FCC RF Test Report

APPLICANT	:	Mobekta LLC
EQUIPMENT	:	Digital Camera Receiver
MODEL NAME	:	PL67WR
FCC ID	:	2AHXE-5310
STANDARD	:	FCC Part 15 Subpart E §15.407
CLASSIFICATION	:	(NII) Unlicensed National Information Infrastructure

The testing was completed on Jan. 14, 2017. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

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

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager

Testing Laboratory
1190

SPORTON INTERNATIONAL INC.
No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C.

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR651918-03E	Rev. 01	Initial issue of report	Jan. 23, 2017

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result
3.1	2.1049 15.403(i)	26dB & 99% Bandwidth	-	Pass
3.2	15.407(a)	Maximum Conducted Output Power	FCC ≤ 24 dBm (depend on band)	Pass
3.3	15.407(a)	Power Spectral Density	FCC ≤ 11 dBm (depend on band)	Pass
3.4	15.407(b)	Unwanted Emissions	≤ -17, -27 dBm (depend on band)&15.209(a)	Pass
3.5	15.207	AC Conducted Emission	15.207(a)	Pass
3.6	15.407(g)	Frequency Stability	Within Operation Band	Pass
3.7	15.407(c)	Automatically Discontinue Transmission	Discontinue Transmission	Pass
3.8	15.203 & 15.407(a)	Antenna Requirement	N/A	Pass

1 General Description

1.1 Applicant

Mobekta LLC
2900 Westfork Dr.
Suite 401
Baton Rouge, Louisiana 70827

1.2 Product Feature of Equipment Under Test

Product Feature	
Equipment	Digital Camera Receiver
Model Name	PL67WR
FCC ID	2AHXE-5310
EUT supports Radios application	WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth LE

1.3 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Frequency Range	5180 MHz ~ 5240 MHz
Maximum Output Power to Antenna	**<MIMO Ant. 0a + 1a>** 802.11a : 20.74 dBm / 0.1186 W 802.11n HT20 : 21.03 dBm / 0.1268 W 802.11n HT40 : 20.24 dBm / 0.1057 W 802.11ac VHT20: 20.83 dBm / 0.1211 W 802.11ac VHT40: 20.21 dBm / 0.1050 W 802.11ac VHT80: 14.66 dBm / 0.0292 W **<MIMO Ant. 0a + 1b>** 802.11a : 20.83 dBm / 0.1211 W 802.11n HT20 : 20.71 dBm / 0.1178 W 802.11n HT40 : 20.78 dBm / 0.1197 W 802.11ac VHT20: 20.70 dBm / 0.1175 W 802.11ac VHT40: 20.76 dBm / 0.1191 W 802.11ac VHT80: 14.24 dBm / 0.0265 W **<MIMO Ant. 0b + 1a>** 802.11a : 20.18 dBm / 0.1042 W 802.11n HT20 : 20.31 dBm / 0.1074 W 802.11n HT40 : 19.06 dBm / 0.0805 W 802.11ac VHT20: 20.30 dBm / 0.1072 W 802.11ac VHT40: 19.04 dBm / 0.0802 W 802.11ac VHT80: 11.45 dBm / 0.0140 W **<MIMO Ant. 0b + 1b>** 802.11a : 20.16 dBm / 0.1038 W 802.11n HT20 : 20.29 dBm / 0.1069 W 802.11n HT40 : 19.84 dBm / 0.0964 W 802.11ac VHT20: 20.28 dBm / 0.1067 W 802.11ac VHT40: 19.72 dBm / 0.0938 W 802.11ac VHT80: 15.05 dBm / 0.0320 W
99% Occupied Bandwidth	**<MIMO Ant. 0a + 1a>** 802.11a : 18.85 MHz 802.11n HT20 : 19.75 MHz 802.11n HT40 : 36.80 MHz 802.11ac VHT80 : 75.96 MHz **<MIMO Ant. 0a + 1b>** 802.11a : 18.85 MHz 802.11n HT20 : 19.70 MHz 802.11n HT40 : 37.20 MHz 802.11ac VHT80 : 75.96 MHz **<MIMO Ant. 0b + 1a>** 802.11a : 18.85 MHz 802.11n HT20 : 19.65 MHz 802.11n HT40 : 36.80 MHz 802.11ac VHT80 : 75.96 MHz **<MIMO Ant. 0b + 1b>** 802.11a : 19.10 MHz 802.11n HT20 : 19.90 MHz 802.11n HT40 : 37.00 MHz 802.11ac VHT80 : 75.84 MHz

<table>
<tr><th colspan="2">Standards-related Product Specification</th></tr>
<tr><td>Antenna Type / Gain</td><td><5180 MHz ~ 5240 MHz>
Ant. 0a : Fixed internal Antenna with gain -1.53 dBi
Ant. 1a : Fixed internal Antenna with gain 2.28 dBi
Ant. 0b : Fixed internal Antenna with gain -2.11 dBi
Ant. 1b : Fixed internal Antenna with gain 1.56 dBi</td></tr>
<tr><td>Type of Modulation</td><td>802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)
802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)</td></tr>
<tr><td>Antenna Function Description</td><td><table><tr><th></th><th>Ant. 0a</th><th>Ant. 0b</th><th>Ant. 1a</th><th>Ant. 1b</th></tr><tr><td>802.11 a/n/ac MIMO</td><td>V</td><td>V</td><td>V</td><td>V</td></tr></table></td></tr>
</table>

Note: MIMO Ant. 1+2 is a calculated result from sum of the power MIMO Ant. 1 and MIMO Ant. 2.

1.4 Modification of EUT

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

1.5 Testing Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW1022 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

Test Site	SPORTON INTERNATIONAL INC.	
Test Site Location	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan 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.
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd Rd. Guishan Dist, Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	**Sporton Site No.**
	03CH12-HY

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

1.6 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 v01r03.
- FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- FCC KDB 644545 D03 Guidance for IEEE 802 11ac New Rules v01
- ANSI C63.10-2013

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

2 Test Configuration of Equipment Under Test

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: conducted emission (150 kHz to 30 MHz) and radiated emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

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		

Note:

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

2.2 Test Mode

Final test mode of conducted test items and radiated spurious emissions are considering the modulation and worse data rates as below table.

MIMO Antenna

Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT20	MCS0
802.11ac VHT40	MCS0
802.11ac VHT80	MCS0

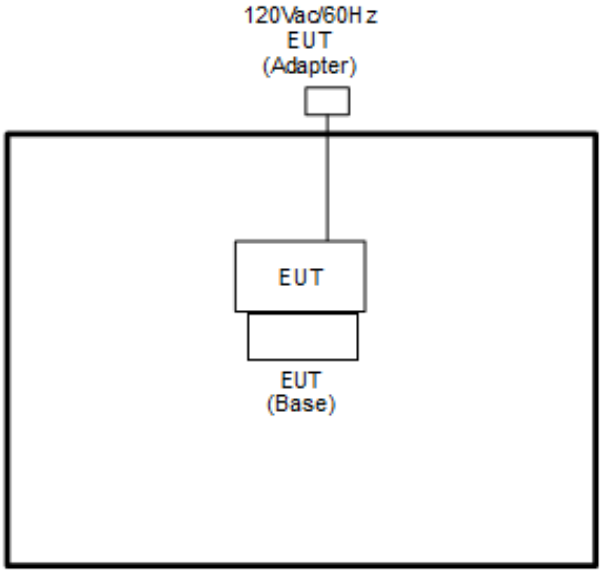
Test Cases	
AC Conducted Emission	Mode 1 : WLAN (5GHz) Link + Bluetooth Link + Speaker On + Flash light On + Camera + Adapter

Ch. #		Band I：5150-5250 MHz	Band I：5150-5250 MHz	Band I：5150-5250 MHz
		802.11a	802.11n HT20	802.11n HT40
L	Low	36	36	38
M	Middle	44	44	-
H	High	48	48	46

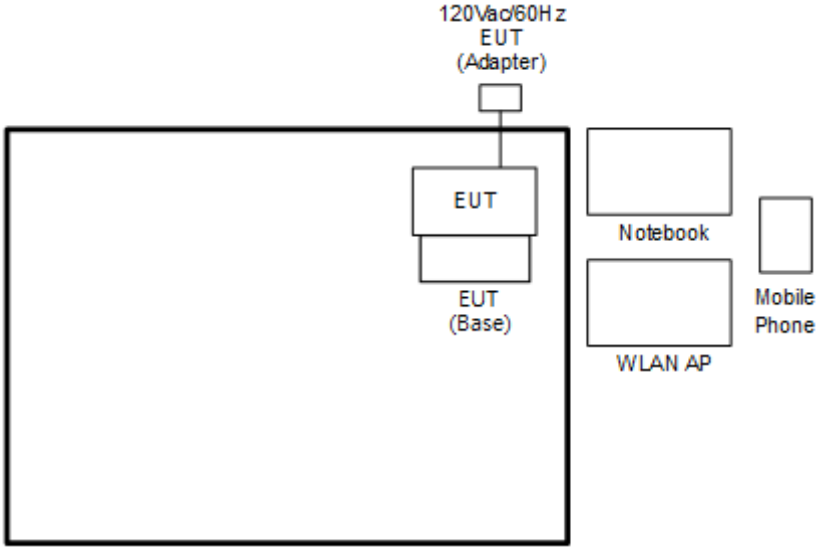
Ch. #		Band I：5150-5250 MHz	Band I：5150-5250 MHz	Band I：5150-5250 MHz
		802.11ac VHT20	802.11ac VHT40	802.11ac VHT80
L	Low	36	38	-
M	Middle	44	-	42
H	High	48	46	-

2.3 Connection Diagram of Test System

<WLAN Tx Mode>



<AC Conducted Emission Mode>



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Notebook	DELL	Latitude E6320	FCC DoC/ Contains FCC ID: QDS-BRCM1054	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
2.	WLAN AP	D-Link	DIR-628	KA2DIR628A2	N/A	Unshielded, 1.8 m
3.	Mobile Phone	Apple	A1529	BCG-E2694A	N/A	N/A

2.5 EUT Operation Test Setup

The programmed RF utility “CMD”, is installed in EUT to provide channel selection, power level, data rate and the application type. RF Utility can send transmitting signal for all testing. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product

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.

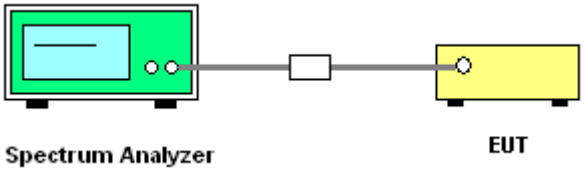
3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r03. 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 1MHz and set the Video bandwidth (VBW) ≥ 3 * RBW.
8. Measure and record the results in the test report.

3.1.4 Test Setup

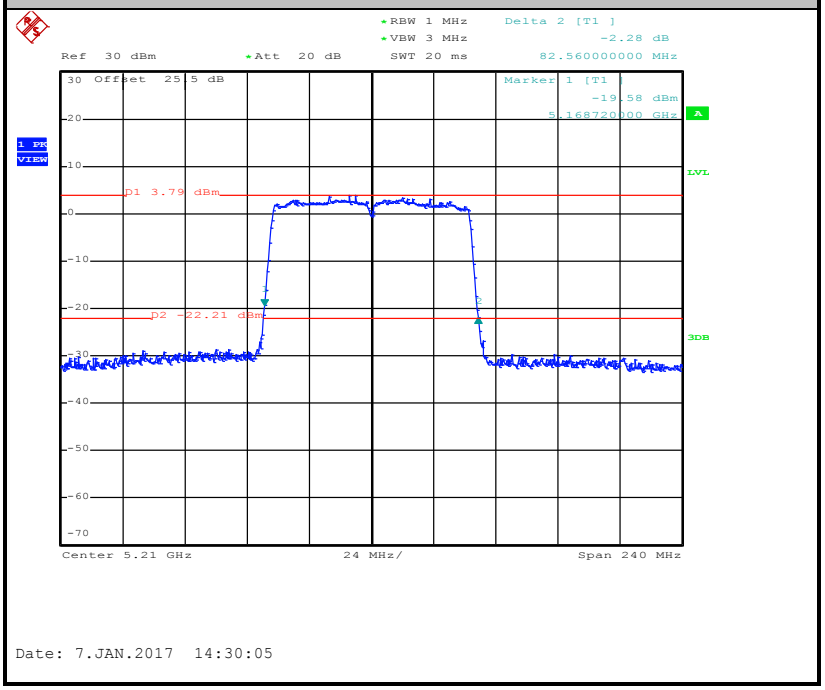


3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

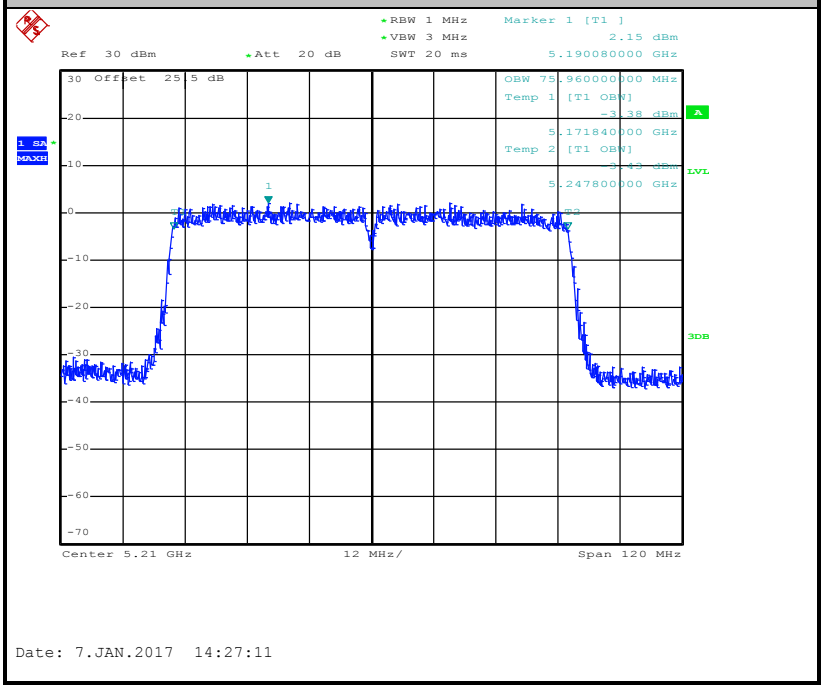
Please refer to Appendix A.

MIMO <Ant. 0a + 1a>

Maximum 26dB Bandwidth



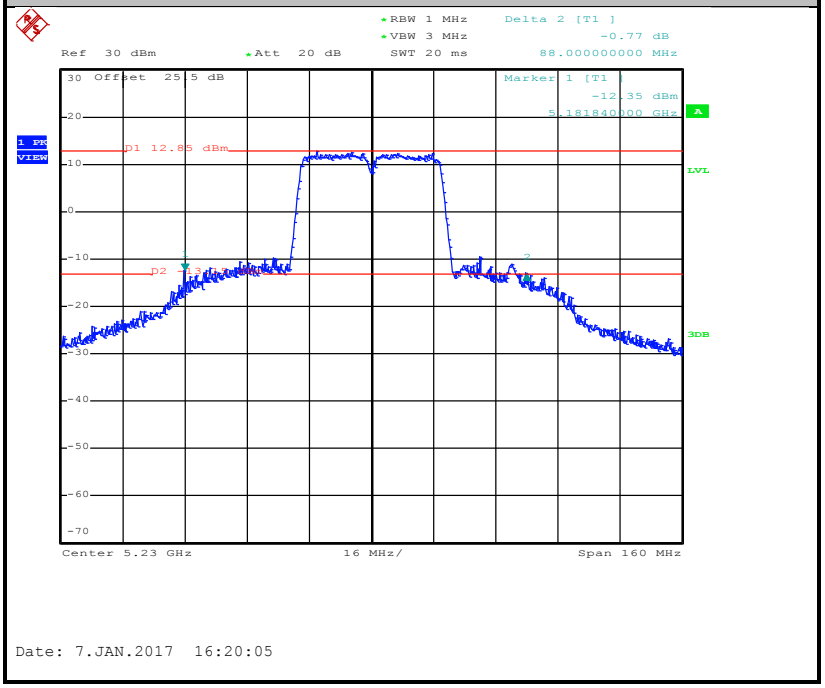
Maximum 99% Occupied Bandwidth



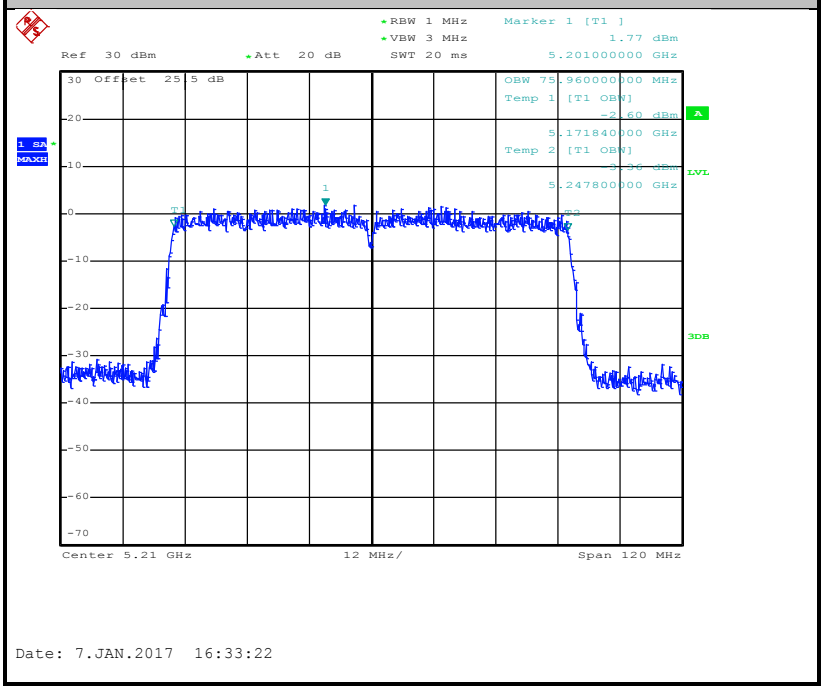
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

MIMO <Ant. 0a + 1b>

Maximum 26dB Bandwidth



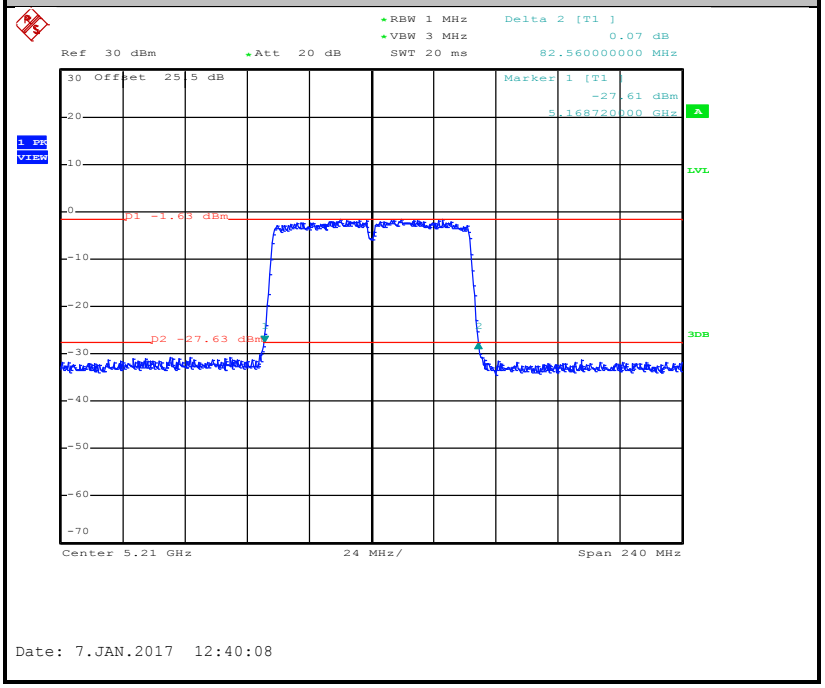
Maximum 99% Occupied Bandwidth



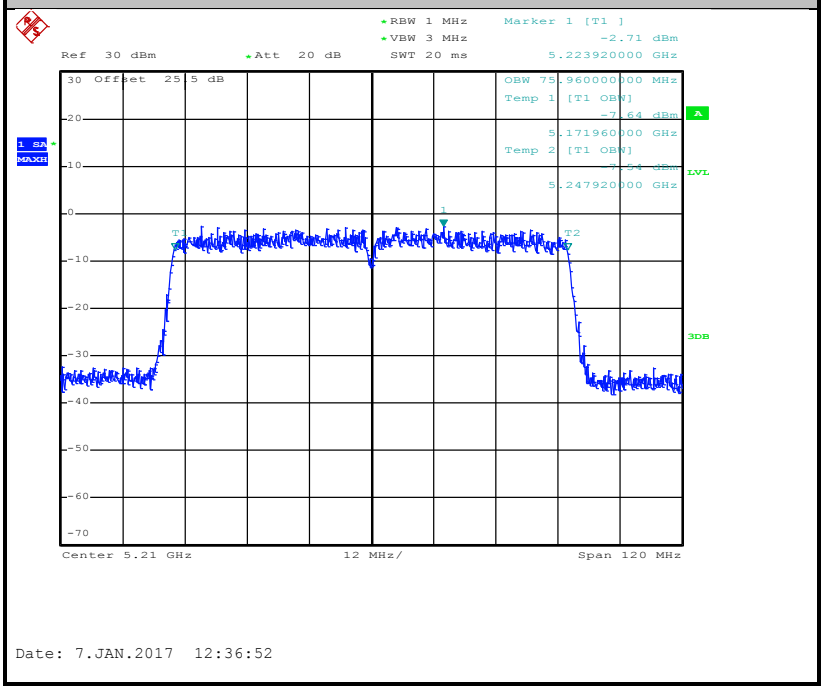
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

MIMO <Ant. 0b + 1a>

Maximum 26dB Bandwidth



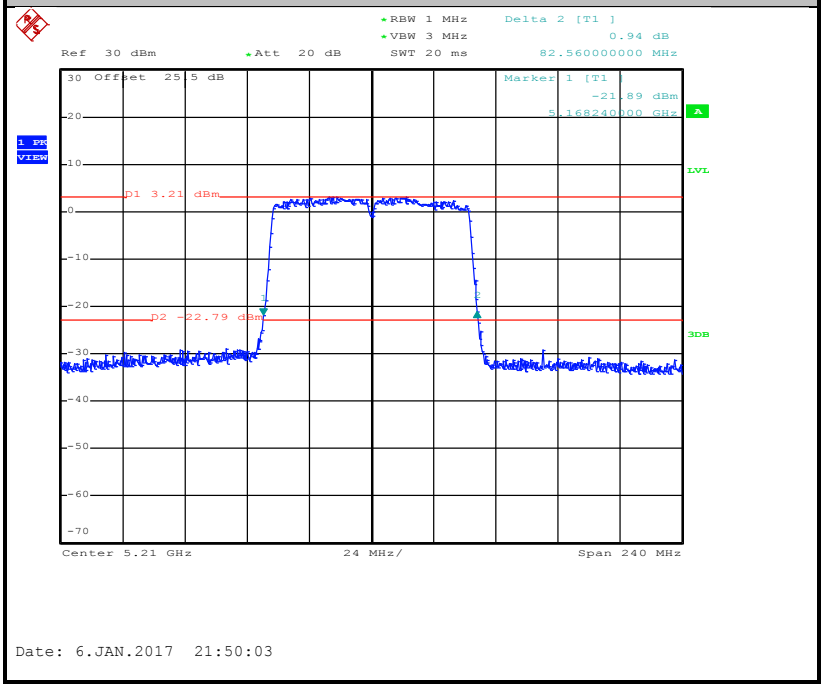
Maximum 99% Occupied Bandwidth



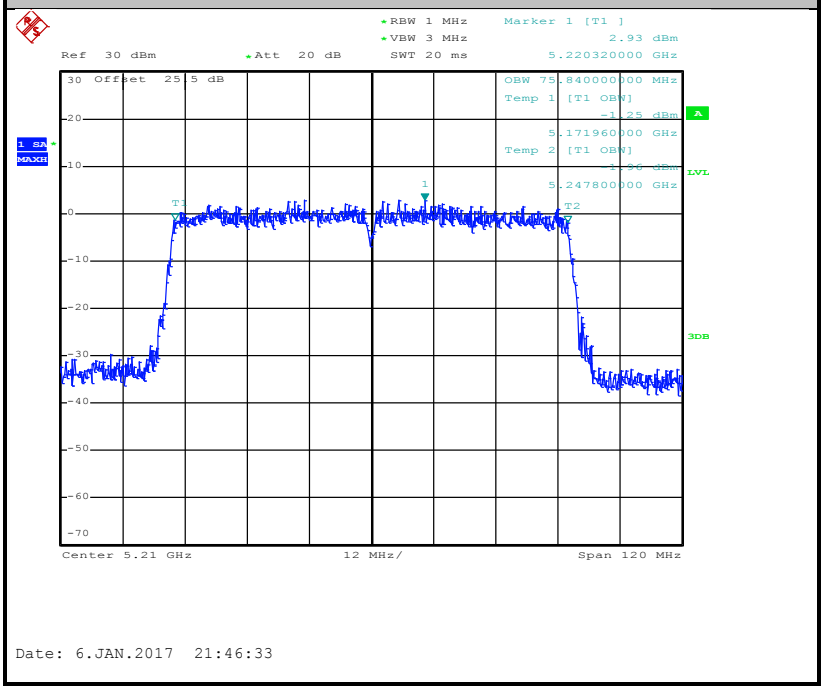
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

MIMO <Ant. 0b + 1b>

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 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.

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

The measuring equipment is listed in the section 4 of this test report.

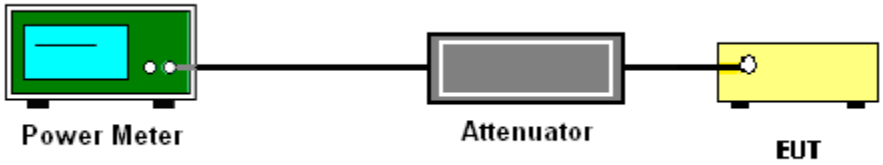
3.2.3 Test Procedures

The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r03 for CDD modes.

Method PM (Measurement using an RF average power meter):

1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit continuously with a consistent duty cycle at its maximum power control level.
3. Measure the average power of the transmitter, and the average power is corrected with duty factor, 10 log(1/x), where x is the duty cycle.

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 mobile and portable client devices in the 5.15–5.25 GHz band, the maximum power spectral density shall not exceed 11dBm in any 1 megahertz 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

The measuring equipment is listed in the section 4 of this test report.

3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r03. Section F) Maximum power spectral density.

 # Method SA-2 #

(trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

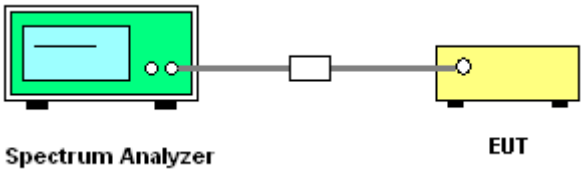
1. The testing follows Method SA-2 of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r03.
   - Measure the duty cycle.
   - Set span to encompass the entire emission bandwidth (EBW) of the signal.
   - Set RBW = 1 MHz.
   - Set VBW ≥ 3 MHz.
   - Number of points in sweep ≥ 2 Span / RBW.
   - Sweep time = auto.
   - Detector = RMS
   - Trace average at least 100 traces in power averaging mode.
   - Add 10 log(1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add 10 log(1/0.25) = 6 dB if the duty cycle is 25 percent.

