FCC RADIO TEST REPORT

FCC ID	:	**2AFZZ1219NY**
Equipment	:	**Mobile Phone**
Brand Name	:	**Redmi**
Model Name	:	**22041219NY**
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 Feb. 15, 2022 and testing was performed from Feb. 19, 2022 to Mar. 08, 2022. We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

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

Louis Wu

Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory
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History of this test report

Report No.	Version	Description	Issue Date
FR212127E	01	Initial issue of report	Mar. 09, 2022

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.403(i)	26dB Bandwidth	Pass	-
3.1	2.1049	99% Occupied Bandwidth	Reporting only	-
3.2	15.407(a)	Maximum Conducted Output Power	Pass	-
3.3	15.407(a)	Power Spectral Density	Pass	-
3.4	15.407(b)	Unwanted Emissions	Pass	3.09 dB under the limit at 5351.040 MHz
3.5	15.207	AC Conducted Emission	Pass	6.88 dB under the limit at 1.475 MHz
3.6	15.203 15.407(a)	Antenna Requirement	Pass	-

Declaration of Conformity:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
   It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results.
2. The measurement uncertainty please refer to this report "Uncertainty of Evaluation".

Comments and Explanations:

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

Reviewed by: Lewis Ho

Report Producer: Amy Chen

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, Wi-Fi 5GHz 802.11a/n/ac, FM Receiver, NFC, and GNSS.

Product Feature	
Sample 1	4+64G with battery 1
Sample 2	6+128G with battery 2
Sample 3	4+128G with battery 1
Antenna Type	WWAN: PIFA Antenna WLAN: PIFA Antenna Bluetooth: PIFA Antenna GPS / Glonass / BDS / Galileo: PIFA Antenna NFC: Coil Antenna FM Receiver: Using earphone as Antenna

Antenna information		
5150 MHz ~ 5250 MHz	Peak Gain (dBi)	-1.72
5250 MHz ~ 5350 MHz	Peak Gain (dBi)	-2.42
5470 MHz ~ 5725 MHz	Peak Gain (dBi)	-1.87

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

1.2 Modification of EUT

No modifications made to the EUT during the testing.

1.3 Testing Location

Test Site	Sporton International Inc. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	**Sporton Site No.**
	TH05-HY, 03CH16-HY, CO07-HY

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

FCC designation No.: TW3786

1.4 Applicable Standards

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

- FCC Part 15 Subpart E
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- FCC KDB 414788 D01 Radiated Test Site v01r01.
- 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 adjusting the measurement antenna orientation, following C63.10 exploratory test procedures and find X plane as worst plane.

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

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
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)	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.
2. The above Frequency and Channel with "#" are 802.11ac VHT80.

2.2 Test Mode

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

Single Antenna

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

Test Cases	
AC Conducted Emission	Mode 1 : Bluetooth Link + WLAN (5GHz) Link + MPEG4 + Earphone + USB Cable 1 (Charging from Adapter) for Sample 2
Remark: For Radiated Test Cases, the tests were performed with USB Cable 1 and Sample 2.	

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

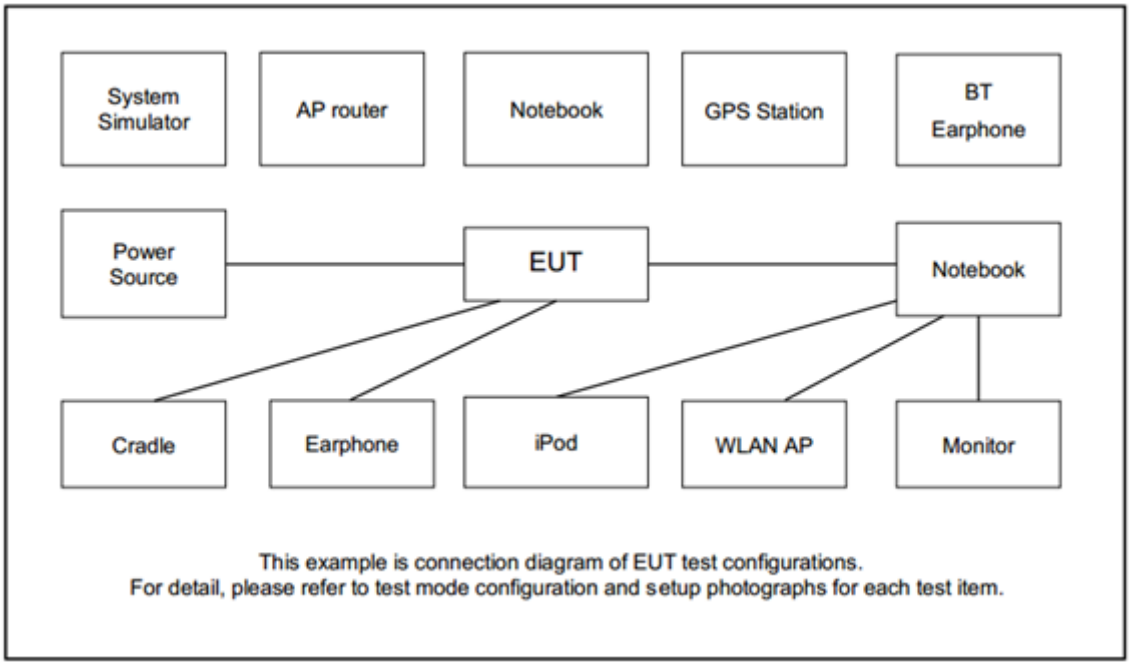
Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11ac VHT20	802.11ac VHT20	802.11ac VHT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

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

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

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	SBH20	PY7-RD0010	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.	Earphone	MI	EM023	N/A	Unshielded,1.25m	N/A

2.5 EUT Operation Test Setup

The RF test items, make the EUT (SW: MIUI 13 Global 22.1.21 Beat) 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.

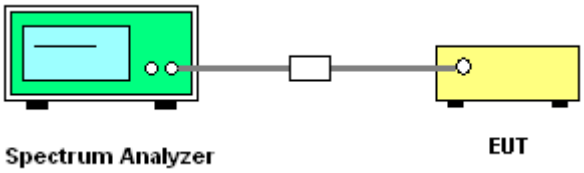
3.1.2 Measuring Instruments

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.

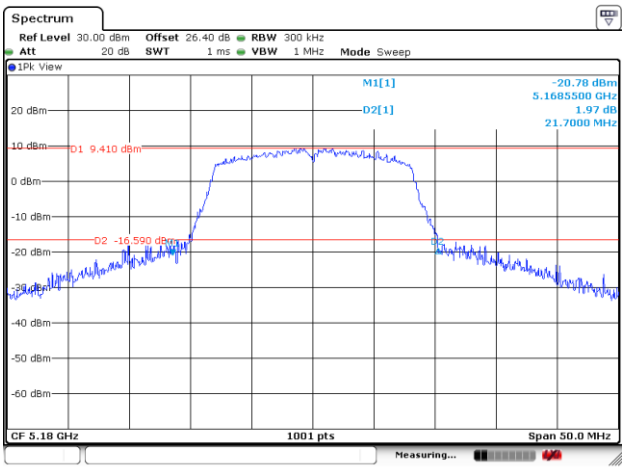
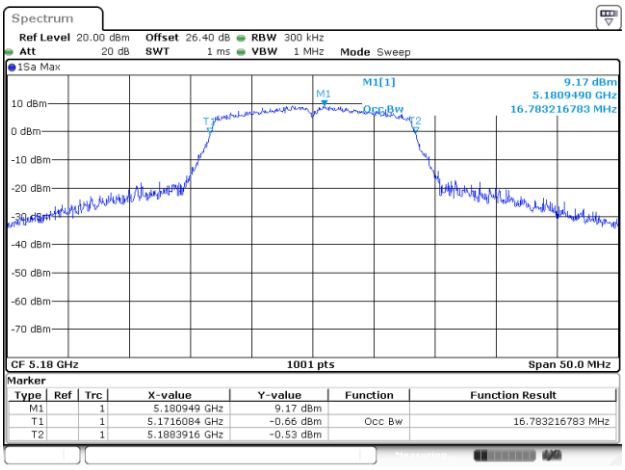
3.1.4 Test Setup



3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

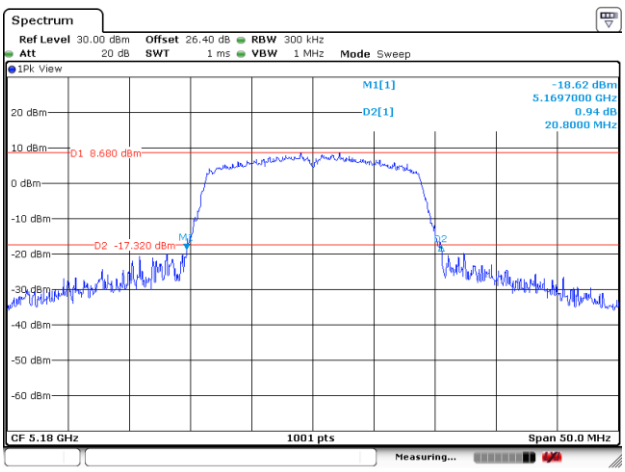
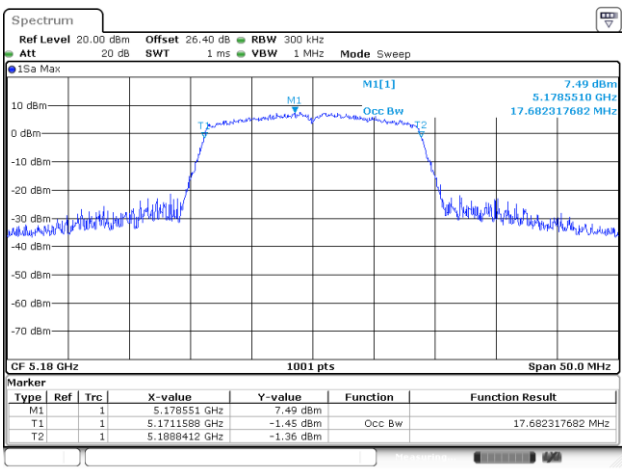
Please refer to Appendix A.

<802.11a>

26dB Bandwidth	99% Occupied Bandwidth
	

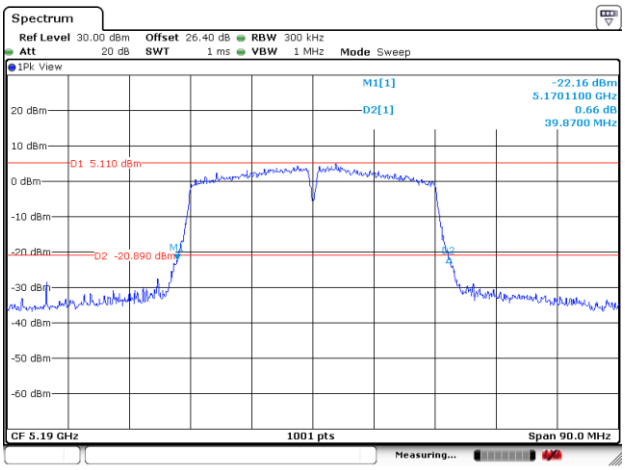
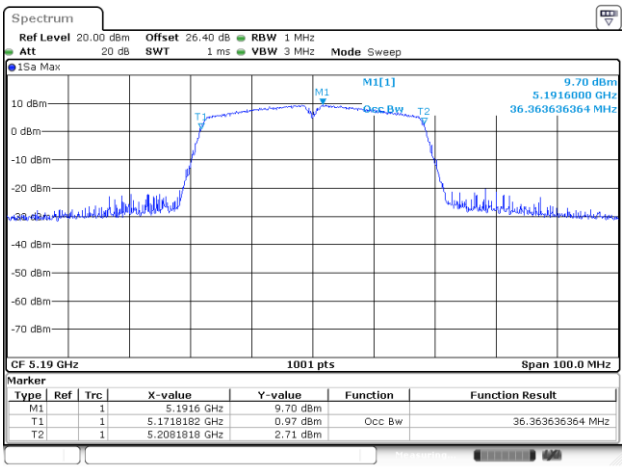
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<802.11ac VHT20>

26dB Bandwidth	99% Occupied Bandwidth
	

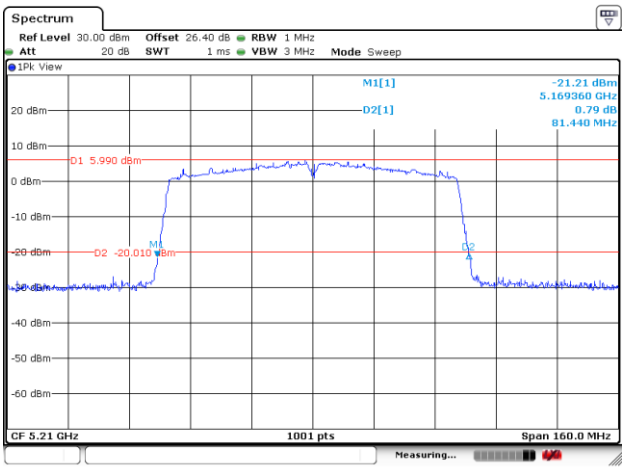
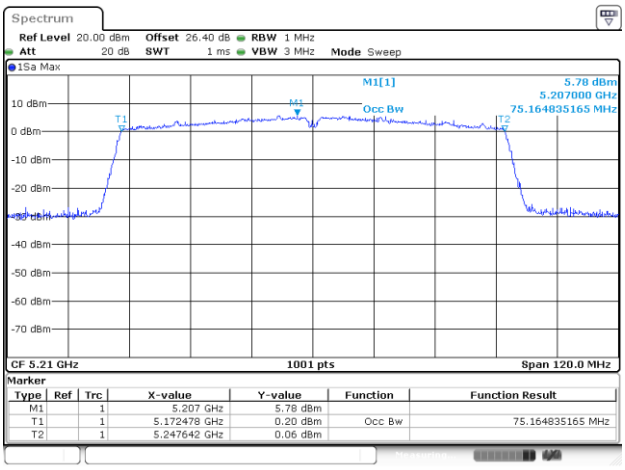
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<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.

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

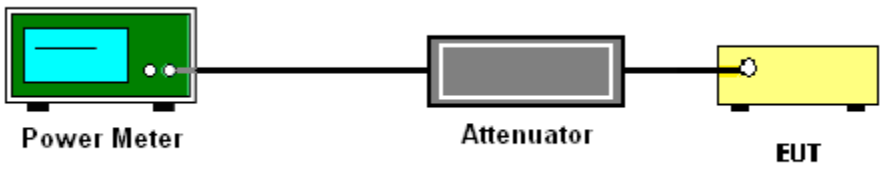
The testing follows Method PM-G of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

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.

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.

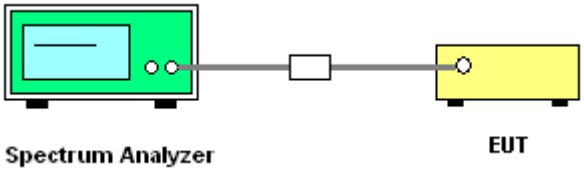
 # Method SA-3 #

(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.

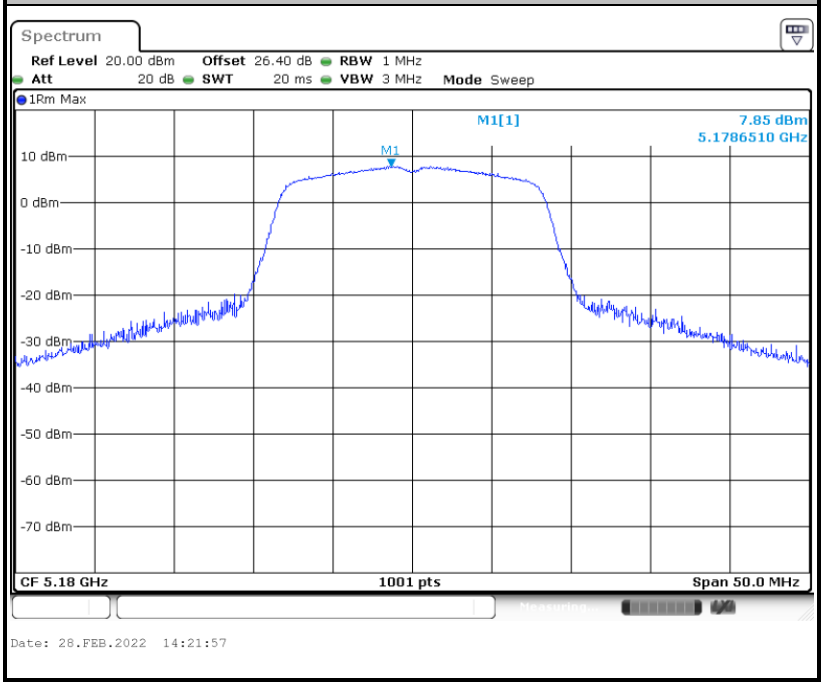
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

Maximum Power Density Plot (dBm/MHz)



Remark: The test plot is showing a bin by bin combined result mathematically adds two traces.

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

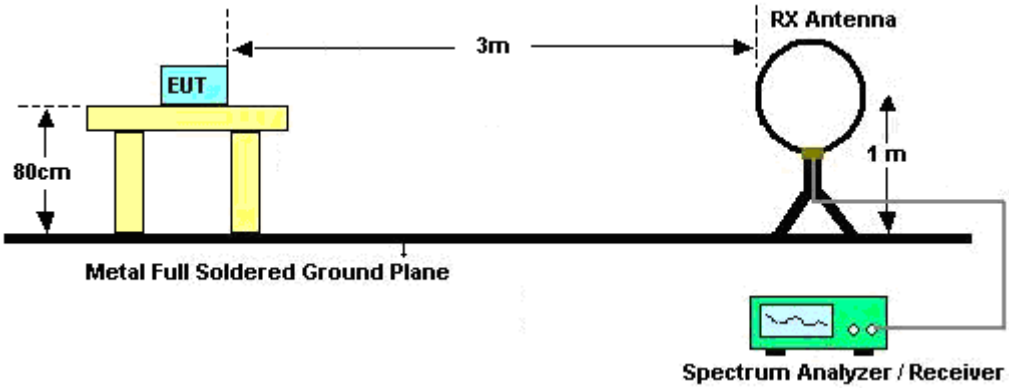
(3) Procedures for Average Unwanted Emissions Measurements Above 1000 MHz

- 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.

