FCC RADIO TEST REPORT

FCC ID	:	**O57TBJ616F**
Equipment	:	**Portable Tablet Computer**
Brand Name	:	**Lenovo**
Model Name	:	**Lenovo TB-J616F**
Applicant	:	**Lenovo(Shanghai) Electronics Technology Co., Ltd. Section 304-305, Building No. 4, # 222, Meiyue Road, China (Shanghai) Pilot Free Trade Zone**
Manufacturer	:	**Lenovo PC HK Limited 23/F, Lincoln House, Taikoo Place 979 King's Road, Quarry Bay, Hong Kong, P.R.China**
Standard	:	**FCC Part 15 Subpart E §15.407**

The product was received on May 03, 2021 and testing was started from May 06, 2021 and completed on May 22, 2021. We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

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

Louis Wu

Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory
No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan

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History of this test report

Report No.	Version	Description	Issued Date
FR142608D	01	Initial issue of report	Jun. 01, 2021

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.403(i)	26dB Bandwidth	Pass	-
3.1	2.1049	99% Occupied Bandwidth	Reporting only	-
3.2	15.407(a)	Maximum Conducted Output Power	Pass	-
3.3	15.407(a)	Power Spectral Density	Pass	-
3.4	15.407(b)	Unwanted Emissions	Pass	Under limit 3.23 dB at 18000.000 MHz & 5725.160 MHz
3.5	15.207	AC Conducted Emission	Pass	Under limit 18.09 dB at 0.620 MHz
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.

Reviewed by: Danny Lee
Report Producer: Dara Chiu

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Portable Tablet Computer
Brand Name	Lenovo
Model Name	Lenovo TB-J616F
FCC ID	O57TBJ616F
Sample 1	1st source (refer to the PED)
Sample 2	2nd source (refer to the PED)
Sample 3	3rd source (refer to the PED)
Sample 4	4rd source (refer to the PED)
Sample 5	5rd source (refer to the PED)
EUT supports Radios application	GNSS/FM WLAN 11a/b/g/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE
HW Version	Lenovo Tablet TB-J616F
SW Version	Lenovo Tablet TB-J616F_RF01_210415
EUT Stage	Identical Prototype

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 ~ 5700 MHz
Maximum Output Power to Antenna	**<5180 MHz ~ 5240 MHz>** 802.11a: 15.70 dBm / 0.0372 W 802.11n HT20: 14.90 dBm / 0.0309 W 802.11n HT40: 14.80 dBm / 0.03024 W 802.11ac VHT20: 13.90 dBm / 0.0245 W 802.11ac VHT40: 13.90 dBm / 0.0245 W 802.11ac VHT80: 12.10 dBm / 0.0162 W
	<5260 MHz ~ 5320 MHz> 802.11a: 15.80 dBm / 0.0380 W 802.11n HT20: 14.90 dBm / 0.0390 W 802.11n HT40: 14.80 dBm / 0.0302 W 802.11ac VHT20: 13.90 dBm / 0.0245 W 802.11ac VHT40: 13.70 dBm / 0.0234 W 802.11ac VHT80: 9.10 dBm / 0.0081 W
	<5500 MHz ~ 5700 MHz> 802.11a: 15.90 dBm / 0.0389 W 802.11n HT20: 15.00 dBm / 0.0316 W 802.11n HT40: 14.90 dBm / 0.0309 W 802.11ac VHT20: 13.90 dBm / 0.0245 W 802.11ac VHT40: 13.90 dBm / 0.0245 W 802.11ac VHT80: 13.80 dBm / 0.0240 W

Product Specification subjective to this standard	
99% Occupied Bandwidth	802.11a: 17.25 MHz 802.11n HT20: 17.75 MHz 802.11n HT40: 36.40 MHz 802.11ac VHT80: 76.32 MHz
Antenna Type / Gain	**<5180 MHz ~ 5240 MHz>** IFA Antenna with gain -4.70 dBi **<5260 MHz ~ 5320 MHz>** IFA Antenna with gain -4.30 dBi **<5500 MHz ~ 5700 MHz >** IFA Antenna with gain -4.10 dBi
Type of Modulation	802.11a/n : OFDM (BPSK/QPSK/16QAM/64QAM) 802.11ac : OFDM (BPSK/QPSK/16QAM/64QAM/256QAM)

Note: 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 Inc. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan
Test Site No.	**Sporton Site No.**
	TH05-HY, CO07-HY, 03CH15-HY

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

FCC designation No.: TW3786

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.
- ANSI C63.10-2013

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. The TAF code is not including all the FCC KDB listed without accreditation.

2 Test Configuration of Equipment Under Test

a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, 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

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.

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 : Bluetooth Link + WLAN (5GHz) Link + SD Card + Keyboard + USB Cable 1 (Charging from Adapter 1) for Sample 3
Remark: For Radiated Test Cases, the tests were performed with Adapter 1, USB Cable 1 and Sample 1.	

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

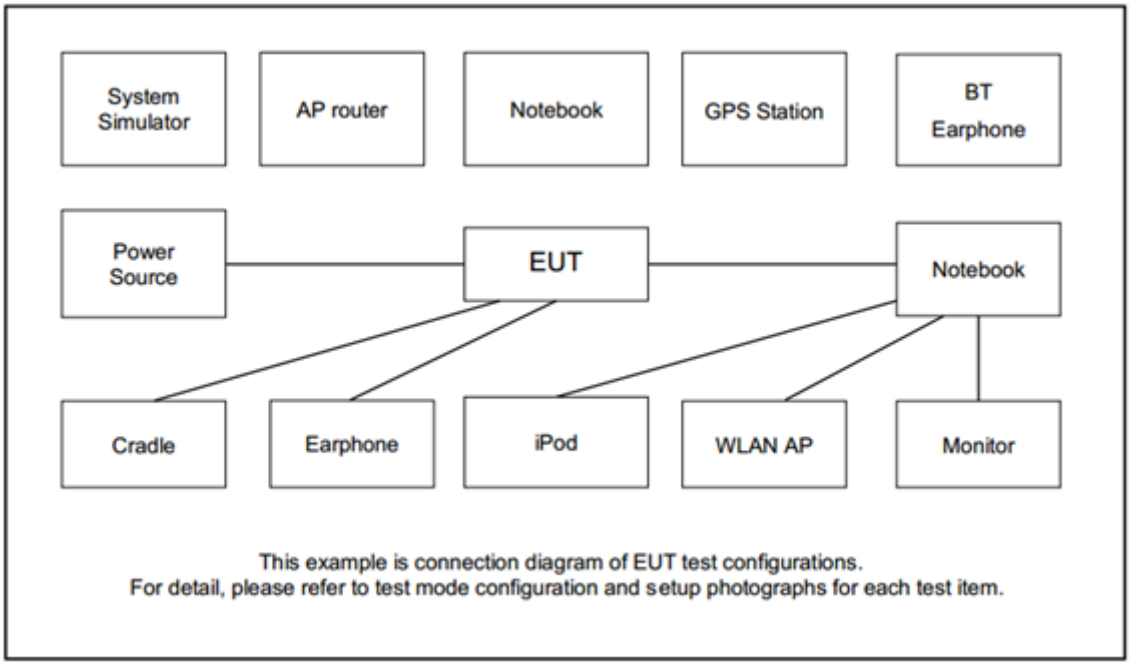
Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11n HT20	802.11n HT20	802.11n HT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140

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

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

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

2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Bluetooth Earphone	Lenovo	LBH301	FCC DoC	N/A	N/A
2.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8 m
3.	Notebook	DELL	Latitude 3400	N/A	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
4.	SD Card	SanDisk	MicroSD HC	FCC DoC	N/A	N/A

2.5 EUT Operation Test Setup

The RF test items make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

2.6 Measurement Results Explanation Example

For all conducted test items:

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

Example :

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

Offset = RF cable loss + attenuator factor.

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

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

= 4.2 + 10 = 14.2 (dB)

3 Test Result

3.1 26dB & 99% Occupied Bandwidth Measurement

3.1.1 Description of 26dB & 99% Occupied Bandwidth

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

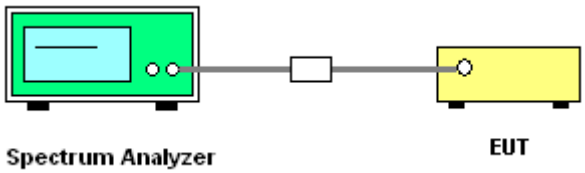
3.1.2 Measuring Instruments

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.

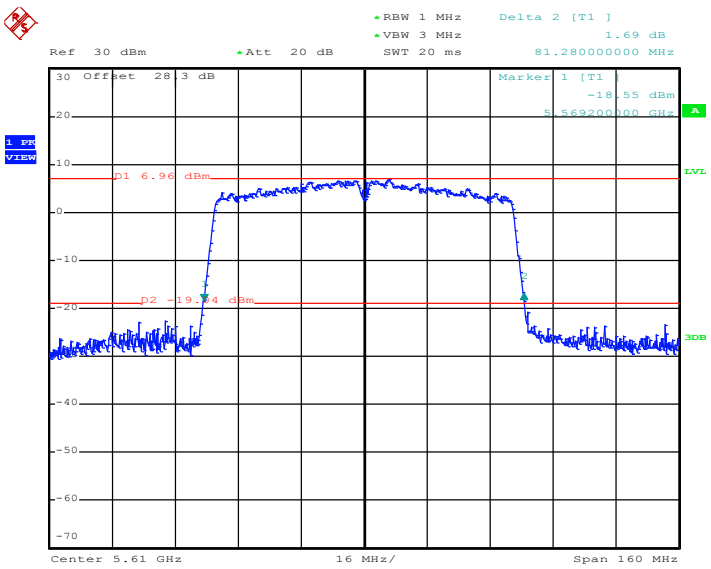
3.1.4 Test Setup



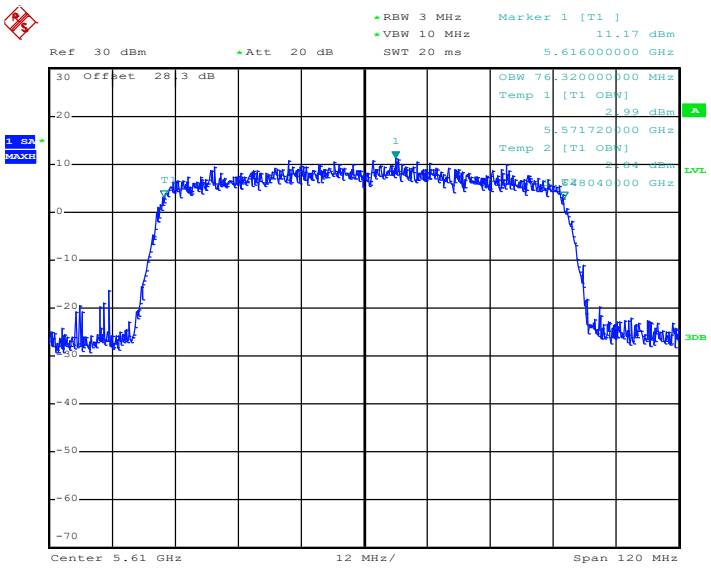
3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

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.

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.

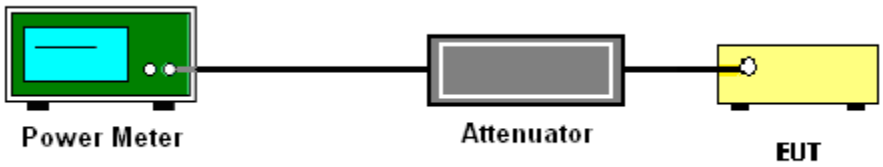
3.2.3 Test Procedures

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.

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.

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.

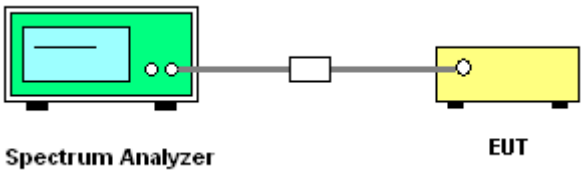
 # Method SA-3 #

(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.

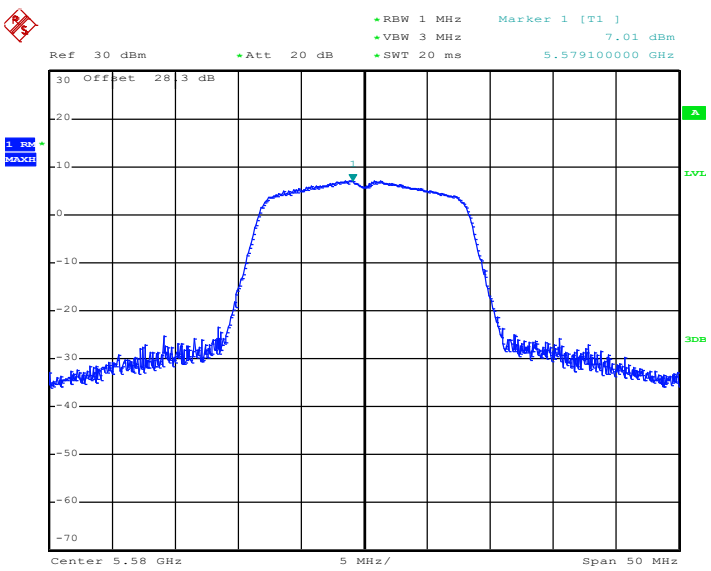
3.3.4 Test Setup



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

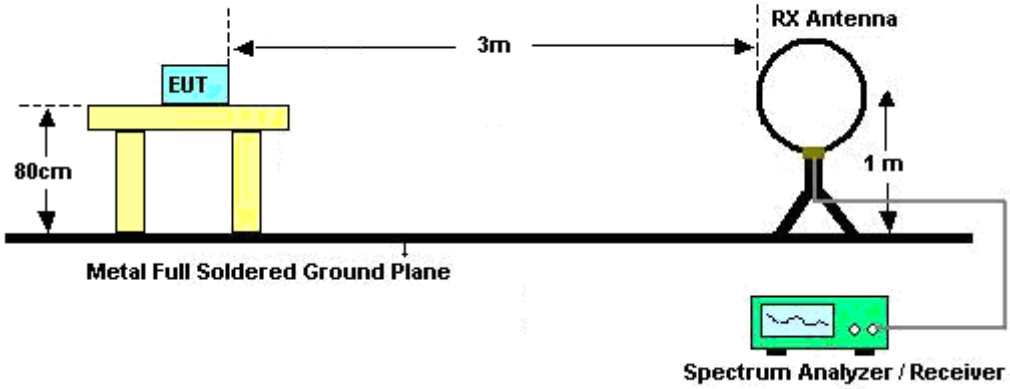
(3) Procedures for Average Unwanted Emissions Measurements Above 1000 MHz

- 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.

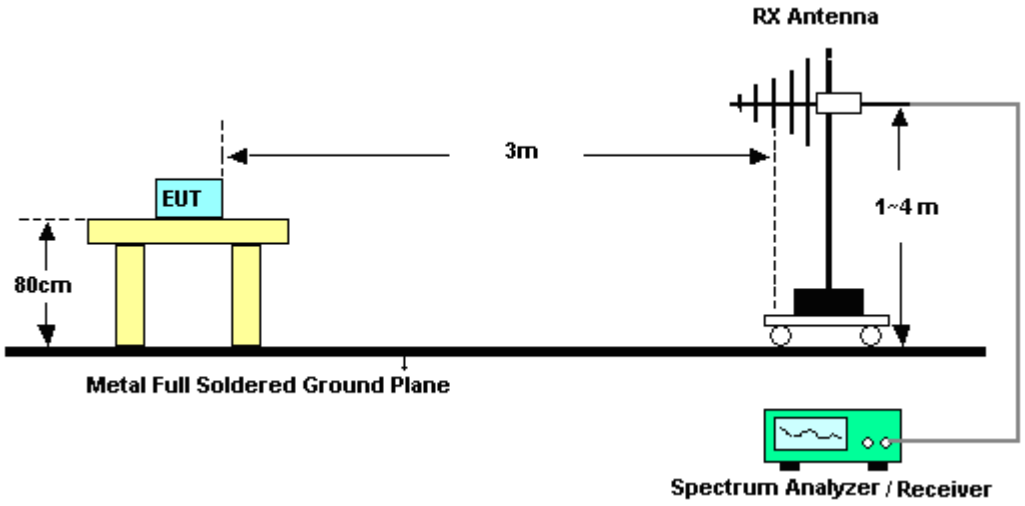
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband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

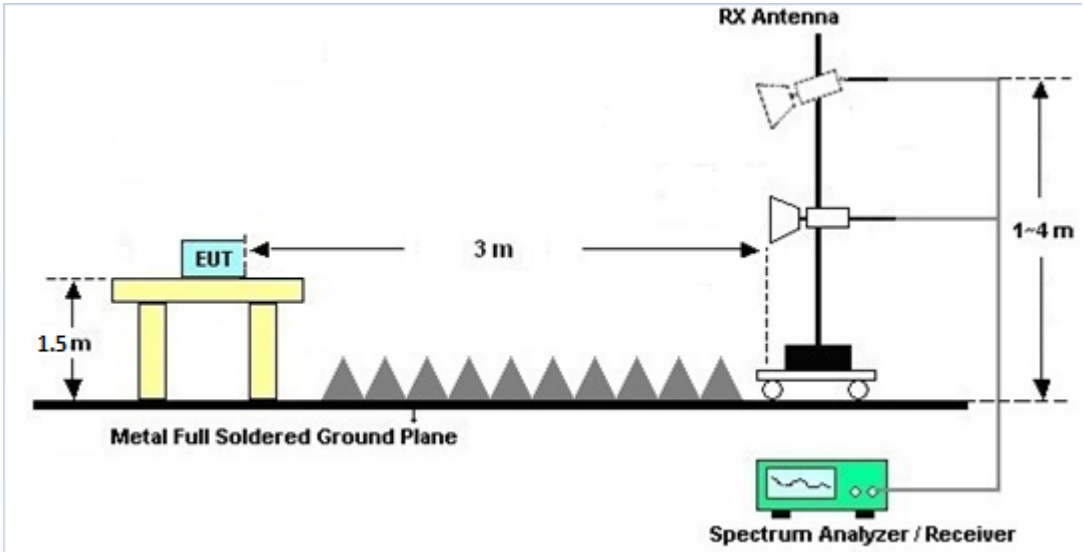
For radiated emissions below 30MHz



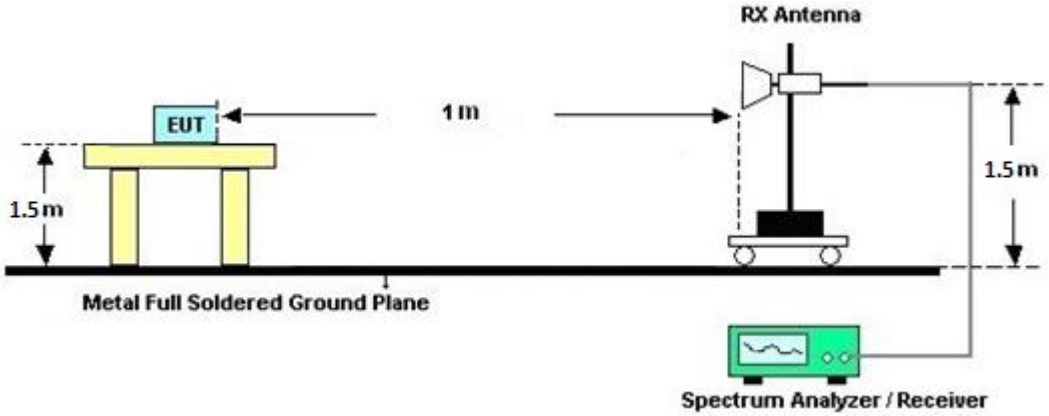
For radiated emissions from 30MHz to 1GHz



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.

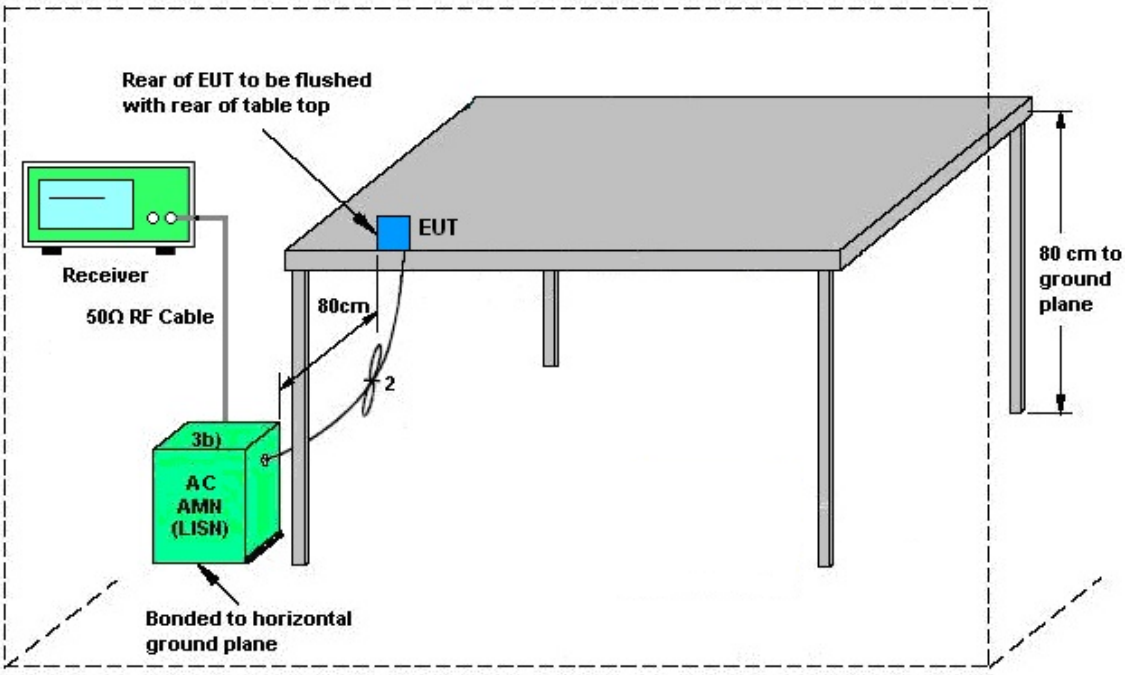
3.5.2 Measuring Instruments

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



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

3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.6 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

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

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

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

4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
AC Power Source	ACPOWER	AFC-11003G	F317040033	N/A	N/A	May 13, 2021	N/A	Conduction (CO07-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	May 13, 2021	N/A	Conduction (CO07-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-F N	9561-F N00373	9kHz-200MHz	Nov. 02, 2020	May 13, 2021	Nov. 01, 2021	Conduction (CO07-HY)
RF Cable	HUBER + SUHNER	RG 214/U	1358175	9kHz~30MHz	N/A	May 13, 2021	N/A	Conduction (CO07-HY)
Two-Line V-Network	TESEQ	NNB 51	45051	N/A	Feb. 01, 2021	May 13, 2021	Jan. 31, 2022	Conduction (CO07-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102317	9kHz~3.6GHz	Sep. 11, 2020	May 13, 2021	Sep. 10, 2021	Conduction (CO07-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Jul. 14, 2020	May 14, 2021~ May 19, 2021	Jul. 13, 2021	Radiation (03CH15-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N -06	41912 & 05	30MHz~1GHz	Feb. 08, 2021	May 14, 2021~ May 19, 2021	Feb. 07, 2022	Radiation (03CH15-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-01620	1GHz~18GHz	Nov. 03, 2020	May 14, 2021~ May 19, 2021	Nov. 02, 2021	Radiation (03CH15-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	18GHz~40GHz	Dec. 02, 2020	May 14, 2021~ May 19, 2021	Dec. 01, 2021	Radiation (03CH15-HY)
Amplifier	SONOMA	310N	363440	9kHz~1GHz	Dec. 28, 2020	May 14, 2021~ May 19, 2021	Dec. 27, 2021	Radiation (03CH15-HY)
Preamplifier	Jet-Power	JPA0118-55-303	1710001800055006	1GHz~18GHz	May 06, 2021	May 14, 2021~ May 19, 2021	May 05, 2022	Radiation (03CH15-HY)
Preamplifier	Keysight	83017A	MY53270195	1GHz~26.5GHz	Aug. 21, 2020	May 14, 2021~ May 19, 2021	Aug. 20, 2021	Radiation (03CH15-HY)
Preamplifier	EMEC	EM18G40G	0600789	18-40GHz	Oct. 27, 2020	May 14, 2021~ May 19, 2021	Oct. 26, 2021	Radiation (03CH15-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY54130085	20MHz~8.4GHz	Nov. 02, 2020	May 14, 2021~ May 19, 2021	Nov. 01, 2021	Radiation (03CH15-HY
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz~44GHz	Oct. 23, 2020	May 14, 2021~ May 19, 2021	Oct. 22, 2021	Radiation (03CH15-HY
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	May 14, 2021~ May 19, 2021	N/A	Radiation (03CH15-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	May 14, 2021~ May 19, 2021	N/A	Radiation (03CH15-HY)
Software	Audix	E3 6.2009-8-24(k5)	RK-000451	N/A	N/A	May 14, 2021~ May 19, 2021	N/A	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104, 102E	MY36980/4, MY9838/4PE, 508405/2E	30MHz~18G	Nov. 16, 2020	May 14, 2021~ May 19, 2021	Nov. 15, 2021	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30MHz-40GHz	Feb. 22, 2021	May 14, 2021~ May 19, 2021	Feb. 21, 2022	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30MHz-40GHz	Feb. 22, 2021	May 14, 2021~ May 19, 2021	Feb. 21, 2022	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz~30MHz	Mar. 11, 2021	May 14, 2021~ May 19, 2021	Mar. 10, 2022	Radiation (03CH15-HY)
Filter	Wainwright	WLJ4-1000-1530-6000-40ST	SN4	1.53GHz Low Pass Filter	Jul. 03, 2020	May 14, 2021~ May 19, 2021	Jul. 02, 2021	Radiation (03CH15-HY)
Filter	Wainwright	WHKX8-5872.5-6750-18000-40ST	SN6	6.75GHz High Pass Filter	Jul. 01, 2020	May 14, 2021~ May 19, 2021	Jun. 30, 2021	Radiation (03CH15-HY)

