FCC RF Test Report

APPLICANT	:	**ASUSTeK COMPUTER INC.**
EQUIPMENT	:	**ASUS Phone(Mobile phone)**
BRAND NAME	:	**ASUS**
MODEL NAME	:	**ASUS_Z01GS**
FCC ID	:	**MSQZ01GS**
STANDARD	:	**FCC Part 15 Subpart E §15.407**
CLASSIFICATION	:	**(NII) Unlicensed National Information Infrastructure**

The product was received on Apr. 08, 2017 and testing was completed on Sep. 21, 2017. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

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

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager

Testing Laboratory 1190

SPORTON INTERNATIONAL INC.

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

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR740843E	Rev. 01	Initial issue of report	Sep. 28, 2017

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
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	Under limit 2.02 dB at 5148.200 MHz
3.5	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 18.40 dB at 0.166 MHz
3.6	15.407(g)	Frequency Stability	Within Operation Band	Pass	-
3.7	15.407(c)	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-
3.8	15.203 & 15.407(a)	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

ASUSTeK COMPUTER INC.
4F, No. 150, LI-TE RD., PEITOU, TAIPEI, TAIWAN

1.2 Manufacturer

COTEK ELECTRONICS (SUZHOU) CO., LTD.
No. 288, Mayun Road, Suzhou Hi-and-New Tech Park, Jiangsu, PRC

1.3 Product Feature of Equipment Under Test

GSM/WCDMA/LTE, Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n, Wi-Fi 5GHz 802.11a/n/ac, WiGig, FM Receiver, NFC, and GPS.

Product Specification subjective to this standard	
Sample 1	EUT with SKU 1
Sample 2	EUT with SKU 2
Sample 3	EUT with SKU 3
Sample 4	EUT with SKU 4
Antenna Type	WWAN: PIFA Antenna WLAN: PIFA Antenna Bluetooth: PIFA Antenna GPS / Glonass / BDS / Galileo : PIFA Antenna NFC: Loop Antenna FM: Integral Antenna (Earphone acting as FM antenna deemed as an integral antenna)

<Sample Information>

SKU MB	SKU1	SKU2
DDR4X	6G/ Hynix	6G/ Hynix
UFS 2.1	128G/ Toshiba	64G/ Toshiba
CPU	MSM-8998	
TP Module	TIANMA//TA055VVHM09-03 ON CELL	TIANMA/TA055VVHM09-05 ON CELL
Front Camera	CHICONY/CBAH81120003870LH	CHICONY/CBAH81120003871LH
Rear Camera	12M+16M/SEMCO/MOMDM82PG3A	
Battery	ATL POLY/C11P1701/SMP	

SKU MB	SKU3	SKU4
DDR4X	6G/ Samsung	6G/ Hynix
UFS 2.1	256G/ Samsung	64G/ Samsung
CPU	MSM-8998	
TP Module	TIANMA//TA055VVHM08-05	TIANMA//TA055VVHM09-05
Front Camera	CHICONY/CBAH81120003871LH	
Rear Camera	12M+16M/SEMCO/MOMDM82PG3A	
Battery	ATL POLY/C11P1701/SMP	

Remark: All tests were performed with sample 1.

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. TW0007 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

Test Site	SPORTON INTERNATIONAL INC.	
Test Site Location	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978	
Test Site No.	**Sporton Site No.**	
	TH05-HY	CO05-HY

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

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd Rd. Guishan Dist, Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	**Sporton Site No.**
	03CH13-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 662911 D01 Multiple Transmitter Output v02r01.
- ANSI C63.10-2013

Remark:

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

2 Test Configuration of Equipment Under Test

a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Z plane) were recorded in this report.

b. AC power line Conducted Emission was tested under maximum output power.

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5150-5250 MHz Band 1 (U-NII-1)	36	5180	44	5220
	38*	5190	46*	5230
	40	5200	48	5240
	42#	5210		

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

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

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

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.

Single Antenna

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

MIMO Antenna

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

Test Cases	
AC Conducted Emission	Mode 1 : GSM850 Idle + Bluetooth Link + WLAN (5GHz) Link + Camera (Front) + SD (Play MP3) + Earphone + USB Cable 1 (Charging from Adapter 1)

Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11a	802.11a	802.11a
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11n HT20	802.11n HT20	802.11n HT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

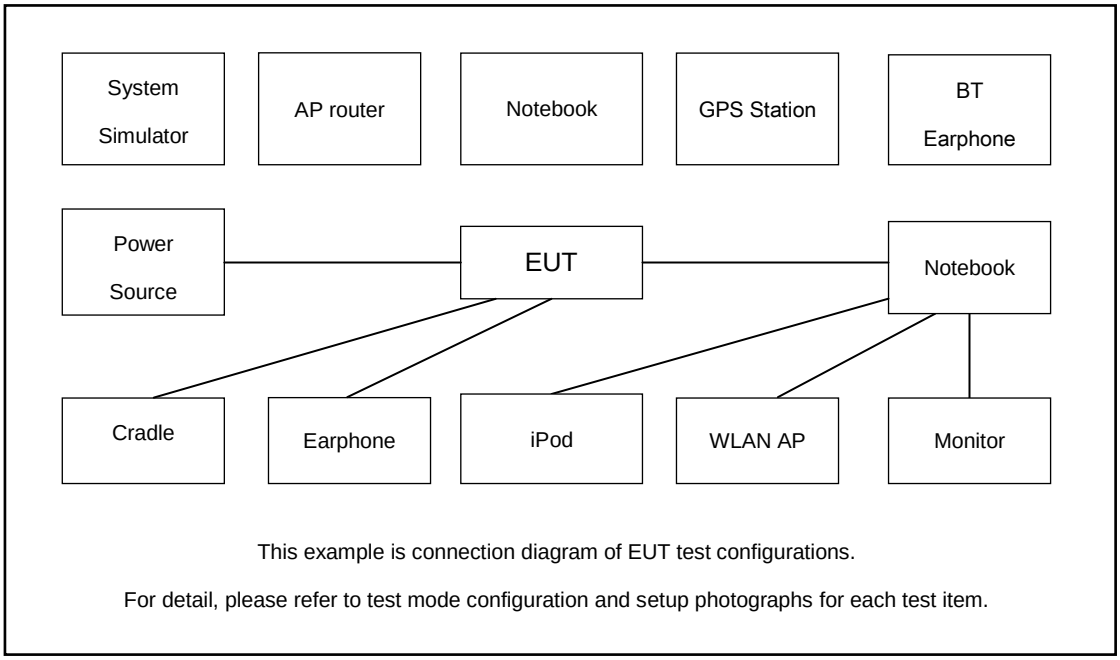
Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11n HT40	802.11n HT40	802.11n HT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134
Straddle		-	-	142

Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11ac VHT20	802.11ac VHT20	802.11ac VHT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11ac VHT40	802.11ac VHT40	802.11ac VHT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134
Straddle		-	-	142

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

2.3 Connection Diagram of Test System



This example is connection diagram of EUT test configurations.

For detail, please refer to test mode configuration and setup photographs for each test item.

2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded,1.8m
2.	Bluetooth Earphone	Sony Ericsson	MW600	PY700A2029	N/A	N/A
3.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded,1.8m
4.	Notebook	DELL	Latitude E6320	FCC DoC/ Contains FCC ID: QDS-BRCM1054	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
5.	SD Card	SanDisk	MicroSD HC	FCC DoC	N/A	N/A

2.5 EUT Operation Test Setup

The RF test items, programmed RF utility, “QRCT.exe” installed in the notebook make the EUT provide functions like channel selection and power level for continuous transmitting and receiving signals.

2.6 Measurement Results Explanation Example

For all conducted test items:

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

Example :

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

Offset = RF cable loss + attenuator factor.

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

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

= 4.2 + 10 = 14.2 (dB)

3 Test Result

3.1 26dB & 99% Occupied Bandwidth Measurement

3.1.1 Description of 26dB & 99% Occupied Bandwidth

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

For Straddle Channel, U-NII procedures were applied for operations in the frequency band in accordance with FCC KDB 644545 D03.

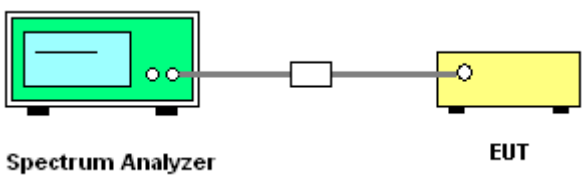
3.1.2 Measuring Instruments

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.

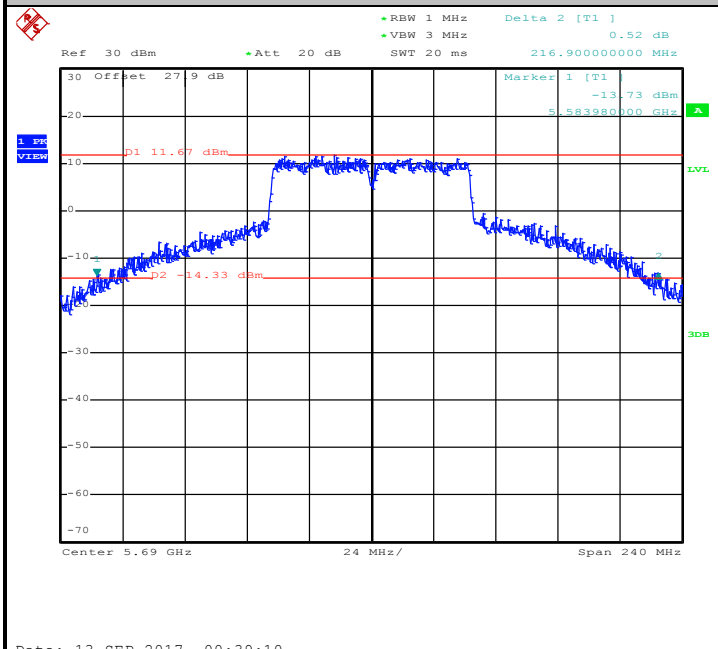
3.1.4 Test Setup



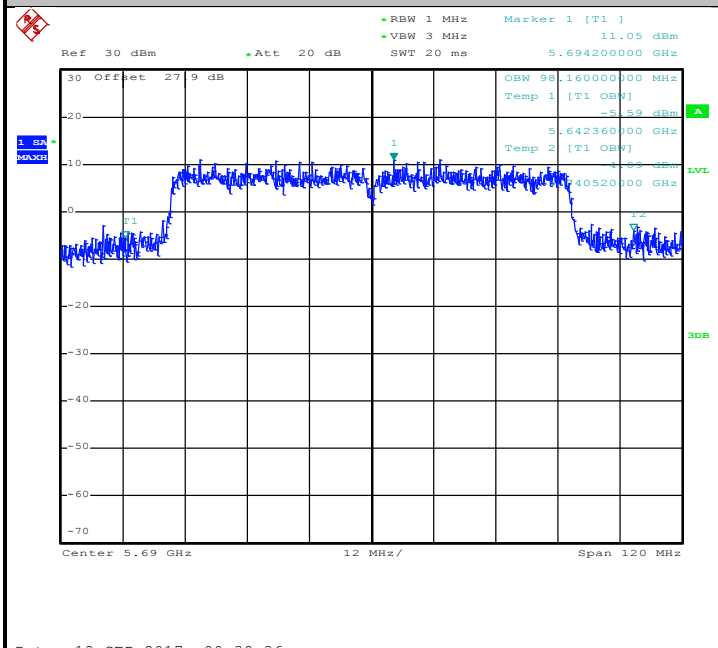
3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

Please refer to Appendix A.

Maximum 26dB Bandwidth



Maximum 99% Occupied Bandwidth



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

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

<FCC 14-30 CFR 15.407>

For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW.

For 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, U-NII procedures and limits were applied for operations in the frequency band in accordance with FCC KDB 644545 D03.

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.

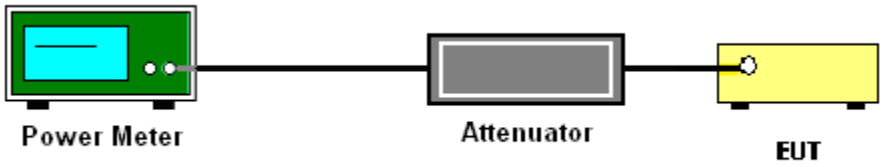
Method PM (Measurement using an RF average power meter):

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



3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

<FCC 14-30 CFR 15.407>

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

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, U-NII procedures and limits were applied for operations in the frequency band in accordance with FCC KDB 644545 D03.

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).

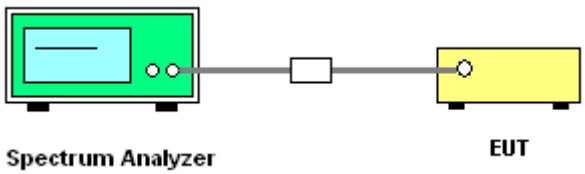
- Measure the duty cycle.
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz.
- Set VBW ≥ 3 MHz.
- Number of points in sweep ≥ 2 Span / RBW.
- Sweep time = auto.
- Detector = RMS
- Trace average at least 100 traces in power averaging mode.
- Add 10 log(1/x), 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.

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

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

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

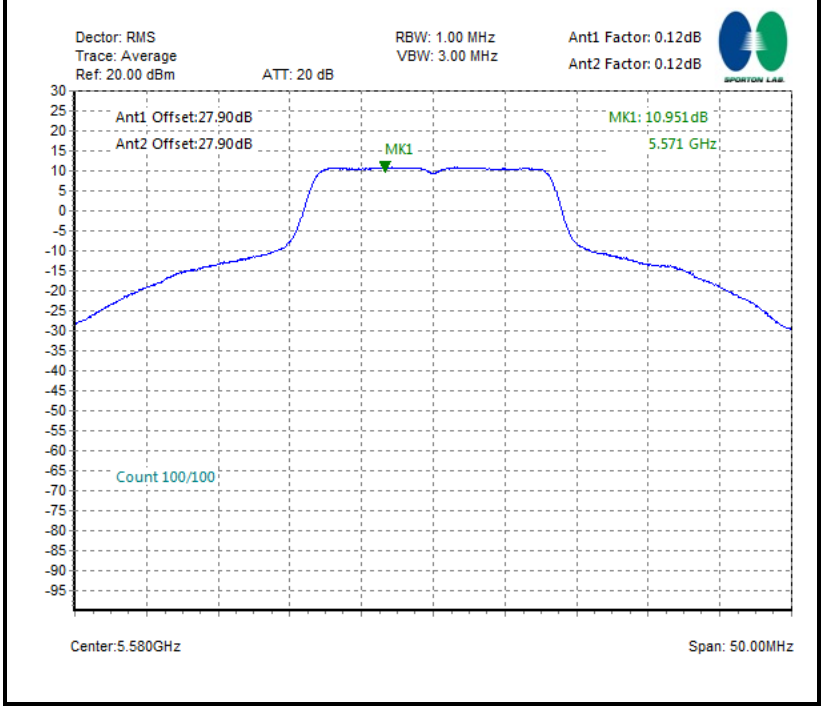
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

Worst Case Power Density (dBm/MHz)



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

3.4 Unwanted Emissions Measurement

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

3.4.1 Limit of Unwanted Emissions

(1) For transmitters operating in the 5150-5250 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of –27dBm/MHz.

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

For transmitters operating in the 5470-5600 MHz and 5650-5725MHz band: all emissions outside of the 5470-5600 MHz and 5650-5725MHz band shall not exceed an EIRP of -27 dBm/MHz.

(2) Unwanted spurious emissions fallen in restricted bands shall comply with the general field strength limits as below table,

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

Note: The following formula is used to convert the EIRP to field strength.

$$E=\frac{1000000\sqrt{30P}}{3}$$ μV/m, where P is the eirp (Watts)

EIRP (dBm)	Field Strength at 3m (dBμV/m)
-17	78.3
- 27	68.3

(3) KDB789033 D02 v01r04 G)2)c)

(i) Section 15.407(b)(1-3) specifies the unwanted emissions limit for the U-NII-1 and 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. However, 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 dBm/MHz peak emission limit.

(ii) Section 15.407(b)(4) specifies the unwanted emissions limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). 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 alternative limit.

3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

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

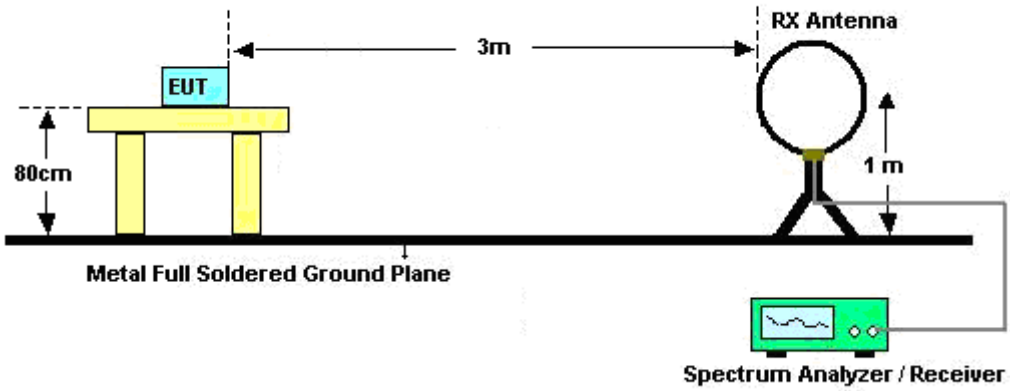
- RBW = 1 MHz

- 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.

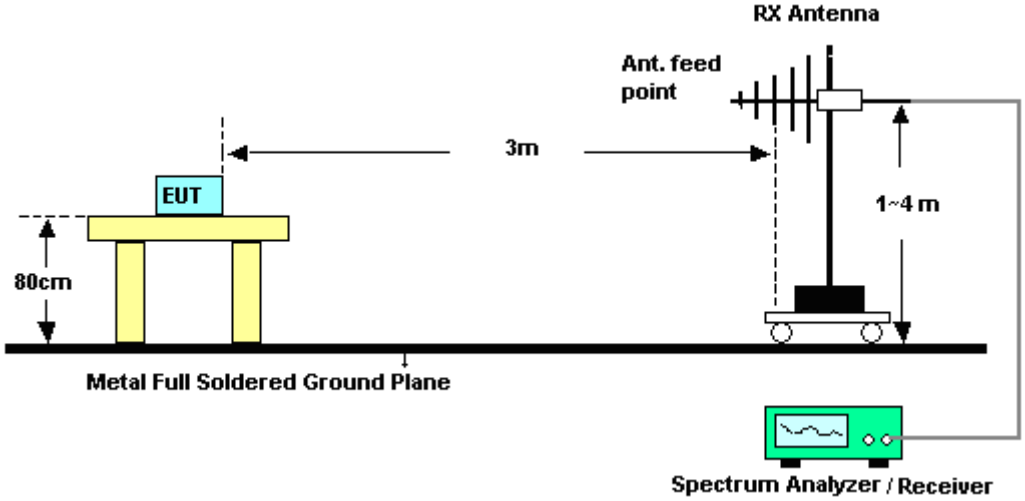
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband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

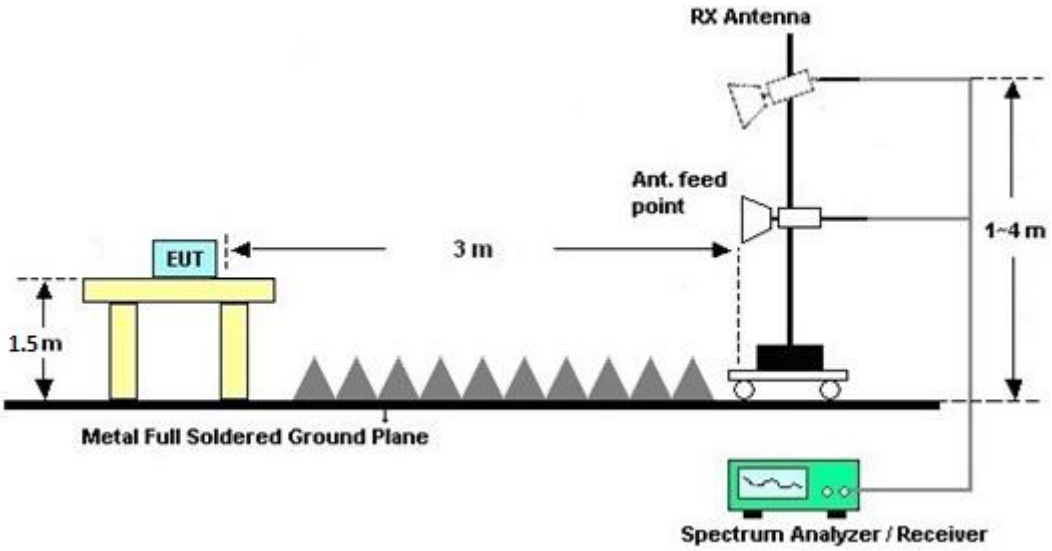
For radiated emissions below 30MHz



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 per 15.31(o) was not reported.

3.4.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C and D.

3.4.7 Duty Cycle

Please refer to Appendix E.

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

Please refer to Appendix C and D.

3.5 AC Conducted Emission Measurement

3.5.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

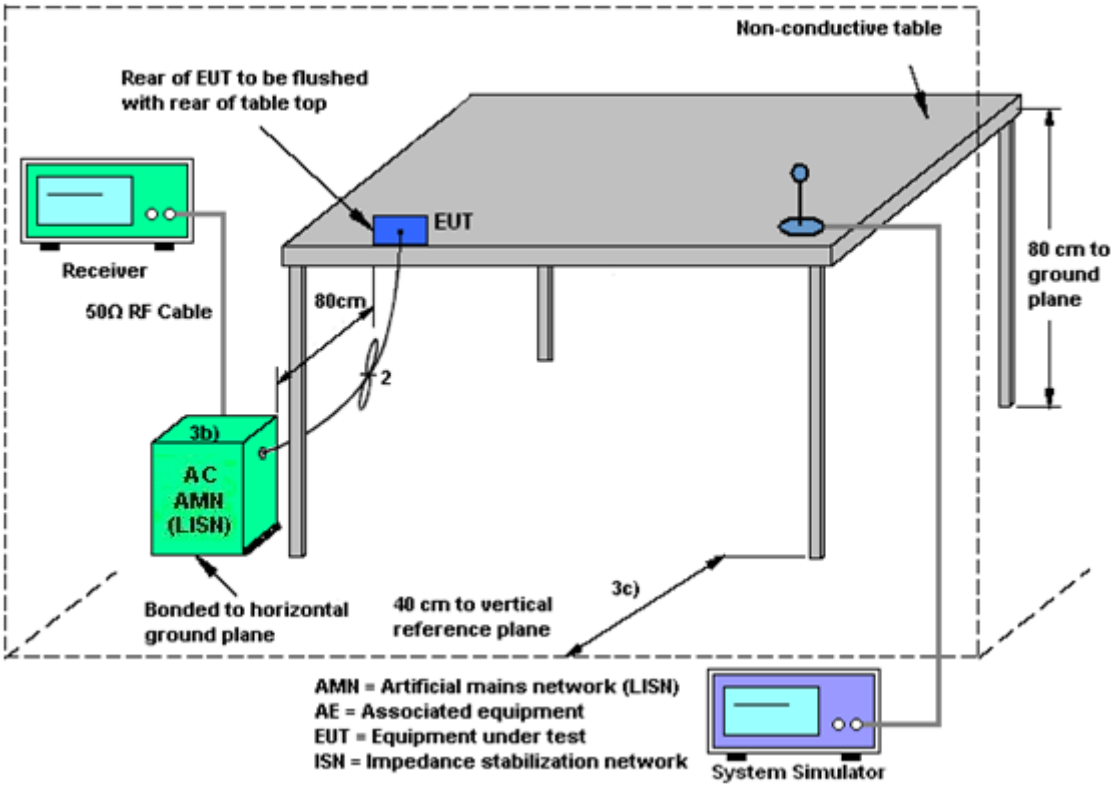
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

3.5.4 Test Setup



3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.6 Frequency Stability Measurement

3.6.1 Limit of Frequency Stability

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

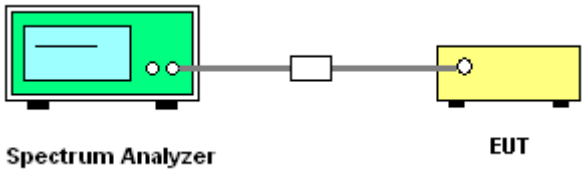
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

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

3.6.4 Test Setup



3.6.5 Test Result of Frequency Stability

Please refer to Appendix A.

3.7 Automatically Discontinue Transmission

3.7.1 Limit of Automatically Discontinue Transmission

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

3.7.2 Measuring Instruments

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

3.7.3 Test Result of Automatically Discontinue Transmission

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.

3.8 Antenna Requirements

3.8.1 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.

3.8.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.8.3 Antenna Gain

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

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

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

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

For power measurements on IEEE 802.11 devices,

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

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

The EUT supports CDD mode.