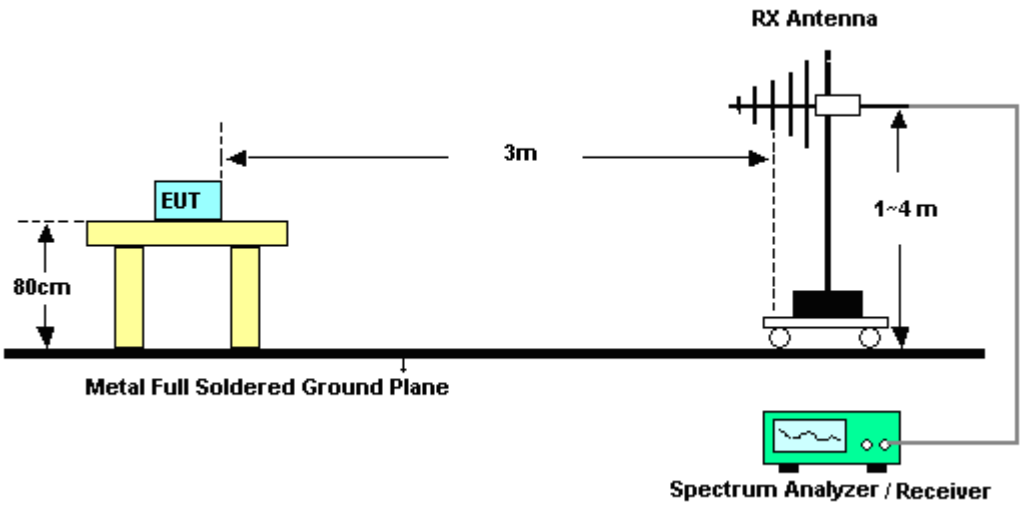
2. The EUT is placed on a turntable with 0.8 meter for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz respectively above ground.
3. The EUT is set 3 meters away from the receiving antenna which is mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna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

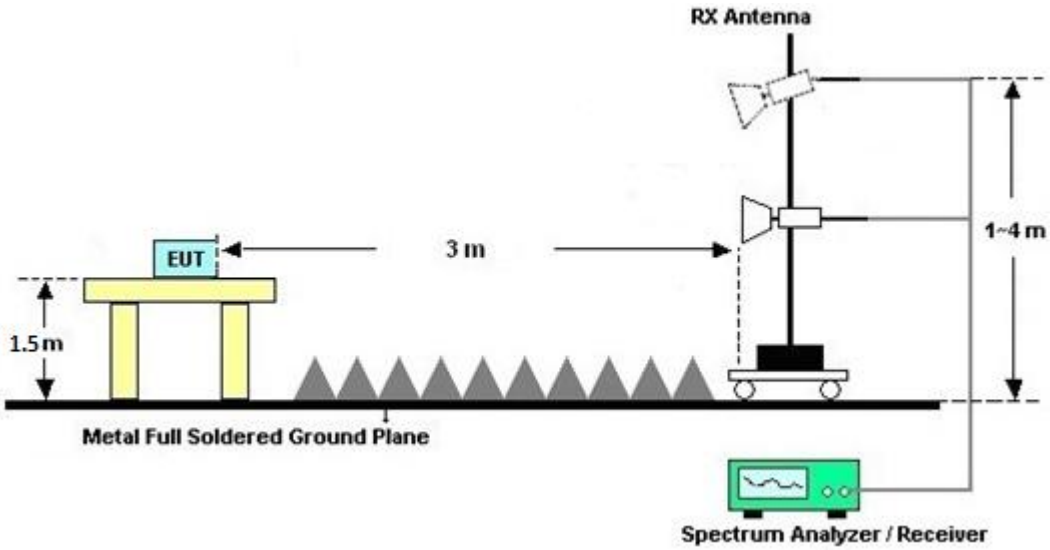
For radiated emissions below 30MHz



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.

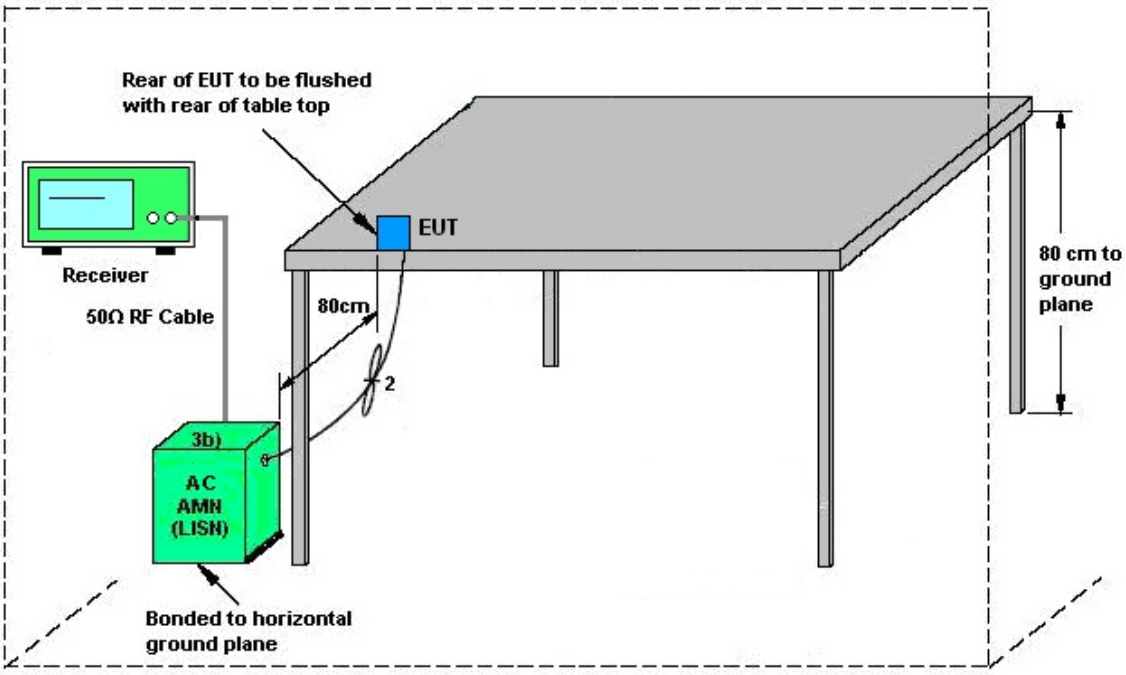
3.5.2 Measuring Instruments

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

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.

4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Sep. 07, 2021	Feb. 19, 2022~ Mar. 02, 2022	Sep. 06, 2022	Radiation (03CH16-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00802N1D01N -06	47020 & 06	30MHz to 1GHz	Oct. 09, 2021	Feb. 19, 2022~ Mar. 02, 2022	Oct. 08, 2022	Radiation (03CH16-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-02114	1G~18GHz	Aug. 04, 2021	Feb. 19, 2022~ Mar. 02, 2022	Aug. 03, 2022	Radiation (03CH16-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-1522	1G~18GHz	Oct. 12, 2021	Feb. 19, 2022~ Mar. 02, 2022	Oct. 11, 2022	Radiation (03CH16-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	00993	18GHz ~40GHz	Nov. 30, 2021	Feb. 19, 2022~ Mar. 02, 2022	Nov. 29, 2022	Radiation (03CH16-HY)
Amplifier	SONOMA	310N	371607	9kHz~1G	Jul. 05, 2021	Feb. 19, 2022~ Mar. 02, 2022	Jul. 04, 2022	Radiation (03CH16-HY)
Amplifier	EMCI	EMC051845S E	980729	1-18GHz	Jul. 09, 2021	Feb. 19, 2022~ Mar. 02, 2022	Jul. 08, 2022	Radiation (03CH16-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	Jun. 22, 2021	Feb. 19, 2022~ Mar. 02, 2022	Jun. 21, 2022	Radiation (03CH16-HY)
Preamplifier	Keysight	83017A	MY53270264	1GHz~26.5GHz	Dec. 09, 2021	Feb. 19, 2022~ Mar. 02, 2022	Dec. 08, 2022	Radiation (03CH16-HY)
EMI Test Receiver	Keysight	N9038A	MY59053012	3Hz~26.5GHz	Nov. 18, 2021	Feb. 19, 2022~ Mar. 02, 2022	Nov. 17, 2022	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY11680/4P E	NA	Aug. 28, 2021	Feb. 19, 2022~ Mar. 02, 2022	Aug. 27, 2022	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY11688/4P E	NA	Aug. 28, 2021	Feb. 19, 2022~ Mar. 02, 2022	Aug. 27, 2022	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	EC-A5-300-5 757	NA	Aug. 28, 2021	Feb. 19, 2022~ Mar. 02, 2022	Aug. 27, 2022	Radiation (03CH16-HY)
Software	Audix	E3 6.2009-8-24	RK-001136	N/A	N/A	Feb. 19, 2022~ Mar. 02, 2022	N/A	Radiation (03CH16-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Feb. 19, 2022~ Mar. 02, 2022	N/A	Radiation (03CH16-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Feb. 19, 2022~ Mar. 02, 2022	N/A	Radiation (03CH16-HY)
Hygrometer	TECPEL	DTM-303A	TP201996	N/A	Nov. 16, 2021	Feb. 19, 2022~ Mar. 02, 2022	Nov. 15, 2022	Conducted (TH05-HY)
Power Meter	DARE	RPR3006W	15I00041SNO 10 (NO:248)	10MHz~6GHz	Dec. 29, 2021	Feb. 19, 2022~ Mar. 02, 2022	Dec. 28, 2022	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101566	10Hz~40GHz	Aug. 30, 2021	Feb. 19, 2022~ Mar. 02, 2022	Aug. 29, 2022	Conducted (TH05-HY)
Switch Control Manframe	E-IUSTRUME NT	ETF-1405-0	EC1900067 (BOX7)	N/A	Aug. 12, 2021	Feb. 19, 2022~ Mar. 02, 2022	Aug. 11, 2022	Conducted (TH05-HY)
AC Power Source	ACPOWER	AFC-11003G	F317040033	N/A	N/A	Mar. 08, 2022	N/A	Conduction (CO07-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Mar. 08, 2022	N/A	Conduction (CO07-HY)
Pulse Limiter	SCHWARZBE CK	VTSD 9561-F N	9561-F N00373	9kHz-200MHz	Oct. 29, 2021	Mar. 08, 2022	Oct. 28, 2022	Conduction (CO07-HY)
RF Cable	HUBER + SUHNER	RG 214/U	1358175	9kHz~30MHz	N/A	Mar. 08, 2022	N/A	Conduction (CO07-HY)
Two-Line V-Network	TESEQ	NNB 51	45051	N/A	Feb. 16, 2022	Mar. 08, 2022	Feb. 15, 2023	Conduction (CO07-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102317	9kHz~3.6GHz	Oct. 21, 2021	Mar. 08, 2022	Oct. 20, 2022	Conduction (CO07-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.3 dB

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

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

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

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

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

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

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Jacob Yu and Ching Chen	Temperature:	21~25	°C
Test Date:	2022/2/19-2022/3/2	Relative Humidity:	51~54	%

TEST RESULTS DATA
26dB and 99% OBW

Band I single antenna														
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 7	Ant 2	Ant 7	Ant 2	Ant 7	Ant 2	Ant 7	Ant 2		
11a	6Mbps	1	36	5180	16.78	-	21.70	-	23.25		22.25	-		
11a	6Mbps	1	44	5220	16.78	-	22.15	-	23.25		22.25	-		
11a	6Mbps	1	48	5240	16.78	-	24.30	-	23.25		22.25	-		
VHT20	MCS0	1	36	5180	17.68	-	20.80	-	23.48		22.48	-		
VHT20	MCS0	1	44	5220	17.78	-	21.00	-	23.50		22.50	-		
VHT20	MCS0	1	48	5240	17.78	-	21.90	-	23.50		22.50	-		
VHT40	MCS0	1	38	5190	36.36	-	39.87	-	23.98		23.01	-		
VHT40	MCS0	1	46	5230	36.46	-	40.23	-	23.98		23.01	-		
VHT80	MCS0	1	42	5210	75.17	-	81.44	-	23.98		23.01	-		

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TEST RESULTS DATA
Average Power Table

FCC Band I single antenna													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)			Pass/Fail
					Ant 7	Ant 2	SUM	Ant 7	Ant 2	Ant 7	Ant 2		
11a	6Mbps	1	36	5180	17.80	-		24.00	-	-1.72	-		Pass
11a	6Mbps	1	44	5220	17.80	-		24.00	-	-1.72	-		Pass
11a	6Mbps	1	48	5240	17.60	-		24.00	-	-1.72	-		Pass
HT20	MCS0	1	36	5180	16.60	-		24.00	-	-1.72	-		Pass
HT20	MCS0	1	44	5220	16.60	-		24.00	-	-1.72	-		Pass
HT20	MCS0	1	48	5240	16.50	-		24.00	-	-1.72	-		Pass
HT40	MCS0	1	38	5190	15.70	-		24.00	-	-1.72	-		Pass
HT40	MCS0	1	46	5230	16.50	-		24.00	-	-1.72	-		Pass
VHT20	MCS0	1	36	5180	16.70	-		24.00	-	-1.72	-		Pass
VHT20	MCS0	1	44	5220	16.70	-		24.00	-	-1.72	-		Pass
VHT20	MCS0	1	48	5240	16.60	-		24.00	-	-1.72	-		Pass
VHT40	MCS0	1	38	5190	15.80	-		24.00	-	-1.72	-		Pass
VHT40	MCS0	1	46	5230	16.60	-		24.00	-	-1.72	-		Pass
VHT80	MCS0	1	42	5210	14.00	-		24.00	-	-1.72	-		Pass

TEST RESULTS DATA
Power Spectral Density

FCC Band I single antenna													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 7	Ant 2	SUM	Ant 7	Ant 2	Ant 7	Ant 2		
11a	6Mbps	1	36	5180	7.85	-		11.00	-	-1.72	-		Pass
11a	6Mbps	1	44	5220	7.44	-		11.00	-	-1.72	-		Pass
11a	6Mbps	1	48	5240	7.38	-		11.00	-	-1.72	-		Pass
VHT20	MCS0	1	36	5180	6.11	-		11.00	-	-1.72	-		Pass
VHT20	MCS0	1	44	5220	6.21	-		11.00	-	-1.72	-		Pass
VHT20	MCS0	1	48	5240	6.10	-		11.00	-	-1.72	-		Pass
VHT40	MCS0	1	38	5190	3.06	-		11.00	-	-1.72	-		Pass
VHT40	MCS0	1	46	5230	4.04	-		11.00	-	-1.72	-		Pass
VHT80	MCS0	1	42	5210	-1.91	-		11.00	-	-1.72	-		Pass

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TEST RESULTS DATA
26dB and 99% OBW

Band II single antenna															
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 7	Ant 2	Ant 7	Ant 2	Ant 7	Ant 2	Ant 7	Ant 2	Ant 7	Ant 2	
11a	6Mbps	1	52	5260	16.83	-	20.55	-	23.26	-	29.26	-	23.98	-	
11a	6Mbps	1	60	5300	16.88	-	23.45	-	23.27	-	29.27	-	23.98	-	
11a	6Mbps	1	64	5320	16.83	-	25.00	-	23.26	-	29.26	-	23.98	-	
VHT20	MCS0	1	52	5260	17.78	-	22.25	-	23.50	-	29.50	-	23.98	-	
VHT20	MCS0	1	60	5300	17.78	-	21.45	-	23.50	-	29.50	-	23.98	-	
VHT20	MCS0	1	64	5320	17.78	-	20.50	-	23.50	-	29.50	-	23.98	-	
VHT40	MCS0	1	54	5270	36.56	-	40.59	-	23.98	-	30.00	-	23.98	-	
VHT40	MCS0	1	62	5310	36.36	-	40.23	-	23.98	-	30.00	-	23.98	-	
VHT80	MCS0	1	58	5290	75.05	-	81.92	-	23.98	-	30.00	-	23.98	-	

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TEST RESULTS DATA
Average Power Table

FCC Band II single antenna													
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 7	Ant 2	SUM	Ant 7	Ant 2	Ant 7	Ant 2		
11a	6Mbps	1	52	5260	17.70	-		23.98	-	-2.42	-	26.99	Pass
11a	6Mbps	1	60	5300	17.60	-		23.98	-	-2.42	-	26.99	Pass
11a	6Mbps	1	64	5320	17.40	-		23.98	-	-2.42	-	26.99	Pass
HT20	MCS0	1	52	5260	16.50	-		23.98	-	-2.42	-	26.99	Pass
HT20	MCS0	1	60	5300	16.20	-		23.98	-	-2.42	-	26.99	Pass
HT20	MCS0	1	64	5320	16.10	-		23.98	-	-2.42	-	26.99	Pass
HT40	MCS0	1	54	5270	16.50	-		23.98	-	-2.42	-	26.99	Pass
HT40	MCS0	1	62	5310	14.90	-		23.98	-	-2.42	-	26.99	Pass
VHT20	MCS0	1	52	5260	16.60	-		23.98	-	-2.42	-	26.99	Pass
VHT20	MCS0	1	60	5300	16.30	-		23.98	-	-2.42	-	26.99	Pass
VHT20	MCS0	1	64	5320	16.20	-		23.98	-	-2.42	-	26.99	Pass
VHT40	MCS0	1	54	5270	16.60	-		23.98	-	-2.42	-	26.99	Pass
VHT40	MCS0	1	62	5310	15.00	-		23.98	-	-2.42	-	26.99	Pass
VHT80	MCS0	1	58	5290	13.40	-		23.98	-	-2.42	-	26.99	Pass

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TEST RESULTS DATA
Power Spectral Density

Band II single antenna													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 7	Ant 2	SUM	Ant 7	Ant 2	Ant 7	Ant 2		
11a	6Mbps	1	52	5260	7.60	-		11.00	-	-2.42	-		Pass
11a	6Mbps	1	60	5300	7.36	-		11.00	-	-2.42	-		Pass
11a	6Mbps	1	64	5320	7.27	-		11.00	-	-2.42	-		Pass
VHT20	MCS0	1	52	5260	6.00	-		11.00	-	-2.42	-		Pass
VHT20	MCS0	1	60	5300	6.04	-		11.00	-	-2.42	-		Pass
VHT20	MCS0	1	64	5320	6.11	-		11.00	-	-2.42	-		Pass
VHT40	MCS0	1	54	5270	3.69	-		11.00	-	-2.42	-		Pass
VHT40	MCS0	1	62	5310	2.26	-		11.00	-	-2.42	-		Pass
VHT80	MCS0	1	58	5290	-2.65	-		11.00	-	-2.42	-		Pass

TEST RESULTS DATA
26dB and 99% OBW

Band III single antenna																
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 7	Ant 2	Ant 7	Ant 2	Ant 7	Ant 2	Ant 7	Ant 2	Ant 7	Ant 2	Ant 7	Ant 2
11a	6Mbps	1	100	5500	16.78	-	20.25	-	23.25	-	29.25	-	23.98	-	----	----
11a	6Mbps	1	116	5580	16.73	-	21.70	-	23.24	-	29.24	-	23.98	-	----	----
11a	6Mbps	1	140	5700	16.68	-	20.15	-	23.22	-	29.22	-	23.98	-	----	----
VHT20	MCS0	1	100	5500	17.73	-	20.60	-	23.49	-	29.49	-	23.98	-	----	----
VHT20	MCS0	1	116	5580	17.68	-	20.50	-	23.48	-	29.48	-	23.98	-	----	----
VHT20	MCS0	1	140	5700	17.73	-	20.65	-	23.49	-	29.49	-	23.98	-	----	----
VHT40	MCS0	1	102	5510	36.26	-	40.14	-	23.98	-	30.00	-	23.98	-	----	----
VHT40	MCS0	1	110	5550	36.26	-	40.14	-	23.98	-	30.00	-	23.98	-	----	----
VHT40	MCS0	1	134	5670	36.46	-	40.59	-	23.98	-	30.00	-	23.98	-	----	----
VHT80	MCS0	1	106	5530	75.17	-	81.28	-	23.98	-	30.00	-	23.98	-	----	----
VHT80	MCS0	1	122	5610	75.29	-	85.44	-	23.98	-	30.00	-	23.98	-	----	----

