FCC RADIO TEST REPORT

FCC ID	:	**2AVC9-7448**
Equipment	:	**Digital Media Receiver**
Model Name	:	**V5S83A**
Applicant	:	**BROOKLYN EAST LLC** **41 University Drive, Suite 400** **Newtown, PA 18940**
Standard	:	**FCC Part 15 Subpart E §15.407**

The product was received on Feb. 24, 2021 and testing was started from Feb. 24, 2021 and completed on Apr. 01, 2021. We, Sporton International (USA) Inc., 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 of Sporton International (USA) Inc., the test report shall not be reproduced except in full.

Neil Kao

Approved by: Neil Kao

Sporton International (USA) Inc.
1175 Montague Expressway, Milpitas, CA 95035

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History of this test report

Report No.	Version	Description	Issued Date
FR210302003D	01	Initial issue of report	Apr. 01, 2021

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)
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
3.5	15.207	AC Conducted Emission	Pass
3.6	15.407(c)	Automatically Discontinue Transmission	Pass
3.7	15.203 15.407(a)	Antenna Requirement	Pass

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Digital Media Receiver
Model Name	V5S83A
FCC ID	2AVC9-7448
EUT supports Radios application	WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE

Remark: The above EUT's information was declared by manufacturer.

1.2 Product Specification of Equipment Under Test

Product Specification subjective to this standard					
Tx/Rx Frequency Range	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5720 MHz				
Maximum Output Power to Antenna	**<5180 MHz ~ 5240 MHz>**				
	MIMO <Ant. 1+2>				
	802.11a	19.43	dBm	0.0877	W
	802.11n HT20	19.42	dBm	0.0875	W
	802.11n HT40	20.08	dBm	0.1019	W
	802.11ac VHT20	19.32	dBm	0.0855	W
	802.11ac VHT40	19.98	dBm	0.0995	W
	802.11ac VHT80	12.42	dBm	0.0087	W
	<5260 MHz ~ 5320 MHz>				
	MIMO <Ant. 1+2>				
	802.11a	19.14	dBm	0.0820	W
	802.11n HT20	19.03	dBm	0.0800	W
	802.11n HT40	20.80	dBm	0.1202	W
	802.11ac VHT20	18.93	dBm	0.0782	W
	802.11ac VHT40	20.54	dBm	0.1132	W
	802.11ac VHT80	15.19	dBm	0.0330	W
	<5500 MHz ~ 5720 MHz>				
	MIMO <Ant. 1+2>				
	802.11a	18.22	dBm	0.0664	W
	802.11n HT20	18.20	dBm	0.0661	W
	802.11n HT40	20.44	dBm	0.1107	W
	802.11ac VHT20	18.10	dBm	0.0646	W
	802.11ac VHT40	20.34	dBm	0.1081	W
	802.11ac VHT80	20.43	dBm	0.1104	W

Product Specification subjective to this standard	
99% Occupied Bandwidth	**MIMO <Ant. 1>** 802.11a: 17.28 MHz 802.11n HT20: 18.23 MHz 802.11n HT40: 38.36 MHz 802.11ac VHT80: 77.56 MHz **MIMO <Ant. 2>** 802.11a: 17.38 MHz 802.11n HT20: 18.13 MHz 802.11n HT40: 37.36 MHz 802.11ac VHT80: 77.32 MHz
Antenna Gain	**<5180 MHz ~ 5240 MHz>** Ant. 1 : 3.6 dBi Ant. 2 : 4.2 dBi
	<5260 MHz ~ 5320 MHz> Ant. 1 : 3.2 dBi Ant. 2 : 5.0 dBi
	<5500 MHz ~ 5720 MHz> Ant. 1 : 5.1 dBi Ant. 2 : 5.3 dBi
Antenna Type	**<Ant. 1>:** PIFA Antenna **<Ant. 2>:** Dual Loop Antenna
Type of Modulation	802.11a/n : OFDM (BPSK/QPSK/16QAM/64QAM) 802.11ac : OFDM (BPSK/QPSK/16QAM/64QAM/256QAM)
Antenna Function Description	

	Ant. 1	Ant. 2
802.11 a/n/ac MIMO	V	V

Remark:

1. MIMO Ant. 1+2 is a calculated result from sum of the power MIMO Ant. 1 and MIMO Ant. 2.
2. The above EUT's information was declared by manufacturer. Please refer to Comments and Explanations in report summary.

1.3 Modification of EUT

No modifications are made to the EUT during all test items.

1.4 Testing Location

Test Site	Sporton International (USA) Inc.
Test Site Location	1175 Montague Expressway Milpitas, CA 95035 TEL: 408-904-3300
Test Site No.	**Sporton Site No.**
	TH01-CA, CO01-CA, 03CH02-CA, DF01-CA

1.5 Applicable Standards

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

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

Remark: All test items were verified and recorded according to the standards and without any deviation during the test.

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, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Y plane) were recorded in this report.

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 in "*" were 802.11n HT40 and 802.11ac VHT40.
2. The above Frequency and Channel in "#" were 802.11ac VHT80.

2.2 Test Mode

Final test modes are considering the modulation and worse data rates as below table.

MIMO Mode

Modulation	Data Rate
802.11a	**6 Mbps**
802.11n HT20	**MCS0**
802.11n HT40	**MCS0**
802.11ac VHT20 (Covered by HT20)	**MCS0**
802.11ac VHT40 (Covered by HT40)	**MCS0**
802.11ac VHT80	**MCS0**

Test Cases	
AC Conducted Emission	Mode 1 : WLAN (5GHz) Tx + Bluetooth - LE Tx + Dock (Charging from Adapter)

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
		802.11n HT20	802.11n HT20	802.11n HT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

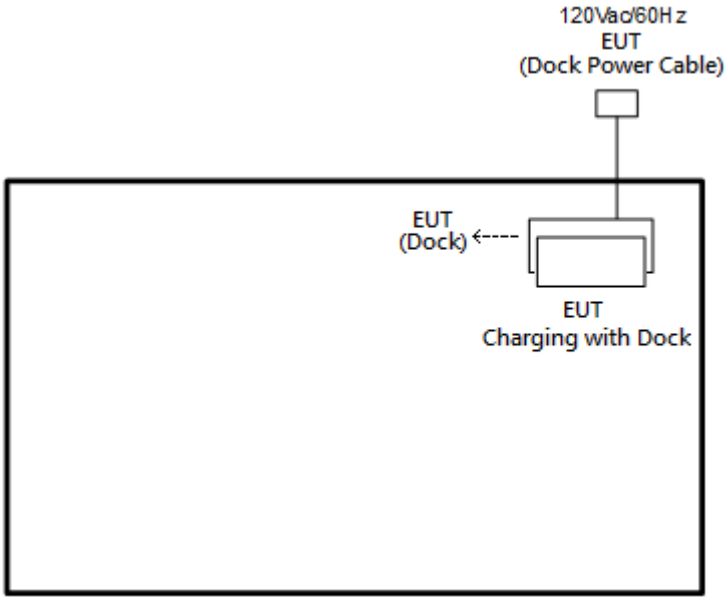
Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11n HT40	802.11n HT40	802.11n HT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134
Straddle		-	-	142

Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11ac VHT80	802.11ac VHT80	802.11ac VHT80
L	Low	-	-	106
M	Middle	42	58	-
H	High	-	-	122
Straddle		-	-	138

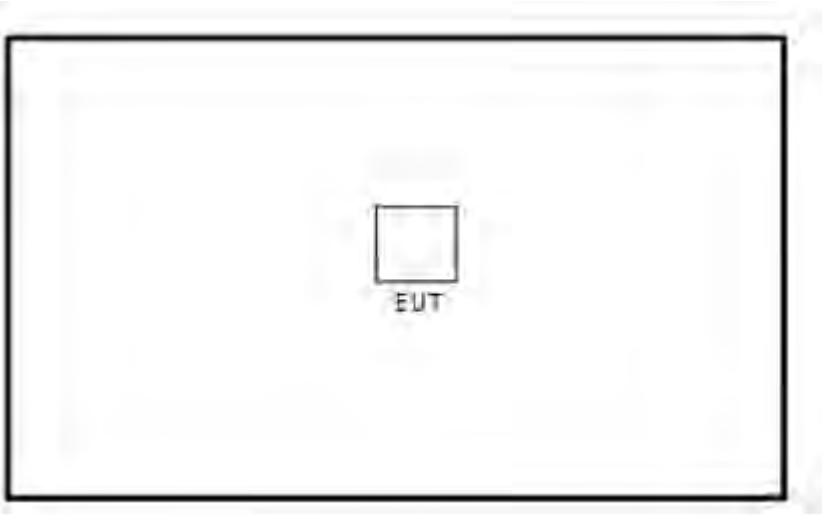
Remark: For radiation spurious emission, the final modulation and the worst data rate was reference the max RF conducted power.

2.3 Connection Diagram of Test System

<AC Conducted Emission Mode>



<WLAN Tx Mode>



2.4 EUT Operation Test Setup

The RF test items, utility “Compliance WiFi-BT-Zigbee 1.0.0.97” was installed in Notebook which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

2.5 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.

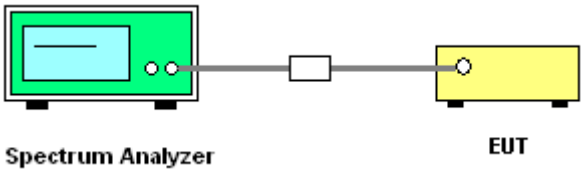
3.1.2 Measuring Instruments

See list of measuring equipment of 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.

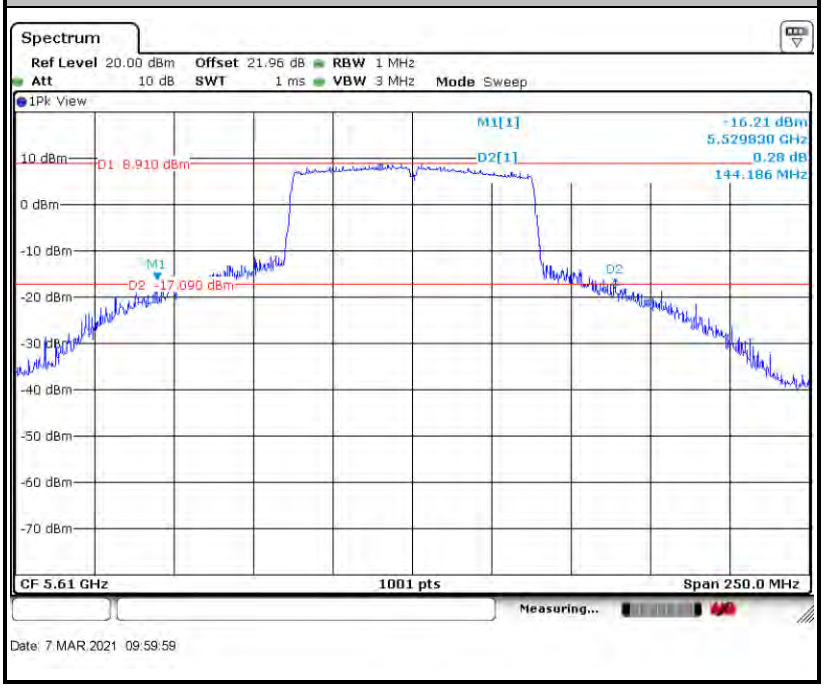
3.1.4 Test Setup



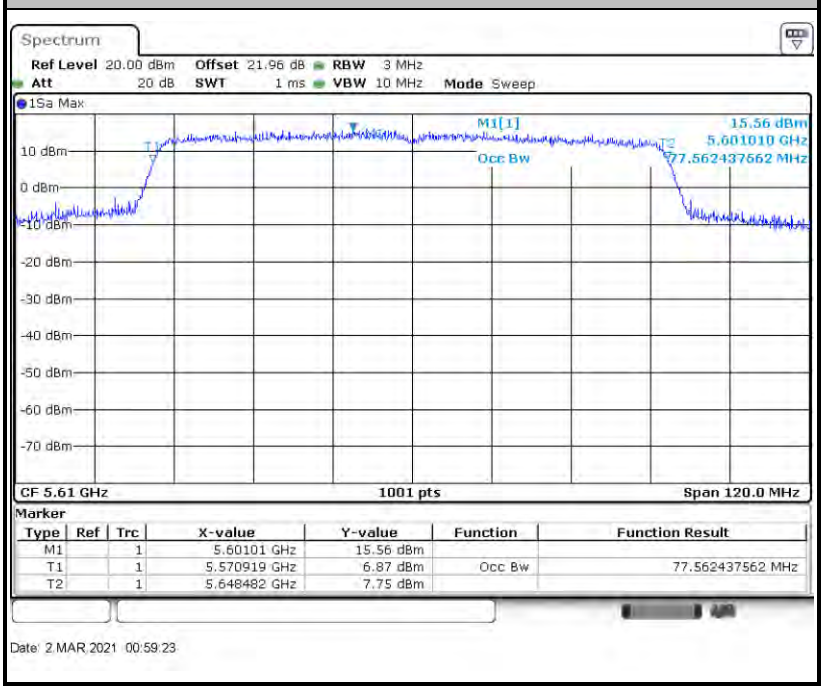
3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

Please refer to Appendix A.

Maximum 26dB Bandwidth



Maximum 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

See list of measuring equipment of this test report.

3.2.3 Test Procedures

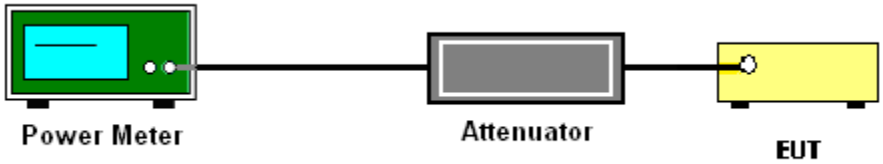
The testing follows Method PM-G of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

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

See list of measuring equipment of 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):

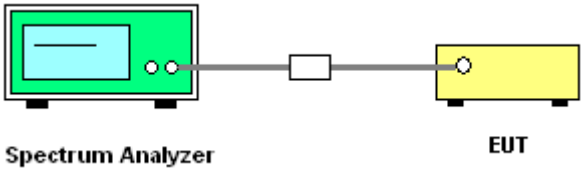
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz.
- Set VBW ≥ 3 MHz.
- Number of points in sweep ≥ 2 Span / RBW.
- Sweep time ≤ (number of points in sweep) × T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which 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 was connected to the spectrum analyzer by a low loss cable.
2. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.
3. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

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

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

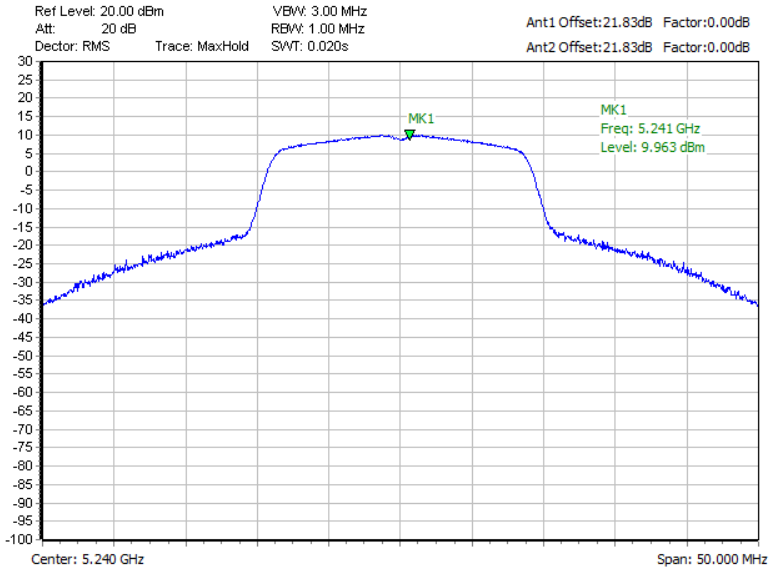
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

Worst Case Power Density (dBm/MHz)



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 fallen 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

See list of measuring equipment of 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

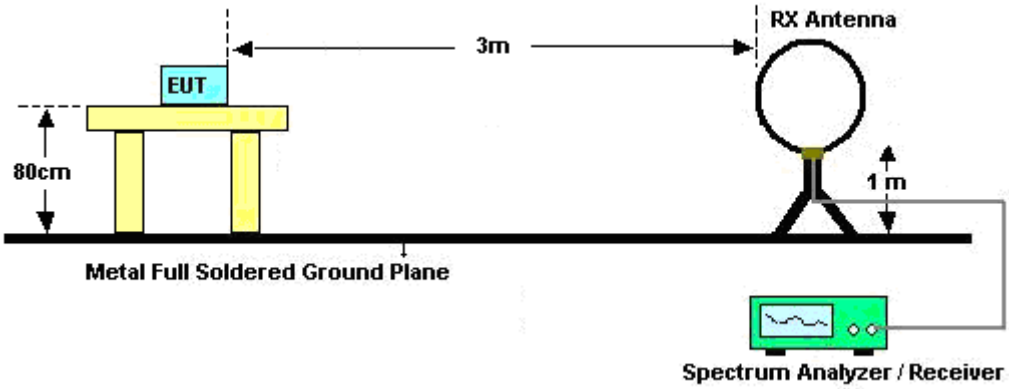
(3) Procedures for Average Unwanted Emissions Measurements Above 1000 MHz

- 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.

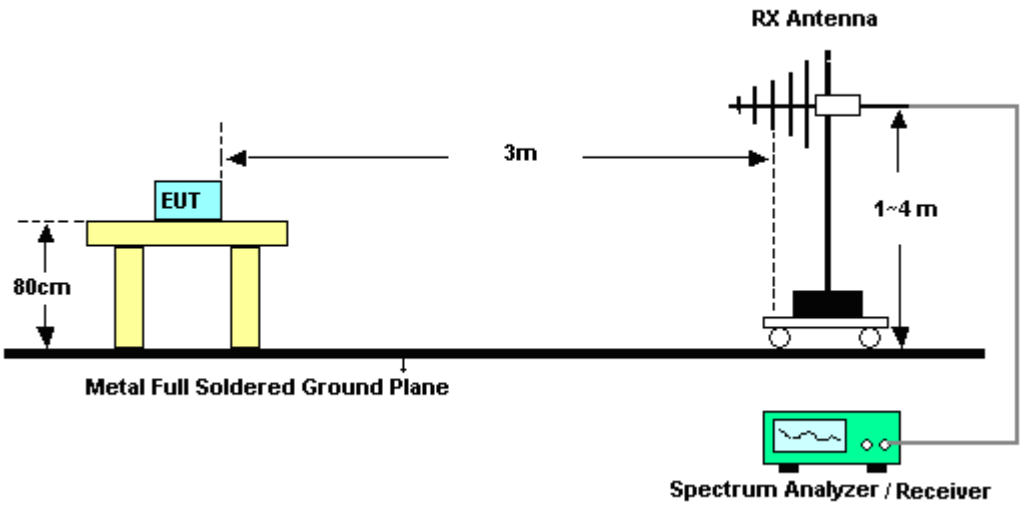
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband 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 was 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. For testing below 1 GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1 GHz, the emission level of the EUT in peak mode was 20 dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

3.4.4 Test Setup

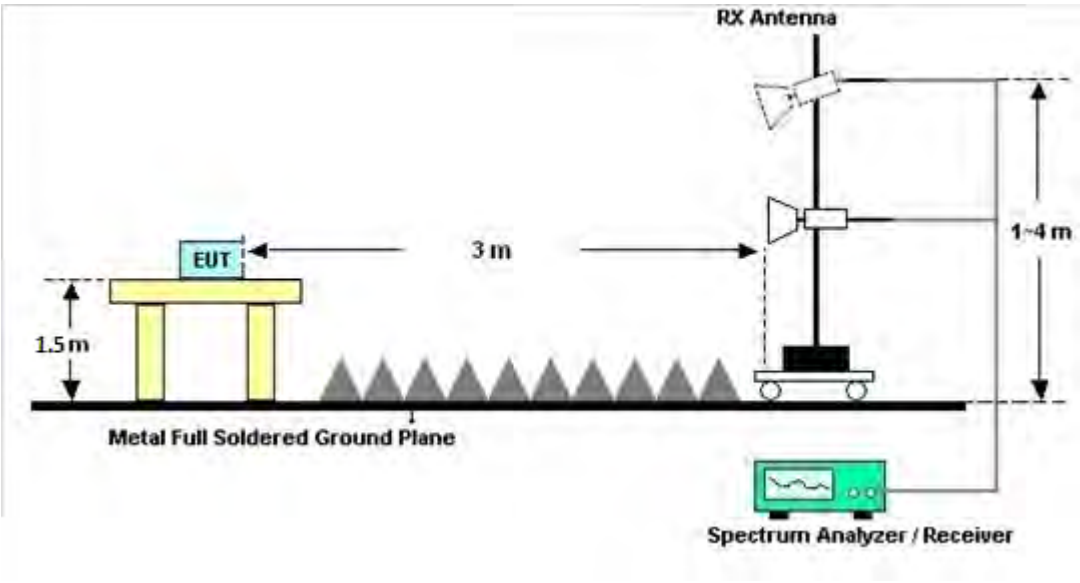
For radiated emissions below 30MHz



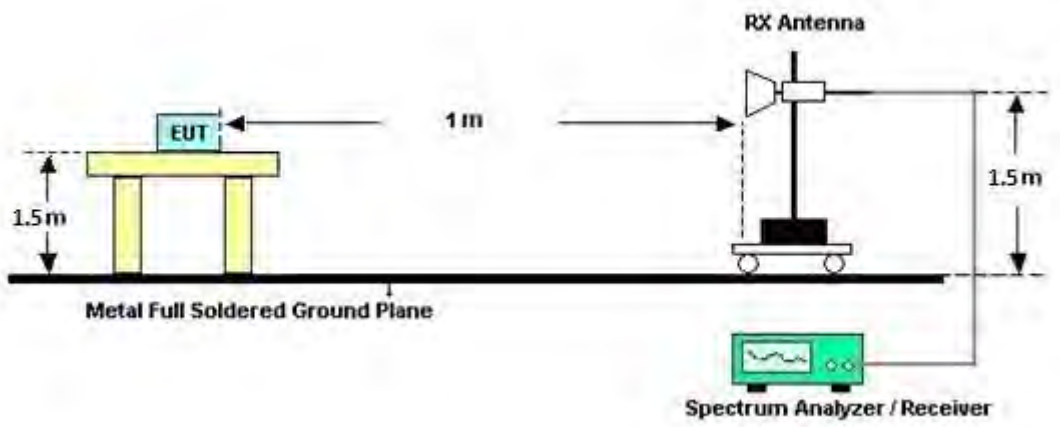
For radiated emissions from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



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

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

There is a comparison data 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.

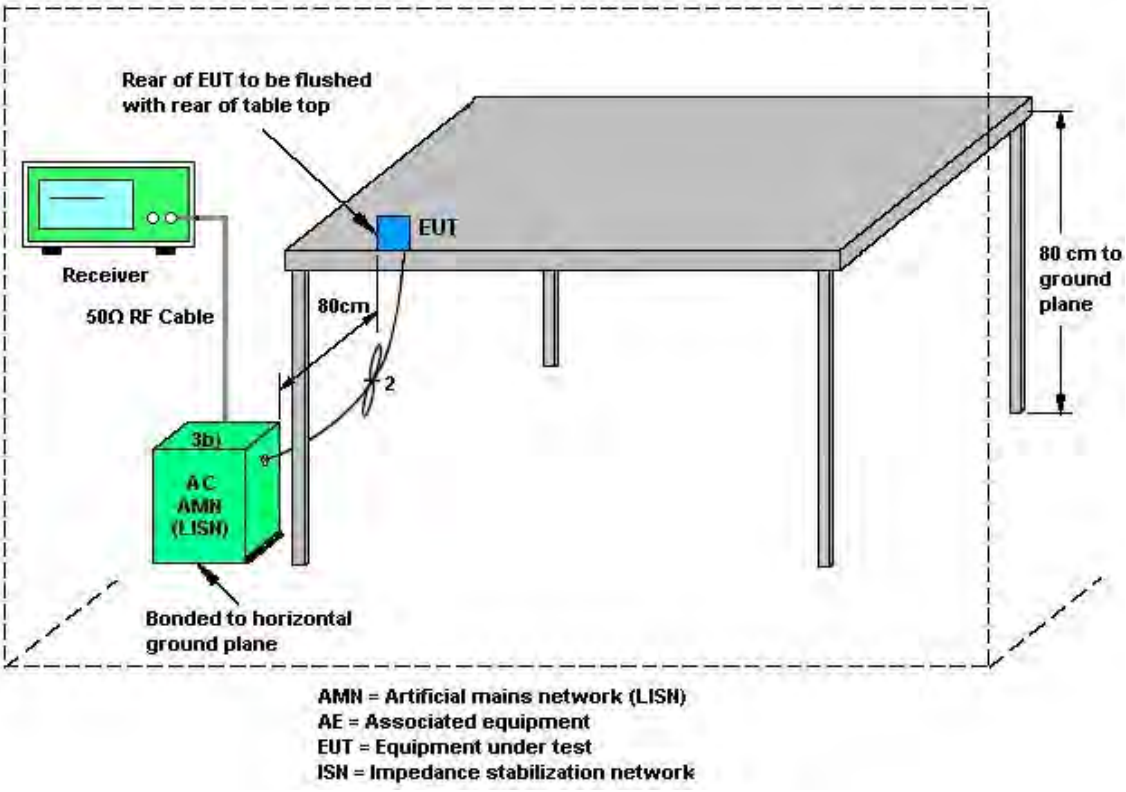
3.5.2 Measuring Instruments

See list of measuring equipment of this test report.

3.5.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was 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 sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

3.5.4 Test Setup



3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.6 Automatically Discontinue Transmission

3.6.1 Limit of Automatically Discontinue Transmission

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization to describe how this requirement is met.

3.6.2 Measuring Instruments

See list of measuring equipment of this test report.

3.6.3 Test Result of Automatically Discontinue Transmission

EUT is verified this characteristic during the function check of normal sample associated with an access point:

A. Information start: make EUT supply information to the access point.

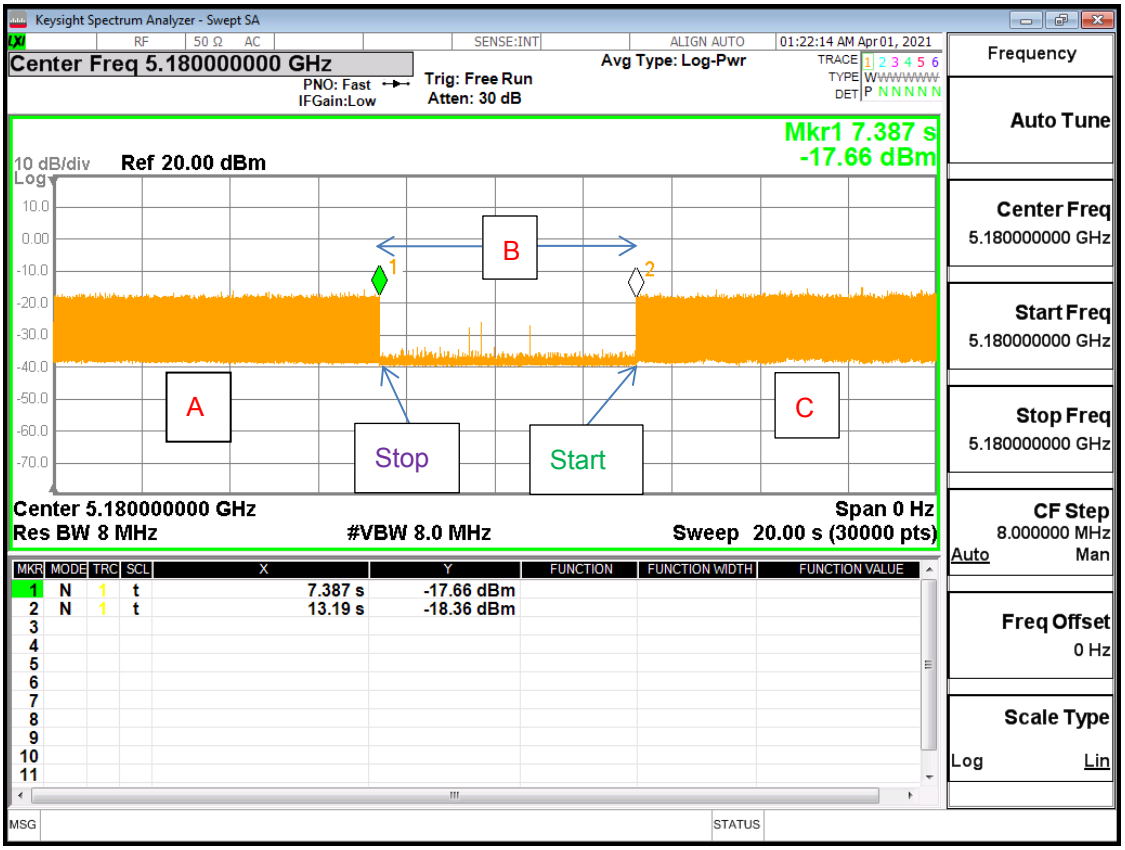
B. Information stop: stop supplying information to the access point.

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving.

C. Information start: make EUT supply information to the access point again.

The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

5180MHz



Note: The control / signalling information during the period B is precluded.

3.7 Antenna Requirements

3.7.1 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.

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 Antenna Gain

<CDD Modes >

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

Directional gain = GANT + Array Gain, where Array Gain is as follows.

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

Array Gain = 10 log(NANT/NSS=1) dB.

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 4.

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

The EUT supports CDD mode.

