FCC RF Test Report

APPLICANT	**:**	**Senga Na Lenga Limited Liability Company**
EQUIPMENT	**:**	**Tablet**
MODEL NAME	**:**	**SR87CV**
FCC ID	**:**	**2ACBF-6708**
STANDARD	**:**	**FCC Part 15 Subpart E §15.407**
CLASSIFICATION	**:**	**(NII) Unlicensed National Information Infrastructure**

The testing was completed on May 17, 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

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR520216-04	Rev. 01	Initial issue of report	May 22, 2017
FR520216-04	Rev. 02	Add TDWR information and revising antenna gain in section 1.3 and appendix a, and revising duty factor in appendix a, and add remark description of radiated emission in section 2.2 and appendix b.	Jun. 09, 2017
FR520216-04	Rev. 03	Update the report of adding remark description of radiated emission in section 2.2 and duty cycle plots in appendix D.	Jun. 12, 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	≤ 24 dBm (depend on band)	Pass
3.3	15.407(a)	Power Spectral Density	≤ 11 dBm (depend on band)	Pass
3.4	15.407(b)	Unwanted Emissions	≤ -17, -27 dBm (depend on band)&15.209(a)	Pass
-	15.207	AC Conducted Emission	15.207(a)	Not Required
3.5	15.407(g)	Frequency Stability	Within Operation Band	Pass
3.6	15.407(c)	Automatically Discontinue Transmission	Discontinue Transmission	Pass
3.7	15.203 & 15.407(a)	Antenna Requirement	N/A	Pass
Note: Not required means after assessing, test items are not necessary to carry out, which is covered by previous report.				

1 General Description

1.1 Applicant

Senga Na Lenga Limited Liability Company
3900 N. Causeway Blvd. Suite 1200 Metairie, Louisiana 70002

1.2 Product Feature of Equipment Under Test

Product Feature & Specification	
Equipment	Tablet
Model Name	SR87CV
FCC ID	2ACBF-6708
EUT supports Radios application	WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE

Remark: This is a variant report. The original report which can be referred to Sporton Report No. FR520216-01D.

1.3 Product Specification of Equipment Under Test

Product Specification subjective to this standard	
Tx/Rx Frequency Range	5260 MHz ~ 5320 MHz 5500 MHz ~ 5720 MHz
Maximum Output Power to Antenna	**<5260 MHz ~ 5320 MHz>** 802.11a : 16.91 dBm / 0.0491 W 802.11n HT20 : 16.76 dBm / 0.0474 W 802.11n HT40 : 16.65 dBm / 0.0462 W 802.11ac VHT20 : 13.95 dBm / 0.0248 W 802.11ac VHT40 : 13.77 dBm / 0.0238 W 802.11ac VHT80 : 13.99 dBm / 0.0251 W **<5500 MHz ~ 5720 MHz >** 802.11a : 16.99 dBm / 0.0500 W 802.11n HT20 : 16.99 dBm / 0.0500 W 802.11n HT40 : 16.86 dBm / 0.0485 W 802.11ac VHT20 : 13.99 dBm / 0.0251 W 802.11ac VHT40 : 13.96 dBm / 0.0249 W 802.11ac VHT80 : 13.94 dBm / 0.0248 W
99% Occupied Bandwidth	802.11a : 18.30 MHz 802.11n HT20 : 18.60 MHz 802.11n HT40 : 36.60 MHz 802.11ac VHT80 : 75.48 MHz
Antenna Type / Gain	**<5250 MHz ~ 5350 MHz>** Fixed internal Antenna with gain 2.40 dBi **<5470 MHz ~ 5725 MHz>** Fixed internal Antenna with gain 0.46 dBi
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)

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. TW1190 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	03CH07-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 v01r04
- FCC KDB 644545 D03 Guidance for IEEE 802 11ac New Rules v01.
- ANSI C63.10-2013

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

2 Test Configuration of Equipment Under Test

a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Z plane) were recorded in this report.

2.1 Carrier Frequency Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5250-5350 MHz Band 2 (U-NII-2A)	52	5260	60	5300
	54*	5270	62*	5310
	56	5280	64	5320
	58#	5290		

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5470-5725 MHz Band 3 (U-NII-2C)	100	5500	112	5560
	102*	5510	116	5580
	104	5520	132	5660
	106#	5530	134*	5670
	108	5540	136	5680
	110*	5550	140	5700

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
TDWR Channel	118*	5590	124	5620
	120	5600	126*	5630
	122#	5610	128	5640

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
Straddle Channel	138#	5690	144	5720
	142*	5710		

Note:

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

2.2 Test Mode

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

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

Ch. #		Band II：5250-5350 MHz			
		802.11a	802.11n HT20	802.11n HT40	802.11ac VHT80
L	Low	52	52	54	-
M	Middle	60	60	-	58
H	High	64	64	62	-
Straddle		-	-	-	

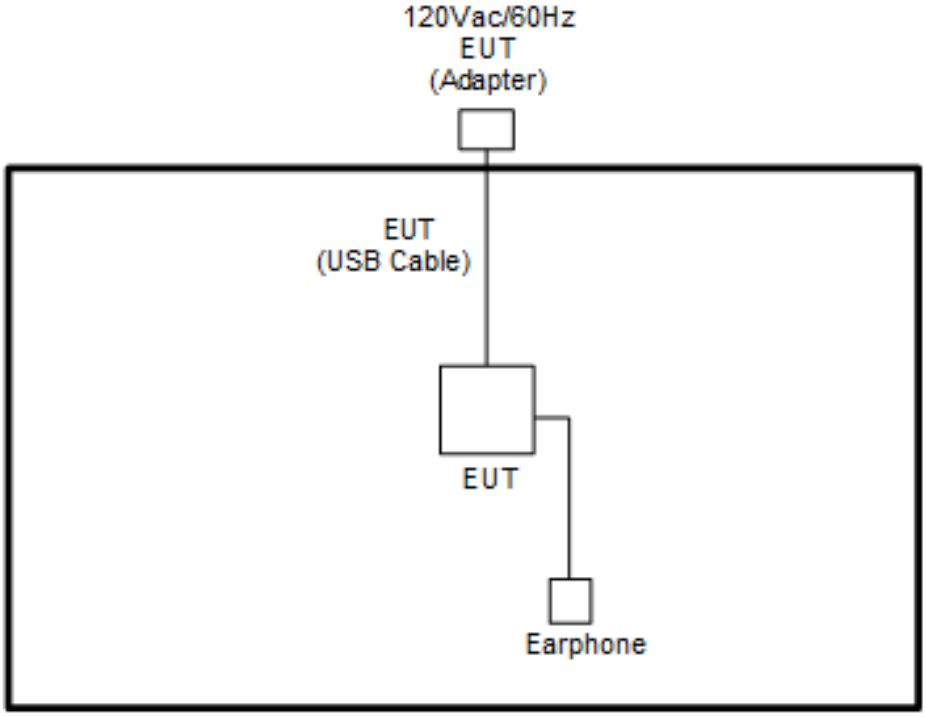
Ch. #		Band III：5470-5725MHz			
		802.11a	802.11n HT20	802.11n HT40	802.11ac VHT80
L	Low	100	100	102	-
M	Middle	116	116	110	106
H	High	140	140	134	-
Straddle		144	144	142	

Note:

1. For rest test items, HT20 cover VHT20 and HT40 cover VHT40 based on the conducted output power.
2. The worst case of radiated emission is 802.11ac VHT80; only the test data below 1GHz of it was reported.
3. According to KDB 789033 v01r04, If the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

2.3 Connection Diagram of Test System

<Radiated 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.	Earphone	N/A	N/A	Verification	Unshielded, 1.15m	N/A

2.5 EUT Operation Test Setup

The RF test items, 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.

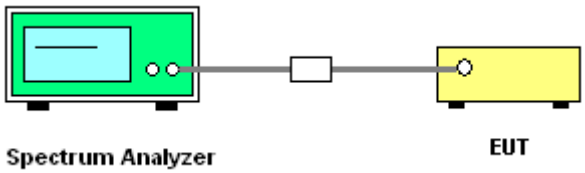
3.1.2 Measuring Instruments

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 v01r04. 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.

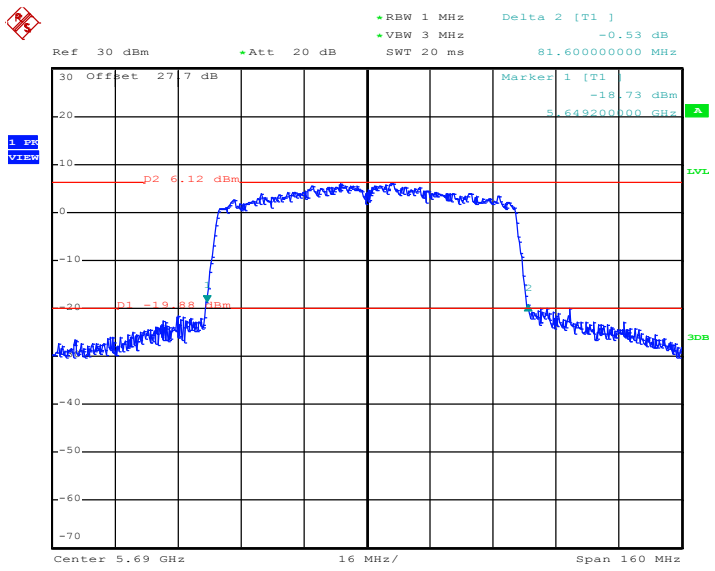
3.1.4 Test Setup



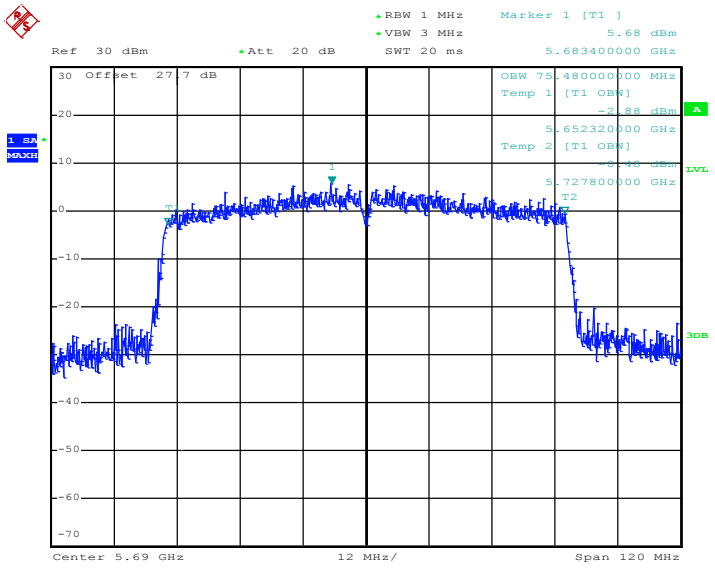
3.1.5 Test Result of 26dB & 99% Occupied Bandwidth Plots

Please refer to Appendix A.

Maximum 26dB Bandwidth



Maximum 99% Occupied Bandwidth



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

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

For the 5.25–5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm 10 log B, where B is the 26 dB emission bandwidth in megahertz.

For Straddle Channel, it is permitted to perform a single measurement over the entire emission bandwidth to demonstrate compliance to the power limit, provided that the more conservative of the applicable power is applied.

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 v01r04.

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

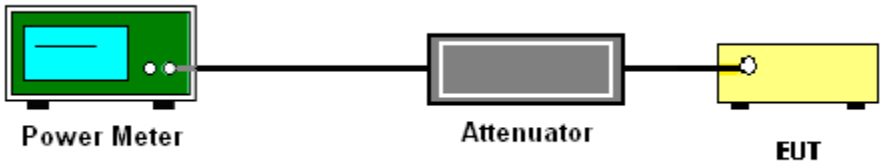
1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit continuously with a consistent duty cycle at its maximum power control level.
3. Measure the average power of the transmitter, and the average power is corrected with duty factor, 10 log(1/x), where x is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

For straddle channel, the testing follows Method SA-3 (RMS detection with max hold) of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04.

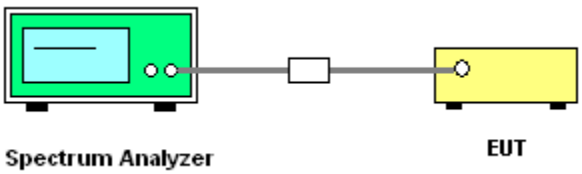
Compute power by integrating the spectrum across the 99% occupied bandwidth of the signal using the instrument's band power measurement function.

3.2.4 Test Setup

For normal channel:



For straddle channel:



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

For the 5.25–5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

For Straddle Channel, it is permitted to perform a single measurement over the entire emission bandwidth to demonstrate compliance to the power limit, provided that the more conservative of the applicable power density limits is applied.

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

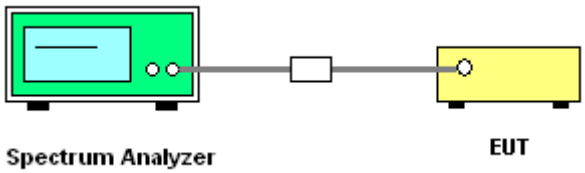
The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04.
Section F) Maximum power spectral density.

 # 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 v01r04.
   - 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.

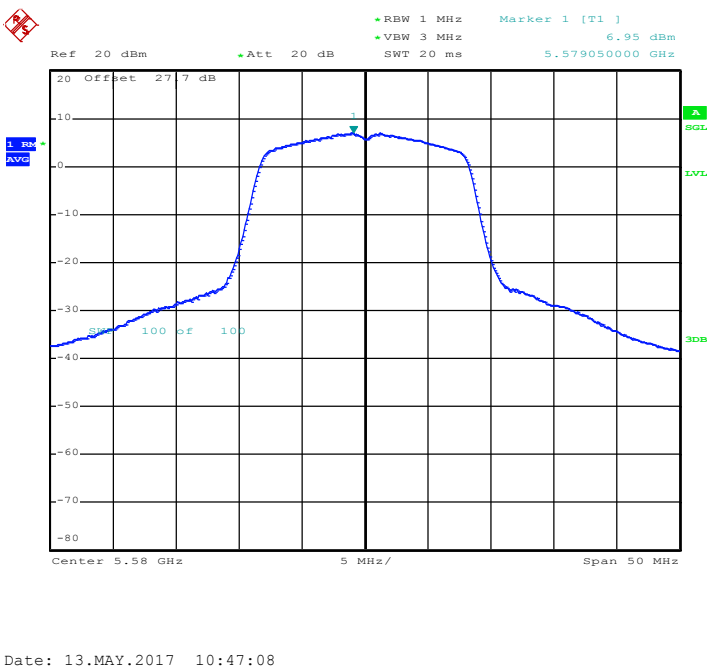
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

Worst Case Power Spectral Density(dBm/MHz)



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

3.4 Unwanted Radiated Emission Measurement

This section is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement.

3.4.1 Limit of Unwanted Emissions

(1) For transmitters operating in the 5250-5350 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5250-5350 MHz band that generate emissions in the 5150-5250 MHz band must meet all applicable technical requirements for operation in the 5150-5250 MHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5150-5250 MHz band.

For transmitters operating in the 5470-5725MHz band: all emissions outside of the 5470-5725MHz band shall not exceed an EIRP of -27 dBm/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)
- 27	68.3

(3) KDB789033 D01 v01r04 G)2)c)

(i) Section 15.407(b)(1) to (b)(3) specify the unwanted emission limits for the U-NII-1 and U-NII-2 bands. As specified, emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz.[3]

(ii) Section 15.407(b)(4) specifies the unwanted emission limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). The emission limits are in terms of a Peak detector. An alternative to the band emissions mask is specified in Section 15.407(b)(4)(ii). The alternative limits are based on the highest antenna gain specified in the filing. There are also marketing and importation restrictions for the devices using the alternative limit.[4]

Note 3: An out-of-band emission that complies with both the average and peak limits of Section 15.209 is not required to satisfy the -27 dBm/MHz peak emission limit.

Note 4: Only devices with antenna gains of 10 dBi or less may be approved using the emission limits specified in Section 15.247(d) till March 2, 2018; all other devices operating in this band must use the mask specified in Section 15.407(b)(4)(i).

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 v01r04. Section G) Unwanted emissions measurement.

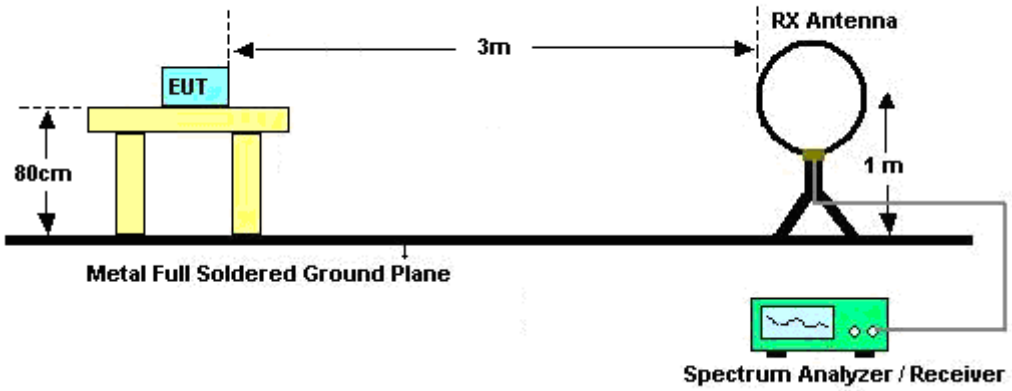
   (1) Procedure for Unwanted Emissions Measurements Below 1000MHz
   - RBW = 120 kHz
   - VBW = 300 kHz
   - Detector = Peak
   - Trace mode = max hold

   (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
   - RBW = 1 MHz
   - VBW ≥ 3 MHz
   - Detector = Peak
   - Sweep time = auto
   - Trace mode = max hold

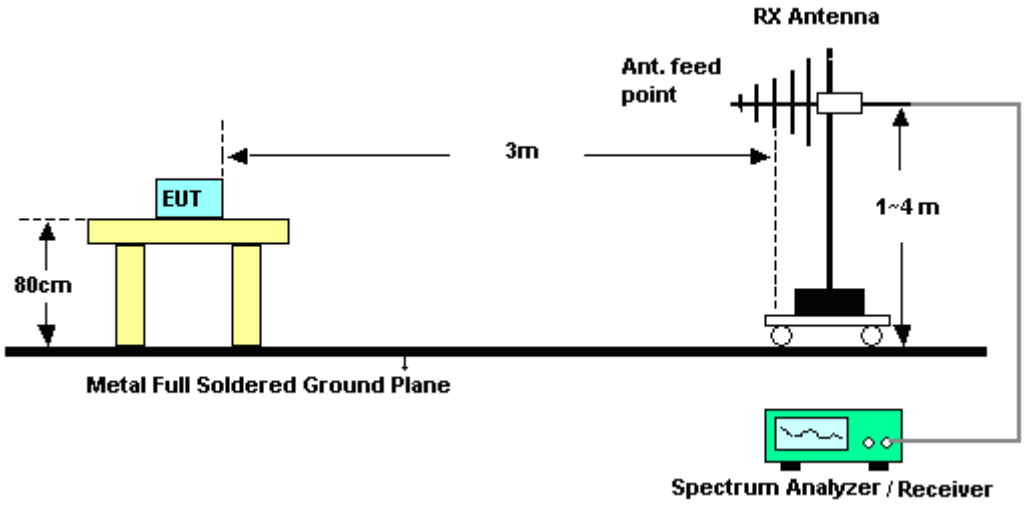
   (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz
   - RBW = 1 MHz
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

3.4.4 Test Setup

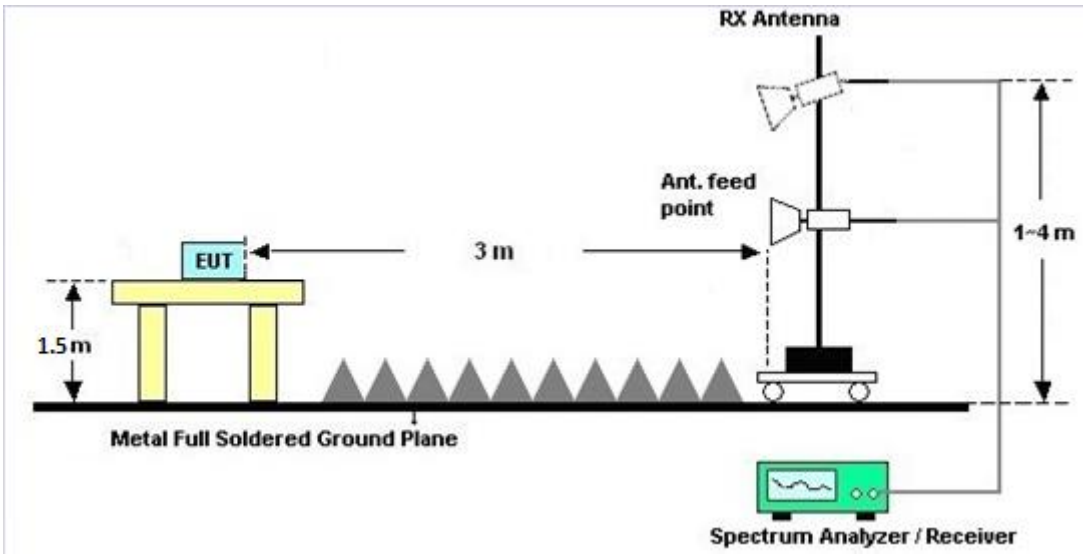
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

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

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

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 Emission (30MHz ~ 10th Harmonic)

Please refer to Appendix B and C.