2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.
4. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

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

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

3.3.4 Test Setup

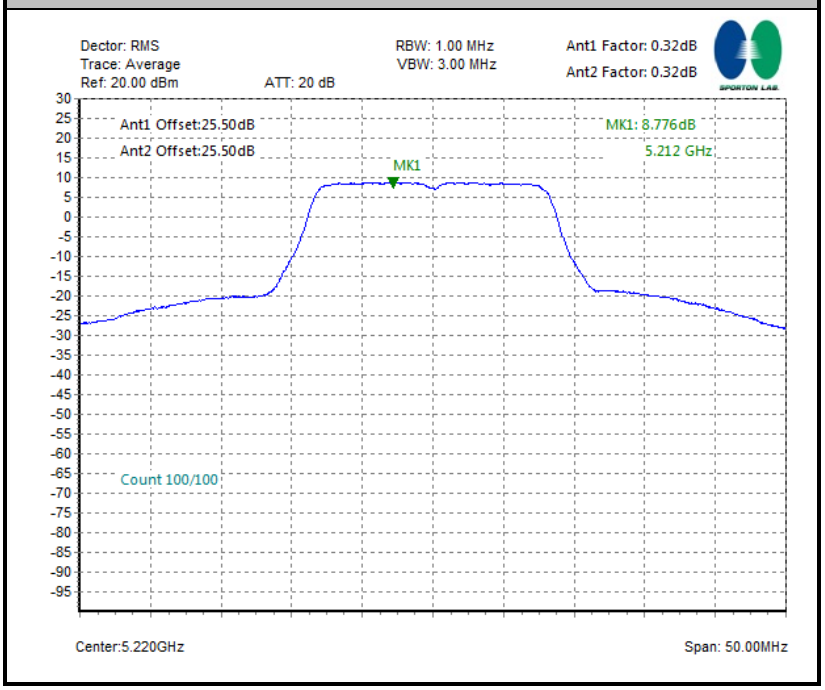


3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

MIMO <Ant. 0a + 1a>

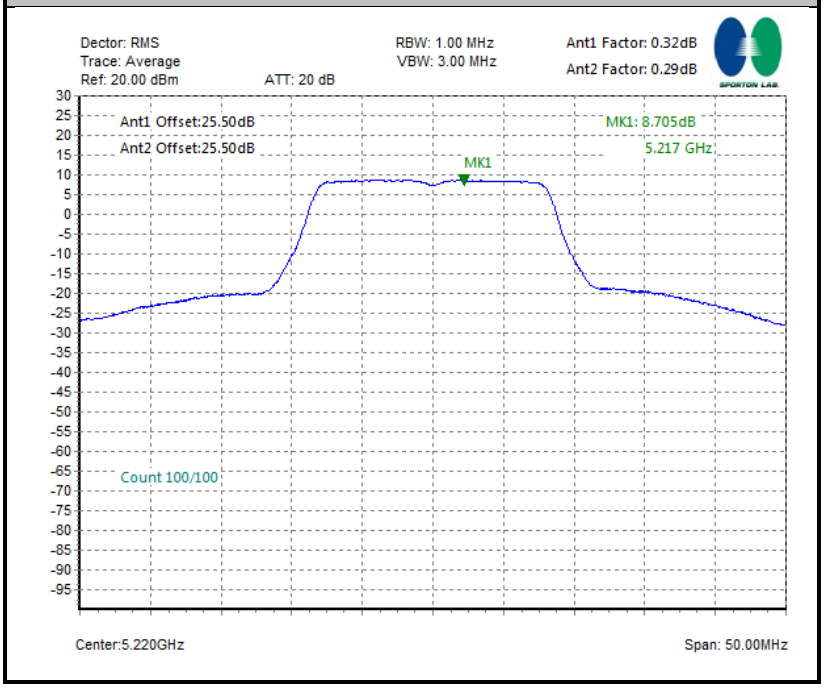
Worst Case Power Density (dBm/MHz)



Note: Average Power Density (dB) = Measured value+ Duty Factor

MIMO <Ant. 0a + 1b>

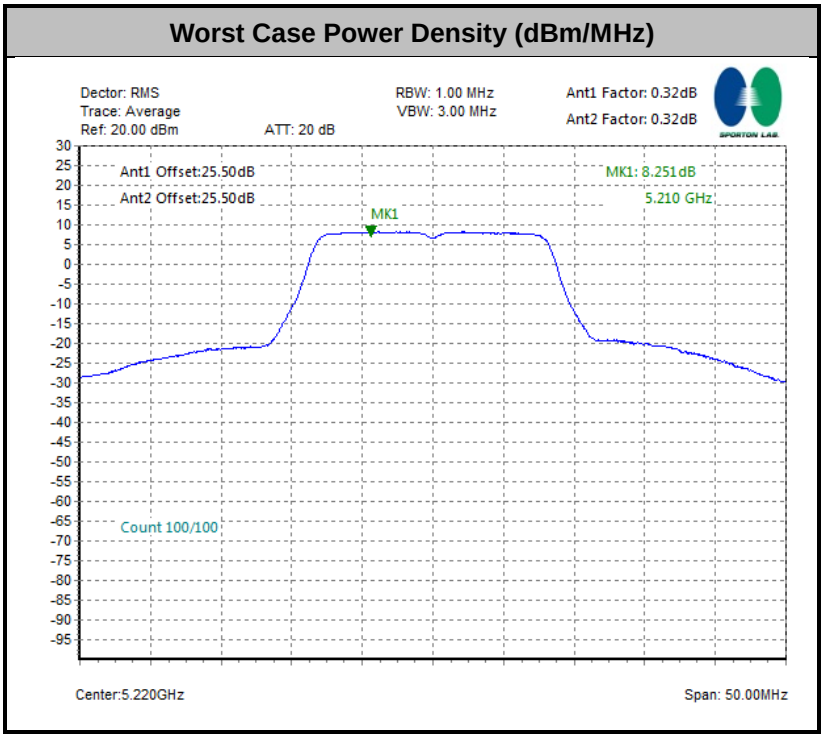
Worst Case Power Density (dBm/MHz)



Note: Average Power Density (dB) = Measured value+ Duty Factor

MIMO <Ant. 0b + 1a>

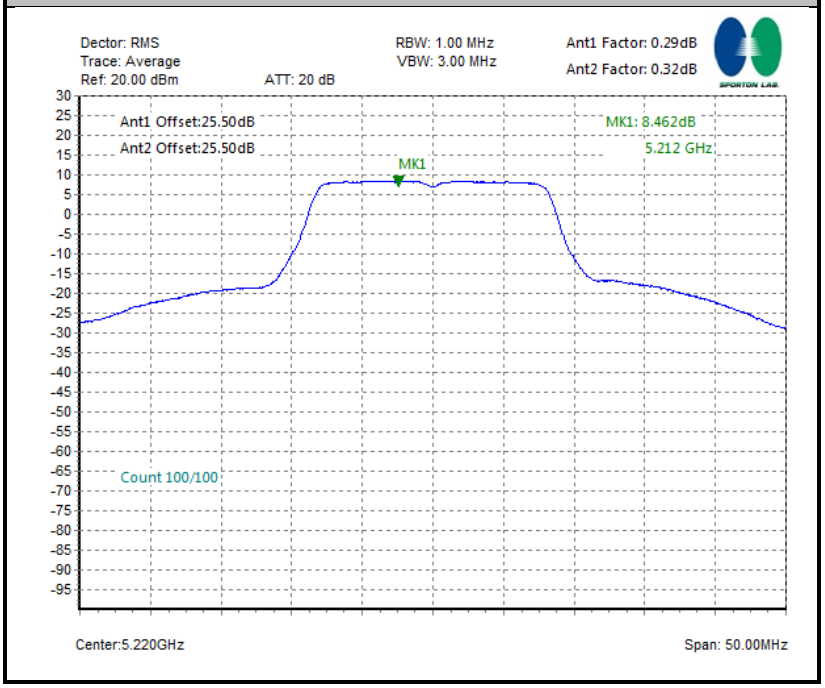
Worst Case Power Density (dBm/MHz)



Note: Average Power Density (dB) = Measured value+ Duty Factor

MIMO <Ant. 0b + 1b>

Worst Case Power Density (dBm/MHz)



Note: Average Power Density (dB) = Measured value+ Duty Factor

3.4 Unwanted Emissions Measurement

This section as specified in FCC Part 15.407(b) is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement. The unwanted emissions shall comply with 15.407(b)(1) to (6), and restricted bands per FCC Part15.205.

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.

(2) Unwanted spurious emissions fallen in restricted bands per FCC Part15.205 shall comply with the general field strength limits set forth in § 15.209 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)
-17	78.3
- 27	68.3

(3) KDB789033 D02 v01r03 G)2)c) As specified in 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in 15.407(b)(4)). However, an out-of-band emission that complies with both the average and peak limits of 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz peak emission limit.

3.4.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.4.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r03. 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

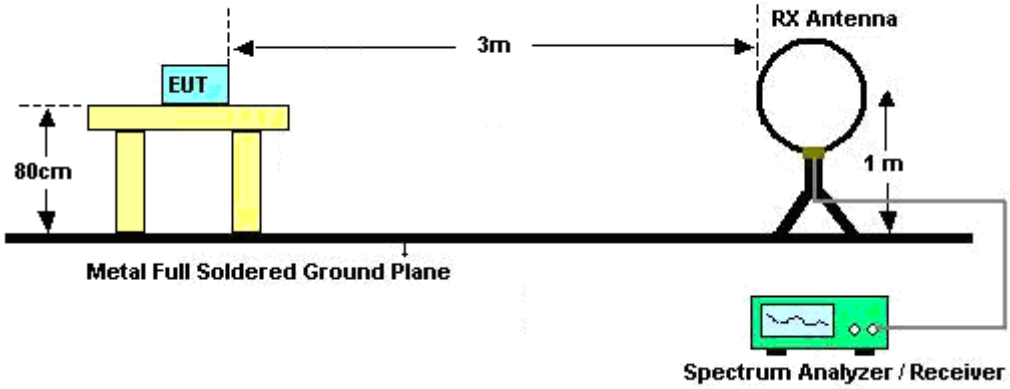
   (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

   - 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.

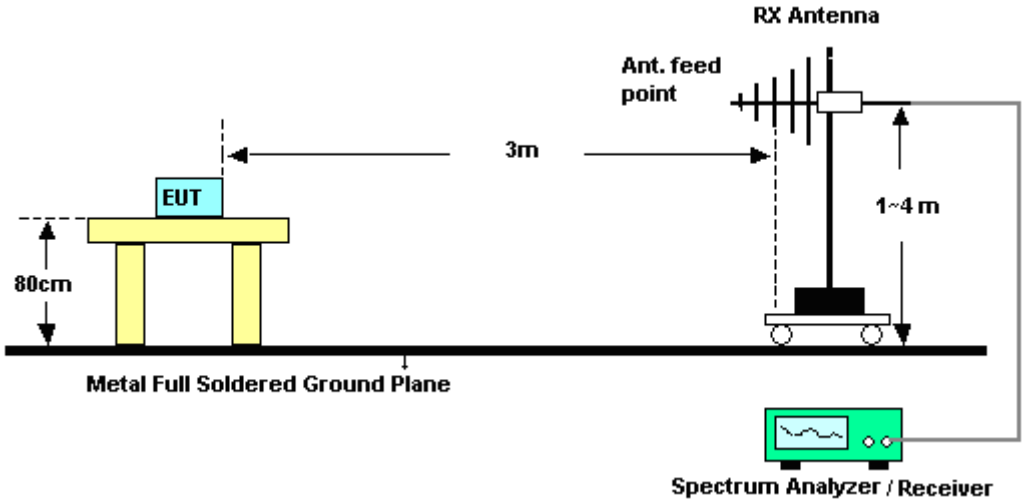
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband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

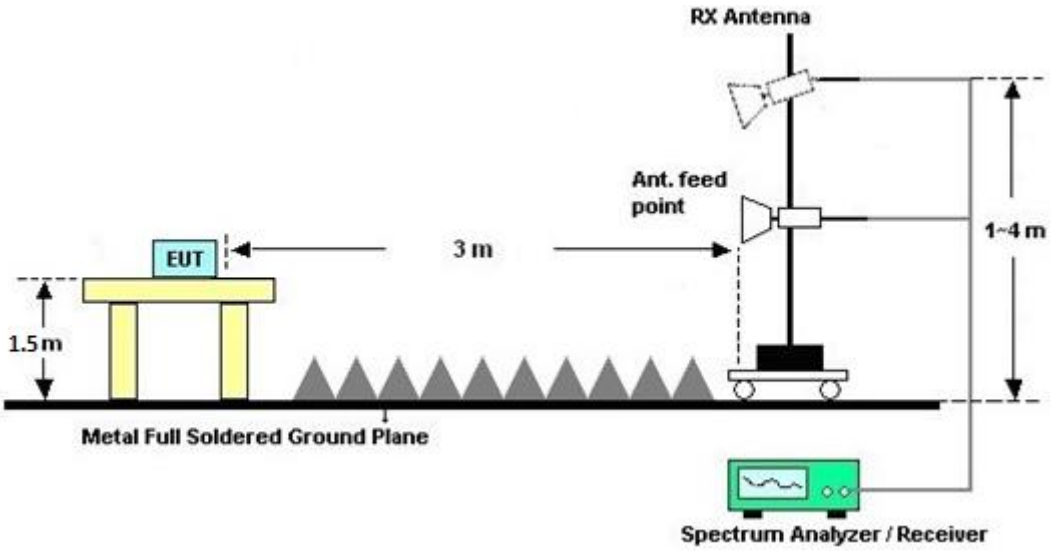
For radiated emissions below 30MHz



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 per 15.31(o) was not reported.

3.4.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix B and C.

3.4.7 Duty Cycle

Please refer to Appendix D.

3.4.8 Test Result of Radiated Spurious Emissions (30MHz ~ 10th Harmonic)

Please refer to Appendix B and C.

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.

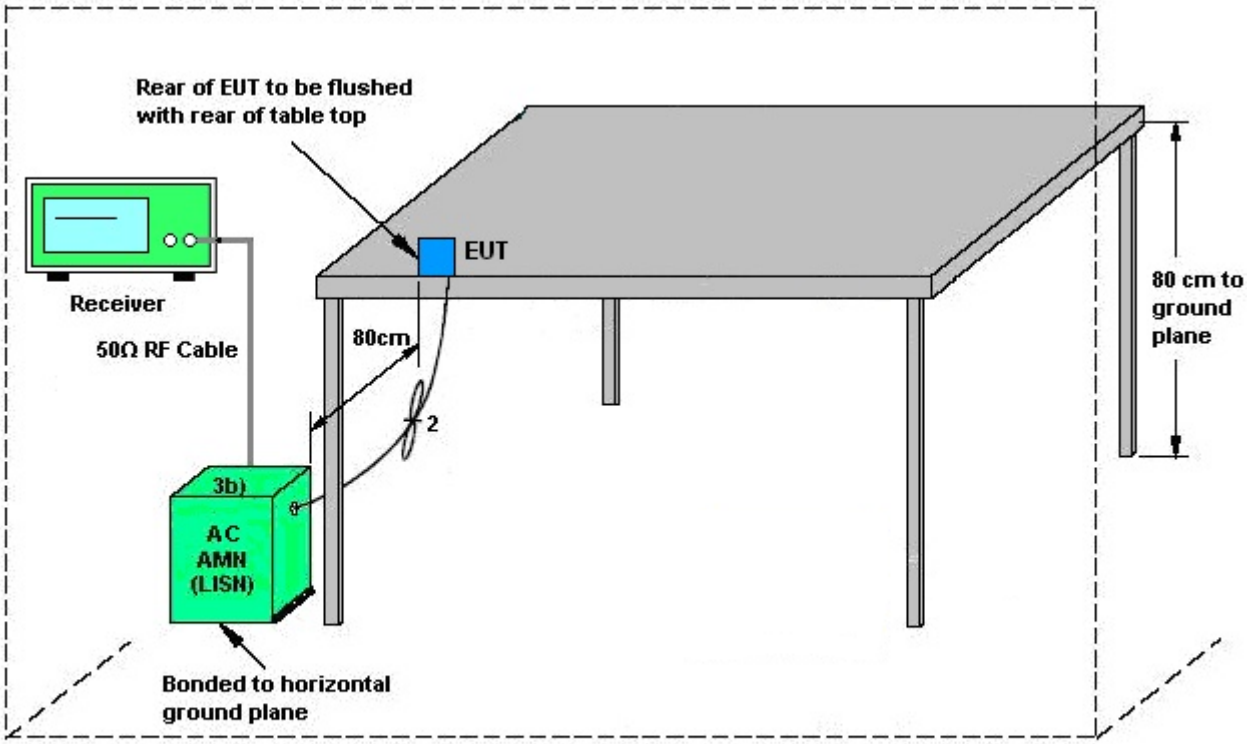
3.5.2 Measuring Instruments

The measuring equipment is listed in the section 4 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.

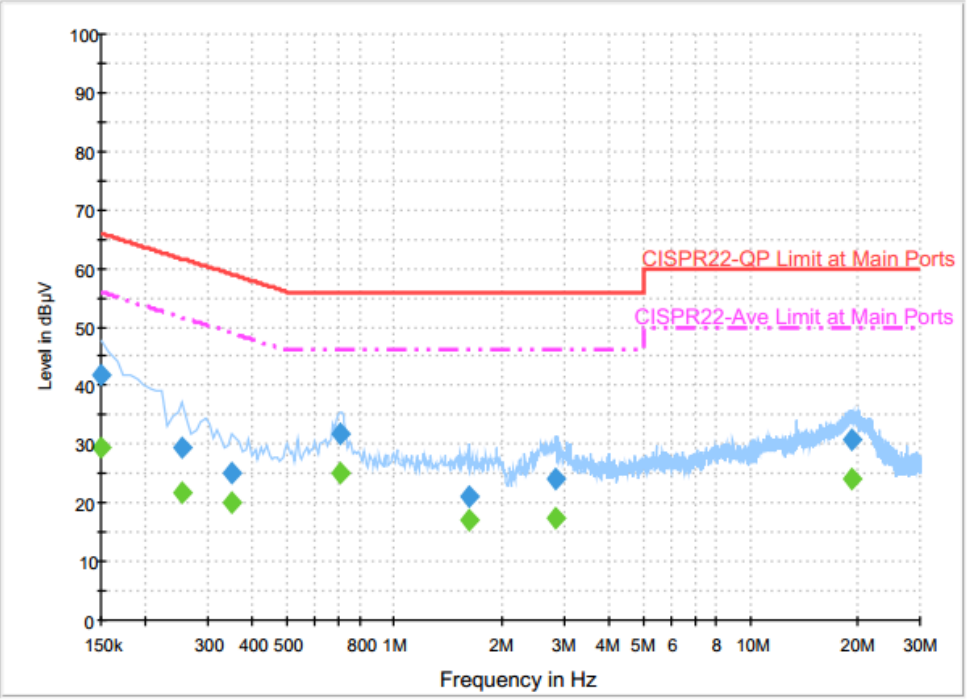
3.5.4 Test Setup



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

Test Mode :	Mode 1	**Temperature :**	22~23℃
Test Engineer :	Kai-Chun Chu	**Relative Humidity :**	48~49%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Function Type :	WLAN (5GHz) Link + Bluetooth Link + Speaker On + Flash light On + Camera + Adapter		



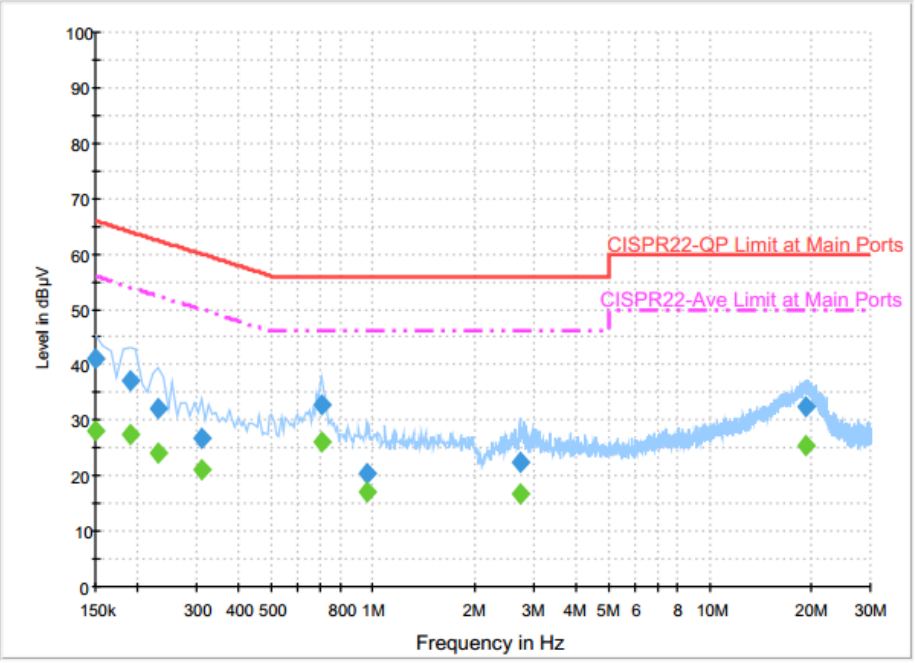
Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	41.8	Off	L1	19.6	24.2	66.0
0.254000	29.3	Off	L1	19.6	32.3	61.6
0.350000	25.1	Off	L1	19.6	33.9	59.0
0.702000	31.8	Off	L1	19.6	24.2	56.0
1.630000	21.1	Off	L1	19.6	34.9	56.0
2.846000	24.1	Off	L1	19.5	31.9	56.0
19.366000	30.9	Off	L1	20.6	29.1	60.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	29.4	Off	L1	19.6	26.6	56.0
0.254000	21.8	Off	L1	19.6	29.8	51.6
0.350000	19.9	Off	L1	19.6	29.1	49.0
0.702000	25.2	Off	L1	19.6	20.8	46.0
1.630000	17.1	Off	L1	19.6	28.9	46.0
2.846000	17.3	Off	L1	19.5	28.7	46.0
19.366000	24.2	Off	L1	20.6	25.8	50.0

Test Mode :	Mode 1	**Temperature :**	22~23℃
Test Engineer :	Kai-Chun Chu	**Relative Humidity :**	48~49%
Test Voltage :	120Vac / 60Hz	**Phase :**	Neutral
Function Type :	WLAN (5GHz) Link + Bluetooth Link + Speaker On + Flash light On + Camera + Adapter		



Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	41.0	Off	N	19.6	25.0	66.0
0.190000	37.2	Off	N	19.6	26.8	64.0
0.230000	32.2	Off	N	19.6	30.2	62.4
0.310000	26.8	Off	N	19.6	33.2	60.0
0.702000	32.8	Off	N	19.6	23.2	56.0
0.958000	20.5	Off	N	19.6	35.5	56.0
2.726000	22.6	Off	N	19.4	33.4	56.0
19.366000	32.4	Off	N	20.7	27.6	60.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	28.1	Off	N	19.6	27.9	56.0
0.190000	27.4	Off	N	19.6	26.6	54.0
0.230000	24.2	Off	N	19.6	28.2	52.4
0.310000	21.0	Off	N	19.6	29.0	50.0
0.702000	25.9	Off	N	19.6	20.1	46.0
0.958000	17.1	Off	N	19.6	28.9	46.0
2.726000	16.8	Off	N	19.4	29.2	46.0
19.366000	25.5	Off	N	20.7	24.5	50.0

3.6 Frequency Stability Measurement

3.6.1 Limit of Frequency Stability

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

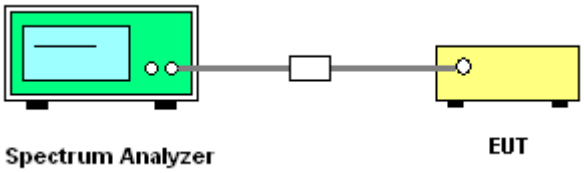
3.6.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.6.3 Test Procedures

1. To ensure emission at the band edge is maintained within the authorized band, those values shall be measured by radiation emissions at upper and lower frequency points, and finally compensated by frequency deviation as procedures below.
2. The EUT was operated at the maximum output power, and connected to the spectrum analyzer, which is set to maximum hold function and peak detector. The peak value of the power envelope was measured and noted. The upper and lower frequency points were respectively measured relatively 10dB lower than the measured peak value.
3. The frequency deviation was calculated by adding the upper frequency point and the lower frequency point divided by two. Those detailed values of frequency deviation are provided in table below.

3.6.4 Test Setup



3.6.5 Test Result of Frequency Stability

Please refer to Appendix A.

3.7 Automatically Discontinue Transmission

3.7.1 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.

3.7.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.7.3 Test Result of Automatically Discontinue Transmission

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

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

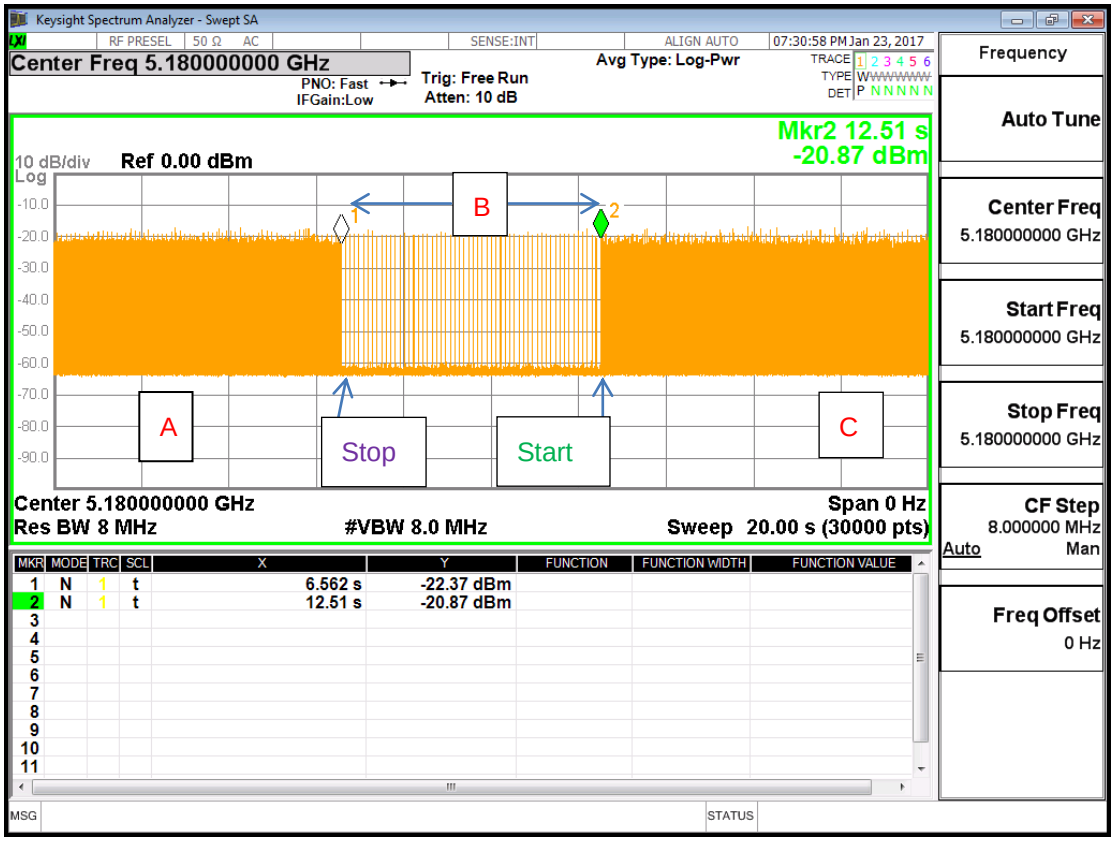
B. Information stop: stop supplying information to the access point.

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

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

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

5180MHz



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

3.8 Antenna Requirements

3.8.1 Standard Applicable

According to FCC 47 CFR Section 15.407(a)(1)(2) ,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.

3.8.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.8.3 Antenna Gain

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

Directional gain = G_{ANT} + Array Gain, where Array Gain is as follows.

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

Array Gain = 10 log(N_{ANT}/N_{SS}=1) dB.

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$.

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

The EUT supports CDD mode.

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

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

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

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

<MIMO Ant. 0a + 1a>

	Ant 0a (dBi)	Ant 1a (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
Band I	-1.53	2.28	2.28	3.59	0.00	0.00

<MIMO Ant. 0a + 1b>

	Ant 0a (dBi)	Ant 1b (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
Band I	-1.53	1.56	1.56	3.16	0.00	0.00

<MIMO Ant. 0b + 1a>

	Ant 0b (dBi)	Ant 1a (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
Band I	-2.11	2.28	2.28	3.37	0.00	0.00

<MIMO Ant. 0b + 1b>

	Ant 0b (dBi)	Ant 1b (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
Band I	-2.11	1.56	1.56	2.93	0.00	0.00

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

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

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	1218006	300MHz~40GHz	Oct. 06, 2016	Dec. 19, 2016 ~ Jan. 14, 2017	Oct. 05, 2017	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	1207363	300MHz~40GHz	Oct. 06, 2016	Dec. 19, 2016 ~ Jan. 14, 2017	Oct. 05, 2017	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz-40GHz	Nov. 25, 2016	Dec. 19, 2016 ~ Jan. 14, 2017	Nov. 24, 2017	Conducted (TH05-HY)
Temperature Chamber	ESPEC	SH-641	92013720	-40℃ ~90℃	Sep. 01, 2016	Dec. 19, 2016 ~ Jan. 14, 2017	Aug. 31, 2017	Conducted (TH05-HY)
Programmable Power Supply	GW Instek	PSS-2005	EL890001	1V~20V 0.5A~4A	Oct. 03, 2016	Dec. 19, 2016 ~ Jan. 14, 2017	Oct. 02, 2017	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Dec. 30, 2016	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESCI 7	100724	9kHz~7GHz	Aug. 30, 2016	Dec. 30, 2016	Aug. 29, 2017	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 29, 2016	Dec. 30, 2016	Nov. 28, 2017	Conduction (CO05-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Oct. 20, 2016	Dec. 22, 2016 ~ Jan. 03, 2017	Oct. 19, 2018	Radiation (03CH12-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Nov. 10, 2016	Dec. 22, 2016 ~ Jan. 03, 2017	Nov. 09, 2017	Radiation (03CH12-HY)
Spectrum Analyzer	Agilent	N9030A	MY52350276	3Hz~44GHz	Mar. 21, 2016	Dec. 22, 2016 ~ Jan. 03, 2017	Mar. 20, 2017	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800 N1D01N-06	37059&01	30MHz~1GHz	Oct. 15, 2016	Dec. 22, 2016 ~ Jan. 03, 2017	Oct. 14, 2017	Radiation (03CH12-HY)
EMI Test Receiver	Agilent	N9038A(MXE)	MY53290053	20Hz to 26.5GHz	Jan. 20, 2016	Dec. 22, 2016 ~ Jan. 03, 2017	Jan. 19, 2017	Radiation (03CH12-HY)
Preamplifier	MITEQ	TTA0204	1872107	2GHz~40GHz	Feb. 15, 2016	Dec. 22, 2016 ~ Jan. 03, 2017	Feb. 14, 2017	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1328	1GHz ~ 18GHz	Oct. 25, 2016	Dec. 22, 2016 ~ Jan. 03, 2017	Oct. 24, 2017	Radiation (03CH12-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1815698	1GHz~18GHz	Dec. 01, 2016	Dec. 22, 2016 ~ Jan. 03, 2017	Nov. 30, 2017	Radiation (03CH12-HY)
Preamplifier	Keysight	83017A	MY53270148	1GHz~26.5GHz	Jan. 30, 2016	Dec. 22, 2016 ~ Jan. 03, 2017	Jan. 29, 2017	Radiation (03CH12-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Dec. 22, 2016 ~ Jan. 03, 2017	N/A	Radiation (03CH12-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Dec. 22, 2016 ~ Jan. 03, 2017	N/A	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170576	18GHz ~ 40GHz	Apr. 15, 2016	Dec. 22, 2016 ~ Jan. 03, 2017	Apr. 14, 2017	Radiation (03CH12-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.7

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

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

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

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

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

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

Appendix A. Conducted Test Results

Test Engineer:	Tommy Lee	Temperature:	21~25	°C
Test Date:	2016/12/19~2017/01/14	Relative Humidity:	51~54	%

<Ant. 0a & Ant. 1a>

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
					0a	1a	0a	1a	0a	1a	0a	1a		
11a	6Mbps	2	36	5180	18.25	18.70	23.04	22.88	-		22.61			
11a	6Mbps	2	44	5220	18.55	18.75	27.52	37.12	-		22.68			
11a	6Mbps	2	48	5240	18.40	18.85	23.20	36.16	-		22.65			
HT20	MCS0	2	36	5180	19.05	18.75	23.20	23.20	-		22.73			
HT20	MCS0	2	44	5220	19.35	19.55	38.08	46.08	-		22.87			
HT20	MCS0	2	48	5240	19.45	19.75	46.40	47.36	-		22.89			
HT40	MCS0	2	38	5190	36.60	36.70	41.60	41.28	-		23.01			
HT40	MCS0	2	46	5230	36.80	36.80	68.80	41.28	-		23.01			
VHT80	MCS0	2	42	5210	75.96	75.84	82.56	81.60	-		23.01			