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

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

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

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

<CDD Modes>

	Ant. 1 (dBi)	Ant. 2 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
Band I	3.60	4.20	4.20	6.92	0.00	0.92
Band II	3.20	5.00	5.00	7.16	0.00	1.16
Band III	5.10	5.30	5.30	8.21	0.00	2.21

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

PSD limit reduction = Composite gain + PSD Array gain – 6dBi, (min = 0)

4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	R&S	HFH2-Z2E	100840	9kHz~30MHz	Jun. 16, 2020	Feb. 24, 2021~ Mar. 26, 2021	Jun. 15, 2021	Radiation (03CH02-CA)
Bilog Antenna	TESEQ	6111D	50392	30MHz~1GHz	Jul. 29, 2020	Feb. 24, 2021~ Mar. 26, 2021	Jul. 28, 2021	Radiation (03CH02-CA)
Horn Antenna	SCHWARZBECK	BBHA 9120D	01895	1GHz~18GHz	Aug. 28, 2020	Feb. 24, 2021~ Mar. 26, 2021	Aug. 27, 2021	Radiation (03CH02-CA)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA9170	00842	18GHz~40GHz	Jul. 27, 2020	Feb. 24, 2021~ Mar. 26, 2021	Jul. 26, 2021	Radiation (03CH02-CA)
Amplifier	SONOMA	310N	372240	N/A	Aug. 12, 2020	Feb. 24, 2021~ Mar. 26, 2021	Aug. 11, 2021	Radiation (03CH02-CA)
Preamplifier	Keysight	83017A	MY53270321	1GHz~26.5GHz	Jul. 28, 2020	Feb. 24, 2021~ Mar. 26, 2021	Jul. 27, 2021	Radiation (03CH02-CA)
Preamplifier	EMEC	EMC18G40G	060725	18G-40G	Aug. 07, 2020	Feb. 24, 2021~ Mar. 26, 2021	Aug. 06, 2021	Radiation (03CH02-CA)
Preamplifier	E-instrument	ERA-100M-18G-56-01-A70	EC1900251	1GHz~18GHz	Nov. 26, 2019	Feb. 24, 2021~ Mar. 26, 2021	Nov. 25, 2021	Radiation (03CH02-CA)
EMI Test Receiver	Rohde & Schwarz	ESR7	102177	9kHz~7GHz	Jul. 16, 2020	Feb. 24, 2021~ Mar. 26, 2021	Jul. 15, 2021	Radiation (03CH02-CA)
Spectrum Analyzer	Keysight	N9010A	MY57420221	10Hz~44GHz	Sep. 11, 2020	Feb. 24, 2021~ Mar. 26, 2021	Sep. 10, 2021	Radiation (03CH02-CA)
Filter	Wainwright	Whkx8-5872.5-6750-18000-40ST	SN8	6.75G Highpass	Jul. 24, 2020	Feb. 24, 2021~ Mar. 26, 2021	Jul. 23, 2021	Radiation (03CH02-CA)
Filter	Wainwright	WHKX12-2700-3000-18000-60ST	SN10	3G Highpass	Jul. 24, 2020	Feb. 24, 2021~ Mar. 26, 2021	Jul. 23, 2021	Radiation (03CH02-CA)
Filter	Wainwright	WLK12-1200-1272-11000-40SS	SN2	1.2G Low Pass	Jul. 24, 2020	Feb. 24, 2021~ Mar. 26, 2021	Jul. 23, 2021	Radiation (03CH02-CA)
Hygrometer	TESEO	608-H1	45142602	N/A	Aug. 05, 2020	Feb. 24, 2021~ Mar. 26, 2021	Aug. 04, 2021	Radiation (03CH02-CA)
Controller	ChainTek	3000-1	N/A	Control Turn table & Ant Mast	N/A	Feb. 24, 2021~ Mar. 26, 2021	N/A	Radiation (03CH02-CA)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Feb. 24, 2021~ Mar. 26, 2021	N/A	Radiation (03CH02-CA)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Feb. 24, 2021~ Mar. 26, 2021	N/A	Radiation (03CH02-CA)
Software	Audix	E3	N/A	N/A	N/A	Feb. 24, 2021~ Mar. 26, 2021	N/A	Radiation (03CH02-CA)

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Hygrometer	Testo	608-H1	45142595	N/A	Aug. 05, 2020	Mar. 01, 2021~ Mar. 10, 2021	Aug. 04, 2021	Conducted (TH01-CA)
Power Sensor	DARE!!	RPR3006W	RPR6W-1 901026	10MHz-6GHz	Jun. 24, 2020	Mar. 01, 2021~ Mar. 10, 2021	Jun. 23, 2021	Conducted (TH01-CA)
Spectrum Analyzer	Rohde & Schwarz	FSV40	101089	10Hz-40GHz	Sep. 14, 2020	Mar. 01, 2021~ Mar. 10, 2021	Sep. 13, 2021	Conducted (TH01-CA)
Switch Box & RF Cable	EM Electronics	EMSW26	1090304	N/A	Dec. 30, 2020	Mar. 01, 2021~ Mar. 10, 2021	Dec. 29, 2021	Conducted (TH01-CA)
LISN	TESEQ	NNB51	47407	N/A	Jul. 06, 2020	Mar. 12, 2021	Jul. 05, 2021	Conduction (CO01-CA)
EMI Test Receiver	R&S	ESR7	102177	9KHz~7GHz	Jul. 16, 2020	Mar. 12, 2021	Jul. 15, 2021	Conduction (CO01-CA)
Pulse limiter with 10dB attenuation	R&S	VTSD 9561-F N	9561-F-N00412	N/A	Jul. 08, 2020	Mar. 12, 2021	Jul. 07, 2021	Conduction (CO01-CA)
Test Software	R&S	EMC32 V10.30.0	N/A	N/A	N/A	Mar. 12, 2021	N/A	Conduction (CO01-CA)
EXA Signal Analyzer	Keysight	N9010A	MY560704 12	10Hz~7GHz	Aug. 27, 2020	Apr. 01, 2021	Aug. 26, 2021	Conducted (DF01-CA)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.20

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.50

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	6.10

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	6.50

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Andy Kao/Kaying Xiong	Temperature:	17~22.2	℃
Test Date:	2021/3/1~2021/3/10	Relative Humidity:	31~47.5	%

TEST RESULTS DATA
26dB and 99% OBW

Band I MIMO														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)			Note
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	2	36	5180	16.83	16.83	28.97	26.52	-		22.26			
11a	6Mbps	2	44	5220	17.03	16.73	30.57	27.67	-		22.24			
11a	6Mbps	2	48	5240	16.83	16.98	28.52	30.77	-		22.26			
HT20	MCS0	2	36	5180	17.93	17.78	31.37	30.27	-		22.50			
HT20	MCS0	2	44	5220	17.93	17.93	32.32	32.07	-		22.54			
HT20	MCS0	2	48	5240	17.93	17.88	33.77	35.07	-		22.52			
HT40	MCS0	2	38	5190	36.76	36.56	41.45	41.36	-		23.01			
HT40	MCS0	2	46	5230	37.06	37.16	60.33	64.38	-		23.01			
VHT80	MCS0	2	42	5210	76.60	76.72	81.36	81.68	-		23.01			

TEST RESULTS DATA
Average Power Table

FCC Band I MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)			Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	2	36	5180	16.11	16.21	19.17	24.00		4.20			Pass
11a	6Mbps	2	44	5220	16.11	16.71	19.43	24.00		4.20			Pass
11a	6Mbps	2	48	5240	15.71	16.21	18.98	24.00		4.20			Pass
HT20	MCS0	2	36	5180	16.01	15.81	18.92	24.00		4.20			Pass
HT20	MCS0	2	44	5220	15.61	16.01	18.82	24.00		4.20			Pass
HT20	MCS0	2	48	5240	16.21	16.61	19.42	24.00		4.20			Pass
HT40	MCS0	2	38	5190	14.31	14.41	17.37	24.00		4.20			Pass
HT40	MCS0	2	46	5230	16.81	17.31	20.08	24.00		4.20			Pass
VHT20	MCS0	2	36	5180	15.91	15.71	18.82	24.00		4.20			Pass
VHT20	MCS0	2	44	5220	15.51	15.91	18.72	24.00		4.20			Pass
VHT20	MCS0	2	48	5240	16.11	16.51	19.32	24.00		4.20			Pass
VHT40	MCS0	2	38	5190	14.21	14.31	17.27	24.00		4.20			Pass
VHT40	MCS0	2	46	5230	16.71	17.21	19.98	24.00		4.20			Pass
VHT80	MCS0	2	42	5210	9.41	9.41	12.42	24.00		4.20			Pass

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TEST RESULTS DATA
Power Spectral Density

FCC Band I MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	2	36	5180			9.79	10.08		6.92			Pass
11a	6Mbps	2	44	5220			9.83	10.08		6.92			Pass
11a	6Mbps	2	48	5240			9.51	10.08		6.92			Pass
HT20	MCS0	2	36	5180			9.71	10.08		6.92			Pass
HT20	MCS0	2	44	5220			9.70	10.08		6.92			Pass
HT20	MCS0	2	48	5240			9.96	10.08		6.92			Pass
HT40	MCS0	2	38	5190			4.27	10.08		6.92			Pass
HT40	MCS0	2	46	5230			7.09	10.08		6.92			Pass
VHT80	MCS0	2	42	5210			-4.00	10.08		6.92			Pass

TEST RESULTS DATA
26dB and 99% OBW

Band II MIMO																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		Note
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	2	52	5260	16.98	17.38	33.77	34.97	23.30		29.30		23.98		
11a	6Mbps	2	60	5300	17.08	17.08	35.37	34.42	23.33		29.33		23.98		
11a	6Mbps	2	64	5320	17.03	16.88	34.22	27.42	23.27		29.27		23.98		
HT20	MCS0	2	52	5260	18.08	17.93	33.02	35.81	23.54		29.54		23.98		
HT20	MCS0	2	60	5300	18.13	18.13	37.56	37.66	23.58		29.58		23.98		
HT20	MCS0	2	64	5320	18.08	17.93	34.97	33.07	23.54		29.54		23.98		
HT40	MCS0	2	54	5270	37.16	37.26	53.05	68.42	23.98		30.00		23.98		
HT40	MCS0	2	62	5310	36.76	36.76	41.54	41.36	23.98		30.00		23.98		
VHT80	MCS0	2	58	5290	76.60	76.48	81.36	81.04	23.98		30.00		23.98		

TEST RESULTS DATA
Average Power Table

FCC Band II MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	2	52	5260	15.87	16.37	19.14	23.98		5.00		26.99	Pass
11a	6Mbps	2	60	5300	15.77	16.07	18.93	23.98		5.00		26.99	Pass
11a	6Mbps	2	64	5320	15.97	15.87	18.93	23.98		5.00		26.99	Pass
HT20	MCS0	2	52	5260	15.97	16.07	19.03	23.98		5.00		26.99	Pass
HT20	MCS0	2	60	5300	15.77	15.77	18.78	23.98		5.00		26.99	Pass
HT20	MCS0	2	64	5320	15.87	15.67	18.78	23.98		5.00		26.99	Pass
HT40	MCS0	2	54	5270	17.37	18.17	20.80	23.98		5.00		26.99	Pass
HT40	MCS0	2	62	5310	14.87	15.07	17.98	23.98		5.00		26.99	Pass
VHT20	MCS0	2	52	5260	15.87	15.97	18.93	23.98		5.00		26.99	Pass
VHT20	MCS0	2	60	5300	15.67	15.67	18.68	23.98		5.00		26.99	Pass
VHT20	MCS0	2	64	5320	15.77	15.57	18.68	23.98		5.00		26.99	Pass
VHT40	MCS0	2	54	5270	17.27	17.77	20.54	23.98		5.00		26.99	Pass
VHT40	MCS0	2	62	5310	14.77	14.47	17.63	23.98		5.00		26.99	Pass
VHT80	MCS0	2	58	5290	12.47	11.87	15.19	23.98		5.00		26.99	Pass

Report Number : FR210302003D

TEST RESULTS DATA
Power Spectral Density

Band II MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	2	52	5260			9.62	9.84		7.16			Pass
11a	6Mbps	2	60	5300			9.47	9.84		7.16			Pass
11a	6Mbps	2	64	5320			9.36	9.84		7.16			Pass
HT20	MCS0	2	52	5260			9.82	9.84		7.16			Pass
HT20	MCS0	2	60	5300			9.60	9.84		7.16			Pass
HT20	MCS0	2	64	5320			9.44	9.84		7.16			Pass
HT40	MCS0	2	54	5270			7.74	9.84		7.16			Pass
HT40	MCS0	2	62	5310			4.89	9.84		7.16			Pass
VHT80	MCS0	2	58	5290			-1.48	9.84		7.16			Pass

TEST RESULTS DATA
26dB and 99% OBW

Band III MIMO																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth In U-NII 2C (MHz)		26 dB Bandwidth In U-NII 2C (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		6 dB Bandwidth for Straddle Channel (MHz)	
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2
11a	6Mbps	2	100	5500	17.23	16.93	34.32	27.92	23.29		29.29		23.98		----	----
11a	6Mbps	2	116	5580	17.28	16.93	34.77	28.32	23.29		29.29		23.98		----	----
11a	6Mbps	2	140	5700	17.13	17.03	32.92	27.77	23.31		29.31		23.98		----	----
HT20	MCS0	2	100	5500	18.23	17.88	36.91	32.07	23.52		29.52		23.98		----	----
HT20	MCS0	2	116	5580	18.23	17.93	36.51	35.32	23.54		29.54		23.98		----	----
HT20	MCS0	2	140	5700	18.18	18.03	37.46	35.86	23.56		29.56		23.98		----	----
HT40	MCS0	2	102	5510	36.96	36.76	45.50	41.45	23.98		30.00		23.98		----	----
HT40	MCS0	2	110	5550	37.56	37.16	72.65	61.68	23.98		30.00		23.98		----	----
HT40	MCS0	2	134	5670	38.36	37.36	69.59	64.02	23.98		30.00		23.98		----	----
VHT80	MCS0	2	106	5530	76.60	76.72	81.20	81.68	23.98		30.00		23.98		----	----
VHT80	MCS0	2	122	5610	77.56	77.32	141.36	144.19	23.98		30.00		23.98		----	----

Band III straddle channel MIMO																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth In U-NII 2C (MHz)		26 dB Bandwidth In U-NII 2C (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		6 dB Bandwidth for Straddle Channel (MHz)	
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2
11a	6Mbps	2	144	5720	13.69	13.54	21.58	18.74	22.32		28.32		23.73		3.142	3.142
HT20	MCS0	2	144	5720	14.14	14.04	23.73	22.88	22.47		28.47		23.98		3.741	3.742
HT40	MCS0	2	142	5710	34.18	33.58	52.16	50.84	23.98		30.00		23.98		3.1617	3.1617
VHT80	MCS0	2	138	5690	74.20	73.60	116.17	100.18	23.98		30.00		23.98		3.204	3.204

TEST RESULTS DATA
Average Power Table

FCC Band III MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	2	100	5500	15.27	14.87	18.08	23.98		5.30		26.99	Pass
11a	6Mbps	2	116	5580	14.77	14.97	17.88	23.98		5.30		26.99	Pass
11a	6Mbps	2	140	5700	14.17	15.27	17.77	23.98		5.30		26.99	Pass
HT20	MCS0	2	100	5500	14.77	14.37	17.58	23.98		5.30		26.99	Pass
HT20	MCS0	2	116	5580	14.77	14.97	17.88	23.98		5.30		26.99	Pass
HT20	MCS0	2	140	5700	14.77	15.57	18.20	23.98		5.30		26.99	Pass
HT40	MCS0	2	102	5510	15.97	15.17	18.60	23.98		5.30		26.99	Pass
HT40	MCS0	2	110	5550	17.47	17.07	20.28	23.98		5.30		26.99	Pass
HT40	MCS0	2	134	5670	17.67	17.17	20.44	23.98		5.30		26.99	Pass
VHT20	MCS0	2	100	5500	14.67	14.27	17.48	23.98		5.30		26.99	Pass
VHT20	MCS0	2	116	5580	14.67	14.87	17.78	23.98		5.30		26.99	Pass
VHT20	MCS0	2	140	5700	14.67	15.47	18.10	23.98		5.30		26.99	Pass
VHT40	MCS0	2	102	5510	15.67	14.97	18.34	23.98		5.30		26.99	Pass
VHT40	MCS0	2	110	5550	17.37	16.97	20.18	23.98		5.30		26.99	Pass
VHT40	MCS0	2	134	5670	17.57	17.07	20.34	23.98		5.30		26.99	Pass
VHT80	MCS0	2	106	5530	13.07	12.87	15.98	23.98		5.30		26.99	Pass
VHT80	MCS0	2	122	5610	17.57	17.27	20.43	23.98		5.30		26.99	Pass

FCC Band III straddle channel MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	2	144	5720	14.57	15.77	18.22	23.73		5.30		26.99	Pass
HT20	MCS0	2	144	5720	14.37	15.17	17.80	23.98		5.30		26.99	Pass
HT40	MCS0	2	142	5710	16.07	16.87	19.50	23.98		5.30		26.99	Pass
VHT20	MCS0	2	144	5720	14.27	15.07	17.70	23.98		5.30		26.99	Pass
VHT40	MCS0	2	142	5710	15.97	16.77	19.40	23.98		5.30		26.99	Pass
VHT80	MCS0	2	138	5690	16.67	15.87	19.30	23.98		5.30		26.99	Pass

Report Number : FR210302003D

TEST RESULTS DATA
Power Spectral Density

Band III MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	2	100	5500			8.69	8.79		8.21			Pass
11a	6Mbps	2	116	5580			8.57	8.79		8.21			Pass
11a	6Mbps	2	140	5700			8.36	8.79		8.21			Pass
HT20	MCS0	2	100	5500			8.22	8.79		8.21			Pass
HT20	MCS0	2	116	5580			8.69	8.79		8.21			Pass
HT20	MCS0	2	140	5700			8.67	8.79		8.21			Pass
HT40	MCS0	2	102	5510			5.93	8.79		8.21			Pass
HT40	MCS0	2	110	5550			7.37	8.79		8.21			Pass
HT40	MCS0	2	134	5670			7.53	8.79		8.21			Pass
VHT80	MCS0	2	106	5530			-0.69	8.79		8.21			Pass
VHT80	MCS0	2	122	5610			3.88	8.79		8.21			Pass

Band III straddle channel MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	2	144	5720			8.64	8.79		8.21			Pass
HT20	MCS0	2	144	5720			8.58	8.79		8.21			Pass
HT40	MCS0	2	142	5710			6.89	8.79		8.21			Pass
VHT80	MCS0	2	138	5690			2.86	8.79		8.21			Pass

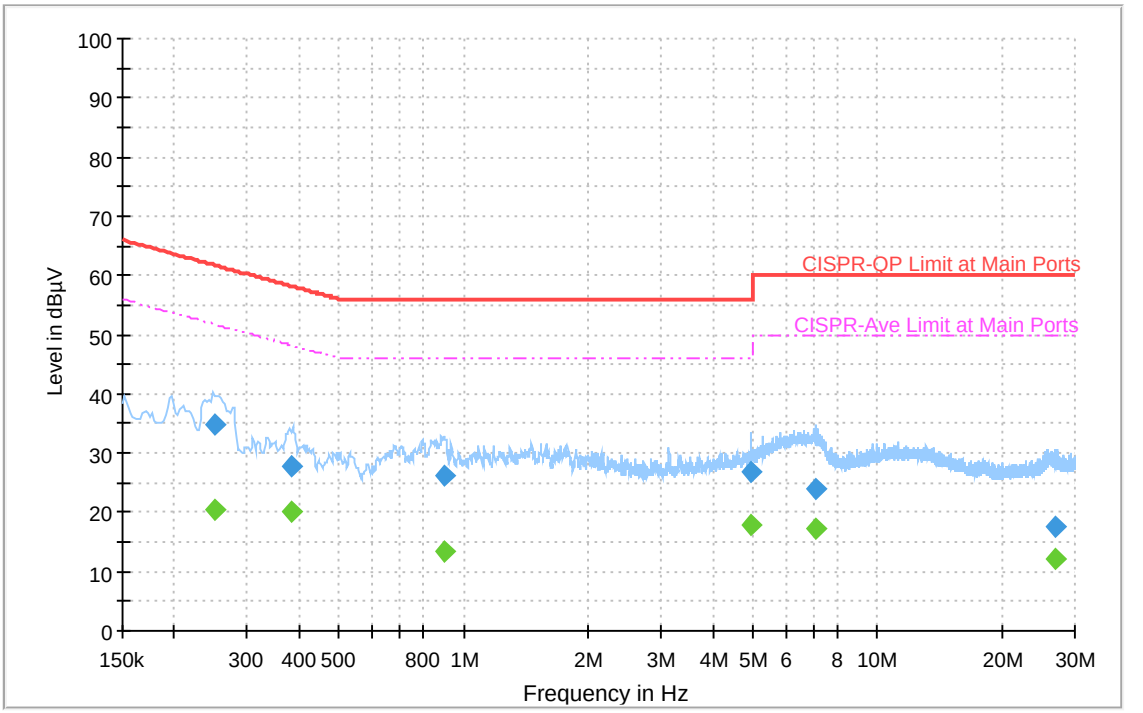
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Janssen Wongso	**Temperature :**	18~21℃
		Relative Humidity :	40.6~44.8%

EUT Information

Site:	CO01-CA
Pretest:	#A211017
Power:	120Vac/60Hz
Model:	Vesta
Mode:	2
SN:	G5U0SX1304730094
	WLAN 5GHz Tx + BLE Tx + Adapter

Full Spectrum



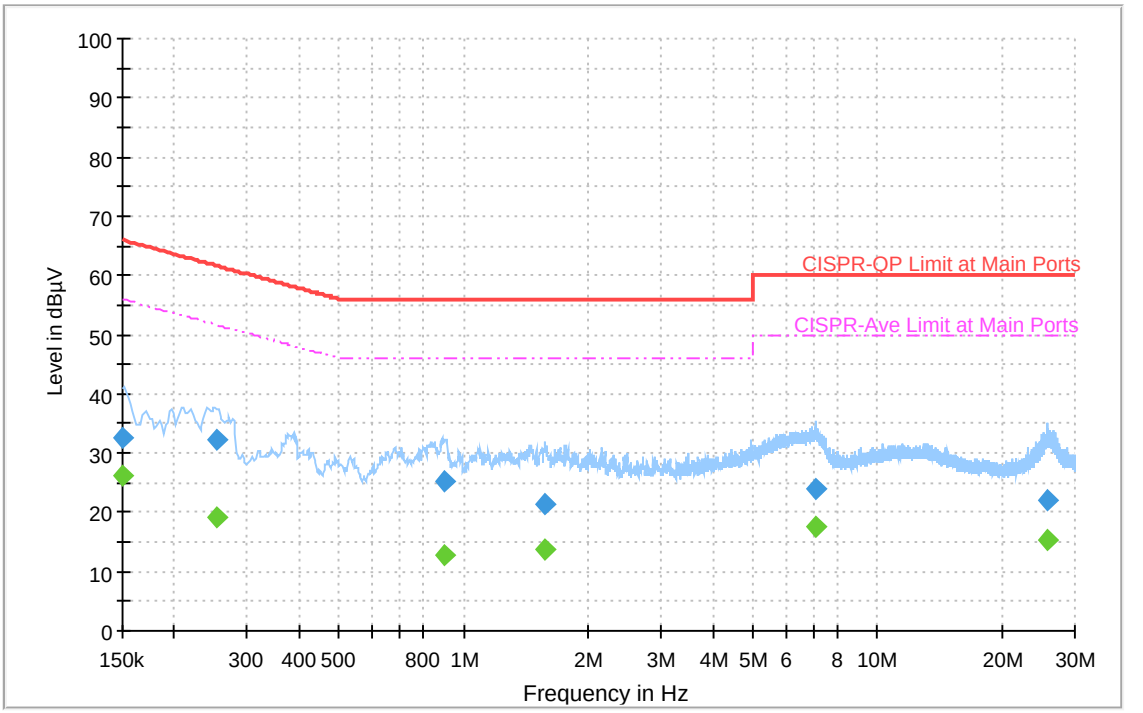
Final Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.251250	---	20.37	51.72	31.35	L1	OFF	20.0
0.251250	34.67	---	61.72	27.05	L1	OFF	20.0
0.383550	---	20.20	48.20	28.00	L1	OFF	20.0
0.383550	27.66	---	58.20	30.54	L1	OFF	20.0
0.902940	---	13.28	46.00	32.72	L1	OFF	20.0
0.902940	26.14	---	56.00	29.86	L1	OFF	20.0
4.933230	---	17.77	46.00	28.23	L1	OFF	20.1
4.933230	26.92	---	56.00	29.08	L1	OFF	20.1
7.066680	---	17.33	50.00	32.67	L1	OFF	20.1
7.066680	23.81	---	60.00	36.19	L1	OFF	20.1
26.832750	---	11.99	50.00	38.01	L1	OFF	20.6
26.832750	17.68	---	60.00	42.32	L1	OFF	20.6

EUT Information

Site:	CO01-CA
Pretest:	#A211017
Power:	120Vac/60Hz
Model:	Vesta
Mode:	2
SN:	G5U0SX1304730094
	WLAN 5GHz Tx + BLE Tx + Adapter

Full Spectrum



Final Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	---	26.07	56.00	29.93	N	OFF	20.0
0.150000	32.53	---	66.00	33.47	N	OFF	20.0
0.253500	---	19.22	51.64	32.42	N	OFF	20.0
0.253500	32.14	---	61.64	29.50	N	OFF	20.0
0.901500	---	12.87	46.00	33.13	N	OFF	20.0
0.901500	25.26	---	56.00	30.74	N	OFF	20.0
1.572000	---	13.66	46.00	32.34	N	OFF	20.0
1.572000	21.56	---	56.00	34.44	N	OFF	20.0
7.102500	---	17.47	50.00	32.53	N	OFF	20.1
7.102500	23.97	---	60.00	36.03	N	OFF	20.1
25.845000	---	15.44	50.00	34.56	N	OFF	20.6
25.845000	21.92	---	60.00	38.08	N	OFF	20.6

Appendix C. Radiated Spurious Emission

Test Engineer :	Calvin Wu and Michael Bui	Temperature :	19~24°C
		Relative Humidity :	40~46%

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 1+2	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		5149.76	57.31	-16.69	74	44.5	31.94	11.04	30.17	185	131	P	H
		5150	48.14	-5.86	54	35.33	31.94	11.04	30.17	185	131	A	H
	*	5180	108.64	-	-	96	31.73	11.07	30.16	185	131	P	H
	*	5180	101.64	-	-	89	31.73	11.07	30.16	185	131	A	H
		5146.64	64.88	-9.12	74	52.14	31.87	11.04	30.17	400	264	P	V
		5148.46	52.75	-1.25	54	40.02	31.86	11.04	30.17	400	264	A	V
	*	5180	116.1	-	-	103.5	31.69	11.07	30.16	400	264	P	V
	*	5180	109.42	-	-	96.82	31.69	11.07	30.16	400	264	A	V
802.11a CH 44 5220MHz		5142.74	54.28	-19.72	74	41.46	31.96	11.03	30.17	321	257	P	H
		5150	44.32	-9.68	54	31.51	31.94	11.04	30.17	321	257	A	H
	*	5220	110.41	-	-	97.95	31.51	11.11	30.16	321	257	P	H
	*	5220	102.67	-	-	90.21	31.51	11.11	30.16	321	257	A	H
		5459.16	52.76	-21.24	74	39.75	31.83	11.35	30.17	321	257	P	H
		5456.08	42.6	-11.4	54	29.6	31.82	11.35	30.17	321	257	A	H
		5143	57.59	-16.41	74	44.86	31.87	11.03	30.17	288	259	P	V
		5149.76	47.93	-6.07	54	35.2	31.86	11.04	30.17	288	259	A	V
	*	5220	116.7	-	-	104.23	31.52	11.11	30.16	288	259	P	V
	*	5220	109.7	-	-	97.23	31.52	11.11	30.16	288	259	A	V
		5415.76	53.95	-20.05	74	41.11	31.7	11.3	30.16	288	259	P	V
		5350	44.16	-9.84	54	31.59	31.5	11.23	30.16	288	259	A	V

802.11a CH 48 5240MHz		5109.2	54.18	-19.82	74	41.29	32.05	11	30.16	323	255	P	H
		5149.76	44.17	-9.83	54	31.36	31.94	11.04	30.17	323	255	A	H
	*	5240	109.66	-	-	97.26	31.42	11.13	30.15	323	255	P	H
	*	5240	103.06	-	-	90.66	31.42	11.13	30.15	323	255	A	H
		5435.64	52.35	-21.65	74	39.4	31.8	11.32	30.17	323	255	P	H
		5459.16	42.64	-11.36	54	29.63	31.83	11.35	30.17	323	255	A	H
		5125.58	57.39	-16.61	74	44.64	31.9	11.02	30.17	295	260	P	V
		5149.76	47.79	-6.21	54	35.06	31.86	11.04	30.17	295	260	A	V
	*	5240	117	-	-	104.55	31.47	11.13	30.15	295	260	P	V
	*	5240	110.31	-	-	97.86	31.47	11.13	30.15	295	260	A	V
		5360.04	54.5	-19.5	74	41.88	31.54	11.24	30.16	295	260	P	V
		5351.92	44.81	-9.19	54	32.23	31.51	11.23	30.16	295	260	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. 1+2	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	48.63	-19.57	68.2	60.28	39.53	16.53	67.71	100	0	P	H
		11760	56.71	-17.29	74	66.26	39.35	17.8	66.7	201	15	P	H
		11760	47.92	-6.08	54	57.47	39.35	17.8	66.7	201	15	A	H
		15540	49.61	-24.39	74	58.12	38.02	20.53	67.06	100	0	P	H
		18000	62.78	-11.22	74	59.82	48.43	22.33	67.8	185	251	P	H
		18000	50.45	-3.55	54	47.49	48.43	22.33	67.8	185	251	A	H
		10360	49.83	-18.37	68.2	61.48	39.53	16.53	67.71	100	0	P	V
		11760	56.78	-17.22	74	66.29	39.39	17.8	66.7	122	29	P	V
		11760	47.88	-6.12	54	57.39	39.39	17.8	66.7	122	29	A	V
		15540	49.96	-24.04	74	58.43	38.06	20.53	67.06	100	0	P	V
		18000	63.44	-10.56	74	60.43	48.48	22.33	67.8	300	9	P	V
		18000	50.71	-3.29	54	47.7	48.48	22.33	67.8	300	9	A	V
802.11a CH 44 5220MHz		10440	47.38	-20.82	68.2	58.71	39.71	16.61	67.65	100	0	P	H
		11760	57.19	-16.81	74	66.74	39.35	17.8	66.7	291	11	P	H
		11760	47.2	-6.8	54	56.75	39.35	17.8	66.7	291	11	A	H
		15660	48.49	-25.51	74	57.13	37.68	20.62	66.94	100	0	P	H
		18000	63.08	-10.92	74	60.12	48.43	22.33	67.8	113	12	P	H
		18000	50.05	-3.95	54	47.09	48.43	22.33	67.8	113	12	A	H
		10440	47.98	-20.22	68.2	59.27	39.75	16.61	67.65	100	0	P	V
		11760	54.3	-19.7	74	63.81	39.39	17.8	66.7	200	37	P	V
		11760	44.85	-9.15	54	54.36	39.39	17.8	66.7	200	37	A	V
		15660	48.83	-25.17	74	57.39	37.76	20.62	66.94	100	0	P	V
		18000	63.61	-10.39	74	60.6	48.48	22.33	67.8	326	222	P	V
		18000	50.38	-3.62	54	47.37	48.48	22.33	67.8	326	222	A	V

802.11a CH 48 5240MHz		10480	48.39	-19.81	68.2	59.55	39.82	16.64	67.62	100	0	P	H
		11760	56.35	-17.65	74	65.9	39.35	17.8	66.7	200	15	P	H
		11760	47.59	-6.41	54	57.14	39.35	17.8	66.7	200	15	A	H
		15720	49.63	-24.37	74	58.33	37.51	20.67	66.88	100	0	P	H
		18000	63.94	-10.06	74	60.98	48.43	22.33	67.8	241	132	P	H
		18000	50.74	-3.26	54	47.78	48.43	22.33	67.8	241	132	A	H
		10480	49.58	-18.62	68.2	60.75	39.81	16.64	67.62	100	0	P	V
		11760	55.39	-18.61	74	64.9	39.39	17.8	66.7	200	38	P	V
		11760	46.16	-7.84	54	55.67	39.39	17.8	66.7	200	38	A	V
		15720	49.44	-24.56	74	58.09	37.56	20.67	66.88	100	0	P	V
		18000	63.79	-10.21	74	60.78	48.48	22.33	67.8	301	181	P	V
		18000	50.38	-3.62	54	47.37	48.48	22.33	67.8	301	181	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	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)
802.11n HT20 CH 36 5180MHz		5149.24	59.88	-14.12	74	47.07	31.94	11.04	30.17	325	255	P	H
		5150	47.72	-6.28	54	34.91	31.94	11.04	30.17	325	255	A	H
	*	5180	108.51	-	-	95.87	31.73	11.07	30.16	325	255	P	H
	*	5180	100.08	-	-	87.44	31.73	11.07	30.16	325	255	A	H
		5149.76	62.96	-11.04	74	50.23	31.86	11.04	30.17	400	267	P	V
		5150	53.25	-0.75	54	40.52	31.86	11.04	30.17	400	267	A	V
	*	5180	116.31	-	-	103.71	31.69	11.07	30.16	400	267	P	V
	*	5180	107.46	-	-	94.86	31.69	11.07	30.16	400	267	A	V
802.11n HT20 CH 44 5220MHz		5134.42	53.99	-20.01	74	41.16	31.98	11.02	30.17	339	251	P	H
		5149.76	44.04	-9.96	54	31.23	31.94	11.04	30.17	339	251	A	H
	*	5220	109.21	-	-	96.75	31.51	11.11	30.16	339	251	P	H
	*	5220	100.67	-	-	88.21	31.51	11.11	30.16	339	251	A	H
		5445.72	52.31	-21.69	74	39.33	31.81	11.34	30.17	339	251	P	H
		5459.72	42.61	-11.39	54	29.6	31.83	11.35	30.17	339	251	A	H
		5147.94	56.64	-17.36	74	43.9	31.87	11.04	30.17	277	260	P	V
		5150	47.91	-6.09	54	35.18	31.86	11.04	30.17	277	260	A	V
	*	5220	116.25	-	-	103.78	31.52	11.11	30.16	277	260	P	V
	*	5220	107.81	-	-	95.34	31.52	11.11	30.16	277	260	A	V
		5355	55.15	-18.85	74	42.55	31.52	11.24	30.16	277	260	P	V
		5350	44.08	-9.92	54	31.51	31.5	11.23	30.16	277	260	A	V

802.11n HT20 CH 48 5240MHz		5100.36	53.99	-20.01	74	41.09	32.07	10.99	30.16	279	248	P	H
		5149.76	43.55	-10.45	54	30.74	31.94	11.04	30.17	279	248	A	H
	*	5240	108.85	-	-	96.45	31.42	11.13	30.15	279	248	P	H
	*	5240	100.36	-	-	87.96	31.42	11.13	30.15	279	248	A	H
		5419.4	52.25	-21.75	74	39.34	31.77	11.3	30.16	279	248	P	H
		5457.48	42.57	-11.43	54	29.56	31.83	11.35	30.17	279	248	A	H
		5131.56	56.95	-17.05	74	44.21	31.89	11.02	30.17	278	263	P	V
		5149.24	47.48	-6.52	54	34.75	31.86	11.04	30.17	278	263	A	V
	*	5240	116.33	-	-	103.88	31.47	11.13	30.15	278	263	P	V
	*	5240	107.81	-	-	95.36	31.47	11.13	30.15	278	263	A	V
		5401.48	53.26	-20.74	74	40.47	31.67	11.28	30.16	278	263	P	V
		5360.04	44.39	-9.61	54	31.77	31.54	11.24	30.16	278	263	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	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)
802.11n HT20 CH 36 5180MHz		10360	48.87	-19.33	68.2	60.52	39.53	15.99	67.71	100	0	P	H
		11760	56.96	-17.04	74	66.51	39.35	17.17	66.7	202	15	P	H
		11760	47.4	-6.6	54	56.95	39.35	17.17	66.7	202	15	A	H
		15540	49.28	-24.72	74	57.79	38.02	19.92	67.06	100	0	P	H
		18000	63.2	-10.8	74	60.24	48.43	21.35	67.8	200	1	P	H
		18000	50.23	-3.77	54	47.27	48.43	21.35	67.8	200	1	A	H
		10360	48.59	-19.61	68.2	60.24	39.53	15.99	67.71	100	0	P	V
		11760	56.01	-17.99	74	65.52	39.39	17.17	66.7	190	38	P	V
		11760	46.23	-7.77	54	55.74	39.39	17.17	66.7	190	38	A	V
		15540	48.86	-25.14	74	57.33	38.06	19.92	67.06	100	0	P	V
		18000	63.76	-10.24	74	60.75	48.48	21.35	67.8	262	356	P	V
		18000	50.09	-3.91	54	47.08	48.48	21.35	67.8	262	356	A	V
802.11n HT20 CH 44 5220MHz		10440	48.35	-19.85	68.2	59.68	39.71	16.06	67.65	100	0	P	H
		11760	56.17	-17.83	74	65.72	39.35	17.17	66.7	200	16	P	H
		11760	47.06	-6.94	54	56.61	39.35	17.17	66.7	200	16	A	H
		15660	48.69	-25.31	74	57.33	37.68	20.01	66.94	100	0	P	H
		18000	63.36	-10.64	74	60.4	48.43	21.35	67.8	212	134	P	H
		18000	51.45	-2.55	54	48.49	48.43	21.35	67.8	212	134	A	H
		10440	48.64	-19.56	68.2	59.93	39.75	16.06	67.65	100	0	P	V
		11760	56.12	-17.88	74	65.63	39.39	17.17	66.7	321	339	P	V
		11760	46.96	-7.04	54	56.47	39.39	17.17	66.7	321	339	A	V
		15660	49.64	-24.36	74	58.2	37.76	20.01	66.94	100	0	P	V
		18000	63.47	-10.53	74	60.46	48.48	21.35	67.8	132	368	P	V
		18000	51.14	-2.86	54	48.13	48.48	21.35	67.8	132	368	A	V