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Sensor	DARE	RPR3006W	16I00054SNO10	10MHz~6GHz	Dec. 16, 2020	May 06, 2021~ May 22, 2021	Dec. 15, 2021	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100055	9kHz-40GHz	Jan. 21, 2021	May 06, 2021~ May 22, 2021	Jan. 20, 2022	Conducted (TH05-HY)
Switch Box & RF Cable	EM Electronics	EMSW18SE	SW200302	N/A	Mar. 17, 2021	May 06, 2021~ May 22, 2021	Mar. 16, 2022	Conducted (TH05-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.2**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.7**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.3**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.9**

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Mina Liu	Temperature:	21~25	°C
Test Date:	2021/5/6~2021/05/22	Relative Humidity:	51~54	%

Report Number : FR142608D

TEST RESULTS DATA
26dB and 99% OBW

Band I single antenna														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)			Note
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	36	5180	17.25	-	37.15	-	-		22.37	-		
11a	6Mbps	1	44	5220	16.70	-	26.25	-	-		22.23	-		
11a	6Mbps	1	48	5240	16.70	-	28.90	-	-		22.23	-		
HT20	MCS0	1	36	5180	17.70	-	30.15	-	-		22.48	-		
HT20	MCS0	1	44	5220	17.70	-	29.75	-	-		22.48	-		
HT20	MCS0	1	48	5240	17.75	-	30.35	-	-		22.49	-		
HT40	MCS0	1	38	5190	36.40	-	62.28	-	-		23.01	-		
HT40	MCS0	1	46	5230	36.40	-	61.74	-	-		23.01	-		
VHT80	MCS0	1	42	5210	76.08	-	80.96	-	-		23.01	-		

TEST RESULTS DATA
Average Power Table

FCC Band I single antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)		FCC Conducted Power Limit (dBm)		DG (dBi)			Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	36	5180	15.60	-	24.00	-	-4.70	-		Pass
11a	6Mbps	1	44	5220	15.60	-	24.00	-	-4.70	-		Pass
11a	6Mbps	1	48	5240	15.70	-	24.00	-	-4.70	-		Pass
HT20	MCS0	1	36	5180	14.80	-	24.00	-	-4.70	-		Pass
HT20	MCS0	1	44	5220	14.90	-	24.00	-	-4.70	-		Pass
HT20	MCS0	1	48	5240	14.90	-	24.00	-	-4.70	-		Pass
HT40	MCS0	1	38	5190	12.60	-	24.00	-	-4.70	-		Pass
HT40	MCS0	1	46	5230	14.80	-	24.00	-	-4.70	-		Pass
VHT20	MCS0	1	36	5180	13.80	-	24.00	-	-4.70	-		Pass
VHT20	MCS0	1	44	5220	13.80	-	24.00	-	-4.70	-		Pass
VHT20	MCS0	1	48	5240	13.90	-	24.00	-	-4.70	-		Pass
VHT40	MCS0	1	38	5190	12.50	-	24.00	-	-4.70	-		Pass
VHT40	MCS0	1	46	5230	13.90	-	24.00	-	-4.70	-		Pass
VHT80	MCS0	1	42	5210	12.10	-	24.00	-	-4.70	-		Pass

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TEST RESULTS DATA
Power Spectral Density

FCC Band I single antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)		Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	36	5180	6.29	-	11.00	-	-4.70	-		Pass
11a	6Mbps	1	44	5220	6.45	-	11.00	-	-4.70	-		Pass
11a	6Mbps	1	48	5240	6.46	-	11.00	-	-4.70	-		Pass
HT20	MCS0	1	36	5180	5.52	-	11.00	-	-4.70	-		Pass
HT20	MCS0	1	44	5220	5.65	-	11.00	-	-4.70	-		Pass
HT20	MCS0	1	48	5240	5.53	-	11.00	-	-4.70	-		Pass
HT40	MCS0	1	38	5190	0.68	-	11.00	-	-4.70	-		Pass
HT40	MCS0	1	46	5230	2.95	-	11.00	-	-4.70	-		Pass
VHT80	MCS0	1	42	5210	-2.79	-	11.00	-	-4.70	-		Pass

TEST RESULTS DATA
26dB and 99% OBW

Band II single antenna															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		Note
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	52	5260	16.60	-	24.55	-	23.20	-	29.20	-	23.98	-	
11a	6Mbps	1	60	5300	16.65	-	26.55	-	23.21	-	29.21	-	23.98	-	
11a	6Mbps	1	64	5320	16.55	-	24.10	-	23.19	-	29.19	-	23.98	-	
HT20	MCS0	1	52	5260	17.65	-	28.95	-	23.47	-	29.47	-	23.98	-	
HT20	MCS0	1	60	5300	17.70	-	31.35	-	23.48	-	29.48	-	23.98	-	
HT20	MCS0	1	64	5320	17.75	-	27.75	-	23.49	-	29.49	-	23.98	-	
HT40	MCS0	1	54	5270	36.30	-	65.34	-	23.98	-	30.00	-	23.98	-	
HT40	MCS0	1	62	5310	36.20	-	41.40	-	23.98	-	30.00	-	23.98	-	
VHT80	MCS0	1	58	5290	76.20	-	80.96	-	23.98	-	30.00	-	23.98	-	

TEST RESULTS DATA
Average Power Table

FCC Band II single antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)		FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	52	5260	15.80	-	23.98	-	-4.30	-	26.99	Pass
11a	6Mbps	1	60	5300	15.80	-	23.98	-	-4.30	-	26.99	Pass
11a	6Mbps	1	64	5320	15.70	-	23.98	-	-4.30	-	26.99	Pass
HT20	MCS0	1	52	5260	14.90	-	23.98	-	-4.30	-	26.99	Pass
HT20	MCS0	1	60	5300	14.90	-	23.98	-	-4.30	-	26.99	Pass
HT20	MCS0	1	64	5320	14.90	-	23.98	-	-4.30	-	26.99	Pass
HT40	MCS0	1	54	5270	14.80	-	23.98	-	-4.30	-	26.99	Pass
HT40	MCS0	1	62	5310	12.50	-	23.98	-	-4.30	-	26.99	Pass
VHT20	MCS0	1	52	5260	13.80	-	23.98	-	-4.30	-	26.99	Pass
VHT20	MCS0	1	60	5300	13.80	-	23.98	-	-4.30	-	26.99	Pass
VHT20	MCS0	1	64	5320	13.90	-	23.98	-	-4.30	-	26.99	Pass
VHT40	MCS0	1	54	5270	13.70	-	23.98	-	-4.30	-	26.99	Pass
VHT40	MCS0	1	62	5310	12.40	-	23.98	-	-4.30	-	26.99	Pass
VHT80	MCS0	1	58	5290	9.10	-	23.98	-	-4.30	-	26.99	Pass

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TEST RESULTS DATA
Power Spectral Density

Band II single antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)		Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	52	5260	6.27	-	11.00	-	-4.30	-		Pass
11a	6Mbps	1	60	5300	6.26	-	11.00	-	-4.30	-		Pass
11a	6Mbps	1	64	5320	6.47	-	11.00	-	-4.30	-		Pass
HT20	MCS0	1	52	5260	5.66	-	11.00	-	-4.30	-		Pass
HT20	MCS0	1	60	5300	5.54	-	11.00	-	-4.30	-		Pass
HT20	MCS0	1	64	5320	5.63	-	11.00	-	-4.30	-		Pass
HT40	MCS0	1	54	5270	2.91	-	11.00	-	-4.30	-		Pass
HT40	MCS0	1	62	5310	0.50	-	11.00	-	-4.30	-		Pass
VHT80	MCS0	1	58	5290	-5.76	-	11.00	-	-4.30	-		Pass

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TEST RESULTS DATA
26dB and 99% OBW

Band III single antenna																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth In U-NII 2C (MHz)		26 dB Bandwidth In U-NII 2C (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		6 dB Bandwidth for Straddle Channel (MHz)	
					Ant 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	1	100	5500	16.60	-	21.30	-	23.20	-	29.20	-	23.98	-	----	----
11a	6Mbps	1	116	5580	16.65	-	24.05	-	23.21	-	29.21	-	23.98	-	----	----
11a	6Mbps	1	140	5700	16.60	-	21.30	-	23.20	-	29.20	-	23.98	-	----	----
HT20	MCS0	1	100	5500	17.75	-	22.85	-	23.49	-	29.49	-	23.98	-	----	----
HT20	MCS0	1	116	5580	17.75	-	28.95	-	23.49	-	29.49	-	23.98	-	----	----
HT20	MCS0	1	140	5700	17.75	-	21.90	-	23.49	-	29.49	-	23.98	-	----	----
HT40	MCS0	1	102	5510	36.30	-	41.58	-	23.98	-	30.00	-	23.98	-	----	----
HT40	MCS0	1	110	5550	36.30	-	41.76	-	23.98	-	30.00	-	23.98	-	----	----
HT40	MCS0	1	134	5670	36.30	-	41.31	-	23.98	-	30.00	-	23.98	-	----	----
VHT80	MCS0	1	106	5530	76.20	-	80.96	-	23.98	-	30.00	-	23.98	-	----	----
VHT80	MCS0	1	122	5610	76.32	-	81.28	-	23.98	-	30.00	-	23.98	-	----	----

TEST RESULTS DATA
Average Power Table

FCC Band III single antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)		FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	100	5500	14.50	-	23.98	-	-4.10	-	26.99	Pass
11a	6Mbps	1	116	5580	15.90	-	23.98	-	-4.10	-	26.99	Pass
11a	6Mbps	1	140	5700	13.50	-	23.98	-	-4.10	-	26.99	Pass
HT20	MCS0	1	100	5500	14.30	-	23.98	-	-4.10	-	26.99	Pass
HT20	MCS0	1	116	5580	14.90	-	23.98	-	-4.10	-	26.99	Pass
HT20	MCS0	1	140	5700	12.60	-	23.98	-	-4.10	-	26.99	Pass
HT40	MCS0	1	102	5510	12.70	-	23.98	-	-4.10	-	26.99	Pass
HT40	MCS0	1	110	5550	14.80	-	23.98	-	-4.10	-	26.99	Pass
HT40	MCS0	1	134	5670	14.70	-	23.98	-	-4.10	-	26.99	Pass
VHT20	MCS0	1	100	5500	13.90	-	23.98	-	-4.10	-	26.99	Pass
VHT20	MCS0	1	116	5580	13.80	-	23.98	-	-4.10	-	26.99	Pass
VHT20	MCS0	1	140	5700	12.50	-	23.98	-	-4.10	-	26.99	Pass
VHT40	MCS0	1	102	5510	12.60	-	23.98	-	-4.10	-	26.99	Pass
VHT40	MCS0	1	110	5550	13.90	-	23.98	-	-4.10	-	26.99	Pass
VHT40	MCS0	1	134	5670	13.90	-	23.98	-	-4.10	-	26.99	Pass
VHT80	MCS0	1	106	5530	9.20	-	23.98	-	-4.10	-	26.99	Pass
VHT80	MCS0	1	122	5610	13.80	-	23.98	-	-4.10	-	26.99	Pass

TEST RESULTS DATA
Power Spectral Density

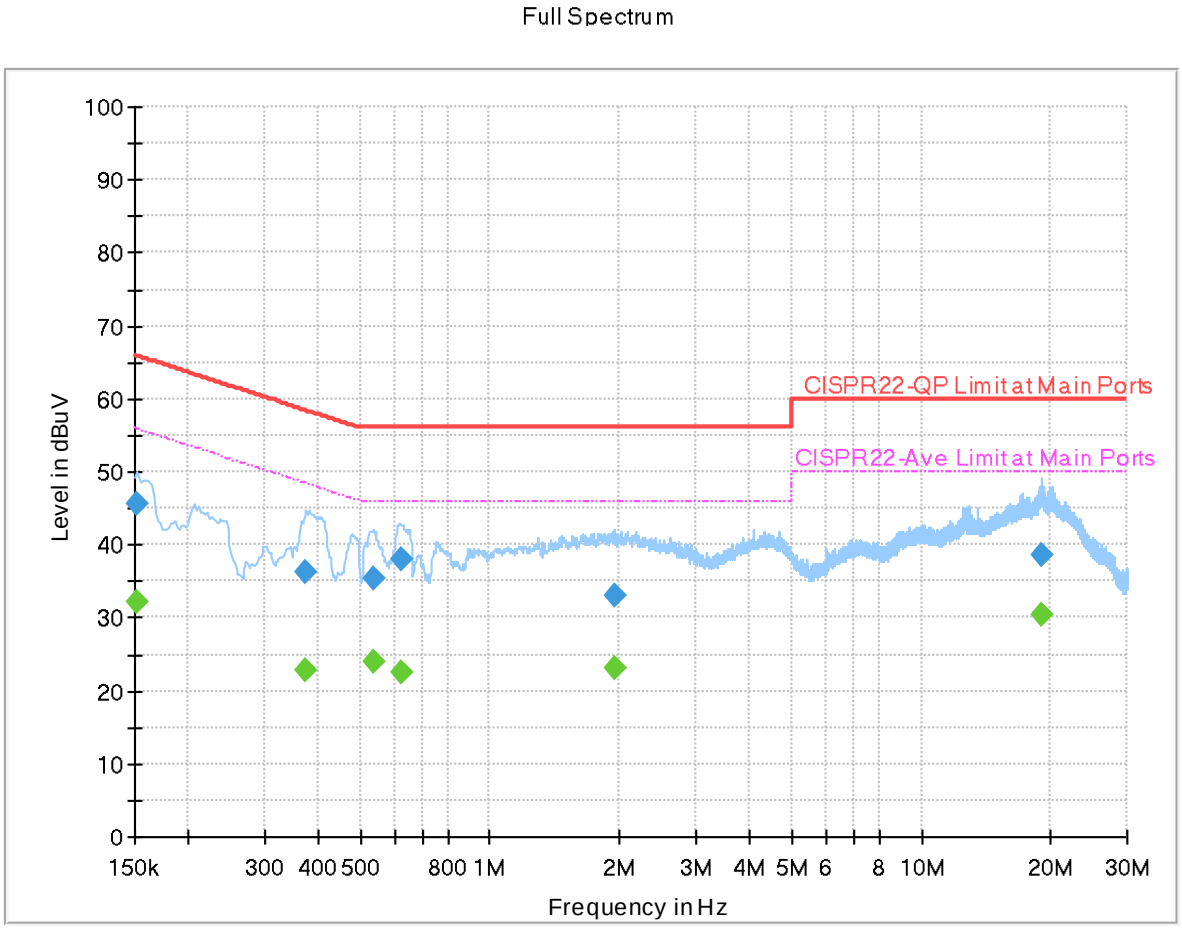
Band III single antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)		Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	100	5500	5.79	-	11.00	-	-4.10	-		Pass
11a	6Mbps	1	116	5580	7.01	-	11.00	-	-4.10	-		Pass
11a	6Mbps	1	140	5700	4.68	-	11.00	-	-4.10	-		Pass
HT20	MCS0	1	100	5500	5.65	-	11.00	-	-4.10	-		Pass
HT20	MCS0	1	116	5580	5.93	-	11.00	-	-4.10	-		Pass
HT20	MCS0	1	140	5700	3.93	-	11.00	-	-4.10	-		Pass
HT40	MCS0	1	102	5510	1.15	-	11.00	-	-4.10	-		Pass
HT40	MCS0	1	110	5550	3.17	-	11.00	-	-4.10	-		Pass
HT40	MCS0	1	134	5670	3.20	-	11.00	-	-4.10	-		Pass
VHT80	MCS0	1	106	5530	-5.57	-	11.00	-	-4.10	-		Pass
VHT80	MCS0	1	122	5610	-1.11	-	11.00	-	-4.10	-		Pass

Appendix B. AC Conducted Emission Test Results

Test Engineer :	Tom Lee	**Temperature :**	23~26℃
		Relative Humidity :	40~50%

EUT Information

Report NO :	142608
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

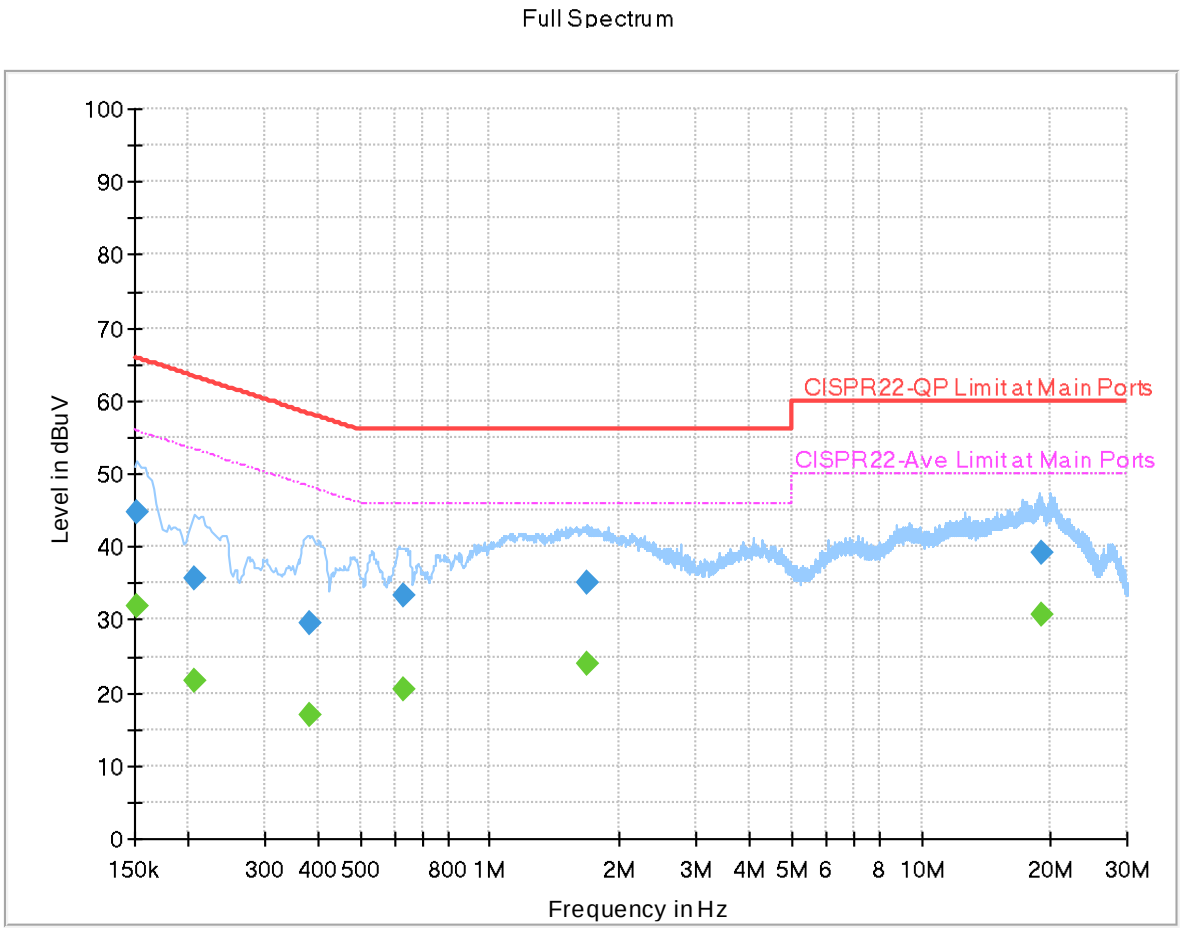


Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	32.25	55.88	23.63	L1	OFF	20.0
0.152250	45.52	---	65.88	20.36	L1	OFF	20.0
0.375000	---	22.73	48.39	25.66	L1	OFF	20.0
0.375000	36.17	---	58.39	22.22	L1	OFF	20.0
0.534750	---	23.93	46.00	22.07	L1	OFF	20.0
0.534750	35.52	---	56.00	20.48	L1	OFF	20.0
0.620250	---	22.52	46.00	23.48	L1	OFF	20.0
0.620250	37.91	---	56.00	18.09	L1	OFF	20.0
1.938750	---	23.12	46.00	22.88	L1	OFF	20.0
1.938750	33.07	---	56.00	22.93	L1	OFF	20.0
18.933000	---	30.38	50.00	19.62	L1	OFF	20.2
18.933000	38.72	---	60.00	21.28	L1	OFF	20.2

EUT Information

Report NO :	142608
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	31.76	55.88	24.12	N	OFF	20.0
0.152250	44.60	---	65.88	21.28	N	OFF	20.0
0.206250	---	21.53	53.36	31.83	N	OFF	20.0
0.206250	35.68	---	63.36	27.68	N	OFF	20.0
0.381750	---	16.97	48.24	31.27	N	OFF	20.0
0.381750	29.58	---	58.24	28.66	N	OFF	20.0
0.629250	---	20.46	46.00	25.54	N	OFF	20.0
0.629250	33.19	---	56.00	22.81	N	OFF	20.0
1.675500	---	23.99	46.00	22.01	N	OFF	20.0
1.675500	35.15	---	56.00	20.85	N	OFF	20.0
18.924000	---	30.60	50.00	19.40	N	OFF	20.3
18.924000	39.17	---	60.00	20.83	N	OFF	20.3

Appendix C. Radiated Spurious Emission

Test Engineer :	Leo Lee, Mancy Chou, and Bigshow Wang	Temperature :	22.1~23.1°C
		Relative Humidity :	55~60%

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5148.98	67.57	-6.43	74	55.78	31.8	10	30.01	167	239	P	H
		5149.76	49.8	-4.2	54	38.01	31.8	10	30.01	167	239	A	H
	*	5180	108.22	-	-	96.58	31.62	10.03	30.01	167	239	P	H
	*	5180	100.95	-	-	89.31	31.62	10.03	30.01	167	239	A	H
													H
													H
		5149.76	67.81	-6.19	74	56.02	31.8	10	30.01	200	268	P	V
		5149.24	50.7	-3.3	54	38.91	31.8	10	30.01	200	268	A	V
	*	5180	110	-	-	98.36	31.62	10.03	30.01	200	268	P	V
	*	5180	102.54	-	-	90.9	31.62	10.03	30.01	200	268	A	V
													V
													V
802.11a CH 44 5220MHz		5148.72	54.21	-19.79	74	42.42	31.8	10	30.01	163	238	P	H
		5148.98	43.81	-10.19	54	32.02	31.8	10	30.01	163	238	A	H
	*	5220	110.63	-	-	99.19	31.38	10.07	30.01	163	238	P	H
	*	5220	102.54	-	-	91.1	31.38	10.07	30.01	163	238	A	H
		5353.6	51.67	-22.33	74	40.38	31.12	10.17	30	163	238	P	H
		5350.52	42.14	-11.86	54	30.87	31.1	10.17	30	163	238	A	H
		5143.52	54.35	-19.65	74	42.57	31.8	9.99	30.01	200	268	P	V
		5149.76	44.42	-9.58	54	32.63	31.8	10	30.01	200	268	A	V
	*	5220	111.76	-	-	100.32	31.38	10.07	30.01	200	268	P	V
	*	5220	103.98	-	-	92.54	31.38	10.07	30.01	200	268	A	V
		5386.36	52.86	-21.14	74	41.34	31.32	10.2	30	200	268	P	V
		5356.96	43.16	-10.84	54	31.84	31.14	10.18	30	200	268	A	V

802.11a CH 48 5240MHz		5148.46	52.38	-21.62	74	40.59	31.8	10	30.01	176	234	P	H
		5149.5	42.77	-11.23	54	30.98	31.8	10	30.01	176	234	A	H
	*	5240	108.22	-	-	96.89	31.26	10.08	30.01	176	234	P	H
	*	5240	101.06	-	-	89.73	31.26	10.08	30.01	176	234	A	H
		5372.08	51.38	-22.62	74	39.96	31.23	10.19	30	176	234	P	H
		5354.16	42.6	-11.4	54	31.31	31.12	10.17	30	176	234	A	H
		5148.98	53.06	-20.94	74	41.27	31.8	10	30.01	200	268	P	V
		5149.5	43.34	-10.66	54	31.55	31.8	10	30.01	200	268	A	V
	*	5240	110.34	-	-	99.01	31.26	10.08	30.01	200	268	P	V
	*	5240	102.86	-	-	91.53	31.26	10.08	30.01	200	268	A	V
		5355.84	53	-21	74	41.69	31.14	10.17	30	200	268	P	V
		5356.4	43.62	-10.38	54	32.3	31.14	10.18	30	200	268	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	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	48.83	-19.37	68.2	55.73	39.44	14.46	60.8	100	0	P	H
		15540	45.05	-28.95	74	52.3	37.82	17.29	62.36	100	0	P	H
		17956	57.08	-16.92	74	47.2	48.21	19.01	57.34	100	62	P	H
		17956	50.11	-3.89	54	40.23	48.21	19.01	57.34	100	62	A	H
		10360	49.42	-18.78	68.2	56.32	39.44	14.46	60.8	100	0	P	V
		15540	44.52	-29.48	74	51.77	37.82	17.29	62.36	100	0	P	V
		17989	56.95	-17.05	74	46.39	48.8	19.03	57.27	100	28	P	V
		17989	50.58	-3.42	54	40.02	48.8	19.03	57.27	100	28	A	V
802.11a CH 44 5220MHz		10440	49.11	-19.09	68.2	55.84	39.64	14.5	60.87	100	0	P	H
		15660	45.38	-28.62	74	52.4	37.52	17.36	61.9	100	0	P	H
		18000	57.61	-16.39	74	46.81	49	19.04	57.24	100	55	P	H
		18000	50.67	-3.33	54	39.87	49	19.04	57.24	100	55	A	H
		10440	49.67	-18.53	68.2	56.4	39.64	14.5	60.87	100	0	P	V
		15660	45.95	-28.05	74	52.97	37.52	17.36	61.9	100	0	P	V
		17989	56.86	-17.14	74	46.3	48.8	19.03	57.27	100	35	P	V
		17989	50.43	-3.57	54	39.87	48.8	19.03	57.27	100	35	A	V
802.11a CH 48 5240MHz		10480	49.1	-19.1	68.2	55.81	39.68	14.52	60.91	100	0	P	H
		15720	44.9	-29.1	74	51.83	37.34	17.4	61.67	100	0	P	H
		17978	56.27	-17.73	74	45.93	48.6	19.03	57.29	100	55	P	H
		17978	50.43	-3.57	54	40.09	48.6	19.03	57.29	100	55	A	H
		10480	49.38	-18.82	68.2	56.09	39.68	14.52	60.91	100	0	P	V
		15720	44.79	-29.21	74	51.72	37.34	17.4	61.67	100	0	P	V
		18000	57.33	-16.67	74	46.53	49	19.04	57.24	100	38	P	V
		18000	50.66	-3.34	54	39.86	49	19.04	57.24	100	38	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	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)
		5147.68	66.8	-7.2	74	55.01	31.8	10	30.01	194	274	P	V
		5149.76	49.58	-4.42	54	37.79	31.8	10	30.01	194	274	A	V
	*	5180	109.62	-	-	97.98	31.62	10.03	30.01	194	274	P	V
	*	5180	101.8	-	-	90.16	31.62	10.03	30.01	194	274	A	V
802.11n													H
HT20													H
CH 36		5147.68	64.92	-9.08	74	53.13	31.8	10	30.01	177	238	P	H
5180MHz		5148.46	48.09	-5.91	54	36.3	31.8	10	30.01	177	238	A	H
	*	5180	107.64	-	-	96	31.62	10.03	30.01	177	238	P	H
	*	5180	100.26	-	-	88.62	31.62	10.03	30.01	177	238	A	H
													V
													V
		5141.7	53.4	-20.6	74	41.62	31.8	9.99	30.01	162	240	P	H
		5145.86	43.86	-10.14	54	32.08	31.8	9.99	30.01	162	240	A	H
	*	5220	108.88	-	-	97.44	31.38	10.07	30.01	162	240	P	H
	*	5220	101.15	-	-	89.71	31.38	10.07	30.01	162	240	A	H
802.11n		5352.2	51.21	-22.79	74	39.93	31.11	10.17	30	162	240	P	H
HT20		5351.08	42.07	-11.93	54	30.79	31.11	10.17	30	162	240	A	H
CH 44		5143.78	54.08	-19.92	74	42.3	31.8	9.99	30.01	200	269	P	V
5220MHz		5147.94	44.12	-9.88	54	32.33	31.8	10	30.01	200	269	A	V
	*	5220	109.75	-	-	98.31	31.38	10.07	30.01	200	269	P	V
	*	5220	102.15	-	-	90.71	31.38	10.07	30.01	200	269	A	V
		5393.92	52.04	-21.96	74	40.47	31.36	10.21	30	200	269	P	V
		5361.16	43.18	-10.82	54	31.83	31.17	10.18	30	200	269	A	V