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TEST RESULTS DATA
Average Power Table

FCC Band I															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)			Pass/Fail
					0a	1a	0a	1a	SUM	0a	1a	0a	1a		
11a	6Mbps	2	36	5180	0.32	0.32	16.97	14.92	19.08	24.00		2.28			Pass
11a	6Mbps	2	44	5220	0.32	0.32	18.40	16.93	20.74	24.00		2.28			Pass
11a	6Mbps	2	48	5240	0.32	0.32	18.25	17.14	20.74	24.00		2.28			Pass
HT20	MCS0	2	36	5180	0.34	0.34	16.55	14.48	18.65	24.00		2.28			Pass
HT20	MCS0	2	44	5220	0.34	0.34	18.67	17.24	21.03	24.00		2.28			Pass
HT20	MCS0	2	48	5240	0.34	0.34	18.69	17.23	21.03	24.00		2.28			Pass
HT40	MCS0	2	38	5190	0.61	0.67	12.65	10.44	14.70	24.00		2.28			Pass
HT40	MCS0	2	46	5230	0.61	0.67	18.21	15.95	20.24	24.00		2.28			Pass
VHT20	MCS0	2	36	5180	0.34	0.34	16.49	14.17	18.50	24.00		2.28			Pass
VHT20	MCS0	2	44	5220	0.34	0.34	18.48	16.94	20.79	24.00		2.28			Pass
VHT20	MCS0	2	48	5240	0.34	0.34	18.35	17.21	20.83	24.00		2.28			Pass
VHT40	MCS0	2	38	5190	0.60	0.67	12.64	10.41	14.68	24.00		2.28			Pass
VHT40	MCS0	2	46	5230	0.60	0.67	18.16	15.97	20.21	24.00		2.28			Pass
VHT80	MCS0	2	42	5210	1.14	1.20	12.68	10.29	14.66	24.00		2.28			Pass

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TEST RESULTS DATA
Power Spectral Density

FCC Band I															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					0a	1a	0a	1a	SUM	0a	1a	0a	1a		
11a	6Mbps	2	36	5180	0.32	0.32			7.59	11.00		3.59			Pass
11a	6Mbps	2	44	5220	0.32	0.32			8.78	11.00		3.59			Pass
11a	6Mbps	2	48	5240	0.32	0.32			8.57	11.00		3.59			Pass
HT20	MCS0	2	36	5180	0.34	0.34			6.74	11.00		3.59			Pass
HT20	MCS0	2	44	5220	0.34	0.34			8.71	11.00		3.59			Pass
HT20	MCS0	2	48	5240	0.34	0.34			8.67	11.00		3.59			Pass
HT40	MCS0	2	38	5190	0.61	0.67			-0.37	11.00		3.59			Pass
HT40	MCS0	2	46	5230	0.61	0.67			4.67	11.00		3.59			Pass
VHT80	MCS0	2	42	5210	1.14	1.20			-3.65	11.00		3.59			Pass

Report Number : FR651918-03E

TEST RESULTS DATA
Frequency Stability

Band I										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stablility (ppm)	Temperature (˚C)	Voltage (V)	Note
11a	6Mbps	0a	36	5180	5179.950	-0.050	-9.65	35	120	
11a	6Mbps	0a	36	5180	5180.000	0.000	0.00	0	120	
11a	6Mbps	0a	36	5180	5180.000	0.000	0.00	20	138	
11a	6Mbps	0a	36	5180	5180.000	0.000	0.00	20	102	
11a	6Mbps	0a	36	5180	5180.000	0.000	0.00	20	120	

<Ant. 0a & Ant. 1b>

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
					0a	1b	0a	1b	0a	1b	0a	1b		
11a	6Mbps	2	36	5180	18.45	18.20	23.20	22.88	-		22.60			
11a	6Mbps	2	44	5220	18.75	18.85	27.52	39.04	-		22.73			
11a	6Mbps	2	48	5240	18.55	18.80	28.00	38.24	-		22.68			
HT20	MCS0	2	36	5180	19.05	18.85	23.60	23.20	-		22.75			
HT20	MCS0	2	44	5220	19.35	19.50	34.72	46.08	-		22.87			
HT20	MCS0	2	48	5240	19.35	19.70	38.24	47.20	-		22.87			
HT40	MCS0	2	38	5190	36.70	36.70	40.96	40.96	-		23.01			
HT40	MCS0	2	46	5230	37.20	37.20	88.00	78.40	-		23.01			
VHT80	MCS0	2	42	5210	75.96	75.84	82.08	82.56	-		23.01			

Report Number : FR651918-03E

TEST RESULTS DATA
Average Power Table

FCC Band I															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)			Pass/Fail
					0a	1b	0a	1b	SUM	0a	1b	0a	1b		
11a	6Mbps	2	36	5180	0.32	0.29	17.12	14.83	19.14	24.00		1.56			Pass
11a	6Mbps	2	44	5220	0.32	0.29	18.52	16.94	20.81	24.00		1.56			Pass
11a	6Mbps	2	48	5240	0.32	0.29	18.28	17.29	20.83	24.00		1.56			Pass
HT20	MCS0	2	36	5180	0.34	0.31	16.48	14.22	18.51	24.00		1.56			Pass
HT20	MCS0	2	44	5220	0.34	0.31	18.25	17.06	20.71	24.00		1.56			Pass
HT20	MCS0	2	48	5240	0.34	0.31	18.24	17.05	20.70	24.00		1.56			Pass
HT40	MCS0	2	38	5190	0.67	0.61	13.58	11.19	15.56	24.00		1.56			Pass
HT40	MCS0	2	46	5230	0.67	0.61	18.56	16.79	20.78	24.00		1.56			Pass
VHT20	MCS0	2	36	5180	0.34	0.31	16.41	14.29	18.49	24.00		1.56			Pass
VHT20	MCS0	2	44	5220	0.34	0.31	18.37	16.88	20.70	24.00		1.56			Pass
VHT20	MCS0	2	48	5240	0.34	0.31	18.15	17.17	20.70	24.00		1.56			Pass
VHT40	MCS0	2	38	5190	0.67	0.66	13.54	11.21	15.54	24.00		1.56			Pass
VHT40	MCS0	2	46	5230	0.67	0.66	18.50	16.84	20.76	24.00		1.56			Pass
VHT80	MCS0	2	42	5210	1.20	1.14	12.37	9.67	14.24	24.00		1.56			Pass

Report Number : FR651918-03E

TEST RESULTS DATA
Power Spectral Density

FCC Band I															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					0a	1b	0a	1b	SUM	0a	1b	0a	1b		
11a	6Mbps	2	36	5180	0.32	0.29			7.57	11.00		3.16			Pass
11a	6Mbps	2	44	5220	0.32	0.29			8.71	11.00		3.16			Pass
11a	6Mbps	2	48	5240	0.32	0.29			8.61	11.00		3.16			Pass
HT20	MCS0	2	36	5180	0.34	0.31			6.62	11.00		3.16			Pass
HT20	MCS0	2	44	5220	0.34	0.31			8.70	11.00		3.16			Pass
HT20	MCS0	2	48	5240	0.34	0.31			8.61	11.00		3.16			Pass
HT40	MCS0	2	38	5190	0.67	0.61			0.49	11.00		3.16			Pass
HT40	MCS0	2	46	5230	0.67	0.61			5.33	11.00		3.16			Pass
VHT80	MCS0	2	42	5210	1.20	1.14			-4.15	11.00		3.16			Pass

Report Number : FR651918-03E

TEST RESULTS DATA
Frequency Stability

Band I										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stablility (ppm)	Temperature (˚C)	Voltage (V)	Note
11a	6Mbps	1b	36	5180	5179.950	-0.050	-9.65	35	120	
11a	6Mbps	1b	36	5180	5180.000	0.000	0.00	0	120	
11a	6Mbps	1b	36	5180	5179.950	-0.050	-9.65	20	138	
11a	6Mbps	1b	36	5180	5179.950	-0.050	-9.65	20	102	
11a	6Mbps	1b	36	5180	5179.950	-0.050	-9.65	20	120	

<Ant. 0b & Ant. 1a>

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
					0b	1a	0b	1a	0b	1a	0b	1a		
11a	6Mbps	2	36	5180	18.20	18.05	22.72	23.04	-		22.56			
11a	6Mbps	2	44	5220	18.60	18.65	31.52	33.76	-		22.70			
11a	6Mbps	2	48	5240	18.60	18.85	31.52	38.88	-		22.70			
HT20	MCS0	2	36	5180	19.10	18.75	23.04	23.04	-		22.73			
HT20	MCS0	2	44	5220	19.30	19.15	32.16	44.32	-		22.82			
HT20	MCS0	2	48	5240	19.30	19.65	36.00	45.60	-		22.86			
HT40	MCS0	2	38	5190	36.60	36.70	41.28	41.28	-		23.01			
HT40	MCS0	2	46	5230	36.80	36.70	41.28	41.28	-		23.01			
VHT80	MCS0	2	42	5210	75.72	75.96	82.56	82.56	-		23.01			

Report Number : FR651918-03E

TEST RESULTS DATA
Average Power Table

FCC Band I															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)			Pass/Fail
					0b	1a	0b	1a	SUM	0b	1a	0b	1a		
11a	6Mbps	2	36	5180	0.32	0.32	15.24	13.97	17.66	24.00		2.28			Pass
11a	6Mbps	2	44	5220	0.32	0.32	17.30	17.00	20.16	24.00		2.28			Pass
11a	6Mbps	2	48	5240	0.32	0.32	17.22	17.12	20.18	24.00		2.28			Pass
HT20	MCS0	2	36	5180	0.34	0.34	15.50	14.39	17.99	24.00		2.28			Pass
HT20	MCS0	2	44	5220	0.34	0.34	17.44	17.15	20.31	24.00		2.28			Pass
HT20	MCS0	2	48	5240	0.34	0.34	17.30	17.30	20.31	24.00		2.28			Pass
HT40	MCS0	2	38	5190	0.60	0.67	12.10	10.80	14.51	24.00		2.28			Pass
HT40	MCS0	2	46	5230	0.60	0.67	16.70	15.27	19.06	24.00		2.28			Pass
VHT20	MCS0	2	36	5180	0.34	0.34	15.55	14.25	17.96	24.00		2.28			Pass
VHT20	MCS0	2	44	5220	0.34	0.34	17.41	17.17	20.30	24.00		2.28			Pass
VHT20	MCS0	2	48	5240	0.34	0.34	17.39	17.19	20.30	24.00		2.28			Pass
VHT40	MCS0	2	38	5190	0.64	0.67	12.12	10.74	14.49	24.00		2.28			Pass
VHT40	MCS0	2	46	5230	0.64	0.67	16.62	15.34	19.04	24.00		2.28			Pass
VHT80	MCS0	2	42	5210	1.20	1.20	9.07	7.70	11.45	24.00		2.28			Pass

Report Number : FR651918-03E

TEST RESULTS DATA
Power Spectral Density

FCC Band I															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					0b	1a	0b	1a	SUM	0b	1a	0b	1a		
11a	6Mbps	2	36	5180	0.32	0.32			6.04	11.00		3.37			Pass
11a	6Mbps	2	44	5220	0.32	0.32			8.25	11.00		3.37			Pass
11a	6Mbps	2	48	5240	0.32	0.32			8.10	11.00		3.37			Pass
HT20	MCS0	2	36	5180	0.34	0.34			6.11	11.00		3.37			Pass
HT20	MCS0	2	44	5220	0.34	0.34			8.07	11.00		3.37			Pass
HT20	MCS0	2	48	5240	0.34	0.34			8.05	11.00		3.37			Pass
HT40	MCS0	2	38	5190	0.60	0.67			-0.33	11.00		3.37			Pass
HT40	MCS0	2	46	5230	0.60	0.67			3.74	11.00		3.37			Pass
VHT80	MCS0	2	42	5210	1.20	1.20			-6.81	11.00		3.37			Pass

Report Number : FR651918-03E

TEST RESULTS DATA
Frequency Stability

Band I										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stablility (ppm)	Temperature (˚C)	Voltage (V)	Note
11a	6Mbps	1a	36	5180	5179.950	-0.050	-9.65	35	120	
11a	6Mbps	1a	36	5180	5180.000	0.000	0.00	0	120	
11a	6Mbps	1a	36	5180	5179.950	-0.050	-9.65	20	138	
11a	6Mbps	1a	36	5180	5179.950	-0.050	-9.65	20	102	
11a	6Mbps	1a	36	5180	5179.950	-0.050	-9.65	20	120	

<Ant. 0b & Ant. 1b>

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
					0b	1b	0b	1b	0b	1b	0b	1b		
11a	6Mbps	2	36	5180	18.40	18.00	23.20	22.40	-		22.55			
11a	6Mbps	2	44	5220	18.95	18.85	36.64	38.24	-		22.75			
11a	6Mbps	2	48	5240	18.65	19.10	32.00	39.68	-		22.71			
HT20	MCS0	2	36	5180	19.20	19.00	23.20	23.04	-		22.79			
HT20	MCS0	2	44	5220	19.65	19.80	45.60	46.40	-		22.93			
HT20	MCS0	2	48	5240	19.40	19.90	42.24	47.68	-		22.88			
HT40	MCS0	2	38	5190	36.60	36.70	41.60	40.96	-		23.01			
HT40	MCS0	2	46	5230	36.90	37.00	78.40	63.36	-		23.01			
VHT80	MCS0	2	42	5210	75.84	75.84	82.56	82.08	-		23.01			

TEST RESULTS DATA
Average Power Table

FCC Band I															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)			Pass/Fail
					0b	1b	0b	1b	SUM	0b	1b	0b	1b		
11a	6Mbps	2	36	5180	0.29	0.32	16.59	15.14	18.94	24.00		1.56			Pass
11a	6Mbps	2	44	5220	0.29	0.32	17.27	17.02	20.16	24.00		1.56			Pass
11a	6Mbps	2	48	5240	0.29	0.32	17.19	17.02	20.12	24.00		1.56			Pass
HT20	MCS0	2	36	5180	0.35	0.34	16.45	14.98	18.79	24.00		1.56			Pass
HT20	MCS0	2	44	5220	0.35	0.34	17.35	17.22	20.29	24.00		1.56			Pass
HT20	MCS0	2	48	5240	0.35	0.34	17.35	17.22	20.29	24.00		1.56			Pass
HT40	MCS0	2	38	5190	0.60	0.67	13.47	12.22	15.90	24.00		1.56			Pass
HT40	MCS0	2	46	5230	0.60	0.67	17.29	16.30	19.84	24.00		1.56			Pass
VHT20	MCS0	2	36	5180	0.31	0.31	16.41	14.96	18.76	24.00		1.56			Pass
VHT20	MCS0	2	44	5220	0.31	0.31	17.41	17.12	20.28	24.00		1.56			Pass
VHT20	MCS0	2	48	5240	0.31	0.31	17.27	17.27	20.28	24.00		1.56			Pass
VHT40	MCS0	2	38	5190	0.60	0.84	13.36	12.31	15.88	24.00		1.56			Pass
VHT40	MCS0	2	46	5230	0.60	0.84	16.96	16.45	19.72	24.00		1.56			Pass
VHT80	MCS0	2	42	5210	1.20	1.14	12.56	11.44	15.05	24.00		1.56			Pass

Report Number : FR651918-03E

TEST RESULTS DATA
Power Spectral Density

FCC Band I															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					0b	1b	0b	1b	SUM	0b	1b	0b	1b		
11a	6Mbps	2	36	5180	0.29	0.32			7.33	11.00		2.93			Pass
11a	6Mbps	2	44	5220	0.29	0.32			8.46	11.00		2.93			Pass
11a	6Mbps	2	48	5240	0.29	0.32			8.35	11.00		2.93			Pass
HT20	MCS0	2	36	5180	0.35	0.34			7.26	11.00		2.93			Pass
HT20	MCS0	2	44	5220	0.35	0.34			8.46	11.00		2.93			Pass
HT20	MCS0	2	48	5240	0.35	0.34			8.17	11.00		2.93			Pass
HT40	MCS0	2	38	5190	0.60	0.67			0.61	11.00		2.93			Pass
HT40	MCS0	2	46	5230	0.60	0.67			4.56	11.00		2.93			Pass
VHT80	MCS0	2	42	5210	1.20	1.14			-2.85	11.00		2.93			Pass

Report Number : FR651918-03E

TEST RESULTS DATA
Frequency Stability

Band I										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stablility (ppm)	Temperature (˚C)	Voltage (V)	Note
11a	6Mbps	0b	36	5180	5179.950	-0.050	-9.65	35	120	
11a	6Mbps	0b	36	5180	5180.000	0.000	0.00	0	120	
11a	6Mbps	0b	36	5180	5180.000	0.000	0.00	20	138	
11a	6Mbps	0b	36	5180	5179.950	-0.050	-9.65	20	102	
11a	6Mbps	0b	36	5180	5179.950	-0.050	-9.65	20	120	

Appendix B. Radiated Spurious Emission

Test Engineer :	Karl Hou, Nick Yu, Peter Chiu, and Rover Lee	Temperature :	22~25°C
		Relative Humidity :	53~56%

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
0a+1a		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5149.5	62.01	-11.99	74	49.28	32.47	11.21	30.95	100	97	P	H
		5150	52.66	-1.34	54	39.93	32.47	11.21	30.95	100	97	A	H
	*	5180	112.53	-	-	99.81	32.46	11.21	30.95	100	97	P	H
	*	5180	105.39	-	-	92.67	32.46	11.21	30.95	100	97	A	H
													H
													H
		5146.12	61.24	-12.76	74	48.51	32.47	11.21	30.95	319	64	P	V
		5150	50.19	-3.81	54	37.46	32.47	11.21	30.95	319	64	A	V
	*	5180	110.49	-	-	97.77	32.46	11.21	30.95	319	64	P	V
	*	5180	103.02	-	-	90.3	32.46	11.21	30.95	319	64	A	V
													V
													V
802.11a CH 44 5220MHz		5145.86	54.85	-19.15	74	42.12	32.47	11.21	30.95	100	95	P	H
		5149.76	45.75	-8.25	54	33.02	32.47	11.21	30.95	100	95	A	H
	*	5220	114.83	-	-	102.14	32.46	11.18	30.95	100	95	P	H
	*	5220	107.41	-	-	94.72	32.46	11.18	30.95	100	95	A	H
		5436.72	52.81	-21.19	74	39.71	32.41	11.64	30.95	100	95	P	H
		5431.92	44.94	-9.06	54	31.84	32.41	11.64	30.95	100	95	A	H
		5148.46	55.76	-18.24	74	43.03	32.47	11.21	30.95	293	96	P	V
		5149.24	44.43	-9.57	54	31.7	32.47	11.21	30.95	293	96	A	V
	*	5220	113.06	-	-	100.37	32.46	11.18	30.95	293	96	P	V
	*	5220	105.53	-	-	92.84	32.46	11.18	30.95	293	96	A	V
		5432.16	53.44	-20.56	74	40.34	32.41	11.64	30.95	293	96	P	V
		5441.28	45.18	-8.82	54	32.08	32.41	11.64	30.95	293	96	A	V

802.11a CH 48 5240MHz		5137.02	51.16	-22.84	74	38.4	32.47	11.24	30.95	100	99	P	H
		5133.9	43.17	-10.83	54	30.41	32.47	11.24	30.95	100	99	A	H
	*	5240	114.77	-	-	102.01	32.45	11.26	30.95	100	99	P	H
	*	5240	107.31	-	-	94.55	32.45	11.26	30.95	100	99	A	H
		5453.04	52.23	-21.77	74	39.13	32.41	11.64	30.95	100	99	P	H
		5452.8	44.28	-9.72	54	31.18	32.41	11.64	30.95	100	99	A	H
		5058.76	51.67	-22.33	74	38.82	32.49	11.31	30.95	312	62	P	V
		5023.4	42.28	-11.72	54	29.42	32.5	11.31	30.95	312	62	A	V
	*	5240	114.63	-	-	101.87	32.45	11.26	30.95	312	62	P	V
	*	5240	106.89	-	-	94.13	32.45	11.26	30.95	312	62	A	V
		5453.76	53.91	-20.09	74	40.81	32.41	11.64	30.95	312	62	P	V
		5454.96	45.61	-8.39	54	32.51	32.41	11.64	30.95	312	62	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. 0a+1a	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		10360	51.1	-17.1	68.2	51.69	39.75	17.13	57.47	100	0	P	H
		15540	46.55	-27.45	74	44.09	39.38	21.61	58.53	100	0	P	H
													H
													H
		10360	52.43	-15.77	68.2	53.02	39.75	17.13	57.47	100	0	P	V
		15540	46.55	-27.45	74	44.09	39.38	21.61	58.53	100	0	P	V
													V
													V
802.11a CH 44 5220MHz		10440	58.52	-9.68	68.2	58.74	39.89	17.22	57.33	100	0	P	H
		15660	47.22	-26.78	74	44.79	39.02	21.7	58.29	100	0	P	H
													H
													H
		10440	57.7	-10.5	68.2	57.92	39.89	17.22	57.33	100	0	P	V
		15660	46.6	-27.4	74	44.17	39.02	21.7	58.29	100	0	P	V
													V
													V
802.11a CH 48 5240MHz		10480	58.2	-10	68.2	58.2	39.96	17.27	57.23	100	0	P	H
		15720	46.79	-27.21	74	44.34	38.84	21.76	58.15	100	0	P	H
													H
													H
		10480	56.24	-11.96	68.2	56.24	39.96	17.27	57.23	100	0	P	V
		15720	46.95	-27.05	74	44.5	38.84	21.76	58.15	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. 0a+1a	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		5143.26	62.04	-11.96	74	49.31	32.47	11.21	30.95	100	91	P	H
		5149.24	53.19	-0.81	54	40.46	32.47	11.21	30.95	100	91	A	H
	*	5180	113.23	-	-	100.51	32.46	11.21	30.95	100	91	P	H
	*	5180	104.77	-	-	92.05	32.46	11.21	30.95	100	91	A	H
													H
													H
		5147.42	62.14	-11.86	74	49.41	32.47	11.21	30.95	270	98	P	V
		5149.76	50.01	-3.99	54	37.28	32.47	11.21	30.95	270	98	A	V
	*	5180	109.59	-	-	96.87	32.46	11.21	30.95	270	98	P	V
	*	5180	102.16	-	-	89.44	32.46	11.21	30.95	270	98	A	V
													V
													V
802.11n HT20 CH 44 5220MHz		5149.24	56.87	-17.13	74	44.14	32.47	11.21	30.95	100	92	P	H
		5150	48.74	-5.26	54	36.01	32.47	11.21	30.95	100	92	A	H
	*	5220	115.65	-	-	102.96	32.46	11.18	30.95	100	92	P	H
	*	5220	107.08	-	-	94.39	32.46	11.18	30.95	100	92	A	H
		5429.76	53.59	-20.41	74	40.49	32.41	11.64	30.95	100	92	P	H
		5439.6	45.32	-8.68	54	32.22	32.41	11.64	30.95	100	92	A	H
		5148.46	54.62	-19.38	74	41.89	32.47	11.21	30.95	283	91	P	V
		5150	45.94	-8.06	54	33.21	32.47	11.21	30.95	283	91	A	V
	*	5220	113.11	-	-	100.42	32.46	11.18	30.95	283	91	P	V
	*	5220	104.28	-	-	91.59	32.46	11.18	30.95	283	91	A	V
		5378.16	53.13	-20.87	74	40.14	32.42	11.52	30.95	283	91	P	V
		5443.68	44.81	-9.19	54	31.71	32.41	11.64	30.95	283	91	A	V

802.11n HT20 CH 48 5240MHz		5127.14	52.84	-21.16	74	40.08	32.47	11.24	30.95	100	93	P	H
		5146.9	43.98	-10.02	54	31.25	32.47	11.21	30.95	100	93	A	H
	*	5240	116.06	-	-	103.3	32.45	11.26	30.95	100	93	P	H
	*	5240	107.33	-	-	94.57	32.45	11.26	30.95	100	93	A	H
		5455.92	53.88	-20.12	74	40.78	32.41	11.64	30.95	100	93	P	H
		5450.64	44.88	-9.12	54	31.78	32.41	11.64	30.95	100	93	A	H
		5141.44	51.4	-22.6	74	38.67	32.47	11.21	30.95	278	97	P	V
		5145.86	42.68	-11.32	54	29.95	32.47	11.21	30.95	278	97	A	V
	*	5240	114.45	-	-	101.69	32.45	11.26	30.95	278	97	P	V
	*	5240	105.72	-	-	92.96	32.45	11.26	30.95	278	97	A	V
		5398.08	53	-21	74	39.93	32.42	11.6	30.95	278	97	P	V
		5450.4	44.52	-9.48	54	31.42	32.41	11.64	30.95	278	97	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. 0a+1a	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		10360	51.15	-17.05	68.2	51.74	39.75	17.13	57.47	100	0	P	H
		15540	47.94	-26.06	74	45.48	39.38	21.61	58.53	100	0	P	H
													H
													H
		10360	50.18	-18.02	68.2	50.77	39.75	17.13	57.47	100	0	P	V
		15540	47.83	-26.17	74	45.37	39.38	21.61	58.53	100	0	P	V
													V
													V
802.11n HT20 CH 44 5220MHz		10440	56.44	-11.76	68.2	56.66	39.89	17.22	57.33	100	0	P	H
		15660	46.89	-27.11	74	44.46	39.02	21.7	58.29	100	0	P	H
													H
													H
		10440	56.59	-11.61	68.2	56.81	39.89	17.22	57.33	100	0	P	V
		15660	46.95	-27.05	74	44.52	39.02	21.7	58.29	100	0	P	V
													V
													V
802.11n HT20 CH 48 5240MHz		10480	56.85	-11.35	68.2	56.85	39.96	17.27	57.23	100	0	P	H
		15720	46.26	-27.74	74	43.81	38.84	21.76	58.15	100	0	P	H
													H
													H
		10480	55.53	-12.67	68.2	55.53	39.96	17.27	57.23	100	0	P	V
		15720	46.57	-27.43	74	44.12	38.84	21.76	58.15	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. 0a+1a	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		5149.5	61.75	-12.25	74	49.02	32.47	11.21	30.95	100	93	P	H
		5147.16	53.2	-0.8	54	40.47	32.47	11.21	30.95	100	93	A	H
	*	5190	106.24	-	-	93.55	32.46	11.18	30.95	100	93	P	H
	*	5190	97.76	-	-	85.07	32.46	11.18	30.95	100	93	A	H
		5353.2	51.55	-22.45	74	38.55	32.43	11.52	30.95	100	93	P	H
		5354.4	43.21	-10.79	54	30.21	32.43	11.52	30.95	100	93	A	H
		5148.2	56.66	-17.34	74	43.93	32.47	11.21	30.95	301	96	P	V
		5147.68	49.77	-4.23	54	37.04	32.47	11.21	30.95	301	96	A	V
	*	5190	103.06	-	-	90.37	32.46	11.18	30.95	301	96	P	V
	*	5190	94.94	-	-	82.25	32.46	11.18	30.95	301	96	A	V
		5458.32	50.56	-23.44	74	37.46	32.41	11.64	30.95	301	96	P	V
		5357.28	43.03	-10.97	54	30.03	32.43	11.52	30.95	301	96	A	V
802.11n HT40 CH 46 5230MHz		5149.5	60.73	-13.27	74	48	32.47	11.21	30.95	100	95	P	H
		5148.98	52.56	-1.44	54	39.83	32.47	11.21	30.95	100	95	A	H
	*	5230	108.97	-	-	96.21	32.45	11.26	30.95	100	95	P	H
	*	5230	101.13	-	-	88.37	32.45	11.26	30.95	100	95	A	H
		5351.76	52.54	-21.46	74	39.54	32.43	11.52	30.95	100	95	P	H
		5350.08	45.03	-8.97	54	32.03	32.43	11.52	30.95	100	95	A	H
		5147.68	54.97	-19.03	74	42.24	32.47	11.21	30.95	332	94	P	V
		5149.76	48.67	-5.33	54	35.94	32.47	11.21	30.95	332	94	A	V
	*	5230	108.8	-	-	96.04	32.45	11.26	30.95	332	94	P	V
	*	5230	100.49	-	-	87.73	32.45	11.26	30.95	332	94	A	V
		5394.48	52.21	-21.79	74	39.14	32.42	11.6	30.95	332	94	P	V
		5352.96	44.73	-9.27	54	31.73	32.43	11.52	30.95	332	94	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 0a+1a	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		10380	47.28	-20.92	68.2	47.8	39.78	17.13	57.43	100	0	P	H
		15570	46.18	-27.82	74	43.71	39.29	21.64	58.46	100	0	P	H
													H
													H
		10380	47.11	-21.09	68.2	47.63	39.78	17.13	57.43	100	0	P	V
		15570	46.93	-27.07	74	44.46	39.29	21.64	58.46	100	0	P	V
													V
													V
802.11n HT40 CH 46 5230MHz		10460	51.78	-16.42	68.2	51.93	39.93	17.22	57.3	100	0	P	H
		15690	45.7	-28.3	74	43.26	38.93	21.73	58.22	100	0	P	H
													H
													H
		10460	50.13	-18.07	68.2	50.28	39.93	17.22	57.3	100	0	P	V
		15690	46.25	-27.75	74	43.81	38.93	21.73	58.22	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 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 0a+1a	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5134.42	59.88	-14.12	74	47.12	32.47	11.24	30.95	104	99	P	H
		5137.02	53.45	-0.55	54	40.69	32.47	11.24	30.95	104	99	A	H
	*	5210	101.44	-	-	88.75	32.46	11.18	30.95	104	99	P	H
	*	5210	94.16	-	-	81.47	32.46	11.18	30.95	104	99	A	H
		5429.76	51.29	-22.71	74	38.19	32.41	11.64	30.95	104	99	P	H
		5391.6	44.38	-9.62	54	31.31	32.42	11.6	30.95	104	99	A	H
		5148.72	56.43	-17.57	74	43.7	32.47	11.21	30.95	280	103	P	V
		5149.76	51.43	-2.57	54	38.7	32.47	11.21	30.95	280	103	A	V
	*	5210	99.6	-	-	86.91	32.46	11.18	30.95	280	103	P	V
	*	5210	92.51	-	-	79.82	32.46	11.18	30.95	280	103	A	V
		5433.12	51.65	-22.35	74	38.55	32.41	11.64	30.95	280	103	P	V
		5354.16	44.66	-9.34	54	31.66	32.43	11.52	30.95	280	103	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 0a+1a	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		10420	47.08	-21.12	68.2	47.41	39.86	17.18	57.37	100	0	P	H
		15630	47.55	-26.45	74	45.06	39.11	21.7	58.32	100	0	P	H
													H
													H
		10420	47.36	-20.84	68.2	47.69	39.86	17.18	57.37	100	0	P	V
		15630	46.19	-27.81	74	43.7	39.11	21.7	58.32	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

WIFI 802.11ac VHT80 (LF @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
0a+1a		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT80 LF		30	23.84	-16.16	40	29.42	26.1	0.78	32.46			P	H
		108.84	29.63	-13.87	43.5	43.42	17.21	1.43	32.43			P	H
		226.29	23.85	-22.15	46	37.7	16.68	1.83	32.36			P	H
		628.3	26.83	-19.17	46	29.84	25.78	3.61	32.4			P	H
		785.1	30.07	-15.93	46	30.38	27.78	4.14	32.23			P	H
		908.3	37	-9	46	35	28.9	4.6	31.5	100	0	P	H
													H
													H
													H
													H
													H
													H
		42.96	27.17	-12.83	40	40.03	18.82	0.78	32.46	100	0	P	V
		123.42	23.57	-19.93	43.5	36.71	17.86	1.43	32.43			P	V
		247.35	24.12	-21.88	46	36.07	18.55	1.83	32.33			P	V
		665.4	27.96	-18.04	46	30.46	26.09	3.82	32.41			P	V
		857.9	31.92	-14.08	46	30.77	28.7	4.28	31.83			P	V
		937	32.49	-13.51	46	29.46	29.67	4.6	31.24			P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

*	**Fundamental Frequency** which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is **over limit** line.
P/A	**P**eak or **A**verage
H/V	**H**orizontal or **V**ertical

A calculation example for radiated spurious emission is shown as below:

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
0a+1a		(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. Level(dBμV/m) =

Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

2. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Cable 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) + Cable 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”.