Band III straddle channel single antenna																
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 7	Ant 2	Ant 7	Ant 2	Ant 7	Ant 2	Ant 7	Ant 2	Ant 7	Ant 2	Ant 7	Ant 2
11a	6Mbps	1	144	5720	13.39	-	17.40	-	22.27	-	28.27	-	23.41	-	2.6	-
VHT20	MCS0	1	144	5720	13.84	-	15.30	-	22.41	-	28.41	-	22.85	-	2.6	-

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TEST RESULTS DATA
Average Power Table

FCC Band III single antenna													
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 7	Ant 2	SUM	Ant 7	Ant 2	Ant 7	Ant 2		
11a	6Mbps	1	100	5500	17.60	-		23.98	-	-1.87	-	26.99	Pass
11a	6Mbps	1	116	5580	17.50	-		23.98	-	-1.87	-	26.99	Pass
11a	6Mbps	1	140	5700	15.70	-		23.98	-	-1.87	-	26.99	Pass
HT20	MCS0	1	100	5500	16.30	-		23.98	-	-1.87	-	26.99	Pass
HT20	MCS0	1	116	5580	16.30	-		23.98	-	-1.87	-	26.99	Pass
HT20	MCS0	1	140	5700	15.40	-		23.98	-	-1.87	-	26.99	Pass
HT40	MCS0	1	102	5510	15.70	-		23.98	-	-1.87	-	26.99	Pass
HT40	MCS0	1	110	5550	16.10	-		23.98	-	-1.87	-	26.99	Pass
HT40	MCS0	1	134	5670	16.10	-		23.98	-	-1.87	-	26.99	Pass
VHT20	MCS0	1	100	5500	16.40	-		23.98	-	-1.87	-	26.99	Pass
VHT20	MCS0	1	116	5580	16.40	-		23.98	-	-1.87	-	26.99	Pass
VHT20	MCS0	1	140	5700	15.50	-		23.98	-	-1.87	-	26.99	Pass
VHT40	MCS0	1	102	5510	15.80	-		23.98	-	-1.87	-	26.99	Pass
VHT40	MCS0	1	110	5550	16.20	-		23.98	-	-1.87	-	26.99	Pass
VHT40	MCS0	1	134	5670	16.20	-		23.98	-	-1.87	-	26.99	Pass
VHT80	MCS0	1	106	5530	14.80	-		23.98	-	-1.87	-	26.99	Pass
VHT80	MCS0	1	122	5610	16.10	-		23.98	-	-1.87	-	26.99	Pass

FCC Band III straddle channel single antenna													
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 7	Ant 2	SUM	Ant 7	Ant 2	Ant 7	Ant 2		
HT20	MCS0	1	144	5720	16.20	-		23.98	-	-1.87	-	26.99	Pass
VHT20	MCS0	1	144	5720	16.30	-		22.85	-	-1.87	-	26.99	Pass

Report Number : FR212127E

TEST RESULTS DATA
Power Spectral Density

Band III single antenna													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 7	Ant 2	SUM	Ant 7	Ant 2	Ant 7	Ant 2		
11a	6Mbps	1	100	5500	7.24	-		11.00	-	-1.87	-		Pass
11a	6Mbps	1	116	5580	7.23	-		11.00	-	-1.87	-		Pass
11a	6Mbps	1	140	5700	5.71	-		11.00	-	-1.87	-		Pass
VHT20	MCS0	1	100	5500	5.73	-		11.00	-	-1.87	-		Pass
VHT20	MCS0	1	116	5580	5.90	-		11.00	-	-1.87	-		Pass
VHT20	MCS0	1	140	5700	5.47	-		11.00	-	-1.87	-		Pass
VHT40	MCS0	1	102	5510	3.13	-		11.00	-	-1.87	-		Pass
VHT40	MCS0	1	110	5550	3.17	-		11.00	-	-1.87	-		Pass
VHT40	MCS0	1	134	5670	2.89	-		11.00	-	-1.87	-		Pass
VHT80	MCS0	1	106	5530	-1.17	-		11.00	-	-1.87	-		Pass
VHT80	MCS0	1	122	5610	0.25	-		11.00	-	-1.87	-		Pass

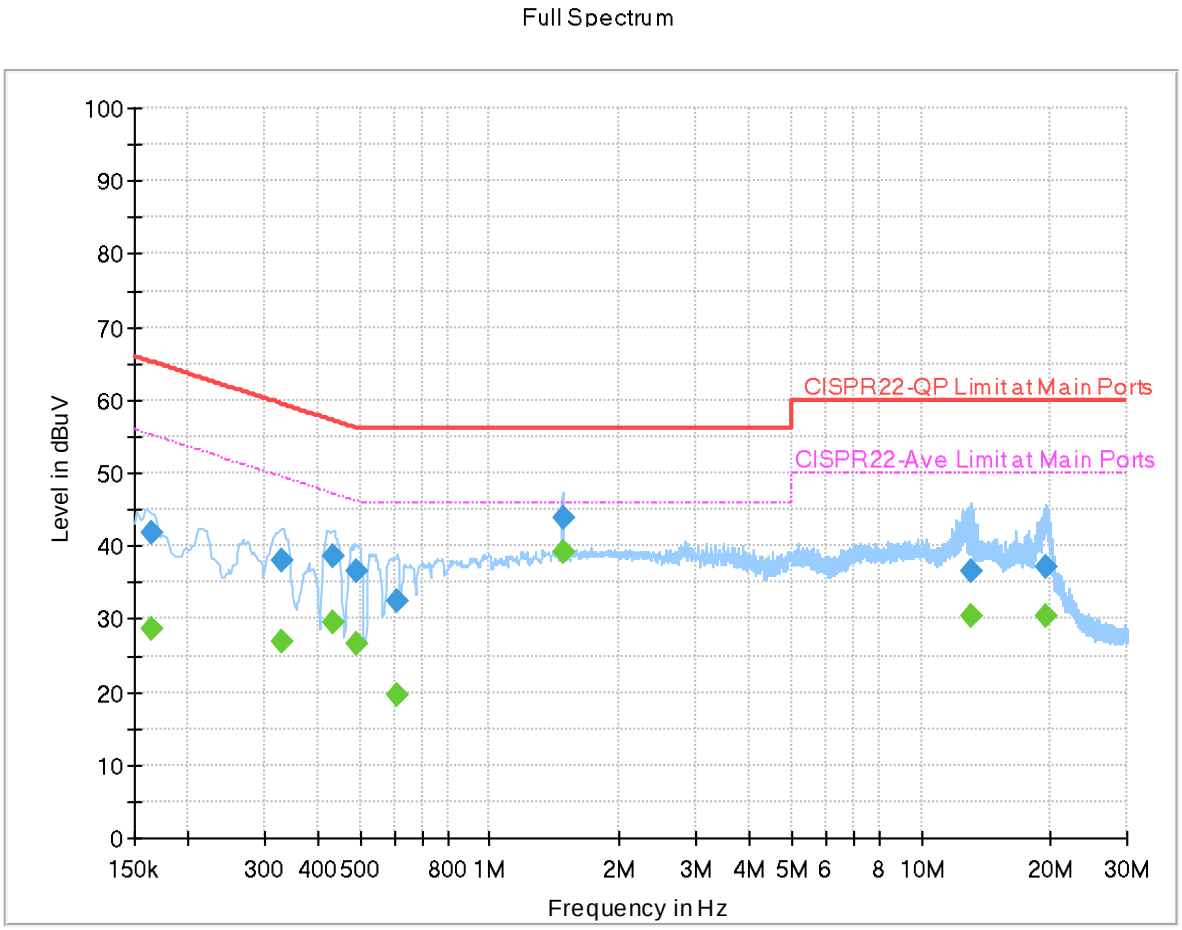
Band III straddle channel single antenna													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 7	Ant 2	SUM	Ant 7	Ant 2	Ant 7	Ant 2		
11a	6Mbps	1	144	5720	7.27	-		11.00	-	-1.87	-		Pass
VHT20	MCS0	1	144	5720	5.75	-		11.00	-	-1.87	-		Pass

Appendix B. AC Conducted Emission Test Results

Test Engineer :	Louis Chung	**Temperature :**	23.3~24.8℃
		Relative Humidity :	45.2~48.9%

EUT Information

Report NO :	212127
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

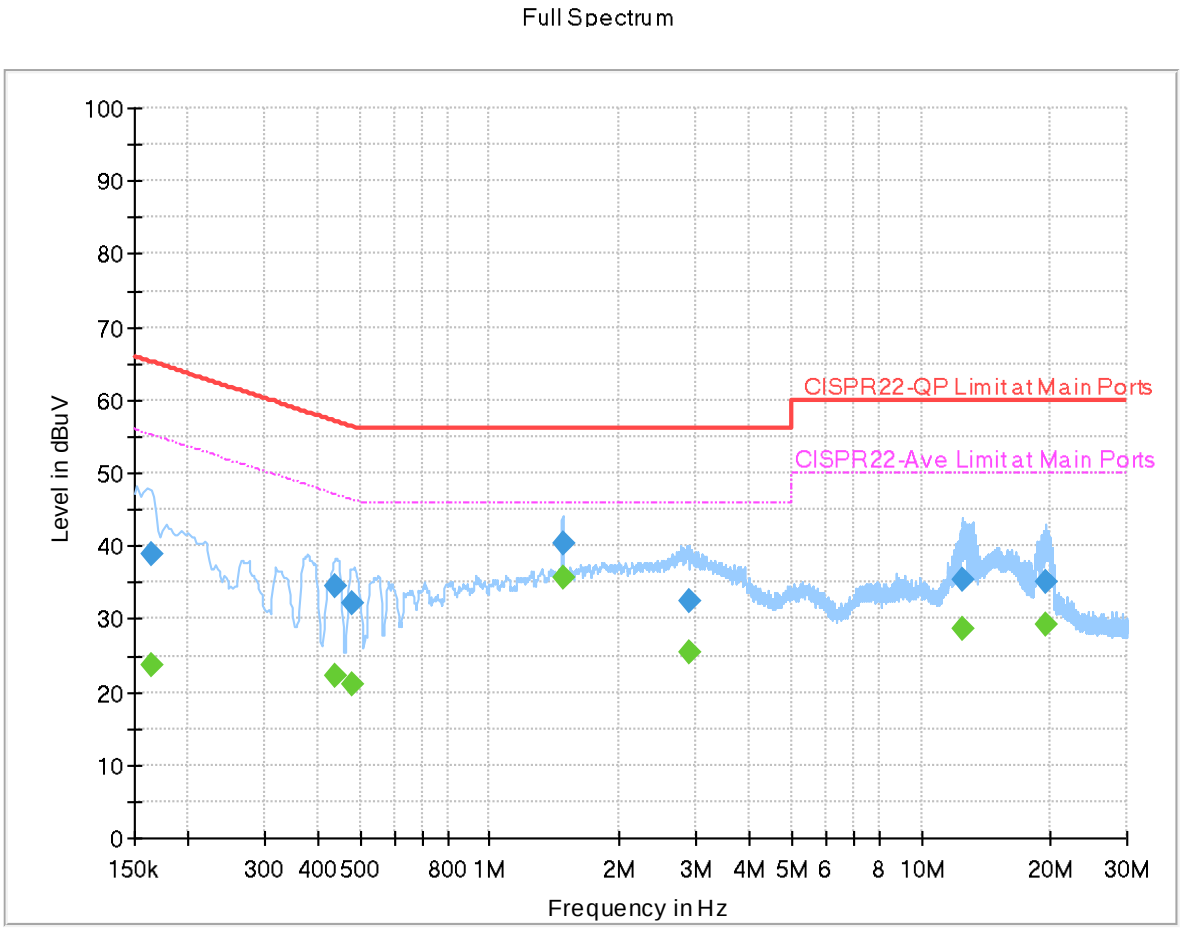


Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.163500	---	28.61	55.28	26.67	L1	OFF	19.7
0.163500	41.88	---	65.28	23.40	L1	OFF	19.7
0.327840	---	26.75	49.51	22.76	L1	OFF	19.7
0.327840	38.09	---	59.51	21.42	L1	OFF	19.7
0.432510	---	29.49	47.20	17.71	L1	OFF	19.7
0.432510	38.60	---	57.20	18.60	L1	OFF	19.7
0.490560	---	26.71	46.16	19.45	L1	OFF	19.7
0.490560	36.44	---	56.16	19.72	L1	OFF	19.7
0.607650	---	19.49	46.00	26.51	L1	OFF	19.7
0.607650	32.44	---	56.00	23.56	L1	OFF	19.7
1.475250	---	39.12	46.00	6.88	L1	OFF	19.7
1.475250	43.80	---	56.00	12.20	L1	OFF	19.7
13.059600	---	30.40	50.00	19.60	L1	OFF	19.9
13.059600	36.49	---	60.00	23.51	L1	OFF	19.9
19.484250	---	30.33	50.00	19.67	L1	OFF	20.0
19.484250	37.16	---	60.00	22.84	L1	OFF	20.0

EUT Information

Report NO :	212127
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.164670	---	23.77	55.23	31.46	N	OFF	19.7
0.164670	39.03	---	65.23	26.20	N	OFF	19.7
0.440250	---	22.15	47.06	24.91	N	OFF	19.7
0.440250	34.63	---	57.06	22.43	N	OFF	19.7
0.480660	---	20.99	46.33	25.34	N	OFF	19.7
0.480660	32.05	---	56.33	24.28	N	OFF	19.7
1.474890	---	35.75	46.00	10.25	N	OFF	19.7
1.474890	40.46	---	56.00	15.54	N	OFF	19.7
2.889150	---	25.55	46.00	20.45	N	OFF	19.7
2.889150	32.49	---	56.00	23.51	N	OFF	19.7
12.490620	---	28.52	50.00	21.48	N	OFF	19.9
12.490620	35.45	---	60.00	24.55	N	OFF	19.9
19.495230	---	29.34	50.00	20.66	N	OFF	19.9
19.495230	35.02	---	60.00	24.98	N	OFF	19.9

Appendix C. Radiated Spurious Emission

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

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.
7		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5150	62.37	-11.63	74	46.9	32.9	12.03	29.46	100	215	P	H
		5149.24	49.02	-4.98	54	33.55	32.9	12.03	29.46	100	215	A	H
	*	5180	107.08	-	-	91.51	32.96	12.08	29.47	100	215	P	H
	*	5180	99.13	-	-	83.56	32.96	12.08	29.47	100	215	A	H
													H
													H
		5146.64	57.5	-16.5	74	42.01	32.92	12.03	29.46	364	110	P	V
		5149.76	46.36	-7.64	54	30.89	32.9	12.03	29.46	364	110	A	V
	*	5180	104.82	-	-	89.25	32.96	12.08	29.47	364	110	P	V
	*	5180	96.78	-	-	81.21	32.96	12.08	29.47	364	110	A	V
													V
													V
802.11a CH 44 5220MHz		5138.06	54.51	-19.49	74	38.98	32.97	12.01	29.45	100	216	P	H
		5131.56	44.04	-9.96	54	28.48	33.01	12	29.45	100	216	A	H
	*	5220	106.85	-	-	91.19	32.96	12.18	29.48	100	216	P	H
	*	5220	98.68	-	-	83.02	32.96	12.18	29.48	100	216	A	H
		5403.16	55.9	-18.1	74	39.75	32.9	12.79	29.54	100	216	P	H
		5402.6	43.82	-10.18	54	27.67	32.9	12.79	29.54	100	216	A	H
		5109.72	53.99	-20.01	74	38.33	33.14	11.97	29.45	385	84	P	V
		5111.02	43.4	-10.6	54	27.75	33.13	11.97	29.45	385	84	A	V
	*	5220	103.74	-	-	88.08	32.96	12.18	29.48	385	84	P	V
	*	5220	95.88	-	-	80.22	32.96	12.18	29.48	385	84	A	V
		5424.44	54.1	-19.9	74	37.95	32.9	12.8	29.55	385	84	P	V
		5350	43.41	-10.59	54	27.51	32.8	12.62	29.52	385	84	A	V

802.11a CH 48 5240MHz		5113.88	55.2	-18.8	74	39.55	33.12	11.98	29.45	104	215	P	H
		5107.38	43.9	-10.1	54	28.21	33.16	11.97	29.44	104	215	A	H
	*	5240	107.23	-	-	91.55	32.92	12.25	29.49	104	215	P	H
	*	5240	99.01	-	-	83.33	32.92	12.25	29.49	104	215	A	H
		5364.8	55.03	-18.97	74	39.06	32.83	12.67	29.53	104	215	P	H
		5448.8	43.86	-10.14	54	27.7	32.9	12.81	29.55	104	215	A	H
		5100.36	54.57	-19.43	74	38.85	33.2	11.96	29.44	357	114	P	V
		5109.46	43.89	-10.11	54	28.23	33.14	11.97	29.45	357	114	A	V
	*	5240	105.8	-	-	90.12	32.92	12.25	29.49	357	114	P	V
	*	5240	97.42	-	-	81.74	32.92	12.25	29.49	357	114	A	V
		5412.4	54.56	-19.44	74	38.4	32.9	12.8	29.54	357	114	P	V
		5381.04	43.79	-10.21	54	27.73	32.86	12.73	29.53	357	114	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. 7	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	46.79	-21.41	68.2	44.83	38.66	18.9	55.6	-	-	P	H
		15540	52.48	-21.52	74	46.23	38.28	22.65	54.68	100	225	P	H
		15540	40.59	-13.41	54	34.34	38.28	22.65	54.68	100	225	A	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		10360	46.71	-21.49	68.2	44.75	38.66	18.9	55.6	-	-	P	V
		15540	52.32	-21.68	74	46.07	38.28	22.65	54.68	100	74	P	V
		15540	41.93	-12.07	54	35.68	38.28	22.65	54.68	100	74	A	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 7	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	47.24	-20.96	68.2	45.21	38.66	18.91	55.54	-	-	P	H
		15660	47.36	-26.64	74	41.62	37.86	22.74	54.86	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
802.11a CH 44 5220MHz													H
		10440	47.1	-21.1	68.2	45.07	38.66	18.91	55.54	-	-	P	V
		15660	46.9	-27.1	74	41.16	37.86	22.74	54.86	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 7	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 48 5240MHz		10480	47.68	-20.52	68.2	45.65	38.62	18.92	55.51	-	-	P	H
		15720	46.59	-27.41	74	41.06	37.7	22.78	54.95	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		10480	47.79	-20.41	68.2	45.76	38.62	18.92	55.51	-	-	P	V
		15720	47.88	-26.12	74	42.35	37.7	22.78	54.95	-	-	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. 7	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 36 5180MHz		5148.72	63.02	-10.98	74	47.54	32.91	12.03	29.46	100	215	P	H
		5150	49.75	-4.25	54	34.28	32.9	12.03	29.46	100	215	A	H
	*	5180	105.73	-	-	90.16	32.96	12.08	29.47	100	215	P	H
	*	5180	97.69	-	-	82.12	32.96	12.08	29.47	100	215	A	H
													H
													H
		5149.76	60.92	-13.08	74	45.45	32.9	12.03	29.46	100	91	P	V
		5150	47.69	-6.31	54	32.22	32.9	12.03	29.46	100	91	A	V
	*	5180	101.67	-	-	86.1	32.96	12.08	29.47	100	91	P	V
	*	5180	94.02	-	-	78.45	32.96	12.08	29.47	100	91	A	V
													V
													V
802.11ac VHT20 CH 44 5220MHz		5145.08	54.76	-19.24	74	39.27	32.93	12.02	29.46	100	215	P	H
		5107.64	44.44	-9.56	54	28.76	33.15	11.97	29.44	100	215	A	H
	*	5220	105.58	-	-	89.92	32.96	12.18	29.48	100	215	P	H
	*	5220	97.44	-	-	81.78	32.96	12.18	29.48	100	215	A	H
		5367.04	54.76	-19.24	74	38.78	32.83	12.68	29.53	100	215	P	H
		5370.4	44.04	-9.96	54	28.04	32.84	12.69	29.53	100	215	A	H
		5111.02	54.41	-19.59	74	38.76	33.13	11.97	29.45	381	102	P	V
		5088.4	43.79	-10.21	54	28.18	33.11	11.94	29.44	381	102	A	V
	*	5220	104.21	-	-	88.55	32.96	12.18	29.48	381	102	P	V
	*	5220	95.87	-	-	80.21	32.96	12.18	29.48	381	102	A	V
		5425.28	54.58	-19.42	74	38.43	32.9	12.8	29.55	381	102	P	V
		5357.24	44.11	-9.89	54	28.18	32.81	12.64	29.52	381	102	A	V