		5148.2	52.53	-21.47	74	40.74	31.8	10	30.01	174	236	P	H
		5147.68	43.15	-10.85	54	31.36	31.8	10	30.01	174	236	A	H
	*	5240	107.92	-	-	96.59	31.26	10.08	30.01	174	236	P	H
	*	5240	100.46	-	-	89.13	31.26	10.08	30.01	174	236	A	H
802.11n		5389.44	52.46	-21.54	74	40.92	31.34	10.2	30	174	236	P	H
HT20		5350.52	42.66	-11.34	54	31.39	31.1	10.17	30	174	236	A	H
CH 48		5146.38	52.73	-21.27	74	40.95	31.8	9.99	30.01	200	267	P	V
5240MHz		5149.76	43.45	-10.55	54	31.66	31.8	10	30.01	200	267	A	V
	*	5240	110.46	-	-	99.13	31.26	10.08	30.01	200	267	P	V
	*	5240	102.07	-	-	90.74	31.26	10.08	30.01	200	267	A	V
		5370.96	52.23	-21.77	74	40.81	31.23	10.19	30	200	267	P	V
		5354.44	43.65	-10.35	54	32.35	31.13	10.17	30	200	267	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	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	48.02	-20.18	68.2	54.92	39.44	14.46	60.8	100	0	P	H
		15540	44.71	-29.29	74	51.96	37.82	17.29	62.36	100	0	P	H
		17989	57.39	-16.61	74	46.83	48.8	19.03	57.27	100	44	P	H
		17989	50.53	-3.47	54	39.97	48.8	19.03	57.27	100	44	A	H
		10360	49.14	-19.06	68.2	56.04	39.44	14.46	60.8	100	0	P	V
		15540	44.87	-29.13	74	52.12	37.82	17.29	62.36	100	0	P	V
		17989	57.08	-16.92	74	46.52	48.8	19.03	57.27	100	65	P	V
		17989	50.57	-3.43	54	40.01	48.8	19.03	57.27	100	65	A	V
802.11n HT20 CH 44 5220MHz		10440	49.45	-18.75	68.2	56.18	39.64	14.5	60.87	100	0	P	H
		15660	45.36	-28.64	74	52.38	37.52	17.36	61.9	100	0	P	H
		17978	56.65	-17.35	74	46.31	48.6	19.03	57.29	100	36	P	H
		17978	49.92	-4.08	54	39.58	48.6	19.03	57.29	100	36	A	H
		10440	48.85	-19.35	68.2	55.58	39.64	14.5	60.87	100	0	P	V
		15660	45.6	-28.4	74	52.62	37.52	17.36	61.9	100	0	P	V
		18000	57.31	-16.69	74	46.51	49	19.04	57.24	100	47	P	V
		18000	50.65	-3.35	54	39.85	49	19.04	57.24	100	47	A	V
802.11n HT20 CH 48 5240MHz		10480	49.18	-19.02	68.2	55.89	39.68	14.52	60.91	100	0	P	H
		15720	44.35	-29.65	74	51.28	37.34	17.4	61.67	100	0	P	H
		17989	56.96	-17.04	74	46.4	48.8	19.03	57.27	100	36	P	H
		17989	50.27	-3.73	54	39.71	48.8	19.03	57.27	100	36	A	H
		10480	48.6	-19.6	68.2	55.31	39.68	14.52	60.91	100	0	P	V
		15720	45.15	-28.85	74	52.08	37.34	17.4	61.67	100	0	P	V
		17978	57.32	-16.68	74	46.98	48.6	19.03	57.29	100	28	P	V
		17978	50.35	-3.65	54	40.01	48.6	19.03	57.29	100	28	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	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		5148.98	63.93	-10.07	74	52.14	31.8	10	30.01	170	238	P	H
		5149.76	49.22	-4.78	54	37.43	31.8	10	30.01	170	238	A	H
	*	5190	102.82	-	-	91.23	31.56	10.04	30.01	170	238	P	H
	*	5190	95.63	-	-	84.04	31.56	10.04	30.01	170	238	A	H
		5404.84	50.87	-23.13	74	39.24	31.42	10.21	30	170	238	P	H
		5406.52	42.55	-11.45	54	30.9	31.43	10.22	30	170	238	A	H
		5146.64	65.35	-8.65	74	53.57	31.8	9.99	30.01	192	275	P	V
		5149.76	50.51	-3.49	54	38.72	31.8	10	30.01	192	275	A	V
	*	5190	104.7	-	-	93.11	31.56	10.04	30.01	192	275	P	V
	*	5190	97.63	-	-	86.04	31.56	10.04	30.01	192	275	A	V
		5358.64	51.01	-22.99	74	39.68	31.15	10.18	30	192	275	P	V
		5354.16	43.45	-10.55	54	32.16	31.12	10.17	30	192	275	A	V
802.11n HT40 CH 46 5230MHz		5150	58.88	-15.12	74	47.09	31.8	10	30.01	163	295	P	H
		5150	45.84	-8.16	54	34.05	31.8	10	30.01	163	295	A	H
	*	5230	104.88	-	-	93.5	31.32	10.07	30.01	163	295	P	H
	*	5230	97.51	-	-	86.13	31.32	10.07	30.01	163	295	A	H
		5374.6	50.98	-23.02	74	39.54	31.25	10.19	30	163	295	P	H
		5350	43.14	-10.86	54	31.87	31.1	10.17	30	163	295	A	H
		5149.5	60.65	-13.35	74	48.86	31.8	10	30.01	200	268	P	V
		5150	46.43	-7.57	54	34.64	31.8	10	30.01	200	268	A	V
	*	5230	107.05	-	-	95.67	31.32	10.07	30.01	200	268	P	V
	*	5230	99.6	-	-	88.22	31.32	10.07	30.01	200	268	A	V
		5350.8	51.75	-22.25	74	40.48	31.1	10.17	30	200	268	P	V
		5352.48	44.46	-9.54	54	33.18	31.11	10.17	30	200	268	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	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5149.94	55.1	-18.9	74	43.31	31.8	10	30.01	173	237	P	H
		5149.26	47.75	-6.25	54	35.96	31.8	10	30.01	173	237	A	H
	*	5210	99.55	-	-	88.06	31.44	10.06	30.01	173	237	P	H
	*	5210	92.61	-	-	81.12	31.44	10.06	30.01	173	237	A	H
		5364	52.09	-21.91	74	40.73	31.18	10.18	30	173	237	P	H
		5362.8	44.33	-9.67	54	32.97	31.18	10.18	30	173	237	A	H
		5144.5	53.49	-20.51	74	41.71	31.8	9.99	30.01	203	275	P	V
		5149.26	49.77	-4.23	54	37.98	31.8	10	30.01	203	275	A	V
	*	5210	102.3	-	-	90.81	31.44	10.06	30.01	203	275	P	V
	*	5210	94.5	-	-	83.01	31.44	10.06	30.01	203	275	A	V
		5364.24	53.75	-20.25	74	42.38	31.19	10.18	30	203	275	P	V
		5389.68	45.13	-8.87	54	33.59	31.34	10.2	30	203	275	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	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		5141.78	51.77	-22.23	74	39.99	31.8	9.99	30.01	165	234	P	H
		5149.6	42.3	-11.7	54	30.51	31.8	10	30.01	165	234	A	H
	*	5260	107.97	-	-	96.67	31.2	10.1	30	165	234	P	H
	*	5260	100.53	-	-	89.23	31.2	10.1	30	165	234	A	H
		5445.6	52.95	-21.05	74	41.11	31.58	10.25	29.99	165	234	P	H
		5354.16	42.95	-11.05	54	31.66	31.12	10.17	30	165	234	A	H
		5143.82	52.68	-21.32	74	40.9	31.8	9.99	30.01	200	268	P	V
		5134.3	42.81	-11.19	54	31.04	31.8	9.98	30.01	200	268	A	V
	*	5260	110.27	-	-	98.97	31.2	10.1	30	200	268	P	V
	*	5260	102.96	-	-	91.66	31.2	10.1	30	200	268	A	V
		5355.12	53.4	-20.6	74	42.1	31.13	10.17	30	200	268	P	V
		5351.04	44.19	-9.81	54	32.91	31.11	10.17	30	200	268	A	V
802.11a CH 60 5300MHz		5074.46	51.24	-22.76	74	39.59	31.75	9.92	30.02	166	236	P	H
		5128.18	42.19	-11.81	54	30.43	31.8	9.97	30.01	166	236	A	H
	*	5300	108.1	-	-	96.77	31.2	10.13	30	166	236	P	H
	*	5300	100.92	-	-	89.59	31.2	10.13	30	166	236	A	H
		5382.48	53.57	-20.43	74	42.08	31.29	10.2	30	166	236	P	H
		5351.76	44.28	-9.72	54	33	31.11	10.17	30	166	236	A	H
		5123.08	52.12	-21.88	74	40.36	31.8	9.97	30.01	200	268	P	V
		5136.34	42.34	-11.66	54	30.57	31.8	9.98	30.01	200	268	A	V
	*	5300	111.28	-	-	99.95	31.2	10.13	30	200	268	P	V
	*	5300	103.28	-	-	91.95	31.2	10.13	30	200	268	A	V
		5355.6	54.65	-19.35	74	43.35	31.13	10.17	30	200	268	P	V
		5350.56	45.77	-8.23	54	34.5	31.1	10.17	30	200	268	A	V

802.11a CH 64 5320MHz	*	5320	107.71	-	-	96.4	31.16	10.15	30	169	236	P	H
	*	5320	100.46	-	-	89.15	31.16	10.15	30	169	236	A	H
		5350.4	59.64	-14.36	74	48.37	31.1	10.17	30	169	236	P	H
		5350.88	46.58	-7.42	54	35.3	31.11	10.17	30	169	236	A	H
													H
													H
	*	5320	109.57	-	-	98.26	31.16	10.15	30	200	269	P	V
	*	5320	102.87	-	-	91.56	31.16	10.15	30	200	269	A	V
		5350.56	62.12	-11.88	74	50.85	31.1	10.17	30	200	269	P	V
		5350.4	49.37	-4.63	54	38.1	31.1	10.17	30	200	269	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	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	49.84	-18.36	68.2	56.53	39.7	14.54	60.93	100	0	P	H
		15780	46.63	-27.37	74	53.48	37.16	17.44	61.45	100	0	P	H
		18000	58.8	-15.2	74	48	49	19.04	57.24	100	65	P	H
		18000	50.64	-3.36	54	39.84	49	19.04	57.24	100	65	A	H
		10520	49.36	-18.84	68.2	56.05	39.7	14.54	60.93	100	0	P	V
		15780	46.84	-27.16	74	53.69	37.16	17.44	61.45	100	0	P	V
		18000	58.35	-15.65	74	47.55	49	19.04	57.24	100	33	P	V
		18000	50.77	-3.23	54	39.97	49	19.04	57.24	100	33	A	V
802.11a CH 60 5300MHz		10600	49.34	-24.66	74	55.98	39.7	14.58	60.92	100	0	P	H
		15900	44.29	-29.71	74	50.58	37.2	17.5	60.99	100	0	P	H
		17989	57.38	-16.62	74	46.82	48.8	19.03	57.27	100	62	P	H
		17989	50.35	-3.65	54	39.79	48.8	19.03	57.27	100	62	A	H
		10600	49.02	-24.98	74	55.66	39.7	14.58	60.92	200	341	P	V
		10600	41.4	-12.6	54	48.04	39.7	14.58	60.92	200	341	A	V
		15900	44.41	-29.59	74	50.7	37.2	17.5	60.99	100	0	P	V
		18000	57.11	-16.89	74	46.31	49	19.04	57.24	100	22	P	V
		18000	50.67	-3.33	54	39.87	49	19.04	57.24	100	22	A	V
802.11a CH 64 5320MHz		10640	48.73	-25.27	74	55.26	39.78	14.6	60.91	100	0	P	H
		15960	44.78	-29.22	74	50.74	37.26	17.54	60.76	100	0	P	H
		17989	57.16	-16.84	74	46.6	48.8	19.03	57.27	100	35	P	H
		17989	50.14	-3.86	54	39.58	48.8	19.03	57.27	100	35	A	H
		10640	48.88	-25.12	74	55.41	39.78	14.6	60.91	100	0	P	V
		15960	45.56	-28.44	74	51.52	37.26	17.54	60.76	100	0	P	V
		17989	57.26	-16.74	74	46.7	48.8	19.03	57.27	100	50	P	V
		17989	49.83	-4.17	54	39.27	48.8	19.03	57.27	100	50	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	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)
		5146.88	51.06	-22.94	74	39.28	31.8	9.99	30.01	169	235	P	H
		5146.54	42.35	-11.65	54	30.57	31.8	9.99	30.01	169	235	A	H
	*	5260	108.23	-	-	96.93	31.2	10.1	30	169	235	P	H
	*	5260	100.88	-	-	89.58	31.2	10.1	30	169	235	A	H
802.11n		5377.44	52.8	-21.2	74	41.35	31.26	10.19	30	169	235	P	H
HT20		5353.44	43.11	-10.89	54	31.82	31.12	10.17	30	169	235	A	H
CH 52		5097.92	52.13	-21.87	74	40.4	31.8	9.94	30.01	209	268	P	V
5260MHz		5148.92	42.91	-11.09	54	31.12	31.8	10	30.01	209	268	A	V
	*	5260	111.18	-	-	99.88	31.2	10.1	30	209	268	P	V
	*	5260	102.99	-	-	91.69	31.2	10.1	30	209	268	A	V
		5354.4	53.93	-20.07	74	42.63	31.13	10.17	30	209	268	P	V
		5350.08	44.39	-9.61	54	33.12	31.1	10.17	30	209	268	A	V
		5077.86	50.78	-23.22	74	39.12	31.76	9.92	30.02	171	234	P	H
		5125.46	42.02	-11.98	54	30.26	31.8	9.97	30.01	171	234	A	H
	*	5300	107.36	-	-	96.03	31.2	10.13	30	171	234	P	H
	*	5300	99.85	-	-	88.52	31.2	10.13	30	171	234	A	H
802.11n		5351.76	54.35	-19.65	74	43.07	31.11	10.17	30	171	234	P	H
HT20		5351.76	43.82	-10.18	54	32.54	31.11	10.17	30	171	234	A	H
CH 60		5126.82	51.64	-22.36	74	39.88	31.8	9.97	30.01	200	269	P	V
5300MHz		5138.38	42.37	-11.63	54	30.59	31.8	9.99	30.01	200	269	A	V
	*	5300	109.97	-	-	98.64	31.2	10.13	30	200	269	P	V
	*	5300	102.57	-	-	91.24	31.2	10.13	30	200	269	A	V
		5350.56	56.98	-17.02	74	45.71	31.1	10.17	30	200	269	P	V
		5353.2	45.67	-8.33	54	34.38	31.12	10.17	30	200	269	A	V

	*	5320	108.26	-	-	96.95	31.16	10.15	30	168	235	P	H
	*	5320	100.05	-	-	88.74	31.16	10.15	30	168	235	A	H
		5350.24	63.14	-10.86	74	51.87	31.1	10.17	30	168	235	P	H
		5350.08	47.01	-6.99	54	35.74	31.1	10.17	30	168	235	A	H
802.11n													H
HT20													H
CH 64	*	5320	109.62	-	-	98.31	31.16	10.15	30	198	268	P	V
5320MHz	*	5320	102.36	-	-	91.05	31.16	10.15	30	198	268	A	V
		5350.56	65.65	-8.35	74	54.38	31.1	10.17	30	198	268	P	V
		5350.56	49.26	-4.74	54	37.99	31.1	10.17	30	198	268	A	V
													V
													V

Remark

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

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	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	48.22	-19.98	68.2	54.91	39.7	14.54	60.93	100	0	P	H
		15780	46.12	-27.88	74	52.97	37.16	17.44	61.45	100	0	P	H
		18000	57.09	-16.91	74	46.29	49	19.04	57.24	100	85	P	H
		18000	50.66	-3.34	54	39.86	49	19.04	57.24	100	85	A	H
		10520	49.67	-18.53	68.2	56.36	39.7	14.54	60.93	100	0	P	V
		15780	45.46	-28.54	74	52.31	37.16	17.44	61.45	100	0	P	V
		18000	57.57	-16.43	74	46.77	49	19.04	57.24	100	51	P	V
		18000	50.46	-3.54	54	39.66	49	19.04	57.24	100	51	A	V
802.11n HT20 CH 60 5300MHz		10600	48.86	-25.14	74	55.5	39.7	14.58	60.92	100	0	P	H
		15900	45.13	-28.87	74	51.42	37.2	17.5	60.99	100	0	P	H
		18000	56.63	-17.37	74	45.83	49	19.04	57.24	100	31	P	H
		18000	50.55	-3.45	54	39.75	49	19.04	57.24	100	31	A	H
		10600	49.72	-24.28	74	56.36	39.7	14.58	60.92	100	0	P	V
		15900	45.11	-28.89	74	51.4	37.2	17.5	60.99	100	0	P	V
		17989	56.76	-17.24	74	46.2	48.8	19.03	57.27	100	39	P	V
		17989	50.43	-3.57	54	39.87	48.8	19.03	57.27	100	39	A	V
802.11n HT20 CH 64 5320MHz		10640	48.45	-25.55	74	54.98	39.78	14.6	60.91	100	0	P	H
		15960	44.61	-29.39	74	50.57	37.26	17.54	60.76	100	0	P	H
		17989	57.08	-16.92	74	46.52	48.8	19.03	57.27	100	64	P	H
		17989	50.15	-3.85	54	39.59	48.8	19.03	57.27	100	64	A	H
		10640	48.86	-25.14	74	55.39	39.78	14.6	60.91	100	0	P	V
		15960	44.39	-29.61	74	50.35	37.26	17.54	60.76	100	0	P	V
		17989	57.36	-16.64	74	46.8	48.8	19.03	57.27	100	37	P	V
		17989	50.43	-3.57	54	39.87	48.8	19.03	57.27	100	37	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	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		5118.32	52.82	-21.18	74	41.07	31.8	9.96	30.01	168	240	P	H
		5146.88	43.65	-10.35	54	31.87	31.8	9.99	30.01	168	240	A	H
	*	5270	105.45	-	-	94.14	31.2	10.11	30	168	240	P	H
	*	5270	98.39	-	-	87.08	31.2	10.11	30	168	240	A	H
		5361.84	57.12	-16.88	74	45.77	31.17	10.18	30	168	240	P	H
		5350.08	45.07	-8.93	54	33.8	31.1	10.17	30	168	240	A	H
													H
		5127.5	52.79	-21.21	74	41.03	31.8	9.97	30.01	201	269	P	V
		5146.88	44.05	-9.95	54	32.27	31.8	9.99	30.01	201	269	A	V
	*	5270	107.16	-	-	95.85	31.2	10.11	30	201	269	P	V
	*	5270	99.86	-	-	88.55	31.2	10.11	30	201	269	A	V
		5350.32	60	-14	74	48.73	31.1	10.17	30	201	269	P	V
													V
802.11n HT40 CH 62 5310MHz		5148.92	52.12	-21.88	74	40.33	31.8	10	30.01	164	238	P	H
		5145.18	43.28	-10.72	54	31.5	31.8	9.99	30.01	164	238	A	H
	*	5310	103.65	-	-	92.33	31.18	10.14	30	164	238	P	H
	*	5310	95.24	-	-	83.92	31.18	10.14	30	164	238	A	H
		5350.08	59.84	-14.16	74	48.57	31.1	10.17	30	164	238	P	H
		5353.44	47.62	-6.38	54	36.33	31.12	10.17	30	164	238	A	H
		5139.74	51.72	-22.28	74	39.94	31.8	9.99	30.01	196	266	P	V
		5129.88	43.17	-10.83	54	31.4	31.8	9.98	30.01	196	266	A	V
	*	5310	106.09	-	-	94.77	31.18	10.14	30	196	266	P	V
	*	5310	98.03	-	-	86.71	31.18	10.14	30	196	266	A	V
		5353.92	62.36	-11.64	74	51.07	31.12	10.17	30	196	266	P	V
		5350.32	50.26	-3.74	54	38.99	31.1	10.17	30	196	266	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	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		5117.3	51.21	-22.79	74	39.46	31.8	9.96	30.01	172	238	P	H
		5093.84	44.64	-9.36	54	32.92	31.79	9.94	30.01	172	238	A	H
	*	5290	97.11	-	-	85.79	31.2	10.12	30	172	238	P	H
	*	5290	90.01	-	-	78.69	31.2	10.12	30	172	238	A	H
		5351.04	56.03	-17.97	74	44.75	31.11	10.17	30	172	238	P	H
		5353.44	47.9	-6.1	54	36.61	31.12	10.17	30	172	238	A	H
		5124.1	51.4	-22.6	74	39.64	31.8	9.97	30.01	203	269	P	V
		5148.58	44.94	-9.06	54	33.15	31.8	10	30.01	203	269	A	V
	*	5290	99.26	-	-	87.94	31.2	10.12	30	203	269	P	V
	*	5290	92.79	-	-	81.47	31.2	10.12	30	203	269	A	V
		5358.24	59.73	-14.27	74	48.4	31.15	10.18	30	203	269	P	V
		5351.28	50.27	-3.73	54	38.99	31.11	10.17	30	203	269	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	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		5458.48	55.13	-18.87	74	43.26	31.6	10.26	29.99	150	236	P	H
		5469.04	61.42	-6.78	68.2	49.54	31.6	10.27	29.99	150	236	P	H
		5458.96	44.54	-9.46	54	32.67	31.6	10.26	29.99	150	236	A	H
	*	5500	106.33	-	-	94.42	31.6	10.3	29.99	150	236	P	H
	*	5500	98.96	-	-	87.05	31.6	10.3	29.99	150	236	A	H
													H
		5458	58.21	-15.79	74	46.34	31.6	10.26	29.99	150	262	P	V
		5469.52	63.46	-4.74	68.2	51.58	31.6	10.27	29.99	150	262	P	V
		5459.28	46.36	-7.64	54	34.49	31.6	10.26	29.99	150	262	A	V
	*	5500	109.78	-	-	97.87	31.6	10.3	29.99	150	262	P	V
	*	5500	101.92	-	-	90.01	31.6	10.3	29.99	150	262	A	V
													V
802.11a CH 116 5580MHz		5393.2	52.53	-21.47	74	40.97	31.36	10.2	30	164	240	P	H
		5469.04	51.57	-16.63	68.2	39.69	31.6	10.27	29.99	164	240	P	H
		5445.04	42.73	-11.27	54	30.89	31.58	10.25	29.99	164	240	A	H
	*	5580	107.76	-	-	95.89	31.56	10.36	30.05	164	240	P	H
	*	5580	100.15	-	-	88.28	31.56	10.36	30.05	164	240	A	H
		5728.145	50.34	-17.86	68.2	38.21	31.76	10.52	30.15	164	240	P	H
		5459.44	52.83	-21.17	74	40.96	31.6	10.26	29.99	150	263	P	V
		5464.72	53.51	-14.69	68.2	41.63	31.6	10.27	29.99	150	263	P	V
		5456.8	43.6	-10.4	54	31.73	31.6	10.26	29.99	150	263	A	V
	*	5580	109.81	-	-	97.94	31.56	10.36	30.05	150	263	P	V
	*	5580	102.29	-	-	90.42	31.56	10.36	30.05	150	263	A	V
		5763.425	51.09	-17.11	68.2	38.91	31.8	10.56	30.18	150	263	P	V

802.11a CH 140 5700MHz	*	5700	104.46	-	-	92.4	31.7	10.49	30.13	181	244	P	H
	*	5700	97.11	-	-	85.05	31.7	10.49	30.13	181	244	A	H
		5725	62.21	-5.99	68.2	50.09	31.75	10.52	30.15	181	244	P	H
													H
													H
													H
	*	5700	106.23	-	-	94.17	31.7	10.49	30.13	150	263	P	V
	*	5700	98.61	-	-	86.55	31.7	10.49	30.13	150	263	A	V
		5725.08	63.5	-4.7	68.2	51.38	31.75	10.52	30.15	150	263	P	V
													V
													V
													V