802.11n HT20 CH 48 5240MHz		10480	47.84	-20.36	68.2	59	39.82	16.64	67.62	100	0	P	H
		11760	55.96	-18.04	74	65.51	39.35	17.8	66.7	204	16	P	H
		11760	47.4	-6.6	54	56.95	39.35	17.8	66.7	204	16	A	H
		15720	49.39	-24.61	74	58.09	37.51	20.67	66.88	100	0	P	H
		18000	63.47	-10.53	74	60.51	48.43	22.33	67.8	278	337	P	H
		18000	51.22	-2.78	54	48.26	48.43	22.33	67.8	278	337	A	H
		10480	48.51	-19.69	68.2	59.68	39.81	16.64	67.62	100	0	P	V
		11760	56.84	-17.16	74	66.35	39.39	17.8	66.7	322	339	P	V
		11760	46.92	-7.08	54	56.43	39.39	17.8	66.7	322	339	A	V
		15720	49.92	-24.08	74	58.57	37.56	20.67	66.88	100	0	P	V
		18000	63.68	-10.32	74	60.67	48.48	22.33	67.8	168	48	P	V
		18000	51.13	-2.87	54	48.12	48.48	22.33	67.8	168	48	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	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)
802.11n HT40 CH 38 5190MHz		5146.38	57.82	-16.18	74	45	31.95	11.04	30.17	187	132	P	H
		5150	47.75	-6.25	54	34.94	31.94	11.04	30.17	187	132	A	H
	*	5190	102.46	-	-	89.88	31.66	11.08	30.16	187	132	P	H
	*	5190	93.36	-	-	80.78	31.66	11.08	30.16	187	132	A	H
		5387.48	52.3	-21.7	74	39.5	31.69	11.27	30.16	187	132	P	H
		5450.48	42.5	-11.5	54	29.51	31.82	11.34	30.17	187	132	A	H
		5150	63.78	-10.22	74	51.05	31.86	11.04	30.17	400	263	P	V
		5150	53.3	-0.7	54	40.57	31.86	11.04	30.17	400	263	A	V
	*	5190	110.12	-	-	97.56	31.64	11.08	30.16	400	263	P	V
	*	5190	101.23	-	-	88.67	31.64	11.08	30.16	400	263	A	V
		5382.72	53.55	-20.45	74	40.84	31.61	11.26	30.16	400	263	P	V
		5421.92	42.94	-11.06	54	30.07	31.72	11.31	30.16	400	263	A	V
802.11n HT40 CH 46 5230MHz		5139.88	54.19	-19.81	74	41.36	31.97	11.03	30.17	336	251	P	H
		5150	44.66	-9.34	54	31.85	31.94	11.04	30.17	336	251	A	H
	*	5230	105.45	-	-	93.02	31.46	11.12	30.15	336	251	P	H
	*	5230	96.95	-	-	84.52	31.46	11.12	30.15	336	251	A	H
		5451.88	52.44	-21.56	74	39.45	31.82	11.34	30.17	336	251	P	H
		5455.52	42.61	-11.39	54	29.61	31.82	11.35	30.17	336	251	A	H
		5147.68	58.45	-15.55	74	45.71	31.87	11.04	30.17	283	260	P	V
		5150	49.32	-4.68	54	36.59	31.86	11.04	30.17	283	260	A	V
	*	5230	113.04	-	-	100.57	31.5	11.12	30.15	283	260	P	V
	*	5230	104.32	-	-	91.85	31.5	11.12	30.15	283	260	A	V
		5426.12	55.68	-18.32	74	42.81	31.73	11.31	30.17	283	260	P	V
		5350.8	43.92	-10.08	54	31.34	31.51	11.23	30.16	283	260	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2	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)
802.11n HT40 CH 38 5190MHz		10380	47.72	-20.48	68.2	59.29	39.58	16.55	67.7	100	0	P	H
		11760	56.56	-17.44	74	66.11	39.35	17.8	66.7	201	15	P	H
		11760	48.04	-5.96	54	57.59	39.35	17.8	66.7	201	15	A	H
		15570	48.65	-25.35	74	57.19	37.94	20.55	67.03	100	0	P	H
		18000	63.3	-10.7	74	60.34	48.43	22.33	67.8	186	98	P	H
		18000	50.33	-3.67	54	47.37	48.43	22.33	67.8	186	98	A	H
		10380	47.52	-20.68	68.2	59.08	39.59	16.55	67.7	100	0	P	V
		11760	55.66	-18.34	74	65.17	39.39	17.8	66.7	200	39	P	V
		11760	46.11	-7.89	54	55.62	39.39	17.8	66.7	200	39	A	V
		15570	49.05	-24.95	74	57.54	37.99	20.55	67.03	100	0	P	V
		18000	63.16	-10.84	74	60.15	48.48	22.33	67.8	348	178	P	V
		18000	50.25	-3.75	54	47.24	48.48	22.33	67.8	348	178	A	V
802.11n HT40 CH 46 5230MHz		10460	49.22	-18.98	68.2	60.46	39.76	16.63	67.63	100	0	P	H
		11760	56.15	-17.85	74	65.7	39.35	17.8	66.7	202	16	P	H
		11760	47.27	-6.73	54	56.82	39.35	17.8	66.7	202	16	A	H
		15690	49.33	-24.67	74	57.99	37.6	20.65	66.91	100	0	P	H
		18000	62.96	-11.04	74	60	48.43	22.33	67.8	357	321	P	H
		18000	50.62	-3.38	54	47.66	48.43	22.33	67.8	357	321	A	H
		10460	47.89	-20.31	68.2	59.1	39.79	16.63	67.63	100	0	P	V
		11760	55.2	-18.8	74	64.71	39.39	17.8	66.7	201	40	P	V
		11760	46.18	-7.82	54	55.69	39.39	17.8	66.7	201	40	A	V
		15690	49.84	-24.16	74	58.44	37.66	20.65	66.91	100	0	P	V
		18000	63.94	-10.06	74	60.93	48.48	22.33	67.8	268	32	P	V
		18000	50.13	-3.87	54	47.12	48.48	22.33	67.8	268	32	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 (Band Edge @ 3m)

WIFI Ant. 1+2	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		5148.72	58.71	-15.29	74	45.9	31.94	11.04	30.17	191	249	P	H
		5150	47.52	-6.48	54	34.71	31.94	11.04	30.17	191	249	A	H
	*	5210	97.18	-	-	84.69	31.55	11.1	30.16	191	249	P	H
	*	5210	88.91	-	-	76.42	31.55	11.1	30.16	191	249	A	H
		5436.76	53.68	-20.32	74	40.72	31.8	11.33	30.17	191	249	P	H
		5459.44	42.47	-11.53	54	29.46	31.83	11.35	30.17	191	249	A	H
		5139.1	65.48	-8.52	74	52.74	31.88	11.03	30.17	395	265	P	V
		5150	53.23	-0.77	54	40.5	31.86	11.04	30.17	395	265	A	V
	*	5210	105.77	-	-	93.28	31.55	11.1	30.16	395	265	P	V
	*	5210	97.77	-	-	85.28	31.55	11.1	30.16	395	265	A	V
		5459.16	52.03	-21.97	74	39.04	31.81	11.35	30.17	395	265	P	V
		5459.44	42.68	-11.32	54	29.69	31.81	11.35	30.17	395	265	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. 1+2	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		10420	48.61	-19.59	68.2	60.01	39.67	16.59	67.66	100	0	P	H
		11760	56.08	-17.92	74	65.63	39.35	17.8	66.7	205	15	P	H
		11760	47.08	-6.92	54	56.63	39.35	17.8	66.7	205	15	A	H
		15630	48.88	-25.12	74	57.48	37.77	20.6	66.97	100	0	P	H
		18000	63	-11	74	60.04	48.43	22.33	67.8	177	135	P	H
		18000	50.97	-3.03	54	48.01	48.43	22.33	67.8	177	135	A	H
		10420	48.59	-19.61	68.2	59.96	39.7	16.59	67.66	100	0	P	V
		11760	54.98	-19.02	74	64.49	39.39	17.8	66.7	193	38	P	V
		11760	46.26	-7.74	54	55.77	39.39	17.8	66.7	193	38	A	V
		15630	49.04	-24.96	74	57.57	37.84	20.6	66.97	100	0	P	V
		18000	62.92	-11.08	74	59.91	48.48	22.33	67.8	288	195	P	V
		18000	50.9	-3.1	54	47.89	48.48	22.33	67.8	288	195	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 - 5250~5350MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 1+2	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		5140.76	52.49	-21.51	74	39.67	31.96	11.03	30.17	326	250	P	H
		5147.56	43.55	-10.45	54	30.73	31.95	11.04	30.17	326	250	A	H
	*	5260	109.1	-	-	96.72	31.38	11.15	30.15	326	250	P	H
	*	5260	102.5	-	-	90.12	31.38	11.15	30.15	326	250	A	H
		5413.92	52.65	-21.35	74	39.74	31.77	11.3	30.16	326	250	P	H
		5454.24	42.76	-11.24	54	29.76	31.82	11.35	30.17	326	250	A	H
		5146.88	56.28	-17.72	74	43.54	31.87	11.04	30.17	305	268	P	V
		5147.56	47.21	-6.79	54	34.47	31.87	11.04	30.17	305	268	A	V
	*	5260	116.31	-	-	103.89	31.42	11.15	30.15	305	268	P	V
	*	5260	109.31	-	-	96.89	31.42	11.15	30.15	305	268	A	V
		5367.36	55.17	-18.83	74	42.52	31.56	11.25	30.16	305	268	P	V
		5354.64	45.49	-8.51	54	32.89	31.52	11.24	30.16	305	268	A	V
802.11a CH 60 5300MHz		5136.68	53.25	-20.75	74	40.42	31.97	11.03	30.17	306	256	P	H
		5148.58	43.39	-10.61	54	30.58	31.94	11.04	30.17	306	256	A	H
	*	5300	109.09	-	-	96.67	31.38	11.18	30.14	306	256	P	H
	*	5300	102.35	-	-	89.93	31.38	11.18	30.14	306	256	A	H
		5398.8	51.82	-22.18	74	38.96	31.74	11.28	30.16	306	256	P	H
		5448.48	42.84	-11.16	54	29.85	31.82	11.34	30.17	306	256	A	H
		5135.32	55.55	-18.45	74	42.8	31.89	11.03	30.17	263	228	P	V
		5149.94	46.01	-7.99	54	33.28	31.86	11.04	30.17	263	228	A	V
	*	5300	116.5	-	-	104.11	31.35	11.18	30.14	263	228	P	V
	*	5300	109.62	-	-	97.23	31.35	11.18	30.14	263	228	A	V
		5358.96	56.21	-17.79	74	43.6	31.53	11.24	30.16	263	228	P	V
		5352	47.17	-6.83	54	34.59	31.51	11.23	30.16	263	228	A	V

802.11a CH 64 5320MHz	*	5320	110.63	-	-	98.14	31.44	11.2	30.15	173	113	P	H
	*	5320	102.74	-	-	90.25	31.44	11.2	30.15	173	113	A	H
		5352	58.01	-15.99	74	45.41	31.53	11.23	30.16	173	113	P	H
		5351.84	47.74	-6.26	54	35.14	31.53	11.23	30.16	173	113	A	H
	*	5320	116.61	-	-	104.15	31.41	11.2	30.15	261	228	P	V
	*	5320	109.48	-	-	97.02	31.41	11.2	30.15	261	228	A	V
		5350.24	63.52	-10.48	74	50.95	31.5	11.23	30.16	261	228	P	V
		5350.72	53.13	-0.87	54	40.55	31.51	11.23	30.16	261	228	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1+2	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	49.11	-19.09	68.2	60.11	39.88	16.68	67.56	100	0	P	H
		11760	56.25	-17.75	74	65.8	39.35	17.8	66.7	204	15	P	H
		11760	47.14	-6.86	54	56.69	39.35	17.8	66.7	204	15	A	H
		15780	49.48	-24.52	74	58.23	37.35	20.72	66.82	100	0	P	H
		18000	63.6	-10.4	74	60.64	48.43	22.33	67.8	209	262	P	H
		18000	51.01	-2.99	54	48.05	48.43	22.33	67.8	209	262	A	H
		10520	48.74	-19.46	68.2	59.74	39.88	16.68	67.56	100	0	P	V
		11760	55.42	-18.58	74	64.93	39.39	17.8	66.7	201	38	P	V
		11760	46.17	-7.83	54	55.68	39.39	17.8	66.7	201	38	A	V
		15780	49.03	-24.97	74	57.7	37.43	20.72	66.82	100	0	P	V
		18000	63.54	-10.46	74	60.53	48.48	22.33	67.8	200	169	P	V
		18000	51.13	-2.87	54	48.12	48.48	22.33	67.8	200	169	A	V
802.11a CH 60 5300MHz		10600	48.2	-25.8	74	59.06	39.81	16.75	67.42	100	0	P	H
		11760	55.82	-18.18	74	65.37	39.35	17.8	66.7	290	11	P	H
		11760	47.17	-6.83	54	56.72	39.35	17.8	66.7	290	11	A	H
		15900	48.43	-25.57	74	56.96	37.36	20.81	66.7	100	0	P	H
		18000	63.6	-10.4	74	60.64	48.43	22.33	67.8	246	87	P	H
		18000	50.61	-3.39	54	47.65	48.43	22.33	67.8	246	87	A	H
		10600	47.83	-26.17	74	58.63	39.87	16.75	67.42	100	0	P	V
		11760	54.41	-19.59	74	63.92	39.39	17.8	66.7	200	37	P	V
		11760	45.12	-8.88	54	54.63	39.39	17.8	66.7	200	37	A	V
		15900	47.9	-26.1	74	56.37	37.42	20.81	66.7	100	0	P	V
		18000	63.89	-10.11	74	60.88	48.48	22.33	67.8	321	206	P	V
		18000	50.02	-3.98	54	47.01	48.48	22.33	67.8	321	206	A	V

802.11a CH 64 5320MHz		10640	48.48	-25.52	74	59.23	39.81	16.79	67.35	100	0	P	H
		11760	56.09	-17.91	74	65.64	39.35	17.8	66.7	204	15	P	H
		11760	47.52	-6.48	54	57.07	39.35	17.8	66.7	204	15	A	H
		15960	48.36	-25.64	74	56.75	37.39	20.86	66.64	100	0	P	H
		18000	63.54	-10.46	74	60.58	48.43	22.33	67.8	150	30	P	H
		18000	51.14	-2.86	54	48.18	48.43	22.33	67.8	150	30	A	H
		10640	48.19	-25.81	74	58.88	39.87	16.79	67.35	100	0	P	V
		11760	55.39	-18.61	74	64.9	39.39	17.8	66.7	201	39	P	V
		11760	46.51	-7.49	54	56.02	39.39	17.8	66.7	201	39	A	V
		15960	48.46	-25.54	74	56.74	37.5	20.86	66.64	100	0	P	V
		18000	63.43	-10.57	74	60.42	48.48	22.33	67.8	314	173	P	V
		18000	51.04	-2.96	54	48.03	48.48	22.33	67.8	314	173	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	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)
802.11n HT20 CH 52 5260MHz		5107.44	52.85	-21.15	74	39.96	32.05	11	30.16	319	255	P	H
		5148.58	44	-10	54	31.19	31.94	11.04	30.17	319	255	A	H
	*	5260	109.26	-	-	96.88	31.38	11.15	30.15	319	255	P	H
	*	5260	101.4	-	-	89.02	31.38	11.15	30.15	319	255	A	H
		5398.08	52.22	-21.78	74	39.36	31.74	11.28	30.16	319	255	P	H
		5456.64	42.7	-11.3	54	29.7	31.82	11.35	30.17	319	255	A	H
		5129.2	57.67	-16.33	74	44.92	31.9	11.02	30.17	285	258	P	V
		5148.58	47.13	-6.87	54	34.4	31.86	11.04	30.17	285	258	A	V
	*	5260	116.29	-	-	103.87	31.42	11.15	30.15	285	258	P	V
	*	5260	107.69	-	-	95.27	31.42	11.15	30.15	285	258	A	V
		5378.88	56.18	-17.82	74	43.48	31.6	11.26	30.16	285	258	P	V
		5350.08	45.73	-8.27	54	33.16	31.5	11.23	30.16	285	258	A	V
802.11n HT20 CH 60 5300MHz		5139.4	53.23	-20.77	74	40.4	31.97	11.03	30.17	302	254	P	H
		5149.94	43.32	-10.68	54	30.51	31.94	11.04	30.17	302	254	A	H
	*	5300	108.72	-	-	96.3	31.38	11.18	30.14	302	254	P	H
	*	5300	100.44	-	-	88.02	31.38	11.18	30.14	302	254	A	H
		5421.12	53.75	-20.25	74	40.82	31.78	11.31	30.16	302	254	P	H
		5428.08	42.87	-11.13	54	29.93	31.79	11.32	30.17	302	254	A	H
		5097.58	53.52	-20.48	74	40.74	31.95	10.99	30.16	399	262	P	V
		5149.94	45.06	-8.94	54	32.33	31.86	11.04	30.17	399	262	A	V
	*	5300	116.73	-	-	104.34	31.35	11.18	30.14	399	262	P	V
	*	5300	108.29	-	-	95.9	31.35	11.18	30.14	399	262	A	V
		5353.44	55.52	-18.48	74	42.92	31.52	11.24	30.16	399	262	P	V
		5350.32	47.22	-6.78	54	34.64	31.51	11.23	30.16	399	262	A	V

802.11n HT20 CH 64 5320MHz	*	5320	109.75	-	-	97.26	31.44	11.2	30.15	173	113	P	H
	*	5320	100.9	-	-	88.41	31.44	11.2	30.15	173	113	A	H
		5351.2	57.33	-16.67	74	44.74	31.52	11.23	30.16	173	113	P	H
		5350.08	47.57	-6.43	54	34.98	31.52	11.23	30.16	173	113	A	H
	*	5320	117.08	-	-	104.62	31.41	11.2	30.15	396	258	P	V
	*	5320	107.73	-	-	95.27	31.41	11.2	30.15	396	258	A	V
		5351.84	62.51	-11.49	74	49.93	31.51	11.23	30.16	396	258	P	V
		5350.08	52.99	-1.01	54	40.42	31.5	11.23	30.16	396	258	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	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)
802.11n HT20 CH 52 5260MHz		10520	47.72	-20.48	68.2	58.72	39.88	16.68	67.56	100	0	P	H
		11760	55.85	-18.15	74	65.4	39.35	17.8	66.7	201	14	P	H
		11760	46.94	-7.06	54	56.49	39.35	17.8	66.7	201	14	A	H
		15780	48.71	-25.29	74	57.46	37.35	20.72	66.82	100	0	P	H
		18000	63.35	-10.65	74	60.39	48.43	22.33	67.8	317	158	P	H
		18000	51.37	-2.63	54	48.41	48.43	22.33	67.8	317	158	A	H
		10520	48.41	-19.79	68.2	59.41	39.88	16.68	67.56	100	0	P	V
		11760	55.08	-18.92	74	64.59	39.39	17.8	66.7	200	39	P	V
		11760	45.91	-8.09	54	55.42	39.39	17.8	66.7	200	39	A	V
		15780	48.91	-25.09	74	57.58	37.43	20.72	66.82	100	0	P	V
		18000	63.27	-10.73	74	60.26	48.48	22.33	67.8	238	232	P	V
		18000	51.13	-2.87	54	48.12	48.48	22.33	67.8	238	232	A	V
802.11n HT20 CH 60 5300MHz		10600	49.01	-24.99	74	59.87	39.81	16.75	67.42	100	0	P	H
		11760	56.83	-17.17	74	66.38	39.35	17.8	66.7	202	16	P	H
		11760	47.74	-6.26	54	57.29	39.35	17.8	66.7	202	16	A	H
		15900	48.39	-25.61	74	56.92	37.36	20.81	66.7	100	0	P	H
		18000	63.51	-10.49	74	60.55	48.43	22.33	67.8	192	97	P	H
		18000	51.1	-2.9	54	48.14	48.43	22.33	67.8	192	97	A	H
		10600	48.26	-25.74	74	59.06	39.87	16.75	67.42	100	0	P	V
		11760	56.11	-17.89	74	65.62	39.39	17.8	66.7	321	339	P	V
		11760	46.85	-7.15	54	56.36	39.39	17.8	66.7	321	339	A	V
		15900	47.75	-26.25	74	56.22	37.42	20.81	66.7	100	0	P	V
		18000	64.35	-9.65	74	61.34	48.48	22.33	67.8	301	183	P	V
		18000	51	-3	54	47.99	48.48	22.33	67.8	301	183	A	V

802.11n HT20 CH 64 5320MHz		10640	47.85	-26.15	74	58.6	39.81	16.23	67.35	100	0	P	H
		11760	56.46	-17.54	74	66.01	39.35	17.17	66.7	204	15	P	H
		11760	47.63	-6.37	54	57.18	39.35	17.17	66.7	204	15	A	H
		15960	49.47	-24.53	74	57.86	37.39	20.24	66.64	100	0	P	H
		18000	63.3	-10.7	74	60.34	48.43	21.35	67.8	276	181	P	H
		18000	50.4	-3.6	54	47.44	48.43	21.35	67.8	276	181	A	H
		10640	48.63	-25.37	74	59.32	39.87	16.23	67.35	100	0	P	V
		11760	56.72	-17.28	74	66.23	39.39	17.17	66.7	326	340	P	V
		11760	46.61	-7.39	54	56.12	39.39	17.17	66.7	326	340	A	V
		15960	47.83	-26.17	74	56.11	37.5	20.24	66.64	100	0	P	V
		18000	64.77	-9.23	74	61.76	48.48	21.35	67.8	159	211	P	V
		18000	50.19	-3.81	54	47.18	48.48	21.35	67.8	159	211	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	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)
802.11n HT40 CH 54 5270MHz		5097.92	52.79	-21.21	74	39.89	32.07	10.99	30.16	316	254	P	H
		5148.92	43.85	-10.15	54	31.04	31.94	11.04	30.17	316	254	A	H
	*	5270	105.67	-	-	93.28	31.38	11.16	30.15	316	254	P	H
	*	5270	97.26	-	-	84.87	31.38	11.16	30.15	316	254	A	H
		5459.76	53	-21	74	39.99	31.83	11.35	30.17	316	254	P	H
		5459.52	42.79	-11.21	54	29.78	31.83	11.35	30.17	316	254	A	H
		5143.82	54.67	-19.33	74	41.94	31.87	11.03	30.17	400	259	P	V
		5149.94	45.74	-8.26	54	33.01	31.86	11.04	30.17	400	259	A	V
	*	5270	112.97	-	-	100.56	31.4	11.16	30.15	400	259	P	V
	*	5270	104.3	-	-	91.89	31.4	11.16	30.15	400	259	A	V
		5379.84	55.27	-18.73	74	42.57	31.6	11.26	30.16	400	259	P	V
		5350.32	46.76	-7.24	54	34.18	31.51	11.23	30.16	400	259	A	V
802.11n HT40 CH 62 5310MHz		5126.82	52.77	-21.23	74	39.92	32	11.02	30.17	212	223	P	H
		5147.9	43.14	-10.86	54	30.32	31.95	11.04	30.17	212	223	A	H
	*	5310	103.33	-	-	90.87	31.41	11.19	30.14	212	223	P	H
	*	5310	94.01	-	-	81.55	31.41	11.19	30.14	212	223	A	H
		5351.04	58.03	-15.97	74	45.44	31.52	11.23	30.16	212	223	P	H
		5350.08	46.84	-7.16	54	34.25	31.52	11.23	30.16	212	223	A	H
		5142.46	53.68	-20.32	74	40.95	31.87	11.03	30.17	400	259	P	V
		5149.94	44.71	-9.29	54	31.98	31.86	11.04	30.17	400	259	A	V
	*	5310	110.46	-	-	98.03	31.38	11.19	30.14	400	259	P	V
	*	5310	101.41	-	-	88.98	31.38	11.19	30.14	400	259	A	V
		5350.32	62.41	-11.59	74	49.83	31.51	11.23	30.16	400	259	P	V
		5350.08	52.21	-1.79	54	39.64	31.5	11.23	30.16	400	259	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2	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)
802.11n HT40 CH 54 5270MHz		10540	48.12	-20.08	68.2	59.07	39.88	16.7	67.53	100	0	P	H
		11760	57.09	-16.91	74	66.64	39.35	17.8	66.7	285	9	P	H
		11760	46.96	-7.04	54	56.51	39.35	17.8	66.7	285	9	A	H
		15810	49.41	-24.59	74	58.16	37.3	20.74	66.79	100	0	P	H
		18000	64.37	-9.63	74	61.41	48.43	22.33	67.8	164	93	P	H
		18000	51.49	-2.51	54	48.53	48.43	22.33	67.8	164	93	A	H
		10540	48.66	-19.54	68.2	59.57	39.92	16.7	67.53	100	0	P	V
		11760	56.26	-17.74	74	65.77	39.39	17.8	66.7	201	39	P	V
		11760	45.94	-8.06	54	55.45	39.39	17.8	66.7	201	39	A	V
		15810	49.16	-24.84	74	57.8	37.41	20.74	66.79	100	0	P	V
		18000	63.68	-10.32	74	60.67	48.48	22.33	67.8	145	21	P	V
		18000	51.34	-2.66	54	48.33	48.48	22.33	67.8	145	21	A	V
802.11n HT40 CH 62 5310MHz		10620	47.91	-26.09	74	58.71	39.81	16.77	67.38	100	0	P	H
		11760	57.15	-16.85	74	66.7	39.35	17.8	66.7	282	10	P	H
		11760	46.92	-7.08	54	56.47	39.35	17.8	66.7	282	10	A	H
		15930	48.33	-25.67	74	56.79	37.37	20.84	66.67	100	0	P	H
		18000	64.09	-9.91	74	61.13	48.43	22.33	67.8	190	161	P	H
		18000	51.01	-2.99	54	48.05	48.43	22.33	67.8	190	161	A	H
		10620	47.02	-26.98	74	57.76	39.87	16.77	67.38	100	0	P	V
		11760	56.17	-17.83	74	65.68	39.39	17.8	66.7	193	38	P	V
		11760	45.97	-8.03	54	55.48	39.39	17.8	66.7	193	38	A	V
		15930	48.72	-25.28	74	57.09	37.46	20.84	66.67	100	0	P	V
		18000	63.2	-10.8	74	60.19	48.48	22.33	67.8	266	319	P	V
		18000	50.99	-3.01	54	47.98	48.48	22.33	67.8	266	319	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 (Band Edge @ 3m)

WIFI Ant. 1+2	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		5127.16	53.38	-20.62	74	40.53	32	11.02	30.17	304	254	P	H
		5149.94	43.26	-10.74	54	30.45	31.94	11.04	30.17	304	254	A	H
	*	5290	99.45	-	-	87.03	31.38	11.18	30.14	304	254	P	H
	*	5290	91.09	-	-	78.67	31.38	11.18	30.14	304	254	A	H
		5350.56	60.7	-13.3	74	48.11	31.52	11.23	30.16	304	254	P	H
		5350.08	46.6	-7.4	54	34.01	31.52	11.23	30.16	304	254	A	H
		5117.98	53.62	-20.38	74	40.85	31.92	11.01	30.16	289	229	P	V
		5149.6	44.75	-9.25	54	32.02	31.86	11.04	30.17	289	229	A	V
	*	5290	106.25	-	-	93.85	31.36	11.18	30.14	289	229	P	V
	*	5290	97.93	-	-	85.53	31.36	11.18	30.14	289	229	A	V
		5354.4	65.19	-8.81	74	52.59	31.52	11.24	30.16	289	229	P	V
		5350.08	53	-1	54	40.43	31.5	11.23	30.16	289	229	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. 1+2	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		10580	47.58	-20.62	68.2	58.46	39.84	16.74	67.46	100	0	P	H
		11760	57.07	-16.93	74	66.62	39.35	17.8	66.7	281	11	P	H
		11760	48.01	-5.99	54	57.56	39.35	17.8	66.7	281	11	A	H
		15870	48.94	-25.06	74	57.56	37.32	20.79	66.73	100	0	P	H
		18000	63.36	-10.64	74	60.4	48.43	22.33	67.8	160	223	P	H
		18000	50.66	-3.34	54	47.7	48.43	22.33	67.8	160	223	A	H
		10580	47.52	-20.68	68.2	58.34	39.9	16.74	67.46	100	0	P	V
		11760	55.82	-18.18	74	65.33	39.39	17.8	66.7	194	37	P	V
		11760	46.52	-7.48	54	56.03	39.39	17.8	66.7	194	37	A	V
		15870	48.34	-25.66	74	56.89	37.39	20.79	66.73	100	0	P	V
		18000	63.38	-10.62	74	60.37	48.48	22.33	67.8	294	199	P	V
		18000	50.63	-3.37	54	47.62	48.48	22.33	67.8	294	199	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 1+2	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		5450.96	54.97	-19.03	74	41.98	31.82	11.34	30.17	300	218	P	H
		5467.28	57.58	-10.62	68.2	44.56	31.83	11.36	30.17	300	218	P	H
		5459.6	44.74	-9.26	54	31.73	31.83	11.35	30.17	300	218	A	H
	*	5500	108.71	-	-	95.62	31.86	11.4	30.17	300	218	P	H
	*	5500	101.02	-	-	87.93	31.86	11.4	30.17	300	218	A	H
		5454	57.91	-16.09	74	44.94	31.79	11.35	30.17	383	254	P	V
		5468.4	61.21	-6.99	68.2	48.18	31.83	11.37	30.17	383	254	P	V
		5458.96	48.06	-5.94	54	35.07	31.81	11.35	30.17	383	254	A	V
	*	5500	114.98	-	-	101.83	31.92	11.4	30.17	383	254	P	V
	*	5500	108.23	-	-	95.08	31.92	11.4	30.17	383	254	A	V
802.11a CH 116 5580MHz		5436.88	53.28	-20.72	74	40.32	31.8	11.33	30.17	400	246	P	H
		5464.24	52.5	-15.7	68.2	39.48	31.83	11.36	30.17	400	246	P	H
		5459.92	43.34	-10.66	54	30.33	31.83	11.35	30.17	400	246	A	H
	*	5580	108.66	-	-	95.45	31.87	11.51	30.17	400	246	P	H
	*	5580	101.14	-	-	87.93	31.87	11.51	30.17	400	246	A	H
		5749.565	53.14	-15.06	68.2	39.51	32.15	11.7	30.22	400	246	P	H
		5454.64	55.62	-18.38	74	42.65	31.79	11.35	30.17	276	252	P	V
		5469.28	55.64	-12.56	68.2	42.61	31.83	11.37	30.17	276	252	P	V
		5458.72	46.56	-7.44	54	33.58	31.8	11.35	30.17	276	252	A	V
	*	5580	115.6	-	-	102.42	31.84	11.51	30.17	276	252	P	V
	*	5580	108.33	-	-	95.15	31.84	11.51	30.17	276	252	A	V
		5727.2	53.48	-14.72	68.2	39.95	32.06	11.68	30.21	276	252	P	V

802.11a CH 140 5700MHz	*	5700	105.86	-	-	92.48	31.93	11.65	30.2	381	238	P	H
	*	5700	98.78	-	-	85.4	31.93	11.65	30.2	381	238	A	H
		5728.6	54.56	-13.64	68.2	41.03	32.06	11.68	30.21	381	238	P	H
	*	5700	113.56	-	-	100.14	31.97	11.65	30.2	378	240	P	V
	*	5700	106.63	-	-	93.21	31.97	11.65	30.2	378	240	A	V
		5725.08	62.27	-5.93	68.2	48.76	32.05	11.67	30.21	378	240	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1+2	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	55.4	-18.6	74	64.65	40.34	17.11	66.7	202	292	P	H
		11000	44.38	-9.62	54	53.63	40.34	17.11	66.7	202	292	A	H
		11760	56.06	-17.94	74	65.61	39.35	17.8	66.7	290	11	P	H
		11760	46.96	-7.04	54	56.51	39.35	17.8	66.7	290	11	A	H
		16500	50.59	-17.61	68.2	56.61	39.03	21.25	66.3	100	0	P	H
		18000	63.59	-10.41	74	60.63	48.43	22.33	67.8	327	257	P	H
		18000	51.11	-2.89	54	48.15	48.43	22.33	67.8	327	257	A	H
		11000	58.42	-15.58	74	67.54	40.47	17.11	66.7	201	321	P	V
		11000	47.17	-6.83	54	56.29	40.47	17.11	66.7	201	321	A	V
		11760	55.34	-18.66	74	64.85	39.39	17.8	66.7	186	19	P	V
		11760	45.71	-8.29	54	55.22	39.39	17.8	66.7	186	19	A	V
		16500	50.72	-17.48	68.2	56.48	39.29	21.25	66.3	100	0	P	V
		18000	63.67	-10.33	74	60.66	48.48	22.33	67.8	255	107	P	V
		18000	51.2	-2.8	54	48.19	48.48	22.33	67.8	255	107	A	V
802.11a CH 116 5580MHz		11160	56.6	-17.4	74	66.07	39.97	17.26	66.7	244	285	P	H
		11160	45.81	-8.19	54	55.28	39.97	17.26	66.7	244	285	A	H
		16740	51.42	-16.78	68.2	56.57	40.07	21.42	66.64	100	0	P	H
		18000	63.53	-10.47	74	60.57	48.43	22.33	67.8	365	222	P	H
		18000	51.02	-2.98	54	48.06	48.43	22.33	67.8	365	222	A	H
		11160	58.7	-15.3	74	68.1	40.04	17.26	66.7	195	323		
		11160	48.22	-5.78	54	57.62	40.04	17.26	66.7	195	323	P	V
		16740	51.51	-16.69	68.2	56.54	40.19	21.42	66.64	100	0	A	V
		18000	63.66	-10.34	74	60.65	48.48	22.33	67.8	112	321	P	V
		18000	50.85	-3.15	54	47.84	48.48	22.33	67.8	112	321	P	V
		11160	58.7	-15.3	74	68.1	40.04	17.26	66.7	195	323	A	V