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 0a+1b	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		5148.2	60.23	-13.77	74	47.5	32.47	11.21	30.95	100	103	P	H
		5149.5	50.44	-3.56	54	37.71	32.47	11.21	30.95	100	103	A	H
	*	5180	109.68	-	-	96.96	32.46	11.21	30.95	100	103	P	H
	*	5180	101.92	-	-	89.2	32.46	11.21	30.95	100	103	A	H
													H
													H
		5149.76	61.58	-12.42	74	48.85	32.47	11.21	30.95	100	283	P	V
		5150	52.21	-1.79	54	39.48	32.47	11.21	30.95	100	283	A	V
	*	5180	110.75	-	-	98.03	32.46	11.21	30.95	100	283	P	V
	*	5180	102.69	-	-	89.97	32.46	11.21	30.95	100	283	A	V
													V
													V
802.11a CH 44 5220MHz		5147.42	51.52	-22.48	74	38.79	32.47	11.21	30.95	100	111	P	H
		5148.98	43.49	-10.51	54	30.76	32.47	11.21	30.95	100	111	A	H
	*	5220	111.06	-	-	98.37	32.46	11.18	30.95	100	111	P	H
	*	5220	103.09	-	-	90.4	32.46	11.18	30.95	100	111	A	H
		5432.64	52.67	-21.33	74	39.57	32.41	11.64	30.95	100	111	P	H
		5433.36	42.94	-11.06	54	29.84	32.41	11.64	30.95	100	111	A	H
		5147.68	52.91	-21.09	74	40.18	32.47	11.21	30.95	103	300	P	V
		5149.76	45.22	-8.78	54	32.49	32.47	11.21	30.95	103	300	A	V
	*	5220	112.89	-	-	100.2	32.46	11.18	30.95	103	300	P	V
	*	5220	104.87	-	-	92.18	32.46	11.18	30.95	103	300	A	V
		5444.88	54.23	-19.77	74	41.13	32.41	11.64	30.95	103	300	P	V
		5430.24	47.46	-6.54	54	34.36	32.41	11.64	30.95	103	300	A	V

802.11a CH 48 5240MHz		5129.48	51.36	-22.64	74	38.6	32.47	11.24	30.95	100	110	P	H
		5024.44	42.48	-11.52	54	29.62	32.5	11.31	30.95	100	110	A	H
	*	5240	111.67	-	-	98.91	32.45	11.26	30.95	100	110	P	H
	*	5240	103.55	-	-	90.79	32.45	11.26	30.95	100	110	A	H
		5354.64	50.52	-23.48	74	37.52	32.43	11.52	30.95	100	110	P	H
		5453.76	42.41	-11.59	54	29.31	32.41	11.64	30.95	100	110	A	H
		5145.6	52.23	-21.77	74	39.5	32.47	11.21	30.95	100	281	P	V
		5145.6	42.97	-11.03	54	30.24	32.47	11.21	30.95	100	281	A	V
	*	5240	114.68	-	-	101.92	32.45	11.26	30.95	100	281	P	V
	*	5240	106.33	-	-	93.57	32.45	11.26	30.95	100	281	A	V
		5450.4	54.19	-19.81	74	41.09	32.41	11.64	30.95	100	281	P	V
		5450.64	47.07	-6.93	54	33.97	32.41	11.64	30.95	100	281	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. 0a+1b	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		10360	49.26	-18.94	68.2	49.85	39.75	17.13	57.47	100	0	P	H
		15540	46.95	-27.05	74	44.49	39.38	21.61	58.53	100	0	P	H
													H
													H
		10360	49.76	-18.44	68.2	50.35	39.75	17.13	57.47	100	0	P	V
		15540	46.4	-27.6	74	43.94	39.38	21.61	58.53	100	0	P	V
													V
													V
802.11a CH 44 5220MHz		10440	54.09	-14.11	68.2	54.31	39.89	17.22	57.33	100	0	P	H
		15660	46.39	-27.61	74	43.96	39.02	21.7	58.29	100	0	P	H
													H
													H
		10440	52.56	-15.64	68.2	52.78	39.89	17.22	57.33	100	0	P	V
		15660	50.83	-23.17	74	48.4	39.02	21.7	58.29	100	0	P	V
													V
													V
802.11a CH 48 5240MHz		10480	53.33	-14.87	68.2	53.33	39.96	17.27	57.23	100	0	P	H
		15720	46.13	-27.87	74	43.68	38.84	21.76	58.15	100	0	P	H
													H
													H
		10480	54.26	-13.94	68.2	54.26	39.96	17.27	57.23	100	0	P	V
		15720	47.58	-26.42	74	45.13	38.84	21.76	58.15	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. 0a+1b	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		5146.9	56.31	-17.69	74	43.58	32.47	11.21	30.95	100	97	P	H
		5149.5	48.71	-5.29	54	35.98	32.47	11.21	30.95	100	97	A	H
	*	5180	109.19	-	-	96.47	32.46	11.21	30.95	100	97	P	H
	*	5180	100.6	-	-	87.88	32.46	11.21	30.95	100	97	A	H
													H
													H
		5147.68	62.45	-11.55	74	49.72	32.47	11.21	30.95	100	275	P	V
		5147.94	50.78	-3.22	54	38.05	32.47	11.21	30.95	100	275	A	V
	*	5180	110.26	-	-	97.54	32.46	11.21	30.95	100	275	P	V
	*	5180	101.42	-	-	88.7	32.46	11.21	30.95	100	275	A	V
													V
													V
802.11n HT20 CH 44 5220MHz		5147.68	53.15	-20.85	74	40.42	32.47	11.21	30.95	100	279	P	H
		5149.76	44.78	-9.22	54	32.05	32.47	11.21	30.95	100	279	A	H
	*	5220	111.28	-	-	98.59	32.46	11.18	30.95	100	279	P	H
	*	5220	102.88	-	-	90.19	32.46	11.18	30.95	100	279	A	H
		5440.32	52.42	-21.58	74	39.32	32.41	11.64	30.95	100	279	P	H
		5442.96	44.59	-9.41	54	31.49	32.41	11.64	30.95	100	279	A	H
		5139.88	56.07	-17.93	74	43.31	32.47	11.24	30.95	286	275	P	V
		5150	46.65	-7.35	54	33.92	32.47	11.21	30.95	286	275	A	V
	*	5220	114.45	-	-	101.76	32.46	11.18	30.95	286	275	P	V
	*	5220	105.58	-	-	92.89	32.46	11.18	30.95	286	275	A	V
		5433.36	54.12	-19.88	74	41.02	32.41	11.64	30.95	286	275	P	V
		5443.44	47.11	-6.89	54	34.01	32.41	11.64	30.95	286	275	A	V

802.11n HT20 CH 48 5240MHz		5072.8	50.72	-23.28	74	37.91	32.49	11.27	30.95	100	292	P	H
		5136.5	41.92	-12.08	54	29.16	32.47	11.24	30.95	100	292	A	H
	*	5240	111.27	-	-	98.51	32.45	11.26	30.95	100	292	P	H
	*	5240	102.86	-	-	90.1	32.45	11.26	30.95	100	292	A	H
		5454	52.38	-21.62	74	39.28	32.41	11.64	30.95	100	292	P	H
		5451.36	43.87	-10.13	54	30.77	32.41	11.64	30.95	100	292	A	H
		5124.02	51.5	-22.5	74	38.73	32.48	11.24	30.95	100	300	P	V
		5139.88	42.69	-11.31	54	29.93	32.47	11.24	30.95	100	300	A	V
	*	5240	114.25	-	-	101.49	32.45	11.26	30.95	100	300	P	V
	*	5240	105.35	-	-	92.59	32.45	11.26	30.95	100	300	A	V
		5449.44	55.16	-18.84	74	42.06	32.41	11.64	30.95	100	300	P	V
		5452.08	46.93	-7.07	54	33.83	32.41	11.64	30.95	100	300	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 0a+1b	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		10360	48.62	-19.58	68.2	49.21	39.75	17.13	57.47	100	0	P	H
		15540	47.46	-26.54	74	45	39.38	21.61	58.53	100	0	P	H
													H
													H
		10360	48.69	-19.51	68.2	49.28	39.75	17.13	57.47	100	0	P	V
		15540	47.07	-26.93	74	44.61	39.38	21.61	58.53	100	0	P	V
													V
													V
802.11n HT20 CH 44 5220MHz		10440	52.25	-15.95	68.2	52.47	39.89	17.22	57.33	100	0	P	H
		15660	46.78	-27.22	74	44.35	39.02	21.7	58.29	100	0	P	H
													H
													H
		10440	54.08	-14.12	68.2	54.3	39.89	17.22	57.33	100	0	P	V
		15660	48.03	-25.97	74	45.6	39.02	21.7	58.29	100	0	P	V
													V
													V
802.11n HT20 CH 48 5240MHz		10480	55.01	-13.19	68.2	55.01	39.96	17.27	57.23	100	0	P	H
		15720	45.61	-28.39	74	43.16	38.84	21.76	58.15	100	0	P	H
													H
													H
		10480	52.58	-15.62	68.2	52.58	39.96	17.27	57.23	100	0	P	V
		15720	47.06	-26.94	74	44.61	38.84	21.76	58.15	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. 0a+1b	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		5146.9	59.54	-14.46	74	46.81	32.47	11.21	30.95	100	97	P	H
		5149.5	50.88	-3.12	54	38.15	32.47	11.21	30.95	100	97	A	H
	*	5190	102.74	-	-	90.05	32.46	11.18	30.95	100	97	P	H
	*	5190	94.37	-	-	81.68	32.46	11.18	30.95	100	97	A	H
		5368.8	51.94	-22.06	74	38.94	32.43	11.52	30.95	100	97	P	H
		5362.8	42.2	-11.8	54	29.2	32.43	11.52	30.95	100	97	A	H
		5148.46	59.85	-14.15	74	47.12	32.47	11.21	30.95	100	276	P	V
		5148.98	52.42	-1.58	54	39.69	32.47	11.21	30.95	100	276	A	V
	*	5190	104.22	-	-	91.53	32.46	11.18	30.95	100	276	P	V
	*	5190	95.79	-	-	83.1	32.46	11.18	30.95	100	276	A	V
		5434.56	52.66	-21.34	74	39.56	32.41	11.64	30.95	100	276	P	V
		5358.48	43.82	-10.18	54	30.82	32.43	11.52	30.95	100	276	A	V
802.11n HT40 CH 46 5230MHz		5149.5	58.8	-15.2	74	46.07	32.47	11.21	30.95	100	279	P	H
		5148.72	51.79	-2.21	54	39.06	32.47	11.21	30.95	100	279	A	H
	*	5230	107.9	-	-	95.14	32.45	11.26	30.95	100	279	P	H
	*	5230	99.78	-	-	87.02	32.45	11.26	30.95	100	279	A	H
		5351.04	52.89	-21.11	74	39.89	32.43	11.52	30.95	100	279	P	H
		5352.96	45.16	-8.84	54	32.16	32.43	11.52	30.95	100	279	A	H
		5145.6	59.74	-14.26	74	47.01	32.47	11.21	30.95	100	270	P	V
		5148.46	52.65	-1.35	54	39.92	32.47	11.21	30.95	100	270	A	V
	*	5230	109.67	-	-	96.91	32.45	11.26	30.95	100	270	P	V
	*	5230	101.35	-	-	88.59	32.45	11.26	30.95	100	270	A	V
		5358.48	54.64	-19.36	74	41.64	32.43	11.52	30.95	100	270	P	V
		5350.8	47.09	-6.91	54	34.09	32.43	11.52	30.95	100	270	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 0a+1b	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		10380	48.76	-19.44	68.2	49.28	39.78	17.13	57.43	100	0	P	H
		15570	46.39	-27.61	74	43.92	39.29	21.64	58.46	100	0	P	H
													H
													H
		10380	46.6	-21.6	68.2	47.12	39.78	17.13	57.43	100	0	P	V
		15570	45.93	-28.07	74	43.46	39.29	21.64	58.46	100	0	P	V
													V
													V
802.11n HT40 CH 46 5230MHz		10460	49.28	-18.92	68.2	49.43	39.93	17.22	57.3	100	0	P	H
		15690	46.03	-27.97	74	43.59	38.93	21.73	58.22	100	0	P	H
													H
													H
		10460	49.75	-18.45	68.2	49.9	39.93	17.22	57.3	100	0	P	V
		15690	46.27	-27.73	74	43.83	38.93	21.73	58.22	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 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 0a+1b	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5132.34	55.46	-18.54	74	42.7	32.47	11.24	30.95	201	176	P	H
		5149.5	51.22	-2.78	54	38.49	32.47	11.21	30.95	201	176	A	H
	*	5210	97.08	-	-	84.39	32.46	11.18	30.95	201	176	P	H
	*	5210	90.31	-	-	77.62	32.46	11.18	30.95	201	176	A	H
		5384.64	50.75	-23.25	74	37.68	32.42	11.6	30.95	201	176	P	H
		5412.48	44.08	-9.92	54	31.01	32.42	11.6	30.95	201	176	A	H
		5146.38	57.12	-16.88	74	44.39	32.47	11.21	30.95	100	276	P	V
		5147.94	52.35	-1.65	54	39.62	32.47	11.21	30.95	100	276	A	V
	*	5210	100.3	-	-	87.61	32.46	11.18	30.95	100	276	P	V
	*	5210	92.26	-	-	79.57	32.46	11.18	30.95	100	276	A	V
		5354.16	51.94	-22.06	74	38.94	32.43	11.52	30.95	100	276	P	V
		5363.52	44.87	-9.13	54	31.87	32.43	11.52	30.95	100	276	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 0a+1b	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		10420	46.95	-21.25	68.2	47.28	39.86	17.18	57.37	100	0	P	H
		15630	46.41	-27.59	74	43.92	39.11	21.7	58.32	100	0	P	H
													H
													H
		10420	47.02	-21.18	68.2	47.35	39.86	17.18	57.37	100	0	P	V
		15630	46.74	-27.26	74	44.25	39.11	21.7	58.32	100	0	P	V
													V
													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 Ant. 0a+1b	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 LF		30.54	23.81	-16.19	40	29.95	25.54	0.78	32.46			P	H
		108.3	29.31	-14.19	43.5	43.1	17.21	1.43	32.43			P	H
		219	25.32	-20.68	46	39.79	16.21	1.7	32.38			P	H
		720.7	32.36	-13.64	46	34.05	26.79	3.89	32.37			P	H
		738.9	35.28	-10.72	46	36.48	27.24	3.89	32.33	100	0	P	H
		950.3	33.47	-12.53	46	29.85	30	4.75	31.13			P	H
													H
													H
													H
													H
													H
													H
		63.48	30.65	-9.35	40	49.8	12.24	1.06	32.45	100	0	P	V
		79.14	28.36	-11.64	40	45.96	13.78	1.06	32.44			P	V
		106.41	24.55	-18.95	43.5	38.52	17.03	1.43	32.43			P	V
		248.7	23.62	-22.38	46	35.47	18.64	1.83	32.32			P	V
		337.8	26.88	-19.12	46	35.99	20.83	2.34	32.28			P	V
		935.6	32.38	-13.62	46	29.39	29.64	4.6	31.25			P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

*	**Fundamental Frequency** which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is **over limit** line.
P/A	**P**eak or **A**verage
H/V	**H**orizontal or **V**ertical

A calculation example for radiated spurious emission is shown as below:

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
0a+1b		(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. Level(dBμV/m) =

Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

2. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Cable 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) + Cable 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”.

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 0b+1a	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		5146.12	62.24	-11.76	74	49.51	32.47	11.21	30.95	282	56	P	H
		5149.76	52	-2	54	39.27	32.47	11.21	30.95	282	56	A	H
	*	5180	113.97	-	-	101.25	32.46	11.21	30.95	282	56	P	H
	*	5180	106.37	-	-	93.65	32.46	11.21	30.95	282	56	A	H
													H
													H
		5149.24	58.01	-15.99	74	45.28	32.47	11.21	30.95	315	99	P	V
		5149.24	48.3	-5.7	54	35.57	32.47	11.21	30.95	315	99	A	V
	*	5180	109.67	-	-	96.95	32.46	11.21	30.95	315	99	P	V
	*	5180	102.15	-	-	89.43	32.46	11.21	30.95	315	99	A	V
													V
													V
802.11a CH 44 5220MHz		5143.78	59.21	-14.79	74	46.48	32.47	11.21	30.95	307	19	P	H
		5149.76	50.99	-3.01	54	38.26	32.47	11.21	30.95	307	19	A	H
	*	5220	117.53	-	-	104.84	32.46	11.18	30.95	307	19	P	H
	*	5220	109.05	-	-	96.36	32.46	11.18	30.95	307	19	A	H
		5436	56.19	-17.81	74	43.09	32.41	11.64	30.95	307	19	P	H
		5442	48.94	-5.06	54	35.84	32.41	11.64	30.95	307	19	A	H
		5149.5	57.46	-16.54	74	44.73	32.47	11.21	30.95	278	87	P	V
		5150	48.23	-5.77	54	35.5	32.47	11.21	30.95	278	87	A	V
	*	5220	115.64	-	-	102.95	32.46	11.18	30.95	278	87	P	V
	*	5220	107.16	-	-	94.47	32.46	11.18	30.95	278	87	A	V
		5436.24	55.16	-18.84	74	42.06	32.41	11.64	30.95	278	87	P	V
		5441.04	47.63	-6.37	54	34.53	32.41	11.64	30.95	278	87	A	V

802.11a CH 48 5240MHz		5117.78	53.18	-20.82	74	40.41	32.48	11.24	30.95	289	19	P	H
		5146.12	44.06	-9.94	54	31.33	32.47	11.21	30.95	289	19	A	H
	*	5240	117.29	-	-	104.53	32.45	11.26	30.95	289	19	P	H
	*	5240	108.94	-	-	96.18	32.45	11.26	30.95	289	19	A	H
		5453.28	55.39	-18.61	74	42.29	32.41	11.64	30.95	289	19	P	H
		5452.56	48.39	-5.61	54	35.29	32.41	11.64	30.95	289	19	A	H
		5114.92	52.13	-21.87	74	39.36	32.48	11.24	30.95	296	105	P	V
		5149.76	42.8	-11.2	54	30.07	32.47	11.21	30.95	296	105	A	V
	*	5240	115.03	-	-	102.27	32.45	11.26	30.95	296	105	P	V
	*	5240	106.93	-	-	94.17	32.45	11.26	30.95	296	105	A	V
		5458.32	56	-18	74	42.9	32.41	11.64	30.95	296	105	P	V
		5452.56	46.24	-7.76	54	33.14	32.41	11.64	30.95	296	105	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. 0b+1a	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		10360	50.87	-17.33	68.2	51.46	39.75	17.13	57.47	100	0	P	H
		15540	45.96	-28.04	74	43.5	39.38	21.61	58.53	100	0	P	H
													H
													H
		10360	50.73	-17.47	68.2	51.32	39.75	17.13	57.47	100	0	P	V
		15540	46.22	-27.78	74	43.76	39.38	21.61	58.53	100	0	P	V
													V
													V
802.11a CH 44 5220MHz		10440	59.98	-8.22	68.2	60.2	39.89	17.22	57.33	100	0	P	H
		15660	46.33	-27.67	74	43.9	39.02	21.7	58.29	100	0	P	H
													H
													H
		10440	58.57	-9.63	68.2	58.79	39.89	17.22	57.33	100	0	P	V
		15660	46.99	-27.01	74	44.56	39.02	21.7	58.29	100	0	P	V
													V
													V
802.11a CH 48 5240MHz		10480	59.68	-8.52	68.2	59.68	39.96	17.27	57.23	100	0	P	H
		15720	45.14	-28.86	74	42.69	38.84	21.76	58.15	100	0	P	H
													H
													H
		10480	56.85	-11.35	68.2	56.85	39.96	17.27	57.23	100	0	P	V
		15720	47.06	-26.94	74	44.61	38.84	21.76	58.15	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. 0b+1a	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		5149.5	62.01	-11.99	74	49.28	32.47	11.21	30.95	215	63	P	H
		5150	52.45	-1.55	54	39.72	32.47	11.21	30.95	215	63	A	H
	*	5180	110.6	-	-	97.88	32.46	11.21	30.95	215	63	P	H
	*	5180	103.22	-	-	90.5	32.46	11.21	30.95	215	63	A	H
													H
													H
		5146.12	59.48	-14.52	74	46.75	32.47	11.21	30.95	283	98	P	V
		5149.5	50.1	-3.9	54	37.37	32.47	11.21	30.95	283	98	A	V
	*	5180	108.87	-	-	96.15	32.46	11.21	30.95	283	98	P	V
	*	5180	101.59	-	-	88.87	32.46	11.21	30.95	283	98	A	V
													V
													V
802.11n HT20 CH 44 5220MHz		5146.9	55.38	-18.62	74	42.65	32.47	11.21	30.95	294	20	P	H
		5150	48.15	-5.85	54	35.42	32.47	11.21	30.95	294	20	A	H
	*	5220	114.56	-	-	101.87	32.46	11.18	30.95	294	20	P	H
	*	5220	106.67	-	-	93.98	32.46	11.18	30.95	294	20	A	H
		5439.6	54.6	-19.4	74	41.5	32.41	11.64	30.95	294	20	P	H
		5444.4	47.22	-6.78	54	34.12	32.41	11.64	30.95	294	20	A	H
		5146.9	53.93	-20.07	74	41.2	32.47	11.21	30.95	283	97	P	V
		5150	46.69	-7.31	54	33.96	32.47	11.21	30.95	283	97	A	V
	*	5220	113.65	-	-	100.96	32.46	11.18	30.95	283	97	P	V
	*	5220	105.8	-	-	93.11	32.46	11.18	30.95	283	97	A	V
		5436.72	54.47	-19.53	74	41.37	32.41	11.64	30.95	283	97	P	V
		5444.64	46.05	-7.95	54	32.95	32.41	11.64	30.95	283	97	A	V

802.11n HT20 CH 48 5240MHz		5007.8	52.25	-21.75	74	39.36	32.5	11.34	30.95	291	18	P	H
		5150	43.52	-10.48	54	30.79	32.47	11.21	30.95	291	18	A	H
	*	5240	115.6	-	-	102.84	32.45	11.26	30.95	291	18	P	H
	*	5240	107.66	-	-	94.9	32.45	11.26	30.95	291	18	A	H
		5450.16	53.74	-20.26	74	40.64	32.41	11.64	30.95	291	18	P	H
		5450.4	46.73	-7.27	54	33.63	32.41	11.64	30.95	291	18	A	H
		5148.98	51.1	-22.9	74	38.37	32.47	11.21	30.95	278	79	P	V
		5147.16	42.34	-11.66	54	29.61	32.47	11.21	30.95	278	79	A	V
	*	5240	113.74	-	-	100.98	32.45	11.26	30.95	278	79	P	V
	*	5240	105.82	-	-	93.06	32.45	11.26	30.95	278	79	A	V
		5455.92	53.09	-20.91	74	39.99	32.41	11.64	30.95	278	79	P	V
		5450.4	45.98	-8.02	54	32.88	32.41	11.64	30.95	278	79	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. 0b+1a	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		10360	50.55	-17.65	68.2	51.14	39.75	17.13	57.47	100	0	P	H
		15540	46.58	-27.42	74	44.12	39.38	21.61	58.53	100	0	P	H
													H
													H
		10360	49.59	-18.61	68.2	50.18	39.75	17.13	57.47	100	0	P	V
		15540	46.91	-27.09	74	44.45	39.38	21.61	58.53	100	0	P	V
													V
													V
802.11n HT20 CH 44 5220MHz		10440	56.79	-11.41	68.2	57.01	39.89	17.22	57.33	100	0	P	H
		15660	47.56	-26.44	74	45.13	39.02	21.7	58.29	100	0	P	H
													H
													H
		10440	58.6	-9.6	68.2	58.82	39.89	17.22	57.33	100	0	P	V
		15660	47.36	-26.64	74	44.93	39.02	21.7	58.29	100	0	P	V
													V
													V
802.11n HT20 CH 48 5240MHz		10480	56.48	-11.72	68.2	56.48	39.96	17.27	57.23	100	0	P	H
		15720	46.7	-27.3	74	44.25	38.84	21.76	58.15	100	0	P	H
													H
													H
		10480	55.72	-12.48	68.2	55.72	39.96	17.27	57.23	100	0	P	V
		15720	47.42	-26.58	74	44.97	38.84	21.76	58.15	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. 0b+1a	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		5147.94	60.55	-13.45	74	47.82	32.47	11.21	30.95	213	62	P	H
		5150	52.39	-1.61	54	39.66	32.47	11.21	30.95	213	62	A	H
	*	5190	105.14	-	-	92.45	32.46	11.18	30.95	213	62	P	H
	*	5190	97.1	-	-	84.41	32.46	11.18	30.95	213	62	A	H
		5395.2	50.82	-23.18	74	37.75	32.42	11.6	30.95	213	62	P	H
		5454	43.13	-10.87	54	30.03	32.41	11.64	30.95	213	62	A	H
		5144.56	57.8	-16.2	74	45.07	32.47	11.21	30.95	300	108	P	V
		5149.76	49.82	-4.18	54	37.09	32.47	11.21	30.95	300	108	A	V
	*	5190	103.85	-	-	91.16	32.46	11.18	30.95	300	108	P	V
	*	5190	95.48	-	-	82.79	32.46	11.18	30.95	300	108	A	V
		5361.6	51.67	-22.33	74	38.67	32.43	11.52	30.95	300	108	P	V
		5352.72	43.4	-10.6	54	30.4	32.43	11.52	30.95	300	108	A	V
802.11n HT40 CH 46 5230MHz		5149.5	59.02	-14.98	74	46.29	32.47	11.21	30.95	208	62	P	H
		5149.5	52.38	-1.62	54	39.65	32.47	11.21	30.95	208	62	A	H
	*	5230	110.61	-	-	97.85	32.45	11.26	30.95	208	62	P	H
	*	5230	102.48	-	-	89.72	32.45	11.26	30.95	208	62	A	H
		5350.08	52.9	-21.1	74	39.9	32.43	11.52	30.95	208	62	P	H
		5350.08	45.14	-8.86	54	32.14	32.43	11.52	30.95	208	62	A	H
		5149.24	57.29	-16.71	74	44.56	32.47	11.21	30.95	293	107	P	V
		5149.24	49.26	-4.74	54	36.53	32.47	11.21	30.95	293	107	A	V
	*	5230	108.54	-	-	95.78	32.45	11.26	30.95	293	107	P	V
	*	5230	100.91	-	-	88.15	32.45	11.26	30.95	293	107	A	V
		5404.8	52.48	-21.52	74	39.41	32.42	11.6	30.95	293	107	P	V
		5351.52	45.02	-8.98	54	32.02	32.43	11.52	30.95	293	107	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 0b+1a	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		10380	47.54	-26.46	74	48.06	39.78	17.13	57.43	100	0	P	H
		15570	46.2	-27.8	74	43.73	39.29	21.64	58.46	100	0	P	H
													H
													H
		10380	47.84	-26.16	74	48.36	39.78	17.13	57.43	100	0	P	V
		15570	45.33	-28.67	74	42.86	39.29	21.64	58.46	100	0	P	V
													V
													V
802.11n HT40 CH 46 5230MHz		10460	51.9	-16.3	68.2	52.05	39.93	17.22	57.3	100	0	P	H
		15690	45.75	-28.25	74	43.31	38.93	21.73	58.22	100	0	P	H
													H
													H
		10460	50.71	-17.49	68.2	50.86	39.93	17.22	57.3	100	0	P	V
		15690	46.32	-27.68	74	43.88	38.93	21.73	58.22	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 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 0b+1a	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5137.02	57.25	-16.75	74	44.49	32.47	11.24	30.95	213	61	P	H
		5150	52.29	-1.71	54	39.56	32.47	11.21	30.95	213	61	A	H
	*	5210	99.82	-	-	87.13	32.46	11.18	30.95	213	61	P	H
	*	5210	93.12	-	-	80.43	32.46	11.18	30.95	213	61	A	H
		5418.48	50.64	-23.36	74	37.57	32.42	11.6	30.95	213	61	P	H
		5368.32	44.37	-9.63	54	31.37	32.43	11.52	30.95	213	61	A	H
		5146.9	54.66	-19.34	74	41.93	32.47	11.21	30.95	294	106	P	V
		5149.5	49.29	-4.71	54	36.56	32.47	11.21	30.95	294	106	A	V
	*	5210	97.3	-	-	84.61	32.46	11.18	30.95	294	106	P	V
	*	5210	90.99	-	-	78.3	32.46	11.18	30.95	294	106	A	V
		5354.64	51.46	-22.54	74	38.46	32.43	11.52	30.95	294	106	P	V
		5452.32	44.39	-9.61	54	31.29	32.41	11.64	30.95	294	106	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 0b+1a	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		10420	46.45	-27.55	74	46.78	39.86	17.18	57.37	100	0	P	H
		15630	45.35	-28.65	74	42.86	39.11	21.7	58.32	100	0	P	H
													H
													H
		10420	47.59	-26.41	74	47.92	39.86	17.18	57.37	100	0	P	V
		15630	44.91	-29.09	74	42.42	39.11	21.7	58.32	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

WIFI 802.11n HT20 (LF @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
0b+1a		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 LF		30.27	24.24	-15.76	40	29.82	26.1	0.78	32.46			P	H
		108.03	29.13	-14.37	43.5	43.01	17.12	1.43	32.43			P	H
		221.43	25.45	-20.55	46	39.71	16.28	1.83	32.37			P	H
		660.5	26.68	-19.32	46	29.21	26.06	3.82	32.41			P	H
		751.5	30.01	-15.99	46	30.82	27.52	3.97	32.3			P	H
		952.4	32.38	-13.62	46	28.74	30	4.75	31.11	100	0	P	H
													H
													H
													H
													H
													H
													H
		44.58	27.08	-12.92	40	41.06	17.7	0.78	32.46			P	V
		63.21	30.34	-9.66	40	49.55	12.18	1.06	32.45	100	0	P	V
		101.55	22.15	-21.35	43.5	36.57	16.58	1.43	32.43			P	V
		248.7	24.33	-21.67	46	36.18	18.64	1.83	32.32			P	V
		764.8	29.69	-16.31	46	30.37	27.62	3.97	32.27			P	V
		934.2	33.03	-12.97	46	30.11	29.59	4.6	31.27			P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

*	**Fundamental Frequency** which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is **over limit** line.
P/A	**P**eak or **A**verage
H/V	**H**orizontal or **V**ertical

A calculation example for radiated spurious emission is shown as below:

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
0b+1a		(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. Level(dBμV/m) =

Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

2. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Cable 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) + Cable 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”.