802.11ac VHT20 CH 48 5240MHz		5119.08	55.43	-18.57	74	39.81	33.09	11.98	29.45	100	215	P	H
		5104.26	44.27	-9.73	54	28.58	33.17	11.96	29.44	379	215	A	H
	*	5240	105.91	-	-	90.23	32.92	12.25	29.49	100	215	P	H
	*	5240	98.04	-	-	82.36	32.92	12.25	29.49	100	215	A	H
		5355.56	54.88	-19.12	74	38.95	32.81	12.64	29.52	100	215	P	H
		5396.44	44.07	-9.93	54	27.94	32.89	12.78	29.54	379	215	A	H
		5128.96	54.29	-19.71	74	38.71	33.03	12	29.45	379	102	P	V
		5088.66	43.91	-10.09	54	28.3	33.11	11.94	29.44	379	102	A	V
	*	5240	104.75	-	-	89.07	32.92	12.25	29.49	379	102	P	V
	*	5240	97	-	-	81.32	32.92	12.25	29.49	379	102	A	V
		5417.44	54.21	-19.79	74	38.05	32.9	12.8	29.54	379	102	P	V
		5398.12	44.11	-9.89	54	27.97	32.9	12.78	29.54	379	102	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. 7	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	47.84	-20.36	68.2	45.88	38.66	18.9	55.6	-	-	P	H
		15540	51.87	-22.13	74	45.62	38.28	22.65	54.68	100	228	P	H
		15540	40.88	-13.12	54	34.63	38.28	22.65	54.68	100	228	A	H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT20													H
CH 36		10360	47.24	-20.96	68.2	45.28	38.66	18.9	55.6	-	-	P	V
5180MHz		15540	52.11	-21.89	74	45.86	38.28	22.65	54.68	111	77	P	V
		15540	41.39	-12.61	54	35.14	38.28	22.65	54.68	111	77	A	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 7	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	47.46	-20.74	68.2	45.43	38.66	18.91	55.54	-	-	P	H
		15660	47.38	-26.62	74	41.64	37.86	22.74	54.86	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT20													H
CH 44		10440	47.72	-20.48	68.2	45.69	38.66	18.91	55.54	-	-	P	V
5220MHz		15660	46.67	-27.33	74	40.93	37.86	22.74	54.86	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 7	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	47.39	-20.81	68.2	45.36	38.62	18.92	55.51	-	-	P	H
		15720	47.45	-26.55	74	41.92	37.7	22.78	54.95	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT20													H
CH 48		10480	48.15	-20.05	68.2	46.12	38.62	18.92	55.51	-	-	P	V
5240MHz		15720	47.19	-26.81	74	41.66	37.7	22.78	54.95	-	-	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. 7	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 38 5190MHz		5149.76	64.1	-9.9	74	48.63	32.9	12.03	29.46	100	215	P	H
		5147.94	50.61	-3.39	54	35.13	32.91	12.03	29.46	100	215	A	H
	*	5190	103.21	-	-	87.61	32.98	12.09	29.47	100	215	P	H
	*	5190	95.21	-	-	79.61	32.98	12.09	29.47	100	215	A	H
		5443.76	54.15	-19.85	74	37.99	32.9	12.81	29.55	100	215	P	H
		5396.16	45.09	-8.91	54	28.96	32.89	12.78	29.54	100	215	A	H
		5149.24	60.16	-13.84	74	44.69	32.9	12.03	29.46	100	88	P	V
		5149.5	48.84	-5.16	54	33.37	32.9	12.03	29.46	100	88	A	V
	*	5190	99.49	-	-	83.89	32.98	12.09	29.47	100	88	P	V
	*	5190	91.72	-	-	76.12	32.98	12.09	29.47	100	88	A	V
		5444.6	53.54	-20.46	74	37.38	32.9	12.81	29.55	100	88	P	V
		5427.24	44.89	-9.11	54	28.74	32.9	12.8	29.55	100	88	A	V
802.11ac VHT40 CH 46 5230MHz		5145.6	55.03	-18.97	74	39.53	32.93	12.03	29.46	100	216	P	H
		5146.12	46.07	-7.93	54	30.58	32.92	12.03	29.46	100	216	A	H
	*	5230	102.5	-	-	86.83	32.94	12.21	29.48	100	216	P	H
	*	5230	94.81	-	-	79.14	32.94	12.21	29.48	100	216	A	H
		5419.4	54.91	-19.09	74	38.75	32.9	12.8	29.54	100	216	P	H
		5380.76	44.81	-9.19	54	28.76	32.86	12.72	29.53	100	216	A	H
		5011.96	54.62	-19.38	74	39.18	33.03	11.82	29.41	100	86	P	V
		5149.76	45.17	-8.83	54	29.7	32.9	12.03	29.46	100	86	A	V
	*	5230	99.55	-	-	83.88	32.94	12.21	29.48	100	85	P	V
	*	5230	91.83	-	-	76.16	32.94	12.21	29.48	100	85	A	V
		5422.2	54.45	-19.55	74	38.3	32.9	12.8	29.55	100	86	P	V
		5418.56	44.78	-9.22	54	28.62	32.9	12.8	29.54	100	86	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. 7	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	48.72	-19.48	68.2	46.73	38.68	18.9	55.59	-	-	P	H
		15570	47.09	-26.91	74	40.95	38.19	22.68	54.73	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT40													H
CH 38		10380	47.29	-20.91	68.2	45.3	38.68	18.9	55.59	-	-	P	V
5190MHz		15570	46.82	-27.18	74	40.68	38.19	22.68	54.73	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 7	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	47.81	-20.39	68.2	45.78	38.64	18.91	55.52	-	-	P	H
		15690	47.37	-26.63	74	41.78	37.74	22.76	54.91	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT40													H
CH 46		10460	46.89	-21.31	68.2	44.86	38.64	18.91	55.52	-	-	P	V
5230MHz		15690	47.93	-26.07	74	42.34	37.74	22.76	54.91	-	-	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. 7	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		5149.24	58.72	-15.28	74	43.25	32.9	12.03	29.46	100	216	P	H
		5147.68	50.08	-3.92	54	34.6	32.91	12.03	29.46	100	216	A	H
	*	5210	98.2	-	-	82.56	32.98	12.14	29.48	100	216	P	H
	*	5210	91.31	-	-	75.67	32.98	12.14	29.48	100	216	A	H
		5409.32	53.99	-20.01	74	37.84	32.9	12.79	29.54	100	216	P	H
		5384.12	47.47	-6.53	54	31.39	32.87	12.74	29.53	100	216	A	H
		5099.58	54.24	-19.76	74	38.53	33.2	11.95	29.44	380	109	P	V
		5121.16	47.45	-6.55	54	31.84	33.07	11.99	29.45	380	109	A	V
	*	5210	95.66	-	-	80.02	32.98	12.14	29.48	380	109	P	V
	*	5210	88.71	-	-	73.07	32.98	12.14	29.48	380	109	A	V
		5411	54.12	-19.88	74	37.97	32.9	12.79	29.54	380	109	P	V
		5364.52	47.11	-6.89	54	31.14	32.83	12.67	29.53	380	109	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. 7	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	46.95	-21.25	68.2	44.91	38.68	18.91	55.55	-	-	P	H
		15630	46.85	-27.15	74	40.97	37.98	22.72	54.82	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT80													H
CH 42		10420	46.84	-21.36	68.2	44.8	38.68	18.91	55.55	-	-	P	V
5210MHz		15630	46.35	-27.65	74	40.47	37.98	22.72	54.82	-	-	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 802.11a (Band Edge @ 3m)

WIFI Ant. 7	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		5075.48	54.59	-19.41	74	39.1	33	11.92	29.43	100	213	P	H
		5119.34	43.74	-10.26	54	28.13	33.08	11.98	29.45	100	213	A	H
	*	5260	107.07	-	-	91.33	32.92	12.31	29.49	100	213	P	H
	*	5260	98.8	-	-	83.06	32.92	12.31	29.49	100	213	A	H
		5376	54.43	-19.57	74	38.4	32.85	12.71	29.53	100	213	P	H
		5374.32	44.01	-9.99	54	27.99	32.85	12.7	29.53	100	213	A	H
		5113.9	54.78	-19.22	74	39.13	33.12	11.98	29.45	374	109	P	V
		5086.36	43.61	-10.39	54	28.03	33.09	11.93	29.44	374	109	A	V
	*	5260	105.22	-	-	89.48	32.92	12.31	29.49	374	109	P	V
	*	5260	97.27	-	-	81.53	32.92	12.31	29.49	374	109	A	V
		5451.6	55.08	-18.92	74	38.92	32.9	12.81	29.55	374	109	P	V
		5390.16	43.95	-10.05	54	27.84	32.88	12.76	29.53	374	109	A	V
802.11a CH 60 5300MHz		5089.08	54.08	-19.92	74	38.47	33.11	11.94	29.44	100	210	P	H
		5132.26	44.08	-9.92	54	28.51	33.01	12.01	29.45	100	210	A	H
	*	5300	107.53	-	-	91.59	33	12.45	29.51	100	210	P	H
	*	5300	98.93	-	-	82.99	33	12.45	29.51	100	210	A	H
		5352.72	54.38	-19.62	74	38.46	32.81	12.63	29.52	100	210	P	H
		5350.56	44.43	-9.57	54	28.53	32.8	12.62	29.52	100	210	A	H
		5077.18	54.07	-19.93	74	38.56	33.02	11.92	29.43	389	111	P	V
		5134.3	43.73	-10.27	54	28.18	32.99	12.01	29.45	389	111	A	V
	*	5300	106.14	-	-	90.2	33	12.45	29.51	389	111	P	V
	*	5300	98.03	-	-	82.09	33	12.45	29.51	389	111	A	V
		5452.8	54.4	-19.6	74	38.25	32.89	12.81	29.55	389	111	P	V
		5429.76	43.96	-10.04	54	27.81	32.9	12.8	29.55	389	111	A	V

802.11a CH 64 5320MHz	*	5320	107.16	-	-	91.23	32.92	12.52	29.51	100	208	P	H
	*	5320	98.73	-	-	82.8	32.92	12.52	29.51	100	208	A	H
		5350.8	60.04	-13.96	74	44.14	32.8	12.62	29.52	100	208	P	H
		5350.08	46.42	-7.58	54	30.52	32.8	12.62	29.52	100	208	A	H
													H
													H
	*	5320	105.64	-	-	89.71	32.92	12.52	29.51	392	80	P	V
	*	5320	97.39	-	-	81.46	32.92	12.52	29.51	392	80	A	V
		5350.8	55.75	-18.25	74	39.85	32.8	12.62	29.52	392	80	P	V
		5350.32	45.52	-8.48	54	29.62	32.8	12.62	29.52	392	80	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. 7	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	47.44	-20.76	68.2	45.32	38.68	18.93	55.49	-	-	P	H
		15780	47.01	-26.99	74	41.53	37.7	22.83	55.05	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		10520	46.89	-21.31	68.2	44.77	38.68	18.93	55.49	-	-	P	V
		15780	51.65	-22.35	74	46.17	37.7	22.83	55.05	109	77	P	V
		15780	41.55	-12.45	54	36.07	37.7	22.83	55.05	109	77	A	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 7	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 60 5300MHz		10600	47.66	-26.34	74	45.18	39	18.95	55.47	-	-	P	H
		15900	46.46	-27.54	74	40.89	37.9	22.9	55.23	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		10600	47.41	-26.59	74	44.93	39	18.95	55.47	-	-	P	V
		15900	46.87	-27.13	74	41.3	37.9	22.9	55.23	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 7	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 64 5320MHz		10640	47.61	-26.39	74	45.12	39	18.95	55.46	-	-	P	H
		15960	47.15	-26.85	74	41.8	37.72	22.95	55.32	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		10640	47.54	-26.46	74	45.05	39	18.95	55.46	-	-	P	V
		15960	47.26	-26.74	74	41.91	37.72	22.95	55.32	-	-	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. 7	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 52 5260MHz		5087.04	54.38	-19.62	74	38.79	33.1	11.93	29.44	100	213	P	H
		5093.84	44	-10	54	28.34	33.15	11.95	29.44	100	213	A	H
	*	5260	105.94	-	-	90.2	32.92	12.31	29.49	100	213	P	H
	*	5260	97.56	-	-	81.82	32.92	12.31	29.49	100	213	A	H
		5365.92	54.68	-19.32	74	38.71	32.83	12.67	29.53	100	213	P	H
		5383.2	43.96	-10.04	54	27.89	32.87	12.73	29.53	100	213	A	H
		5041.48	54.35	-19.65	74	39.06	32.85	11.86	29.42	398	94	P	V
		5092.14	43.69	-10.31	54	28.05	33.14	11.94	29.44	398	94	A	V
	*	5260	103.16	-	-	87.42	32.92	12.31	29.49	398	94	P	V
	*	5260	95.32	-	-	79.58	32.92	12.31	29.49	398	94	A	V
		5451.6	54.61	-19.39	74	38.45	32.9	12.81	29.55	398	94	P	V
		5436.96	43.99	-10.01	54	27.83	32.9	12.81	29.55	398	94	A	V
802.11ac VHT20 CH 60 5300MHz		5129.2	53.62	-20.38	74	38.05	33.02	12	29.45	100	211	P	H
		5106.08	43.75	-10.25	54	28.07	33.16	11.96	29.44	100	211	A	H
	*	5300	105.28	-	-	89.34	33	12.45	29.51	100	211	P	H
	*	5300	97.66	-	-	81.72	33	12.45	29.51	100	211	A	H
		5394.24	54.84	-19.16	74	38.72	32.89	12.77	29.54	100	211	P	H
		5351.76	44.29	-9.71	54	28.38	32.8	12.63	29.52	100	211	A	H
		5021.76	54.02	-19.98	74	38.64	32.97	11.83	29.42	373	76	P	V
		5096.22	43.62	-10.38	54	27.94	33.17	11.95	29.44	373	76	A	V
	*	5300	103.49	-	-	87.55	33	12.45	29.51	373	76	P	V
	*	5300	95.54	-	-	79.6	33	12.45	29.51	373	76	A	V
		5408.64	54.83	-19.17	74	38.68	32.9	12.79	29.54	373	76	P	V
		5404.8	43.98	-10.02	54	27.83	32.9	12.79	29.54	373	76	A	V

	*	5320	105.25	-	-	89.32	32.92	12.52	29.51	101	210	P	H
	*	5320	97.54	-	-	81.61	32.92	12.52	29.51	101	210	A	H
		5353.92	57.35	-16.65	74	41.43	32.81	12.63	29.52	101	210	P	H
		5350.08	45.31	-8.69	54	29.41	32.8	12.62	29.52	101	210	A	H
802.11ac													H
VHT20													H
CH 64	*	5320	104.71	-	-	88.78	32.92	12.52	29.51	365	108	P	V
5320MHz	*	5320	96.67	-	-	80.74	32.92	12.52	29.51	365	108	A	V
		5363.2	55.21	-18.79	74	39.25	32.83	12.66	29.53	365	108	P	V
		5351.04	44.84	-9.16	54	28.94	32.8	12.62	29.52	365	108	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. 7	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	46.62	-21.58	68.2	44.5	38.68	18.93	55.49	-	-	P	H
		15780	46.8	-27.2	74	41.32	37.7	22.83	55.05	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT20													H
CH 52		10520	47.59	-20.61	68.2	45.47	38.68	18.93	55.49	-	-	P	V
5260MHz		15780	47.02	-26.98	74	41.54	37.7	22.83	55.05	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 7	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	47.79	-26.21	74	45.31	39	18.95	55.47	-	-	P	H
		15900	46.26	-27.74	74	40.69	37.9	22.9	55.23	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT20													H
CH 60		10600	47.4	-26.6	74	44.92	39	18.95	55.47	-	-	P	V
5300MHz		15900	46.63	-27.37	74	41.06	37.9	22.9	55.23	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 7	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 64 5320MHz		10640	47.63	-26.37	74	45.14	39	18.95	55.46	-	-	P	H
		15960	46.54	-27.46	74	41.19	37.72	22.95	55.32	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		10640	47.76	-26.24	74	45.27	39	18.95	55.46	-	-	P	V
		15960	46.44	-27.56	74	41.09	37.72	22.95	55.32	-	-	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. 7	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 54 5270MHz		5072.08	54.28	-19.72	74	38.82	32.98	11.91	29.43	106	212	P	H
		5092.82	44.65	-9.35	54	29.01	33.14	11.94	29.44	106	212	A	H
	*	5270	103.06	-	-	87.27	32.94	12.35	29.5	106	212	P	H
	*	5270	95.3	-	-	79.51	32.94	12.35	29.5	106	212	A	H
		5417.04	53.92	-20.08	74	37.76	32.9	12.8	29.54	106	212	P	H
		5350.56	45.35	-8.65	54	29.45	32.8	12.62	29.52	106	212	A	H
		5114.92	52.61	-21.39	74	36.97	33.11	11.98	29.45	397	95	P	V
		5139.4	44.84	-9.16	54	29.31	32.96	12.02	29.45	397	95	A	V
	*	5270	101.7	-	-	85.91	32.94	12.35	29.5	397	95	P	V
	*	5270	93.68	-	-	77.89	32.94	12.35	29.5	397	95	A	V
		5380.56	53.35	-20.65	74	37.3	32.86	12.72	29.53	397	95	P	V
		5390.88	45.05	-8.95	54	28.95	32.88	12.76	29.54	397	95	A	V
802.11ac VHT40 CH 62 5310MHz		5052.36	53.48	-20.52	74	38.21	32.82	11.88	29.43	100	211	P	H
		5112.88	45.01	-8.99	54	29.37	33.12	11.97	29.45	100	211	A	H
	*	5310	102.27	-	-	86.34	32.96	12.48	29.51	100	211	P	H
	*	5310	94.2	-	-	78.27	32.96	12.48	29.51	100	211	A	H
		5352	59.11	-14.89	74	43.2	32.8	12.63	29.52	100	211	P	H
		5351.28	49.84	-4.16	54	33.94	32.8	12.62	29.52	100	211	A	H
		5042.5	54.28	-19.72	74	38.99	32.84	11.87	29.42	390	108	P	V
		5107.44	44.51	-9.49	54	28.82	33.16	11.97	29.44	390	108	A	V
	*	5310	100.56	-	-	84.63	32.96	12.48	29.51	390	108	P	V
	*	5310	92.99	-	-	77.06	32.96	12.48	29.51	390	108	A	V
		5351.28	54.52	-19.48	74	38.62	32.8	12.62	29.52	390	108	P	V
		5350.08	46.48	-7.52	54	30.58	32.8	12.62	29.52	390	108	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. 7	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	47.14	-21.06	68.2	44.92	38.76	18.94	55.48	-	-	P	H
		15810	45.6	-28.4	74	40.12	37.72	22.85	55.09	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT40													H
CH 54		10540	46.83	-21.37	68.2	44.61	38.76	18.94	55.48	-	-	P	V
5270MHz		15810	45.43	-28.57	74	39.95	37.72	22.85	55.09	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 7	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	47.81	-26.19	74	45.32	39	18.95	55.46	-	-	P	H
		15930	45.9	-28.1	74	40.43	37.81	22.93	55.27	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT40													H
CH 62		10620	46.99	-27.01	74	44.5	39	18.95	55.46	-	-	P	V
5310MHz		15930	45.23	-28.77	74	39.76	37.81	22.93	55.27	-	-	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. 7	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		5099.96	55.44	-18.56	74	39.73	33.2	11.95	29.44	100	212	P	H
		5094.52	46.87	-7.13	54	31.2	33.16	11.95	29.44	100	212	A	H
	*	5290	97.79	-	-	81.89	32.98	12.42	29.5	100	212	P	H
	*	5290	90.86	-	-	74.96	32.98	12.42	29.5	100	212	A	H
		5351.04	60.02	-13.98	74	44.12	32.8	12.62	29.52	100	212	P	H
		5351.04	50.91	-3.09	54	35.01	32.8	12.62	29.52	100	212	A	H
		5079.9	54.63	-19.37	74	39.11	33.04	11.92	29.44	398	83	P	V
		5067.66	46.37	-7.63	54	30.96	32.94	11.9	29.43	398	83	A	V
	*	5290	96.11	-	-	80.21	32.98	12.42	29.5	398	83	P	V
	*	5290	89.13	-	-	73.23	32.98	12.42	29.5	398	83	A	V
		5394.24	56.3	-17.7	74	40.18	32.89	12.77	29.54	398	83	P	V
		5383.68	48.66	-5.34	54	32.59	32.87	12.73	29.53	398	83	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. 7	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	47.22	-20.98	68.2	44.83	38.92	18.94	55.47	-	-	P	H
		15870	46.84	-27.16	74	41.29	37.84	22.89	55.18	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT80													H
CH 58		10580	47.65	-20.55	68.2	45.26	38.92	18.94	55.47	-	-	P	V
5290MHz		15870	46.97	-27.03	74	41.42	37.84	22.89	55.18	-	-	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 802.11a (Band Edge @ 3m)

