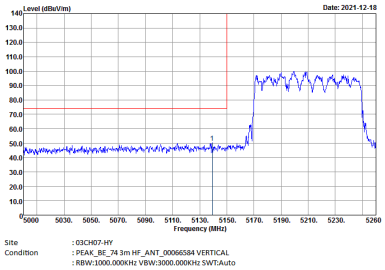
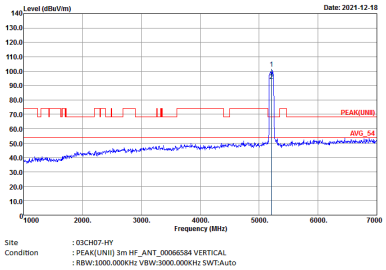
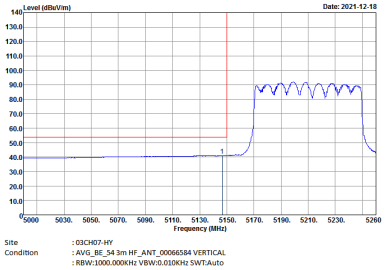
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH46 5230MHz - L	
3+4	Vertical	Fundamental
Peak		
Avg.		Left blank

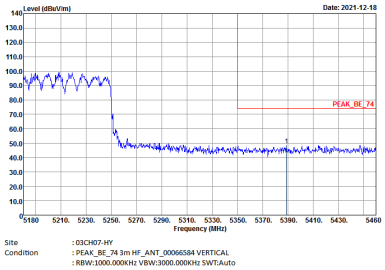
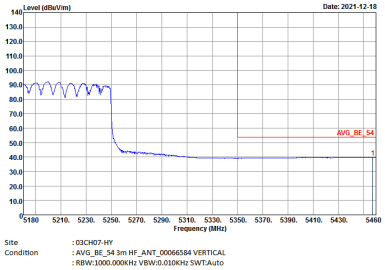
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH46 5230MHz - R	
3+4	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

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

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH42 5210MHz - L	
3+4	Horizontal	Fundamental
Peak		
Avg.		Left blank

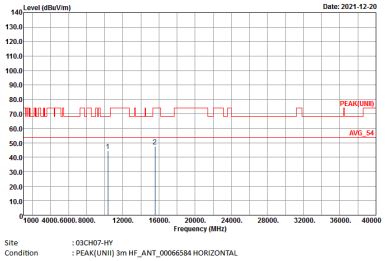
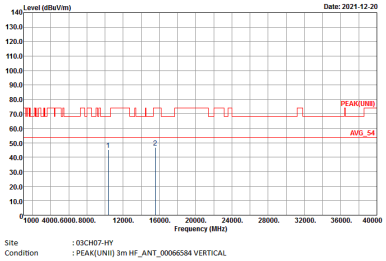
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH42 5210MHz - R	
3+4	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

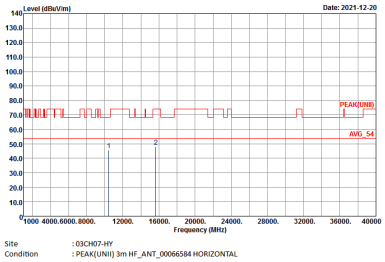
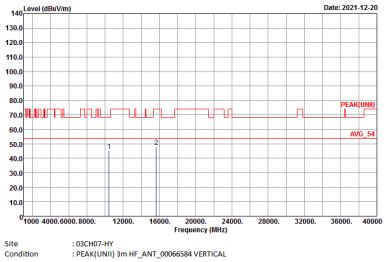
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH42 5210MHz - L	
3+4	Vertical	Fundamental
Peak		
Avg.		Left blank

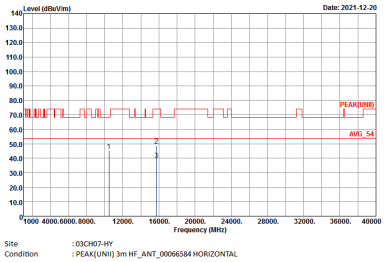
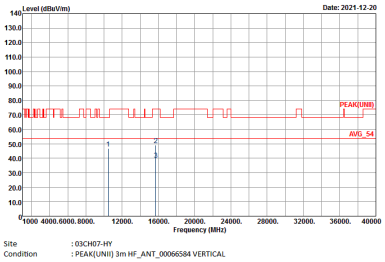
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH42 5210MHz - R	
3+4	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 1 - 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

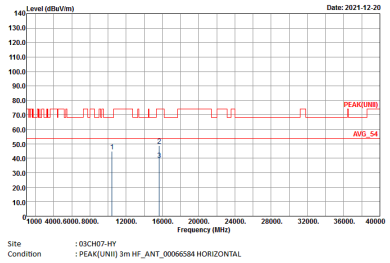
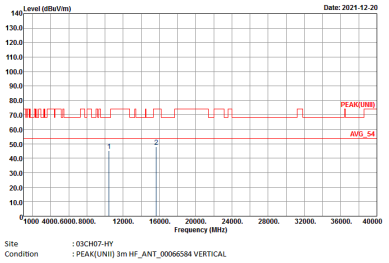
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH36 5180MHz	
3+4	Horizontal	Vertical
Peak Avg.		

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH44 5220MHz	
3+4	Horizontal	Vertical
Peak Avg.		

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH48 5240MHz	
3+4	Horizontal	Vertical
Peak Avg.		

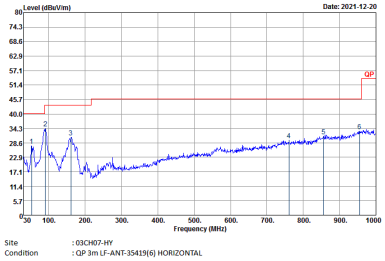
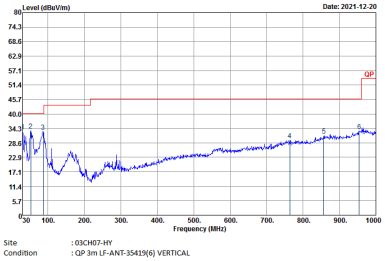
Band 1 5150~5250MHz

WIFI 802.11ax HE20 Full (Harmonic @ 3m)

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH44 5220MHz	
3+4	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

5GHz WIFI 802.11ax HE80 Full (LF)

WIFI	5GHz WIFI	
ANT	802.11ax HE80 Full LF	
3+4	Horizontal	Vertical
QP / Peak		

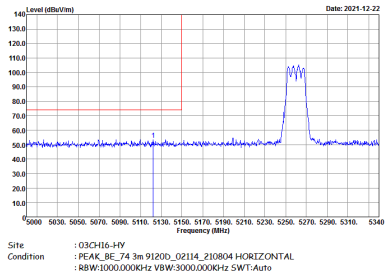
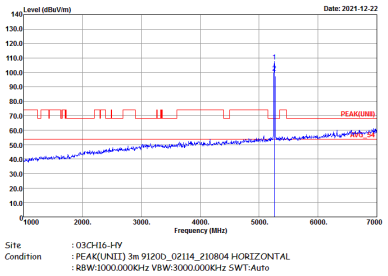
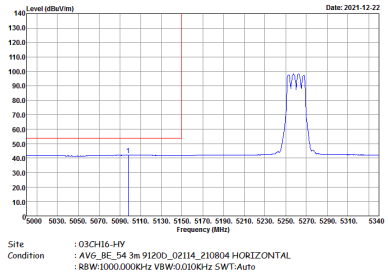
Test Engineer :	Andy Yang, Karl Hou, and Wilson Wu	**Temperature :**	20~25°C
		Relative Humidity :	50~60%

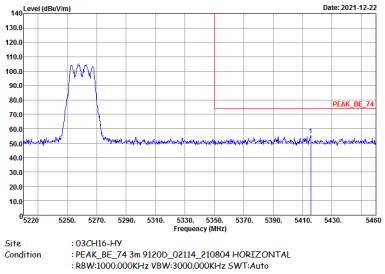
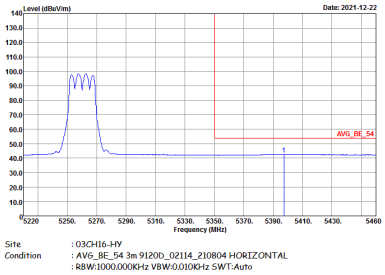
Note symbol

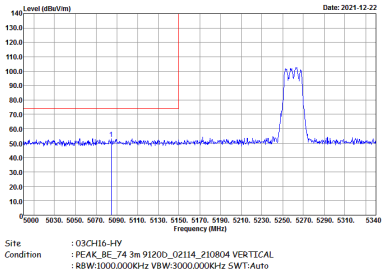
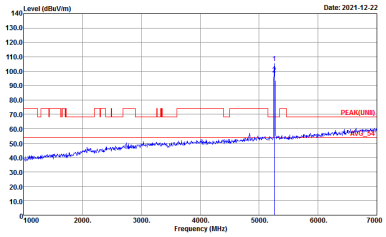
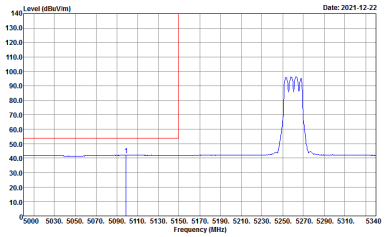
-L	**Low channel location**
-R	**High channel location**

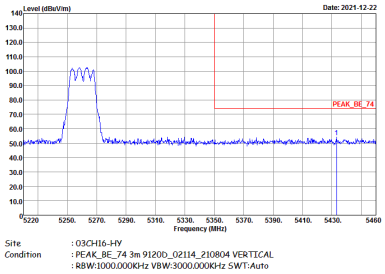
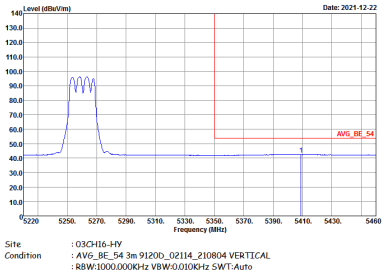
Band 2 - 5250~5350MHz