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

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	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	49.27	-24.73	74	54.94	40.4	14.79	60.86	100	0	P	H
		16500	47.2	-21	68.2	48.92	38.9	17.94	58.56	100	0	P	H
		17989	57.64	-16.36	74	47.08	48.8	19.03	57.27	100	33	P	H
		17989	50.53	-3.47	54	39.97	48.8	19.03	57.27	100	33	A	H
		11000	49.97	-24.03	74	55.64	40.4	14.79	60.86	100	0	P	V
		16500	47.73	-20.47	68.2	49.45	38.9	17.94	58.56	100	0	P	V
		17989	57.6	-16.4	74	47.04	48.8	19.03	57.27	100	12	P	V
		17989	50.47	-3.53	54	39.91	48.8	19.03	57.27	100	12	A	V
802.11a CH 116 5580MHz		11160	48.86	-25.14	74	54.89	39.96	14.87	60.86	100	0	P	H
		16740	47.78	-20.42	68.2	48.35	39.94	18.12	58.63	100	0	P	H
		18000	56.45	-17.55	74	45.65	49	19.04	57.24	100	51	P	H
		18000	50.7	-3.3	54	39.9	49	19.04	57.24	100	51	A	H
		11160	52.56	-21.44	74	58.59	39.96	14.87	60.86	200	350	P	V
		11160	43.44	-10.56	54	49.47	39.96	14.87	60.86	200	350	A	V
		16740	48.58	-19.62	68.2	49.15	39.94	18.12	58.63	100	0	P	V
		17989	56.66	-17.34	74	46.1	48.8	19.03	57.27	100	52	P	V
		17989	50.44	-3.56	54	39.88	48.8	19.03	57.27	100	52	A	V
802.11a CH 140 5700MHz		11400	48.64	-25.36	74	54.52	40	14.99	60.87	100	0	P	H
		17100	48.26	-19.94	68.2	47.92	40.6	18.38	58.64	100	0	P	H
		17956	56.5	-17.5	74	46.62	48.21	19.01	57.34	100	52	P	H
		17956	50	-4	54	40.12	48.21	19.01	57.34	100	52	A	H
		11400	48.58	-25.42	74	54.46	40	14.99	60.87	100	0	P	V
		17100	49.06	-19.14	68.2	48.72	40.6	18.38	58.64	100	0	P	V
		17978	56.74	-17.26	74	46.4	48.6	19.03	57.29	100	41	P	V
		17978	50.13	-3.87	54	39.79	48.6	19.03	57.29	100	41	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	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)
		5460.08	57.99	-10.21	68.2	46.12	31.6	10.26	29.99	149	236	P	H
		5469.68	61.35	-6.85	68.2	49.47	31.6	10.27	29.99	149	236	P	H
		5459.76	45.11	-8.89	54	33.24	31.6	10.26	29.99	149	236	A	H
	*	5500	106.55	-	-	94.64	31.6	10.3	29.99	149	236	P	H
802.11n	*	5500	99.49	-	-	87.58	31.6	10.3	29.99	149	236	A	H
HT20													H
CH 100		5459.92	59.25	-14.75	74	47.38	31.6	10.26	29.99	150	263	P	V
5500MHz		5464.72	63.52	-4.68	68.2	51.64	31.6	10.27	29.99	150	263	P	V
		5457.68	46.86	-7.14	54	34.99	31.6	10.26	29.99	150	263	A	V
	*	5500	109.5	-	-	97.59	31.6	10.3	29.99	150	263	P	V
	*	5500	102.09	-	-	90.18	31.6	10.3	29.99	150	263	A	V
													V
		5458.24	53.38	-20.62	74	41.51	31.6	10.26	29.99	161	237	P	H
		5468.08	52.27	-15.93	68.2	40.39	31.6	10.27	29.99	161	237	P	H
		5459.2	42.81	-11.19	54	30.94	31.6	10.26	29.99	161	237	A	H
	*	5580	107.32	-	-	95.45	31.56	10.36	30.05	161	237	P	H
802.11n	*	5580	99.42	-	-	87.55	31.56	10.36	30.05	161	237	A	H
HT20		5741.06	51.58	-16.62	68.2	39.42	31.78	10.54	30.16	161	237	P	H
CH 116		5455.84	54.26	-19.74	74	42.39	31.6	10.26	29.99	153	263	P	V
5580MHz		5468.32	53.72	-14.48	68.2	41.84	31.6	10.27	29.99	153	263	P	V
		5458	43.67	-10.33	54	31.8	31.6	10.26	29.99	153	263	A	V
	*	5580	109.55	-	-	97.68	31.56	10.36	30.05	153	263	P	V
	*	5580	101.75	-	-	89.88	31.56	10.36	30.05	153	263	A	V
		5737.595	53.01	-15.19	68.2	40.86	31.78	10.53	30.16	153	263	P	V

	*	5700	103.52	-	-	91.46	31.7	10.49	30.13	182	245	P	H
	*	5700	96.18	-	-	84.12	31.7	10.49	30.13	182	245	A	H
		5725.32	63.55	-4.65	68.2	51.43	31.75	10.52	30.15	182	245	P	H
													H
802.11n													H
HT20													H
CH 140	*	5700	105.99	-	-	93.93	31.7	10.49	30.13	150	263	P	V
5700MHz	*	5700	97.87	-	-	85.81	31.7	10.49	30.13	150	263	A	V
		5725.16	64.97	-3.23	68.2	52.85	31.75	10.52	30.15	150	263	P	V
													V
													V
													V

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

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	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	49.27	-24.73	74	54.94	40.4	14.79	60.86	100	0	P	H
		16500	47.63	-20.57	68.2	49.35	38.9	17.94	58.56	100	0	P	H
		18000	57.01	-16.99	74	46.21	49	19.04	57.24	100	45	P	H
		18000	50.67	-3.33	54	39.87	49	19.04	57.24	100	45	A	H
		11000	49.6	-24.4	74	55.27	40.4	14.79	60.86	100	0	P	V
		16500	46.94	-21.26	68.2	48.66	38.9	17.94	58.56	100	0	P	V
		18000	57.56	-16.44	74	46.76	49	19.04	57.24	100	32	P	V
		18000	50.69	-3.31	54	39.89	49	19.04	57.24	100	32	A	V
802.11n HT20 CH 116 5580MHz		11160	48.37	-25.63	74	54.4	39.96	14.87	60.86	100	0	P	H
		16740	47.75	-20.45	68.2	48.32	39.94	18.12	58.63	100	0	P	H
		17989	57.49	-16.51	74	46.93	48.8	19.03	57.27	100	27	P	H
		17989	50.14	-3.86	54	39.58	48.8	19.03	57.27	100	27	A	H
		11160	48.09	-25.91	74	54.12	39.96	14.87	60.86	100	0	P	V
		16740	48.39	-19.81	68.2	48.96	39.94	18.12	58.63	100	0	P	V
		17989	57.39	-16.61	74	46.83	48.8	19.03	57.27	100	48	P	V
		17989	50.44	-3.56	54	39.88	48.8	19.03	57.27	100	48	A	V
802.11n HT20 CH 140 5700MHz		11400	48.79	-25.21	74	54.67	40	14.99	60.87	100	0	P	H
		17100	48.99	-19.21	68.2	48.65	40.6	18.38	58.64	100	0	P	H
		17989	57.96	-16.04	74	47.4	48.8	19.03	57.27	100	15	P	H
		17989	50.58	-3.42	54	40.02	48.8	19.03	57.27	100	15	A	H
		11400	49.07	-24.93	74	54.95	40	14.99	60.87	100	0	P	V
		17100	48.74	-19.46	68.2	48.4	40.6	18.38	58.64	100	0	P	V
		17989	57.55	-16.45	74	46.99	48.8	19.03	57.27	100	66	P	V
		17989	50.56	-3.44	54	40	48.8	19.03	57.27	100	66	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	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5459.89	57.23	-16.77	74	45.36	31.6	10.26	29.99	131	237	P	H
		5469.88	60.77	-7.43	68.2	48.89	31.6	10.27	29.99	131	237	P	H
		5457.19	46.44	-7.56	54	34.57	31.6	10.26	29.99	131	237	A	H
	*	5510	101.7	-	-	89.82	31.58	10.3	30	131	237	P	H
802.11n	*	5510	94.83	-	-	82.95	31.58	10.3	30	131	237	A	H
HT40		5751.455	51.99	-16.21	68.2	39.81	31.8	10.55	30.17	131	237	P	H
CH 102		5455.57	60.11	-13.89	74	48.24	31.6	10.26	29.99	150	263	P	V
5510MHz		5468.53	61.41	-6.79	68.2	49.53	31.6	10.27	29.99	150	263	P	V
		5457.73	48.77	-5.23	54	36.9	31.6	10.26	29.99	150	263	A	V
	*	5510	105.68	-	-	93.8	31.58	10.3	30	150	263	P	V
	*	5510	97.97	-	-	86.09	31.58	10.3	30	150	263	A	V
		5730.665	51.74	-16.46	68.2	39.62	31.76	10.52	30.16	150	263	P	V
		5438.02	53.09	-20.91	74	41.29	31.55	10.24	29.99	192	243	P	H
		5465.83	53.8	-14.4	68.2	41.92	31.6	10.27	29.99	192	243	P	H
		5458.81	44.2	-9.8	54	32.33	31.6	10.26	29.99	192	243	A	H
	*	5550	103.43	-	-	91.62	31.5	10.34	30.03	192	243	P	H
802.11n	*	5550	95.84	-	-	84.03	31.5	10.34	30.03	192	243	A	H
HT40		5745.785	51.37	-16.83	68.2	39.21	31.79	10.54	30.17	192	243	P	H
CH 110		5437.48	54.34	-19.66	74	42.54	31.55	10.24	29.99	150	267	P	V
5550MHz		5468.26	58.57	-9.63	68.2	46.69	31.6	10.27	29.99	150	267	P	V
		5459.35	45.85	-8.15	54	33.98	31.6	10.26	29.99	150	267	A	V
	*	5550	106.68	-	-	94.87	31.5	10.34	30.03	150	267	P	V
	*	5550	98.69	-	-	86.88	31.5	10.34	30.03	150	267	A	V
		5756.18	52.38	-15.82	68.2	40.2	31.8	10.55	30.17	150	267	P	V

		5458.41	51.8	-22.2	74	39.93	31.6	10.26	29.99	187	247	P	H
		5461.74	52.15	-16.05	68.2	40.28	31.6	10.26	29.99	187	247	P	H
		5451.75	43	-11	54	31.14	31.6	10.25	29.99	187	247	A	H
	*	5670	103.9	-	-	91.85	31.7	10.46	30.11	187	247	P	H
802.11n	*	5670	96.62	-	-	84.57	31.7	10.46	30.11	187	247	A	H
HT40		5737.525	62.59	-5.61	68.2	50.44	31.78	10.53	30.16	187	247	P	H
CH 134		5428.81	51.98	-22.02	74	40.22	31.52	10.23	29.99	244	272	P	V
5670MHz		5462.11	51.89	-16.31	68.2	40.02	31.6	10.26	29.99	244	272	P	V
		5452.49	43.41	-10.59	54	31.55	31.6	10.25	29.99	244	272	A	V
	*	5670	105.86	-	-	93.81	31.7	10.46	30.11	244	272	P	V
	*	5670	97.87	-	-	85.82	31.7	10.46	30.11	244	272	A	V
		5737.875	63.57	-4.63	68.2	51.42	31.78	10.53	30.16	244	272	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 (Band Edge @ 3m)

WIFI Ant. 1	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)
		5458.96	54.1	-19.9	74	42.23	31.6	10.26	29.99	231	246	P	H
		5469.52	56.65	-11.55	68.2	44.77	31.6	10.27	29.99	231	246	P	H
		5458	47.49	-6.51	54	35.62	31.6	10.26	29.99	231	246	A	H
	*	5530	95.7	-	-	83.85	31.54	10.32	30.01	231	246	P	H
802.11ac	*	5530	88.64	-	-	76.79	31.54	10.32	30.01	231	246	A	H
VHT80		5752.085	51.25	-16.95	68.2	39.07	31.8	10.55	30.17	231	246	P	H
CH 106		5458	57.7	-16.3	74	45.83	31.6	10.26	29.99	250	273	P	V
5530MHz		5469.52	60.27	-7.93	68.2	48.39	31.6	10.27	29.99	250	273	P	V
		5459.92	50.13	-3.87	54	38.26	31.6	10.26	29.99	250	273	A	V
	*	5530	99.11	-	-	87.26	31.54	10.32	30.01	250	273	P	V
	*	5530	91.35	-	-	79.5	31.54	10.32	30.01	250	273	A	V
		5743.895	52.07	-16.13	68.2	39.91	31.79	10.54	30.17	250	273	P	V
		5445.16	53.56	-20.44	74	41.72	31.58	10.25	29.99	191	246	P	H
		5465.83	53.96	-14.24	68.2	42.08	31.6	10.27	29.99	191	246	P	H
		5455.3	45.5	-8.5	54	33.63	31.6	10.26	29.99	191	246	A	H
	*	5610	100.98	-	-	89.04	31.62	10.39	30.07	191	246	P	H
802.11ac	*	5610	93.85	-	-	81.91	31.62	10.39	30.07	191	246	A	H
VHT80		5854.45	52.67	-15.53	68.2	40.27	32.01	10.64	30.25	191	246	P	H
CH 122		5445.16	55.5	-18.5	74	43.66	31.58	10.25	29.99	256	268	P	V
5610MHz		5467	55.93	-12.27	68.2	44.05	31.6	10.27	29.99	256	268	P	V
		5454.91	46.66	-7.34	54	34.79	31.6	10.26	29.99	256	268	A	V
	*	5610	102.31	-	-	90.37	31.62	10.39	30.07	256	268	P	V
	*	5610	95.34	-	-	83.4	31.62	10.39	30.07	256	268	A	V
		5945.8	52.21	-15.99	68.2	39.63	32.19	10.7	30.31	256	268	P	V

Remark

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

Emission above 18GHz

WIFI 802.11n HT20 (SHF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 SHF		21762	39.31	-28.89	68.2	43.72	38.35	11.94	54.7	150	0	P	H
		34676	42.94	-25.26	68.2	41.64	41.37	18.37	58.44	150	0	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		22466	39.33	-34.67	74	42.49	39.05	12.3	54.51	150	0	P	V
		33378	41.23	-26.97	68.2	39.61	41.07	17.8	57.25	150	0	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Emission below 1GHz

WIFI 802.11n HT20 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 LF		33.88	22.26	-17.74	40	31.35	22.72	0.72	32.53	-	-	P	H
		156.1	25.05	-18.45	43.5	39.1	16.66	1.79	32.5	-	-	P	H
		251.16	27.78	-18.22	46	39.36	18.54	2.28	32.4	-	-	P	H
		557.68	25.9	-20.1	46	29.42	25.86	3.23	32.61	-	-	P	H
		624.61	27	-19	46	30.17	25.81	3.43	32.41	-	-	P	H
		854.5	31.19	-14.81	46	29.98	29.02	4.05	31.86	100	0	P	H
													H
													H
													H
													H
													H
													H
		33.88	32.39	-7.61	40	41.48	22.72	0.72	32.53	100	0	P	V
		155.13	21.15	-22.35	43.5	35.11	16.76	1.78	32.5	-	-	P	V
		242.43	22.29	-23.71	46	35.04	17.41	2.25	32.41	-	-	P	V
		478.14	25.36	-20.64	46	31.3	23.59	2.98	32.51	-	-	P	V
		702.21	28.08	-17.92	46	30.54	26.39	3.6	32.45	-	-	P	V
		852.56	30.66	-15.34	46	29.47	29.01	4.05	31.87	-	-	P	V
													V
													V
													V
													V
													V
													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		(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

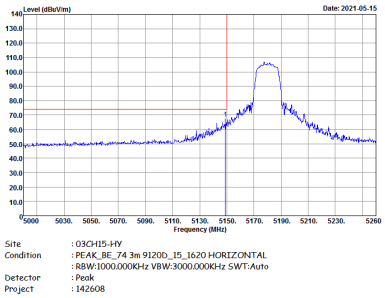
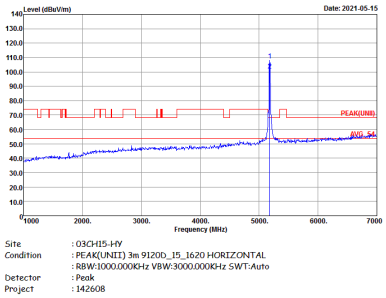
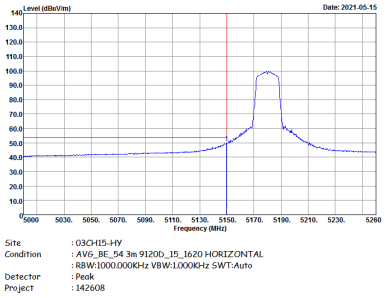
Test Engineer :	Leo Lee, Mancy Chou, and Bigshow Wang	**Temperature :**	22.1~23.1°C
		Relative Humidity :	55~60%

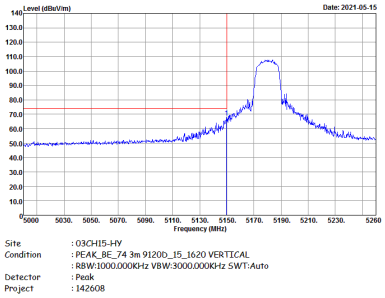
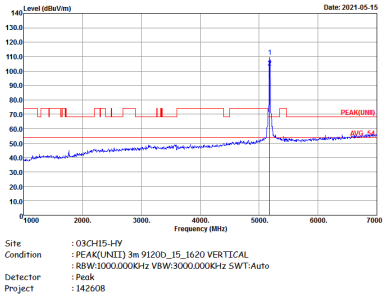
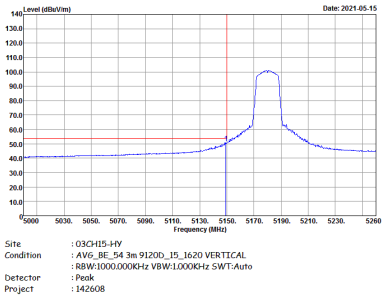
Note symbol

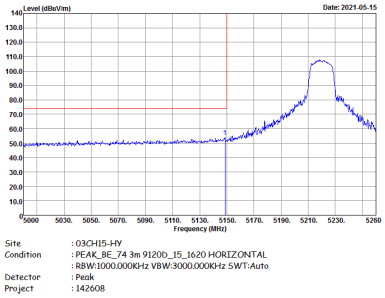
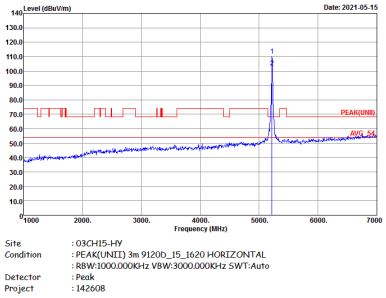
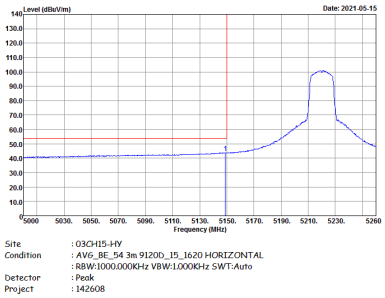
-L	**Low channel location**
-R	**High channel location**

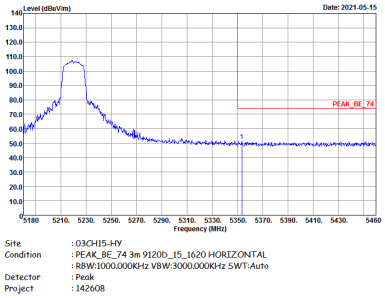
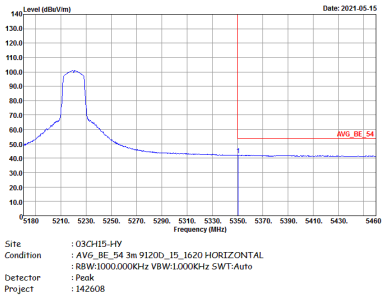
Band 1 - 5150~5250MHz

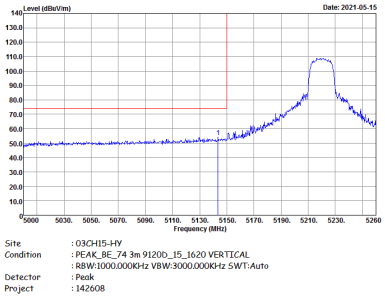
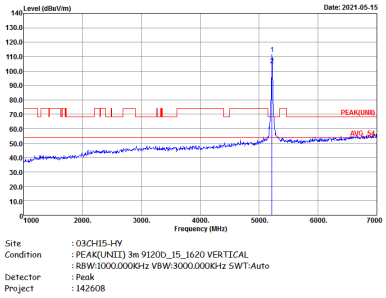
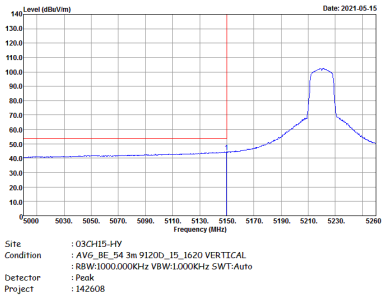
WIFI 802.11a (Band Edge @ 3m)

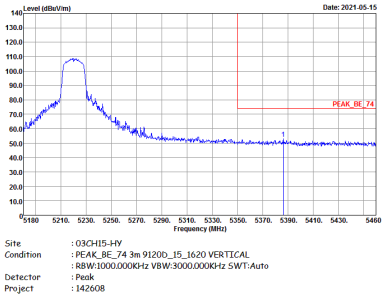
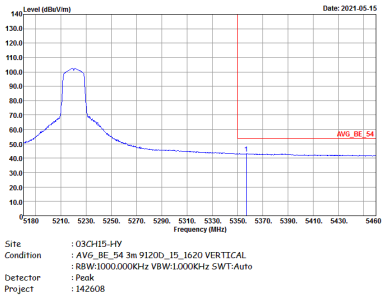
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

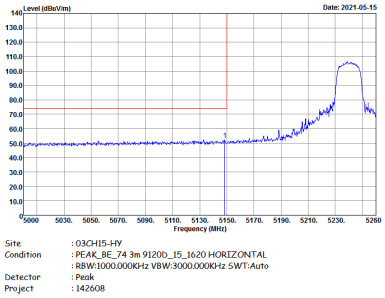
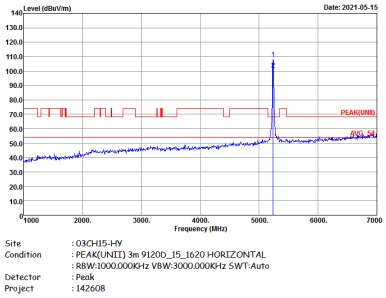
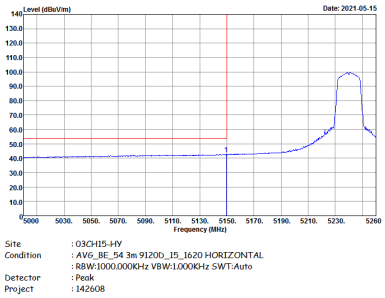
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

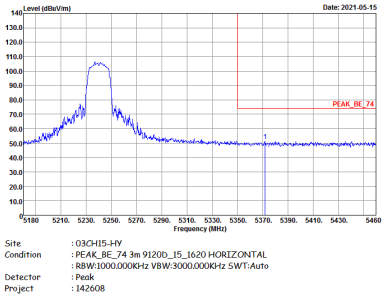
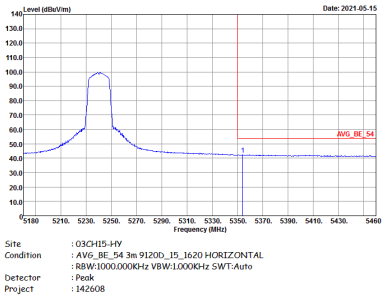
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

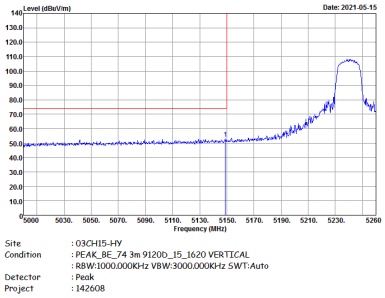
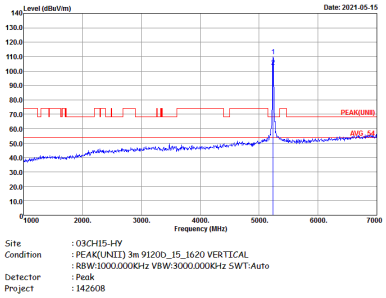
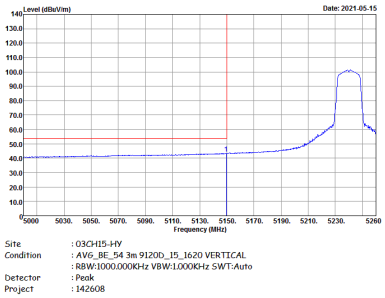
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

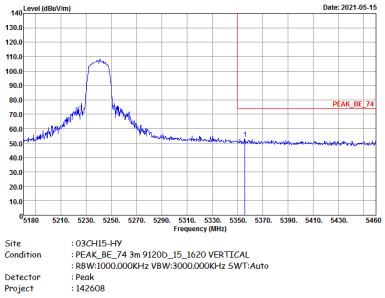
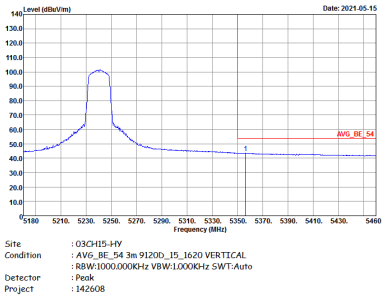
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

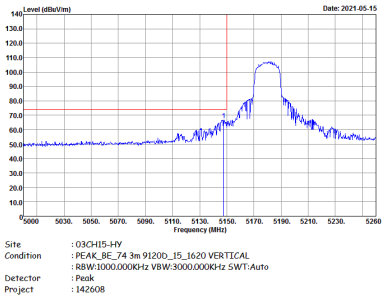
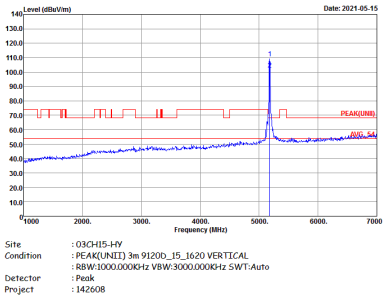
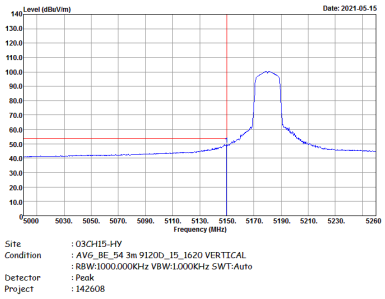
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