802.11a CH 140 5700MHz		11400	54.3	-19.7	74	63.33	40.19	17.48	66.7	169	283	P	H
		11400	44.36	-9.64	54	53.39	40.19	17.48	66.7	169	283	A	H
		11760	56.35	-17.65	74	65.9	39.35	17.8	66.7	204	14	P	H
		11760	45.28	-8.72	54	54.83	39.35	17.8	66.7	204	14	A	H
		17100	52.07	-16.13	68.2	57.24	40.31	21.68	67.16	100	0	P	H
		18000	63.82	-10.18	74	60.86	48.43	22.33	67.8	216	74	P	H
		18000	50.82	-3.18	54	47.86	48.43	22.33	67.8	216	74	A	H
		11400	58.14	-15.86	74	67.17	40.19	17.48	66.7	161	317	P	V
		11400	46.78	-7.22	54	55.81	40.19	17.48	66.7	161	317	A	V
		11760	55.79	-18.21	74	65.3	39.39	17.8	66.7	190	38	P	V
		11760	46.44	-7.56	54	55.95	39.39	17.8	66.7	190	38	A	V
		17100	53.07	-15.13	68.2	58.24	40.31	21.68	67.16	100	0	P	V
		18000	63.94	-10.06	74	60.93	48.48	22.33	67.8	135	25	P	V
		18000	51.02	-2.98	54	48.01	48.48	22.33	67.8	135	25	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	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)
802.11n HT20 CH 100 5500MHz		5459.28	54.59	-19.41	74	41.58	31.83	11.35	30.17	295	219	P	H
		5469.2	58.15	-10.05	68.2	45.11	31.84	11.37	30.17	295	219	P	H
		5459.92	45.4	-8.6	54	32.39	31.83	11.35	30.17	295	219	A	H
	*	5500	109.75	-	-	96.66	31.86	11.4	30.17	295	219	P	H
	*	5500	101.03	-	-	87.94	31.86	11.4	30.17	295	219	A	H
		5459.92	57.61	-16.39	74	44.62	31.81	11.35	30.17	367	252	P	V
		5469.36	64.22	-3.98	68.2	51.19	31.83	11.37	30.17	367	252	P	V
		5460	48.38	-5.62	54	35.39	31.81	11.35	30.17	367	252	A	V
	*	5500	115.36	-	-	102.21	31.92	11.4	30.17	367	252	P	V
	*	5500	106.61	-	-	93.46	31.92	11.4	30.17	367	252	A	V
802.11n HT20 CH 116 5580MHz		5459.2	53.13	-20.87	74	40.12	31.83	11.35	30.17	400	248	P	H
		5469.76	54.1	-14.1	68.2	41.06	31.84	11.37	30.17	400	248	P	H
		5459.92	43.44	-10.56	54	30.43	31.83	11.35	30.17	400	248	A	H
	*	5580	109.06	-	-	95.85	31.87	11.51	30.17	400	248	P	H
	*	5580	100.83	-	-	87.62	31.87	11.51	30.17	400	248	A	H
		5734.13	52.81	-15.39	68.2	39.26	32.08	11.68	30.21	400	248	P	H
		5441.44	55.59	-18.41	74	42.67	31.76	11.33	30.17	375	257	P	V
		5460.16	56.21	-11.99	68.2	43.21	31.81	11.36	30.17	375	257	P	V
		5459.92	47.2	-6.8	54	34.21	31.81	11.35	30.17	375	257	A	V
	*	5580	114.86	-	-	101.68	31.84	11.51	30.17	375	257	P	V
	*	5580	106.63	-	-	93.45	31.84	11.51	30.17	375	257	A	V
		5744.525	53.2	-15	68.2	39.61	32.11	11.7	30.22	375	257	P	V

802.11n HT20 CH 140 5700MHz	*	5700	108.1	-	-	94.72	31.93	11.65	30.2	350	112	P	H
	*	5700	99.08	-	-	85.7	31.93	11.65	30.2	350	112	A	H
		5725.72	58.5	-9.7	68.2	45	32.04	11.67	30.21	350	112	P	H
	*	5700	113.72	-	-	100.3	31.97	11.65	30.2	377	239	P	V
	*	5700	105.12	-	-	91.7	31.97	11.65	30.2	377	239	A	V
		5725.96	64.44	-3.76	68.2	50.92	32.06	11.67	30.21	377	239	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	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)
802.11n HT20 CH 100 5500MHz		11000	56.94	-17.06	74	66.19	40.34	17.11	66.7	199	182	P	H
		11000	46.36	-7.64	54	55.61	40.34	17.11	66.7	199	182	A	H
		11760	57.03	-16.97	74	66.58	39.35	17.8	66.7	281	11	P	H
		11760	48.03	-5.97	54	57.58	39.35	17.8	66.7	281	11	A	H
		16500	51.75	-16.45	68.2	57.77	39.03	21.25	66.3	100	0	P	H
		18000	63.6	-10.4	74	60.64	48.43	22.33	67.8	346	84	P	H
		18000	50.77	-3.23	54	47.81	48.43	22.33	67.8	346	84	A	H
		11000	59.92	-14.08	74	69.04	40.47	17.11	66.7	194	322	P	V
		11000	48.89	-5.11	54	58.01	40.47	17.11	66.7	194	322	A	V
		11760	56.68	-17.32	74	66.19	39.39	17.8	66.7	190	38	P	V
		11760	46.93	-7.07	54	56.44	39.39	17.8	66.7	190	38	A	V
		16500	51.39	-16.81	68.2	57.15	39.29	21.25	66.3	100	0	P	V
		18000	63.76	-10.24	74	60.75	48.48	22.33	67.8	168	234	P	V
		18000	50.17	-3.83	54	47.16	48.48	22.33	67.8	168	234	A	V
802.11n HT20 CH 116 5580MHz		11160	57.65	-16.35	74	67.12	39.97	17.26	66.7	193	287	P	H
		11160	47.37	-6.63	54	56.84	39.97	17.26	66.7	193	287	A	H
		11760	56.9	-17.1	74	66.45	39.35	17.8	66.7	212	16	P	H
		11760	47.49	-6.51	54	57.04	39.35	17.8	66.7	212	16	A	H
		16740	51.52	-16.68	68.2	56.67	40.07	21.42	66.64	100	0	P	H
		18000	64.09	-9.91	74	61.13	48.43	22.33	67.8	318	35	P	H
		18000	50.31	-3.69	54	47.35	48.43	22.33	67.8	318	35	A	H
		11160	60.23	-13.77	74	69.63	40.04	17.26	66.7	199	327	P	V
		11160	49.52	-4.48	54	58.92	40.04	17.26	66.7	199	327	A	V
		11760	56.19	-17.81	74	65.7	39.39	17.8	66.7	201	39	P	V
		11760	46.87	-7.13	54	56.38	39.39	17.8	66.7	201	39	A	V
		16740	52.32	-15.88	68.2	57.35	40.19	21.42	66.64	100	0	P	V
		18000	64.23	-9.77	74	61.22	48.48	22.33	67.8	248	134	P	V
		18000	50.24	-3.76	54	47.23	48.48	22.33	67.8	248	134	A	V

802.11n HT20 CH 140 5700MHz		11400	57.31	-16.69	74	66.34	40.19	17.48	66.7	162	316	P	H
		11400	46.75	-7.25	54	55.78	40.19	17.48	66.7	1612	312	A	H
		11760	56.5	-17.5	74	66.05	39.35	17.8	66.7	214	15	P	H
		11760	47.32	-6.68	54	56.87	39.35	17.8	66.7	214	15	A	H
		17100	51.57	-16.63	68.2	56.74	40.31	21.68	67.16	100	0	P	H
		18000	63.77	-10.23	74	60.81	48.43	22.33	67.8	213	199	P	H
		18000	51.37	-2.63	54	48.41	48.43	22.33	67.8	213	199	A	H
		11400	57.27	-16.73	74	66.3	40.19	17.48	66.7	171	322	P	V
		11400	47.09	-6.91	54	56.12	40.19	17.48	66.7	171	322	A	V
		11760	55.91	-18.09	74	65.42	39.39	17.8	66.7	314	336	P	V
		11760	46.73	-7.27	54	22.36	39.39	17.17	32.19	314	336	A	V
		17100	51.84	-16.36	68.2	57.01	40.31	21.68	67.16	100	0	P	V
		18000	63.14	-10.86	74	60.13	48.48	22.33	67.8	362	8	P	V
		18000	51.12	-2.88	54	48.11	48.48	22.33	67.8	362	8	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	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)
802.11n HT40 CH 102 5510MHz		5455.6	55.52	-18.48	74	42.52	31.82	11.35	30.17	296	218	P	H
		5466.16	59.21	-8.99	68.2	46.19	31.83	11.36	30.17	296	218	P	H
		5459.92	46.21	-7.79	54	33.2	31.83	11.35	30.17	296	218	A	H
	*	5510	104.74	-	-	91.63	31.86	11.42	30.17	296	218	P	H
	*	5510	95.66	-	-	82.55	31.86	11.42	30.17	296	218	A	H
		5762.795	52.11	-16.09	68.2	38.41	32.2	11.72	30.22	296	218	P	H
		5457.52	60.36	-13.64	74	47.38	31.8	11.35	30.17	261	255	P	V
		5469.04	66.99	-1.21	68.2	53.96	31.83	11.37	30.17	261	255	P	V
		5459.92	50.56	-3.44	54	37.57	31.81	11.35	30.17	261	255	A	V
	*	5510	111.08	-	-	97.91	31.92	11.42	30.17	261	255	P	V
	*	5510	101.9	-	-	88.73	31.92	11.42	30.17	261	255	A	V
		5757.44	53.56	-14.64	68.2	39.93	32.14	11.71	30.22	261	255	P	V
802.11n HT40 CH 110 5550MHz		5456.32	53.68	-20.32	74	40.68	31.82	11.35	30.17	217	111	P	H
		5469.76	53.87	-14.33	68.2	40.83	31.84	11.37	30.17	217	111	P	H
		5458.96	44.12	-9.88	54	31.11	31.83	11.35	30.17	217	111	A	H
	*	5550	106.06	-	-	92.9	31.87	11.47	30.18	217	111	P	H
	*	5550	97.06	-	-	83.9	31.87	11.47	30.18	217	111	A	H
		5737.595	53.14	-15.06	68.2	39.57	32.1	11.69	30.22	217	111	P	H
		5458.24	56.85	-17.15	74	43.87	31.8	11.35	30.17	381	247	P	V
		5469.76	58.53	-9.67	68.2	45.5	31.83	11.37	30.17	381	247	P	V
		5459.92	47.15	-6.85	54	34.16	31.81	11.35	30.17	381	247	A	V
	*	5550	113.43	-	-	100.22	31.92	11.47	30.18	381	247	P	V
	*	5550	103.9	-	-	90.69	31.92	11.47	30.18	381	247	A	V
		5760.275	52.5	-15.7	68.2	38.86	32.15	11.71	30.22	381	247	P	V

802.11n HT40 CH 134 5670MHz		5428.4	52.08	-21.92	74	39.14	31.79	11.32	30.17	338	12	P	H
		5469.7	50.98	-17.22	68.2	37.94	31.84	11.37	30.17	338	12	P	H
		5458.85	42.66	-11.34	54	29.65	31.83	11.35	30.17	338	12	A	H
	*	5670	105.07	-	-	91.77	31.89	11.61	30.2	338	112	P	H
	*	5670	96.22	-	-	82.92	31.89	11.61	30.2	338	112	A	H
		5728.145	54.21	-13.99	68.2	40.69	32.05	11.68	30.21	338	112	P	H
		5448.35	54	-20	74	41.05	31.78	11.34	30.17	366	242	P	V
		5464.8	53.79	-14.41	68.2	40.78	31.82	11.36	30.17	366	242	P	V
		5459.9	44.58	-9.42	54	31.59	31.81	11.35	30.17	366	242	A	V
	*	5670	111.81	-	-	98.52	31.88	11.61	30.2	366	242	P	V
	*	5670	103.1	-	-	89.81	31.88	11.61	30.2	366	242	A	V
		5725.94	61.31	-6.89	68.2	47.79	32.06	11.67	30.21	366	242	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2	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)
802.11n HT40 CH 102 5510MHz		11020	53.67	-20.33	74	62.91	40.32	17.14	66.7	200	288	P	H
		11020	43.5	-10.5	54	52.74	40.32	17.14	66.7	200	288	A	H
		11760	56.86	-17.14	74	66.41	39.35	17.8	66.7	202	14	P	H
		11760	47.65	-6.35	54	57.2	39.35	17.8	66.7	202	14	A	H
		16530	51.1	-17.1	68.2	56.98	39.18	21.28	66.34	100	0	P	H
		18000	62.21	-11.79	74	59.25	48.43	22.33	67.8	182	199	P	H
		18000	51.09	-2.91	54	48.13	48.43	22.33	67.8	182	199	A	H
		11020	54.96	-19.04	74	64.1	40.42	17.14	66.7	196	323	P	V
		11020	44.88	-9.12	54	54.02	40.42	17.14	66.7	196	323	A	V
		11760	56.11	-17.89	74	65.62	39.39	17.8	66.7	194	37	P	V
		11760	46.76	-7.24	54	56.27	39.39	17.8	66.7	194	37	A	V
		16530	52.22	-15.98	68.2	57.86	39.42	21.28	66.34	100	0	P	V
		18000	62.96	-11.04	74	59.95	48.48	22.33	67.8	320	107	P	V
		18000	50.82	-3.18	54	47.81	48.48	22.33	67.8	320	107	A	V
802.11n HT40 CH 110 5550MHz		11100	55.92	-18.08	74	65.27	40.15	17.2	66.7	196	285	P	H
		11100	45.67	-8.33	54	55.02	40.15	17.2	66.7	196	285	A	H
		11760	57.51	-16.49	74	67.06	39.35	17.8	66.7	282	10	P	H
		11760	48.06	-5.94	54	57.61	39.35	17.8	66.7	282	10	A	H
		16650	52.1	-16.1	68.2	57.53	39.72	21.36	66.51	100	0	P	H
		18000	62.35	-11.65	74	59.39	48.43	22.33	67.8	400	105	P	H
		18000	50.27	-3.73	54	47.31	48.43	22.33	67.8	400	105	A	H
		11100	58.74	-15.26	74	68.02	40.22	17.2	66.7	200	322	P	V
		11100	47.76	-6.24	54	57.04	40.22	17.2	66.7	200	322	A	V
		11760	55.51	-18.49	74	65.02	39.39	17.8	66.7	314	336	P	V
		11760	46.46	-7.54	54	55.97	39.39	17.8	66.7	314	336	A	V
		16650	52.81	-15.39	68.2	58.02	39.94	21.36	66.51	100	0	P	V
		18000	62.63	-11.37	74	59.62	48.48	22.33	67.8	253	312	P	V
		18000	50.63	-3.37	54	47.62	48.48	22.33	67.8	253	312	A	V

802.11n HT40 CH 134 5670MHz		11340	54.78	-19.22	74	64.09	39.96	17.43	66.7	190	284	P	H
		11340	45.11	-8.89	54	54.42	39.96	17.43	66.7	190	284	A	H
		11760	57.01	-16.99	74	66.56	39.35	17.8	66.7	284	11	P	H
		11760	48.13	-5.87	54	57.68	39.35	17.8	66.7	284	11	A	H
		17010	52.23	-15.97	68.2	57.26	40.37	21.62	67.02	100	0	P	H
		18000	62.6	-11.4	74	59.64	48.43	22.33	67.8	118	321	P	H
		18000	50.42	-3.58	54	47.46	48.43	22.33	67.8	118	321	A	H
		11340	56.62	-17.38	74	65.89	40	17.43	66.7	203	331	P	V
		11340	46.48	-7.52	54	55.75	40	17.43	66.7	203	331	A	V
		11760	56.45	-17.55	74	65.96	39.39	17.8	66.7	335	293	P	V
		11760	47.1	-6.9	54	56.61	39.39	17.8	66.7	335	293	A	V
		17010	52.52	-15.68	68.2	57.54	40.38	21.62	67.02	100	0	P	V
		18000	62.99	-11.01	74	59.98	48.48	22.33	67.8	142	14	P	V
		18000	50.18	-3.82	54	47.17	48.48	22.33	67.8	142	14	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 5470~5725MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	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		5457.76	55.82	-18.18	74	42.81	31.83	11.35	30.17	296	218	P	H
		5469.04	59.44	-8.76	68.2	46.4	31.84	11.37	30.17	296	218	P	H
		5455.84	45.55	-8.45	54	32.55	31.82	11.35	30.17	296	218	A	H
	*	5530	100.99	-	-	87.86	31.87	11.44	30.18	296	218	P	H
	*	5530	91.25	-	-	78.12	31.87	11.44	30.18	296	218	A	H
		5745.47	51.74	-16.46	68.2	38.13	32.13	11.7	30.22	296	218	P	H
		5457.52	63.88	-10.12	74	50.9	31.8	11.35	30.17	291	255	P	V
		5466.64	67.04	-1.16	68.2	54.02	31.83	11.36	30.17	291	255	P	V
		5455.84	51	-3	54	38.02	31.8	11.35	30.17	291	255	A	V
	*	5530	107.43	-	-	94.25	31.92	11.44	30.18	291	255	P	V
	*	5530	98.98	-	-	85.8	31.92	11.44	30.18	291	255	A	V
		5764.055	52.33	-15.87	68.2	38.67	32.16	11.72	30.22	291	255	P	V
802.11ac VHT80 CH 122 5610MHz		5457.76	53.63	-20.37	74	40.62	31.83	11.35	30.17	210	112	P	H
		5468.8	54.3	-13.9	68.2	41.26	31.84	11.37	30.17	210	112	P	H
		5459.68	44.02	-9.98	54	31.01	31.83	11.35	30.17	210	112	A	H
	*	5610	103.98	-	-	90.75	31.87	11.54	30.18	210	112	P	H
	*	5610	95.44	-	-	82.21	31.87	11.54	30.18	210	112	A	H
		5730.665	53.43	-14.77	68.2	39.9	32.06	11.68	30.21	210	112	P	H
		5454.16	57.87	-16.13	74	44.9	31.79	11.35	30.17	368	246	P	V
		5467.12	58.49	-9.71	68.2	45.47	31.83	11.36	30.17	368	246	P	V
		5459.92	48.41	-5.59	54	35.42	31.81	11.35	30.17	368	246	A	V
	*	5610	111.25	-	-	98.1	31.79	11.54	30.18	368	246	P	V
	*	5610	102.95	-	-	89.8	31.79	11.54	30.18	368	246	A	V
		5725	59.57	-8.63	68.2	46.06	32.05	11.67	30.21	368	246	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. 1+2	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		11060	48.94	-25.06	74	58.22	40.25	17.17	66.7	100	0	P	H
		11763	57.62	-16.38	74	67.17	39.35	17.8	66.7	199	15	P	H
		11763	48.51	-5.49	54	58.06	39.35	17.8	66.7	199	15	A	H
		16590	51.3	-16.9	68.2	56.92	39.49	21.32	66.43	100	0	P	H
		18000	62.67	-11.33	74	59.71	48.43	22.33	67.8	329	274	P	H
		18000	50.87	-3.13	54	47.91	48.43	22.33	67.8	329	274	A	H
		11060	48.7	-25.3	74	57.9	40.33	17.17	66.7	100	0	P	V
		11760	57.24	-16.76	74	66.75	39.39	17.8	66.7	314	339	P	V
		11760	47.7	-6.3	54	57.21	39.39	17.8	66.7	314	339	A	V
		16590	51.19	-17.01	68.2	56.61	39.69	21.32	66.43	100	0	P	V
		18000	62.71	-11.29	74	59.7	48.48	22.33	67.8	337	315	P	V
		18000	51.13	-2.87	54	48.12	48.48	22.33	67.8	337	315	A	V
802.11ac VHT80 CH 122 5610MHz		11220	54.94	-19.06	74	64.41	39.92	17.31	66.7	190	258	P	H
		11220	44.57	-9.43	54	54.04	39.92	17.31	66.7	190	258	A	H
		11760	57.47	-16.53	74	67.02	39.35	17.8	66.7	204	16	P	H
		11760	48.39	-5.61	54	57.94	39.35	17.8	66.7	204	16	A	H
		16830	52.2	-16	68.2	57.2	40.27	21.49	66.76	100	0	P	H
		18000	62.89	-11.11	74	59.93	48.43	22.33	67.8	290	182	P	H
		18000	50.9	-3.1	54	47.94	48.43	22.33	67.8	290	182	A	H
		11220	55.65	-18.35	74	65.16	39.88	17.31	66.7	202	330	P	V
		11220	45.32	-8.68	54	54.83	39.88	17.31	66.7	202	330	A	V
		11760	58.07	-15.93	74	67.58	39.39	17.8	66.7	232	81	P	V
		11760	48.42	-5.58	54	57.93	39.39	17.8	66.7	232	81	A	V
		16830	50.77	-17.43	68.2	55.68	40.36	21.49	66.76	100	0	P	V
		18000	62.97	-11.03	74	59.96	48.48	22.33	67.8	337	315	P	V
		18000	50.84	-3.16	54	47.83	48.48	22.33	67.8	337	315	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 1+2	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		5422.93	51.18	-22.82	74	38.25	31.78	11.31	30.16	210	233	P	H
		5469.34	52.52	-15.68	68.2	39.48	31.84	11.37	30.17	210	233	P	H
		5459.98	42.6	-11.4	54	29.59	31.83	11.35	30.17	210	233	A	H
	*	5720	107.36	-	-	93.88	32.02	11.67	30.21	210	233	P	H
	*	5720	99.93	-	-	86.45	32.02	11.67	30.21	210	233	A	H
		5928.25	53.96	-14.24	68.2	39.91	32.44	11.91	30.3	210	233	P	H
		5433.85	52.72	-21.28	74	39.83	31.74	11.32	30.17	370	239	P	V
		5464.66	54.06	-14.14	68.2	41.05	31.82	11.36	30.17	370	239	P	V
		5459.98	43.92	-10.08	54	30.93	31.81	11.35	30.17	370	239	A	V
	*	5720	113.83	-	-	100.33	32.04	11.67	30.21	370	239	P	V
	*	5720	106.52	-	-	93.02	32.04	11.67	30.21	370	239	A	V
		5852.25	54.12	-14.08	68.2	40.25	32.31	11.82	30.26	370	239	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. 1+2	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	53.77	-20.23	74	62.71	40.25	17.51	66.7	240	302	P	H
		11440	43.87	-10.13	54	52.81	40.25	17.51	66.7	240	302	A	H
		11760	56.98	-17.02	74	66.53	39.35	17.8	66.7	203	14	P	H
		11760	47.88	-6.12	54	57.43	39.35	17.8	66.7	203	14	A	H
		17160	52.5	-15.7	68.2	57.68	40.35	21.73	67.26	100	0	P	H
		18000	63.95	-10.05	74	60.99	48.43	22.33	67.8	234	351	P	H
		18000	50.95	-3.05	54	47.99	48.43	22.33	67.8	234	351	A	H
		11440	57	-17	74	65.93	40.26	17.51	66.7	148	346	P	V
		11440	47.6	-6.4	54	56.53	40.26	17.51	66.7	148	346	A	V
		11760	56.1	-17.9	74	65.61	39.39	17.8	66.7	201	39	P	V
		11760	46.74	-7.26	54	56.25	39.39	17.8	66.7	201	39	A	V
		17160	52.97	-15.23	68.2	58.17	40.33	21.73	67.26	100	0	P	V
		18000	63.36	-10.64	74	60.35	48.48	22.33	67.8	135	253	P	V
		18000	51.02	-2.98	54	48.01	48.48	22.33	67.8	135	253	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	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)
802.11n HT20 CH 144 5720MHz		5450.23	52.24	-21.76	74	39.25	31.82	11.34	30.17	208	112	P	H
		5465.83	51.76	-16.44	68.2	38.74	31.83	11.36	30.17	208	112	P	H
		5458.81	43.01	-10.99	54	30	31.83	11.35	30.17	208	112	A	H
	*	5720	105.48	-	-	92	32.02	11.67	30.21	208	112	P	H
	*	5720	97.5	-	-	84.02	32.02	11.67	30.21	208	112	A	H
		5912	52.95	-15.25	68.2	38.95	32.4	11.89	30.29	208	112	P	H
		5452.57	53.73	-20.27	74	40.76	31.79	11.35	30.17	383	237	P	V
		5465.44	54.22	-13.98	68.2	41.21	31.82	11.36	30.17	383	237	P	V
		5458.42	44.12	-9.88	54	31.14	31.8	11.35	30.17	383	237	A	V
	*	5720	113	-	-	99.5	32.04	11.67	30.21	383	237	P	V
	*	5720	104.39	-	-	90.89	32.04	11.67	30.21	383	237	A	V
		5852.25	53.44	-14.76	68.2	39.57	32.31	11.82	30.26	383	237	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	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)
802.11n HT20 CH 144 5720MHz		11440	55.36	-18.64	74	64.3	40.25	17.51	66.7	166	302	P	H
		11440	46.01	-7.99	54	54.95	40.25	17.51	66.7	166	302	A	H
		11760	57.04	-16.96	74	66.59	39.35	17.8	66.7	203	16	P	H
		11760	47.84	-6.16	54	57.39	39.35	17.8	66.7	203	16	A	H
		17160	52.06	-16.14	68.2	57.24	40.35	21.73	67.26	100	0	P	H
		18000	61.57	-12.43	74	58.61	48.43	22.33	67.8	337	258	P	H
		18000	51.3	-2.7	54	48.34	48.43	22.33	67.8	337	258	A	H
		11440	56.02	-17.98	74	64.95	40.26	17.51	66.7	345	289	P	V
		11440	46.27	-7.73	54	55.2	40.26	17.51	66.7	345	289	A	V
		11760	56.09	-17.91	74	65.6	39.39	17.8	66.7	322	336	P	V
		11760	46.44	-7.56	54	55.95	39.39	17.8	66.7	322	336	A	V
		17160	52.42	-15.78	68.2	57.62	40.33	21.73	67.26	100	0	P	V
		18000	61.66	-12.34	74	58.65	48.48	22.33	67.8	118	305	P	V
		18000	50.92	-3.08	54	47.91	48.48	22.33	67.8	118	305	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	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)
802.11n HT40 CH 142 5710MHz		5436.58	53.26	-20.74	74	40.3	31.8	11.33	30.17	211	231	P	H
		5461.15	52.55	-15.65	68.2	39.53	31.83	11.36	30.17	211	231	P	H
		5458.81	43.14	-10.86	54	30.13	31.83	11.35	30.17	211	231	A	H
	*	5710	104.56	-	-	91.13	31.97	11.66	30.2	211	231	P	H
	*	5710	95.25	-	-	81.82	31.97	11.66	30.2	211	231	A	H
		5865.25	53.77	-14.43	68.2	39.86	32.34	11.84	30.27	211	231	P	H
		5456.86	54.02	-19.98	74	41.04	31.8	11.35	30.17	377	239	P	V
		5464.27	53.27	-14.93	68.2	40.26	31.82	11.36	30.17	377	239	P	V
		5459.59	44.94	-9.06	54	31.95	31.81	11.35	30.17	377	239	A	V
	*	5710	111.46	-	-	98	32	11.66	30.2	377	239	P	V
	*	5710	102.11	-	-	88.65	32	11.66	30.2	377	239	A	V
		5866.75	54.57	-13.63	68.2	40.62	32.38	11.84	30.27	377	239	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2	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)
802.11n HT40 CH 142 5710MHz		11420	53.59	-20.41	74	62.58	40.22	18.1	66.7	182	290	P	H
		11420	43.99	-10.01	54	52.98	40.22	18.1	66.7	182	290	A	H
		11760	58.12	-15.88	74	67.67	39.35	18.43	66.7	200	14	P	H
		11760	48.31	-5.69	54	57.86	39.35	18.43	66.7	200	14	A	H
		17130	52.65	-15.55	68.2	57.83	40.33	22.52	67.21	100	0	P	H
		18000	63.17	-10.83	74	60.21	48.43	23.31	67.8	113	67	P	H
		18000	50.98	-3.02	54	48.02	48.43	23.31	67.8	113	67	A	H
		11420	56.45	-17.55	74	65.43	40.23	17.49	66.7	164	316	P	V
		11420	46.46	-7.54	54	55.44	40.23	17.49	66.7	164	316	A	V
		11760	56.51	-17.49	74	66.02	39.39	17.8	66.7	315	337	P	V
		11760	47.58	-6.42	54	57.09	39.39	17.8	66.7	315	337	A	V
		17130	52.89	-15.31	68.2	58.09	40.31	21.7	67.21	100	0	P	V
		18000	63.09	-10.91	74	60.08	48.48	22.33	67.8	136	93	P	V
		18000	51.18	-2.82	54	48.17	48.48	22.33	67.8	136	93	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 138 5690MHz		5455.3	52.84	-21.16	74	39.84	31.82	11.35	30.17	100	111	P	H
		5468.56	51.72	-16.48	68.2	38.68	31.84	11.37	30.17	100	111	P	H
		5459.98	43.28	-10.72	54	30.27	31.83	11.35	30.17	100	111	A	H
	*	5690	102.44	-	-	89.1	31.91	11.63	30.2	100	111	P	H
	*	5690	94.43	-	-	81.09	31.91	11.63	30.2	100	111	A	H
		5862	54.83	-13.37	68.2	40.94	32.33	11.83	30.27	100	111	P	H
		5457.64	55.52	-18.48	74	42.54	31.8	11.35	30.17	359	242	P	V
		5467	54.21	-13.99	68.2	41.19	31.83	11.36	30.17	359	242	P	V
		5459.98	45.54	-8.46	54	32.55	31.81	11.35	30.17	359	242	A	V
	*	5690	111.11	-	-	97.74	31.94	11.63	30.2	359	242	P	V
	*	5690	102.62	-	-	89.25	31.94	11.63	30.2	359	242	A	V
		5869.25	55.47	-12.73	68.2	41.51	32.39	11.84	30.27	359	242	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 138 5690MHz		11380	53.47	-20.53	74	62.6	40.11	17.46	66.7	168	285	P	H
		11380	43.65	-10.35	54	52.78	40.11	17.46	66.7	168	285	A	H
		11760	57.41	-16.59	74	66.96	39.35	17.8	66.7	202	16	P	H
		11760	48.25	-5.75	54	57.8	39.35	17.8	66.7	202	16	A	H
		17070	52.01	-16.19	68.2	57.12	40.34	21.66	67.11	100	0	P	H
		18000	62.83	-11.17	74	59.87	48.43	22.33	67.8	200	14	P	H
		18000	50.94	-3.06	54	47.98	48.43	22.33	67.8	200	14	A	H
		11380	56.15	-17.85	74	65.26	40.13	17.46	66.7	101	316	P	V
		11380	45.6	-8.4	54	54.71	40.13	17.46	66.7	101	316	A	V
		11760	57.12	-16.88	74	66.63	39.39	17.8	66.7	314	338	P	V
		11760	47.94	-6.06	54	57.45	39.39	17.8	66.7	314	338	A	V
		17070	51.91	-16.29	68.2	57.03	40.33	21.66	67.11	100	0	P	V
		18000	62.82	-11.18	74	59.81	48.48	22.33	67.8	164	316	P	V
		18000	50.72	-3.28	54	47.71	48.48	22.33	67.8	164	316	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission above 18GHz

5GHz WIFI 802.11n HT40 (SHF)

WIFI Ant. 1+2	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 802.11n HT40 SHF		28494	42.11	-26.09	68.2	36.89	39.82	18.08	52.68	150	0	P	H
		39846	50.85	-23.15	74	36.16	44.85	23.5	53.66	150	0	P	H
		28846	42.19	-26.01	68.2	36.82	40.02	18.22	52.87	150	0	P	V
		39780	51.32	-22.68	74	36.67	44.62	23.48	53.45	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Emission below 1GHz

WIFI 802.11n HT40 (LF @ 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.
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 LF		30.97	21.31	-18.69	40	28.14	24.71	0.9	32.44	-	-	P	H
		120.21	36.71	-6.79	43.5	49.79	17.6	1.73	32.41	100	0	P	H
		136.7	34.61	-8.89	43.5	47.5	17.6	1.92	32.41	-	-	P	H
		167.74	36.38	-7.12	43.5	50.76	15.93	2.1	32.41	-	-	P	H
		380.17	34.54	-11.46	46	42.61	21.1	3.31	32.48	-	-	P	H
		595.51	35.87	-10.13	46	38.85	25.7	3.95	32.63	-	-	P	H
		31.94	22.06	-17.94	40	29.64	23.95	0.91	32.44	-	-	P	V
		94.02	29.19	-14.31	43.5	44.53	15.4	1.68	32.42	-	-	P	V
		120.21	33.41	-10.09	43.5	46.49	17.6	1.73	32.41	100	0	P	V
		136.7	31.64	-11.86	43.5	44.53	17.6	1.92	32.41	-	-	P	V
		253.1	31.22	-14.78	46	42.13	18.91	2.59	32.41	-	-	P	V
		611.03	32.1	-13.9	46	34.99	25.72	4.02	32.63	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

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.	
1+2		(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