3.5 Frequency Stability Measurement

3.5.1 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.

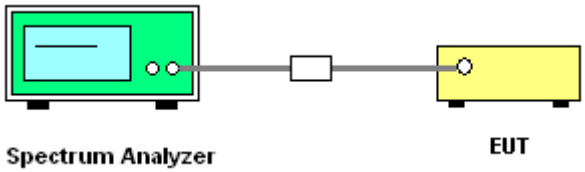
3.5.2 Measuring Instruments

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

3.5.3 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.

3.5.4 Test Setup



3.5.5 Test Result of Frequency Stability

Please refer to Appendix A.

3.6 Automatically Discontinue Transmission

3.6.1 Limit of Automatically Discontinue Transmission

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

3.6.2 Measuring Instruments

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

3.6.3 Test Result of Automatically Discontinue Transmission

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

3.7 Antenna Requirements

3.7.1 Standard Applicable

If transmitting antenna directional gain is greater than 6 dBi, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 Antenna Gain

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

4 List of Measuring Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	1132003	300MHz~40GHz	Aug. 04, 2016	May 08, 2017 ~ May 17, 2017	Aug. 03, 2017	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	1126017	300MHz~40GHz	Aug. 04, 2016	May 08, 2017 ~ May 17, 2017	Aug. 03, 2017	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz-40GHz	Nov. 25, 2016	May 08, 2017 ~ May 17, 2017	Nov. 24, 2017	Conducted (TH05-HY)
Temperature Chamber	ESPEC	SH-641	92013720	-40℃ ~90℃	Sep. 01, 2016	May 08, 2017 ~ May 17, 2017	Aug. 31, 2017	Conducted (TH05-HY)
Programmable Power Supply	GW Instek	PSS-2005	EL890094	1V~20V 0.5A~5A	Oct. 11, 2016	May 08, 2017 ~ May 17, 2017	Oct. 10, 2017	Conducted (TH05-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800 N1D01N-06	35419&03	30MHz to 1GHz	Jan. 07, 2017	May 11, 2017 ~ May 14, 2017	Jan. 06, 2018	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	00075962	1GHz ~ 18GHz	Aug. 19, 2016	May 11, 2017 ~ May 14, 2017	Aug. 18, 2017	Radiation (03CH07-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY54130085	20Hz ~ 8.4GHz	Oct. 26, 2016	May 11, 2017 ~ May 14, 2017	Oct. 25, 2017	Radiation (03CH07-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Sep. 02, 2015	May 11, 2017 ~ May 14, 2017	Sep. 01, 2017	Radiation (03CH07-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1590075	1GHz ~ 18GHz	Apr. 25, 2017	May 11, 2017 ~ May 14, 2017	Apr. 24, 2018	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	10MHz-1GHz	Mar. 14, 2017	May 11, 2017 ~ May 14, 2017	Mar. 13, 2018	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A02362	1GHz~ 26.5GHz	Oct. 12, 2016	May 11, 2017 ~ May 14, 2017	Oct. 11, 2017	Radiation (03CH07-HY)
Spectrum Analyzer	Agilent	N9010A	MY53470118	10Hz~44GHz	Apr. 17, 2017	May 11, 2017 ~ May 14, 2017	Apr. 16, 2018	Radiation (03CH07-HY)
Antenna Mast	Max-Full	MFA520BS	N/A	1m~4m	N/A	May 11, 2017 ~ May 14, 2017	N/A	Radiation (03CH07-HY)
Turn Table	ChainTek	Chaintek 3000	N/A	0~360 Degree	N/A	May 11, 2017 ~ May 14, 2017	N/A	Radiation (03CH07-HY)
Preamplifier	MITEQ	JS44-18004000-33-8P	1840917	18GHz ~ 40GHz	Jun. 14, 2016	May 11, 2017 ~ May 14, 2017	Jun. 13, 2017	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 08, 2016	May 11, 2017 ~ May 14, 2017	Nov. 07, 2017	Radiation (03CH07-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.7**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.5**

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

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

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Tommy Lee	Temperature:	21~25	°C
Test Date:	2017/5/8~2017/5/17	Relative Humidity:	51~54	%

TEST RESULTS DATA
26dB and 99% OBW

Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6M bps	1	52	5260	17.40	22.50	23.41	29.41	23.98	
11a	6M bps	1	60	5300	17.15	23.90	23.34	29.34	23.98	
11a	6M bps	1	64	5320	17.30	23.80	23.38	29.38	23.98	
HT20	MCS 0	1	52	5260	18.10	29.30	23.58	29.58	23.98	
HT20	MCS 0	1	60	5300	18.10	28.00	23.58	29.58	23.98	
HT20	MCS 0	1	64	5320	18.10	29.40	23.58	29.58	23.98	
HT40	MCS 0	1	54	5270	36.30	63.72	23.98	30.00	23.98	
HT40	MCS 0	1	62	5310	36.40	63.72	23.98	30.00	23.98	
VHT80	MCS 0	1	58	5290	75.36	80.96	23.98	30.00	23.98	

TEST RESULTS DATA
Average Power Table

FCC Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail
11a	6M bps	1	52	5260	0.30	16.90	23.98	2.40	26.99	Pass
11a	6M bps	1	60	5300	0.30	16.91	23.98	2.40	26.99	Pass
11a	6M bps	1	64	5320	0.30	16.83	23.98	2.40	26.99	Pass
HT20	MCS 0	1	52	5260	0.32	16.73	23.98	2.40	26.99	Pass
HT20	MCS 0	1	60	5300	0.32	16.76	23.98	2.40	26.99	Pass
HT20	MCS 0	1	64	5320	0.32	16.75	23.98	2.40	26.99	Pass
HT40	MCS 0	1	54	5270	0.60	16.65	23.98	2.40	26.99	Pass
HT40	MCS 0	1	62	5310	0.60	16.61	23.98	2.40	26.99	Pass
VHT20	MCS 0	1	52	5260	0.29	13.57	23.98	2.40	26.99	Pass
VHT20	MCS 0	1	60	5300	0.29	13.55	23.98	2.40	26.99	Pass
VHT20	MCS 0	1	64	5320	0.29	13.95	23.98	2.40	26.99	Pass
VHT40	MCS 0	1	54	5270	0.55	13.77	23.98	2.40	26.99	Pass
VHT40	MCS 0	1	62	5310	0.55	13.70	23.98	2.40	26.99	Pass
VHT80	MCS 0	1	58	5290	1.06	13.99	23.98	2.40	26.99	Pass

TEST RESULTS DATA
Power Spectral Density

Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)		Pass/Fail
11a	6M bps	1	52	5260	0.30	6.54	11.00	2.40		Pass
11a	6M bps	1	60	5300	0.30	6.35	11.00	2.40		Pass
11a	6M bps	1	64	5320	0.30	6.37	11.00	2.40		Pass
HT20	MCS 0	1	52	5260	0.32	6.42	11.00	2.40		Pass
HT20	MCS 0	1	60	5300	0.32	6.39	11.00	2.40		Pass
HT20	MCS 0	1	64	5320	0.32	5.93	11.00	2.40		Pass
HT40	MCS 0	1	54	5270	0.60	3.34	11.00	2.40		Pass
HT40	MCS 0	1	62	5310	0.60	3.19	11.00	2.40		Pass
VHT80	MCS 0	1	58	5290	1.06	-2.15	11.00	2.40		Pass

TEST RESULTS DATA
26dB and 99% OBW

Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6M bps	1	100	5500	17.70	30.60	23.48	29.48	23.98	
11a	6M bps	1	116	5580	17.20	25.70	23.36	29.36	23.98	
11a	6M bps	1	140	5700	17.40	32.70	23.41	29.41	23.98	
11a	6M bps	1	144	5720	18.30	33.00	23.62	29.62	23.98	
HT20	MCS 0	1	100	5500	18.30	31.60	23.62	29.62	23.98	
HT20	MCS 0	1	116	5580	18.15	30.60	23.59	29.59	23.98	
HT20	MCS 0	1	140	5700	18.35	34.90	23.64	29.64	23.98	
HT20	MCS 0	1	144	5720	18.60	36.30	23.70	29.70	23.98	
HT40	MCS 0	1	102	5510	36.50	66.78	23.98	30.00	23.98	
HT40	MCS 0	1	110	5550	36.20	66.96	23.98	30.00	23.98	
HT40	MCS 0	1	134	5670	36.60	67.68	23.98	30.00	23.98	
HT40	MCS 0	1	142	5710	36.60	68.76	23.98	30.00	23.98	
VHT80	MCS 0	1	106	5530	75.36	81.28	23.98	30.00	23.98	
VHT80	MCS 0	1	122	5610	75.24	81.60	23.98	30.00	23.98	
VHT80	MCS 0	1	138	5690	75.48	81.60	23.98	30.00	23.98	

TEST RESULTS DATA
Average Power Table

FCC Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail
11a	6M bps	1	100	5500	0.30	16.92	23.98	0.46	26.99	Pass
11a	6M bps	1	116	5580	0.30	16.80	23.98	0.46	26.99	Pass
11a	6M bps	1	140	5700	0.30	16.99	23.98	0.46	26.99	Pass
11a	6M bps	1	144	5720	0.30	16.98	23.98	0.46	26.99	Pass
HT20	MCS 0	1	100	5500	0.32	16.74	23.98	0.46	26.99	Pass
HT20	MCS 0	1	116	5580	0.32	16.99	23.98	0.46	26.99	Pass
HT20	MCS 0	1	140	5700	0.32	16.62	23.98	0.46	26.99	Pass
HT20	MCS 0	1	144	5720	0.32	16.87	23.98	0.46	26.99	Pass
HT40	MCS 0	1	102	5510	0.60	16.71	23.98	0.46	26.99	Pass
HT40	MCS 0	1	110	5550	0.60	16.79	23.98	0.46	26.99	Pass
HT40	MCS 0	1	134	5670	0.60	16.75	23.98	0.46	26.99	Pass
HT40	MCS 0	1	142	5710	0.60	16.86	23.98	0.46	26.99	Pass
VHT20	MCS 0	1	100	5500	0.29	13.99	23.98	0.46	26.99	Pass
VHT20	MCS 0	1	116	5580	0.29	13.94	23.98	0.46	26.99	Pass
VHT20	MCS 0	1	140	5700	0.29	13.72	23.98	0.46	26.99	Pass
VHT20	MCS 0	1	144	5720	0.29	13.62	23.98	0.46	26.99	Pass
VHT40	MCS 0	1	102	5510	0.55	13.80	23.98	0.46	26.99	Pass
VHT40	MCS 0	1	110	5550	0.55	13.61	23.98	0.46	26.99	Pass
VHT40	MCS 0	1	134	5670	0.55	13.96	23.98	0.46	26.99	Pass
VHT40	MCS 0	1	142	5710	0.55	13.91	23.98	0.46	26.99	Pass
VHT80	MCS 0	1	106	5530	1.06	13.67	23.98	0.46	26.99	Pass
VHT80	MCS 0	1	122	5610	1.06	13.87	23.98	0.46	26.99	Pass
VHT80	MCS 0	1	138	5690	1.06	13.94	23.98	0.46	26.99	Pass

TEST RESULTS DATA
Power Spectral Density

Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)		Pass/Fail
11a	6M bps	1	100	5500	0.30	7.22	11.00	0.46		Pass
11a	6M bps	1	116	5580	0.30	7.25	11.00	0.46		Pass
11a	6M bps	1	140	5700	0.30	6.80	11.00	0.46		Pass
11a	6M bps	1	144	5720	0.30	6.57	11.00	0.46		Pass
HT20	MCS 0	1	100	5500	0.32	6.70	11.00	0.46		Pass
HT20	MCS 0	1	116	5580	0.32	7.04	11.00	0.46		Pass
HT20	MCS 0	1	140	5700	0.32	6.37	11.00	0.46		Pass
HT20	MCS 0	1	144	5720	0.32	6.34	11.00	0.46		Pass
HT40	MCS 0	1	102	5510	0.60	4.10	11.00	0.46		Pass
HT40	MCS 0	1	110	5550	0.60	4.55	11.00	0.46		Pass
HT40	MCS 0	1	134	5670	0.60	3.94	11.00	0.46		Pass
HT40	MCS 0	1	142	5710	0.60	3.69	11.00	0.46		Pass
VHT80	MCS 0	1	106	5530	1.06	-1.21	11.00	0.46		Pass
VHT80	MCS 0	1	122	5610	1.06	-1.55	11.00	0.46		Pass
VHT80	MCS 0	1	138	5690	1.06	-2.32	11.00	0.46		Pass

TEST RESULTS DATA
Frequency Stability

Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stablility (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	35	3.7	
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	0	3.7	
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	20	4.2	
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	20	3.4	
11a	6Mbps	1	64	5320	5319.950	-0.050	-9.40	20	3.7	

Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stablility (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	35	3.7	
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	0	3.7	
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	20	4.2	
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	20	3.4	
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	20	3.7	

Appendix B. Radiated Spurious Emission

Test Engineer :	Jesse Wang and Ken Wu	Temperature :	23~24°C
		Relative Humidity :	51~54%

Band 2 - 5250~5350MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 52 5260MHz		5012.95	50.77	-23.23	74	40.69	33.34	11.81	35.07	100	164	P	H
		5150	42.75	-11.25	54	32.15	33.69	11.99	35.08	100	164	A	H
	*	5260	105.94	-	-	94.87	33.99	12.16	35.08	100	164	P	H
	*	5260	98.68	-	-	87.61	33.99	12.16	35.08	100	164	A	H
		5455.68	51.55	-22.45	74	39.54	34.47	12.63	35.09	100	164	P	H
		5379.6	43.23	-10.77	54	31.49	34.3	12.53	35.09	100	164	A	H
		5136.15	51.7	-22.3	74	41.18	33.65	11.95	35.08	356	191	P	V
		5130.55	43.94	-10.06	54	33.42	33.65	11.95	35.08	356	191	A	V
	*	5260	107.64	-	-	96.57	33.99	12.16	35.08	356	191	P	V
	*	5260	100.32	-	-	89.25	33.99	12.16	35.08	356	191	A	V
		5353.44	51.96	-22.04	74	40.3	34.21	12.53	35.08	356	191	P	V
		5381.76	43.91	-10.09	54	32.05	34.3	12.65	35.09	356	191	A	V
802.11a CH 60 5300MHz		5149.45	51.11	-22.89	74	40.51	33.69	11.99	35.08	100	164	P	H
		5149.8	42.34	-11.66	54	31.74	33.69	11.99	35.08	100	164	A	H
	*	5300	105.74	-	-	94.46	34.08	12.28	35.08	100	164	P	H
	*	5300	98.48	-	-	87.2	34.08	12.28	35.08	100	164	A	H
		5403.6	51.82	-22.18	74	39.92	34.34	12.65	35.09	100	164	P	H
		5378.16	43.67	-10.33	54	31.93	34.3	12.53	35.09	100	164	A	H
		5140.7	53.87	-20.13	74	43.27	33.69	11.99	35.08	313	170	P	V
		5139.3	43.93	-10.07	54	33.41	33.65	11.95	35.08	313	170	A	V
	*	5300	107.33	-	-	96.05	34.08	12.28	35.08	313	170	P	V
	*	5300	99.1	-	-	87.82	34.08	12.28	35.08	313	170	A	V
		5430	56.33	-17.67	74	44.36	34.43	12.63	35.09	313	170	P	V
		5432.4	44.06	-9.94	54	32.09	34.43	12.63	35.09	313	170	A	V

802.11a CH 64 5320MHz	*	5320	102.15	-	-	90.7	34.12	12.41	35.08	100	165	P	H
	*	5320	94.86	-	-	83.41	34.12	12.41	35.08	100	165	A	H
		5421.44	52.33	-21.67	74	40.41	34.38	12.63	35.09	100	165	P	H
		5378.88	43.39	-10.61	54	31.65	34.3	12.53	35.09	100	165	A	H
	*	5320	105.01	-	-	93.56	34.12	12.41	35.08	356	147	P	V
	*	5320	96.5	-	-	85.05	34.12	12.41	35.08	356	147	A	V
		5389.28	52.37	-21.63	74	40.51	34.3	12.65	35.09	356	147	P	V
		5401.6	44.11	-9.89	54	32.21	34.34	12.65	35.09	356	147	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 52 5260MHz		10520	46.92	-27.08	74	48.94	39.18	17.98	59.18	100	0	P	H
		15780	50.3	-23.7	74	43.02	41.55	22.41	56.68	100	0	P	H
		10520	46.4	-27.6	74	48.42	39.18	17.98	59.18	100	0	P	V
		15780	50.71	-23.29	74	43.43	41.55	22.41	56.68	100	0	P	V
802.11a CH 60 5300MHz		10600	46.64	-27.36	74	48.6	39.06	18.06	59.08	100	0	P	H
		15900	50.56	-23.44	74	42.82	41.79	22.53	56.58	100	0	P	H
		10600	46.53	-27.47	74	48.49	39.06	18.06	59.08	100	0	P	V
		15900	50.79	-23.21	74	43.05	41.79	22.53	56.58	100	0	P	V
802.11a CH 64 5320MHz		10640	46.39	-27.61	74	48.32	39.01	18.09	59.03	100	0	P	H
		15960	50.33	-23.67	74	42.32	41.93	22.61	56.53	100	0	P	H
		10640	46.29	-27.71	74	48.22	39.01	18.09	59.03	100	0	P	V
		15960	49.82	-24.18	74	41.81	41.93	22.61	56.53	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5108.15	51.53	-22.47	74	41.05	33.6	11.95	35.07	100	163	P	H
		5149.1	42.74	-11.26	54	32.14	33.69	11.99	35.08	100	163	A	H
	*	5260	105.32	-	-	94.25	33.99	12.16	35.08	100	163	P	H
	*	5260	98.04	-	-	86.97	33.99	12.16	35.08	100	163	A	H
802.11n		5425.92	51.84	-22.16	74	39.92	34.38	12.63	35.09	100	163	P	H
HT20		5376.72	43.19	-10.81	54	31.5	34.25	12.53	35.09	100	163	A	H
CH 52		5148.75	53.73	-20.27	74	43.13	33.69	11.99	35.08	353	169	P	V
5260MHz		5127.4	44.87	-9.13	54	34.35	33.65	11.95	35.08	353	169	A	V
	*	5260	106.8	-	-	95.73	33.99	12.16	35.08	353	169	P	V
	*	5260	99.51	-	-	88.44	33.99	12.16	35.08	353	169	A	V
		5363.28	51.97	-22.03	74	40.27	34.25	12.53	35.08	353	169	P	V
		5371.92	43.07	-10.93	54	31.37	34.25	12.53	35.08	353	169	A	V
		5113.05	50.99	-23.01	74	40.51	33.6	11.95	35.07	100	164	P	H
		5118.3	42.26	-11.74	54	31.79	33.6	11.95	35.08	100	164	A	H
	*	5300	105.03	-	-	93.75	34.08	12.28	35.08	100	164	P	H
	*	5300	97.83	-	-	86.55	34.08	12.28	35.08	100	164	A	H
802.11n		5417.76	51.7	-22.3	74	39.76	34.38	12.65	35.09	100	164	P	H
HT20		5405.52	43.44	-10.56	54	31.54	34.34	12.65	35.09	100	164	A	H
CH 60		5145.25	53.08	-20.92	74	42.48	33.69	11.99	35.08	348	167	P	V
5300MHz		5147.7	43.99	-10.01	54	33.39	33.69	11.99	35.08	348	167	A	V
	*	5300	106.43	-	-	95.15	34.08	12.28	35.08	348	167	P	V
	*	5300	99.05	-	-	87.77	34.08	12.28	35.08	348	167	A	V
		5365.44	51.78	-22.22	74	40.08	34.25	12.53	35.08	348	167	P	V
		5431.2	43.45	-10.55	54	31.48	34.43	12.63	35.09	348	167	A	V

