FCC RADIO TEST REPORT

FCC ID	:	**O57TB8705F**
Equipment	:	**Portable Tablet Computer**
Brand Name	:	**Lenovo**
Model Name	:	**Lenovo TB-8705F**
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 Aug. 28, 2019 and testing was started from Aug. 28, 2019 and completed on Nov. 05, 2019. We, SPORTON INTERNATIONAL INC., EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C)

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History of this test report

Report No.	Version	Description	Issued Date
FR9O2401D	01	Initial issue of report	Nov. 19, 2019

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 3.19 dB at 5470.000 MHz
3.5	15.207	AC Conducted Emission	Pass	Under limit 4.97 dB at 26.000 MHz
3.6	15.407(c)	Automatically Discontinue Transmission	Pass	-
3.7	15.203 15.407(a)	Antenna Requirement	Pass	-
Remark: The test result of AC conducted emission was performed in this test report, and the other test results reuse test data from Sporton Report No. TR982030D.				

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: Wii Chang
Report Producer: Vivian Hsu

1 General Description

1.1 Product Feature of Equipment Under Test

Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n, Wi-Fi 5GHz 802.11a/n/ac, FM Receiver, and GNSS.

Product Specification subjective to this standard	
Sample 1	1st sample (refer to sample list)
Sample 2	2nd sample (refer to sample list)
Antenna Type	WLAN: Monopole Antenna Bluetooth: Monopole Antenna GPS / Glonass / BDS: Monopole Antenna FM: Using Earphone as Antenna

1.2 Modification of EUT

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

1.3 Testing Location

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory	
Test Site Location	No.52 , Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C) TEL: +886-3-327-3456 FAX: +886-3-328-4978	
Test Site No.	**Sporton Site No.**	
	TH05-HY	CO05-HY

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

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	**Sporton Site No.**
	03CH11-HY

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

FCC designation No.: TW1190 and TW0007

1.4 Applicable Standards

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

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

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

2 Test Configuration of Equipment Under Test

a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Z 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/ac HT40/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 (2.4GHz) Link + Video Record (Front Camera) + Earphone + SD Card + USB Cable 1 (Charging from AC Adapter 1) for Sample 1
	Mode 2	Bluetooth Link + WLAN (5GHz) Link + Video Record (Rear Camera) + Earphone + SD Card + USB Cable 2 (Charging from AC Adapter 2) for Sample 1
	Mode 3	Bluetooth Link + WLAN (2.4GHz) Link + FM Rx + Earphone + SD Card + USB Cable 1 (Charging from AC Adapter 2) for Sample 1
	Mode 4	Bluetooth Link + WLAN (5GHz) Link + MPEG4 + Earphone + SD Card + USB Cable 2 (Charging from AC Adapter 1) for Sample 1
	Mode 5	Bluetooth Idle + WLAN (2.4GHz) Idle + H-Patten + Earphone + SD Card + USB Cable 2 (Data Link with Notebook) (Read) for Sample 1
	Mode 6	Bluetooth Idle + WLAN (5GHz) Idle + GPS Rx + Earphone + SD Card + USB Cable 2 (Data Link with Notebook) (Write) for Sample 1
	Mode 7	Bluetooth Link + WLAN (5GHz) Link + MPEG4 + Earphone + SD Card + USB Cable 2 (Charging from AC Adapter 1) for Sample 2

Remark:

1. The worst case of conducted emission is mode 4; only the test data of it was reported.

2. For Radiated Test Cases, the tests were performed with Adapter 1 and USB Cable 1.

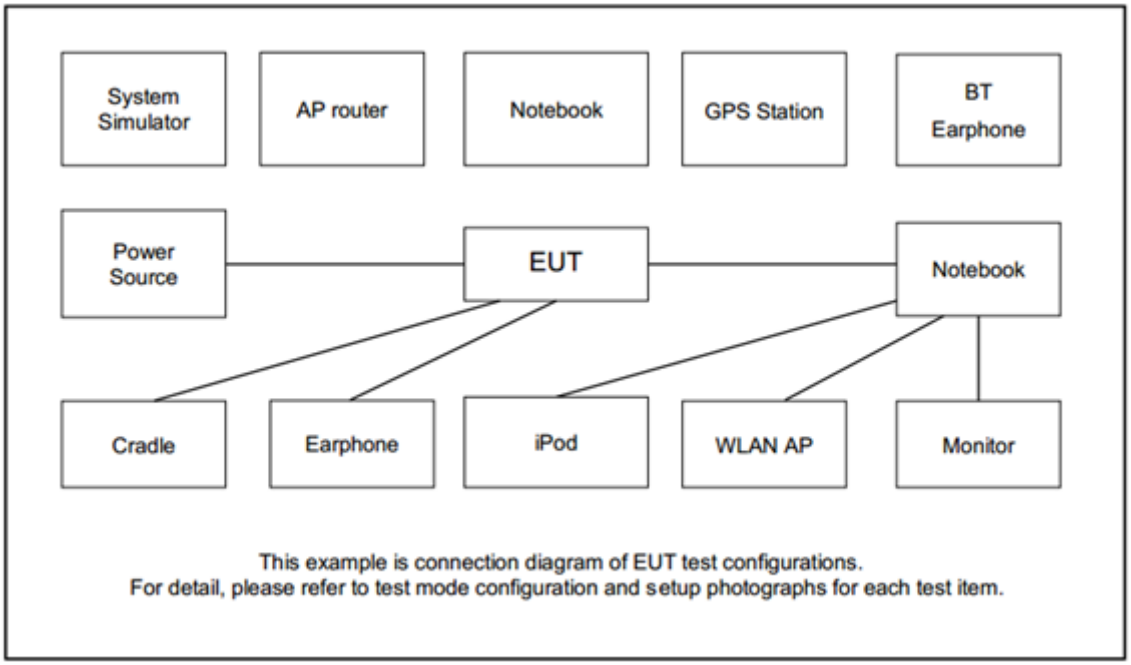
Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11a	802.11a	802.11a
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140

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	122
H	High	-	-	-

2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
2.	GPS Station	Pendulum	GSG-54	N/A	N/A	Unshielded, 1.8 m
3.	Bluetooth Earphone	Sony Ericsson	MW600	PY7DDA-2029	N/A	N/A
4.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8 m
5.	iPod	Apple	A1285	FCC DoC	Shielded, 1.0 m	N/A
6.	iPod Earphone	Apple	A1285	FCC DoC	Unshielded, 1.2 m	N/A
7.	Notebook	DELL	Latitude E3340	FCC DoC/ Contains FCC ID: PD97260NGU	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
8.	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 10dB 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.

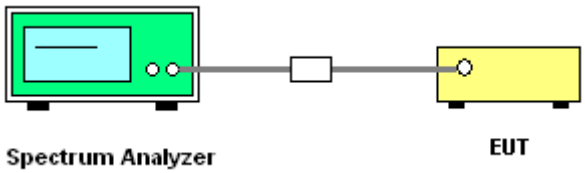
3.1.2 Measuring Instruments

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.

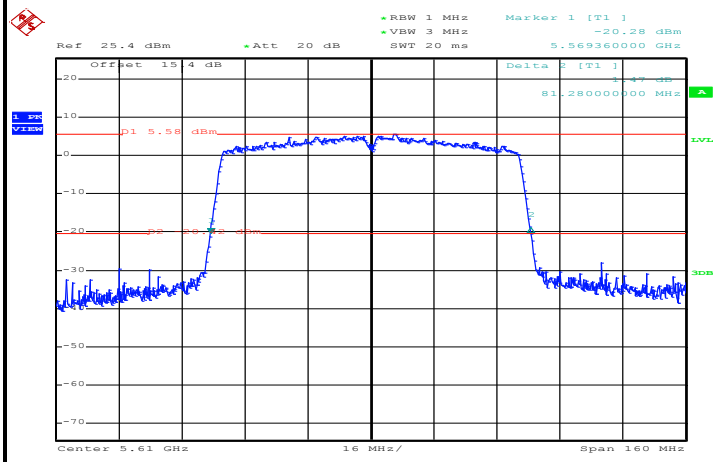
3.1.4 Test Setup



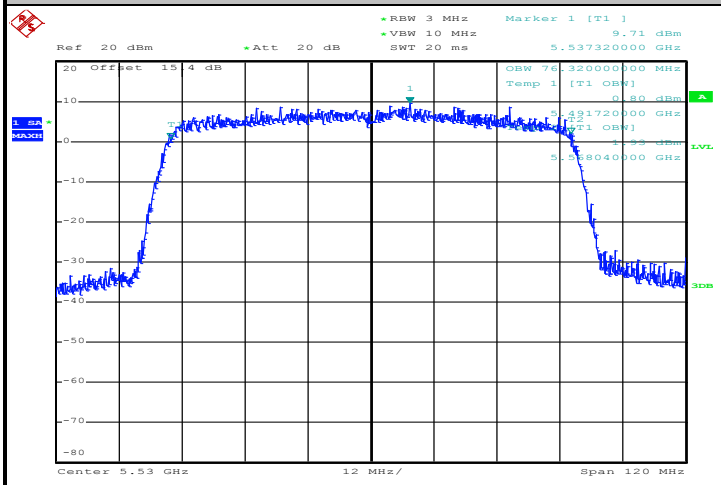
3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

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.

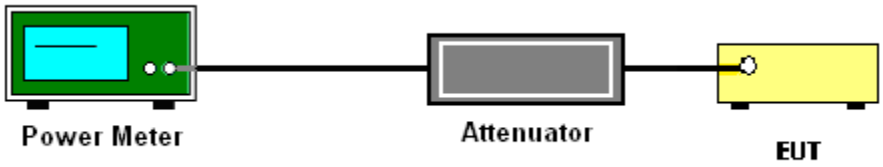
3.2.3 Test Procedures

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

Method PM-G (Measurement using an 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.

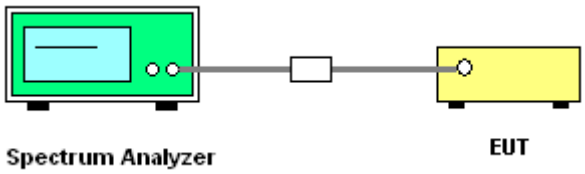
 # Method SA-3 #

(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.

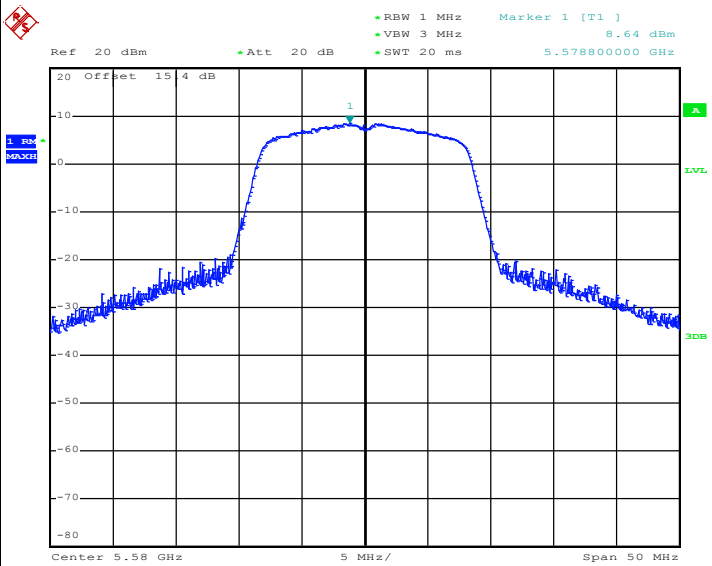
3.3.4 Test Setup



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 1000MHz

- 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

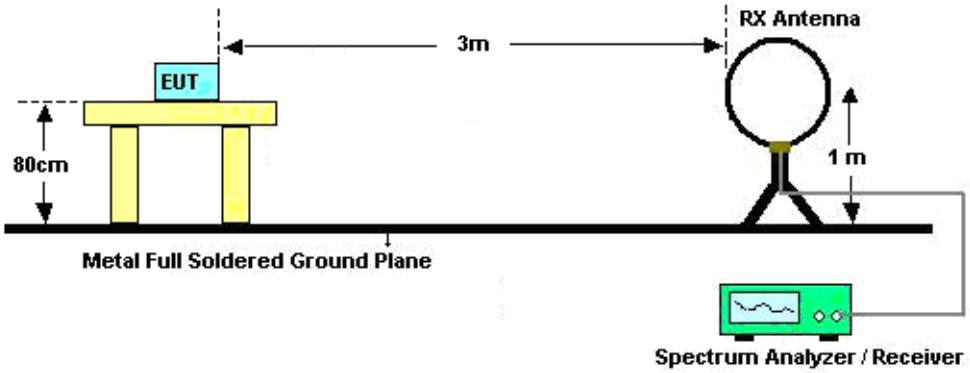
(3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

- 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.

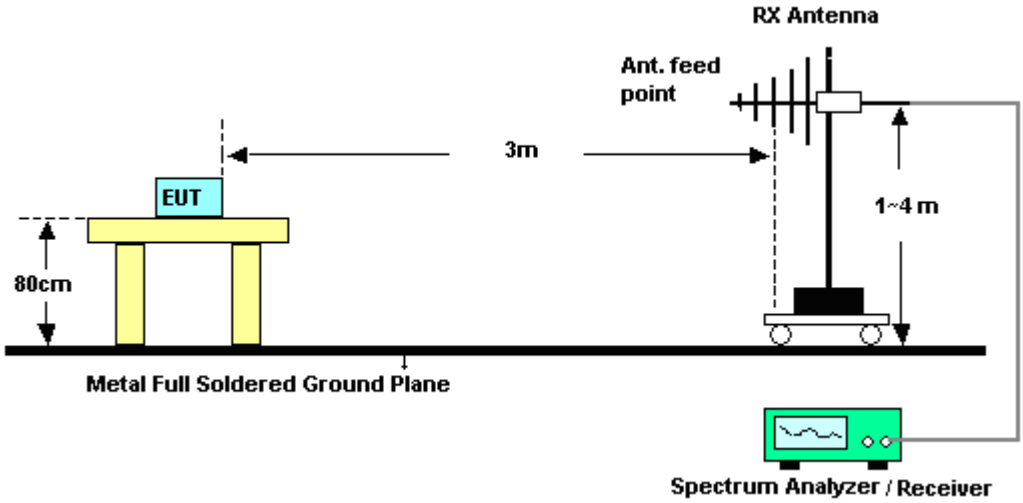
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband 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 1GHz, 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 1GHz, the emission level of the EUT in peak mode was 20dB 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

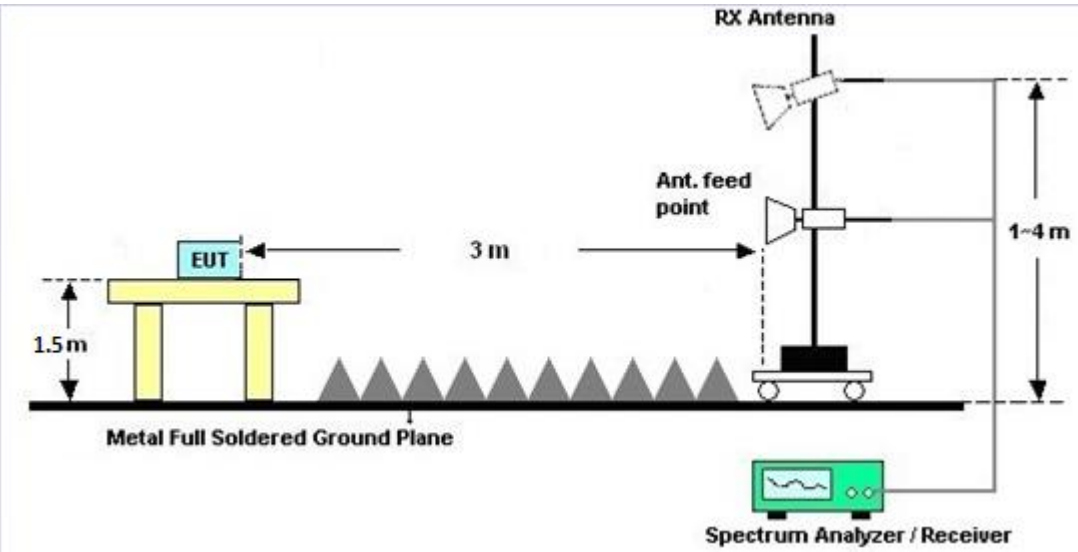
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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.

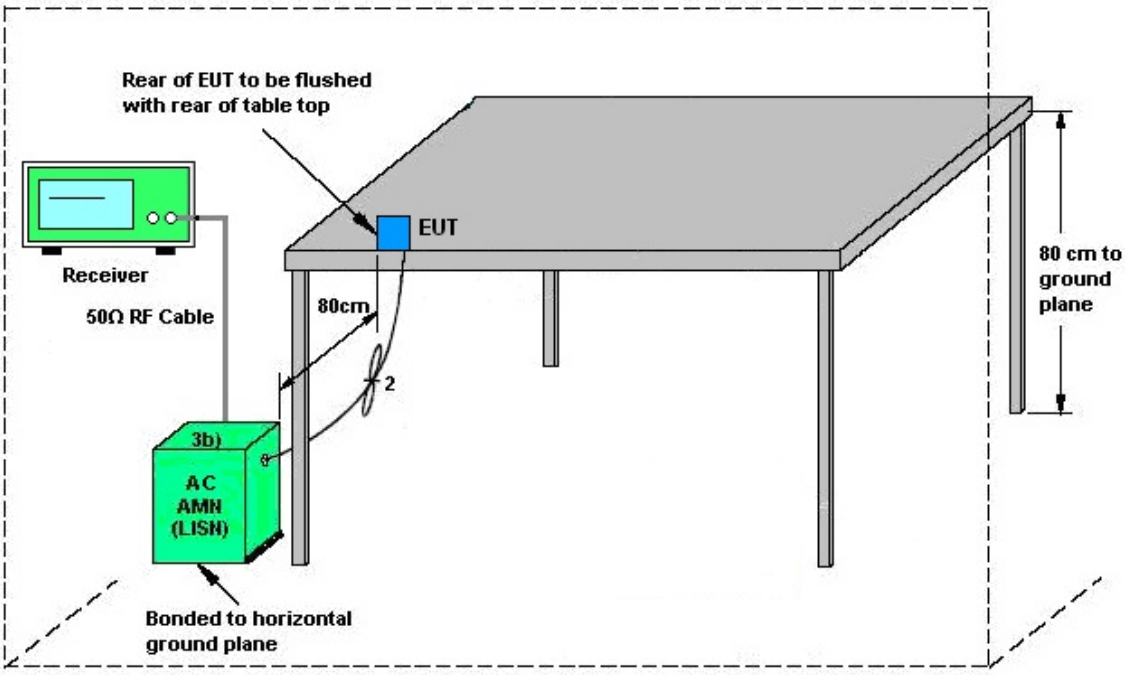
3.5.2 Measuring Instruments

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 should 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	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Sensor	DARE	RPR3006W	13I00030SNO32	9kHz~6GHz	Dec. 03, 2018	Aug. 28, 2019~ Oct. 15, 2019	Dec. 02, 2019	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSV40	101397	10Hz~40GHz	Nov. 13, 2018	Aug. 28, 2019~ Oct. 15, 2019	Nov. 12, 2019	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz-40GHz	Nov. 21, 2018	Aug. 28, 2019~ Oct. 15, 2019	Nov. 20, 2019	Conducted (TH05-HY)
Switch Box & RF Cable	Burgeon	ETF-058	EC1208382	N/A	Mar. 27, 2019	Aug. 28, 2019~ Oct. 15, 2019	Mar. 26, 2020	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Nov. 05, 2019	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Nov. 12, 2018	Nov. 05, 2019	Nov. 11, 2019	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 14, 2018	Nov. 05, 2019	Nov. 13, 2019	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Nov. 09, 2018	Nov. 05, 2019	Nov. 08, 2019	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Nov. 05, 2019	N/A	Conduction (CO05-HY)
LF Cable	HUBER + SUHNER	RG-214/U	LF01	N/A	Dec. 31, 2018	Nov. 05, 2019	Dec. 30, 2019	Conduction (CO05-HY)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100851	N/A	Dec. 31, 2018	Nov. 05, 2019	Dec. 30, 2019	Conduction (CO05-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz ~ 40GHz	Dec. 06, 2018	Sep. 01, 2019~ Oct. 07, 2019	Dec. 05, 2019	Radiation (03CH11-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Dec. 04, 2018	Sep. 01, 2019~ Oct. 07, 2019	Dec. 03, 2019	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D&N-6-06	35414&AT-N0602	30MHz~1GHz	Oct. 13, 2018	Sep. 01, 2019~ Oct. 07, 2019	Oct. 12, 2019	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1326	1GHz ~ 18GHz	Oct. 30, 2018	Sep. 01, 2019~ Oct. 07, 2019	Oct. 29, 2019	Radiation (03CH11-HY)
Preamplifier	Keysight	83017A	MY53270080	1GHz~26.5GHz	Nov. 14, 2018	Sep. 01, 2019~ Oct. 07, 2019	Nov. 13, 2020	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz ~ 44GHz	Oct. 19, 2018	Sep. 01, 2019~ Oct. 07, 2019	Oct. 18, 2019	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Sep. 01, 2019~ Oct. 07, 2019	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Sep. 01, 2019~ Oct. 07, 2019	N/A	Radiation (03CH11-HY)
Preamplifier	Jet-Power	JPA0118-55-303K	1710001800054002	1GHz~18GHz	Aug. 06, 2019	Sep. 01, 2019~ Oct. 07, 2019	Aug. 05, 2020	Radiation (03CH11-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Dec. 05, 2018	Sep. 01, 2019~ Oct. 07, 2019	Dec. 04, 2019	Radiation (03CH11-HY)
Software	Audix	E3 6.2009-8-24	RK-001042	N/A	N/A	Sep. 01, 2019~ Oct. 07, 2019	N/A	Radiation (03CH11-HY)

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Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4 PE	9kHz-30MHz	Mar. 13, 2019	Sep. 01, 2019~ Oct. 07, 2019	Mar. 12, 2020	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2859/2	30MHz-40GHz	Mar. 13, 2019	Sep. 01, 2019~ Oct. 07, 2019	Mar. 12, 2020	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4 PE	30M-18G	Mar. 13, 2019	Sep. 01, 2019~ Oct. 07, 2019	Mar. 12, 2020	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY4274/2	30MHz-40GHz	Mar. 13, 2019	Sep. 01, 2019~ Oct. 07, 2019	Mar. 12, 2020	Radiation (03CH11-HY)
Filter	Wainwright	WLKS1200-12SS	SN2	1.2GHz Low Pass Filter	Mar. 22, 2019	Sep. 01, 2019~ Oct. 07, 2019	Mar. 21, 2020	Radiation (03CH11-HY)
Filter	Wainwright	WHKX8-5872.5-6750-18000-40ST	SN5	6.75GHz High Pass	Mar. 13, 2019	Sep. 01, 2019~ Oct. 07, 2019	Mar. 12, 2020	Radiation (03CH11-HY)

5 Uncertainty of Evaluation

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

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

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.20**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.50**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.20**

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Owen Yang	Temperature:	21~25	°C
Test Date:	2019/8/28~2019/10/14	Relative Humidity:	51~54	%

Report Number : FR9O2401D

TEST RESULTS DATA
26dB and 99% OBW

Band I														
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	16.70	-	21.30	-	-		22.23	-		
11a	6Mbps	1	44	5220	16.65	-	34.90	-	-		22.21	-		
11a	6Mbps	1	48	5240	16.60	-	31.90	-	-		22.20	-		
HT20	MCS0	1	36	5180	17.75	-	31.00	-	-		22.49	-		
HT20	MCS0	1	44	5220	17.80	-	32.10	-	-		22.50	-		
HT20	MCS0	1	48	5240	17.75	-	32.30	-	-		22.49	-		
HT40	MCS0	1	38	5190	36.40	-	41.40	-	-		23.01	-		
HT40	MCS0	1	46	5230	36.20	-	41.40	-	-		23.01	-		
VHT80	MCS0	1	42	5210	76.08	-	81.28	-	-		23.01	-		

TEST RESULTS DATA
Average Power Table

FCC Band I													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)			Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	36	5180	13.90	-		24.00	-	0.51	-		Pass
11a	6Mbps	1	44	5220	16.90	-		24.00	-	0.51	-		Pass
11a	6Mbps	1	48	5240	17.40	-		24.00	-	0.51	-		Pass
HT20	MCS0	1	36	5180	15.90	-		24.00	-	0.51	-		Pass
HT20	MCS0	1	44	5220	16.80	-		24.00	-	0.51	-		Pass
HT20	MCS0	1	48	5240	17.10	-		24.00	-	0.51	-		Pass
HT40	MCS0	1	38	5190	11.90	-		24.00	-	0.51	-		Pass
HT40	MCS0	1	46	5230	15.40	-		24.00	-	0.51	-		Pass
VHT20	MCS0	1	36	5180	15.30	-		24.00	-	0.51	-		Pass
VHT20	MCS0	1	44	5220	16.10	-		24.00	-	0.51	-		Pass
VHT20	MCS0	1	48	5240	16.00	-		24.00	-	0.51	-		Pass
VHT40	MCS0	1	38	5190	11.40	-		24.00	-	0.51	-		Pass
VHT40	MCS0	1	46	5230	14.90	-		24.00	-	0.51	-		Pass
VHT80	MCS0	1	42	5210	12.40	-		24.00	-	0.51	-		Pass