			DG	DG	Power	PSD
			for	for	Limit	Limit
	Ant 1	Ant 2	Power	PSD	Reduction	Reduction
	(dBi)	(dBi)	(dBi)	(dBi)	(dB)	(dB)
Band I	-1.00	-2.40	-1.00	1.34	0.00	0.00
Band II	-1.10	-2.20	-1.10	1.38	0.00	0.00
Band III	0.30	-1.40	0.30	2.50	0.00	0.00

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

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

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	0932001	300MHz~40GHz	Sep. 29, 2016	Aug. 29, 2017 ~ Sep. 21, 2017	Sep. 28, 2017	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	0846202	300MHz~40GHz	Sep. 29, 2016	Aug. 29, 2017 ~ Sep. 21, 2017	Sep. 28, 2017	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP30	101067	9kHz ~ 30GHz	Nov. 17, 2016	Aug. 29, 2017 ~ Sep. 21, 2017	Nov. 16, 2017	Conducted (TH05-HY)
Temperature Chamber	ESPEC	SH-641	92013720	-40℃ ~90℃	Aug. 28, 2017	Aug. 29, 2017 ~ Sep. 21, 2017	Aug. 27, 2018	Conducted (TH05-HY)
Programmable Power Supply	GW Instek	PSS-2005	EL890094	1V~20V 0.5A~5A	Oct. 11, 2016	Aug. 29, 2017 ~ Sep. 21, 2017	Oct. 10, 2017	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Sep. 21, 2017	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESCI 7	100724	9kHz~7GHz	Sep. 20, 2017	Sep. 21, 2017	Sep. 19, 2018	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 29, 2016	Sep. 21, 2017	Nov. 28, 2017	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Dec. 06, 2016	Sep. 21, 2017	Dec. 05, 2017	Conduction (CO05-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	May 15, 2017	Sep. 12, 2017 ~ Sep. 19, 2017	May 14, 2018	Radiation (03CH13-HY)
Amplifier	Sonoma-Instrument	310 N	187282	9KHz~1GHz	Dec. 21, 2016	Sep. 12, 2017 ~ Sep. 19, 2017	Dec. 20, 2017	Radiation (03CH13-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800 N1D01N-06	40103&04	30MHz to 1GHz	Jan. 07, 2017	Sep. 12, 2017 ~ Sep. 19, 2017	Jan. 06, 2018	Radiation (03CH13-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1241	1GHz ~ 18GHz	May 02, 2017	Sep. 12, 2017 ~ Sep. 19, 2017	May 01, 2018	Radiation (03CH13-HY)
Preamplifier	Keysight	83017A	MY53270147	1GHz~26.5GHz	Jan. 09, 2017	Sep. 12, 2017 ~ Sep. 19, 2017	Jan. 08, 2018	Radiation (03CH13-HY)
Spectrum Analyzer	Keysight	N9010A	MY55370526	N/A	Mar. 15, 2017	Sep. 12, 2017 ~ Sep. 19, 2017	Mar. 14, 2018	Radiation (03CH13-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Sep. 12, 2017 ~ Sep. 19, 2017	N/A	Radiation (03CH13-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Sep. 12, 2017 ~ Sep. 19, 2017	N/A	Radiation (03CH13-HY)
Preamplifier	MITEQ	AMF-7D-00101800	2025787	1GHZ~18GHZ	Feb. 13, 2017	Sep. 12, 2017 ~ Sep. 19, 2017	Feb. 12, 2018	Radiation (03CH13-HY)
EMI Test Receiver	Agilent	N9038A(MXE)	MY53290053	20Hz to 26.5GHz	Jan. 12, 2017	Sep. 12, 2017 ~ Sep. 19, 2017	Jan. 11, 2018	Radiation (03CH13-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 08, 2016	Sep. 12, 2017 ~ Sep. 19, 2017	Nov. 07, 2017	Radiation (03CH13-HY)
Preamplifier	MITEQ	TTA 1840-35-HG	1887435	18GHz ~ 40GHz	Oct. 13, 2016	Sep. 12, 2017 ~ Sep. 19, 2017	Oct. 12, 2017	Radiation (03CH13-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.70**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.90**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.40**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.30**

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Ethan Lin/Shiming Liu/Allen Lin	Temperature:	21~25	°C
Test Date:	2017/8/29~2017/9/21	Relative Humidity:	51~54	%

Report Number : FR740843E

TEST RESULTS DATA
26dB and 99% OBW

Band I														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)			Note
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	2	36	5180	19.65	19.20	40.06	42.36	-		22.83			
11a	6Mbps	2	44	5220	31.10	31.50	47.98	48.42	-		23.01			
11a	6Mbps	2	48	5240	19.20	19.00	42.89	42.03	-		22.79			
HT20	MCS0	2	36	5180	22.40	21.35	46.25	45.40	-		23.01			
HT20	MCS0	2	44	5220	33.00	31.65	52.54	50.33	-		23.01			
HT20	MCS0	2	48	5240	19.35	19.40	45.78	44.16	-		22.87			
HT40	MCS0	2	38	5190	36.80	36.90	43.68	49.24	-		23.01			
HT40	MCS0	2	46	5230	38.50	38.00	86.52	83.05	-		23.01			
VHT80	MCS0	2	42	5210	76.08	76.08	85.86	85.84	-		23.01			

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TEST RESULTS DATA
Average Power Table

FCC Band I															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)			Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	36	5180	0.08	0.08	17.19	17.61		24.00	24.00	-1.00	-2.40		Pass
11a	6Mbps	1	44	5220	0.08	0.08	19.38	19.29		24.00	24.00	-1.00	-2.40		Pass
11a	6Mbps	1	48	5240	0.08	0.08	17.93	18.08		24.00	24.00	-1.00	-2.40		Pass
HT20	MCS0	1	36	5180	0.11	0.11	18.09	18.43		24.00	24.00	-1.00	-2.40		Pass
HT20	MCS0	1	44	5220	0.11	0.11	19.21	19.06		24.00	24.00	-1.00	-2.40		Pass
HT20	MCS0	1	48	5240	0.11	0.11	17.28	17.71		24.00	24.00	-1.00	-2.40		Pass
HT40	MCS0	1	38	5190	0.18	0.18	14.29	14.58		24.00	24.00	-1.00	-2.40		Pass
HT40	MCS0	1	46	5230	0.18	0.18	17.42	17.86		24.00	24.00	-1.00	-2.40		Pass
VHT20	MCS0	1	36	5180	0.11	0.11	18.05	18.39		24.00	24.00	-1.00	-2.40		Pass
VHT20	MCS0	1	44	5220	0.11	0.11	18.46	18.76		24.00	24.00	-1.00	-2.40		Pass
VHT20	MCS0	1	48	5240	0.11	0.11	17.21	17.67		24.00	24.00	-1.00	-2.40		Pass
VHT40	MCS0	1	38	5190	0.22	0.18	14.27	14.53		24.00	24.00	-1.00	-2.40		Pass
VHT40	MCS0	1	46	5230	0.22	0.18	17.40	17.78		24.00	24.00	-1.00	-2.40		Pass
VHT80	MCS0	1	42	5210	0.32	0.36	12.62	13.15		24.00	24.00	-1.00	-2.40		Pass
11a	6Mbps	2	36	5180	0.12	0.12	17.25	17.64	20.46	24.00		-1.00			Pass
11a	6Mbps	2	44	5220	0.12	0.12	19.42	19.33	22.39	24.00		-1.00			Pass
11a	6Mbps	2	48	5240	0.12	0.12	17.98	18.09	21.05	24.00		-1.00			Pass
HT20	MCS0	2	36	5180	0.09	0.09	18.49	18.82	21.67	24.00		-1.00			Pass
HT20	MCS0	2	44	5220	0.09	0.09	19.23	19.15	22.20	24.00		-1.00			Pass
HT20	MCS0	2	48	5240	0.09	0.09	17.29	17.74	20.53	24.00		-1.00			Pass
HT40	MCS0	2	38	5190	0.18	0.18	14.34	14.63	17.50	24.00		-1.00			Pass
HT40	MCS0	2	46	5230	0.18	0.18	17.48	17.93	20.72	24.00		-1.00			Pass
VHT20	MCS0	2	36	5180	0.11	0.11	18.50	18.74	21.63	24.00		-1.00			Pass
VHT20	MCS0	2	44	5220	0.11	0.11	18.50	18.94	21.73	24.00		-1.00			Pass
VHT20	MCS0	2	48	5240	0.11	0.11	17.31	17.71	20.52	24.00		-1.00			Pass
VHT40	MCS0	2	38	5190	0.18	0.22	14.30	14.57	17.45	24.00		-1.00			Pass
VHT40	MCS0	2	46	5230	0.18	0.22	17.48	17.90	20.71	24.00		-1.00			Pass
VHT80	MCS0	2	42	5210	0.36	0.32	12.84	13.22	16.05	24.00		-1.00			Pass

TEST RESULTS DATA
Power Spectral Density

FCC Band I															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	2	36	5180	0.12	0.12			9.33	11.00		1.34			Pass
11a	6Mbps	2	44	5220	0.12	0.12			10.41	11.00		1.34			Pass
11a	6Mbps	2	48	5240	0.12	0.12			9.34	11.00		1.34			Pass
HT20	MCS0	2	36	5180	0.09	0.09			8.86	11.00		1.34			Pass
HT20	MCS0	2	44	5220	0.09	0.09			10.25	11.00		1.34			Pass
HT20	MCS0	2	48	5240	0.09	0.09			8.38	11.00		1.34			Pass
HT40	MCS0	2	38	5190	0.18	0.18			0.62	11.00		1.34			Pass
HT40	MCS0	2	46	5230	0.18	0.18			6.27	11.00		1.34			Pass
VHT80	MCS0	2	42	5210	0.36	0.32			-1.83	11.00		1.34			Pass

TEST RESULTS DATA
26dB and 99% OBW

Band II															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		Note
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	2	52	5260	18.85	19.90	46.06	46.66	23.75		29.75		23.98		
11a	6Mbps	2	60	5300	27.05	29.60	45.20	47.19	23.98		30.00		23.98		
11a	6Mbps	2	64	5320	21.85	25.50	43.78	45.01	23.98		30.00		23.98		
HT20	MCS0	2	52	5260	19.60	19.55	48.38	53.52	23.91		29.91		23.98		
HT20	MCS0	2	60	5300	28.55	28.05	49.00	49.45	23.98		30.00		23.98		
HT20	MCS0	2	64	5320	19.45	19.85	43.83	43.42	23.89		29.89		23.98		
HT40	MCS0	2	54	5270	39.20	39.90	100.10	100.66	23.98		30.00		23.98		
HT40	MCS0	2	62	5310	37.10	37.00	66.16	68.58	23.98		30.00		23.98		
VHT80	MCS0	2	58	5290	76.08	76.08	85.44	85.20	23.98		30.00		23.98		

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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
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	52	5260	0.08	0.08	19.09	19.49		23.98	23.98	-1.10	-2.20	26.99	Pass
11a	6Mbps	1	60	5300	0.08	0.08	19.11	19.28		23.98	23.98	-1.10	-2.20	26.99	Pass
11a	6Mbps	1	64	5320	0.08	0.08	18.18	18.83		23.98	23.98	-1.10	-2.20	26.99	Pass
HT20	MCS0	1	52	5260	0.11	0.11	18.71	18.96		23.98	23.98	-1.10	-2.20	26.99	Pass
HT20	MCS0	1	60	5300	0.11	0.11	18.70	18.89		23.98	23.98	-1.10	-2.20	26.99	Pass
HT20	MCS0	1	64	5320	0.11	0.11	18.19	18.42		23.98	23.98	-1.10	-2.20	26.99	Pass
HT40	MCS0	1	54	5270	0.18	0.18	18.48	19.18		23.98	23.98	-1.10	-2.20	26.99	Pass
HT40	MCS0	1	62	5310	0.18	0.18	15.18	15.54		23.98	23.98	-1.10	-2.20	26.99	Pass
VHT20	MCS0	1	52	5260	0.11	0.11	18.03	18.82		23.98	23.98	-1.10	-2.20	26.99	Pass
VHT20	MCS0	1	60	5300	0.11	0.11	18.01	18.81		23.98	23.98	-1.10	-2.20	26.99	Pass
VHT20	MCS0	1	64	5320	0.11	0.11	18.04	18.34		23.98	23.98	-1.10	-2.20	26.99	Pass
VHT40	MCS0	1	54	5270	0.22	0.18	18.47	19.13		23.98	23.98	-1.10	-2.20	26.99	Pass
VHT40	MCS0	1	62	5310	0.22	0.18	14.79	15.48		23.98	23.98	-1.10	-2.20	26.99	Pass
VHT80	MCS0	1	58	5290	0.32	0.36	11.97	12.64		23.98	23.98	-1.10	-2.20	26.99	Pass
11a	6Mbps	2	52	5260	0.12	0.12	19.10	19.54	22.34	23.98		-1.10		26.99	Pass
11a	6Mbps	2	60	5300	0.12	0.12	19.13	19.36	22.26	23.98		-1.10		26.99	Pass
11a	6Mbps	2	64	5320	0.12	0.12	18.20	18.87	21.56	23.98		-1.10		26.99	Pass
HT20	MCS0	2	52	5260	0.09	0.09	18.73	19.07	21.91	23.98		-1.10		26.99	Pass
HT20	MCS0	2	60	5300	0.09	0.09	18.85	19.00	21.94	23.98		-1.10		26.99	Pass
HT20	MCS0	2	64	5320	0.09	0.09	18.23	18.49	21.37	23.98		-1.10		26.99	Pass
HT40	MCS0	2	54	5270	0.18	0.18	18.53	19.23	21.90	23.98		-1.10		26.99	Pass
HT40	MCS0	2	62	5310	0.18	0.18	15.21	15.58	18.41	23.98		-1.10		26.99	Pass
VHT20	MCS0	2	52	5260	0.11	0.11	18.04	18.90	21.50	23.98		-1.10		26.99	Pass
VHT20	MCS0	2	60	5300	0.11	0.11	18.02	18.91	21.49	23.98		-1.10		26.99	Pass
VHT20	MCS0	2	64	5320	0.11	0.11	18.08	18.46	21.28	23.98		-1.10		26.99	Pass
VHT40	MCS0	2	54	5270	0.18	0.22	18.52	19.21	21.89	23.98		-1.10		26.99	Pass
VHT40	MCS0	2	62	5310	0.18	0.22	15.19	15.55	18.39	23.98		-1.10		26.99	Pass
VHT80	MCS0	2	58	5290	0.36	0.32	12.08	12.69	15.41	23.98		-1.10		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
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	2	52	5260	0.12	0.12			10.53	11.00		1.38			Pass
11a	6Mbps	2	60	5300	0.12	0.12			10.34	11.00		1.38			Pass
11a	6Mbps	2	64	5320	0.12	0.12			9.69	11.00		1.38			Pass
HT20	MCS0	2	52	5260	0.09	0.09			10.30	11.00		1.38			Pass
HT20	MCS0	2	60	5300	0.09	0.09			10.17	11.00		1.38			Pass
HT20	MCS0	2	64	5320	0.09	0.09			8.97	11.00		1.38			Pass
HT40	MCS0	2	54	5270	0.18	0.18			7.78	11.00		1.38			Pass
HT40	MCS0	2	62	5310	0.18	0.18			2.42	11.00		1.38			Pass
VHT80	MCS0	2	58	5290	0.36	0.32			-2.25	11.00		1.38			Pass

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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
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	2	100	5500	19.35	20.00	43.63	43.39	23.87		29.87		23.98		
11a	6Mbps	2	116	5580	20.20	20.20	41.83	43.50	23.98		30.00		23.98		
11a	6Mbps	2	140	5700	18.75	19.10	42.01	41.16	23.73		29.73		23.98		
11a	#####	2	144	5720	22.45	26.90	45.17	46.32	23.98		30.00		23.98		
HT20	MCS0	2	100	5500	19.30	19.30	44.44	43.26	23.86		29.86		23.98		
HT20	MCS0	2	116	5580	21.05	25.80	45.04	48.67	23.98		30.00		23.98		
HT20	MCS0	2	140	5700	19.00	18.95	31.60	41.05	23.78		29.78		23.98		
HT20	MCS0	2	144	5720	30.50	30.45	51.74	54.12	23.98		30.00		23.98		
HT40	MCS0	2	102	5510	36.90	36.70	56.68	68.30	23.98		30.00		23.98		
HT40	MCS0	2	110	5550	39.60	47.70	90.56	98.40	23.98		30.00		23.98		
HT40	MCS0	2	134	5670	46.10	59.50	96.00	99.12	23.98		30.00		23.98		
HT40	MCS0	2	142	5710	43.20	54.90	90.64	100.50	23.98		30.00		23.98		
VHT80	MCS0	2	106	5530	75.96	76.20	86.00	85.12	23.98		30.00		23.98		
VHT80	MCS0	2	122	5610	82.92	94.56	201.44	209.04	23.98		30.00		23.98		
VHT80	MCS0	2	138	5690	85.92	98.16	199.92	216.90	23.98		30.00		23.98		

Report Number : FR740843E

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
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	100	5500	0.08	0.08	18.64	18.04		23.98	23.98	0.30	-1.40	26.99	Pass
11a	6Mbps	1	116	5580	0.08	0.08	18.88	18.38		23.98	23.98	0.30	-1.40	26.99	Pass
11a	6Mbps	1	140	5700	0.08	0.08	17.43	17.01		23.98	23.98	0.30	-1.40	26.99	Pass
11a	6Mbps	1	144	5720	0.08	0.08	19.38	19.27		23.98	23.98	0.30	-1.40	26.99	Pass
HT20	MCS0	1	100	5500	0.11	0.11	17.91	17.71		23.98	23.98	0.30	-1.40	26.99	Pass
HT20	MCS0	1	116	5580	0.11	0.11	19.11	18.71		23.98	23.98	0.30	-1.40	26.99	Pass
HT20	MCS0	1	140	5700	0.11	0.11	16.17	16.09		23.98	23.98	0.30	-1.40	26.99	Pass
HT20	MCS0	1	144	5720	0.11	0.11	19.51	19.61		23.98	23.98	0.30	-1.40	26.99	Pass
HT40	MCS0	1	102	5510	0.18	0.18	14.01	14.14		23.98	23.98	0.30	-1.40	26.99	Pass
HT40	MCS0	1	110	5550	0.18	0.18	19.18	18.94		23.98	23.98	0.30	-1.40	26.99	Pass
HT40	MCS0	1	134	5670	0.18	0.18	18.69	19.18		23.98	23.98	0.30	-1.40	26.99	Pass
HT40	MCS0	1	142	5710	0.18	0.18	19.43	19.48		23.98	23.98	0.30	-1.40	26.99	Pass
VHT20	MCS0	1	100	5500	0.11	0.11	17.69	17.69		23.98	23.98	0.30	-1.40	26.99	Pass
VHT20	MCS0	1	116	5580	0.11	0.11	19.01	18.70		23.98	23.98	0.30	-1.40	26.99	Pass
VHT20	MCS0	1	140	5700	0.11	0.11	15.89	15.99		23.98	23.98	0.30	-1.40	26.99	Pass
VHT20	MCS0	1	144	5720	0.11	0.11	19.31	19.11		23.98	23.98	0.30	-1.40	26.99	Pass
VHT40	MCS0	1	102	5510	0.22	0.18	13.97	14.11		23.98	23.98	0.30	-1.40	26.99	Pass
VHT40	MCS0	1	110	5550	0.22	0.18	19.14	18.93		23.98	23.98	0.30	-1.40	26.99	Pass
VHT40	MCS0	1	134	5670	0.22	0.18	18.62	19.13		23.98	23.98	0.30	-1.40	26.99	Pass
VHT40	MCS0	1	142	5710	0.22	0.18	19.42	19.43		23.98	23.98	0.30	-1.40	26.99	Pass
VHT80	MCS0	1	106	5530	0.32	0.36	10.56	10.40		23.98	23.98	0.30	-1.40	26.99	Pass
VHT80	MCS0	1	122	5610	0.32	0.36	19.68	19.81		23.98	23.98	0.30	-1.40	26.99	Pass
VHT80	MCS0	1	138	5690	0.32	0.36	19.82	19.86		23.98	23.98	0.30	-1.40	26.99	Pass
11a	6Mbps	2	100	5500	0.12	0.12	18.80	18.07	21.47	23.98		0.30		26.99	Pass
11a	6Mbps	2	116	5580	0.12	0.12	19.05	18.40	21.75	23.98		0.30		26.99	Pass
11a	6Mbps	2	140	5700	0.12	0.12	17.47	17.13	20.32	23.98		0.30		26.99	Pass
11a	6Mbps	2	144	5720	0.12	0.12	19.49	19.30	22.41	23.98		0.30		26.99	Pass
HT20	MCS0	2	100	5500	0.09	0.09	17.93	17.75	20.85	23.98		0.30		26.99	Pass
HT20	MCS0	2	116	5580	0.09	0.09	19.29	18.91	22.11	23.98		0.30		26.99	Pass
HT20	MCS0	2	140	5700	0.09	0.09	16.22	16.10	19.17	23.98		0.30		26.99	Pass
HT20	MCS0	2	144	5720	0.09	0.09	19.79	19.62	22.72	23.98		0.30		26.99	Pass
HT40	MCS0	2	102	5510	0.18	0.18	14.08	14.34	17.22	23.98		0.30		26.99	Pass
HT40	MCS0	2	110	5550	0.18	0.18	19.24	18.98	22.12	23.98		0.30		26.99	Pass
HT40	MCS0	2	134	5670	0.18	0.18	18.97	19.26	22.13	23.98		0.30		26.99	Pass
HT40	MCS0	2	142	5710	0.18	0.18	19.46	19.49	22.48	23.98		0.30		26.99	Pass
VHT20	MCS0	2	100	5500	0.11	0.11	17.70	17.72	20.72	23.98		0.30		26.99	Pass
VHT20	MCS0	2	116	5580	0.11	0.11	19.12	19.06	22.10	23.98		0.30		26.99	Pass
VHT20	MCS0	2	140	5700	0.11	0.11	15.91	16.01	18.97	23.98		0.30		26.99	Pass
VHT20	MCS0	2	144	5720	0.11	0.11	19.37	19.12	22.25	23.98		0.30		26.99	Pass
VHT40	MCS0	2	102	5510	0.18	0.22	14.07	14.33	17.21	23.98		0.30		26.99	Pass
VHT40	MCS0	2	110	5550	0.18	0.22	19.20	18.97	22.10	23.98		0.30		26.99	Pass
VHT40	MCS0	2	134	5670	0.18	0.22	18.88	19.22	22.06	23.98		0.30		26.99	Pass
VHT40	MCS0	2	142	5710	0.18	0.22	19.44	19.47	22.47	23.98		0.30		26.99	Pass
VHT80	MCS0	2	106	5530	0.36	0.32	10.61	10.63	13.63	23.98		0.30		26.99	Pass
VHT80	MCS0	2	122	5610	0.36	0.32	19.99	19.91	22.96	23.98		0.30		26.99	Pass
VHT80	MCS0	2	138	5690	0.36	0.32	19.99	19.84	22.93	23.98		0.30		26.99	Pass

Report Number : FR740843E

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
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	2	100	5500	0.12	0.12			10.25	11.00		2.50			Pass
11a	6Mbps	2	116	5580	0.12	0.12			10.95	11.00		2.50			Pass
11a	6Mbps	2	140	5700	0.12	0.12			8.36	11.00		2.50			Pass
11a	6Mbps	2	144	5720	0.12	0.12			10.37	11.00		2.50			Pass
HT20	MCS0	2	100	5500	0.09	0.09			9.73	11.00		2.50			Pass
HT20	MCS0	2	116	5580	0.09	0.09			10.93	11.00		2.50			Pass
HT20	MCS0	2	140	5700	0.09	0.09			6.55	11.00		2.50			Pass
HT20	MCS0	2	144	5720	0.09	0.09			10.27	11.00		2.50			Pass
HT40	MCS0	2	102	5510	0.18	0.18			3.38	11.00		2.50			Pass
HT40	MCS0	2	110	5550	0.18	0.18			8.12	11.00		2.50			Pass
HT40	MCS0	2	134	5670	0.18	0.18			8.10	11.00		2.50			Pass
HT40	MCS0	2	142	5710	0.18	0.18			7.60	11.00		2.50			Pass
VHT80	MCS0	2	106	5530	0.36	0.32			-3.71	11.00		2.50			Pass
VHT80	MCS0	2	122	5610	0.36	0.32			5.76	11.00		2.50			Pass
VHT80	MCS0	2	138	5690	0.36	0.32			5.87	11.00		2.50			Pass

TEST RESULTS DATA
Frequency Stability

Band I										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stablility (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6Mbps	1	36	5180	5180.025	0.025	4.83	50	3.85	
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	-30	3.85	
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	20	4.2	
11a	6Mbps	1	36	5180	5180.025	0.025	4.83	20	3.6	
11a	6Mbps	1	36	5180	5180.025	0.025	4.83	20	3.85	

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	5319.975	-0.025	-4.70	50	3.85	
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	-30	3.85	
11a	6Mbps	1	64	5320	5320.025	0.025	4.70	20	4.2	
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	20	3.6	
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	20	3.85	

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	5500.025	0.025	4.55	50	3.85	
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	-30	3.85	
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	20	4.2	
11a	6Mbps	1	100	5500	5500.025	0.025	4.55	20	3.6	
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	20	3.85	