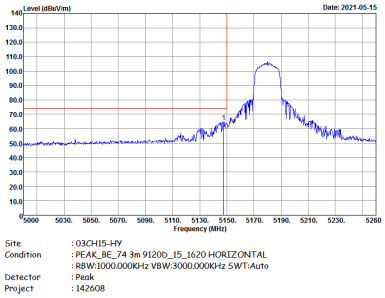
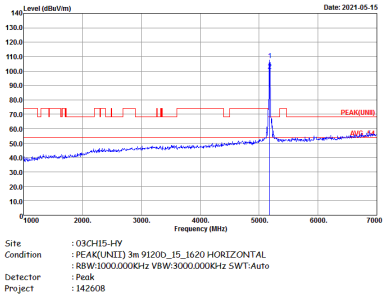
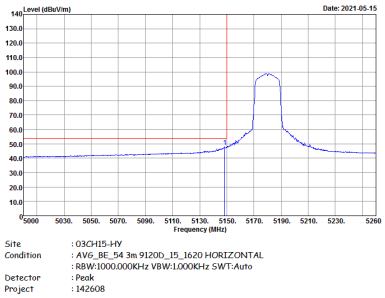
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

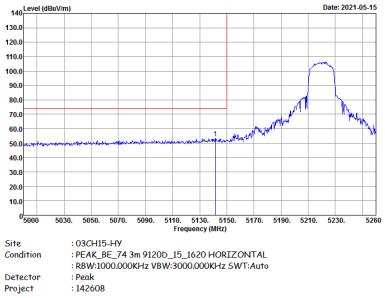
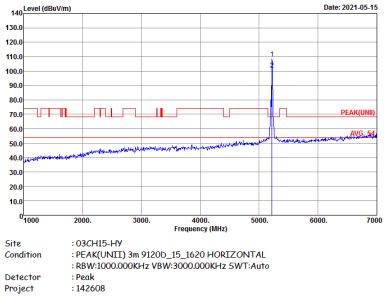
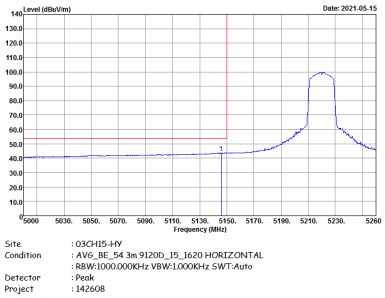
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

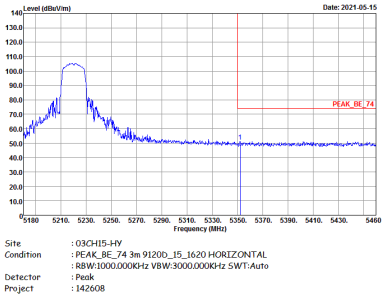
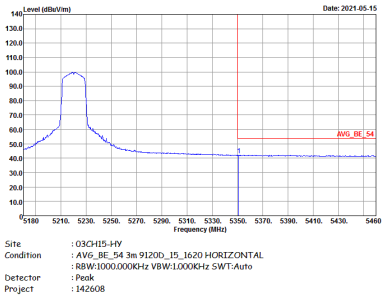
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

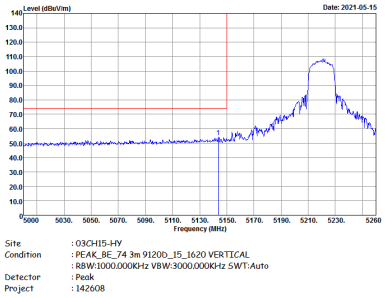
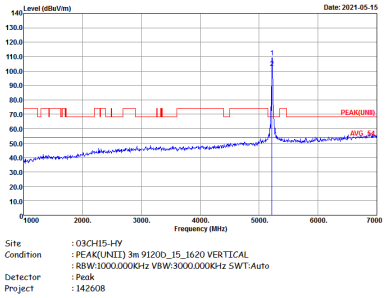
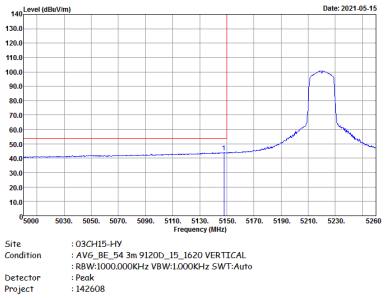
Band 1 5150~5250MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

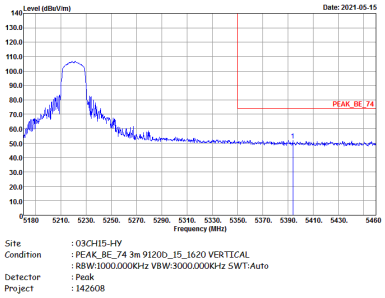
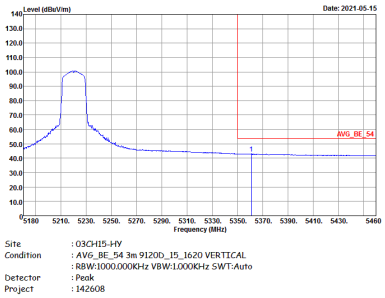
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

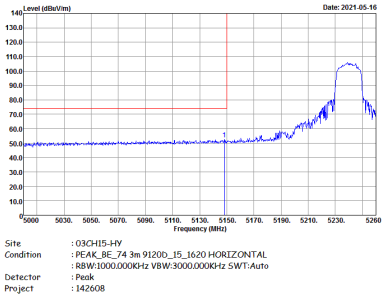
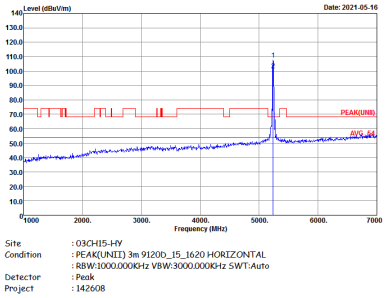
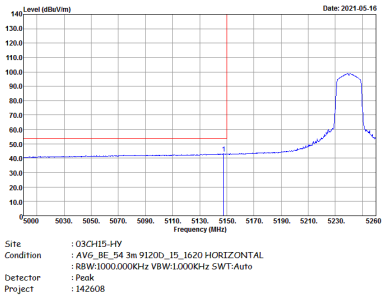
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

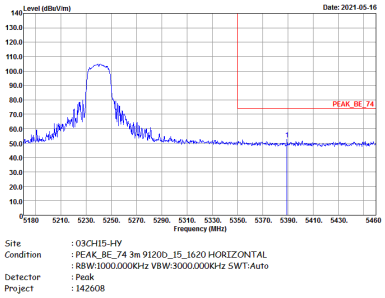
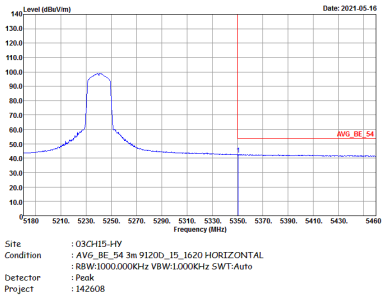
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

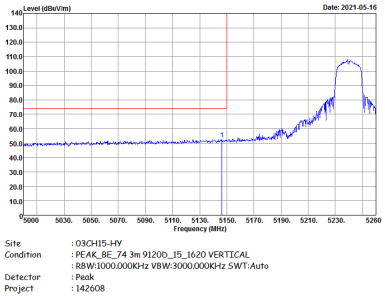
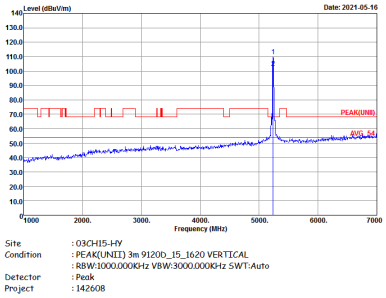
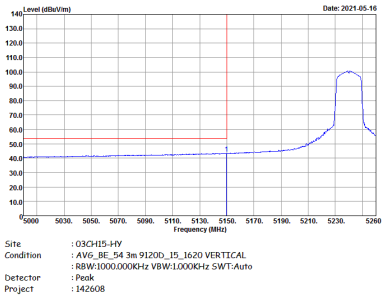
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

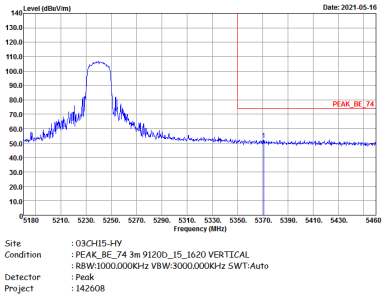
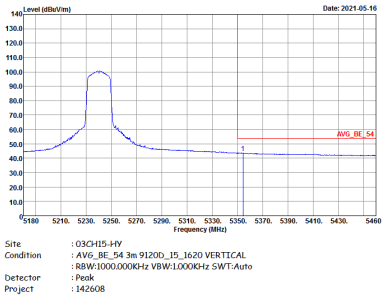
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

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

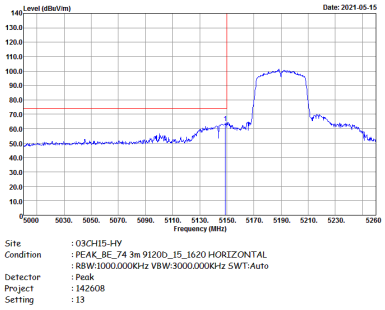
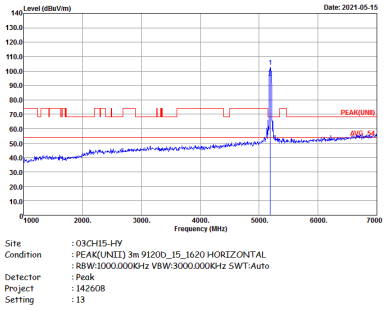
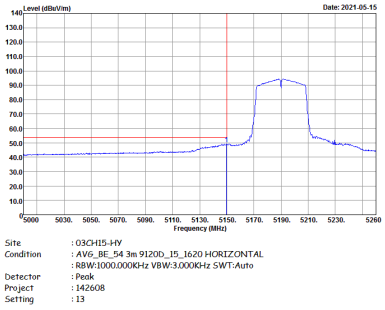
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

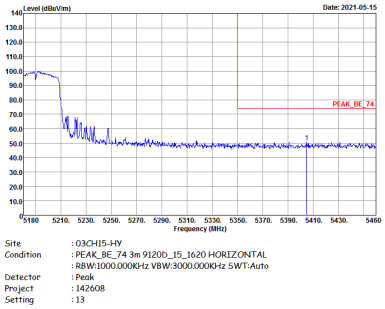
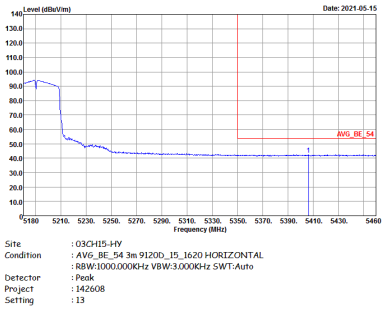
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

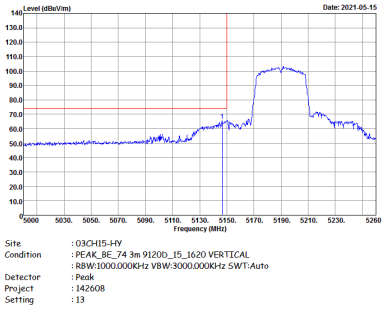
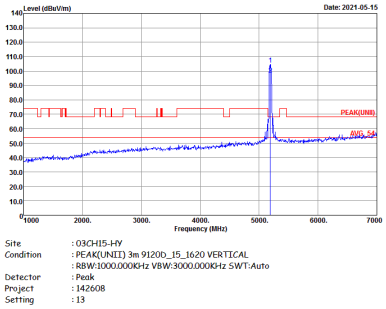
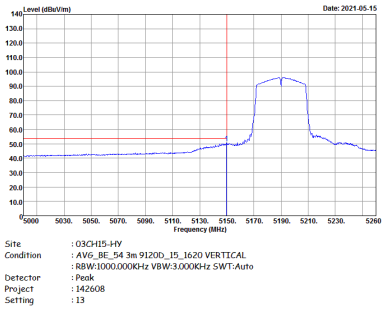
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

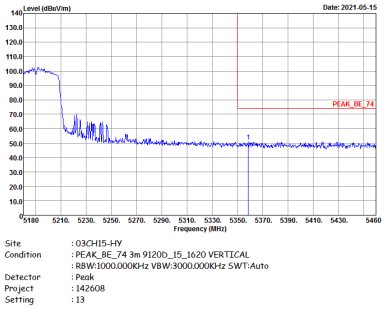
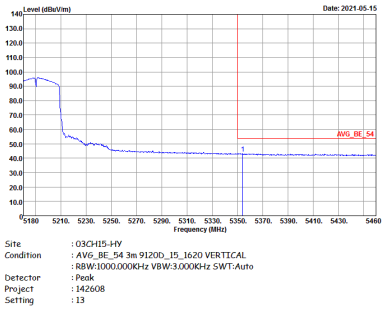
Band 1 5150~5250MHz

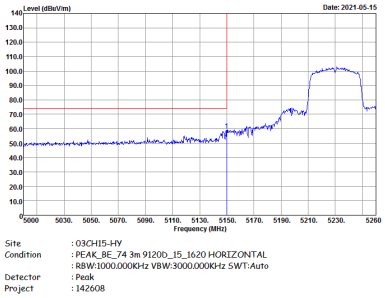
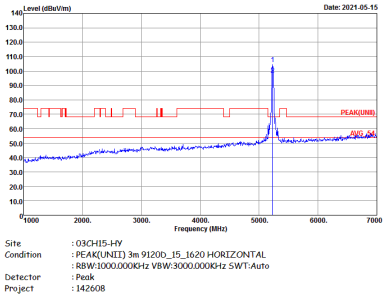
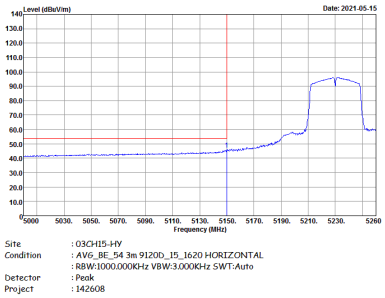
WIFI 802.11n HT40 (Band Edge @ 3m)

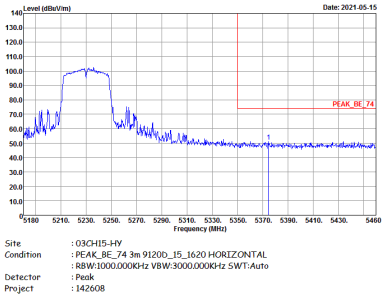
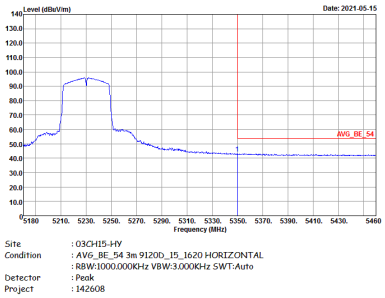
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

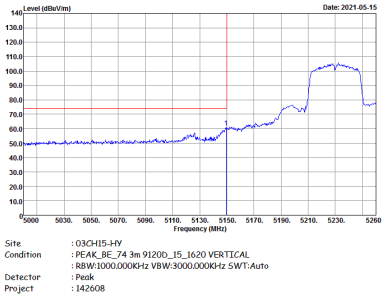
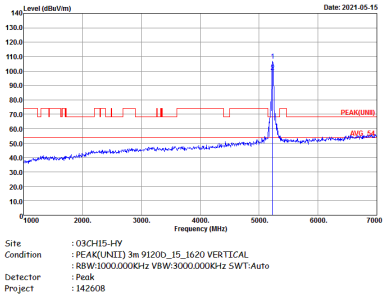
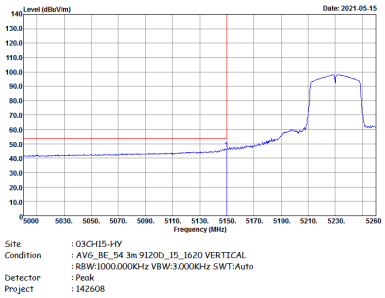
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

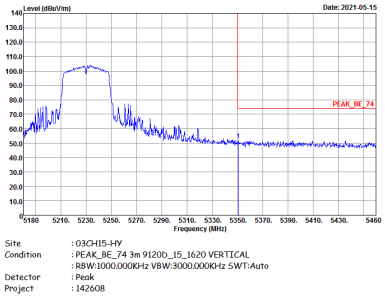
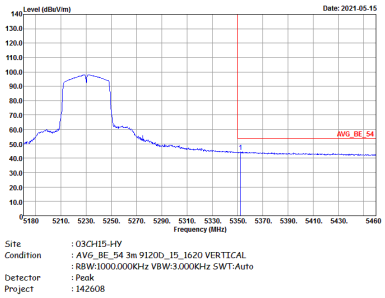
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

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

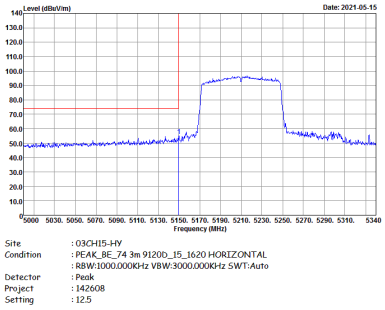
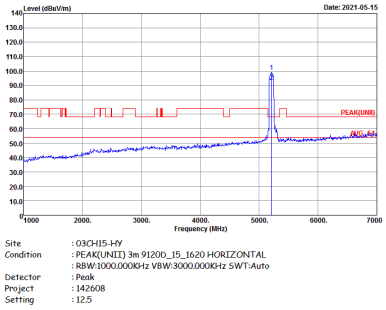
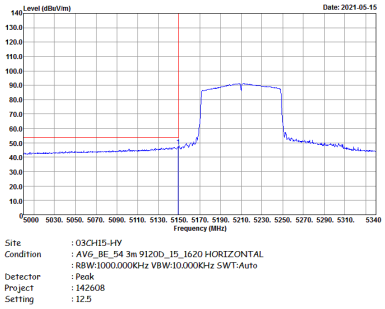
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

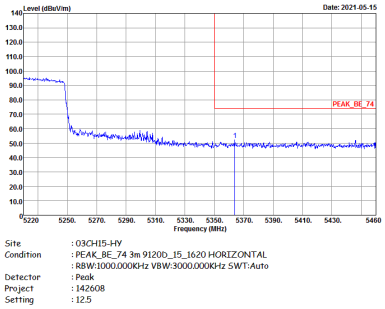
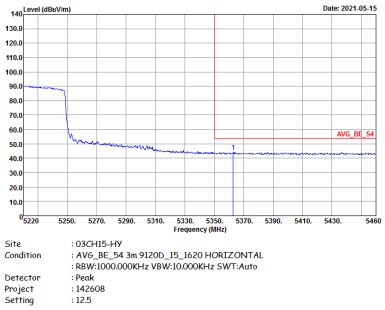
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

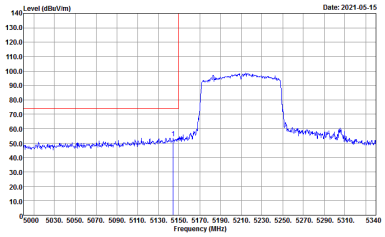
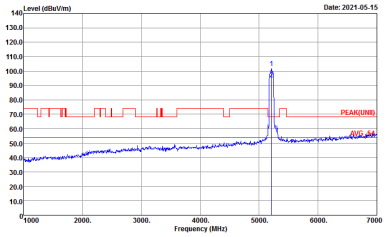
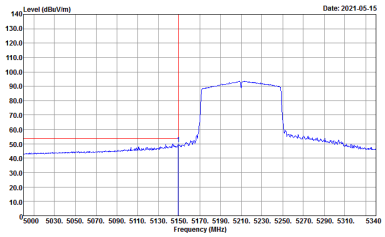
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

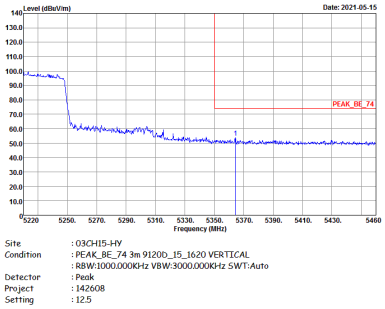
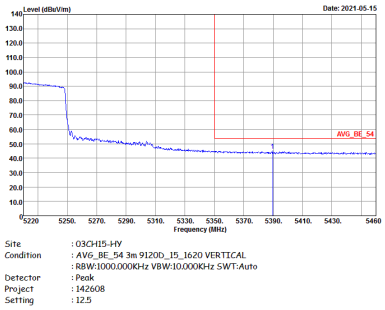
Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

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

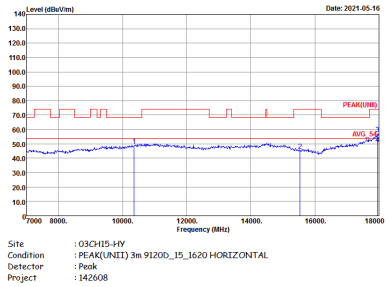
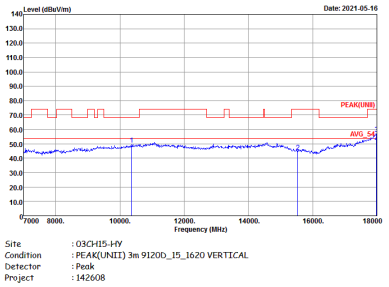
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

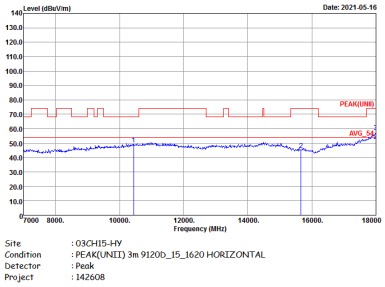
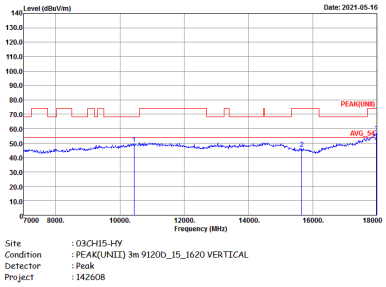
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE_74 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 142608 Setting : 12.5	 Site : 03CH15-HY Condition : PEAK(UNII) 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 142608 Setting : 12.5
Avg.	 Site : 03CH15-HY Condition : AVG_BE_54 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto Detector : Peak Project : 142608 Setting : 12.5	Left blank

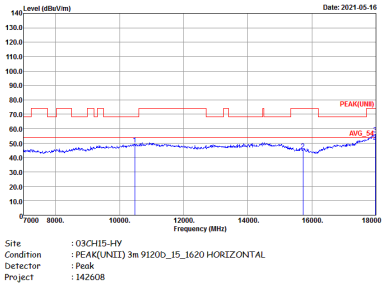
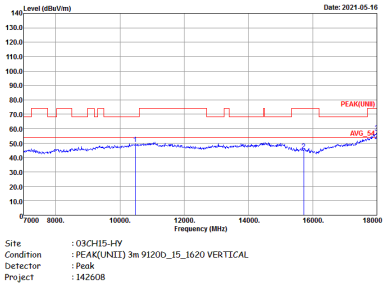
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 1 - 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

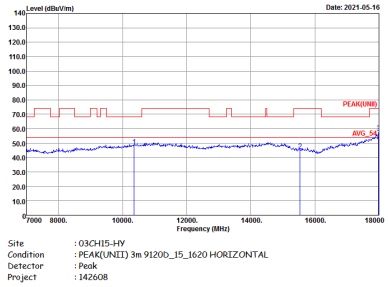
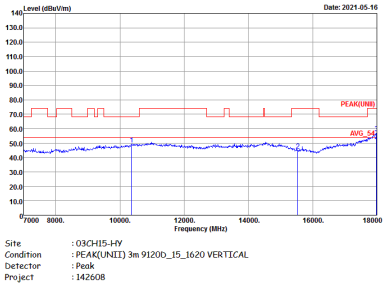
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH36 5180MHz	
1	Horizontal	Vertical
Peak Avg.		

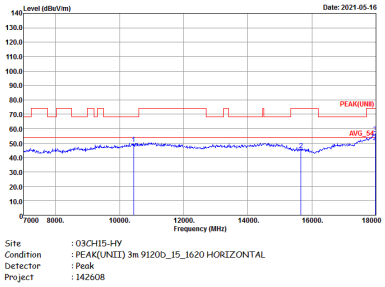
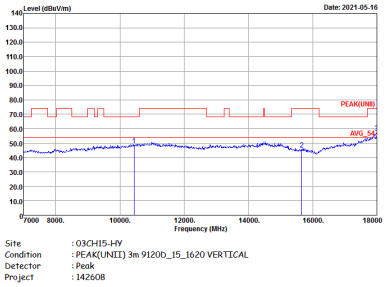
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH44 5220MHz	
1	Horizontal	Vertical
Peak Avg.		

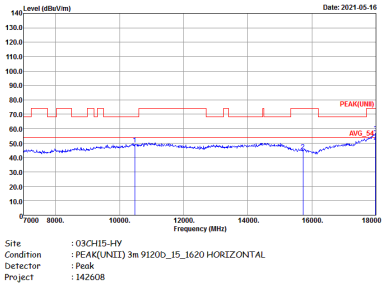
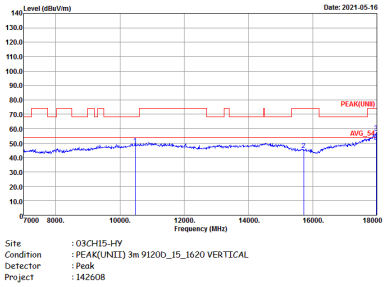
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH48 5240MHz	
1	Horizontal	Vertical
Peak Avg.		