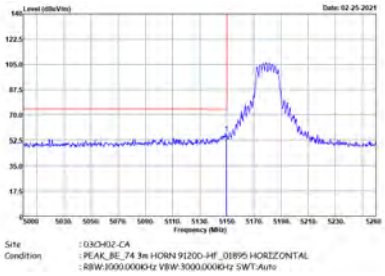
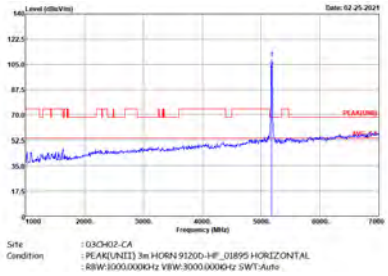
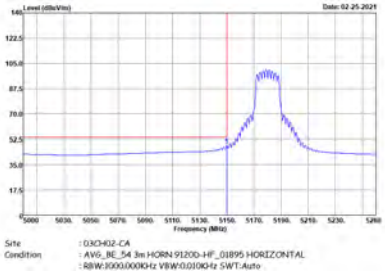
Test Engineer :	Calvin Wu and Michael Bui	**Temperature :**	19~24°C
		Relative Humidity :	40~46%

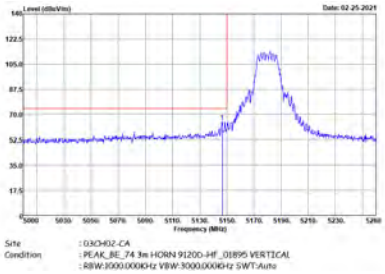
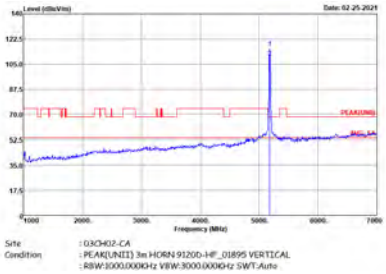
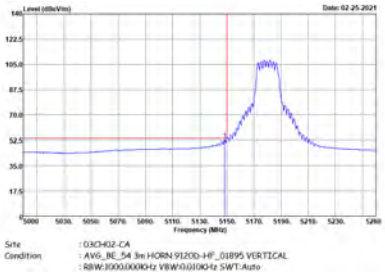
Note symbol

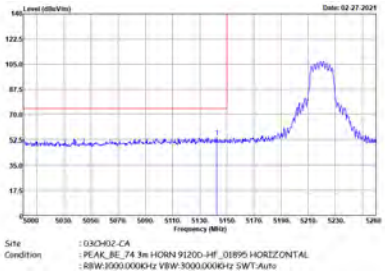
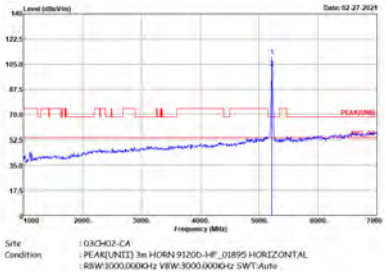
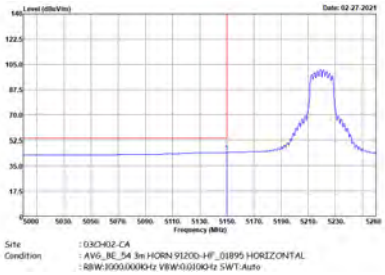
-L	**Low channel location**
-R	**High channel location**

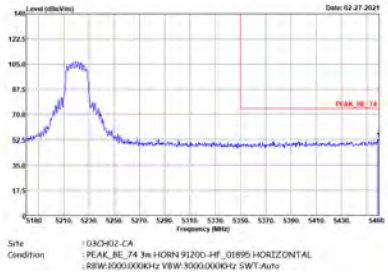
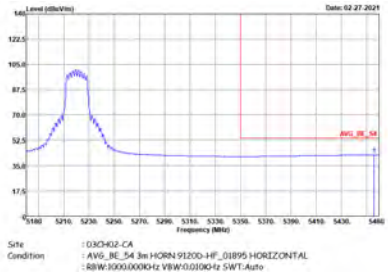
Band 1 - 5150~5250MHz

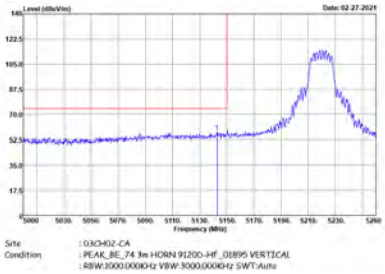
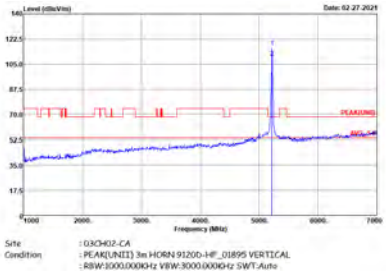
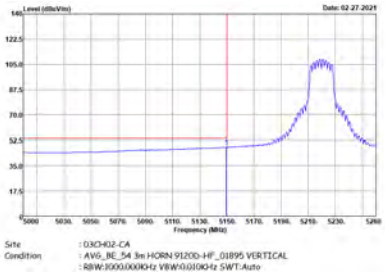
WIFI 802.11a (Band Edge @ 3m)

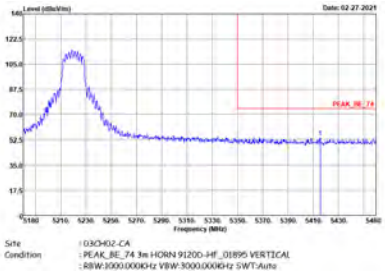
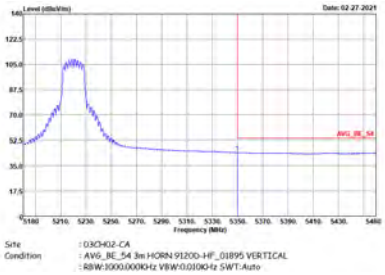
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

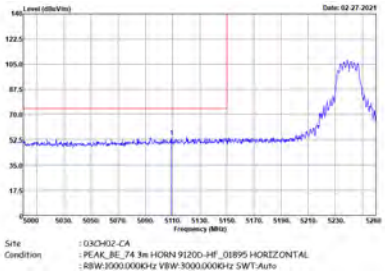
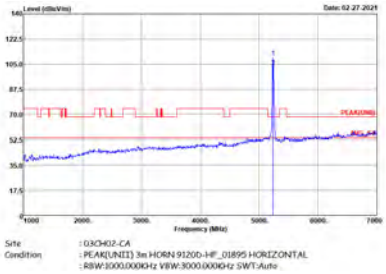
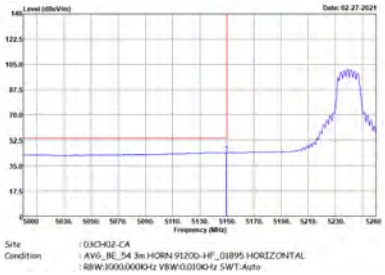
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

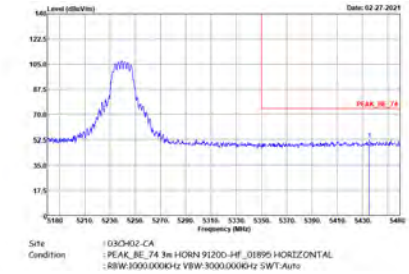
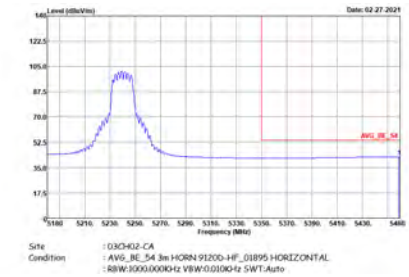
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

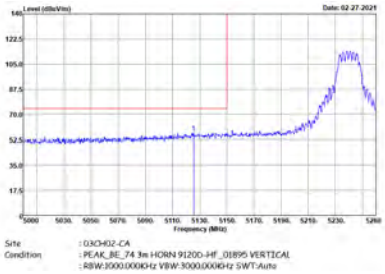
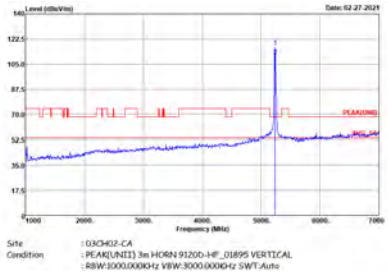
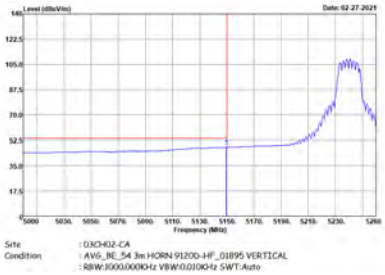
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

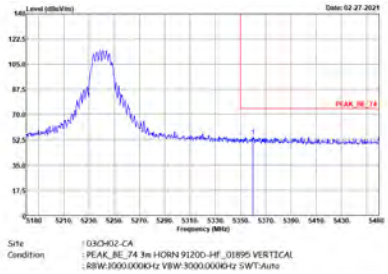
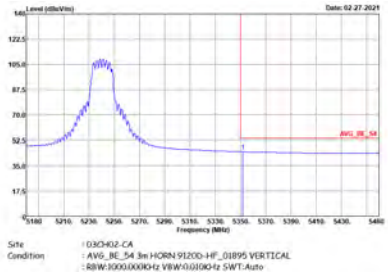
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

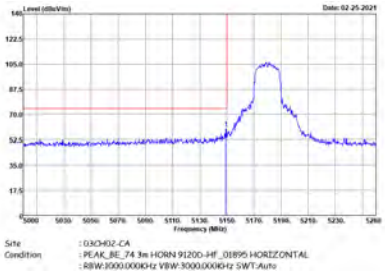
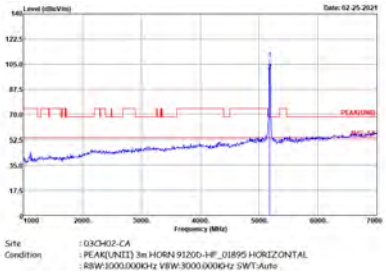
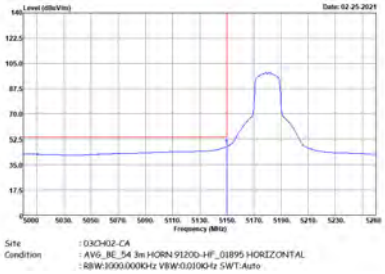
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

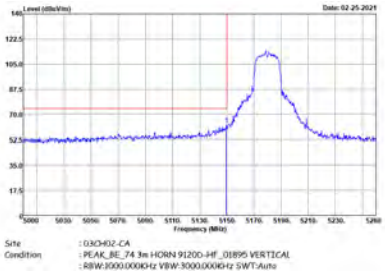
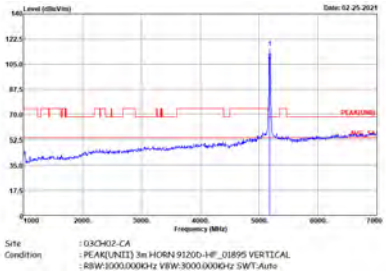
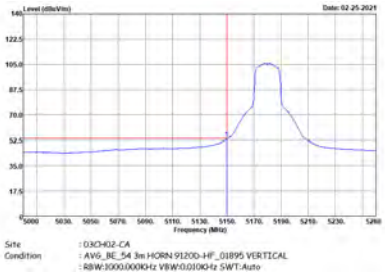
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

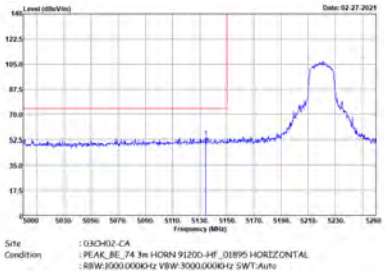
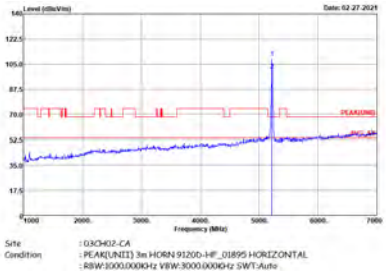
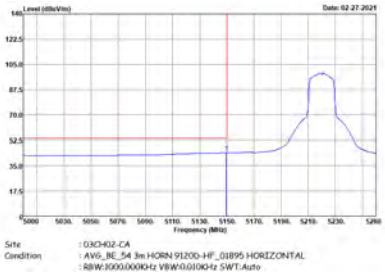
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

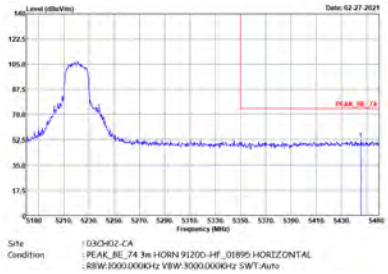
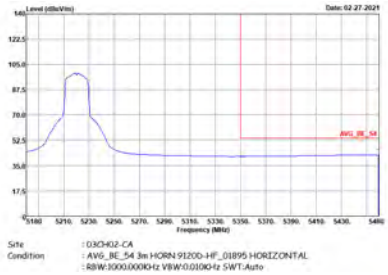
Band 1 5150~5250MHz

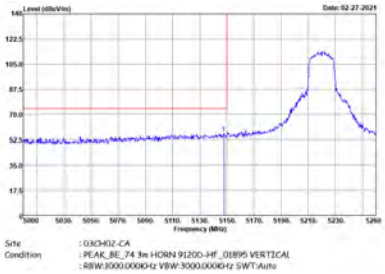
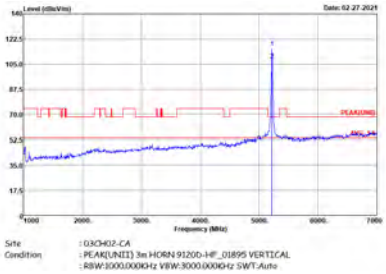
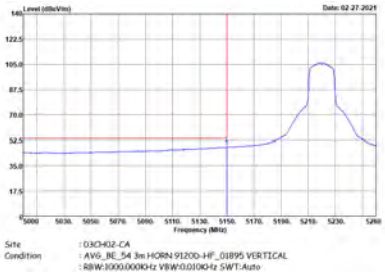
WIFI 802.11n HT20 (Band Edge @ 3m)

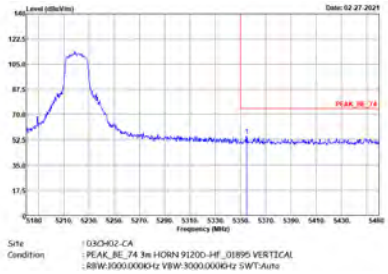
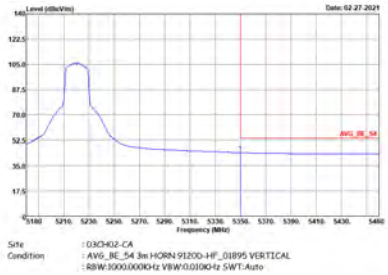
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

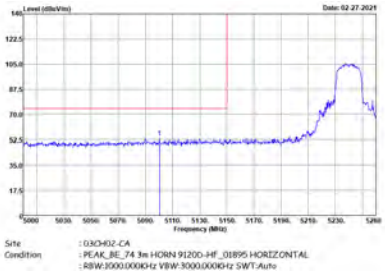
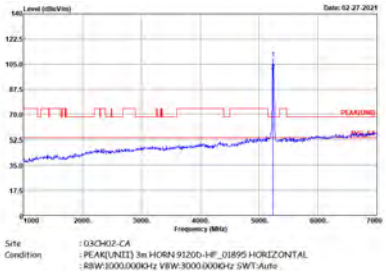
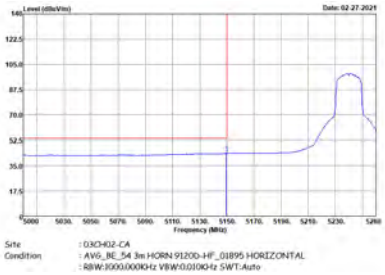
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

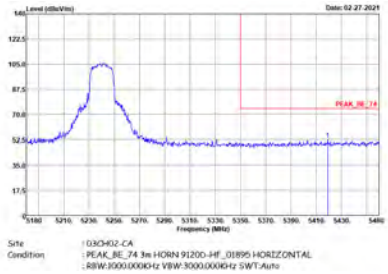
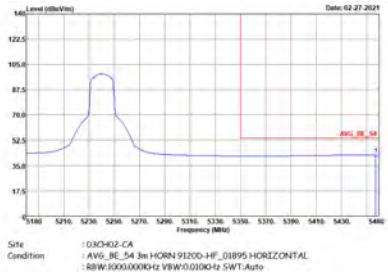
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

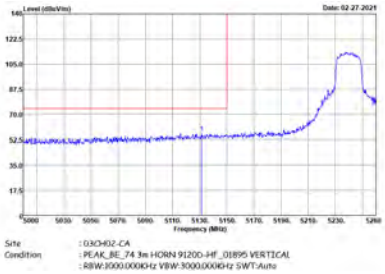
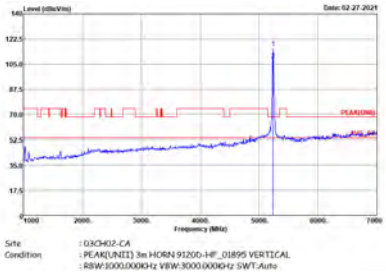
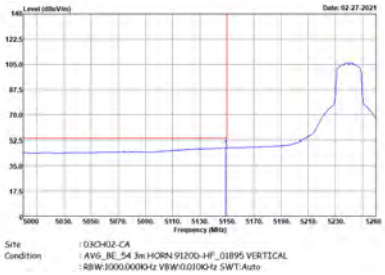
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

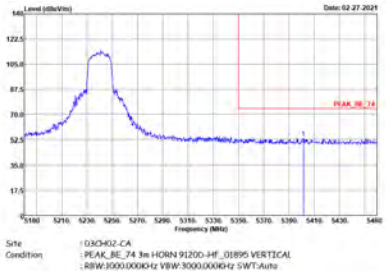
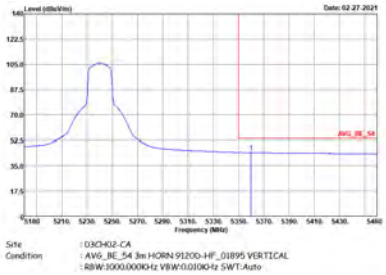
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

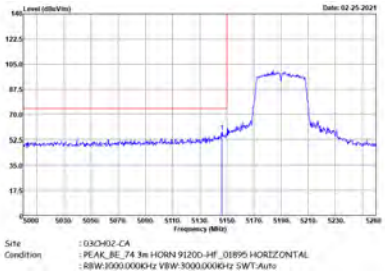
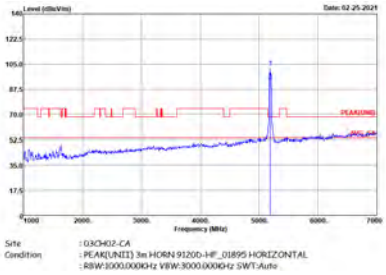
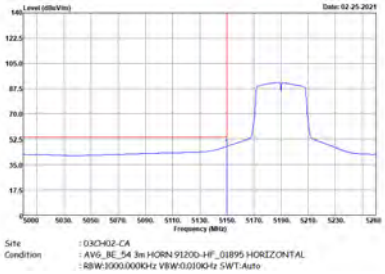
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

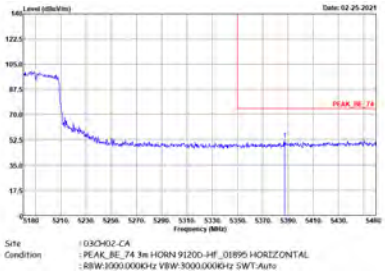
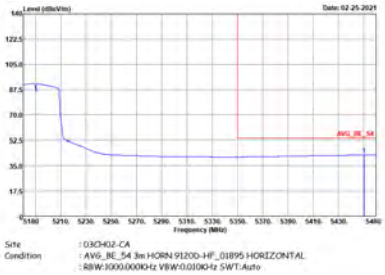
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

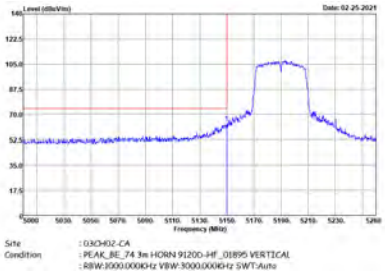
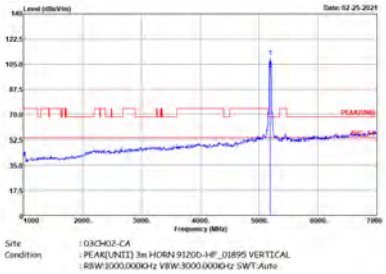
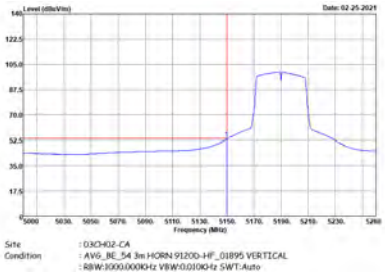
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

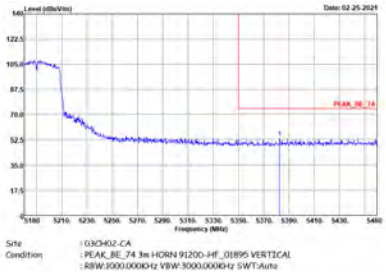
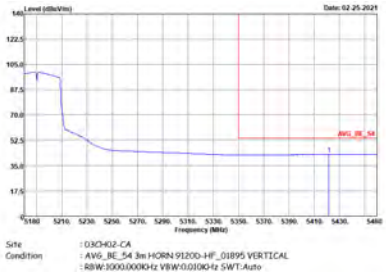
Band 1 5150~5250MHz

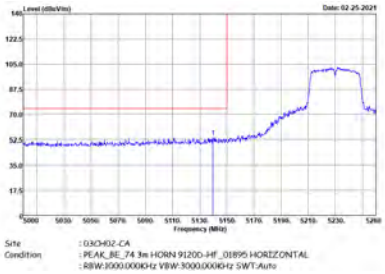
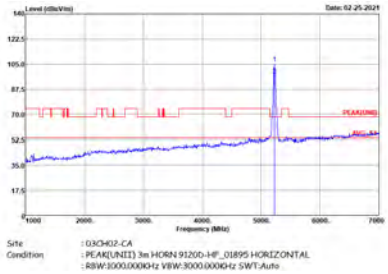
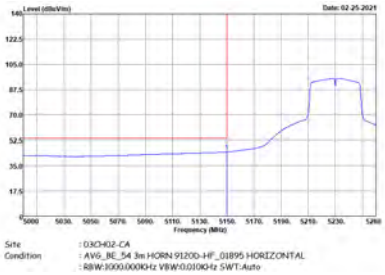
WIFI 802.11n HT40 (Band Edge @ 3m)

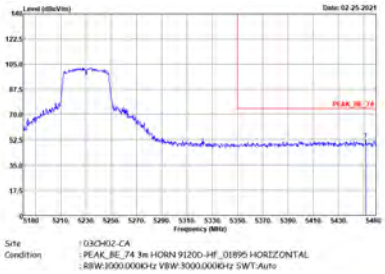
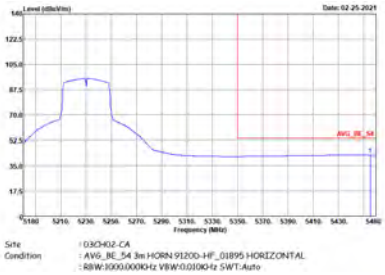
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

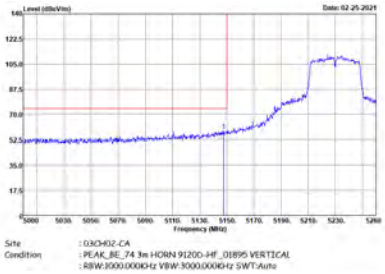
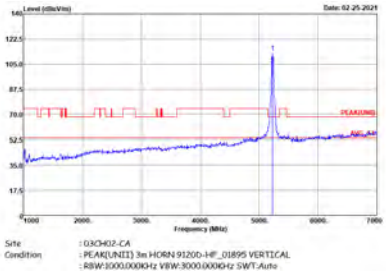
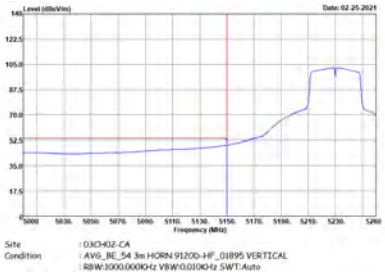
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

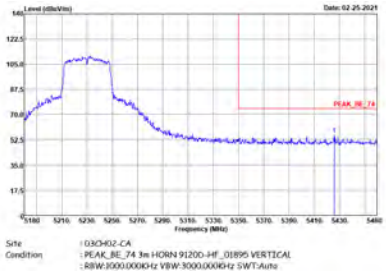
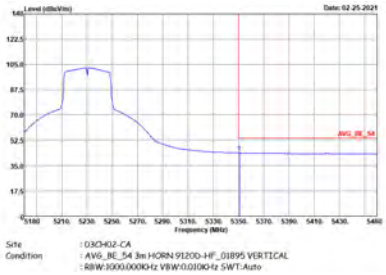
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

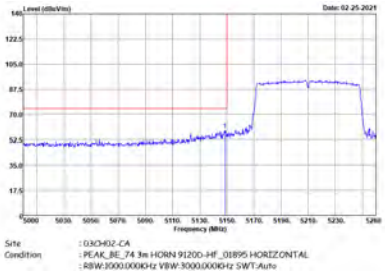
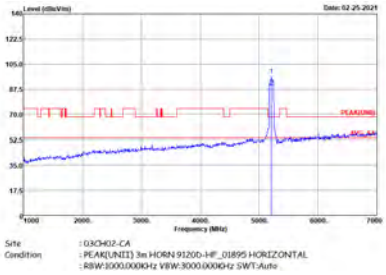
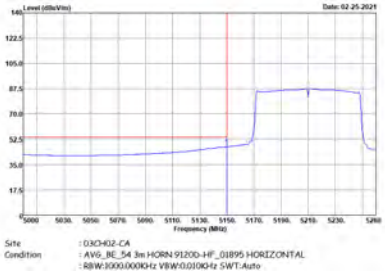
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

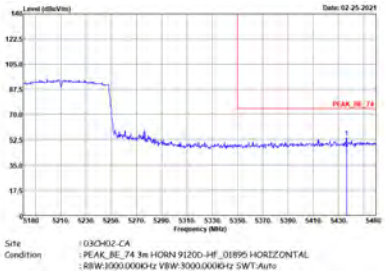
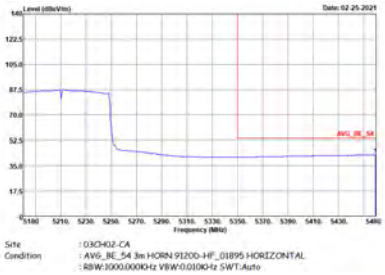
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

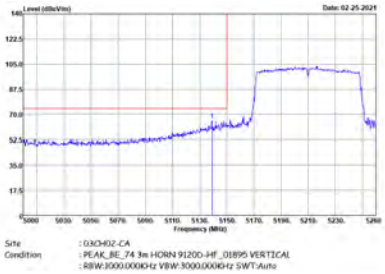
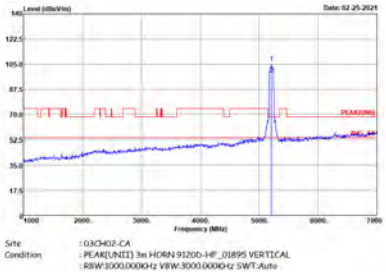
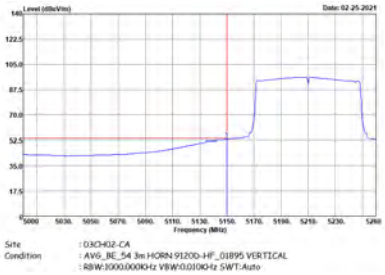
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

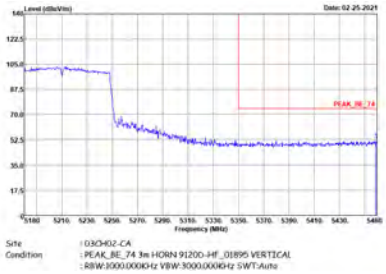
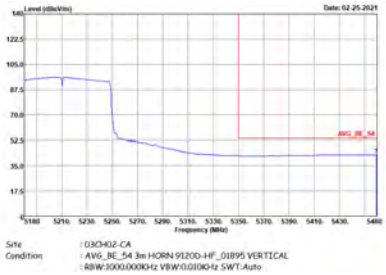
Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

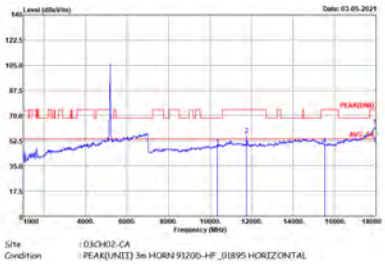
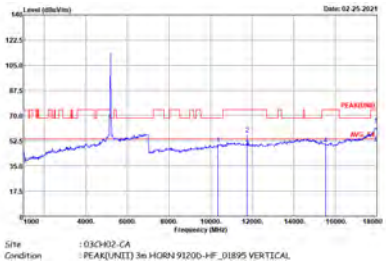
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

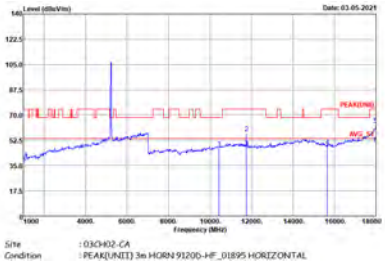
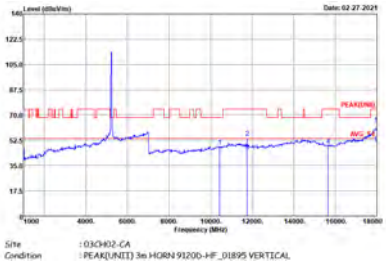
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

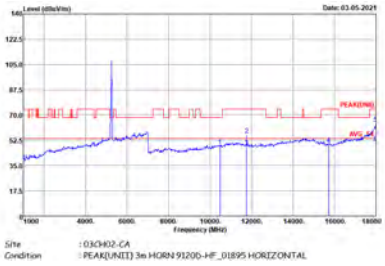
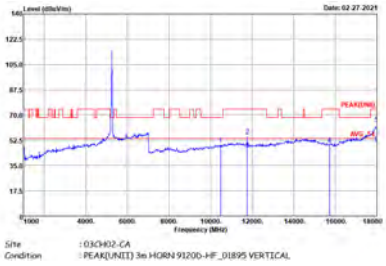
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 1 - 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

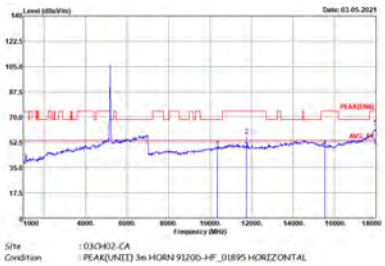
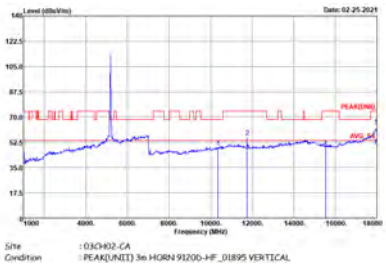
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH36 5180MHz	
1+2	Horizontal	Vertical
Peak Avg.		

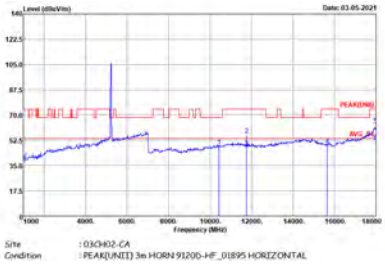
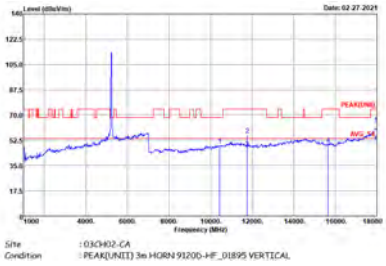
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH44 5220MHz	
1+2	Horizontal	Vertical
Peak Avg.		

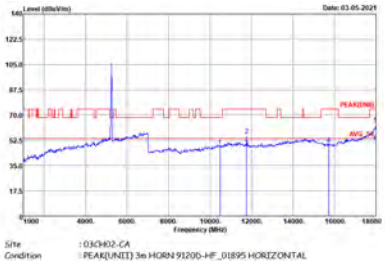
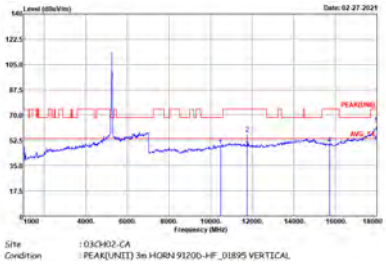
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH48 5240MHz	
1+2	Horizontal	Vertical
Peak Avg.		

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

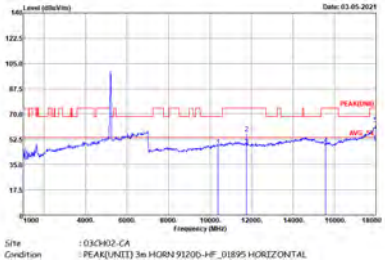
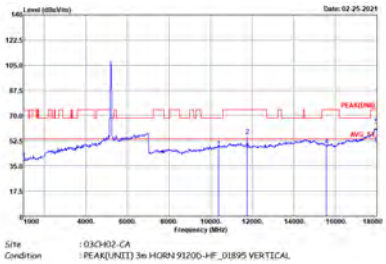
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1+2	Horizontal	Vertical
Peak Avg.		