WIFI Ant. 7	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		5440.24	54.77	-19.23	74	38.61	32.9	12.81	29.55	100	229	P	H
		5467.12	57.5	-10.7	68.2	41.37	32.87	12.82	29.56	100	229	P	H
		5436.24	44.64	-9.36	54	28.48	32.9	12.81	29.55	100	229	A	H
	*	5500	105.31	-	-	89.24	32.8	12.84	29.57	100	229	P	H
	*	5500	97.89	-	-	81.82	32.8	12.84	29.57	100	229	A	H
													H
		5458.8	55.11	-18.89	74	38.97	32.88	12.82	29.56	383	86	P	V
		5469.68	56.31	-11.89	68.2	40.19	32.86	12.82	29.56	383	86	P	V
		5459.44	44.68	-9.32	54	28.54	32.88	12.82	29.56	383	86	A	V
	*	5500	106.73	-	-	90.66	32.8	12.84	29.57	383	86	P	V
	*	5500	99.02	-	-	82.95	32.8	12.84	29.57	383	86	A	V
													V
802.11a CH 116 5580MHz		5450.8	55.03	-18.97	74	38.87	32.9	12.81	29.55	100	225	P	H
		5468.56	54	-14.2	68.2	37.88	32.86	12.82	29.56	100	225	P	H
		5444.56	44.1	-9.9	54	27.94	32.9	12.81	29.55	100	225	A	H
	*	5580	105.71	-	-	89.38	33.04	12.87	29.58	100	225	P	H
	*	5580	98.08	-	-	81.75	33.04	12.87	29.58	100	225	A	H
		5756.81	55.47	-12.73	68.2	38.51	33.61	12.97	29.62	100	225	P	H
		5406.16	54.35	-19.65	74	38.2	32.9	12.79	29.54	394	84	P	V
		5463.52	54.25	-13.95	68.2	38.12	32.87	12.82	29.56	394	84	P	V
		5433.76	44.11	-9.89	54	27.95	32.9	12.81	29.55	394	84	A	V
	*	5580	106.8	-	-	90.47	33.04	12.87	29.58	394	84	P	V
	*	5580	99.49	-	-	83.16	33.04	12.87	29.58	394	84	A	V
		5725	55.58	-12.62	68.2	38.79	33.45	12.95	29.61	394	84	P	V

802.11a CH 140 5700MHz	*	5700	107.33	-	-	90.71	33.3	12.93	29.61	100	116	P	H
	*	5700	99.72	-	-	83.1	33.3	12.93	29.61	100	116	A	H
		5725.16	64.39	-3.81	68.2	47.6	33.45	12.95	29.61	100	116	P	H
													H
													H
													H
	*	5700	107.18	-	-	90.56	33.3	12.93	29.61	337	80	P	V
	*	5700	99.23	-	-	82.61	33.3	12.93	29.61	337	80	A	V
		5725.64	62.82	-5.38	68.2	46.03	33.45	12.95	29.61	337	80	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. 7	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 100 5500MHz		11000	47.36	-26.64	74	44.82	38.9	19.01	55.37	-	-	P	H
		16500	47.94	-20.26	68.2	40.32	38.5	23.98	54.86	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		11000	46.68	-27.32	74	44.14	38.9	19.01	55.37	-	-	P	V
		16500	50.93	-17.27	68.2	43.31	38.5	23.98	54.86	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 7	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	47.31	-26.69	74	44.51	38.96	19.09	55.25	-	-	P	H
		16740	49.05	-19.15	68.2	41.72	37.88	24.46	55.01	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
802.11a CH 116 5580MHz													H
		11160	47.42	-26.58	74	44.62	38.96	19.09	55.25	-	-	P	V
		16740	49.03	-19.17	68.2	41.7	37.88	24.46	55.01	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 7	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 140 5700MHz		11400	46.22	-27.78	74	42.9	39.2	19.19	55.07	-	-	P	H
		17100	48.33	-19.87	68.2	41	37.7	25.03	55.4	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		11400	46.98	-27.02	74	43.66	39.2	19.19	55.07	-	-	P	V
		17100	48.48	-19.72	68.2	41.15	37.7	25.03	55.4	-	-	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. 7	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 100 5500MHz		5454.32	55.82	-18.18	74	39.68	32.89	12.81	29.56	100	229	P	H
		5468.56	61.02	-7.18	68.2	44.9	32.86	12.82	29.56	100	229	P	H
		5455.76	44.57	-9.43	54	28.42	32.89	12.82	29.56	100	229	A	H
	*	5500	104.35	-	-	88.28	32.8	12.84	29.57	100	229	P	H
	*	5500	96.47	-	-	80.4	32.8	12.84	29.57	100	229	A	H
													H
		5421.2	55.63	-18.37	74	39.47	32.9	12.8	29.54	383	91	P	V
		5470	59.48	-8.72	68.2	43.36	32.86	12.82	29.56	383	91	P	V
		5428.72	44.14	-9.86	54	27.99	32.9	12.8	29.55	383	91	A	V
	*	5500	105.21	-	-	89.14	32.8	12.84	29.57	383	91	P	V
	*	5500	97.46	-	-	81.39	32.8	12.84	29.57	383	91	A	V
													V
802.11ac VHT20 CH 116 5580MHz		5381.2	54.65	-19.35	74	38.59	32.86	12.73	29.53	100	117	P	H
		5464.96	53.5	-14.7	68.2	37.37	32.87	12.82	29.56	100	117	P	H
		5435.44	44.04	-9.96	54	27.88	32.9	12.81	29.55	100	117	A	H
	*	5580	104.7	-	-	88.37	33.04	12.87	29.58	100	117	P	H
	*	5580	96.99	-	-	80.66	33.04	12.87	29.58	100	117	A	H
		5738.54	55.43	-12.77	68.2	38.55	33.53	12.96	29.61	100	117	P	H
		5447.92	54.75	-19.25	74	38.59	32.9	12.81	29.55	392	86	P	V
		5469.28	53.46	-14.74	68.2	37.34	32.86	12.82	29.56	392	86	P	V
		5440	44.21	-9.79	54	28.05	32.9	12.81	29.55	392	86	A	V
	*	5580	105.51	-	-	89.18	33.04	12.87	29.58	392	86	P	V
	*	5580	98.21	-	-	81.88	33.04	12.87	29.58	392	86	A	V
		5762.48	54.58	-13.62	68.2	37.61	33.62	12.97	29.62	392	86	P	V

	*	5700	106.78	-	-	90.16	33.3	12.93	29.61	100	117	P	H
	*	5700	99.65	-	-	83.03	33.3	12.93	29.61	100	117	A	H
		5727	64.51	-3.69	68.2	47.71	33.46	12.95	29.61	100	117	P	H
													H
802.11ac													H
VHT20													H
CH 140	*	5700	106.1	-	-	89.48	33.3	12.93	29.61	338	81	P	V
5700MHz	*	5700	98.86	-	-	82.24	33.3	12.93	29.61	338	81	A	V
		5729.4	62.63	-5.57	68.2	45.81	33.48	12.95	29.61	338	81	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. 7	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	47.6	-26.4	74	45.06	38.9	19.01	55.37	-	-	P	H
		16500	47.56	-20.64	68.2	39.94	38.5	23.98	54.86	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT20													H
CH 100		11000	47.15	-26.85	74	44.61	38.9	19.01	55.37	-	-	P	V
5500MHz		16500	48.76	-19.44	68.2	41.14	38.5	23.98	54.86	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 7	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	47.08	-26.92	74	44.28	38.96	19.09	55.25	-	-	P	H
		16740	48.11	-20.09	68.2	40.78	37.88	24.46	55.01	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT20													H
CH 116		11160	47.58	-26.42	74	44.78	38.96	19.09	55.25	-	-	P	V
5580MHz		16740	48	-20.2	68.2	40.67	37.88	24.46	55.01	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 7	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	46.7	-27.3	74	43.38	39.2	19.19	55.07	-	-	P	H
		17100	47.67	-20.53	68.2	40.34	37.7	25.03	55.4	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT20													H
CH 140		11400	46.29	-27.71	74	42.97	39.2	19.19	55.07	-	-	P	V
5700MHz		17100	48.2	-20	68.2	40.87	37.7	25.03	55.4	-	-	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. 7	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 102 5510MHz		5459.2	56.57	-17.43	74	40.43	32.88	12.82	29.56	102	118	P	H
		5468.8	63.63	-4.57	68.2	47.51	32.86	12.82	29.56	102	118	P	H
		5429.92	45.44	-8.56	54	29.29	32.9	12.8	29.55	102	118	A	H
	*	5510	99.92	-	-	83.85	32.8	12.84	29.57	102	118	P	H
	*	5510	91.82	-	-	75.75	32.8	12.84	29.57	102	118	A	H
		5729.09	54.4	-13.8	68.2	37.59	33.47	12.95	29.61	102	118	P	H
		5350	55.2	-18.8	74	39.3	32.8	12.62	29.52	380	93	P	V
		5466.16	60.53	-7.67	68.2	44.4	32.87	12.82	29.56	380	93	P	V
		5456.8	45.21	-8.79	54	29.06	32.89	12.82	29.56	380	93	A	V
	*	5510	101.01	-	-	84.94	32.8	12.84	29.57	380	93	P	V
	*	5510	93.13	-	-	77.06	32.8	12.84	29.57	380	93	A	V
		5752.085	53.84	-14.36	68.2	36.9	33.6	12.96	29.62	380	93	P	V
802.11ac VHT40 CH 110 5550MHz		5368.72	54.66	-19.34	74	38.67	32.84	12.68	29.53	100	118	P	H
		5461.84	53.93	-14.27	68.2	37.79	32.88	12.82	29.56	100	118	P	H
		5432.32	45.25	-8.75	54	29.1	32.9	12.8	29.55	100	118	A	H
	*	5550	101.65	-	-	85.57	32.8	12.86	29.58	100	118	P	H
	*	5550	93.57	-	-	77.49	32.8	12.86	29.58	100	118	A	H
		5746.73	54.55	-13.65	68.2	37.62	33.58	12.96	29.61	100	118	P	H
		5449.12	54.6	-19.4	74	38.44	32.9	12.81	29.55	397	96	P	V
		5469.76	54.85	-13.35	68.2	38.73	32.86	12.82	29.56	397	96	P	V
		5432.56	45.07	-8.93	54	28.92	32.9	12.8	29.55	397	96	A	V
	*	5550	102.66	-	-	86.58	32.8	12.86	29.58	397	96	P	V
	*	5550	94.45	-	-	78.37	32.8	12.86	29.58	397	96	A	V
		5758.385	54.4	-13.8	68.2	37.43	33.62	12.97	29.62	397	96	P	V

802.11ac VHT40 CH 134 5670MHz		5450.8	53.9	-20.1	74	37.74	32.9	12.81	29.55	100	116	P	H
		5460.6	53.44	-14.76	68.2	37.3	32.88	12.82	29.56	100	116	P	H
		5381.5	45.14	-8.86	54	29.08	32.86	12.73	29.53	100	116	A	H
	*	5670	105.4	-	-	88.78	33.3	12.92	29.6	100	116	P	H
	*	5670	96.88	-	-	80.26	33.3	12.92	29.6	100	116	A	H
		5725.45	63.21	-4.99	68.2	46.42	33.45	12.95	29.61	100	116	P	H
		5368.55	53.44	-20.56	74	37.45	32.84	12.68	29.53	400	85	P	V
		5463.75	53.49	-14.71	68.2	37.36	32.87	12.82	29.56	400	85	P	V
		5385.35	44.91	-9.09	54	28.83	32.87	12.74	29.53	400	85	A	V
	*	5670	103.3	-	-	86.68	33.3	12.92	29.6	400	85	P	V
	*	5670	95.29	-	-	78.67	33.3	12.92	29.6	400	85	A	V
		5758.7	56.51	-11.69	68.2	39.54	33.62	12.97	29.62	400	85	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. 7	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	47.74	-26.26	74	45.18	38.9	19.02	55.36	-	-	P	H
		16530	47	-21.2	68.2	39.4	38.44	24.04	54.88	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT40													H
CH 102		11020	47.75	-26.25	74	45.19	38.9	19.02	55.36	-	-	P	V
5510MHz		16530	48.5	-19.7	68.2	40.9	38.44	24.04	54.88	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 7	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	47.61	-26.39	74	44.95	38.9	19.06	55.3	-	-	P	H
		16650	47.99	-20.21	68.2	40.52	38.15	24.28	54.96	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT40													H
CH 110		11100	47.17	-26.83	74	44.51	38.9	19.06	55.3	-	-	P	V
5550MHz		16650	47.48	-20.72	68.2	40.01	38.15	24.28	54.96	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 7	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	47.13	-26.87	74	43.89	39.2	19.16	55.12	-	-	P	H
		17010	48.09	-20.11	68.2	40.6	37.7	24.99	55.2	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT40													H
CH 134		11340	47.06	-26.94	74	43.82	39.2	19.16	55.12	-	-	P	V
5670MHz		17010	47.78	-20.42	68.2	40.29	37.7	24.99	55.2	-	-	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. 7	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 106 5530MHz		5458.96	58.8	-15.2	74	42.66	32.88	12.82	29.56	100	117	P	H
		5463.04	59.69	-8.51	68.2	43.56	32.87	12.82	29.56	100	117	P	H
		5459.92	50.68	-3.32	54	34.54	32.88	12.82	29.56	100	117	A	H
	*	5530	96.01	-	-	79.94	32.8	12.85	29.58	100	117	P	H
	*	5530	89.18	-	-	73.11	32.8	12.85	29.58	100	117	A	H
		5732.24	54.81	-13.39	68.2	37.98	33.49	12.95	29.61	100	117	P	H
		5434.48	56.37	-17.63	74	40.21	32.9	12.81	29.55	378	81	P	V
		5468.32	58.56	-9.64	68.2	42.44	32.86	12.82	29.56	378	81	P	V
		5443.6	49.68	-4.32	54	33.52	32.9	12.81	29.55	378	81	A	V
	*	5530	98.93	-	-	82.86	32.8	12.85	29.58	378	81	P	V
	*	5530	91.45	-	-	75.38	32.8	12.85	29.58	378	81	A	V
		5753.03	55.49	-12.71	68.2	38.54	33.61	12.96	29.62	378	81	P	V
802.11ac VHT80 CH 122 5610MHz		5407.12	55.16	-18.84	74	39.01	32.9	12.79	29.54	100	117	P	H
		5461.36	54.29	-13.91	68.2	38.15	32.88	12.82	29.56	100	117	P	H
		5455.12	46.84	-7.16	54	30.7	32.89	12.81	29.56	100	117	A	H
	*	5610	100.69	-	-	84.17	33.22	12.89	29.59	100	117	P	H
	*	5610	92.32	-	-	75.8	33.22	12.89	29.59	100	117	A	H
		5725.94	60.85	-7.35	68.2	44.05	33.46	12.95	29.61	100	117	P	H
		5359.36	56.27	-17.73	74	40.32	32.82	12.65	29.52	389	87	P	V
		5462.32	55.31	-12.89	68.2	39.17	32.88	12.82	29.56	389	87	P	V
		5411.44	47.3	-6.7	54	31.14	32.9	12.8	29.54	389	87	A	V
	*	5610	99.8	-	-	83.28	33.22	12.89	29.59	389	87	P	V
	*	5610	91.56	-	-	75.04	33.22	12.89	29.59	389	87	A	V
		5737.91	56.6	-11.6	68.2	39.72	33.53	12.96	29.61	389	87	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. 7	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	47.67	-26.33	74	45.06	38.9	19.04	55.33	-	-	P	H
		16590	47.32	-20.88	68.2	39.76	38.32	24.16	54.92	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT80													H
CH 106		11060	47.43	-26.57	74	44.82	38.9	19.04	55.33	-	-	P	V
5530MHz		16590	47.51	-20.69	68.2	39.95	38.32	24.16	54.92	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 7	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	47.2	-26.8	74	44.26	39.04	19.11	55.21	-	-	P	H
		16830	47.85	-20.35	68.2	40.57	37.7	24.65	55.07	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT80													H
CH 122		11220	47.15	-26.85	74	44.21	39.04	19.11	55.21	-	-	P	V
5610MHz		16830	47.68	-20.52	68.2	40.4	37.7	24.65	55.07	-	-	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 3 - Straddle Channel