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

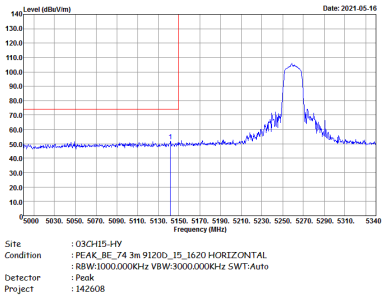
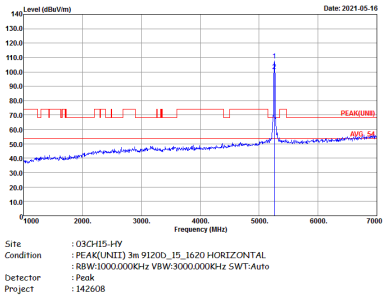
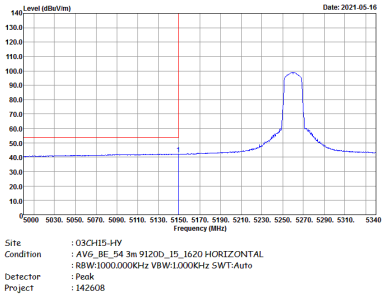
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1	Horizontal	Vertical
Peak Avg.		

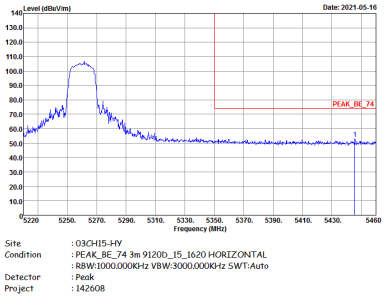
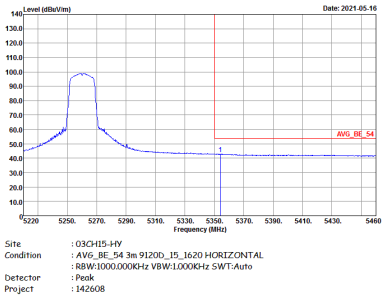
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH44 5220MHz	
1	Horizontal	Vertical
Peak Avg.		

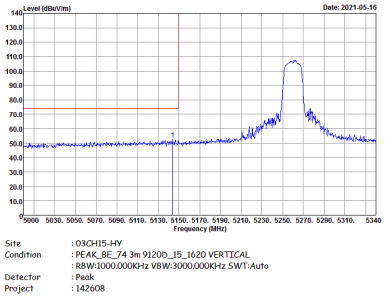
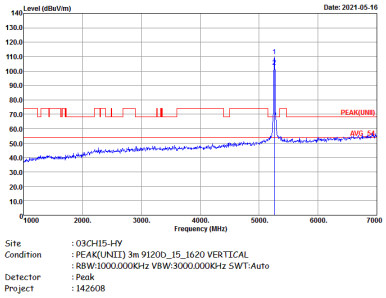
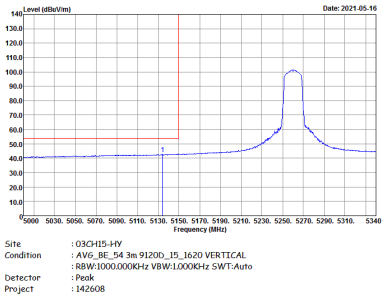
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH48 5240MHz	
1	Horizontal	Vertical
Peak Avg.		

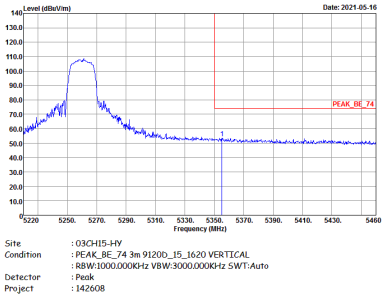
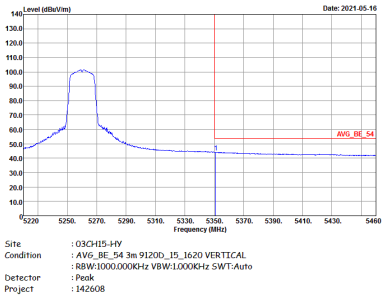
Band 2 - 5250~5350MHz

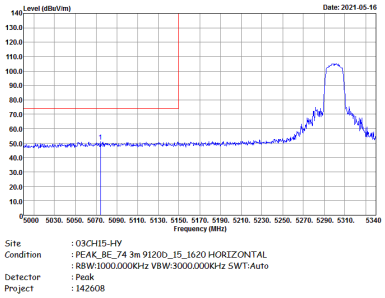
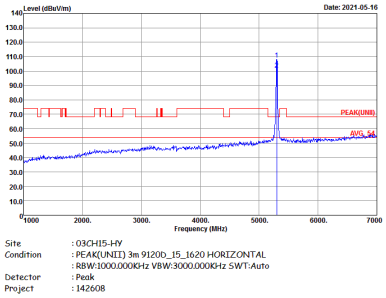
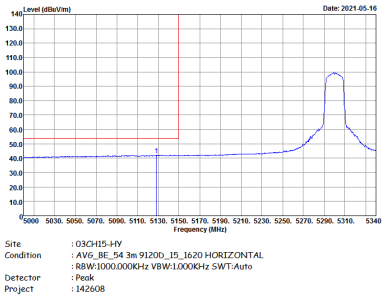
WIFI 802.11a (Band Edge @ 3m)

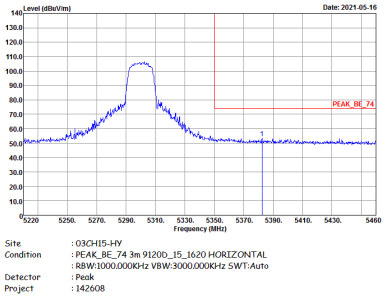
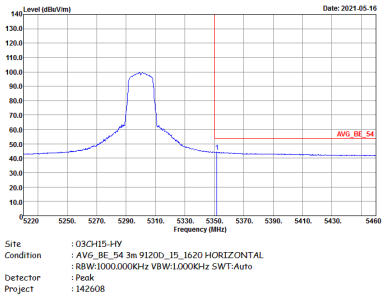
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

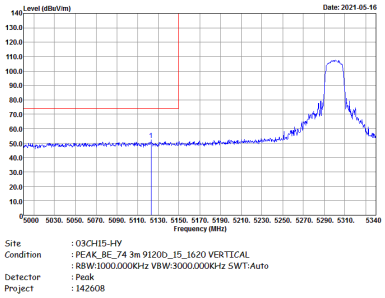
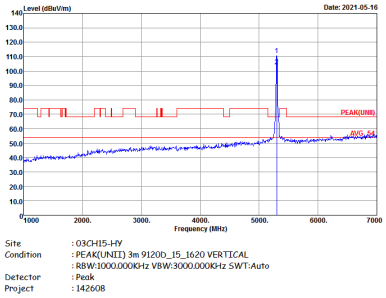
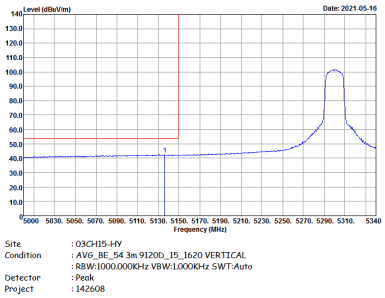
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

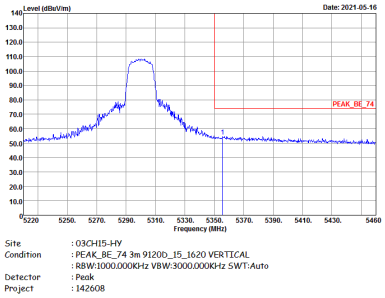
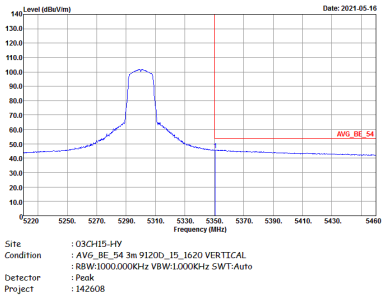
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

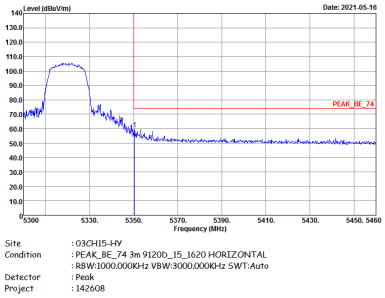
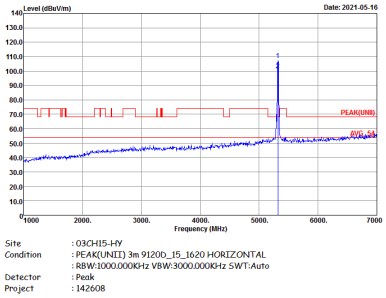
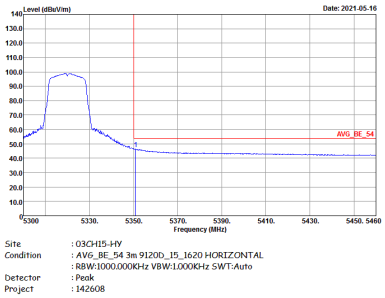
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

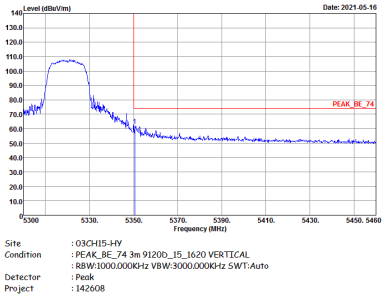
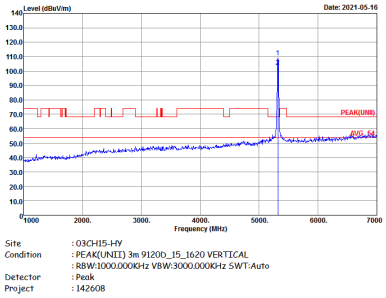
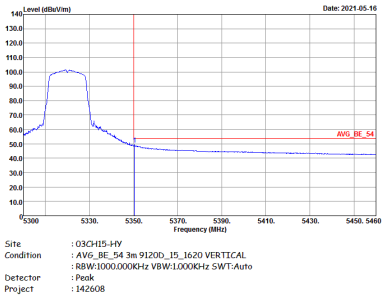
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

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

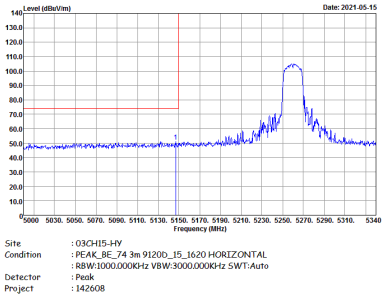
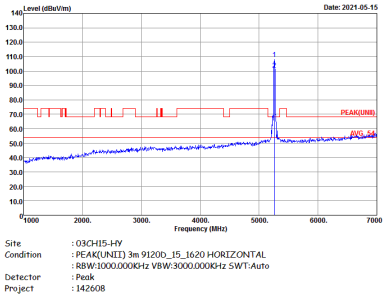
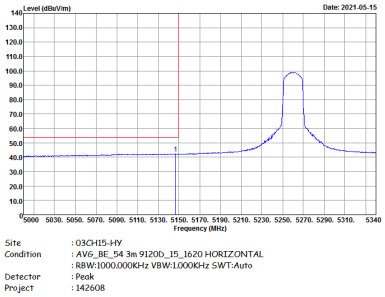
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

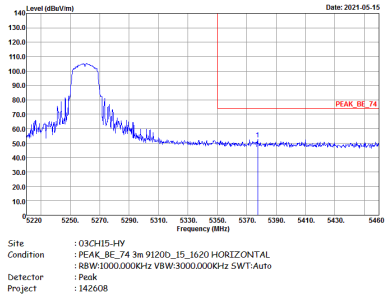
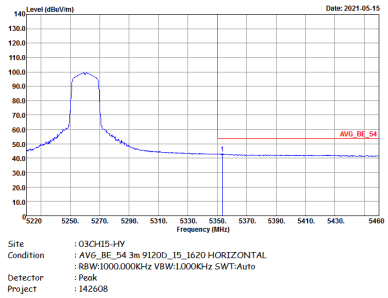
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

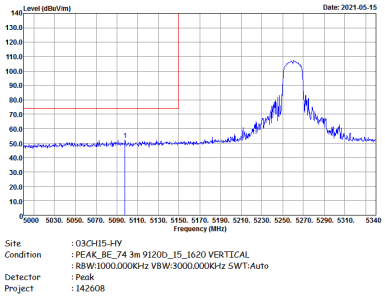
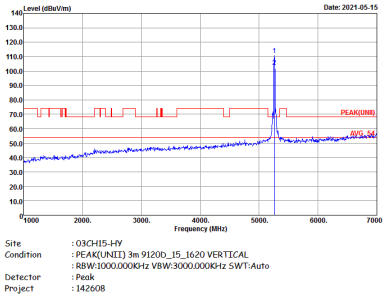
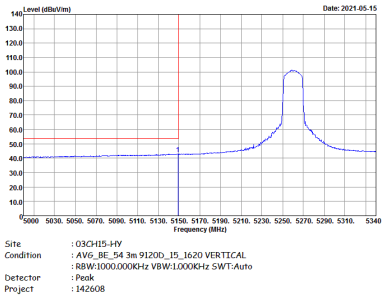
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

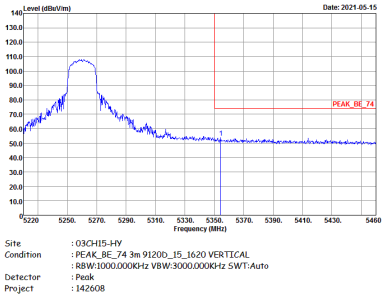
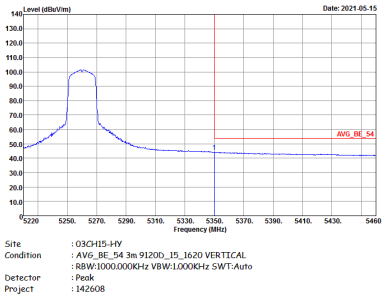
Band 2 5250~5350MHz

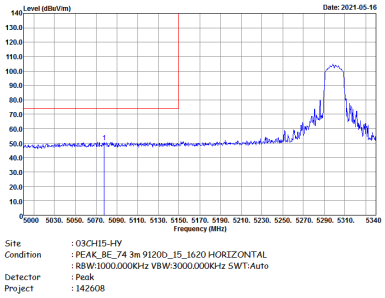
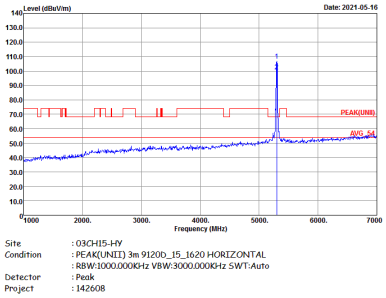
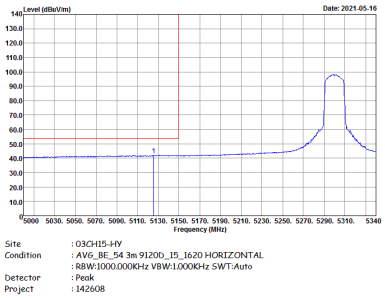
WIFI 802.11n HT20 (Band Edge @ 3m)

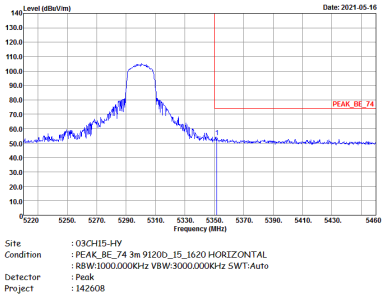
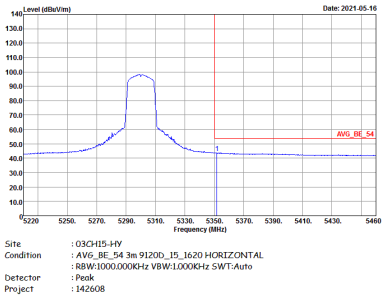
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

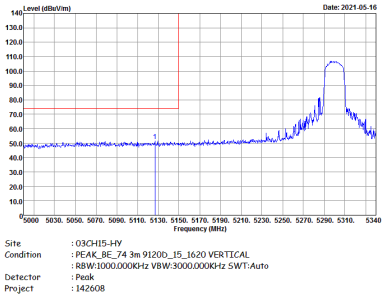
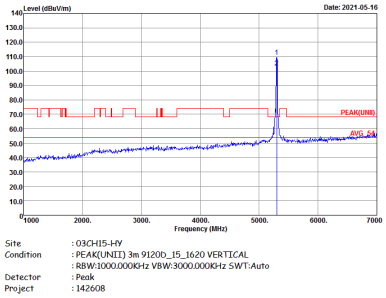
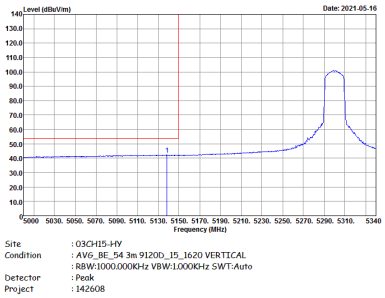
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

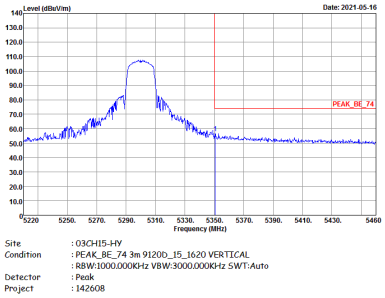
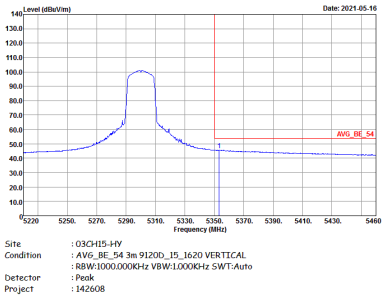
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

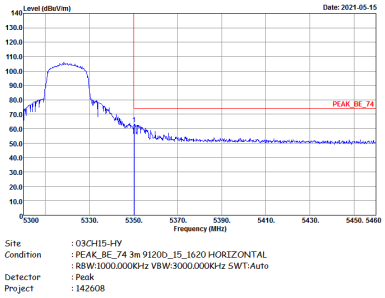
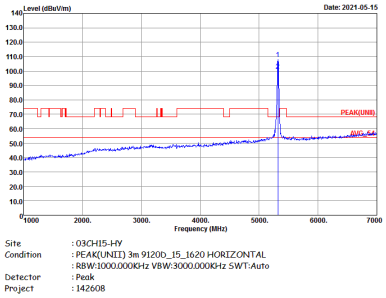
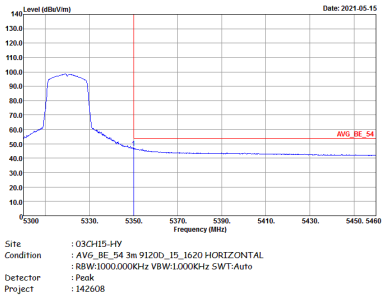
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

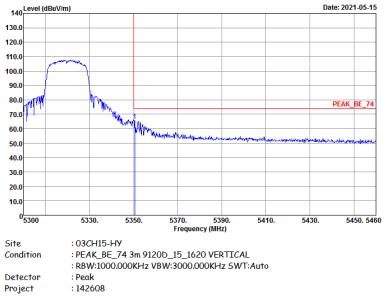
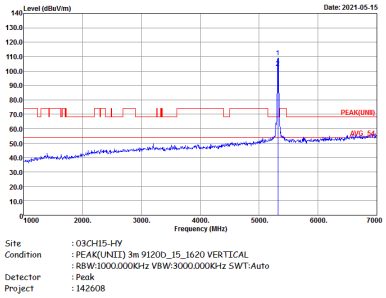
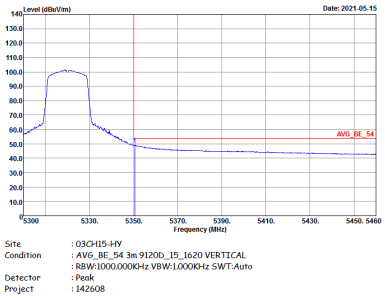
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

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

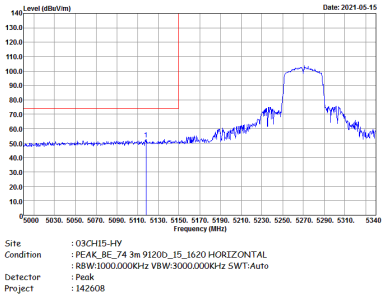
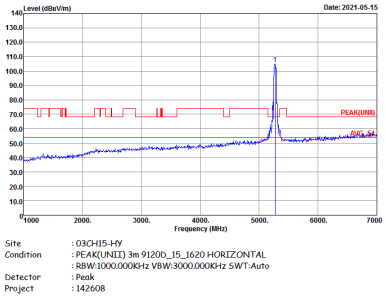
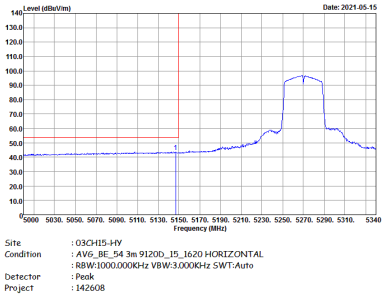
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

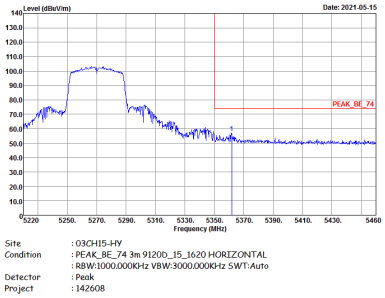
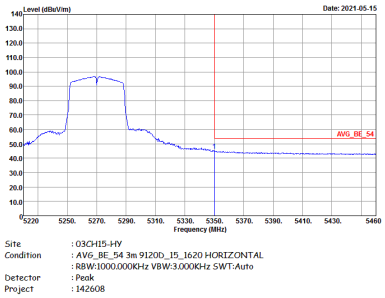
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH64 5320MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

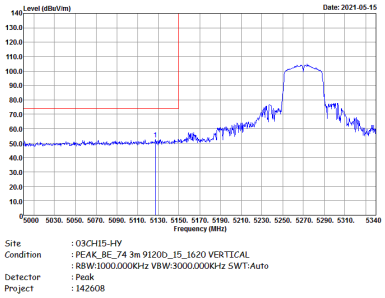
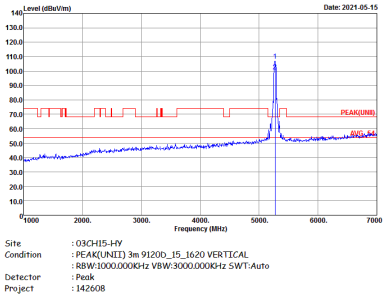
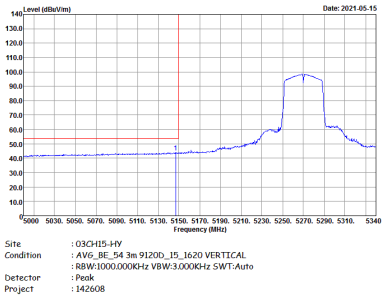
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH64 5320MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

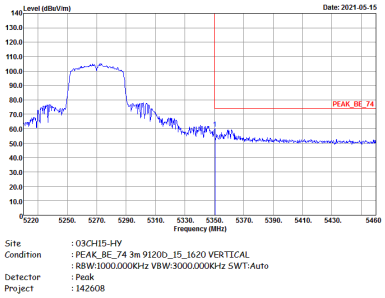
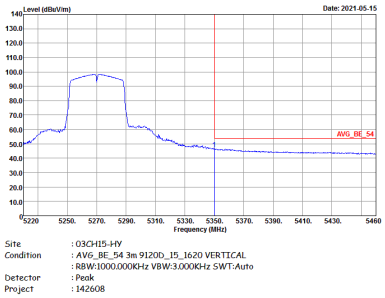
Band 2 5250~5350MHz

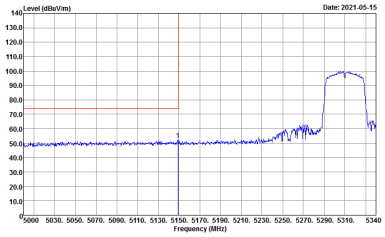
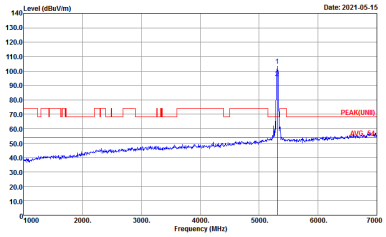
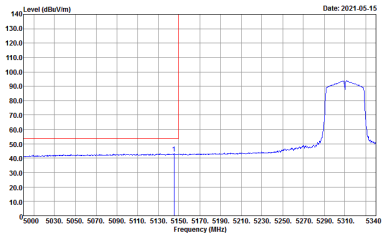
WIFI 802.11n HT40 (Band Edge @ 3m)

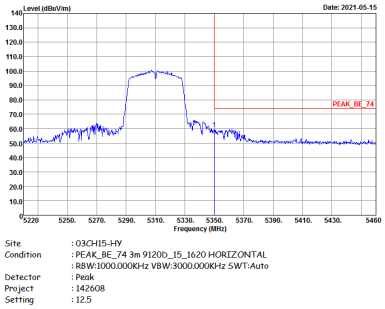
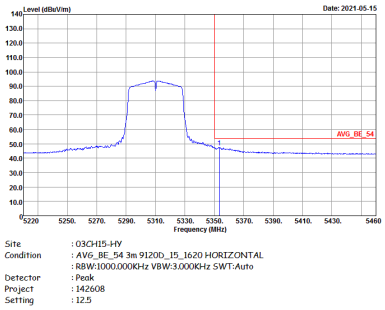
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

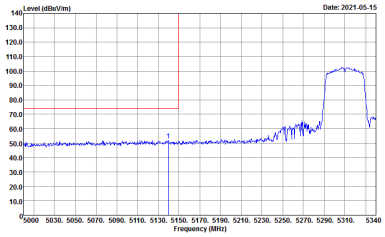
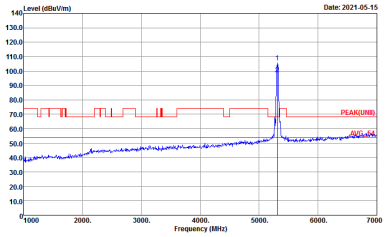
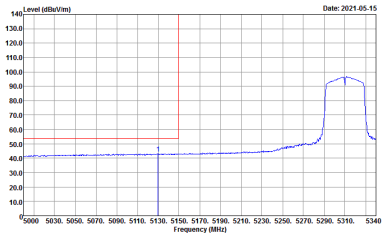
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