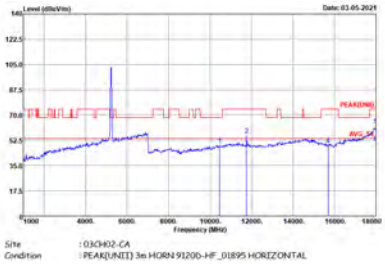
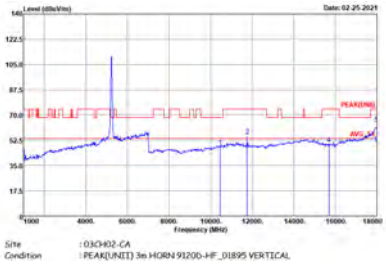
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH44 5220MHz	
1+2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH48 5240MHz	
1+2	Horizontal	Vertical
Peak Avg.		

Band 1 5150~5250MHz

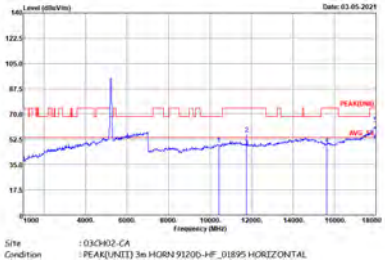
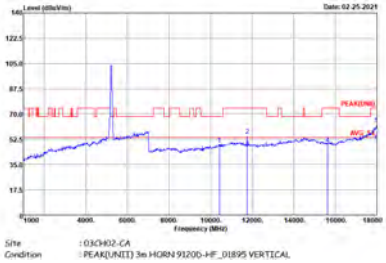
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT40 CH38 5190MHz	
1+2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT40 CH46 5230MHz	
1+2	Horizontal	Vertical
Peak Avg.		

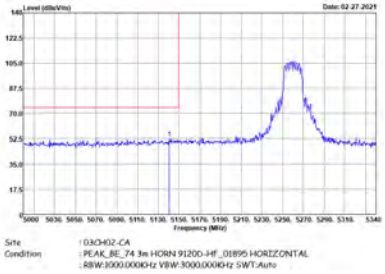
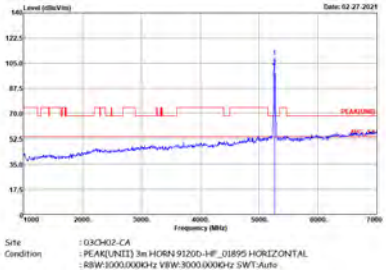
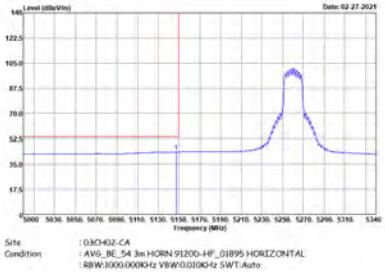
Band 1 5150~5250MHz

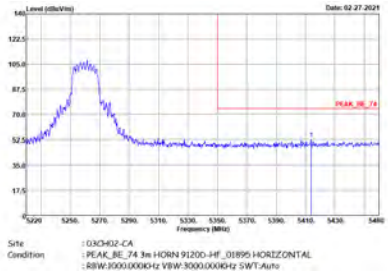
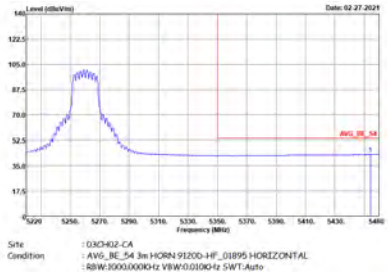
WIFI 802.11ac VHT80 (Harmonic @ 3m)

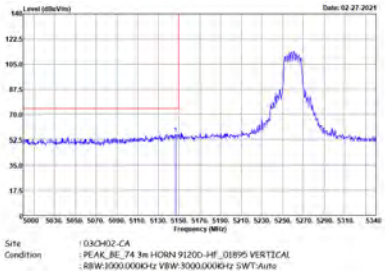
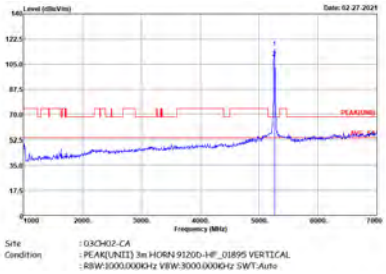
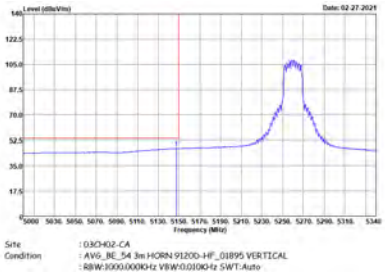
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz	
1+2	Horizontal	Vertical
Peak Avg.		

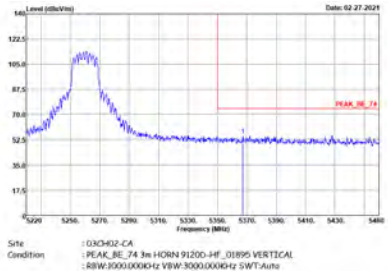
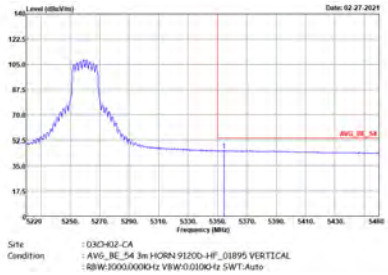
Band 2 - 5250~5350MHz

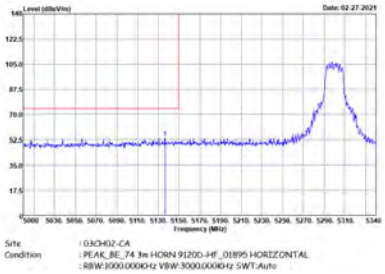
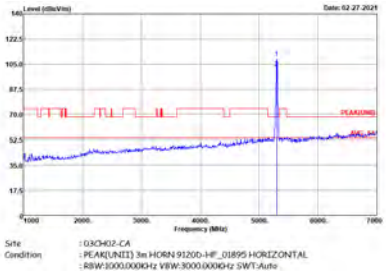
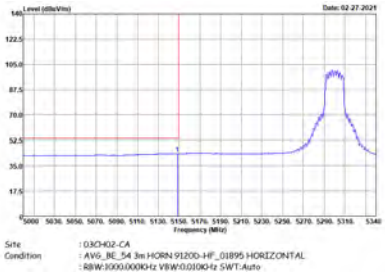
WIFI 802.11a (Band Edge @ 3m)

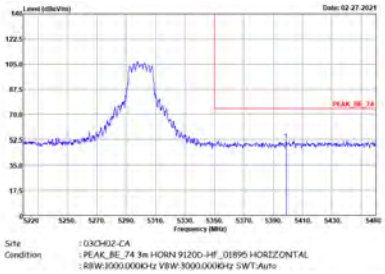
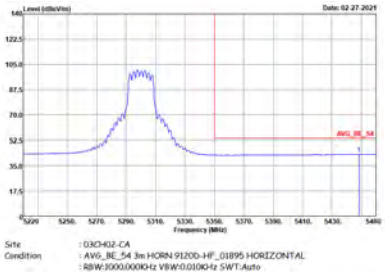
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

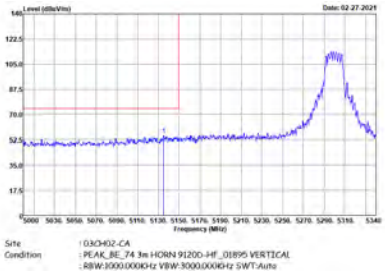
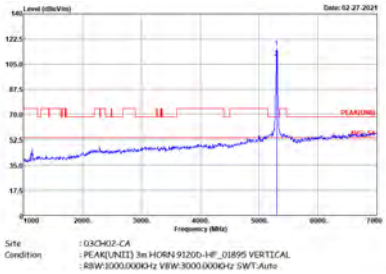
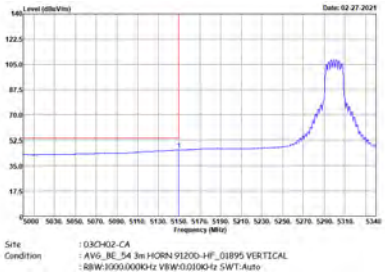
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

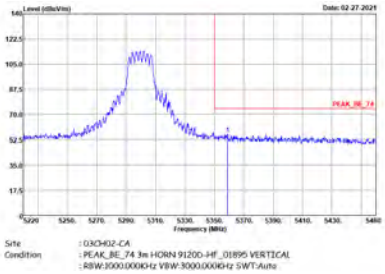
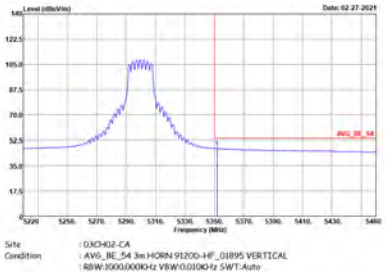
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

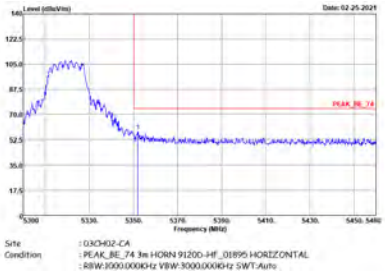
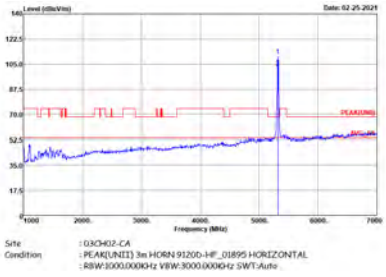
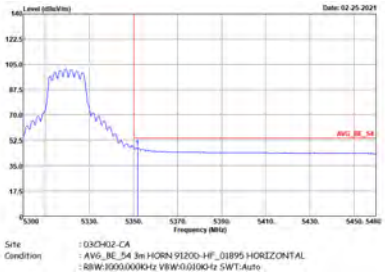
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

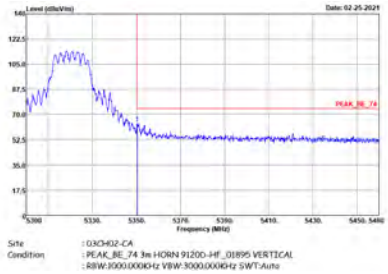
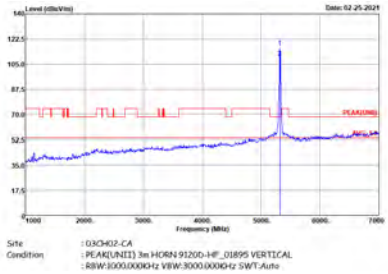
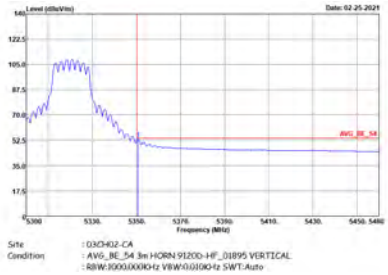
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

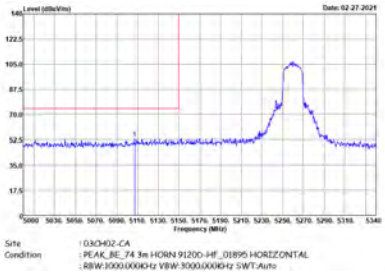
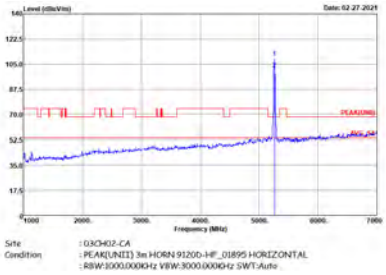
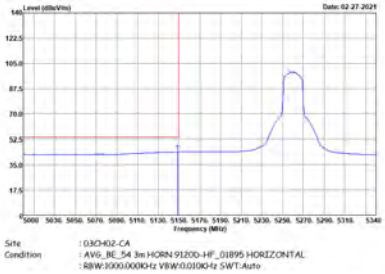
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

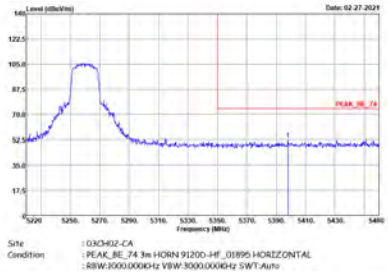
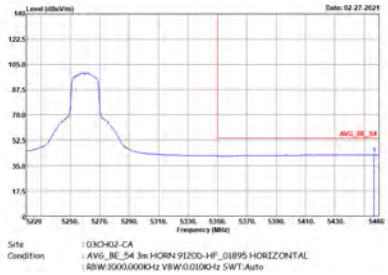
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

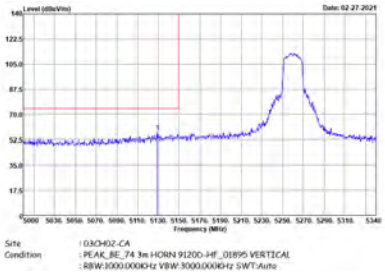
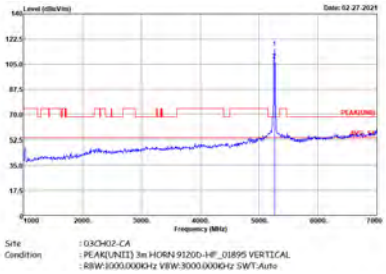
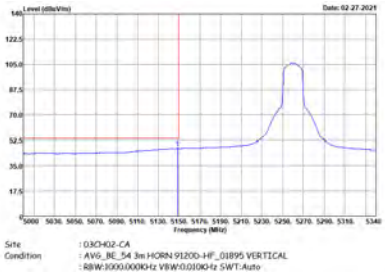
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

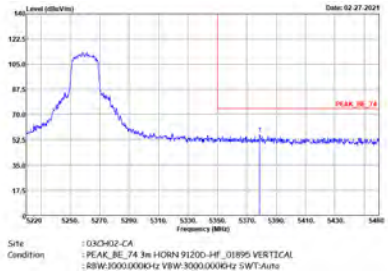
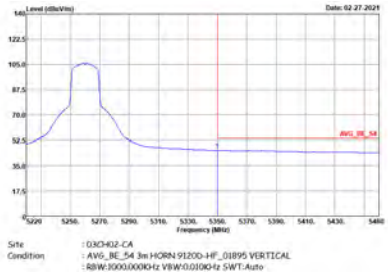
Band 2 5250~5350MHz

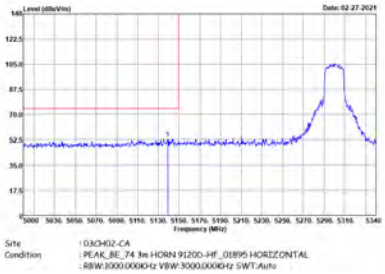
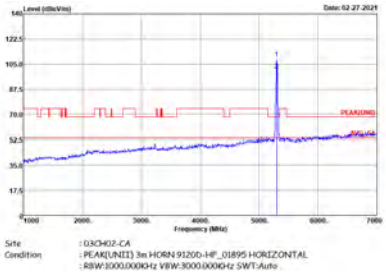
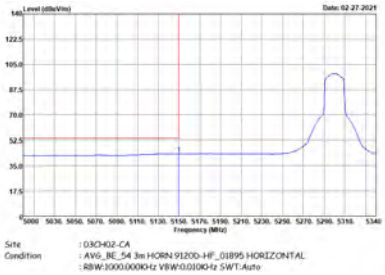
WIFI 802.11n HT20 (Band Edge @ 3m)

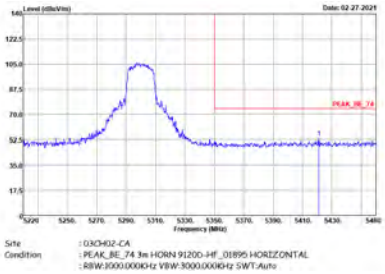
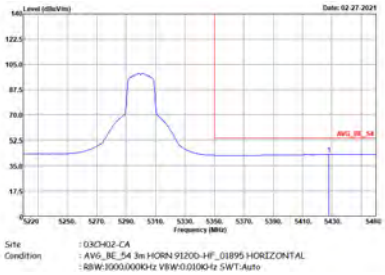
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

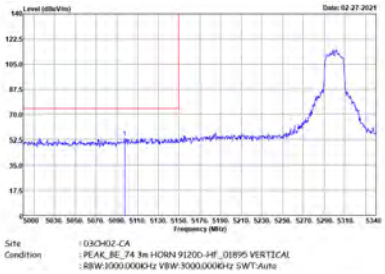
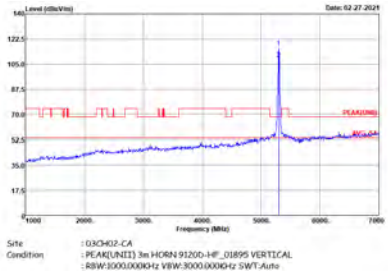
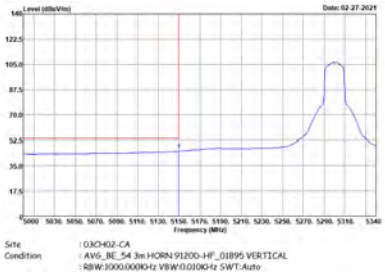
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

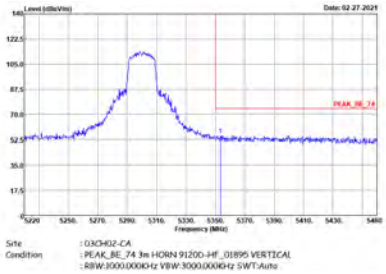
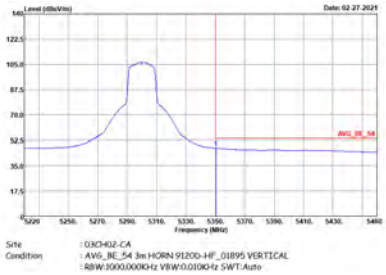
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

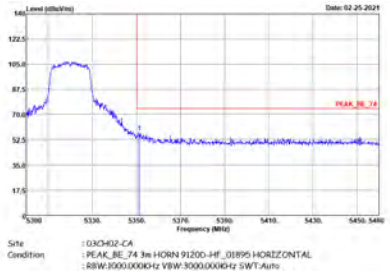
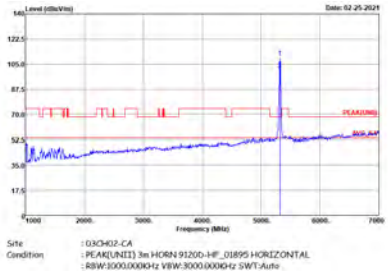
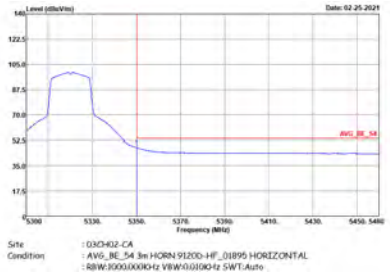
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

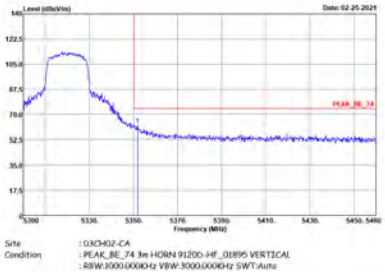
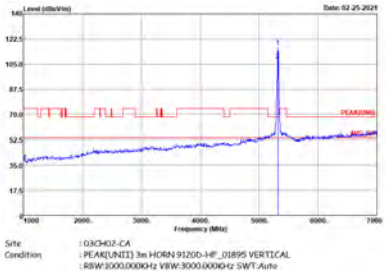
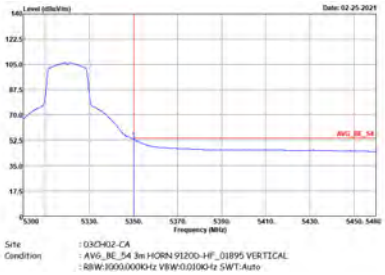
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - R	
1+2	Horizontal	Vertical
Peak		Left blank
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

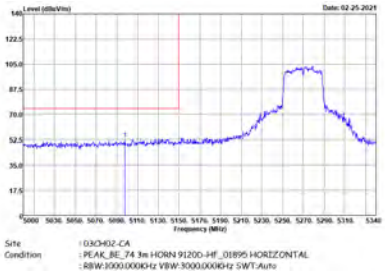
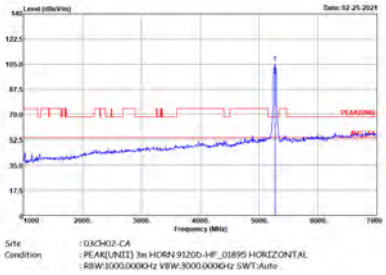
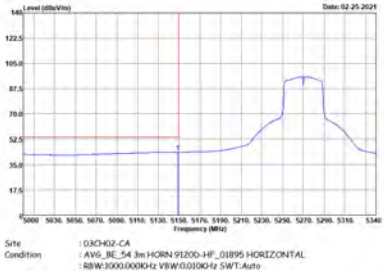
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

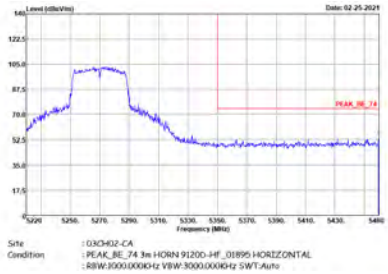
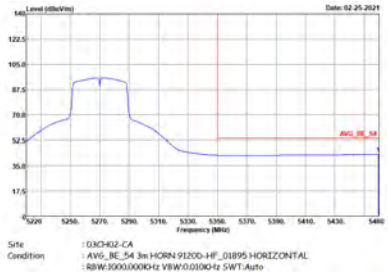
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH64 5320MHz	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

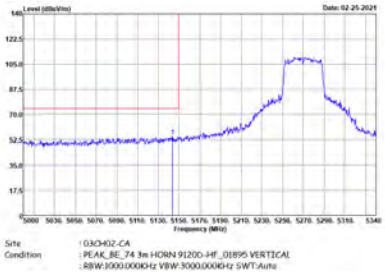
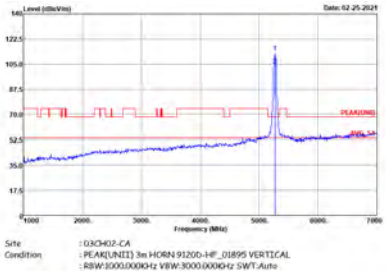
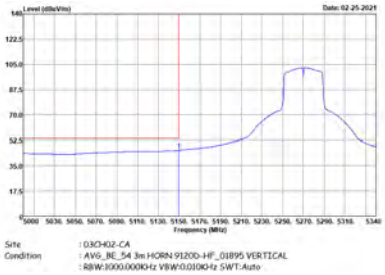
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH64 5320MHz	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

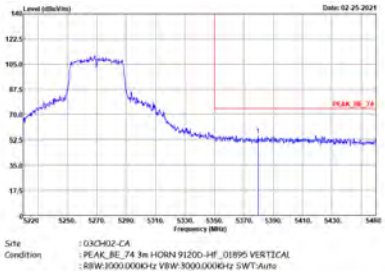
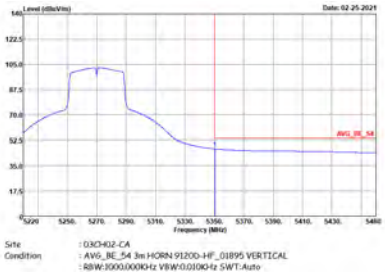
Band 2 5250~5350MHz

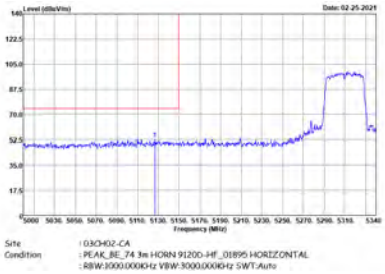
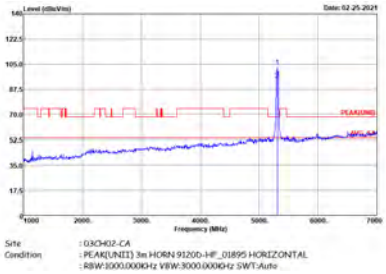
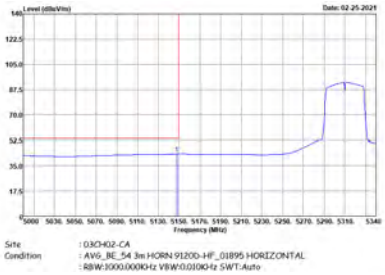
WIFI 802.11n HT40 (Band Edge @ 3m)

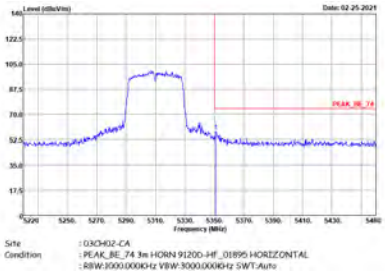
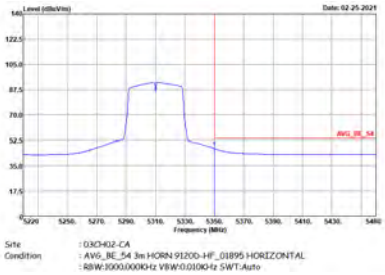
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

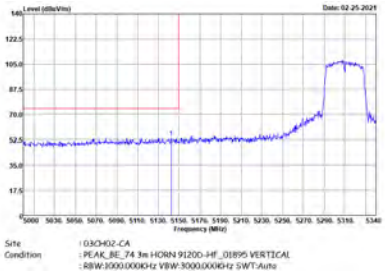
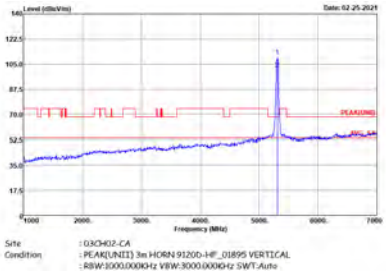
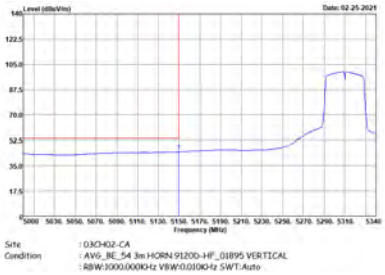
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

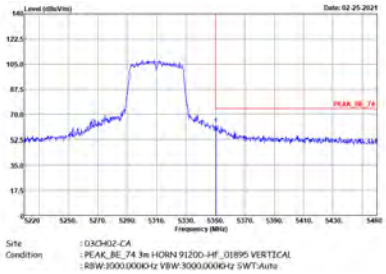
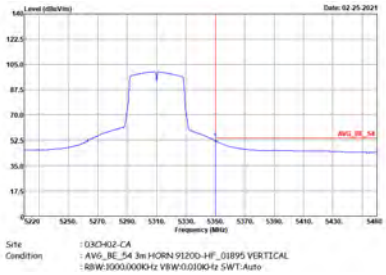
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - L	
1+2	Vertical	Vertical
Peak		
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - R	
1+2	Vertical	Vertical
Peak		Left blank
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

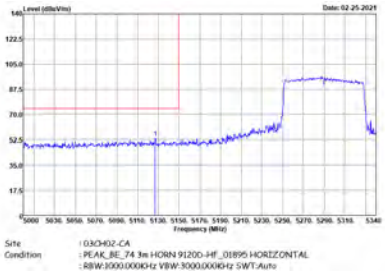
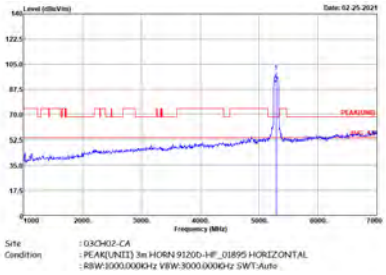
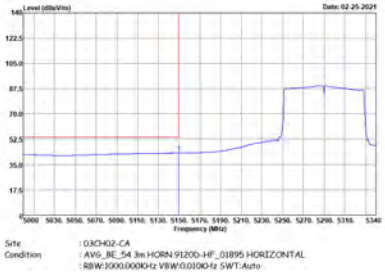
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

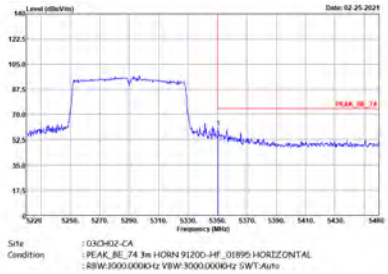
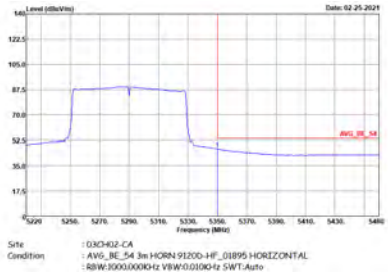
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

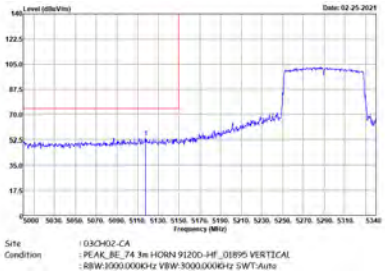
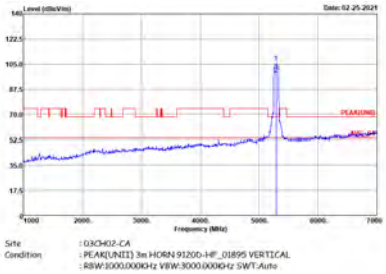
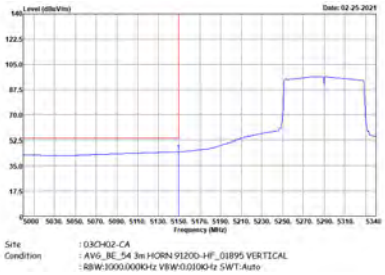
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

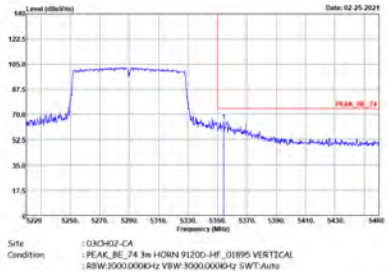
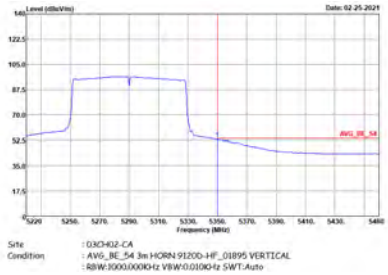
Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

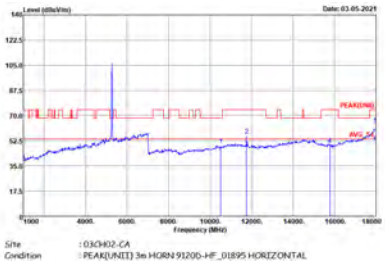
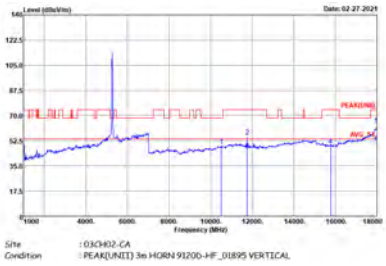
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

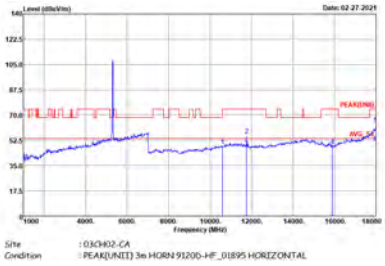
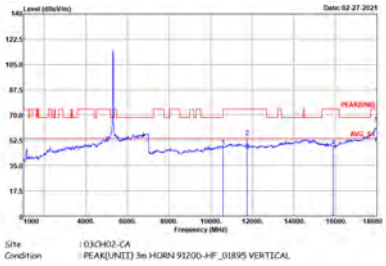
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

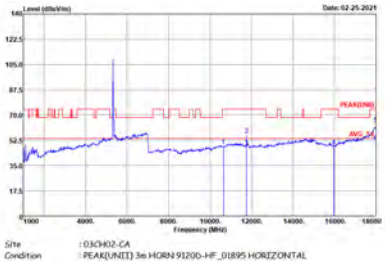
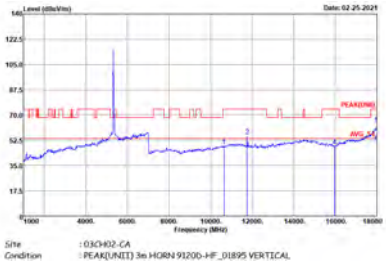
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 2 - 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

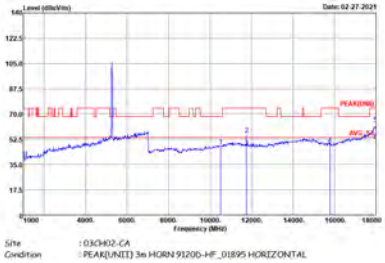
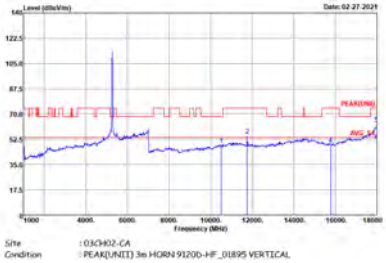
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH52 5260MHz	
1+2	Horizontal	Vertical
Peak Avg.		