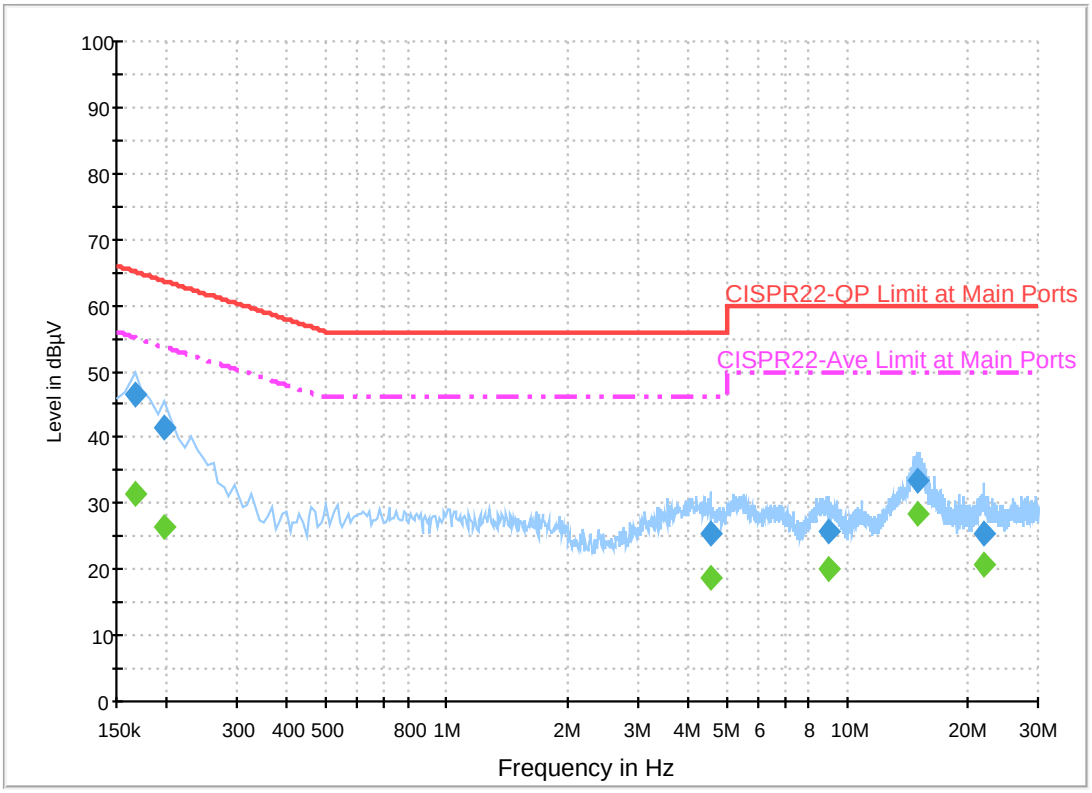
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Shareef Yu	**Temperature :**	26~27℃
		Relative Humidity :	58~62%

EUT Information

Report NO :	740843
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

ENV216 Auto Test FCC Power Bar - L



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.166000	46.5	Off	L1	19.6	18.7	65.2
0.198000	41.4	Off	L1	19.6	22.3	63.7
4.590000	25.3	Off	L1	19.7	30.7	56.0
9.022000	25.7	Off	L1	20.0	34.3	60.0
15.006000	33.3	Off	L1	20.3	26.7	60.0
21.910000	25.6	Off	L1	20.7	34.4	60.0

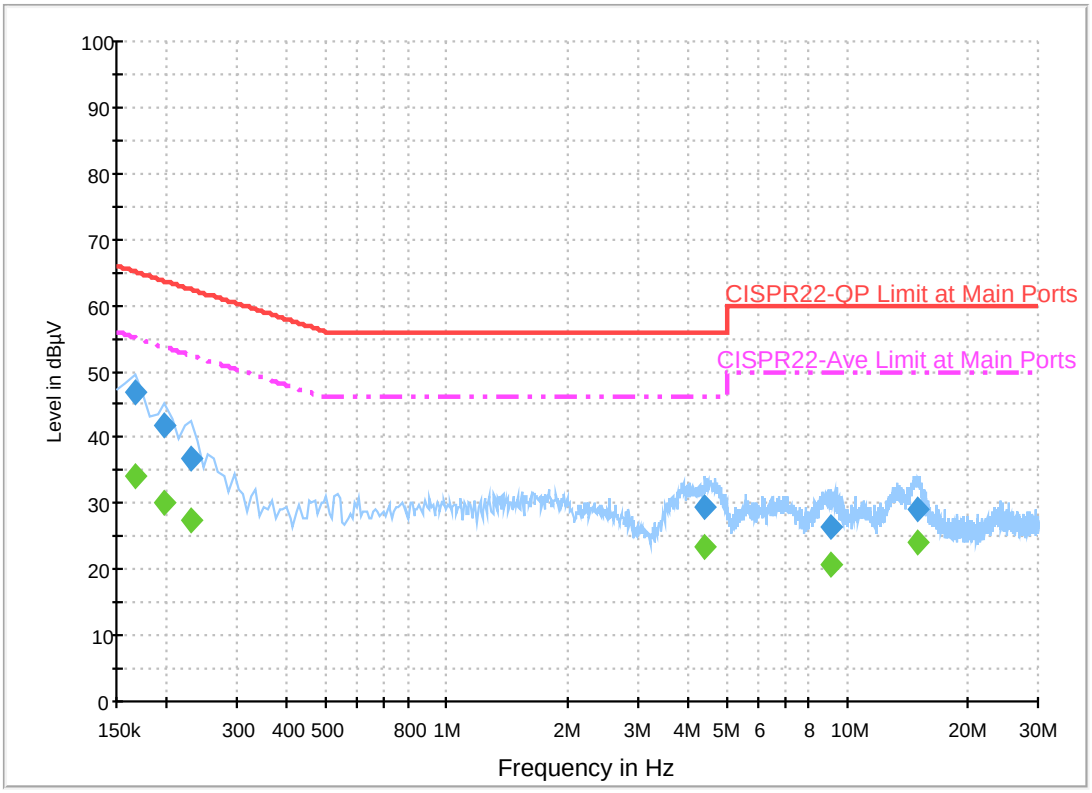
Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.166000	31.3	Off	L1	19.6	23.9	55.2
0.198000	26.3	Off	L1	19.6	27.4	53.7
4.590000	18.9	Off	L1	19.7	27.1	46.0
9.022000	20.2	Off	L1	20.0	29.8	50.0
15.006000	28.5	Off	L1	20.3	21.5	50.0
21.910000	20.7	Off	L1	20.7	29.3	50.0

EUT Information

Report NO :	740843
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral

ENV216 Auto Test FCC Power Bar - N



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.166000	46.8	Off	N	19.5	18.4	65.2
0.198000	41.7	Off	N	19.5	22.0	63.7
0.230000	36.7	Off	N	19.5	25.7	62.4
4.438000	29.4	Off	N	19.7	26.6	56.0
9.110000	26.3	Off	N	20.0	33.7	60.0
15.086000	29.0	Off	N	20.4	31.0	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.166000	34.2	Off	N	19.5	21.0	55.2
0.198000	30.0	Off	N	19.5	23.7	53.7
0.230000	27.3	Off	N	19.5	25.1	52.4
4.438000	23.3	Off	N	19.7	22.7	46.0
9.110000	20.7	Off	N	20.0	29.3	50.0
15.086000	24.1	Off	N	20.4	25.9	50.0

Appendix C. Radiated Spurious Emission

Test Engineer :	Alex Jheng, Bill Chang and Wilson Wu	Temperature :	24.5~25.3°C
		Relative Humidity :	49~51%

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5146.64	55.98	-18.02	74	47.21	31.98	7.35	30.56	100	244	P	H
		5147.16	44.96	-9.04	54	36.19	31.98	7.35	30.56	100	244	A	H
	*	5180	101.25	-	-	92.42	32.02	7.37	30.56	100	244	P	H
	*	5180	93.8	-	-	84.97	32.02	7.37	30.56	100	244	A	H
													H
													H
		5147.94	61.54	-12.46	74	52.77	31.98	7.35	30.56	100	350	P	V
		5150	51.52	-2.48	54	42.75	31.98	7.35	30.56	100	350	A	V
	*	5180	104.93	-	-	96.1	32.02	7.37	30.56	100	350	P	V
	*	5180	97.87	-	-	89.04	32.02	7.37	30.56	100	350	A	V
													V
													V
802.11a CH 44 5220MHz		5118.82	49.53	-24.47	74	40.82	31.94	7.33	30.56	100	248	P	H
		5084.76	40.96	-13.04	54	32.3	31.9	7.31	30.55	100	248	A	H
	*	5220	105.14	-	-	96.26	32.06	7.39	30.57	100	248	P	H
	*	5220	97.95	-	-	89.07	32.06	7.39	30.57	100	248	A	H
		5397.28	49.3	-24.7	74	40.13	32.28	7.49	30.6	100	248	P	H
		5455.52	40.44	-13.56	54	31.16	32.34	7.54	30.6	100	248	A	H
		5083.72	50.48	-23.52	74	41.82	31.9	7.31	30.55	107	3	P	V
		5139.1	41.04	-12.96	54	32.3	31.96	7.34	30.56	107	3	A	V
	*	5220	107.6	-	-	98.72	32.06	7.39	30.57	107	3	P	V
	*	5220	99.26	-	-	90.38	32.06	7.39	30.57	107	3	A	V
		5445.72	48.93	-25.07	74	39.67	32.34	7.52	30.6	107	3	P	V
		5455.52	40.4	-13.6	54	31.12	32.34	7.54	30.6	107	3	A	V

802.11a CH 48 5240MHz		5028.34	49.58	-24.42	74	41	31.84	7.28	30.54	100	247	P	H
		5040.56	40.83	-13.17	54	32.23	31.86	7.29	30.55	100	247	A	H
	*	5240	105.81	-	-	96.91	32.08	7.4	30.58	100	247	P	H
	*	5240	98.48	-	-	89.58	32.08	7.4	30.58	100	247	A	H
		5411.28	48.77	-25.23	74	39.6	32.28	7.49	30.6	100	247	P	H
		5458.88	40.32	-13.68	54	31.04	32.34	7.54	30.6	100	247	A	H
		5034.84	49.72	-24.28	74	41.13	31.84	7.29	30.54	100	3	P	V
		5069.42	40.97	-13.03	54	32.34	31.88	7.3	30.55	100	3	A	V
	*	5240	107.29	-	-	98.39	32.08	7.4	30.58	100	3	P	V
	*	5240	99.55	-	-	90.65	32.08	7.4	30.58	100	3	A	V
		5387.76	49.38	-24.62	74	40.24	32.26	7.48	30.6	100	3	P	V
		5459.44	40.32	-13.68	54	31.04	32.34	7.54	30.6	100	3	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5149.76	58.43	-15.57	74	49.66	31.98	7.35	30.56	100	294	P	H
		5150	51.32	-2.68	54	42.55	31.98	7.35	30.56	100	294	A	H
	*	5180	102.64	-	-	93.81	32.02	7.37	30.56	100	294	P	H
	*	5180	95.1	-	-	86.27	32.02	7.37	30.56	100	294	A	H
802.11n													H
HT20													H
CH 36		5150	59.18	-14.82	74	50.41	31.98	7.35	30.56	118	271	P	V
5180MHz		5150	46.91	-7.09	54	38.14	31.98	7.35	30.56	118	271	A	V
	*	5180	100.49	-	-	91.66	32.02	7.37	30.56	118	271	P	V
	*	5180	92.81	-	-	83.98	32.02	7.37	30.56	118	271	A	V
													V
													V
		5051.48	51.02	-22.98	74	42.42	31.86	7.29	30.55	100	298	P	H
		5147.16	41.27	-12.73	54	32.5	31.98	7.35	30.56	100	298	A	H
	*	5220	108.88	-	-	100	32.06	7.39	30.57	100	298	P	H
	*	5220	101.64	-	-	92.76	32.06	7.39	30.57	100	298	A	H
802.11n		5419.4	49.23	-24.77	74	40.02	32.3	7.51	30.6	100	298	P	H
HT20		5453.28	40.78	-13.22	54	31.5	32.34	7.54	30.6	100	298	A	H
CH 44		5079.82	49.49	-24.51	74	40.83	31.9	7.31	30.55	100	350	P	V
5220MHz		5150	41.35	-12.65	54	32.58	31.98	7.35	30.56	100	350	A	V
	*	5220	104.4	-	-	95.52	32.06	7.39	30.57	100	350	P	V
	*	5220	97.11	-	-	88.23	32.06	7.39	30.57	100	350	A	V
		5457.2	48.67	-25.33	74	39.39	32.34	7.54	30.6	100	350	P	V
		5458.6	40.69	-13.31	54	31.41	32.34	7.54	30.6	100	350	A	V

		5017.94	50.39	-23.61	74	41.83	31.82	7.28	30.54	100	291	P	H
		5045.5	41.07	-12.93	54	32.47	31.86	7.29	30.55	100	291	A	H
	*	5240	109.41	-	-	100.51	32.08	7.4	30.58	100	291	P	H
	*	5240	102.28	-	-	93.38	32.08	7.4	30.58	100	291	A	H
802.11n		5450.2	49.49	-24.51	74	40.21	32.34	7.54	30.6	100	291	P	H
HT20		5458.88	40.49	-13.51	54	31.21	32.34	7.54	30.6	100	291	A	H
CH 48		5127.92	50.11	-23.89	74	41.37	31.96	7.34	30.56	100	349	P	V
5240MHz		5114.14	41.26	-12.74	54	32.55	31.94	7.33	30.56	100	349	A	V
	*	5240	105.92	-	-	97.02	32.08	7.4	30.58	100	349	P	V
	*	5240	98.4	-	-	89.5	32.08	7.4	30.58	100	349	A	V
		5446.84	48.96	-25.04	74	39.7	32.34	7.52	30.6	100	349	P	V
		5448.8	40.34	-13.66	54	31.06	32.34	7.54	30.6	100	349	A	V

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

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10360	47.42	-20.78	68.2	62.04	39.29	10.75	65.2	100	0	P	H
		15540	48.92	-25.08	74	60.83	38.31	13	63.98	100	0	P	H
802.11n													H
HT20													H
CH 36		10360	49.44	-18.76	68.2	64.06	39.29	10.75	65.2	100	0	P	V
5180MHz		15540	47.65	-26.35	74	59.56	38.31	13	63.98	100	0	P	V
													V
													V
		10440	53.99	-14.21	68.2	68.46	39.39	10.8	65.2	100	0	P	H
		15660	49.97	-24.03	74	62.39	38	13.07	64.24	359	240	P	H
802.11n		15660	40.67	-13.33	54	53.09	38	13.07	64.24	359	240	A	H
HT20													H
CH 44		10440	51.43	-16.77	68.2	65.9	39.39	10.8	65.2	100	0	P	V
5220MHz		15660	48.48	-25.52	74	60.9	38	13.07	64.24	100	0	P	V
													V
													V
		10480	49.81	-18.39	68.2	64.17	39.47	10.83	65.2	100	0	P	H
		15720	46.23	-27.77	74	58.96	37.82	13.1	64.39	100	0	P	H
802.11n													H
HT20													H
CH 48		10480	50.41	-17.79	68.2	64.77	39.47	10.83	65.2	100	0	P	V
5240MHz		15720	44.56	-29.44	74	57.29	37.82	13.1	64.39	100	0	P	V
													V
													V

Remark

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

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	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)
		5147.42	56.14	-17.86	74	47.37	31.98	7.35	30.56	100	300	P	H
		5150	47.73	-6.27	54	38.96	31.98	7.35	30.56	100	300	A	H
	*	5190	95.31	-	-	86.49	32.02	7.37	30.57	100	300	P	H
	*	5190	88.17	-	-	79.35	32.02	7.37	30.57	100	300	A	H
802.11n		5440.68	48.48	-25.52	74	39.24	32.32	7.52	30.6	100	300	P	H
HT40		5454.4	41.18	-12.82	54	31.9	32.34	7.54	30.6	100	300	A	H
CH 38		5150	60.17	-13.83	74	51.4	31.98	7.35	30.56	100	350	P	V
5190MHz		5150	51.75	-2.25	54	42.98	31.98	7.35	30.56	100	350	A	V
	*	5190	98.75	-	-	89.93	32.02	7.37	30.57	100	350	P	V
	*	5190	91.5	-	-	82.68	32.02	7.37	30.57	100	350	A	V
		5444.88	49.15	-24.85	74	39.91	32.32	7.52	30.6	100	350	P	V
		5458.04	41.14	-12.86	54	31.86	32.34	7.54	30.6	100	350	A	V
		5087.1	50.25	-23.75	74	41.59	31.9	7.31	30.55	100	300	P	H
		5150	43.08	-10.92	54	34.31	31.98	7.35	30.56	100	300	A	H
	*	5230	102.71	-	-	93.81	32.08	7.39	30.57	100	300	P	H
	*	5230	95.54	-	-	86.64	32.08	7.39	30.57	100	300	A	H
802.11n		5424.44	48.67	-25.33	74	39.46	32.3	7.51	30.6	100	300	P	H
HT40		5435.36	40.72	-13.28	54	31.48	32.32	7.52	30.6	100	300	A	H
CH 46		5150	52.56	-21.44	74	43.79	31.98	7.35	30.56	100	353	P	V
5230MHz		5148.72	43.08	-10.92	54	34.31	31.98	7.35	30.56	100	353	A	V
	*	5230	101.63	-	-	92.73	32.08	7.39	30.57	100	353	P	V
	*	5230	94.21	-	-	85.31	32.08	7.39	30.57	100	353	A	V
		5383	49.16	-24.84	74	40.01	32.26	7.48	30.59	100	353	P	V
		5352.76	40.74	-13.26	54	31.65	32.22	7.46	30.59	100	353	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5147.42	60.34	-13.66	74	51.57	31.98	7.35	30.56	219	292	P	H
		5148.2	51.98	-2.02	54	43.21	31.98	7.35	30.56	219	292	A	H
	*	5210	99.89	-	-	91.02	32.06	7.38	30.57	219	292	P	H
	*	5210	92.23	-	-	83.36	32.06	7.38	30.57	219	292	A	H
		5357.24	49.69	-24.31	74	40.6	32.22	7.46	30.59	219	292	P	H
		5442.36	41.04	-12.96	54	31.8	32.32	7.52	30.6	219	292	A	H
		5141.18	58.98	-15.02	74	50.22	31.98	7.34	30.56	224	360	P	V
		5144.56	48.76	-5.24	54	39.99	31.98	7.35	30.56	224	360	A	V
	*	5210	94.72	-	-	85.85	32.06	7.38	30.57	224	360	P	V
	*	5210	87.55	-	-	78.68	32.06	7.38	30.57	224	360	A	V
		5355.84	50.6	-23.4	74	41.51	32.22	7.46	30.59	224	360	P	V
		5458.88	41.11	-12.89	54	31.83	32.34	7.54	30.6	224	360	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 - 5250~5350MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 52 5260MHz		5101.66	49.25	-24.75	74	40.56	31.92	7.32	30.55	100	246	P	H
		5103.36	41.05	-12.95	54	32.36	31.92	7.32	30.55	100	246	A	H
	*	5260	106.22	-	-	97.27	32.12	7.41	30.58	100	246	P	H
	*	5260	98.57	-	-	89.62	32.12	7.41	30.58	100	246	A	H
		5415.6	48.71	-25.29	74	39.5	32.3	7.51	30.6	100	246	P	H
		5459.28	40.33	-13.67	54	31.05	32.34	7.54	30.6	100	246	A	H
		5012.24	51.26	-22.74	74	42.71	31.82	7.27	30.54	162	349	P	V
		5130.9	41.02	-12.98	54	32.28	31.96	7.34	30.56	162	349	A	V
	*	5260	106.92	-	-	97.97	32.12	7.41	30.58	162	349	P	V
	*	5260	99.76	-	-	90.81	32.12	7.41	30.58	162	349	A	V
		5353.44	50.35	-23.65	74	41.26	32.22	7.46	30.59	162	349	P	V
		5455.68	40.45	-13.55	54	31.17	32.34	7.54	30.6	162	349	A	V
802.11a CH 60 5300MHz		5055.08	50.19	-23.81	74	41.56	31.88	7.3	30.55	100	246	P	H
		5046.58	41.18	-12.82	54	32.58	31.86	7.29	30.55	100	246	A	H
	*	5300	105.24	-	-	96.23	32.16	7.43	30.58	100	246	P	H
	*	5300	98.21	-	-	89.2	32.16	7.43	30.58	100	246	A	H
		5438.64	49.79	-24.21	74	40.55	32.32	7.52	30.6	100	246	P	H
		5350.56	41.85	-12.15	54	32.76	32.22	7.46	30.59	100	246	A	H
		5005.1	49.88	-24.12	74	41.33	31.82	7.27	30.54	112	350	P	V
		5056.1	41.08	-12.92	54	32.45	31.88	7.3	30.55	112	350	A	V
	*	5300	107.21	-	-	98.2	32.16	7.43	30.58	112	350	P	V
	*	5300	99.86	-	-	90.85	32.16	7.43	30.58	112	350	A	V
		5357.04	54.19	-19.81	74	45.1	32.22	7.46	30.59	112	350	P	V
		5350.8	43.78	-10.22	54	34.69	32.22	7.46	30.59	112	350	A	V

802.11a CH 64 5320MHz	*	5320	105.51	-	-	96.48	32.18	7.44	30.59	110	242	P	H
	*	5320	98.09	-	-	89.06	32.18	7.44	30.59	110	242	A	H
		5350.72	58.04	-15.96	74	48.95	32.22	7.46	30.59	110	242	P	H
		5350.24	50.24	-3.76	54	41.15	32.22	7.46	30.59	110	242	A	H
													H
													H
	*	5320	105.86	-	-	96.83	32.18	7.44	30.59	120	349	P	V
	*	5320	98.6	-	-	89.57	32.18	7.44	30.59	120	349	A	V
		5350.56	60.47	-13.53	74	51.38	32.22	7.46	30.59	120	349	P	V
		5350.08	51.59	-2.41	54	42.5	32.22	7.46	30.59	120	349	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5009.86	49.57	-24.43	74	41.02	31.82	7.27	30.54	100	290	P	H
		5049.98	41.16	-12.84	54	32.56	31.86	7.29	30.55	100	290	A	H
	*	5260	109.99	-	-	101.04	32.12	7.41	30.58	100	290	P	H
	*	5260	102.33	-	-	93.38	32.12	7.41	30.58	100	290	A	H
802.11n		5451.6	49.27	-24.73	74	39.99	32.34	7.54	30.6	100	290	P	H
HT20		5350	40.67	-13.33	54	31.58	32.22	7.46	30.59	100	290	A	H
CH 52		5085	49.61	-24.39	74	40.95	31.9	7.31	30.55	100	350	P	V
5260MHz		5046.92	41	-13	54	32.4	31.86	7.29	30.55	100	350	A	V
	*	5260	106.89	-	-	97.94	32.12	7.41	30.58	100	350	P	V
	*	5260	99.06	-	-	90.11	32.12	7.41	30.58	100	350	A	V
		5359.68	49.51	-24.49	74	40.41	32.22	7.47	30.59	100	350	P	V
		5458.08	40.34	-13.66	54	31.06	32.34	7.54	30.6	100	350	A	V
		5112.2	50	-24	74	41.28	31.94	7.33	30.55	100	291	P	H
		5089.42	40.99	-13.01	54	32.3	31.92	7.32	30.55	100	291	A	H
	*	5300	110.32	-	-	101.31	32.16	7.43	30.58	100	291	P	H
	*	5300	102.82	-	-	93.81	32.16	7.43	30.58	100	291	A	H
802.11n		5351.52	58.93	-15.07	74	49.84	32.22	7.46	30.59	100	291	P	H
HT20		5351.28	45.94	-8.06	54	36.85	32.22	7.46	30.59	100	291	A	H
CH 60		5014.28	49.16	-24.84	74	40.61	31.82	7.27	30.54	196	360	P	V
5300MHz		5115.94	41.19	-12.81	54	32.48	31.94	7.33	30.56	196	360	A	V
	*	5300	107	-	-	97.99	32.16	7.43	30.58	196	360	P	V
	*	5300	99.33	-	-	90.32	32.16	7.43	30.58	196	360	A	V
		5351.28	53.89	-20.11	74	44.8	32.22	7.46	30.59	196	360	P	V
		5350.08	43.89	-10.11	54	34.8	32.22	7.46	30.59	196	360	A	V

	*	5320	105.34	-	-	96.31	32.18	7.44	30.59	100	290	P	H
	*	5320	97.85	-	-	88.82	32.18	7.44	30.59	100	290	A	H
		5350.24	64.39	-9.61	74	55.3	32.22	7.46	30.59	100	290	P	H
		5350.08	50.83	-3.17	54	41.74	32.22	7.46	30.59	100	290	A	H
802.11n													H
HT20													H
CH 64	*	5320	105.81	-	-	96.78	32.18	7.44	30.59	144	360	P	V
5320MHz	*	5320	98.26	-	-	89.23	32.18	7.44	30.59	144	360	A	V
		5351.84	63.68	-10.32	74	54.59	32.22	7.46	30.59	144	360	P	V
		5350.08	50.62	-3.38	54	41.53	32.22	7.46	30.59	144	360	A	V
													V
													V