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 0b+1b	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		5146.38	61.47	-12.53	74	48.74	32.47	11.21	30.95	204	78	P	H
		5150	52.29	-1.71	54	39.56	32.47	11.21	30.95	204	78	A	H
	*	5180	110.07	-	-	97.35	32.46	11.21	30.95	204	78	P	H
	*	5180	102.03	-	-	89.31	32.46	11.21	30.95	204	78	A	H
													H
													H
		5146.12	63.47	-10.53	74	50.74	32.47	11.21	30.95	100	314	P	V
		5150	53.11	-0.89	54	40.38	32.47	11.21	30.95	100	314	A	V
	*	5180	110.1	-	-	97.38	32.46	11.21	30.95	100	314	P	V
	*	5180	101.97	-	-	89.25	32.46	11.21	30.95	100	314	A	V
													V
													V
802.11a CH 44 5220MHz		5146.38	56.82	-17.18	74	44.09	32.47	11.21	30.95	202	77	P	H
		5149.5	45.68	-8.32	54	32.95	32.47	11.21	30.95	202	77	A	H
	*	5220	112.76	-	-	100.07	32.46	11.18	30.95	202	77	P	H
	*	5220	104.27	-	-	91.58	32.46	11.18	30.95	202	77	A	H
		5438.4	54.72	-19.28	74	41.62	32.41	11.64	30.95	202	77	P	H
		5444.4	45.43	-8.57	54	32.33	32.41	11.64	30.95	202	77	A	H
		5147.16	53.52	-20.48	74	40.79	32.47	11.21	30.95	100	302	P	V
		5149.76	45.37	-8.63	54	32.64	32.47	11.21	30.95	100	302	A	V
	*	5220	112.5	-	-	99.81	32.46	11.18	30.95	100	302	P	V
	*	5220	104.4	-	-	91.71	32.46	11.18	30.95	100	302	A	V
		5443.2	55.47	-18.53	74	42.37	32.41	11.64	30.95	100	302	P	V
		5444.16	46.79	-7.21	54	33.69	32.41	11.64	30.95	100	302	A	V

802.11a CH 48 5240MHz		5023.4	52.56	-21.44	74	39.7	32.5	11.31	30.95	209	78	P	H
		5150	42.99	-11.01	54	30.26	32.47	11.21	30.95	209	78	A	H
	*	5240	113.16	-	-	100.4	32.45	11.26	30.95	209	78	P	H
	*	5240	104.94	-	-	92.18	32.45	11.26	30.95	209	78	A	H
		5459.52	53.47	-20.53	74	40.37	32.41	11.64	30.95	209	78	P	H
		5455.68	45.03	-8.97	54	31.93	32.41	11.64	30.95	209	78	A	H
		5091.52	51.44	-22.56	74	38.64	32.48	11.27	30.95	100	295	P	V
		5028.6	42.59	-11.41	54	29.74	32.49	11.31	30.95	100	295	A	V
	*	5240	113.14	-	-	100.38	32.45	11.26	30.95	100	295	P	V
	*	5240	104.63	-	-	91.87	32.45	11.26	30.95	100	295	A	V
		5450.4	54.65	-19.35	74	41.55	32.41	11.64	30.95	100	295	P	V
		5459.76	46.22	-7.78	54	33.12	32.41	11.64	30.95	100	295	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. 0b+1b	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		10360	53.13	-15.07	68.2	53.72	39.75	17.13	57.47	100	0	P	H
		15540	47.32	-26.68	74	44.86	39.38	21.61	58.53	100	0	P	H
													H
													H
		10360	51.11	-17.09	68.2	51.7	39.75	17.13	57.47	100	0	P	V
		15540	47.01	-26.99	74	44.55	39.38	21.61	58.53	100	0	P	V
													V
													V
802.11a CH 44 5220MHz		10440	56.11	-12.09	68.2	56.33	39.89	17.22	57.33	100	0	P	H
		15660	47.16	-26.84	74	44.73	39.02	21.7	58.29	100	0	P	H
													H
													H
		10440	57.1	-11.1	68.2	57.32	39.89	17.22	57.33	100	0	P	V
		15660	48.78	-25.22	74	46.35	39.02	21.7	58.29	100	0	P	V
													V
													V
802.11a CH 48 5240MHz		10480	55.52	-12.68	68.2	55.52	39.96	17.27	57.23	100	0	P	H
		15720	46.21	-27.79	74	43.76	38.84	21.76	58.15	100	0	P	H
													H
													H
		10480	55.52	-12.68	68.2	55.52	39.96	17.27	57.23	100	0	P	V
		15720	50.17	-23.83	74	47.72	38.84	21.76	58.15	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. 0b+1b	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		5147.68	62.9	-11.1	74	50.17	32.47	11.21	30.95	207	70	P	H
		5149.5	52.3	-1.7	54	39.57	32.47	11.21	30.95	207	70	A	H
	*	5180	110.52	-	-	97.8	32.46	11.21	30.95	207	70	P	H
	*	5180	101.3	-	-	88.58	32.46	11.21	30.95	207	70	A	H
													H
													H
		5149.5	62.78	-11.22	74	50.05	32.47	11.21	30.95	100	286	P	V
		5150	53.09	-0.91	54	40.36	32.47	11.21	30.95	100	286	A	V
	*	5180	110.18	-	-	97.46	32.46	11.21	30.95	100	286	P	V
	*	5180	100.79	-	-	88.07	32.46	11.21	30.95	100	286	A	V
													V
													V
802.11n HT20 CH 44 5220MHz		5150	55.27	-18.73	74	42.54	32.47	11.21	30.95	199	77	P	H
		5148.98	47.01	-6.99	54	34.28	32.47	11.21	30.95	199	77	A	H
	*	5220	113.29	-	-	100.6	32.46	11.18	30.95	199	77	P	H
	*	5220	104.26	-	-	91.57	32.46	11.18	30.95	199	77	A	H
		5440.8	52.31	-21.69	74	39.21	32.41	11.64	30.95	199	77	P	H
		5443.44	45.14	-8.86	54	32.04	32.41	11.64	30.95	199	77	A	H
		5149.24	55.18	-18.82	74	42.45	32.47	11.21	30.95	102	273	P	V
		5150	46.1	-7.9	54	33.37	32.47	11.21	30.95	102	273	A	V
	*	5220	112.53	-	-	99.84	32.46	11.18	30.95	102	273	P	V
	*	5220	103.2	-	-	90.51	32.46	11.18	30.95	102	273	A	V
		5437.2	53.8	-20.2	74	40.7	32.41	11.64	30.95	102	273	P	V
		5430.48	46.09	-7.91	54	32.99	32.41	11.64	30.95	102	273	A	V

802.11n HT20 CH 48 5240MHz		5132.6	52.18	-21.82	74	39.42	32.47	11.24	30.95	205	70	P	H
		5149.24	43.14	-10.86	54	30.41	32.47	11.21	30.95	205	70	A	H
	*	5240	113.61	-	-	100.85	32.45	11.26	30.95	205	70	P	H
	*	5240	104.21	-	-	91.45	32.45	11.26	30.95	205	70	A	H
		5452.32	52.62	-21.38	74	39.52	32.41	11.64	30.95	205	70	P	H
		5459.28	44.61	-9.39	54	31.51	32.41	11.64	30.95	205	70	A	H
		5030.16	51.91	-22.09	74	39.06	32.49	11.31	30.95	103	285	P	V
		5139.1	42.54	-11.46	54	29.78	32.47	11.24	30.95	103	285	A	V
	*	5240	113.11	-	-	100.35	32.45	11.26	30.95	103	285	P	V
	*	5240	104.2	-	-	91.44	32.45	11.26	30.95	103	285	A	V
		5454	53.09	-20.91	74	39.99	32.41	11.64	30.95	103	285	P	V
		5459.76	45.68	-8.32	54	32.58	32.41	11.64	30.95	103	285	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. 0b+1b	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		10360	50.84	-17.36	68.2	51.43	39.75	17.13	57.47	100	0	P	H
		15540	47.23	-26.77	74	44.77	39.38	21.61	58.53	100	0	P	H
													H
													H
		10360	51.48	-16.72	68.2	52.07	39.75	17.13	57.47	100	0	P	V
		15540	46.77	-27.23	74	44.31	39.38	21.61	58.53	100	0	P	V
													V
													V
802.11n HT20 CH 44 5220MHz		10440	56.32	-11.88	68.2	56.54	39.89	17.22	57.33	100	0	P	H
		15660	48.05	-25.95	74	45.62	39.02	21.7	58.29	100	0	P	H
													H
													H
		10440	55.47	-12.73	68.2	55.69	39.89	17.22	57.33	100	0	P	V
		15660	48.53	-25.47	74	46.1	39.02	21.7	58.29	100	0	P	V
													V
													V
802.11n HT20 CH 48 5240MHz		10480	56.68	-11.52	68.2	56.68	39.96	17.27	57.23	100	0	P	H
		15720	46.23	-27.77	74	43.78	38.84	21.76	58.15	100	0	P	H
													H
													H
		10480	54.59	-13.61	68.2	54.59	39.96	17.27	57.23	100	0	P	V
		15720	47.37	-26.63	74	44.92	38.84	21.76	58.15	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. 0b+1b	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		5150	58.47	-15.53	74	45.74	32.47	11.21	30.95	207	70	P	H
		5149.24	50.4	-3.6	54	37.67	32.47	11.21	30.95	207	70	A	H
	*	5190	104.43	-	-	91.74	32.46	11.18	30.95	207	70	P	H
	*	5190	96.04	-	-	83.35	32.46	11.18	30.95	207	70	A	H
		5387.28	51.68	-22.32	74	38.61	32.42	11.6	30.95	207	70	P	H
		5396.4	42.45	-11.55	54	29.38	32.42	11.6	30.95	207	70	A	H
		5148.72	61.86	-12.14	74	49.13	32.47	11.21	30.95	100	295	P	V
		5148.72	52.64	-1.36	54	39.91	32.47	11.21	30.95	100	295	A	V
	*	5190	104.03	-	-	91.34	32.46	11.18	30.95	100	295	P	V
	*	5190	95.51	-	-	82.82	32.46	11.18	30.95	100	295	A	V
		5364.96	52.72	-21.28	74	39.72	32.43	11.52	30.95	100	295	P	V
		5359.2	44.27	-9.73	54	31.27	32.43	11.52	30.95	100	295	A	V
802.11n HT40 CH 46 5230MHz		5147.42	57.64	-16.36	74	44.91	32.47	11.21	30.95	202	76	P	H
		5148.98	51.08	-2.92	54	38.35	32.47	11.21	30.95	202	76	A	H
	*	5230	109.14	-	-	96.38	32.45	11.26	30.95	202	76	P	H
	*	5230	100.72	-	-	87.96	32.45	11.26	30.95	202	76	A	H
		5450.4	51.8	-22.2	74	38.7	32.41	11.64	30.95	202	76	P	H
		5350.08	44.31	-9.69	54	31.31	32.43	11.52	30.95	202	76	A	H
		5140.92	58.09	-15.91	74	45.36	32.47	11.21	30.95	100	287	P	V
		5150	50.19	-3.81	54	37.46	32.47	11.21	30.95	100	287	A	V
	*	5230	108.46	-	-	95.7	32.45	11.26	30.95	100	287	P	V
	*	5230	99.54	-	-	86.78	32.45	11.26	30.95	100	287	A	V
		5363.28	53.64	-20.36	74	40.64	32.43	11.52	30.95	100	287	P	V
		5351.04	45.57	-8.43	54	32.57	32.43	11.52	30.95	100	287	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 0b+1b	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		10380	46.6	-21.6	68.2	47.12	39.78	17.13	57.43	100	0	P	H
		15570	46.85	-27.15	74	44.38	39.29	21.64	58.46	100	0	P	H
													H
													H
		10380	46.11	-22.09	68.2	46.63	39.78	17.13	57.43	100	0	P	V
		15570	46.72	-27.28	74	44.25	39.29	21.64	58.46	100	0	P	V
													V
													V
802.11n HT40 CH 46 5230MHz		10460	50.84	-17.36	68.2	50.99	39.93	17.22	57.3	100	0	P	H
		15690	46.52	-27.48	74	44.08	38.93	21.73	58.22	100	0	P	H
													H
													H
		10460	49.6	-18.6	68.2	49.75	39.93	17.22	57.3	100	0	P	V
		15690	46.23	-27.77	74	43.79	38.93	21.73	58.22	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 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 0b+1b	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5145.34	58.58	-15.42	74	45.85	32.47	11.21	30.95	208	68	P	H
		5149.24	52.15	-1.85	54	39.42	32.47	11.21	30.95	208	68	A	H
	*	5210	101.21	-	-	88.52	32.46	11.18	30.95	208	68	P	H
	*	5210	92.65	-	-	79.96	32.46	11.18	30.95	208	68	A	H
		5402.64	51.36	-22.64	74	38.29	32.42	11.6	30.95	208	68	P	H
		5364.96	44.57	-9.43	54	31.57	32.43	11.52	30.95	208	68	A	H
		5144.04	59.91	-14.09	74	47.18	32.47	11.21	30.95	100	307	P	V
		5144.3	53.14	-0.86	54	40.41	32.47	11.21	30.95	100	307	A	V
	*	5210	100.48	-	-	87.79	32.46	11.18	30.95	100	307	P	V
	*	5210	92.28	-	-	79.59	32.46	11.18	30.95	100	307	A	V
		5362.08	51.7	-22.3	74	38.7	32.43	11.52	30.95	100	307	P	V
		5352.48	45.49	-8.51	54	32.49	32.43	11.52	30.95	100	307	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 0b+1b	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		10420	46.51	-21.69	68.2	46.84	39.86	17.18	57.37	100	0	P	H
		15630	46.99	-27.01	74	44.5	39.11	21.7	58.32	100	0	P	H
													H
													H
		10420	46.83	-21.37	68.2	47.16	39.86	17.18	57.37	100	0	P	V
		15630	47.19	-26.81	74	44.7	39.11	21.7	58.32	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

WIFI 802.11ac VHT80 (LF @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
0b+1b		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT 80 LF		30	24.13	-15.87	40	29.71	26.1	0.78	32.46			P	H
		108.57	29.16	-14.34	43.5	42.95	17.21	1.43	32.43			P	H
		224.67	24.1	-21.9	46	38.03	16.6	1.83	32.36			P	H
		534.5	25.88	-20.12	46	30.68	24.41	3.19	32.4			P	H
		729.1	29.82	-16.18	46	31.27	27.01	3.89	32.35			P	H
		943.3	32.33	-13.67	46	28.92	29.85	4.75	31.19	100	0	P	H
													H
													H
													H
													H
													H
													H
		45.39	26.6	-13.4	40	41	17.28	0.78	32.46			P	V
		75.36	33.09	-6.91	40	51.16	13.31	1.06	32.44	100	0	P	V
		116.4	28.72	-14.78	43.5	42.1	17.62	1.43	32.43			P	V
		248.16	24.24	-21.76	46	36.09	18.64	1.83	32.32			P	V
		815.2	30.48	-15.52	46	30.31	28.14	4.14	32.11			P	V
		948.2	32.87	-13.13	46	29.3	29.97	4.75	31.15			P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

*	**Fundamental Frequency** which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is **over limit** line.
P/A	**P**eak or **A**verage
H/V	**H**orizontal or **V**ertical

A calculation example for radiated spurious emission is shown as below:

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
0b+1b		(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. Level(dBμV/m) =

Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

2. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Cable 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) + Cable 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 C. Radiated Spurious Emission

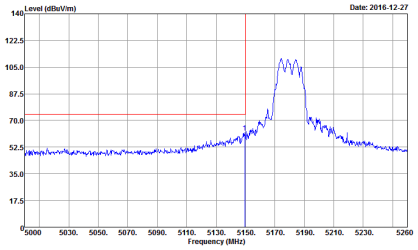
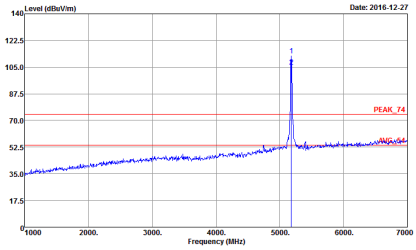
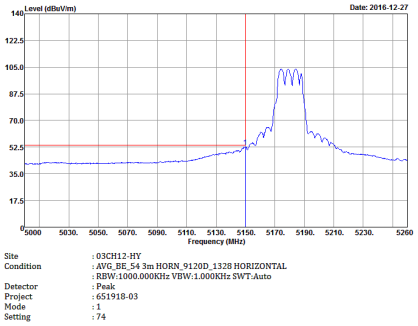
Test Engineer :	Karl Hou, Nick Yu, Peter Chiu, and Rover Lee	**Temperature :**	22~25°C
		Relative Humidity :	53~56%

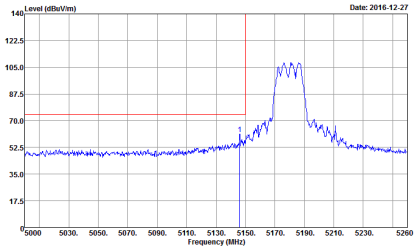
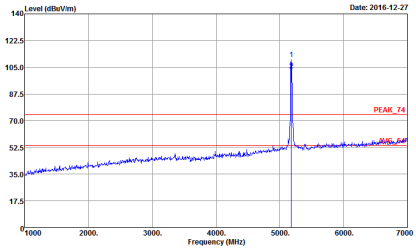
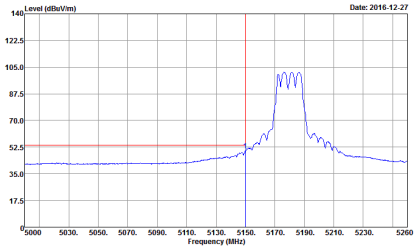
Note symbol

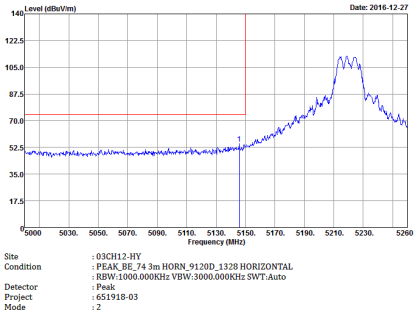
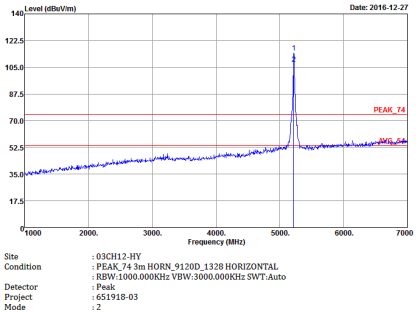
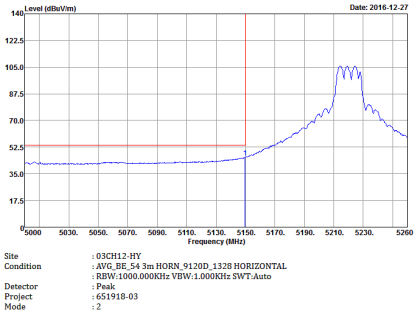
-L	**Low channel location**
-R	**High channel location**

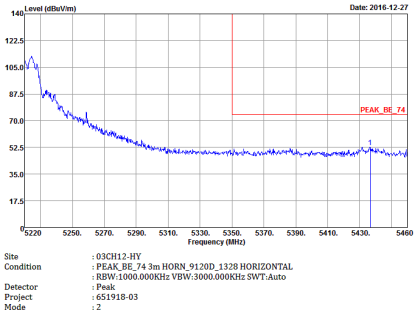
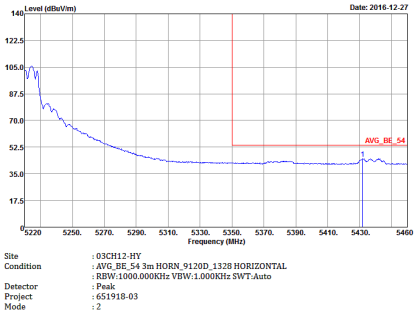
Band 1 - 5150~5250MHz

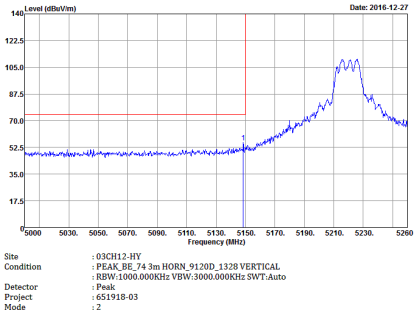
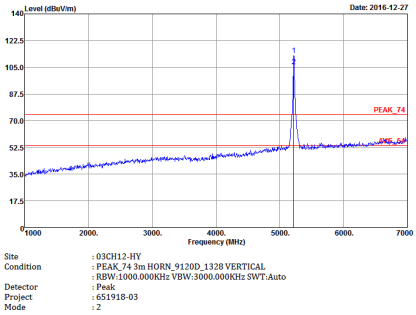
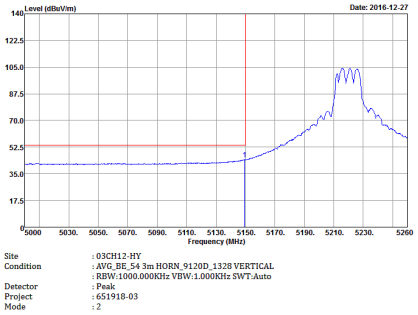
WIFI 802.11a (Band Edge @ 3m)

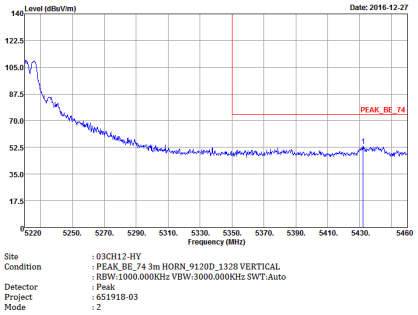
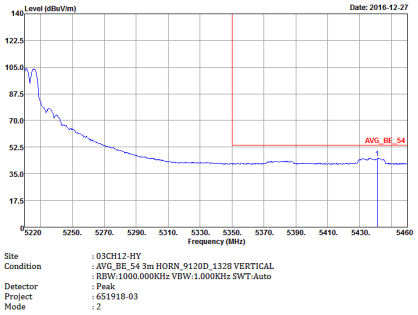
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
0a+1a	Horizontal	Fundamental
Peak		
Avg.		Left blank

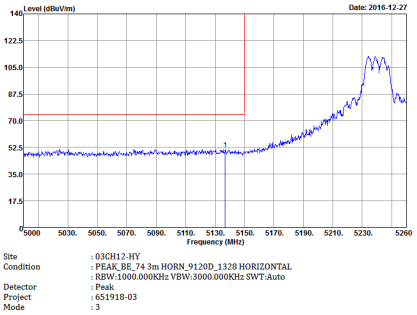
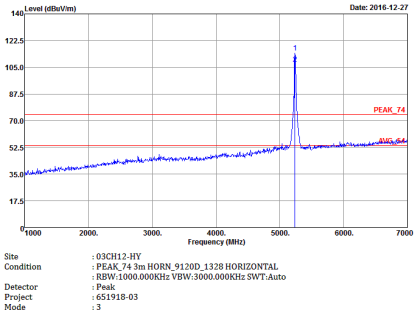
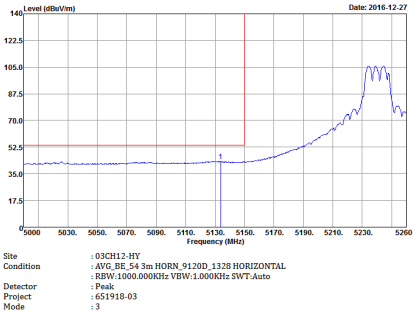
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
0a+1a	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 1 Setting : 74	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 1 Setting : 74
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 1 Setting : 74	Left blank

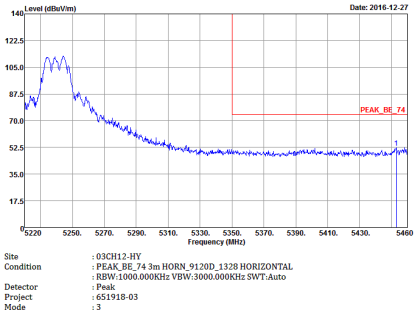
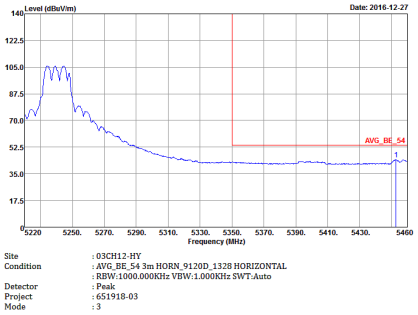
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
0a+1a	Horizontal	Fundamental
Peak		
Avg.		Left blank

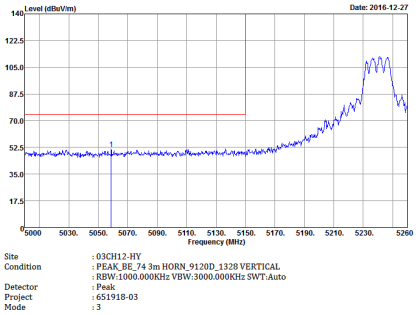
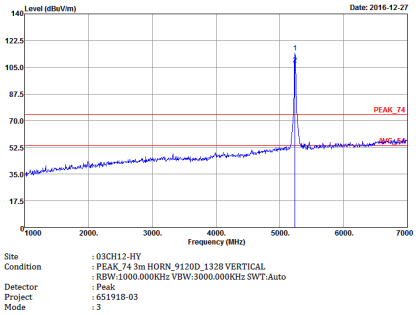
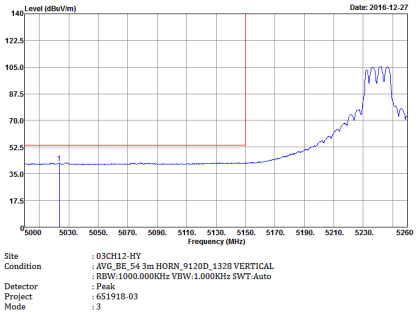
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
0a+1a	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

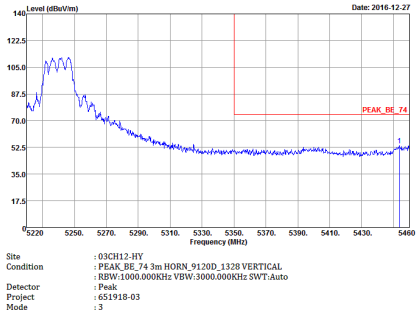
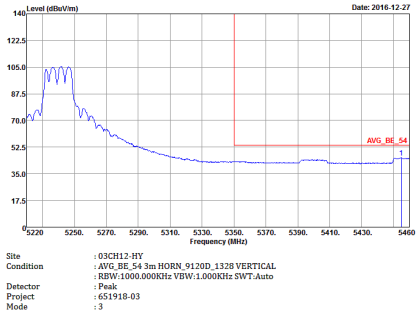
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
0a+1a	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
0a+1a	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

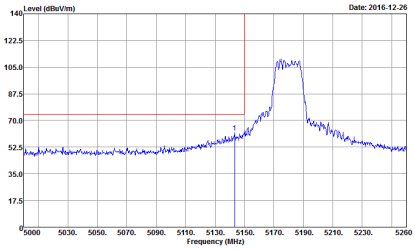
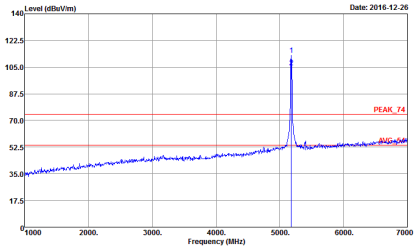
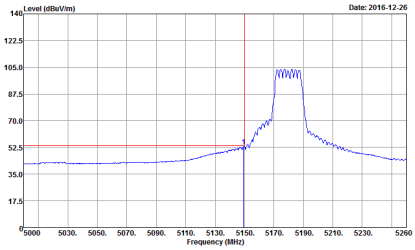
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
0a+1a	Horizontal	Fundamental
Peak		
Avg.		Left blank