TEST RESULTS DATA
Power Spectral Density

FCC Band I													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	36	5180	4.48	-		11.00	-	0.51	-		Pass
11a	6Mbps	1	44	5220	7.28	-		11.00	-	0.51	-		Pass
11a	6Mbps	1	48	5240	7.58	-		11.00	-	0.51	-		Pass
HT20	MCS0	1	36	5180	6.22	-		11.00	-	0.51	-		Pass
HT20	MCS0	1	44	5220	7.54	-		11.00	-	0.51	-		Pass
HT20	MCS0	1	48	5240	7.48	-		11.00	-	0.51	-		Pass
HT40	MCS0	1	38	5190	-0.93	-		11.00	-	0.51	-		Pass
HT40	MCS0	1	46	5230	3.09	-		11.00	-	0.51	-		Pass
VHT80	MCS0	1	42	5210	-3.62	-		11.00	-	0.51	-		Pass

Report Number : FR9O2401D

TEST RESULTS DATA
26dB and 99% OBW

Band II															
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	-	31.80	-	23.20	-	29.20	-	23.98	-	
11a	6Mbps	1	60	5300	16.60	-	25.45	-	23.20	-	29.20	-	23.98	-	
11a	6Mbps	1	64	5320	16.65	-	27.50	-	23.21	-	29.21	-	23.98	-	
HT20	MCS0	1	52	5260	17.75	-	35.40	-	23.49	-	29.49	-	23.98	-	
HT20	MCS0	1	60	5300	17.75	-	34.05	-	23.49	-	29.49	-	23.98	-	
HT20	MCS0	1	64	5320	17.70	-	30.30	-	23.48	-	29.48	-	23.98	-	
HT40	MCS0	1	54	5270	36.30	-	68.04	-	23.98	-	30.00	-	23.98	-	
HT40	MCS0	1	62	5310	36.30	-	41.22	-	23.98	-	30.00	-	23.98	-	
VHT80	MCS0	1	58	5290	76.08	-	80.96	-	23.98	-	30.00	-	23.98	-	

TEST RESULTS DATA
Average Power Table

FCC Band II													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	52	5260	17.30	-		23.98	-	0.49	-	26.99	Pass
11a	6Mbps	1	60	5300	17.00	-		23.98	-	0.49	-	26.99	Pass
11a	6Mbps	1	64	5320	16.40	-		23.98	-	0.49	-	26.99	Pass
HT20	MCS0	1	52	5260	17.20	-		23.98	-	0.49	-	26.99	Pass
HT20	MCS0	1	60	5300	16.90	-		23.98	-	0.49	-	26.99	Pass
HT20	MCS0	1	64	5320	15.90	-		23.98	-	0.49	-	26.99	Pass
HT40	MCS0	1	54	5270	15.10	-		23.98	-	0.49	-	26.99	Pass
HT40	MCS0	1	62	5310	13.70	-		23.98	-	0.49	-	26.99	Pass
VHT20	MCS0	1	52	5260	15.20	-		23.98	-	0.49	-	26.99	Pass
VHT20	MCS0	1	60	5300	16.00	-		23.98	-	0.49	-	26.99	Pass
VHT20	MCS0	1	64	5320	15.30	-		23.98	-	0.49	-	26.99	Pass
VHT40	MCS0	1	54	5270	14.70	-		23.98	-	0.49	-	26.99	Pass
VHT40	MCS0	1	62	5310	13.20	-		23.98	-	0.49	-	26.99	Pass
VHT80	MCS0	1	58	5290	12.10	-		23.98	-	0.49	-	26.99	Pass

TEST RESULTS DATA
Power Spectral Density

Band II													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	52	5260	7.39	-		11.00	-	0.49	-		Pass
11a	6Mbps	1	60	5300	7.15	-		11.00	-	0.49	-		Pass
11a	6Mbps	1	64	5320	6.39	-		11.00	-	0.49	-		Pass
HT20	MCS0	1	52	5260	7.76	-		11.00	-	0.49	-		Pass
HT20	MCS0	1	60	5300	7.04	-		11.00	-	0.49	-		Pass
HT20	MCS0	1	64	5320	5.80	-		11.00	-	0.49	-		Pass
HT40	MCS0	1	54	5270	2.66	-		11.00	-	0.49	-		Pass
HT40	MCS0	1	62	5310	1.44	-		11.00	-	0.49	-		Pass
VHT80	MCS0	1	58	5290	-3.92	-		11.00	-	0.49	-		Pass

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TEST RESULTS DATA
26dB and 99% OBW

Band III																
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	16.65	-	25.05	-	23.21	-	29.21	-	23.98	-	----	----
11a	6Mbps	1	116	5580	16.60	-	28.05	-	23.20	-	29.20	-	23.98	-	----	----
11a	6Mbps	1	140	5700	16.80	-	21.30	-	23.25	-	29.25	-	23.98	-	----	----
HT20	MCS0	1	100	5500	17.80	-	21.60	-	23.50	-	29.50	-	23.98	-	----	----
HT20	MCS0	1	116	5580	17.70	-	30.75	-	23.48	-	29.48	-	23.98	-	----	----
HT20	MCS0	1	140	5700	17.85	-	21.90	-	23.52	-	29.52	-	23.98	-	----	----
HT40	MCS0	1	102	5510	36.50	-	41.76	-	23.98	-	30.00	-	23.98	-	----	----
HT40	MCS0	1	110	5550	36.40	-	41.76	-	23.98	-	30.00	-	23.98	-	----	----
HT40	MCS0	1	134	5670	36.20	-	41.40	-	23.98	-	30.00	-	23.98	-	----	----
VHT80	MCS0	1	106	5530	76.32	-	81.28	-	23.98	-	30.00	-	23.98	-	----	----
VHT80	MCS0	1	122	5610	76.20	-	81.28	-	23.98	-	30.00	-	23.98	-	----	----

TEST RESULTS DATA
Average Power Table

FCC Band III													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	100	5500	16.10	-		23.98	-	0.50	-	26.99	Pass
11a	6Mbps	1	116	5580	17.10	-		23.98	-	0.50	-	26.99	Pass
11a	6Mbps	1	140	5700	13.10	-		23.98	-	0.50	-	26.99	Pass
HT20	MCS0	1	100	5500	14.60	-		23.98	-	0.50	-	26.99	Pass
HT20	MCS0	1	116	5580	16.80	-		23.98	-	0.50	-	26.99	Pass
HT20	MCS0	1	140	5700	12.60	-		23.98	-	0.50	-	26.99	Pass
HT40	MCS0	1	102	5510	12.90	-		23.98	-	0.50	-	26.99	Pass
HT40	MCS0	1	110	5550	15.30	-		23.98	-	0.50	-	26.99	Pass
HT40	MCS0	1	134	5670	14.60	-		23.98	-	0.50	-	26.99	Pass
VHT20	MCS0	1	100	5500	14.20	-		23.98	-	0.50	-	26.99	Pass
VHT20	MCS0	1	116	5580	15.70	-		23.98	-	0.50	-	26.99	Pass
VHT20	MCS0	1	140	5700	12.00	-		23.98	-	0.50	-	26.99	Pass
VHT40	MCS0	1	102	5510	12.30	-		23.98	-	0.50	-	26.99	Pass
VHT40	MCS0	1	110	5550	14.90	-		23.98	-	0.50	-	26.99	Pass
VHT40	MCS0	1	134	5670	14.00	-		23.98	-	0.50	-	26.99	Pass
VHT80	MCS0	1	106	5530	12.10	-		23.98	-	0.50	-	26.99	Pass
VHT80	MCS0	1	122	5610	12.60	-		23.98	-	0.50	-	26.99	Pass

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TEST RESULTS DATA
Power Spectral Density

Band III													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	100	5500	7.67	-		11.00	-	0.50	-		Pass
11a	6Mbps	1	116	5580	8.64	-		11.00	-	0.50	-		Pass
11a	6Mbps	1	140	5700	4.14	-		11.00	-	0.50	-		Pass
HT20	MCS0	1	100	5500	5.48	-		11.00	-	0.50	-		Pass
HT20	MCS0	1	116	5580	6.93	-		11.00	-	0.50	-		Pass
HT20	MCS0	1	140	5700	3.31	-		11.00	-	0.50	-		Pass
HT40	MCS0	1	102	5510	0.76	-		11.00	-	0.50	-		Pass
HT40	MCS0	1	110	5550	4.08	-		11.00	-	0.50	-		Pass
HT40	MCS0	1	134	5670	2.03	-		11.00	-	0.50	-		Pass
VHT80	MCS0	1	106	5530	-3.39	-		11.00	-	0.50	-		Pass
VHT80	MCS0	1	122	5610	-2.29	-		11.00	-	0.50	-		Pass

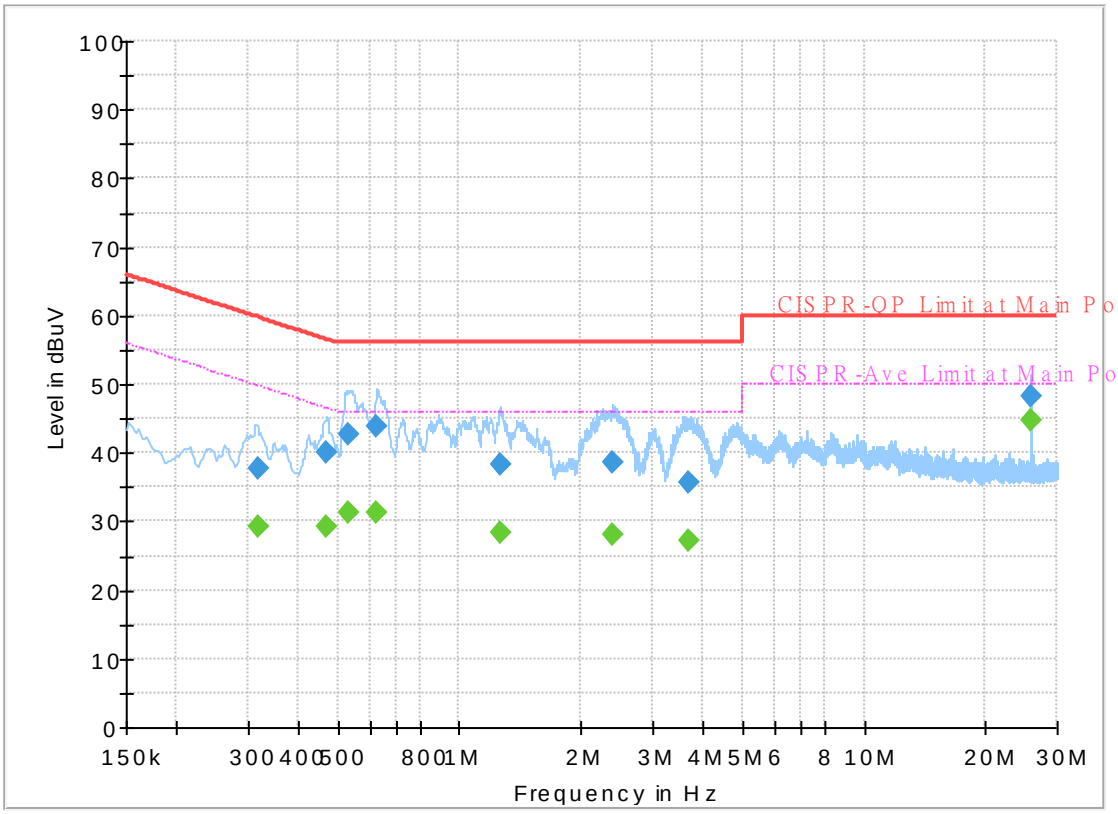
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Howard Huang & Tom Lee	**Temperature :**	24.2~25.6℃
		Relative Humidity :	45.6~52.3%

EUT Information

Report NO :	9O2401
Test Mode :	Mode 4
Test Voltage :	120Vac/60Hz
Phase :	Line

Full Spectrum



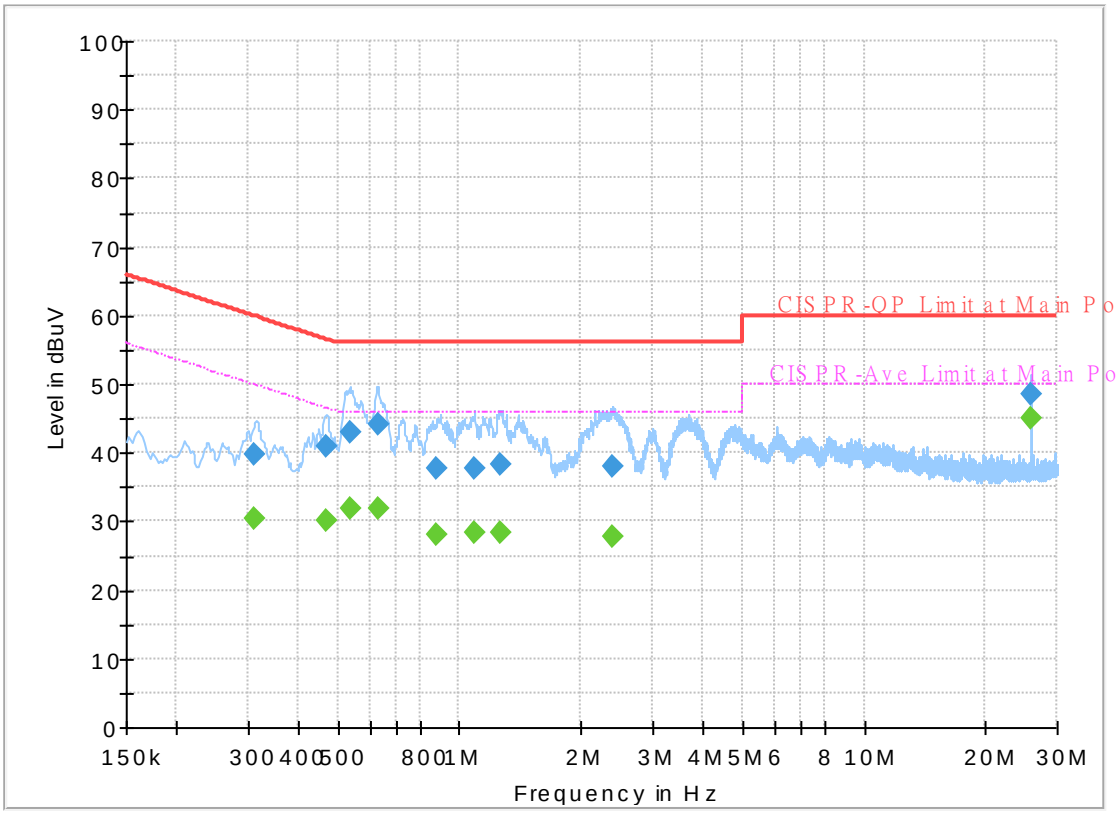
Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.316500	---	29.32	49.80	20.48	L1	OFF	19.4
0.316500	37.84	---	59.80	21.96	L1	OFF	19.4
0.469500	---	29.22	46.52	17.30	L1	OFF	19.4
0.469500	40.09	---	56.52	16.43	L1	OFF	19.4
0.532500	---	31.29	46.00	14.71	L1	OFF	19.4
0.532500	42.57	---	56.00	13.43	L1	OFF	19.4
0.624750	---	31.24	46.00	14.76	L1	OFF	19.4
0.624750	43.78	---	56.00	12.22	L1	OFF	19.4
1.261500	---	28.29	46.00	17.71	L1	OFF	19.5
1.261500	38.32	---	56.00	17.68	L1	OFF	19.5
2.386500	---	27.96	46.00	18.04	L1	OFF	19.5
2.386500	38.51	---	56.00	17.49	L1	OFF	19.5
3.707250	---	27.26	46.00	18.74	L1	OFF	19.6
3.707250	35.78	---	56.00	20.22	L1	OFF	19.6
26.000250	---	44.75	50.00	5.25	L1	OFF	20.3
26.000250	48.24	---	60.00	11.76	L1	OFF	20.3

EUT Information

Report NO :	9O2401
Test Mode :	Mode 4
Test Voltage :	120Vac/60Hz
Phase :	Neutral

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.312000	---	30.51	49.92	19.41	N	OFF	19.5
0.312000	39.86	---	59.92	20.06	N	OFF	19.5
0.469500	---	30.25	46.52	16.27	N	OFF	19.5
0.469500	40.96	---	56.52	15.56	N	OFF	19.5
0.534750	---	31.91	46.00	14.09	N	OFF	19.5
0.534750	42.88	---	56.00	13.12	N	OFF	19.5
0.627000	---	31.76	46.00	14.24	N	OFF	19.5
0.627000	44.17	---	56.00	11.83	N	OFF	19.5
0.879000	---	27.93	46.00	18.07	N	OFF	19.5
0.879000	37.77	---	56.00	18.23	N	OFF	19.5
1.088250	---	28.27	46.00	17.73	N	OFF	19.5
1.088250	37.58	---	56.00	18.42	N	OFF	19.5
1.257000	---	28.35	46.00	17.65	N	OFF	19.5
1.257000	38.32	---	56.00	17.68	N	OFF	19.5
2.395500	---	27.81	46.00	18.19	N	OFF	19.6
2.395500	38.15	---	56.00	17.85	N	OFF	19.6
26.000250	---	45.03	50.00	4.97	N	OFF	20.5
26.000250	48.46	---	60.00	11.54	N	OFF	20.5

Appendix C. Radiated Spurious Emission

Test Engineer :	Bill Kuo,Trove Hsieh,FU Chen,Watt Tseng	Temperature :	20.0~26.5°C
		Relative Humidity :	50.0~69.3%

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5149.5	57.43	-16.57	74	48.62	31.9	10.03	33.12	100	338	P	H
		5149.76	44.16	-9.84	54	35.35	31.9	10.03	33.12	100	338	A	H
	*	5180	101.58	-	-	92.91	31.72	10.07	33.12	100	338	P	H
	*	5180	94.26	-	-	85.59	31.72	10.07	33.12	100	338	A	H
802.11a													H
CH 36		5148.72	63.12	-10.88	74	54.31	31.9	10.03	33.12	100	236	P	V
5180MHz		5149.76	49.68	-4.32	54	40.87	31.9	10.03	33.12	100	236	A	V
	*	5180	109.45	-	-	100.78	31.72	10.07	33.12	100	236	P	V
	*	5180	101.9	-	-	93.23	31.72	10.07	33.12	100	236	A	V
													V
													V
		5126.36	50.59	-23.41	74	41.85	31.85	10.01	33.12	100	300	P	H
		5149.24	42.07	-11.93	54	33.26	31.9	10.03	33.12	100	300	A	H
	*	5220	103.89	-	-	95.39	31.52	10.1	33.12	100	300	P	H
	*	5220	96.54	-	-	88.04	31.52	10.1	33.12	100	300	A	H
		5451.91	49.39	-24.61	74	40.56	31.71	10.23	33.11	100	300	P	H
802.11a		5455.96	40.13	-13.87	54	31.28	31.72	10.24	33.11	100	300	A	H
CH 44		5144.04	54.12	-19.88	74	45.32	31.89	10.03	33.12	111	235	P	V
5220MHz		5149.5	45.15	-8.85	54	36.34	31.9	10.03	33.12	111	235	A	V
	*	5220	112.01	-	-	103.51	31.52	10.1	33.12	111	235	P	V
	*	5220	104.71	-	-	96.21	31.52	10.1	33.12	111	235	A	V
		5362	50.43	-23.57	74	42.03	31.37	10.14	33.11	111	235	P	V
		5352.01	41.59	-12.41	54	33.25	31.31	10.14	33.11	111	235	A	V

802.11a CH 48 5240MHz		5061.62	51.56	-22.44	74	43.09	31.65	9.94	33.12	100	301	P	H
		5126.62	41.61	-12.39	54	32.87	31.85	10.01	33.12	100	301	A	H
	*	5240	104.41	-	-	95.99	31.44	10.1	33.12	100	301	P	H
	*	5240	97.34	-	-	88.92	31.44	10.1	33.12	100	301	A	H
		5430.58	49.81	-24.19	74	41.06	31.66	10.2	33.11	100	301	P	H
		5453.53	40.31	-13.69	54	31.48	31.71	10.23	33.11	100	301	A	H
		5144.3	54.22	-19.78	74	45.42	31.89	10.03	33.12	100	237	P	V
		5147.16	43.89	-10.11	54	35.09	31.89	10.03	33.12	100	237	A	V
	*	5240	111.72	-	-	103.3	31.44	10.1	33.12	100	237	P	V
	*	5240	104.56	-	-	96.14	31.44	10.1	33.12	100	237	A	V
		5411.41	51.37	-22.63	74	42.69	31.62	10.17	33.11	100	237	P	V
		5350.39	42.33	-11.67	54	34	31.3	10.14	33.11	100	237	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	46.43	-21.77	68.2	54.43	39.54	16.12	63.66	100	0	P	H
		15540	46.4	-27.6	74	49.98	38.3	20.56	62.44	100	0	P	H
													H
													H
		10360	46.4	-21.8	68.2	54.4	39.54	16.12	63.66	100	0	P	V
		15540	46.95	-27.05	74	50.53	38.3	20.56	62.44	100	0	P	V
													V
													V
802.11a CH 44 5220MHz		10440	46.67	-21.53	68.2	54.66	39.7	16.17	63.86	100	0	P	H
		15660	49.18	-24.82	74	53.19	37.7	20.53	62.24	100	0	P	H
													H
													H
		10440	47.69	-20.51	68.2	55.68	39.7	16.17	63.86	100	0	P	V
		15660	47.53	-26.47	74	51.54	37.7	20.53	62.24	100	0	P	V
													V
													V
802.11a CH 48 5240MHz		10480	46.41	-21.79	68.2	54.46	39.7	16.2	63.95	100	0	P	H
		15720	53.42	-20.58	74	57.53	37.52	20.52	62.15	100	303	P	H
		15720	43.58	-10.42	54	47.69	37.52	20.52	62.15	100	303	A	H
													H
		10480	46.54	-21.66	68.2	54.59	39.7	16.2	63.95	100	0	P	V
		15720	49.78	-24.22	74	53.89	37.52	20.52	62.15	100	0	P	V
													V
													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)
		5146.12	58.58	-15.42	74	49.78	31.89	10.03	33.12	100	338	P	H
		5147.68	44.66	-9.34	54	35.85	31.9	10.03	33.12	100	338	A	H
	*	5180	102.9	-	-	94.23	31.72	10.07	33.12	100	338	P	H
	*	5180	95.58	-	-	86.91	31.72	10.07	33.12	100	338	A	H
802.11n													H
HT20													H
CH 36		5148.98	65.44	-8.56	74	56.63	31.9	10.03	33.12	100	237	P	V
5180MHz		5149.76	50.31	-3.69	54	41.5	31.9	10.03	33.12	100	237	A	V
	*	5180	110.59	-	-	101.92	31.72	10.07	33.12	100	237	P	V
	*	5180	102.93	-	-	94.26	31.72	10.07	33.12	100	237	A	V
													V
													V
		5147.94	51.86	-22.14	74	43.05	31.9	10.03	33.12	100	300	P	H
		5132.6	41.87	-12.13	54	33.1	31.87	10.02	33.12	100	300	A	H
	*	5220	103.47	-	-	94.97	31.52	10.1	33.12	100	300	P	H
	*	5220	95.82	-	-	87.32	31.52	10.1	33.12	100	300	A	H
802.11n		5458.12	50.19	-23.81	74	41.33	31.73	10.24	33.11	100	300	P	H
HT20		5458.93	40.35	-13.65	54	31.48	31.74	10.24	33.11	100	300	A	H
CH 44		5145.08	54.11	-19.89	74	45.31	31.89	10.03	33.12	110	235	P	V
5220MHz		5150	44.84	-9.16	54	36.03	31.9	10.03	33.12	110	235	A	V
	*	5220	111.45	-	-	102.95	31.52	10.1	33.12	110	235	P	V
	*	5220	104.04	-	-	95.54	31.52	10.1	33.12	110	235	A	V
		5374.15	51.68	-22.32	74	43.21	31.44	10.14	33.11	110	235	P	V
		5383.33	41.4	-12.6	54	32.87	31.5	10.14	33.11	110	235	A	V