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

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	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)
		10520	49.16	-19.04	68.2	63.44	39.52	10.86	65.2	100	0	P	H
		15780	44.93	-29.07	74	57.89	37.68	13.13	64.51	100	0	P	H
802.11n													H
HT20													H
CH 52		10520	46.73	-21.47	68.2	61.01	39.52	10.86	65.2	100	0	P	V
5260MHz		15780	45.66	-28.34	74	58.62	37.68	13.13	64.51	100	0	P	V
													V
													V
		10600	49.4	-24.6	74	63.52	39.62	10.9	65.18	171	16	P	H
		10600	40.1	-13.9	54	54.22	39.62	10.9	65.18	171	16	A	H
802.11n		15900	45.74	-28.26	74	59.21	37.37	13.2	64.77	100	0	P	H
HT20													H
CH 60		10600	50.93	-23.07	74	65.05	39.62	10.9	65.18	193	21	P	V
5300MHz		10600	41.38	-12.62	54	55.5	39.62	10.9	65.18	193	21	A	V
		15900	45.26	-28.74	74	58.73	37.37	13.2	64.77	100	0	P	V
													V
		10640	46.7	-27.3	74	60.74	39.67	10.93	65.17	100	0	P	H
		15960	46.51	-27.49	74	60.29	37.19	13.23	64.92	100	0	P	H
802.11n													H
HT20													H
CH 64		10640	47.09	-26.91	74	61.13	39.67	10.93	65.17	100	0	P	V
5320MHz		15960	44.54	-29.46	74	58.32	37.19	13.23	64.92	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	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)
		5127.16	51.34	-22.66	74	42.6	31.96	7.34	30.56	100	326	P	H
		5068.34	41.7	-12.3	54	33.07	31.88	7.3	30.55	100	326	A	H
	*	5270	103.38	-	-	94.42	32.12	7.42	30.58	100	326	P	H
	*	5270	96	-	-	87.04	32.12	7.42	30.58	100	326	A	H
802.11n		5353.92	55.69	-18.31	74	46.6	32.22	7.46	30.59	100	326	P	H
HT40		5350.8	47.03	-6.97	54	37.94	32.22	7.46	30.59	100	326	A	H
CH 54		5069.02	50.04	-23.96	74	41.41	31.88	7.3	30.55	100	349	P	V
5270MHz		5102.68	41.87	-12.13	54	33.18	31.92	7.32	30.55	100	349	A	V
	*	5270	103.59	-	-	94.63	32.12	7.42	30.58	100	349	P	V
	*	5270	96.13	-	-	87.17	32.12	7.42	30.58	100	349	A	V
		5355.84	56.63	-17.37	74	47.54	32.22	7.46	30.59	100	349	P	V
		5352.48	47.68	-6.32	54	38.59	32.22	7.46	30.59	100	349	A	V
		5049.3	50.11	-23.89	74	41.51	31.86	7.29	30.55	100	327	P	H
		5081.6	41.89	-12.11	54	33.23	31.9	7.31	30.55	100	327	A	H
	*	5310	96.69	-	-	87.65	32.18	7.44	30.58	100	327	P	H
	*	5310	89.27	-	-	80.23	32.18	7.44	30.58	100	327	A	H
802.11n		5350.8	58.69	-15.31	74	49.6	32.22	7.46	30.59	100	327	P	H
HT40		5350.08	50.42	-3.58	54	41.33	32.22	7.46	30.59	100	327	A	H
CH 62		5030.26	50.79	-23.21	74	42.21	31.84	7.28	30.54	170	349	P	V
5310MHz		5099.96	41.86	-12.14	54	33.17	31.92	7.32	30.55	170	349	A	V
	*	5310	98.93	-	-	89.89	32.18	7.44	30.58	170	349	P	V
	*	5310	91.31	-	-	82.27	32.18	7.44	30.58	170	349	A	V
		5350.56	61.27	-12.73	74	52.18	32.22	7.46	30.59	170	349	P	V
		5350.08	51.63	-2.37	54	42.54	32.22	7.46	30.59	170	349	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 58 5290MHz		5080.92	51	-23	74	42.34	31.9	7.31	30.55	229	296	P	H
		5102.68	41.77	-12.23	54	33.08	31.92	7.32	30.55	229	296	A	H
	*	5290	98.8	-	-	89.81	32.14	7.43	30.58	229	296	P	H
	*	5290	91.41	-	-	82.42	32.14	7.43	30.58	229	296	A	H
		5351.04	60.18	-13.82	74	51.09	32.22	7.46	30.59	229	296	P	H
		5350.32	51.6	-2.4	54	42.51	32.22	7.46	30.59	229	296	A	H
		5044.88	49.77	-24.23	74	41.17	31.86	7.29	30.55	228	256	P	V
		5062.9	41.68	-12.32	54	33.05	31.88	7.3	30.55	228	256	A	V
	*	5290	94.04	-	-	85.05	32.14	7.43	30.58	228	256	P	V
	*	5290	85.61	-	-	76.62	32.14	7.43	30.58	228	256	A	V
		5351.52	54.82	-19.18	74	45.73	32.22	7.46	30.59	228	256	P	V
		5350.08	46.96	-7.04	54	37.87	32.22	7.46	30.59	228	256	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11400	47.02	-26.98	74	60.63	39.94	11.27	65.34	100	0	P	H
		17100	48.63	-19.57	68.2	58.83	40.24	13.37	64.46	100	0	P	H
802.11ac													H
VHT80													H
CH 58		11400	46.78	-27.22	74	60.39	39.94	11.27	65.34	100	0	P	V
5290MHz		17100	49.22	-18.98	68.2	59.42	40.24	13.37	64.46	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 100 5500MHz		5459.28	55.15	-18.85	74	45.87	32.34	7.54	30.6	117	327	P	H
		5470	61.45	-6.75	68.2	52.14	32.36	7.56	30.61	117	327	P	H
		5459.44	44.69	-9.31	54	35.41	32.34	7.54	30.6	117	327	A	H
	*	5500	103.13	-	-	93.76	32.4	7.58	30.61	117	327	P	H
	*	5500	95.37	-	-	86	32.4	7.58	30.61	117	327	A	H
													H
		5458.64	60.35	-13.65	74	51.07	32.34	7.54	30.6	146	350	P	V
		5467.28	65.61	-2.59	68.2	56.3	32.36	7.56	30.61	146	350	P	V
		5458	46.96	-7.04	54	37.68	32.34	7.54	30.6	146	350	A	V
	*	5500	105.47	-	-	96.1	32.4	7.58	30.61	146	350	P	V
	*	5500	97.73	-	-	88.36	32.4	7.58	30.61	146	350	A	V
													V
802.11a CH 116 5580MHz		5456.8	48.74	-25.26	74	39.46	32.34	7.54	30.6	100	328	P	H
		5469.76	48.87	-19.33	68.2	39.56	32.36	7.56	30.61	100	328	P	H
		5458	40.04	-13.96	54	30.76	32.34	7.54	30.6	100	328	A	H
	*	5580	108.26	-	-	98.77	32.47	7.66	30.64	100	328	P	H
	*	5580	100.67	-	-	91.18	32.47	7.66	30.64	100	328	A	H
		5752.085	50.3	-17.9	68.2	40.54	32.66	7.83	30.73	100	328	P	H
		5454.4	48.55	-25.45	74	39.27	32.34	7.54	30.6	109	258	P	V
		5465.44	48.35	-19.85	68.2	39.06	32.36	7.54	30.61	109	258	P	V
		5450.32	40.19	-13.81	54	30.91	32.34	7.54	30.6	109	258	A	V
	*	5580	107.2	-	-	97.71	32.47	7.66	30.64	109	258	P	V
	*	5580	100.01	-	-	90.52	32.47	7.66	30.64	109	258	A	V
		5755.235	48.84	-19.36	68.2	39.07	32.66	7.84	30.73	109	258	P	V

802.11a CH 140 5700MHz	*	5700	105.05	-	-	-	32.59	7.79	30.7	142	326	P	H
	*	5700	97.18	-	-	-	32.59	7.79	30.7	142	326	A	H
		5725.16	64.81	-3.39	68.2	55.09	32.62	7.81	30.71	142	326	P	H
													H
													H
													H
	*	5700	105.4	-	-	-	32.59	7.79	30.7	100	270	P	V
	*	5700	97.42	-	-	-	32.59	7.79	30.7	100	270	A	V
		5725.4	65.8	-2.4	68.2	56.08	32.62	7.81	30.71	100	270	P	V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1+2	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		11000	47.12	-26.88	74	60.44	40.1	11.16	65.1	100	0	P	H
		16500	46.65	-21.55	68.2	59.48	38.3	13.28	65.1	100	0	P	H
													H
													H
		11000	46.52	-27.48	74	59.84	40.1	11.16	65.1	100	0	P	V
		16500	46.24	-21.96	68.2	59.07	38.3	13.28	65.1	100	0	P	V
													V
													V
802.11a CH 116 5580MHz		11160	47.76	-26.24	74	61.21	40.03	11.2	65.2	100	0	P	H
		16740	49.81	-18.39	68.2	61.59	39.12	13.29	64.86	100	0	P	H
													H
													H
		11160	46.73	-27.27	74	60.18	40.03	11.2	65.2	100	0	P	V
		16740	48.92	-19.28	68.2	60.7	39.12	13.29	64.86	100	0	P	V
													V
													V
802.11a CH 140 5700MHz		11400	47.02	-26.98	74	60.63	39.94	11.27	65.34	100	0	P	H
		17100	48.63	-19.57	68.2	58.83	40.24	13.37	64.46	100	0	P	H
													H
													H
		11400	46.78	-27.22	74	60.39	39.94	11.27	65.34	100	0	P	V
		17100	49.22	-18.98	68.2	59.42	40.24	13.37	64.46	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	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)
		5459.44	62.52	-11.48	74	53.24	32.34	7.54	30.6	100	289	P	H
		5469.52	62.58	-5.62	68.2	53.27	32.36	7.56	30.61	100	289	P	H
		5459.76	47.91	-6.09	54	38.63	32.34	7.54	30.6	100	289	A	H
	*	5500	107.65	-	-	98.28	32.4	7.58	30.61	100	289	P	H
802.11n	*	5500	99.89	-	-	90.52	32.4	7.58	30.61	100	289	A	H
HT20													H
CH 100		5459.92	53.09	-20.91	74	43.81	32.34	7.54	30.6	100	269	P	V
5500MHz		5467.92	62.8	-5.4	68.2	53.49	32.36	7.56	30.61	100	269	P	V
		5460	44.29	-9.71	54	35.01	32.34	7.54	30.6	100	269	A	V
	*	5500	104.76	-	-	95.39	32.4	7.58	30.61	100	269	P	V
	*	5500	97.43	-	-	88.06	32.4	7.58	30.61	100	269	A	V
													V
		5443.36	48.73	-25.27	74	39.49	32.32	7.52	30.6	100	290	P	H
		5465.68	48.82	-19.38	68.2	39.53	32.36	7.54	30.61	100	290	P	H
		5458.48	40.59	-13.41	54	31.31	32.34	7.54	30.6	100	290	A	H
	*	5580	112.31	-	-	102.82	32.47	7.66	30.64	100	290	P	H
802.11n	*	5580	104.94	-	-	95.45	32.47	7.66	30.64	100	290	A	H
HT20		5764.37	49.49	-18.71	68.2	39.73	32.66	7.84	30.74	100	290	P	H
CH 116		5405.92	49.51	-24.49	74	40.34	32.28	7.49	30.6	100	271	P	V
5580MHz		5468.56	49.18	-19.02	68.2	39.87	32.36	7.56	30.61	100	271	P	V
		5459.44	40.45	-13.55	54	31.17	32.34	7.54	30.6	100	271	A	V
	*	5580	107.76	-	-	98.27	32.47	7.66	30.64	100	271	P	V
	*	5580	100.06	-	-	90.57	32.47	7.66	30.64	100	271	A	V
		5746.73	48.79	-19.41	68.2	39.05	32.64	7.83	30.73	100	271	P	V

	*	5700	106.91	-	-	97.23	32.59	7.79	30.7	100	289	P	H
	*	5700	99.41	-	-	89.73	32.59	7.79	30.7	100	289	A	H
		5734.04	63.2	-5	68.2	53.48	32.62	7.81	30.71	100	289	P	H
													H
802.11n													H
HT20													H
CH 140	*	5700	103.21	-	-	93.53	32.59	7.79	30.7	100	266	P	V
5700MHz	*	5700	95.99	-	-	86.31	32.59	7.79	30.7	100	266	A	V
		5725	63.87	-4.33	68.2	54.15	32.62	7.81	30.71	100	266	P	V
													V
													V
													V

Remark

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

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	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)
		11000	47.12	-26.88	74	60.44	40.1	11.16	65.1	100	0	P	H
		16500	46.65	-21.55	68.2	59.48	38.3	13.28	65.1	100	0	P	H
802.11n													H
HT20													H
CH 100		11000	46.52	-27.48	74	59.84	40.1	11.16	65.1	100	0	P	V
5500MHz		16500	46.24	-21.96	68.2	59.07	38.3	13.28	65.1	100	0	P	V
													V
													V
		11160	47.76	-26.24	74	61.21	40.03	11.2	65.2	100	0	P	H
		16740	49.81	-18.39	68.2	61.59	39.12	13.29	64.86	100	0	P	H
802.11n													H
HT20													H
CH 116		11160	46.73	-27.27	74	60.18	40.03	11.2	65.2	100	0	P	V
5580MHz		16740	48.92	-19.28	68.2	60.7	39.12	13.29	64.86	100	0	P	V
													V
													V
		11400	46.72	-27.28	74	60.33	39.94	11.27	65.34	100	0	P	H
		17100	48.19	-20.01	68.2	58.39	40.24	13.37	64.46	100	0	P	H
802.11n													H
HT20													H
CH 140		11400	47.31	-26.69	74	60.92	39.94	11.27	65.34	100	0	P	V
5700MHz		17100	48.46	-19.74	68.2	58.66	40.24	13.37	64.46	100	0	P	V
													V
													V

Remark

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

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	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)
		5459.2	55.04	-18.96	74	45.76	32.34	7.54	30.6	116	326	P	H
		5463.76	63.49	-4.71	68.2	54.2	32.36	7.54	30.61	116	326	P	H
		5458.72	46.21	-7.79	54	36.93	32.34	7.54	30.6	116	326	A	H
	*	5510	102.24	-	-	92.86	32.4	7.59	30.61	116	326	P	H
802.11n	*	5510	95.25	-	-	85.87	32.4	7.59	30.61	116	326	A	H
HT40		5744.21	50.36	-17.84	68.2	40.62	32.64	7.83	30.73	116	326	P	H
CH 102		5455.12	56.55	-17.45	74	47.27	32.34	7.54	30.6	160	351	P	V
5510MHz		5470	61.56	-6.64	68.2	52.25	32.36	7.56	30.61	160	351	P	V
		5459.44	45.43	-8.57	54	36.15	32.34	7.54	30.6	160	351	A	V
	*	5510	100.84	-	-	91.46	32.4	7.59	30.61	160	351	P	V
	*	5510	93	-	-	83.62	32.4	7.59	30.61	160	351	A	V
		5748.305	49.65	-18.55	68.2	39.91	32.64	7.83	30.73	160	351	P	V
		5453.68	58.93	-15.07	74	49.65	32.34	7.54	30.6	111	327	P	H
		5464.96	61.05	-7.15	68.2	51.76	32.36	7.54	30.61	111	327	P	H
		5459.92	47.86	-6.14	54	38.58	32.34	7.54	30.6	111	327	A	H
	*	5550	107.69	-	-	98.24	32.45	7.63	30.63	111	327	P	H
802.11n	*	5550	99.3	-	-	89.85	32.45	7.63	30.63	111	327	A	H
HT40		5754.29	50.17	-18.03	68.2	40.4	32.66	7.84	30.73	111	327	P	H
CH 110		5456.32	59.23	-14.77	74	49.95	32.34	7.54	30.6	157	351	P	V
5550MHz		5464.72	62.15	-6.05	68.2	52.86	32.36	7.54	30.61	157	351	P	V
		5455.6	48.29	-5.71	54	39.01	32.34	7.54	30.6	157	351	A	V
	*	5550	105.43	-	-	95.98	32.45	7.63	30.63	157	351	P	V
	*	5550	97.1	-	-	87.65	32.45	7.63	30.63	157	351	A	V
		5726.885	50.54	-17.66	68.2	40.82	32.62	7.81	30.71	157	351	P	V

		5434.35	49.56	-24.44	74	40.32	32.32	7.52	30.6	129	328	P	H
		5463.75	48.48	-19.72	68.2	39.19	32.36	7.54	30.61	129	328	P	H
		5457.45	40.78	-13.22	54	31.5	32.34	7.54	30.6	129	328	A	H
	*	5670	105.2	-	-	95.57	32.57	7.75	30.69	129	328	P	H
802.11n	*	5670	98.28	-	-	88.65	32.57	7.75	30.69	129	328	A	H
HT40		5730.035	62.27	-5.93	68.2	52.55	32.62	7.81	30.71	129	328	P	H
CH 134		5459.9	48.7	-25.3	74	39.42	32.34	7.54	30.6	319	350	P	V
5670MHz		5465.5	48.2	-20	68.2	38.91	32.36	7.54	30.61	319	350	P	V
		5459.2	40.92	-13.08	54	31.64	32.34	7.54	30.6	319	350	A	V
	*	5670	103.18	-	-	93.55	32.57	7.75	30.69	319	350	P	V
	*	5670	96.2	-	-	86.57	32.57	7.75	30.69	319	350	A	V
		5725.625	62.22	-5.98	68.2	52.5	32.62	7.81	30.71	319	350	P	V

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

Band 3 - 5470~5725MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 106 5530MHz		5459.68	60.33	-13.67	74	51.05	32.34	7.54	30.6	233	295	P	H
		5460.4	60.93	-7.27	68.2	51.65	32.34	7.54	30.6	233	295	P	H
		5459.92	51.84	-2.16	54	42.56	32.34	7.54	30.6	233	295	A	H
	*	5530	101.58	-	-	92.17	32.42	7.61	30.62	233	295	P	H
	*	5530	93.15	-	-	83.74	32.42	7.61	30.62	233	295	A	H
		5743.58	51.46	-16.74	68.2	41.72	32.64	7.83	30.73	233	295	P	H
		5455.6	52.78	-21.22	74	43.5	32.34	7.54	30.6	107	240	P	V
		5469.28	52.21	-15.99	68.2	42.9	32.36	7.56	30.61	107	240	P	V
		5454.16	44.32	-9.68	54	35.04	32.34	7.54	30.6	107	240	A	V
	*	5530	93.72	-	-	84.31	32.42	7.61	30.62	107	240	P	V
	*	5530	85.72	-	-	76.31	32.42	7.61	30.62	107	240	A	V
		5754.29	50.37	-17.83	68.2	40.6	32.66	7.84	30.73	107	240	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11440	46.41	-27.59	74	60.05	39.93	11.28	65.36	100	0	P	H
		17160	50.11	-18.09	68.2	60.04	40.4	13.4	64.37	100	0	P	H
802.11n													H
HT20													H
CH 144		11440	46.89	-27.11	74	60.53	39.93	11.28	65.36	100	0	P	V
5720MHz		17160	49.04	-19.16	68.2	58.97	40.4	13.4	64.37	100	0	P	V
													V
													V

Remark

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

Emission below 1GHz

WIFI 802.11n HT20 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 LF		68.07	23.36	-16.64	40	46.24	8.49	0.84	32.31	-	-	P	H
		96.15	24.47	-19.03	43.5	44.43	11.2	1	32.29	-	-	P	H
		250.59	19.68	-26.32	46	35.05	15.16	1.59	32.2	-	-	P	H
		605.2	24.81	-21.19	46	31.76	22.74	2.42	32.21	-	-	P	H
		802.6	27.21	-18.79	46	31.27	25.02	2.78	31.98	-	-	P	H
		958	30.92	-15.08	46	30.23	28.46	3.07	30.98	100	0	P	H
													H
													H
													H
													H
													H
													H
		30.81	31.58	-8.42	40	41.55	21.8	0.59	32.34	100	0	P	V
		39.45	30.19	-9.81	40	47.37	14.41	0.74	32.33	-	-	P	V
		92.64	22.81	-20.69	43.5	43.51	10.52	0.95	32.29	-	-	P	V
		617.1	23.59	-22.41	46	30.43	22.8	2.45	32.2	-	-	P	V
		850.2	28.08	-17.92	46	30.56	26.27	2.87	31.75	-	-	P	V
		950.3	29.97	-16.03	46	29.87	27.96	3.06	31.06	-	-	P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

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

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

1. 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 D. Radiated Spurious Emission

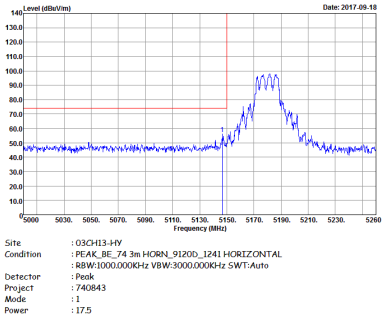
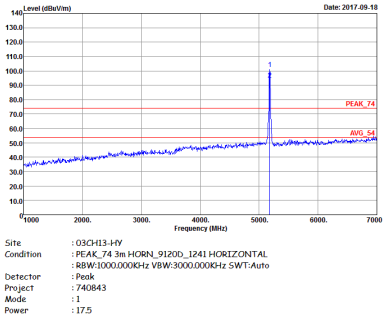
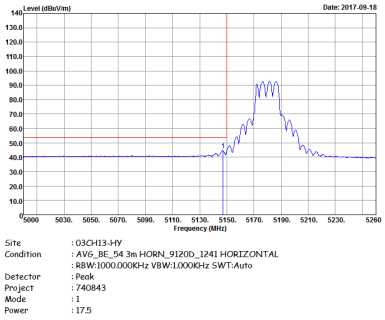
Test Engineer :	Alex Jheng, Bill Chang and Wilson Wu	**Temperature :**	24.5~25.3°C
		Relative Humidity :	49~51%

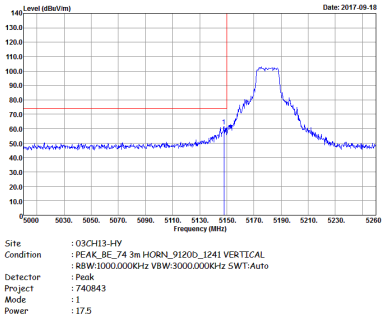
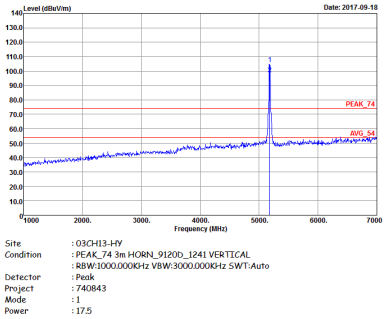
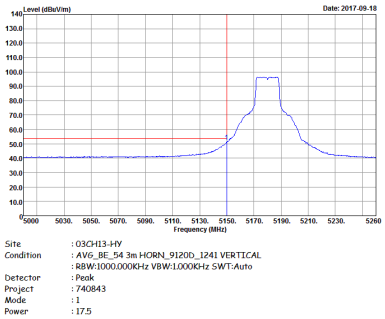
Note symbol

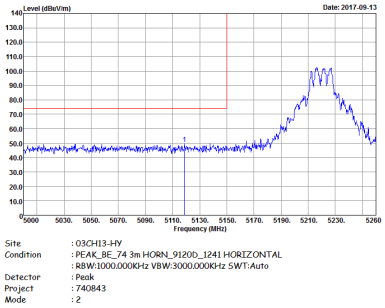
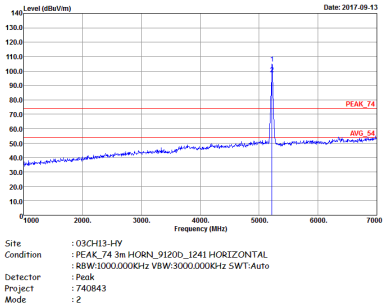
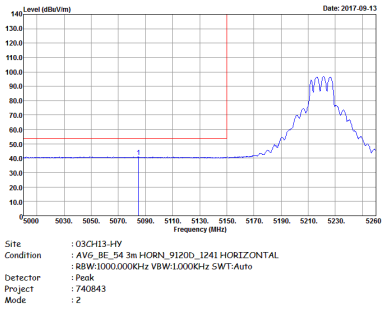
-L	**Low channel location**
-R	**High channel location**

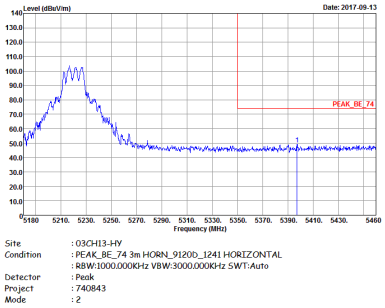
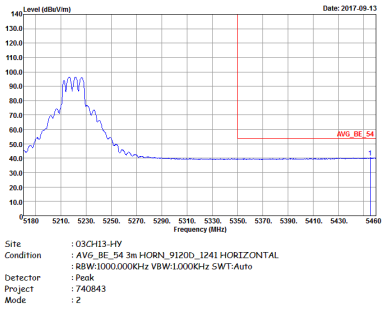
Band 1 - 5150~5250MHz