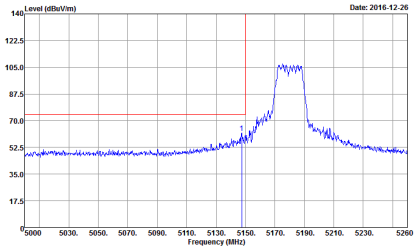
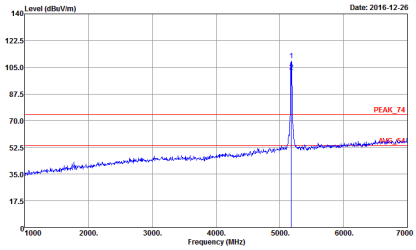
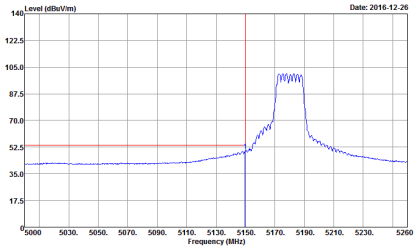
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
0a+1a	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

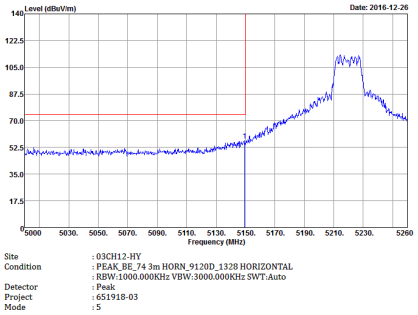
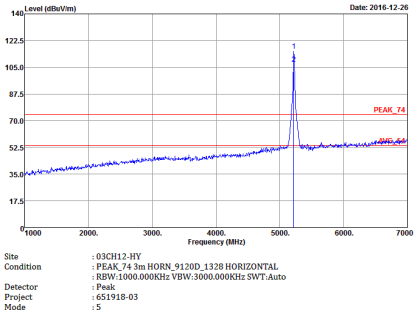
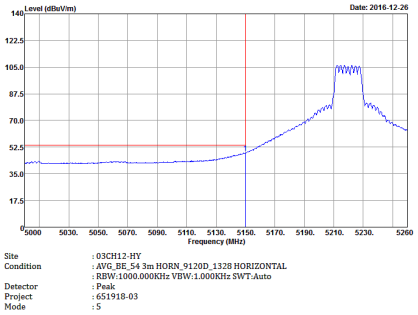
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
0a+1a	Vertical	Fundamental
Peak		
Avg.		Left blank

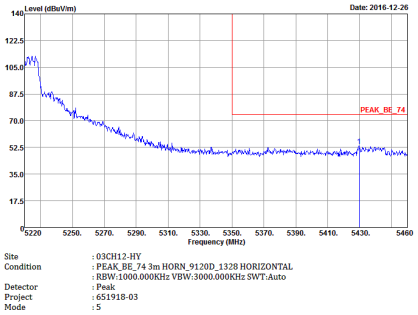
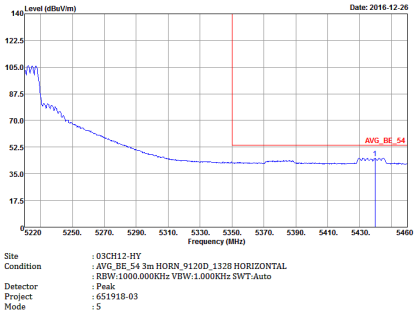
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
0a+1a	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

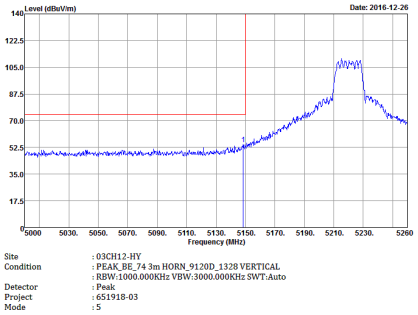
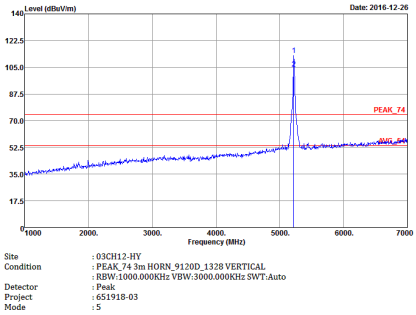
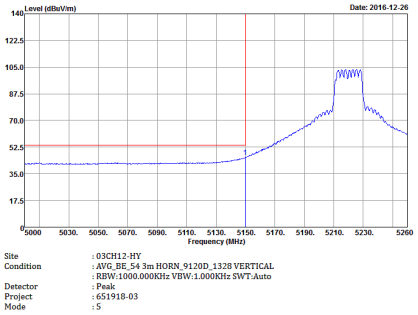
Band 1 5150~5250MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

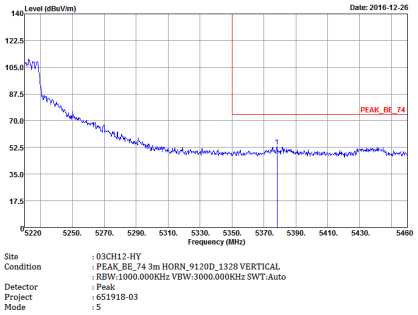
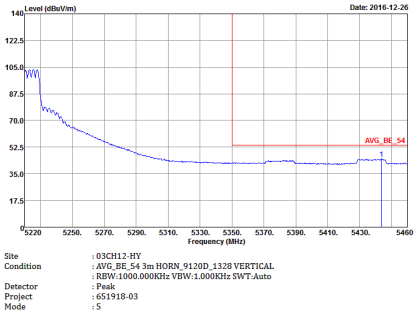
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
0a+1a	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 4 Setting : 72	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 4 Setting : 72
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 4 Setting : 72	Left blank

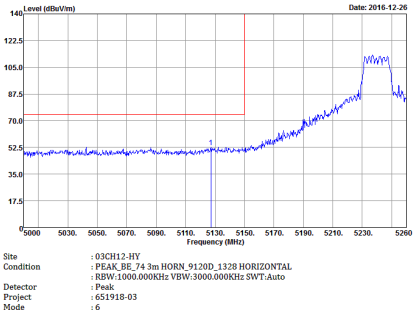
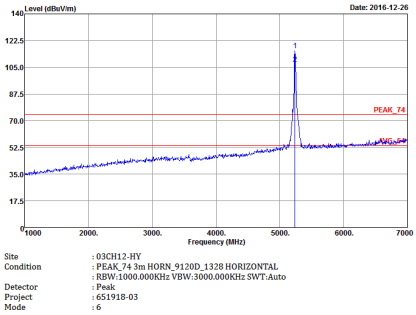
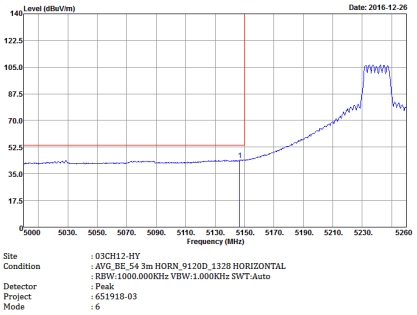
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
0a+1a	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 4 Setting : 72	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 4 Setting : 72
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 4 Setting : 72	Left blank

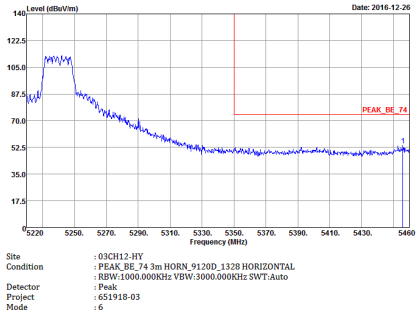
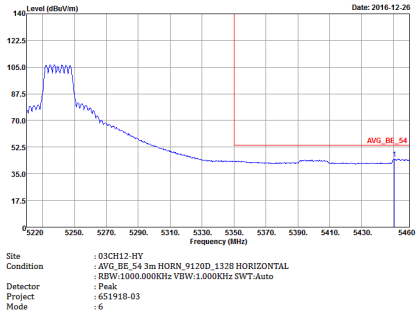
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
0a+1a	Horizontal	Fundamental
Peak		
Avg.		Left blank

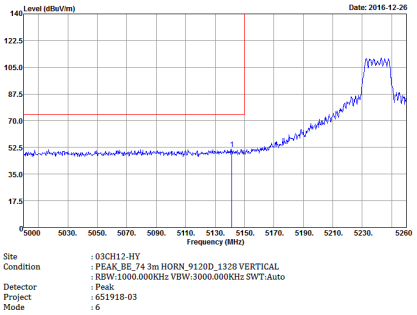
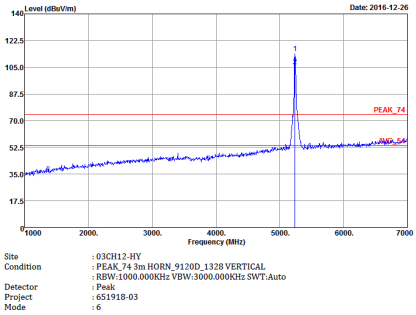
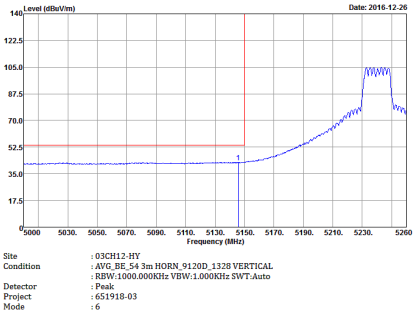
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
0a+1a	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

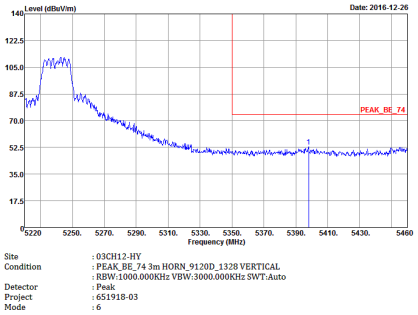
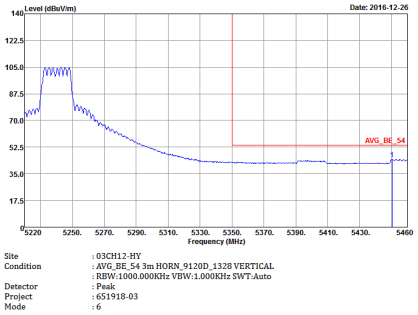
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
0a+1a	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
0a+1a	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

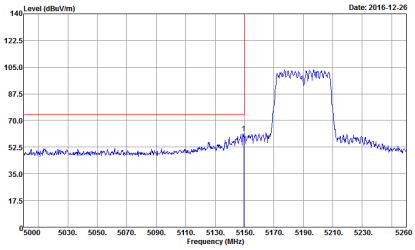
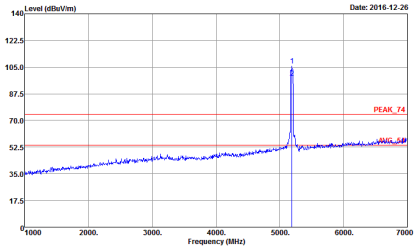
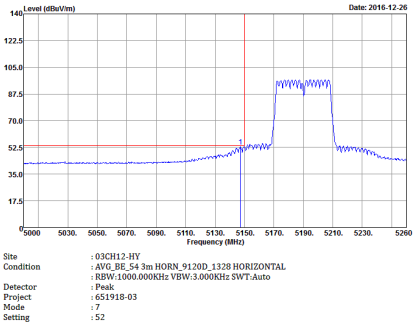
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
0a+1a	Horizontal	Fundamental
Peak		
Avg.		Left blank

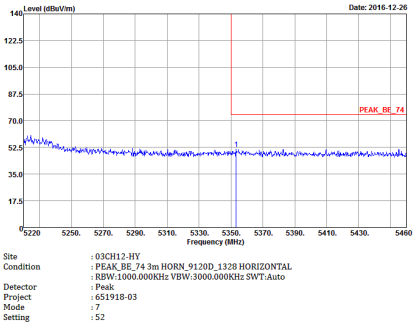
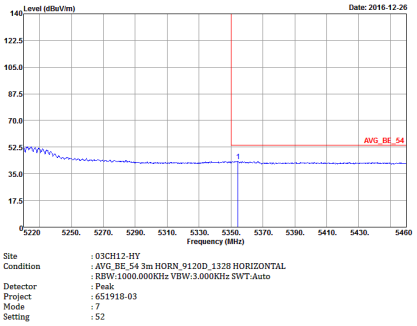
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
0a+1a	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

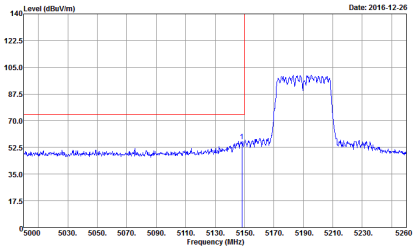
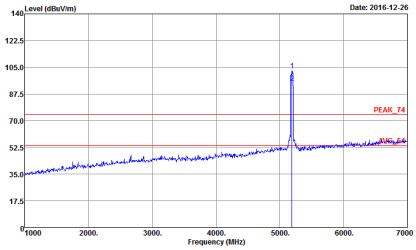
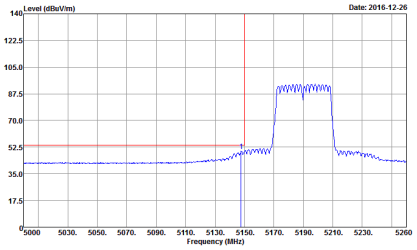
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
0a+1a	Vertical	Fundamental
Peak		
Avg.		Left blank

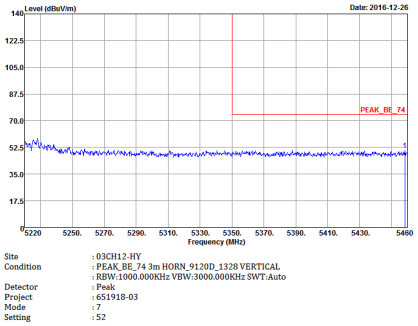
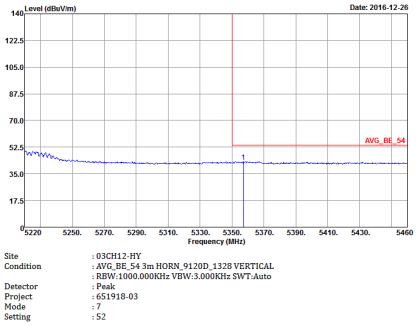
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
0a+1a	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

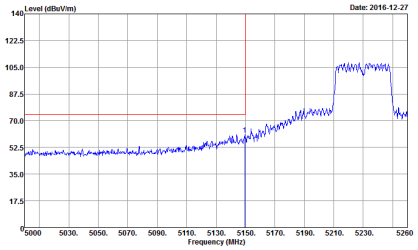
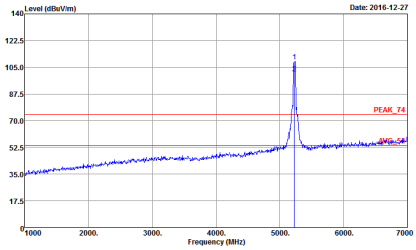
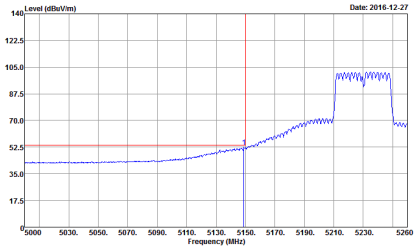
Band 1 5150~5250MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

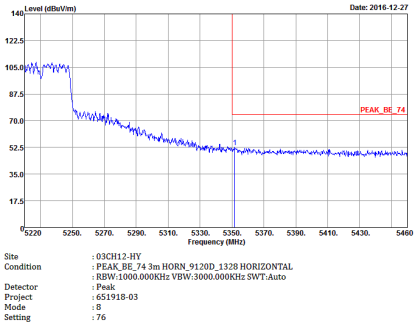
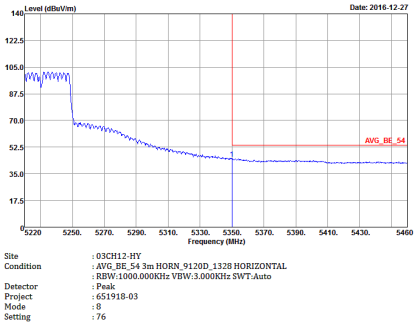
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
0a+1a	Horizontal	Fundamental
Peak		
Avg.		Left blank

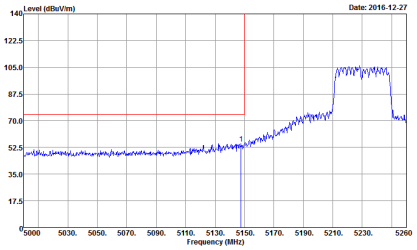
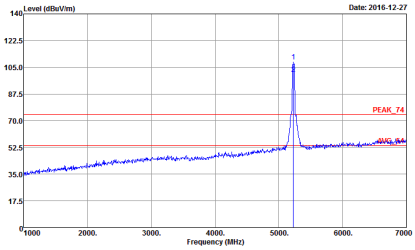
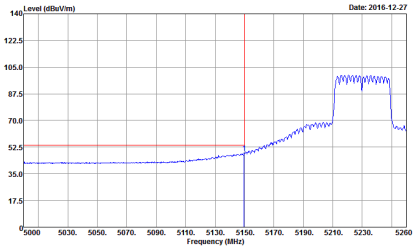
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
0a+1a	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

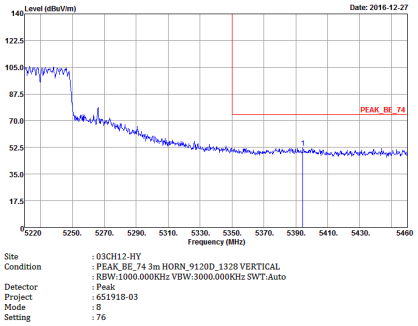
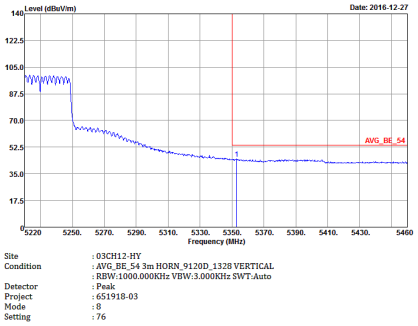
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
0a+1a	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 7 Setting : 52	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 7 Setting : 52
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 7 Setting : 52	Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
0a+1a	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

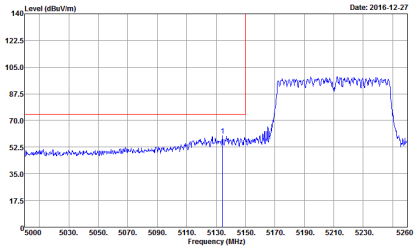
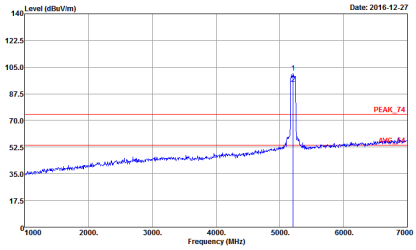
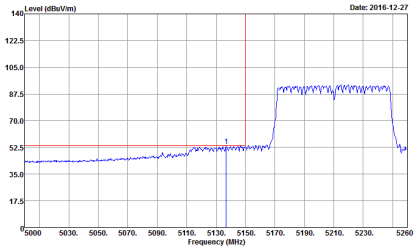
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
0a+1a	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 8 Setting : 76	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 8 Setting : 76
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 8 Setting : 76	Left blank

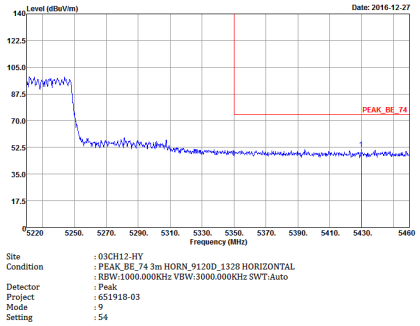
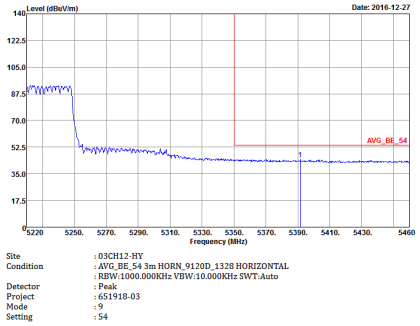
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
0a+1a	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

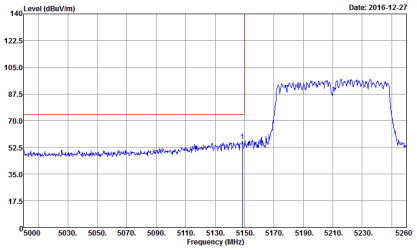
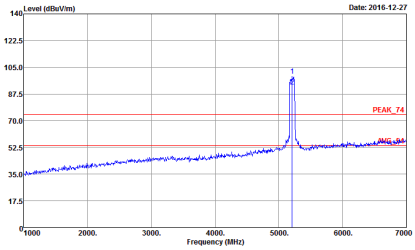
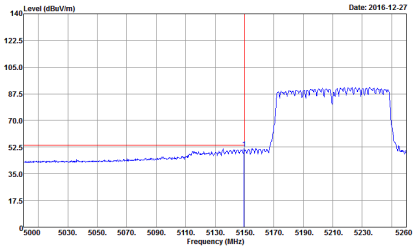
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
0a+1a	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 8 Setting : 76	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 8 Setting : 76
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 8 Setting : 76	Left blank

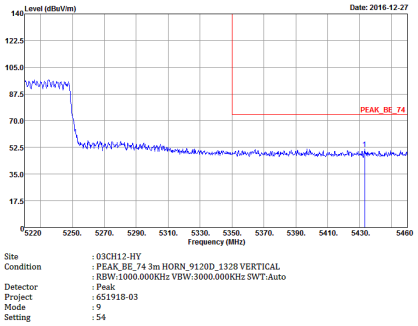
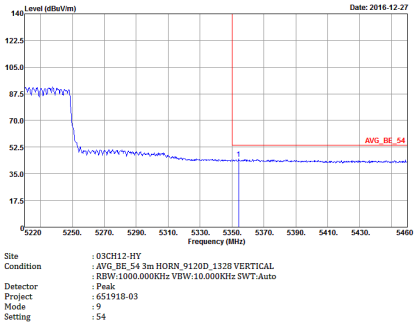
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
0a+1a	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

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	
0a+1a	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 9 Setting : 54	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 9 Setting : 54
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 9 Setting : 54	Left blank

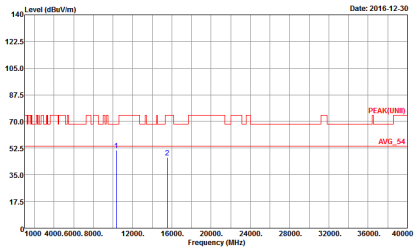
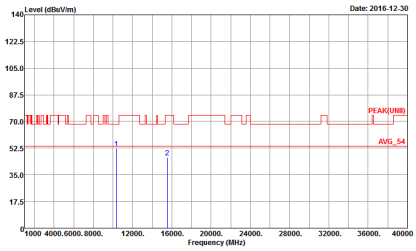
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
0a+1a	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

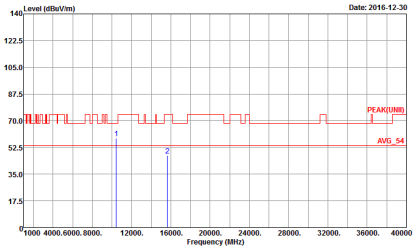
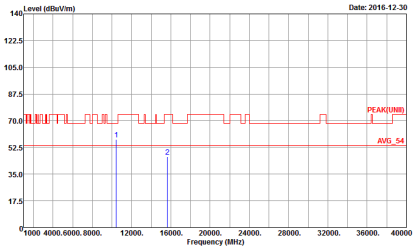
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
0a+1a	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 9 Setting : 54	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 9 Setting : 54
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 9 Setting : 54	Left blank

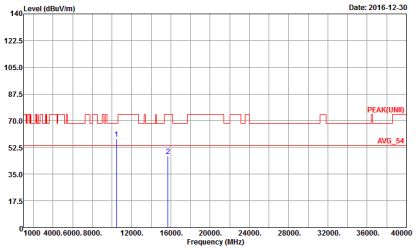
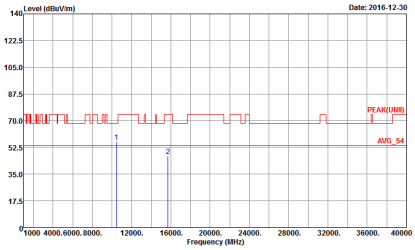
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
0a+1a	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 1 - 5150~5250MHz

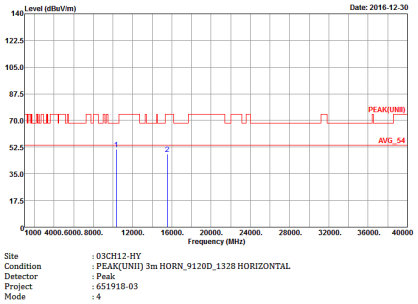
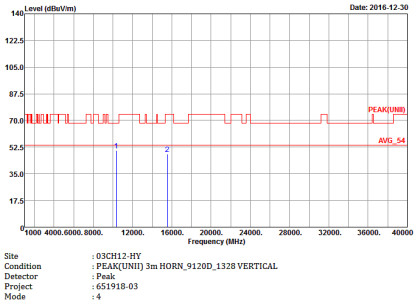
WIFI 802.11a (Harmonic @ 3m)

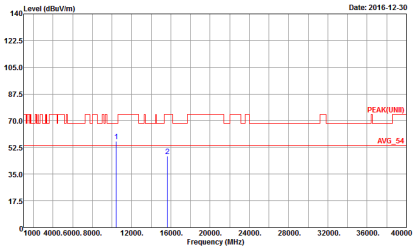
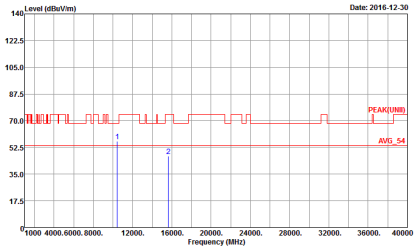
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH36 5180MHz	
0a+1a	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 651918-03 Mode : 1	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 651918-03 Mode : 1

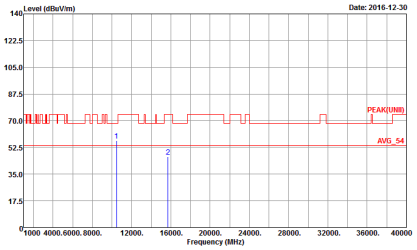
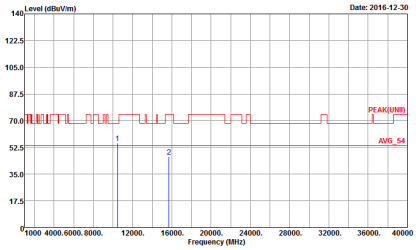
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH44 5220MHz	
0a+1a	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 651918-03 Mode : 2	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 651918-03 Mode : 2

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH48 5240MHz	
0a+1a	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 651918-03 Mode : 3	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 651918-03 Mode : 3

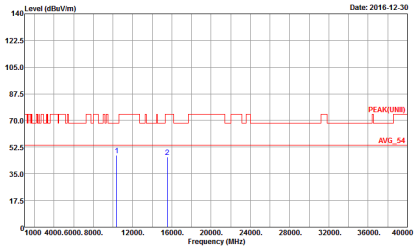
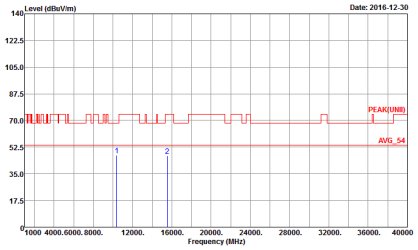
Band 1 5150~5250MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

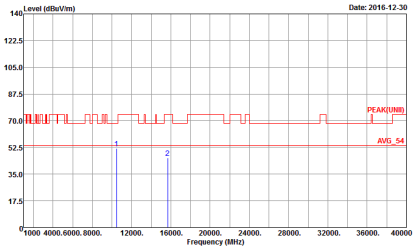
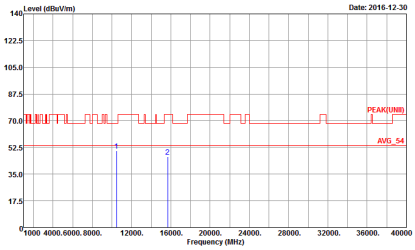
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
0a+1a	Horizontal	Vertical
Peak Avg.		