		5106.6	50.92	-23.08	74	42.24	31.81	9.99	33.12	100	300	P	H
		5146.9	41.85	-12.15	54	33.05	31.89	10.03	33.12	100	300	A	H
	*	5240	103.8	-	-	95.38	31.44	10.1	33.12	100	300	P	H
	*	5240	96.55	-	-	88.13	31.44	10.1	33.12	100	300	A	H
802.11n		5431.66	50.19	-23.81	74	41.44	31.66	10.2	33.11	100	300	P	H
HT20		5459.74	40.18	-13.82	54	31.31	31.74	10.24	33.11	100	300	A	H
CH 48		5123.5	53.59	-20.41	74	44.85	31.85	10.01	33.12	100	230	P	V
5240MHz		5149.76	43.74	-10.26	54	34.93	31.9	10.03	33.12	100	230	A	V
	*	5240	111.77	-	-	103.35	31.44	10.1	33.12	100	230	P	V
	*	5240	104.07	-	-	95.65	31.44	10.1	33.12	100	230	A	V
		5354.98	49.59	-24.41	74	41.23	31.33	10.14	33.11	100	230	P	V
		5350.39	42.12	-11.88	54	33.79	31.3	10.14	33.11	100	230	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)
		10360	46.77	-21.43	68.2	54.77	39.54	16.12	63.66	100	0	P	H
		15540	49.01	-24.99	74	52.59	38.3	20.56	62.44	100	0	P	H
802.11n													H
HT20													H
CH 36		10360	47.75	-20.45	68.2	55.75	39.54	16.12	63.66	100	0	P	V
5180MHz		15540	47.46	-26.54	74	51.04	38.3	20.56	62.44	100	0	P	V
													V
													V
		10440	45.87	-22.33	68.2	53.86	39.7	16.17	63.86	100	0	P	H
		15660	47.86	-26.14	74	51.87	37.7	20.53	62.24	100	0	P	H
802.11n													H
HT20													H
CH 44		10440	46.45	-21.75	68.2	54.44	39.7	16.17	63.86	100	0	P	V
5220MHz		15660	48.05	-25.95	74	52.06	37.7	20.53	62.24	100	0	P	V
													V
													V
		10480	46.67	-21.53	68.2	54.72	39.7	16.2	63.95	100	0	P	H
		15720	48.57	-25.43	74	52.68	37.52	20.52	62.15	100	0	P	H
802.11n													H
HT20													H
CH 48		10480	46.66	-21.54	68.2	54.71	39.7	16.2	63.95	100	0	P	V
5240MHz		15720	47.8	-26.2	74	51.91	37.52	20.52	62.15	100	0	P	V
													V
													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		5149.24	59.17	-14.83	74	50.36	31.9	10.03	33.12	112	289	P	H
		5147.42	45.33	-8.67	54	36.53	31.89	10.03	33.12	112	289	A	H
	*	5190	97.15	-	-	88.53	31.66	10.08	33.12	112	289	P	H
	*	5190	89.79	-	-	81.17	31.66	10.08	33.12	112	289	A	H
		5439.56	51.53	-22.47	74	42.75	31.68	10.21	33.11	112	289	P	H
		5457.48	40.98	-13.02	54	32.12	31.73	10.24	33.11	112	289	A	H
		5150	65.41	-8.59	74	56.6	31.9	10.03	33.12	100	239	P	V
		5148.98	50.59	-3.41	54	41.78	31.9	10.03	33.12	100	239	A	V
	*	5190	104.85	-	-	96.23	31.66	10.08	33.12	100	239	P	V
	*	5190	97.84	-	-	89.22	31.66	10.08	33.12	100	239	A	V
		5372.08	50.6	-23.4	74	42.14	31.43	10.14	33.11	100	239	P	V
		5353.04	41.56	-12.44	54	33.21	31.32	10.14	33.11	100	239	A	V
802.11n HT40 CH 46 5230MHz		5138.58	53.42	-20.58	74	44.64	31.88	10.02	33.12	100	298	P	H
		5141.44	42.76	-11.24	54	33.97	31.88	10.03	33.12	100	298	A	H
	*	5230	100.17	-	-	91.71	31.48	10.1	33.12	100	298	P	H
	*	5230	92.82	-	-	84.36	31.48	10.1	33.12	100	298	A	H
		5449.08	51.5	-22.5	74	42.68	31.7	10.23	33.11	100	298	P	H
		5426.96	41.01	-12.99	54	32.28	31.65	10.19	33.11	100	298	A	H
		5147.68	60.1	-13.9	74	51.29	31.9	10.03	33.12	100	239	P	V
		5149.24	46.98	-7.02	54	38.17	31.9	10.03	33.12	100	239	A	V
	*	5230	108.67	-	-	100.21	31.48	10.1	33.12	100	239	P	V
	*	5230	101.27	-	-	92.81	31.48	10.1	33.12	100	239	A	V
		5350.52	52.64	-21.36	74	44.31	31.3	10.14	33.11	100	239	P	V
		5352.2	43.23	-10.77	54	34.89	31.31	10.14	33.11	100	239	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		5124.54	52.18	-21.82	74	43.44	31.85	10.01	33.12	100	299	P	H
		5147.16	44.58	-9.42	54	35.78	31.89	10.03	33.12	100	299	A	H
	*	5210	94.21	-	-	85.68	31.56	10.09	33.12	100	299	P	H
	*	5210	86.92	-	-	78.39	31.56	10.09	33.12	100	299	A	H
		5423.6	51.08	-22.92	74	42.35	31.65	10.19	33.11	100	299	P	H
		5454.28	42.63	-11.37	54	33.79	31.72	10.23	33.11	100	299	A	H
		5131.82	56.3	-17.7	74	47.54	31.86	10.02	33.12	100	240	P	V
		5149.76	48.87	-5.13	54	40.06	31.9	10.03	33.12	100	240	A	V
	*	5210	102.03	-	-	93.5	31.56	10.09	33.12	100	240	P	V
	*	5210	94.33	-	-	85.8	31.56	10.09	33.12	100	240	A	V
		5376.02	50.48	-23.52	74	41.99	31.46	10.14	33.11	100	240	P	V
		5353.14	43.34	-10.66	54	34.99	31.32	10.14	33.11	100	240	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	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 52 5260MHz		5136	50.98	-23.02	74	42.21	31.87	10.02	33.12	100	299	P	H
		5145.86	41.48	-12.52	54	32.68	31.89	10.03	33.12	100	299	A	H
	*	5260	103.36	-	-	94.98	31.38	10.11	33.11	100	299	P	H
	*	5260	96.19	-	-	87.81	31.38	10.11	33.11	100	299	A	H
		5414.16	49.26	-24.74	74	40.57	31.63	10.17	33.11	100	299	P	H
		5456.4	40.29	-13.71	54	31.43	31.73	10.24	33.11	100	299	A	H
		5142.8	53.09	-20.91	74	44.29	31.89	10.03	33.12	100	241	P	V
		5147.22	43.41	-10.59	54	34.61	31.89	10.03	33.12	100	241	A	V
	*	5260	112.17	-	-	103.79	31.38	10.11	33.11	100	241	P	V
	*	5260	104.81	-	-	96.43	31.38	10.11	33.11	100	241	A	V
		5432.64	52.49	-21.51	74	43.73	31.67	10.2	33.11	100	241	P	V
		5352	43.33	-10.67	54	34.99	31.31	10.14	33.11	100	241	A	V
802.11a CH 60 5300MHz		5057.46	51.87	-22.13	74	43.43	31.63	9.93	33.12	100	329	P	H
		5116.28	41.32	-12.68	54	32.61	31.83	10	33.12	100	329	A	H
	*	5300	102.8	-	-	94.49	31.3	10.12	33.11	100	329	P	H
	*	5300	95.41	-	-	87.1	31.3	10.12	33.11	100	329	A	H
		5352.24	50.59	-23.41	74	42.25	31.31	10.14	33.11	100	329	P	H
		5355.36	40.5	-13.5	54	32.14	31.33	10.14	33.11	100	329	A	H
		5147.9	52.79	-21.21	74	43.98	31.9	10.03	33.12	100	240	P	V
		5135.32	43.14	-10.86	54	34.37	31.87	10.02	33.12	100	240	A	V
	*	5300	111.92	-	-	103.61	31.3	10.12	33.11	100	240	P	V
	*	5300	104.39	-	-	96.08	31.3	10.12	33.11	100	240	A	V
		5352.48	56.79	-17.21	74	48.45	31.31	10.14	33.11	100	240	P	V
		5350.08	45.71	-8.29	54	37.38	31.3	10.14	33.11	100	240	A	V

	*	5320	105.87	-	-	97.55	31.3	10.13	33.11	100	310	P	H
	*	5320	98.32	-	-	90	31.3	10.13	33.11	100	310	A	H
		5351.52	59.87	-14.13	74	51.53	31.31	10.14	33.11	100	310	P	H
		5352.16	46.23	-7.77	54	37.89	31.31	10.14	33.11	100	310	A	H
													H
802.11a													H
CH 64	*	5320	110.77	-	-	102.45	31.3	10.13	33.11	100	240	P	V
5320MHz	*	5320	103.54	-	-	95.22	31.3	10.13	33.11	100	240	A	V
		5350.56	63.05	-10.95	74	54.72	31.3	10.14	33.11	100	240	P	V
		5350.56	50.51	-3.49	54	42.18	31.3	10.14	33.11	100	240	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	46.22	-21.98	68.2	54.33	39.7	16.22	64.03	100	0	P	H
		15780	53.67	-20.33	74	57.63	37.58	20.51	62.05	100	300	P	H
		15780	42.62	-11.38	54	46.58	37.58	20.51	62.05	100	300	A	H
													H
		10520	46	-22.2	68.2	54.11	39.7	16.22	64.03	100	0	P	V
		15780	48.16	-25.84	74	52.12	37.58	20.51	62.05	100	0	P	V
													V
													V
802.11a CH 60 5300MHz		10600	45.52	-28.48	74	53.69	39.7	16.27	64.14	100	0	P	H
		15900	49.8	-24.2	74	53.98	37.2	20.48	61.86	100	0	P	H
													H
													H
		10600	45.68	-28.32	74	53.85	39.7	16.27	64.14	100	0	P	V
		15900	52.37	-21.63	74	56.55	37.2	20.48	61.86	102	261	P	V
		15900	41.99	-12.01	54	46.17	37.2	20.48	61.86	102	261	A	V
													V
802.11a CH 64 5320MHz		10640	46.25	-27.75	74	54.49	39.66	16.3	64.2	100	0	P	H
		15960	55.57	-18.43	74	59.84	37.02	20.47	61.76	100	299	P	H
		15960	44.02	-9.98	54	48.29	37.02	20.47	61.76	100	299	A	H
													H
		10640	46	-28	74	54.24	39.66	16.3	64.2	100	0	P	V
		15960	47.78	-26.22	74	52.05	37.02	20.47	61.76	100	0	P	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 (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)
		5002.04	52.18	-21.82	74	44.02	31.41	9.87	33.12	100	309	P	H
		5136.68	41.54	-12.46	54	32.77	31.87	10.02	33.12	100	309	A	H
	*	5260	105.83	-	-	97.45	31.38	10.11	33.11	100	309	P	H
	*	5260	98.69	-	-	90.31	31.38	10.11	33.11	100	309	A	H
802.11n		5449.68	50.07	-23.93	74	41.25	31.7	10.23	33.11	100	309	P	H
HT20		5351.52	40.77	-13.23	54	32.43	31.31	10.14	33.11	100	309	A	H
CH 52		5096.9	52.86	-21.14	74	44.21	31.79	9.98	33.12	100	239	P	V
5260MHz		5147.22	43.97	-10.03	54	35.17	31.89	10.03	33.12	100	239	A	V
	*	5260	111.73	-	-	103.35	31.38	10.11	33.11	100	239	P	V
	*	5260	104.46	-	-	96.08	31.38	10.11	33.11	100	239	A	V
		5354.16	52.4	-21.6	74	44.05	31.32	10.14	33.11	100	239	P	V
		5351.04	43.77	-10.23	54	35.43	31.31	10.14	33.11	100	239	A	V
		5124.44	51.1	-22.9	74	42.36	31.85	10.01	33.12	100	310	P	H
		5068.34	41.39	-12.61	54	32.89	31.67	9.95	33.12	100	310	A	H
	*	5300	106.66	-	-	98.35	31.3	10.12	33.11	100	310	P	H
	*	5300	98.5	-	-	90.19	31.3	10.12	33.11	100	310	A	H
802.11n		5355.12	54.19	-19.81	74	45.83	31.33	10.14	33.11	100	310	P	H
HT20		5350.8	42.19	-11.81	54	33.86	31.3	10.14	33.11	100	310	A	H
CH 60		5115.94	51.97	-22.03	74	43.26	31.83	10	33.12	100	239	P	V
5300MHz		5131.58	43.1	-10.9	54	34.35	31.86	10.01	33.12	100	239	A	V
	*	5300	111.07	-	-	102.76	31.3	10.12	33.11	100	239	P	V
	*	5300	103.65	-	-	95.34	31.3	10.12	33.11	100	239	A	V
		5356.8	59.91	-14.09	74	51.54	31.34	10.14	33.11	100	239	P	V
		5350.08	46.32	-7.68	54	37.99	31.3	10.14	33.11	100	239	A	V

	*	5320	105.12	-	-	96.8	31.3	10.13	33.11	100	309	P	H
	*	5320	97.37	-	-	89.05	31.3	10.13	33.11	100	309	A	H
		5350.72	61.77	-12.23	74	53.44	31.3	10.14	33.11	100	309	P	H
		5350.08	44.83	-9.17	54	36.5	31.3	10.14	33.11	100	309	A	H
802.11n													H
HT20													H
CH 64	*	5320	109.99	-	-	101.67	31.3	10.13	33.11	100	237	P	V
5320MHz	*	5320	102.78	-	-	94.46	31.3	10.13	33.11	100	237	A	V
		5350.56	68.37	-5.63	74	60.04	31.3	10.14	33.11	100	237	P	V
		5350.08	50.44	-3.56	54	42.11	31.3	10.14	33.11	100	237	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)
		10520	46.9	-21.3	68.2	55.01	39.7	16.22	64.03	100	0	P	H
		15780	51.99	-22.01	74	55.95	37.58	20.51	62.05	100	295	P	H
802.11n		15780	40.49	-13.51	54	44.45	37.58	20.51	62.05	100	295	A	H
HT20													H
CH 52		10520	46.15	-22.05	68.2	54.26	39.7	16.22	64.03	100	0	P	V
5260MHz		15780	48.31	-25.69	74	52.27	37.58	20.51	62.05	100	0	P	V
													V
													V
		10600	49.05	-24.95	74	54.3	39.7	16.27	61.22	100	0	P	H
		15900	52.81	-21.19	74	56.25	37.2	20.48	61.12	100	294	P	H
802.11n		15900	42.09	-11.91	54	45.53	37.2	20.48	61.12	100	294	A	H
HT20													H
CH 60		10600	48.51	-25.49	74	53.76	39.7	16.27	61.22	100	0	P	V
5300MHz		15900	49.98	-24.02	74	53.42	37.2	20.48	61.12	100	0	P	V
													V
													V
		10640	48.75	-25.25	74	54.06	39.66	16.3	61.27	100	0	P	H
		15960	50.27	-23.73	74	53.83	37.02	20.47	61.05	100	296	P	H
802.11n		15960	39.03	-14.97	54	42.59	37.02	20.47	61.05	100	296	A	H
HT20													H
CH 64		10640	49.21	-24.79	74	54.52	39.66	16.3	61.27	100	0	P	V
5320MHz		15960	49.96	-24.04	74	53.52	37.02	20.47	61.05	100	0	P	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 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		5087.04	51.11	-22.89	74	42.51	31.75	9.97	33.12	100	310	P	H
		5105.4	42.69	-11.31	54	34.01	31.81	9.99	33.12	100	310	A	H
	*	5270	100.84	-	-	92.48	31.36	10.11	33.11	100	310	P	H
	*	5270	93.62	-	-	85.26	31.36	10.11	33.11	100	310	A	H
		5361.6	51.62	-22.38	74	43.22	31.37	10.14	33.11	100	310	P	H
		5350.8	41.2	-12.8	54	32.87	31.3	10.14	33.11	100	310	A	H
		5138.38	52.36	-21.64	74	43.58	31.88	10.02	33.12	100	239	P	V
		5149.26	44.06	-9.94	54	35.25	31.9	10.03	33.12	100	239	A	V
	*	5270	107.51	-	-	99.15	31.36	10.11	33.11	100	239	P	V
	*	5270	99.79	-	-	91.43	31.36	10.11	33.11	100	239	A	V
		5358.48	57.48	-16.52	74	49.1	31.35	10.14	33.11	100	239	P	V
		5355.84	45.07	-8.93	54	36.7	31.34	10.14	33.11	100	239	A	V
802.11n HT40 CH 62 5310MHz		5136.68	51.67	-22.33	74	42.9	31.87	10.02	33.12	100	309	P	H
		5079.9	42.41	-11.59	54	33.85	31.72	9.96	33.12	100	309	A	H
	*	5310	99.53	-	-	91.22	31.3	10.12	33.11	100	309	P	H
	*	5310	92.14	-	-	83.83	31.3	10.12	33.11	100	309	A	H
		5351.52	60.51	-13.49	74	52.17	31.31	10.14	33.11	100	309	P	H
		5351.04	45.63	-8.37	54	37.29	31.31	10.14	33.11	100	309	A	H
		5147.22	52.28	-21.72	74	43.48	31.89	10.03	33.12	109	239	P	V
		5145.52	43.71	-10.29	54	34.91	31.89	10.03	33.12	109	239	A	V
	*	5310	105.09	-	-	96.78	31.3	10.12	33.11	109	239	P	V
	*	5310	97.76	-	-	89.45	31.3	10.12	33.11	109	239	A	V
		5351.28	66.04	-7.96	74	57.7	31.31	10.14	33.11	109	239	P	V
		5350.32	50.41	-3.59	54	42.08	31.3	10.14	33.11	109	239	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		5084.6	50.77	-23.23	74	42.19	31.74	9.96	33.12	100	310	P	H
		5090	43.68	-10.32	54	35.07	31.76	9.97	33.12	100	310	A	H
	*	5290	96.24	-	-	87.91	31.32	10.12	33.11	100	310	P	H
	*	5290	88.55	-	-	80.22	31.32	10.12	33.11	100	310	A	H
		5350.8	51.66	-22.34	74	43.33	31.3	10.14	33.11	100	310	P	H
		5355.12	44.87	-9.13	54	36.51	31.33	10.14	33.11	100	310	A	H
		5148.2	51.89	-22.11	74	43.08	31.9	10.03	33.12	100	239	P	V
		5135.6	44.92	-9.08	54	36.15	31.87	10.02	33.12	100	239	A	V
	*	5290	100.36	-	-	92.03	31.32	10.12	33.11	100	239	P	V
	*	5290	93.41	-	-	85.08	31.32	10.12	33.11	100	239	A	V
		5351.28	57.07	-16.93	74	48.73	31.31	10.14	33.11	100	239	P	V
		5350.8	49.19	-4.81	54	40.86	31.3	10.14	33.11	100	239	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	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 100 5500MHz		5457.84	51.1	-22.9	74	42.24	31.73	10.24	33.11	237	112	P	H
		5468.08	55.47	-12.73	68.2	46.55	31.77	10.26	33.11	237	112	P	H
		5459.28	42.11	-11.89	54	33.24	31.74	10.24	33.11	237	112	A	H
	*	5500	102.65	-	-	93.55	31.9	10.31	33.11	237	112	P	H
	*	5500	95.48	-	-	86.38	31.9	10.31	33.11	237	112	A	H
													H
		5459.6	59.86	-14.14	74	50.99	31.74	10.24	33.11	100	241	P	V
		5467.92	63.71	-4.49	68.2	54.79	31.77	10.26	33.11	100	241	P	V
		5459.6	46.26	-7.74	54	37.39	31.74	10.24	33.11	100	241	A	V
	*	5500	110.11	-	-	101.01	31.9	10.31	33.11	100	241	P	V
	*	5500	101.97	-	-	92.87	31.9	10.31	33.11	100	241	A	V
													V
802.11a CH 116 5580MHz		5459.68	49.37	-24.63	74	40.5	31.74	10.24	33.11	226	75	P	H
		5466.88	48.64	-19.56	68.2	39.73	31.77	10.25	33.11	226	75	P	H
		5459.44	40.47	-13.53	54	31.6	31.74	10.24	33.11	226	75	A	H
	*	5580	103.16	-	-	94.07	31.8	10.43	33.14	226	75	P	H
	*	5580	95.65	-	-	86.56	31.8	10.43	33.14	226	75	A	H
		5727.515	50.61	-17.59	68.2	41.2	32.06	10.53	33.18	226	75	P	H
		5441.92	51.67	-22.33	74	42.89	31.68	10.21	33.11	100	252	P	V
		5466.4	51.19	-17.01	68.2	42.28	31.77	10.25	33.11	100	252	P	V
		5459.68	41.89	-12.11	54	33.02	31.74	10.24	33.11	100	252	A	V
	*	5580	110.91	-	-	101.82	31.8	10.43	33.14	100	252	P	V
	*	5580	102.99	-	-	93.9	31.8	10.43	33.14	100	252	A	V
		5750.51	52.32	-15.88	68.2	42.87	32.1	10.54	33.19	100	252	P	V

802.11a CH 140 5700MHz	*	5700	102.59	-	-	93.25	32	10.51	33.17	226	74	P	H
	*	5700	94.16	-	-	84.82	32	10.51	33.17	226	74	A	H
		5725.4	59.42	-8.78	68.2	50.02	32.05	10.53	33.18	226	74	P	H
													H
													H
													H
	*	5700	107.55	-	-	98.21	32	10.51	33.17	100	236	P	V
	*	5700	100.2	-	-	90.86	32	10.51	33.17	100	236	A	V
		5727.88	63.97	-4.23	68.2	54.56	32.06	10.53	33.18	100	236	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	49.99	-24.01	74	55.18	40	16.51	61.7	100	0	P	H
		16500	55.25	-12.95	68.2	55.1	38.7	21.15	59.7	100	0	P	H
													H
													H
		11000	49.98	-24.02	74	55.17	40	16.51	61.7	100	0	P	V
		16500	52.5	-15.7	68.2	52.35	38.7	21.15	59.7	100	0	P	V
													V
													V
802.11a CH 116 5580MHz		11160	49.82	-24.18	74	55.46	39.48	16.74	61.86	100	0	P	H
		16740	53.4	-14.8	68.2	52.01	39.56	21.48	59.65	100	0	P	H
													H
													H
		11160	49.92	-24.08	74	55.56	39.48	16.74	61.86	100	0	P	V
		16740	51.81	-16.39	68.2	50.42	39.56	21.48	59.65	100	0	P	V
													V
													V
802.11a CH 140 5700MHz		11400	49.7	-24.3	74	55.01	39.7	17.09	62.1	100	0	P	H
		17100	54.1	-14.1	68.2	51.44	40.1	21.94	59.38	100	0	P	H
													H
													H
		11400	49.83	-24.17	74	55.14	39.7	17.09	62.1	100	0	P	V
		17100	52.03	-16.17	68.2	49.37	40.1	21.94	59.38	100	0	P	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 (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)
		5453.84	51.36	-22.64	74	42.52	31.72	10.23	33.11	215	113	P	H
		5469.2	57.09	-11.11	68.2	48.16	31.78	10.26	33.11	215	113	P	H
		5458.8	41.98	-12.02	54	33.11	31.74	10.24	33.11	215	113	A	H
	*	5500	101.19	-	-	92.09	31.9	10.31	33.11	215	113	P	H
802.11n	*	5500	94.02	-	-	84.92	31.9	10.31	33.11	215	113	A	H
HT20													H
CH 100		5451.6	57.54	-16.46	74	48.71	31.71	10.23	33.11	100	241	P	V
5500MHz		5469.52	64.64	-3.56	68.2	55.71	31.78	10.26	33.11	100	241	P	V
		5459.44	46.7	-7.3	54	37.83	31.74	10.24	33.11	100	241	A	V
	*	5500	108.37	-	-	99.27	31.9	10.31	33.11	100	241	P	V
	*	5500	101.04	-	-	91.94	31.9	10.31	33.11	100	241	A	V
													V
		5417.44	49.4	-24.6	74	40.7	31.63	10.18	33.11	213	115	P	H
		5462.08	49.44	-18.76	68.2	40.55	31.75	10.25	33.11	213	115	P	H
		5457.04	40.56	-13.44	54	31.7	31.73	10.24	33.11	213	115	A	H
	*	5580	102.65	-	-	93.56	31.8	10.43	33.14	213	115	P	H
802.11n	*	5580	95.39	-	-	86.3	31.8	10.43	33.14	213	115	A	H
HT20		5758.7	50.69	-17.51	68.2	41.21	32.12	10.55	33.19	213	115	P	H
CH 116		5408.56	52.53	-21.47	74	43.86	31.62	10.16	33.11	100	238	P	V
5580MHz		5461.12	51.04	-17.16	68.2	42.17	31.74	10.24	33.11	100	238	P	V
		5459.2	42.2	-11.8	54	33.33	31.74	10.24	33.11	100	238	A	V
	*	5580	110.94	-	-	101.85	31.8	10.43	33.14	100	238	P	V
	*	5580	103.68	-	-	94.59	31.8	10.43	33.14	100	238	A	V
		5746.415	52.45	-15.75	68.2	43.01	32.09	10.54	33.19	100	238	P	V

	*	5700	101.27	-	-	91.93	32	10.51	33.17	218	69	P	H
	*	5700	93.89	-	-	84.55	32	10.51	33.17	218	69	A	H
		5726.76	59.12	-9.08	68.2	49.72	32.05	10.53	33.18	218	69	P	H
													H
802.11n													H
HT20													H
CH 140	*	5700	106.92	-	-	97.58	32	10.51	33.17	100	240	P	V
5700MHz	*	5700	99.56	-	-	90.22	32	10.51	33.17	100	240	A	V
		5725.24	63.82	-4.38	68.2	54.42	32.05	10.53	33.18	100	240	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)
		11000	49.99	-24.01	74	55.18	40	16.51	61.7	100	0	P	H
		16500	59.19	-9.01	68.2	59.04	38.7	21.15	59.7	100	298	P	H
802.11n													H
HT20													H
CH 100		11000	49.9	-24.1	74	55.09	40	16.51	61.7	100	0	P	V
5500MHz		16500	53.21	-14.99	68.2	53.06	38.7	21.15	59.7	100	0	P	V
													V
													V
		11160	49.94	-24.06	74	55.58	39.48	16.74	61.86	100	0	P	H
		16740	60.44	-7.76	68.2	59.05	39.56	21.48	59.65	100	299	P	H
802.11n													H
HT20													H
CH 116		11160	49.91	-24.09	74	55.55	39.48	16.74	61.86	100	0	P	V
5580MHz		16740	54.49	-13.71	68.2	53.1	39.56	21.48	59.65	100	0	P	V
													V
													V
		11400	49.93	-24.07	74	55.24	39.7	17.09	62.1	100	0	P	H
		17100	52.77	-15.43	68.2	50.11	40.1	21.94	59.38	100	0	P	H
802.11n													H
HT20													H
CH 140		11400	49.59	-24.41	74	54.9	39.7	17.09	62.1	100	0	P	V
5700MHz		17100	50.91	-17.29	68.2	48.25	40.1	21.94	59.38	100	0	P	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 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)
		5453.2	54.48	-19.52	74	45.65	31.71	10.23	33.11	229	109	P	H
		5469.52	58.41	-9.79	68.2	49.48	31.78	10.26	33.11	229	109	P	H
		5459.68	42.55	-11.45	54	33.68	31.74	10.24	33.11	229	109	A	H
	*	5510	97.69	-	-	88.6	31.88	10.32	33.11	229	109	P	H
802.11n	*	5510	90.06	-	-	80.97	31.88	10.32	33.11	229	109	A	H
HT40		5729.405	50.62	-17.58	68.2	41.21	32.06	10.53	33.18	229	109	P	H
CH 102		5454.16	62.14	-11.86	74	53.3	31.72	10.23	33.11	100	242	P	V
5510MHz		5470	65.01	-3.19	68.2	56.08	31.78	10.26	33.11	100	242	P	V
		5458	46.64	-7.36	54	37.78	31.73	10.24	33.11	100	242	A	V
	*	5510	104.46	-	-	95.37	31.88	10.32	33.11	100	242	P	V
	*	5510	96.93	-	-	87.84	31.88	10.32	33.11	100	242	A	V
		5761.535	51.49	-16.71	68.2	42.01	32.12	10.55	33.19	100	242	P	V
		5413.84	50.54	-23.46	74	41.85	31.63	10.17	33.11	236	112	P	H
		5466.88	53.93	-14.27	68.2	45.02	31.77	10.25	33.11	236	112	P	H
		5458.96	42.23	-11.77	54	33.36	31.74	10.24	33.11	236	112	A	H
	*	5550	100.91	-	-	91.86	31.8	10.38	33.13	236	112	P	H
802.11n	*	5550	93.16	-	-	84.11	31.8	10.38	33.13	236	112	A	H
HT40		5737.595	50.91	-17.29	68.2	41.48	32.08	10.54	33.19	236	112	P	H
CH 110		5456.32	56.47	-17.53	74	47.61	31.73	10.24	33.11	100	240	P	V
5550MHz		5466.88	59.8	-8.4	68.2	50.89	31.77	10.25	33.11	100	240	P	V
		5457.04	45.69	-8.31	54	36.83	31.73	10.24	33.11	100	240	A	V
	*	5550	108.62	-	-	99.57	31.8	10.38	33.13	100	240	P	V
	*	5550	100.74	-	-	91.69	31.8	10.38	33.13	100	240	A	V
		5729.72	52.12	-16.08	68.2	42.71	32.06	10.53	33.18	100	240	P	V