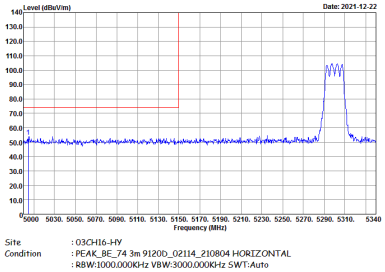
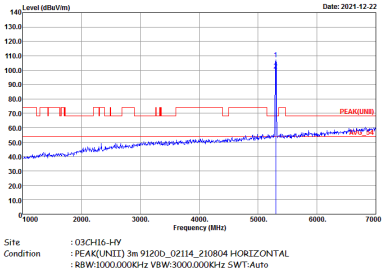
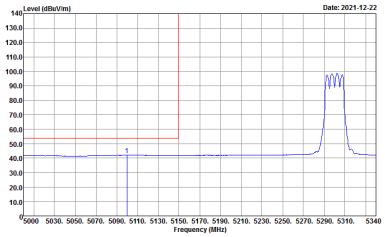
WIFI 802.11a (Band Edge @ 3m)

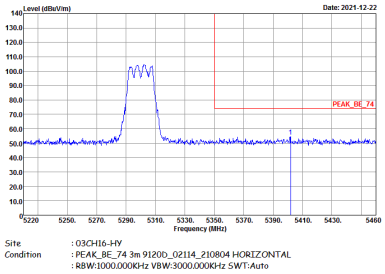
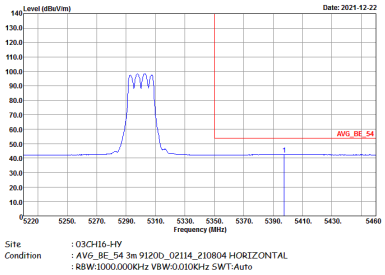
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
3+4	Horizontal	Fundamental
Peak		
Avg.		Left blank

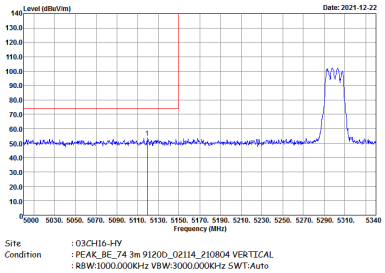
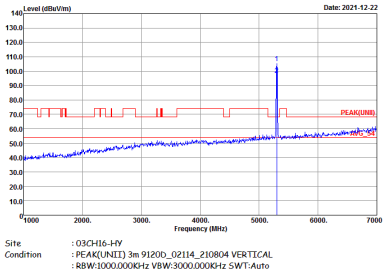
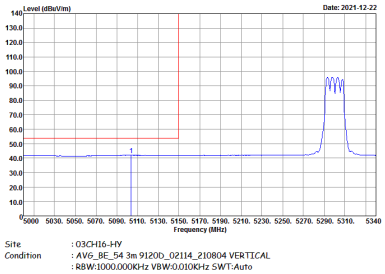
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
3+4	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

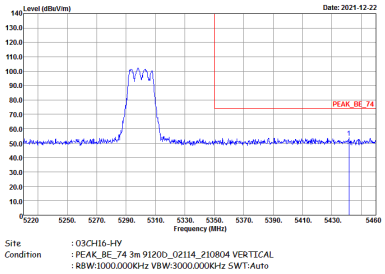
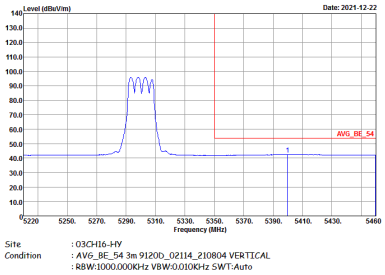
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
3+4	Vertical	Fundamental
Peak	 Site : 03CH16-HV Condition : PEAK_BE_74 3m 9120D_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HV Condition : PEAK(UNII) 3m 9120D_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HV Condition : AVG_BE_54 3m 9120D_02114_210804 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

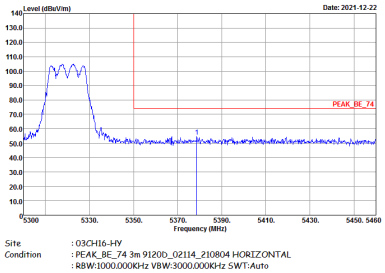
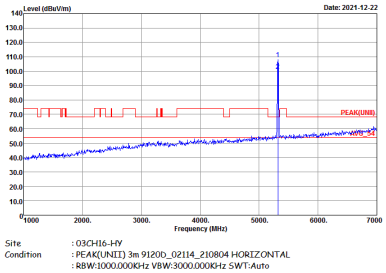
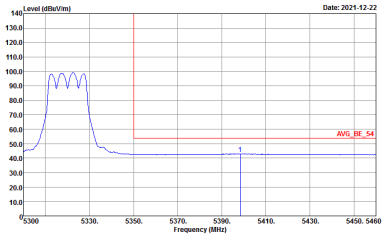
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
3+4	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

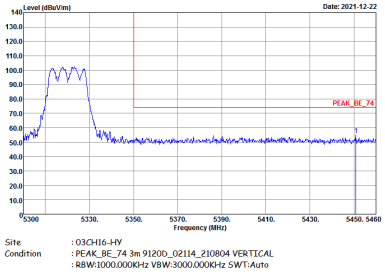
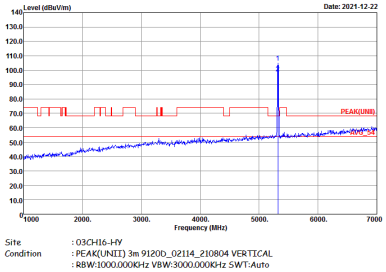
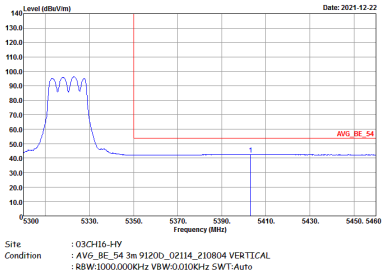
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - L	
3+4	Horizontal	Fundamental
Peak	 Site : 03CH16-HV Condition : PEAK_BE_74 3m 9120D_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HV Condition : PEAK(UNII) 3m 9120D_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HV Condition : AVG_BE_54 3m 9120D_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - R	
3+4	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

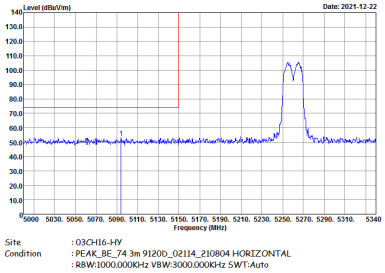
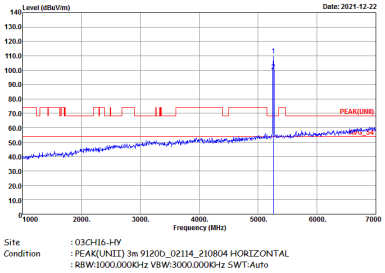
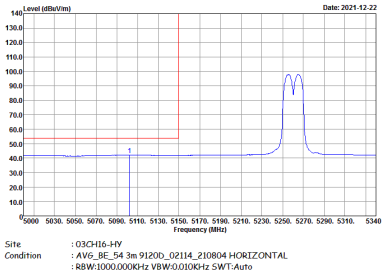
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - L	
3+4	Vertical	Fundamental
Peak		
Avg.		Left blank

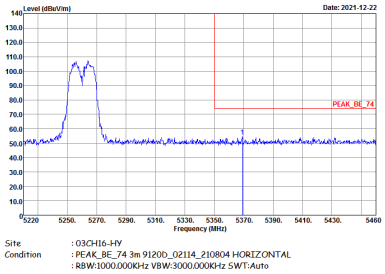
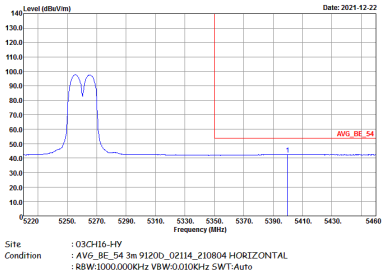
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - R	
3+4	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

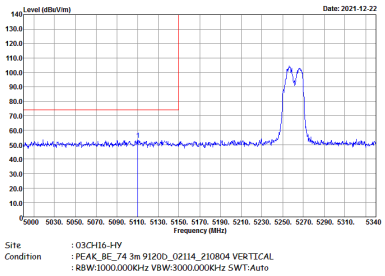
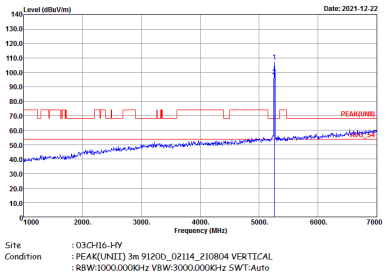
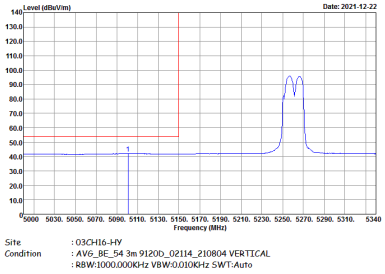
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
3+4	Horizontal	Fundamental
Peak	 Site : 03CH16-HV Condition : PEAK_BE_74 3m 9120D_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HV Condition : PEAK(UNII) 3m 9120D_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HV Condition : AVG_BE_54 3m 9120D_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

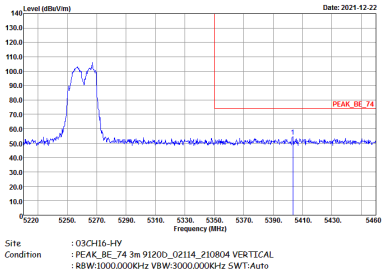
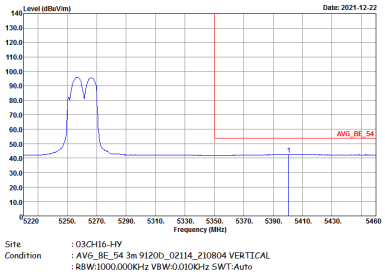
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
3+4	Vertical	Fundamental
Peak	 Site : 03CH16-HV Condition : PEAK_BE_74 3m 9120D_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HV Condition : PEAK(UNII) 3m 9120D_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HV Condition : AVG_BE_54 3m 9120D_02114_210804 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