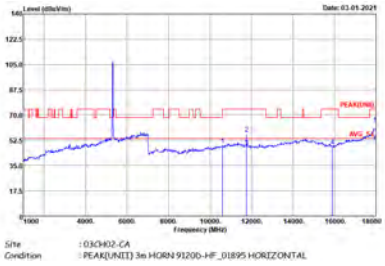
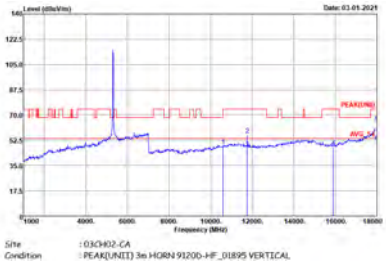
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH60 5300MHz	
1+2	Horizontal	Vertical
Peak Avg.		

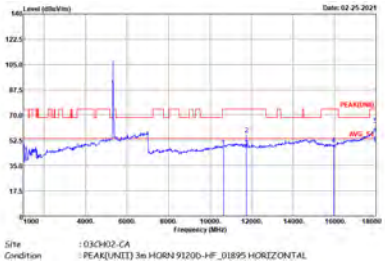
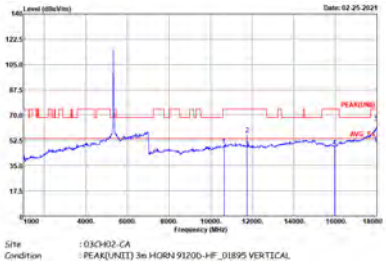
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH64 5320MHz	
1+2	Horizontal	Vertical
Peak Avg.		

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

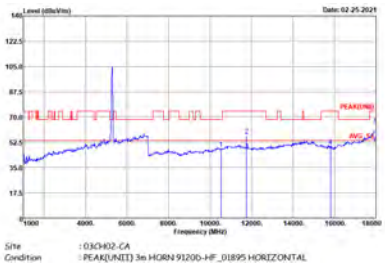
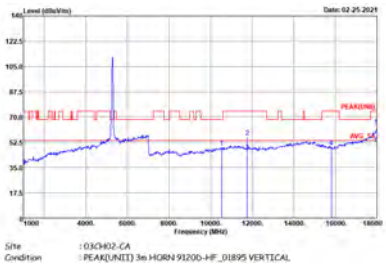
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH52 5260MHz	
1+2	Horizontal	Vertical
Peak Avg.		

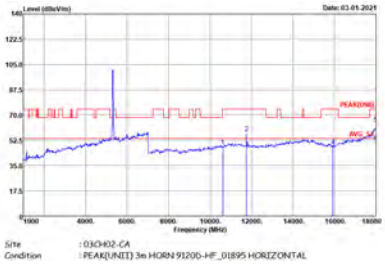
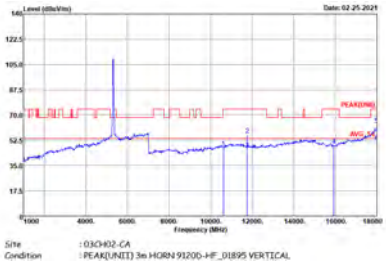
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH60 5300MHz	
1+2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH64 5320MHz	
1+2	Horizontal	Vertical
Peak Avg.		

Band 2 5250~5350MHz

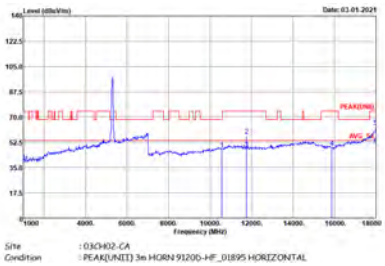
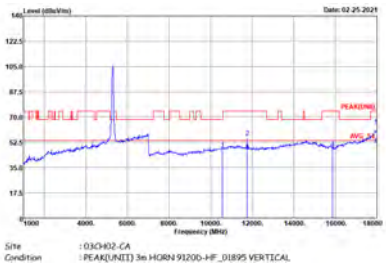
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT40 CH54 5270	
1+2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT40 CH62 5310	
1+2	Horizontal	Vertical
Peak Avg.		

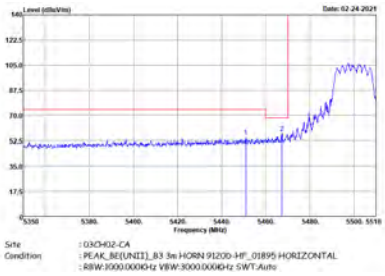
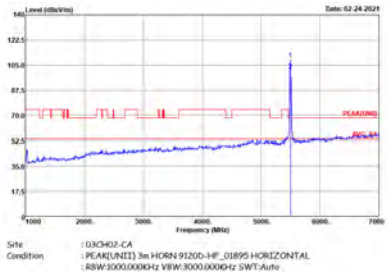
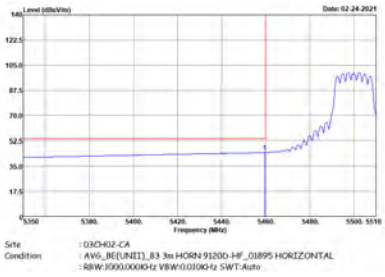
Band 2 5250~5350MHz

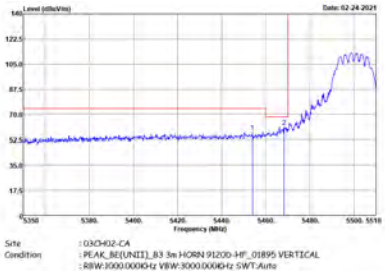
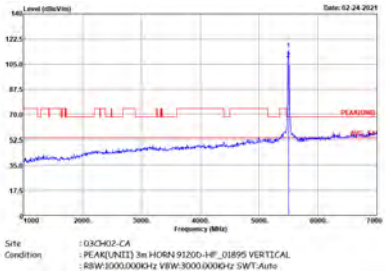
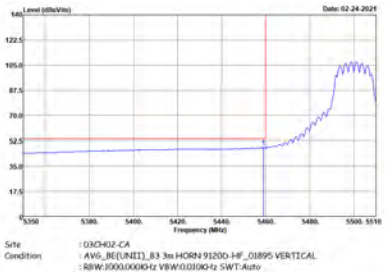
WIFI 802.11ac VHT80 (Harmonic @ 3m)

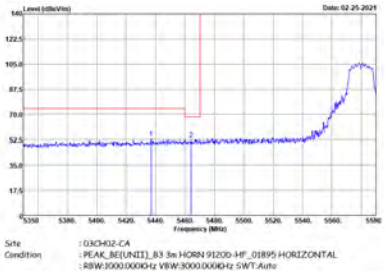
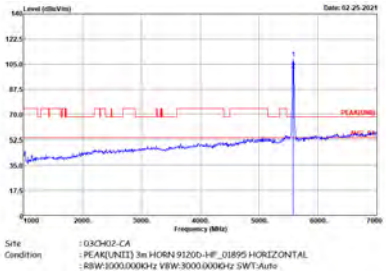
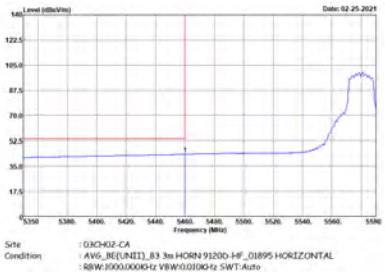
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz	
1+2	Horizontal	Vertical
Peak Avg.		

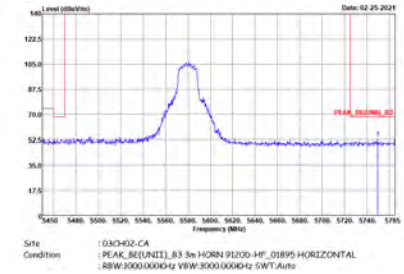
Band 3 - 5470~5725MHz

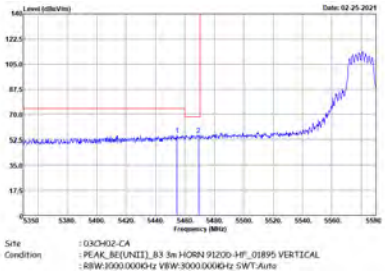
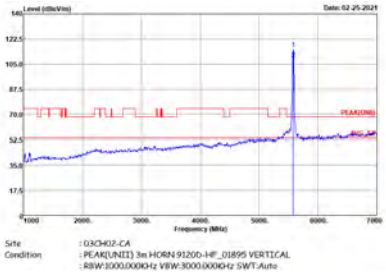
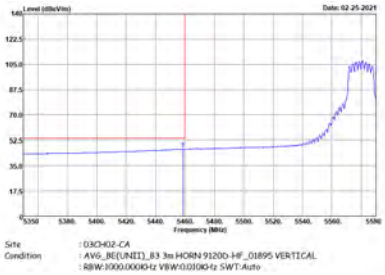
WIFI 802.11a (Band Edge @ 3m)

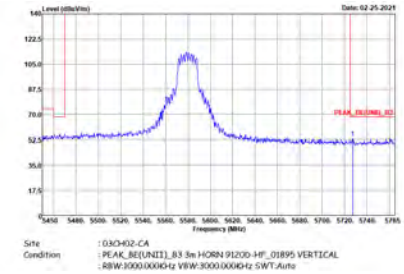
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

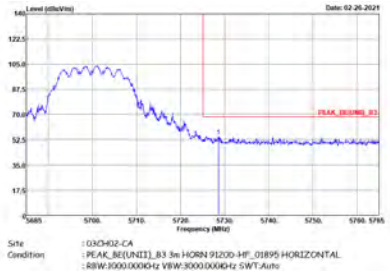
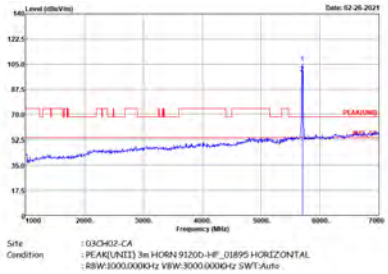
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

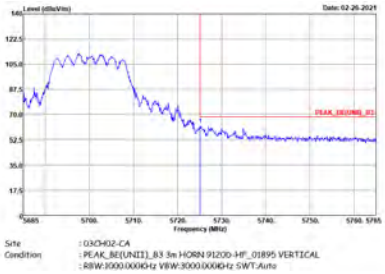
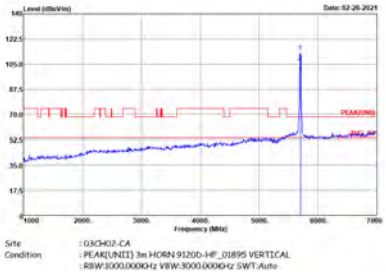
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

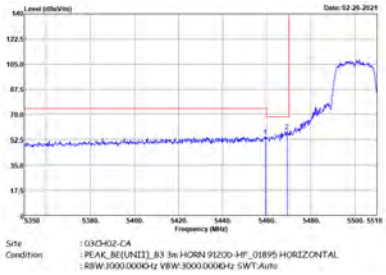
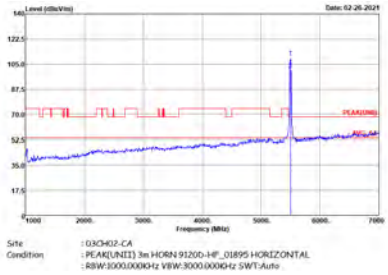
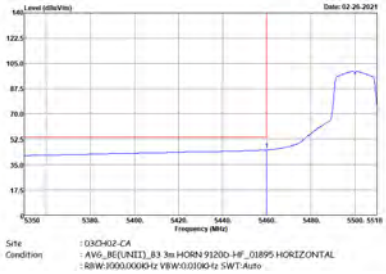
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank

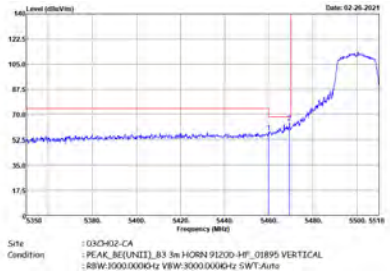
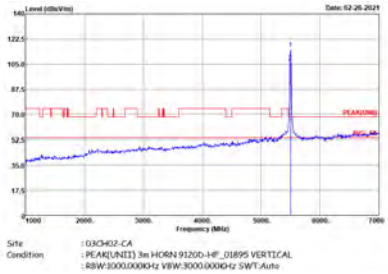
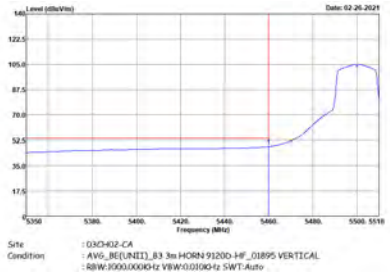
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
1+2	Horizontal	Fundamental
Peak		

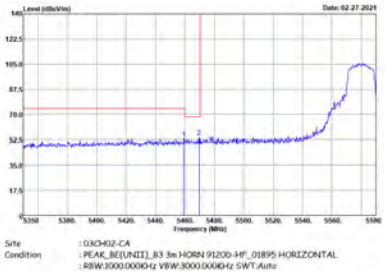
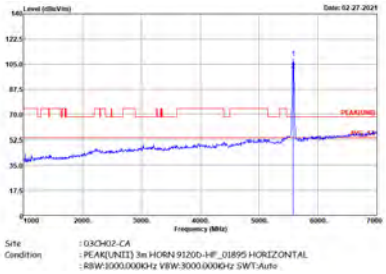
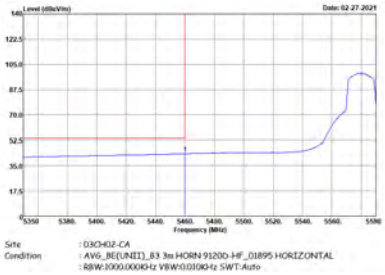
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
1+2	Vertical	Fundamental
Peak		

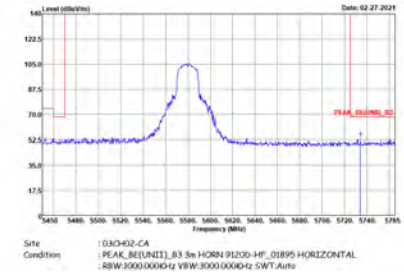
Band 3 5470~5725MHz

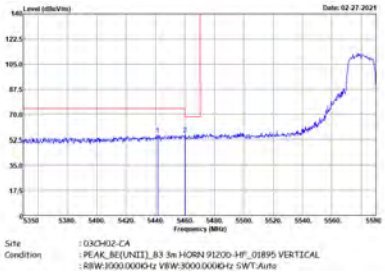
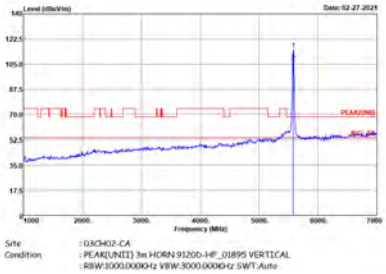
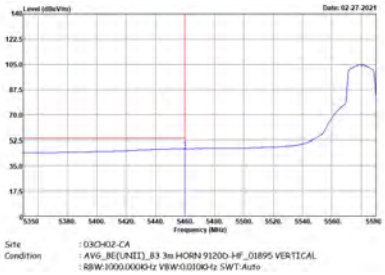
WIFI 802.11n HT20 (Band Edge @ 3m)

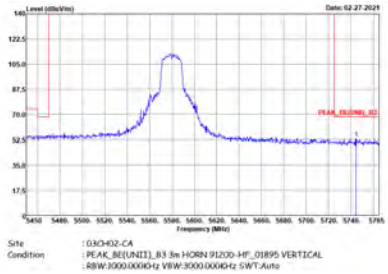
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

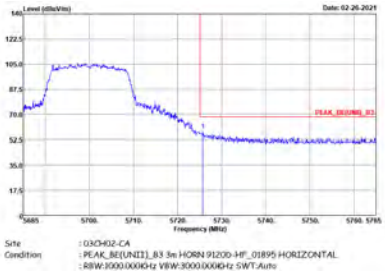
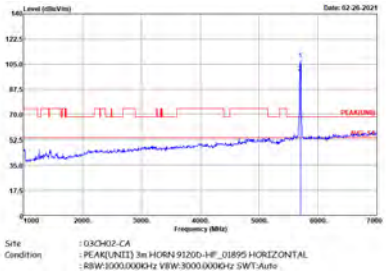
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

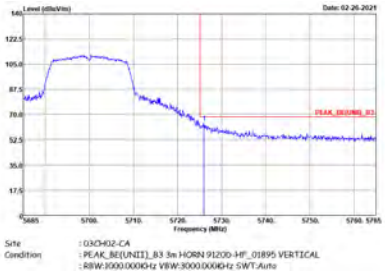
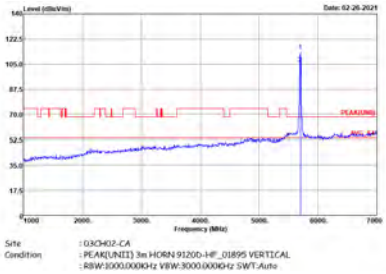
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

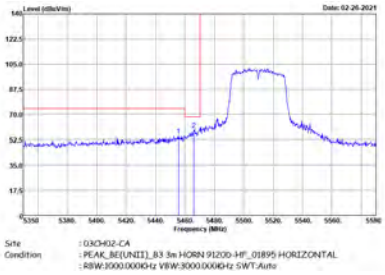
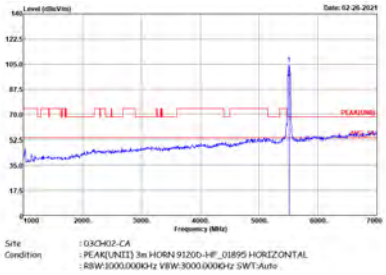
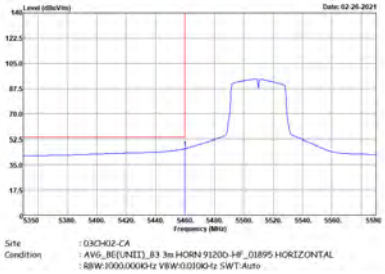
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank

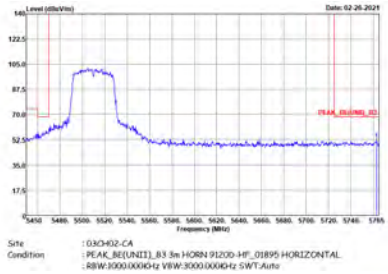
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
1+2	Horizontal	Fundamental
Peak		

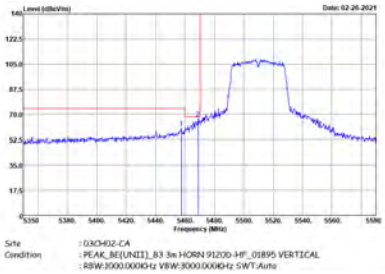
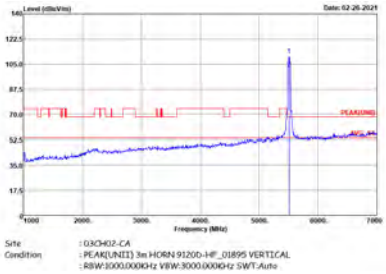
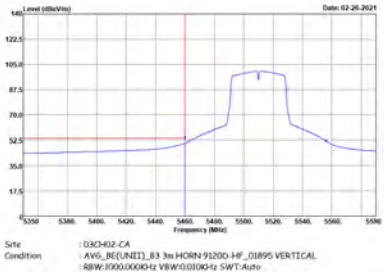
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
1+2	Vertical	Fundamental
Peak.		

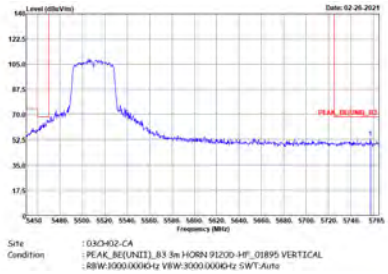
Band 3 5470~5725MHz

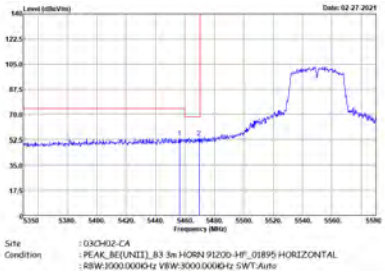
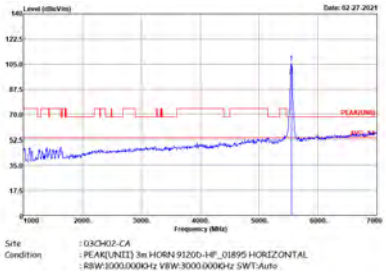
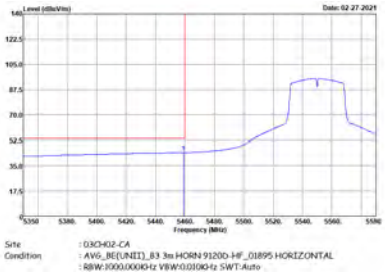
WIFI 802.11n HT40 (Band Edge @ 3m)

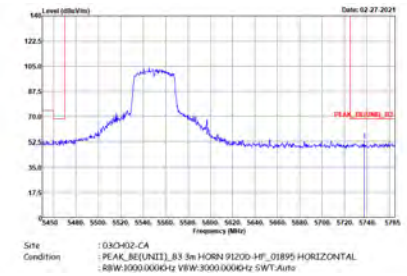
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

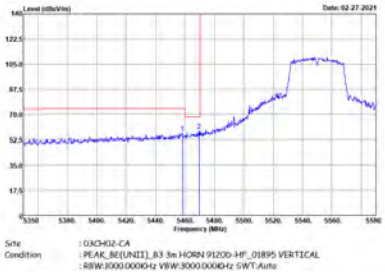
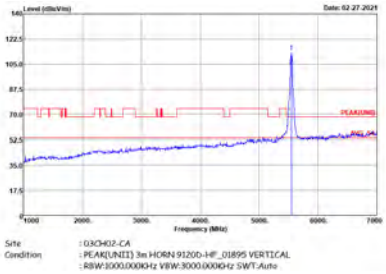
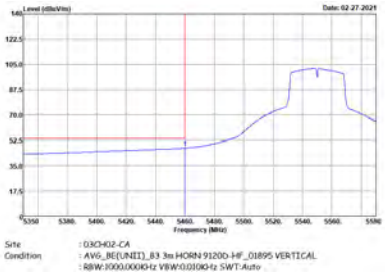
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank

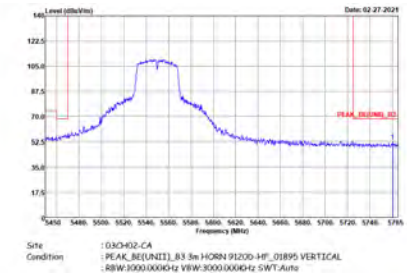
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

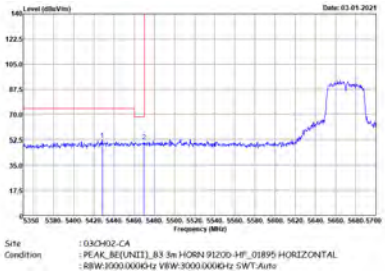
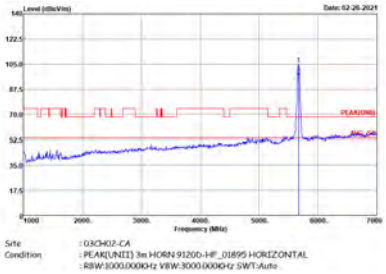
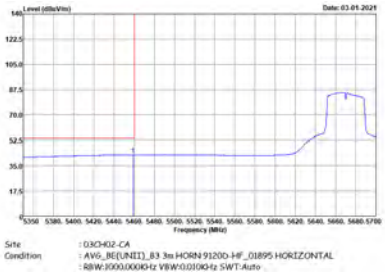
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank

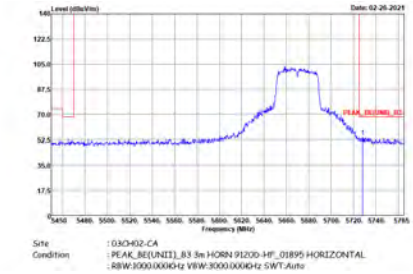
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

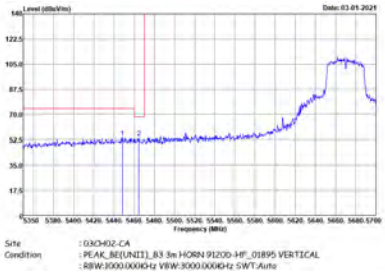
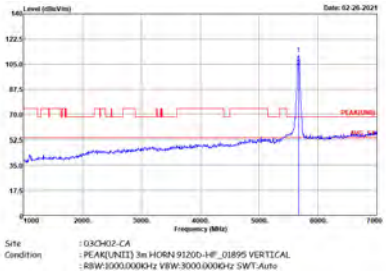
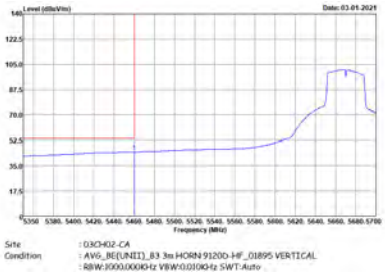
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank

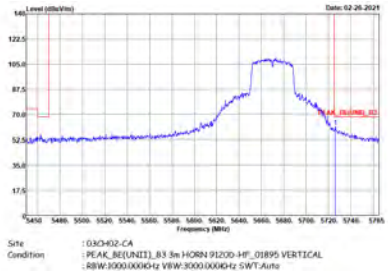
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

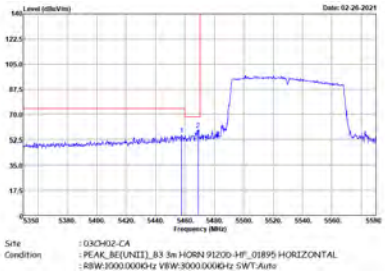
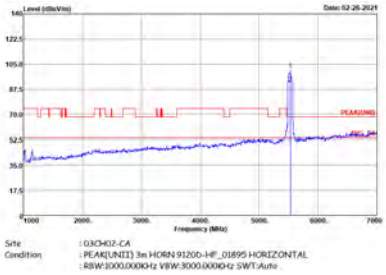
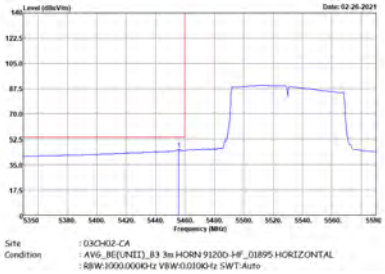
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank

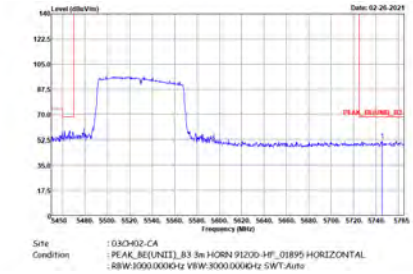
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

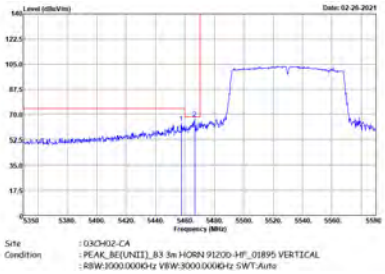
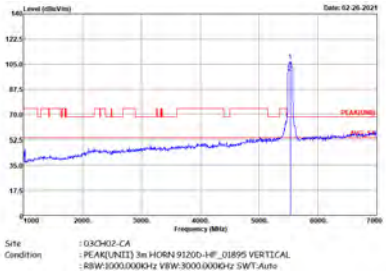
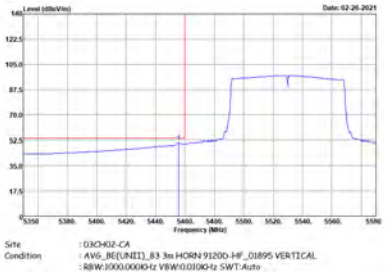
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank

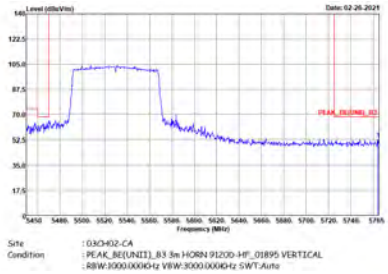
Band 3 5470~5725MHz

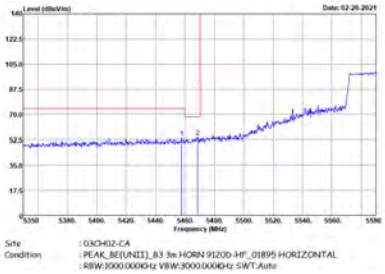
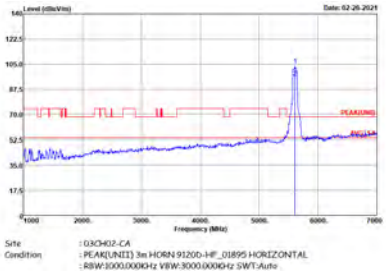
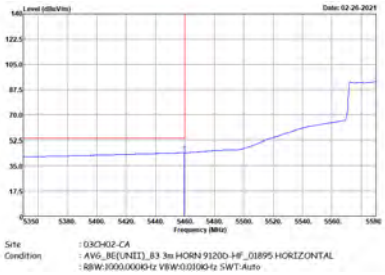
WIFI 802.11ac VHT80 (Band Edge @ 3m)

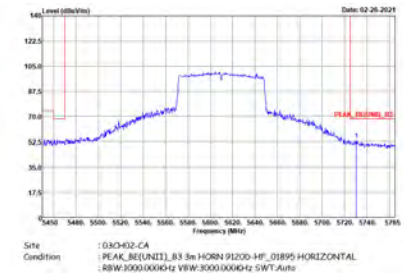
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

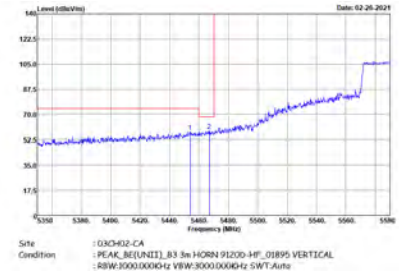
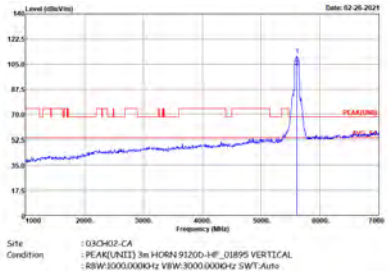
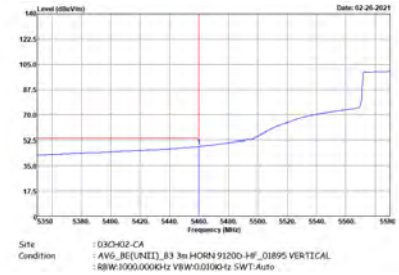
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank

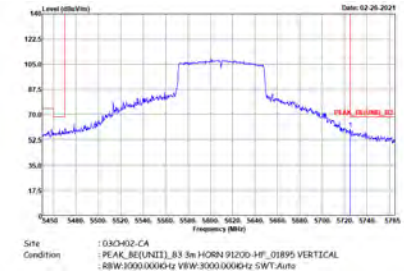
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH122 5610MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

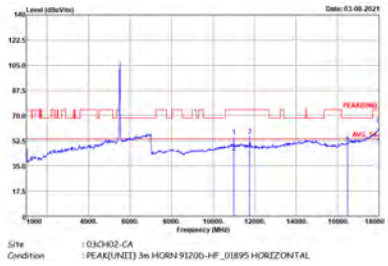
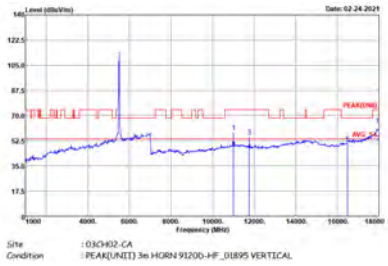
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH122 5610MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank

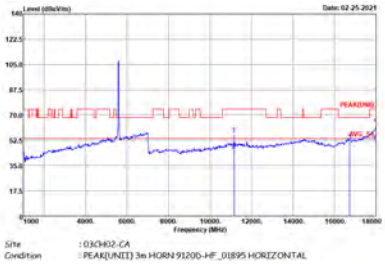
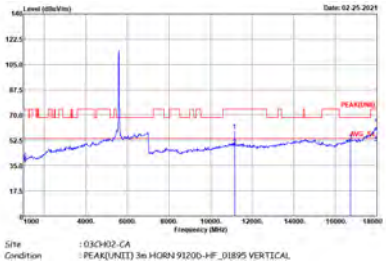
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH122 5610MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

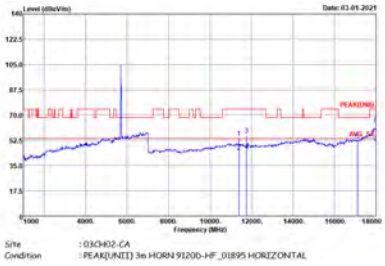
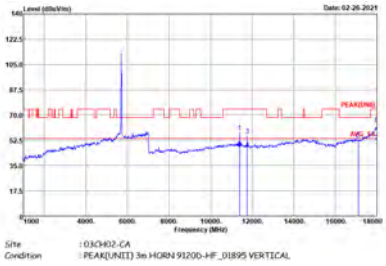
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH122 5610MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

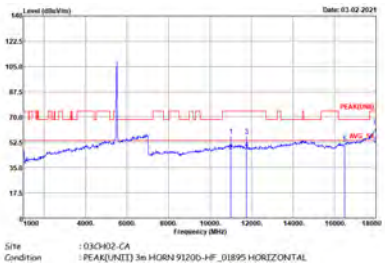
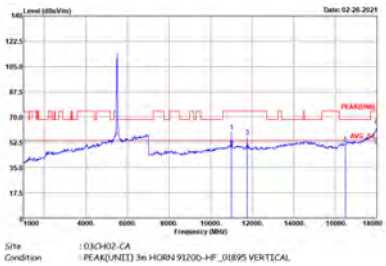
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH100 5500MHz	
1+2	Horizontal	Vertical
Peak Avg.		

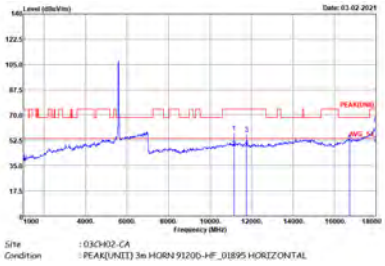
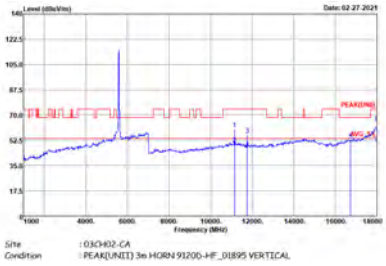
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH116 5580MHz	
1+2	Horizontal	Vertical
Peak Avg.		

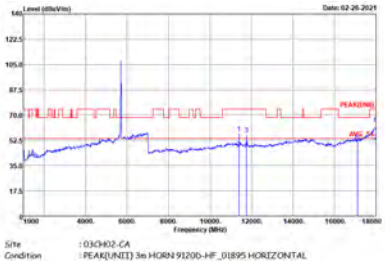
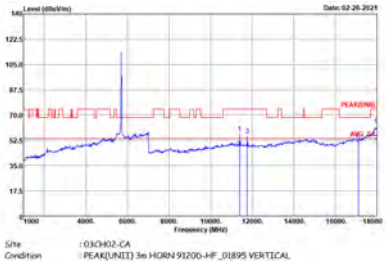
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH140 5700MHz	
1+2	Horizontal	Vertical
Peak Avg.		

Band 3 5470~5725MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

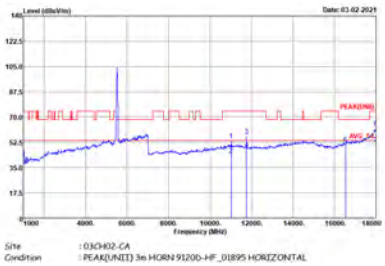
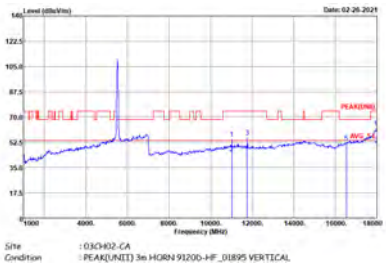
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1+2	Horizontal	Vertical
Peak Avg.		

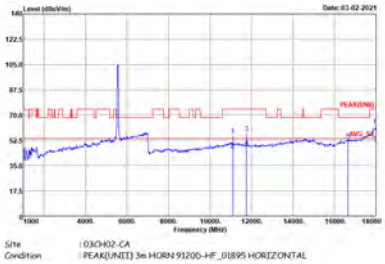
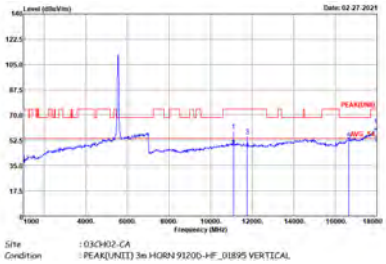
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT20 CH116 5580MHz	
1+2	Horizontal	Vertical
Peak Avg.		

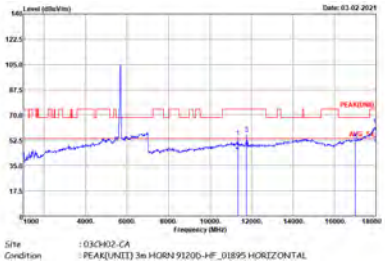
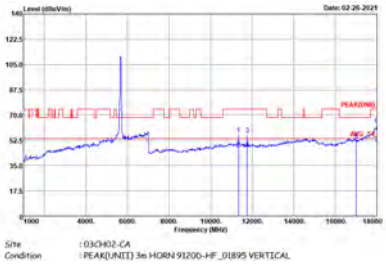
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
1+2	Horizontal	Vertical
Peak Avg.		

Band 3 5470~5725MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

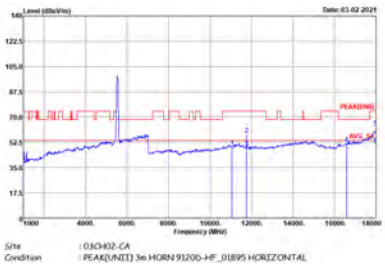
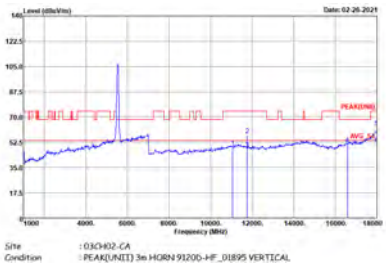
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT40 CH102 5510MHz	
1+2	Horizontal	Vertical
Peak Avg.		

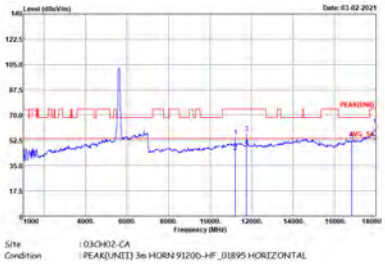
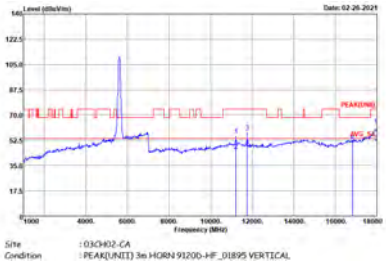
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT40 CH110 5550MHz	
1+2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT40 CH134 5670MHz	
1+2	Horizontal	Vertical
Peak Avg.		

Band 3 5470~5725MHz

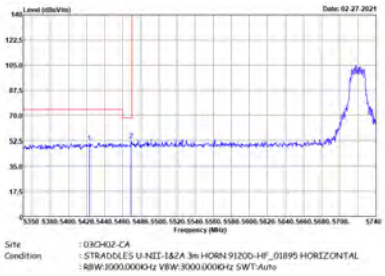
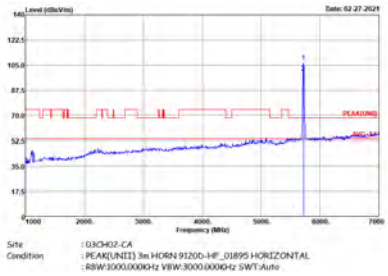
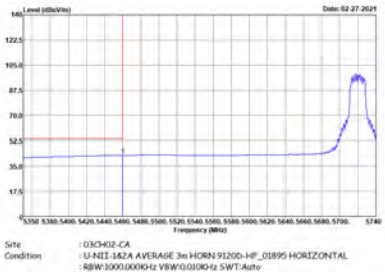
WIFI 802.11ac VHT80 (Harmonic @ 3m)

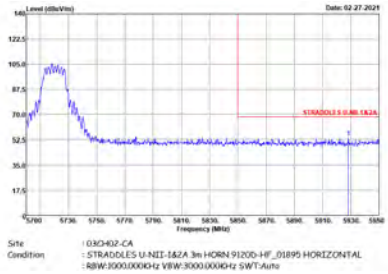
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz	
1+2	Horizontal	Vertical
Peak Avg.		

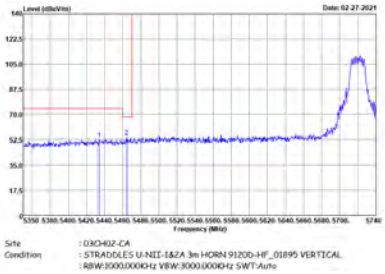
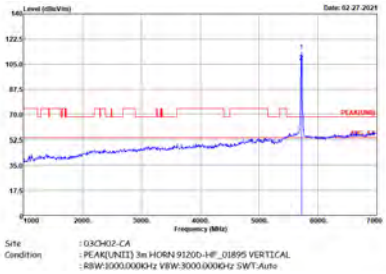
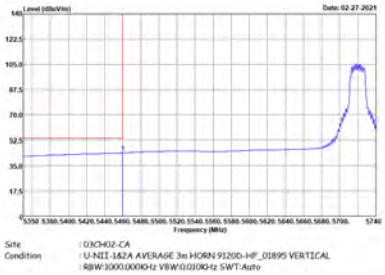
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH122 5610MHz	
1+2	Horizontal	Vertical
Peak Avg.		

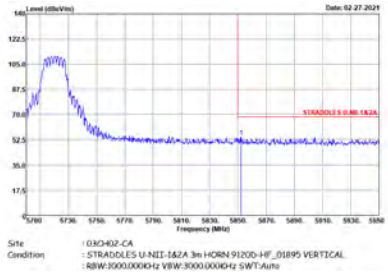
Band 3 - Straddle Channel

WIFI 802.11a (Band Edge @ 3m)

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11a CH144 5720MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

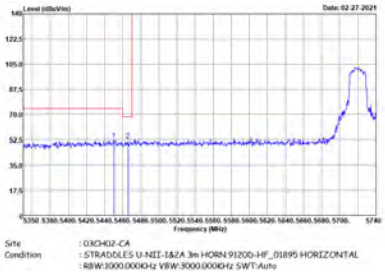
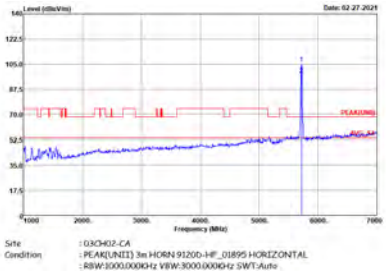
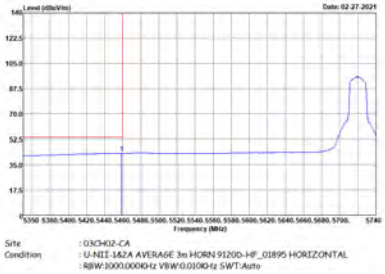
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11a CH144 5720MHz – R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.	Left blank	Left blank

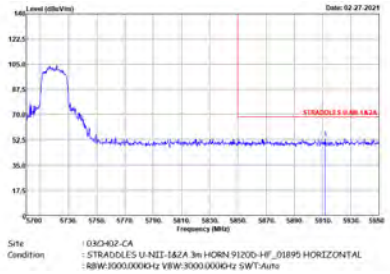
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11a CH144 5720MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

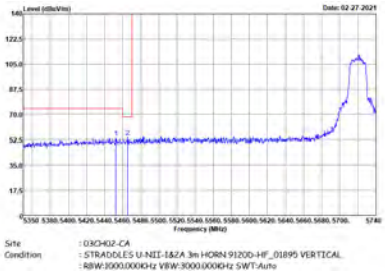
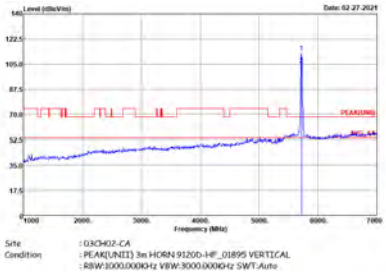
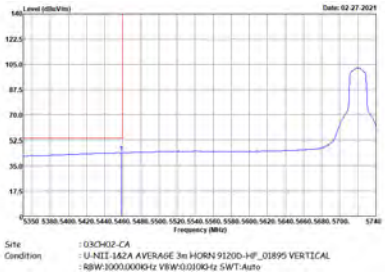
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11a CH144 5720MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.	Left blank	Left blank

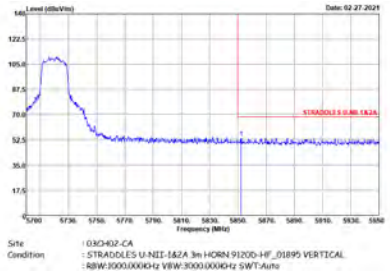
Band 3 – Straddle Channel

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11n CH144 5720MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

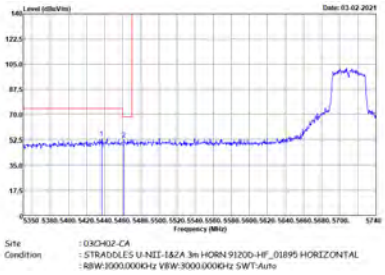
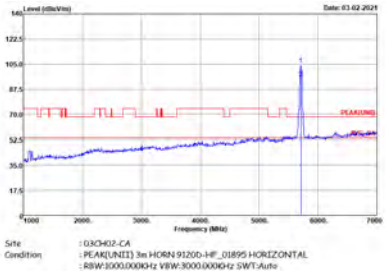
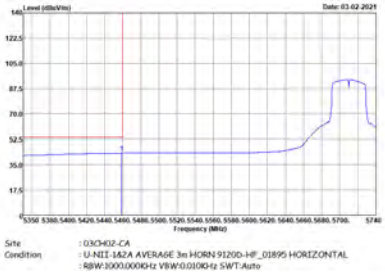
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11n CH144 5720MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.	Left blank	Left blank

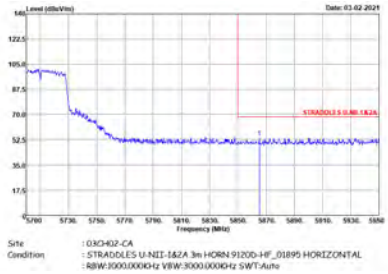
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11n CH144 5720MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

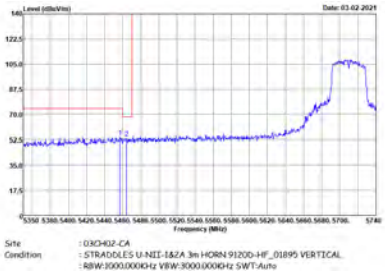
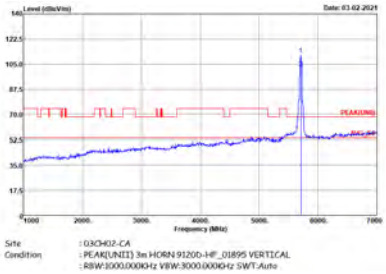
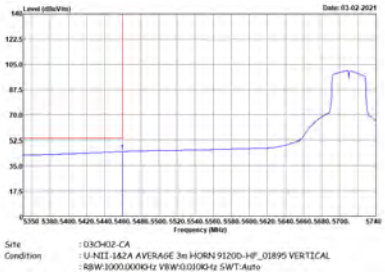
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11n CH144 5720MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.	Left blank	Left blank

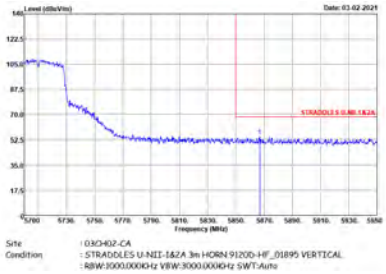
Band 3 – Straddle Channel

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11n CH142 5710MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

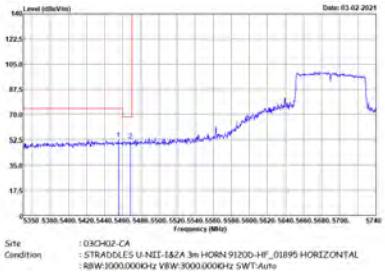
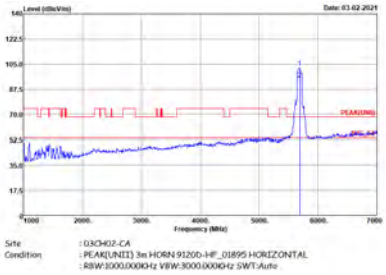
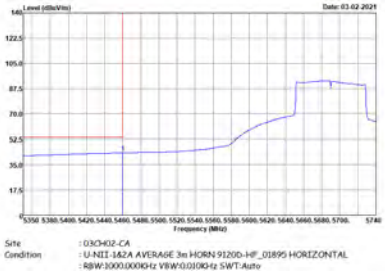
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11n CH142 5710MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.	Left blank	Left blank

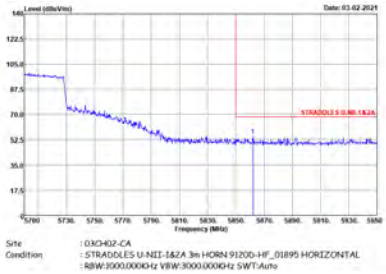
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11n CH142 5710MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

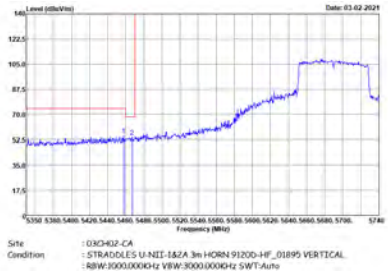
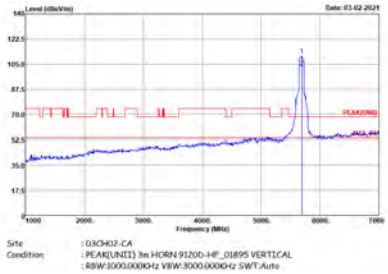
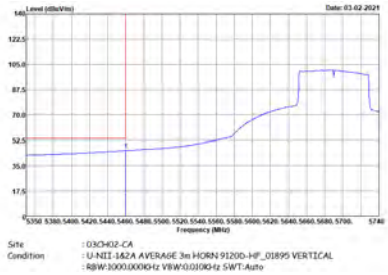
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11n CH142 5710MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.	Left blank	Left blank

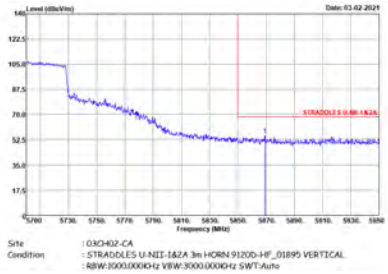
Band 3 – Straddle Channel

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ac CH138 5690MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

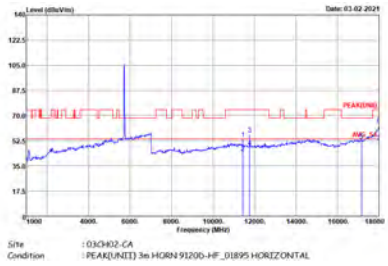
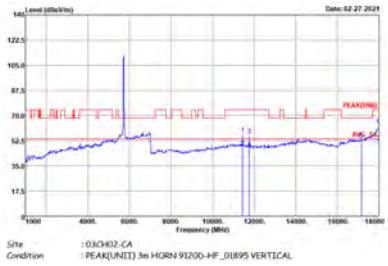
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ac CH138 5690MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.	Left blank	Left blank

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ac CH138 5690MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ac CH138 5690MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.	Left blank	Left blank

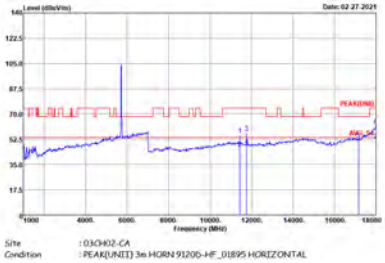
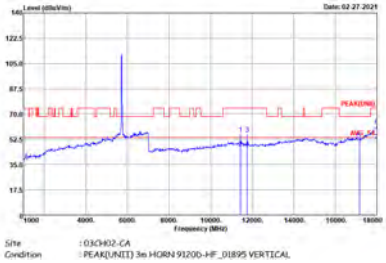
Band 3 - Straddle Channel

WIFI 802.11a (Harmonic @ 3m)

WIFI	Band 3 Straddle Channel Harmonic @ 3m	
ANT	802.11a CH144 5720MHz	
1+2	Horizontal	Vertical
Peak Avg.		

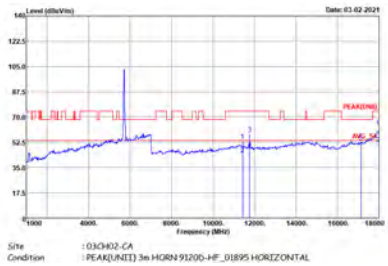
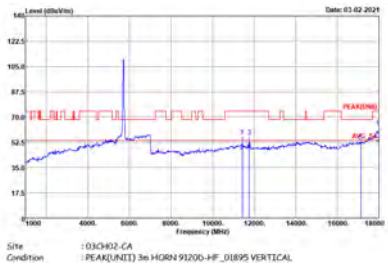
Band 3 – Straddle Channel

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	Band 3 Straddle Channel Harmonic @ 3m	
ANT	802.11n HT20 CH144 5720MHz	
1+2	Horizontal	Vertical
Peak Avg.		

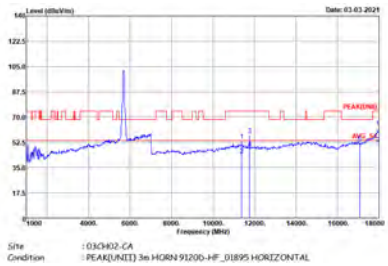
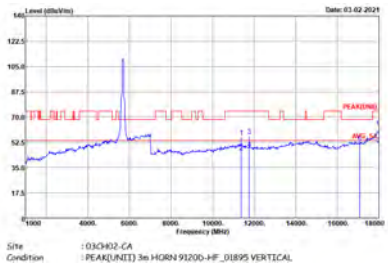
Band 3 – Straddle Channel

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Band 3 Straddle Channel Harmonic @ 3m	
ANT	802.11n HT40 CH142 5710MHz	
1+2	Horizontal	Vertical
Peak Avg.		

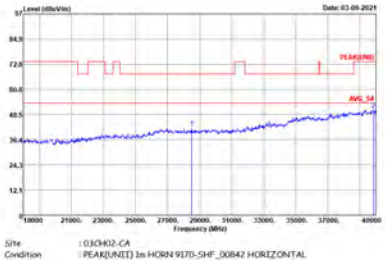
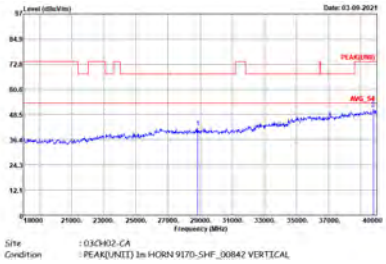
Band 3 – Straddle Channel

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Band 3 Straddle Channel Harmonic @ 3m	
ANT	802.11ac VHT80 CH138 5690MHz	
1+2	Horizontal	Vertical
Peak Avg.		

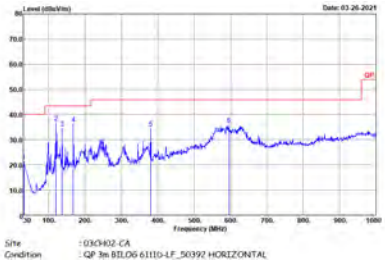
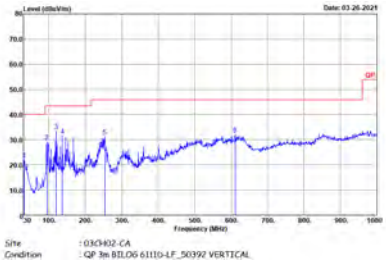
Emission above 18GHz

5GHz WIFI 802.11n HT40 (SHF)

WIFI	5GHz WIFI	
ANT	802.11n HT40 SHF	
1+2	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

5GHz WIFI 802.11n HT40 (LF)

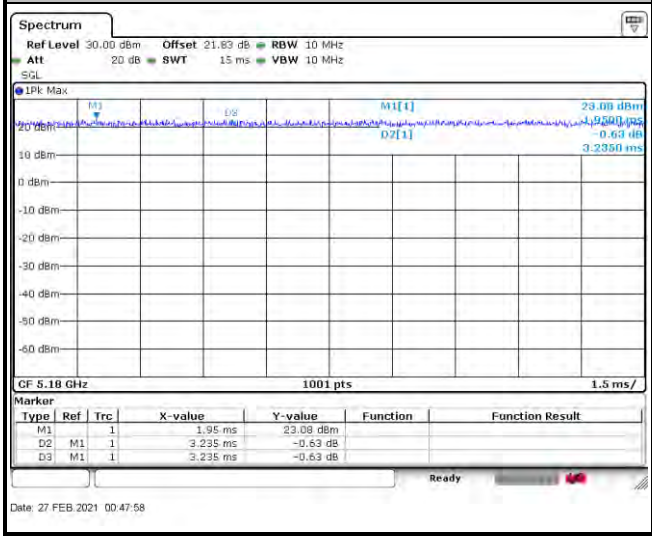
WIFI	5GHz WIFI	
ANT	802.11n HT40 LF	
1+2	Horizontal	Vertical
QP / Peak		

Appendix E. Duty Cycle Plots

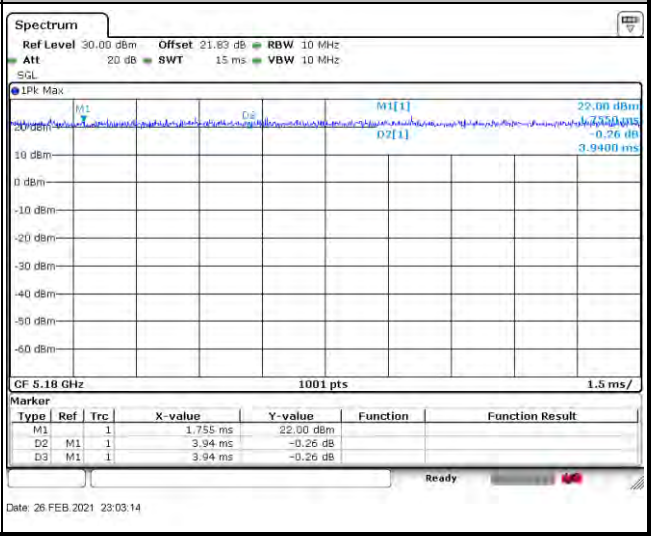
Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
1+2	802.11a for Ant. 1	100.00	-	-	10Hz	0.00
1+2	802.11a for Ant. 2	100.00	-	-	10Hz	0.00
1+2	5GHz 802.11n HT20 for Ant. 1	100.00	-	-	10Hz	0.00
1+2	5GHz 802.11n HT20 for Ant. 2	100.00	-	-	10Hz	0.00
1+2	5GHz 802.11n HT40 for Ant. 1	100.00	-	-	10Hz	0.00
1+2	5GHz 802.11n HT40 for Ant. 2	100.00	-	-	10Hz	0.00
1+2	5GHz 802.11ac VHT80 for Ant. 1	100.00	-	-	10Hz	0.00
1+2	5GHz 802.11ac VHT80 for Ant. 2	100.00	-	-	10Hz	0.00

MIMO <Ant. 1>

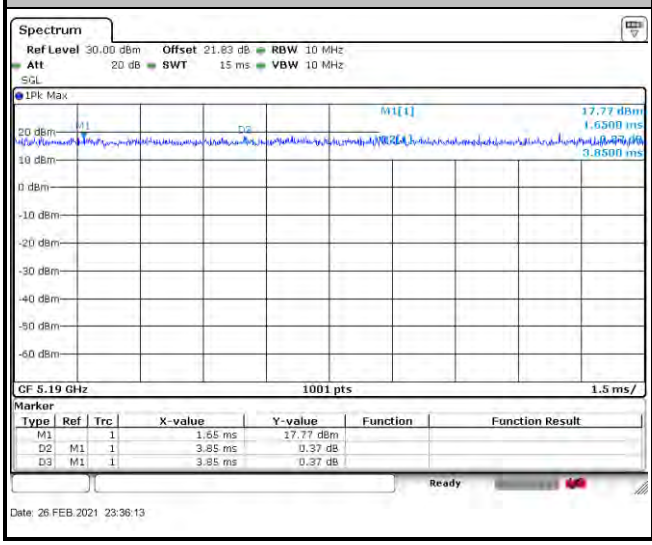
802.11a



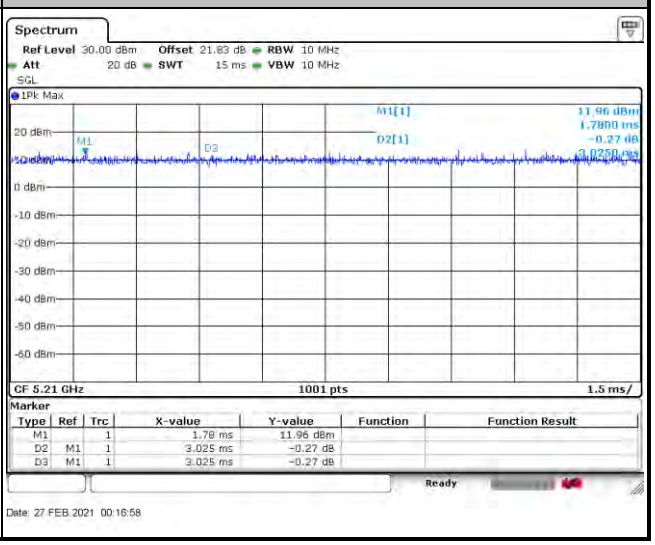
802.11n HT20



802.11n HT40

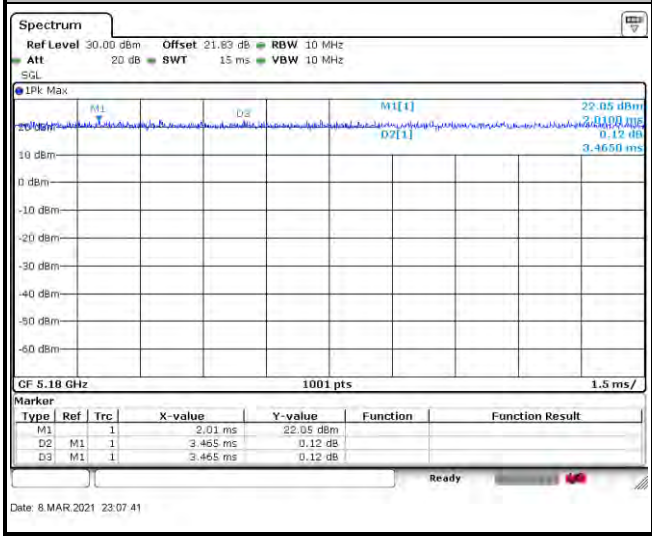


802.11ac VHT80

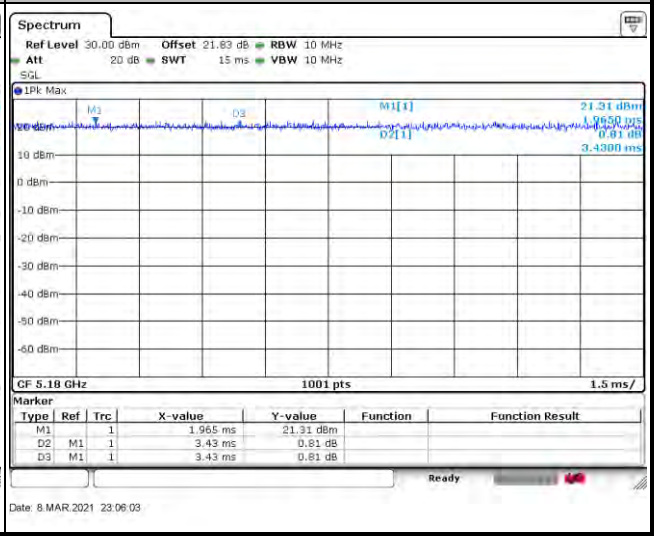


MIMO <Ant. 2>

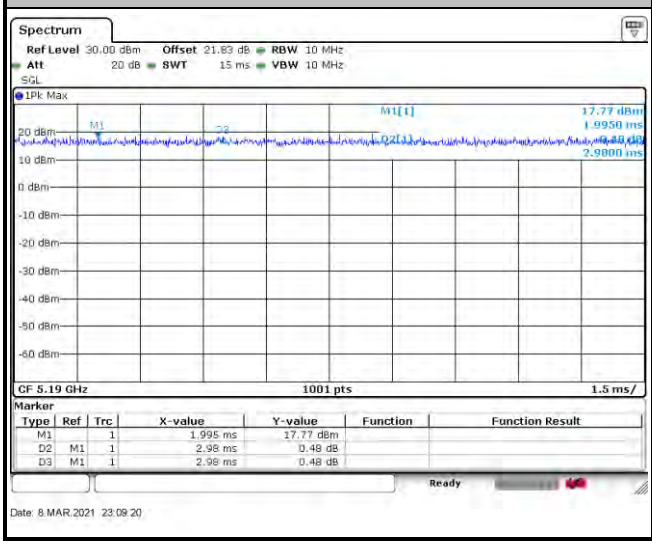
802.11a



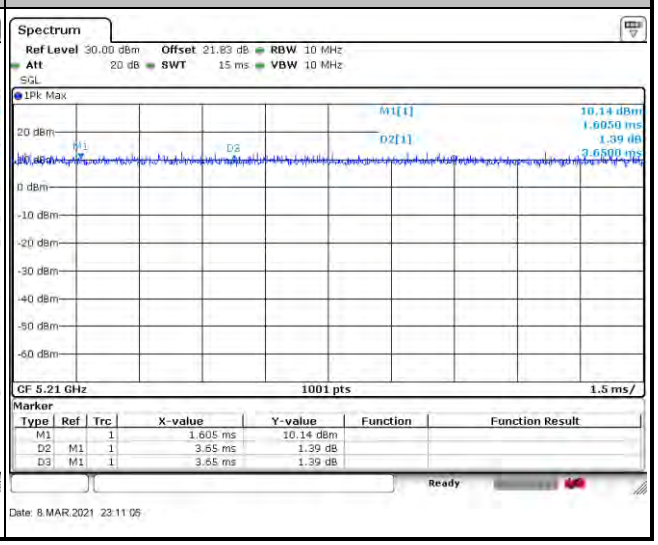
802.11n HT20



802.11n HT40



802.11ac VHT80



———THE END———