		5433.65	49.84	-24.16	74	41.08	31.67	10.2	33.11	221	114	P	H
		5463.05	49.84	-18.36	68.2	40.95	31.75	10.25	33.11	221	114	P	H
		5429.1	40.9	-13.1	54	32.15	31.66	10.2	33.11	221	114	A	H
	*	5670	99.35	-	-	90.19	31.82	10.5	33.16	221	114	P	H
802.11n	*	5670	91.72	-	-	82.56	31.82	10.5	33.16	221	114	A	H
HT40		5725.625	58.08	-10.12	68.2	48.68	32.05	10.53	33.18	221	114	P	H
CH 134		5394.8	49.9	-24.1	74	41.29	31.57	10.15	33.11	100	240	P	V
5670MHz		5468.65	49.91	-18.29	68.2	40.99	31.77	10.26	33.11	100	240	P	V
		5449.75	41.54	-12.46	54	32.72	31.7	10.23	33.11	100	240	A	V
	*	5670	107.19	-	-	98.03	31.82	10.5	33.16	100	240	P	V
	*	5670	99.32	-	-	90.16	31.82	10.5	33.16	100	240	A	V
		5725.625	64.74	-3.46	68.2	55.34	32.05	10.53	33.18	100	240	P	V

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

Band 3 - 5470~5725MHz

WIFI 802.11ac 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)
		5452.96	50.59	-23.41	74	41.76	31.71	10.23	33.11	219	113	P	H
		5465.68	51.14	-17.06	68.2	42.24	31.76	10.25	33.11	219	113	P	H
		5456.32	42.9	-11.1	54	34.04	31.73	10.24	33.11	219	113	A	H
	*	5530	93.64	-	-	84.57	31.84	10.35	33.12	219	113	P	H
802.11ac	*	5530	86.05	-	-	76.98	31.84	10.35	33.12	219	113	A	H
VHT80		5748.305	49.77	-18.43	68.2	40.32	32.1	10.54	33.19	219	113	P	H
CH 106		5456.8	54.96	-19.04	74	46.1	31.73	10.24	33.11	100	242	P	V
5530MHz		5469.76	56.7	-11.5	68.2	47.77	31.78	10.26	33.11	100	242	P	V
		5448.16	48.12	-5.88	54	39.31	31.7	10.22	33.11	100	242	A	V
	*	5530	101.28	-	-	92.21	31.84	10.35	33.12	100	242	P	V
	*	5530	93.47	-	-	84.4	31.84	10.35	33.12	100	242	A	V
		5730.98	51.44	-16.76	68.2	42.03	32.06	10.53	33.18	100	242	P	V
		5352.1	50.02	-23.98	74	41.68	31.31	10.14	33.11	220	114	P	H
		5460.6	49.41	-18.79	68.2	40.54	31.74	10.24	33.11	220	114	P	H
		5402.15	42.54	-11.46	54	33.9	31.6	10.15	33.11	220	114	A	H
	*	5610	95.51	-	-	86.41	31.78	10.47	33.15	220	114	P	H
802.11ac	*	5610	87.65	-	-	78.55	31.78	10.47	33.15	220	114	A	H
VHT80		5742.775	51.8	-16.4	68.2	42.36	32.09	10.54	33.19	220	114	P	H
CH 122		5431.2	51.5	-22.5	74	42.75	31.66	10.2	33.11	100	239	P	V
5610MHz		5463.4	52.51	-15.69	68.2	43.62	31.75	10.25	33.11	100	239	P	V
		5458.85	44.16	-9.84	54	35.29	31.74	10.24	33.11	100	239	A	V
	*	5610	103.52	-	-	94.42	31.78	10.47	33.15	100	239	P	V
	*	5610	95.83	-	-	86.73	31.78	10.47	33.15	100	239	A	V
		5725.975	56.32	-11.88	68.2	46.92	32.05	10.53	33.18	100	239	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

WIFI 802.11n HT40 (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 HT40 LF		71.71	33.62	-6.38	40	52.61	12.19	1.17	32.35	100	0	P	H
		207.51	34.59	-8.91	43.5	49.94	14.9	1.99	32.24	-	-	P	H
		306.45	35.33	-10.67	46	45.97	19.13	2.41	32.18	-	-	P	H
		491.72	33.3	-12.7	46	38.84	23.61	3.01	32.16	-	-	P	H
		592.6	30.79	-15.21	46	34.21	25.47	3.32	32.21	-	-	P	H
		953.44	33.1	-12.9	46	28.89	30.72	4.35	30.86	-	-	P	H
													H
													H
													H
													H
													H
													H
		38.73	29.48	-10.52	40	41.27	19.74	0.84	32.37	100	0	P	V
		94.02	28.56	-14.94	43.5	44.51	15.04	1.34	32.33	-	-	P	V
		207.51	25.33	-18.17	43.5	40.68	14.9	1.99	32.24	-	-	P	V
		789.51	30.27	-15.73	46	30.17	28.09	3.92	31.91	-	-	P	V
		881.66	32.22	-13.78	46	30.38	29.12	4.17	31.45	-	-	P	V
		943.74	33.15	-12.85	46	29.58	30.19	4.33	30.95	-	-	P	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 HT40 (LF @ 3m) for Adapter 2

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 HT40 LF		95.96	30.71	-12.79	43.5	46.44	15.24	1.35	32.32	-	-	P	H
		206.54	33.74	-9.76	43.5	49.09	14.9	1.99	32.24	-	-	P	H
		285.11	36.72	-9.28	46	47.8	18.78	2.33	32.19	100	0	P	H
		482.99	36.61	-9.39	46	42.26	23.52	2.99	32.16	-	-	P	H
		877.78	32.86	-13.14	46	31	29.17	4.16	31.47	-	-	P	H
		942.77	33.53	-12.47	46	30.04	30.12	4.33	30.96	-	-	P	H
													H
													H
													H
													H
													H
													H
		43.58	31.39	-8.61	40	45.59	17.28	0.89	32.37	-	-	P	V
		74.62	32.68	-7.32	40	51.32	12.51	1.2	32.35	100	0	P	V
		104.69	31.65	-11.85	43.5	46.18	16.4	1.39	32.32	-	-	P	V
		475.23	35.13	-10.87	46	40.91	23.41	2.97	32.16	-	-	P	V
		635.28	31.82	-14.18	46	34.36	26.16	3.48	32.18	-	-	P	V
		944.71	33	-13	46	29.36	30.25	4.33	30.94	-	-	P	V
													V
													V
													V
													V
													V
													V

Remark

3. No other spurious found.
4. 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

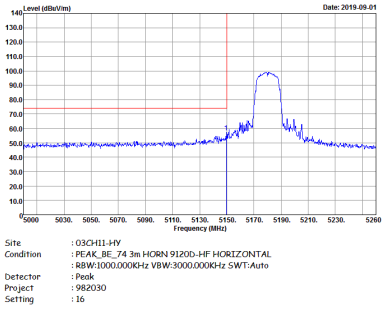
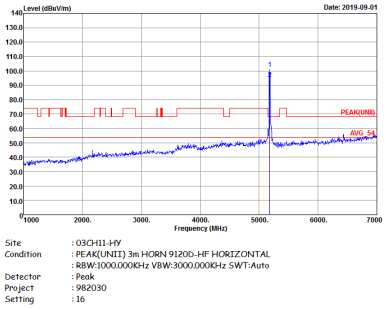
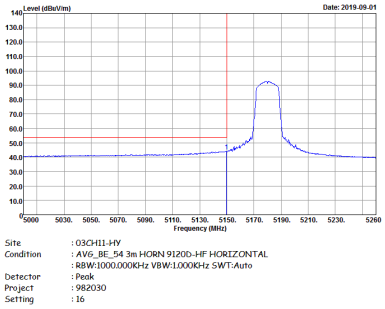
Test Engineer :	Bill Kuo,Trove Hsieh,FU Chen,Watt Tseng	**Temperature :**	20.0~26.5°C
		Relative Humidity :	50.0~69.3%

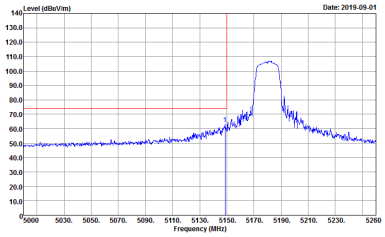
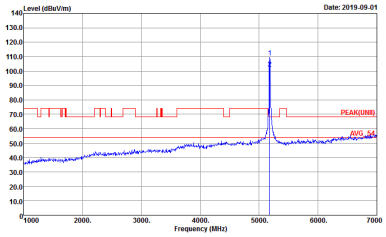
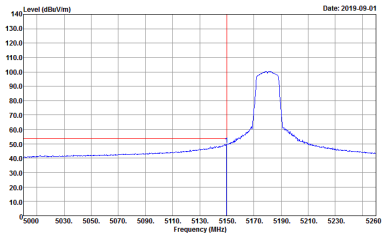
Note symbol

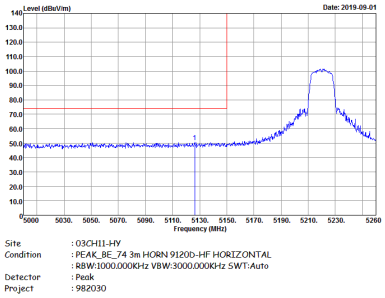
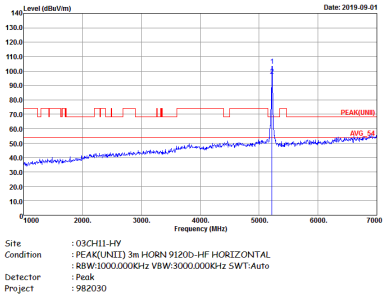
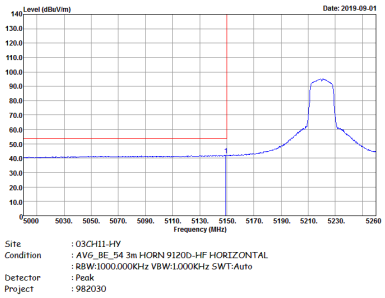
-L	**Low channel location**
-R	**High channel location**

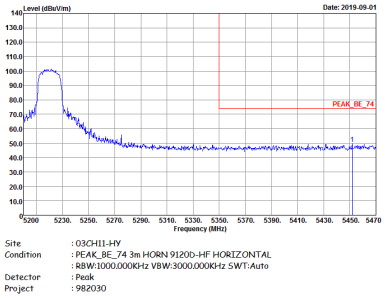
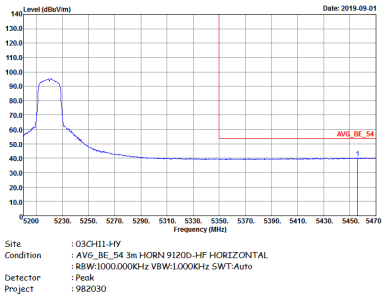
Band 1 - 5150~5250MHz

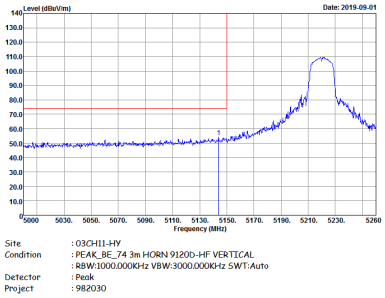
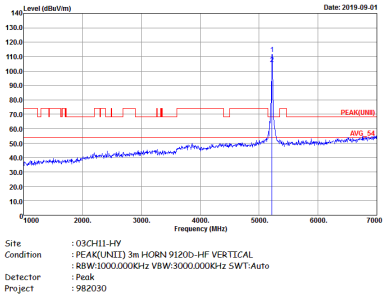
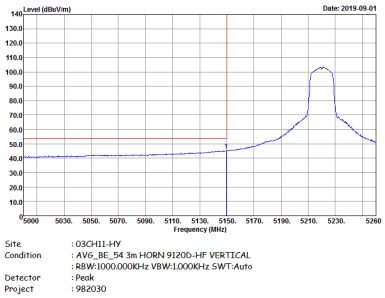
WIFI 802.11a (Band Edge @ 3m)

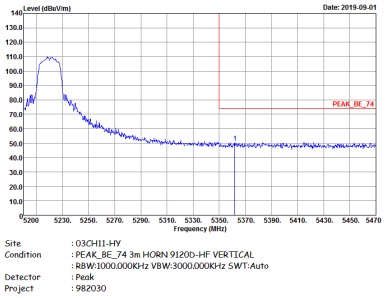
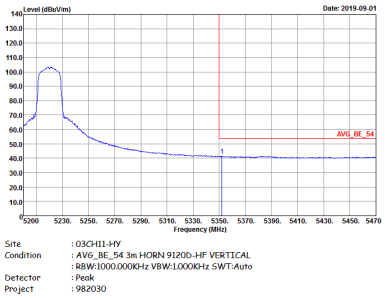
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

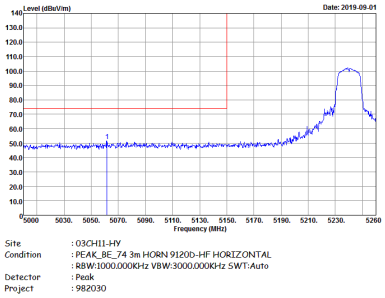
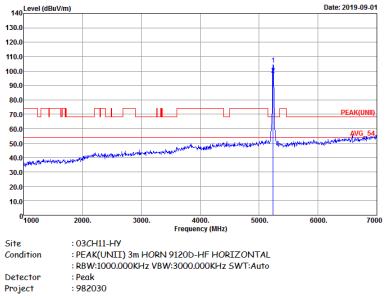
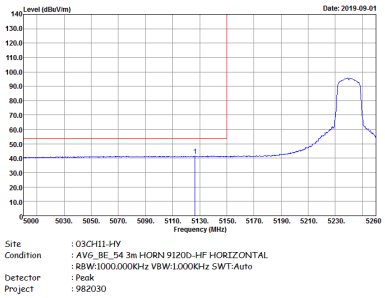
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE_74 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 16	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 16
Avg.	 Site : 03CH11-HV Condition : AVG_BE_54 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 16	Left blank

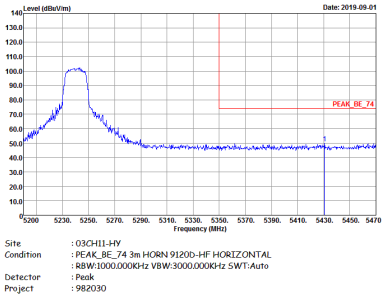
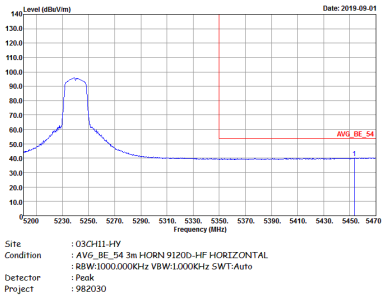
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

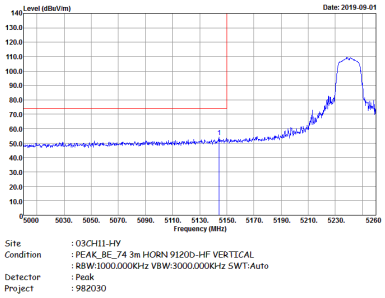
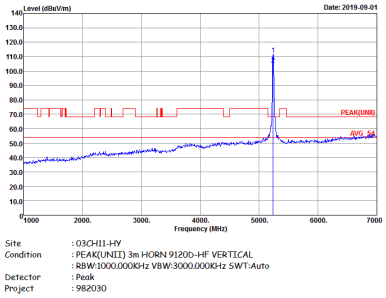
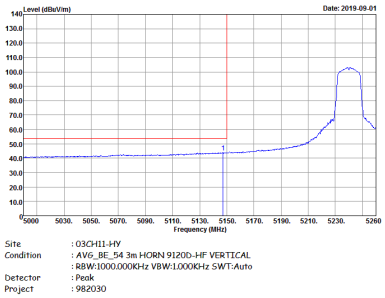
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

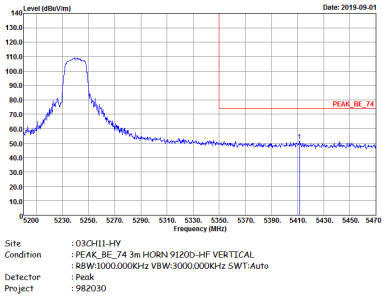
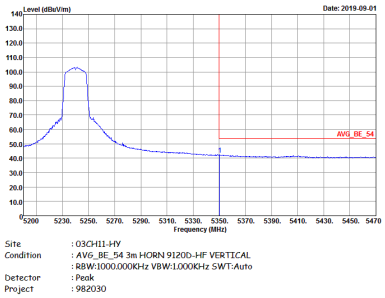
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

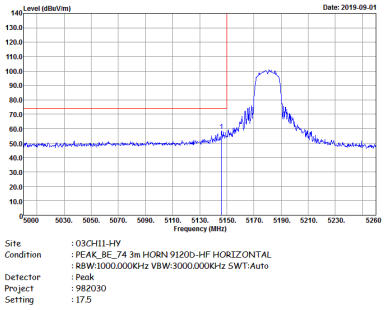
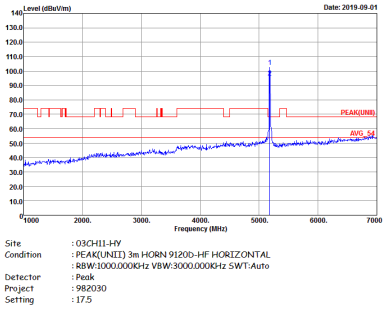
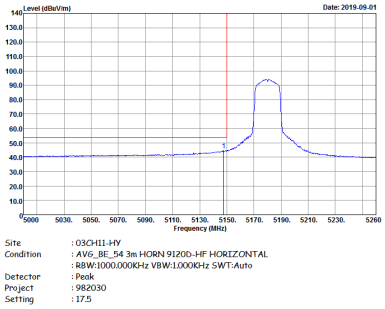
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

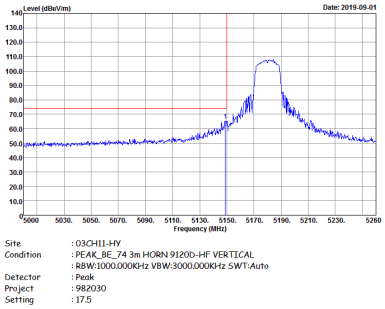
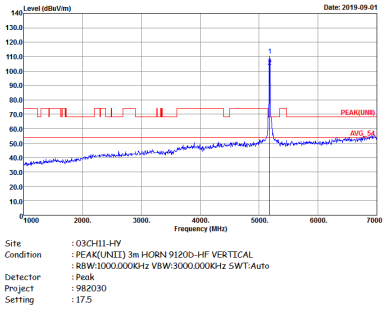
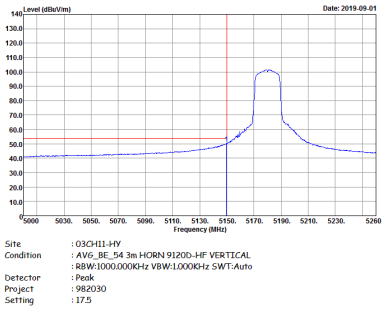
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

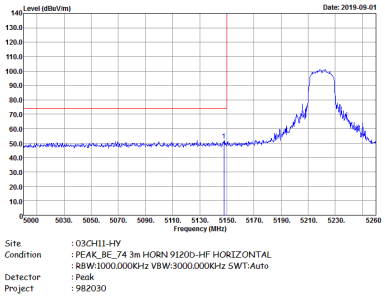
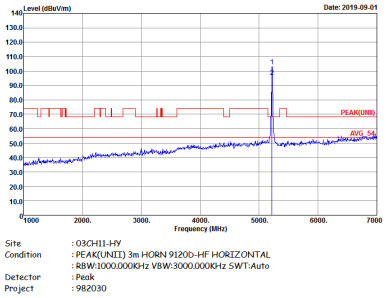
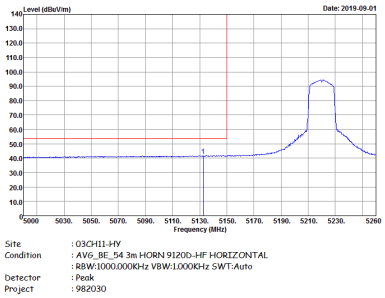
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

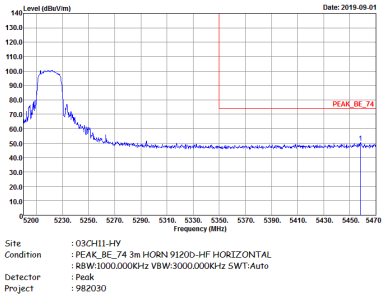
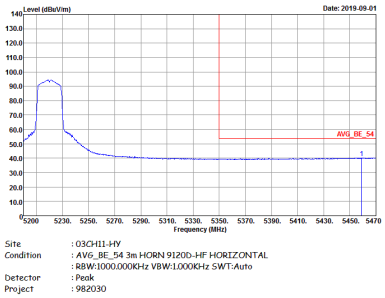
Band 1 5150~5250MHz

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	
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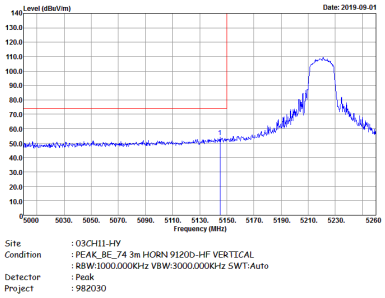
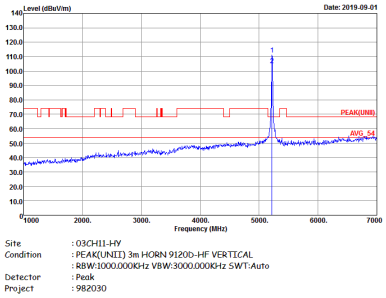
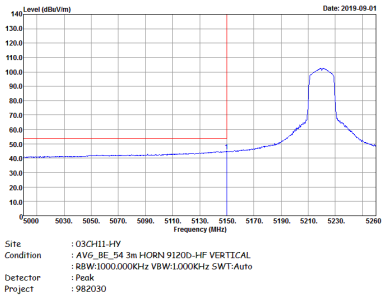
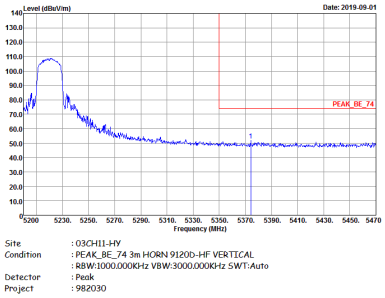
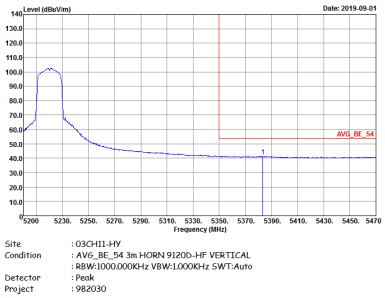
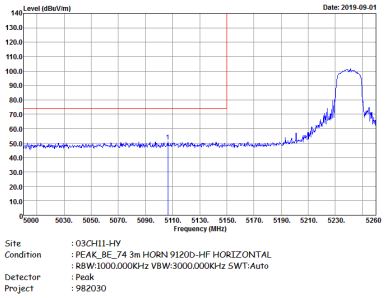
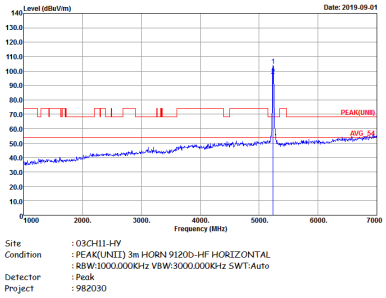
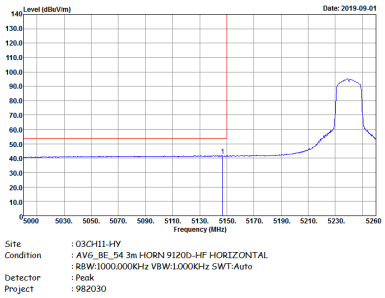
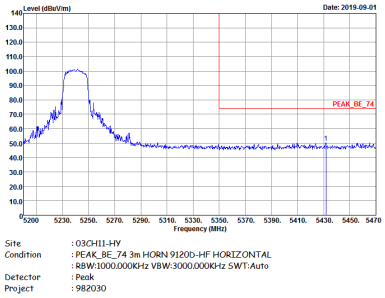
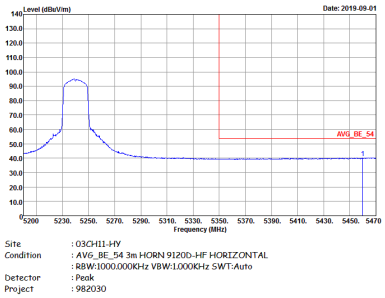
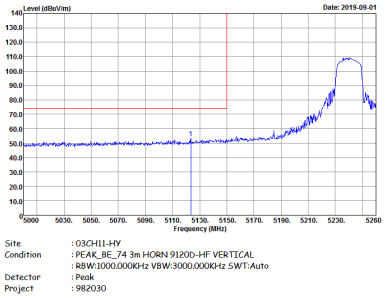
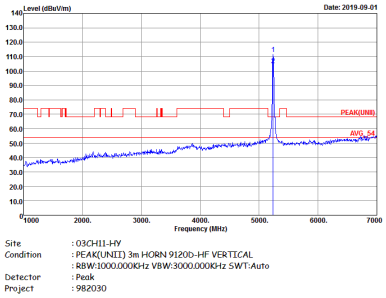
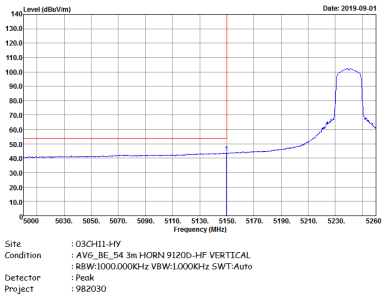
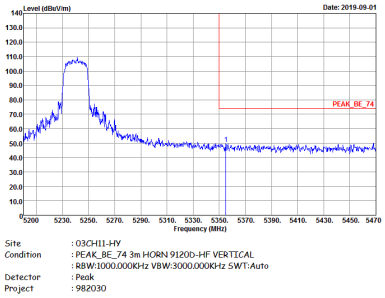
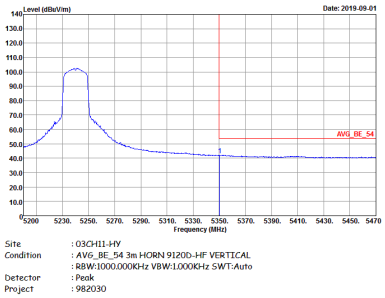
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