	*	5320	103.41	-	-	91.96	34.12	12.41	35.08	102	165	P	H
	*	5320	94.75	-	-	83.3	34.12	12.41	35.08	102	165	A	H
802.11n		5378.56	51.23	-22.77	74	39.49	34.3	12.53	35.09	102	165	P	H
HT20		5396	42.67	-11.33	54	30.77	34.34	12.65	35.09	102	165	A	H
CH 64	*	5320	104.47	-	-	93.02	34.12	12.41	35.08	319	126	P	V
5320MHz	*	5320	96.16	-	-	84.71	34.12	12.41	35.08	319	126	A	V
		5417.28	51.52	-22.48	74	39.58	34.38	12.65	35.09	319	126	P	V
		5432.96	43.23	-10.77	54	31.26	34.43	12.63	35.09	319	126	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n		10520	46.02	-27.98	74	48.04	39.18	17.98	59.18	100	0	P	H
HT20		15780	50.15	-23.85	74	42.87	41.55	22.41	56.68	100	0	P	H
CH 52		10520	46.31	-27.69	74	48.33	39.18	17.98	59.18	100	0	P	V
5260MHz		15780	50.03	-23.97	74	42.75	41.55	22.41	56.68	100	0	P	V
802.11n		10600	47.46	-26.54	74	49.42	39.06	18.06	59.08	100	0	P	H
HT20		15900	50.41	-23.59	74	42.67	41.79	22.53	56.58	100	0	P	H
CH 60		10600	46.9	-27.1	74	48.86	39.06	18.06	59.08	100	0	P	V
5300MHz		15900	50.22	-23.78	74	42.48	41.79	22.53	56.58	100	0	P	V
802.11n		10640	46.23	-27.77	74	48.16	39.01	18.09	59.03	100	0	P	H
HT20		15960	50.24	-23.76	74	42.23	41.93	22.61	56.53	100	0	P	H
CH 64		10640	45.7	-28.3	74	47.63	39.01	18.09	59.03	100	0	P	V
5320MHz		15960	50.47	-23.53	74	42.46	41.93	22.61	56.53	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5069.65	50.69	-23.31	74	40.39	33.47	11.9	35.07	100	165	P	H
		5145.6	43.2	-10.8	54	32.6	33.69	11.99	35.08	100	165	A	H
	*	5270	102.82	-	-	91.63	33.99	12.28	35.08	100	165	P	H
	*	5270	95.24	-	-	84.05	33.99	12.28	35.08	100	165	A	H
802.11n		5448.96	51.55	-22.45	74	39.54	34.47	12.63	35.09	100	165	P	H
HT40		5371.44	44.09	-9.91	54	32.39	34.25	12.53	35.08	100	165	A	H
CH 54		5145.6	52.88	-21.12	74	42.28	33.69	11.99	35.08	352	165	P	V
5270MHz		5141.75	45.43	-8.57	54	34.83	33.69	11.99	35.08	352	165	A	V
	*	5270	104.98	-	-	93.79	33.99	12.28	35.08	352	165	P	V
	*	5270	96.72	-	-	85.53	33.99	12.28	35.08	352	165	A	V
		5399.76	51.62	-22.38	74	39.72	34.34	12.65	35.09	352	165	P	V
		5406.72	44	-10	54	32.1	34.34	12.65	35.09	352	165	A	V
		5100.8	49.9	-24.1	74	39.46	33.56	11.95	35.07	100	164	P	H
		5122.85	42.48	-11.52	54	31.96	33.65	11.95	35.08	100	164	A	H
	*	5310	101.05	-	-	89.6	34.12	12.41	35.08	100	164	P	H
	*	5310	93.58	-	-	82.13	34.12	12.41	35.08	100	164	A	H
802.11n		5368.56	53.02	-20.98	74	41.32	34.25	12.53	35.08	100	164	P	H
HT40		5350.08	45.97	-8.03	54	34.31	34.21	12.53	35.08	100	164	A	H
CH 62		5063.35	52.34	-21.66	74	42.04	33.47	11.9	35.07	357	127	P	V
5310MHz		5116.55	44.22	-9.78	54	33.74	33.6	11.95	35.07	357	127	A	V
	*	5310	102.59	-	-	91.14	34.12	12.41	35.08	357	127	P	V
	*	5310	95.24	-	-	83.79	34.12	12.41	35.08	357	127	A	V
		5354.16	54.54	-19.46	74	42.88	34.21	12.53	35.08	357	127	P	V
		5350.08	45.83	-8.17	54	34.17	34.21	12.53	35.08	357	127	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 54 5270MHz		10540	46.79	-27.21	74	48.82	39.15	17.98	59.16	100	0	P	H
		15810	50.04	-23.96	74	42.62	41.62	22.45	56.65	100	0	P	H
		10540	45.63	-28.37	74	47.66	39.15	17.98	59.16	100	0	P	V
		15810	50.02	-23.98	74	42.6	41.62	22.45	56.65	100	0	P	V
802.11n HT40 CH 62 5310MHz		10620	47.42	-26.58	74	49.39	39.03	18.06	59.06	100	0	P	H
		15930	50.46	-23.54	74	42.59	41.86	22.57	56.56	100	0	P	H
		10620	45.41	-28.59	74	47.38	39.03	18.06	59.06	100	0	P	V
		15930	49.72	-24.28	74	41.85	41.86	22.57	56.56	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT80 CH 58 5290MHz		5133.12	50.5	-23.5	74	39.98	33.65	11.95	35.08	100	165	P	H
		5135.72	43.67	-10.33	54	33.15	33.65	11.95	35.08	100	165	A	H
	*	5290	97.09	-	-	85.85	34.04	12.28	35.08	100	165	P	H
	*	5290	89.58	-	-	78.34	34.04	12.28	35.08	100	165	A	H
		5351.92	53.5	-20.5	74	41.84	34.21	12.53	35.08	100	165	P	H
		5350.8	46.98	-7.02	54	35.32	34.21	12.53	35.08	100	165	A	H
		5145.86	52.72	-21.28	74	42.12	33.69	11.99	35.08	360	129	P	V
		5150	45.69	-8.31	54	35.09	33.69	11.99	35.08	360	129	A	V
	*	5290	99.9	-	-	88.66	34.04	12.28	35.08	360	129	P	V
	*	5290	92.41	-	-	81.17	34.04	12.28	35.08	360	129	A	V
		5360.88	54.96	-19.04	74	43.26	34.25	12.53	35.08	360	129	P	V
		5352.76	47.04	-6.96	54	35.38	34.21	12.53	35.08	360	129	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac		10580	47.2	-26.8	74	49.2	39.08	18.02	59.1	100	0	P	H
VHT80		15870	50.55	-23.45	74	42.86	41.76	22.53	56.6	100	0	P	H
CH 58		10580	45.96	-28.04	74	47.96	39.08	18.02	59.1	100	0	P	V
5290MHz		15870	50.41	-23.59	74	42.72	41.76	22.53	56.6	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 100 5500MHz		5425.2	51.43	-22.57	74	39.51	34.38	12.63	35.09	100	139	P	H
		5469.52	43.26	-10.74	54	31.23	34.51	12.61	35.09	100	139	A	H
	*	5500	103.53	-	-	91.41	34.6	12.61	35.09	100	139	P	H
	*	5500	96.18	-	-	84.06	34.6	12.61	35.09	100	139	A	H
		5453.36	50.89	-23.11	74	38.88	34.47	12.63	35.09	333	147	P	V
		5463.6	43.2	-10.8	54	31.17	34.51	12.61	35.09	333	147	A	V
	*	5500	105.85	-	-	93.73	34.6	12.61	35.09	333	147	P	V
	*	5500	98.04	-	-	85.92	34.6	12.61	35.09	333	147	A	V
802.11a CH 116 5580MHz		5468.32	51.94	-22.06	74	39.91	34.51	12.61	35.09	100	144	P	H
		5465.68	43.67	-10.33	54	31.64	34.51	12.61	35.09	100	144	A	H
	*	5580	106.07	-	-	94	34.6	12.58	35.11	100	144	P	H
	*	5580	97.8	-	-	85.73	34.6	12.58	35.11	100	144	A	H
		5756.495	49.85	-24.15	74	37.62	34.6	12.79	35.16	100	144	P	H
		5732.87	42.11	-11.89	54	29.93	34.6	12.73	35.15	100	144	A	H
		5373.28	52.44	-21.56	74	40.75	34.25	12.53	35.09	368	115	P	V
		5464	44.9	-9.1	54	32.87	34.51	12.61	35.09	368	115	A	V
	*	5580	107.72	-	-	95.65	34.6	12.58	35.11	368	115	P	V
	*	5580	100.52	-	-	88.45	34.6	12.58	35.11	368	115	A	V
		5730.665	50.77	-23.23	74	38.59	34.6	12.73	35.15	368	115	P	V
		5729.405	42.37	-11.63	54	30.18	34.6	12.73	35.14	368	115	A	V

802.11a CH 140 5700MHz	*	5700	106.03	-	-	93.9	34.6	12.67	35.14	100	161	P	H
	*	5700	98.75	-	-	86.62	34.6	12.67	35.14	100	161	A	H
		5725.24	57.11	-16.89	74	44.92	34.6	12.73	35.14	100	161	P	H
		5725.24	46.7	-7.3	54	34.51	34.6	12.73	35.14	100	161	A	H
	*	5700	107.77	-	-	95.64	34.6	12.67	35.14	352	114	P	V
	*	5700	99.39	-	-	87.26	34.6	12.67	35.14	352	114	A	V
		5727.16	55.58	-18.42	74	43.39	34.6	12.73	35.14	352	114	P	V
		5725	46.56	-7.44	54	34.37	34.6	12.73	35.14	352	114	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 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.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 100 5500MHz		11000	46.04	-27.96	74	47.71	38.5	18.43	58.6	100	0	P	H
		16500	50.13	-23.87	74	40.3	43	22.93	56.1	100	0	P	H
		11000	45.4	-28.6	74	47.07	38.5	18.43	58.6	100	0	P	V
		16500	50.31	-23.69	74	40.48	43	22.93	56.1	100	0	P	V
802.11a CH 116 5580MHz		11160	50.97	-23.03	74	51.79	38.77	18.58	58.17	100	0	P	H
		16740	50.07	-23.93	74	40.06	42.9	23.07	55.96	100	0	P	H
		11160	46.6	-27.4	74	47.42	38.77	18.58	58.17	100	0	P	V
		16740	50.92	-23.08	74	40.91	42.9	23.07	55.96	100	0	P	V
802.11a CH 140 5700MHz		11400	50.83	-23.17	74	50.45	39.14	18.8	57.56	100	0	P	H
		17100	50.34	-23.66	74	40.22	42.64	23.28	55.8	100	0	P	H
		11400	48.05	-25.95	74	47.67	39.14	18.8	57.56	100	0	P	V
		17100	50.82	-23.18	74	40.7	42.64	23.28	55.8	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (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.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5393.04	51.91	-22.09	74	40.05	34.3	12.65	35.09	100	163	P	H
		5438.96	42.46	-11.54	54	30.49	34.43	12.63	35.09	100	163	A	H
802.11n	*	5500	101.53	-	-	89.41	34.6	12.61	35.09	100	163	P	H
HT20	*	5500	93.38	-	-	81.26	34.6	12.61	35.09	100	163	A	H
CH 100		5464.88	51.27	-22.73	74	39.24	34.51	12.61	35.09	348	144	P	V
5500MHz		5466.48	43.34	-10.66	54	31.31	34.51	12.61	35.09	348	144	A	V
	*	5500	105.46	-	-	93.34	34.6	12.61	35.09	348	144	P	V
	*	5500	97.59	-	-	85.47	34.6	12.61	35.09	348	144	A	V
		5468.8	51.55	-22.45	74	39.52	34.51	12.61	35.09	100	144	P	H
		5469.04	43.5	-10.5	54	31.47	34.51	12.61	35.09	100	144	A	H
	*	5580	104.74	-	-	92.67	34.6	12.58	35.11	100	144	P	H
	*	5580	97.54	-	-	85.47	34.6	12.58	35.11	100	144	A	H
802.11n		5743.895	51.54	-22.46	74	39.3	34.6	12.79	35.15	100	144	P	H
HT20		5726.255	42.32	-11.68	54	30.13	34.6	12.73	35.14	100	144	A	H
CH 116		5446.96	53.92	-20.08	74	41.91	34.47	12.63	35.09	351	113	P	V
5580MHz		5468.08	44.34	-9.66	54	32.31	34.51	12.61	35.09	351	113	A	V
	*	5580	106.99	-	-	94.92	34.6	12.58	35.11	351	113	P	V
	*	5580	99.66	-	-	87.59	34.6	12.58	35.11	351	113	A	V
		5764.685	50.59	-23.41	74	38.36	34.6	12.79	35.16	351	113	P	V
		5733.185	42.08	-11.92	54	29.9	34.6	12.73	35.15	351	113	A	V

	*	5700	105.84	-	-	93.71	34.6	12.67	35.14	100	162	P	H
	*	5700	98.66	-	-	86.53	34.6	12.67	35.14	100	162	A	H
802.11n		5725.56	55.52	-18.48	74	43.33	34.6	12.73	35.14	100	162	P	H
HT20		5725	47.39	-6.61	54	35.2	34.6	12.73	35.14	100	162	A	H
CH 140	*	5700	107.05	-	-	94.92	34.6	12.67	35.14	302	113	P	V
5700MHz	*	5700	99.63	-	-	87.5	34.6	12.67	35.14	302	113	A	V
		5728.12	57.63	-16.37	74	45.44	34.6	12.73	35.14	302	113	P	V
		5725	47.68	-6.32	54	35.49	34.6	12.73	35.14	302	113	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Harmonic @ 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.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n		11000	47.35	-26.65	74	49.02	38.5	18.43	58.6	100	0	P	H
HT20		16500	50.52	-23.48	74	40.69	43	22.93	56.1	100	0	P	H
CH 100		11000	45.72	-28.28	74	47.39	38.5	18.43	58.6	100	0	P	V
5500MHz		16500	50.81	-23.19	74	40.98	43	22.93	56.1	100	0	P	V
802.11n		11160	50.9	-23.1	74	51.72	38.77	18.58	58.17	100	0	P	H
HT20		16740	50.55	-23.45	74	40.54	42.9	23.07	55.96	100	0	P	H
CH 116		11160	45.82	-28.18	74	46.64	38.77	18.58	58.17	100	0	P	V
5580MHz		16740	50.09	-23.91	74	40.08	42.9	23.07	55.96	100	0	P	V
802.11n		11400	50.76	-23.24	74	50.38	39.14	18.8	57.56	100	0	P	H
HT20		17100	50.29	-23.71	74	40.17	42.64	23.28	55.8	100	0	P	H
CH 140		11400	48.06	-25.94	74	47.68	39.14	18.8	57.56	100	0	P	V
5700MHz		17100	50.65	-23.35	74	40.53	42.64	23.28	55.8	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (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.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5458.96	53.23	-20.77	74	41.22	34.47	12.63	35.09	100	159	P	H
		5469.76	47.54	-6.46	54	35.51	34.51	12.61	35.09	100	159	A	H
	*	5510	99.94	-	-	87.85	34.6	12.59	35.1	100	159	P	H
	*	5510	92.97	-	-	80.88	34.6	12.59	35.1	100	159	A	H
802.11n		5728.145	51.19	-22.81	74	39	34.6	12.73	35.14	100	159	P	H
HT40		5746.415	42.73	-11.27	54	30.49	34.6	12.79	35.15	100	159	A	H
CH 102		5470	63.93	-10.07	74	51.9	34.51	12.61	35.09	346	148	P	V
5510MHz		5470	50.38	-3.62	54	38.35	34.51	12.61	35.09	346	148	A	V
	*	5510	104.06	-	-	91.97	34.6	12.59	35.1	346	148	P	V
	*	5510	96.38	-	-	84.29	34.6	12.59	35.1	346	148	A	V
		5736.335	49.82	-24.18	74	37.64	34.6	12.73	35.15	346	148	P	V
		5747.045	42.54	-11.46	54	30.3	34.6	12.79	35.15	346	148	A	V
		5455.6	52.85	-21.15	74	40.84	34.47	12.63	35.09	100	161	P	H
		5447.92	44.12	-9.88	54	32.11	34.47	12.63	35.09	100	161	A	H
	*	5550	102.5	-	-	90.42	34.6	12.58	35.1	100	161	P	H
	*	5550	95.21	-	-	83.13	34.6	12.58	35.1	100	161	A	H
802.11n		5745.47	50.95	-23.05	74	38.71	34.6	12.79	35.15	100	161	P	H
HT40		5737.28	43.38	-10.62	54	31.2	34.6	12.73	35.15	100	161	A	H
CH 110		5460.16	54.42	-19.58	74	42.43	34.47	12.61	35.09	350	109	P	V
5550MHz		5468.56	45.78	-8.22	54	33.75	34.51	12.61	35.09	350	109	A	V
	*	5550	105.33	-	-	93.25	34.6	12.58	35.1	350	109	P	V
	*	5550	97.19	-	-	85.11	34.6	12.58	35.1	350	109	A	V
		5746.415	49.82	-24.18	74	37.58	34.6	12.79	35.15	350	109	P	V
		5725.94	42.64	-11.36	54	30.45	34.6	12.73	35.14	350	109	A	V