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 7	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		5450.62	54.37	-19.63	74	38.21	32.9	12.81	29.55	100	118	P	H
		5462.32	52.8	-15.4	68.2	36.66	32.88	12.82	29.56	100	118	P	H
		5386.27	44.17	-9.83	54	28.09	32.87	12.74	29.53	100	118	A	H
	*	5720	109.24	-	-	92.48	33.42	12.95	29.61	100	118	P	H
	*	5720	102.17	-	-	85.41	33.42	12.95	29.61	100	118	A	H
		5884.25	57.38	-10.82	68.2	40.3	34	12.72	29.64	100	118	P	H
		5431.9	54.27	-19.73	74	38.12	32.9	12.8	29.55	333	80	P	V
		5462.32	53.6	-14.6	68.2	37.46	32.88	12.82	29.56	333	80	P	V
		5408.5	43.68	-10.32	54	27.53	32.9	12.79	29.54	333	80	A	V
	*	5720	108.24	-	-	91.48	33.42	12.95	29.61	333	80	P	V
	*	5720	100.94	-	-	84.18	33.42	12.95	29.61	333	80	A	V
		5863.25	56.11	-12.09	68.2	38.97	34	12.78	29.64	333	80	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. 7	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 144 5720MHz		11440	47.12	-26.88	74	43.91	39.04	19.21	55.04			P	H
		17160	47.75	-20.45	68.2	40.52	37.7	25.06	55.53			P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		11440	46.97	-27.03	74	43.76	39.04	19.21	55.04			P	V
		17160	48.31	-19.89	68.2	41.08	37.7	25.06	55.53			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. 7	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		5422.93	54.22	-19.78	74	38.07	32.9	12.8	29.55	100	117	P	H
		5465.83	52.81	-15.39	68.2	36.68	32.87	12.82	29.56	100	117	P	H
		5391.34	43.73	-10.27	54	27.63	32.88	12.76	29.54	100	117	A	H
	*	5720	108.88	-	-	92.12	33.42	12.95	29.61	100	117	P	H
	*	5720	100.6	-	-	83.84	33.42	12.95	29.61	100	117	A	H
		5878.5	56.11	-12.09	68.2	39.02	34	12.73	29.64	100	117	P	H
		5396.02	54.51	-19.49	74	38.38	32.89	12.78	29.54	334	80	P	V
		5468.17	53.19	-15.01	68.2	37.07	32.86	12.82	29.56	334	80	P	V
		5437.75	43.85	-10.15	54	27.69	32.9	12.81	29.55	334	80	A	V
	*	5720	106.7	-	-	89.94	33.42	12.95	29.61	334	80	P	V
	*	5720	99.53	-	-	82.77	33.42	12.95	29.61	334	80	A	V
		5941	55.25	-12.95	68.2	38.29	34.08	12.53	29.65	334	80	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. 7	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11440	46.96	-27.04	74	43.75	39.04	19.21	55.04	-	-	P	H
		17160	47.96	-20.24	68.2	40.73	37.7	25.06	55.53	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ac													H
VHT20													H
CH 144		11440	47.7	-26.3	74	44.49	39.04	19.21	55.04	-	-	P	V
5720MHz		17160	48.13	-20.07	68.2	40.9	37.7	25.06	55.53	-	-	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 VHT80 (LF @ 3m)

WIFI Ant. 7	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)
5GHz 802.11ac VHT80 LF		35.82	29.95	-10.05	40	39.51	21.81	0.94	32.31	-	-	P	H
		265.71	27.38	-18.62	46	36.92	19.83	2.89	32.26	-	-	P	H
		316.15	32.1	-13.9	46	41.69	19.53	3.15	32.27	-	-	P	H
		858.38	33.4	-12.6	46	31.08	29.05	5.15	31.88	-	-	P	H
		890.39	38.23	-7.77	46	35.72	28.87	5.26	31.62	-	-	P	H
		903	39.11	-6.89	46	36.28	29.06	5.29	31.52	-	-	P	H
													H
													H
													H
													H
													H
													H
		63.95	28.99	-11.01	40	47.82	12.01	1.43	32.27	-	-	P	V
		74.62	28.41	-11.59	40	46.32	12.84	1.56	32.31	-	-	P	V
		125.06	31.11	-12.39	43.5	43.88	17.49	2.01	32.27	-	-	P	V
		891.36	38.75	-7.25	46	36.22	28.88	5.26	31.61	-	-	P	V
		896.21	38.97	-7.03	46	36.33	28.94	5.27	31.57	-	-	P	V
		903	37.38	-8.62	46	34.55	29.06	5.29	31.52	-	-	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.	
7		(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

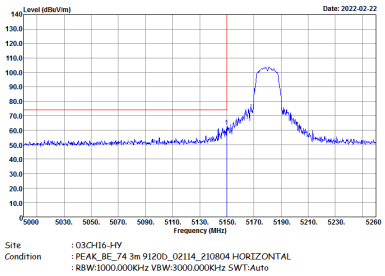
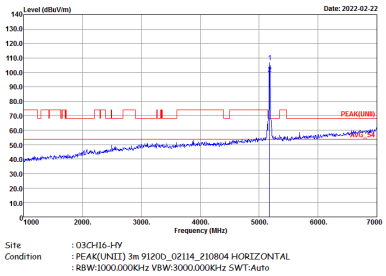
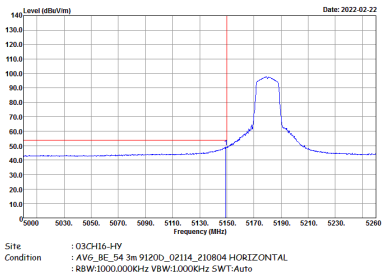
Test Engineer :	Andy Yang, Karl Hou, and Wilson Wu	**Temperature :**	20~25°C
		Relative Humidity :	50~60%

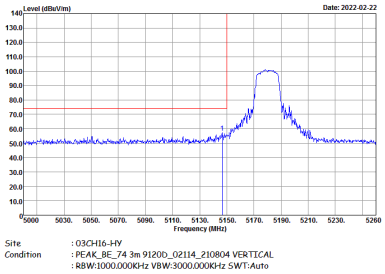
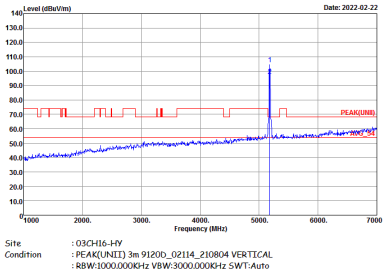
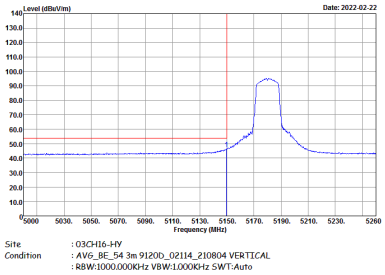
Note symbol

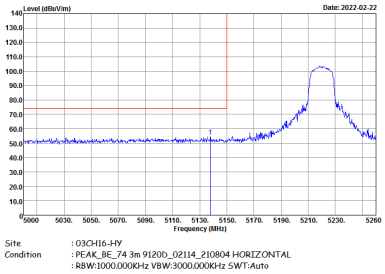
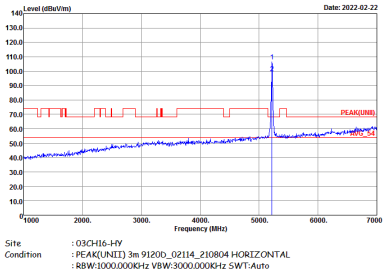
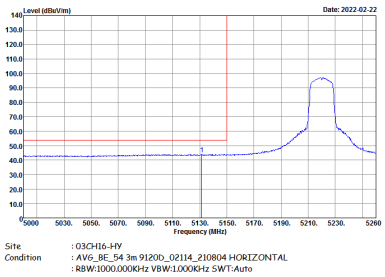
-L	**Low channel location**
-R	**High channel location**

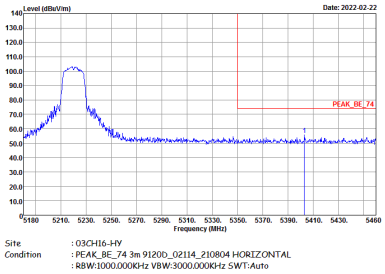
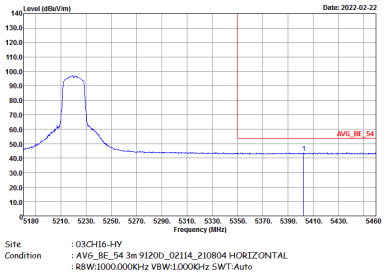
Band 1 - 5150~5250MHz

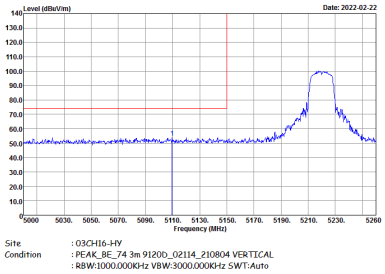
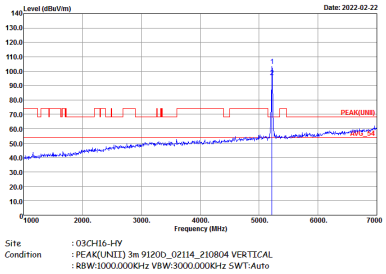
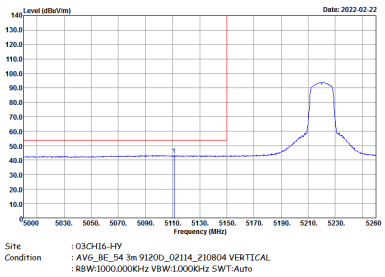
WIFI 802.11a (Band Edge @ 3m)

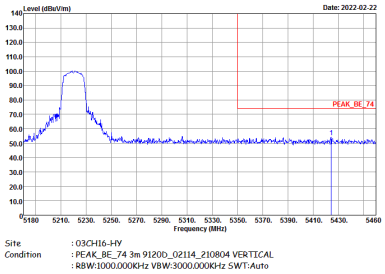
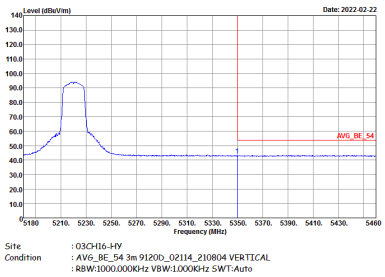
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
7	Horizontal	Fundamental
Peak		
Avg.		Left blank

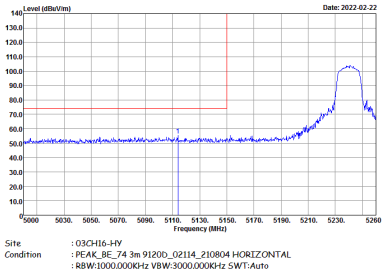
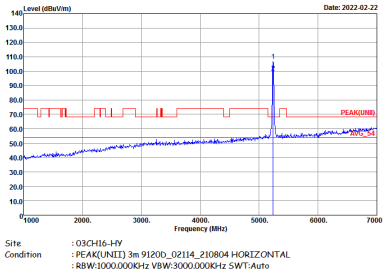
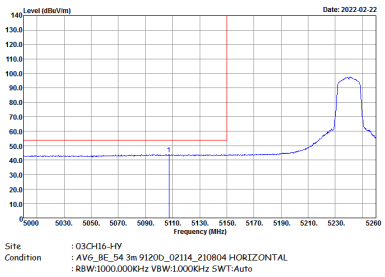
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
7	Vertical	Fundamental
Peak		
Avg.		Left blank

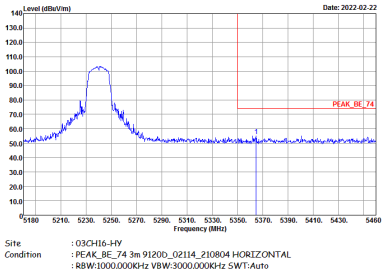
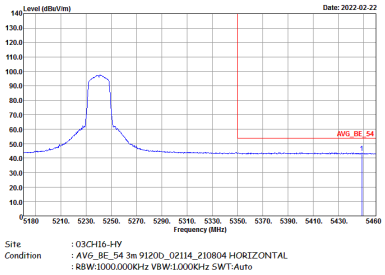
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
7	Horizontal	Fundamental
Peak		
Avg.		Left blank

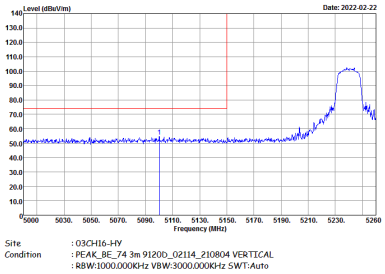
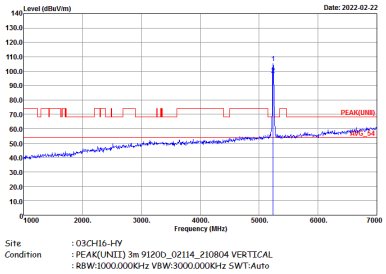
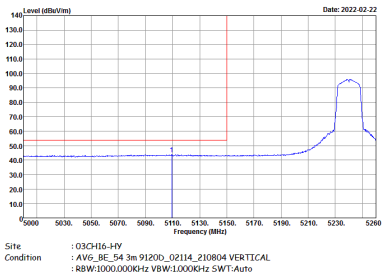
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
7	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

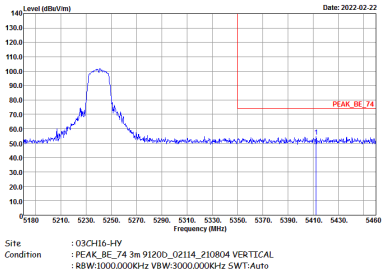
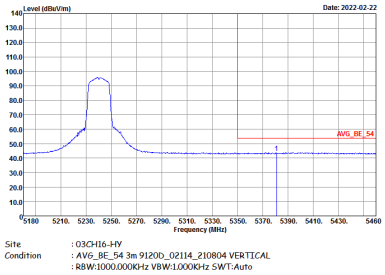
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
7	Vertical	Fundamental
Peak		
Avg.		Left blank

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

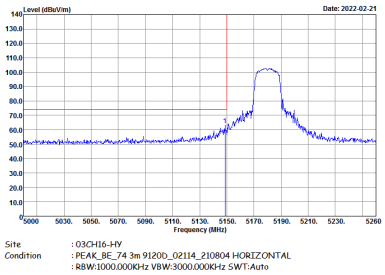
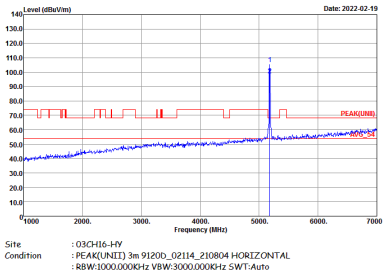
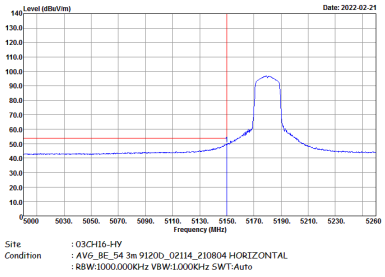
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
7	Horizontal	Fundamental
Peak		
Avg.		Left blank

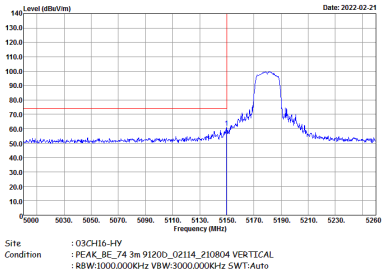
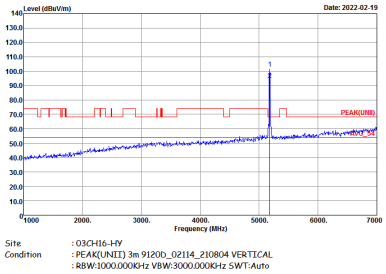
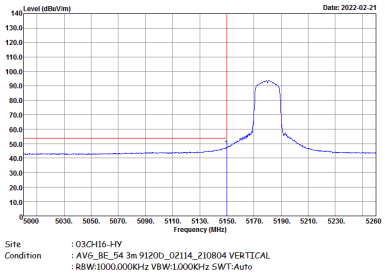
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
7	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

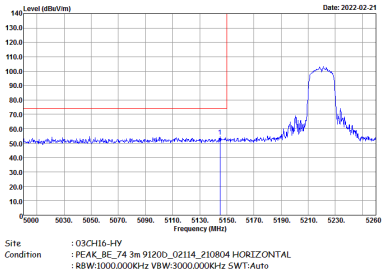
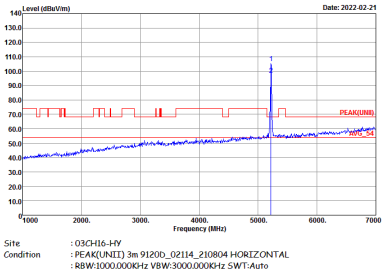
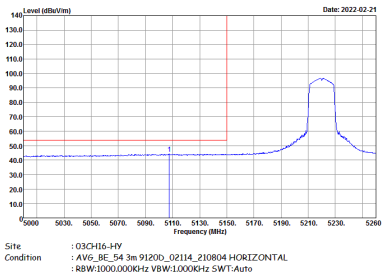
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
7	Vertical	Fundamental
Peak		
Avg.		Left blank

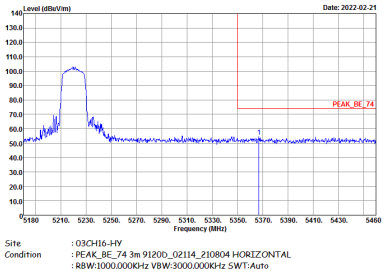
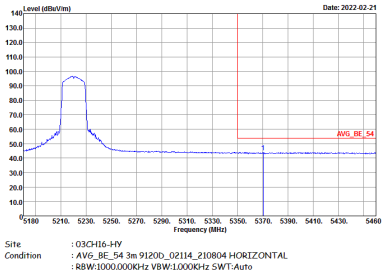
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
7	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

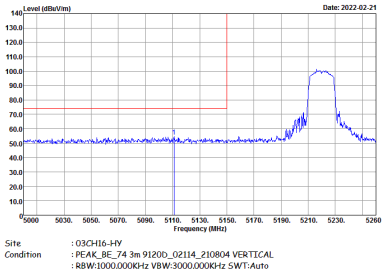
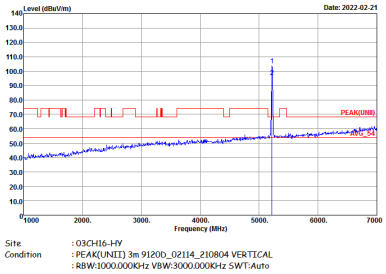
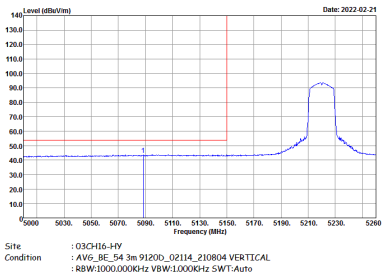
Band 1 5150~5250MHz
WIFI 802.11ac VHT20 (Band Edge @ 3m)

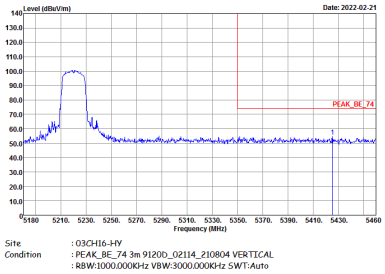
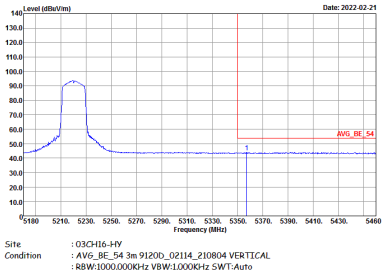
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH36 5180MHz	
7	Horizontal	Fundamental
Peak		
Avg.		Left blank