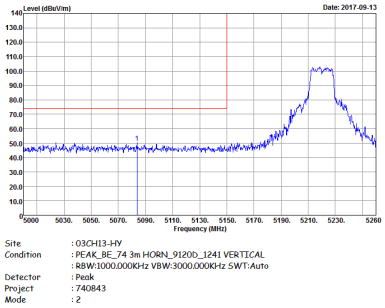
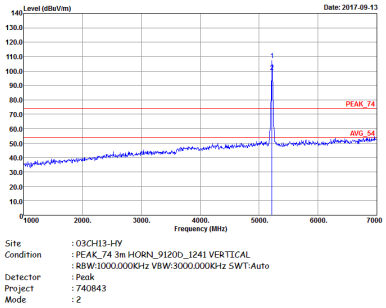
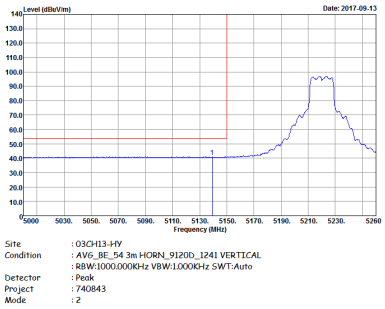
WIFI 802.11a (Band Edge @ 3m)

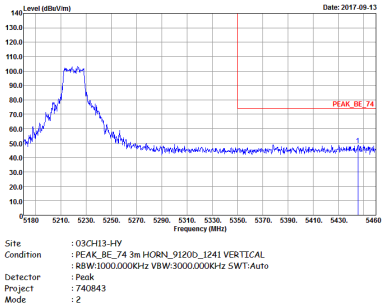
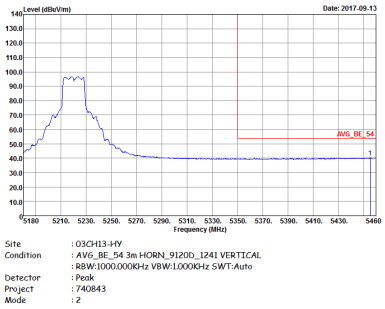
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

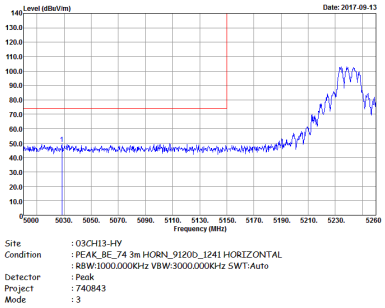
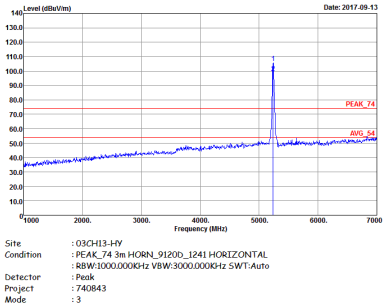
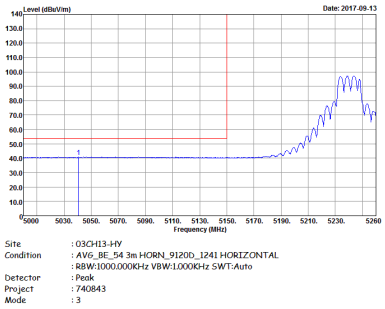
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

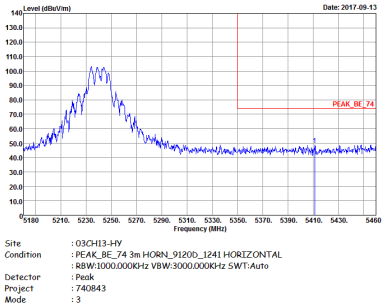
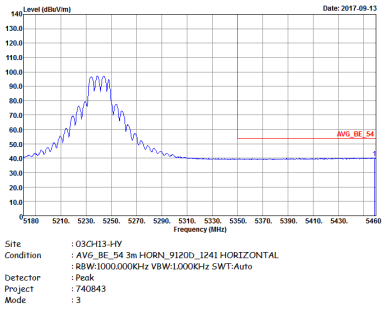
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

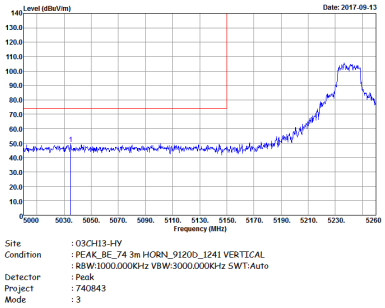
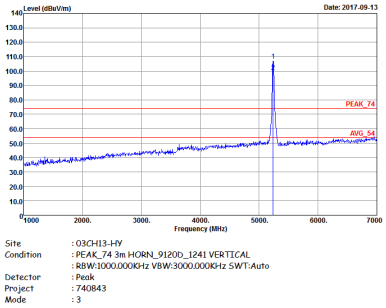
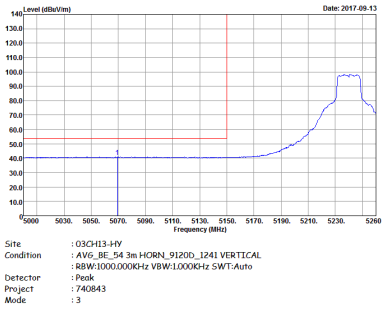
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

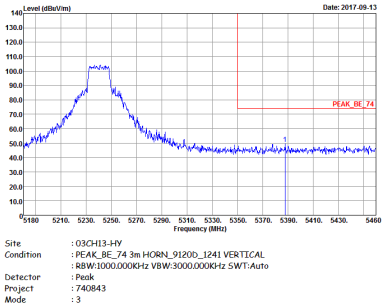
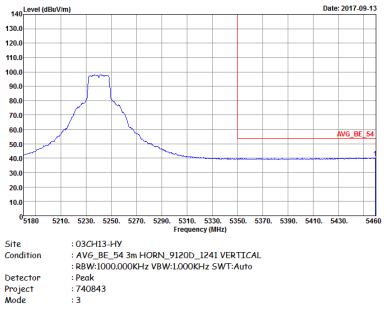
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

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

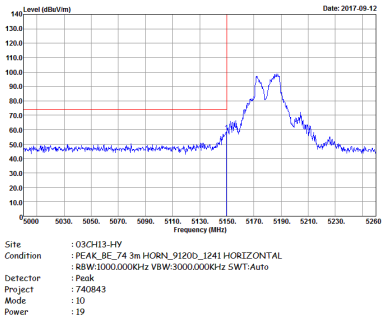
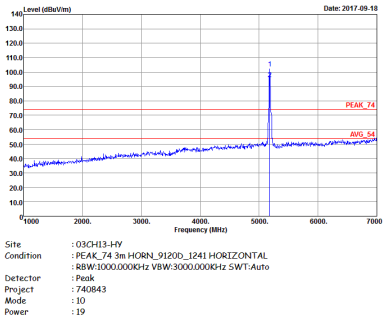
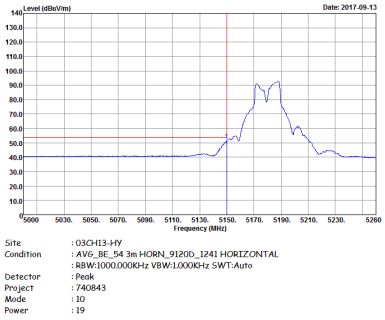
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

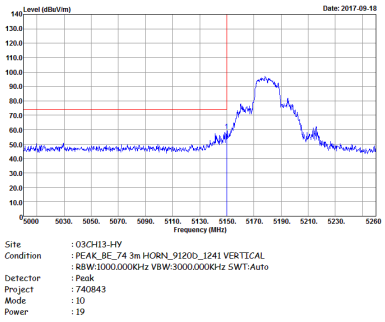
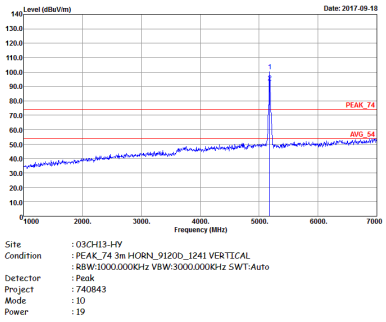
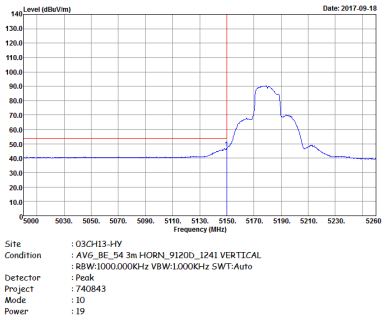
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

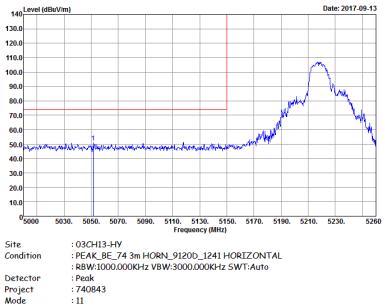
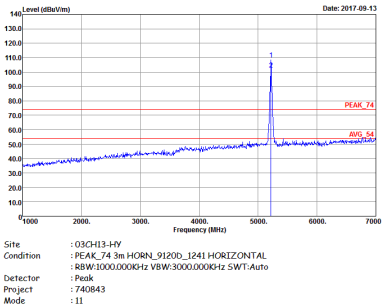
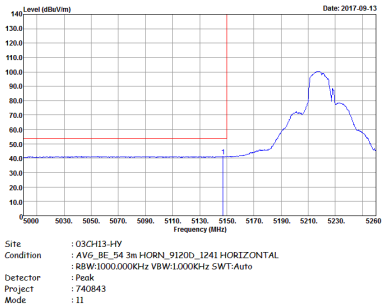
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

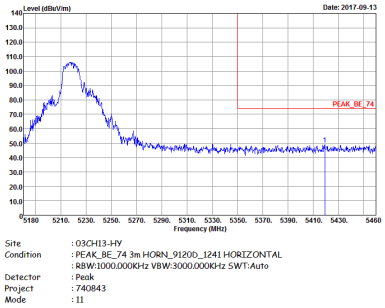
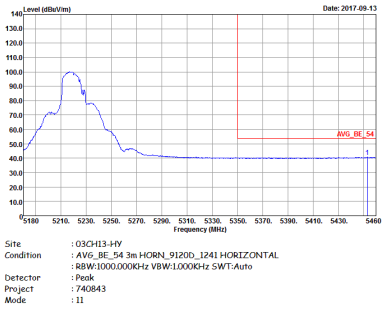
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

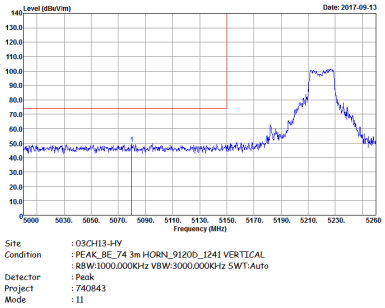
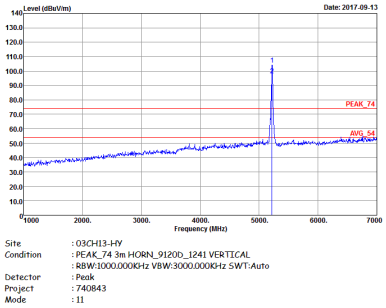
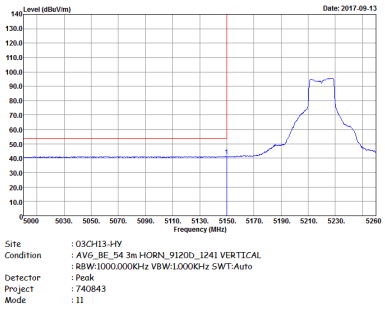
Band 1 5150~5250MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

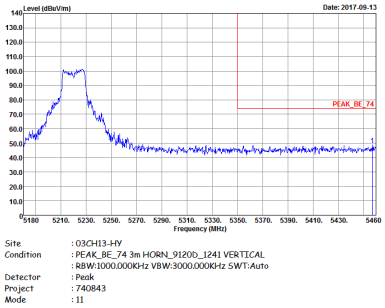
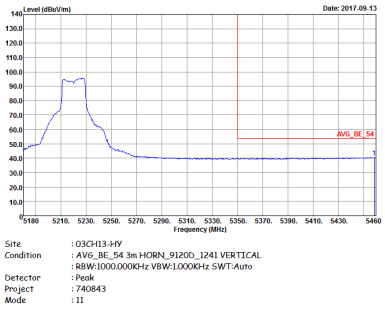
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

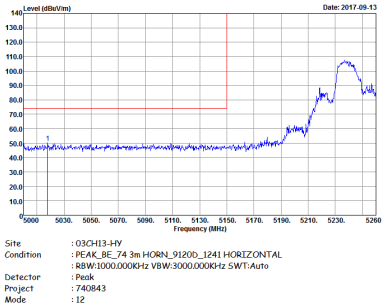
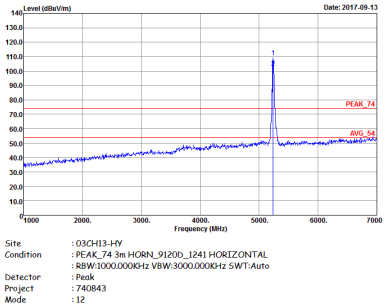
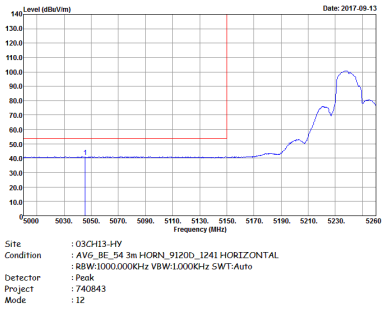
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

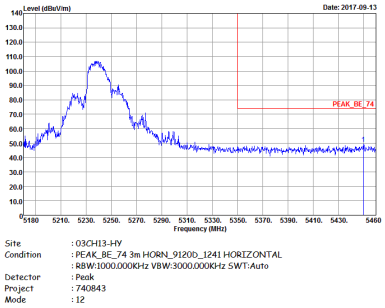
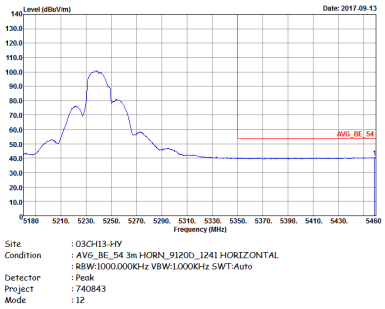
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

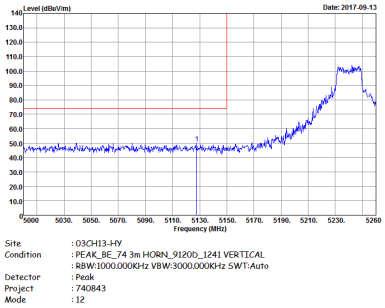
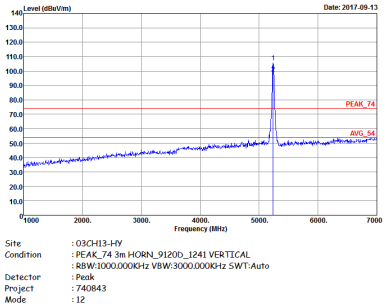
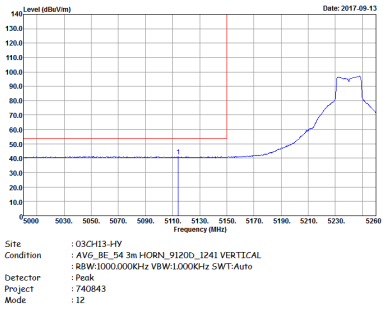
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

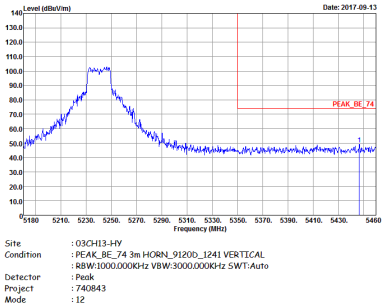
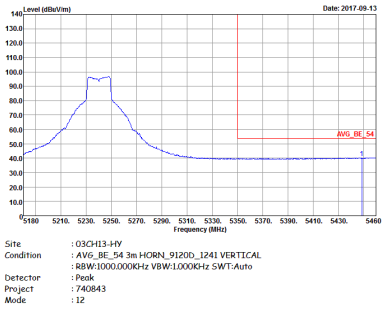
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

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

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

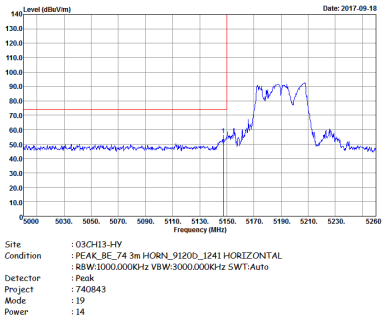
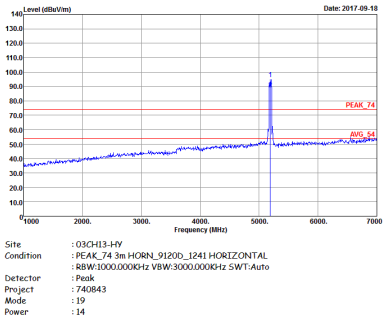
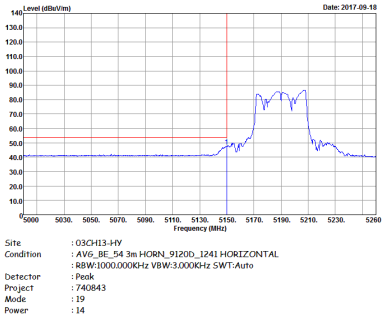
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

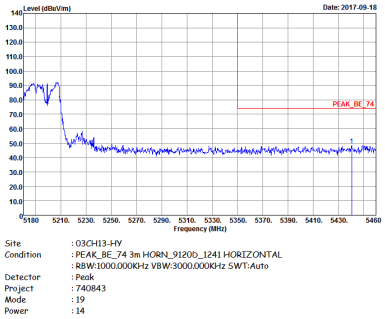
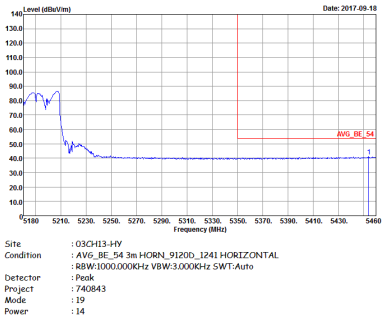
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

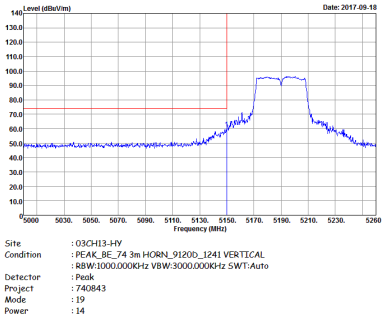
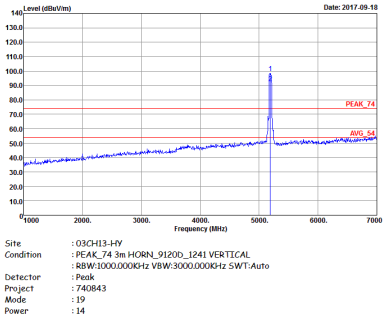
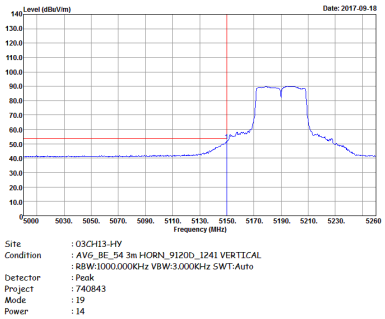
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
1+2	Vertical	Fundamental
Peak	 Site : 03CH13-HV Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 12	Left blank
Avg.	 Site : 03CH13-HV Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 12	Left blank

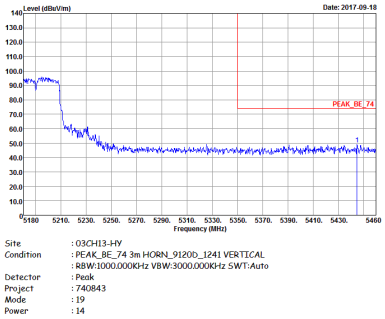
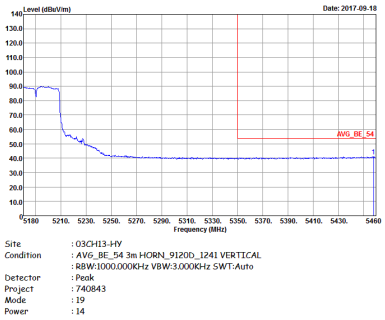
Band 1 5150~5250MHz

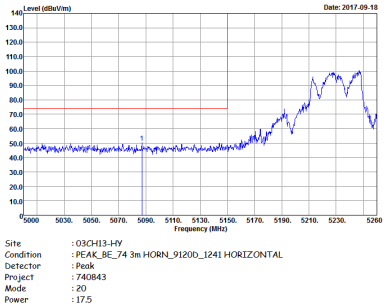
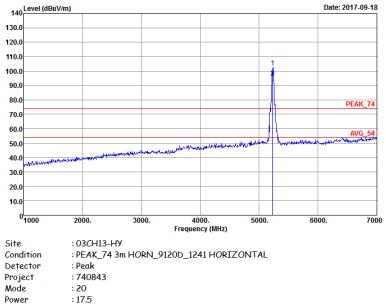
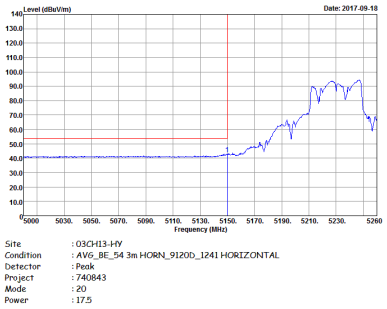
WIFI 802.11n HT40 (Band Edge @ 3m)

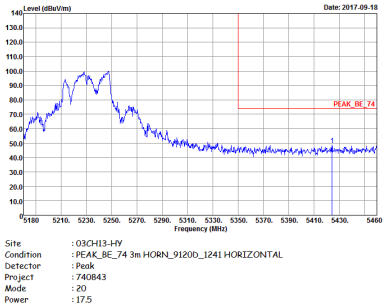
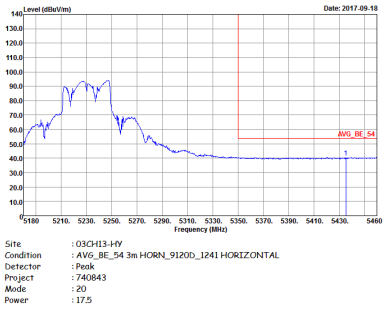
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

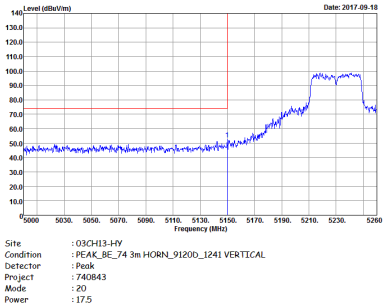
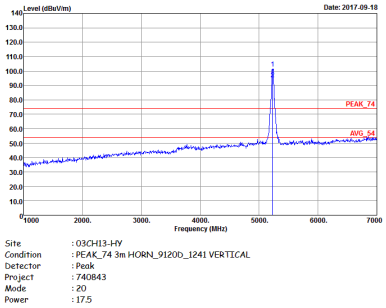
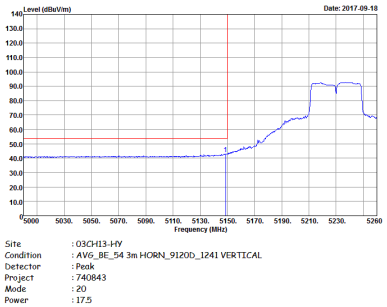
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH13-HV Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 19 Power : 14	Left blank
Avg.	 Site : 03CH13-HV Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 19 Power : 14	Left blank

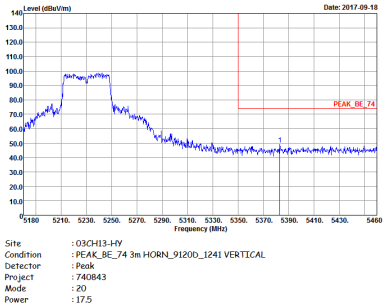
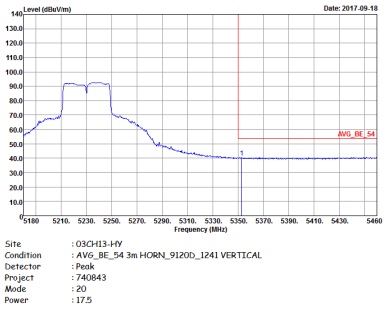
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
1+2	Vertical	Fundamental
Peak	 Site : 03CH13-HV Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 19 Power : 14	Left blank
Avg.	 Site : 03CH13-HV Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 19 Power : 14	Left blank

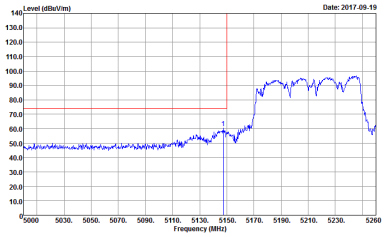
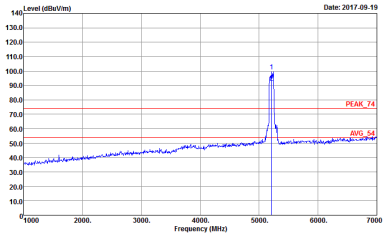
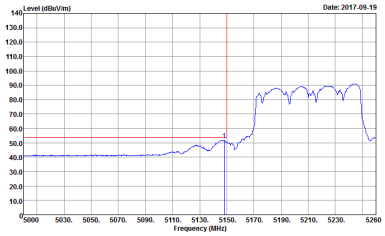
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