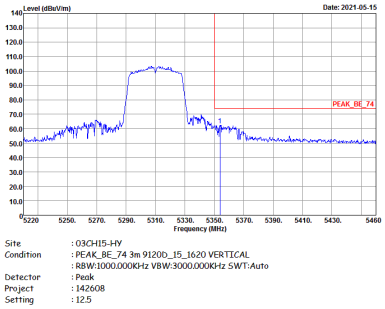
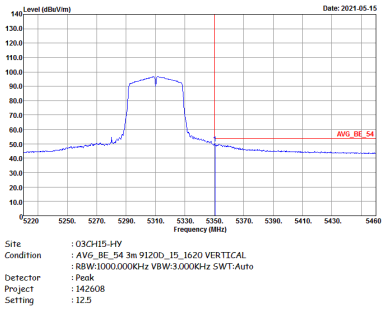
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - L	
1	Vertical	Vertical
Peak		
Avg.		Left blank

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

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

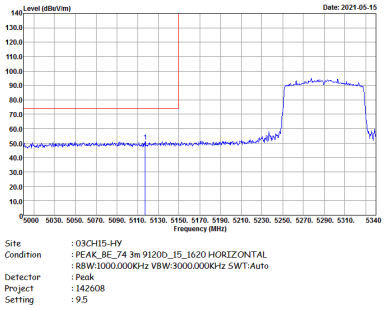
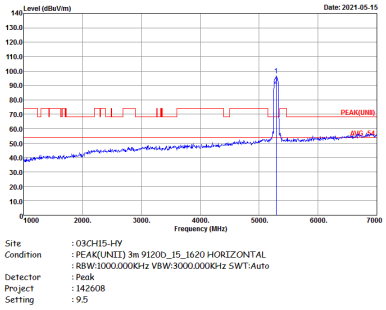
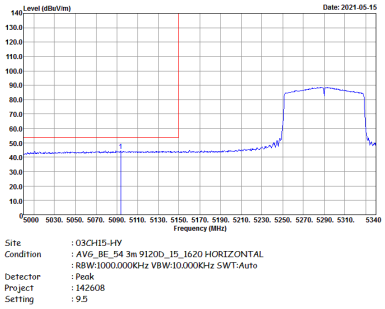
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

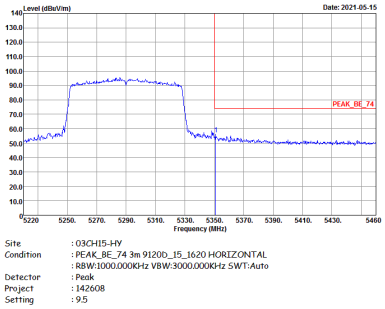
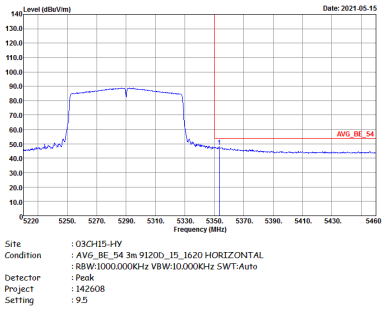
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - L	
1	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE_74 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 142608 Setting : 12.5	 Site : 03CH15-HY Condition : PEAK(UNII) 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 142608 Setting : 12.5
Avg.	 Site : 03CH15-HY Condition : AVG_BE_54 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 142608 Setting : 12.5	Left blank

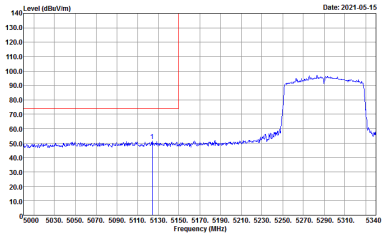
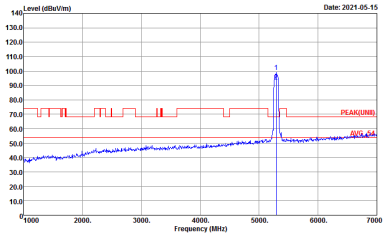
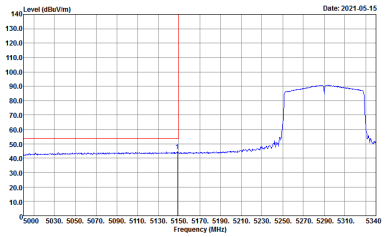
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

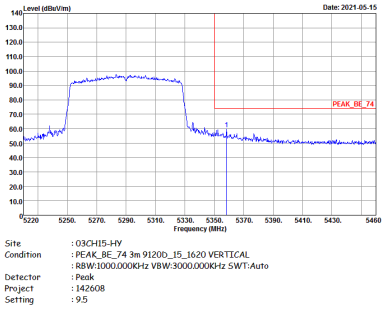
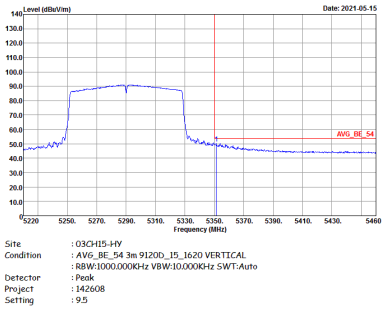
Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

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

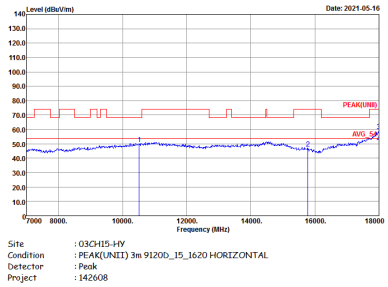
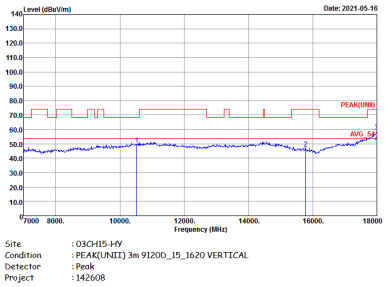
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

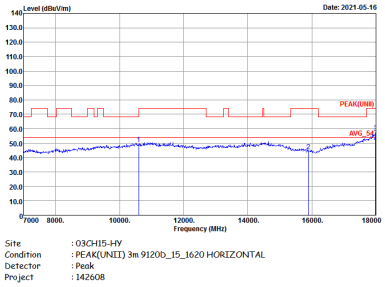
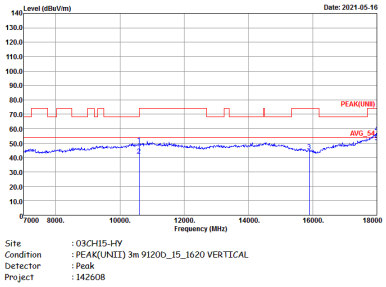
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE_74 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 142608 Setting : 9.5	 Site : 03CH15-HY Condition : PEAK(UNII) 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 142608 Setting : 9.5
Avg.	 Site : 03CH15-HY Condition : AVG_BE_54 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto Detector : Peak Project : 142608 Setting : 9.5	Left blank

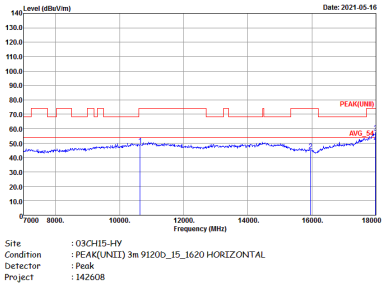
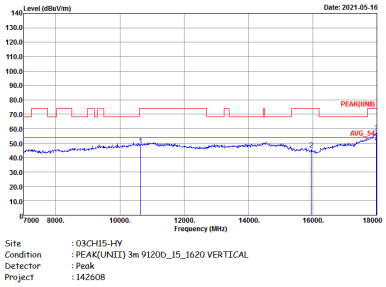
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 2 - 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

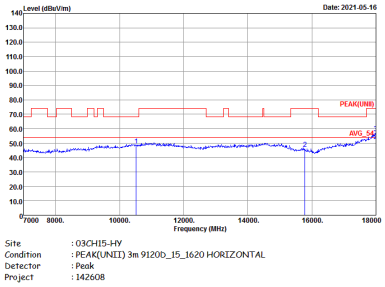
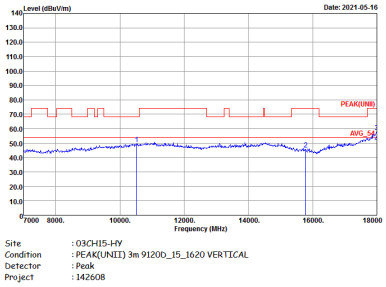
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH52 5260MHz	
1	Horizontal	Vertical
Peak Avg.		

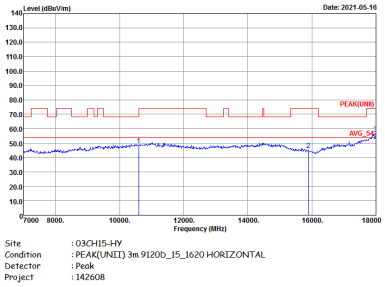
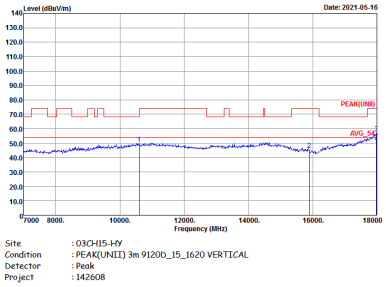
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH60 5300MHz	
1	Horizontal	Vertical
Peak Avg.		

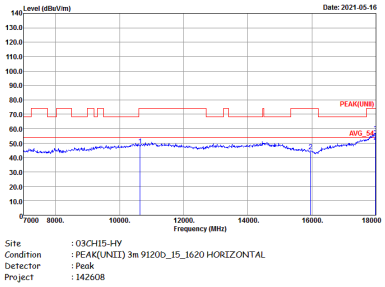
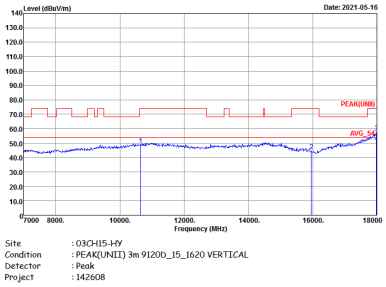
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH64 5320MHz	
1	Horizontal	Vertical
Peak Avg.		

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

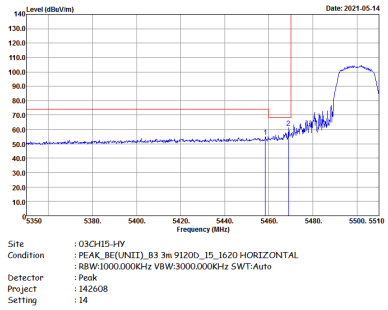
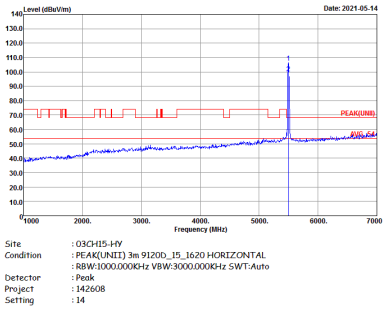
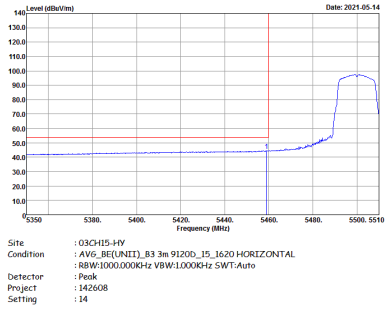
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH52 5260MHz	
1	Horizontal	Vertical
Peak Avg.		

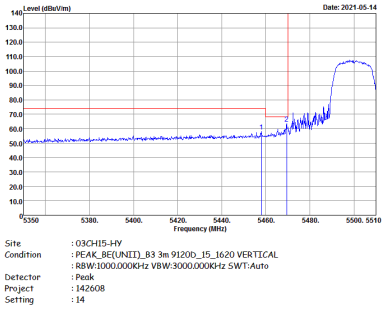
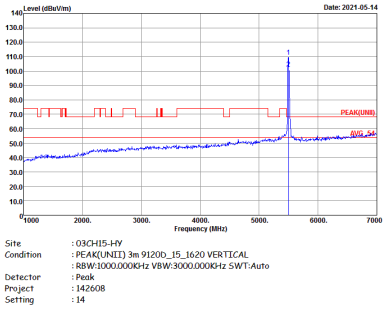
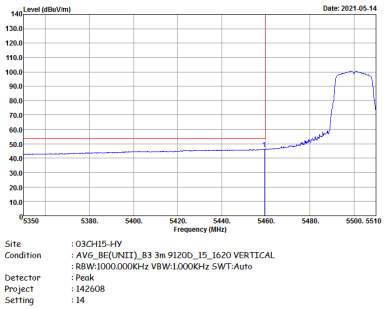
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH60 5300MHz	
1	Horizontal	Vertical
Peak Avg.		

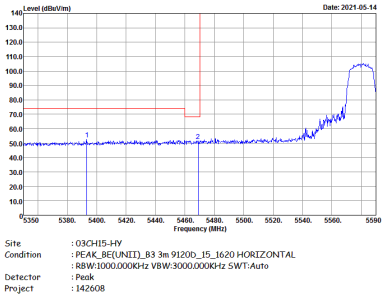
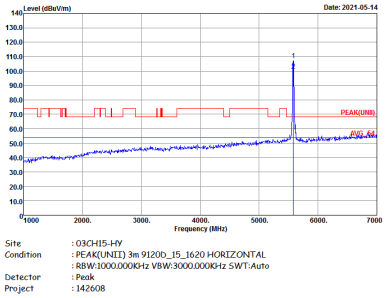
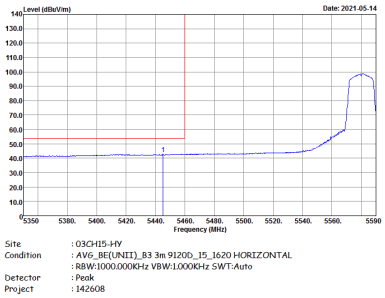
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH64 5320MHz	
1	Horizontal	Vertical
Peak Avg.		

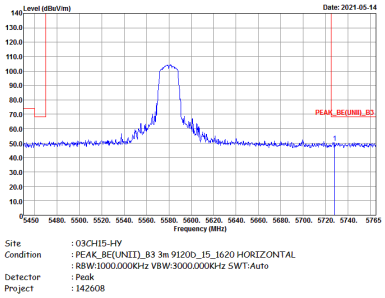
Band 3 - 5470~5725MHz

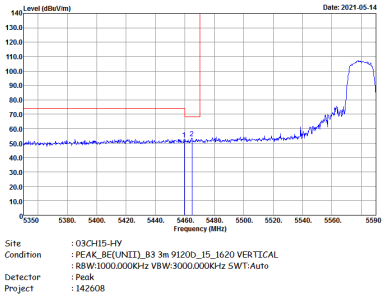
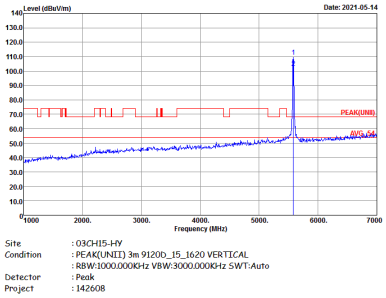
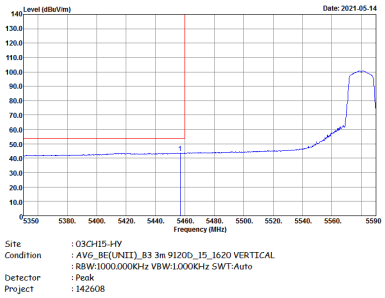
WIFI 802.11a (Band Edge @ 3m)

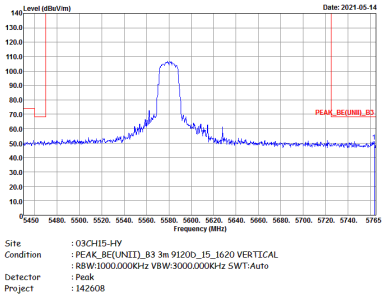
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

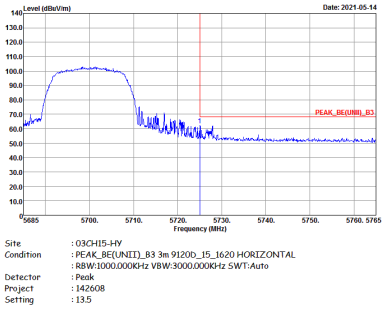
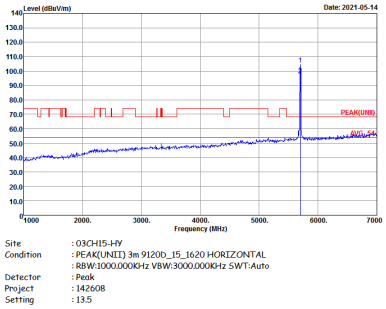
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

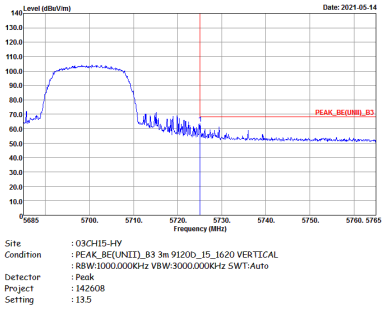
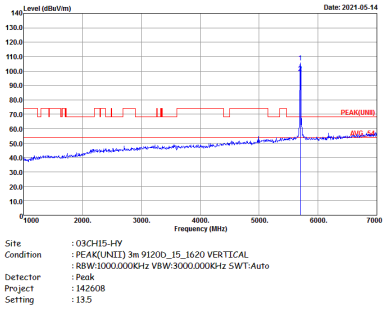
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

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

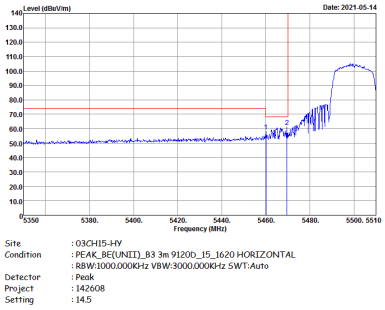
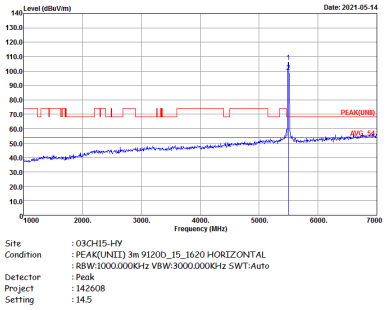
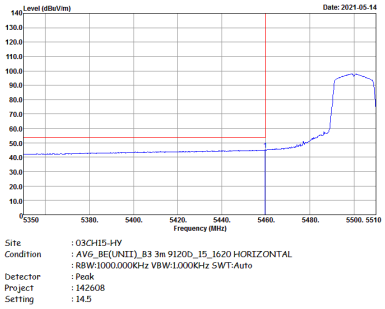
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - R	
1	Vertical	Fundamental
Peak		Left blank

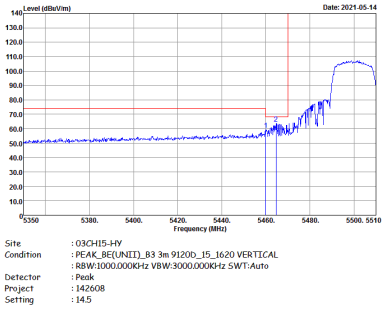
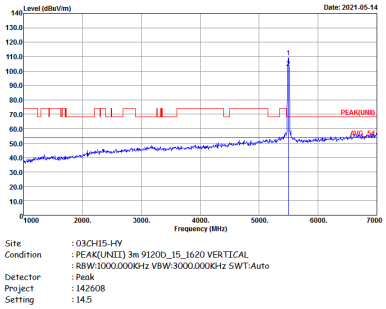
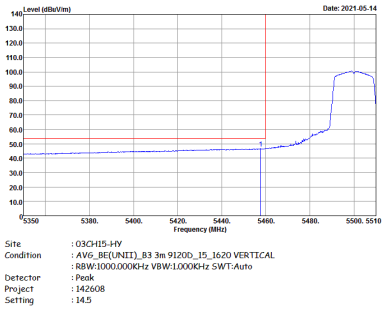
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
1	Horizontal	Fundamental
Peak		

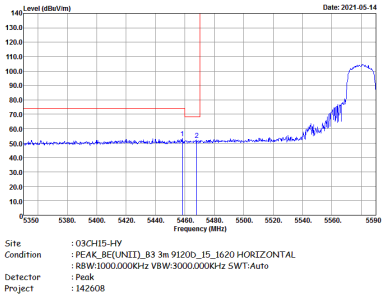
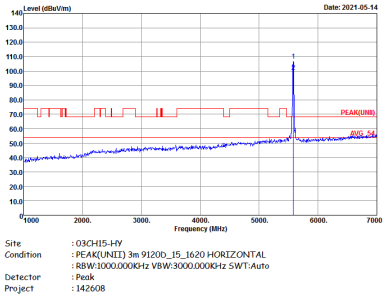
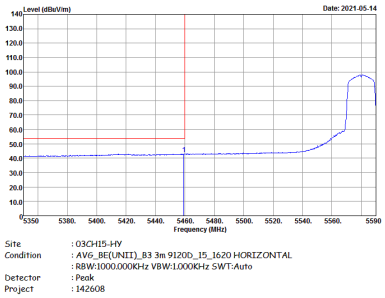
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
1	Vertical	Fundamental
Peak		

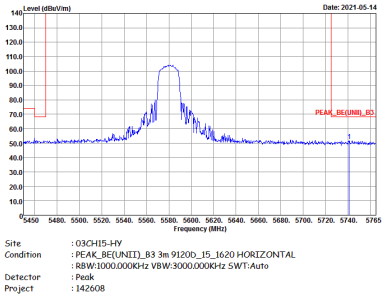
Band 3 5470~5725MHz

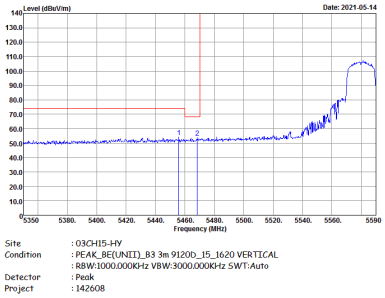
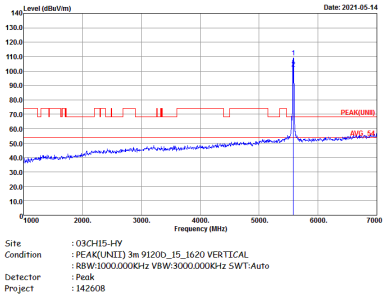
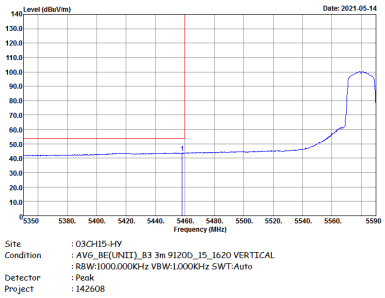
WIFI 802.11n HT20 (Band Edge @ 3m)

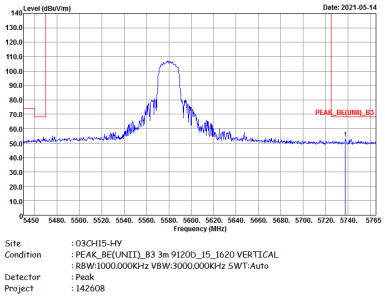
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

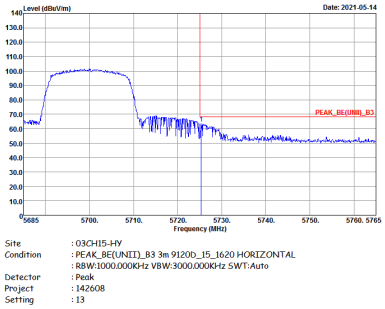
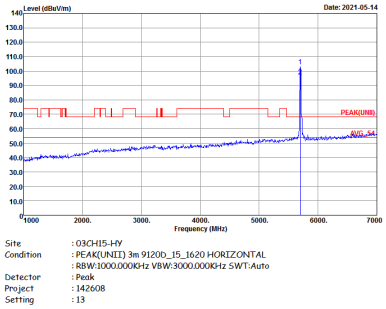
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

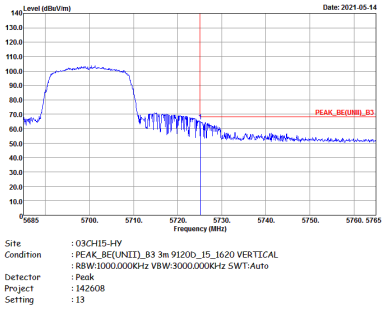
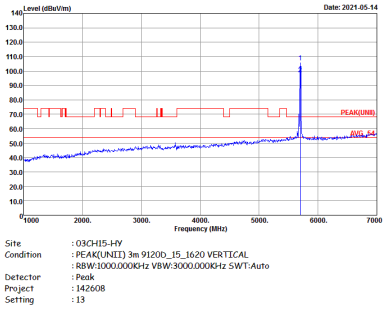
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

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

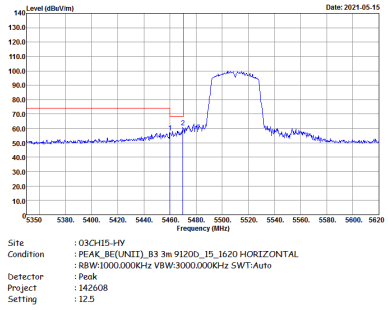
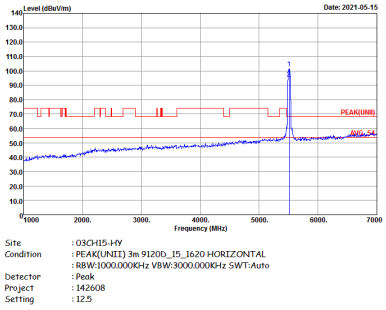
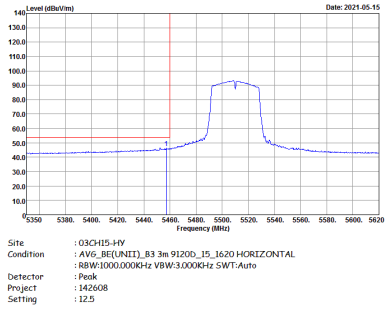
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - R	
1	Vertical	Fundamental
Peak		Left blank

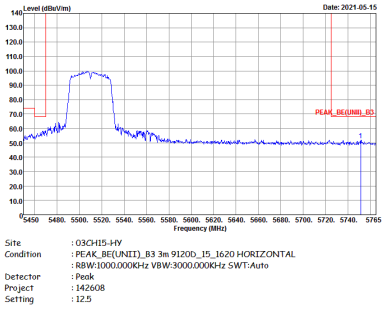
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
1	Horizontal	Fundamental
Peak		

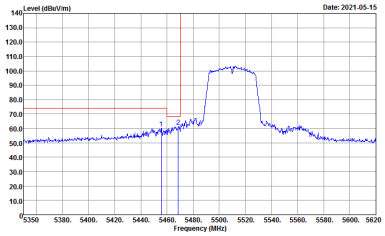
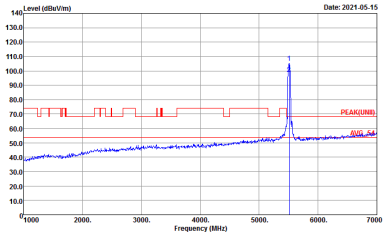
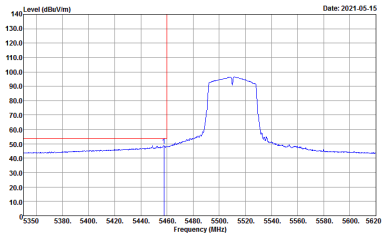
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
1	Vertical	Fundamental
Peak.		