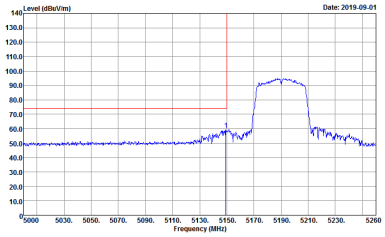
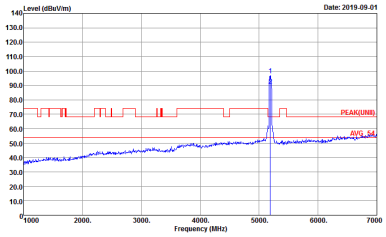
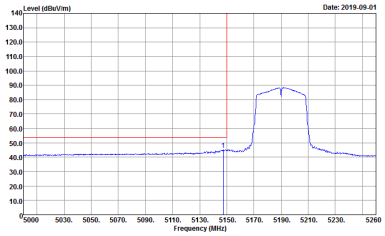
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

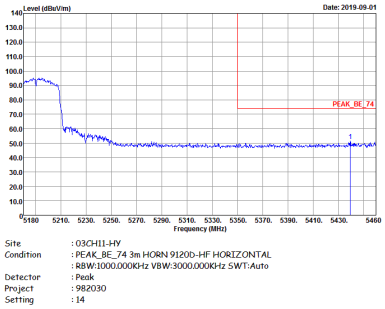
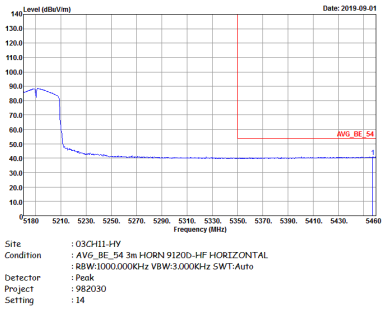
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

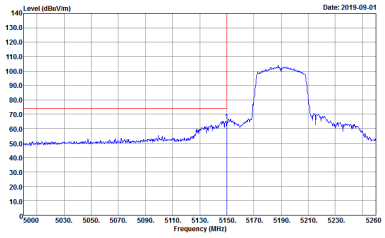
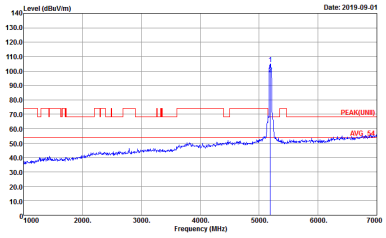
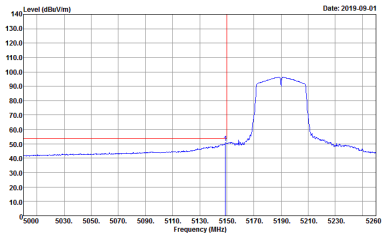
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

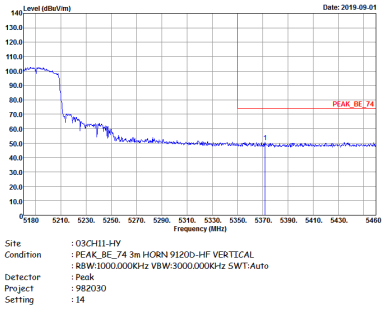
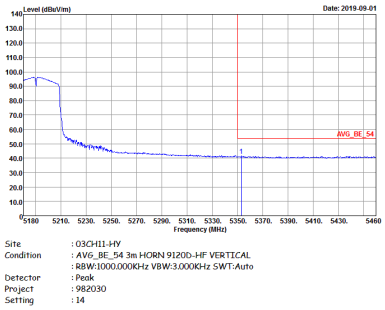
Band 1 5150~5250MHz

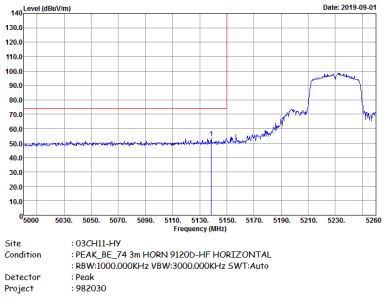
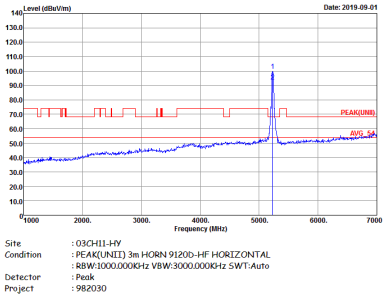
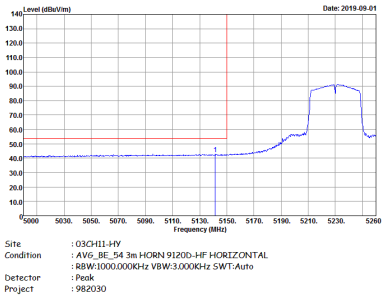
WIFI 802.11n HT40 (Band Edge @ 3m)

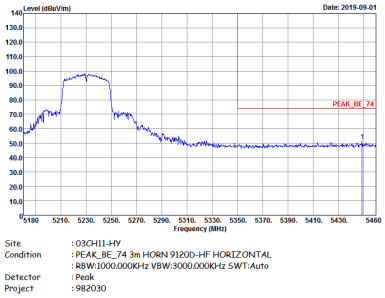
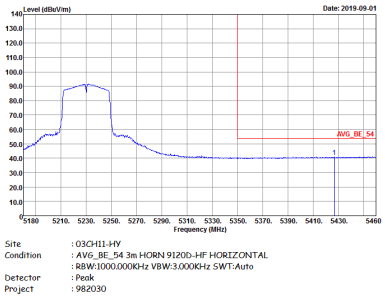
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

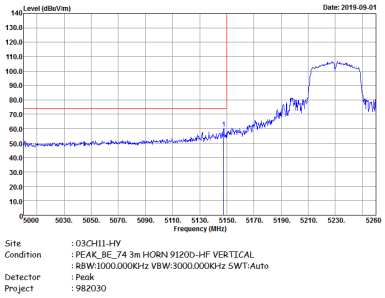
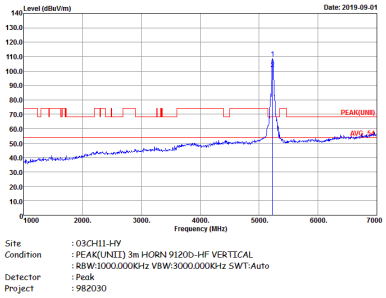
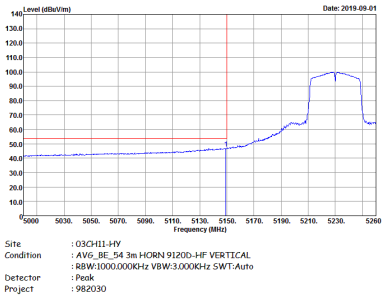
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

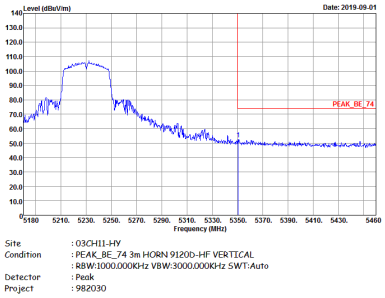
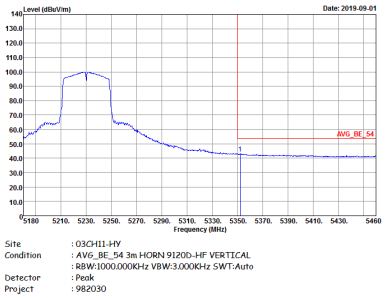
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE_74 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 14	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 14
Avg.	 Site : 03CH11-HV Condition : AVG_BE_54 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 14	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

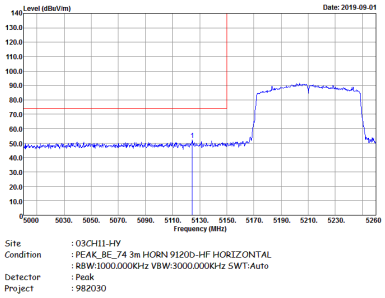
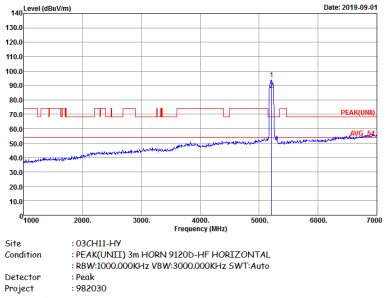
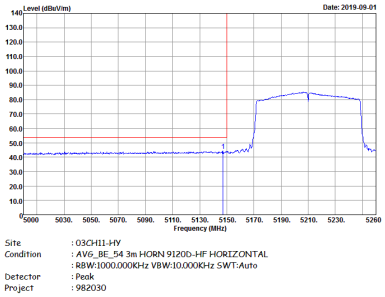
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

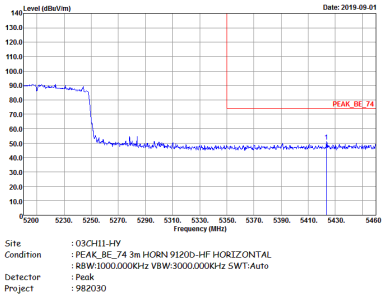
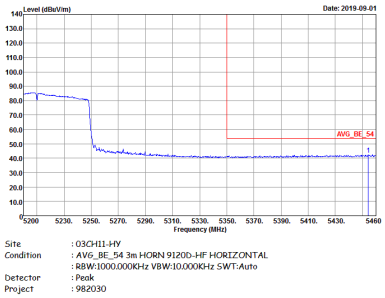
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

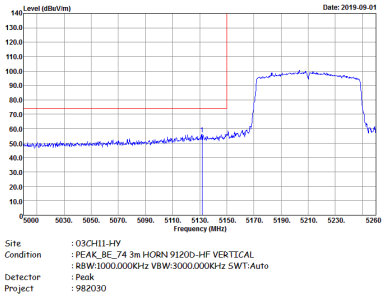
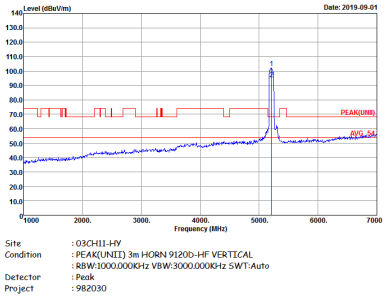
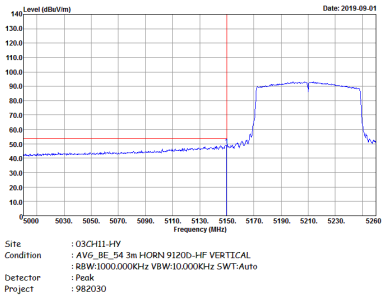
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

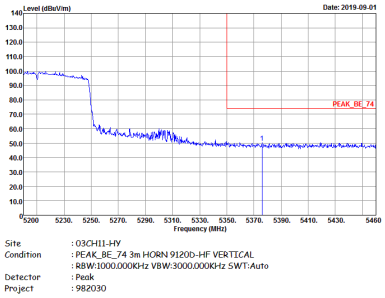
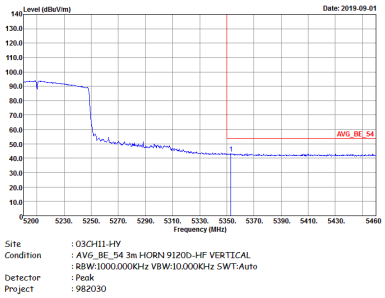
Band 1 5150~5250MHz

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

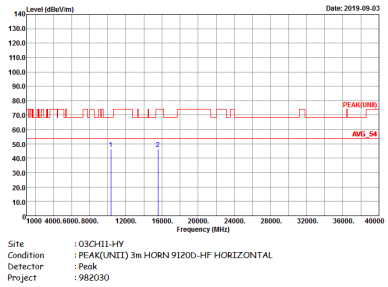
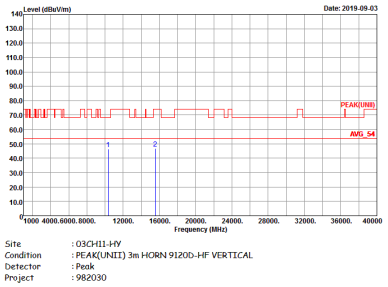
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

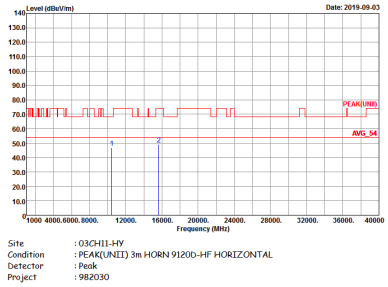
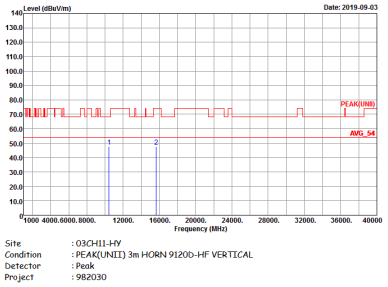
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

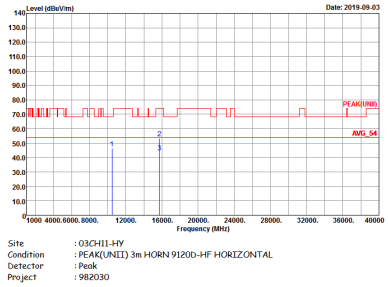
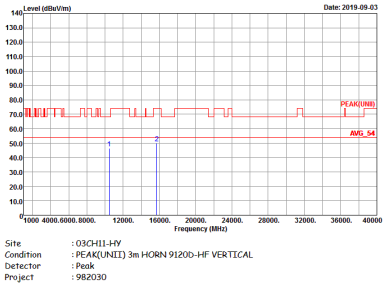
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 1 - 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

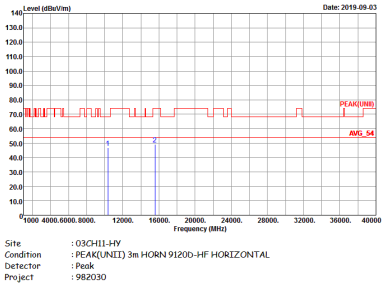
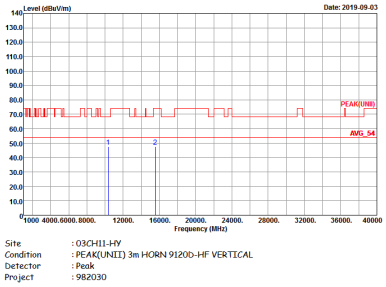
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH36 5180MHz	
1	Horizontal	Vertical
Peak Avg.		

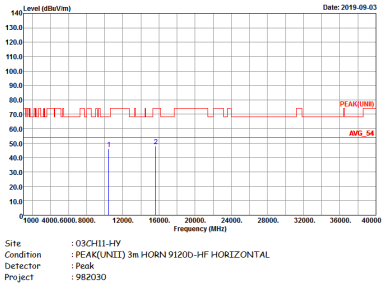
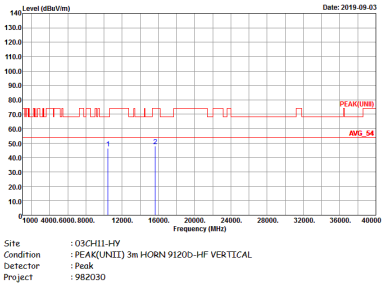
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH44 5220MHz	
1	Horizontal	Vertical
Peak Avg.		

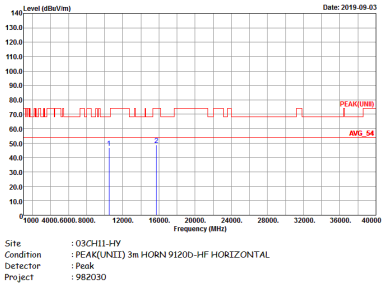
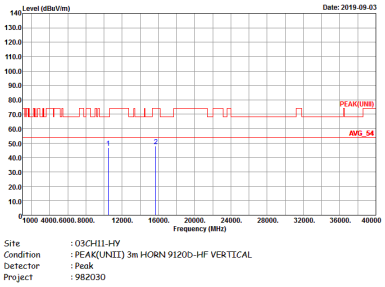
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH48 5240MHz	
1	Horizontal	Vertical
Peak Avg.		

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

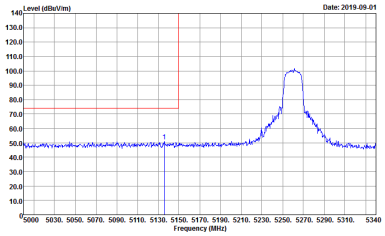
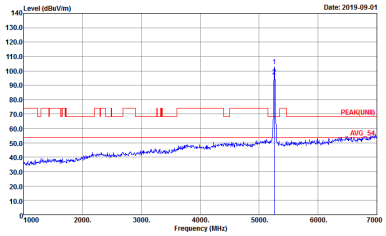
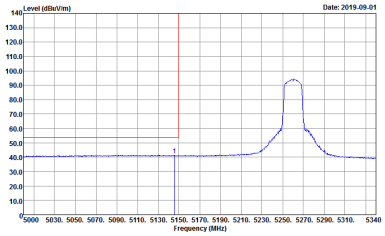
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1	Horizontal	Vertical
Peak Avg.		

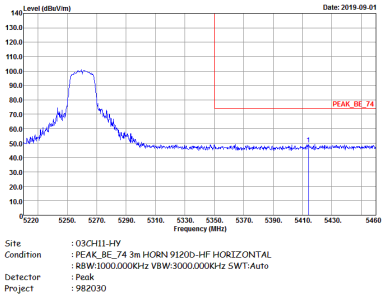
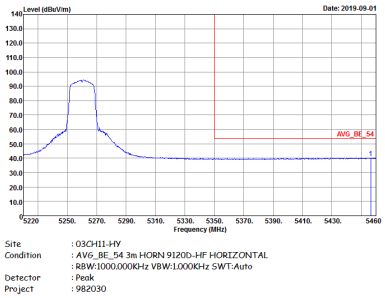
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH44 5220MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 982030	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 982030

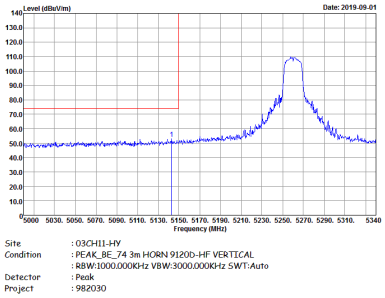
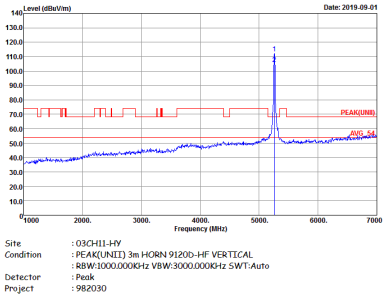
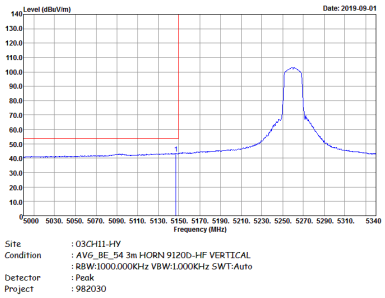
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH48 5240MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 982030	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 982030

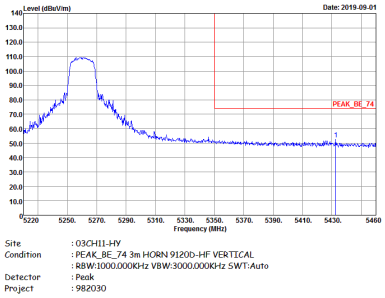
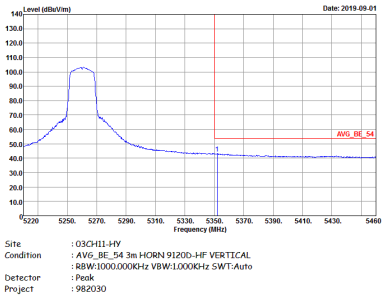
Band 2 - 5250~5350MHz

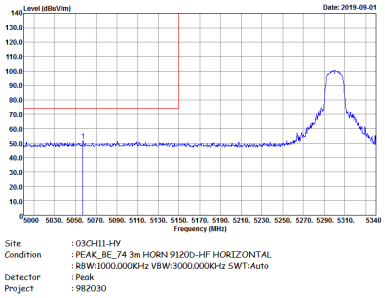
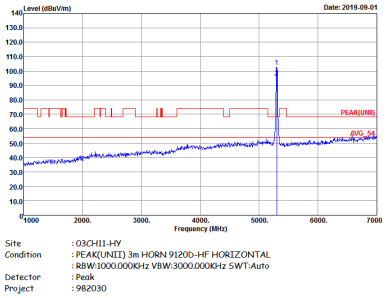
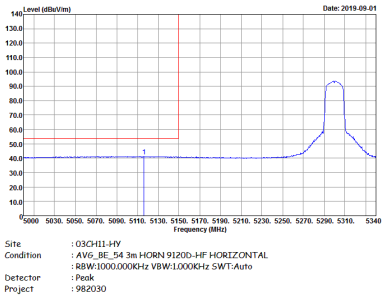
WIFI 802.11a (Band Edge @ 3m)

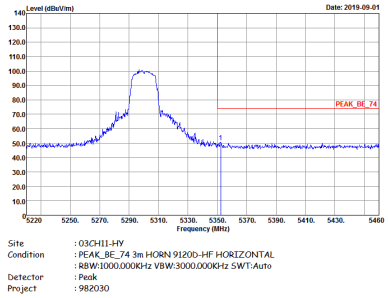
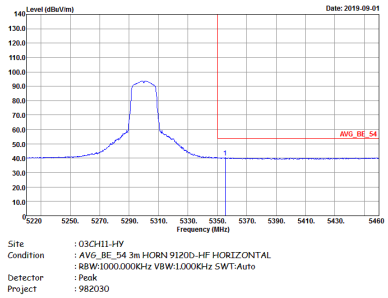
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

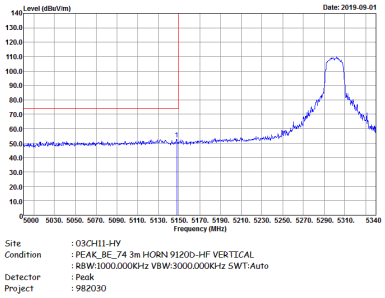
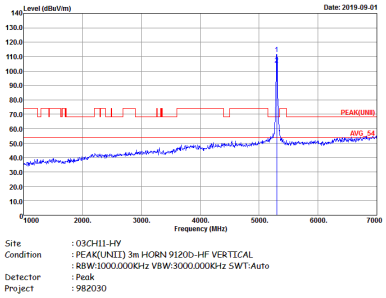
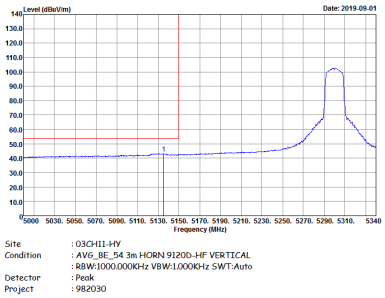
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