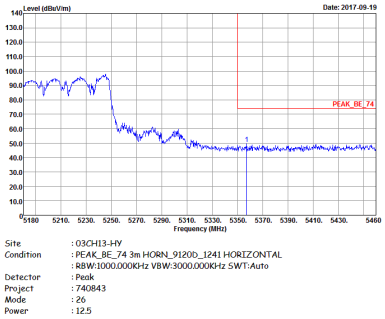
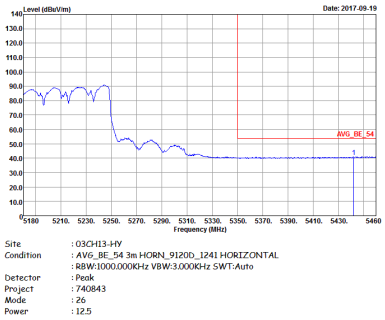
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

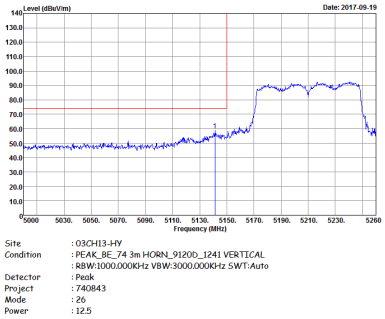
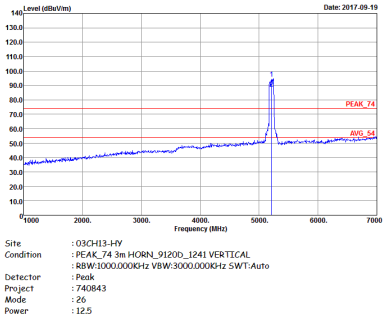
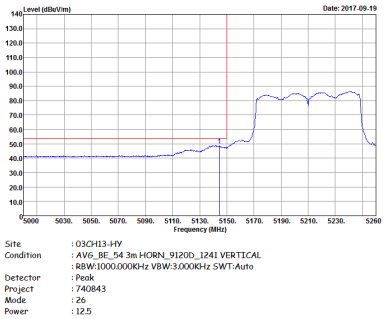
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

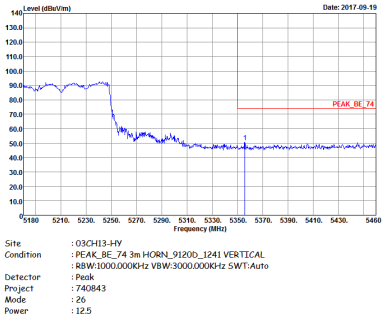
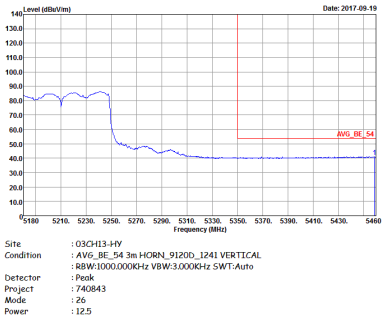
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

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

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 26 Power : 12.5	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 26 Power : 12.5
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 26 Power : 12.5	Left blank

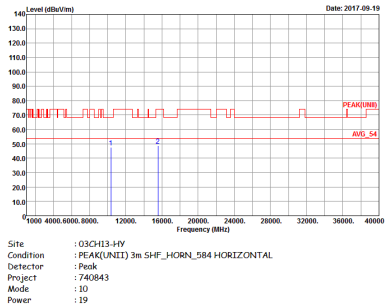
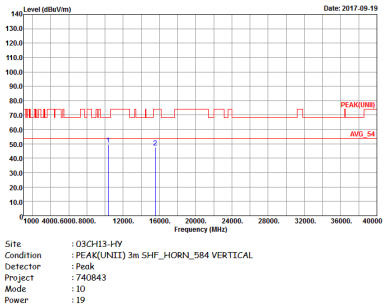
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH13-HV Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 26 Power : 12.5	Left blank
Avg.	 Site : 03CH13-HV Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 26 Power : 12.5	Left blank

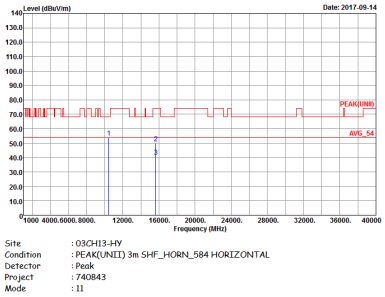
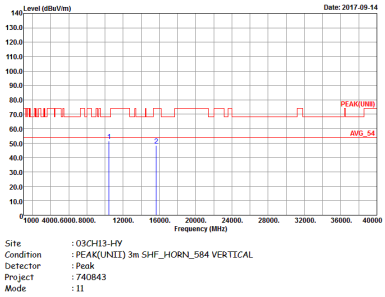
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

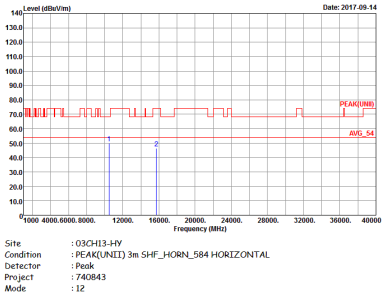
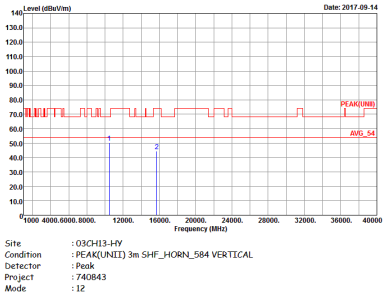
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
1+2	Vertical	Fundamental
Peak	 Site : 03CH13-HV Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 26 Power : 12.5	Left blank
Avg.	 Site : 03CH13-HV Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 26 Power : 12.5	Left blank

Band 1 - 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

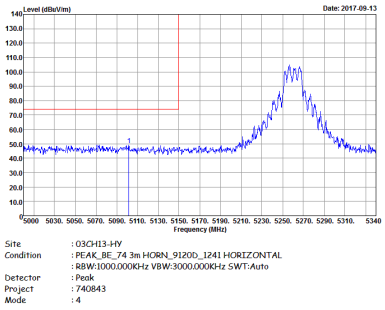
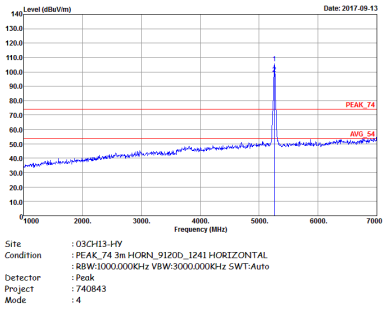
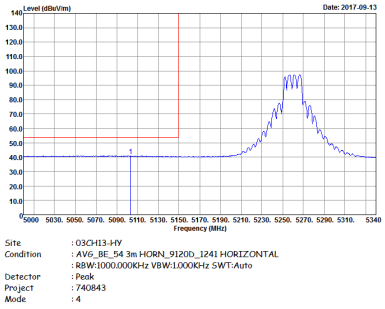
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1+2	Horizontal	Vertical
Peak Avg.		

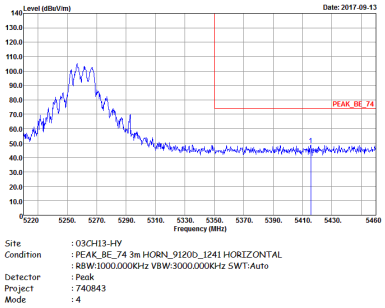
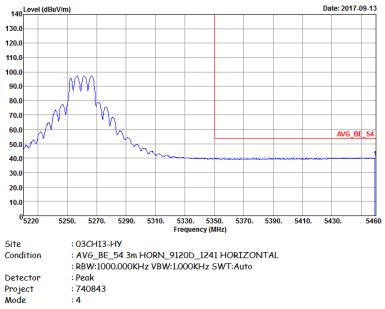
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH44 5220MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK(UNII) 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 740843 Mode : 11	 Site : 03CH13-HY Condition : PEAK(UNII) 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 740843 Mode : 11

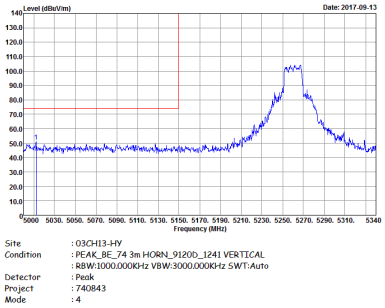
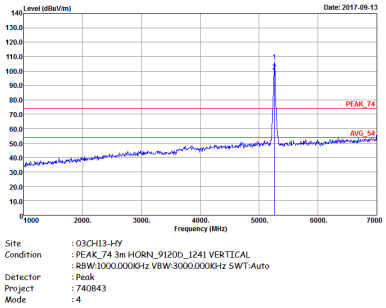
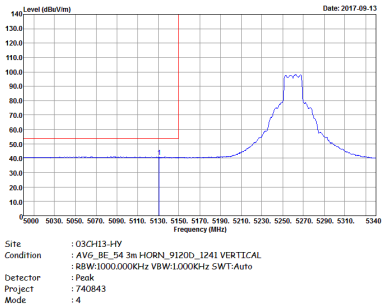
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH48 5240MHz	
1+2	Horizontal	Vertical
Peak Avg.		

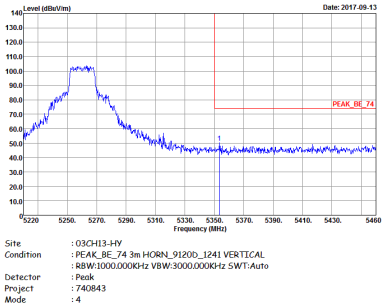
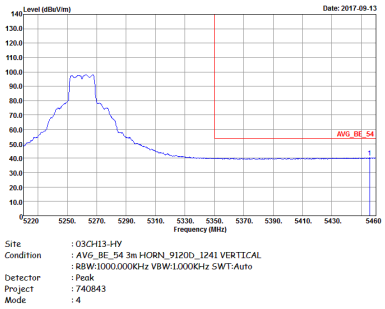
Band 2 - 5250~5350MHz

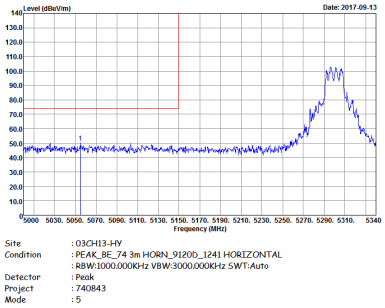
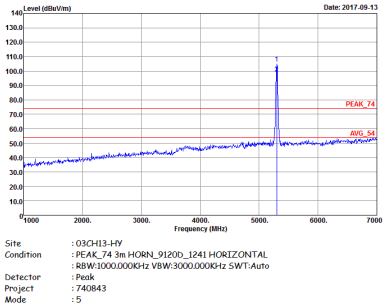
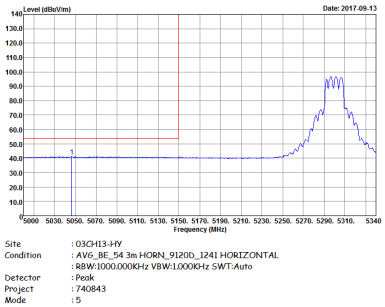
WIFI 802.11a (Band Edge @ 3m)

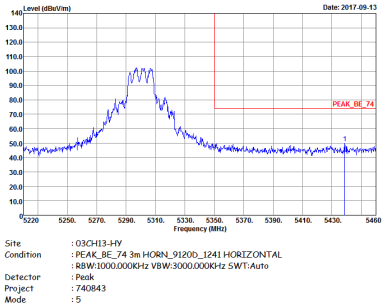
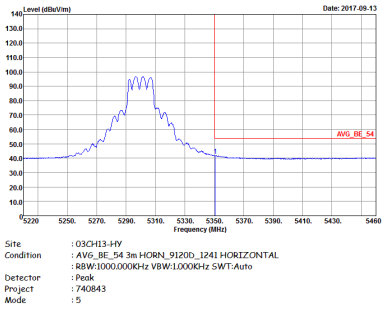
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

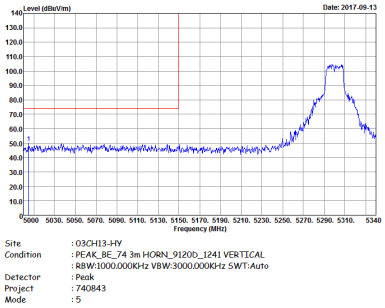
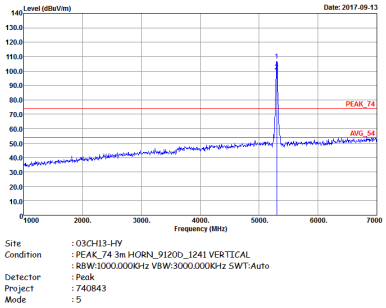
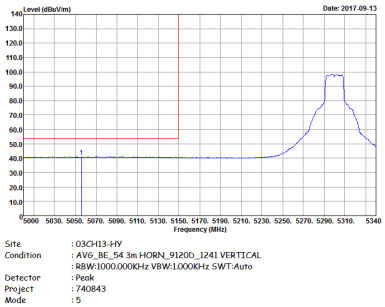
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

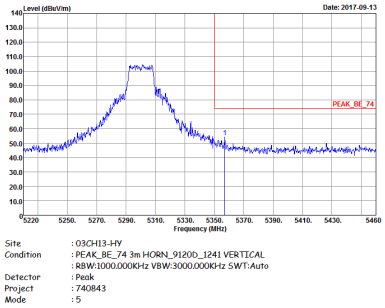
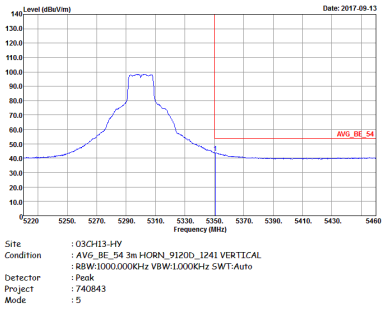
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

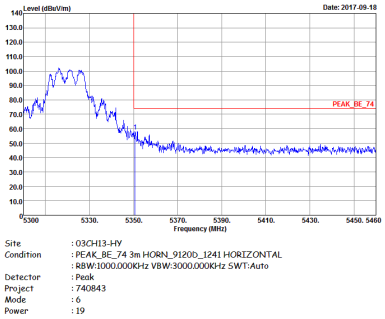
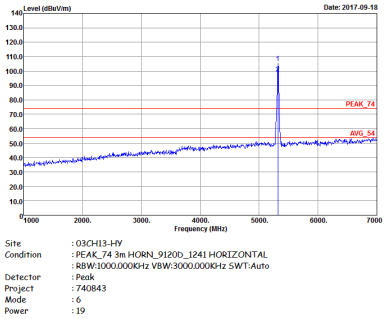
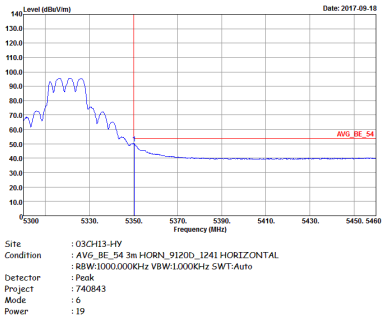
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

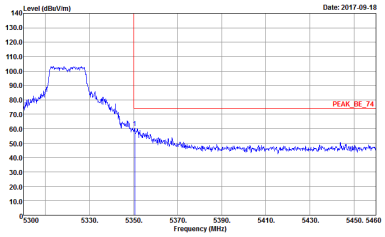
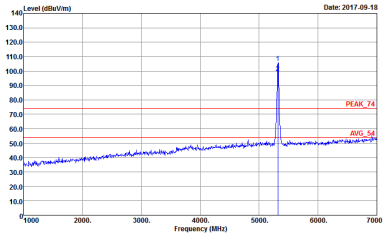
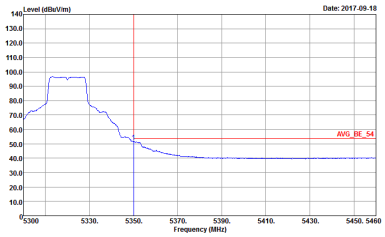
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - R	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH13-HV Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 5	Left blank
Avg.	 Site : 03CH13-HV Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 5	Left blank

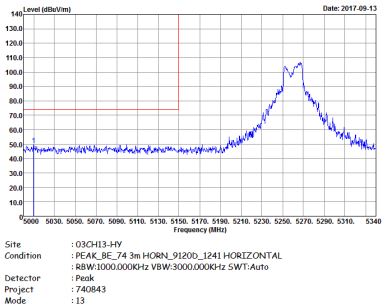
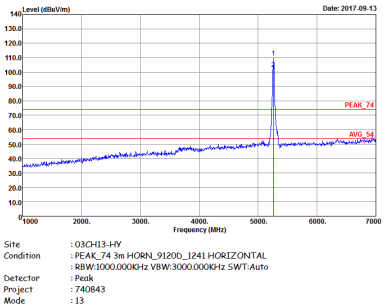
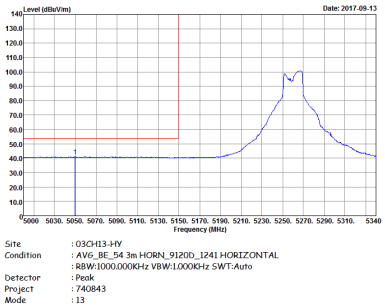
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

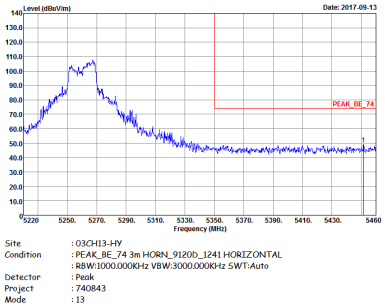
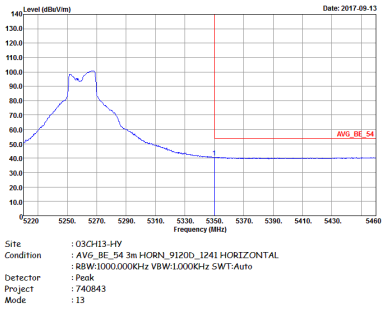
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

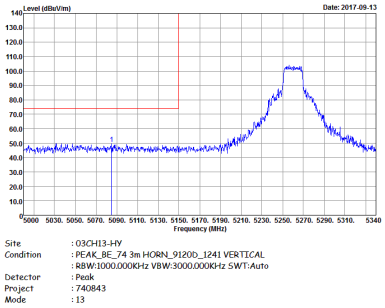
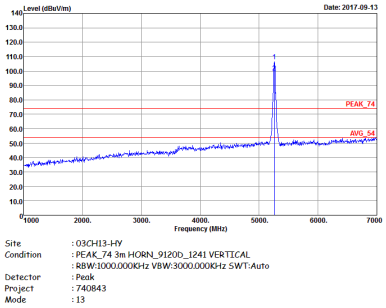
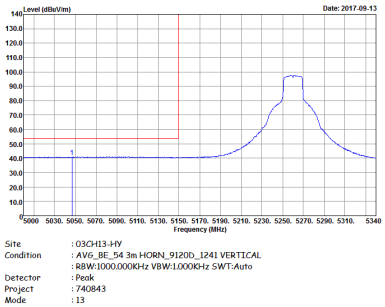
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH13-HV Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 6 Power : 19	 Site : 03CH13-HV Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 6 Power : 19
Avg.	 Site : 03CH13-HV Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 6 Power : 19	Left blank

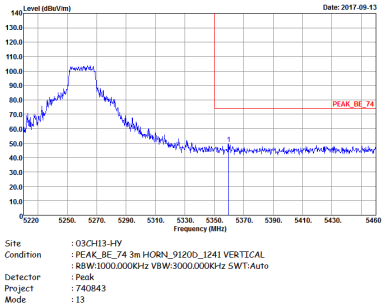
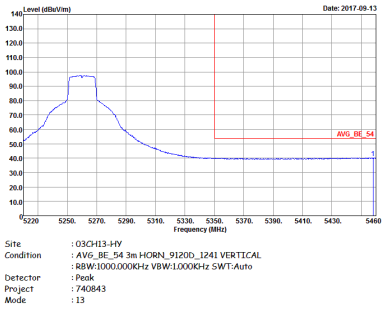
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH13-HV Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 6 Power : 19	 Site : 03CH13-HV Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 6 Power : 19
Avg.	 Site : 03CH13-HV Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 6 Power : 19	Left blank

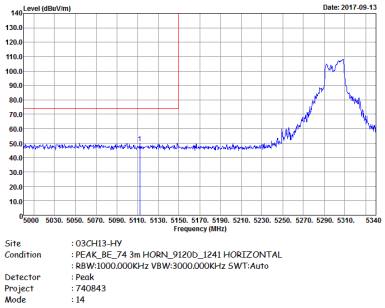
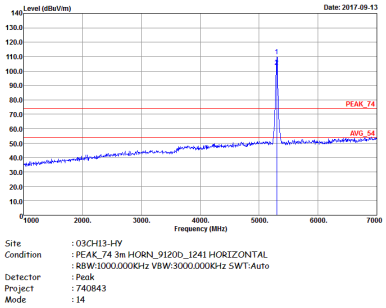
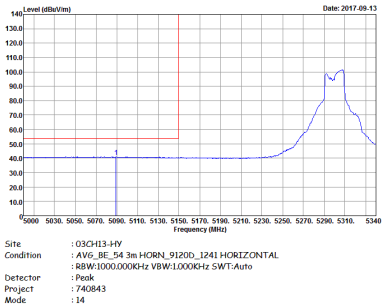
Band 2 5250~5350MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

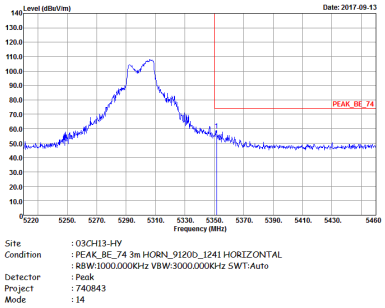
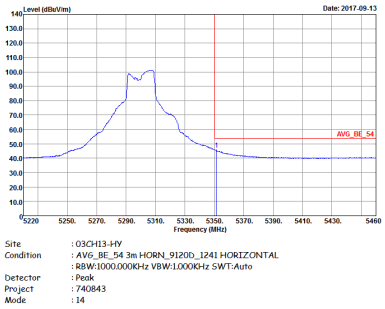
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

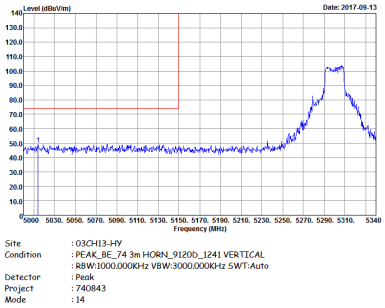
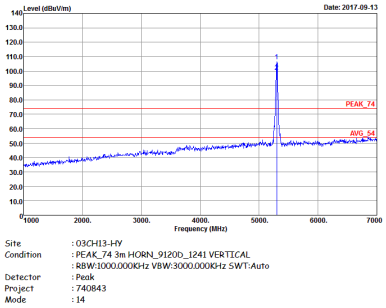
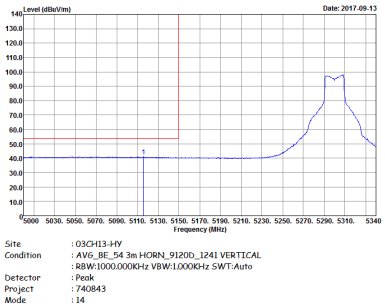
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

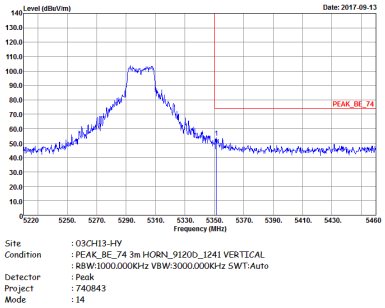
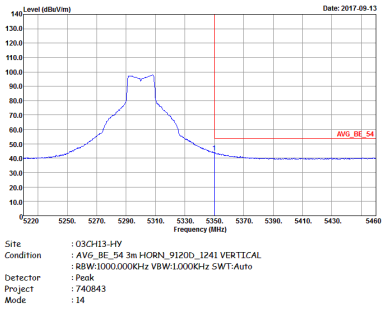
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

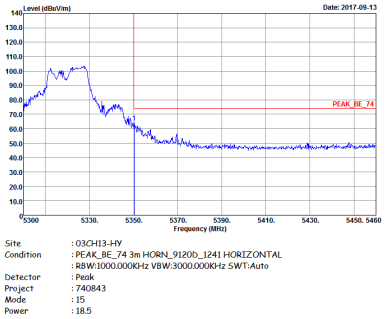
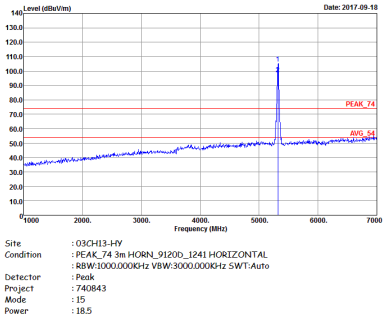
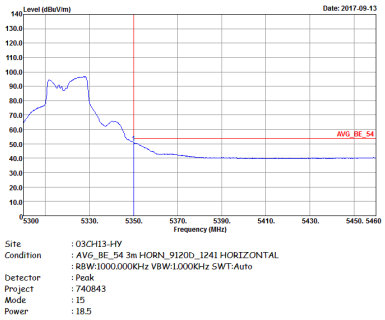
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