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH44 5220MHz	
0a+1a	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 651918-03 Mode : 5	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 651918-03 Mode : 5

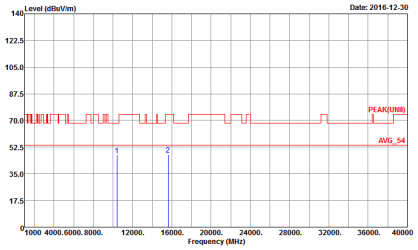
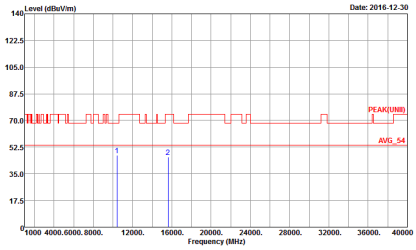
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH48 5240MHz	
0a+1a	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 651918-03 Mode : 6	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 651918-03 Mode : 6

Band 1 5150~5250MHz
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT40 CH38 5190MHz	
0a+1a	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 651918-03 Mode : 7	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 651918-03 Mode : 7

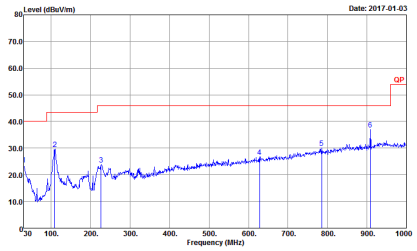
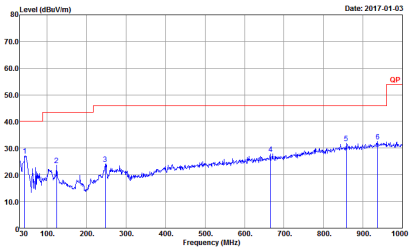
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT40 CH46 5230MHz	
0a+1a	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 651918-03 Mode : 8	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 651918-03 Mode : 8

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

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz	
0a+1a	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 651918-03 Mode : 9	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 651918-03 Mode : 9

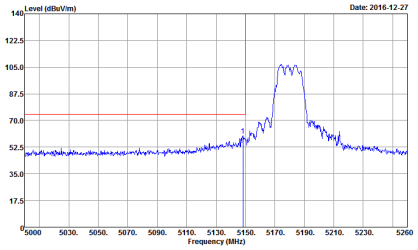
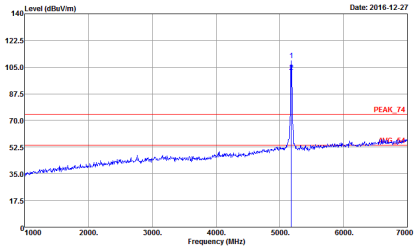
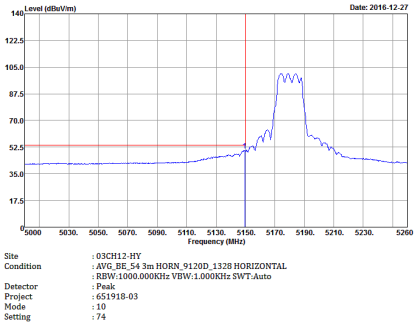
Emission below 1GHz

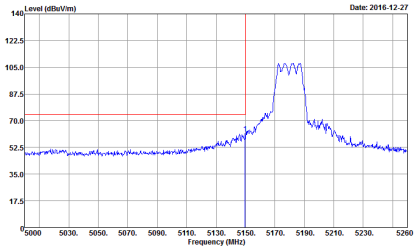
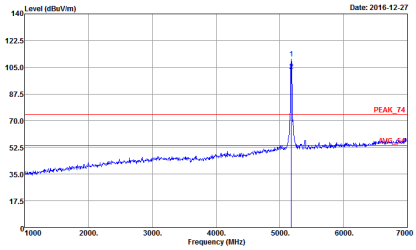
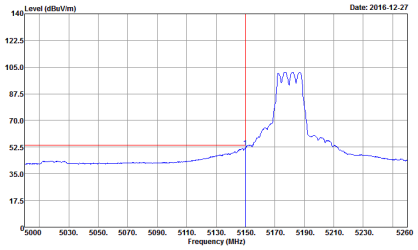
5GHz WIFI 802.11ac VHT80 (LF)

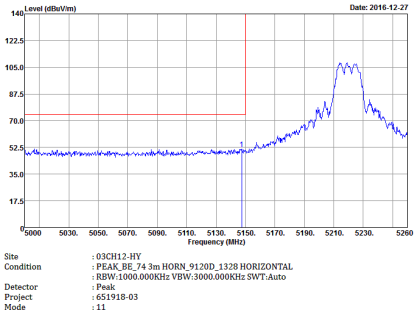
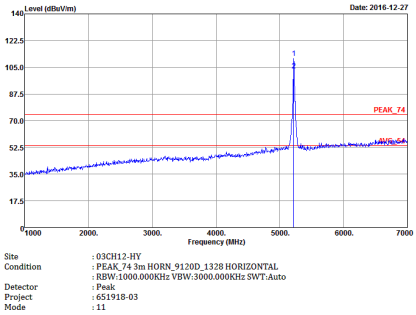
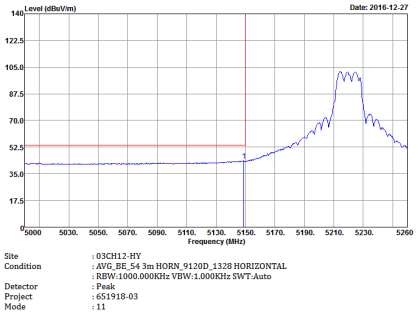
WIFI	5GHz WIFI	
ANT	802.11ac VHT80 LF	
0a+1a	Horizontal	Vertical
QP / Peak	 Site : 03CH12-HY Condition : QP 3m BILOG_6111D_37059 HORIZONTAL Detector : Peak Project : 651918-03 Mode : 37	 Site : 03CH12-HY Condition : QP 3m BILOG_6111D_37059 VERTICAL Detector : Peak Project : 651918-03 Mode : 37

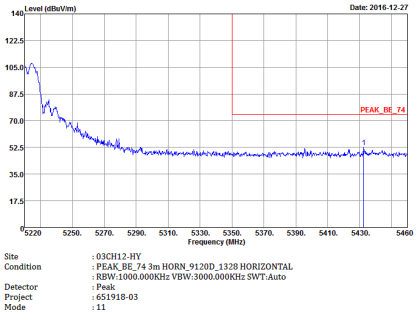
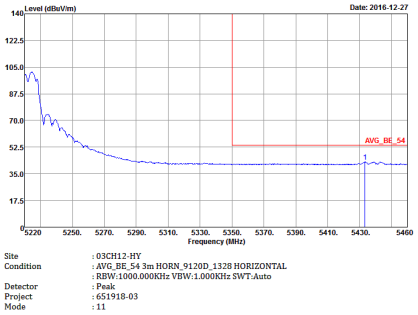
Band 1 - 5150~5250MHz

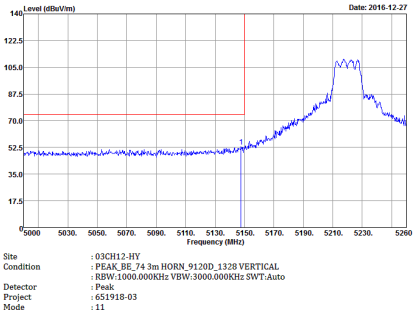
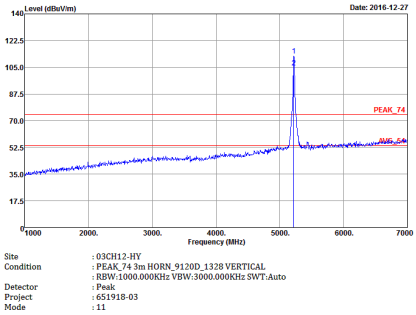
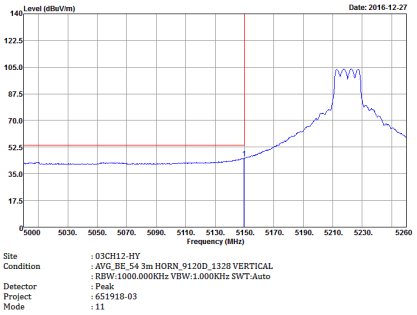
WIFI 802.11a (Band Edge @ 3m)

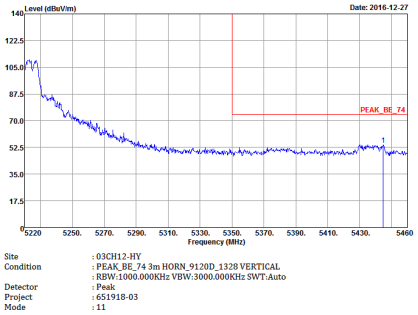
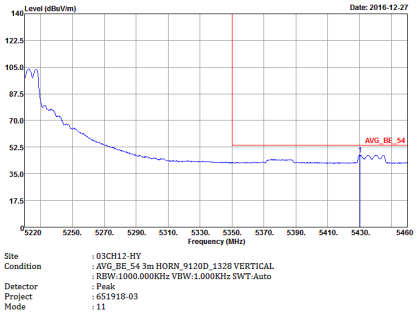
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
0a+1b	Horizontal	Fundamental
Peak		
Avg.		Left blank

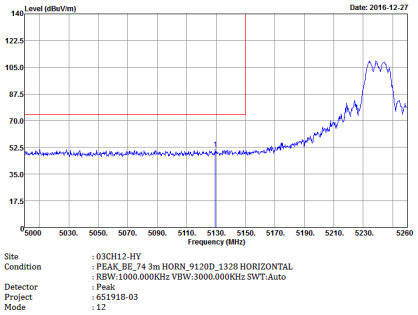
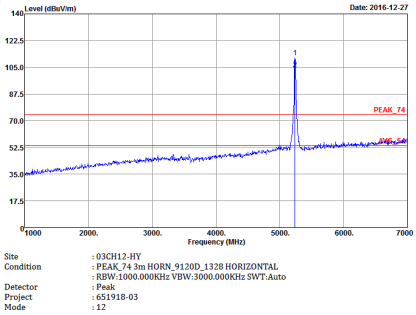
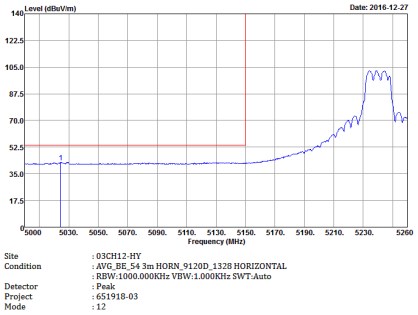
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
0a+1b	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 10 Setting : 74	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 10 Setting : 74
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 10 Setting : 74	Left blank

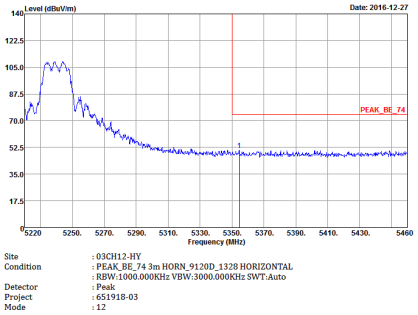
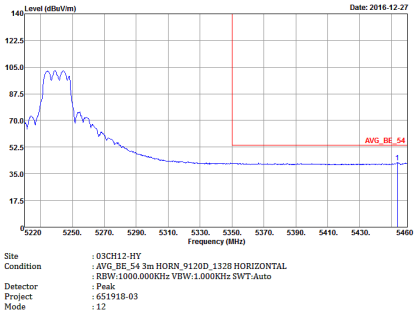
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
0a+1b	Horizontal	Fundamental
Peak		
Avg.		Left blank

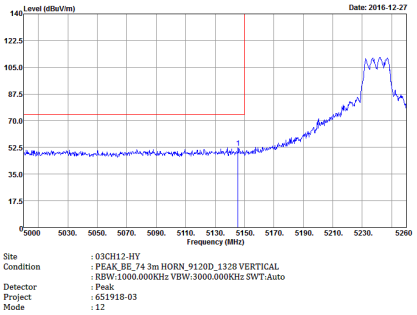
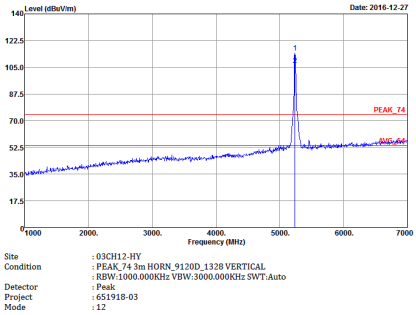
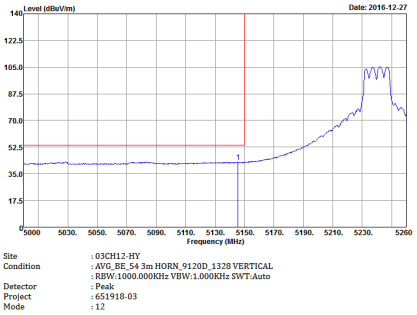
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
0a+1b	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

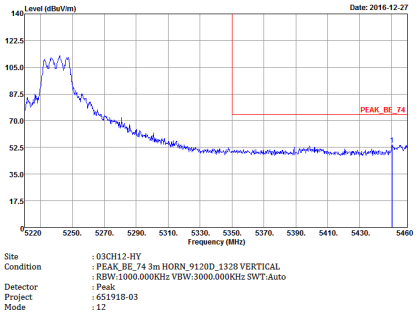
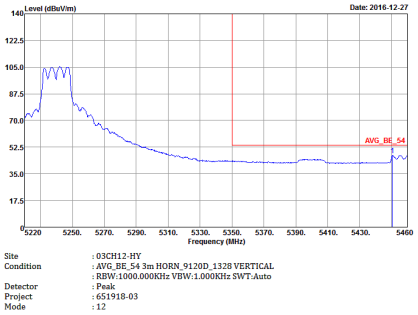
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
0a+1b	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
0a+1b	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

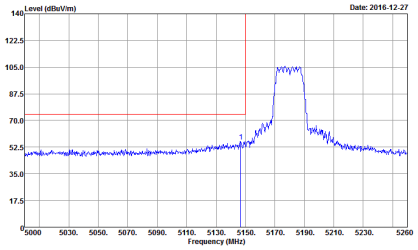
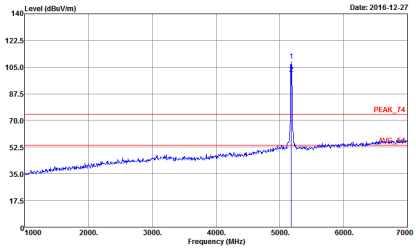
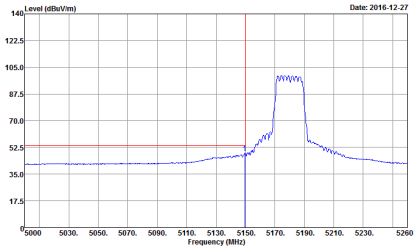
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
0a+1b	Horizontal	Fundamental
Peak		
Avg.		Left blank

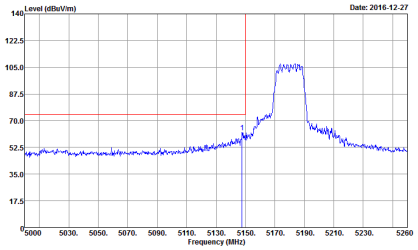
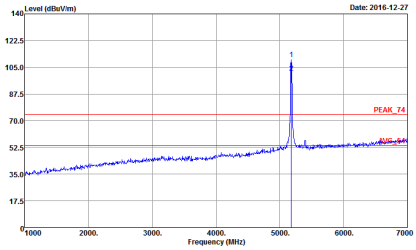
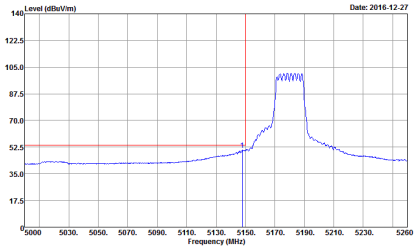
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
0a+1b	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

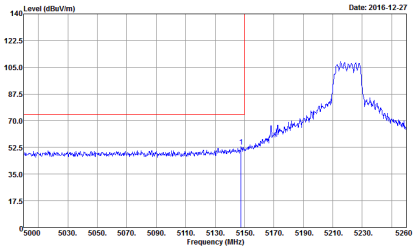
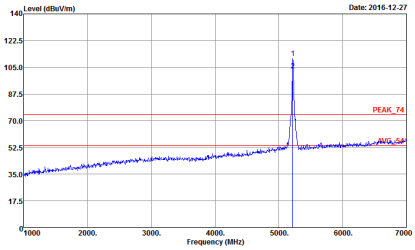
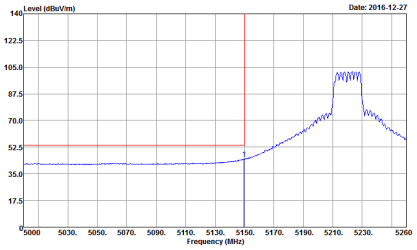
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
0a+1b	Vertical	Fundamental
Peak		
Avg.		Left blank

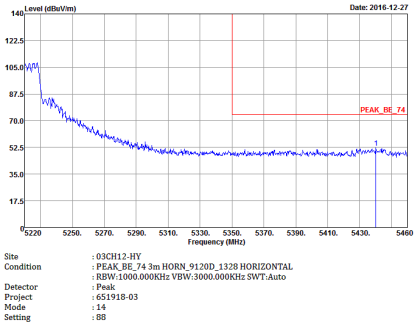
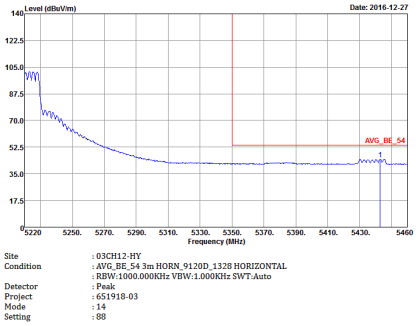
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
0a+1b	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

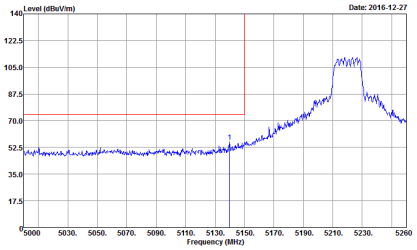
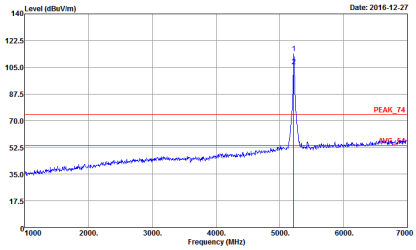
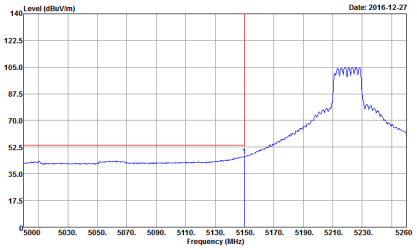
Band 1 5150~5250MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

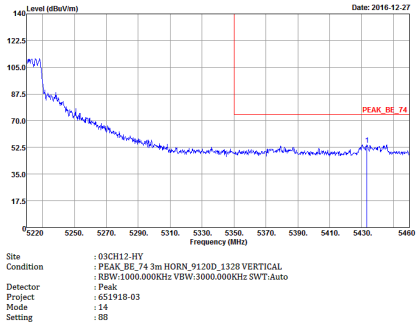
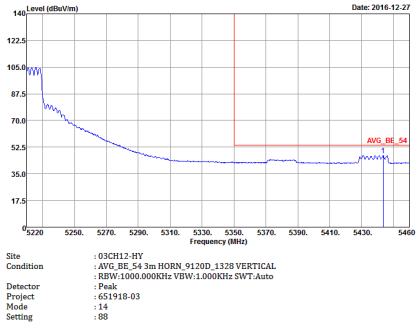
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
0a+1b	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 13 Setting : 72	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 13 Setting : 72
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 13 Setting : 72	Left blank

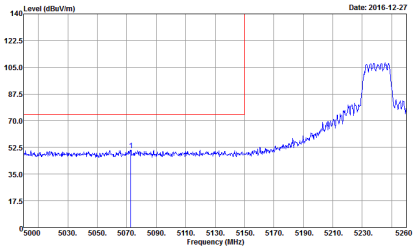
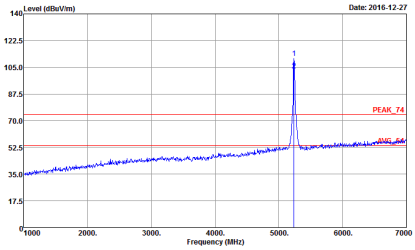
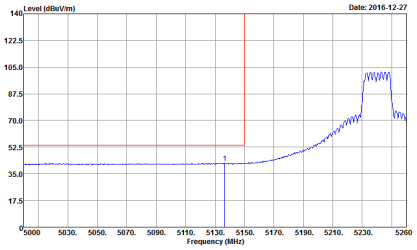
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
0a+1b	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 13 Setting : 72	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 13 Setting : 72
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 13 Setting : 72	Left blank

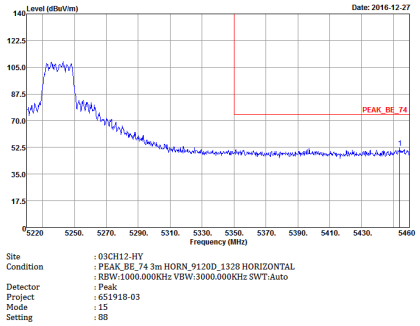
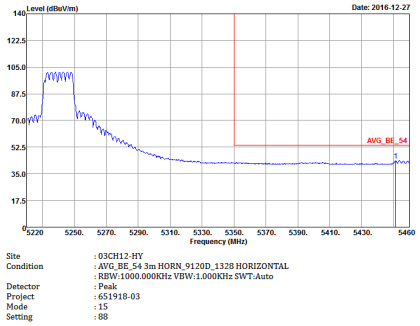
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
0a+1b	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 14 Setting : 88	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 14 Setting : 88
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 14 Setting : 88	Left blank

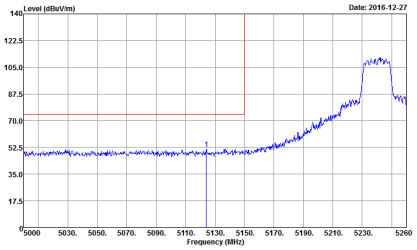
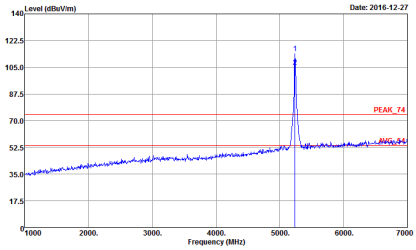
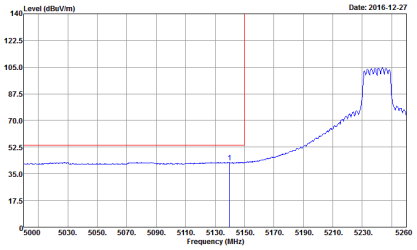
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
0a+1b	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

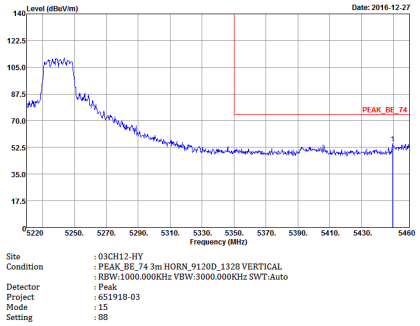
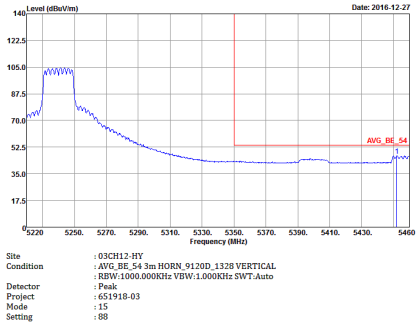
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
0a+1b	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 14 Setting : 88	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 14 Setting : 88
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 14 Setting : 88	Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
0a+1b	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

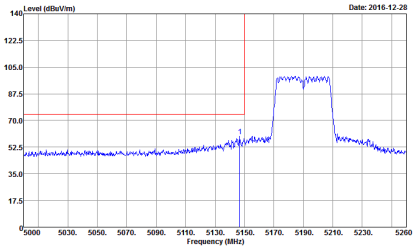
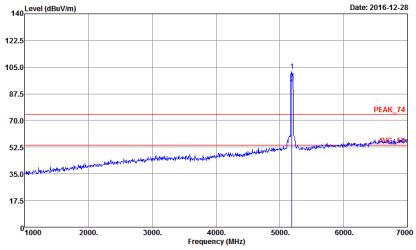
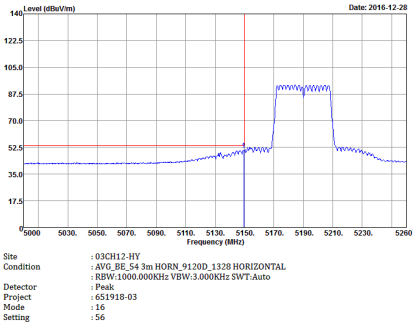
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
0a+1b	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 15 Setting : 88	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 15 Setting : 88
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 15 Setting : 88	Left blank

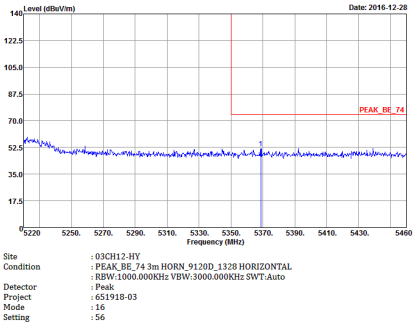
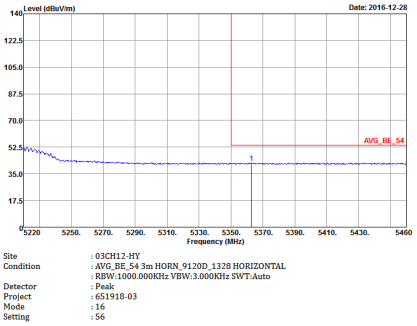
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
0a+1b	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

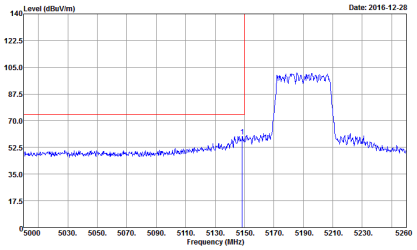
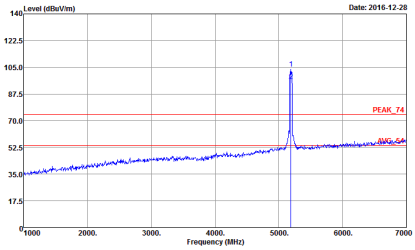
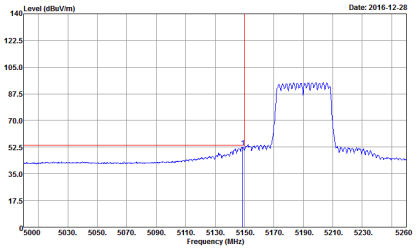
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
0a+1b	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 15 Setting : 88	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 15 Setting : 88
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 15 Setting : 88	Left blank

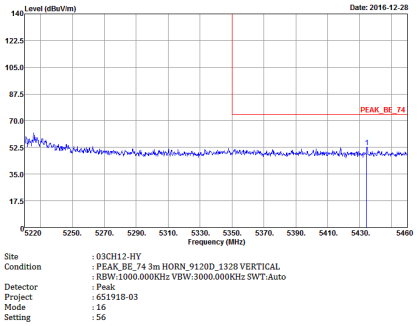
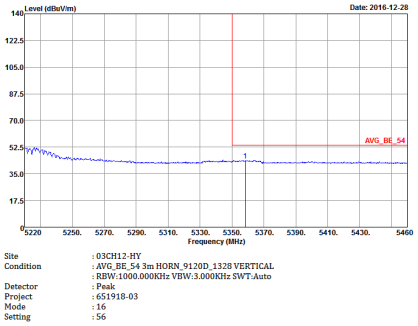
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
0a+1b	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

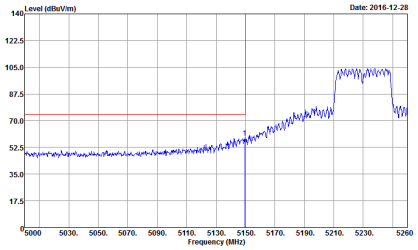
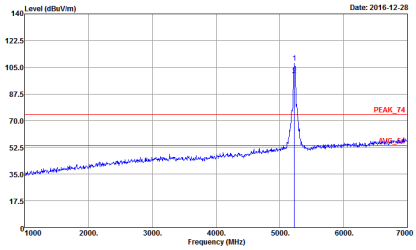
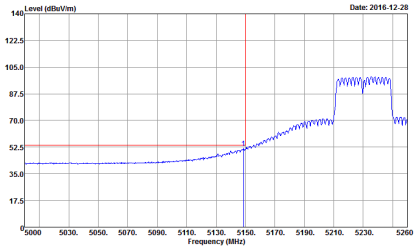
Band 1 5150~5250MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

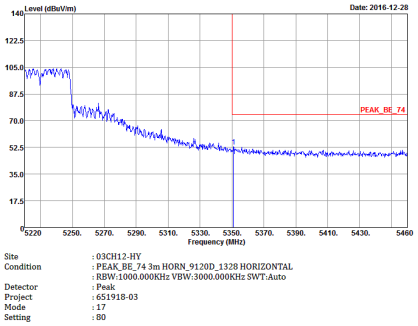
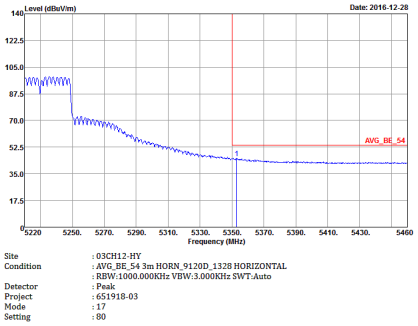
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
0a+1b	Horizontal	Fundamental
Peak		
Avg.		Left blank

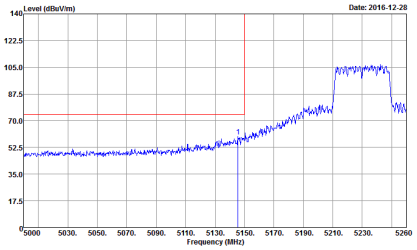
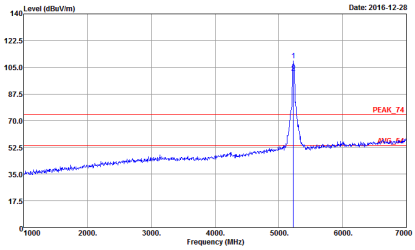
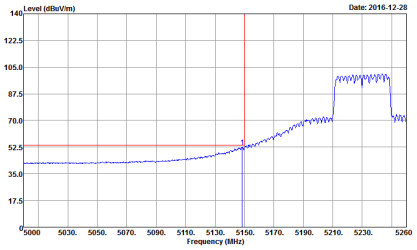
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
0a+1b	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

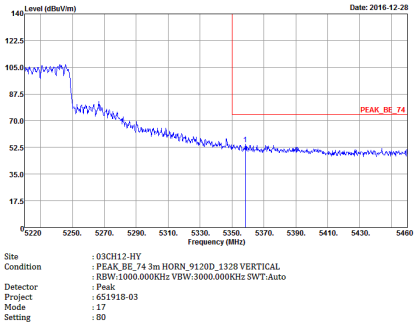
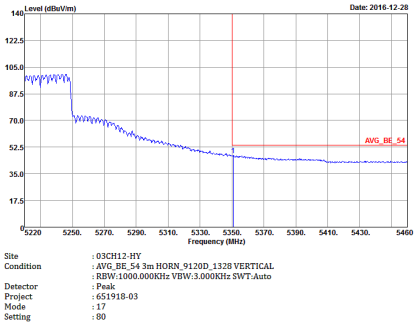
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
0a+1b	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 16 Setting : 56	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 16 Setting : 56
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 16 Setting : 56	Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
0a+1b	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