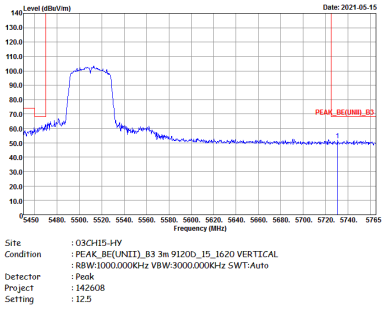
Band 3 5470~5725MHz

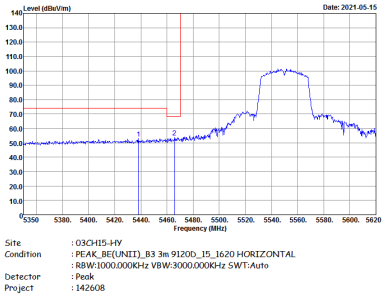
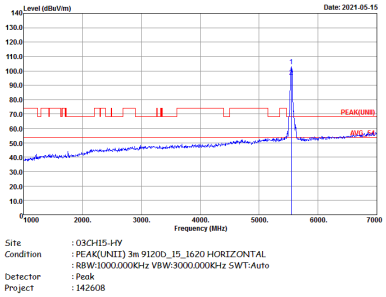
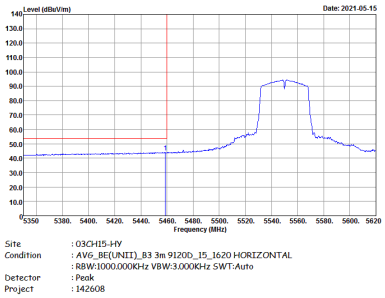
WIFI 802.11n HT40 (Band Edge @ 3m)

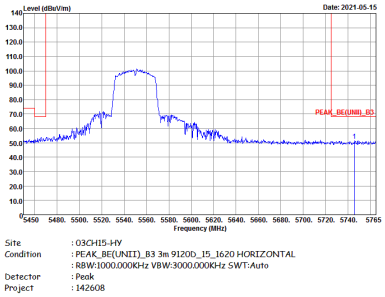
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

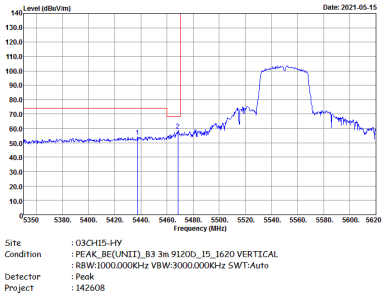
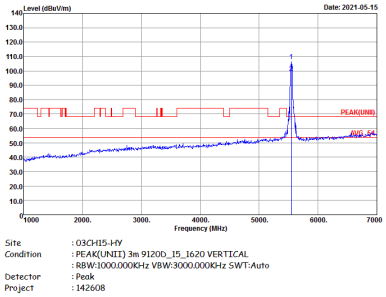
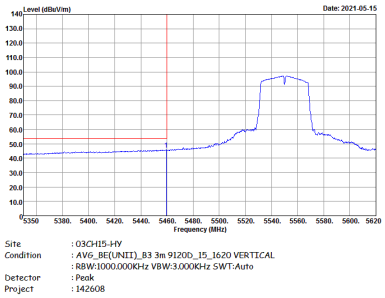
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

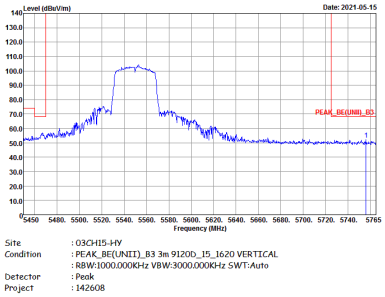
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(UNII)_B3 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 142608 Setting : 12.5	 Site : 03CH15-HY Condition : PEAK(UNII) 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 142608 Setting : 12.5
Avg.	 Site : 03CH15-HY Condition : AVG_BE(UNII)_B3 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 142608 Setting : 12.5	Left blank

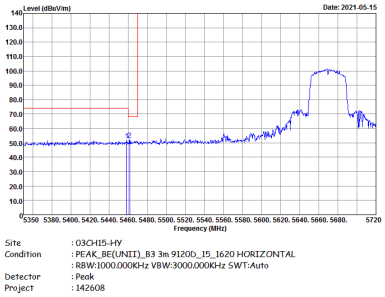
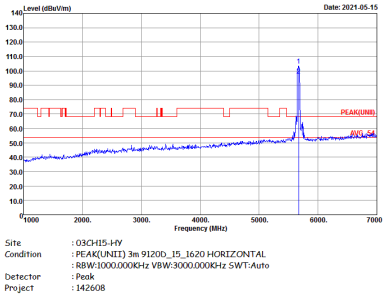
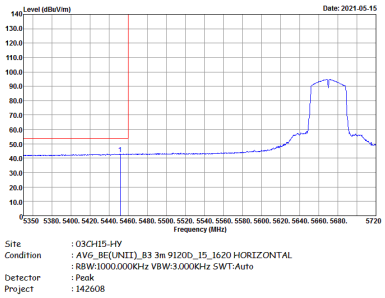
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - R	
1	Vertical	Fundamental
Peak		Left blank

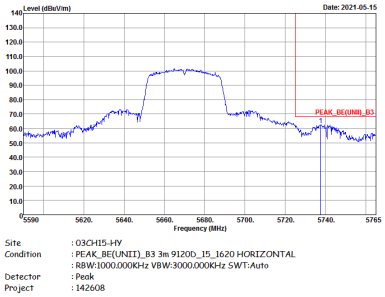
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

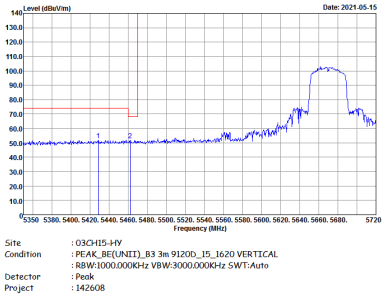
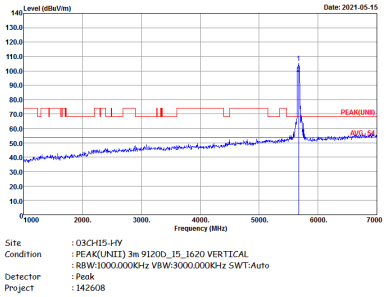
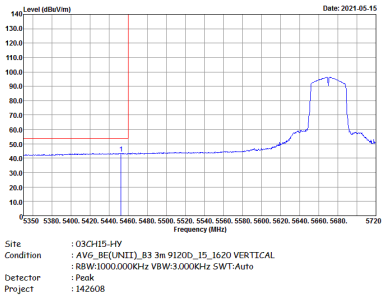
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

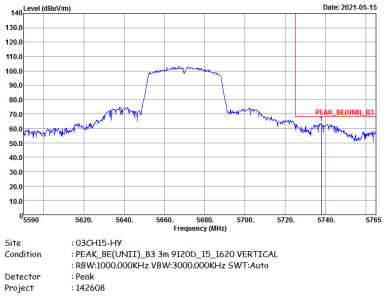
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

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

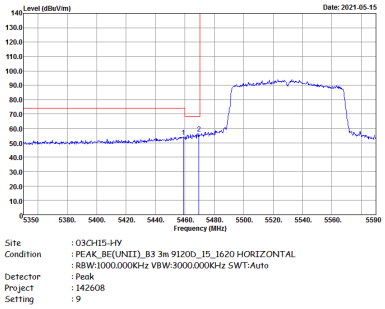
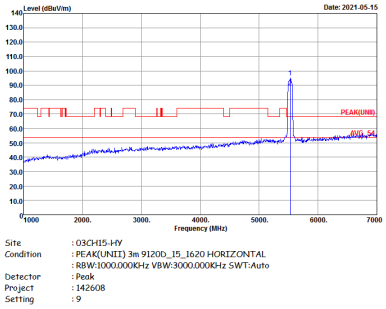
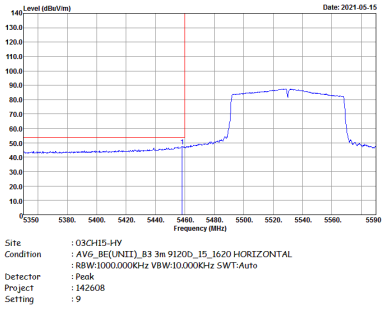
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

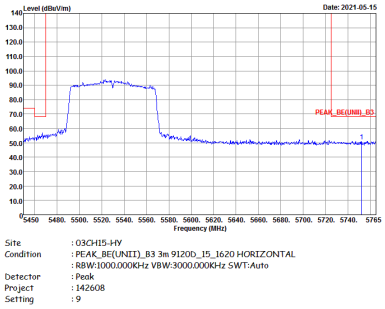
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

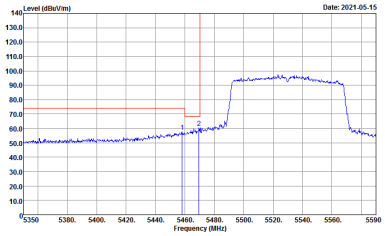
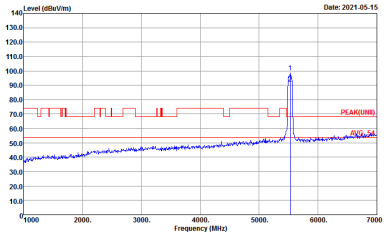
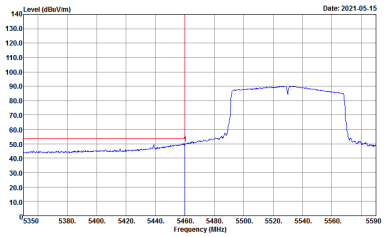
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - R	
1	Vertical	Fundamental
Peak		Left blank

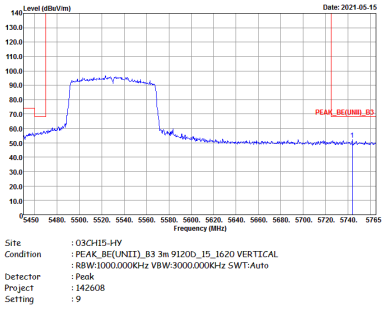
Band 3 5470~5725MHz

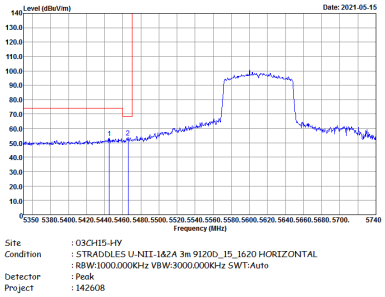
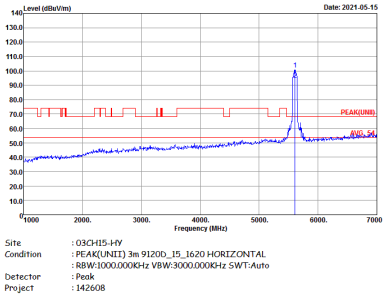
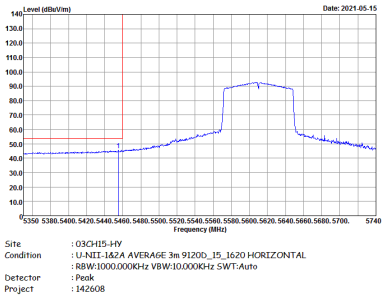
WIFI 802.11ac VHT80 (Band Edge @ 3m)

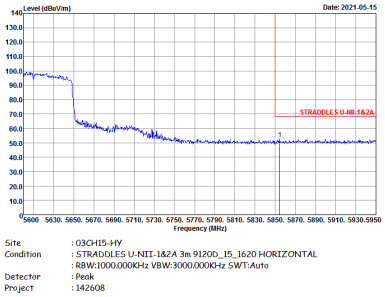
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

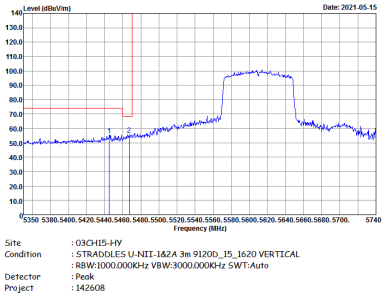
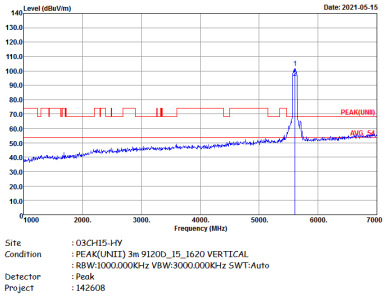
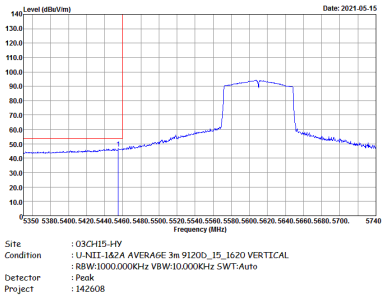
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

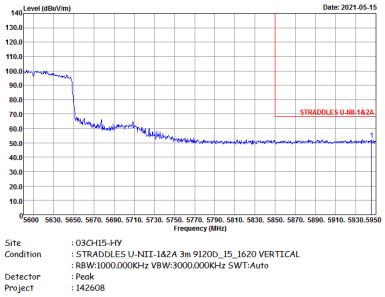
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(UNII)_B3 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 142608 Setting : 9	 Site : 03CH15-HY Condition : PEAK(UNII) 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 142608 Setting : 9
Avg.	 Site : 03CH15-HY Condition : AVG_BE(UNII)_B3 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto Detector : Peak Project : 142608 Setting : 9	Left blank

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

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

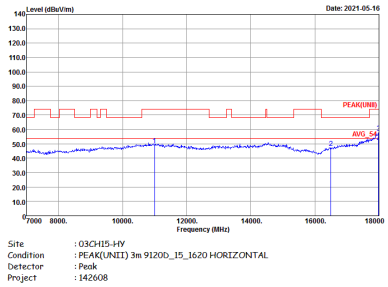
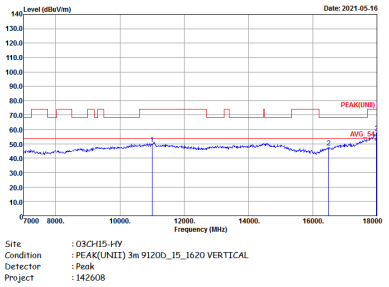
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH122 5610MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

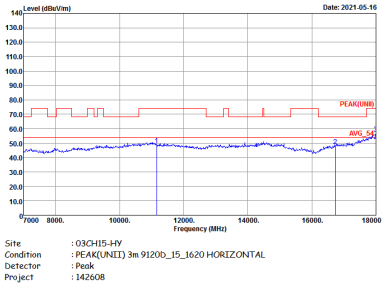
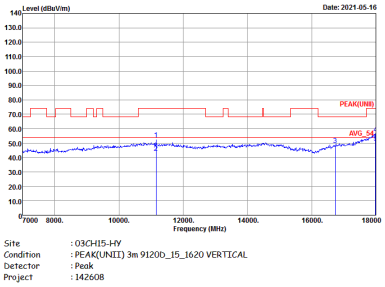
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH122 5610MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

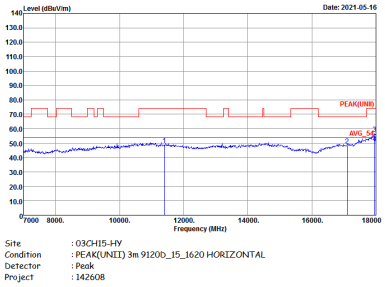
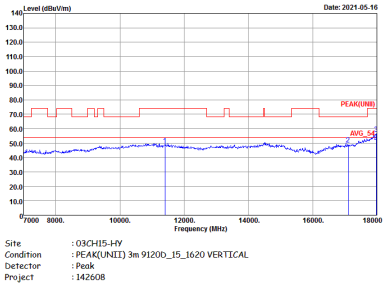
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH122 5610MHz - R	
1	Vertical	Fundamental
Peak		Left blank

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

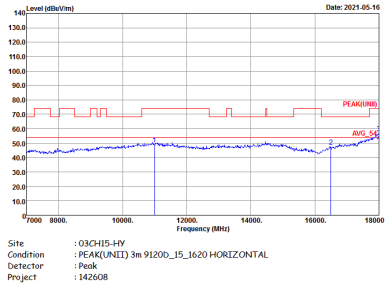
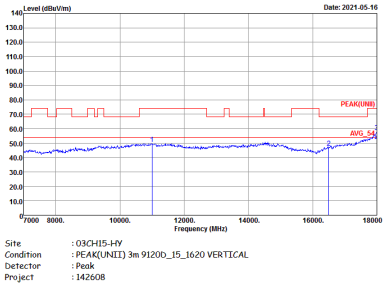
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH100 5500MHz	
1	Horizontal	Vertical
Peak Avg.		

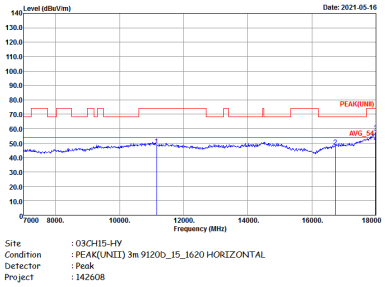
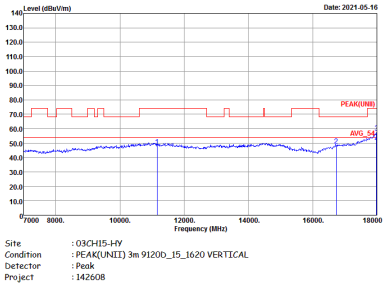
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH116 5580MHz	
1	Horizontal	Vertical
Peak Avg.		

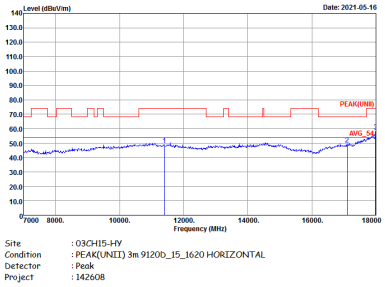
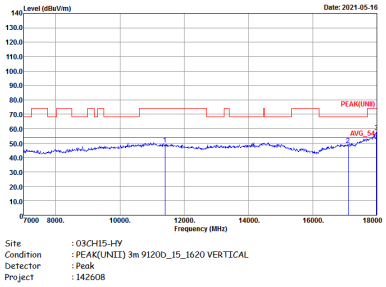
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH140 5700MHz	
1	Horizontal	Vertical
Peak Avg.		

Band 3 5470~5725MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

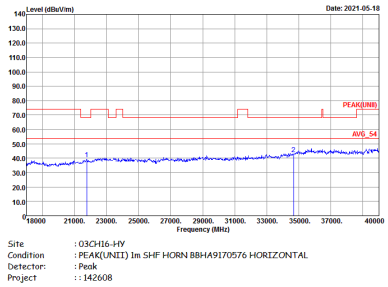
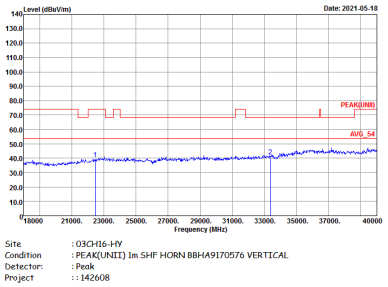
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1	Horizontal	Vertical
Peak Avg.		

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

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

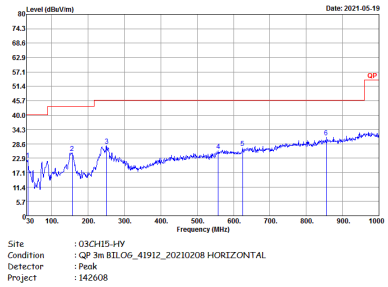
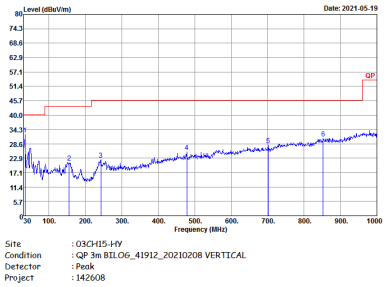
Emission above 18GHz

5GHz WIFI 802.11n HT20 (SHF)

WIFI	5GHz WIFI	
ANT	802.11n HT20 SHF	
1	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

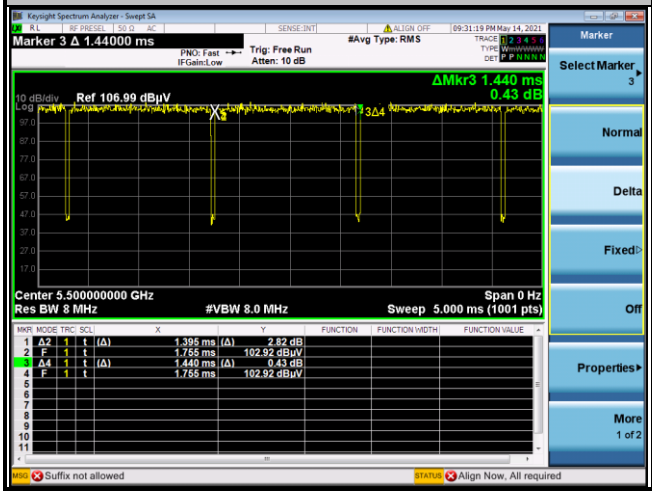
5GHz WIFI 802.11n HT20 (LF)

WIFI	5GHz WIFI	
ANT	802.11n HT20 LF	
1	Horizontal	Vertical
QP / Peak		

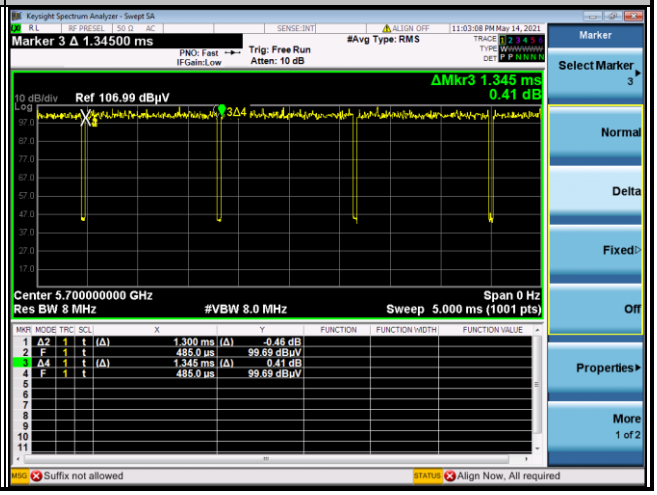
Appendix E. Duty Cycle Plots

Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
802.11a	96.88	1395	0.72	1kHz	0.14
5GHz 802.11n HT20	96.65	1300	0.77	1kHz	0.15
5GHz 802.11n HT40	93.51	648	1.54	3kHz	0.29
5GHz 802.11ac VHT80	88.89	320	3.13	10kHz	0.51

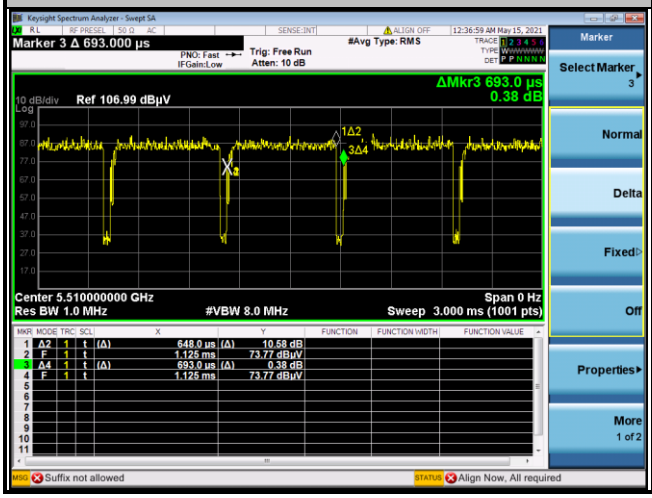
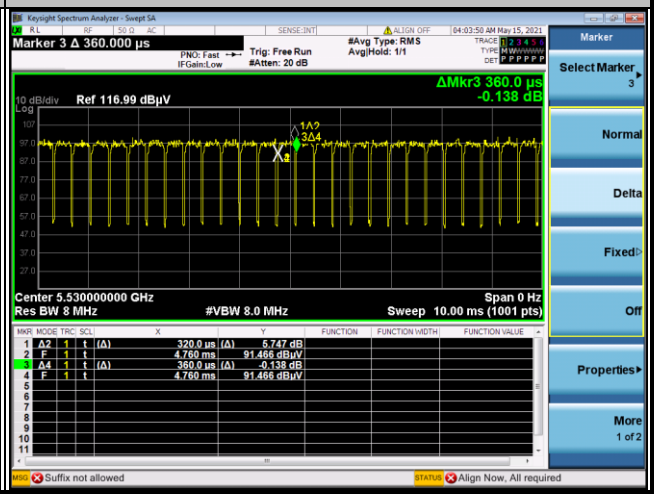
802.11a



802.11n HT20



802.11n HT40



802.11ac VHT80