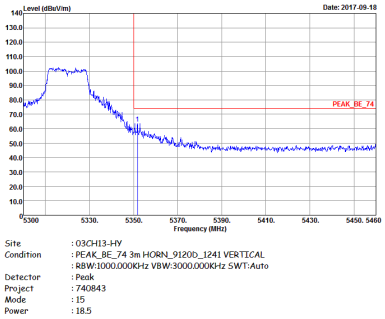
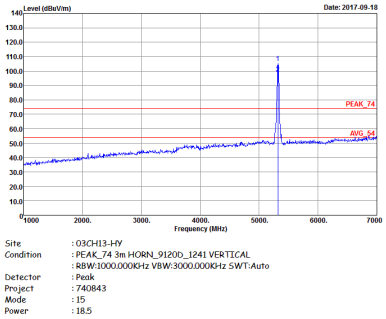
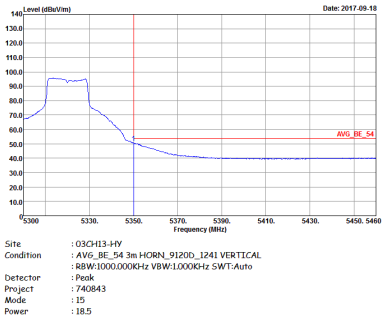
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

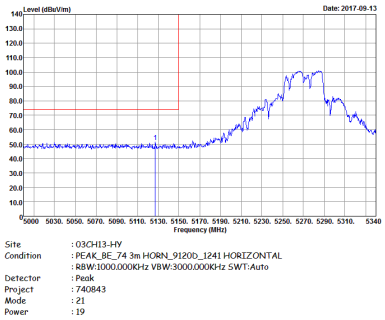
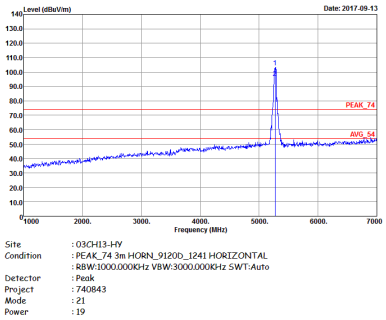
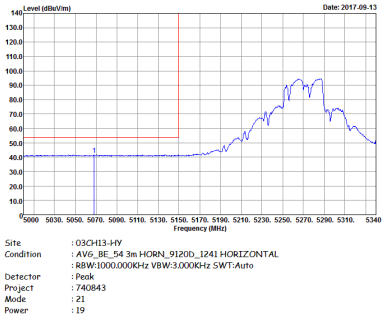
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

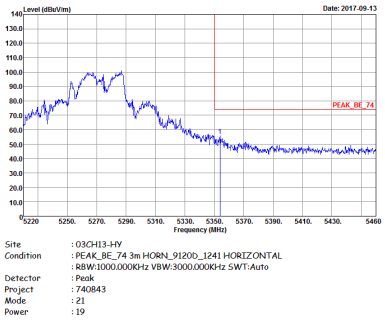
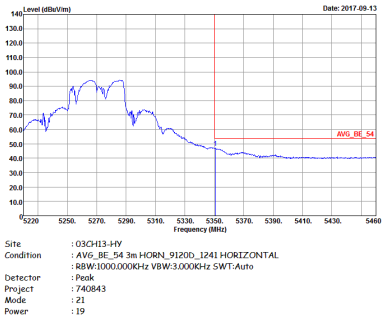
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

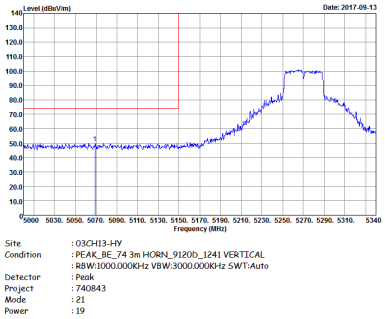
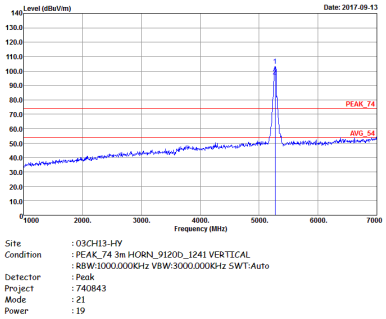
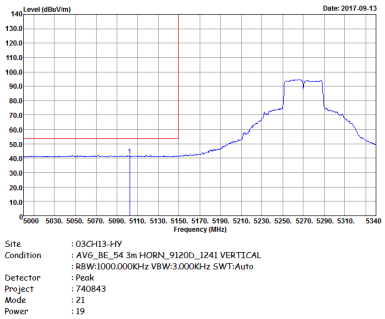
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH64 5320MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH13-HV Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 15 Power : 18.5	 Site : 03CH13-HV Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 15 Power : 18.5
Avg.	 Site : 03CH13-HV Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 15 Power : 18.5	Left blank

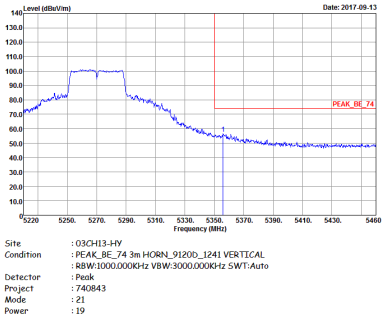
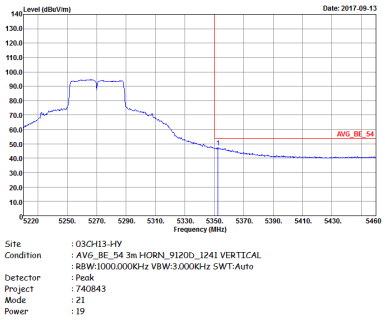
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH64 5320MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH13-HV Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 15 Power : 18.5	 Site : 03CH13-HV Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 15 Power : 18.5
Avg.	 Site : 03CH13-HV Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 15 Power : 18.5	Left blank

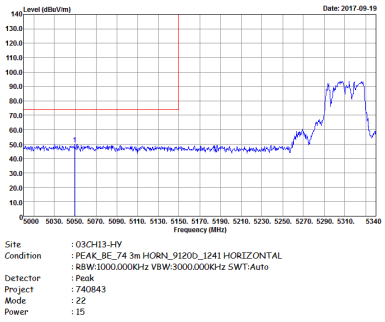
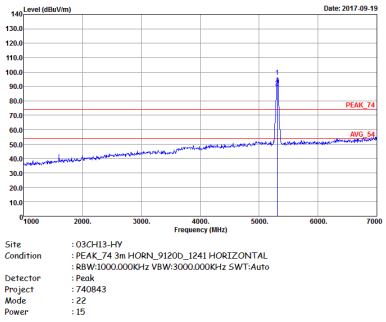
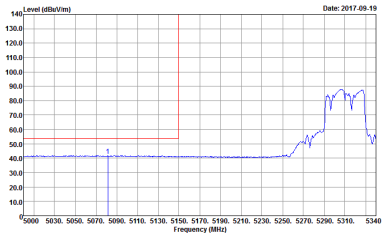
Band 2 5250~5350MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

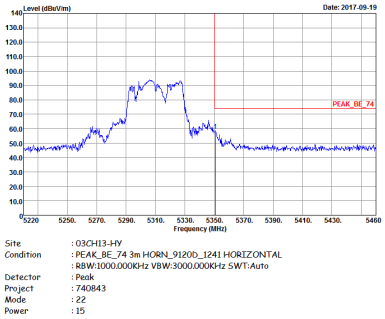
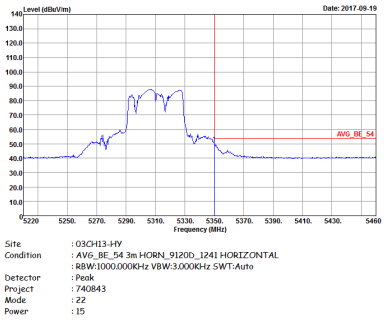
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

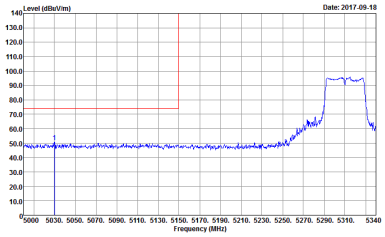
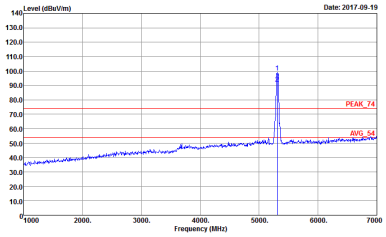
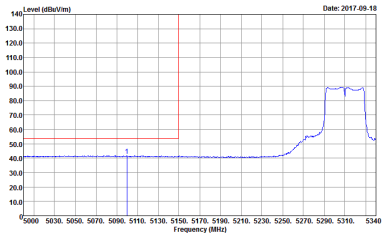
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

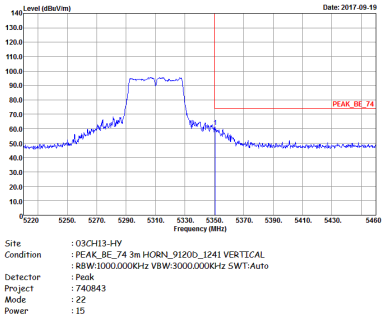
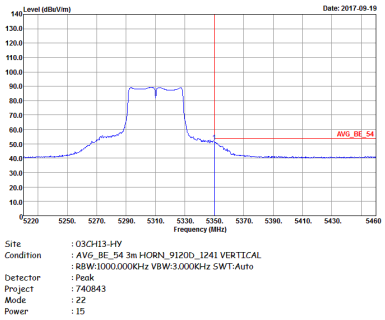
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - L	
1+2	Vertical	Vertical
Peak		
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - R	
1+2	Vertical	Vertical
Peak	 Site : 03CH13-HV Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 21 Power : 19	Left blank
Avg.	 Site : 03CH13-HV Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 21 Power : 19	Left blank

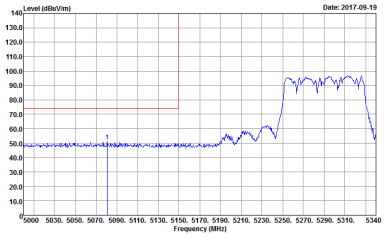
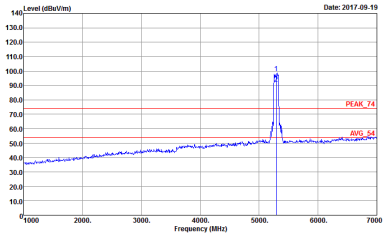
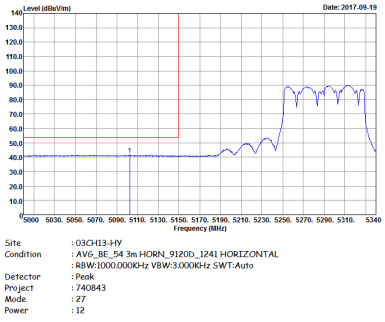
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - L	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 22 Power : 15	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 22 Power : 15
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 22 Power : 15	Left blank

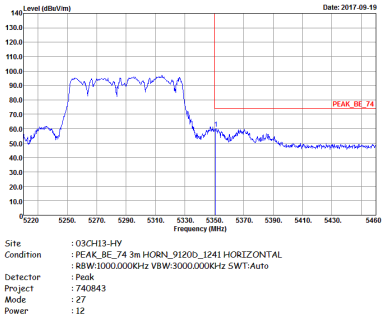
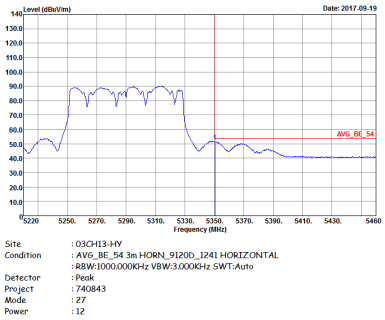
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - R	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH13-HV Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 22 Power : 15	Left blank
Avg.	 Site : 03CH13-HV Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 22 Power : 15	Left blank

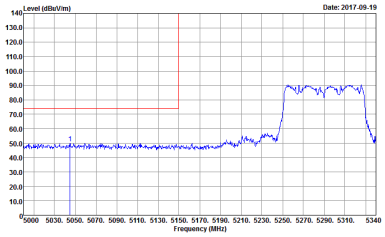
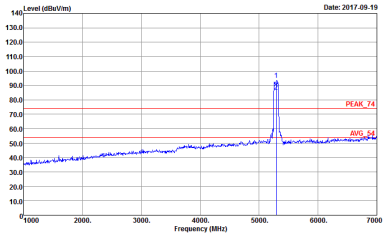
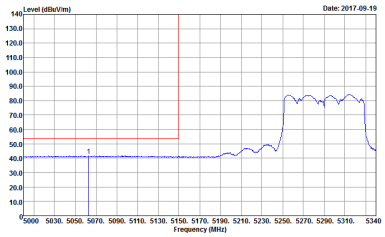
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - L	
1+2	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 22 Power : 15	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 22 Power : 15
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 22 Power : 15	Left blank

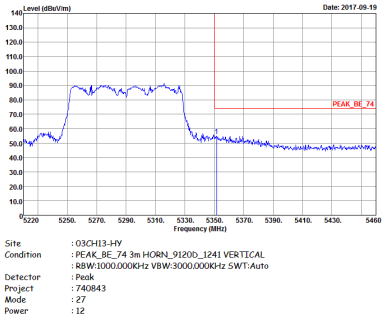
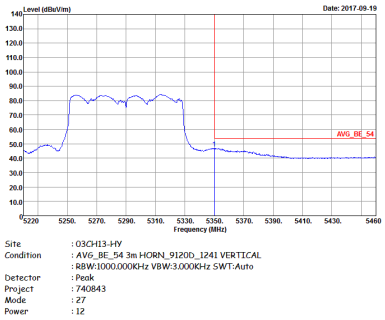
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - R	
1+2	Vertical	Fundamental
Peak	 Site : 03CH13-HV Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 22 Power : 15	Left blank
Avg.	 Site : 03CH13-HV Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 22 Power : 15	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

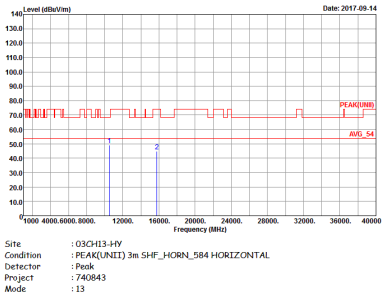
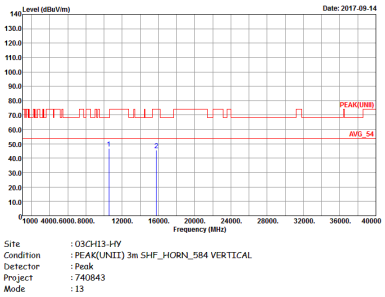
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - R	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH13-HV Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 27 Power : 12	Left blank
Avg.	 Site : 03CH13-HV Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 27 Power : 12	Left blank

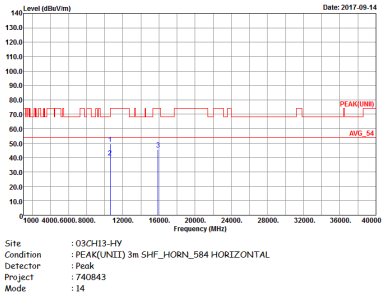
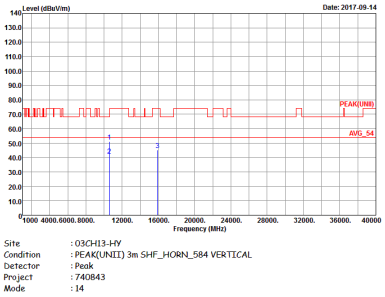
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - L	
1+2	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 27 Power : 12	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 27 Power : 12
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 27 Power : 12	Left blank

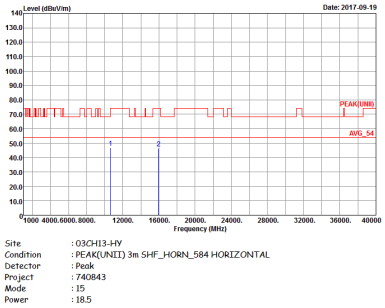
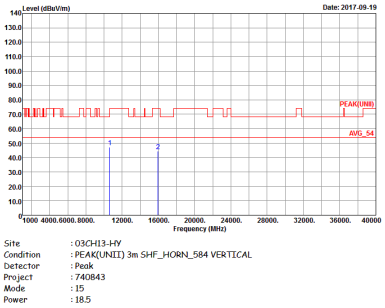
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - R	
1+2	Vertical	Fundamental
Peak	 Site : 03CH13-HV Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 27 Power : 12	Left blank
Avg.	 Site : 03CH13-HV Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 27 Power : 12	Left blank

Band 2 - 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

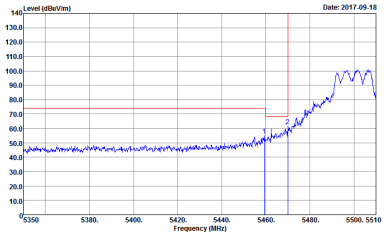
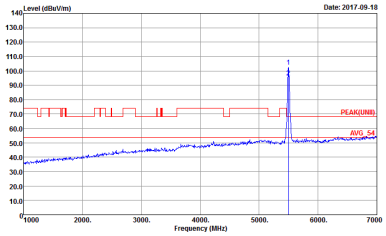
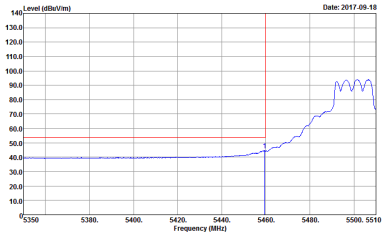
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH52 5260MHz	
1+2	Horizontal	Vertical
Peak Avg.		

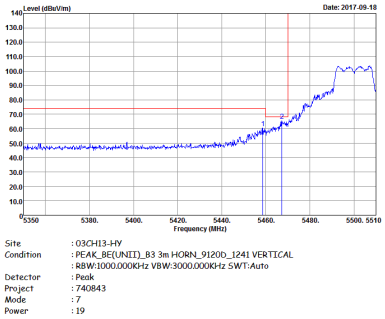
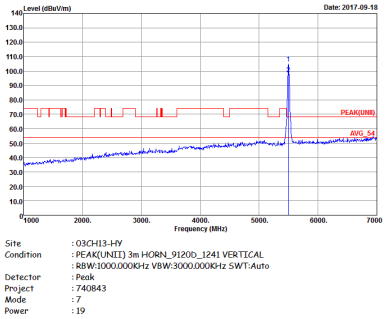
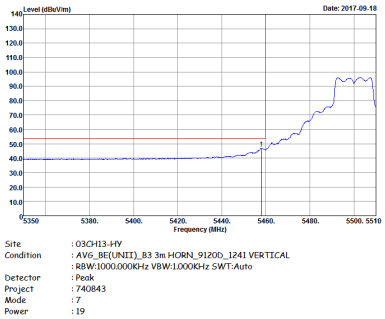
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH60 5300MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK(UNII) 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 740843 Mode : 14	 Site : 03CH13-HY Condition : PEAK(UNII) 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 740843 Mode : 14

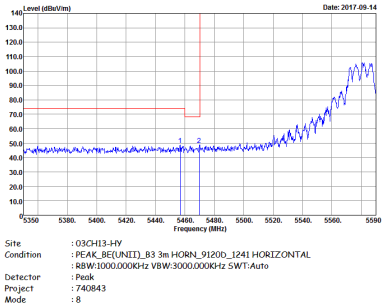
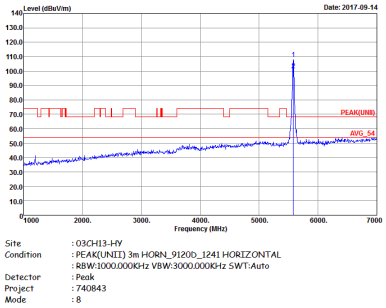
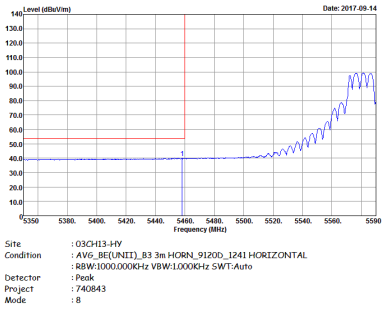
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH64 5320MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK(UNII) 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 740843 Mode : 15 Power : 18.5	 Site : 03CH13-HY Condition : PEAK(UNII) 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 740843 Mode : 15 Power : 18.5

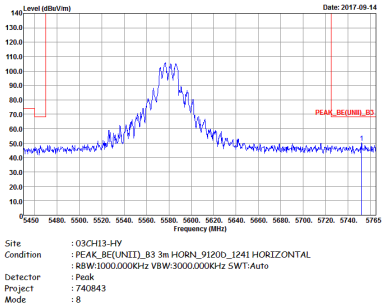
Band 3 - 5470~5725MHz

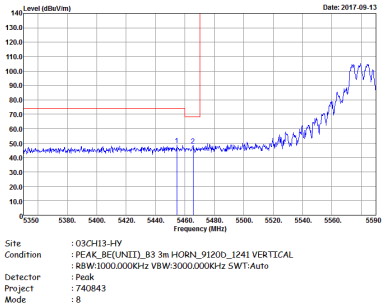
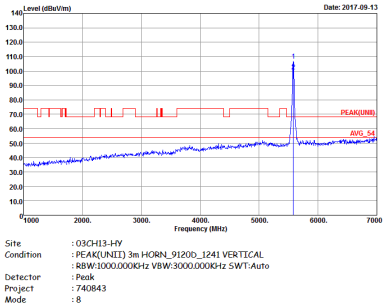
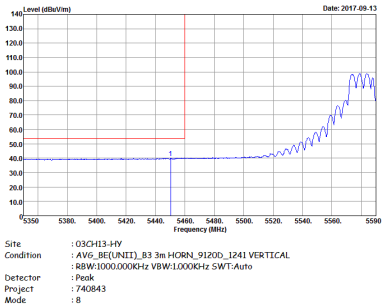
WIFI 802.11a (Band Edge @ 3m)

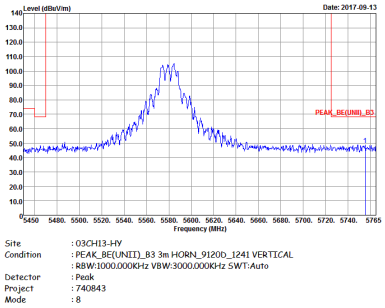
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE(UNII)_B3 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 7 Power : 19	 Site : 03CH13-HY Condition : PEAK(UNII) 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 7 Power : 19
Avg.	 Site : 03CH13-HY Condition : AVG_BE(UNII)_B3 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 7 Power : 19	Left blank

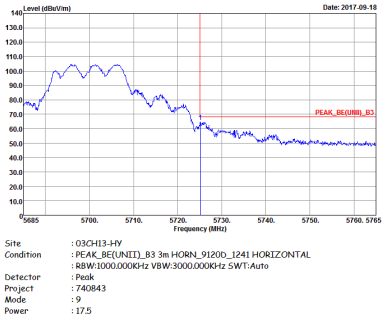
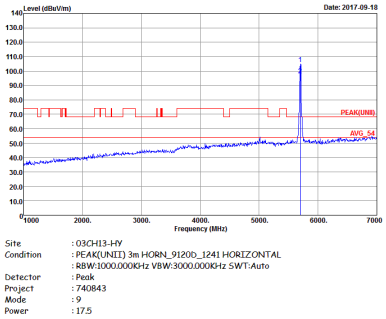
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

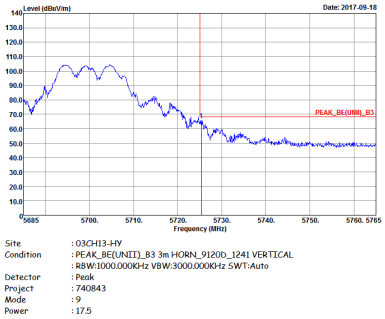
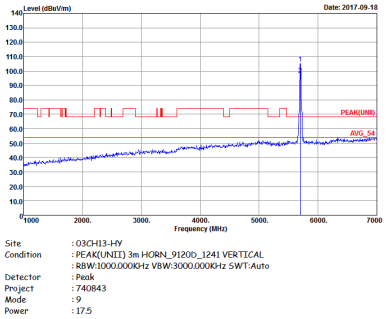
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