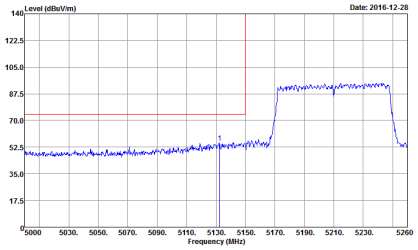
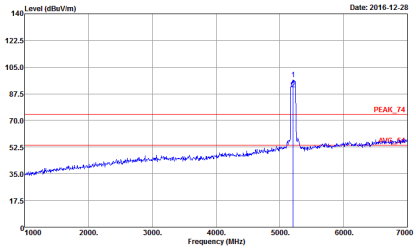
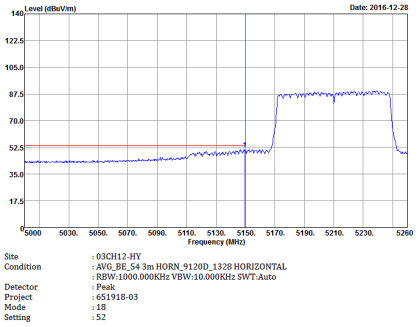
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
0a+1b	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 17 Setting : 80	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 17 Setting : 80
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 17 Setting : 80	Left blank

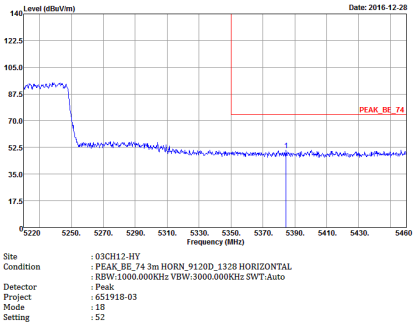
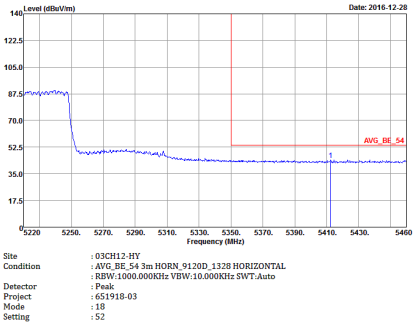
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
0a+1b	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

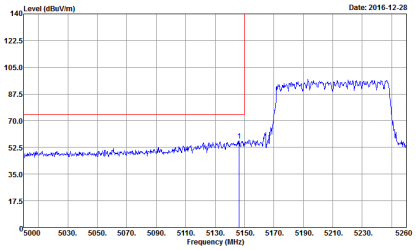
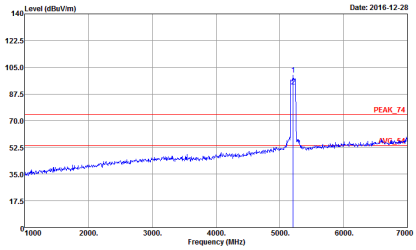
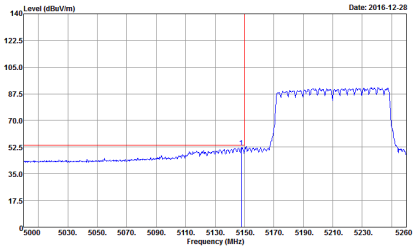
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
0a+1b	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 17 Setting : 80	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 17 Setting : 80
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 17 Setting : 80	Left blank

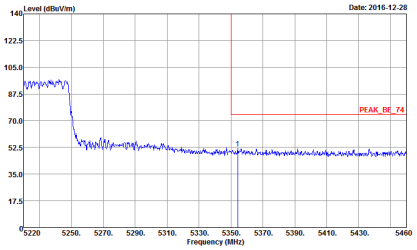
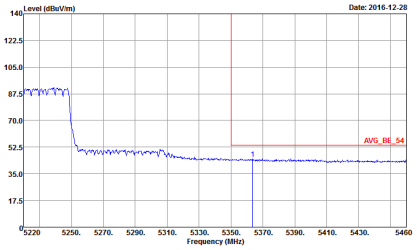
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
0a+1b	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

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	
0a+1b	Horizontal	Fundamental
Peak		
Avg.		Left blank

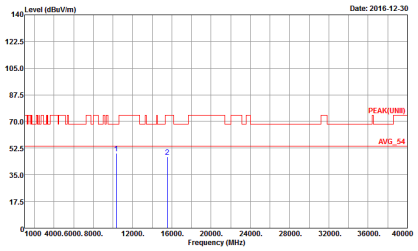
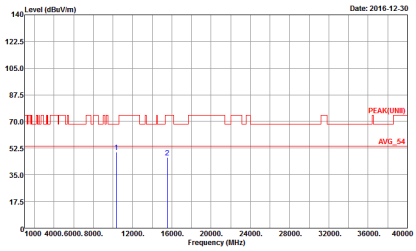
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
0a+1b	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

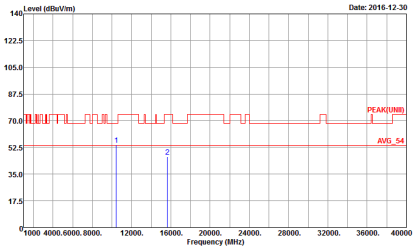
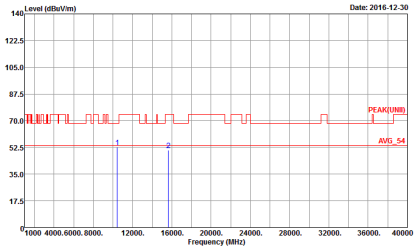
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
0a+1b	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 18 Setting : 52	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 18 Setting : 52
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 18 Setting : 52	Left blank

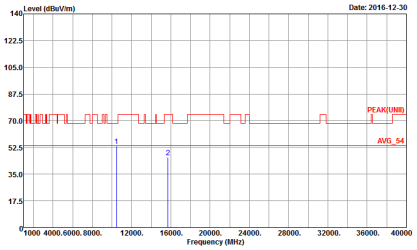
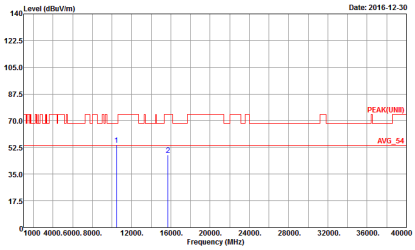
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
0a+1b	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 18 Setting : 52	Left blank
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 18 Setting : 52	Left blank

Band 1 - 5150~5250MHz

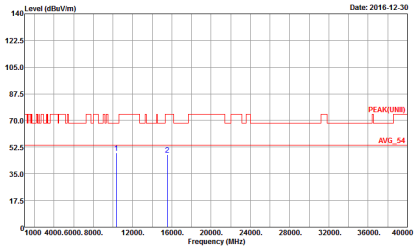
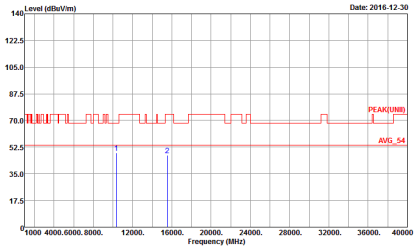
WIFI 802.11a (Harmonic @ 3m)

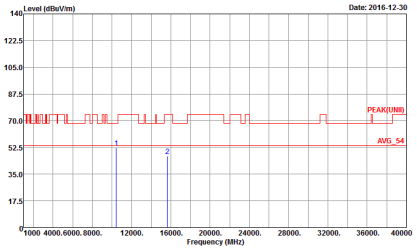
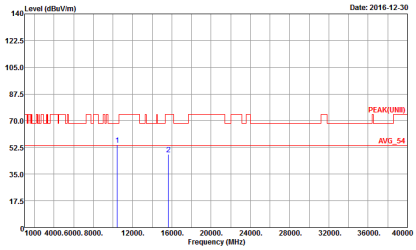
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH36 5180MHz	
0a+1b	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 651918-03 Mode : 10	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 651918-03 Mode : 10

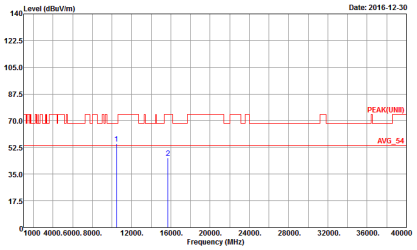
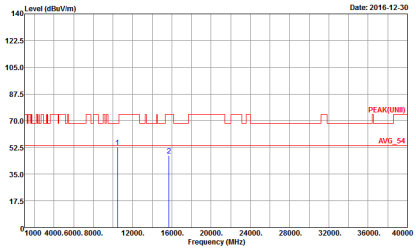
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH44 5220MHz	
0a+1b	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 651918-03 Mode : 11	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 651918-03 Mode : 11

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH48 5240MHz	
0a+1b	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 651918-03 Mode : 12	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 651918-03 Mode : 12

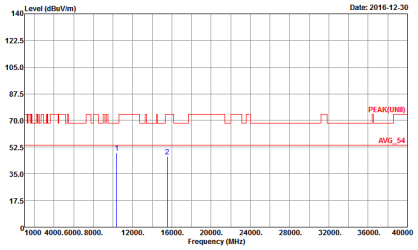
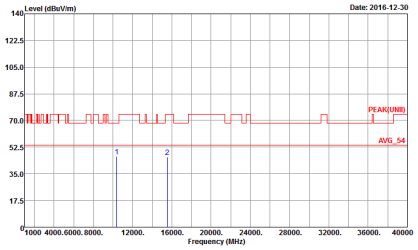
Band 1 5150~5250MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

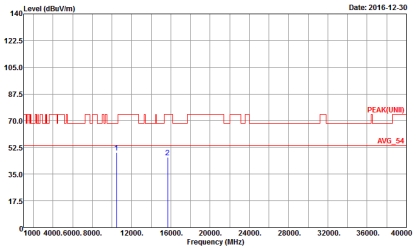
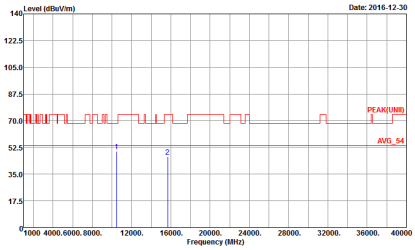
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
0a+1b	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 651918-03 Mode : 13	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 651918-03 Mode : 13

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH44 5220MHz	
0a+1b	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 651918-03 Mode : 14	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 651918-03 Mode : 14

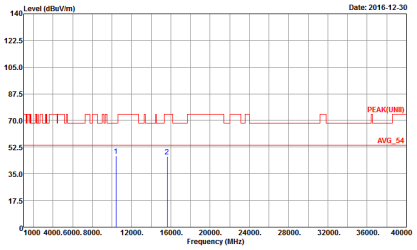
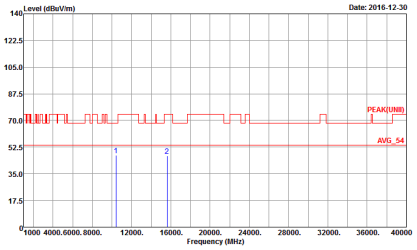
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH48 5240MHz	
0a+1b	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 651918-03 Mode : 15	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 651918-03 Mode : 15

Band 1 5150~5250MHz
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT40 CH38 5190MHz	
0a+1b	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 651918-03 Mode : 16	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 651918-03 Mode : 16

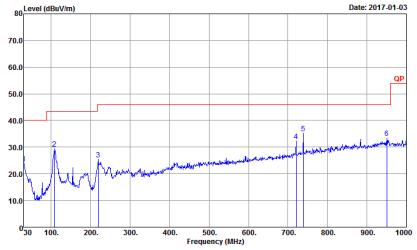
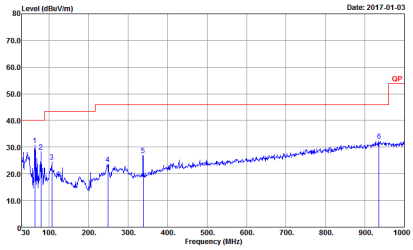
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT40 CH46 5230MHz	
0a+1b	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 651918-03 Mode : 17	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 651918-03 Mode : 17

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

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz	
0a+1b	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 651918-03 Mode : 18	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 651918-03 Mode : 18

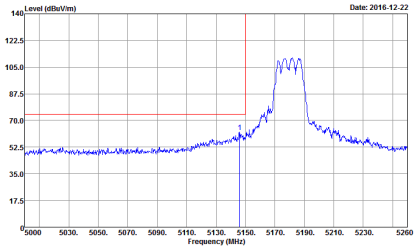
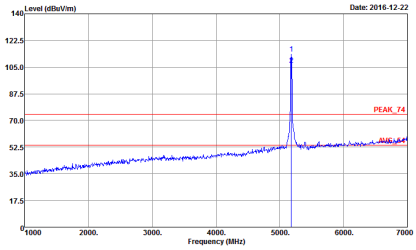
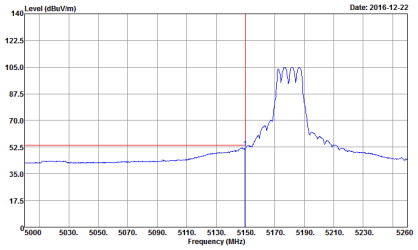
Emission below 1GHz

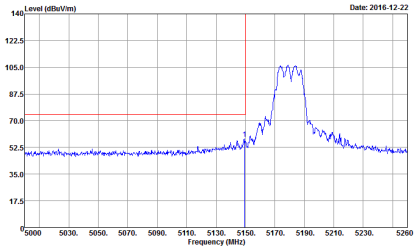
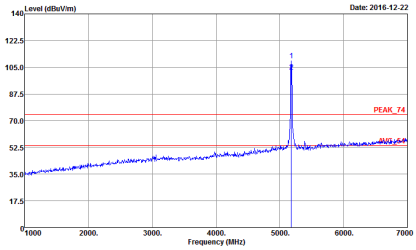
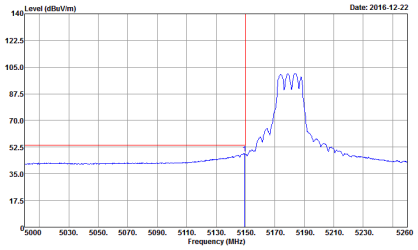
5GHz WIFI 802.11n HT40 (LF)

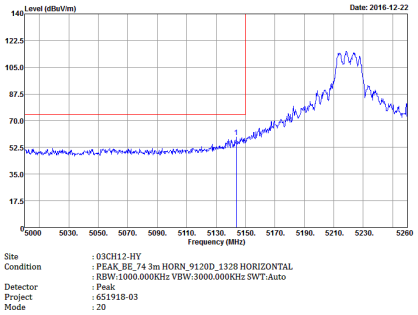
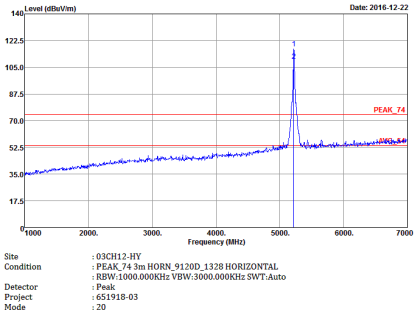
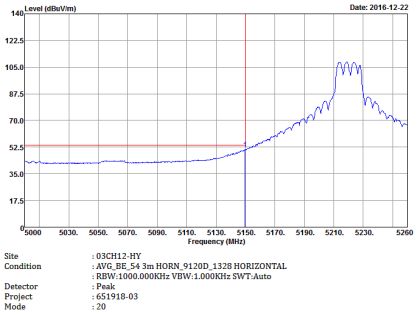
WIFI	5GHz WIFI	
ANT	802.11n HT40 LF	
0a+1b	Horizontal	Vertical
QP / Peak	 Site : 03CH12-HY Condition : QP 3m BILOG_6111D_37059 HORIZONTAL Detector : Peak Project : 651918-03 Mode : 38	 Site : 03CH12-HY Condition : QP 3m BILOG_6111D_37059 VERTICAL Detector : Peak Project : 651918-03 Mode : 38

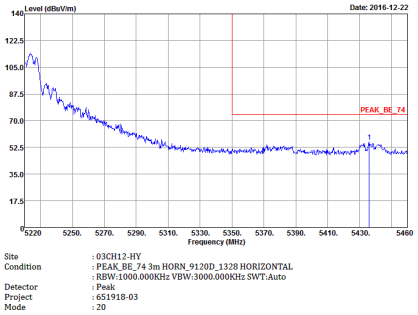
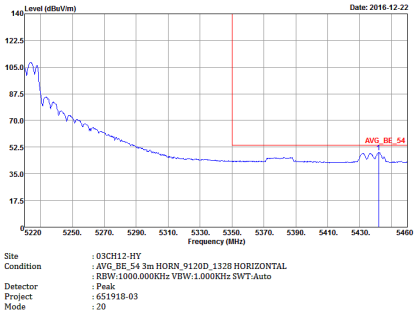
Band 1 - 5150~5250MHz

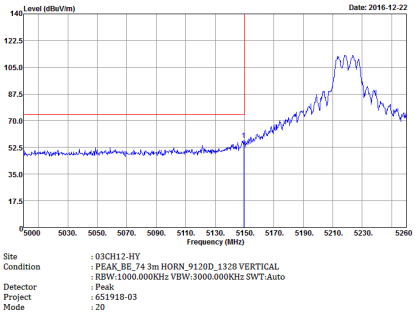
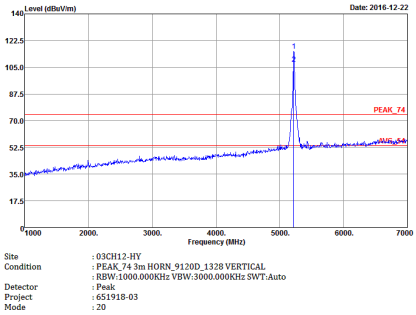
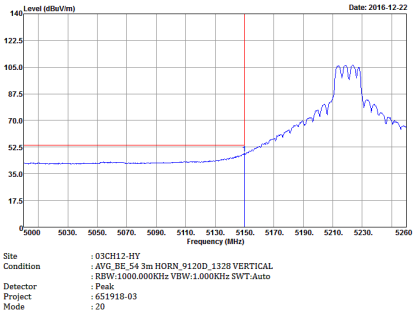
WIFI 802.11a (Band Edge @ 3m)

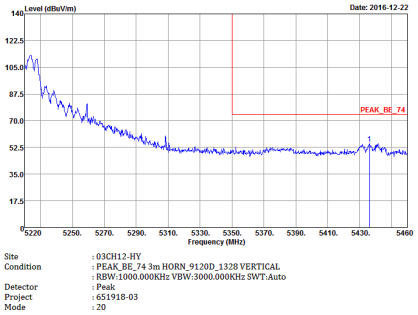
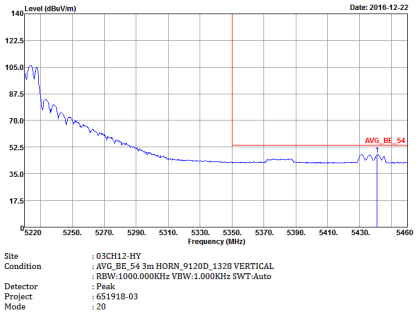
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
0b+1a	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 19 Setting : 70	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 19 Setting : 70
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 19 Setting : 70	Left blank

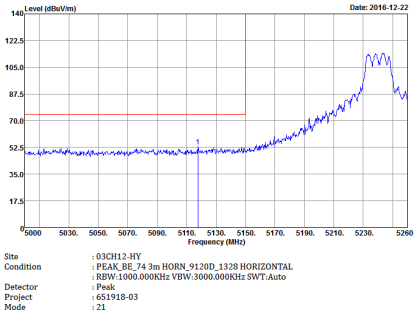
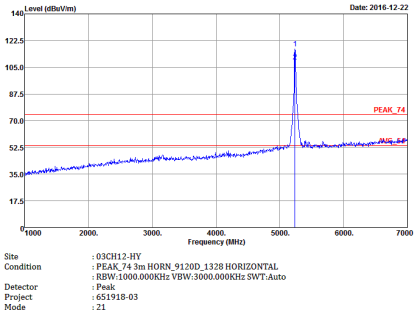
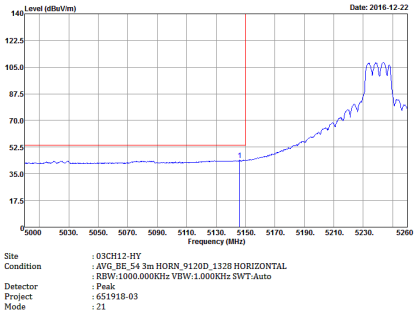
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
0b+1a	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 19 Setting : 70	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 19 Setting : 70
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 19 Setting : 70	Left blank

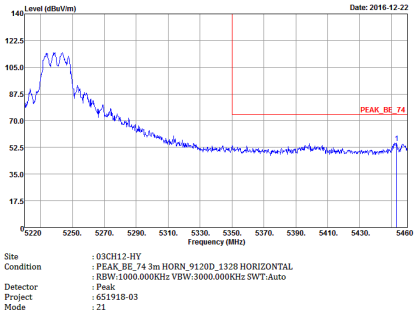
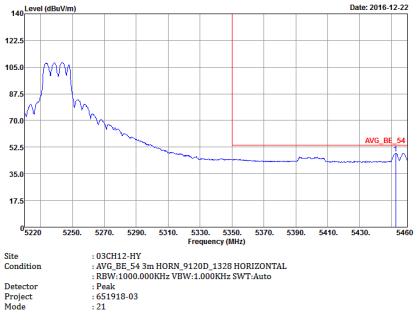
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
0b+1a	Horizontal	Fundamental
Peak		
Avg.		Left blank

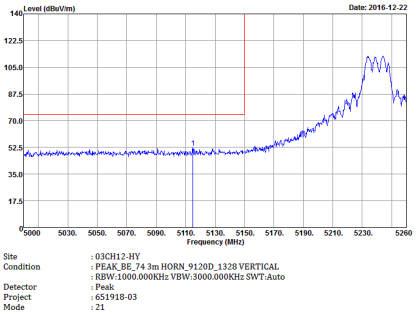
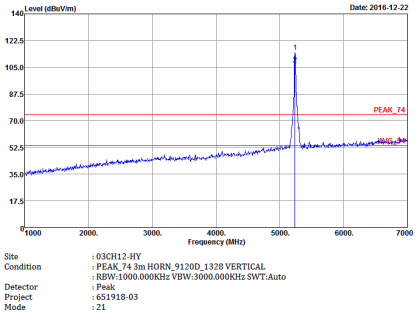
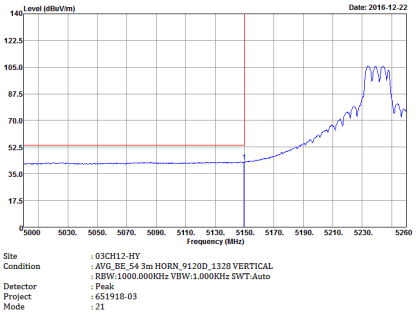
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
0b+1a	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

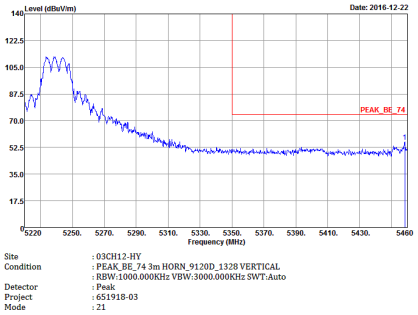
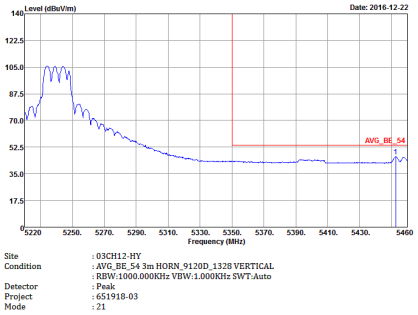
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
0b+1a	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
0b+1a	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

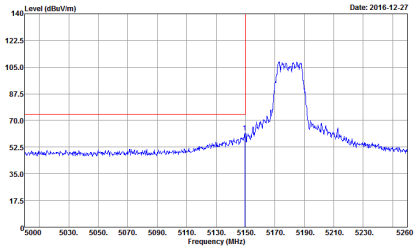
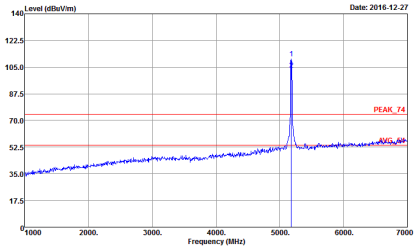
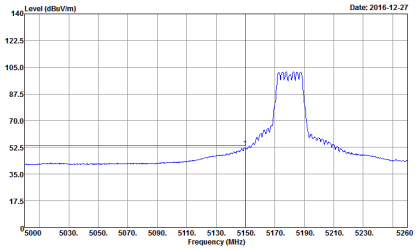
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
0b+1a	Horizontal	Fundamental
Peak		
Avg.		Left blank

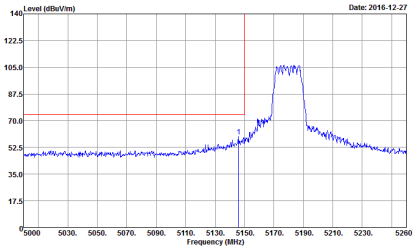
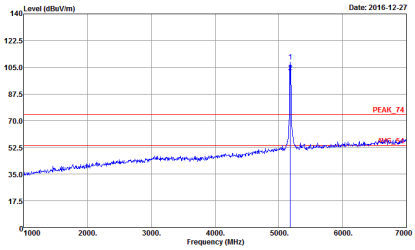
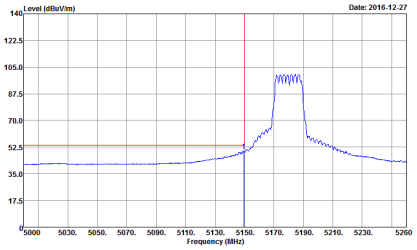
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
0b+1a	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

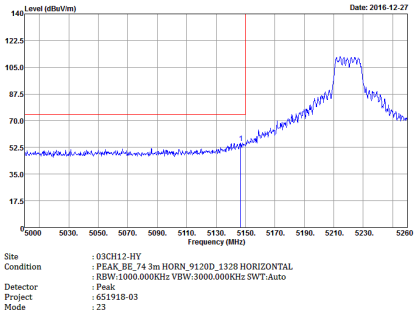
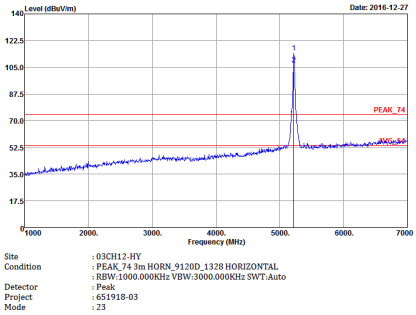
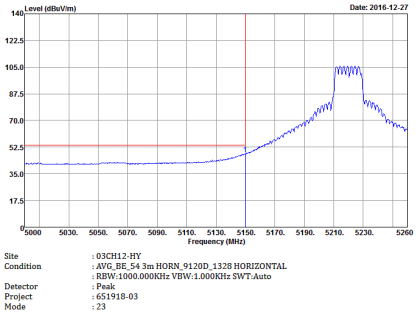
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
0b+1a	Vertical	Fundamental
Peak		
Avg.		Left blank

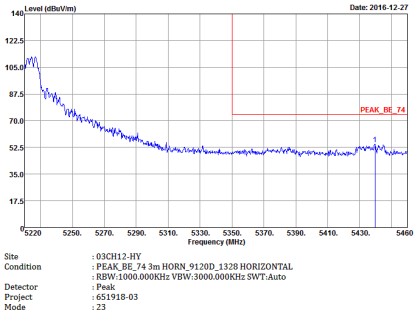
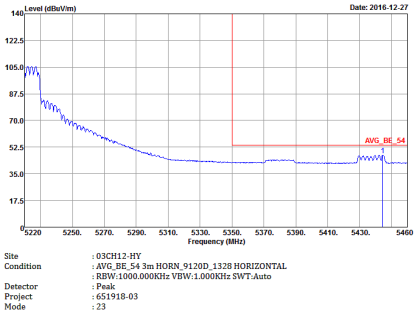
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
0b+1a	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

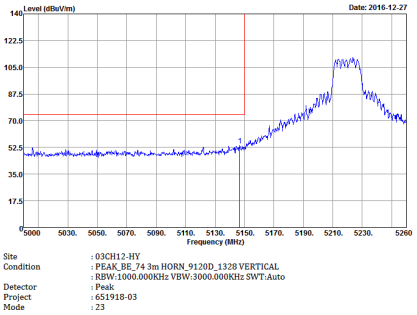
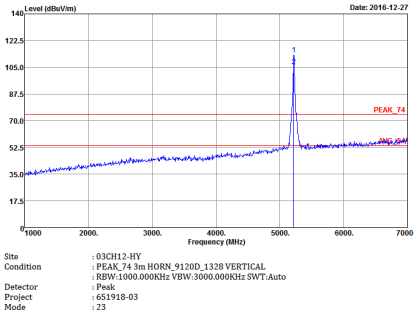
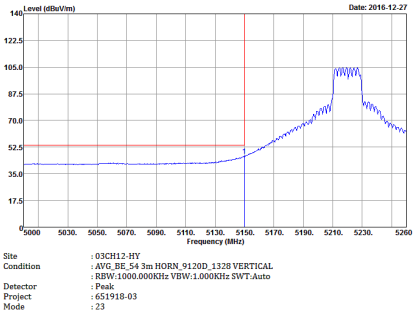
Band 1 5150~5250MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

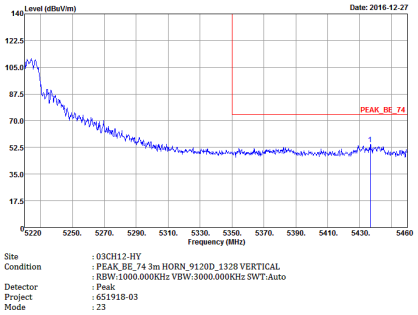
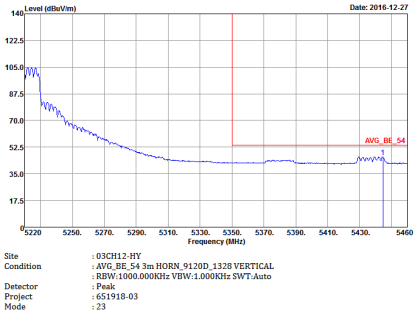
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
0b+1a	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 22 Setting : 72	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 22 Setting : 72
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 22 Setting : 72	Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
0b+1a	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 22 Setting : 72	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 22 Setting : 72
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 651918-03 Mode : 22 Setting : 72	Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
0b+1a	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
0b+1a	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
0b+1a	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
0b+1a	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank