FCC RADIO TEST REPORT

FCC ID	:	**2AFZZ122G**
Equipment	:	**Mobile Phone**
Brand Name	:	**Xiaomi**
Model Name	:	**2201122G**
Applicant	:	**Xiaomi Communications Co., Ltd. #019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085**
Manufacturer	:	**Xiaomi Communications Co., Ltd. #019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085**
Standard	:	**FCC Part 15 Subpart E §15.407**

The product was received on Nov. 15, 2021 and testing was performed from Nov. 16, 2021 to Dec. 28, 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

Report No.	Version	Description	Issue Date
FR1N1013B	01	Initial issue of report	Dec. 28, 2021

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	3.49 dB under the limit at 5350.080 MHz
3.5	15.207	AC Conducted Emission	Pass	21.68 dB under the limit at 2.695 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: Keven Cheng

Report Producer: Cindy Liu

1 General Description

1.1 Product Feature of Equipment Under Test

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

Product Specification is subject to this standard	
Sample 1	1st source (refer to the PED)
Sample 2	2nd source (refer to the PED)
Antenna Type	WWAN: PIFA Antenna **WLAN 2.4GHz:** <Ant. 16>: PIFA Antenna <Ant. 18>: PIFA Antenna **WLAN 5GHz:** <Ant. 17>: PIFA Antenna <Ant. 18>: PIFA Antenna **WLAN 6GHz:** <Ant. 17>: PIFA Antenna <Ant. 18>: PIFA Antenna **Bluetooth:** <Ant. 16>: PIFA Antenna <Ant. 18>: PIFA Antenna GPS / Glonass / BDS / Galileo / SBAS / QZSS: PIFA Antenna NFC: Planar Antenna WPC/WPT: Coil Antenna

Antenna information		
5150 MHz ~ 5250 MHz	Peak Gain (dBi)	Ant. 17: -2.1 Ant. 18: -4.7
5250 MHz ~ 5350 MHz	Peak Gain (dBi)	Ant. 17: -1.5 Ant. 18: -4.5
5470 MHz ~ 5725 MHz	Peak Gain (dBi)	Ant. 17: -1.3 Ant. 18: -3.9

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.**
	TH02-HY, CO05-HY, 03CH07-HY

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

FCC designation No.: TW1190

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.

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 WPC Charging Mode, and adjusting the measurement antenna orientation, following C63.10 exploratory test procedures and find Z plane and WPC Charging Mode 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.

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

Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20 (Covered by VHT20)	MCS0
802.11n HT40 (Covered by VHT40)	MCS0
802.11ac VHT20	MCS0
802.11ac VHT40	MCS0
802.11ac VHT80	MCS0
802.11ac VHT160 (Covered by HE160)	MCS0
802.11ax HE20 (Covered by VHT20)	MCS0
802.11ax HE40 (Covered by VHT40)	MCS0
802.11ax HE80 (Covered by VHT80)	MCS0
802.11ax HE160	MCS0

Test Cases	
AC Conducted Emission	Mode 1 :Bluetooth Link + WLAN (5GHz) Link + MPEG4 + USB Cable 1 (Charging from Adapter) + Battery for Sample 1
Remark: For Radiated Test Cases, the tests were performed with USB Cable 1.	

<Sample 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
		802.11ac VHT20	802.11ac VHT20	802.11ac VHT20
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
		802.11ac VHT40	802.11ac VHT40	802.11ac VHT40
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
		802.11ac VHT80	802.11ac VHT80	802.11ac VHT80
L	Low	-	-	106
M	Middle	42	58	-
H	High	-	-	122
Straddle		-	-	138

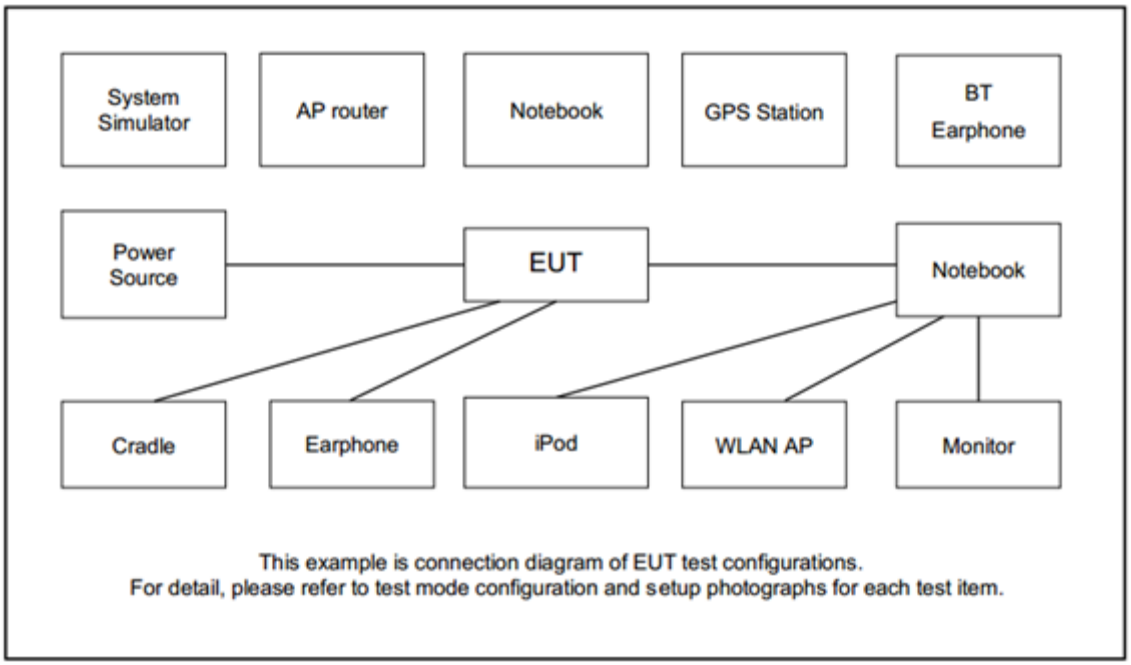
BW160	5150-5350 MHz	5470-5725MHz
	802.11ax HE160	802.11ax HE160
Ch. #	50	114

<Sample 2>

Ch. #		Band II：5250-5350 MHz
		802.11ac VHT40
L	Low	-
M	Middle	-
H	High	62

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

2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Bluetooth Earphone	Sony Ericsson	MW600	PY7DDA-2029	N/A	N/A
2.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	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
4.	Wireless Charger	MI	MDY-12-EN	N/A	N/A	N/A

2.5 EUT Operation Test Setup

The RF test items, EUT (SW: SKQ1.211006.001) 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.

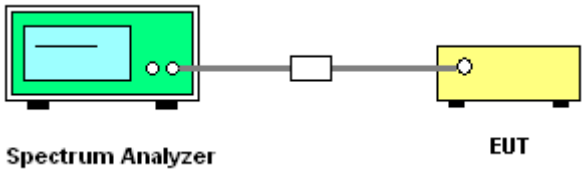
3.1.2 Measuring Instruments

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.

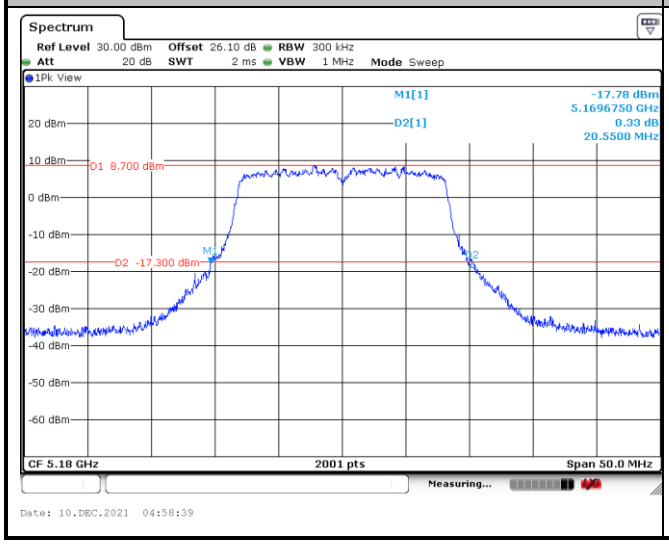
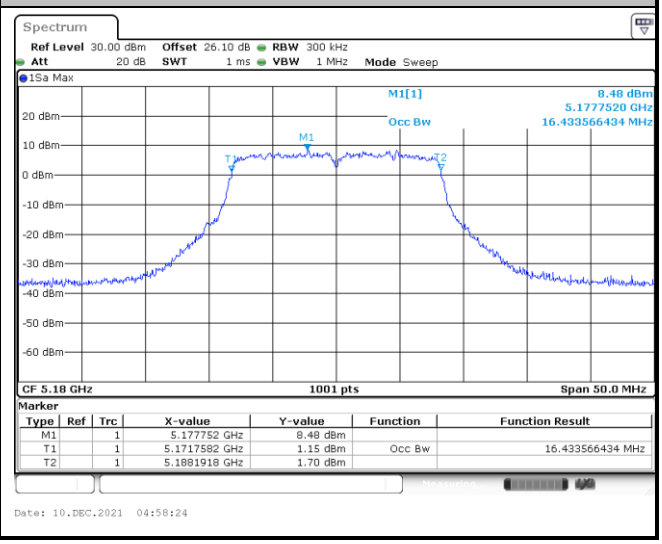
3.1.4 Test Setup



3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

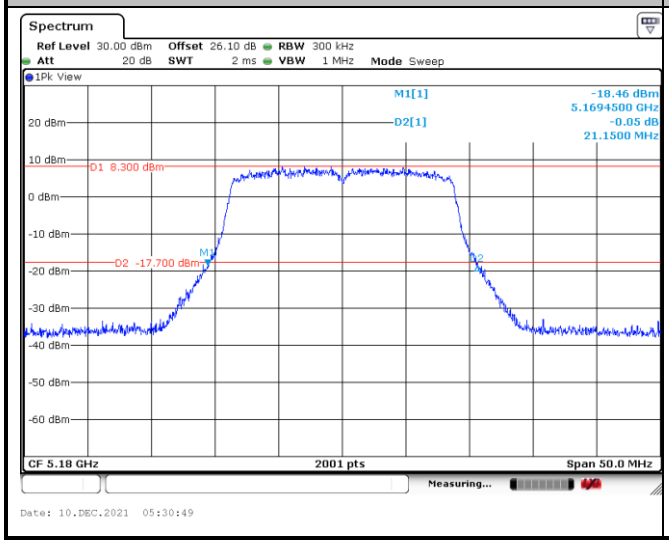
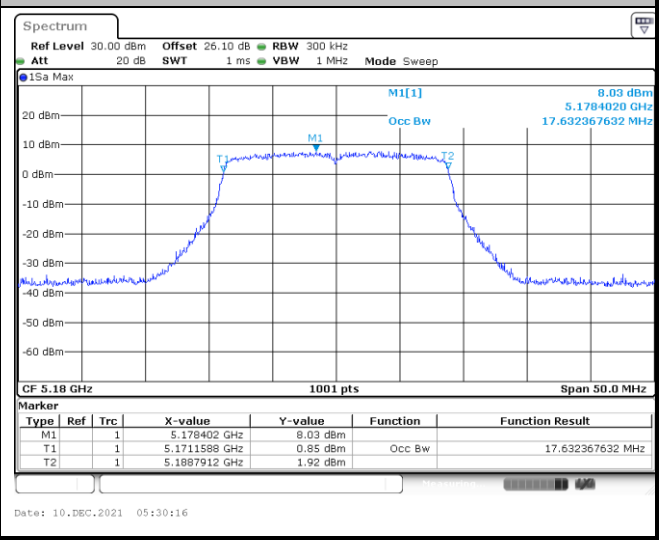
Please refer to Appendix A.

<802.11a>

26dB Bandwidth	99% Occupied Bandwidth
	

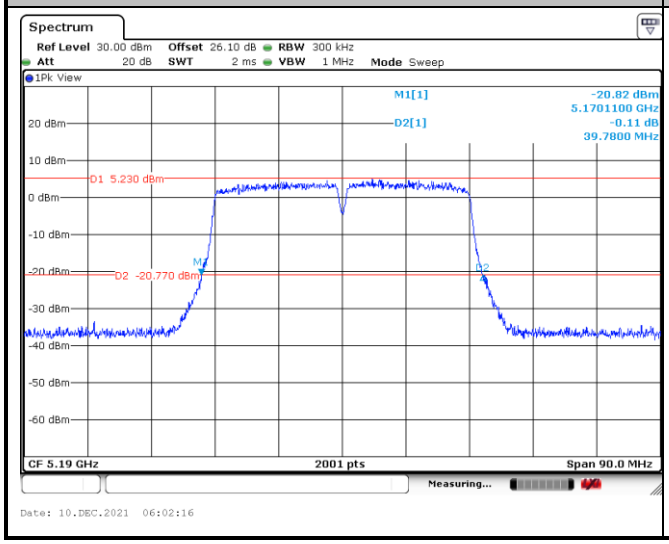
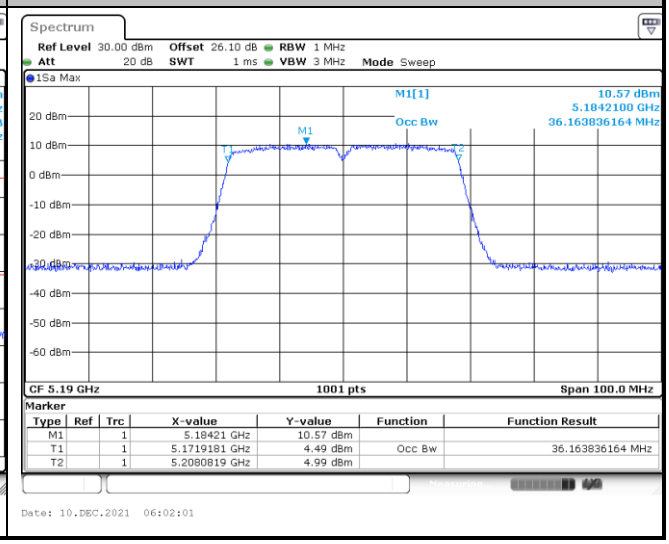
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<802.11ac VHT20>

26dB Bandwidth	99% Occupied Bandwidth
	

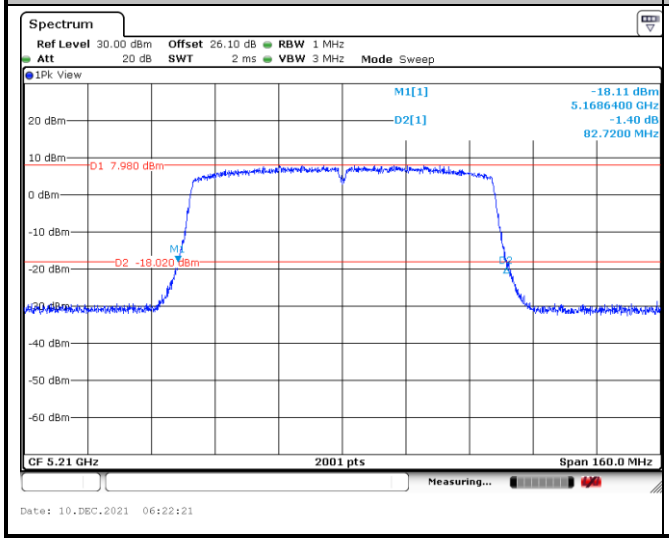
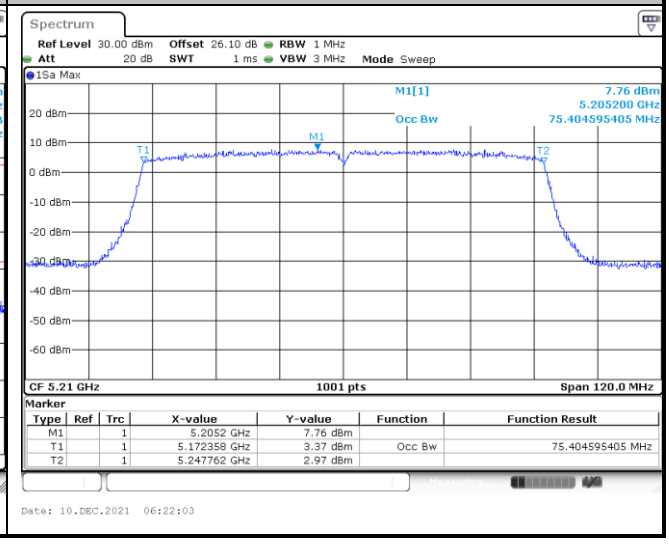
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<802.11ac VHT40>

26dB Bandwidth	99% Occupied Bandwidth
	

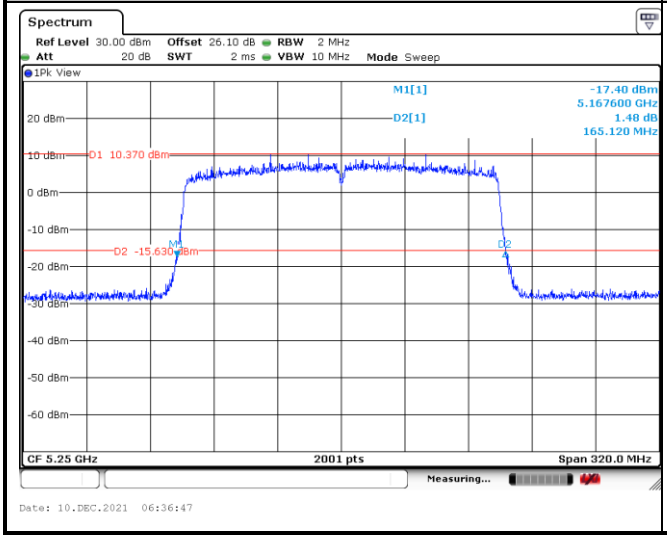
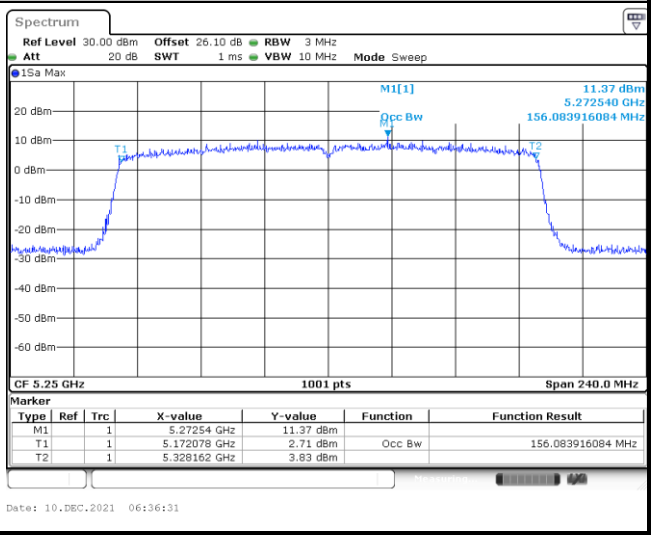
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<802.11ac VHT80>

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

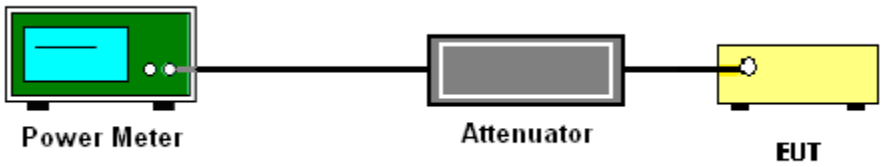
The testing follows Method PM-G of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

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):

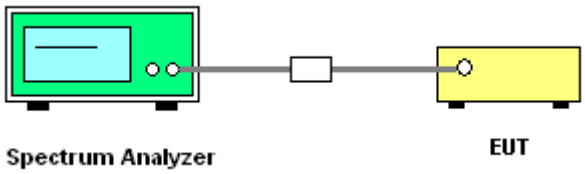
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz.
- Set VBW ≥ 3 MHz.
- Number of points in sweep ≥ 2 Span / RBW.
- Sweep time ≤ (number of points in sweep) × T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which 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

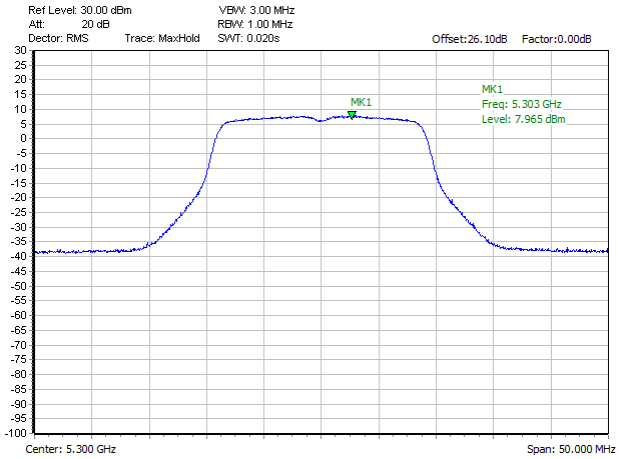


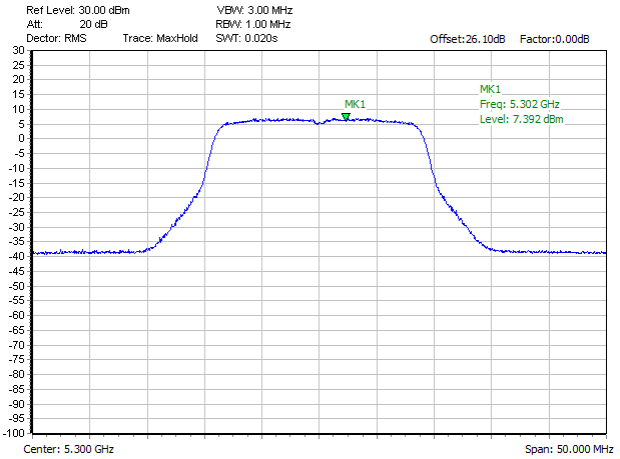
3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

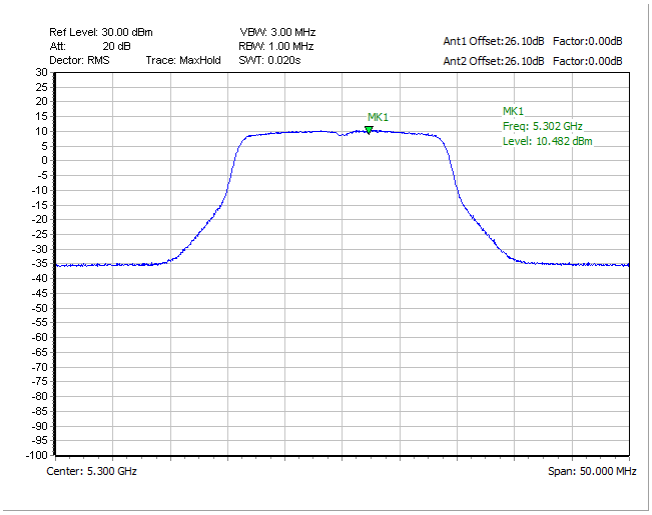
<802.11ac VHT20 Mode>

Worst Case Power Density (dBm/MHz)	
MIMO Ant. 17	MIMO Ant. 18



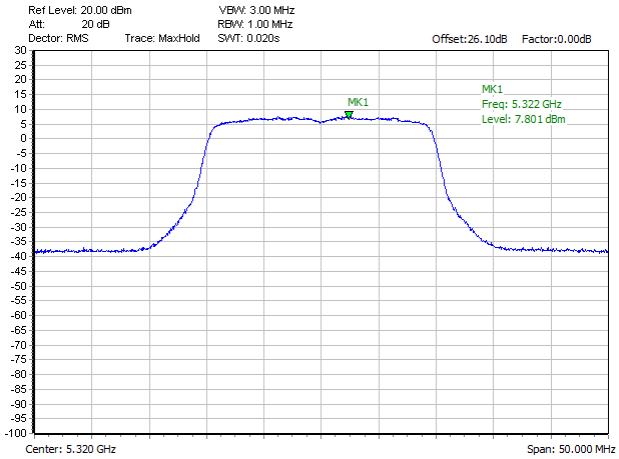


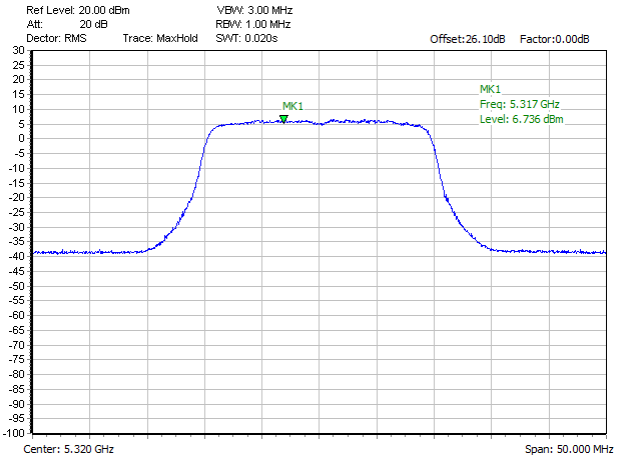
MIMO Ant. 17+18



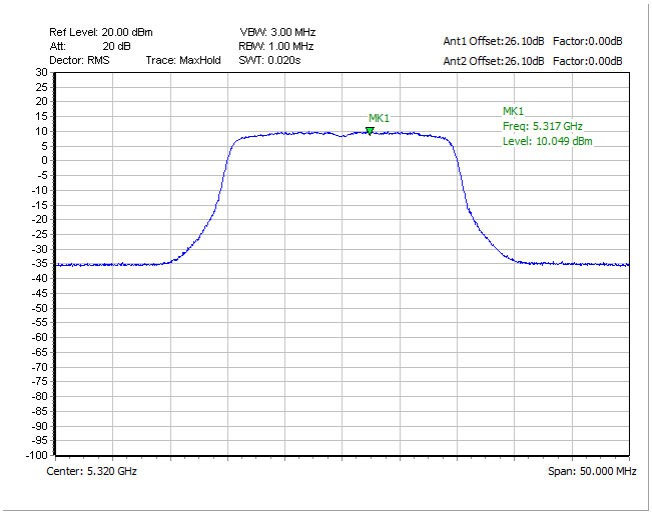
<802.11ax Mode>

Worst Case Power Density (dBm/MHz)	
MIMO Ant. 17	MIMO Ant. 18





MIMO Ant. 17+18



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

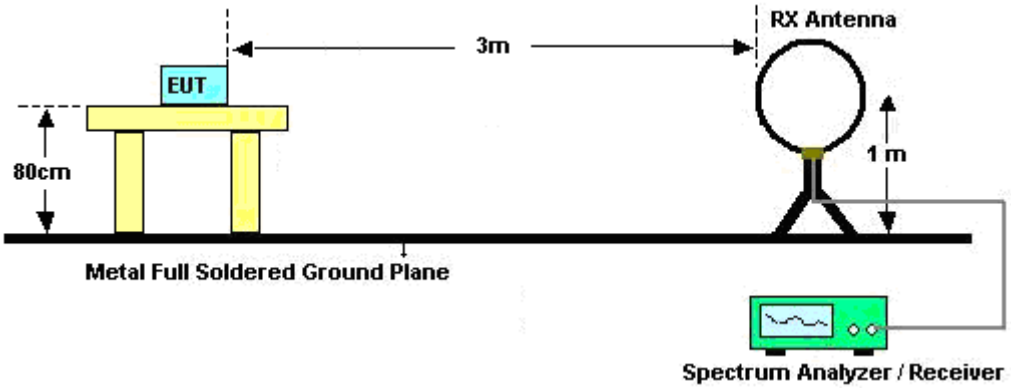
(3) Procedures for Average Unwanted Emissions Measurements Above 1000 MHz

- 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.