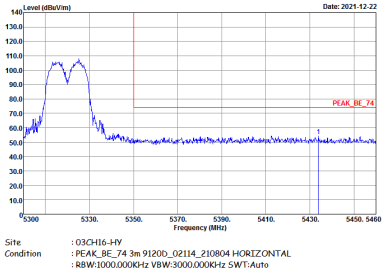
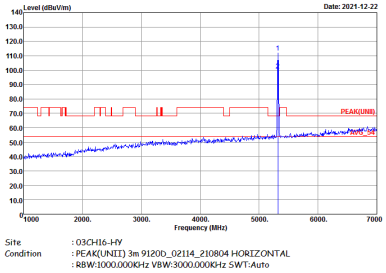
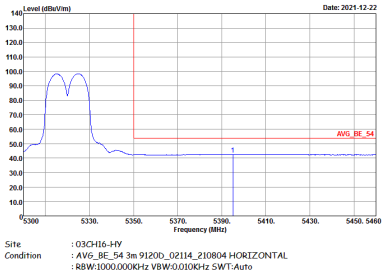
Band 2 5250~5350MHz
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

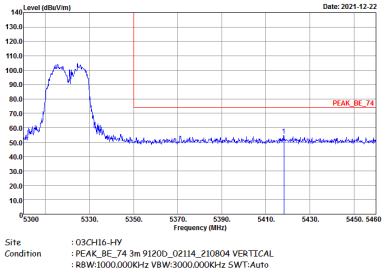
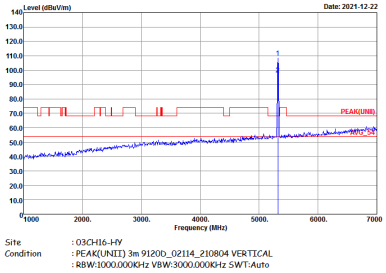
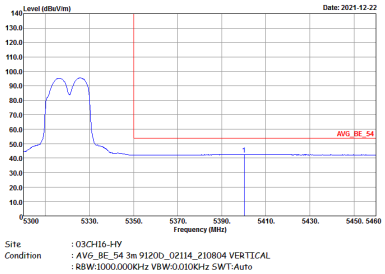
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH52 5260MHz - L	
3+4	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH52 5260MHz - R	
3+4	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH52 5260MHz - L	
3+4	Vertical	Fundamental
Peak		
Avg.		Left blank

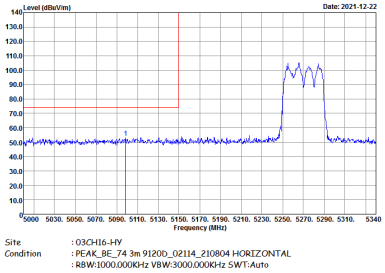
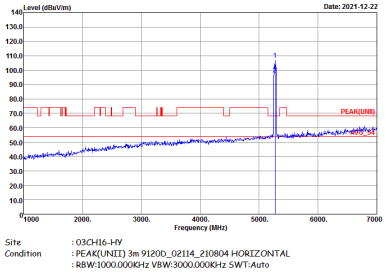
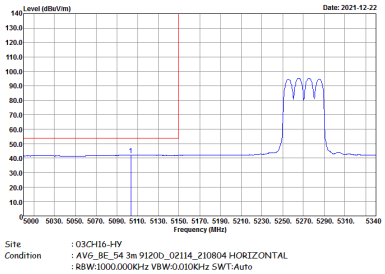
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH52 5260MHz - R	
3+4	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

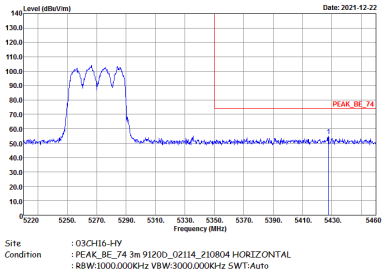
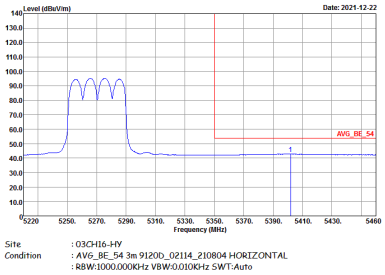
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH64 5320MHz	
3+4	Horizontal	Fundamental
Peak	 Site : 03CH16-HV Condition : PEAK_BE_74 3m 9120D_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HV Condition : PEAK(UNII) 3m 9120D_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HV Condition : AVG_BE_54 3m 9120D_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

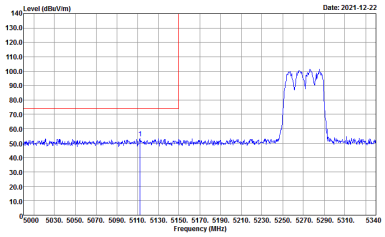
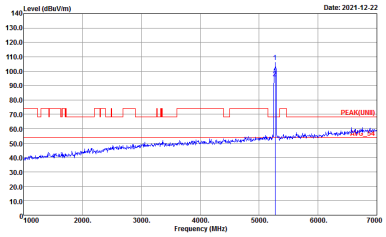
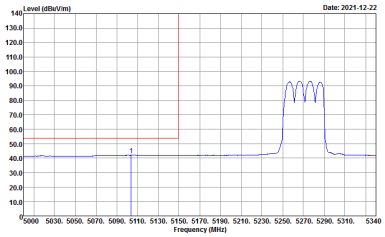
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH64 5320MHz	
3+4	Vertical	Fundamental
Peak	 Site : 03CH16-HV Condition : PEAK_BE_74 3m 9120D_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HV Condition : PEAK(UNII) 3m 9120D_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HV Condition : AVG_BE_54 3m 9120D_02114_210804 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

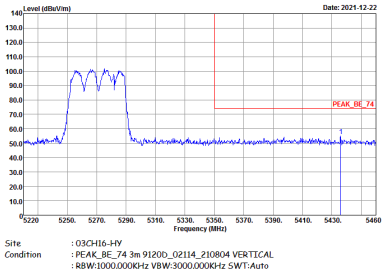
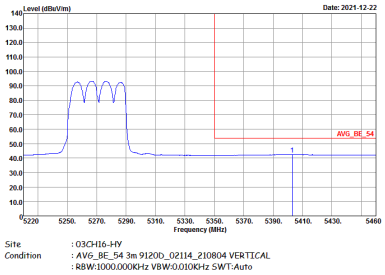
Band 2 - 5250~5350MHz

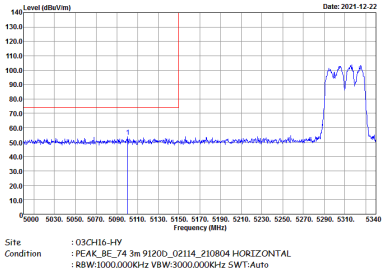
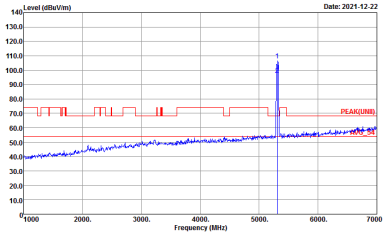
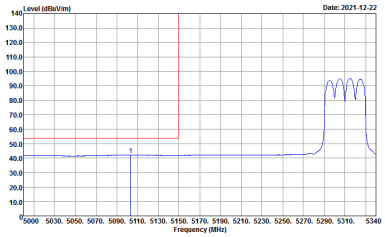
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

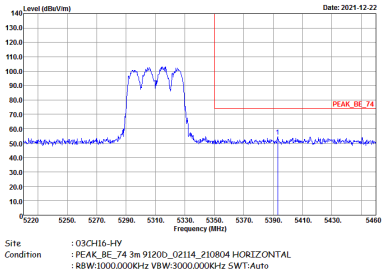
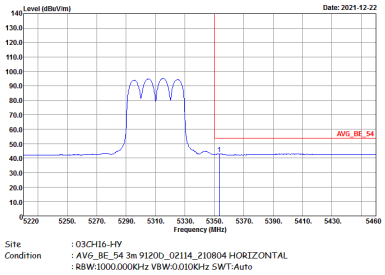
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH54 5270MHz - L	
3+4	Horizontal	Fundamental
Peak		
Avg.		Left blank

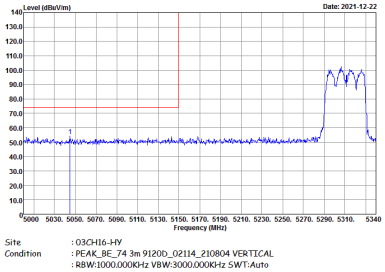
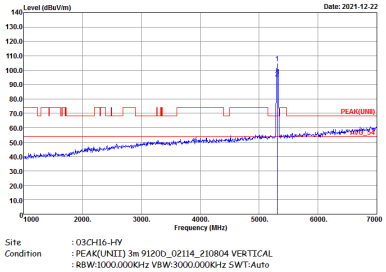
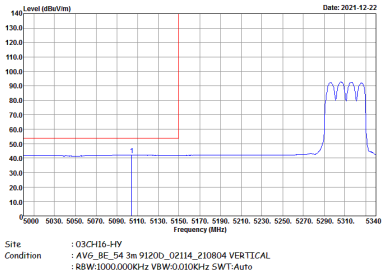
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH54 5270MHz - R	
3+4	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

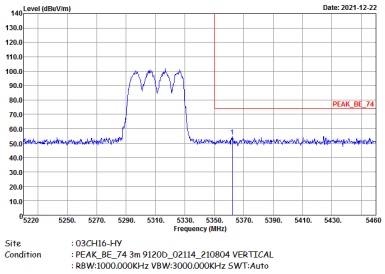
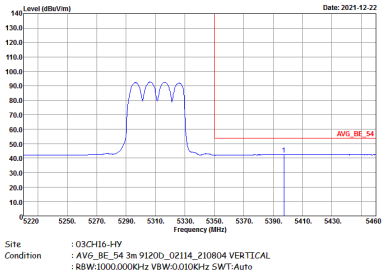
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH54 5270MHz - L	
3+4	Vertical	Fundamental
Peak	 Site : 03CH16-HV Condition : PEAK_BE_74 3m 9120D_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HV Condition : PEAK(UNII) 3m 9120D_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HV Condition : AVG_BE_54 3m 9120D_02114_210804 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH54 5270MHz - R	
3+4	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

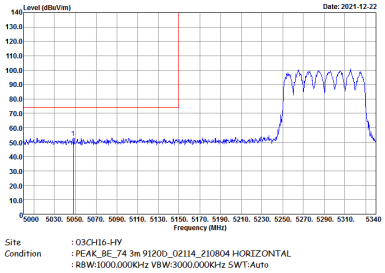
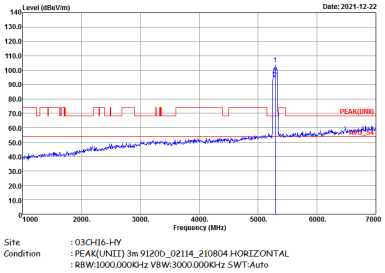
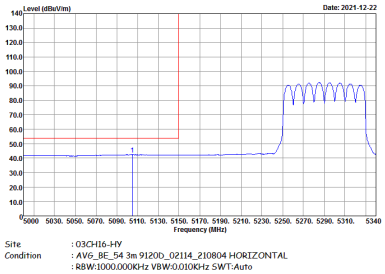
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH62 5310MHz - L	
3+4	Horizontal	Fundamental
Peak	 Site : 03CH16-HV Condition : PEAK_BE_74 3m 9120D_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HV Condition : PEAK(UNII) 3m 9120D_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HV Condition : AVG_BE_54 3m 9120D_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

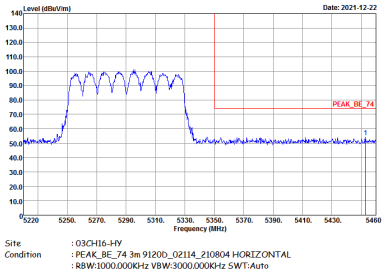
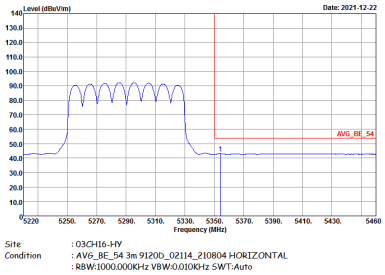
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH62 5310MHz - R	
3+4	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

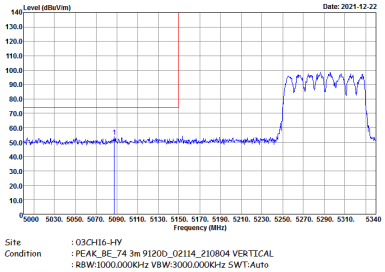
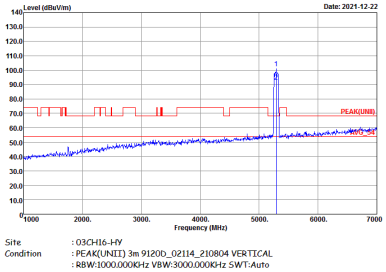
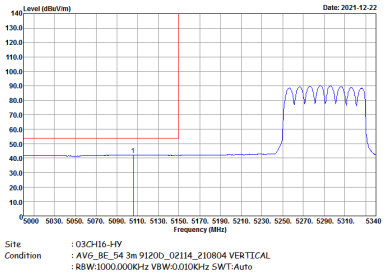
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH62 5310MHz - L	
3+4	Vertical	Fundamental
Peak		
Avg.		Left blank

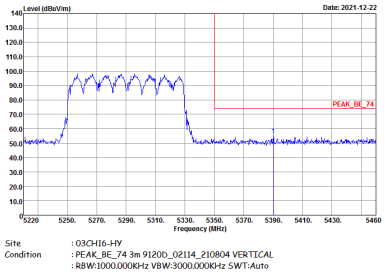
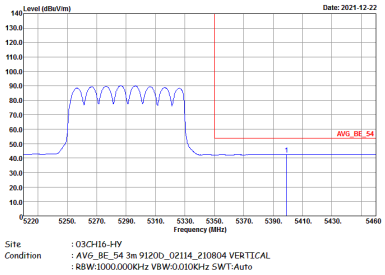
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH62 5310MHz - R	
3+4	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 2 5250~5350MHz
WIFI 802.11ax HE80 Full (Band Edge @ 3m)

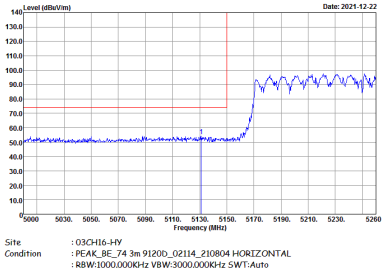
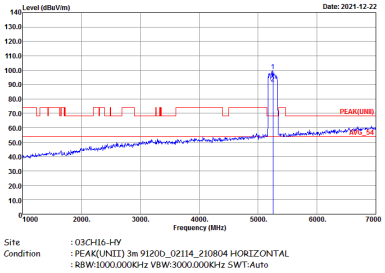
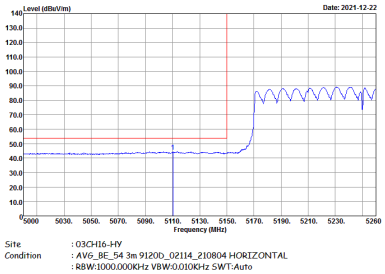
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH58 5290MHz - L	
3+4	Horizontal	Fundamental
Peak		
Avg.		Left blank

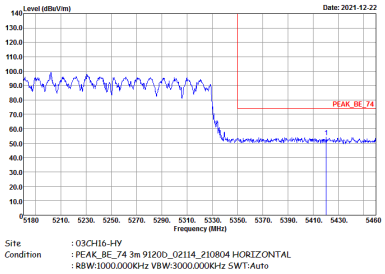
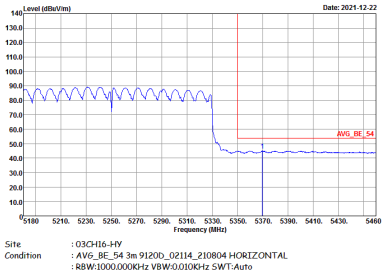
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH58 5290MHz - R	
3+4	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

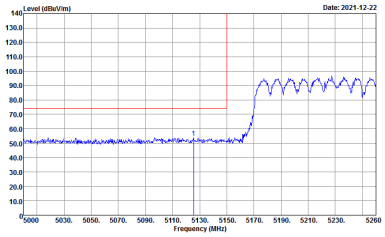
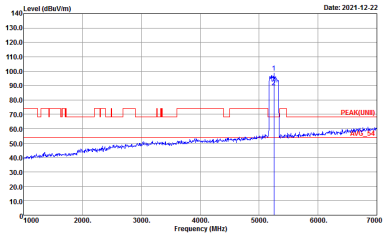
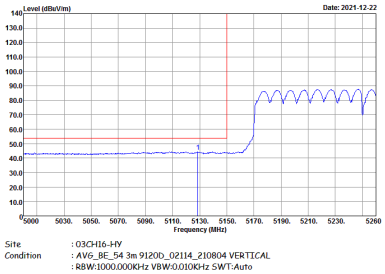
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH58 5290MHz - L	
3+4	Vertical	Fundamental
Peak		
Avg.		Left blank

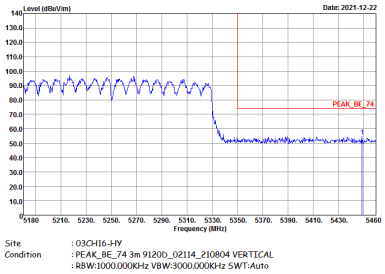
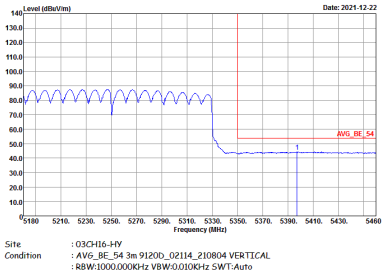
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH58 5290MHz - R	
3+4	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 1~2 5150~5350MHz
WIFI 802.11ax HE160 Full (Band Edge @ 3m)

WIFI	Band 1~2 5150~5350MHz Band Edge @ 3m	
ANT	802.11ax HE160 Full CH50 5250MHz - L	
3+4	Horizontal	Fundamental
Peak		
Avg.		Left blank

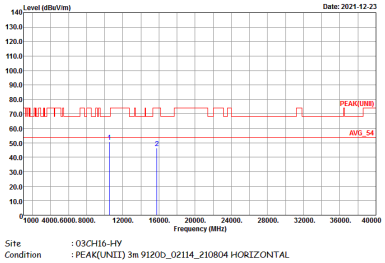
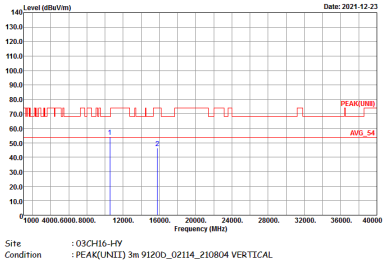
WIFI	Band 1~2 5150~5350MHz Band Edge @ 3m	
ANT	802.11ax HE160 Full CH50 5250MHz - R	
3+4	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

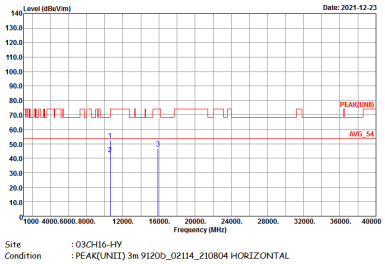
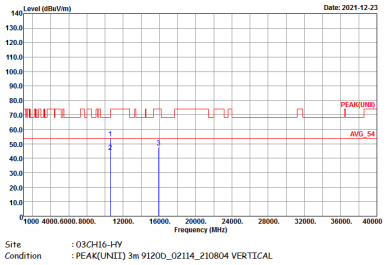
WIFI	Band 1~2 5150~5350MHz Band Edge @ 3m	
ANT	802.11ax HE160 Full CH50 5250MHz - L	
3+4	Vertical	Fundamental
Peak		
Avg.		Left blank

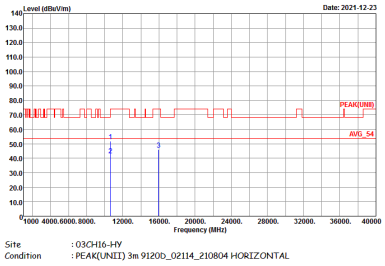
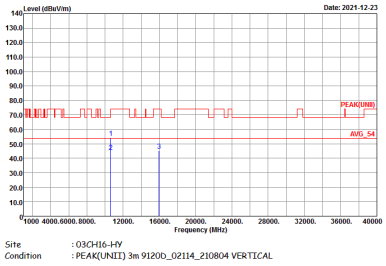
WIFI	Band 1~2 5150~5350MHz Band Edge @ 3m	
ANT	802.11ax HE160 Full CH50 5250MHz - R	
3+4	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 2 - 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

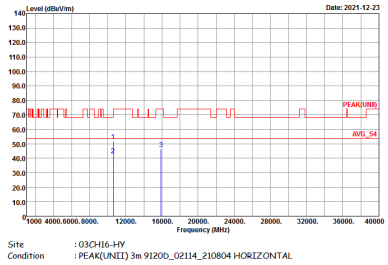
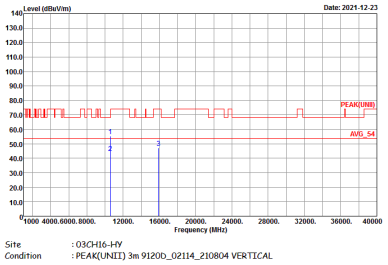
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH52 5260MHz	
3+4	Horizontal	Vertical
Peak Avg.		

WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH60 5300MHz	
3+4	Horizontal	Vertical
Peak Avg.		

WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH64 5320MHz	
3+4	Horizontal	Vertical
Peak Avg.		

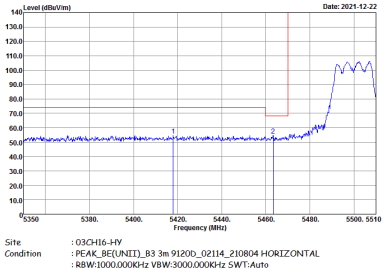
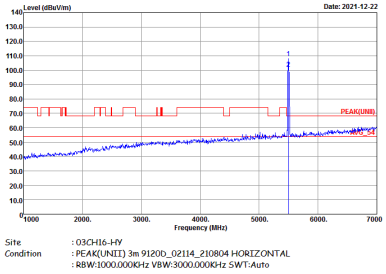
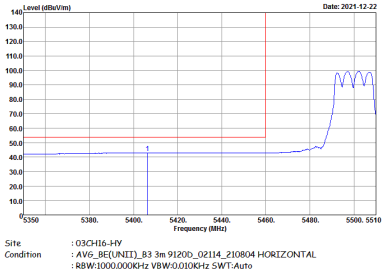
Band 2 5250~5350MHz

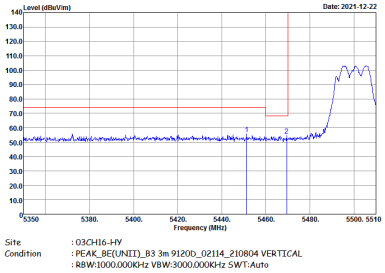
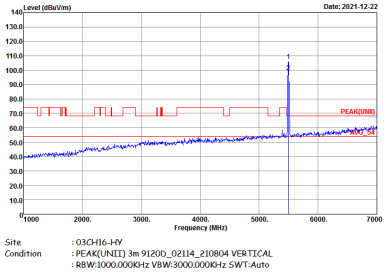
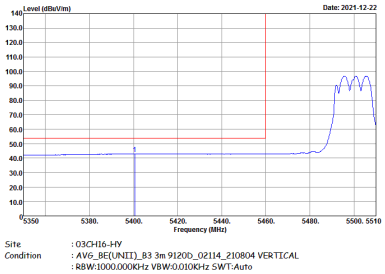
WIFI 802.11ax HE20 Full (Harmonic @ 3m)

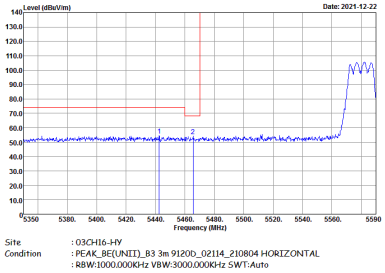
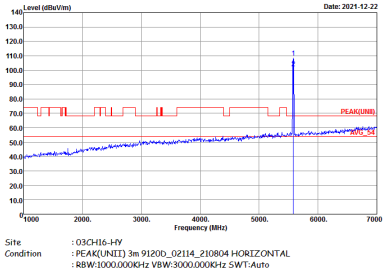
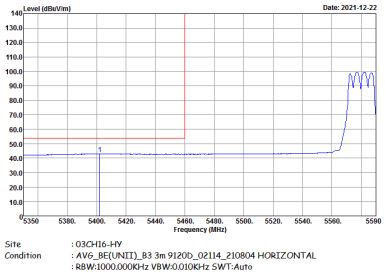
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH60 5300MHz	
3+4	Horizontal	Vertical
Peak Avg.		

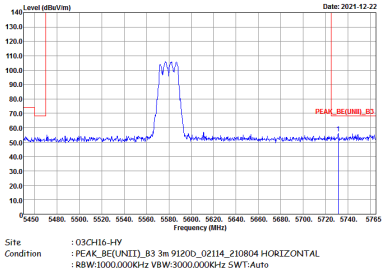
Band 3 - 5470~5725MHz

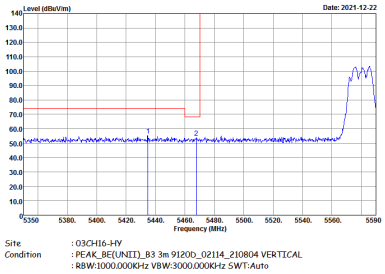
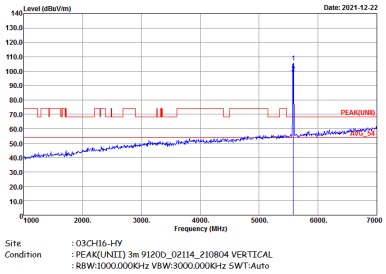
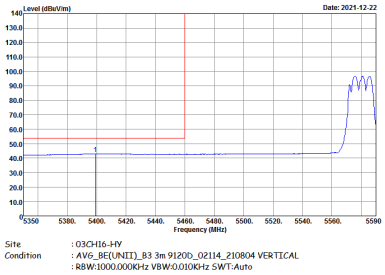
WIFI 802.11a (Band Edge @ 3m)

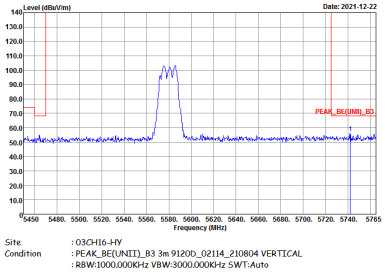
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
3+4	Horizontal	Fundamental
Peak		
Avg.		Left blank

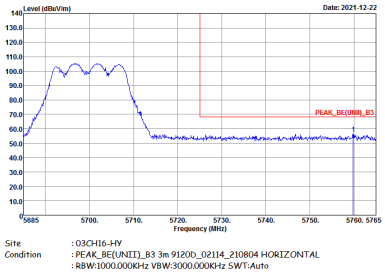
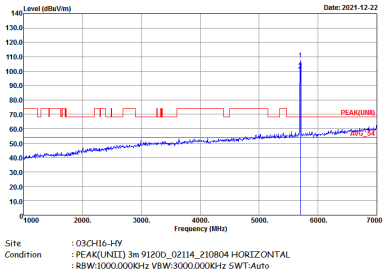
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
3+4	Vertical	Fundamental
Peak		
Avg.		Left blank

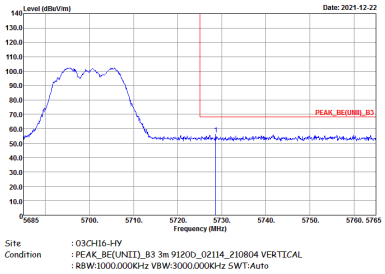
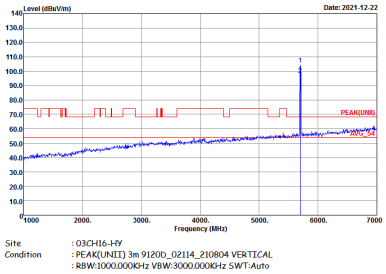
<table>
<tr><td>WIFI</td><td colspan="2">Band 3 5470~5725MHz Band Edge @ 3m</td></tr>
<tr><td>ANT</td><td colspan="2">802.11a CH116 5580MHz - L</td></tr>
<tr><td>3+4</td><td>Horizontal</td><td>Fundamental</td></tr>
<tr><td>Peak</td><td> 
</td><td> 
</td></tr>
<tr><td>Avg.</td><td> 
</td><td>Left blank</td></tr>
</table>

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - R	
3+4	Horizontal	Fundamental
Peak		Left blank

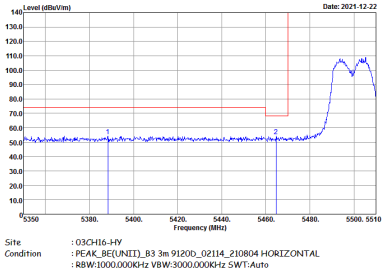
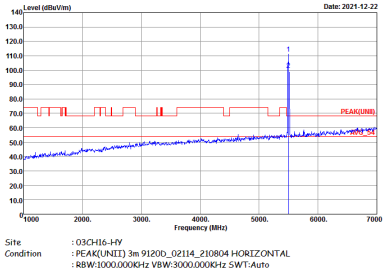
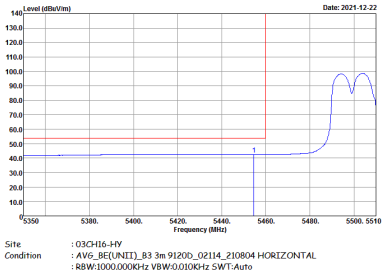
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - L	
3+4	Vertical	Fundamental
Peak		
Avg.		Left blank

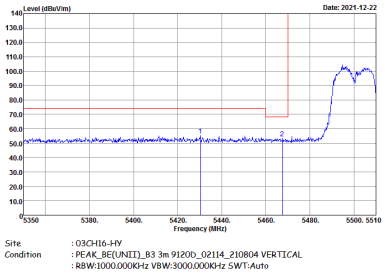
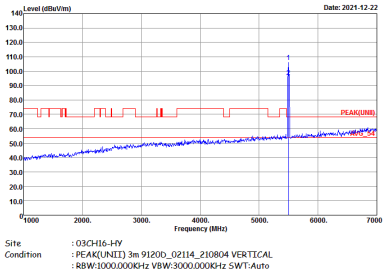
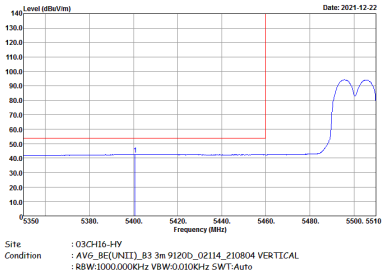
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - R	
3+4	Vertical	Fundamental
Peak		Left blank