802.11n HT40 CH 134 5670MHz		5442.05	51.53	-22.47	74	39.56	34.43	12.63	35.09	100	160	P	H
		5446.25	44.28	-9.72	54	32.27	34.47	12.63	35.09	100	160	A	H
	*	5670	103.44	-	-	91.3	34.6	12.67	35.13	100	160	P	H
	*	5670	95.35	-	-	83.21	34.6	12.67	35.13	100	160	A	H
		5727.025	53.68	-20.32	74	41.49	34.6	12.73	35.14	100	160	P	H
		5725	44.78	-9.22	54	32.59	34.6	12.73	35.14	100	160	A	H
		5450.8	53.88	-20.12	74	41.87	34.47	12.63	35.09	319	105	P	V
		5462.7	45.1	-8.9	54	33.07	34.51	12.61	35.09	319	105	A	V
	*	5670	103.33	-	-	91.19	34.6	12.67	35.13	319	105	P	V
	*	5670	95.97	-	-	83.83	34.6	12.67	35.13	319	105	A	V
		5740.675	51.16	-22.84	74	38.92	34.6	12.79	35.15	319	105	P	V
		5725.8	43.7	-10.3	54	31.51	34.6	12.73	35.14	319	105	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Harmonic @ 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.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n		11020	46.4	-27.6	74	48	38.53	18.43	58.56	100	0	P	H
HT40		15630	49.21	-24.79	74	42.43	41.28	22.29	56.79	100	0	P	H
CH 102		11020	46.33	-27.67	74	47.93	38.53	18.43	58.56	100	0	P	V
5510MHz		15630	49.82	-24.18	74	43.04	41.28	22.29	56.79	100	0	P	V
802.11n		11100	46.48	-27.52	74	47.66	38.66	18.5	58.34	100	0	P	H
HT40		16650	50.87	-23.13	74	40.91	42.94	23.03	56.01	100	0	P	H
CH 110		11100	46.47	-27.53	74	47.65	38.66	18.5	58.34	100	0	P	V
5550MHz		16650	50.91	-23.09	74	40.95	42.94	23.03	56.01	100	0	P	V
802.11n		11340	50.87	-23.13	74	50.84	39.03	18.73	57.73	100	0	P	H
HT40		17010	49.99	-24.01	74	39.78	42.77	23.24	55.8	100	0	P	H
CH 134		11340	46.25	-27.75	74	46.22	39.03	18.73	57.73	100	0	P	V
5670MHz		17010	50.41	-23.59	74	40.2	42.77	23.24	55.8	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5466.16	53.98	-20.02	74	41.95	34.51	12.61	35.09	100	161	P	H
		5469.04	48.48	-5.52	54	36.45	34.51	12.61	35.09	100	161	A	H
	*	5530	96.81	-	-	84.72	34.6	12.59	35.1	100	161	P	H
	*	5530	90.26	-	-	78.17	34.6	12.59	35.1	100	161	A	H
802.11ac		5748.305	49.44	-24.56	74	37.2	34.6	12.79	35.15	100	161	P	H
VHT80		5735.705	43.86	-10.14	54	31.68	34.6	12.73	35.15	100	161	A	H
CH 106		5468.8	54.36	-19.64	74	42.33	34.51	12.61	35.09	346	148	P	V
5530MHz		5470	50.53	-3.47	54	38.5	34.51	12.61	35.09	346	148	A	V
	*	5530	100.59	-	-	88.5	34.6	12.59	35.1	346	148	P	V
	*	5530	93.38	-	-	81.29	34.6	12.59	35.1	346	148	A	V
		5742.005	49.92	-24.08	74	37.68	34.6	12.79	35.15	346	148	P	V
		5758.385	43.62	-10.38	54	31.39	34.6	12.79	35.16	346	148	A	V
		5430.64	51.16	-22.84	74	39.19	34.43	12.63	35.09	100	161	P	H
		5467.36	44.96	-9.04	54	32.93	34.51	12.61	35.09	100	161	A	H
	*	5610	97.57	-	-	85.53	34.6	12.56	35.12	100	161	P	H
	*	5610	91.02	-	-	78.98	34.6	12.56	35.12	100	161	A	H
802.11ac		5759.645	50.25	-23.75	74	38.02	34.6	12.79	35.16	100	161	P	H
VHT80		5743.265	44.46	-9.54	54	32.22	34.6	12.79	35.15	100	161	A	H
CH 122		5466.4	51.73	-22.27	74	39.7	34.51	12.61	35.09	325	114	P	V
5610MHz		5468.32	46.2	-7.8	54	34.17	34.51	12.61	35.09	325	114	A	V
	*	5610	99.52	-	-	87.48	34.6	12.56	35.12	325	114	P	V
	*	5610	92.49	-	-	80.45	34.6	12.56	35.12	325	114	A	V
		5727.2	50.52	-23.48	74	38.33	34.6	12.73	35.14	325	114	P	V
		5748.62	43.84	-10.16	54	31.6	34.6	12.79	35.15	325	114	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 5470~5725MHz

WIFI 802.11ac VHT80 (Harmonic @ 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.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac		11060	46.48	-27.52	74	47.83	38.61	18.47	58.43	100	0	P	H
VHT80		16590	50.58	-23.42	74	40.66	42.97	23	56.05	100	0	P	H
CH 106		11060	45.73	-28.27	74	47.08	38.61	18.47	58.43	100	0	P	V
5530MHz		16590	50.73	-23.27	74	40.81	42.97	23	56.05	100	0	P	V
802.11ac		11220	46.33	-27.67	74	46.9	38.85	18.62	58.04	100	0	P	H
VHT80		16830	50.57	-23.43	74	40.46	42.87	23.14	55.9	100	0	P	H
CH 122		11220	46.57	-27.43	74	47.14	38.85	18.62	58.04	100	0	P	V
5610MHz		16830	50.66	-23.34	74	40.55	42.87	23.14	55.9	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11a (Fundamental Field Strength @ 3m)

WIFI Ant. 1	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 144 5720MHz	*	5720	106.19	-	-	94	34.6	12.73	35.14	100	161	P	H
	*	5720	98.91	-	-	86.72	34.6	12.73	35.14	100	161	A	H
	*	5720	107.35	-	-	95.16	34.6	12.73	35.14	299	115	P	V
	*	5720	99.06	-	-	86.87	34.6	12.73	35.14	299	115	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11a (Harmonic @ 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.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 144 5720MHz		11440	50.94	-23.06	74	50.38	39.19	18.84	57.47	100	0	P	H
		17160	50.03	-23.97	74	39.97	42.53	23.33	55.8	100	0	P	H
		11440	47.8	-26.2	74	47.24	39.19	18.84	57.47	100	0	P	V
		17160	50.83	-23.17	74	40.77	42.53	23.33	55.8	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT20 (Fundamental Field Strength @ 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.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n	*	5720	105.92	-	-	93.73	34.6	12.73	35.14	100	161	P	H
HT20	*	5720	98.59	-	-	86.4	34.6	12.73	35.14	100	161	A	H
CH 144	*	5720	106.48	-	-	94.29	34.6	12.73	35.14	300	114	P	V
5720MHz	*	5720	99.05	-	-	86.86	34.6	12.73	35.14	300	114	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT20 (Harmonic @ 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.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 144 5720MHz		11440	49.5	-24.5	74	48.94	39.19	18.84	57.47	100	0	P	H
		17160	50.5	-23.5	74	40.44	42.53	23.33	55.8	100	0	P	H
		11440	45.66	-28.34	74	45.1	39.19	18.84	57.47	100	0	P	V
		17160	50.77	-23.23	74	40.71	42.53	23.33	55.8	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT40 (Fundamental Field Strength @ 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.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n	*	5710	103.13	-	-	90.94	34.6	12.73	35.14	100	161	P	H
HT40	*	5710	95.21	-	-	83.02	34.6	12.73	35.14	100	161	A	H
CH 142	*	5710	103.2	-	-	91.01	34.6	12.73	35.14	300	114	P	V
5710MHz	*	5710	95.84	-	-	83.65	34.6	12.73	35.14	300	114	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT40 (Harmonic @ 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.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n		11420	50.56	-23.44	74	50.11	39.17	18.8	57.52	100	0	P	H
HT40		17130	50.88	-23.12	74	40.78	42.59	23.31	55.8	100	0	P	H
CH 142		11420	46.53	-27.47	74	46.08	39.17	18.8	57.52	100	0	P	V
5710MHz		17130	50.58	-23.42	74	40.48	42.59	23.31	55.8	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT80 (Fundamental Field Strength @ 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.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac	*	5690	98.04	-	-	85.91	34.6	12.67	35.14	100	161	P	H
VHT80	*	5690	90.35	-	-	78.22	34.6	12.67	35.14	100	161	A	H
CH 138	*	5690	98.65	-	-	86.52	34.6	12.67	35.14	319	114	P	V
5690MHz	*	5690	90.53	-	-	78.4	34.6	12.67	35.14	319	114	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT80 (Harmonic @ 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.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac		11380	47.6	-26.4	74	47.32	39.11	18.77	57.6	100	0	P	H
VHT80		17070	50.1	-23.9	74	39.93	42.69	23.28	55.8	100	0	P	H
CH 138		11380	45.76	-28.24	74	45.48	39.11	18.77	57.6	100	0	P	V
5690MHz		17070	50.59	-23.41	74	40.42	42.69	23.28	55.8	100	0	P	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. 1	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 LF		30	33.71	-6.29	40	37.35	26	1.71	31.35	100	51	P	H
		42.42	27.4	-12.6	40	38.49	18.72	1.71	31.52	-	-	P	H
		135.84	27.03	-16.47	43.5	38.09	18.12	2.34	31.52	-	-	P	H
		822.9	33.97	-12.03	46	31.19	28.15	5.2	30.57	-	-	P	H
		938.4	35.34	-10.66	46	30.61	29.92	5.33	30.52	-	-	P	H
		981.1	35.69	-18.31	54	30.4	30.26	5.54	30.51	-	-	P	H
		30.27	29.25	-10.75	40	32.89	26	1.71	31.35	100	66	P	V
		67.53	26.4	-13.6	40	43.32	12.56	2.11	31.59	-	-	P	V
		182.01	23.74	-19.76	43.5	37.07	15.42	2.72	31.47	-	-	P	V
		856.5	34.47	-11.53	46	31.08	28.74	5.2	30.55	-	-	P	V
		942.6	34.61	-11.39	46	29.69	30.04	5.4	30.52	-	-	P	V
		998.6	35.44	-18.56	54	30.11	30.3	5.54	30.51	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

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

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

WIFI Ant. 1	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)
802.11b 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 Plots

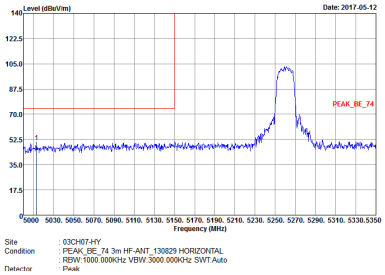
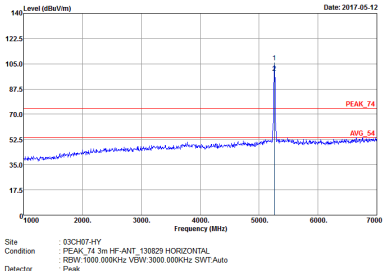
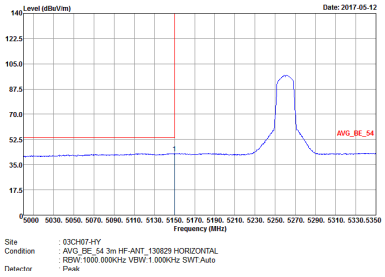
Test Engineer :	Jesse Wang and Ken Wu	**Temperature :**	23~24°C
		Relative Humidity :	51~54%

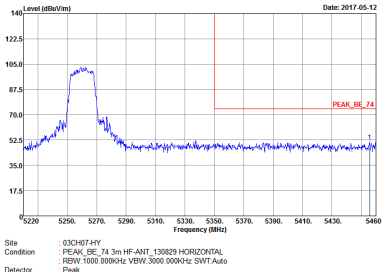
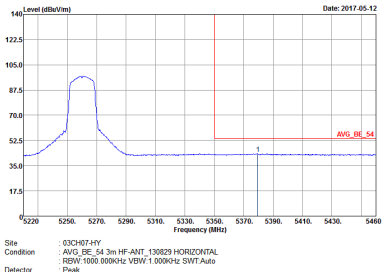
Note symbol

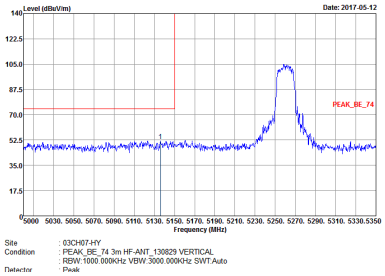
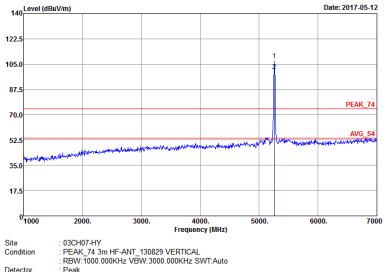
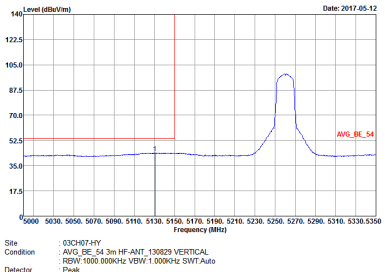
-L	**Low channel location**
-R	**High channel location**

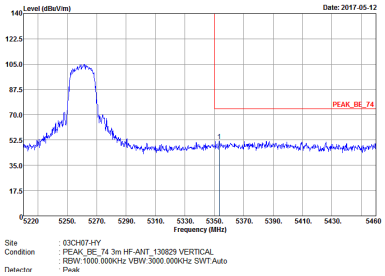
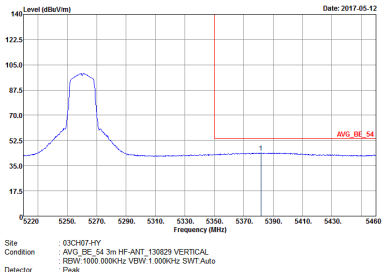
Band 2 - 5250~5350MHz

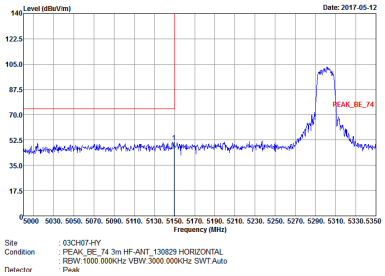
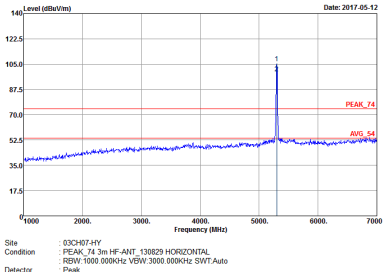
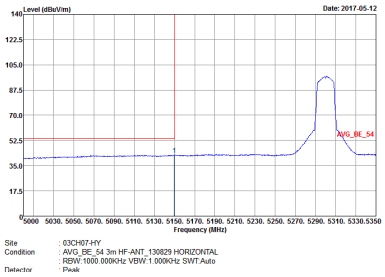
WIFI 802.11a (Band Edge @ 3m)

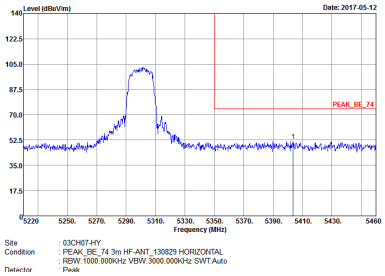
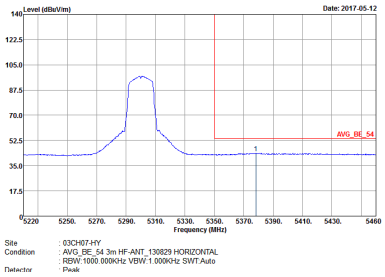
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

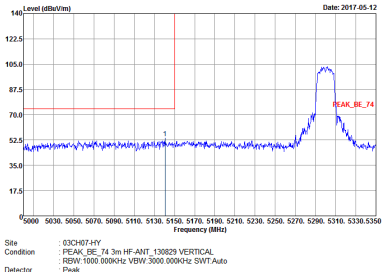
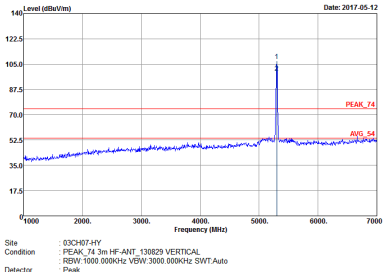
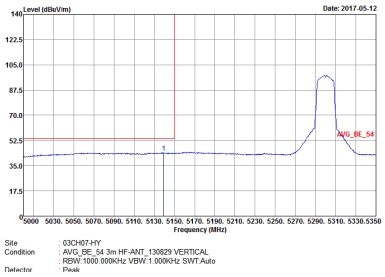
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

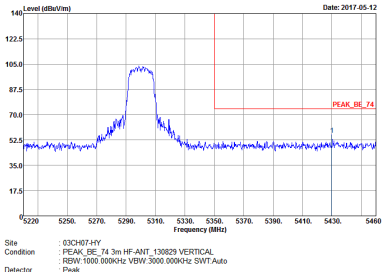
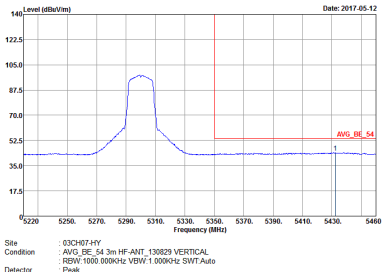
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

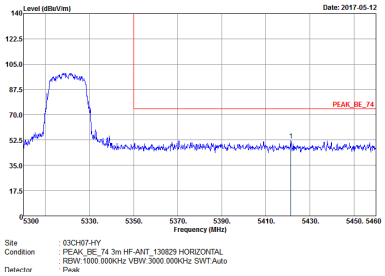
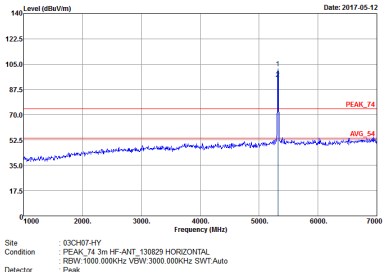
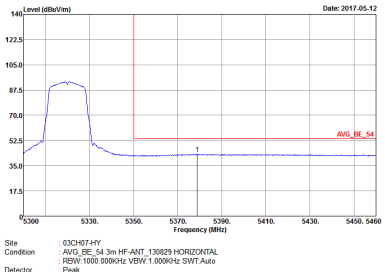
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

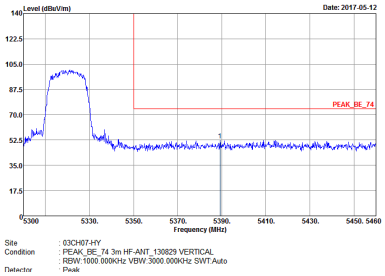
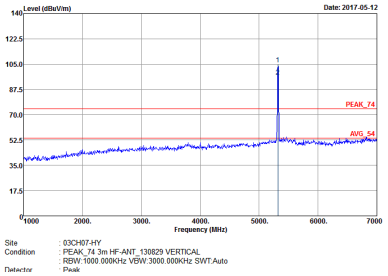
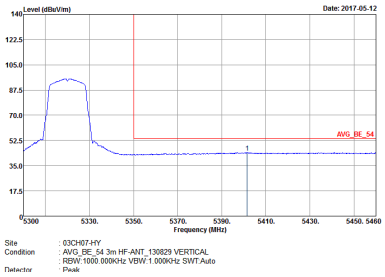
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

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

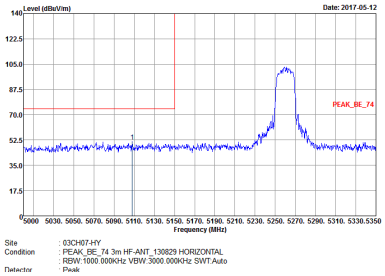
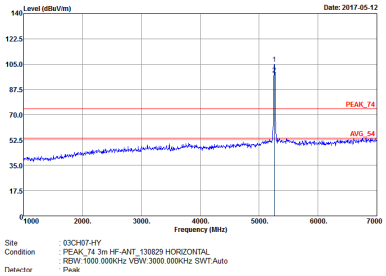
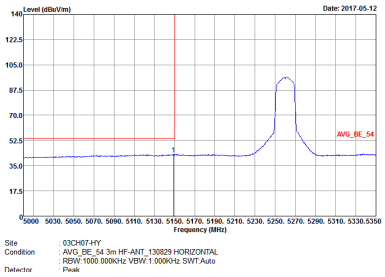
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

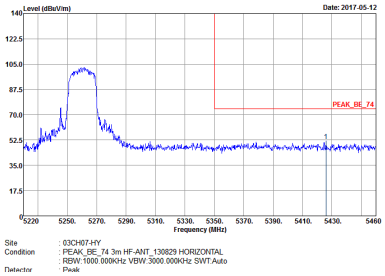
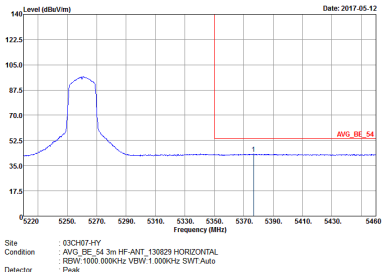
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

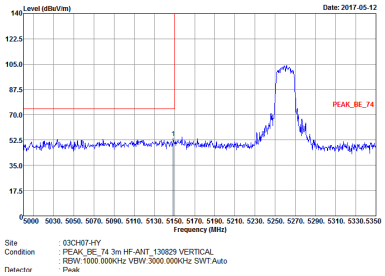
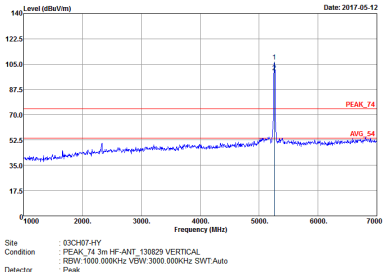
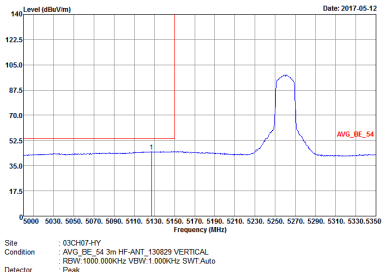
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

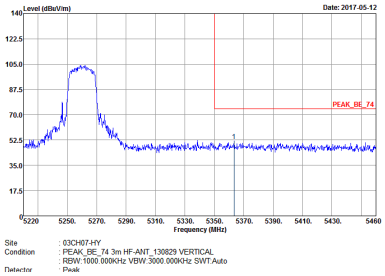
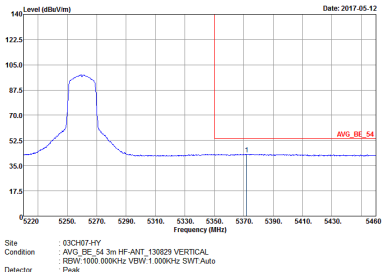
Band 2 5250~5350MHz

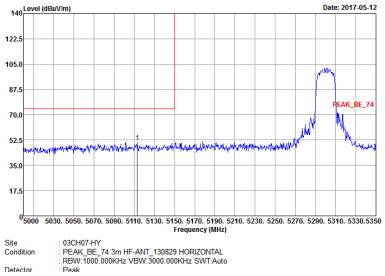
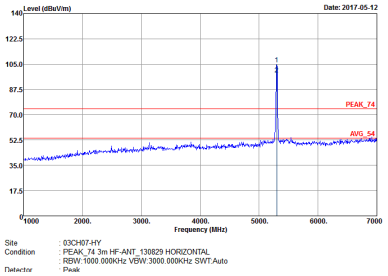
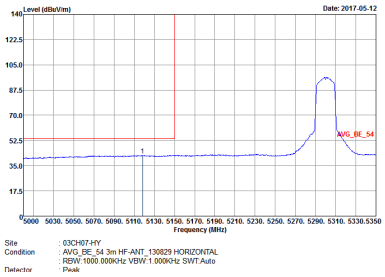
WIFI 802.11n HT20 (Band Edge @ 3m)

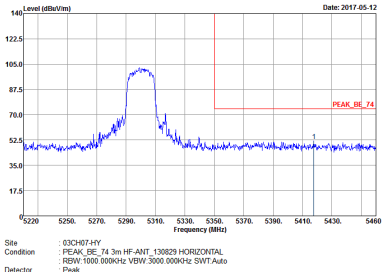
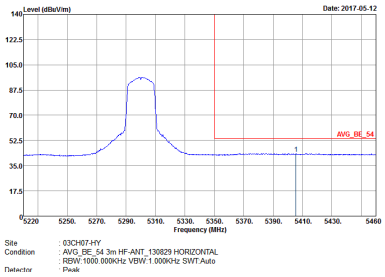
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

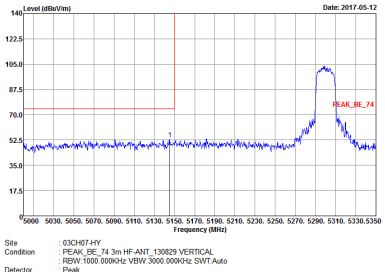
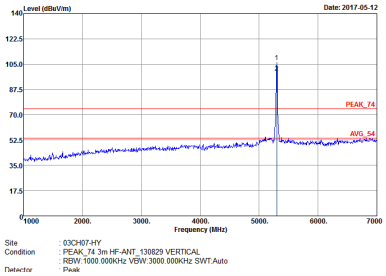
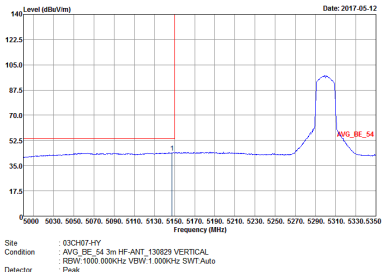
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

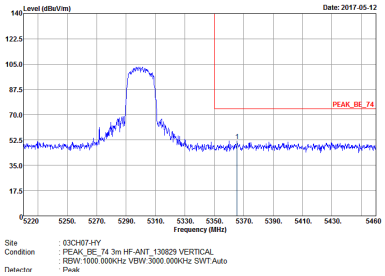
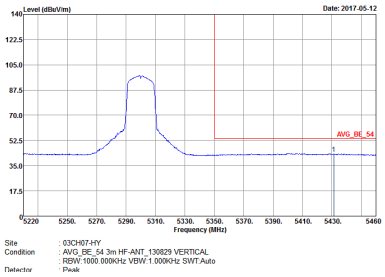
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

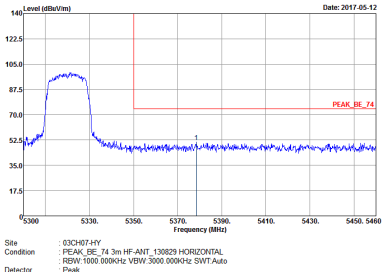
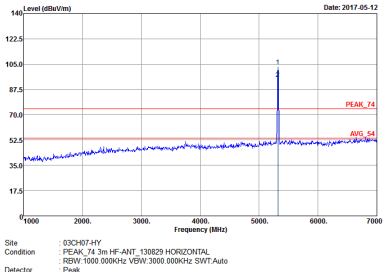
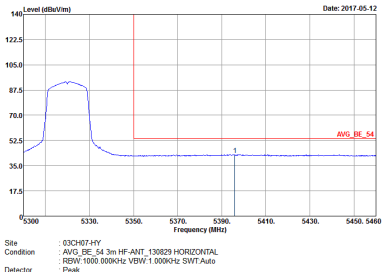
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

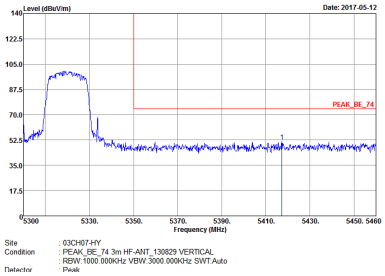
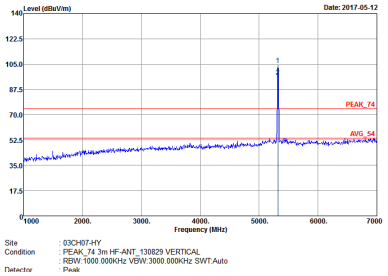
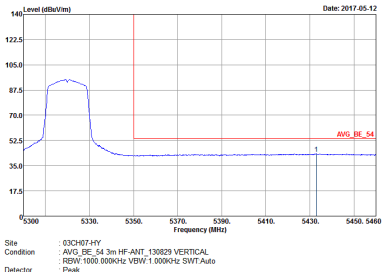
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

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

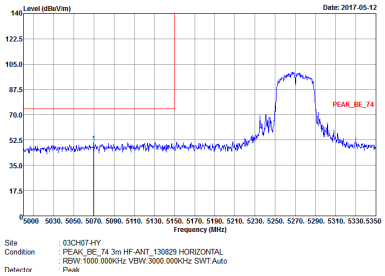
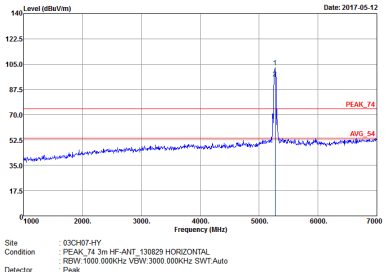
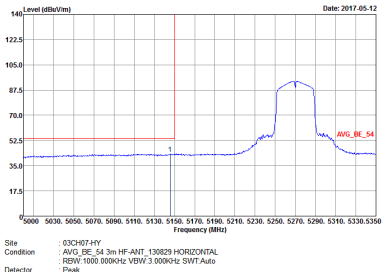
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

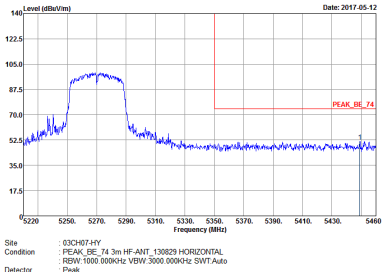
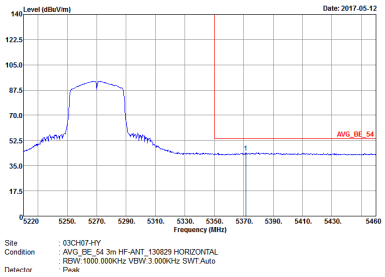
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH64 5320MHz	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

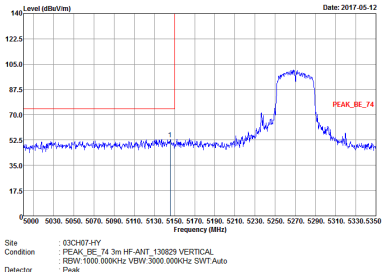
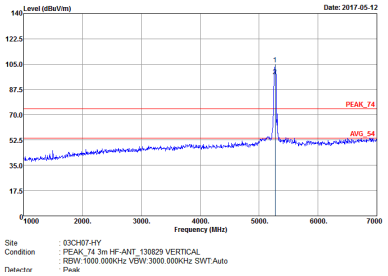
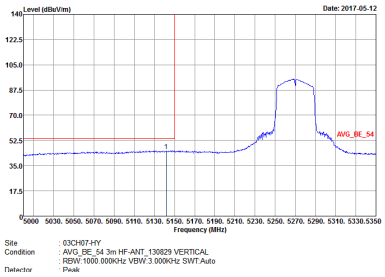
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH64 5320MHz	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

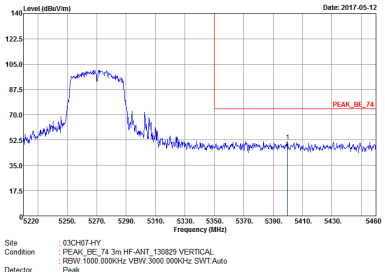
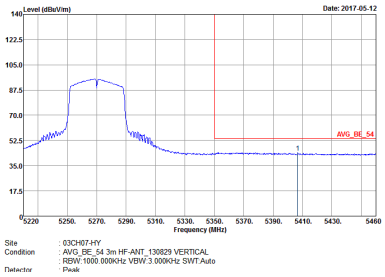
Band 2 5250~5350MHz

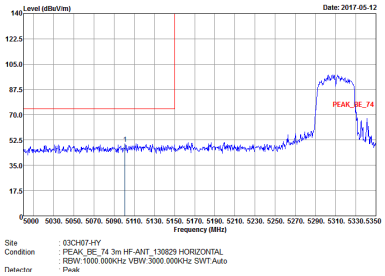
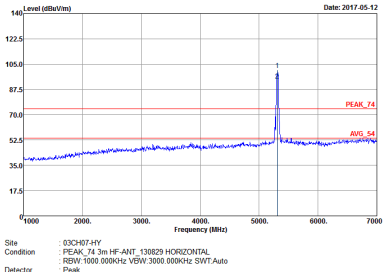
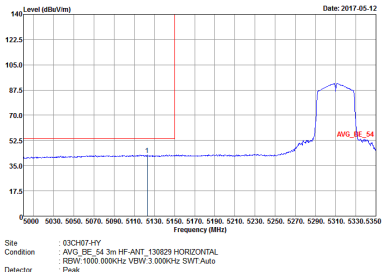
WIFI 802.11n HT40 (Band Edge @ 3m)

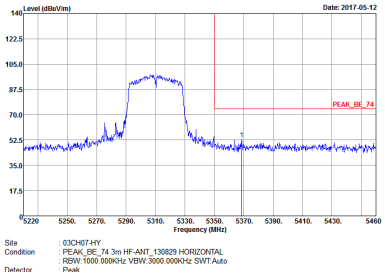
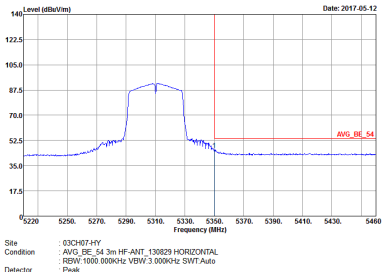
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

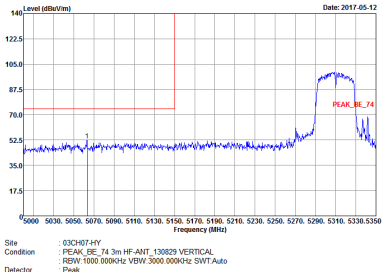
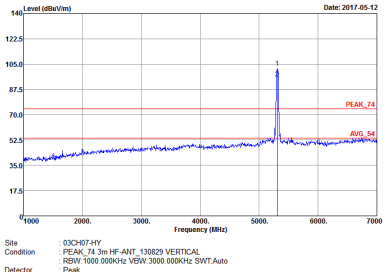
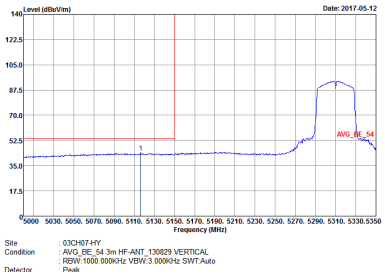
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

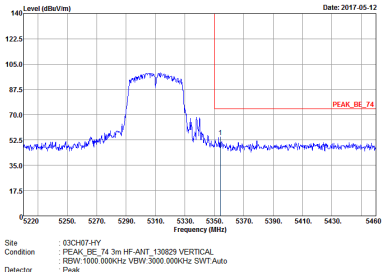
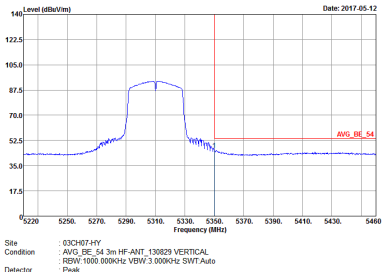
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - L	
1+2	Vertical	Vertical
Peak		
Avg.		Left blank

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

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

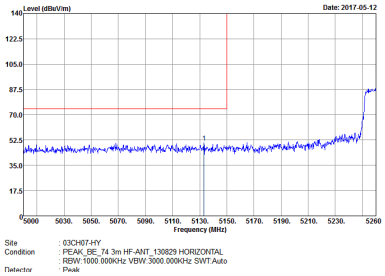
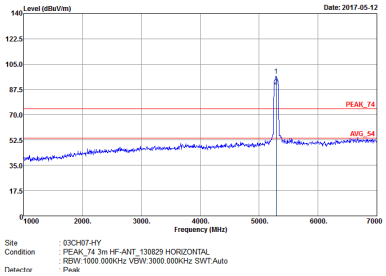
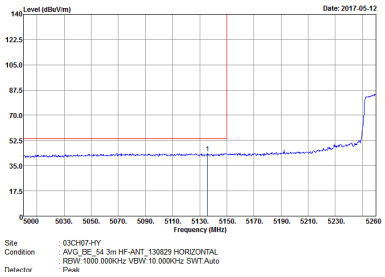
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

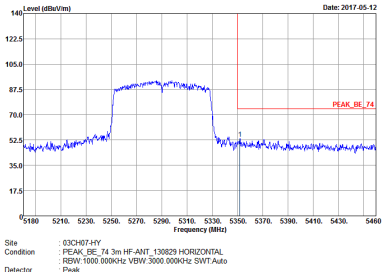
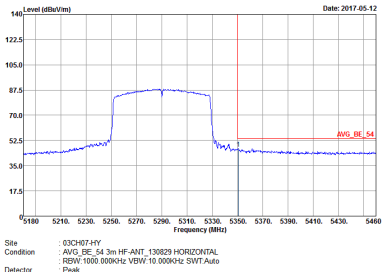
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

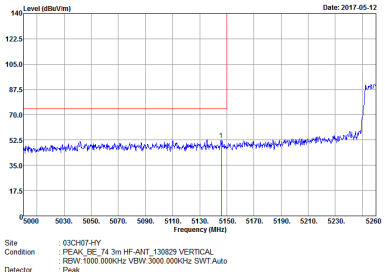
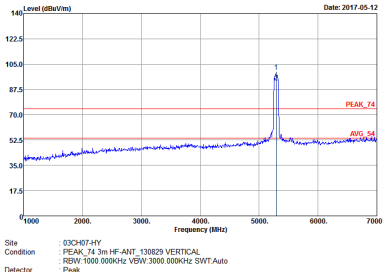
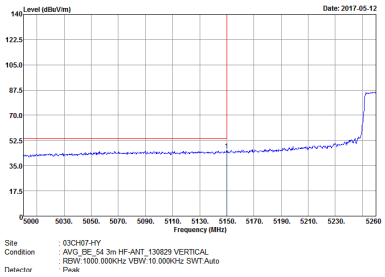
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

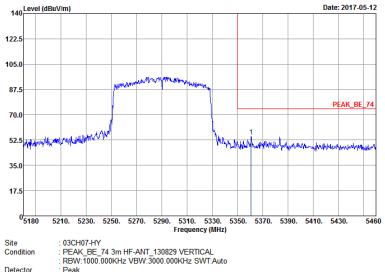
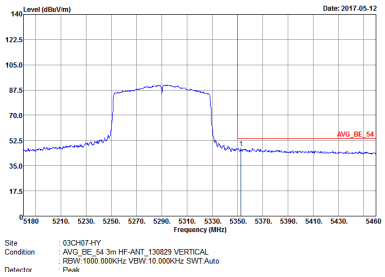
Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

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

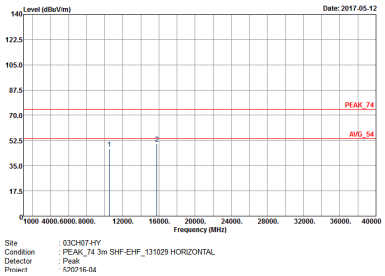
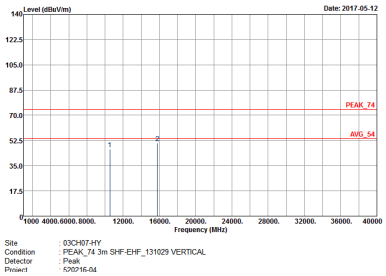
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

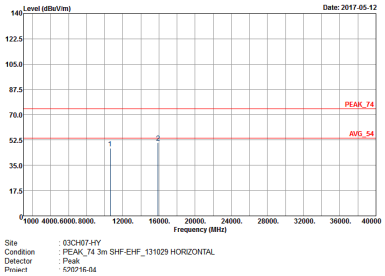
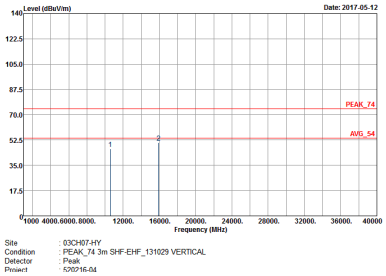
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

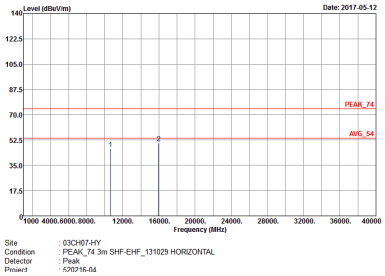
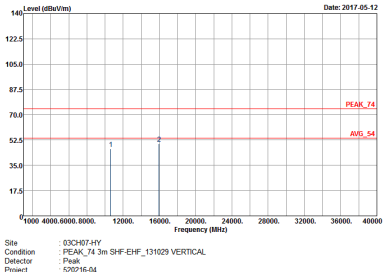
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 2 - 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

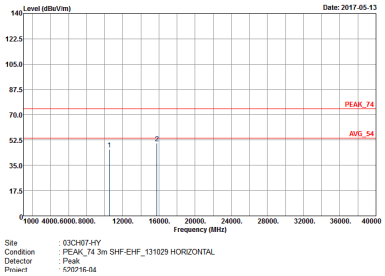
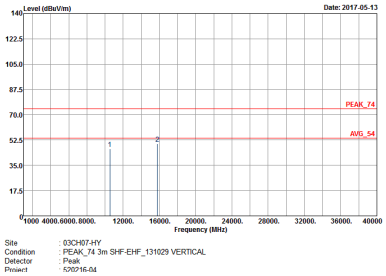
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH52 5260MHz	
1+2	Horizontal	Vertical
Peak Avg.		

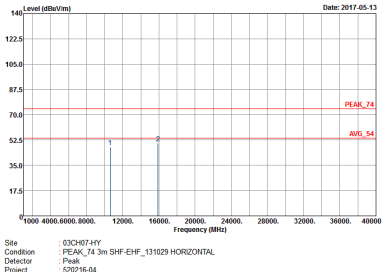
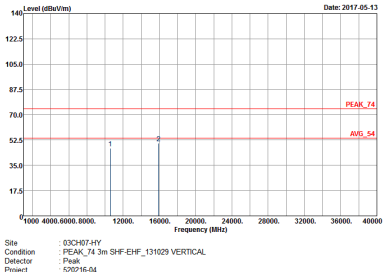
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH60 5300MHz	
1+2	Horizontal	Vertical
Peak Avg.		

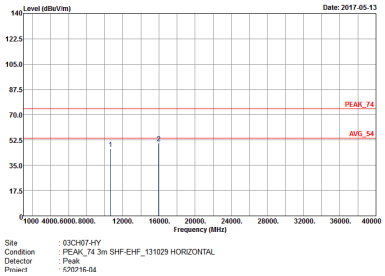
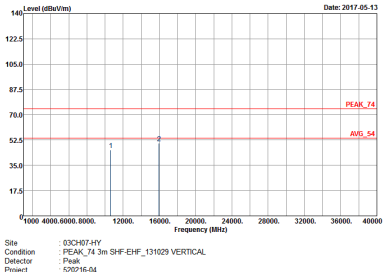
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH64 5320MHz	
1+2	Horizontal	Vertical
Peak Avg.		

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

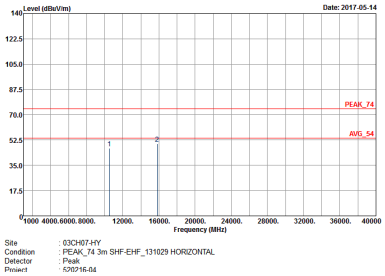
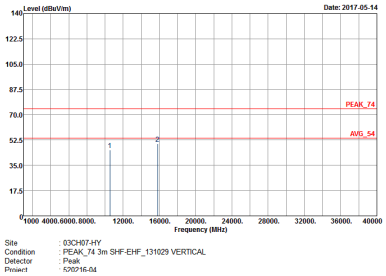
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH52 5260MHz	
1+2	Horizontal	Vertical
Peak Avg.		

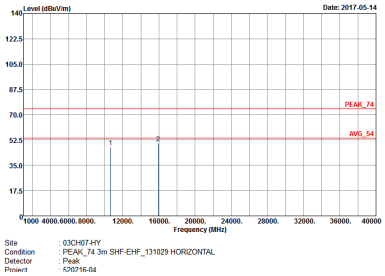
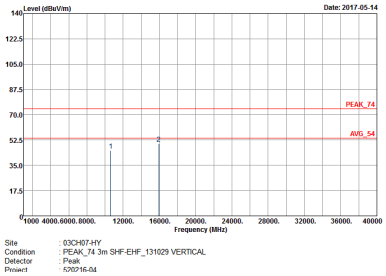
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH60 5300MHz	
1+2	Horizontal	Vertical
Peak Avg.		

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

Band 2 5250~5350MHz

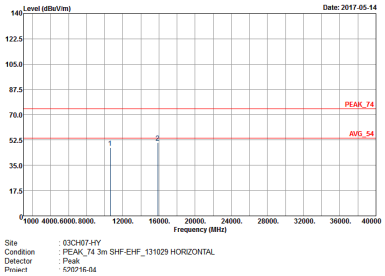
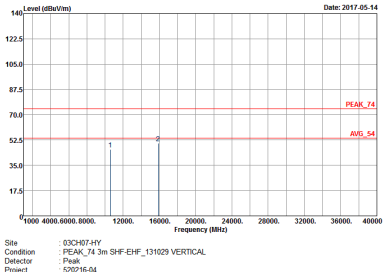
WIFI 802.11n HT40 (Harmonic @ 3m)

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

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

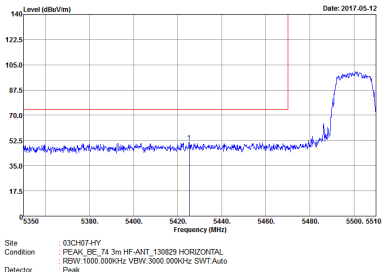
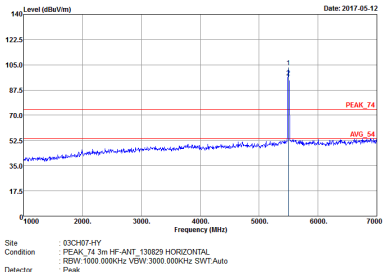
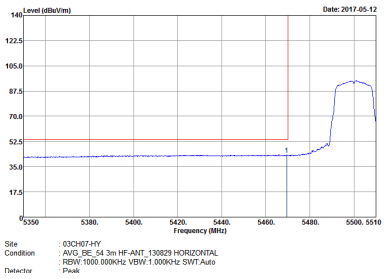
Band 2 5250~5350MHz

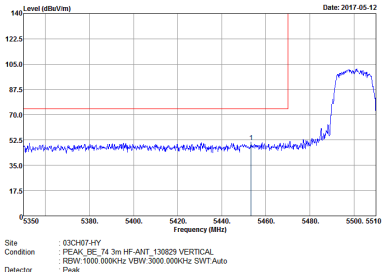
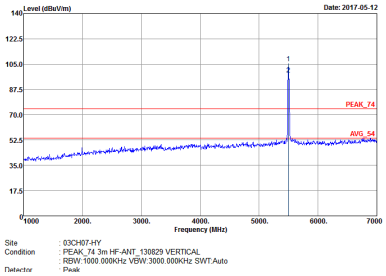
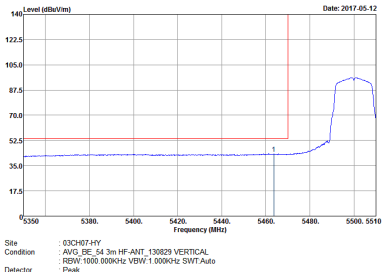
WIFI 802.11ac VHT80 (Harmonic @ 3m)

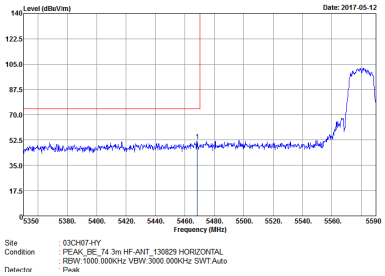
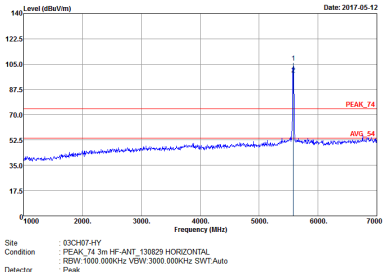
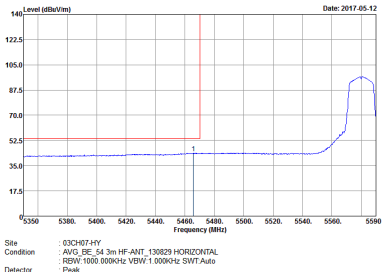
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz	
1+2	Horizontal	Vertical
Peak Avg.		

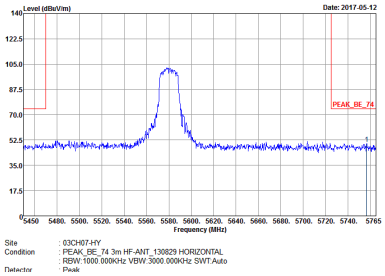
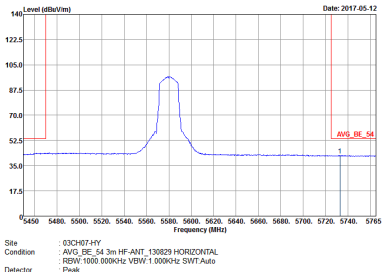
Band 3 - 5470~5725MHz

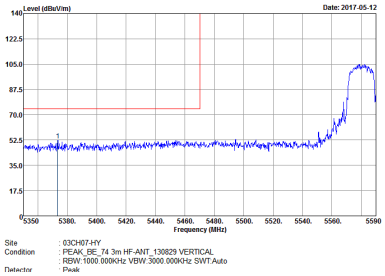
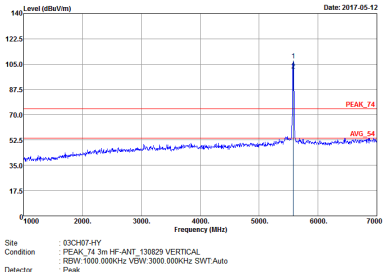
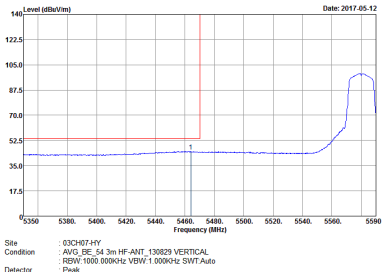
WIFI 802.11a (Band Edge @ 3m)

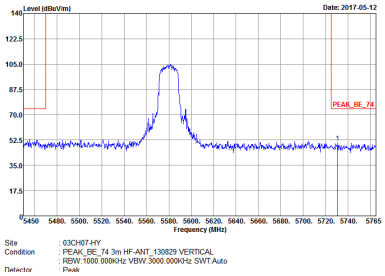
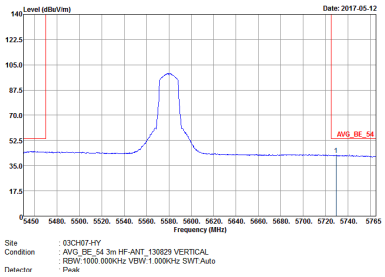
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

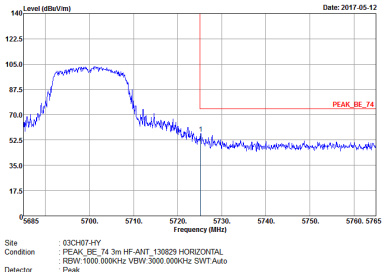
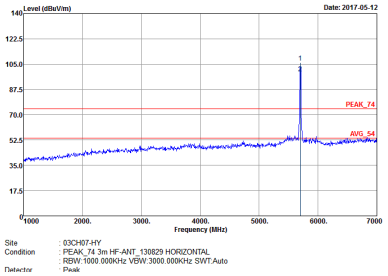
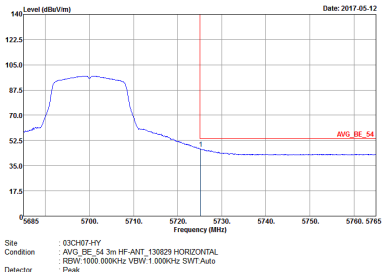
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

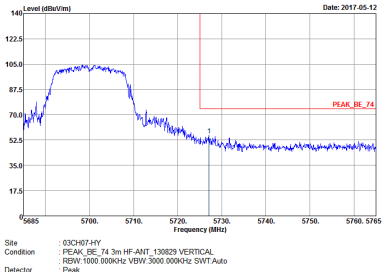
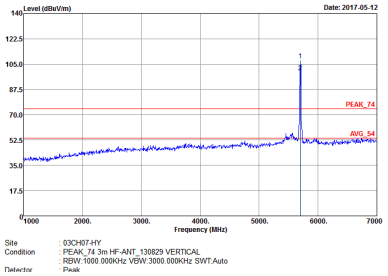
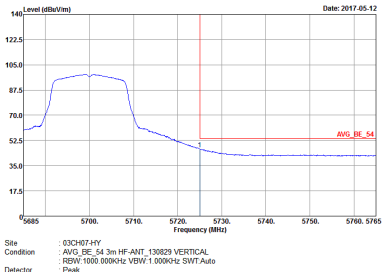
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

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

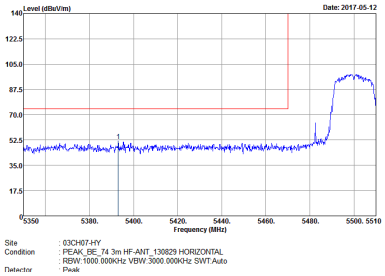
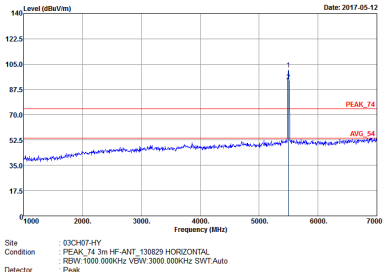
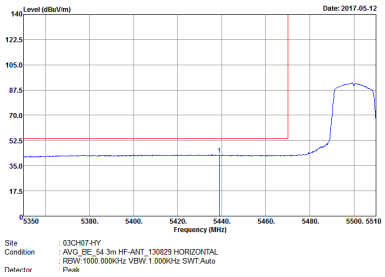
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

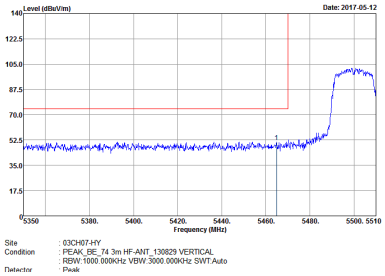
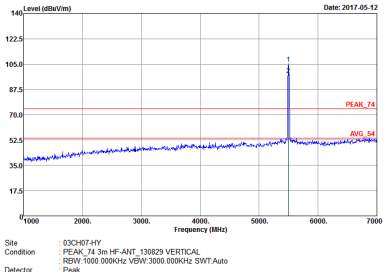
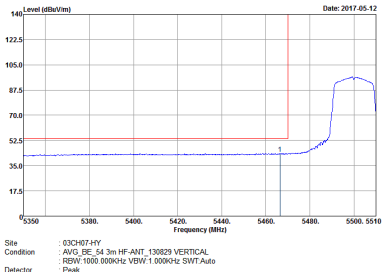
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

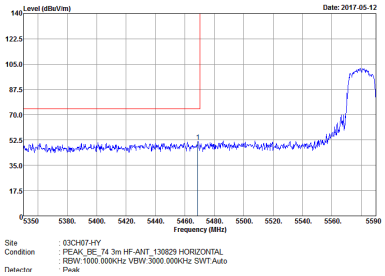
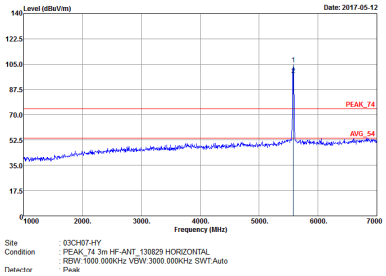
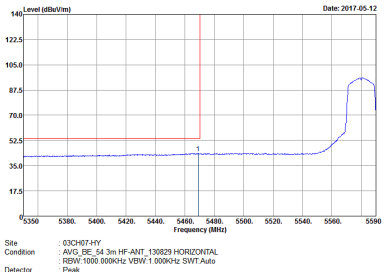
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

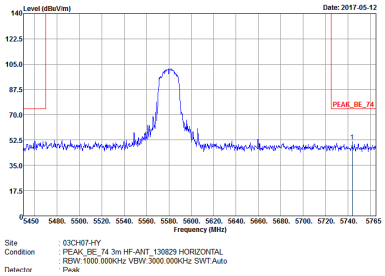
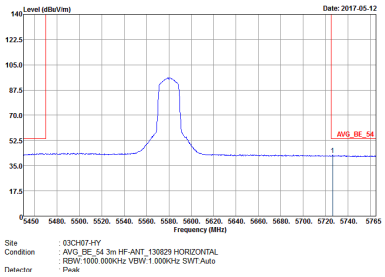
Band 3 5470~5725MHz

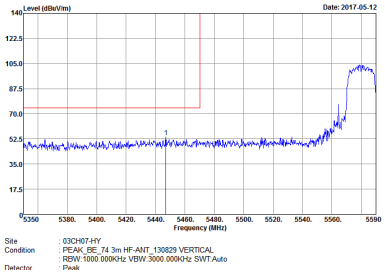
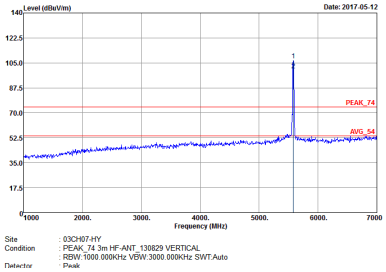
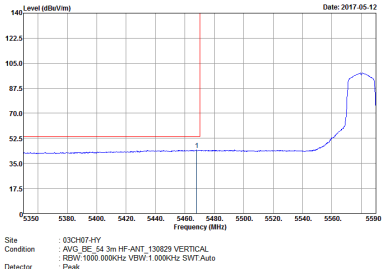
WIFI 802.11n HT20 (Band Edge @ 3m)

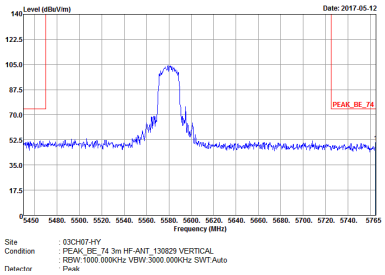
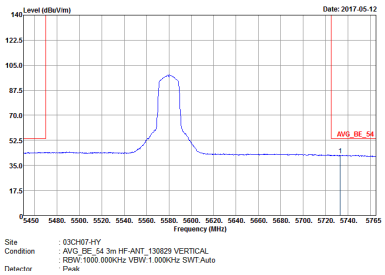
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

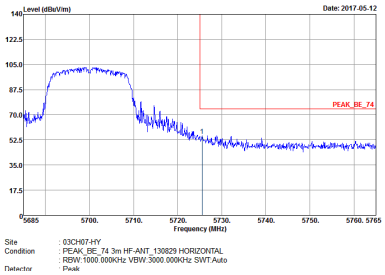
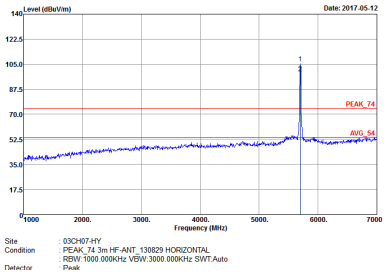
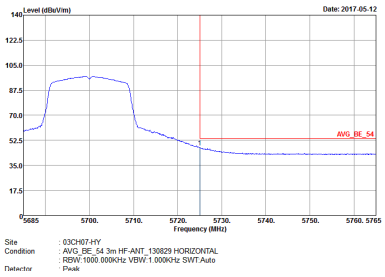
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

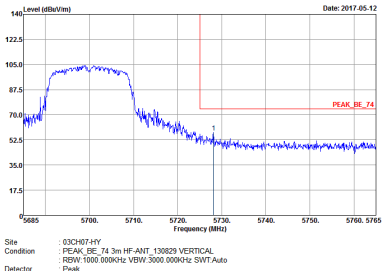
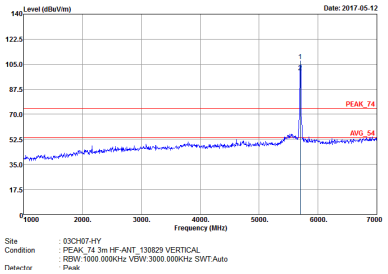
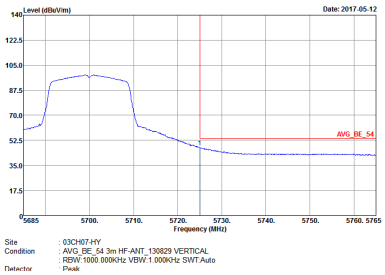
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

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

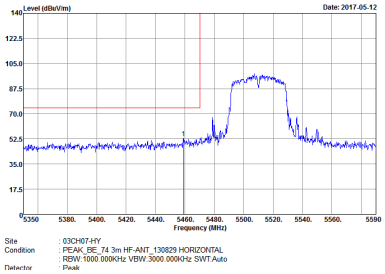
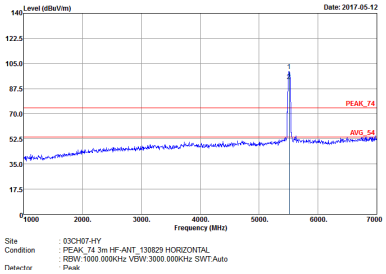
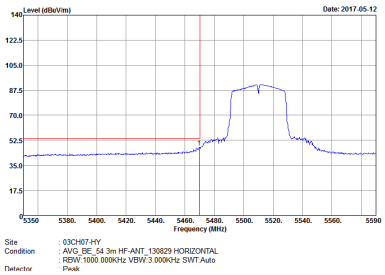
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