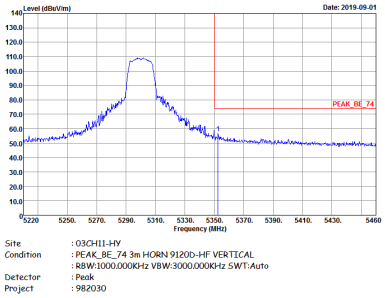
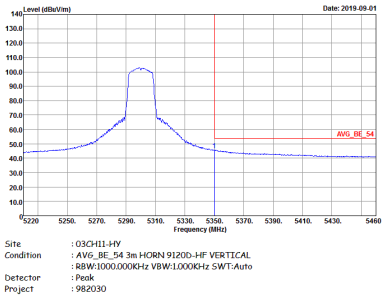
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

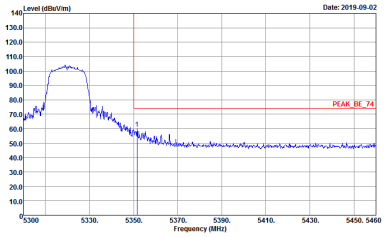
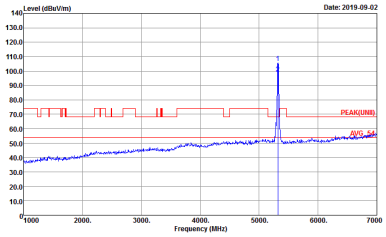
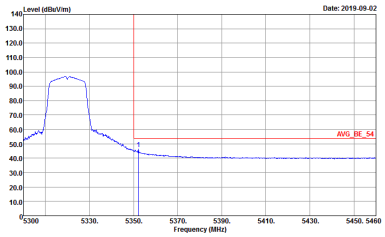
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

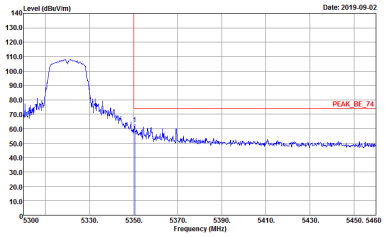
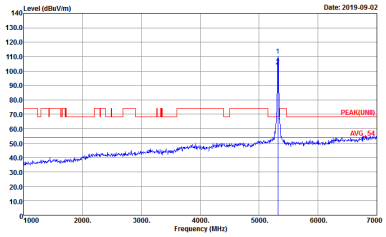
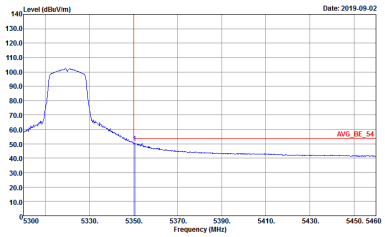
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

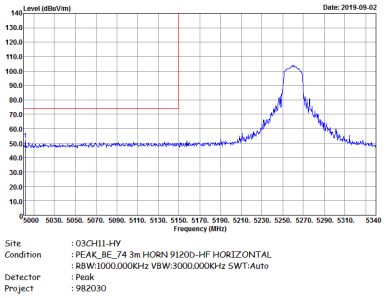
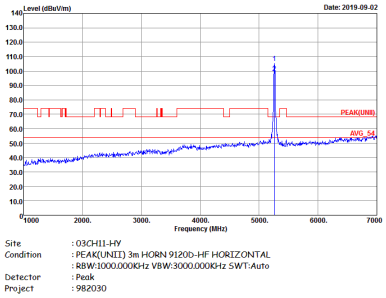
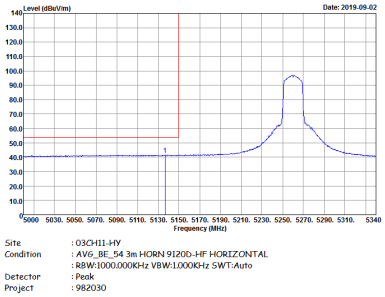
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

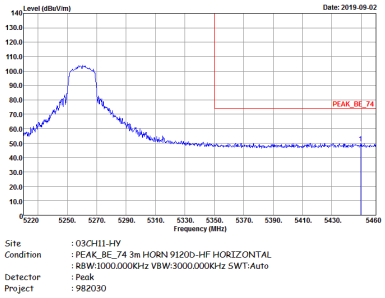
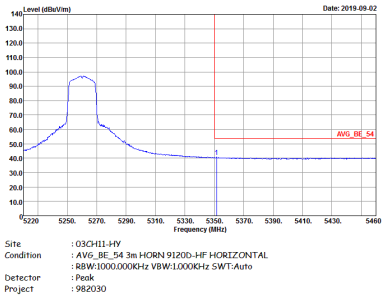
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 18	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 18
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 18	Left blank

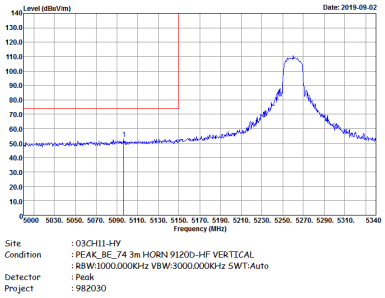
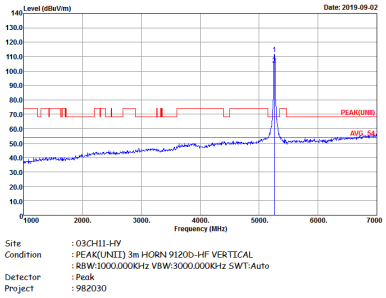
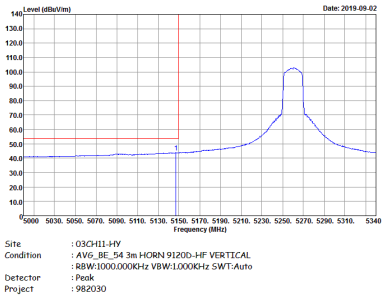
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE_74 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 18	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 18
Avg.	 Site : 03CH11-HV Condition : AVG_BE_54 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 18	Left blank

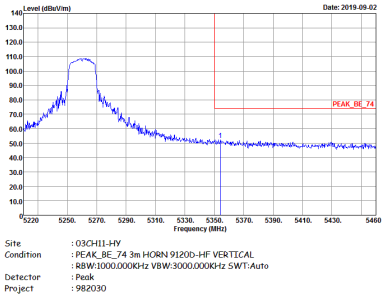
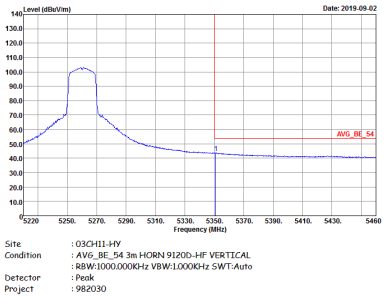
Band 2 5250~5350MHz

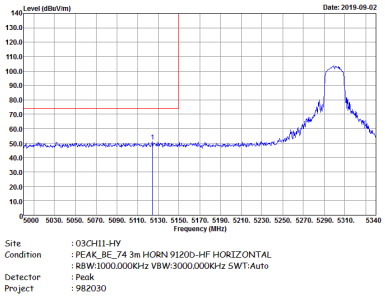
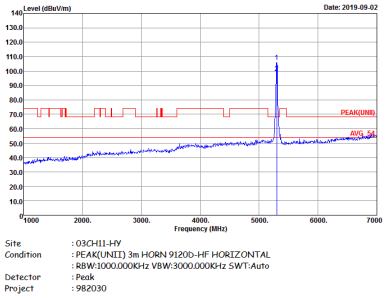
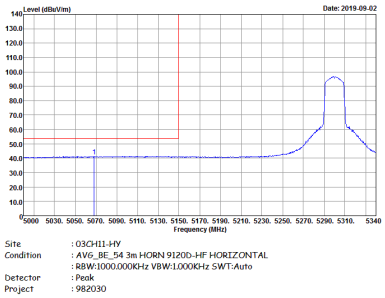
WIFI 802.11n HT20 (Band Edge @ 3m)

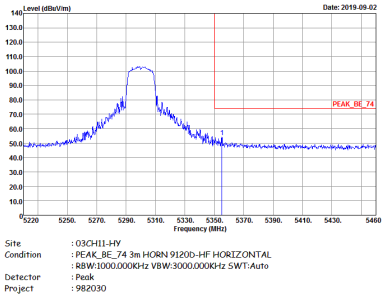
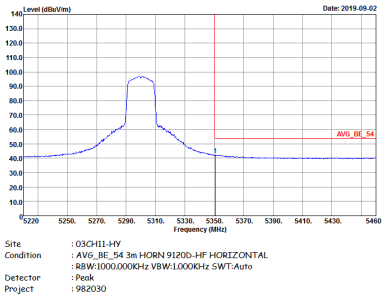
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

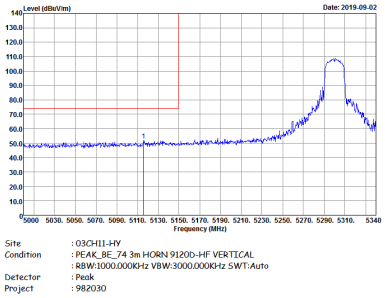
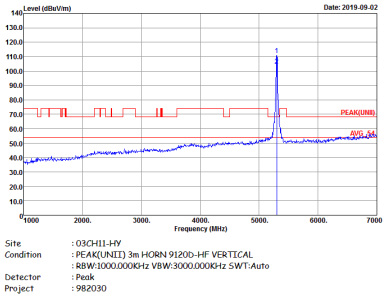
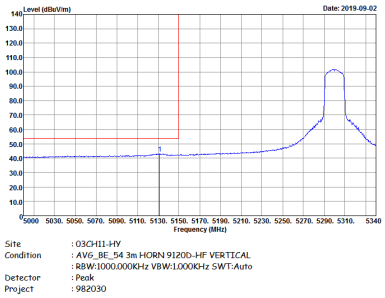
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

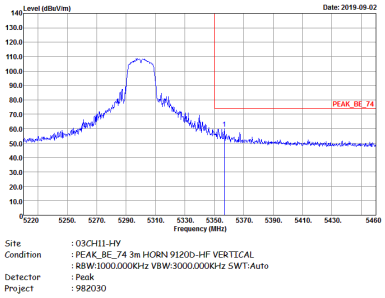
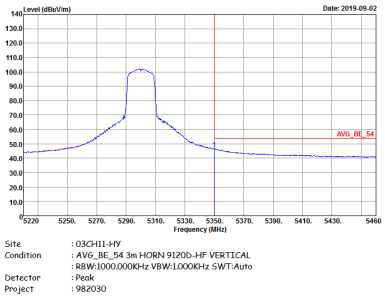
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

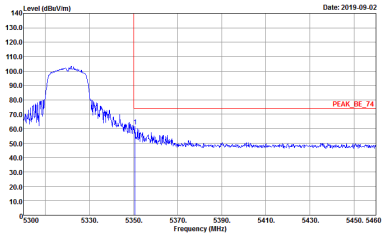
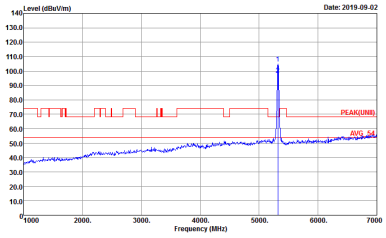
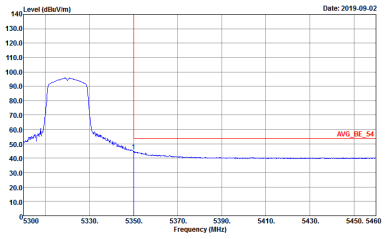
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

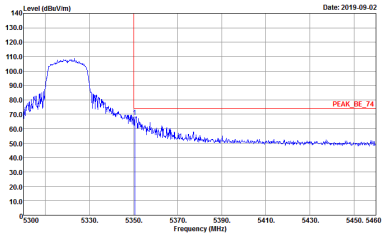
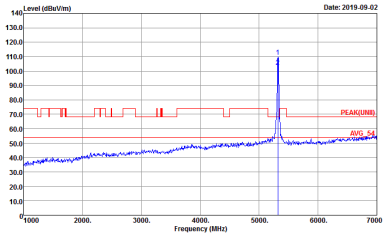
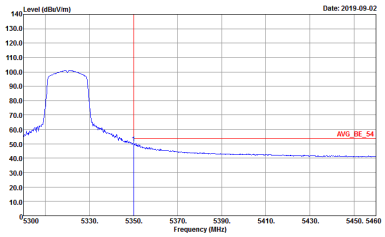
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

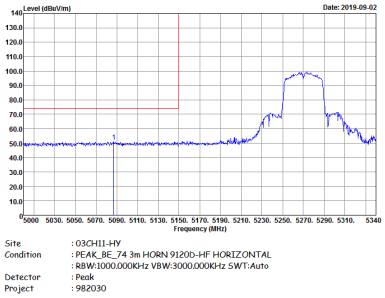
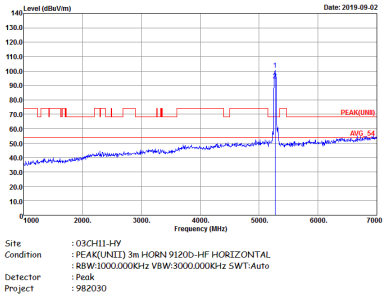
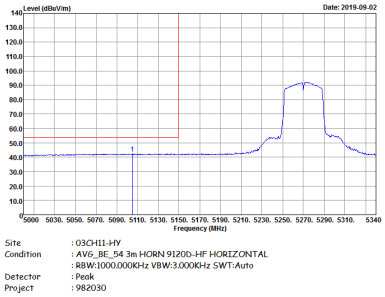
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

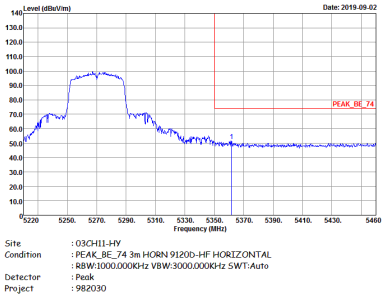
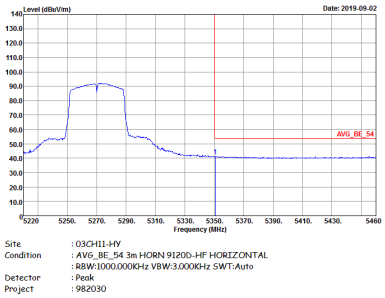
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH64 5320MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 17.5	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 17.5
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 17.5	Left blank

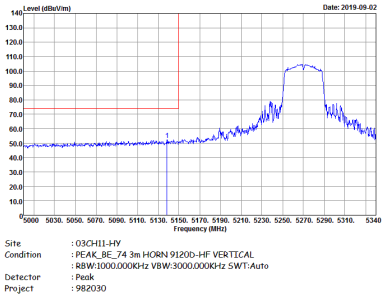
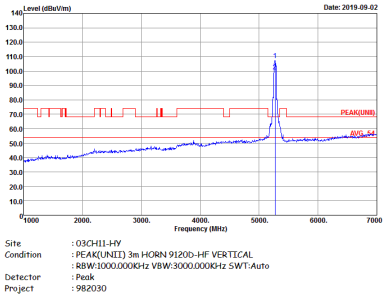
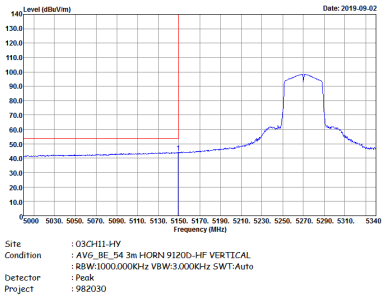
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH64 5320MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 17.5	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 17.5
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 17.5	Left blank

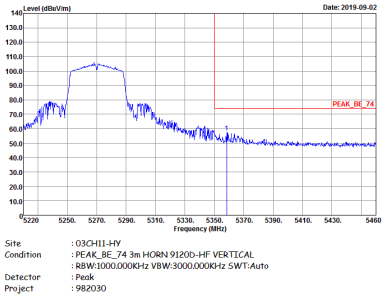
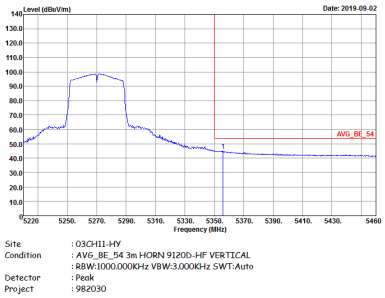
Band 2 5250~5350MHz

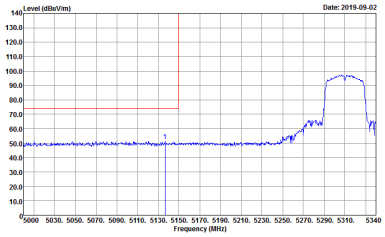
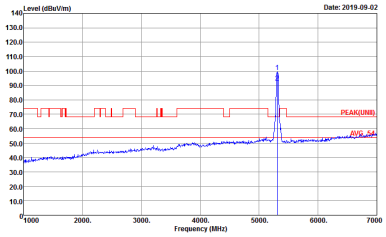
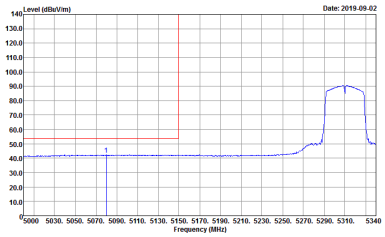
WIFI 802.11n HT40 (Band Edge @ 3m)

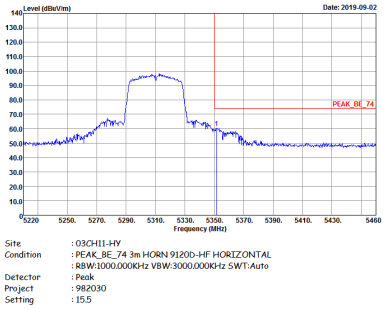
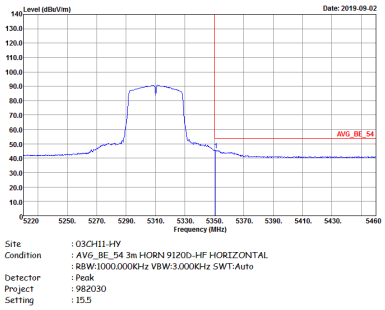
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

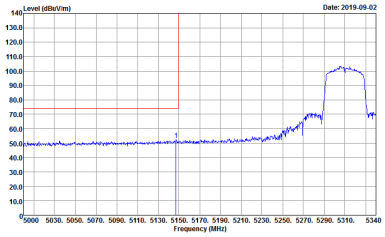
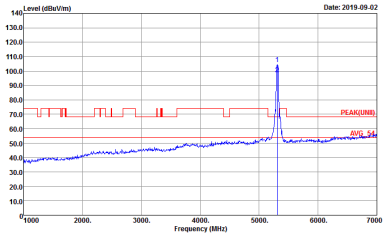
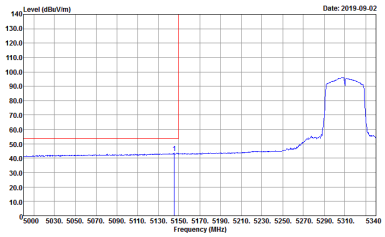
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

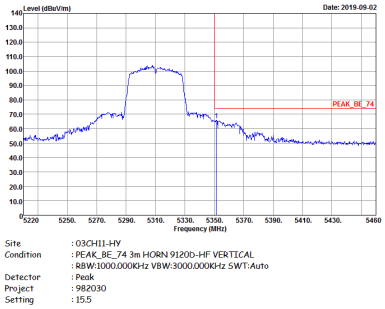
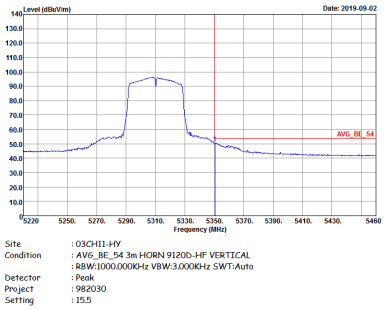
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270MHz - L	
1	Vertical	Vertical
Peak		
Avg.		Left blank

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

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 15.5	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 15.5
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 15.5	Left blank

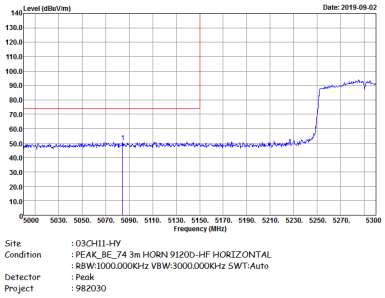
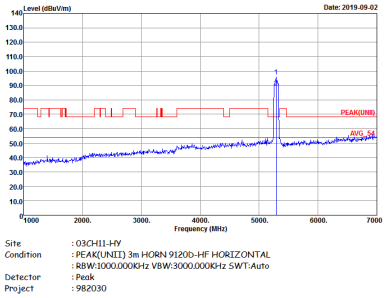
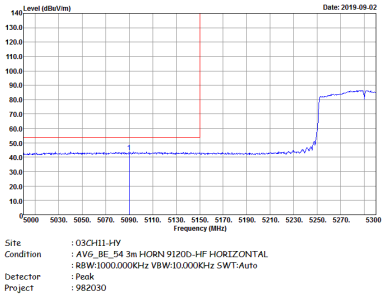
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

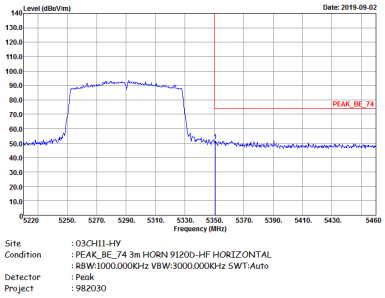
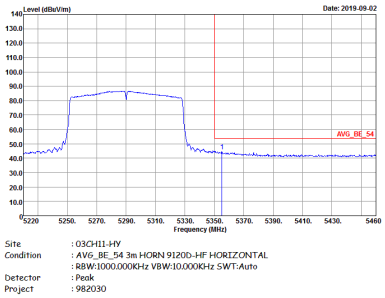
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 15.5	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 15.5
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 15.5	Left blank

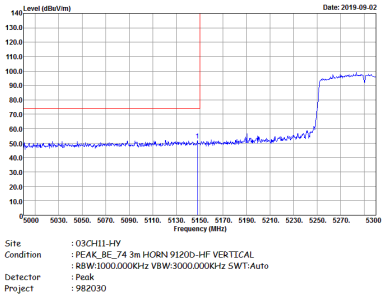
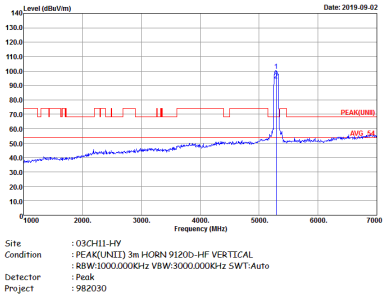
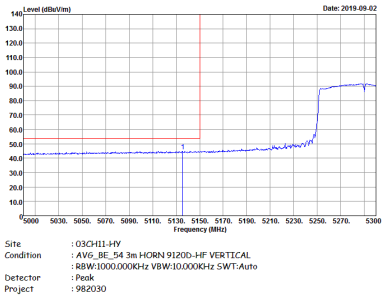
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

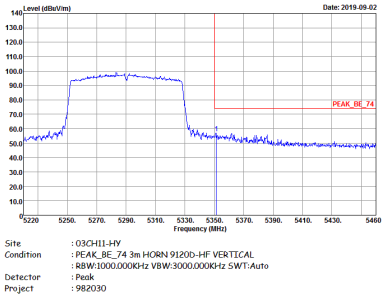
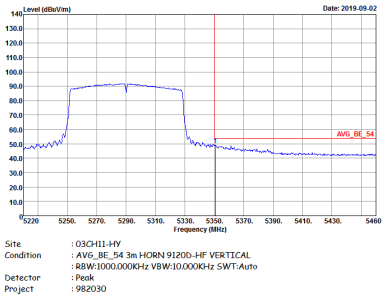
Band 2 5250~5350MHz

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

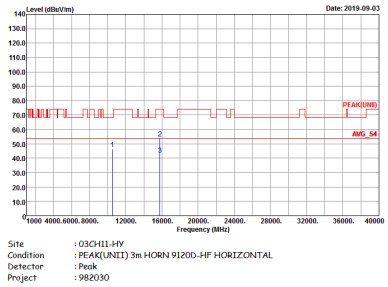
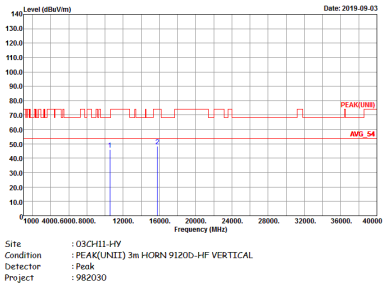
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

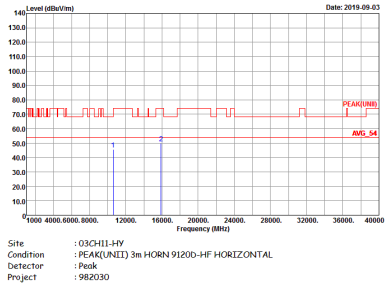
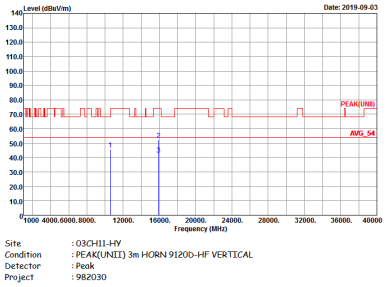
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

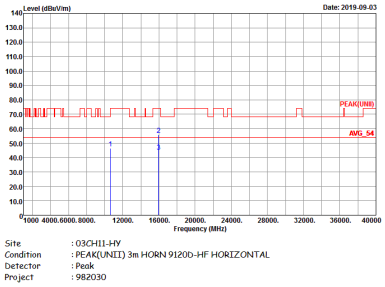
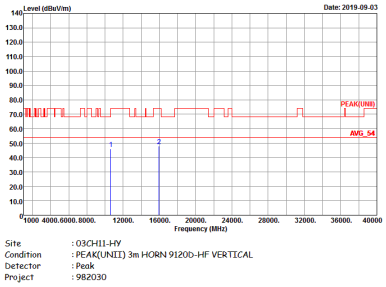
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 2 - 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

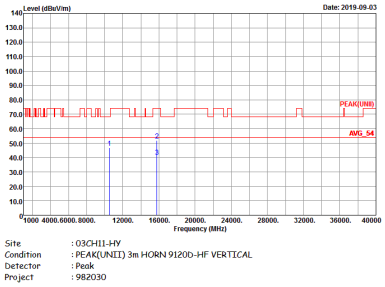
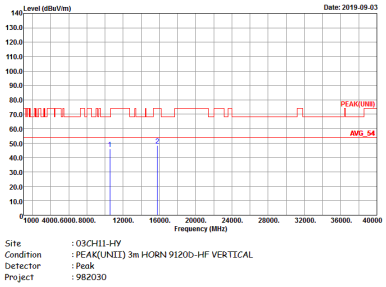
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH52 5260MHz	
1	Horizontal	Vertical
Peak Avg.		

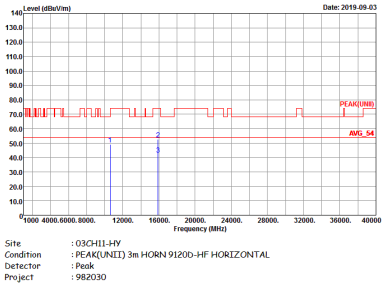
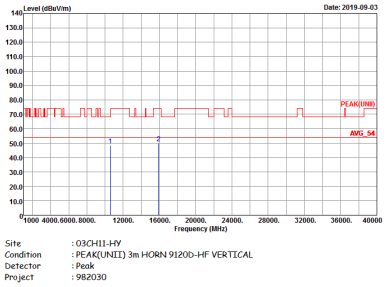
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH60 5300MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 982030	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 982030

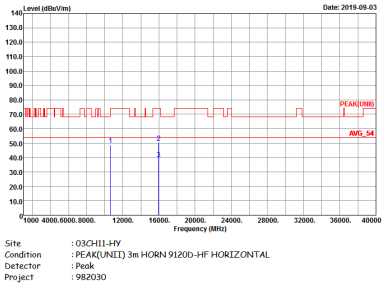
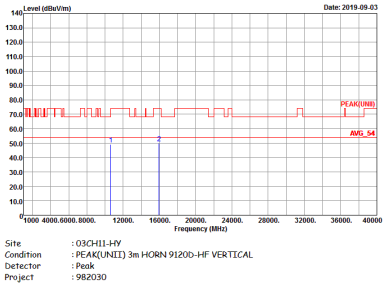
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH64 5320MHz	
1	Horizontal	Vertical
Peak Avg.		

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

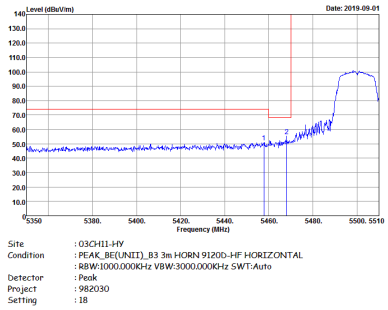
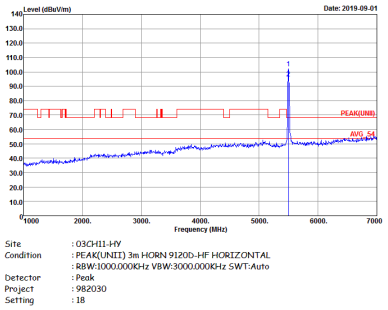
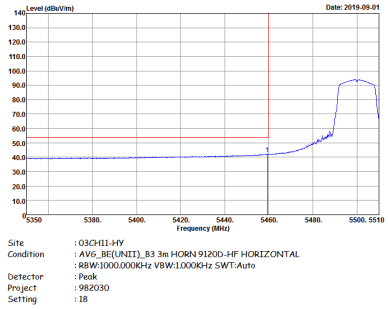
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH52 5260MHz	
1	Horizontal	Vertical
Peak Avg.		

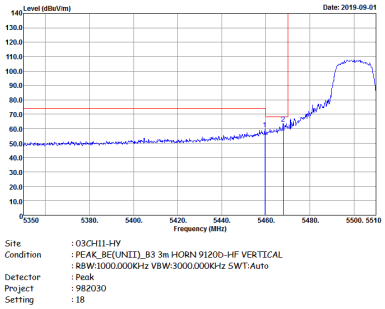
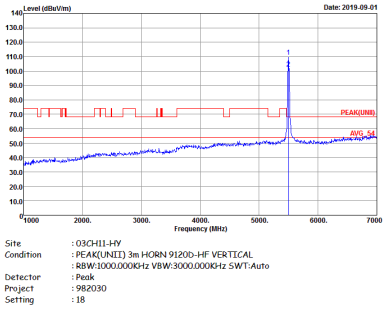
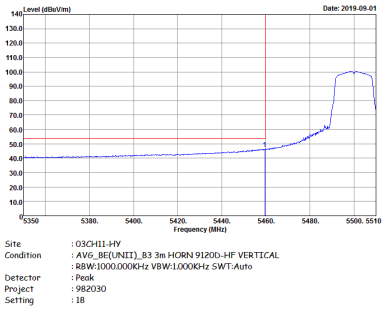
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH60 5300MHz	
1	Horizontal	Vertical
Peak Avg.		

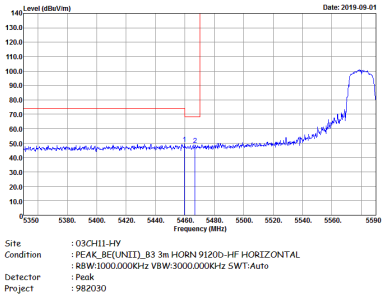
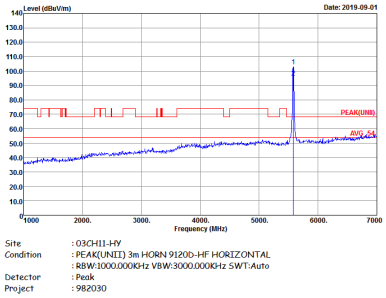
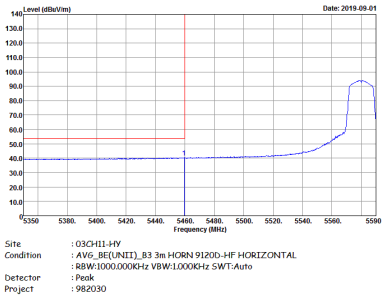
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH64 5320MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 982030	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 982030

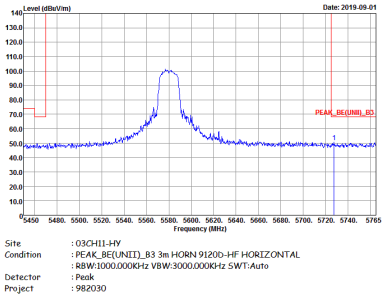
Band 3 - 5470~5725MHz

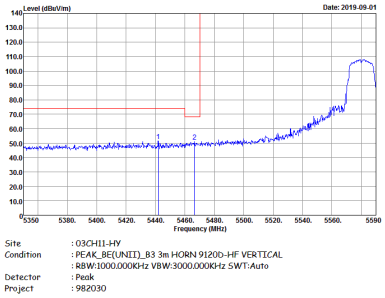
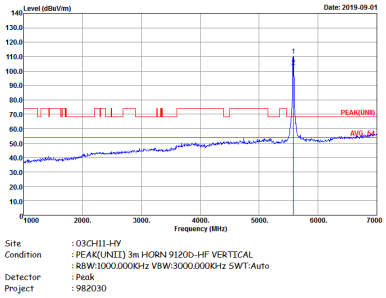
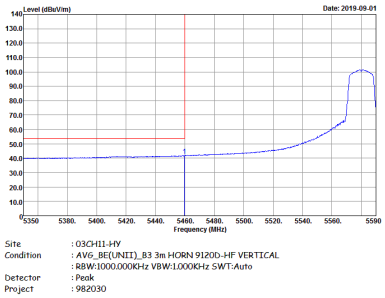
WIFI 802.11a (Band Edge @ 3m)

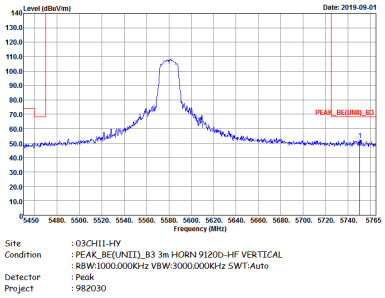
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

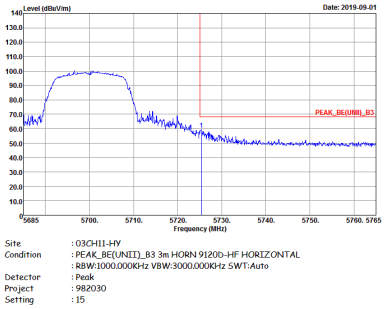
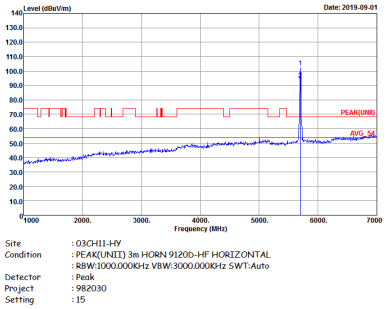
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

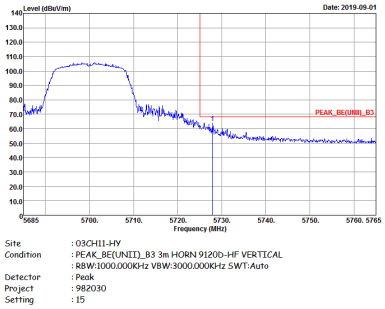
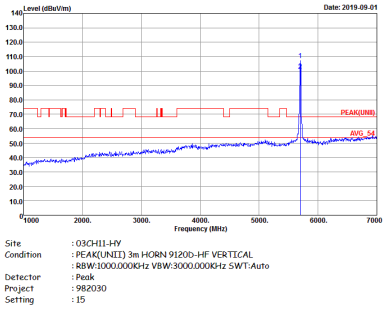
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - R	
1	Horizontal	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE(UNII)_B3 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030	Left blank

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

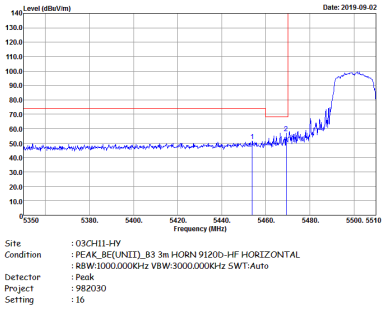
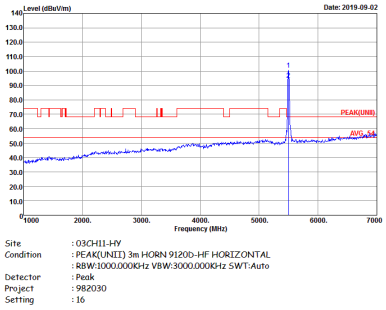
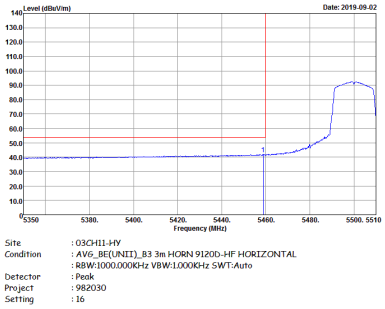
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - R	
1	Vertical	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE(UNII)_B3 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030	Left blank

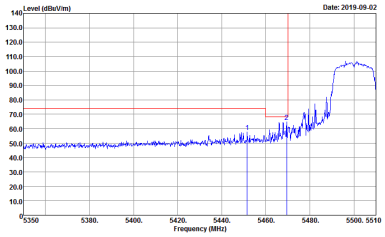
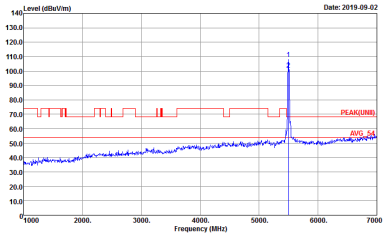
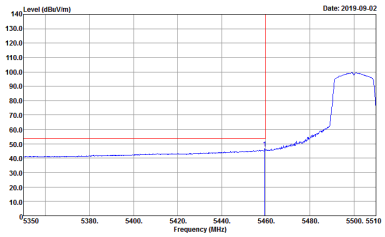
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
1	Horizontal	Fundamental
Peak		

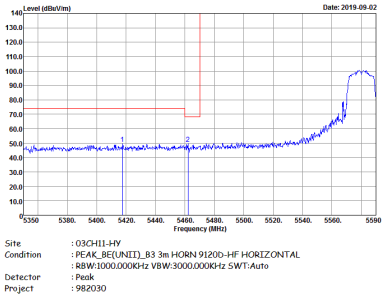
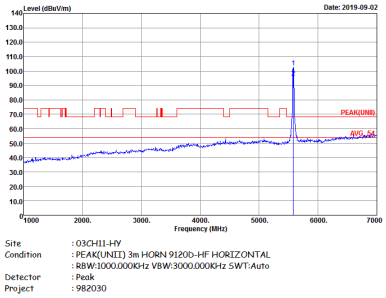
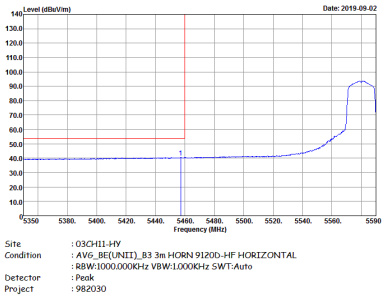
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
1	Vertical	Fundamental
Peak		

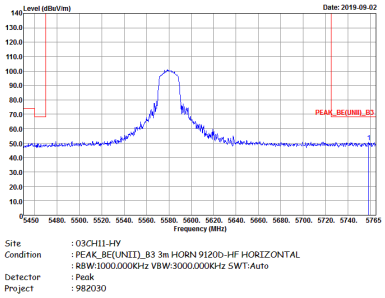
Band 3 5470~5725MHz

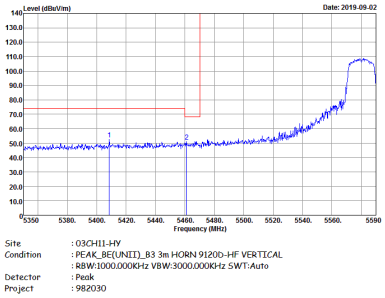
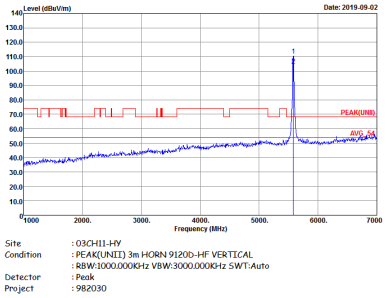
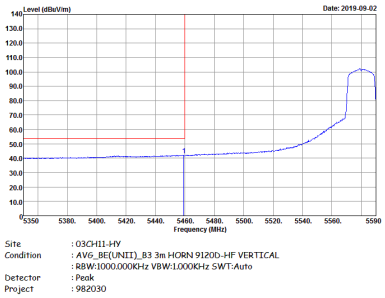
WIFI 802.11n HT20 (Band Edge @ 3m)

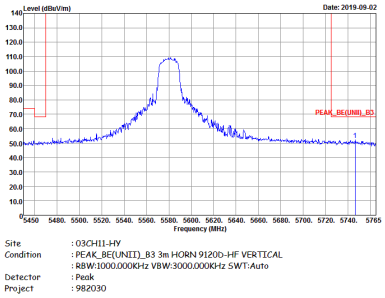
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

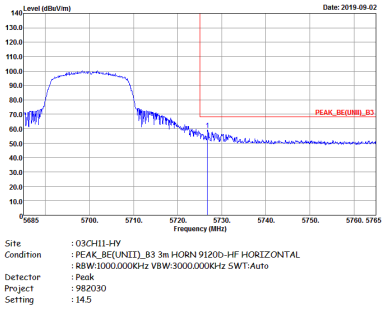
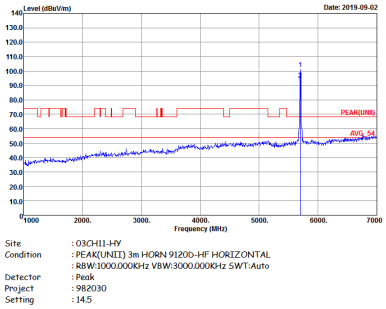
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE(UNII)_B3 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 16	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 16
Avg.	 Site : 03CH11-HY Condition : AVG_BE(UNII)_B3 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 16	Left blank

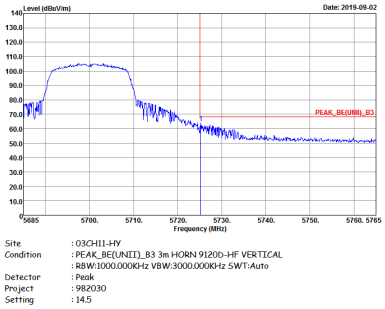
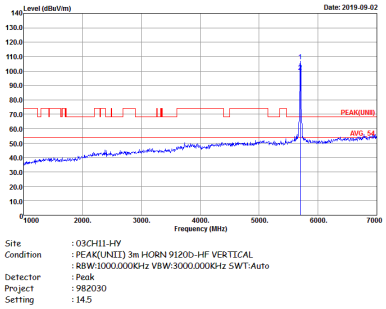
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - R	
1	Horizontal	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE(UNII)_B3 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030	Left blank

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

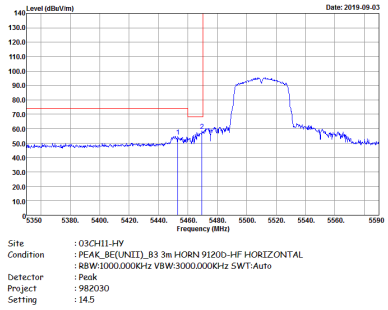
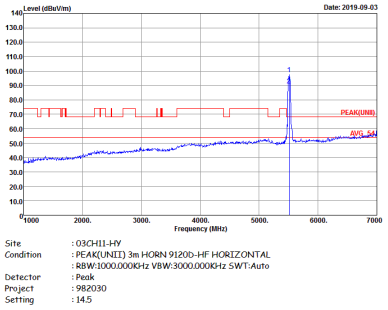
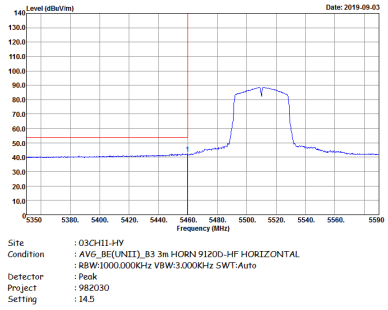
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - R	
1	Vertical	Fundamental
Peak		Left blank

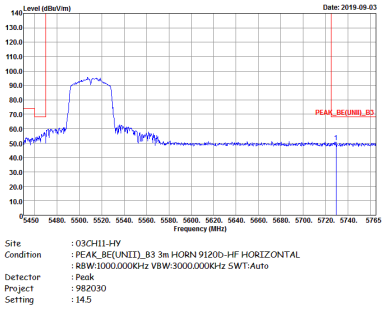
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
1	Horizontal	Fundamental
Peak		

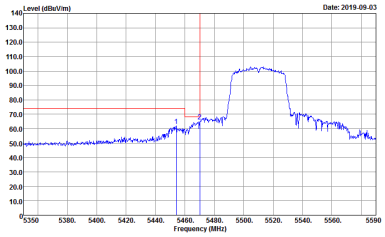
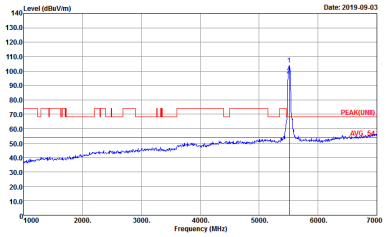
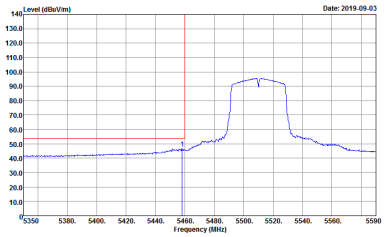
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
1	Vertical	Fundamental
Peak.		

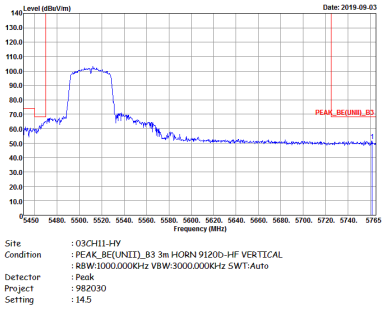
Band 3 5470~5725MHz

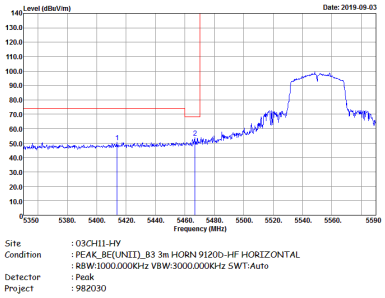
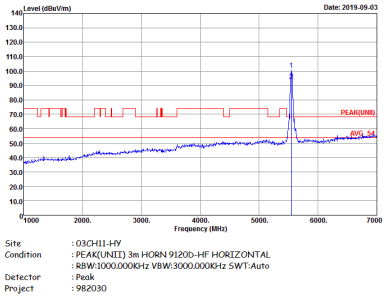
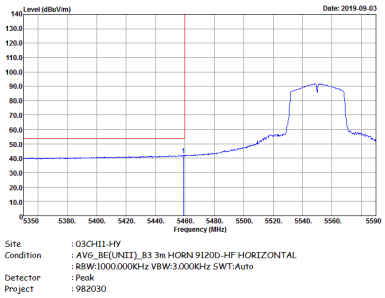
WIFI 802.11n HT40 (Band Edge @ 3m)

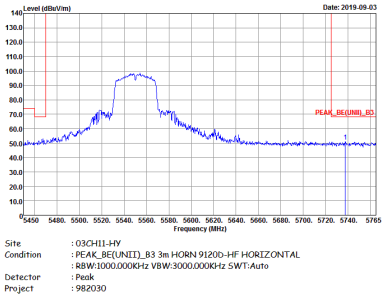
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

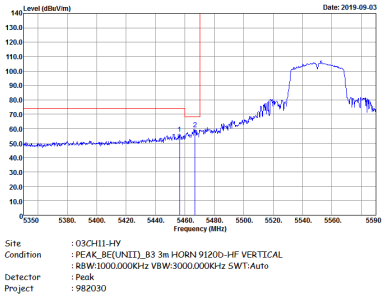
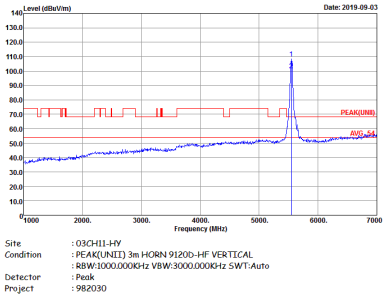
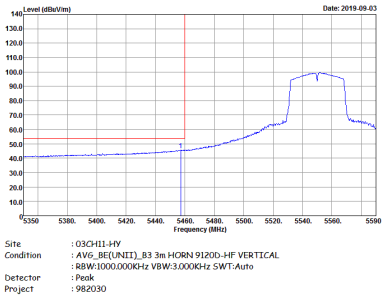
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - R	
1	Horizontal	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE(UNII)_B3 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 14.5	Left blank

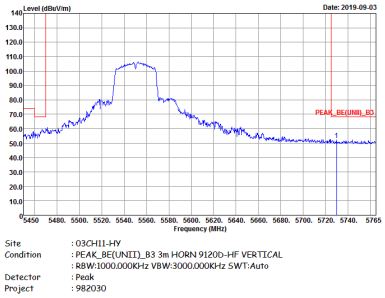
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE(UNII)_B3 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 14.5	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 14.5
Avg.	 Site : 03CH11-HY Condition : AVG_BE(UNII)_B3 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 14.5	Left blank

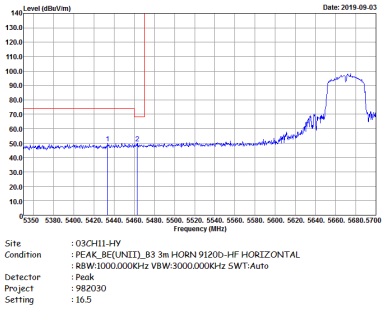
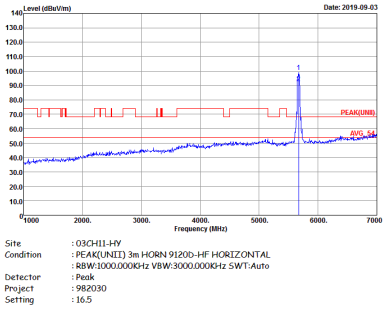
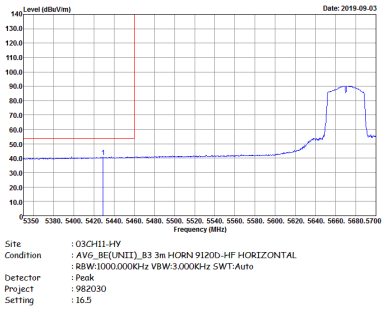
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - R	
1	Vertical	Fundamental
Peak		Left blank

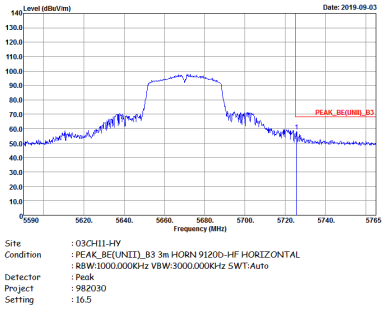
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

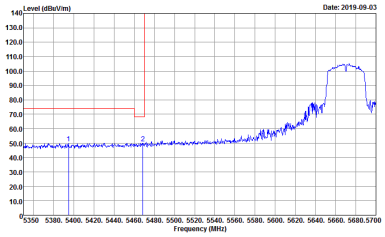
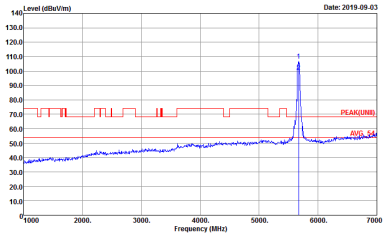
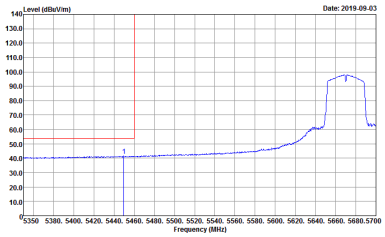
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

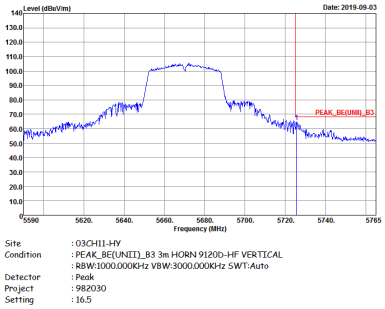
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

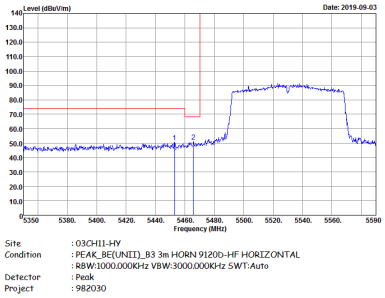
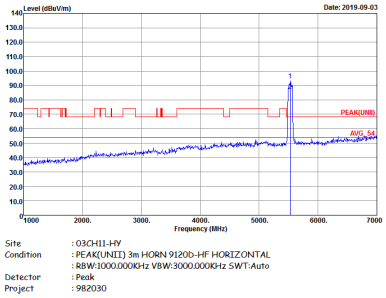
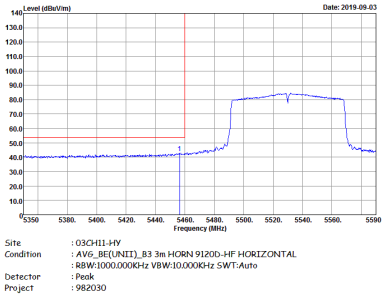
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - R	
1	Horizontal	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE(UNII)_B3 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 16.5	Left blank

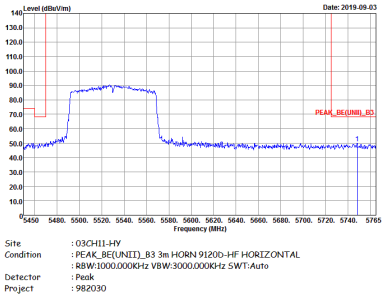
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE(UNII)_B3 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 16.5	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 16.5
Avg.	 Site : 03CH11-HY Condition : AVG_BE(UNII)_B3 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 16.5	Left blank

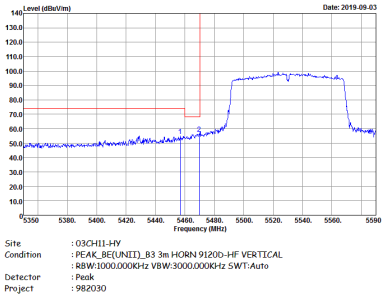
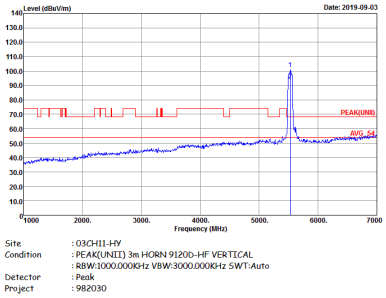
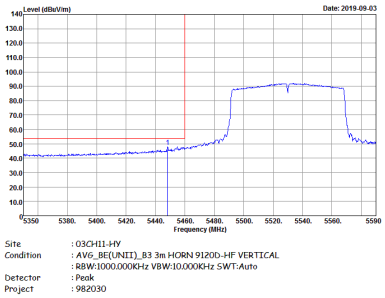
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - R	
1	Vertical	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE(UNII)_B3 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 982030 Setting : 16.5	Left blank

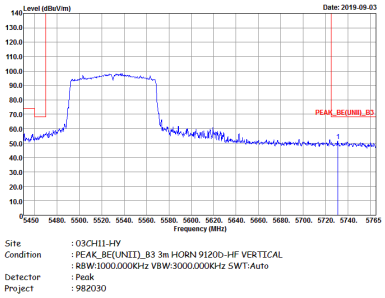
Band 3 5470~5725MHz

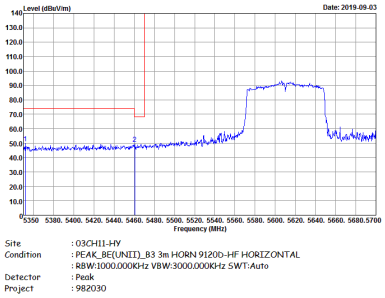
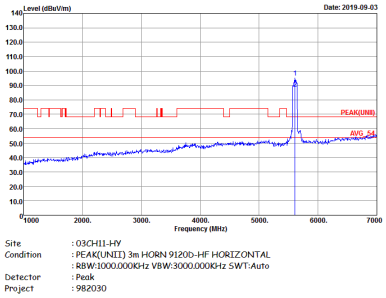
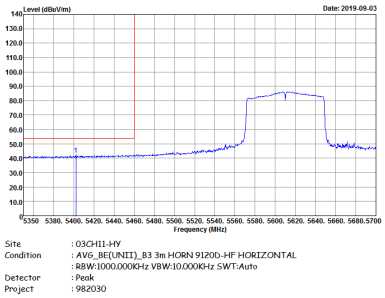
WIFI 802.11ac VHT80 (Band Edge @ 3m)

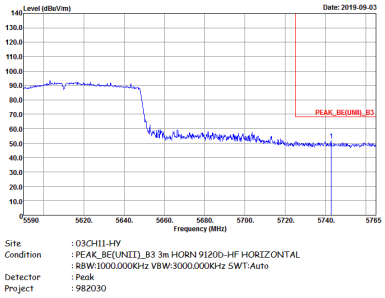
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

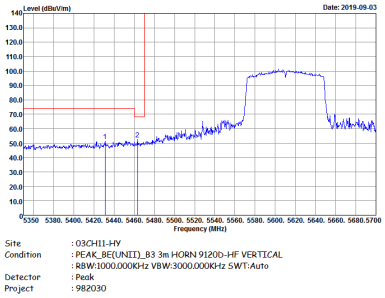
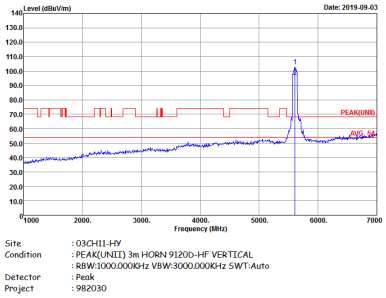
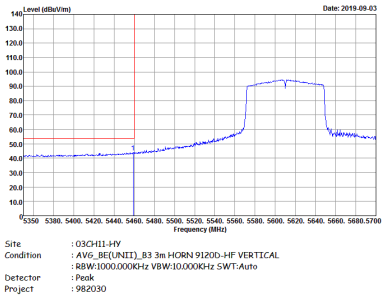
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

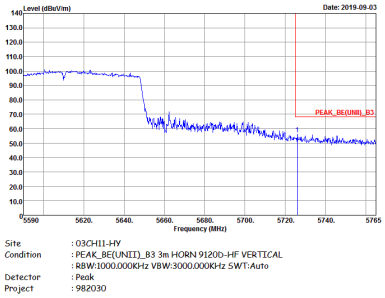
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

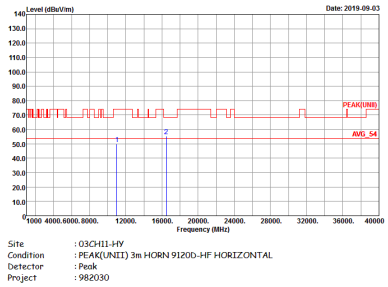
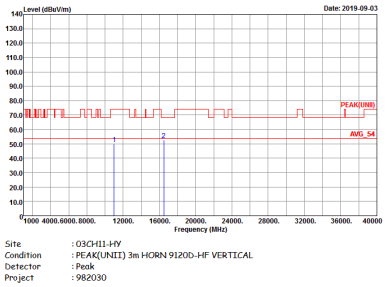
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH122 5610MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

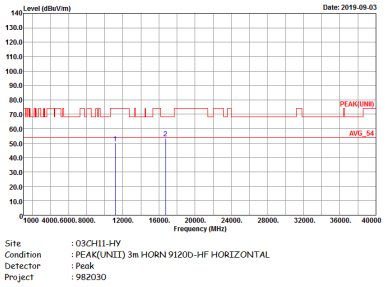
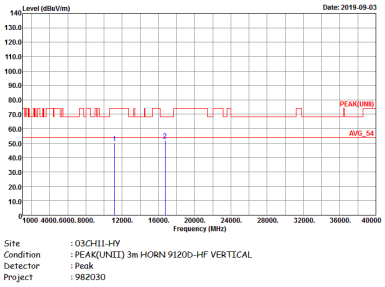
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH122 5610MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

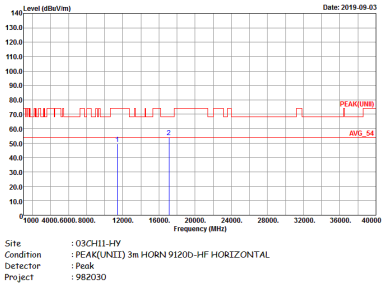
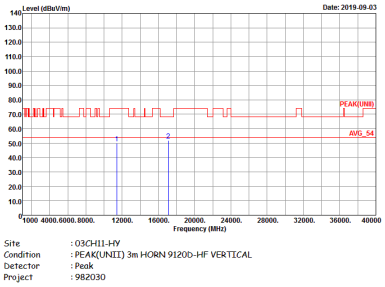
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH122 5610MHz - R	
1	Vertical	Fundamental
Peak		Left blank

Band 3 - 5470~5725MHz

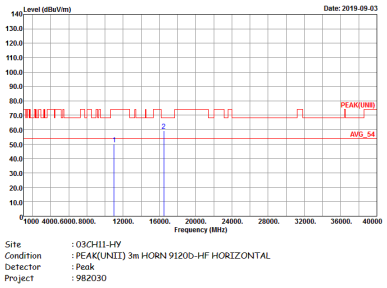
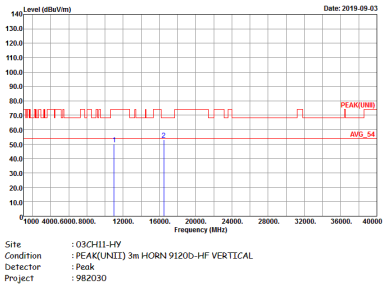
WIFI 802.11a (Harmonic @ 3m)

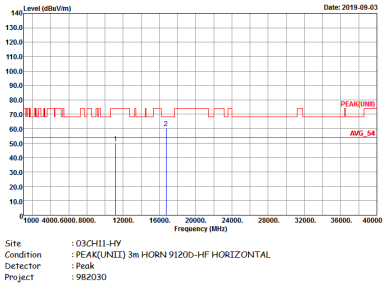
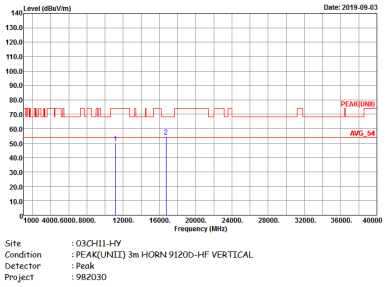
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH100 5500MHz	
1	Horizontal	Vertical
Peak Avg.		

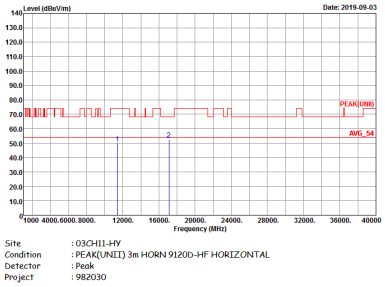
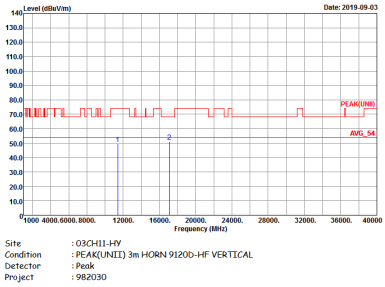
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH116 5580MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 982030	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 982030

WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH140 5700MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 982030	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 982030

Band 3 5470~5725MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

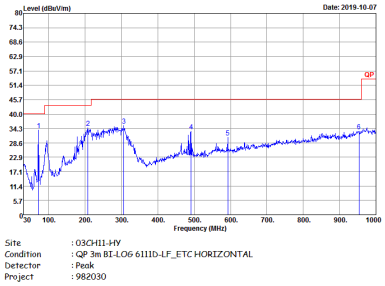
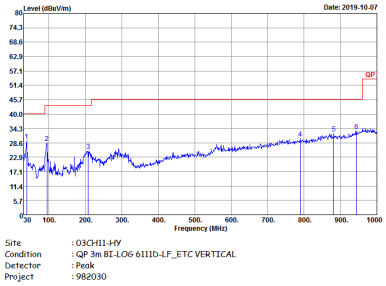
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1	Horizontal	Vertical
Peak Avg.		

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.	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 982030	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 982030

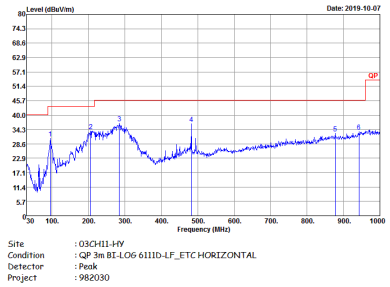
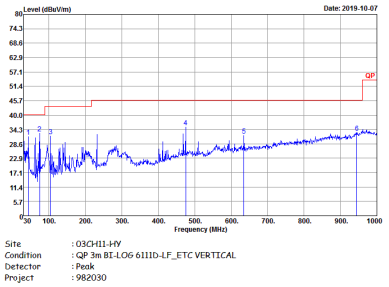
Emission below 1GHz

5GHz WIFI 802.11n HT40 (LF)

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

Emission below 1GHz

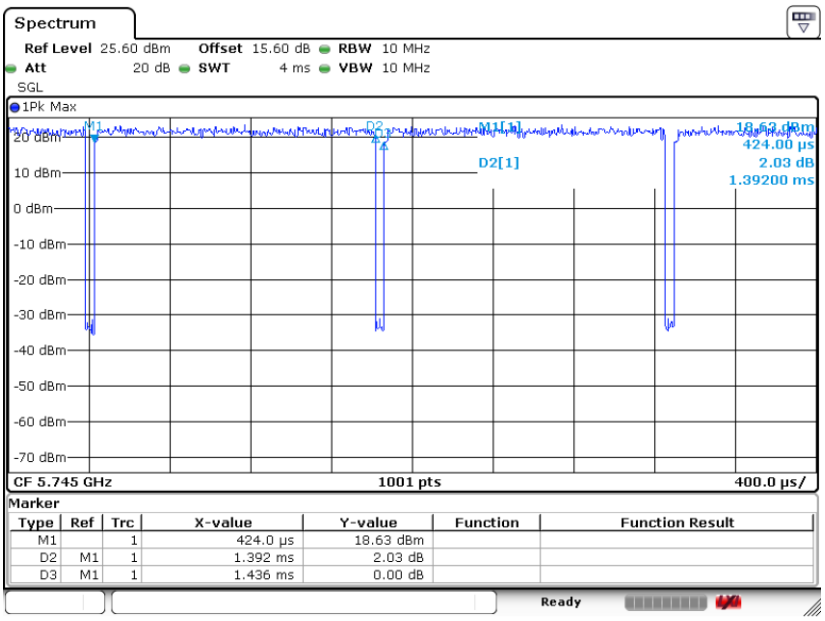
5GHz WIFI 802.11n HT40 (LF) for adapter 2

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

Appendix E. Duty Cycle Plots

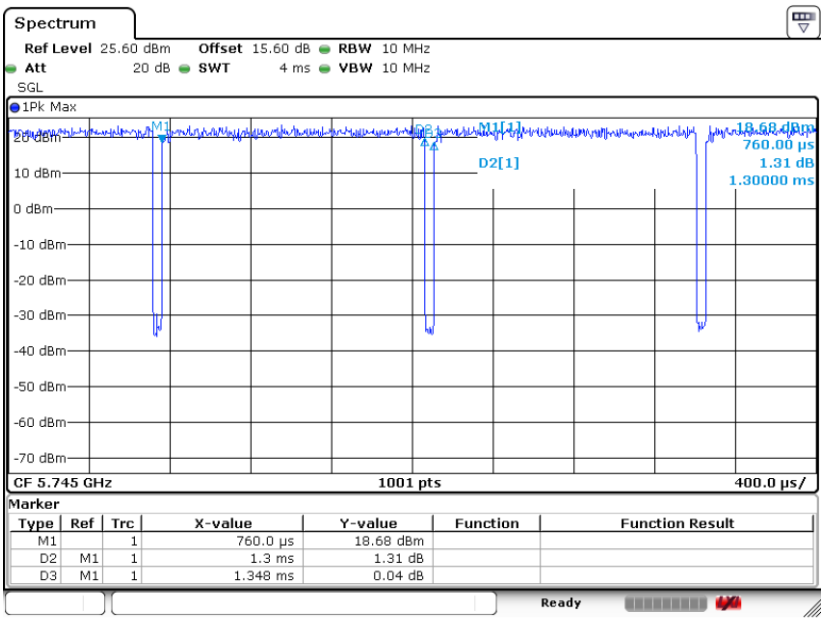
Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
802.11a	96.94	1392	0.72	1kHz	0.13
5GHz 802.11n HT20	96.44	1300	0.77	1kHz	0.16
5GHz 802.11n HT40	96.73	648	1.54	3kHz	0.14
5GHz 802.11ac VHT20	96.68	1310	0.76	1kHz	0.15
5GHz 802.11ac VHT40	93.68	652	1.53	3kHz	0.28
5GHz 802.11ac VHT80	88.04	324	3.09	10kHz	0.55

802.11a



Date: 29.AUG.2019 11:27:44

802.11n HT20



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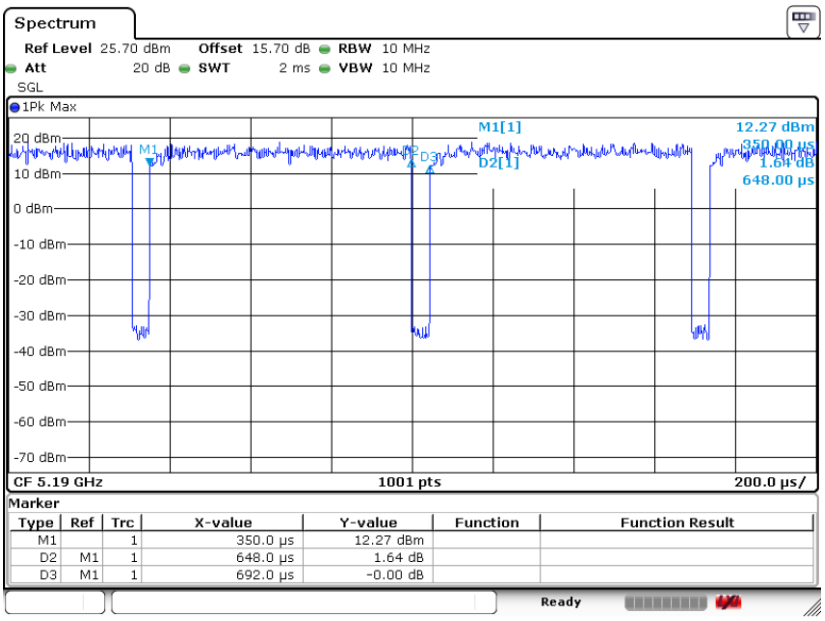
802.11n HT40



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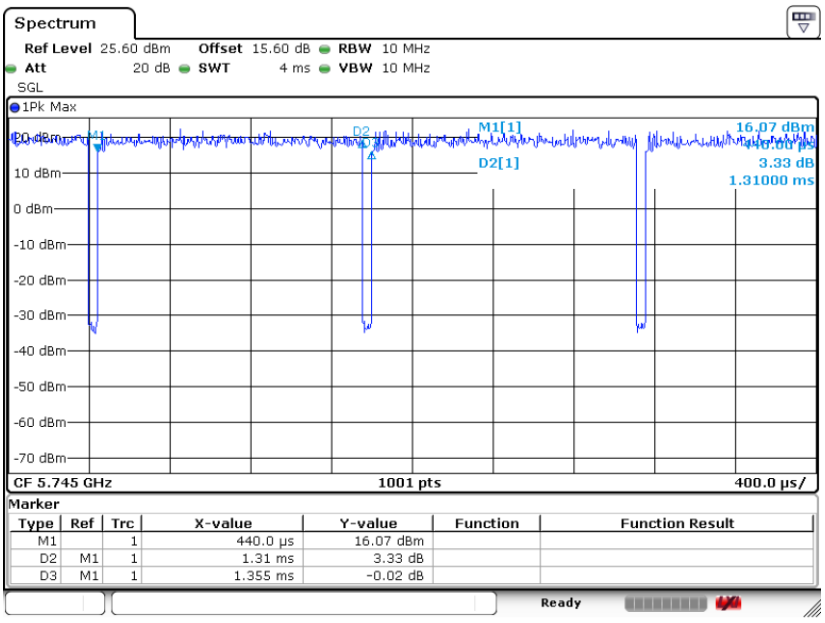
802.11ac VHT20



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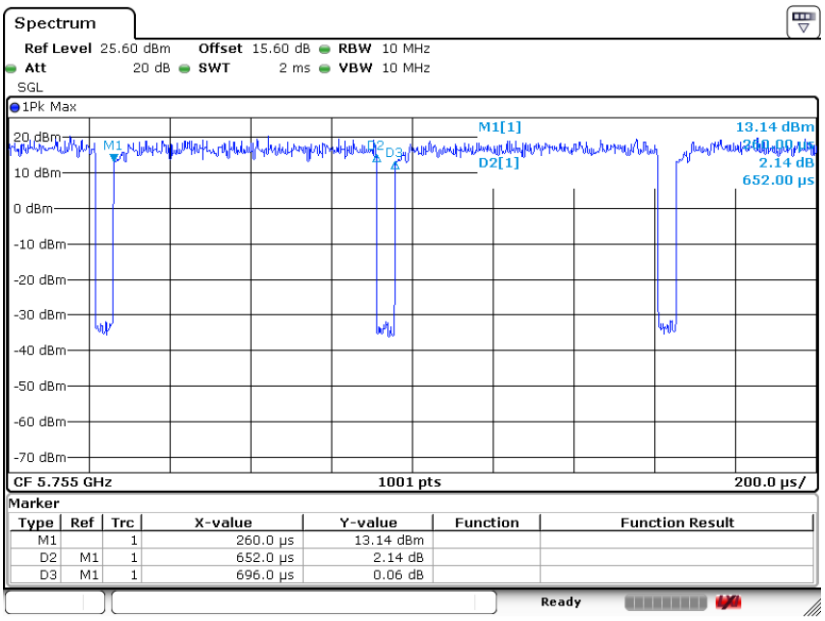
802.11ac VHT40



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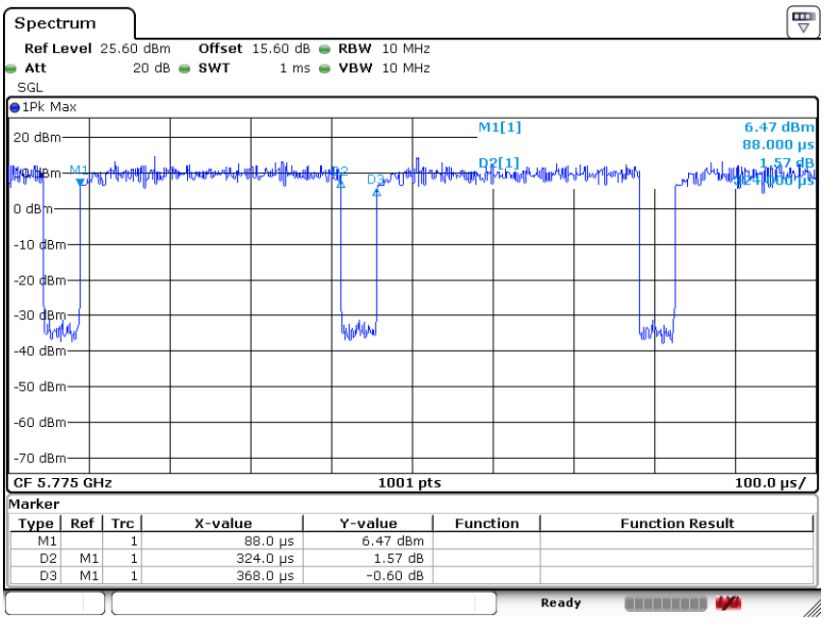
802.11ac VHT80



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