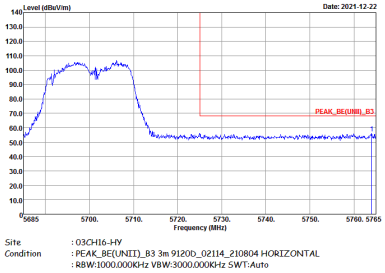
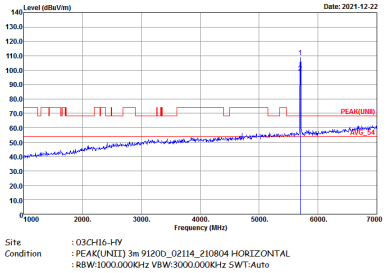
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
3+4	Horizontal	Fundamental
Peak		

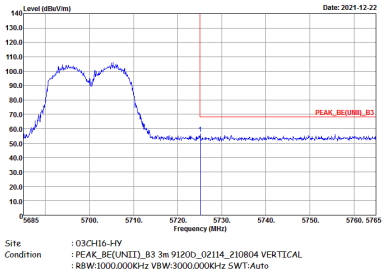
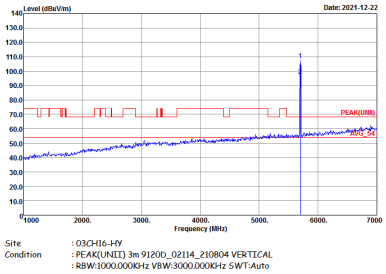
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
3+4	Vertical	Fundamental
Peak		

Band 3 5470~5725MHz
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH100 5500MHz	
3+4	Horizontal	Fundamental
Peak		
Avg.		Left blank

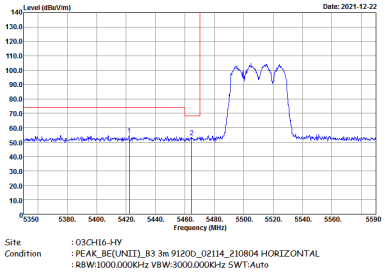
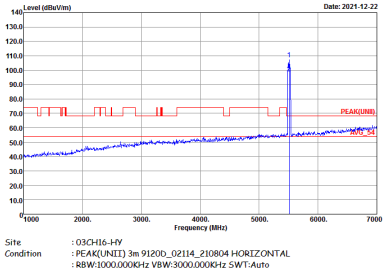
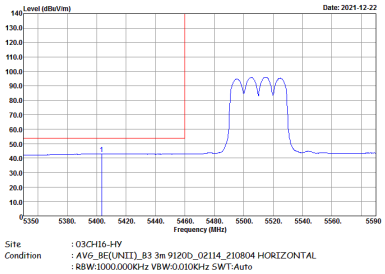
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH100 5500MHz	
3+4	Vertical	Fundamental
Peak		
Avg.		Left blank

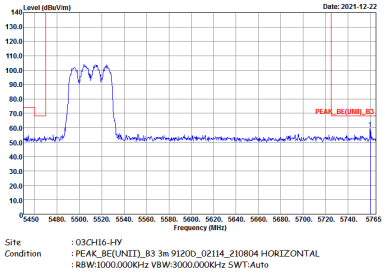
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH140 5700MHz	
3+4	Horizontal	Fundamental
Peak		

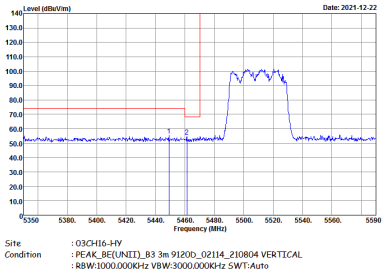
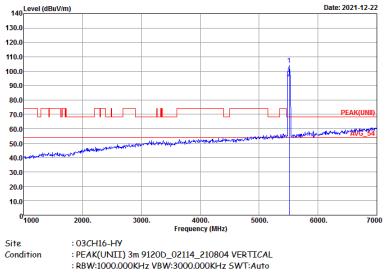
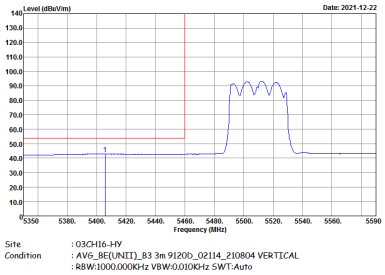
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH140 5700MHz	
3+4	Vertical	Fundamental
Peak		

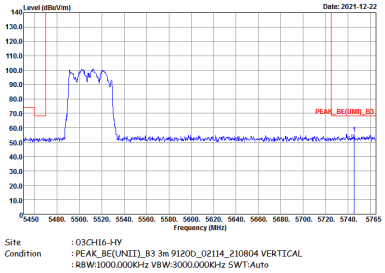
Band 3 - 5470~5725MHz

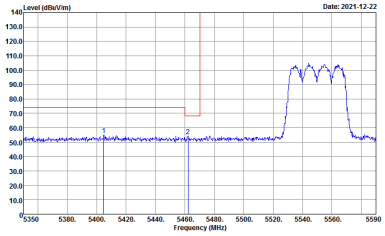
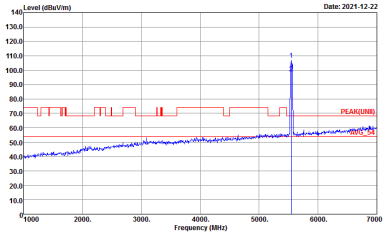
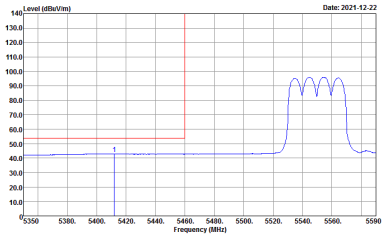
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

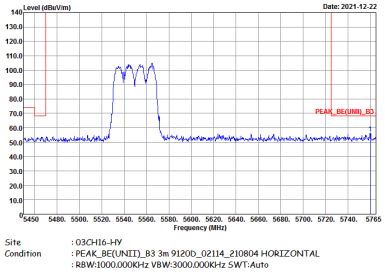
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH102 5510MHz - L	
3+4	Horizontal	Fundamental
Peak		
Avg.		Left blank

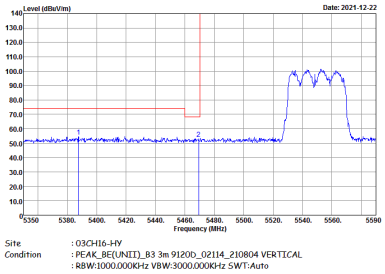
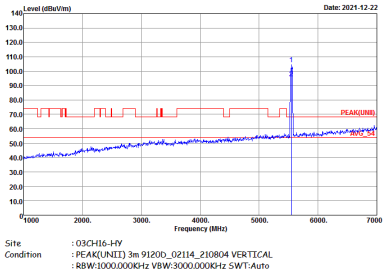
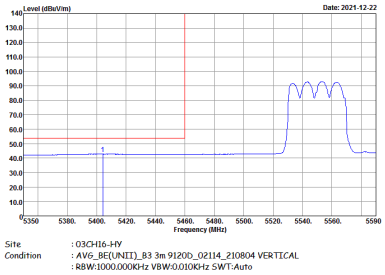
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH102 5510MHz - R	
3+4	Horizontal	Fundamental
Peak		Left blank

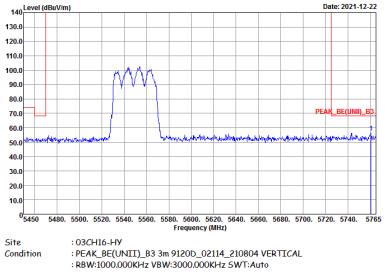
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH102 5510MHz - L	
3+4	Vertical	Fundamental
Peak		
Avg.		Left blank

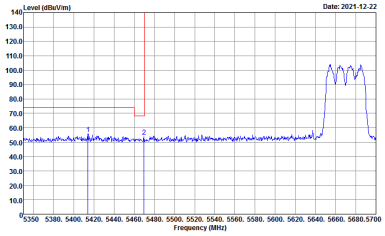
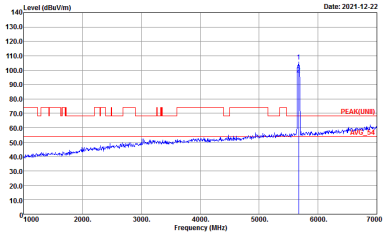
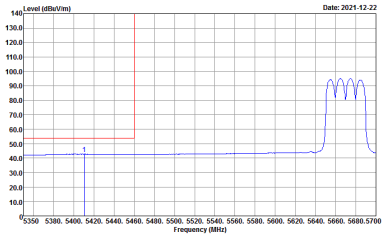
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH102 5510MHz - R	
3+4	Vertical	Fundamental
Peak		Left blank

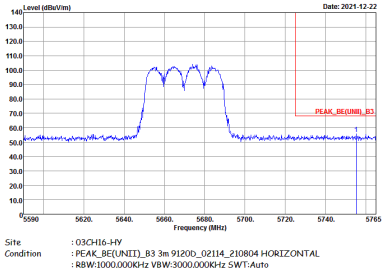
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH110 5550MHz - L	
3+4	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(UNII)_B3 3m 9120D_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE(UNII)_B3 3m 9120D_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

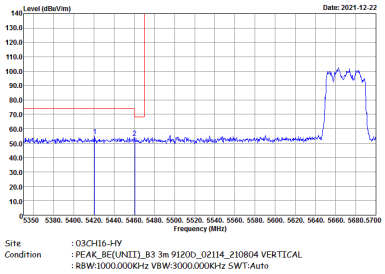
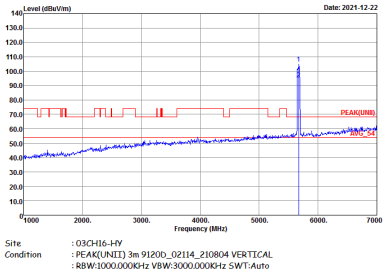
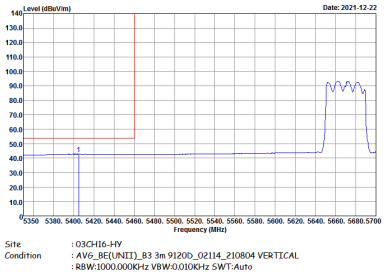
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH110 5550MHz - R	
3+4	Horizontal	Fundamental
Peak		Left blank

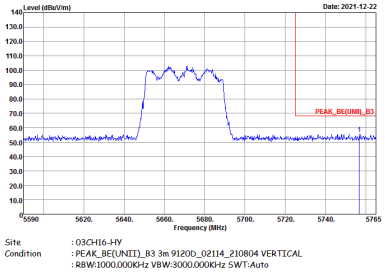
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH110 5550MHz - L	
3+4	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH110 5550MHz - R	
3+4	Vertical	Fundamental
Peak		Left blank

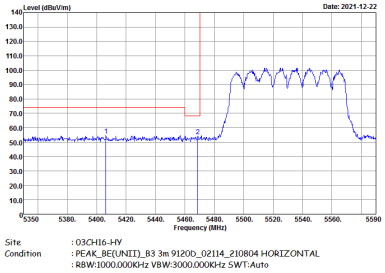
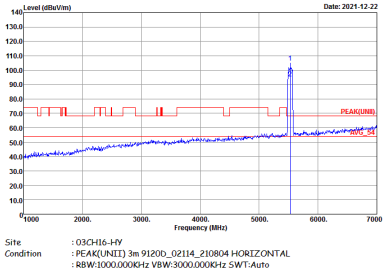
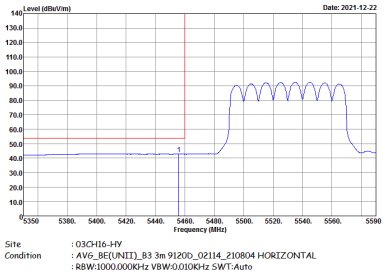
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH134 5670MHz - L	
3+4	Horizontal	Fundamental
Peak	 Site : 03CH16-HV Condition : PEAK_BE(UNII)_B3 3m 9120D_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HV Condition : PEAK(UNII) 3m 9120D_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HV Condition : AVG_BE(UNII)_B3 3m 9120D_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

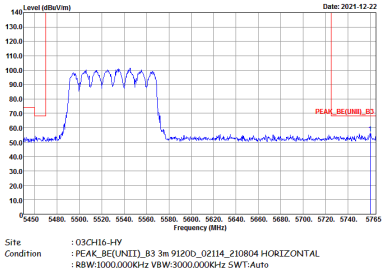
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH134 5670MHz - R	
3+4	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(UNII)_B3 3m 9120D_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

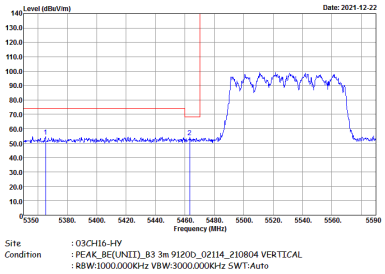
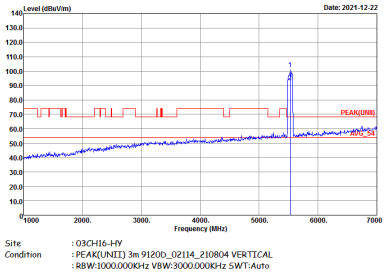
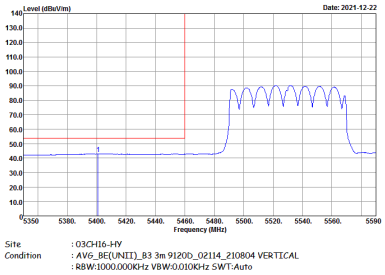
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH134 5670MHz - L	
3+4	Vertical	Fundamental
Peak		
Avg.		Left blank

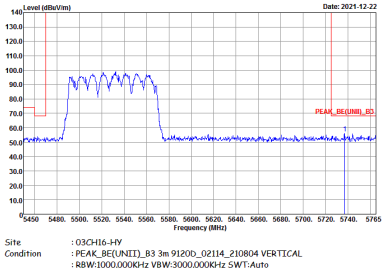
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH134 5670MHz - R	
3+4	Vertical	Fundamental
Peak		Left blank

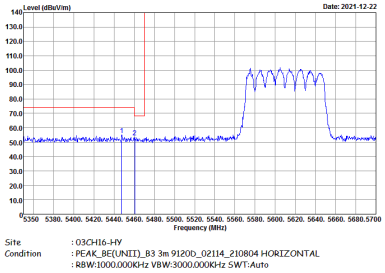
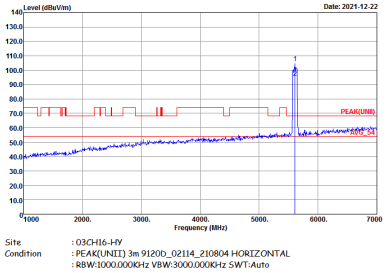
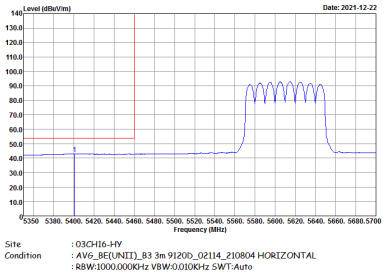
Band 3 5470~5725MHz
WIFI 802.11ax HE80 Full (Band Edge @ 3m)

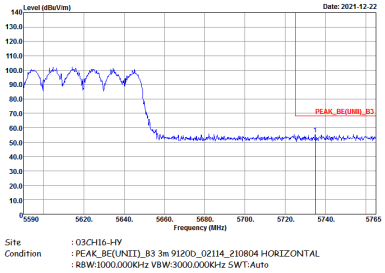
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH106 5530MHz - L	
3+4	Horizontal	Fundamental
Peak		
Avg.		Left blank

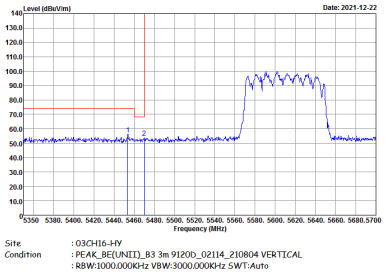
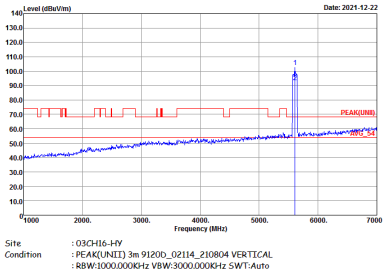
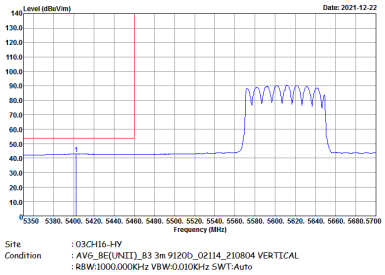
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH106 5530MHz - R	
3+4	Horizontal	Fundamental
Peak		Left blank

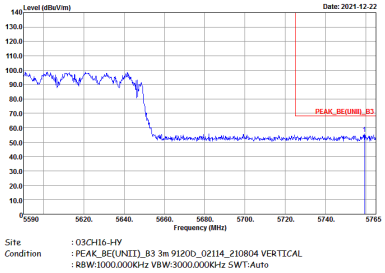
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH106 5530MHz - L	
3+4	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH106 5530MHz - R	
3+4	Vertical	Fundamental
Peak		Left blank

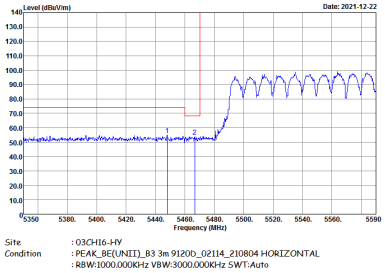
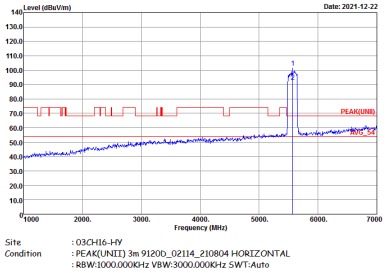
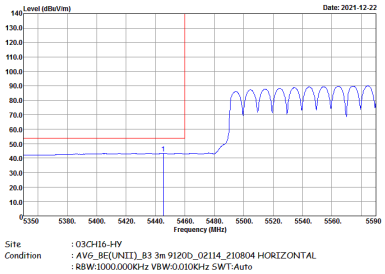
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH122 5610MHz - L	
3+4	Horizontal	Fundamental
Peak		
Avg.		Left blank

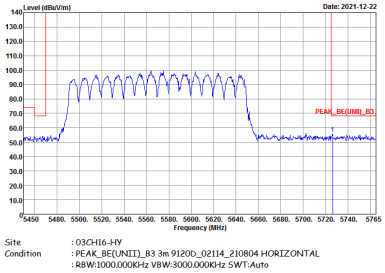
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH122 5610MHz - R	
3+4	Horizontal	Fundamental
Peak		Left blank

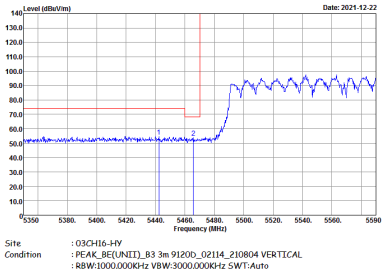
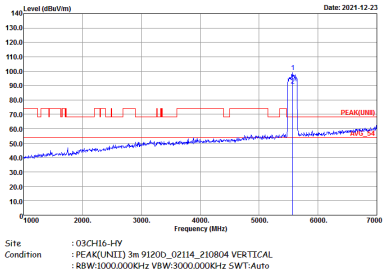
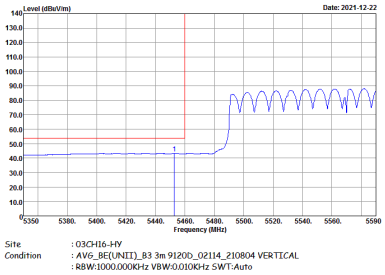
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH122 5610MHz - L	
3+4	Vertical	Fundamental
Peak		
Avg.		Left blank

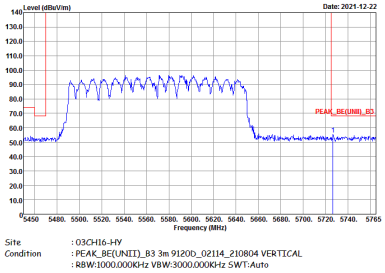
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH122 5610MHz - R	
3+4	Vertical	Fundamental
Peak		Left blank

Band 3 5470~5725MHz
WIFI 802.11ax HE160 Full (Band Edge @ 3m)

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE160 Full CH114 5570MHz - L	
3+4	Horizontal	Fundamental
Peak		
Avg.		Left blank

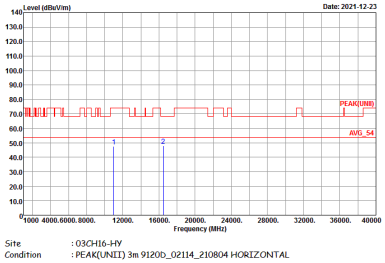
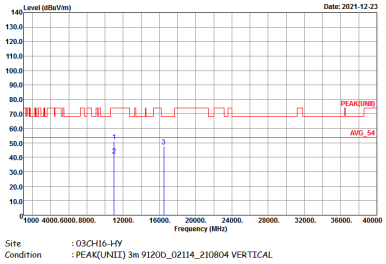
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE160 Full CH114 5570MHz - R	
3+4	Horizontal	Fundamental
Peak		Left blank

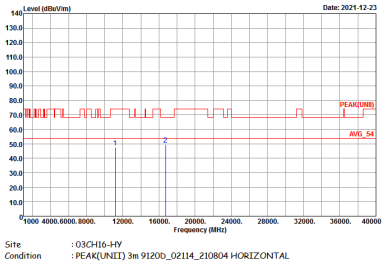
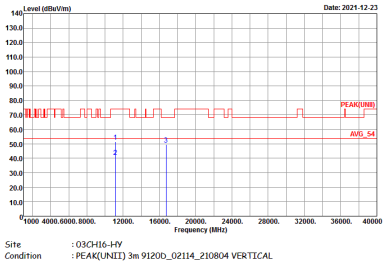
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE160 Full CH114 5570MHz - L	
3+4	Vertical	Fundamental
Peak		
Avg.		Left blank

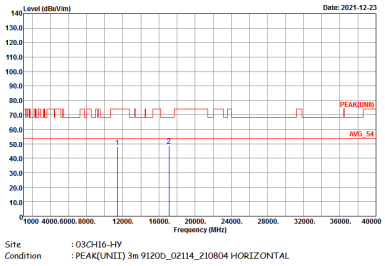
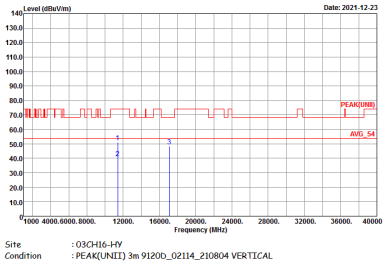
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE160 Full CH114 5570MHz - R	
3+4	Vertical	Fundamental
Peak		Left blank

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

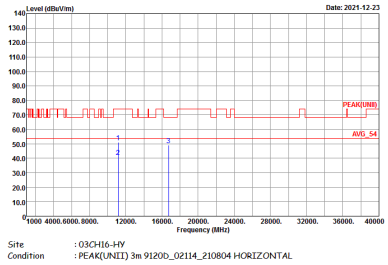
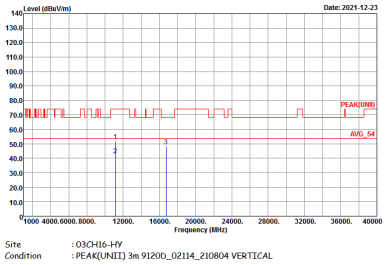
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH100 5500MHz	
3+4	Horizontal	Vertical
Peak Avg.		

WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH116 5580MHz	
3+4	Horizontal	Vertical
Peak Avg.		

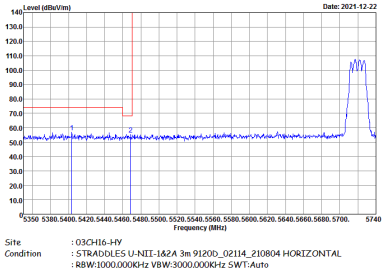
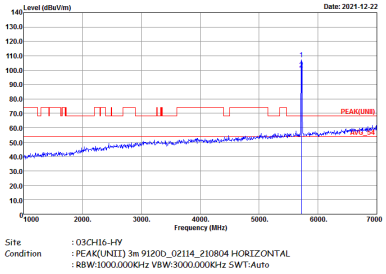
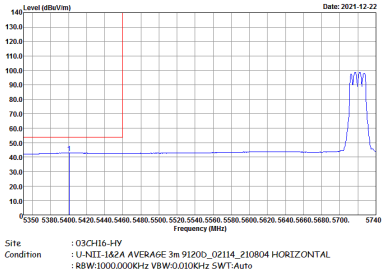
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH140 5700MHz	
3+4	Horizontal	Vertical
Peak Avg.		

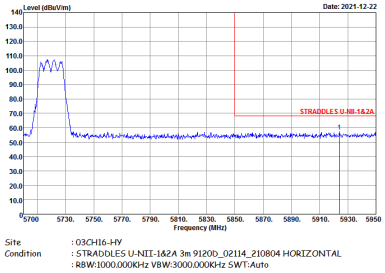
Band 3 5470~5725MHz

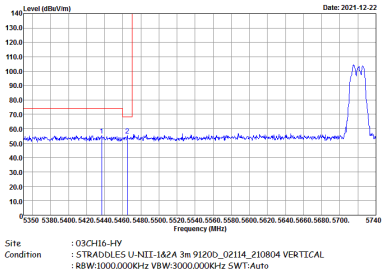
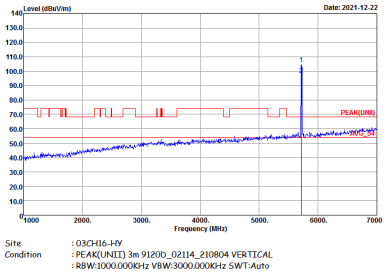
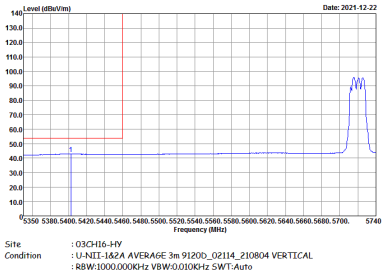
WIFI 802.11ax HE20 Full (Harmonic @ 3m)

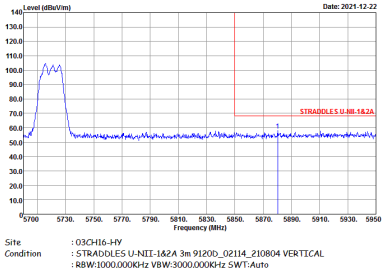
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH116 5580MHz	
3+4	Horizontal	Vertical
Peak Avg.		

Band 3 - Straddle Channel
WIFI 802.11a (Band Edge @ 3m)

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11a CH144 5720MHz - L	
3+4	Horizontal	Fundamental
Peak		
Avg.		Left blank

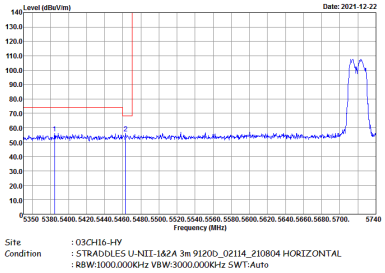
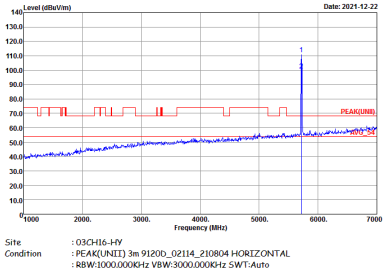
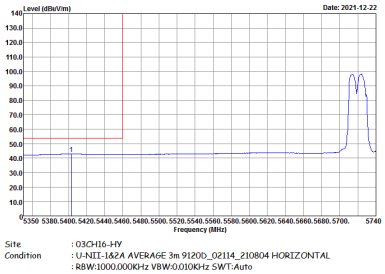
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11a CH144 5720MHz – R	
3+4	Horizontal	Fundamental
Peak		Left blank

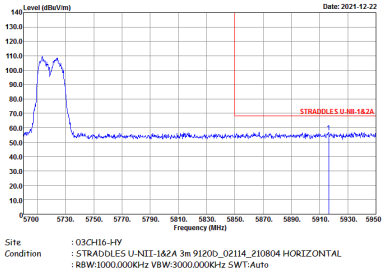
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11a CH144 5720MHz - L	
3+4	Vertical	Fundamental
Peak		
Avg.		Left blank

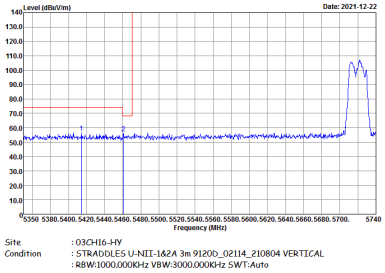
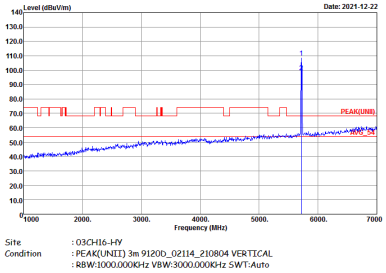
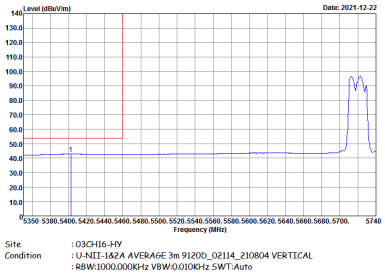
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11a CH144 5720MHz - R	
3+4	Vertical	Fundamental
Peak		Left blank

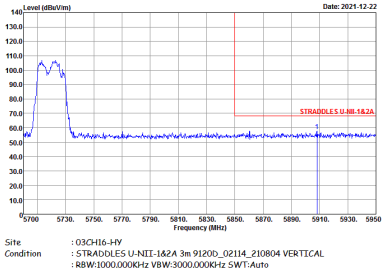
Band 3 – Straddle Channel

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

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ax HE20 Full CH144 5720MHz - L	
3+4	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ax HE20 Full CH144 5720MHz - R	
3+4	Horizontal	Fundamental
Peak		Left blank

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ax HE20 Full CH144 5720MHz - L	
3+4	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ax HE20 Full CH144 5720MHz - R	
3+4	Vertical	Fundamental
Peak		Left blank