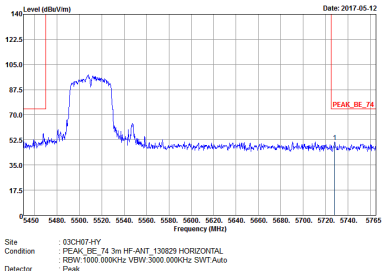
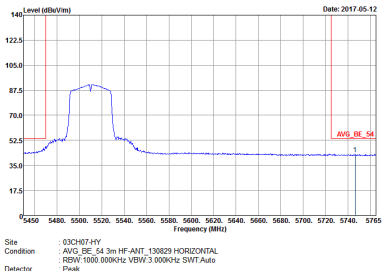
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

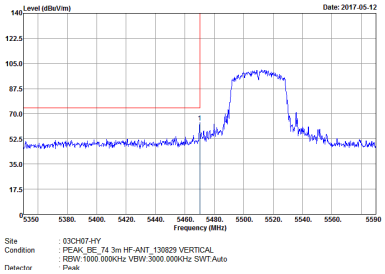
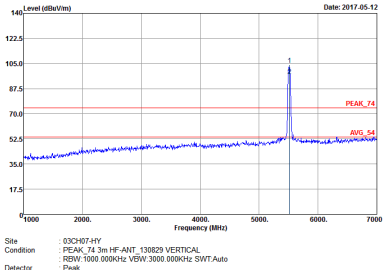
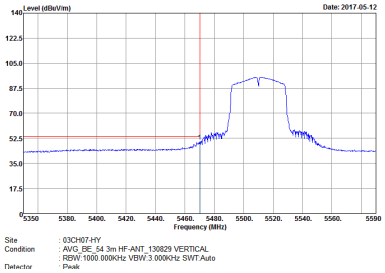
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
1+2	Vertical	Fundamental
Peak.		
Avg.		Left blank

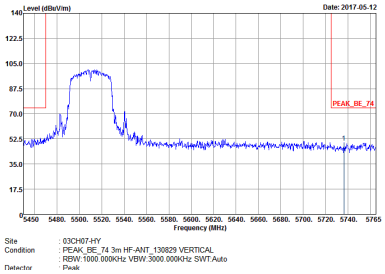
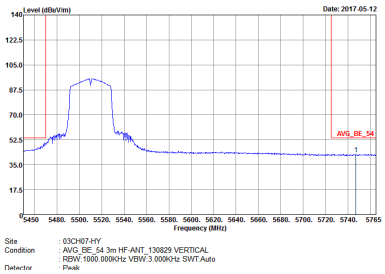
Band 3 5470~5725MHz

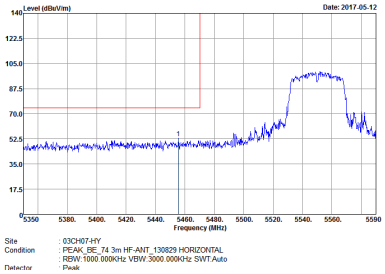
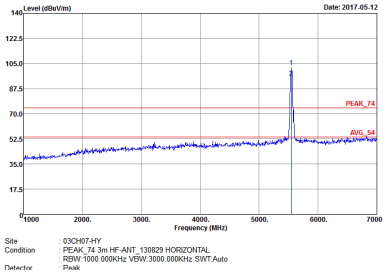
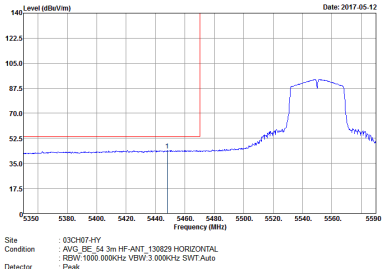
WIFI 802.11n HT40 (Band Edge @ 3m)

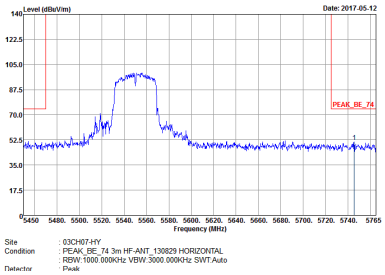
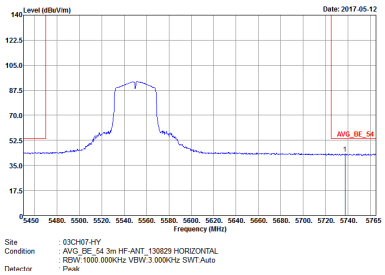
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

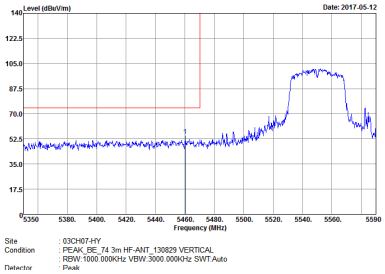
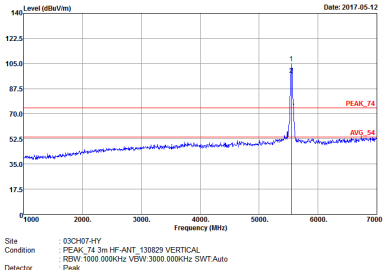
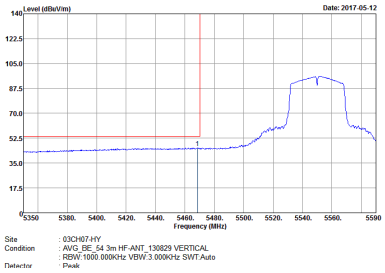
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

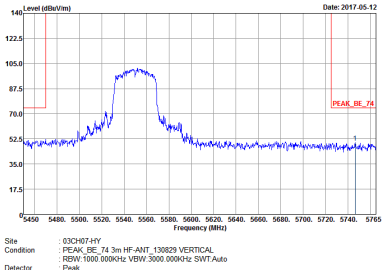
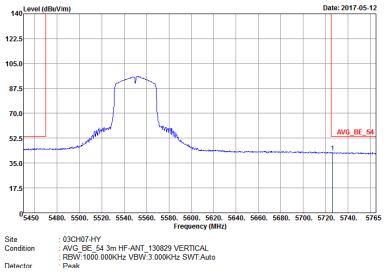
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

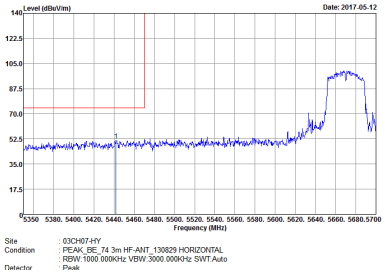
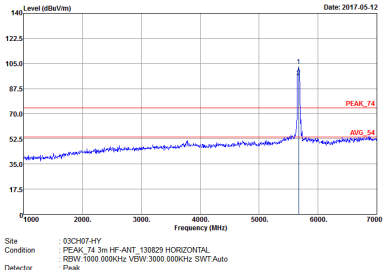
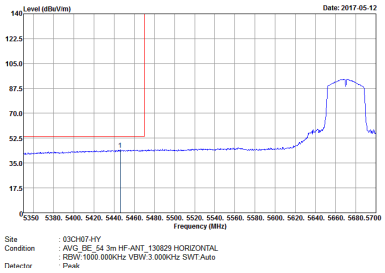
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

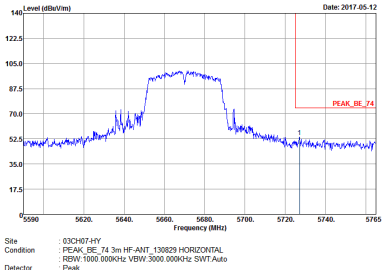
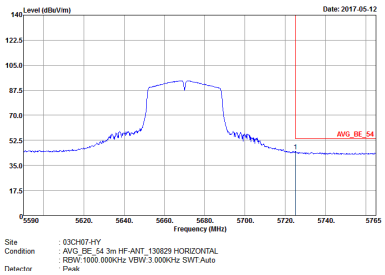
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

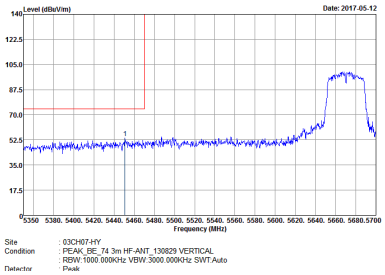
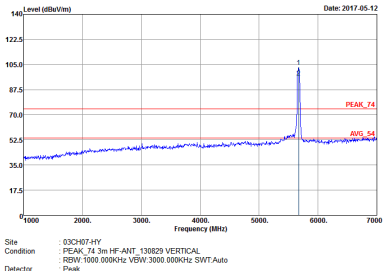
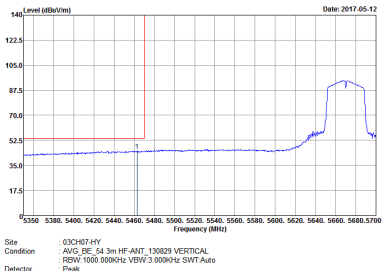
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

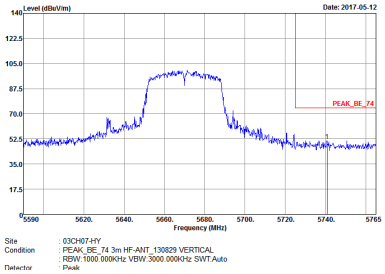
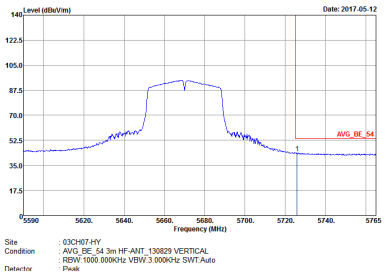
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

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

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

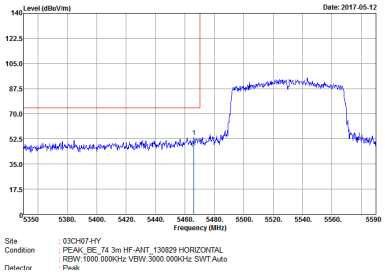
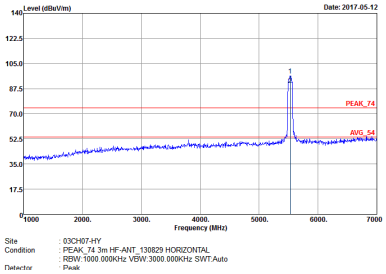
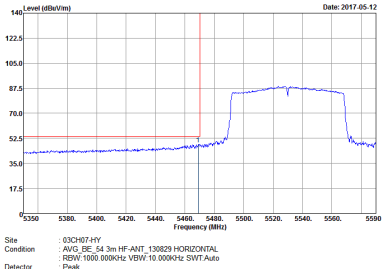
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

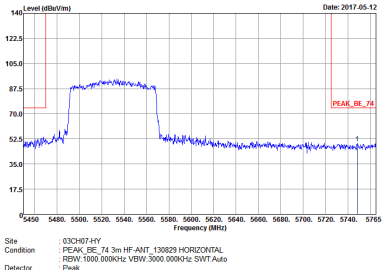
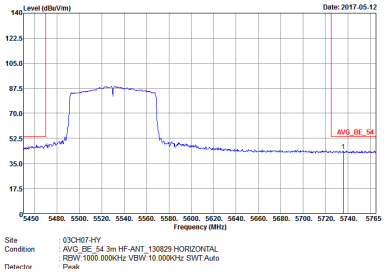
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

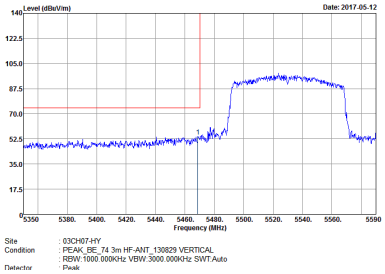
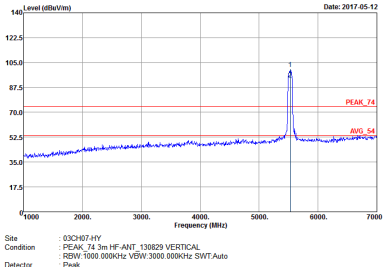
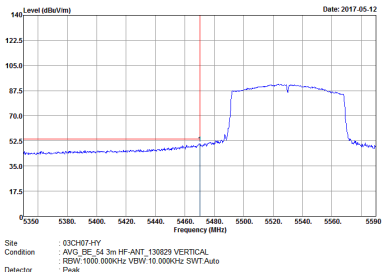
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

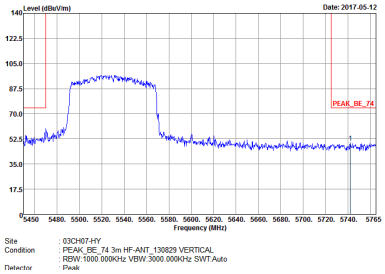
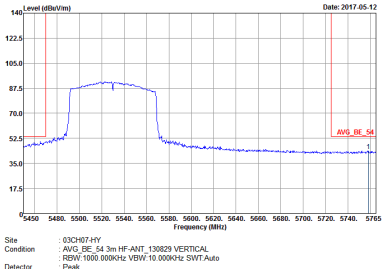
Band 3 5470~5725MHz

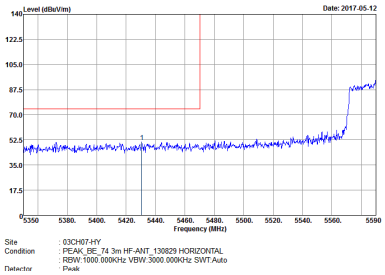
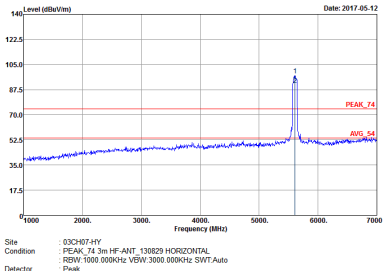
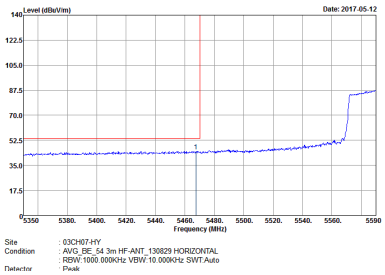
WIFI 802.11ac VHT80 (Band Edge @ 3m)

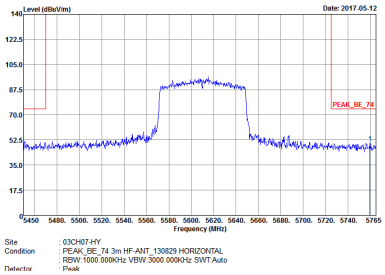
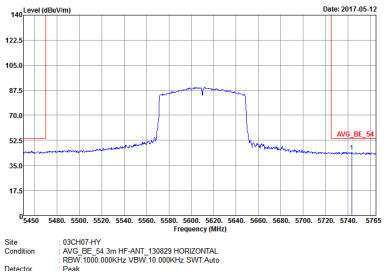
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

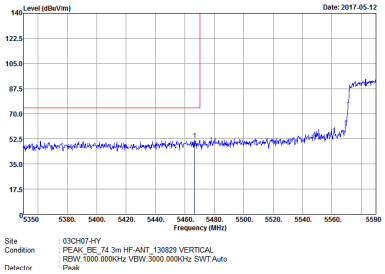
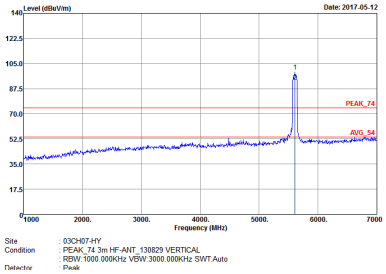
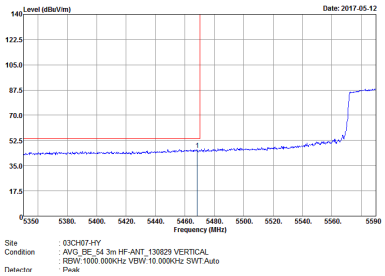
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

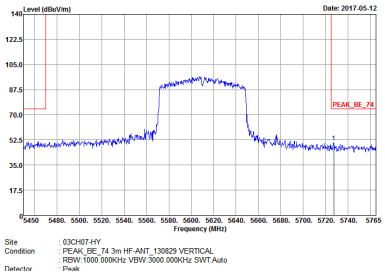
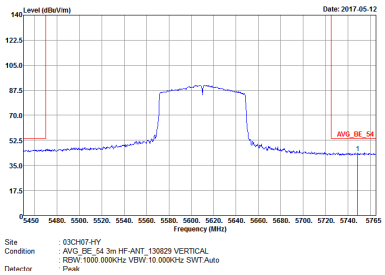
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

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

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

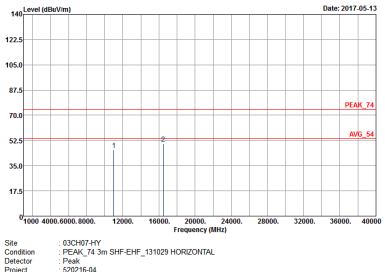
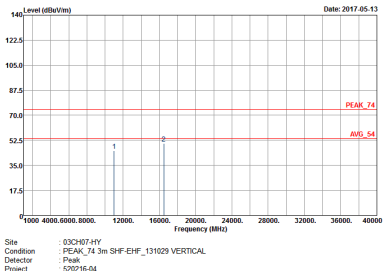
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH122 5610MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

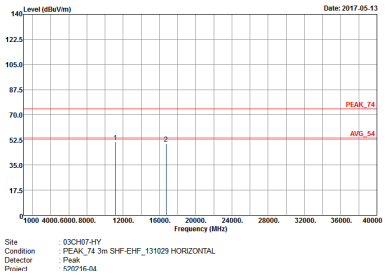
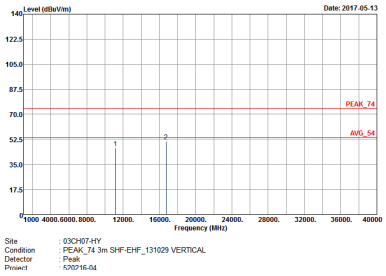
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH122 5610MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

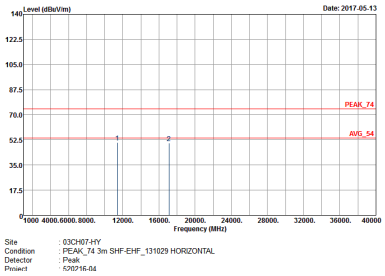
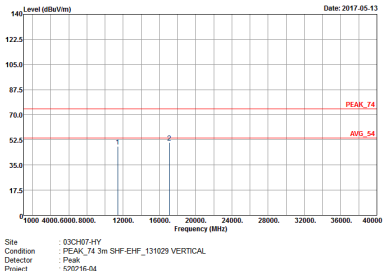
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH122 5610MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

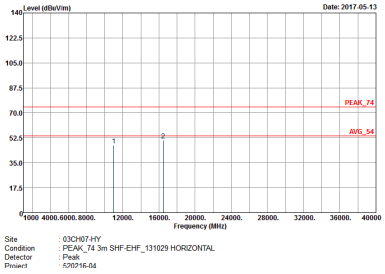
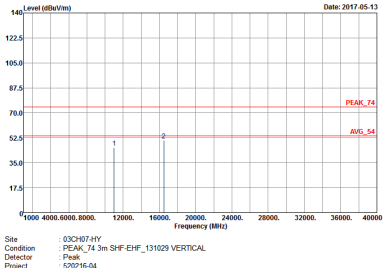
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH100 5500MHz	
1+2	Horizontal	Vertical
Peak Avg.		

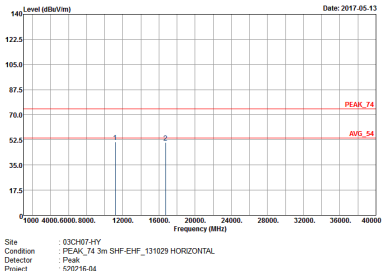
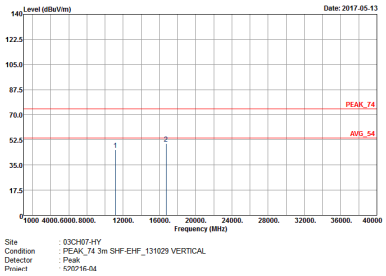
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH116 5580MHz	
1+2	Horizontal	Vertical
Peak Avg.		