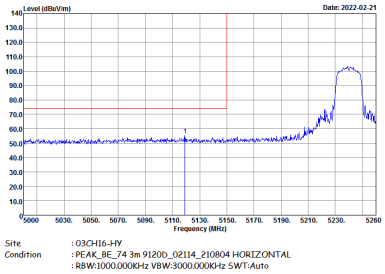
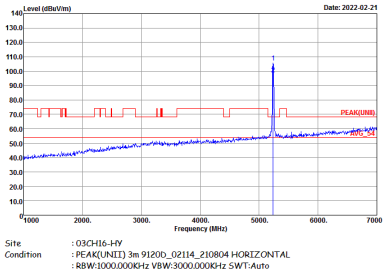
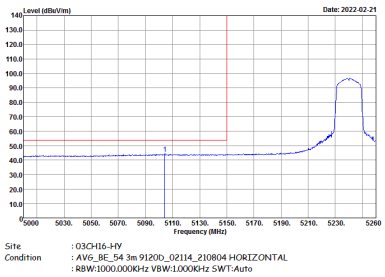
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH36 5180MHz	
7	Vertical	Fundamental
Peak		
Avg.		Left blank

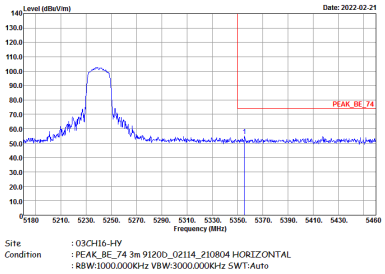
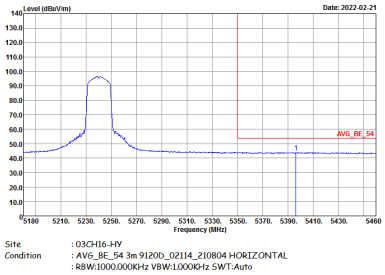
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH44 5220MHz - L	
7	Horizontal	Fundamental
Peak		
Avg.		Left blank

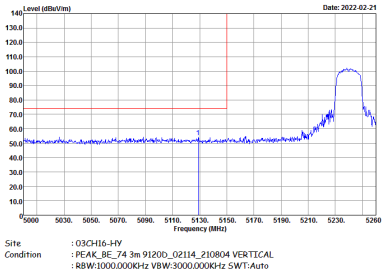
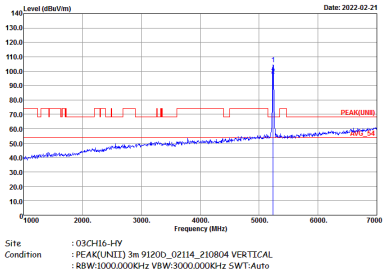
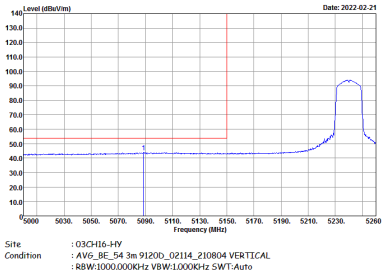
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH44 5220MHz - R	
7	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

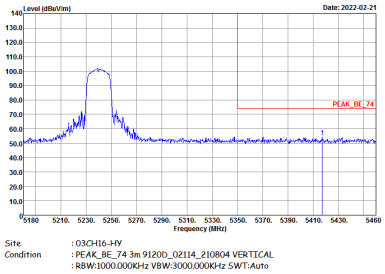
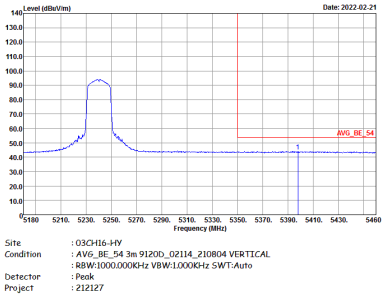
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH44 5220MHz - L	
7	Vertical	Fundamental
Peak		
Avg.		Left blank

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

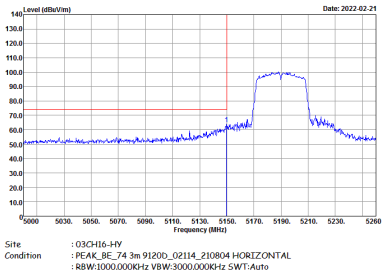
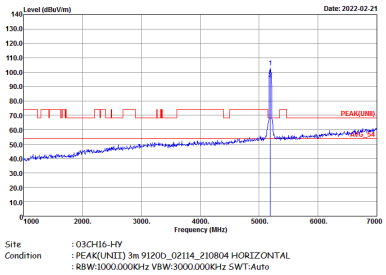
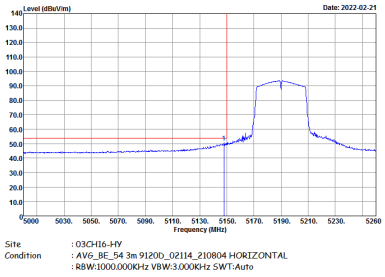
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH48 5240MHz - L	
7	Horizontal	Fundamental
Peak		
Avg.		Left blank

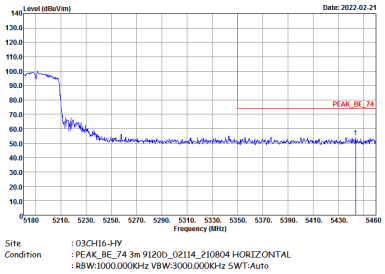
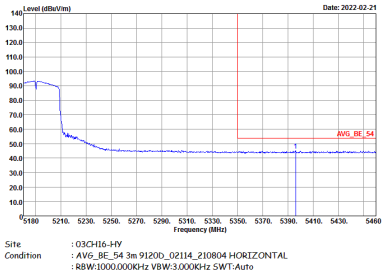
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH48 5240MHz - R	
7	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

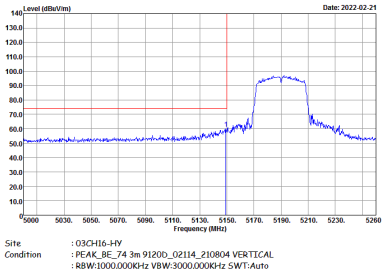
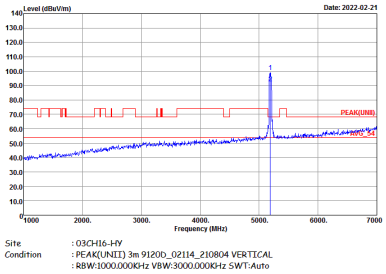
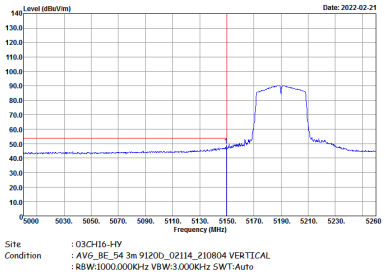
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH48 5240MHz - L	
7	Vertical	Fundamental
Peak		
Avg.		Left blank

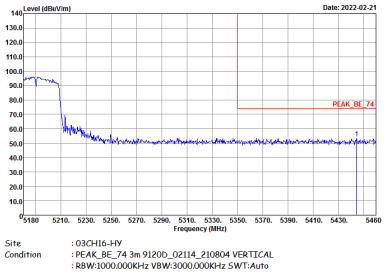
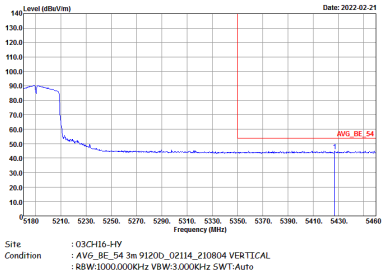
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH48 5240MHz - R	
	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

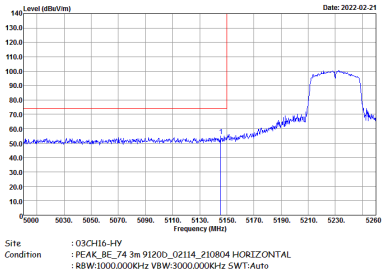
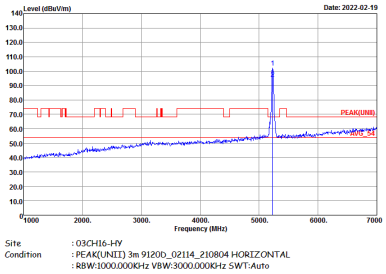
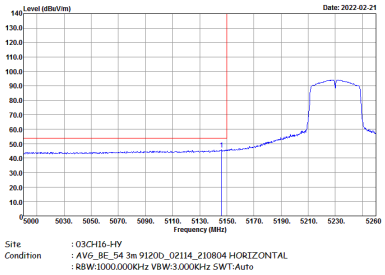
Band 1 5150~5250MHz
WIFI 802.11ac VHT40 (Band Edge @ 3m)

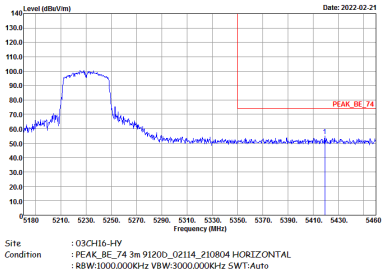
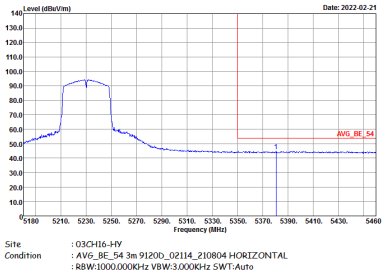
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH38 5190MHz - L	
7	Horizontal	Fundamental
Peak		
Avg.		Left blank

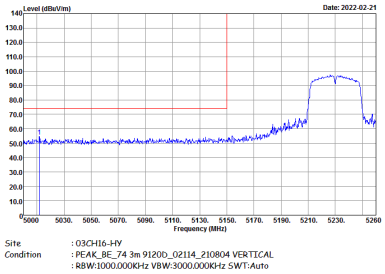
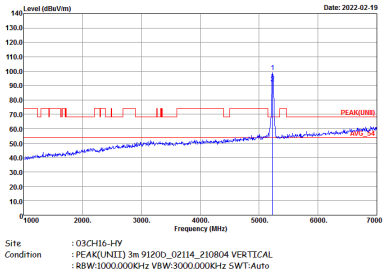
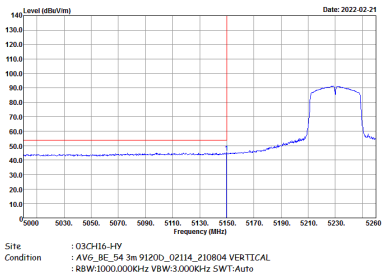
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH38 5190MHz - R	
7	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

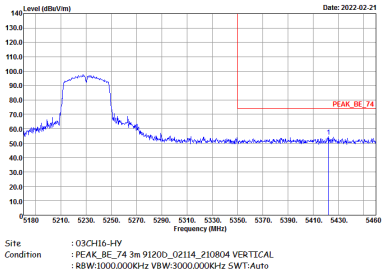
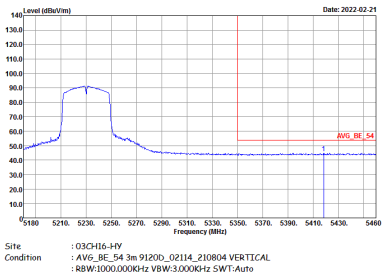
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH38 5190MHz - L	
7	Vertical	Fundamental
Peak		
Avg.		Left blank

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

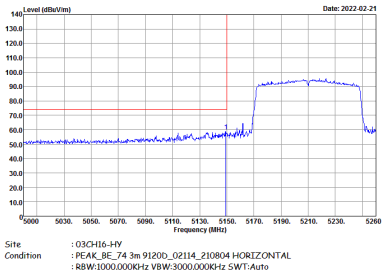
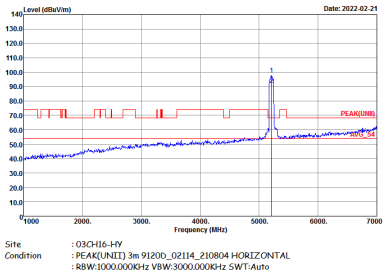
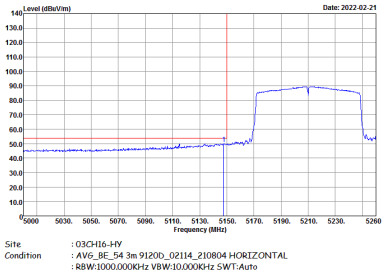
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH46 5230MHz - L	
7	Horizontal	Fundamental
Peak		
Avg.		Left blank

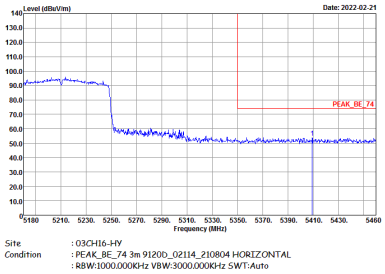
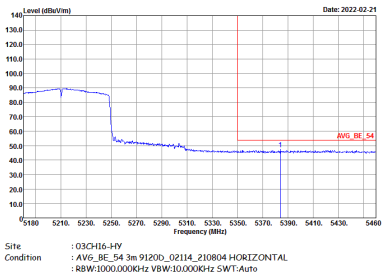
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH46 5230MHz - R	
7	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

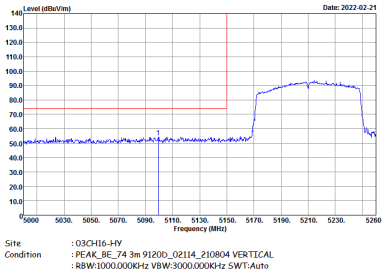
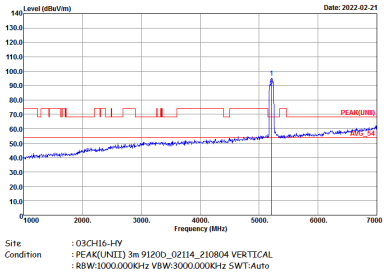
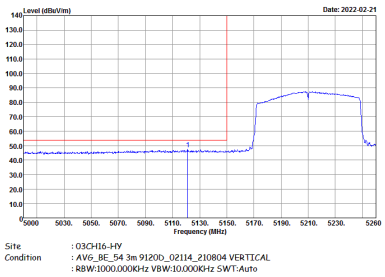
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH46 5230MHz - L	
7	Vertical	Fundamental
Peak		
Avg.		Left blank

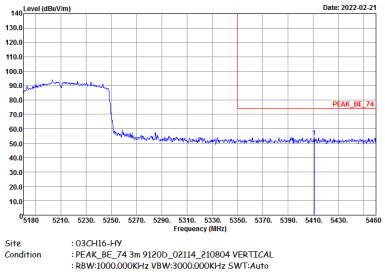
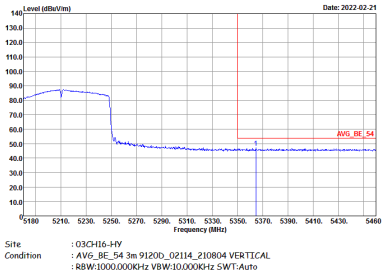
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH46 5230MHz - R	
7	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

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	
7	Horizontal	Fundamental
Peak		
Avg.		Left blank

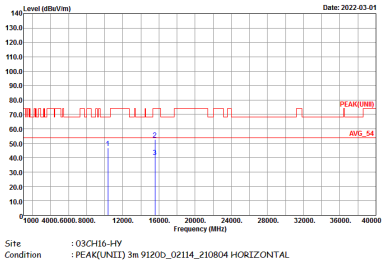
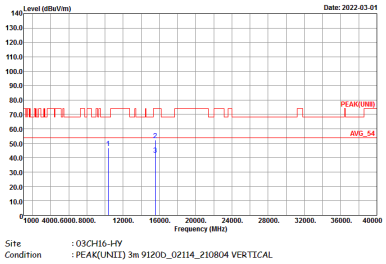
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
7	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

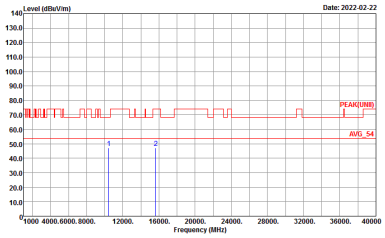
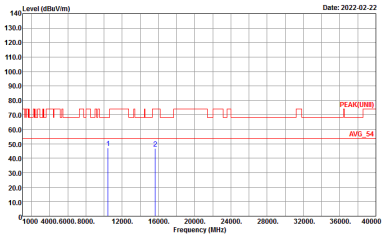
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
7	Vertical	Fundamental
Peak		
Avg.		Left blank

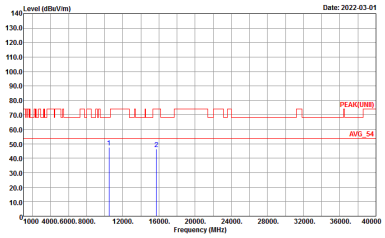
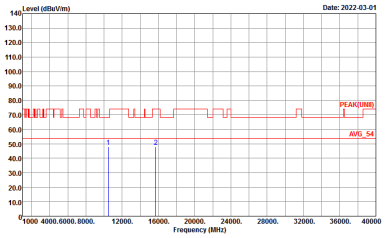
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
7	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 1 - 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

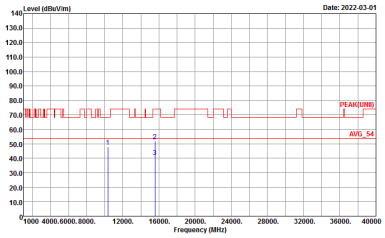
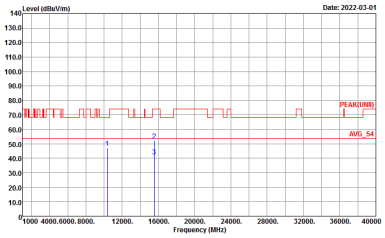
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH36 5180MHz	
7	Horizontal	Vertical
Peak Avg.		

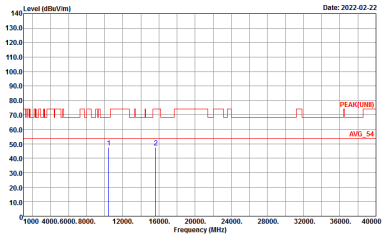
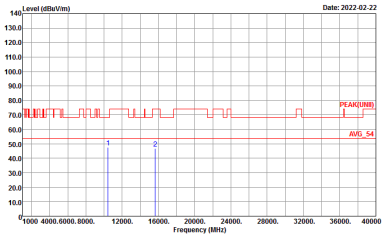
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH44 5220MHz	
7	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_02114_210804 HORIZONTAL	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_02114_210804 VERTICAL

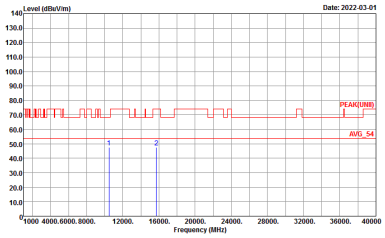
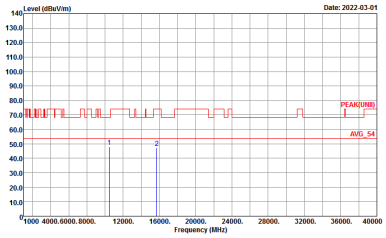
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH48 5240MHz	
7	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_02114_210804 HORIZONTAL	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_02114_210804 VERTICAL

Band 1 5150~5250MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

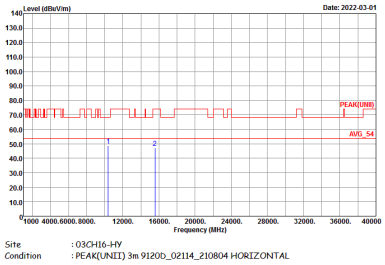
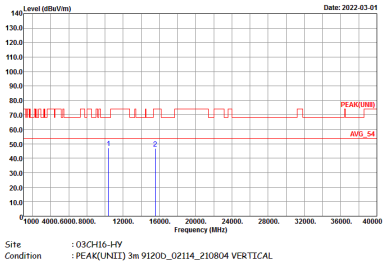
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH36 5180MHz	
7	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_02114_210804 HORIZONTAL	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_02114_210804 VERTICAL

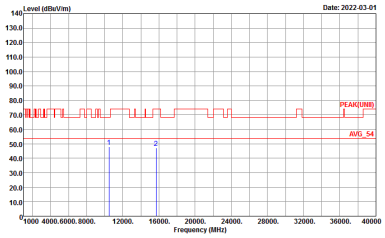
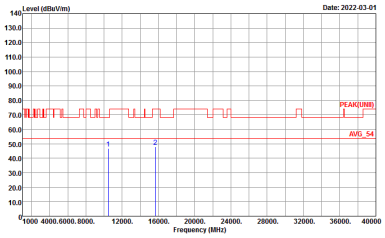
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH44 5220MHz	
7	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_02114_210804 HORIZONTAL	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_02114_210804 VERTICAL

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

Band 1 5150~5250MHz

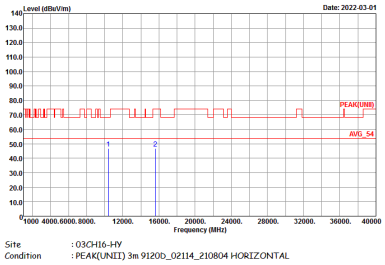
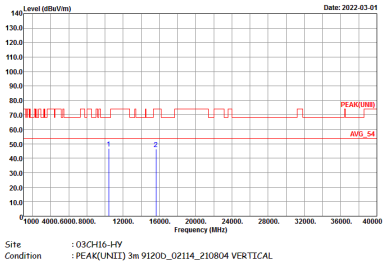
WIFI 802.11ac VHT40 (Harmonic @ 3m)

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

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ac VHT40 CH46 5230MHz	
7	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_02114_210804 HORIZONTAL	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_02114_210804 VERTICAL

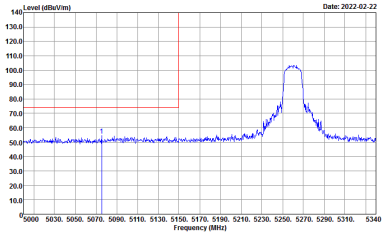
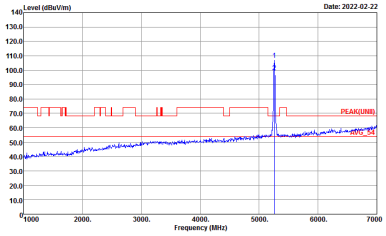
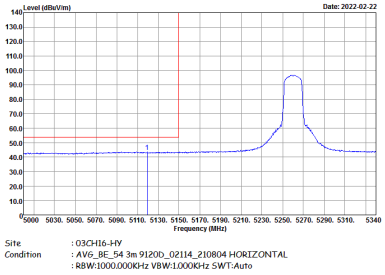
Band 1 5150~5250MHz

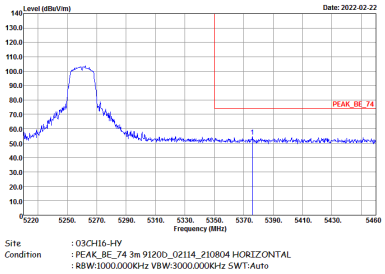
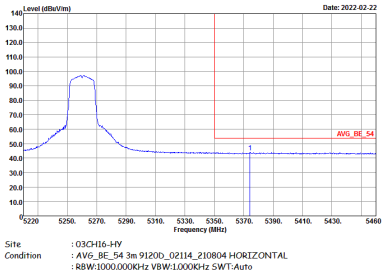
WIFI 802.11ac VHT80 (Harmonic @ 3m)

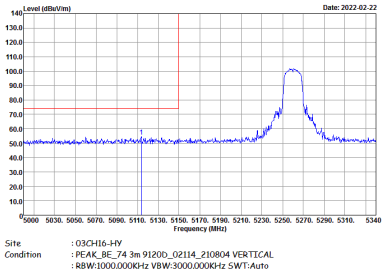
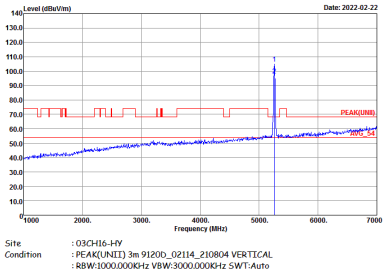
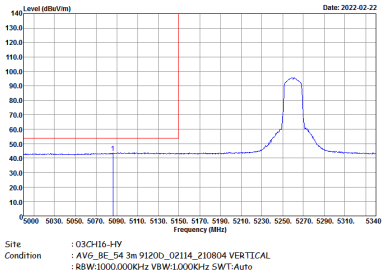
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz	
7	Horizontal	Vertical
Peak Avg.		

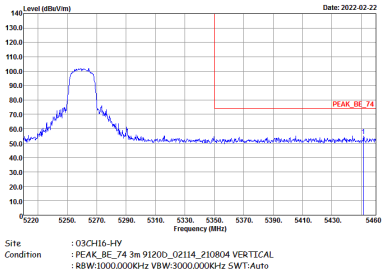
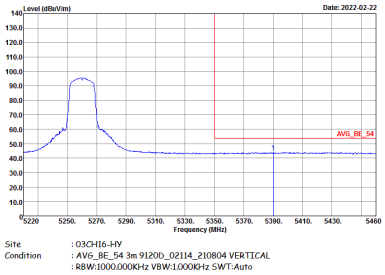
Band 2 - 5250~5350MHz

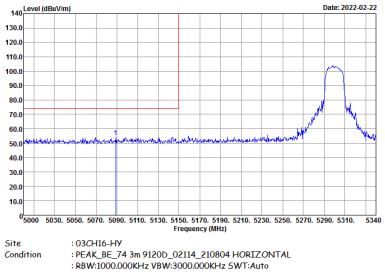
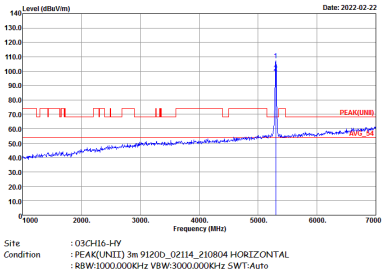
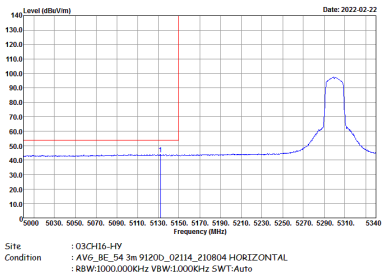
WIFI 802.11a (Band Edge @ 3m)

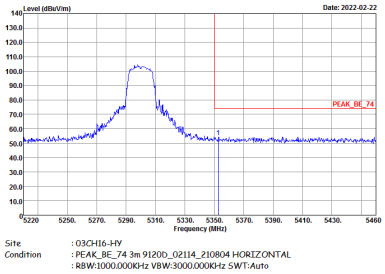
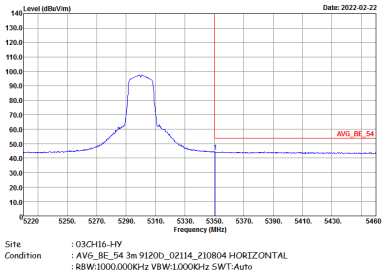
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
7	Horizontal	Fundamental
Peak		
Avg.		Left blank

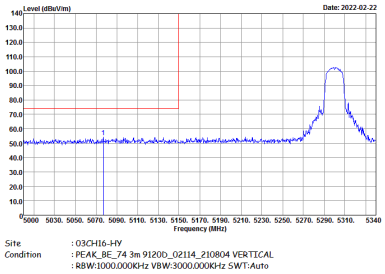
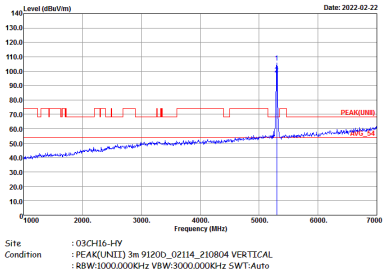
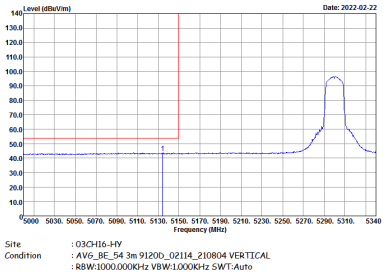
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
7	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

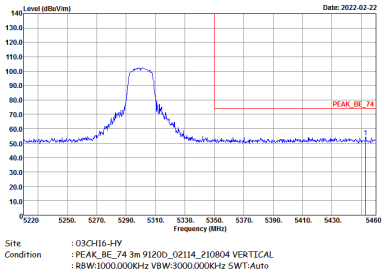
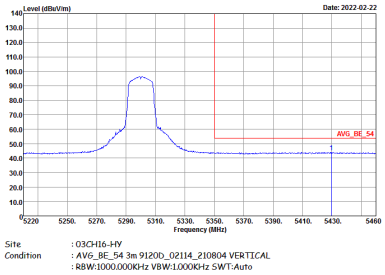
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
7	Vertical	Fundamental
Peak		
Avg.		Left blank

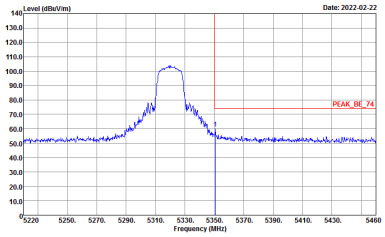
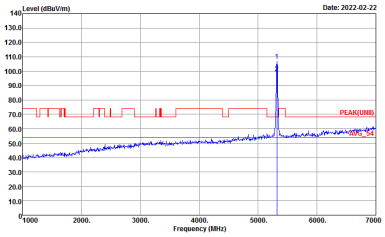
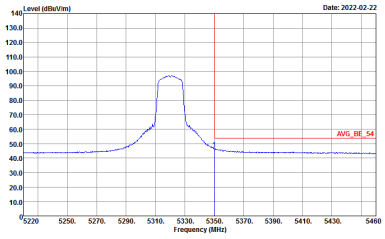
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
7	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

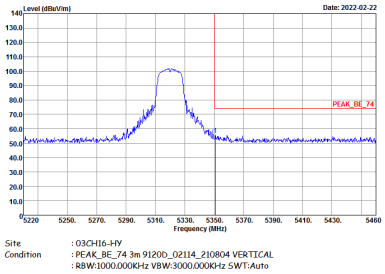
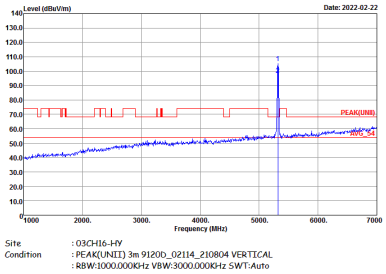
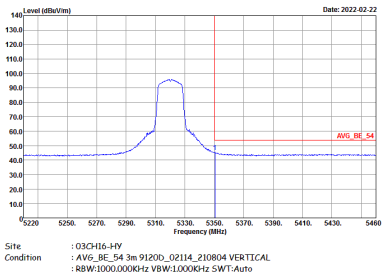
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - L	
7	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

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

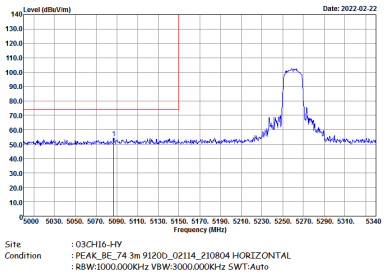
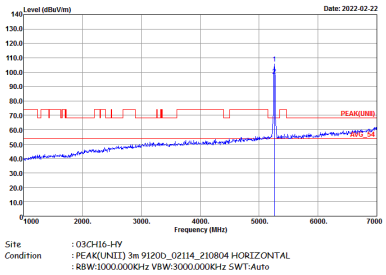
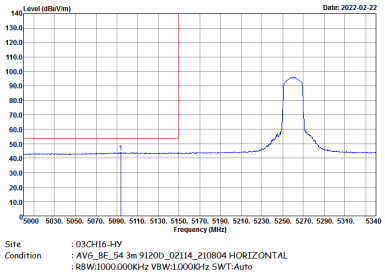
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - R	
7	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

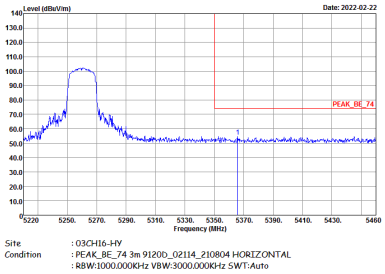
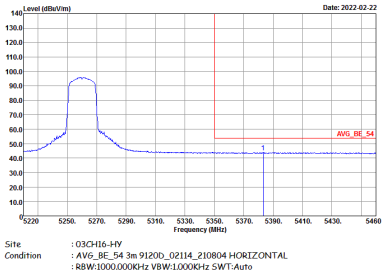
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
7	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 9120D_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 9120D_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto	Left blank

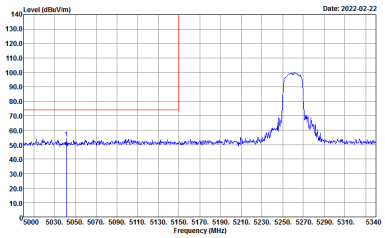
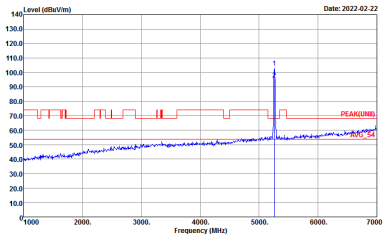
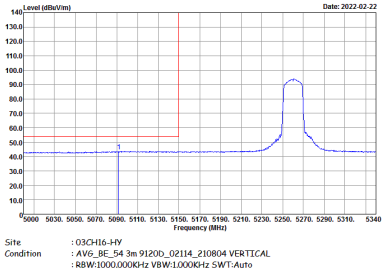
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
7	Vertical	Fundamental
Peak		
Avg.		Left blank

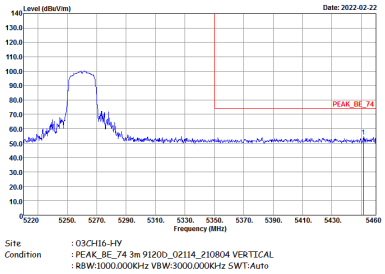
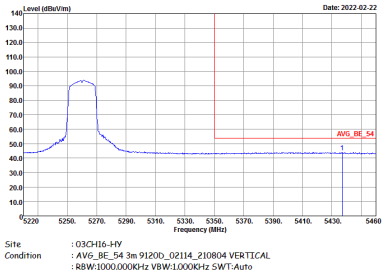
Band 2 5250~5350MHz

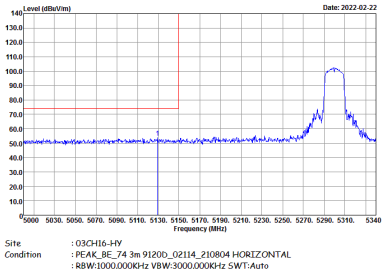
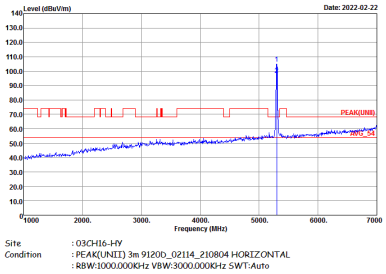
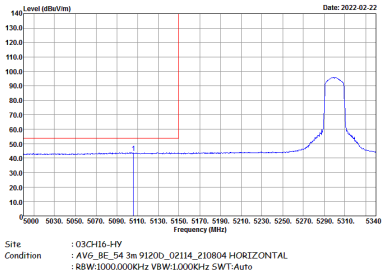
WIFI 802.11ac VHT20 (Band Edge @ 3m)

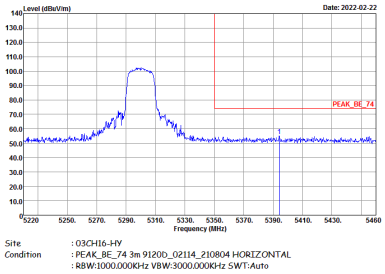
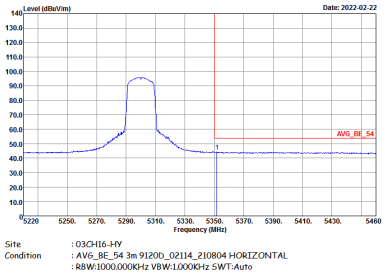
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH52 5260MHz - L	
7	Horizontal	Fundamental
Peak		
Avg.		Left blank

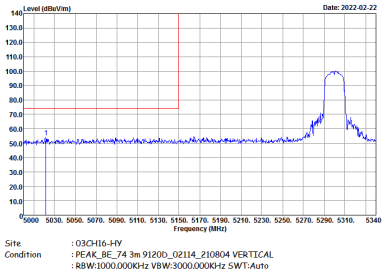
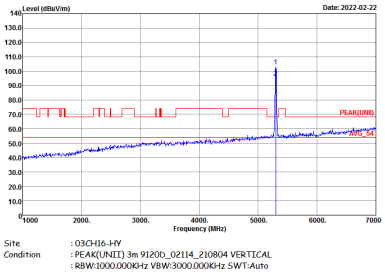
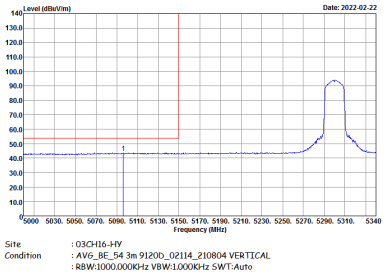
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH52 5260MHz - R	
7	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

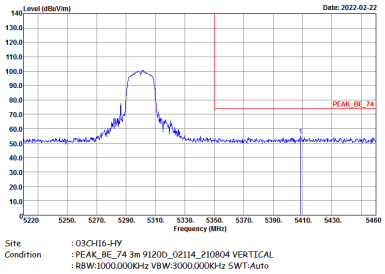
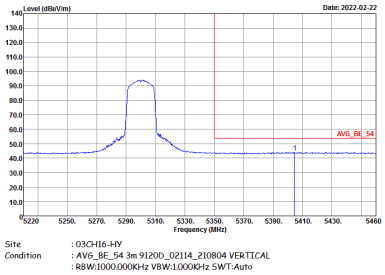
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH52 5260MHz - L	
7	Vertical	Fundamental
Peak		
Avg.		Left blank

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

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

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

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

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