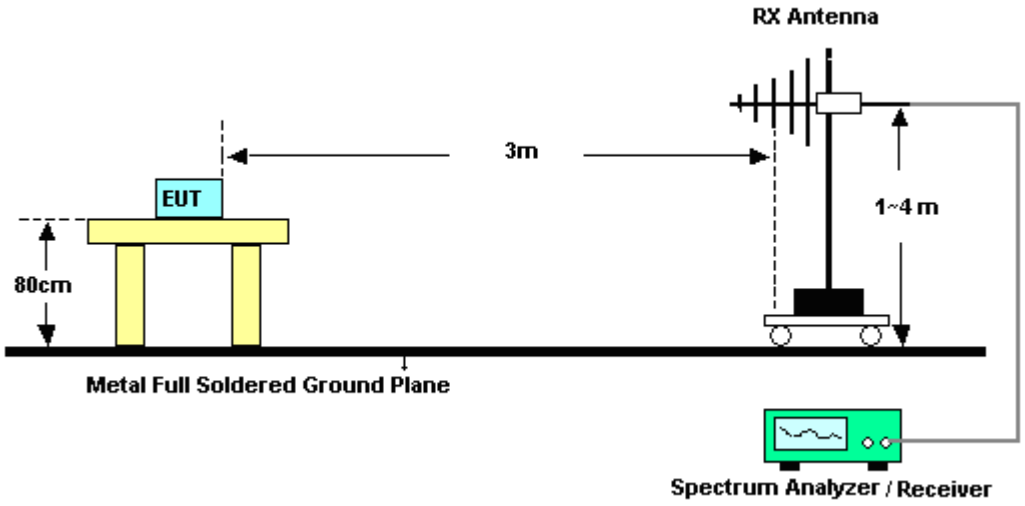
2. The EUT is placed on a turntable with 0.8 meter for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz respectively above ground.
3. The EUT is set 3 meters away from the receiving antenna which is mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna 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

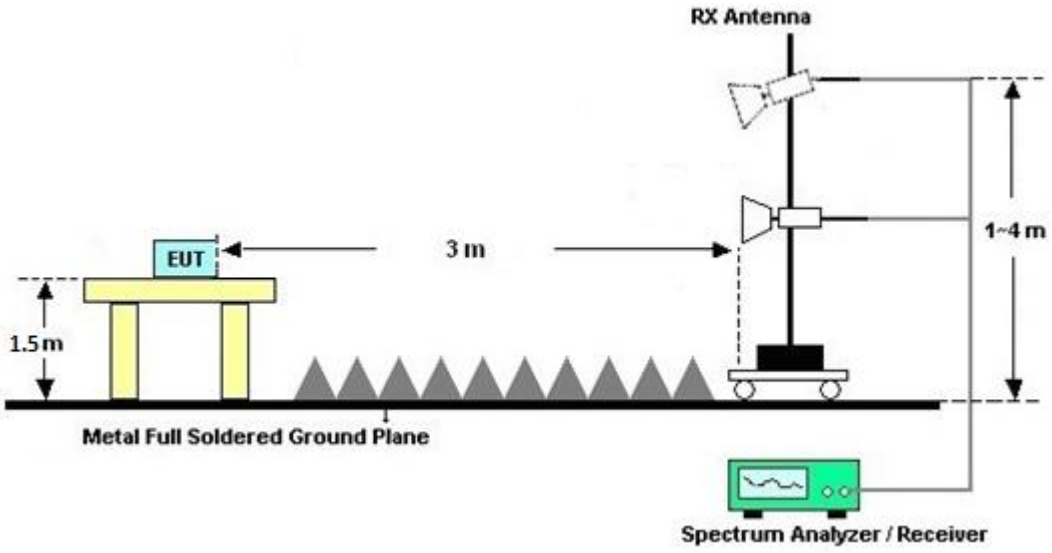
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated test above 1GHz



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.

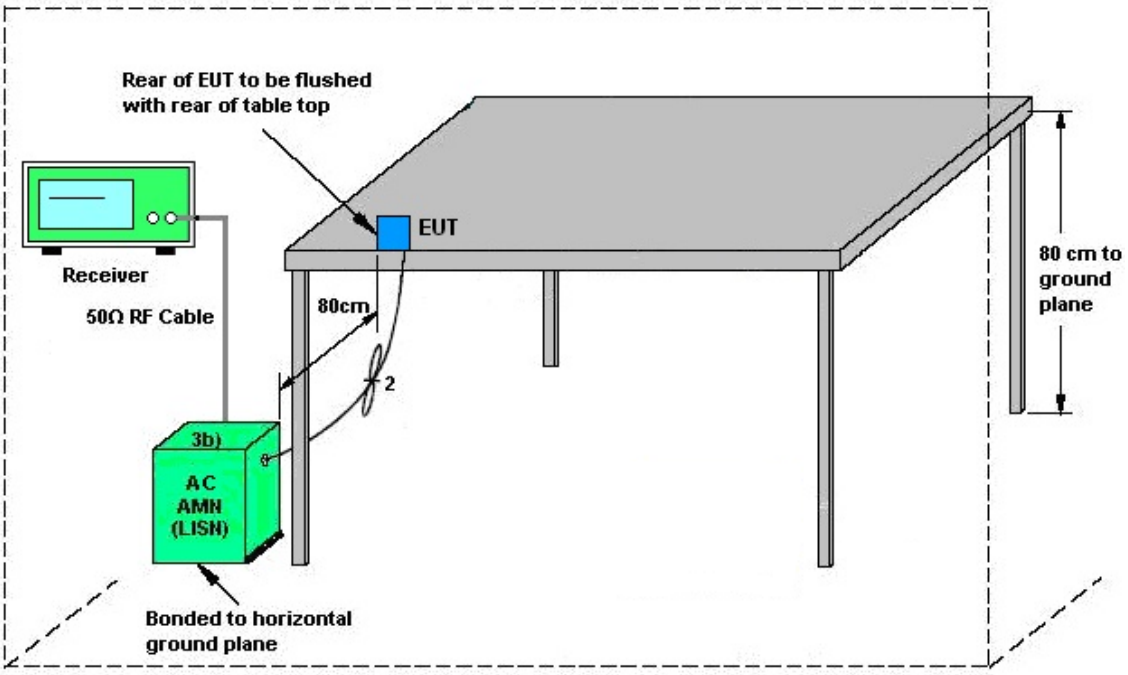
3.5.2 Measuring Instruments

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



AMN = Artificial mains network (LISN)
AE = Associated equipment
EUT = Equipment under test
ISN = Impedance stabilization network

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. 17 (dBi)	Ant. 18 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
Band I	-2.10	-4.70	-2.10	-0.29	0.00	0.00
Band II	-1.50	-4.50	-1.50	0.14	0.00	0.00
Band III	-1.30	-3.90	-1.30	0.51	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	Nov. 28, 2021~ Dec. 28, 2021	Apr. 27, 2022	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	00075962	1GHz ~ 18GHz	Dec. 01, 2020	Nov. 28, 2021~ Nov. 29, 2021	Nov. 30, 2021	Radiation (03CH07-HY)
Horn Antenna	ESCO	3117	00066584	1GHz~18GHz	Oct. 25, 2021	Nov. 30, 2021~ Dec. 28, 2021	Oct. 24, 2022	Radiation (03CH07-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Jan. 04, 2021	Nov. 28, 2021~ Dec. 28, 2021	Jan. 03, 2022	Radiation (03CH07-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1590075	1GHz~18GHz	Apr. 22, 2021	Nov. 28, 2021~ Dec. 28, 2021	Apr. 21, 2022	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	10MHz~1GHz	Oct. 04, 2021	Nov. 28, 2021~ Dec. 28, 2021	Oct. 03, 2022	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A02362	1GHz~26.5GHz	Oct. 04, 2021	Nov. 28, 2021~ Dec. 28, 2021	Oct. 03, 2022	Radiation (03CH07-HY)
Preamplifier	EMEC	EM18G40G	0600789	18-40GHz	Jul. 23, 2021	Nov. 28, 2021~ Dec. 28, 2021	Jul. 22, 2022	Radiation (03CH07-HY)
Spectrum Analyzer	Agilent	N9030A	MY52350276	3Hz~44GHz	Jul. 22, 2021	Nov. 28, 2021~ Dec. 28, 2021	Jul. 21, 2022	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY15682-4	30MHz to 18GHz	Feb. 24, 2021	Nov. 28, 2021~ Dec. 28, 2021	Feb. 23, 2022	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY24971-4	9kHz to 18GHz	Feb. 24, 2021	Nov. 28, 2021~ Dec. 28, 2021	Feb. 23, 2022	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY28655-4	9kHz to 18GHz	Feb. 24, 2021	Nov. 28, 2021~ Dec. 28, 2021	Feb. 23, 2022	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2858/2,80 1606/2	18GHz~40GHz	Feb. 24, 2021	Nov. 28, 2021~ Dec. 28, 2021	Feb. 23, 2022	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126	532078/126E	30MHz~18GHz	Sep. 17, 2021	Nov. 28, 2021~ Dec. 28, 2021	Sep. 16, 2022	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	801606/2	9KHz ~ 40GHz	Apr. 03, 2021	Nov. 28, 2021~ Dec. 28, 2021	Apr. 02, 2022	Radiation (03CH07-HY)
Controller	EMEC	EM1000	N/A	Control Ant Mast	N/A	Nov. 28, 2021~ Dec. 28, 2021	N/A	Radiation (03CH07-HY)
Controller	MF	MF-7802	N/A	Control Turn table	N/A	Nov. 28, 2021~ Dec. 28, 2021	N/A	Radiation (03CH07-HY)
Antenna Mast	EMEC	AM-BS-4500E	N/A	Boresight mast 1M~4M	N/A	Nov. 28, 2021~ Dec. 28, 2021	N/A	Radiation (03CH07-HY)
Turn Table	ChainTek	Chaintek 3000	N/A	0~360 Degree	N/A	Nov. 28, 2021~ Dec. 28, 2021	N/A	Radiation (03CH07-HY)
Software	Audix	E3	N/A	N/A	N/A	Nov. 28, 2021~ Dec. 28, 2021	N/A	Radiation (03CH07-HY)
USB Data Logger	TECPEL	TR-32	HE17XB2495	N/A	Mar. 09, 2021	Nov. 28, 2021~ Dec. 28, 2021	Mar. 08, 2022	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170980	18GHz-40GHz	Jan. 11, 2021	Nov. 28, 2021~ Dec. 28, 2021	Jan. 10, 2022	Radiation (03CH07-HY)

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Nov. 22, 2021	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Nov. 30, 2020	Nov. 22, 2021	Nov. 29, 2021	Conduction (CO05-HY)
Hygrometer	TECPEL	DTM-303A	TP201973	N/A	Oct. 22, 2021	Nov. 22, 2021	Oct. 21, 2022	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Dec. 01, 2020	Nov. 22, 2021	Nov. 30, 2021	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Nov. 22, 2021	N/A	Conduction (CO05-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-F N	00691	N/A	Jul. 28, 2021	Nov. 22, 2021	Jul. 27, 2022	Conduction (CO05-HY)
LISN Cable	MVE	RG-400	260260	N/A	Dec. 31, 2020	Nov. 22, 2021	Dec. 30, 2021	Conduction (CO05-HY)
Hygrometer	TECPEL	DTM-303A	TP201996	N/A	Nov. 15, 2021	Nov. 16, 2021~ Dec. 10, 2021	Nov. 14, 2022	Conducted (TH02-HY)
Power Sensor	DARE	RPR3006W	13I00030SNO 31(NO:182)	10MHz~6GHz	Dec. 30, 2020	Nov. 16, 2021~ Dec. 10, 2021	Dec. 29, 2021	Conducted (TH02-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101566	10Hz~40GHz	Aug. 30, 2021	Nov. 16, 2021~ Dec. 10, 2021	Aug. 29, 2022	Conducted (TH02-HY)
Switch Box & RF Cable	EM Electronics	EMSW18SE	SW191204(B OX8)	N/A	Jan. 07, 2021	Nov. 16, 2021~ Dec. 10, 2021	Jan. 06, 2022	Conducted (TH02-HY)

5 Uncertainty of Evaluation

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

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

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.1 dB**

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

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

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

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

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Derek Hsu/Shiming Liu	Temperature:	22.1~25.9	°C
Test Date:	2021/11/16~2021/12/10	Relative Humidity:	50.9~53.5	%

TEST RESULTS DATA
26dB and 99% OBW

Band I MIMO														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)			Note
					Ant 17	Ant 18	Ant 17	Ant 18	Ant 17	Ant 18	Ant 17	Ant 18		
11a	6Mbps	2	36	5180	16.43	16.48	20.55	20.08	-		22.16			
11a	6Mbps	2	44	5220	16.48	16.48	20.63	20.55	-		22.17			
11a	6Mbps	2	48	5240	16.43	16.43	20.68	20.45	-		22.16			
VHT20	MCS0	2	36	5180	17.63	17.58	21.15	20.98	-		22.45			
VHT20	MCS0	2	44	5220	17.63	17.58	21.28	20.70	-		22.45			
VHT20	MCS0	2	48	5240	17.63	17.58	21.33	21.35	-		22.45			
VHT40	MCS0	2	38	5190	36.16	36.16	39.78	40.01	-		23.01			
VHT40	MCS0	2	46	5230	36.16	36.16	40.32	40.01	-		23.01			
VHT80	MCS0	2	42	5210	75.40	75.28	82.72	82.32	-		23.01			

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 17	Ant 18	SUM	Ant 17	Ant 18	Ant 17	Ant 18		
11a	6Mbps	2	36	5180	16.90	17.00	19.96	24.00		-2.10			Pass
11a	6Mbps	2	44	5220	17.20	17.10	20.16	24.00		-2.10			Pass
11a	6Mbps	2	48	5240	17.10	16.90	20.01	24.00		-2.10			Pass
HT20	MCS0	2	36	5180	15.50	15.90	18.71	24.00		-2.10			Pass
HT20	MCS0	2	44	5220	15.80	15.70	18.76	24.00		-2.10			Pass
HT20	MCS0	2	48	5240	15.80	15.50	18.66	24.00		-2.10			Pass
HT40	MCS0	2	38	5190	14.90	15.30	18.11	24.00		-2.10			Pass
HT40	MCS0	2	46	5230	15.10	15.00	18.06	24.00		-2.10			Pass
VHT20	MCS0	2	36	5180	16.70	16.80	19.76	24.00		-2.10			Pass
VHT20	MCS0	2	44	5220	17.00	16.80	19.91	24.00		-2.10			Pass
VHT20	MCS0	2	48	5240	16.90	16.50	19.71	24.00		-2.10			Pass
VHT40	MCS0	2	38	5190	16.30	16.70	19.51	24.00		-2.10			Pass
VHT40	MCS0	2	46	5230	16.60	16.60	19.61	24.00		-2.10			Pass
VHT80	MCS0	2	42	5210	16.40	16.20	19.31	24.00		-2.10			Pass
VHT160	MCS0	2	50	5250	13.40	13.00	16.21	24.00		-2.10			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 17	Ant 18	SUM	Ant 17	Ant 18	Ant 17	Ant 18		
11a	6Mbps	2	36	5180			9.87	11.00		-0.29			Pass
11a	6Mbps	2	44	5220			10.12	11.00		-0.29			Pass
11a	6Mbps	2	48	5240			10.01	11.00		-0.29			Pass
VHT20	MCS0	2	36	5180			9.92	11.00		-0.29			Pass
VHT20	MCS0	2	44	5220			10.07	11.00		-0.29			Pass
VHT20	MCS0	2	48	5240			9.94	11.00		-0.29			Pass
VHT40	MCS0	2	38	5190			6.25	11.00		-0.29			Pass
VHT40	MCS0	2	46	5230			6.40	11.00		-0.29			Pass
VHT80	MCS0	2	42	5210			3.12	11.00		-0.29			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)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		Note
					Ant 17	Ant 18	Ant 17	Ant 18	Ant 17	Ant 18	Ant 17	Ant 18	Ant 17	Ant 18	
11a	6Mbps	2	52	5260	16.43	16.43	20.60	20.45	23.16		29.16		23.98		
11a	6Mbps	2	60	5300	16.43	16.43	20.65	20.30	23.16		29.16		23.98		
11a	6Mbps	2	64	5320	16.43	16.43	20.65	20.08	23.16		29.16		23.98		
VHT20	MCS0	2	52	5260	17.63	17.58	21.65	21.33	23.45		29.45		23.98		
VHT20	MCS0	2	60	5300	17.58	17.58	21.58	21.13	23.45		29.45		23.98		
VHT20	MCS0	2	64	5320	17.63	17.58	21.55	21.33	23.45		29.45		23.98		
VHT40	MCS0	2	54	5270	36.16	36.16	40.05	40.46	23.98		30.00		23.98		
VHT40	MCS0	2	62	5310	36.16	36.16	40.05	39.51	23.98		30.00		23.98		
VHT80	MCS0	2	58	5290	75.40	75.28	82.64	82.72	23.98		30.00		23.98		

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 17	Ant 18	SUM	Ant 17	Ant 18	Ant 17	Ant 18		
11a	6Mbps	2	52	5260	17.90	17.60	20.76	23.98		-1.50		30	Pass
11a	6Mbps	2	60	5300	18.20	17.30	20.78	23.98		-1.50		30	Pass
11a	6Mbps	2	64	5320	18.20	17.20	20.74	23.98		-1.50		30	Pass
HT20	MCS0	2	52	5260	17.00	16.50	19.77	23.98		-1.50		30	Pass
HT20	MCS0	2	60	5300	17.30	16.50	19.93	23.98		-1.50		30	Pass
HT20	MCS0	2	64	5320	17.20	16.50	19.87	23.98		-1.50		30	Pass
HT40	MCS0	2	54	5270	16.20	15.90	19.06	23.98		-1.50		30	Pass
HT40	MCS0	2	62	5310	16.50	15.80	19.17	23.98		-1.50		30	Pass
VHT20	MCS0	2	52	5260	17.40	17.30	20.36	23.98		-1.50		30	Pass
VHT20	MCS0	2	60	5300	18.00	17.00	20.54	23.98		-1.50		30	Pass
VHT20	MCS0	2	64	5320	17.90	17.00	20.48	23.98		-1.50		30	Pass
VHT40	MCS0	2	54	5270	17.60	17.30	20.46	23.98		-1.50		30	Pass
VHT40	MCS0	2	62	5310	17.40	16.90	20.17	23.98		-1.50		30	Pass
VHT80	MCS0	2	58	5290	16.80	16.60	19.71	23.98		-1.50		30	Pass
VHT160	MCS0	2	50	5250	13.40	13.00	16.21	23.98		-1.50		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 17	Ant 18	SUM	Ant 17	Ant 18	Ant 17	Ant 18		
11a	6Mbps	2	52	5260			10.39	11.00		0.14			Pass
11a	6Mbps	2	60	5300			10.48	11.00		0.14			Pass
11a	6Mbps	2	64	5320			10.46	11.00		0.14			Pass
VHT20	MCS0	2	52	5260			10.32	11.00		0.14			Pass
VHT20	MCS0	2	60	5300			10.48	11.00		0.14			Pass
VHT20	MCS0	2	64	5320			10.28	11.00		0.14			Pass
VHT40	MCS0	2	54	5270			7.38	11.00		0.14			Pass
VHT40	MCS0	2	62	5310			7.04	11.00		0.14			Pass
VHT80	MCS0	2	58	5290			3.41	11.00		0.14			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)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		6 dB Bandwidth for Straddle Channel (MHz)	
					Ant 17	Ant 18	Ant 17	Ant 18	Ant 17	Ant 18	Ant 17	Ant 18	Ant 17	Ant 18	Ant 17	Ant 18
11a	6Mbps	2	100	5500	16.43	16.43	20.63	20.48	23.16		29.16		23.98		----	----
11a	6Mbps	2	116	5580	16.43	16.48	20.23	20.50	23.16		29.16		23.98		----	----
11a	6Mbps	2	140	5700	16.43	16.43	20.58	20.48	23.16		29.16		23.98		----	----
VHT20	MCS0	2	100	5500	17.63	17.58	21.45	21.48	23.45		29.45		23.98		----	----
VHT20	MCS0	2	116	5580	17.63	17.58	21.43	20.85	23.45		29.45		23.98		----	----
VHT20	MCS0	2	140	5700	17.63	17.63	21.20	21.20	23.46		29.46		23.98		----	----
VHT40	MCS0	2	102	5510	36.16	36.16	39.96	40.05	23.98		30.00		23.98		----	----
VHT40	MCS0	2	110	5550	36.16	36.16	40.14	40.01	23.98		30.00		23.98		----	----
VHT40	MCS0	2	134	5670	36.16	36.16	40.05	39.51	23.98		30.00		23.98		----	----
VHT80	MCS0	2	106	5530	75.40	75.28	83.20	82.32	23.98		30.00		23.98		----	----
VHT80	MCS0	2	122	5610	75.40	75.28	82.80	82.56	23.98		30.00		23.98		----	----

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)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		6 dB Bandwidth for Straddle Channel (MHz)	
					Ant 17	Ant 18	Ant 17	Ant 18	Ant 17	Ant 18	Ant 17	Ant 18	Ant 17	Ant 18	Ant 17	Ant 18
11a	6Mbps	2	144	5720	13.24	13.24	15.35	15.18	22.22		28.22		22.81		3.2	3.2
VHT20	MCS0	2	144	5720	13.84	13.79	15.82	15.63	22.40		28.40		22.94		3.2	3.85
VHT40	MCS0	2	142	5710	33.08	33.08	34.89	34.94	23.98		30.00		23.98		3	3.27
VHT80	MCS0	2	138	5690	72.76	72.64	76.44	76.28	23.98		30.00		23.98		2.764	2.762

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 17	Ant 18	SUM	Ant 17	Ant 18	Ant 17	Ant 18		
11a	6Mbps	2	100	5500	16.00	15.90	18.96	23.98		-1.30		30	Pass
11a	6Mbps	2	116	5580	16.00	16.20	19.11	23.98		-1.30		30	Pass
11a	6Mbps	2	140	5700	15.70	15.60	18.66	23.98		-1.30		30	Pass
HT20	MCS0	2	100	5500	15.70	15.50	18.61	23.98		-1.30		30	Pass
HT20	MCS0	2	116	5580	15.70	15.90	18.81	23.98		-1.30		30	Pass
HT20	MCS0	2	140	5700	15.50	15.40	18.46	23.98		-1.30		30	Pass
HT40	MCS0	2	102	5510	15.40	15.20	18.31	23.98		-1.30		30	Pass
HT40	MCS0	2	110	5550	15.40	15.30	18.36	23.98		-1.30		30	Pass
HT40	MCS0	2	134	5670	15.20	15.30	18.26	23.98		-1.30		30	Pass
VHT20	MCS0	2	100	5500	15.70	15.60	18.66	23.98		-1.30		30	Pass
VHT20	MCS0	2	116	5580	15.70	16.00	18.86	23.98		-1.30		30	Pass
VHT20	MCS0	2	140	5700	15.50	15.50	18.51	23.98		-1.30		30	Pass
VHT40	MCS0	2	102	5510	15.50	15.20	18.36	23.98		-1.30		30	Pass
VHT40	MCS0	2	110	5550	15.40	15.40	18.41	23.98		-1.30		30	Pass
VHT40	MCS0	2	134	5670	15.30	15.40	18.36	23.98		-1.30		30	Pass
VHT80	MCS0	2	106	5530	15.10	15.00	18.06	23.98		-1.30		30	Pass
VHT80	MCS0	2	122	5610	15.00	15.20	18.11	23.98		-1.30		30	Pass
VHT160	MCS0	2	114	5570	13.80	14.10	16.96	23.98		-1.30		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 17	Ant 18	SUM	Ant 17	Ant 18	Ant 17	Ant 18		
11a	6Mbps	2	144	5720	15.60	15.50	18.56	22.81		-1.30		30	Pass
HT20	MCS0	2	144	5720	15.30	15.40	18.36	23.98		-1.30		30	Pass
HT40	MCS0	2	142	5710	15.20	15.30	18.26	23.98		-1.30		30	Pass
VHT20	MCS0	2	144	5720	15.40	15.40	18.41	22.94		-1.30		30	Pass
VHT40	MCS0	2	142	5710	15.20	15.40	18.31	23.98		-1.30		30	Pass
VHT80	MCS0	2	138	5690	14.80	15.00	17.91	23.98		-1.30		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 17	Ant 18	SUM	Ant 17	Ant 18	Ant 17	Ant 18		
11a	6Mbps	2	100	5500			8.61	11.00		0.51			Pass
11a	6Mbps	2	116	5580			9.10	11.00		0.51			Pass
11a	6Mbps	2	140	5700			8.50	11.00		0.51			Pass
VHT20	MCS0	2	100	5500			8.54	11.00		0.51			Pass
VHT20	MCS0	2	116	5580			8.67	11.00		0.51			Pass
VHT20	MCS0	2	140	5700			8.39	11.00		0.51			Pass
VHT40	MCS0	2	102	5510			4.84	11.00		0.51			Pass
VHT40	MCS0	2	110	5550			5.24	11.00		0.51			Pass
VHT40	MCS0	2	134	5670			4.93	11.00		0.51			Pass
VHT80	MCS0	2	106	5530			1.54	11.00		0.51			Pass
VHT80	MCS0	2	122	5610			1.82	11.00		0.51			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 17	Ant 18	SUM	Ant 17	Ant 18	Ant 17	Ant 18		
11a	6Mbps	2	144	5720			8.40	11.00		0.51			Pass
VHT20	MCS0	2	144	5720			8.12	11.00		0.51			Pass
VHT40	MCS0	2	142	5710			4.98	11.00		0.51			Pass
VHT80	MCS0	2	138	5690			1.71	11.00		0.51			Pass

TEST RESULTS DATA
26dB and 99% OBW

Band I MIMO														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)			Note
						Ant 17	Ant 18	Ant 17	Ant 18	Ant 17	Ant 18	Ant 17	Ant 18		
HE160	MCS0	2	50	5250	Full	156.08	156.08	165.12	165.44	-		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 17	Ant 18	SUM	Ant 17	Ant 18	Ant 17	Ant 18	
HE20	MCS0	2	36	5180	Full	16.60	16.80	19.71	24.00		-2.10		Pass
HE20	MCS0	2	36	5180	26/0	7.50	8.00	10.77	24.00		-2.10		Pass
HE20	MCS0	2	36	5180	52/37	10.40	11.10	13.77	24.00		-2.10		Pass
HE20	MCS0	2	36	5180	106/53	13.70	14.30	17.02	24.00		-2.10		Pass
HE20	MCS0	2	44	5220	Full	16.90	16.80	19.86	24.00		-2.10		Pass
HE20	MCS0	2	44	5220	26/4	9.00	8.80	11.91	24.00		-2.10		Pass
HE20	MCS0	2	44	5220	52/39	10.80	10.80	13.81	24.00		-2.10		Pass
HE20	MCS0	2	44	5220	106/53	13.80	14.10	16.96	24.00		-2.10		Pass
HE20	MCS0	2	48	5240	Full	16.80	16.50	19.66	24.00		-2.10		Pass
HE20	MCS0	2	48	5240	26/8	7.80	7.60	10.71	24.00		-2.10		Pass
HE20	MCS0	2	48	5240	52/40	11.00	11.00	14.01	24.00		-2.10		Pass
HE20	MCS0	2	48	5240	106/54	14.00	13.80	16.91	24.00		-2.10		Pass
HE40	MCS0	2	38	5190	Full	15.50	15.80	18.66	24.00		-2.10		Pass
HE40	MCS0	2	46	5230	Full	15.70	15.80	18.76	24.00		-2.10		Pass
HE80	MCS0	2	42	5210	Full	14.50	14.50	17.51	24.00		-2.10		Pass
HE160	MCS0	2	50	5250	Full	15.20	14.80	18.01	24.00		-2.10		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 17	Ant 18	SUM	Ant 17	Ant 18	Ant 17	Ant 18	
HE20	MCS0	2	36	5180	Full			9.83	11.00		-0.29		Pass
HE20	MCS0	2	36	5180	26/0			9.45	11.00		-0.29		Pass
HE20	MCS0	2	36	5180	52/37			9.38	11.00		-0.29		Pass
HE20	MCS0	2	36	5180	106/53			9.42	11.00		-0.29		Pass
HE20	MCS0	2	44	5220	Full			9.82	11.00		-0.29		Pass
HE20	MCS0	2	44	5220	26/4			9.69	11.00		-0.29		Pass
HE20	MCS0	2	44	5220	52/39			9.67	11.00		-0.29		Pass
HE20	MCS0	2	44	5220	106/53			9.54	11.00		-0.29		Pass
HE20	MCS0	2	48	5240	Full			9.75	11.00		-0.29		Pass
HE20	MCS0	2	48	5240	26/8			9.51	11.00		-0.29		Pass
HE20	MCS0	2	48	5240	52/40			9.73	11.00		-0.29		Pass
HE20	MCS0	2	48	5240	106/54			9.50	11.00		-0.29		Pass
HE40	MCS0	2	38	5190	Full			5.39	11.00		-0.29		Pass
HE40	MCS0	2	46	5230	Full			5.65	11.00		-0.29		Pass
HE80	MCS0	2	42	5210	Full			1.87	11.00		-0.29		Pass
HE160	MCS0	2	50	5250	Full			-1.30	11.00		-0.29		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)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		Note
						Ant 17	Ant 18	Ant 17	Ant 18	Ant 17	Ant 18	Ant 17	Ant 18	Ant 17	Ant 18	
HE160	MCS0	2	50	5250	Full	156.08	156.08	165.12	165.44	-		23.01				

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 17	Ant 18	SUM	Ant 17	Ant 18	Ant 17	Ant 18		
HE20	MCS0	2	52	5260	Full	17.10	16.80	19.96	23.98		-1.50		30	Pass
HE20	MCS0	2	52	5260	26/0	8.40	8.20	11.31	23.98		-1.50		30	Pass
HE20	MCS0	2	52	5260	52/37	11.10	11.10	14.11	23.98		-1.50		30	Pass
HE20	MCS0	2	52	5260	106/53	14.50	14.50	17.51	23.98		-1.50		30	Pass
HE20	MCS0	2	60	5300	Full	17.40	16.60	20.03	23.98		-1.50		30	Pass
HE20	MCS0	2	60	5300	26/4	9.40	8.50	11.98	23.98		-1.50		30	Pass
HE20	MCS0	2	60	5300	52/39	11.30	11.00	14.16	23.98		-1.50		30	Pass
HE20	MCS0	2	60	5300	106/54	14.30	14.00	17.16	23.98		-1.50		30	Pass
HE20	MCS0	2	64	5320	Full	17.30	16.60	19.97	23.98		-1.50		30	Pass
HE20	MCS0	2	64	5320	26/8	8.60	7.60	11.14	23.98		-1.50		30	Pass
HE20	MCS0	2	64	5320	52/40	11.70	11.20	14.47	23.98		-1.50		30	Pass
HE20	MCS0	2	64	5320	106/54	14.40	13.90	17.17	23.98		-1.50		30	Pass
HE40	MCS0	2	54	5270	Full	16.20	16.00	19.11	23.98		-1.50		30	Pass
HE40	MCS0	2	62	5310	Full	16.60	16.00	19.32	23.98		-1.50		30	Pass
HE80	MCS0	2	58	5290	Full	15.70	15.50	18.61	23.98		-1.50		30	Pass
HE160	MCS0	2	50	5250	Full	15.20	14.80	18.01	23.98		-1.50		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 17	Ant 18	SUM	Ant 17	Ant 18	Ant 17	Ant 18	
HE20	MCS0	2	52	5260	Full			9.99	11.00		0.14		Pass
HE20	MCS0	2	52	5260	26/0			9.97	11.00		0.14		Pass
HE20	MCS0	2	52	5260	52/37			9.86	11.00		0.14		Pass
HE20	MCS0	2	52	5260	106/53			9.95	11.00		0.14		Pass
HE20	MCS0	2	60	5300	Full			9.88	11.00		0.14		Pass
HE20	MCS0	2	60	5300	26/4			9.78	11.00		0.14		Pass
HE20	MCS0	2	60	5300	52/39			9.83	11.00		0.14		Pass
HE20	MCS0	2	60	5300	106/54			9.66	11.00		0.14		Pass
HE20	MCS0	2	64	5320	Full			10.05	11.00		0.14		Pass
HE20	MCS0	2	64	5320	26/8			9.80	11.00		0.14		Pass
HE20	MCS0	2	64	5320	52/40			9.94	11.00		0.14		Pass
HE20	MCS0	2	64	5320	106/54			9.78	11.00		0.14		Pass
HE40	MCS0	2	54	5270	Full			6.00	11.00		0.14		Pass
HE40	MCS0	2	62	5310	Full			6.14	11.00		0.14		Pass
HE80	MCS0	2	58	5290	Full			2.56	11.00		0.14		Pass
HE160	MCS0	2	50	5250	Full			-1.30	11.00		0.14		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)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		6 dB Bandwidth for Straddle Channel (MHz)	
						Ant 17	Ant 18	Ant 17	Ant 18	Ant 17	Ant 18	Ant 17	Ant 18	Ant 17	Ant 18	Ant 17	Ant 18
HE160	MCS0	2	114	5570	Full	155.84	155.60	165.76	166.56	23.98		30.00		23.98		----	----

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 17	Ant 18	SUM	Ant 17	Ant 18	Ant 17	Ant 18		
HE20	MCS0	2	100	5500	Full	14.80	14.60	17.71	23.98		-1.30		30	Pass
HE20	MCS0	2	100	5500	26/0	5.60	5.90	8.76	23.98		-1.30		30	Pass
HE20	MCS0	2	100	5500	52/37	8.80	8.90	11.86	23.98		-1.30		30	Pass
HE20	MCS0	2	100	5500	106/53	11.70	12.00	14.86	23.98		-1.30		30	Pass
HE20	MCS0	2	116	5580	Full	14.80	15.10	17.96	23.98		-1.30		30	Pass
HE20	MCS0	2	116	5580	26/4	6.40	7.00	9.72	23.98		-1.30		30	Pass
HE20	MCS0	2	116	5580	52/38	9.00	9.50	12.27	23.98		-1.30		30	Pass
HE20	MCS0	2	116	5580	106/53	11.60	12.40	15.03	23.98		-1.30		30	Pass
HE20	MCS0	2	140	5700	Full	14.60	14.60	17.61	23.98		-1.30		30	Pass
HE20	MCS0	2	140	5700	26/8	5.70	5.90	8.81	23.98		-1.30		30	Pass
HE20	MCS0	2	140	5700	52/40	8.70	8.80	11.76	23.98		-1.30		30	Pass
HE20	MCS0	2	140	5700	106/54	11.50	12.00	14.77	23.98		-1.30		30	Pass
HE40	MCS0	2	102	5510	Full	13.50	13.50	16.51	23.98		-1.30		30	Pass
HE40	MCS0	2	110	5550	Full	13.30	13.50	16.41	23.98		-1.30		30	Pass
HE40	MCS0	2	134	5670	Full	13.50	13.50	16.51	23.98		-1.30		30	Pass
HE80	MCS0	2	106	5530	Full	13.70	13.80	16.76	23.98		-1.30		30	Pass
HE80	MCS0	2	122	5610	Full	13.90	13.90	16.91	23.98		-1.30		30	Pass
HE160	MCS0	2	114	5570	Full	14.70	15.00	17.86	23.98		-1.30		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 17	Ant 18	SUM	Ant 17	Ant 18	Ant 17	Ant 18		
HE20	MCS0	2	144	5720	Full	14.50	14.60	17.56	23.98		-1.30		30	Pass
HE40	MCS0	2	142	5710	Full	13.20	13.30	16.26	23.98		-1.30		30	Pass
HE80	MCS0	2	138	5690	Full	13.70	13.80	16.76	23.98		-1.30		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 17	Ant 18	SUM	Ant 17	Ant 18	Ant 17	Ant 18	
HE20	MCS0	2	100	5500	Full			7.62	11.00		0.51		Pass
HE20	MCS0	2	100	5500	26/0			7.30	11.00		0.51		Pass
HE20	MCS0	2	100	5500	52/37			7.37	11.00		0.51		Pass
HE20	MCS0	2	100	5500	106/53			7.23	11.00		0.51		Pass
HE20	MCS0	2	116	5580	Full			7.87	11.00		0.51		Pass
HE20	MCS0	2	116	5580	26/4			7.56	11.00		0.51		Pass
HE20	MCS0	2	116	5580	52/38			7.80	11.00		0.51		Pass
HE20	MCS0	2	116	5580	106/53			7.47	11.00		0.51		Pass
HE20	MCS0	2	140	5700	Full			7.50	11.00		0.51		Pass
HE20	MCS0	2	140	5700	26/8			7.25	11.00		0.51		Pass
HE20	MCS0	2	140	5700	52/40			7.10	11.00		0.51		Pass
HE20	MCS0	2	140	5700	106/54			7.07	11.00		0.51		Pass
HE40	MCS0	2	102	5510	Full			3.17	11.00		0.51		Pass
HE40	MCS0	2	110	5550	Full			3.09	11.00		0.51		Pass
HE40	MCS0	2	134	5670	Full			3.34	11.00		0.51		Pass
HE80	MCS0	2	106	5530	Full			1.09	11.00		0.51		Pass
HE80	MCS0	2	122	5610	Full			1.35	11.00		0.51		Pass
HE160	MCS0	2	114	5570	Full			-1.05	11.00		0.51		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 17	Ant 18	SUM	Ant 17	Ant 18	Ant 17	Ant 18	
HE20	MCS0	2	144	5720	Full			7.41	11.00		0.51		Pass
HE40	MCS0	2	142	5710	Full			3.06	11.00		0.51		Pass
HE80	MCS0	2	138	5690	Full			1.07	11.00		0.51		Pass

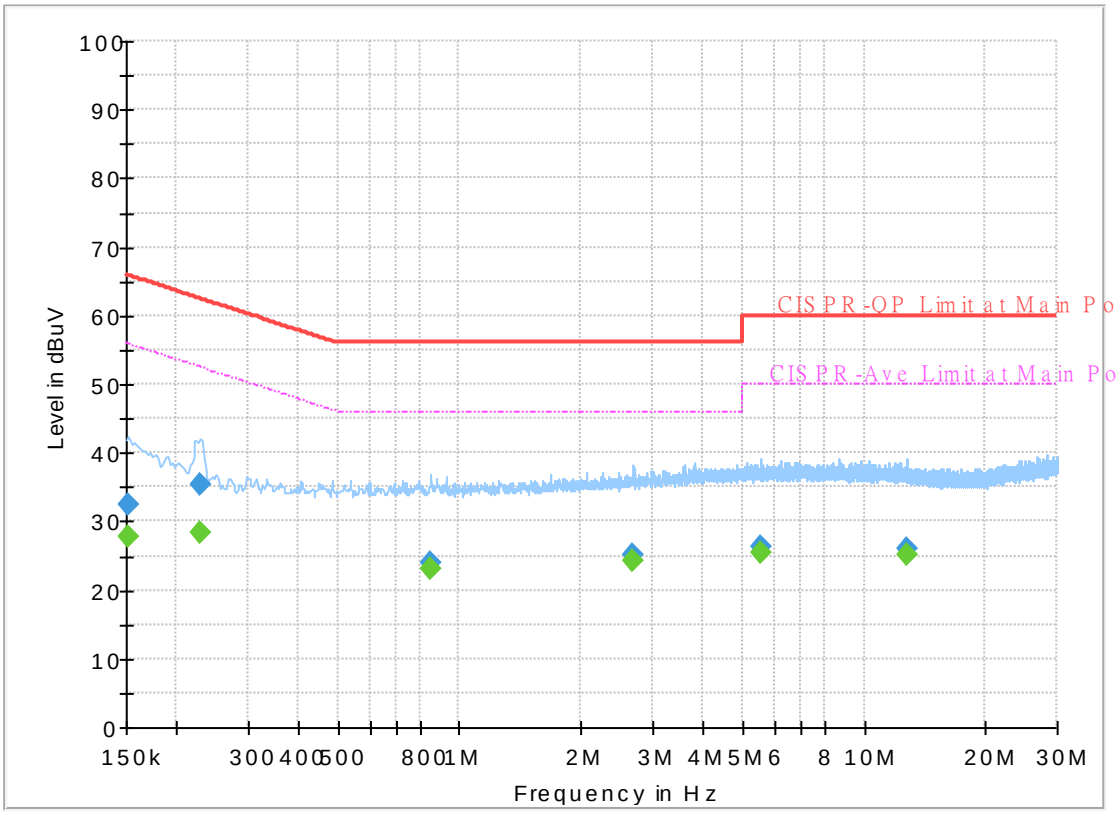
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Tom Lee	**Temperature :**	23~26℃
		Relative Humidity :	45~55%

EUT Information

Report NO :	1N1013
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

Full Spectrum



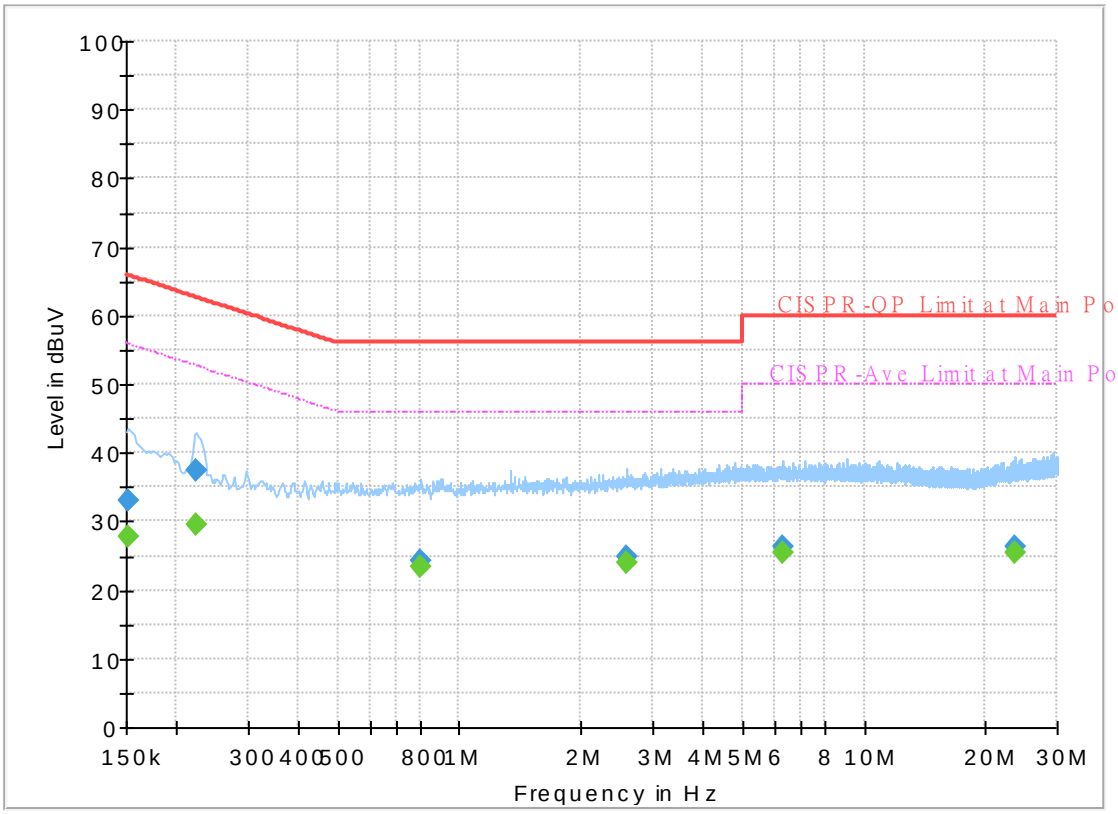
Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	27.68	55.88	28.20	L1	OFF	19.7
0.152250	32.38	---	65.88	33.50	L1	OFF	19.7
0.228750	---	28.46	52.50	24.04	L1	OFF	19.7
0.228750	35.47	---	62.50	27.03	L1	OFF	19.7
0.849750	---	23.20	46.00	22.80	L1	OFF	20.1
0.849750	24.06	---	56.00	31.94	L1	OFF	20.1
2.694750	---	24.32	46.00	21.68	L1	OFF	20.1
2.694750	25.09	---	56.00	30.91	L1	OFF	20.1
5.554500	---	25.42	50.00	24.58	L1	OFF	20.0
5.554500	26.38	---	60.00	33.62	L1	OFF	20.0
12.738750	---	25.13	50.00	24.87	L1	OFF	20.3
12.738750	26.01	---	60.00	33.99	L1	OFF	20.3

EUT Information

Report NO :	1N1013
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	27.80	55.88	28.08	N	OFF	19.7
0.152250	32.94	---	65.88	32.94	N	OFF	19.7
0.224250	---	29.48	52.66	23.18	N	OFF	19.7
0.224250	37.40	---	62.66	25.26	N	OFF	19.7
0.802500	---	23.33	46.00	22.67	N	OFF	20.1
0.802500	24.36	---	56.00	31.64	N	OFF	20.1
2.600250	---	24.09	46.00	21.91	N	OFF	20.1
2.600250	24.95	---	56.00	31.05	N	OFF	20.1
6.328500	---	25.47	50.00	24.53	N	OFF	20.1
6.328500	26.36	---	60.00	33.64	N	OFF	20.1
23.730000	---	25.56	50.00	24.44	N	OFF	20.7
23.730000	26.32	---	60.00	33.68	N	OFF	20.7

Appendix C. Radiated Spurious Emission

Test Engineer :	Jesse Wang, Stan Hsieh and Ken Wu	Temperature :	22.3~24.9°C
		Relative Humidity :	53.8~61.4%

<Sample 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.
17+18		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5087.1	49.88	-24.12	74	39.34	34.13	11.72	35.31	100	121	P	H
		5150	43.62	-10.38	54	32.91	34.2	11.79	35.28	100	121	A	H
	*	5180	109.88	-	-	99.05	34.27	11.83	35.27	100	121	P	H
	*	5180	102.9	-	-	92.07	34.27	11.83	35.27	100	121	A	H
													H
		5134.94	49.66	-24.34	74	38.97	34.2	11.78	35.29	100	100	P	V
		5150	42.72	-11.28	54	32.01	34.2	11.79	35.28	100	100	A	V
	*	5180	108.54	-	-	97.71	34.27	11.83	35.27	100	100	P	V
	*	5180	101.36	-	-	90.53	34.27	11.83	35.27	100	100	A	V
													V
802.11a CH 44 5220MHz		5096.2	49.06	-24.94	74	38.43	34.2	11.73	35.3	100	121	P	H
		5149.76	40.05	-13.95	54	29.34	34.2	11.79	35.28	100	121	A	H
	*	5220	110.42	-	-	99.51	34.3	11.86	35.25	100	121	P	H
	*	5220	102.97	-	-	92.06	34.3	11.86	35.25	100	121	A	H
		5448.24	47.77	-26.23	74	36.27	34.6	12.04	35.14	100	121	P	H
		5459.16	39.43	-14.57	54	27.9	34.6	12.06	35.13	100	121	A	H
		5060.58	48.9	-25.1	74	38.47	34.07	11.69	35.33	100	98	P	V
		5148.72	39.8	-14.2	54	29.09	34.2	11.79	35.28	100	98	A	V
	*	5220	108.67	-	-	97.76	34.3	11.86	35.25	100	98	P	V
	*	5220	101.07	-	-	90.16	34.3	11.86	35.25	100	98	A	V
		5375.44	48.32	-25.68	74	37.06	34.47	11.96	35.17	100	98	P	V
		5459.16	39.33	-14.67	54	27.8	34.6	12.06	35.13	100	98	A	V

802.11a CH 48 5240MHz		5126.1	48.98	-25.02	74	38.3	34.2	11.77	35.29	100	122	P	H
		5091.26	40.05	-13.95	54	29.44	34.2	11.72	35.31	100	122	A	H
	*	5240	110.59	-	-	99.66	34.3	11.87	35.24	100	122	P	H
	*	5240	102.97	-	-	92.04	34.3	11.87	35.24	100	122	A	H
		5416.04	47.7	-26.3	74	36.27	34.6	11.99	35.16	100	122	P	H
		5459.44	39.39	-14.61	54	27.86	34.6	12.06	35.13	100	122	A	H
		5007.54	49.35	-24.65	74	38.94	34.13	11.63	35.35	100	98	P	V
		5091.26	39.84	-14.16	54	29.23	34.2	11.72	35.31	100	98	A	V
	*	5240	108.55	-	-	97.62	34.3	11.87	35.24	100	98	P	V
	*	5240	101.16	-	-	90.23	34.3	11.87	35.24	100	98	A	V
		5447.4	49.65	-24.35	74	38.15	34.6	12.04	35.14	100	98	P	V
		5459.44	39.3	-14.7	54	27.77	34.6	12.06	35.13	100	98	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. 17+18	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	43.5	-24.7	68.2	46.58	37.66	18.57	59.31	-	-	P	H
		15540	47.12	-26.88	74	39.92	41.1	23.33	57.23	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		10360	43.69	-24.51	68.2	46.77	37.66	18.57	59.31	-	-	P	V
		15540	47.34	-26.66	74	40.14	41.1	23.33	57.23	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 17+18	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	44.23	-23.97	68.2	47.14	37.66	18.64	59.21	-	-	P	H
		15660	48.51	-25.49	74	41.02	41.16	23.45	57.12	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
802.11a CH 44 5220MHz													H
		10440	44.9	-23.3	68.2	47.81	37.66	18.64	59.21	-	-	P	V
		15660	47.9	-26.1	74	40.41	41.16	23.45	57.12	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 17+18	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)
		10480	44.6	-23.6	68.2	47.47	37.62	18.67	59.16	-	-	P	H
		15720	48.55	-25.45	74	40.82	41.3	23.5	57.07	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
802.11a CH 48 5240MHz													H
		10480	45.72	-22.48	68.2	48.59	37.62	18.67	59.16	-	-	P	V
		15720	48.39	-25.61	74	40.66	41.3	23.5	57.07	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Band 1 5150~5250MHz

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 17+18	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)
		5149.5	58.3	-15.7	74	47.39	34.4	11.79	35.28	246	117	P	H
		5150	48.43	-5.57	54	37.52	34.4	11.79	35.28	246	117	A	H
	*	5180	110.48	-	-	99.4	34.52	11.83	35.27	246	117	P	H
	*	5180	101.98	-	-	90.9	34.52	11.83	35.27	246	117	A	H
802.11ac													H
VHT20													H
CH 36		5147.16	51.95	-22.05	74	41.04	34.4	11.79	35.28	100	63	P	V
5180MHz		5150	45.63	-8.37	54	34.72	34.4	11.79	35.28	100	63	A	V
	*	5180	106.49	-	-	95.41	34.52	11.83	35.27	100	63	P	V
	*	5180	98.64	-	-	87.56	34.52	11.83	35.27	100	63	A	V
													V
													V
		5101.66	50.19	-23.81	74	39.35	34.4	11.74	35.3	241	117	P	H
		5146.12	40.08	-13.92	54	29.17	34.4	11.79	35.28	241	117	A	H
	*	5220	110.5	-	-	99.33	34.56	11.86	35.25	241	117	P	H
	*	5220	102.14	-	-	90.97	34.56	11.86	35.25	241	117	A	H
802.11ac		5372.36	48.01	-25.99	74	36.66	34.58	11.95	35.18	241	117	P	H
VHT20		5458.32	39.6	-14.4	54	27.94	34.73	12.06	35.13	241	117	A	H
CH 44		5055.9	48.96	-25.04	74	38.39	34.22	11.68	35.33	111	64	P	V
5220MHz		5142.48	39.95	-14.05	54	29.06	34.4	11.78	35.29	111	64	A	V
	*	5220	106.56	-	-	95.39	34.56	11.86	35.25	111	64	P	V
	*	5220	98.71	-	-	87.54	34.56	11.86	35.25	111	64	A	V
		5450.76	47.62	-26.38	74	36	34.7	12.05	35.13	111	64	P	V
		5459.16	39.47	-14.53	54	27.8	34.74	12.06	35.13	111	64	A	V

		5095.68	50.66	-23.34	74	39.85	34.38	11.73	35.3	241	117	P	H
		5091.52	40.12	-13.88	54	29.33	34.37	11.73	35.31	241	117	A	H
	*	5240	109.88	-	-	98.73	34.52	11.87	35.24	241	117	P	H
	*	5240	101.87	-	-	90.72	34.52	11.87	35.24	241	117	A	H
802.11ac		5380.76	48.2	-25.8	74	36.76	34.65	11.96	35.17	241	117	P	H
VHT20		5459.72	39.54	-14.46	54	27.87	34.74	12.06	35.13	241	117	A	H
CH 48		5121.68	49.32	-24.68	74	38.45	34.4	11.76	35.29	100	64	P	V
5240MHz		5088.66	39.97	-14.03	54	29.21	34.35	11.72	35.31	100	64	A	V
	*	5240	107.03	-	-	95.88	34.52	11.87	35.24	100	64	P	V
	*	5240	98.33	-	-	87.18	34.52	11.87	35.24	100	64	A	V
		5449.92	49.62	-24.38	74	38	34.7	12.05	35.13	100	64	P	V
		5458.88	39.47	-14.53	54	27.8	34.74	12.06	35.13	100	64	A	V

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

Band 1 5150~5250MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 17+18	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)
		10360	44.36	-23.84	68.2	47.44	37.66	18.57	59.31	-	-	P	H
		15540	48.02	-25.98	74	40.82	41.1	23.33	57.23	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT20													H
CH 36		10360	44.44	-23.76	68.2	47.52	37.66	18.57	59.31	-	-	P	V
5180MHz		15540	47.97	-26.03	74	40.77	41.1	23.33	57.23	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 17+18	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	45.26	-22.94	68.2	48.17	37.66	18.64	59.21	-	-	P	H
		15660	48.34	-25.66	74	40.85	41.16	23.45	57.12	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT20													H
CH 44		10440	45.17	-23.03	68.2	48.08	37.66	18.64	59.21	-	-	P	V
5220MHz		15660	49.58	-24.42	74	42.09	41.16	23.45	57.12	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 17+18	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)
		10480	46.35	-21.85	68.2	49.22	37.62	18.67	59.16	-	-	P	H
		15720	49.21	-24.79	74	41.48	41.3	23.5	57.07	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT20													H
CH 48		10480	45.96	-22.24	68.2	48.83	37.62	18.67	59.16	-	-	P	V
5240MHz		15720	49.53	-24.47	74	41.8	41.3	23.5	57.07	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Band 1 5150~5250MHz

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 17+18	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)
		5135.72	53.04	-20.96	74	42.15	34.4	11.78	35.29	238	118	P	H
		5150	46.08	-7.92	54	35.17	34.4	11.79	35.28	238	118	A	H
	*	5190	106.08	-	-	94.95	34.56	11.84	35.27	238	118	P	H
	*	5190	97.87	-	-	86.74	34.56	11.84	35.27	238	118	A	H
802.11ac		5356.96	48.68	-25.32	74	37.46	34.46	11.94	35.18	238	118	P	H
VHT40		5459.16	39.73	-14.27	54	28.06	34.74	12.06	35.13	238	118	A	H
CH 38		5147.68	50.59	-23.41	74	39.68	34.4	11.79	35.28	100	300	P	V
5190MHz		5150	42.51	-11.49	54	31.6	34.4	11.79	35.28	100	300	A	V
	*	5190	103.59	-	-	92.46	34.56	11.84	35.27	100	300	P	V
	*	5190	95.34	-	-	84.21	34.56	11.84	35.27	100	300	A	V
		5406.24	48.68	-25.32	74	37.07	34.79	11.98	35.16	100	300	P	V
		5460	39.5	-14.5	54	27.83	34.74	12.06	35.13	100	300	A	V
		5132.6	50.79	-23.21	74	39.91	34.4	11.77	35.29	253	118	P	H
		5149.5	40.6	-13.4	54	29.69	34.4	11.79	35.28	253	118	A	H
	*	5230	106.8	-	-	95.63	34.54	11.87	35.24	253	118	P	H
	*	5230	98.16	-	-	86.99	34.54	11.87	35.24	253	118	A	H
802.11ac		5452.72	48.87	-25.13	74	37.24	34.71	12.05	35.13	253	118	P	H
VHT40		5359.48	39.76	-14.24	54	28.51	34.48	11.95	35.18	253	118	A	H
CH 46		5129.48	51.13	-22.87	74	40.25	34.4	11.77	35.29	100	300	P	V
5230MHz		5123.5	40.48	-13.52	54	29.61	34.4	11.76	35.29	100	300	A	V
	*	5230	103.75	-	-	92.58	34.54	11.87	35.24	100	300	P	V
	*	5230	95.18	-	-	84.01	34.54	11.87	35.24	100	300	A	V
		5358.64	48.58	-25.42	74	37.34	34.47	11.95	35.18	100	300	P	V
		5458.6	39.54	-14.46	54	27.88	34.73	12.06	35.13	100	300	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 17+18	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)
		10380	44.4	-23.8	68.2	47.41	37.68	18.59	59.28	-	-	P	H
		15570	47.92	-26.08	74	40.66	41.1	23.36	57.2	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT40													H
CH 38		10380	45.4	-22.8	68.2	48.41	37.68	18.59	59.28	-	-	P	V
5190MHz		15570	48.26	-25.74	74	41	41.1	23.36	57.2	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 17+18	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)
		10460	45.75	-22.45	68.2	48.65	37.64	18.65	59.19	-	-	P	H
		15690	49.08	-24.92	74	41.51	41.19	23.48	57.1	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT40													H
CH 46		10460	44.7	-23.5	68.2	47.6	37.64	18.65	59.19	-	-	P	V
5230MHz		15690	49.7	-24.3	74	42.13	41.19	23.48	57.1	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 17+18	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)
802.11ac VHT80 CH 42 5210MHz		5150	53.77	-20.23	74	42.86	34.4	11.79	35.28	241	118	P	H
		5150	45.12	-8.88	54	34.21	34.4	11.79	35.28	241	118	A	H
	*	5210	102.98	-	-	91.79	34.58	11.86	35.25	241	118	P	H
	*	5210	94.94	-	-	83.75	34.58	11.86	35.25	241	118	A	H
		5408.2	49.24	-24.76	74	37.64	34.78	11.98	35.16	241	118	P	H
		5411.84	40.33	-13.67	54	28.72	34.78	11.99	35.16	241	118	A	H
		5125.06	51.18	-22.82	74	40.31	34.4	11.76	35.29	100	316	P	V
		5149.76	43.02	-10.98	54	32.11	34.4	11.79	35.28	100	316	A	V
	*	5210	100.57	-	-	89.38	34.58	11.86	35.25	100	316	P	V
	*	5210	91.92	-	-	80.73	34.58	11.86	35.25	100	316	A	V
		5433.96	49.16	-24.84	74	37.55	34.73	12.02	35.14	100	316	P	V
		5378.8	39.82	-14.18	54	28.4	34.63	11.96	35.17	100	316	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 17+18	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)
		10420	45.64	-22.56	68.2	48.58	37.68	18.62	59.24	-	-	P	H
		15630	49.1	-24.9	74	41.7	41.13	23.42	57.15	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT80													H
CH 42		10420	45.78	-22.42	68.2	48.72	37.68	18.62	59.24	-	-	P	V
5210MHz		15630	48.24	-25.76	74	40.84	41.13	23.42	57.15	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Band 1 5150~5250MHz

WIFI 802.11ax HE160 Full (Band Edge @ 3m)

WIFI Ant. 17+18	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		5120.05	55.59	-18.41	74	44.72	34.4	11.76	35.29	242	116	P	H
		5137.9	45.85	-8.15	54	34.96	34.4	11.78	35.29	242	116	A	H
	*	5250	101.19	-	-	90.04	34.5	11.88	35.23	242	116	P	H
	*	5250	91.65	-	-	80.5	34.5	11.88	35.23	242	116	A	H
		5405.04	56.55	-17.45	74	44.94	34.79	11.98	35.16	242	116	P	H
		5380.08	47.55	-6.45	54	36.12	34.64	11.96	35.17	242	116	A	H
		5134.75	53.3	-20.7	74	42.42	34.4	11.77	35.29	108	76	P	V
		5147.7	44.04	-9.96	54	33.13	34.4	11.79	35.28	108	76	A	V
	*	5250	97.27	-	-	86.12	34.5	11.88	35.23	108	76	P	V
	*	5250	87.97	-	-	76.82	34.5	11.88	35.23	108	76	A	V
		5365.44	53.74	-20.26	74	42.45	34.52	11.95	35.18	108	76	P	V
		5373.36	44.27	-9.73	54	32.9	34.59	11.95	35.17	108	76	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 HE160 Full (Harmonic @ 3m)

WIFI Ant. 17+18	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)
		10500	45.17	-23.03	68.2	48.02	37.6	18.69	59.14	-	-	P	H
		15750	49.39	-24.61	74	41.45	41.45	23.53	57.04	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE160 Full													H
CH 50		10500	45.05	-23.15	68.2	47.9	37.6	18.69	59.14	-	-	P	V
5250MHz		15750	49.3	-24.7	74	41.36	41.45	23.53	57.04	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Band 1 5150~5250MHz

WIFI 802.11ax HE20 Partial 26 (Band Edge @ 3m)

WIFI Ant. 17+18	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 Partial 26/0 CH 36 5180MHz		5066.04	50.95	-23.05	74	40.32	34.26	11.7	35.33	247	118	P	H
		5111.28	41.2	-12.8	54	30.35	34.4	11.75	35.3	247	118	A	H
	*	5180	111.7	-	-	100.62	34.52	11.83	35.27	247	118	P	H
	*	5180	104.18	-	-	93.1	34.52	11.83	35.27	247	118	A	H
													H
													H
		5076.7	49.19	-24.81	74	38.48	34.31	11.71	35.31	100	100	P	V
		5088.4	41.19	-12.81	54	30.43	34.35	11.72	35.31	100	100	A	V
	*	5180	108.23	-	-	97.15	34.52	11.83	35.27	100	100	P	V
	*	5180	100.52	-	-	89.44	34.52	11.83	35.27	100	100	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 (Band Edge @ 3m)

WIFI Ant. 17+18	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		5065.1	49.53	-24.47	74	39.1	34.07	11.69	35.33	100	121	P	H
		5111.65	40.26	-13.74	54	29.61	34.2	11.75	35.3	100	121	A	H
	*	5260	111.27	-	-	100.24	34.37	11.89	35.23	100	121	P	H
	*	5260	104.09	-	-	93.06	34.37	11.89	35.23	100	121	A	H
		5374.08	48.33	-25.67	74	37.08	34.47	11.95	35.17	100	121	P	H
		5350.32	39.91	-14.09	54	28.75	34.4	11.94	35.18	100	121	A	H
		5129.85	49.28	-24.72	74	38.6	34.2	11.77	35.29	100	98	P	V
		5105.7	40.06	-13.94	54	29.42	34.2	11.74	35.3	100	98	A	V
	*	5260	109.37	-	-	98.34	34.37	11.89	35.23	100	98	P	V
	*	5260	102.36	-	-	91.33	34.37	11.89	35.23	100	98	A	V
		5378.64	48.94	-25.06	74	37.62	34.53	11.96	35.17	100	98	P	V
		5459.76	39.35	-14.65	54	27.82	34.6	12.06	35.13	100	98	A	V
802.11a CH 60 5300MHz		5101.15	48.82	-25.18	74	38.18	34.2	11.74	35.3	100	119	P	H
		5145.95	40.35	-13.65	54	29.64	34.2	11.79	35.28	100	119	A	H
	*	5300	112.17	-	-	100.96	34.5	11.91	35.2	100	119	P	H
	*	5300	104.67	-	-	93.46	34.5	11.91	35.2	100	119	A	H
		5369.76	49.36	-24.64	74	38.12	34.47	11.95	35.18	100	119	P	H
		5354.16	40.7	-13.3	54	29.54	34.4	11.94	35.18	100	119	A	H
		5072.45	49.62	-24.38	74	39.1	34.13	11.7	35.31	100	98	P	V
		5145.95	39.94	-14.06	54	29.23	34.2	11.79	35.28	100	98	A	V
	*	5300	109.7	-	-	98.49	34.5	11.91	35.2	100	98	P	V
	*	5300	102.3	-	-	91.09	34.5	11.91	35.2	100	98	A	V
		5433.12	49.04	-24.96	74	37.56	34.6	12.02	35.14	100	98	P	V
		5355.12	39.94	-14.06	54	28.78	34.4	11.94	35.18	100	98	A	V

802.11a CH 64 5320MHz	*	5320	112.11	-	-	100.92	34.47	11.92	35.2	100	121	P	H
	*	5320	104.55	-	-	93.36	34.47	11.92	35.2	100	121	A	H
		5351.2	54.73	-19.27	74	43.57	34.4	11.94	35.18	100	121	P	H
		5350.08	47.73	-6.27	54	36.57	34.4	11.94	35.18	100	121	A	H
													H
													H
	*	5320	110.32	-	-	99.13	34.47	11.92	35.2	100	99	P	V
	*	5320	102.65	-	-	91.46	34.47	11.92	35.2	100	99	A	V
		5350.08	52.42	-21.58	74	41.26	34.4	11.94	35.18	100	99	P	V
		5350.08	44.8	-9.2	54	33.64	34.4	11.94	35.18	100	99	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. 17+18	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	44.31	-23.89	68.2	47.08	37.64	18.71	59.12	-	-	P	H
		15780	49.47	-24.53	74	41.33	41.6	23.56	57.02	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		10520	44.87	-23.33	68.2	47.64	37.64	18.71	59.12	-	-	P	V
		15780	49.68	-24.32	74	41.54	41.6	23.56	57.02	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 17+18	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	44.11	-29.89	74	46.56	37.8	18.77	59.02	-	-	P	H
		15900	48.83	-25.17	74	40.07	42	23.68	56.92	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
i802.11a CH 60 5300MHz													H
		10600	44.05	-29.95	74	46.5	37.8	18.77	59.02	-	-	P	V
		15900	48.54	-25.46	74	39.78	42	23.68	56.92	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 17+18	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)
		10640	45.35	-28.65	74	47.73	37.8	18.8	58.98	-	-	P	H
		15960	48.97	-25.03	74	40.08	42	23.75	56.86	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
802.11a CH 64 5320MHz													H
		10640	45.37	-28.63	74	47.75	37.8	18.8	58.98	-	-	P	V
		15960	48.3	-25.7	74	39.41	42	23.75	56.86	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Band 2 5250~5350MHz

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 17+18	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)
		5083.3	49.49	-24.51	74	38.75	34.33	11.72	35.31	244	118	P	H
		5103.95	40.24	-13.76	54	29.4	34.4	11.74	35.3	244	118	A	H
	*	5260	110.57	-	-	99.39	34.52	11.89	35.23	244	118	P	H
	*	5260	102.98	-	-	91.8	34.52	11.89	35.23	244	118	A	H
802.11ac		5430.72	48.66	-25.34	74	37.04	34.74	12.02	35.14	244	118	P	H
VHT20		5458.8	39.58	-14.42	54	27.91	34.74	12.06	35.13	244	118	A	H
CH 52		5031.85	49.02	-24.98	74	38.46	34.24	11.66	35.34	100	80	P	V
5260MHz		5103.95	40.02	-13.98	54	29.18	34.4	11.74	35.3	100	80	A	V
	*	5260	108.19	-	-	97.01	34.52	11.89	35.23	100	80	P	V
	*	5260	99.69	-	-	88.51	34.52	11.89	35.23	100	80	A	V
		5386.32	48.84	-25.16	74	37.36	34.69	11.96	35.17	100	80	P	V
		5459.76	39.51	-14.49	54	27.84	34.74	12.06	35.13	100	80	A	V
		5144.55	49.81	-24.19	74	38.9	34.4	11.79	35.28	236	115	P	H
		5145.6	40.35	-13.65	54	29.44	34.4	11.79	35.28	236	115	A	H
	*	5300	112.2	-	-	100.89	34.6	11.91	35.2	236	115	P	H
	*	5300	103.84	-	-	92.53	34.6	11.91	35.2	236	115	A	H
802.11ac		5352.48	50.83	-23.17	74	39.65	34.42	11.94	35.18	236	115	P	H
VHT20		5350.56	42.06	-11.94	54	30.9	34.4	11.94	35.18	236	115	A	H
CH 60		5004.2	48.87	-25.13	74	38.31	34.29	11.62	35.35	107	76	P	V
5300MHz		5143.5	39.93	-14.07	54	29.03	34.4	11.79	35.29	107	76	A	V
	*	5300	108.2	-	-	96.89	34.6	11.91	35.2	107	76	P	V
	*	5300	100.05	-	-	88.74	34.6	11.91	35.2	107	76	A	V
		5353.44	48.71	-25.29	74	37.52	34.43	11.94	35.18	107	76	P	V
		5350.08	40.23	-13.77	54	29.07	34.4	11.94	35.18	107	76	A	V

	*	5320	111.25	-	-	100.01	34.52	11.92	35.2	249	117	P	H
	*	5320	102.94	-	-	91.7	34.52	11.92	35.2	249	117	A	H
		5355.84	54.28	-19.72	74	43.07	34.45	11.94	35.18	249	117	P	H
		5350.08	46.04	-7.96	54	34.88	34.4	11.94	35.18	249	117	A	H
802.11ac													H
VHT20													H
CH 64	*	5320	108.01	-	-	96.77	34.52	11.92	35.2	100	76	P	V
5320MHz	*	5320	99.89	-	-	88.65	34.52	11.92	35.2	100	76	A	V
		5350.24	52.48	-21.52	74	41.32	34.4	11.94	35.18	100	76	P	V
		5350.4	42.84	-11.16	54	31.68	34.4	11.94	35.18	100	76	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 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 17+18	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)
		10520	44.64	-23.56	68.2	47.41	37.64	18.71	59.12	-	-	P	H
		15780	49.39	-24.61	74	41.25	41.6	23.56	57.02	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT20													H
CH 52		10520	44.92	-23.28	68.2	47.69	37.64	18.71	59.12	-	-	P	V
5260MHz		15780	49.47	-24.53	74	41.33	41.6	23.56	57.02	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 17+18	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	44.61	-29.39	74	47.06	37.8	18.77	59.02	-	-	P	H
		15900	49.44	-24.56	74	40.68	42	23.68	56.92	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT20													H
CH 60		10600	45.25	-28.75	74	47.7	37.8	18.77	59.02	-	-	P	V
5300MHz		15900	49.62	-24.38	74	40.86	42	23.68	56.92	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 17+18	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)
		10640	45.36	-28.64	74	47.74	37.8	18.8	58.98	-	-	P	H
		15960	48.63	-25.37	74	39.74	42	23.75	56.86	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT20													H
CH 64		10640	45.16	-28.84	74	47.54	37.8	18.8	58.98	-	-	P	V
5320MHz		15960	48.58	-25.42	74	39.69	42	23.75	56.86	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Band 2 5250~5350MHz

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 17+18	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)
		5131.95	50.2	-23.8	74	39.32	34.4	11.77	35.29	227	115	P	H
		5133.7	40.99	-13.01	54	30.11	34.4	11.77	35.29	227	115	A	H
	*	5270	107.55	-	-	96.35	34.54	11.89	35.23	227	115	P	H
	*	5270	99.54	-	-	88.34	34.54	11.89	35.23	227	115	A	H
802.11ac		5373.36	51.35	-22.65	74	39.98	34.59	11.95	35.17	227	115	P	H
VHT40		5350.08	41.91	-12.09	54	30.75	34.4	11.94	35.18	227	115	A	H
CH 54		5050.05	49.59	-24.41	74	39.04	34.2	11.68	35.33	100	76	P	V
5270MHz		5128.45	40.42	-13.58	54	29.54	34.4	11.77	35.29	100	76	A	V
	*	5270	104.44	-	-	93.24	34.54	11.89	35.23	100	76	P	V
	*	5270	96.6	-	-	85.4	34.54	11.89	35.23	100	76	A	V
		5356.08	49.15	-24.85	74	37.94	34.45	11.94	35.18	100	76	P	V
		5350.08	40.3	-13.7	54	29.14	34.4	11.94	35.18	100	76	A	V
		5143.85	49.43	-24.57	74	38.52	34.4	11.79	35.28	237	120	P	H
		5150	40.52	-13.48	54	29.61	34.4	11.79	35.28	237	120	A	H
	*	5310	107.58	-	-	96.3	34.56	11.92	35.2	237	120	P	H
	*	5310	99.42	-	-	88.14	34.56	11.92	35.2	237	120	A	H
802.11ac		5352	59.24	-14.76	74	48.06	34.42	11.94	35.18	237	120	P	H
VHT40		5350.08	50.51	-3.49	54	39.35	34.4	11.94	35.18	237	120	A	H
CH 62		5098.35	49.2	-24.8	74	38.38	34.39	11.73	35.3	108	76	P	V
5310MHz		5149.1	40.06	-13.94	54	29.15	34.4	11.79	35.28	108	76	A	V
	*	5310	103.94	-	-	92.66	34.56	11.92	35.2	108	76	P	V
	*	5310	96.04	-	-	84.76	34.56	11.92	35.2	108	76	A	V
		5353.68	55.97	-18.03	74	44.78	34.43	11.94	35.18	108	76	P	V
		5350.08	45.97	-8.03	54	34.81	34.4	11.94	35.18	108	76	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 17+18	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)
		10540	44.88	-23.32	68.2	47.57	37.68	18.72	59.09	-	-	P	H
		15810	49.71	-24.29	74	41.38	41.73	23.59	56.99	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT40													H
CH 54		10540	44.29	-23.91	68.2	46.98	37.68	18.72	59.09	-	-	P	V
5270MHz		15810	49.05	-24.95	74	40.72	41.73	23.59	56.99	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 17+18	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)
		10620	45.71	-28.29	74	48.12	37.8	18.79	59	-	-	P	H
		15930	49.7	-24.3	74	40.87	42	23.72	56.89	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT40													H
CH 62		10620	45.01	-28.99	74	47.42	37.8	18.79	59	-	-	P	V
5310MHz		15930	48.74	-25.26	74	39.91	42	23.72	56.89	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 17+18	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)
802.11ac VHT80 CH 58 5290MHz		5115.85	49.83	-24.17	74	38.98	34.4	11.75	35.3	228	120	P	H
		5150	41.44	-12.56	54	30.53	34.4	11.79	35.28	228	120	A	H
	*	5290	103.32	-	-	92.06	34.58	11.9	35.22	228	120	P	H
	*	5290	95.44	-	-	84.18	34.58	11.9	35.22	228	120	A	H
		5356.8	56.47	-17.53	74	45.26	34.45	11.94	35.18	228	120	P	H
		5350.32	48.36	-5.64	54	37.2	34.4	11.94	35.18	228	120	A	H
		5120.4	49.87	-24.13	74	39	34.4	11.76	35.29	107	81	P	V
		5150	40.79	-13.21	54	29.88	34.4	11.79	35.28	107	81	A	V
	*	5290	99.54	-	-	88.28	34.58	11.9	35.22	107	81	P	V
	*	5290	92.43	-	-	81.17	34.58	11.9	35.22	107	81	A	V
		5350.08	54.38	-19.62	74	43.22	34.4	11.94	35.18	107	81	P	V
		5351.28	45.14	-8.86	54	33.97	34.41	11.94	35.18	107	81	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 17+18	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)
		10580	45.46	-22.74	68.2	47.99	37.76	18.76	59.05	-	-	P	H
		15870	49.79	-24.21	74	41.16	41.91	23.66	56.94	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT80													H
CH 58		10580	44.95	-23.25	68.2	47.48	37.76	18.76	59.05	-	-	P	V
5290MHz		15870	50.47	-23.53	74	41.84	41.91	23.66	56.94	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Band 2 5250~5350MHz

WIFI 802.11ax HE20 Partial 26 (Band Edge @ 3m)

WIFI Ant. 17+18	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 Partial 26/8 CH 64 5320MHz	*	5320	110.8	-	-	99.56	34.52	11.92	35.2	100	117	P	H
	*	5320	102.96	-	-	91.72	34.52	11.92	35.2	100	117	A	H
		5439.2	49.25	-24.75	74	37.64	34.72	12.03	35.14	100	117	P	H
		5424.8	40.44	-13.56	54	28.82	34.75	12.01	35.14	100	117	A	H
													H
													H
	*	5320	109.6	-	-	98.36	34.52	11.92	35.2	100	103	P	V
	*	5320	101.08	-	-	89.84	34.52	11.92	35.2	100	103	A	V
		5391.2	48.74	-25.26	74	37.22	34.73	11.96	35.17	100	103	P	V
		5460	40.58	-13.42	54	28.91	34.74	12.06	35.13	100	103	A	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 (Band Edge @ 3m)

WIFI Ant. 17+18	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		5457.36	49.23	-24.77	74	37.7	34.6	12.06	35.13	100	119	P	H
		5467.28	48.52	-19.68	68.2	36.91	34.67	12.07	35.13	100	119	P	H
		5459.92	40.14	-13.86	54	28.61	34.6	12.06	35.13	100	119	A	H
	*	5500	110.02	-	-	98.22	34.8	12.12	35.12	100	119	P	H
	*	5500	102.81	-	-	91.01	34.8	12.12	35.12	100	119	A	H
													H
		5424.72	48.65	-25.35	74	37.18	34.6	12.01	35.14	100	106	P	V
		5464.24	48.06	-20.14	68.2	36.45	34.67	12.07	35.13	100	106	P	V
		5460	39.78	-14.22	54	28.25	34.6	12.06	35.13	100	106	A	V
	*	5500	108.09	-	-	96.29	34.8	12.12	35.12	100	106	P	V
	*	5500	100.9	-	-	89.1	34.8	12.12	35.12	100	106	A	V
													V
802.11a CH 116 5580MHz		5354.56	48.64	-25.36	74	37.48	34.4	11.94	35.18	100	119	P	H
		5469.04	47.71	-20.49	68.2	36.09	34.67	12.08	35.13	100	119	P	H
		5425.6	39.78	-14.22	54	28.31	34.6	12.01	35.14	100	119	A	H
	*	5580	110.13	-	-	98.29	34.73	12.25	35.14	100	119	P	H
	*	5580	103.08	-	-	91.24	34.73	12.25	35.14	100	119	A	H
		5749.565	47.95	-20.25	68.2	35.99	34.7	12.43	35.17	100	119	P	H
		5413.84	48.39	-25.61	74	36.96	34.6	11.99	35.16	100	105	P	V
		5468.08	47.59	-20.61	68.2	35.97	34.67	12.08	35.13	100	105	P	V
		5459.2	39.49	-14.51	54	27.96	34.6	12.06	35.13	100	105	A	V
	*	5580	108.46	-	-	96.62	34.73	12.25	35.14	100	105	P	V
	*	5580	100.81	-	-	88.97	34.73	12.25	35.14	100	105	A	V
		5765	48.16	-20.04	68.2	36.16	34.73	12.44	35.17	100	105	P	V

802.11a CH 140 5700MHz	*	5700	110.47	-	-	98.55	34.7	12.38	35.16	100	118	P	H
	*	5700	102.95	-	-	91.03	34.7	12.38	35.16	100	118	A	H
		5729.32	51.76	-16.44	68.2	39.81	34.7	12.41	35.16	100	118	P	H
													H
													H
													H
	*	5700	108.08	-	-	96.16	34.7	12.38	35.16	100	105	P	V
	*	5700	100.98	-	-	89.06	34.7	12.38	35.16	100	105	A	V
		5726.68	50.81	-17.39	68.2	38.86	34.7	12.41	35.16	100	105	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. 17+18	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	45.51	-28.49	74	47.07	37.9	19.1	58.56	-	-	P	H
		16500	50.63	-17.57	68.2	40.32	42.7	24.25	56.64	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		11000	44.78	-29.22	74	46.34	37.9	19.1	58.56	-	-	P	V
		16500	50.28	-17.92	68.2	39.97	42.7	24.25	56.64	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 17+18	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	45.47	-28.53	74	46.61	37.86	19.23	58.23	-	-	P	H
		16740	50.21	-17.99	68.2	39.51	42.9	24.47	56.67	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
802.11a CH 116 5580MHz													H
		11160	45.58	-28.42	74	46.72	37.86	19.23	58.23	-	-	P	V
		16740	51.94	-16.26	68.2	41.24	42.9	24.47	56.67	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 17+18	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)
		11400	46.16	-27.84	74	46.26	38.2	19.43	57.73	-	-	P	H
		17100	51.75	-16.45	68.2	41.16	42.4	24.81	56.62	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
802.11a CH 140 5700MHz													H
		11400	46.51	-27.49	74	46.61	38.2	19.43	57.73	-	-	P	V
		17100	51.19	-17.01	68.2	40.6	42.4	24.81	56.62	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Band 3 - 5470~5725MHz

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 17+18	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)
		5447.44	48.67	-25.33	74	37.06	34.71	12.04	35.14	100	116	P	H
		5466.32	48.38	-19.82	68.2	36.67	34.77	12.07	35.13	100	116	P	H
		5459.76	40.37	-13.63	54	28.7	34.74	12.06	35.13	100	116	A	H
	*	5500	109.47	-	-	97.57	34.9	12.12	35.12	100	116	P	H
802.11ac	*	5500	100.94	-	-	89.04	34.9	12.12	35.12	100	116	A	H
VHT20													H
CH 100		5433.04	48.56	-25.44	74	36.95	34.73	12.02	35.14	100	87	P	V
5500MHz		5467.28	48.09	-20.11	68.2	36.38	34.77	12.07	35.13	100	87	P	V
		5460	39.77	-14.23	54	28.1	34.74	12.06	35.13	100	87	A	V
	*	5500	105.05	-	-	93.15	34.9	12.12	35.12	100	87	P	V
	*	5500	96.89	-	-	84.99	34.9	12.12	35.12	100	87	A	V
													V
		5422.72	48.84	-25.16	74	37.24	34.75	12.01	35.16	100	117	P	H
		5468.56	47.52	-20.68	68.2	35.8	34.77	12.08	35.13	100	117	P	H
		5429.2	39.79	-14.21	54	28.17	34.74	12.02	35.14	100	117	A	H
	*	5580	109.75	-	-	97.72	34.92	12.25	35.14	100	117	P	H
802.11ac	*	5580	101.34	-	-	89.31	34.92	12.25	35.14	100	117	A	H
VHT20		5751.14	49.87	-18.33	68.2	37.61	35	12.43	35.17	100	117	P	H
CH 116		5394.16	48.41	-25.59	74	36.86	34.75	11.97	35.17	100	95	P	V
5580MHz		5464.24	48.06	-20.14	68.2	36.36	34.76	12.07	35.13	100	95	P	V
		5458.96	39.54	-14.46	54	27.87	34.74	12.06	35.13	100	95	A	V
	*	5580	104.62	-	-	92.59	34.92	12.25	35.14	100	95	P	V
	*	5580	96.29	-	-	84.26	34.92	12.25	35.14	100	95	A	V
		5736.02	48.8	-19.4	68.2	36.55	35	12.42	35.17	100	95	P	V

	*	5700	109.32	-	-	97.1	35	12.38	35.16	100	115	P	H
	*	5700	101.23	-	-	89.01	35	12.38	35.16	100	115	A	H
		5726.92	50.86	-17.34	68.2	38.61	35	12.41	35.16	100	115	P	H
													H
802.11ac													H
VHT20													H
CH 140	*	5700	104.28	-	-	92.06	35	12.38	35.16	100	92	P	V
5700MHz	*	5700	96.16	-	-	83.94	35	12.38	35.16	100	92	A	V
		5729.88	49.64	-18.56	68.2	37.39	35	12.41	35.16	100	92	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 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 17+18	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)
		11000	45.16	-28.84	74	46.72	37.9	19.1	58.56	-	-	P	H
		16500	51.23	-16.97	68.2	40.92	42.7	24.25	56.64	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT20													H
CH 100		11000	45.59	-28.41	74	47.15	37.9	19.1	58.56	-	-	P	V
5500MHz		16500	52.03	-16.17	68.2	41.72	42.7	24.25	56.64	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 17+18	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	45.62	-28.38	74	46.76	37.86	19.23	58.23	-	-	P	H
		16740	51.13	-17.07	68.2	40.43	42.9	24.47	56.67	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT20													H
CH 116		11160	45.73	-28.27	74	46.87	37.86	19.23	58.23	-	-	P	V
5580MHz		16740	51.3	-16.9	68.2	40.6	42.9	24.47	56.67	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 17+18	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)
		11400	46.65	-27.35	74	46.75	38.2	19.43	57.73	-	-	P	H
		17100	50.76	-17.44	68.2	40.17	42.4	24.81	56.62	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT20													H
CH 140		11400	46.23	-27.77	74	46.33	38.2	19.43	57.73	-	-	P	V
5700MHz		17100	51.61	-16.59	68.2	41.02	42.4	24.81	56.62	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Band 3 - 5470~5725MHz

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 17+18	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)
		5438.32	49.97	-24.03	74	38.36	34.72	12.03	35.14	103	116	P	H
		5468.56	54.82	-13.38	68.2	43.1	34.77	12.08	35.13	103	116	P	H
		5459.92	43.07	-10.93	54	31.4	34.74	12.06	35.13	103	116	A	H
	*	5510	105.04	-	-	93.14	34.88	12.14	35.12	103	116	P	H
802.11ac	*	5510	97.62	-	-	85.72	34.88	12.14	35.12	103	116	A	H
VHT40		5759.96	50.12	-18.08	68.2	37.89	34.96	12.44	35.17	103	116	P	H
CH 102		5458.48	49.09	-24.91	74	37.43	34.73	12.06	35.13	100	95	P	V
5510MHz		5470	52.36	-15.84	68.2	40.63	34.78	12.08	35.13	100	95	P	V
		5459.92	41.41	-12.59	54	29.74	34.74	12.06	35.13	100	95	A	V
	*	5510	100.02	-	-	88.12	34.88	12.14	35.12	100	95	P	V
	*	5510	93.23	-	-	81.33	34.88	12.14	35.12	100	95	A	V
		5758.385	48.54	-19.66	68.2	36.3	34.97	12.44	35.17	100	95	P	V
		5406.88	49.69	-24.31	74	38.08	34.79	11.98	35.16	105	115	P	H
		5460.88	47.82	-20.38	68.2	36.15	34.74	12.06	35.13	105	115	P	H
		5459.44	40.16	-13.84	54	28.49	34.74	12.06	35.13	105	115	A	H
	*	5550	104.95	-	-	93.08	34.8	12.2	35.13	105	115	P	H
802.11ac	*	5550	97.51	-	-	85.64	34.8	12.2	35.13	105	115	A	H
VHT40		5759.015	49.72	-18.48	68.2	37.49	34.96	12.44	35.17	105	115	P	H
CH 110		5450.8	48.52	-25.48	74	36.9	34.7	12.05	35.13	100	95	P	V
5550MHz		5462.08	47.69	-20.51	68.2	36	34.75	12.07	35.13	100	95	P	V
		5459.44	39.68	-14.32	54	28.01	34.74	12.06	35.13	100	95	A	V
	*	5550	100.44	-	-	88.57	34.8	12.2	35.13	100	95	P	V
	*	5550	92.84	-	-	80.97	34.8	12.2	35.13	100	95	A	V
		5726.57	47.82	-20.38	68.2	35.57	35	12.41	35.16	100	95	P	V

		5456.75	48.6	-25.4	74	36.94	34.73	12.06	35.13	100	115	P	H
		5462.7	47.62	-20.58	68.2	35.93	34.75	12.07	35.13	100	115	P	H
		5459.9	39.67	-14.33	54	28	34.74	12.06	35.13	100	115	A	H
	*	5670	105.06	-	-	92.98	34.88	12.35	35.15	100	115	P	H
802.11ac	*	5670	97.41	-	-	85.33	34.88	12.35	35.15	100	115	A	H
VHT40		5725.1	50.18	-18.02	68.2	37.93	35	12.41	35.16	100	115	P	H
CH 134		5458.15	49.07	-24.93	74	37.41	34.73	12.06	35.13	100	93	P	V
5670MHz		5466.2	47.29	-20.91	68.2	35.59	34.76	12.07	35.13	100	93	P	V
		5459.55	39.5	-14.5	54	27.83	34.74	12.06	35.13	100	93	A	V
	*	5670	99.96	-	-	87.88	34.88	12.35	35.15	100	93	P	V
	*	5670	92.25	-	-	80.17	34.88	12.35	35.15	100	93	A	V
		5727.375	49.25	-18.95	68.2	37	35	12.41	35.16	100	93	P	V

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

Band 3 - 5470~5725MHz

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 17+18	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)
		11020	46.25	-27.75	74	47.78	37.88	19.11	58.52	-	-	P	H
		16530	50.93	-17.27	68.2	40.56	42.73	24.28	56.64	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT40													H
CH 102		11020	45.65	-28.35	74	47.18	37.88	19.11	58.52	-	-	P	V
5510MHz		16530	50.82	-17.38	68.2	40.45	42.73	24.28	56.64	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 17+18	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)
		11100	45.63	-28.37	74	47	37.8	19.18	58.35	-	-	P	H
		16650	51.35	-16.85	68.2	40.77	42.85	24.39	56.66	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT40													H
CH 110		11100	45.55	-28.45	74	46.92	37.8	19.18	58.35	-	-	P	V
5550MHz		16650	50.74	-17.46	68.2	40.16	42.85	24.39	56.66	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 17+18	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)
		11340	45.13	-28.87	74	45.46	38.14	19.38	57.85	-	-	P	H
		17010	50.66	-17.54	68.2	40.24	42.4	24.72	56.7	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT40													H
CH 134		11340	45.99	-28.01	74	46.32	38.14	19.38	57.85	-	-	P	V
5670MHz		17010	50.51	-17.69	68.2	40.09	42.4	24.72	56.7	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Band 3 5470~5725MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 17+18	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)
		5459.44	57.4	-16.6	74	45.73	34.74	12.06	35.13	100	111	P	H
		5469.04	58.14	-10.06	68.2	46.41	34.78	12.08	35.13	100	111	P	H
		5458.96	49.77	-4.23	54	38.1	34.74	12.06	35.13	100	111	A	H
	*	5530	101.41	-	-	89.53	34.84	12.17	35.13	100	111	P	H
802.11ac	*	5530	94.73	-	-	82.85	34.84	12.17	35.13	100	111	A	H
VHT80		5760.275	49.47	-18.73	68.2	37.24	34.96	12.44	35.17	100	111	P	H
CH 106		5450.08	53.79	-20.21	74	42.17	34.7	12.05	35.13	100	85	P	V
5530MHz		5466.64	55.62	-12.58	68.2	43.91	34.77	12.07	35.13	100	85	P	V
		5459.68	46.23	-7.77	54	34.56	34.74	12.06	35.13	100	85	A	V
	*	5530	96.44	-	-	84.56	34.84	12.17	35.13	100	85	P	V
	*	5530	89.36	-	-	77.48	34.84	12.17	35.13	100	85	A	V
		5764.055	49.1	-19.1	68.2	36.89	34.94	12.44	35.17	100	85	P	V
		5431.2	48.27	-25.73	74	36.65	34.74	12.02	35.14	100	116	P	H
		5463.75	47.99	-20.21	68.2	36.29	34.76	12.07	35.13	100	116	P	H
		5456.4	40.48	-13.52	54	28.82	34.73	12.06	35.13	100	116	A	H
	*	5610	101.81	-	-	89.7	34.96	12.29	35.14	100	116	P	H
802.11ac	*	5610	94.78	-	-	82.67	34.96	12.29	35.14	100	116	A	H
VHT80		5730.35	50.6	-17.6	68.2	38.36	35	12.41	35.17	100	116	P	H
CH 122		5420.35	50.18	-23.82	74	38.58	34.76	12	35.16	100	86	P	V
5610MHz		5466.2	47.79	-20.41	68.2	36.09	34.76	12.07	35.13	100	86	P	V
		5459.9	39.94	-14.06	54	28.27	34.74	12.06	35.13	100	86	A	V
	*	5610	96.56	-	-	84.45	34.96	12.29	35.14	100	86	P	V
	*	5610	89.97	-	-	77.86	34.96	12.29	35.14	100	86	A	V
		5749.775	48.49	-19.71	68.2	36.23	35	12.43	35.17	100	86	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 5470~5725MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 17+18	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)
		11060	45.83	-28.17	74	47.29	37.84	19.14	58.44	-	-	P	H
		16590	50.36	-17.84	68.2	39.89	42.79	24.33	56.65	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT80													H
CH 106		11060	45.94	-28.06	74	47.4	37.84	19.14	58.44	-	-	P	V
5530MHz		16590	50.21	-17.99	68.2	39.74	42.79	24.33	56.65	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 17+18	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)
		11220	45.71	-28.29	74	46.59	37.94	19.28	58.1	-	-	P	H
		16830	51.11	-17.09	68.2	40.38	42.87	24.55	56.69	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT80													H
CH 122		11220	46.73	-27.27	74	47.61	37.94	19.28	58.1	-	-	P	V
5610MHz		16830	51.33	-16.87	68.2	40.6	42.87	24.55	56.69	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Band 3 5470~5725MHz

WIFI 802.11ax HE160 Full (Band Edge @ 3m)

WIFI Ant. 17+18	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		5458.96	57.5	-16.5	74	45.83	34.74	12.06	35.13	100	117	P	H
		5462.32	57.74	-10.46	68.2	46.05	34.75	12.07	35.13	100	117	P	H
		5457.52	50.18	-3.82	54	38.52	34.73	12.06	35.13	100	117	A	H
	*	5570	99.67	-	-	87.69	34.88	12.23	35.13	100	117	P	H
	*	5570	91.24	-	-	79.26	34.88	12.23	35.13	100	117	A	H
		5749.25	49.96	-18.24	68.2	37.7	35	12.43	35.17	100	117	P	H
		5457.76	55.39	-18.61	74	43.73	34.73	12.06	35.13	100	93	P	V
		5463.76	54.75	-13.45	68.2	43.05	34.76	12.07	35.13	100	93	P	V
		5459.92	47.11	-6.89	54	35.44	34.74	12.06	35.13	100	93	A	V
	*	5570	96.13	-	-	84.15	34.88	12.23	35.13	100	93	P	V
	*	5570	87.17	-	-	75.19	34.88	12.23	35.13	100	93	A	V
		5759.645	50.1	-18.1	68.2	37.87	34.96	12.44	35.17	100	93	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 (Harmonic @ 3m)

WIFI Ant. 17+18	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)
		11140	45.14	-28.86	74	46.36	37.84	19.21	58.27	-	-	P	H
		16710	50.5	-17.7	68.2	39.82	42.9	24.45	56.67	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE160 Full													H
CH 114		11140	45.07	-28.93	74	46.29	37.84	19.21	58.27	-	-	P	V
5570MHz		16710	51.13	-17.07	68.2	40.45	42.9	24.45	56.67	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

WIFI 802.11ax HE20 Partial 26 (Band Edge @ 3m)

WIFI Ant. 17+18	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 Partial 26/0 CH 100 5260MHz		5422.64	48.75	-25.25	74	37.15	34.75	12.01	35.16	250	119	P	H
		5466	48.41	-19.79	68.2	36.71	34.76	12.07	35.13	250	119	P	H
		5458.32	40.6	-13.4	54	28.94	34.73	12.06	35.13	250	119	A	H
	*	5500	109.65	-	-	97.75	34.9	12.12	35.12	250	119	P	H
	*	5500	102.26	-	-	90.36	34.9	12.12	35.12	250	119	A	H
													H
		5435.44	48.18	-25.82	74	36.57	34.73	12.02	35.14	102	321	P	V
		5460.08	47.69	-20.51	68.2	36.02	34.74	12.06	35.13	102	321	P	V
		5459.76	40.43	-13.57	54	28.76	34.74	12.06	35.13	102	321	A	V
	*	5500	105.51	-	-	93.61	34.9	12.12	35.12	102	321	P	V
	*	5500	97.86	-	-	85.96	34.9	12.12	35.12	102	321	A	V
													V
802.11ax HE20 Partial 26/8 CH 140 5700MHz	*	5700	110.8	-	-	98.58	35	12.38	35.16	100	118	P	H
	*	5700	102.31	-	-	90.09	35	12.38	35.16	100	118	A	H
		5755.24	49.35	-18.85	68.2	37.1	34.98	12.44	35.17	100	118	P	H
													H
													H
													H
	*	5700	107.67	-	-	95.45	35	12.38	35.16	100	100	P	V
	*	5700	100.38	-	-	88.16	35	12.38	35.16	100	100	A	V
		5764.2	49.7	-18.5	68.2	37.49	34.94	12.44	35.17	100	100	P	V
													V
													V
													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	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
17+18		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 144 5720MHz		5419.81	48.77	-25.23	74	37.17	34.76	12	35.16	100	118	P	H
		5470	47.04	-21.16	68.2	35.31	34.78	12.08	35.13	100	118	P	H
		5412.01	39.69	-14.31	54	28.08	34.78	11.99	35.16	100	118	A	H
	*	5720	111.45	-	-	99.21	35	12.4	35.16	100	118	P	H
	*	5720	103.74	-	-	91.5	35	12.4	35.16	100	118	A	H
		5929	50.52	-17.68	68.2	38.1	35.06	12.56	35.2	100	118	P	H
		5418.64	48.76	-25.24	74	37.16	34.76	12	35.16	100	98	P	V
		5465.05	47.59	-20.61	68.2	35.89	34.76	12.07	35.13	100	98	P	V
		5459.59	39.49	-14.51	54	27.82	34.74	12.06	35.13	100	98	A	V
	*	5720	109.41	-	-	97.17	35	12.4	35.16	100	98	P	V
	*	5720	101.58	-	-	89.34	35	12.4	35.16	100	98	A	V
		5909.5	50.47	-17.73	68.2	38.1	35.02	12.55	35.2	100	98	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. 17+18	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	46.11	-27.89	74	46.01	38.28	19.46	57.64	-	-	P	H
		17160	51.52	-16.68	68.2	40.94	42.28	24.87	56.57	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		11440	45.63	-28.37	74	45.53	38.28	19.46	57.64	-	-	P	V
		17160	51.77	-16.43	68.2	41.19	42.28	24.87	56.57	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Band 3 - Straddle Channel

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 17+18	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)
802.11ac VHT20 CH 144 5720MHz		5429.56	49.09	-24.91	74	37.47	34.74	12.02	35.14	100	115	P	H
		5463.49	48.09	-20.11	68.2	36.4	34.75	12.07	35.13	100	115	P	H
		5412.01	39.78	-14.22	54	28.17	34.78	11.99	35.16	100	115	A	H
	*	5720	109.17	-	-	96.93	35	12.4	35.16	100	115	P	H
	*	5720	100.67	-	-	88.43	35	12.4	35.16	100	115	A	H
		5943.75	51.13	-17.07	68.2	38.67	35.09	12.57	35.2	100	115	P	H
		5369.11	48.75	-25.25	74	37.43	34.55	11.95	35.18	100	93	P	V
		5465.44	48.41	-19.79	68.2	36.71	34.76	12.07	35.13	100	93	P	V
		5459.98	39.63	-14.37	54	27.96	34.74	12.06	35.13	100	93	A	V
	*	5720	104.96	-	-	92.72	35	12.4	35.16	100	93	P	V
	*	5720	95.9	-	-	83.66	35	12.4	35.16	100	93	A	V
		5949.5	51.12	-17.08	68.2	38.64	35.1	12.58	35.2	100	93	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 17+18	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	46.39	-27.61	74	46.4	38.24	19.44	57.69	-	-	P	H
		17130	51.65	-16.55	68.2	41.07	42.34	24.84	56.6	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT20													H
CH 144		11420	46.08	-27.92	74	46.09	38.24	19.44	57.69	-	-	P	V
5720MHz		17130	51.54	-16.66	68.2	40.96	42.34	24.84	56.6	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Band 3 - Straddle Channel

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 17+18	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)
802.11ac VHT40 CH 142 5710MHz		5415.52	48.67	-25.33	74	37.07	34.77	11.99	35.16	100	115	P	H
		5468.95	47.6	-20.6	68.2	35.87	34.78	12.08	35.13	100	115	P	H
		5458.42	39.76	-14.24	54	28.1	34.73	12.06	35.13	100	115	A	H
	*	5710	104.72	-	-	92.49	35	12.39	35.16	100	115	P	H
	*	5710	97.43	-	-	85.2	35	12.39	35.16	100	115	A	H
		5934.75	50.44	-17.76	68.2	38	35.07	12.57	35.2	100	115	P	H
		5369.5	49.01	-24.99	74	37.68	34.56	11.95	35.18	100	94	P	V
		5466.61	47.99	-20.21	68.2	36.28	34.77	12.07	35.13	100	94	P	V
		5459.59	39.68	-14.32	54	28.01	34.74	12.06	35.13	100	94	A	V
	*	5710	100.65	-	-	88.42	35	12.39	35.16	100	94	P	V
	*	5710	92.95	-	-	80.72	35	12.39	35.16	100	94	A	V
		5879	50.24	-17.96	68.2	37.98	34.92	12.53	35.19	100	94	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 17+18	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	47.32	-26.68	74	47.33	38.24	19.44	57.69	-	-	P	H
		17130	51.94	-16.26	68.2	41.36	42.34	24.84	56.6	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT40													H
CH 142		11420	45.88	-28.12	74	45.89	38.24	19.44	57.69	-	-	P	V
5710MHz		17130	52.43	-15.77	68.2	41.85	42.34	24.84	56.6	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Band 3 - Straddle Channel

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 17+18	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)
802.11ac VHT80 CH 138 5690MHz		5448.28	48.49	-25.51	74	36.89	34.7	12.04	35.14	100	116	P	H
		5465.05	48.23	-19.97	68.2	36.53	34.76	12.07	35.13	100	116	P	H
		5459.2	40.06	-13.94	54	28.39	34.74	12.06	35.13	100	116	A	H
	*	5690	100.83	-	-	88.66	34.96	12.37	35.16	100	116	P	H
	*	5690	93.6	-	-	81.43	34.96	12.37	35.16	100	116	A	H
		5882.8	50.55	-17.65	68.2	38.28	34.93	12.53	35.19	100	116	P	H
		5417.47	49.92	-24.08	74	38.31	34.77	12	35.16	100	74	P	V
		5463.49	47.17	-21.03	68.2	35.48	34.75	12.07	35.13	100	74	P	V
		5459.59	39.76	-14.24	54	28.09	34.74	12.06	35.13	100	74	A	V
	*	5690	97.05	-	-	84.88	34.96	12.37	35.16	100	74	P	V
	*	5690	89.12	-	-	76.95	34.96	12.37	35.16	100	74	A	V
		5916.7	50.59	-17.61	68.2	38.2	35.03	12.56	35.2	100	74	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 17+18	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	45.28	-28.72	74	45.46	38.18	19.41	57.77	-	-	P	H
		17070	50.73	-17.47	68.2	40.2	42.4	24.78	56.65	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT80													H
CH 138		11380	45.52	-28.48	74	45.7	38.18	19.41	57.77	-	-	P	V
5690MHz		17070	51.2	-17	68.2	40.67	42.4	24.78	56.65	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Emission below 1GHz

5GHz WIFI 802.11ac VHT40 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
17+18		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		30.81	21.67	-18.33	40	26.8	23.97	0.93	30.03	-	-	P	H
		40.26	17.2	-22.8	40	26.82	19.26	1.14	30.02	-	-	P	H
		189.03	30.68	-12.82	43.5	43.54	14.81	2.3	29.97	-	-	P	H
		750.8	28.73	-17.27	46	26.53	27.63	4.25	29.68	-	-	P	H
		855.1	30.97	-15.03	46	26.74	28.82	4.62	29.21	-	-	P	H
		954.5	32.42	-13.58	46	25.7	30.52	4.89	28.69	-	-	P	H
													H
													H
													H
													H
5GHz													H
802.11ac													H
VHT40		30.27	31.51	-8.49	40	36.26	24.37	0.91	30.03	-	-	P	V
LF		35.13	27.45	-12.55	40	34.43	21.95	1.09	30.02	-	-	P	V
		189.84	23.71	-19.79	43.5	36.55	14.83	2.3	29.97	-	-	P	V
		755	28.6	-17.4	46	26.31	27.7	4.26	29.67	-	-	P	V
		853	30.08	-15.92	46	25.95	28.75	4.61	29.23	-	-	P	V
		956.6	33.97	-12.03	46	27.12	30.63	4.9	28.68	-	-	P	V
													V
													V
													V
													V
													V
													V

Remark

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

<EUT with WPC Charging Mode>

Band 2 - 5250~5350MHz

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
17+18		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT40 CH 62 5310MHz		5057.75	48.38	-25.62	74	37.79	34.23	11.69	35.33	286	359	P	H
		5131.25	39.15	-14.85	54	28.27	34.4	11.77	35.29	286	359	A	H
	*	5310	102.39	-	-	91.11	34.56	11.92	35.2	286	359	P	H
	*	5310	94.43	-	-	83.15	34.56	11.92	35.2	286	359	A	H
		5352.96	54.08	-19.92	74	42.9	34.42	11.94	35.18	286	359	P	H
		5350.8	46.31	-7.69	54	35.14	34.41	11.94	35.18	286	359	A	H
		5146.65	47.88	-26.12	74	36.97	34.4	11.79	35.28	398	181	P	V
		5147.35	39.14	-14.86	54	28.23	34.4	11.79	35.28	398	181	A	V
	*	5310	103.39	-	-	92.11	34.56	11.92	35.2	398	181	P	V
	*	5310	95.34	-	-	84.06	34.56	11.92	35.2	398	181	A	V
		5352.48	51.54	-22.46	74	40.36	34.42	11.94	35.18	398	181	P	V
		5350.08	44.38	-9.62	54	33.22	34.4	11.94	35.18	398	181	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 17+18	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)
		10620	43.33	-30.67	74	45.74	37.8	18.79	59	-	-	P	H
		15930	47.87	-26.13	74	39.04	42	23.72	56.89	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT40													H
CH 62		10620	43.87	-30.13	74	46.28	37.8	18.79	59	-	-	P	V
5310MHz		15930	47.52	-26.48	74	38.69	42	23.72	56.89	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Emission below 1GHz

5GHz WIFI 802.11ac VHT40 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
17+18		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		30	21.47	-18.53	40	26.03	24.57	0.9	30.03	-	-	P	H
		95.88	27.49	-16.01	43.5	40.41	15.39	1.68	29.99	-	-	P	H
		190.92	29.72	-13.78	43.5	42.53	14.85	2.31	29.97	-	-	P	H
		734.7	28.53	-17.47	46	26.81	27.21	4.22	29.71	-	-	P	H
		823.6	29.63	-16.37	46	27	27.56	4.5	29.43	-	-	P	H
		957.3	32.59	-13.41	46	25.7	30.67	4.9	28.68	-	-	P	H
													H
													H
													H
													H
5GHz													H
802.11ac													H
VHT40		30	32.39	-7.61	40	36.95	24.57	0.9	30.03	-	-	P	V
LF		39.45	28.17	-11.83	40	37.37	19.69	1.13	30.02	-	-	P	V
		63.48	27.25	-12.75	40	44.06	11.79	1.4	30	-	-	P	V
		738.2	28.99	-17.01	46	27.1	27.36	4.23	29.7	-	-	P	V
		864.9	30.73	-15.27	46	26.33	28.93	4.62	29.15	-	-	P	V
		953.1	32.52	-13.48	46	25.88	30.46	4.88	28.7	-	-	P	V
													V
													V
													V
													V
													V
													V

Remark

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

<Sample 2>

Band 2 - 5250~5350MHz

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
17+18		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5112.35	49.22	-24.78	74	38.37	34.4	11.75	35.3	100	119	P	H
		5150	40.11	-13.89	54	29.2	34.4	11.79	35.28	100	119	A	H
	*	5310	106.53	-	-	95.25	34.56	11.92	35.2	100	119	P	H
	*	5310	98.47	-	-	87.19	34.56	11.92	35.2	100	119	A	H
802.11ac		5351.28	56.13	-17.87	74	44.96	34.41	11.94	35.18	100	119	P	H
VHT40		5350.08	47.71	-6.29	54	36.55	34.4	11.94	35.18	100	119	A	H
CH 62		5122.15	49.4	-24.6	74	38.53	34.4	11.76	35.29	105	90	P	V
5310MHz		5132.3	39.91	-14.09	54	29.03	34.4	11.77	35.29	105	90	A	V
	*	5310	103.96	-	-	92.68	34.56	11.92	35.2	105	90	P	V
	*	5310	96.47	-	-	85.19	34.56	11.92	35.2	105	90	A	V
		5350.32	53.24	-20.76	74	42.08	34.4	11.94	35.18	105	90	P	V
		5350.08	45.61	-8.39	54	34.45	34.4	11.94	35.18	105	90	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 17+18	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)
		10620	44.93	-29.07	74	47.34	37.8	18.79	59	-	-	P	H
		15930	48.32	-25.68	74	39.49	42	23.72	56.89	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT40													H
CH 62		10620	43.62	-30.38	74	46.03	37.8	18.79	59	-	-	P	V
5310MHz		15930	47.43	-26.57	74	38.6	42	23.72	56.89	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Emission below 1GHz

5GHz WIFI 802.11ac VHT40 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
17+18		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		30	29.46	-10.54	40	34.02	24.57	0.9	30.03	-	-	P	H
		47.28	26.79	-13.21	40	40.13	15.43	1.24	30.01	-	-	P	H
		188.22	30.93	-12.57	43.5	43.81	14.79	2.3	29.97	-	-	P	H
		745.2	28.7	-17.3	46	26.63	27.52	4.24	29.69	-	-	P	H
		883.1	31.61	-14.39	46	27.32	28.67	4.64	29.02	-	-	P	H
		955.2	33.05	-12.95	46	26.3	30.55	4.89	28.69	-	-	P	H
													H
													H
													H
													H
5GHz													H
802.11ac													H
VHT40		30	32.02	-7.98	40	36.58	24.57	0.9	30.03	-	-	P	V
LF		50.25	25.58	-14.42	40	40.09	14.22	1.28	30.01	-	-	P	V
		82.38	27.57	-12.43	40	42.28	13.73	1.56	30	-	-	P	V
		317.5	26.93	-19.07	46	34.64	19.39	2.88	29.98	-	-	P	V
		888.7	31.76	-14.24	46	27.41	28.68	4.65	28.98	-	-	P	V
		955.9	33.4	-12.6	46	26.61	30.59	4.89	28.69	-	-	P	V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against limit line.
3. The emission position marked as "-" means no suspected emission found 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.	
17+18		(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 :**	22.3~24.9°C
		Relative Humidity :	53.8~61.4%

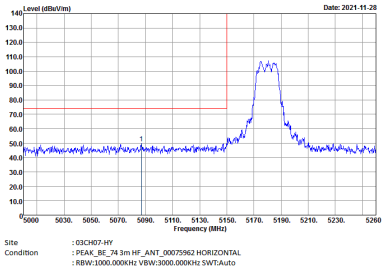
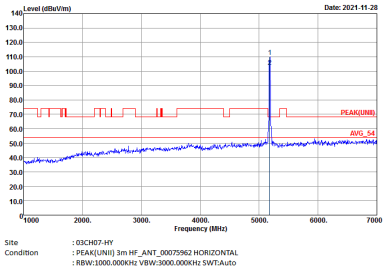
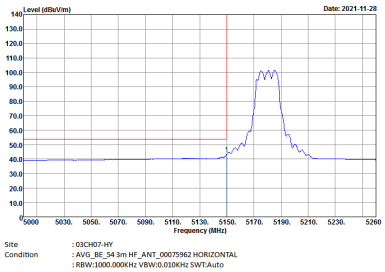
Note symbol

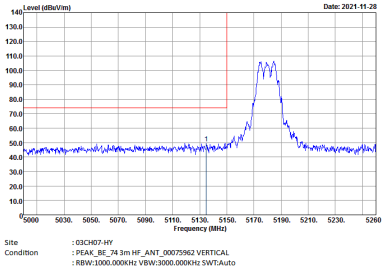
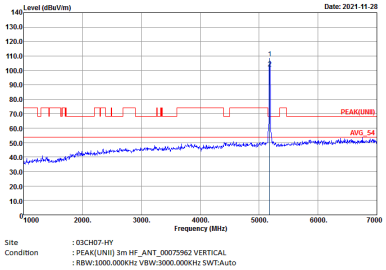
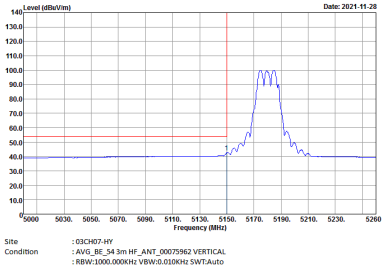
-L	**Low channel location**
-R	**High channel location**

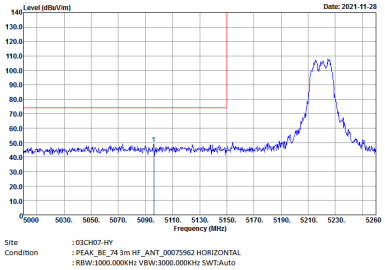
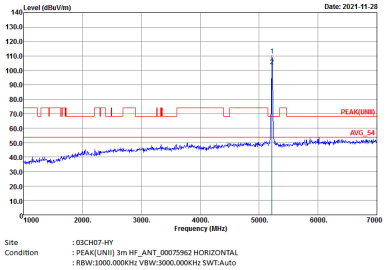
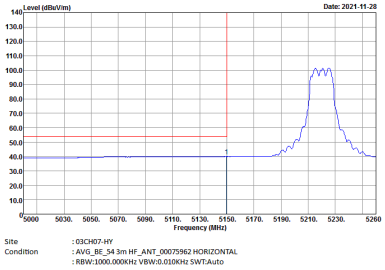
<Sample 1>

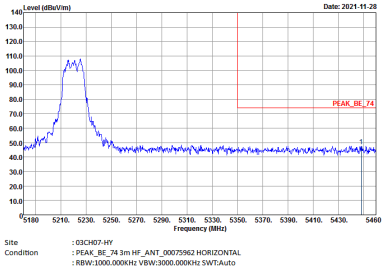
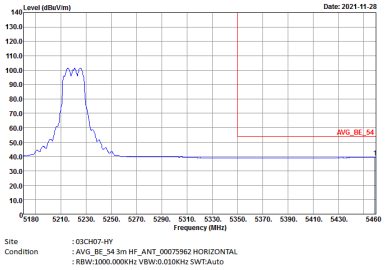
Band 1 - 5150~5250MHz

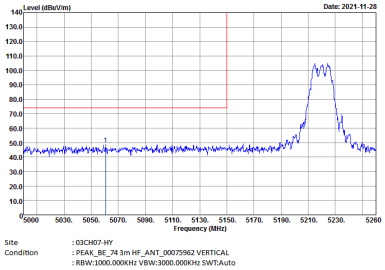
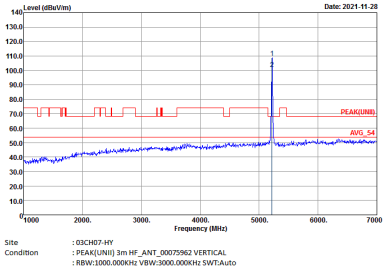
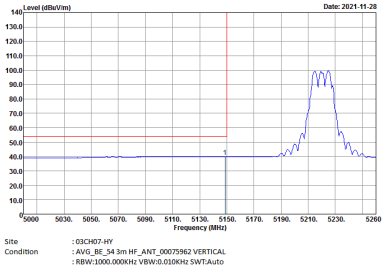
WIFI 802.11a (Band Edge @ 3m)

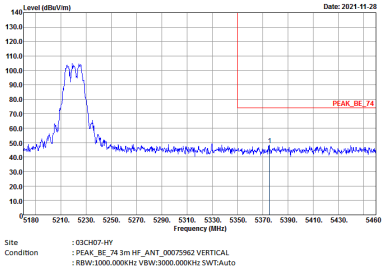
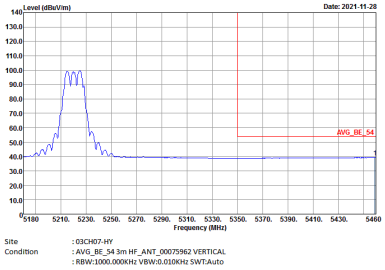
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
17+18	Horizontal	Fundamental
Peak		
Avg.		Left blank

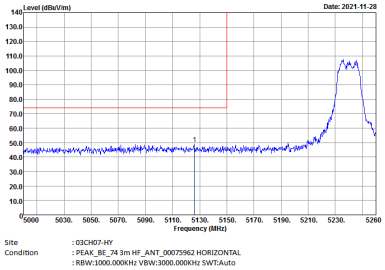
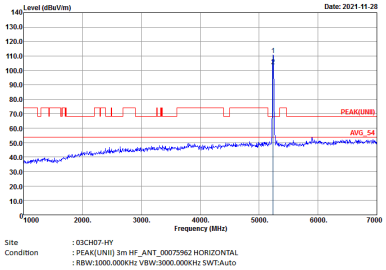
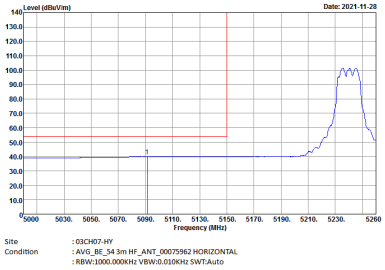
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
17+18	Vertical	Fundamental
Peak		
Avg.		Left blank

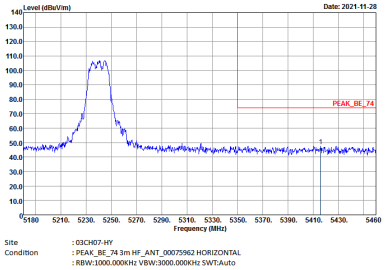
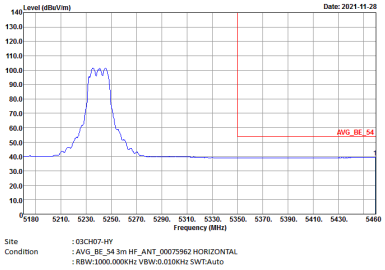
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
17+18	Horizontal	Fundamental
Peak		
Avg.		Left blank

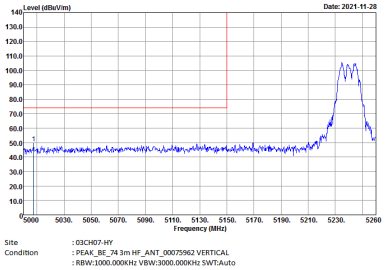
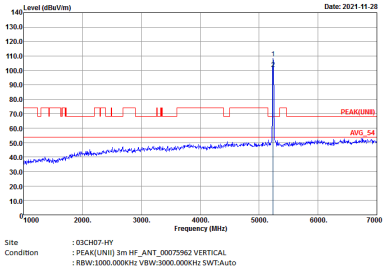
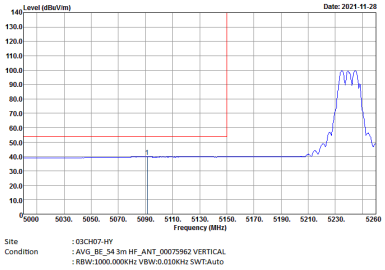
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
17+18	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

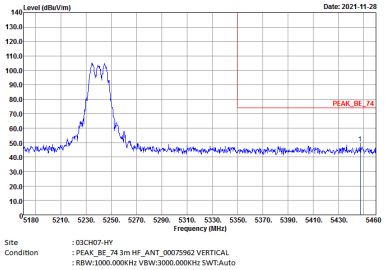
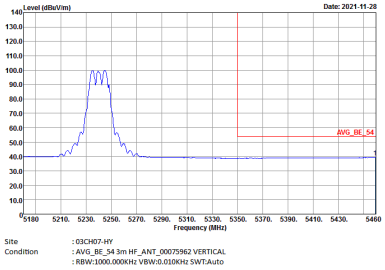
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
17+18	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
17+18	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
17+18	Horizontal	Fundamental
Peak		
Avg.		Left blank

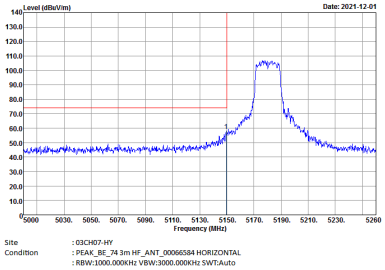
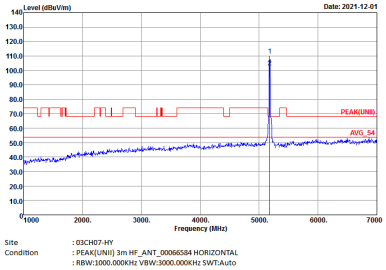
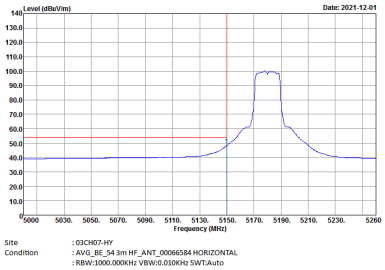
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
17+18	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

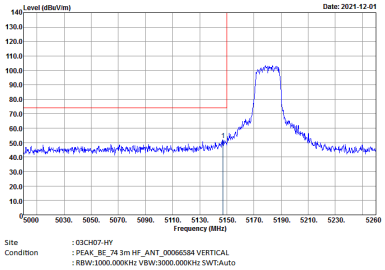
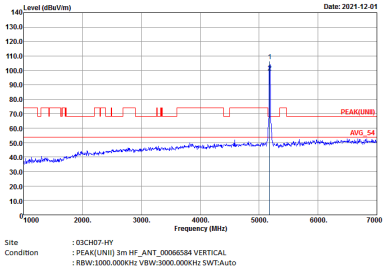
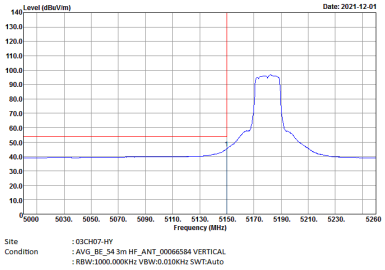
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
17+18	Vertical	Fundamental
Peak		
Avg.		Left blank

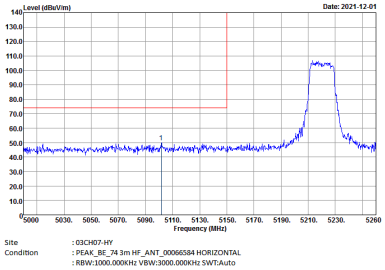
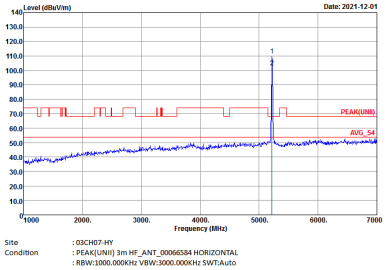
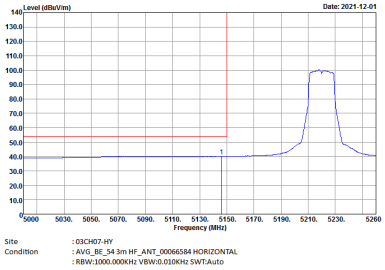
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
17+18	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

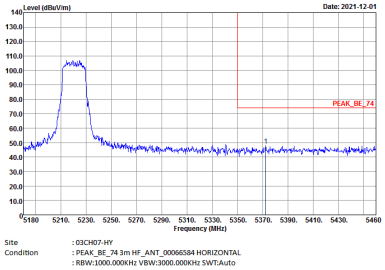
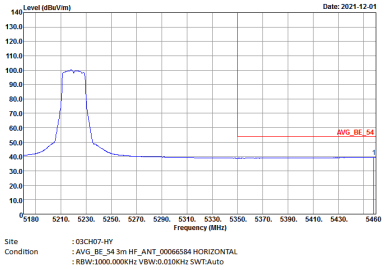
Band 1 5150~5250MHz

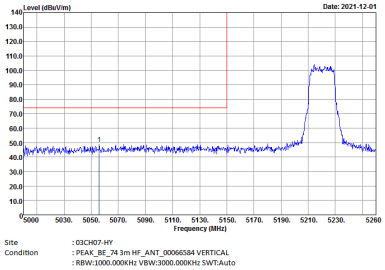
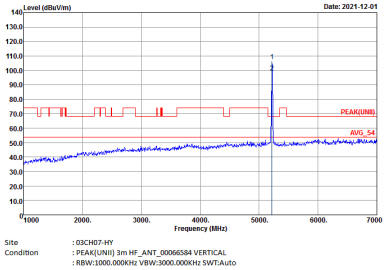
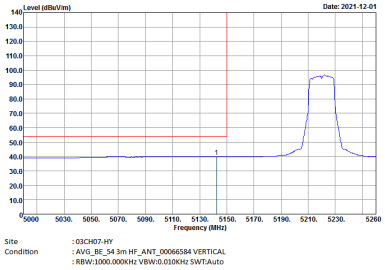
WIFI 802.11ac VHT20 (Band Edge @ 3m)

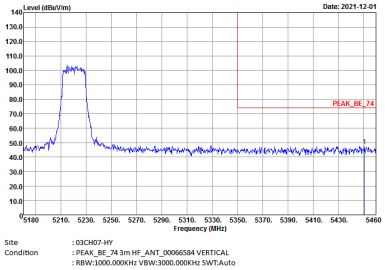
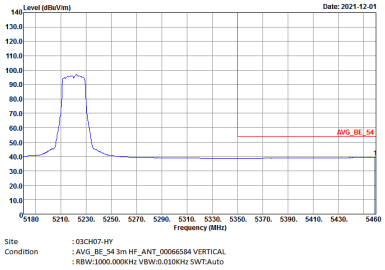
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH36 5180MHz	
17+18	Horizontal	Fundamental
Peak		
Avg.		Left blank

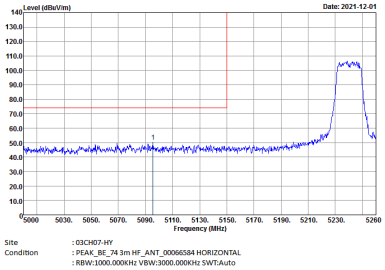
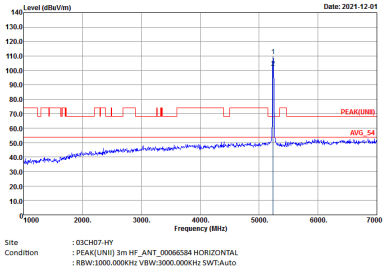
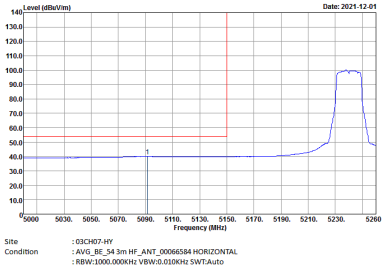
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH36 5180MHz	
17+18	Vertical	Fundamental
Peak		
Avg.		Left blank

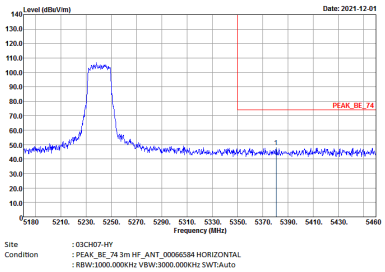
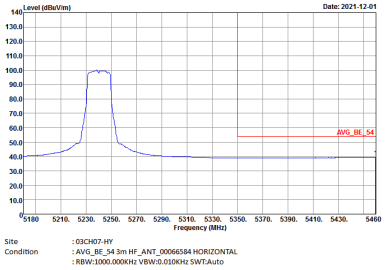
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH44 5220MHz - L	
17+18	Horizontal	Fundamental
Peak		
Avg.		Left blank

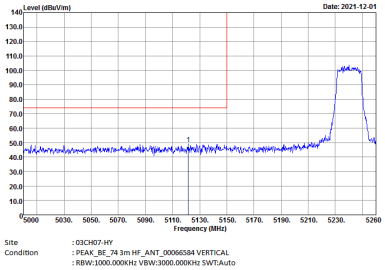
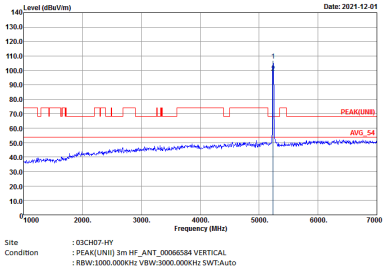
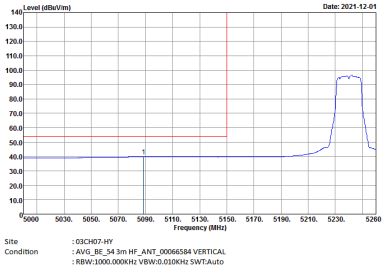
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH44 5220MHz - R	
17+18	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

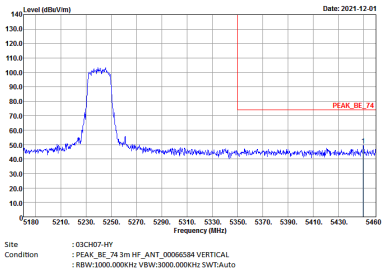
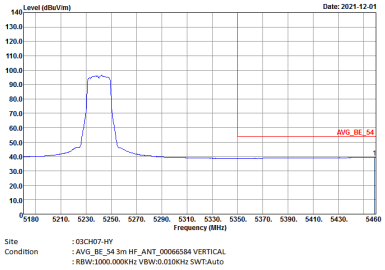
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH44 5220MHz - L	
17+18	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH44 5220MHz - R	
17+18	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

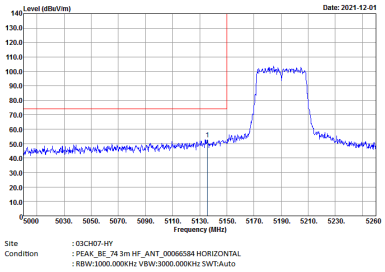
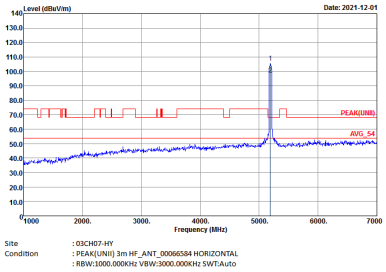
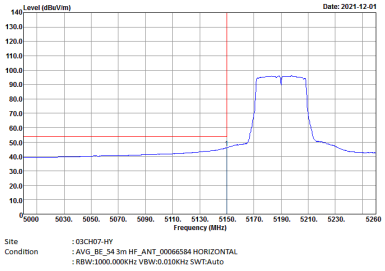
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH48 5240MHz - L	
17+18	Horizontal	Fundamental
Peak		
Avg.		Left blank

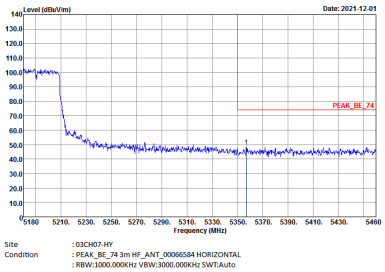
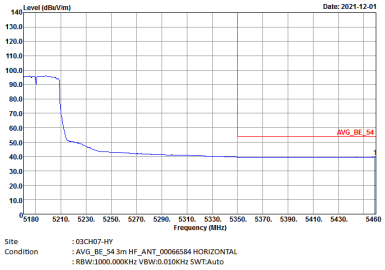
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH48 5240MHz - R	
17+18	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

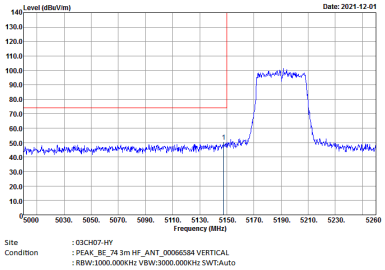
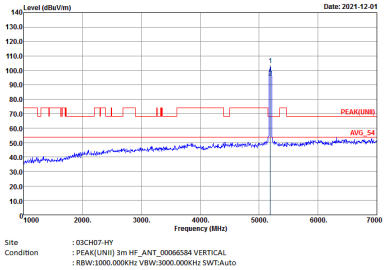
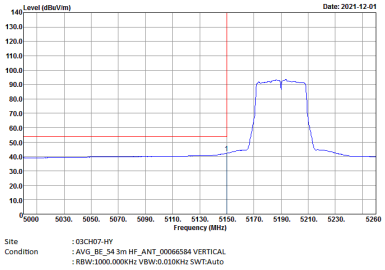
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH48 5240MHz - L	
17+18	Vertical	Fundamental
Peak		
Avg.		Left blank

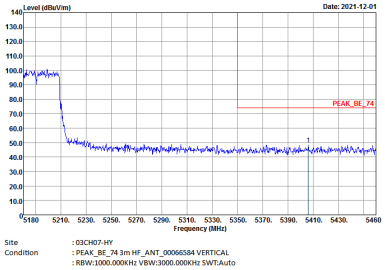
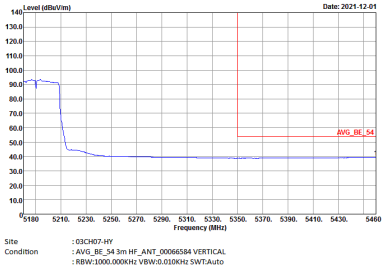
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH48 5240MHz - R	
17+18	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

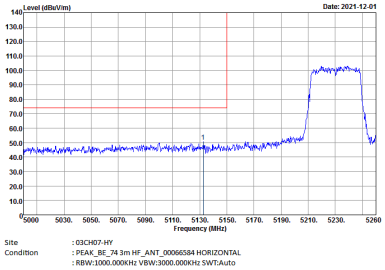
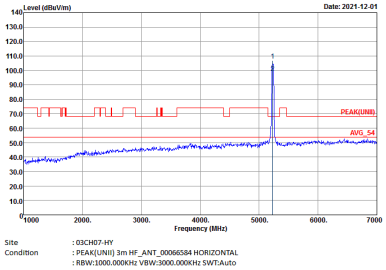
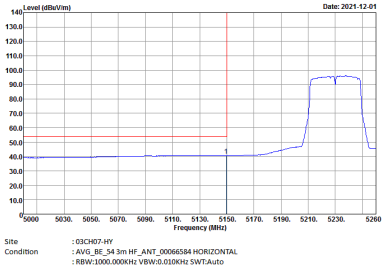
Band 1 5150~5250MHz
WIFI 802.11ac VHT40 (Band Edge @ 3m)

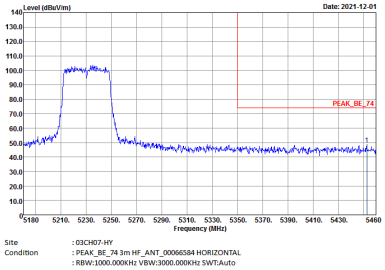
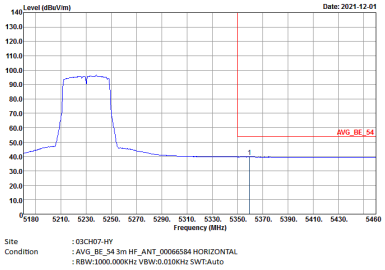
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH38 5190MHz - L	
17+18	Horizontal	Fundamental
Peak		
Avg.		Left blank

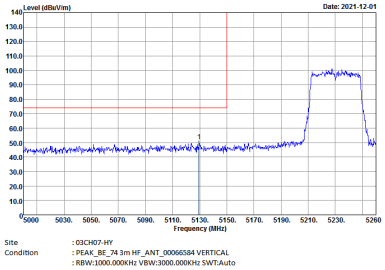
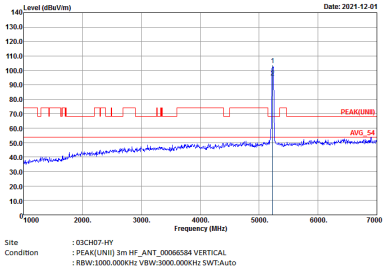
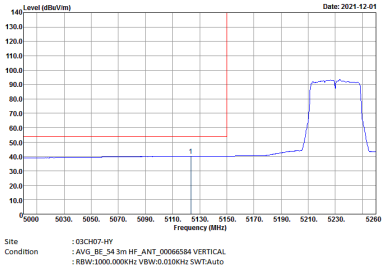
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH38 5190MHz - R	
17+18	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

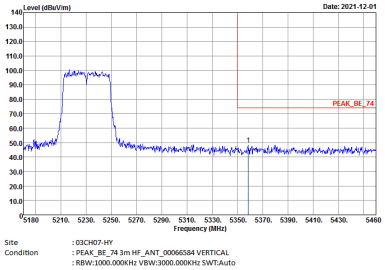
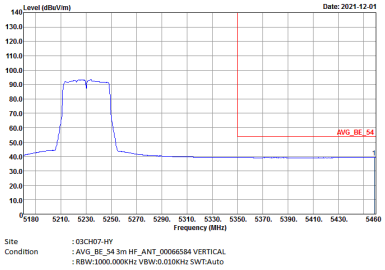
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH38 5190MHz - L	
17+18	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH38 5190MHz - R	
17+18	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

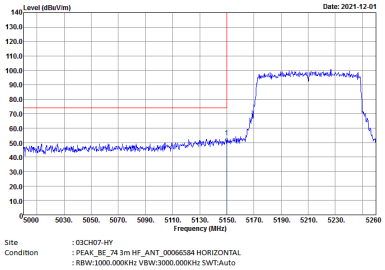
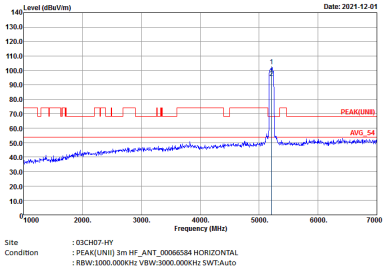
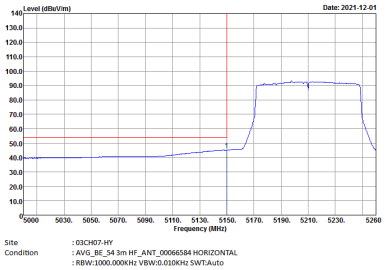
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH46 5230MHz - L	
17+18	Horizontal	Fundamental
Peak		
Avg.		Left blank

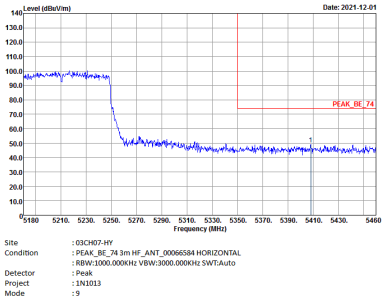
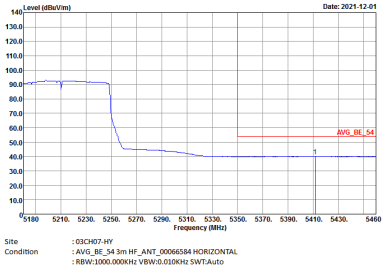
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH46 5230MHz - R	
17+18	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

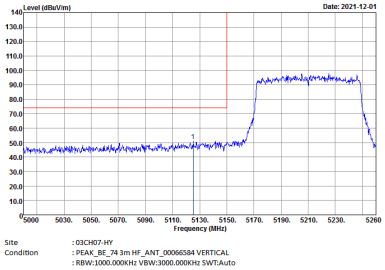
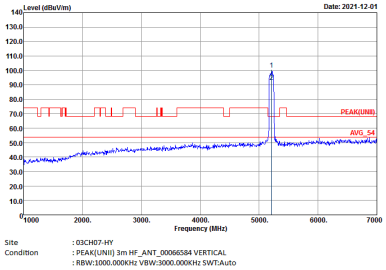
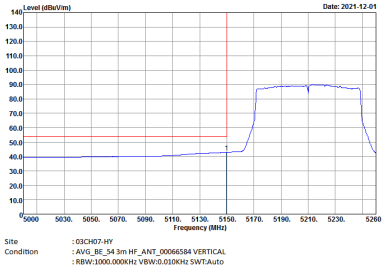
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH46 5230MHz - L	
17+18	Vertical	Fundamental
Peak		
Avg.		Left blank

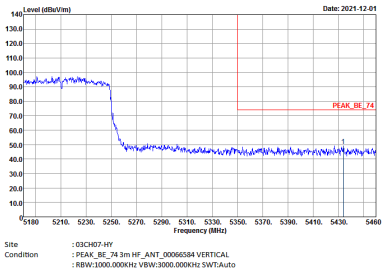
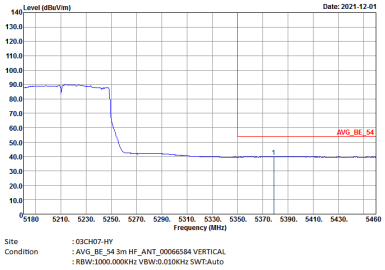
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH46 5230MHz - R	
17+18	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 1 5150~5250MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
17+18	Horizontal	Fundamental
Peak		
Avg.		Left blank

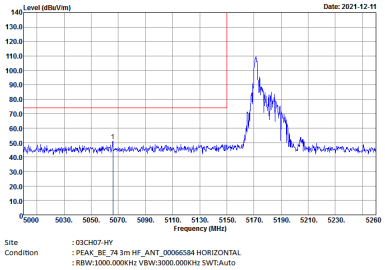
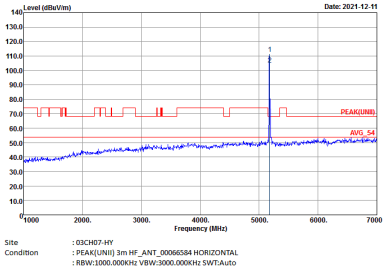
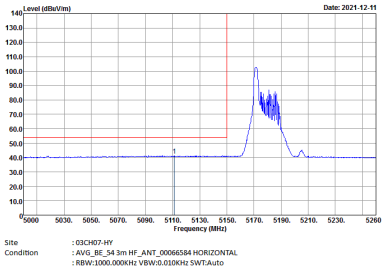
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
17+18	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

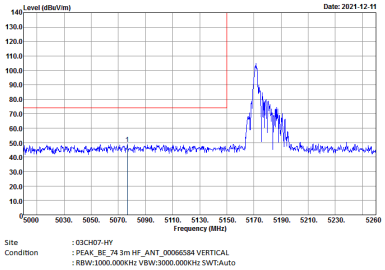
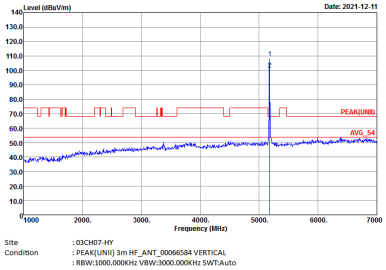
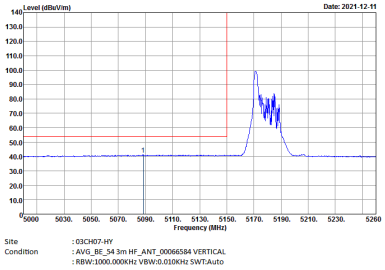
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
17+18	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
17+18	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

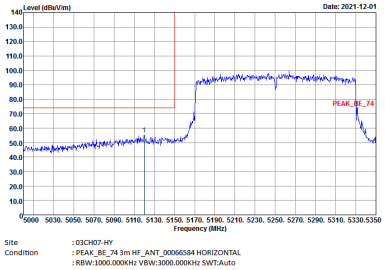
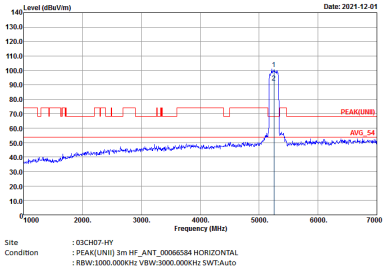
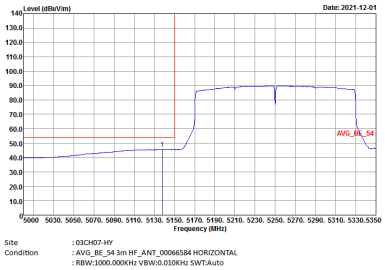
Band 1 5150~5250MHz

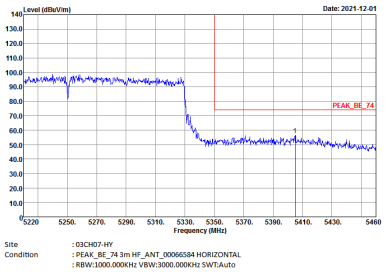
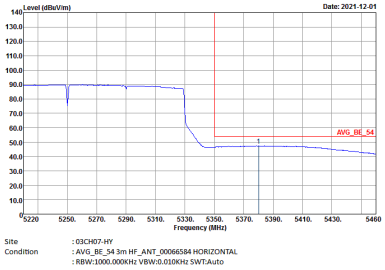
WIFI 802.11ax HE20 Partial 26 (Band Edge @ 3m)

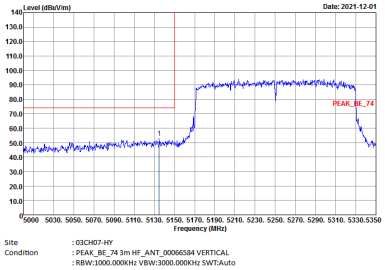
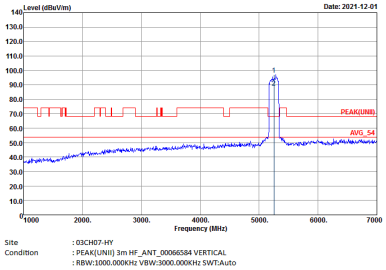
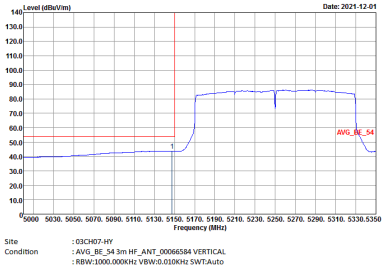
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 26/0 CH36 5180MHz	
17+18	Horizontal	Fundamental
Peak		
Avg.		Left blank

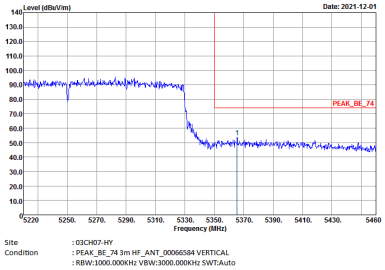
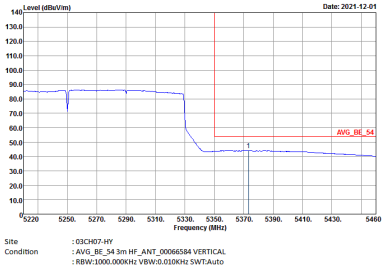
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 26/0 CH36 5180MHz	
17+18	Vertical	Fundamental
Peak		
Avg.		Left blank

Band 1 5150~5250MHz
WIFI 802.11ax HE160 Full (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE160 Full CH50 5250MHz - L	
17+18	Horizontal	Fundamental
Peak		
Avg.		Left blank

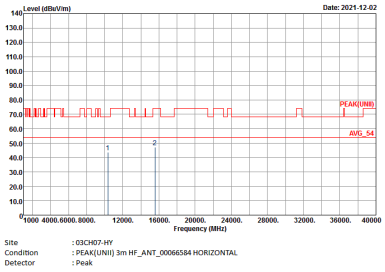
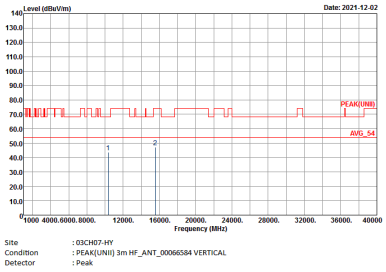
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE160 Full CH50 5250MHz - R	
17+18	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

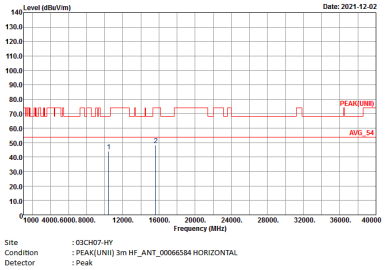
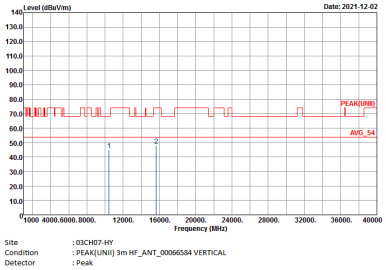
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE160 Full CH50 5250MHz - L	
17+18	Vertical	Fundamental
Peak		
Avg.		Left blank

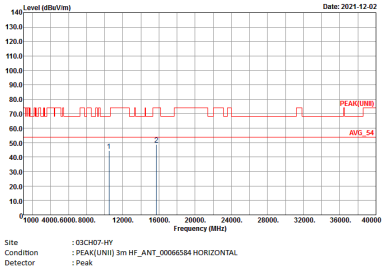
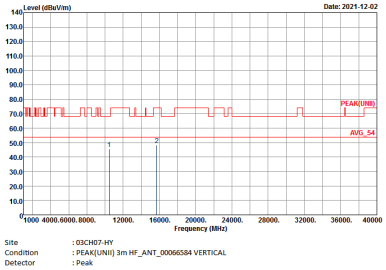
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE160 Full CH50 5250MHz - R	
17+18	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 1 - 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

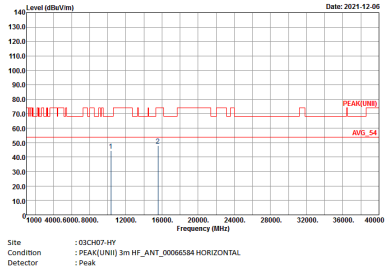
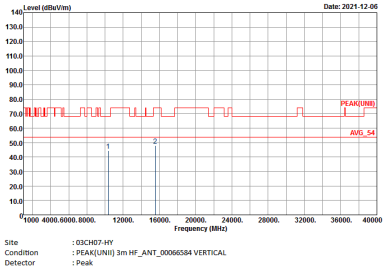
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH36 5180MHz	
17+18	Horizontal	Vertical
Peak Avg.		

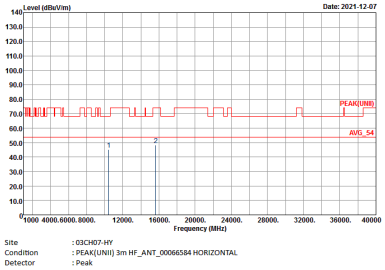
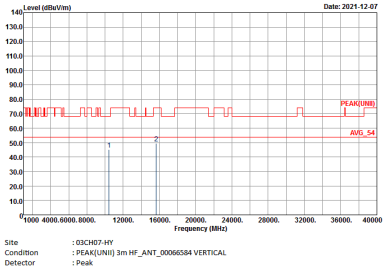
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH44 5220MHz	
17+18	Horizontal	Vertical
Peak Avg.		

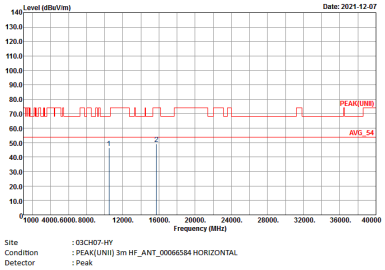
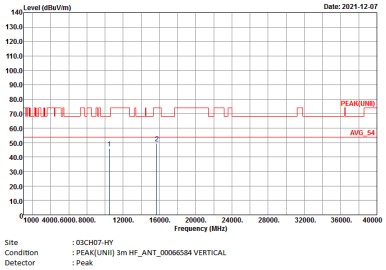
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH48 5240MHz	
17+18	Horizontal	Vertical
Peak Avg.		

Band 1 5150~5250MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

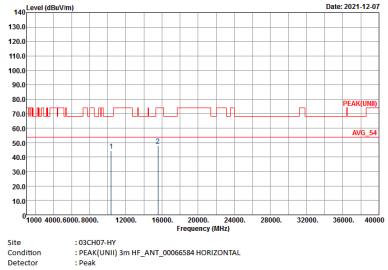
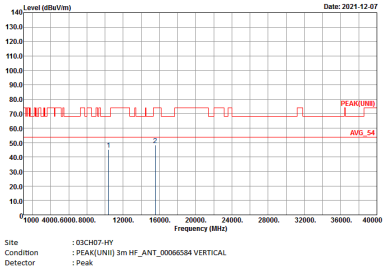
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH36 5180MHz	
17+18	Horizontal	Vertical
Peak Avg.		

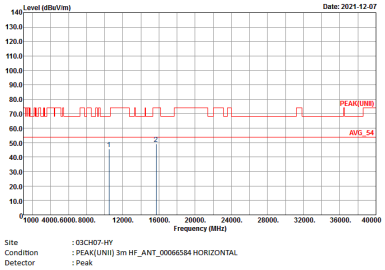
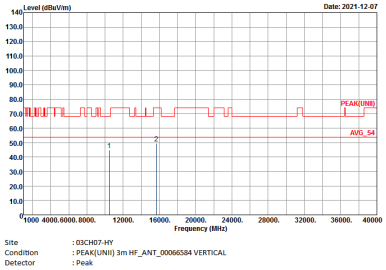
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH44 5220MHz	
17+18	Horizontal	Vertical
Peak Avg.		

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH48 5240MHz	
17+18	Horizontal	Vertical
Peak Avg.		

Band 1 5150~5250MHz

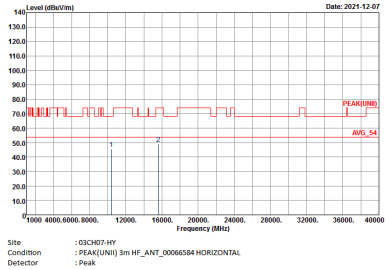
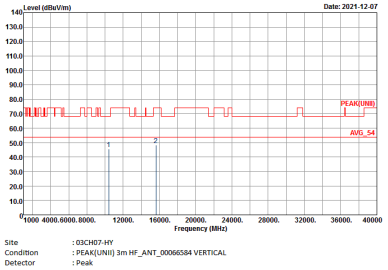
WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ac VHT40 CH38 5190MHz	
17+18	Horizontal	Vertical
Peak Avg.		

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ac VHT40 CH46 5230MHz	
17+18	Horizontal	Vertical
Peak Avg.		

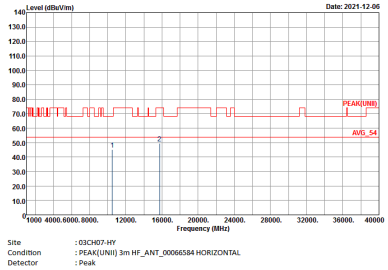
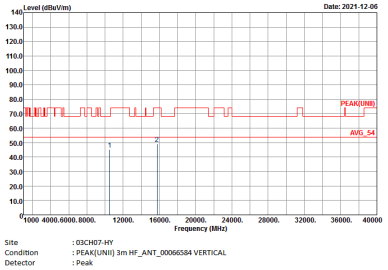
Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz	
17+18	Horizontal	Vertical
Peak Avg.		

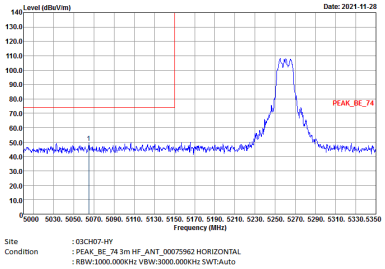
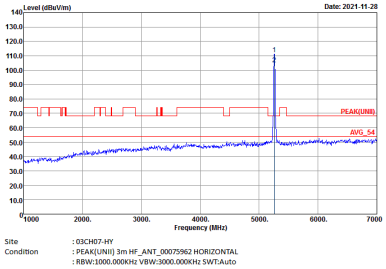
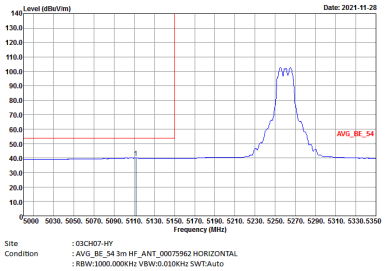
Band 1 - 5150~5250MHz

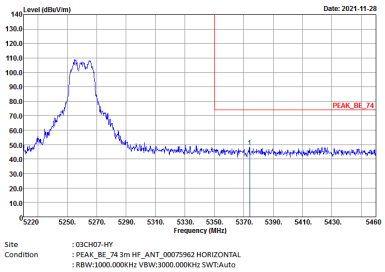
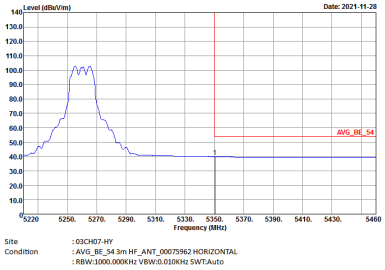
WIFI 802.11ax HE160 Full (Harmonic @ 3m)

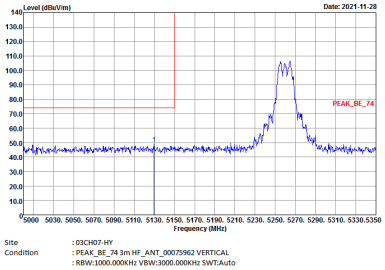
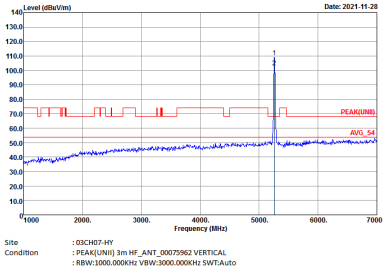
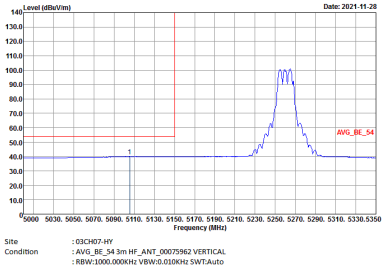
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ax HE160 Full CH50 5250MHz	
17+18	Horizontal	Vertical
Peak Avg.		

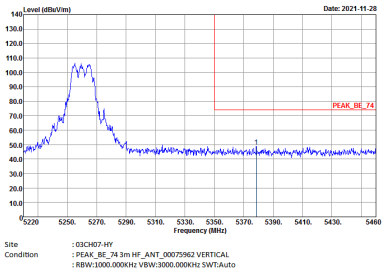
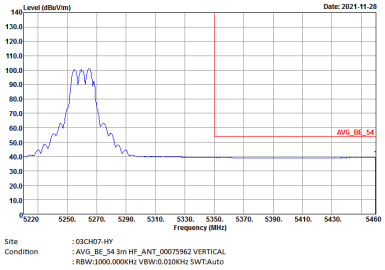
Band 2 - 5250~5350MHz

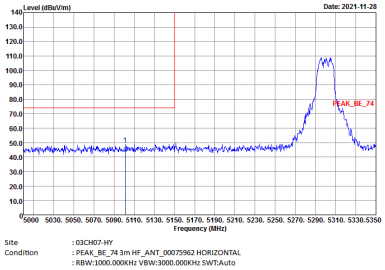
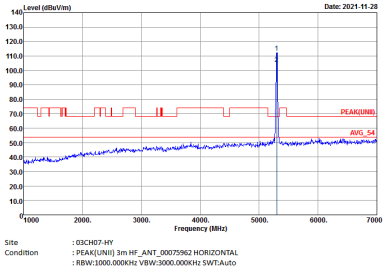
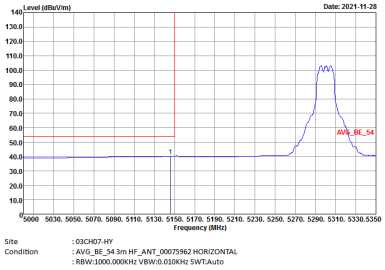
WIFI 802.11a (Band Edge @ 3m)

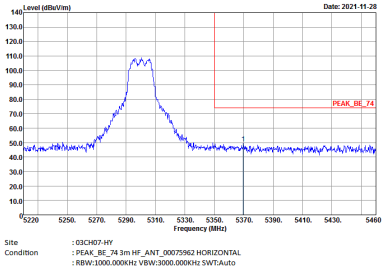
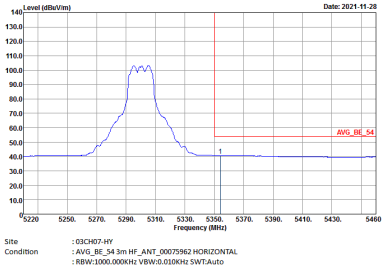
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
17+18	Horizontal	Fundamental
Peak		
Avg.		Left blank

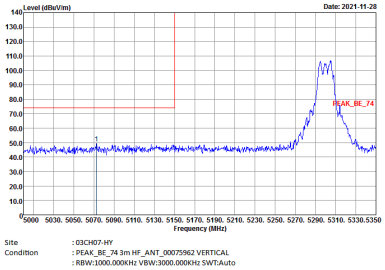
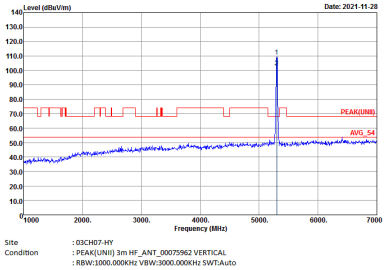
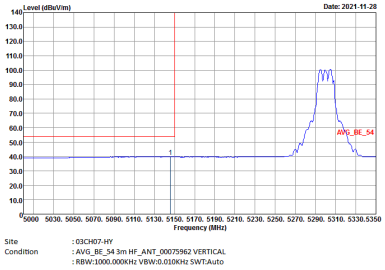
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
17+18	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

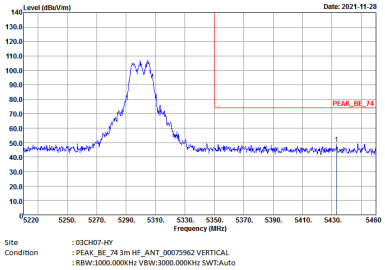
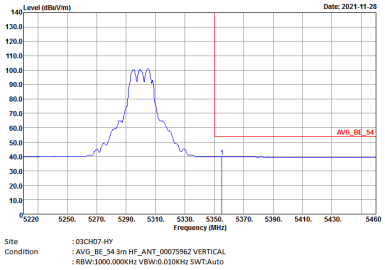
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
17+18	Vertical	Fundamental
Peak		
Avg.		Left blank

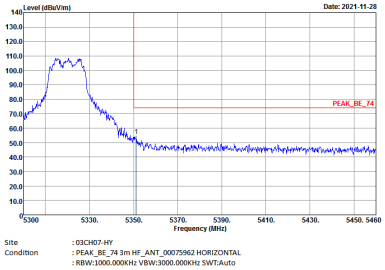
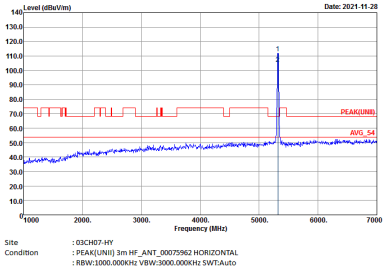
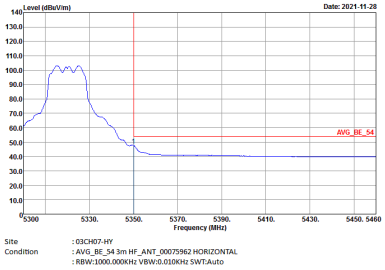
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
17+18	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

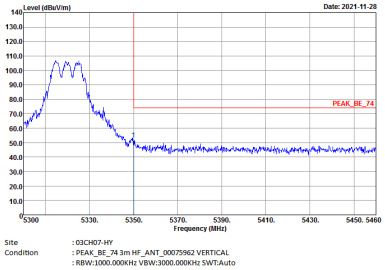
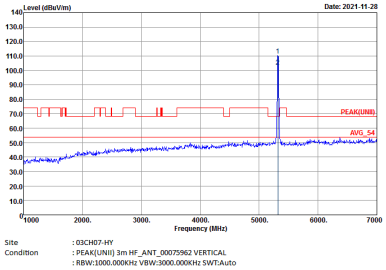
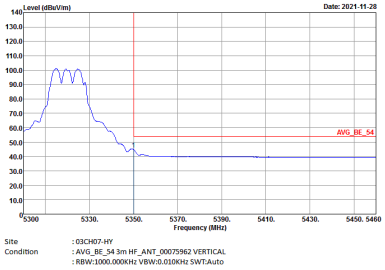
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - L	
17+18	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - R	
17+18	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

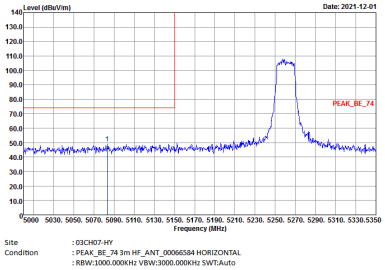
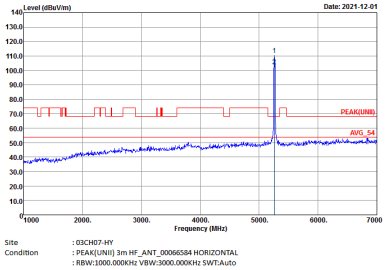
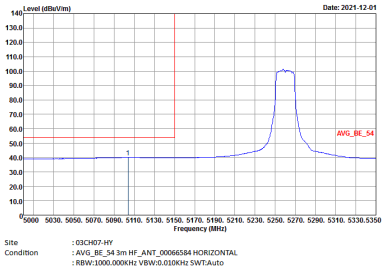
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - L	
17+18	Vertical	Fundamental
Peak		
Avg.		Left blank

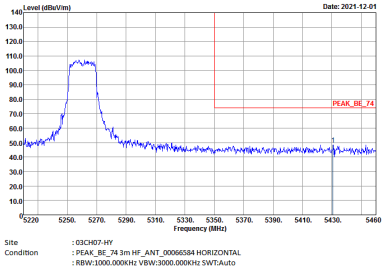
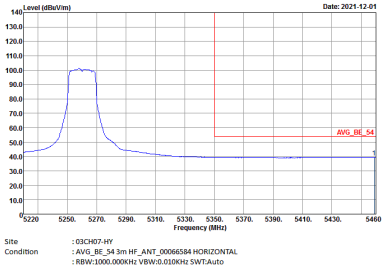
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - R	
17+18	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

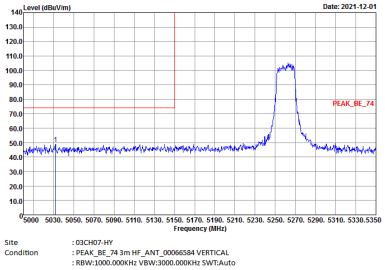
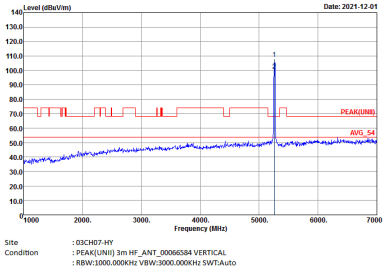
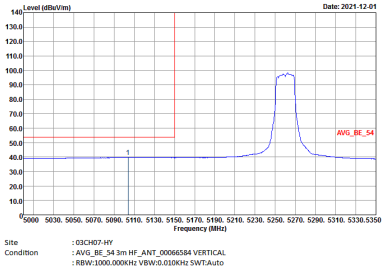
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
17+18	Horizontal	Fundamental
Peak		
Avg.		Left blank

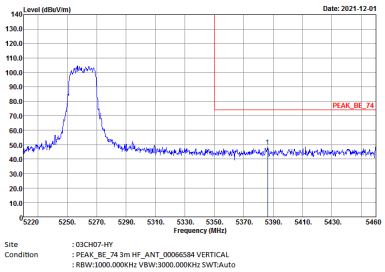
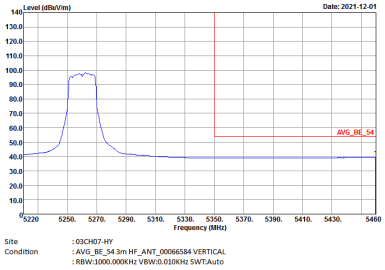
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
17+18	Vertical	Fundamental
Peak		
Avg.		Left blank

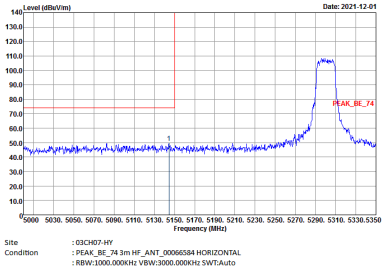
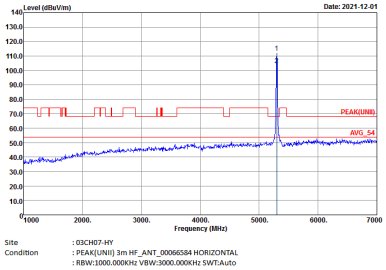
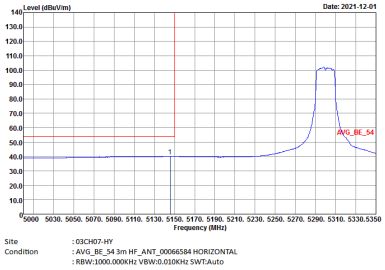
Band 2 5250~5350MHz
WIFI 802.11ac VHT20 (Band Edge @ 3m)

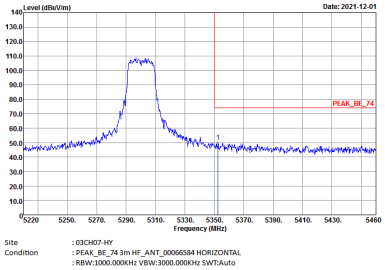
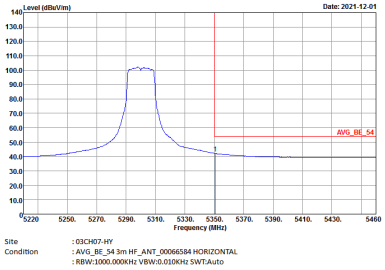
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH52 5260MHz - L	
17+18	Horizontal	Fundamental
Peak		
Avg.		Left blank

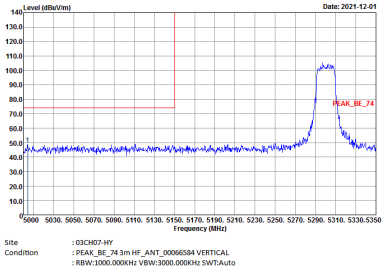
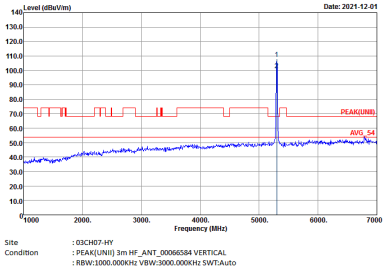
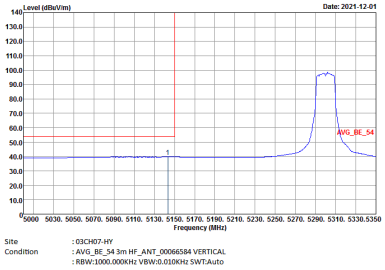
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH52 5260MHz - R	
17+18	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

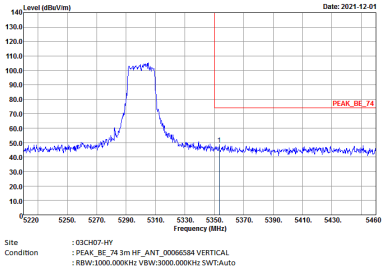
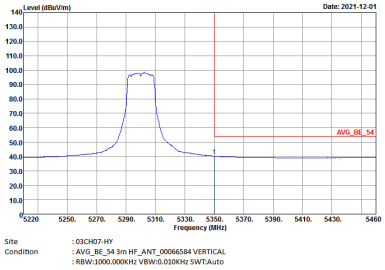
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH52 5260MHz - L	
17+18	Vertical	Fundamental
Peak		
Avg.		Left blank

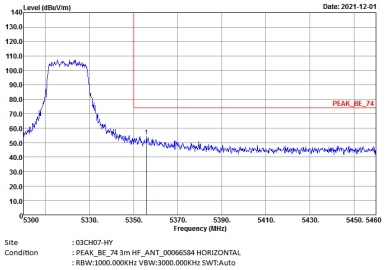
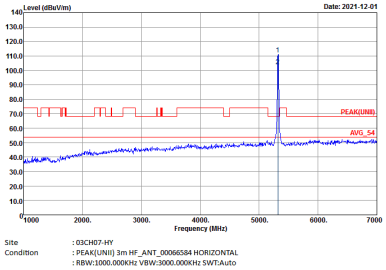
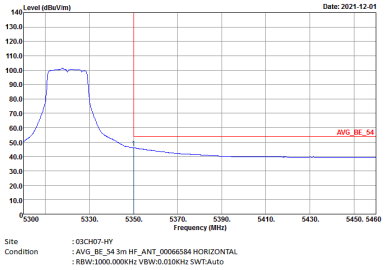
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH52 5260MHz - R	
17+18	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

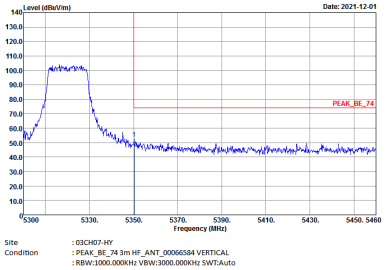
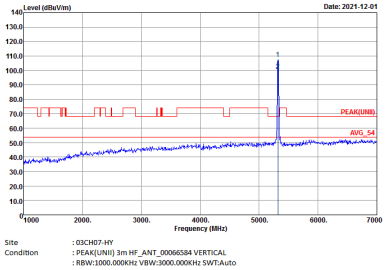
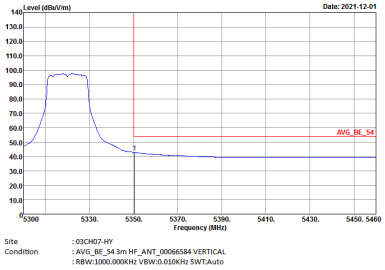
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH60 5300MHz - L	
17+18	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH60 5300MHz - R	
17+18	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

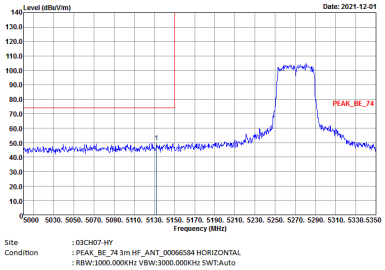
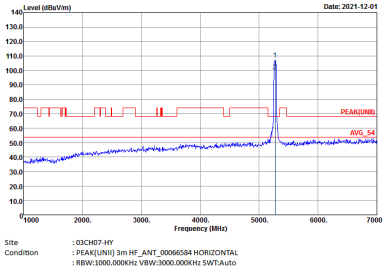
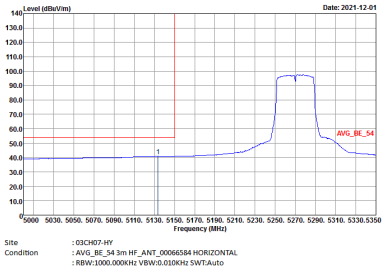
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH60 5300MHz - L	
17+18	Vertical	Fundamental
Peak		
Avg.		Left blank

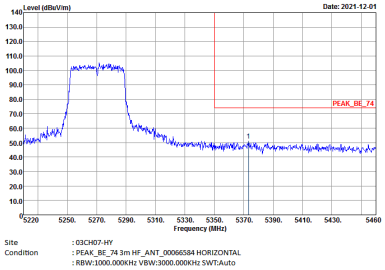
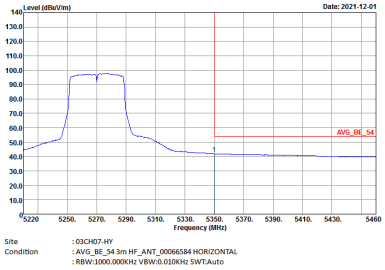
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH60 5300MHz - R	
17+18	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

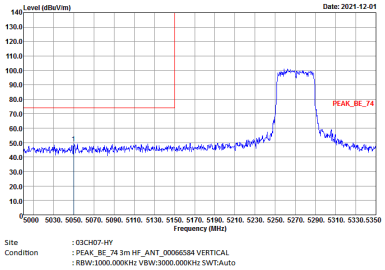
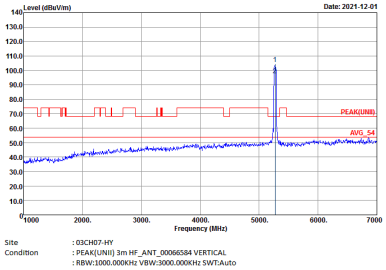
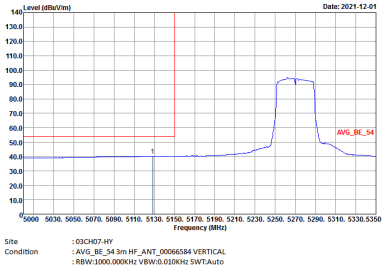
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH64 5320MHz	
17+18	Horizontal	Fundamental
Peak		
Avg.		Left blank

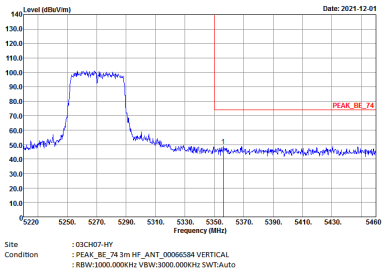
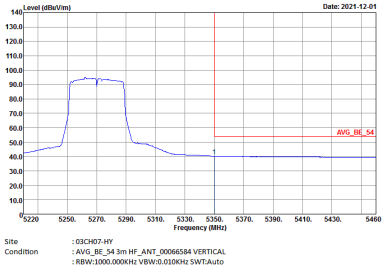
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH64 5320MHz	
17+18	Vertical	Fundamental
Peak		
Avg.		Left blank

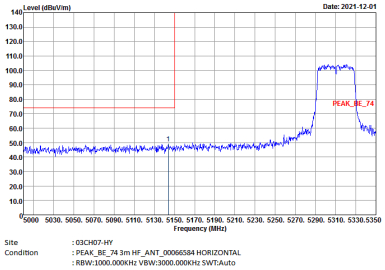
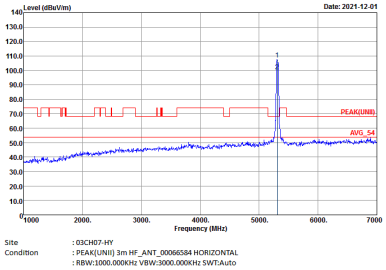
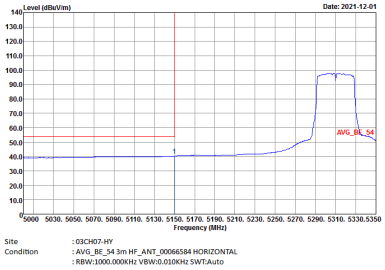
Band 2 5250~5350MHz
WIFI 802.11ac VHT40 (Band Edge @ 3m)

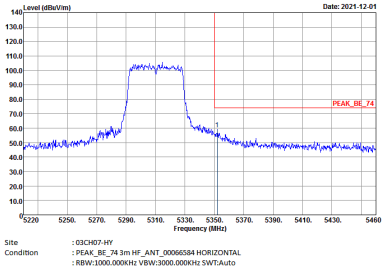
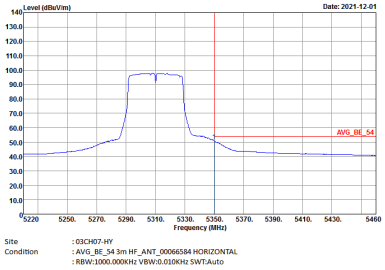
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH54 5270MHz - L	
17+18	Horizontal	Fundamental
Peak		
Avg.		Left blank

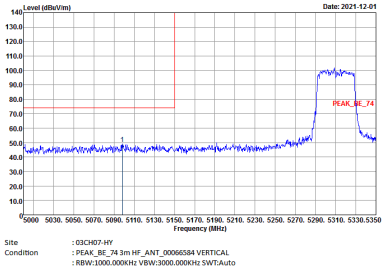
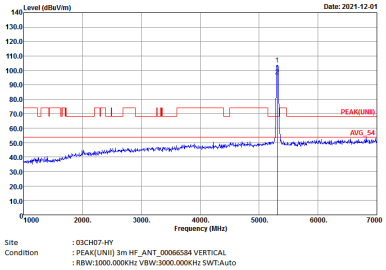
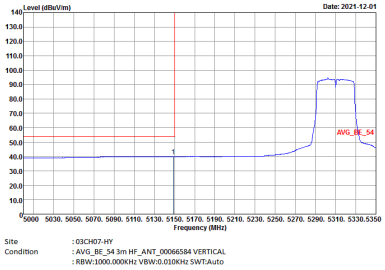
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH54 5270MHz - R	
17+18	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

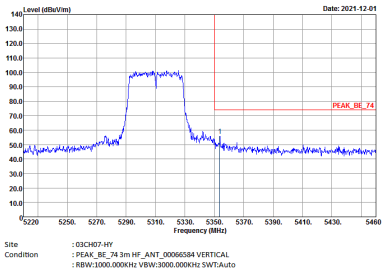
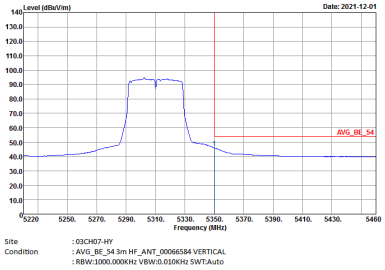
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH54 5270MHz - L	
17+18	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH54 5270MHz - R	
17+18	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

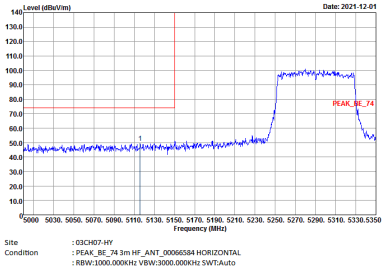
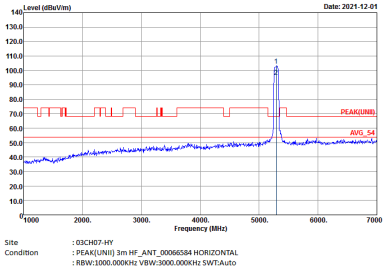
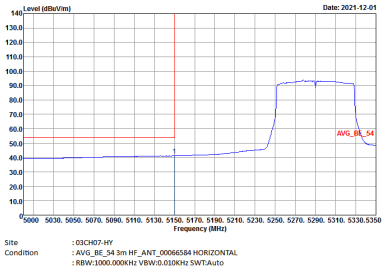
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH62 5310MHz - L	
17+18	Horizontal	Fundamental
Peak		
Avg.		Left blank

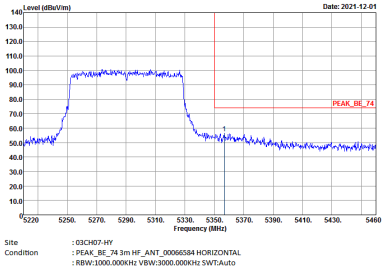
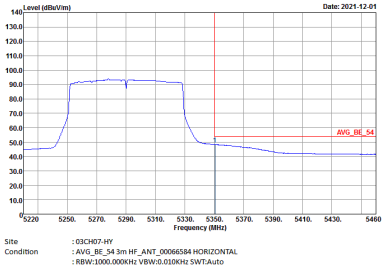
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH62 5310MHz - R	
17+18	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

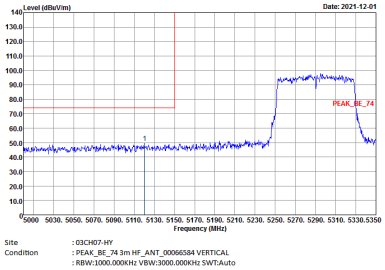
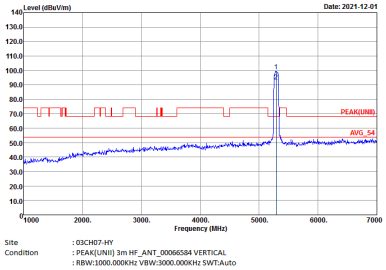
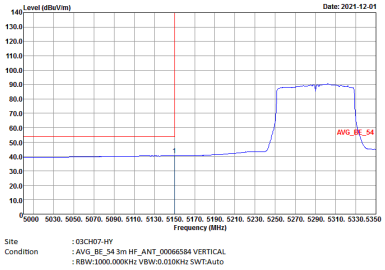
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH62 5310MHz - L	
17+18	Vertical	Fundamental
Peak		
Avg.		Left blank

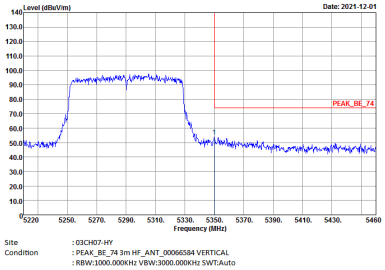
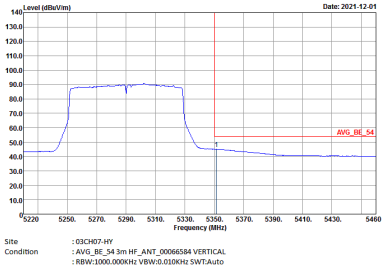
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH62 5310MHz - R	
17+18	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 2 5250~5350MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - L	
17+18	Horizontal	Fundamental
Peak		
Avg.		Left blank

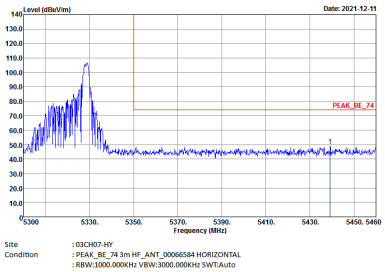
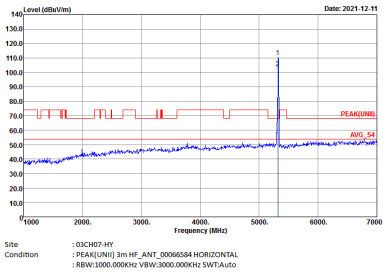
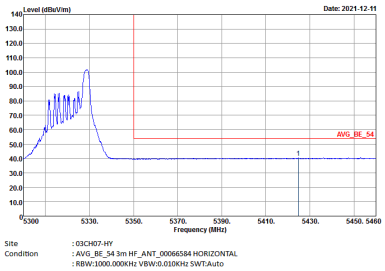
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - R	
17+18	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

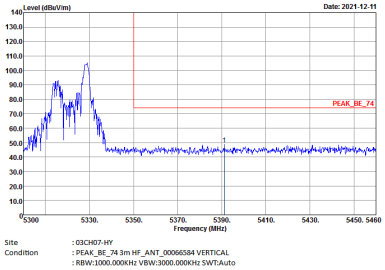
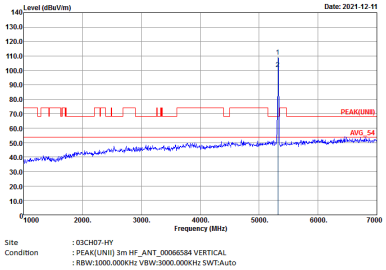
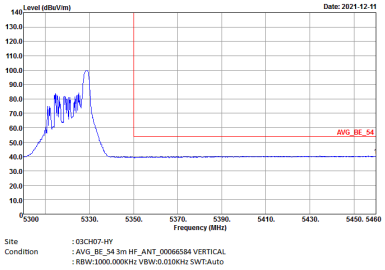
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - L	
17+18	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - R	
17+18	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 2 - 5250~5350MHz

WIFI 802.11ax HE20 Partial 26 (Band Edge @ 3m)

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 26/8 CH64 5320MHz	
17+18	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 26/8 CH64 5320MHz	
17+18	Vertical	Fundamental
Peak		
Avg.		Left blank