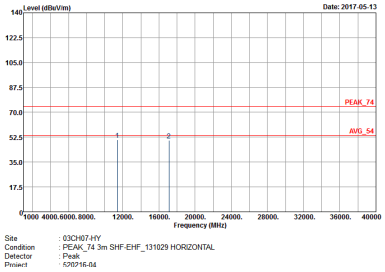
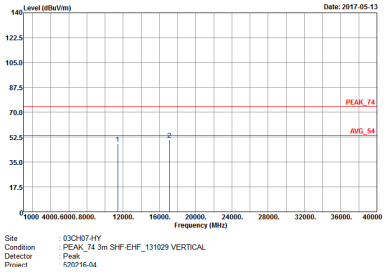
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH140 5700MHz	
1+2	Horizontal	Vertical
Peak Avg.		

Band 3 5470~5725MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

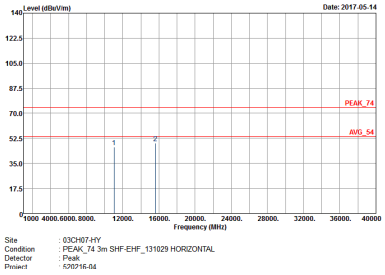
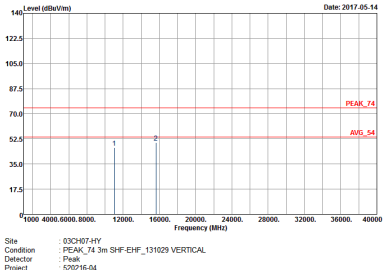
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1+2	Horizontal	Vertical
Peak Avg.		

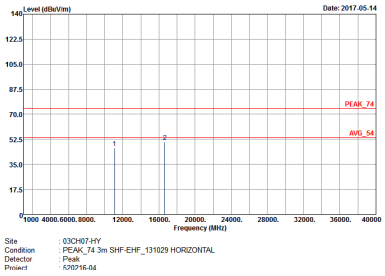
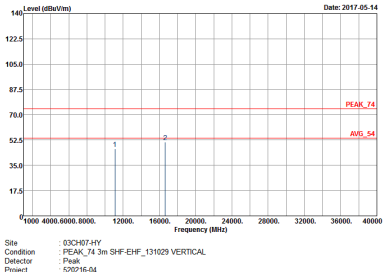
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT20 CH116 5580MHz	
1+2	Horizontal	Vertical
Peak Avg.		

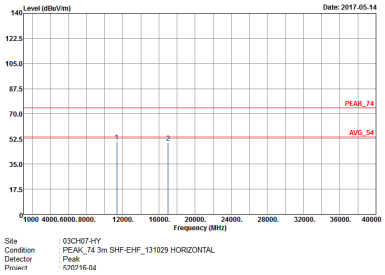
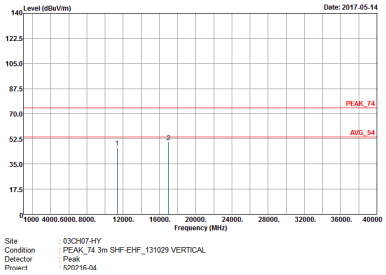
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
1+2	Horizontal	Vertical
Peak Avg.		

Band 3 5470~5725MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

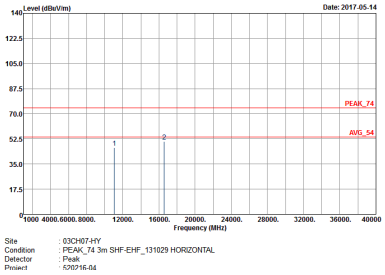
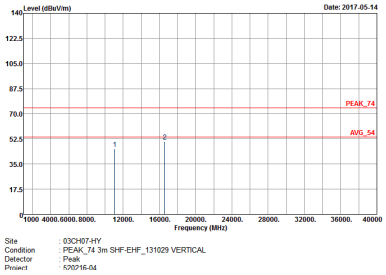
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT40 CH102 5510MHz	
1+2	Horizontal	Vertical
Peak Avg.		

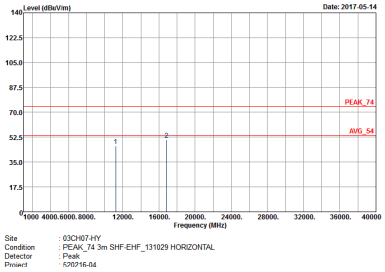
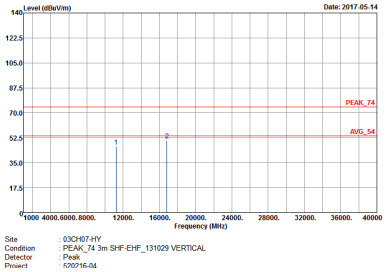
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT40 CH110 5550MHz	
1+2	Horizontal	Vertical
Peak Avg.		

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

Band 3 5470~5725MHz

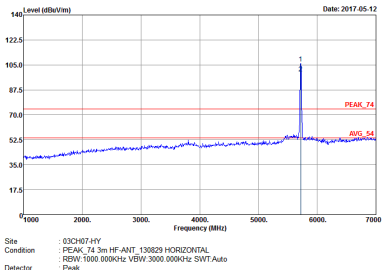
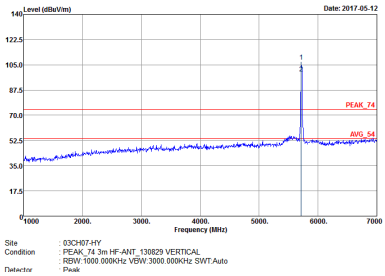
WIFI 802.11ac VHT80 (Harmonic @ 3m)

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

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

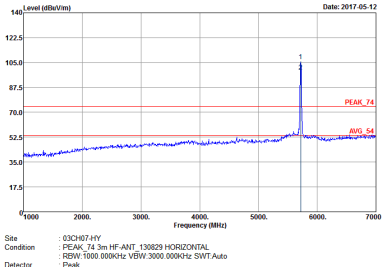
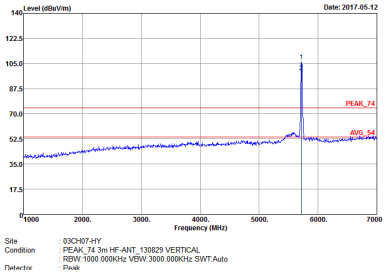
Band 3 - Straddle Channel

WIFI 802.11a (Fundamental @ 3m)

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

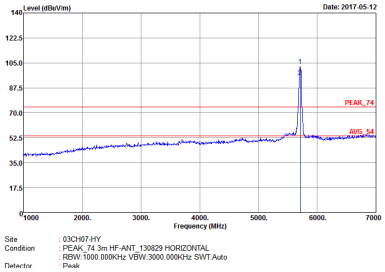
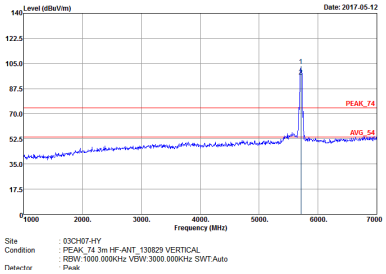
Band 3 – Straddle Channel

WIFI 802.11n HT20 (Fundamental @ 3m)

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

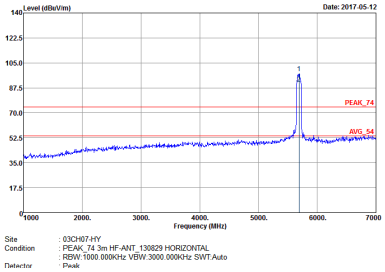
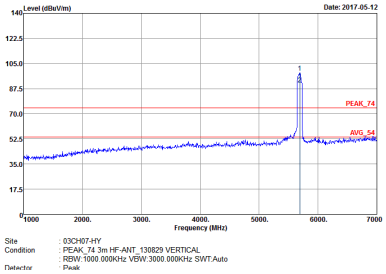
Band 3 – Straddle Channel

WIFI 802.11n HT40 (Fundamental @ 3m)

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

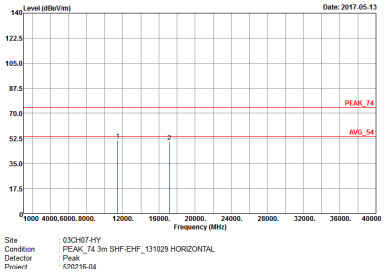
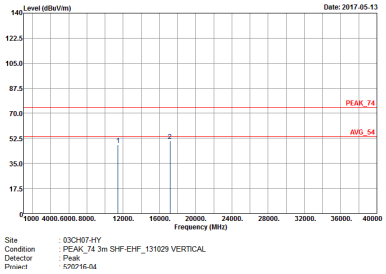
Band 3 – Straddle Channel

WIFI 802.11ac VHT80 (Fundamental @ 3m)

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

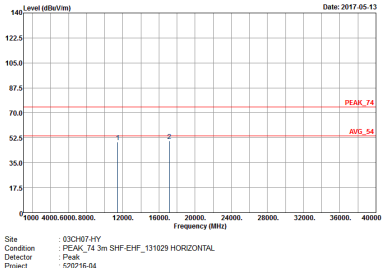
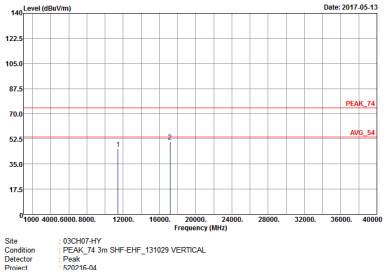
Band 3 - Straddle Channel

WIFI 802.11a (Harmonic @ 3m)

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

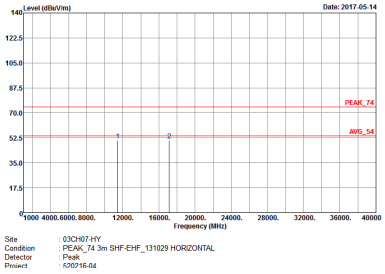
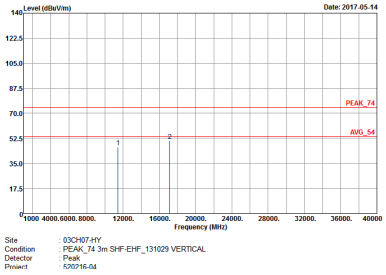
Band 3 – Straddle Channel

WIFI 802.11n HT20 (Harmonic @ 3m)

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

Band 3 – Straddle Channel

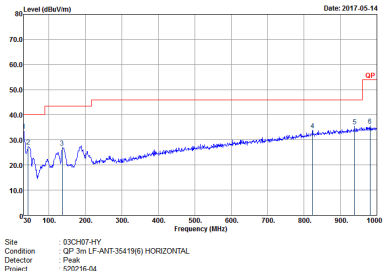
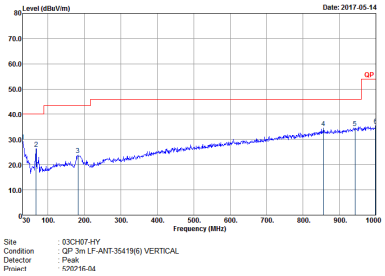
WIFI 802.11n HT40 (Harmonic @ 3m)

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

Band 3 – Straddle Channel

Emission below 1GHz

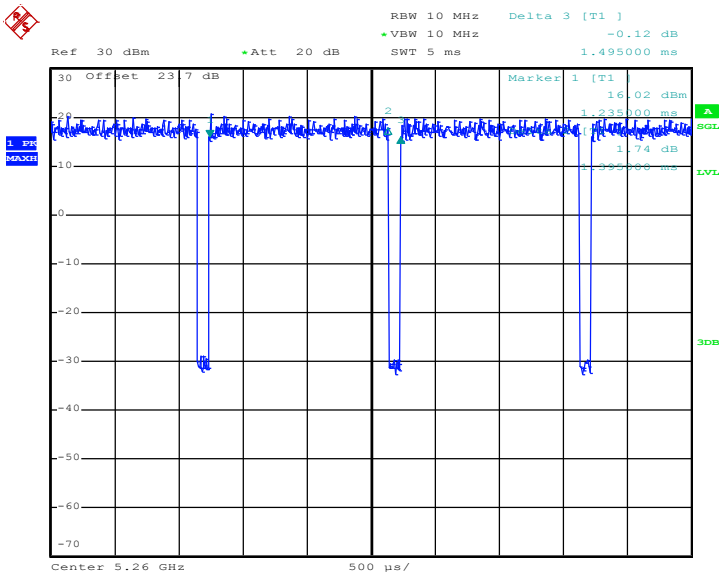
5GHz WIFI 802.11ac VHT80 (LF)

WIFI	5GHz WIFI	
ANT	802.11ac VHT80 LF	
1+2	Horizontal	Vertical
QP / Peak		

Appendix D. Duty Cycle Plots

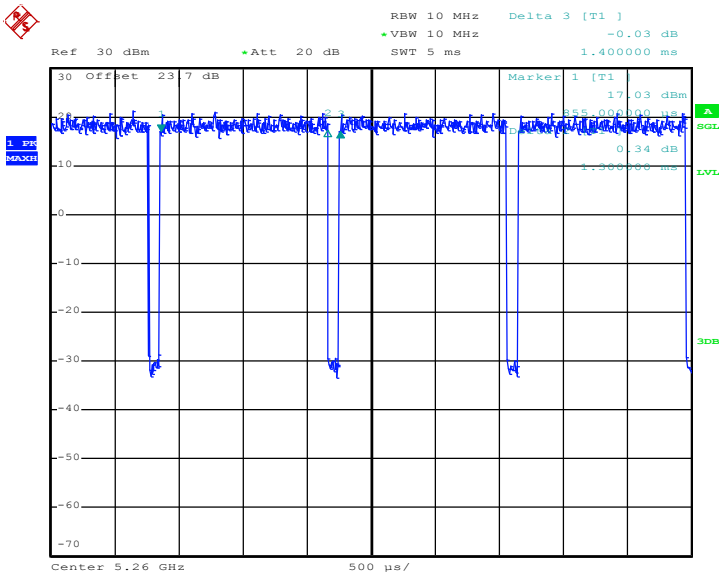
Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
802.11a	93.31	1395	0.72	1kHz
5GHz 802.11n HT20	92.86	1300	0.77	1kHz
5GHz 802.11n HT40	87.03	644	1.55	3kHz
5GHz 802.11n VHT20	93.62	1320	0.76	1kHz
5GHz 802.11n VHT40	88.11	652	1.53	3kHz
5GHz 802.11ac VHT80	78.26	324	3.09	10kHz

802.11a



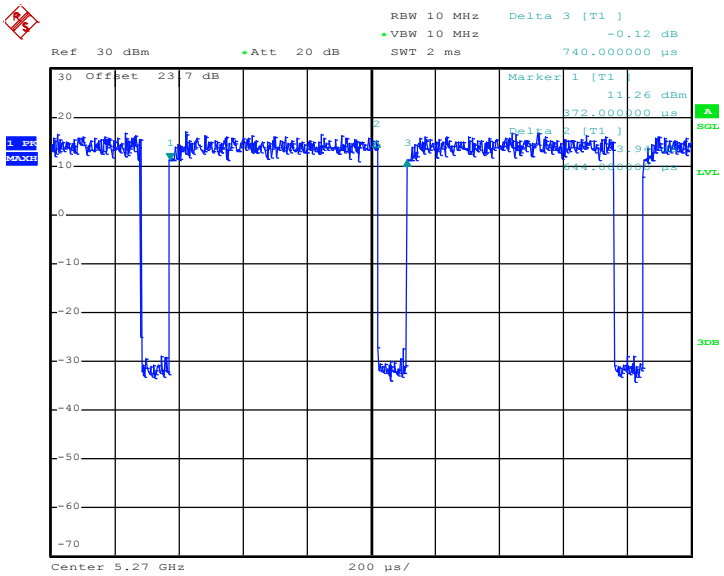
Date: 8.MAY.2017 18:35:33

802.11n HT20



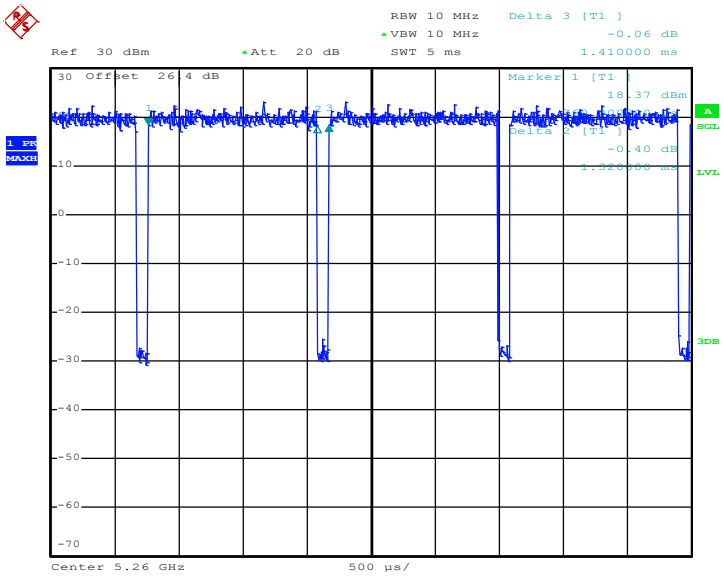
Date: 8.MAY.2017 18:37:07

802.11n HT40



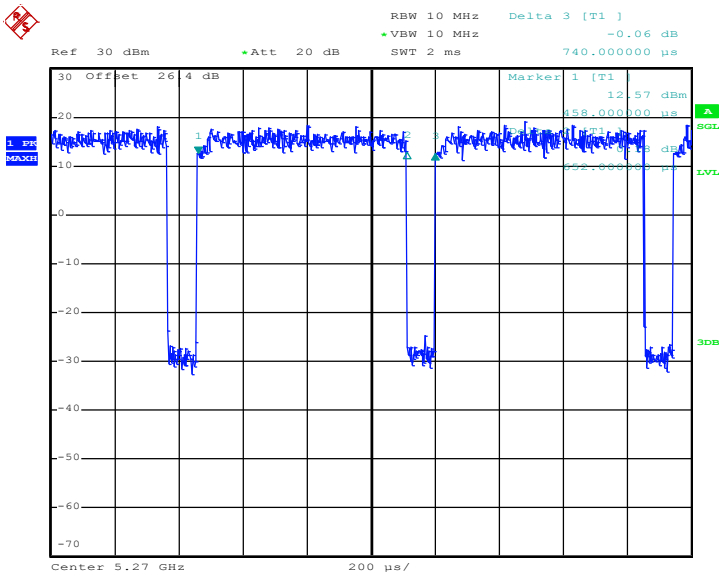
Date: 8.MAY.2017 18:38:51

802.11n VHT20



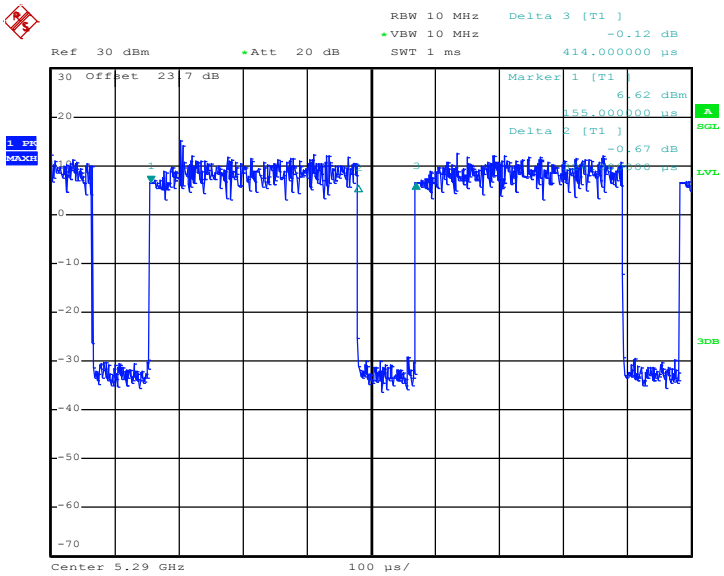
Date: 10.MAY.2017 18:02:14

802.11n VHT40



Date: 10.MAY.2017 18:18:13

802.11ac VHT80



Date: 8.MAY.2017 18:44:05