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

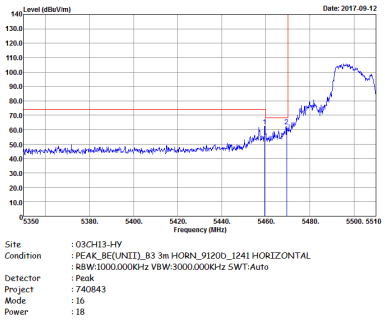
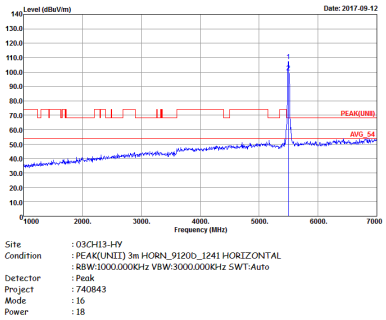
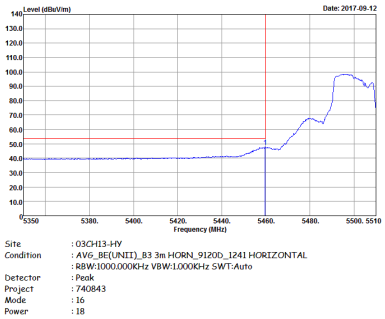
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - R	
1+2	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE(UNII)_B3 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 8	Left blank

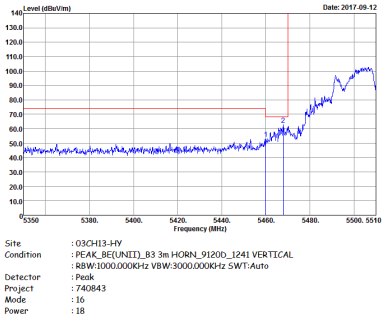
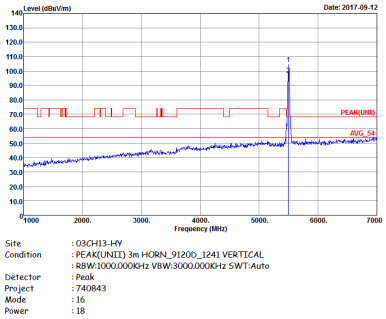
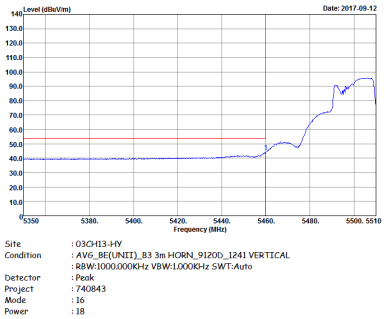
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
1+2	Horizontal	Fundamental
Peak		

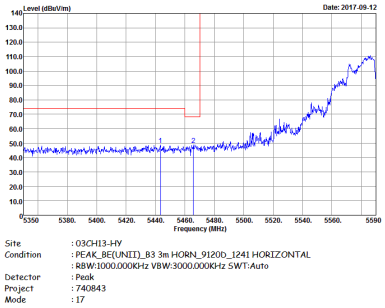
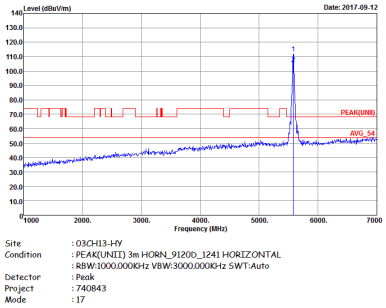
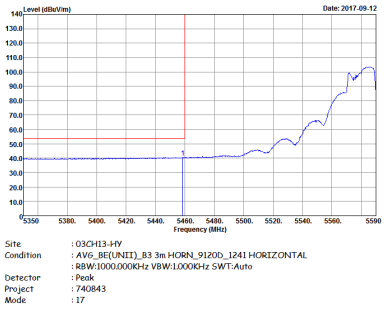
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE(UNII)_B3 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 9 Power : 17.5	 Site : 03CH13-HY Condition : PEAK(UNII) 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 9 Power : 17.5

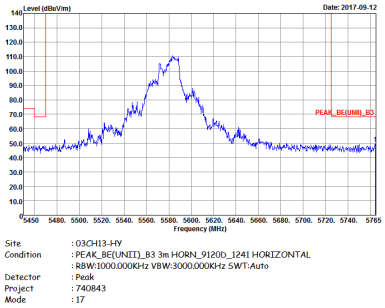
Band 3 5470~5725MHz

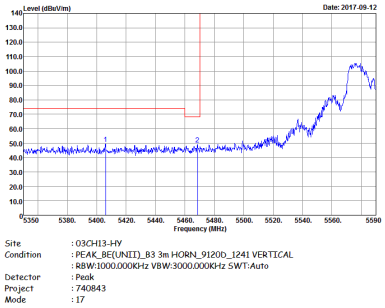
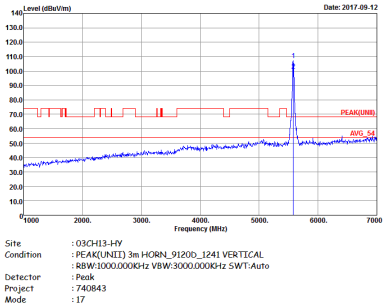
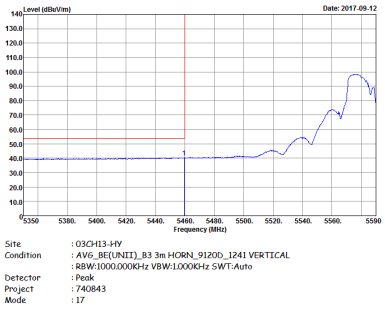
WIFI 802.11n HT20 (Band Edge @ 3m)

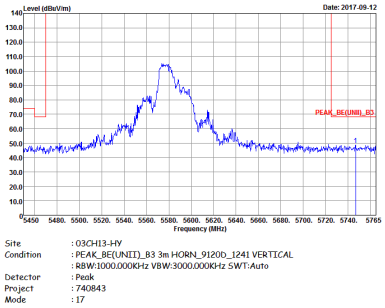
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

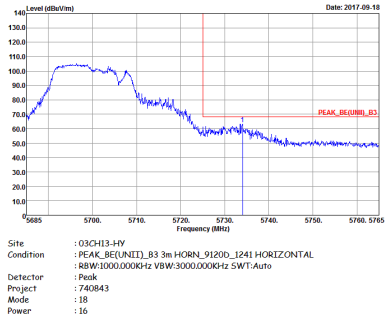
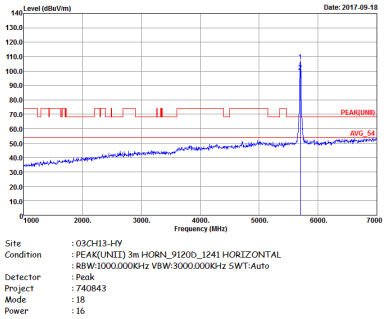
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

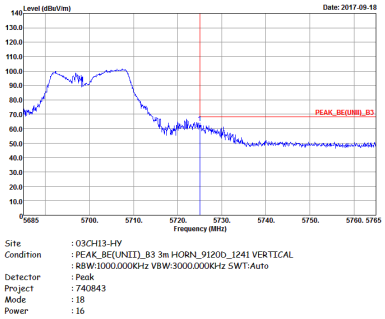
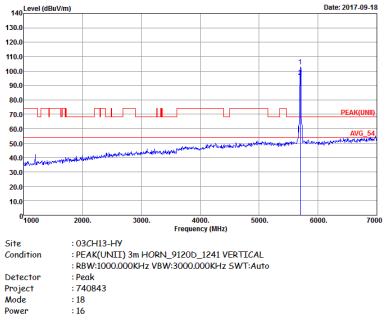
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - R	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE(UNII)_B3 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 17	Left blank

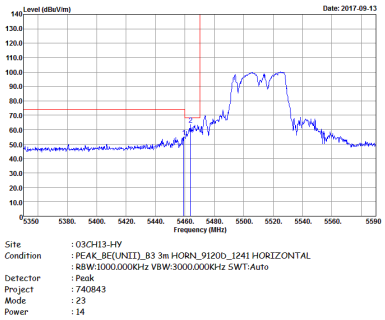
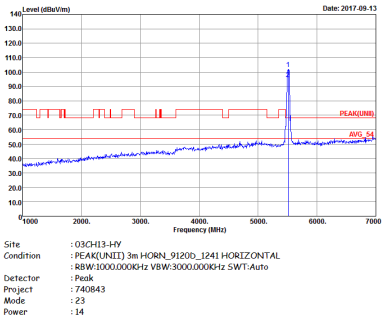
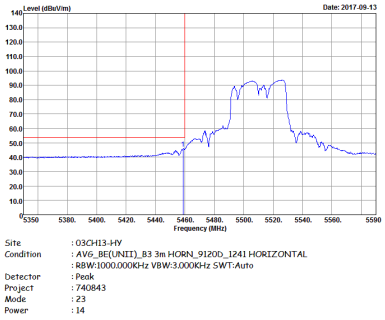
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

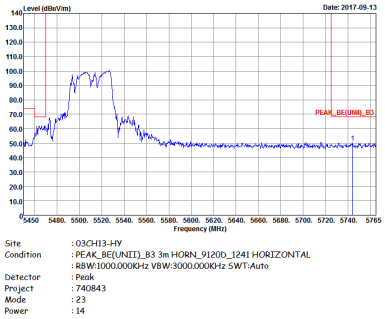
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank

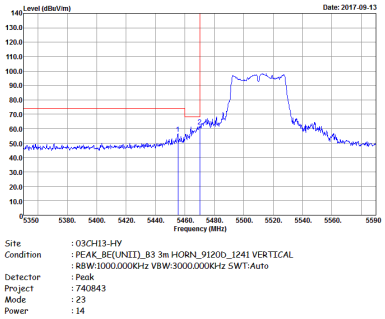
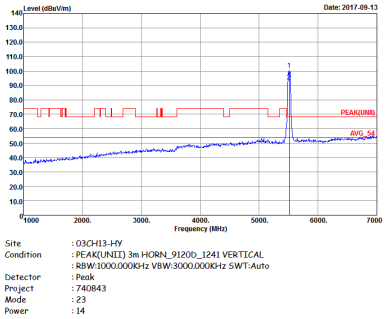
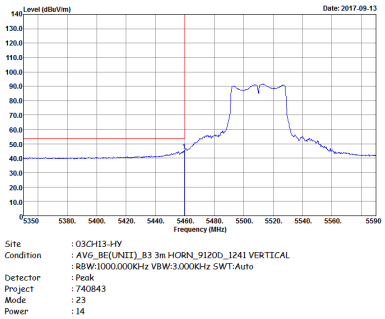
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
1+2	Horizontal	Fundamental
Peak		

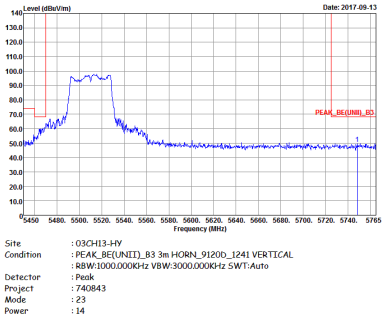
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
1+2	Vertical	Fundamental
Peak.		

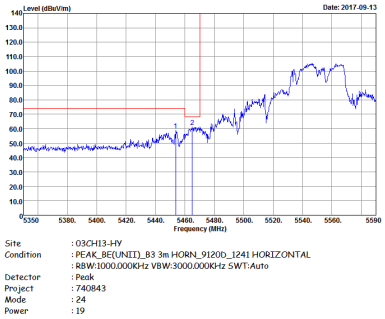
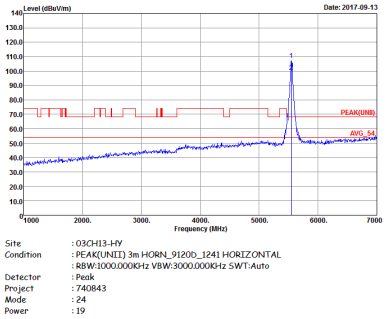
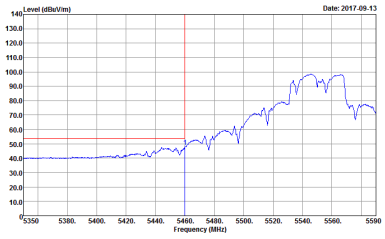
Band 3 5470~5725MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

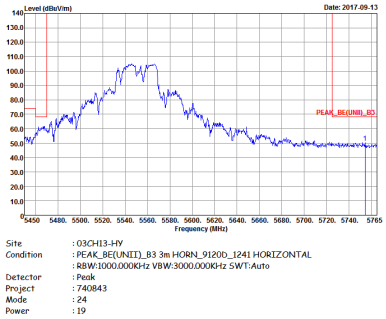
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

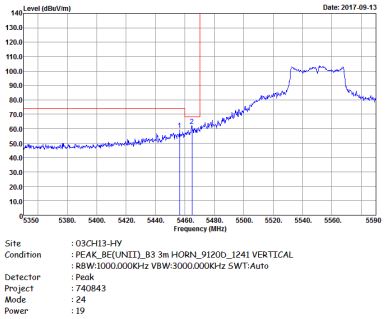
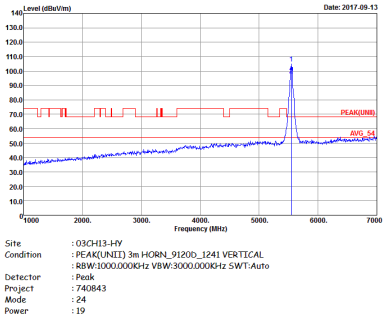
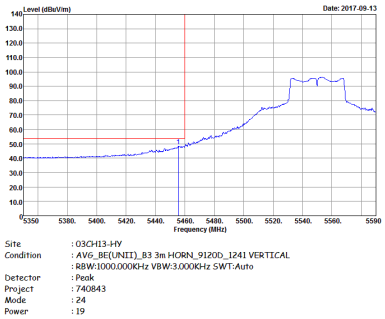
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - R	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE(UNII)_B3 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 23 Power : 14	Left blank

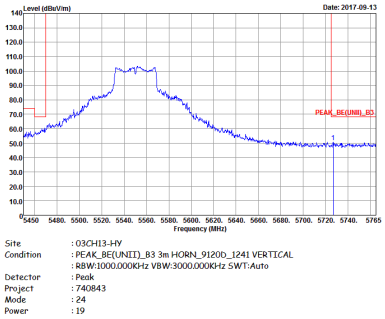
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

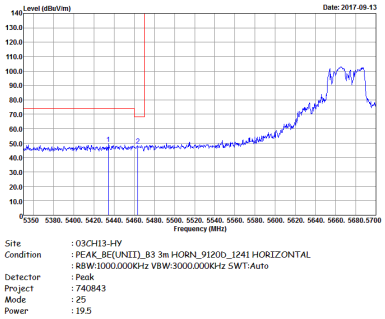
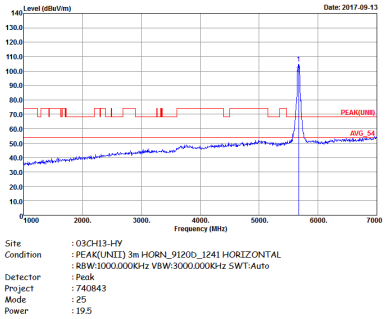
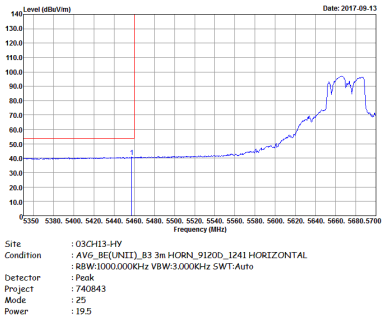
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - R	
1+2	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE(UNII)_B3 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 23 Power : 14	Left blank

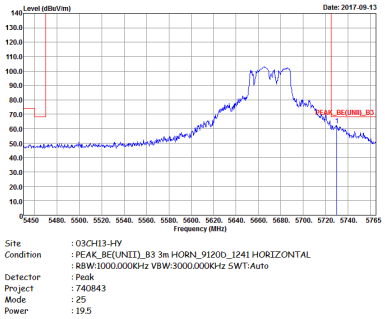
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - L	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE(UNII)_B3 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 24 Power : 19	 Site : 03CH13-HY Condition : PEAK(UNII) 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 24 Power : 19
Avg.	 Site : 03CH13-HY Condition : AVG_BE(UNII)_B3 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 24 Power : 19	Left blank

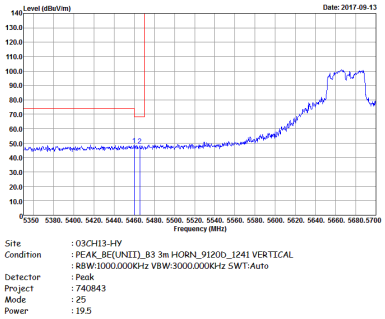
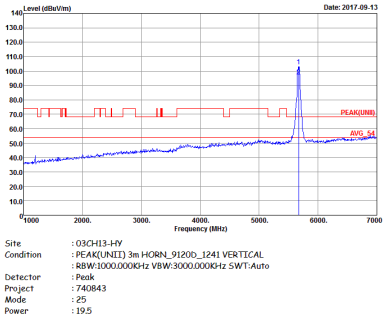
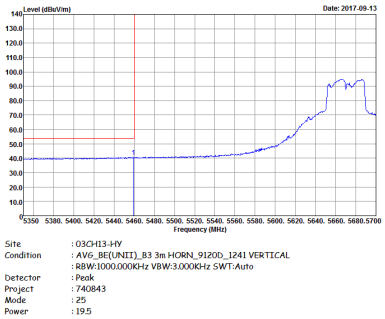
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank

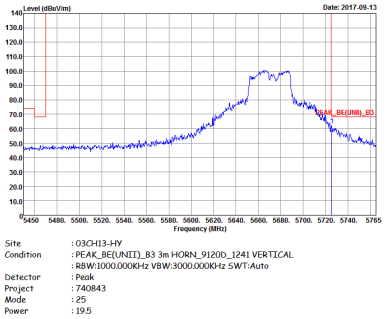
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - R	
1+2	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE(UNII)_B3 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 24 Power : 19	Left blank

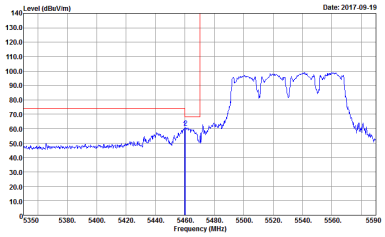
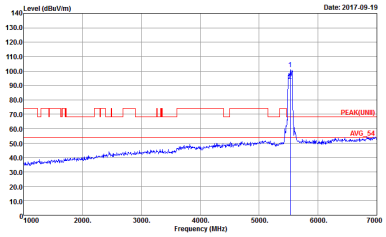
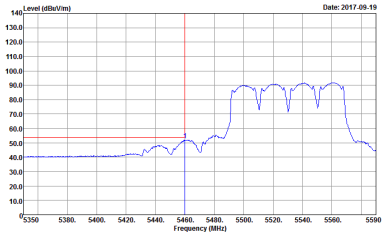
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

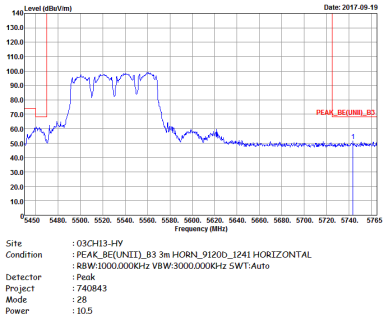
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank

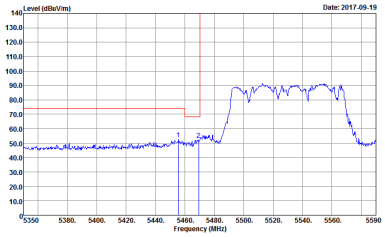
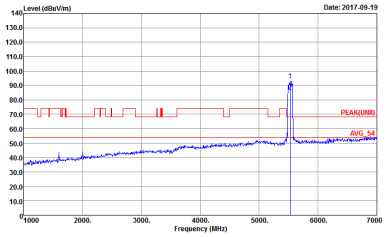
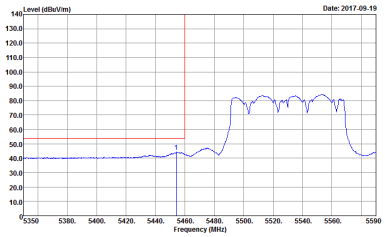
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

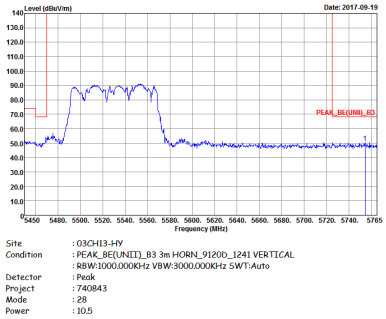
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank

Band 3 5470~5725MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

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

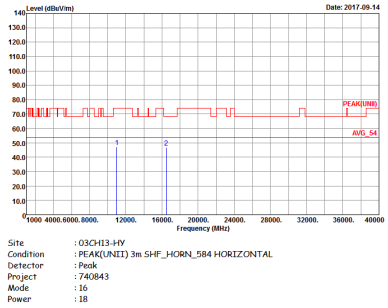
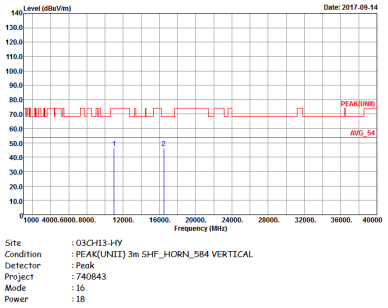
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - R	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE(UNII)_B3 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 28 Power : 10.5	Left blank

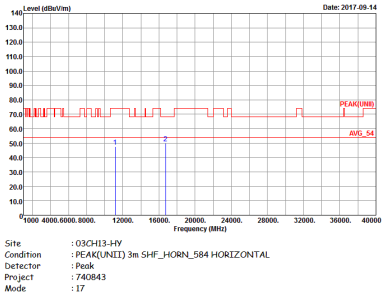
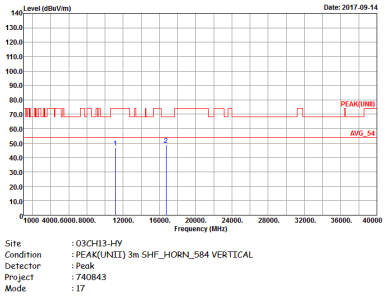
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - L	
1+2	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE(UNII)_B3 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 28 Power : 10.5	 Site : 03CH13-HY Condition : PEAK(UNII) 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 28 Power : 10.5
Avg.	 Site : 03CH13-HY Condition : AVG_BE(UNII)_B3 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 28 Power : 10.5	Left blank

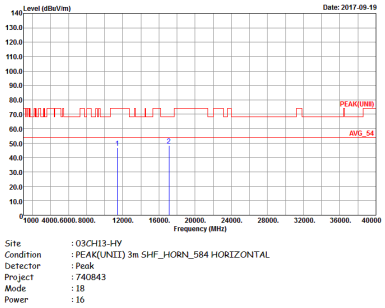
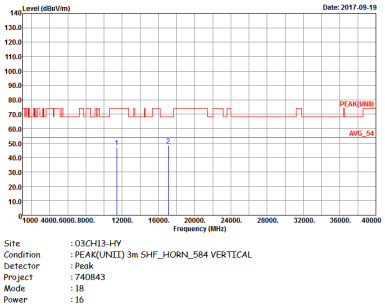
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - R	
1+2	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE(UNII)_B3 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 740843 Mode : 28 Power : 10.5	Left blank

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

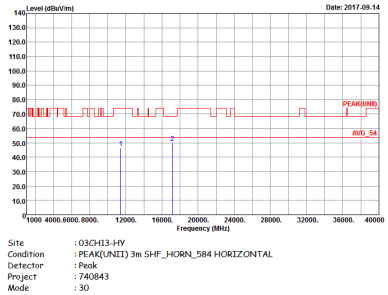
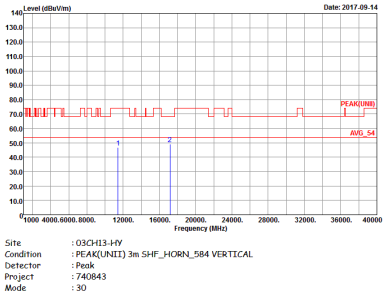
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1+2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT20 CH116 5580MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK(UNII) 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 740843 Mode : 17	 Site : 03CH13-HY Condition : PEAK(UNII) 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 740843 Mode : 17

WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK(UNII) 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 740843 Mode : 18 Power : 16	 Site : 03CH13-HY Condition : PEAK(UNII) 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 740843 Mode : 18 Power : 16

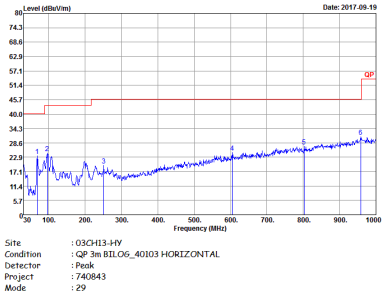
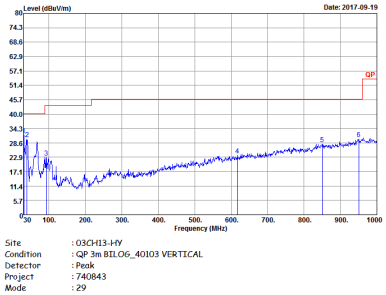
Band 3 - Straddle Channel

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.		

Emission below 1GHz

5GHz WIFI 802.11ac VHT80 (LF)

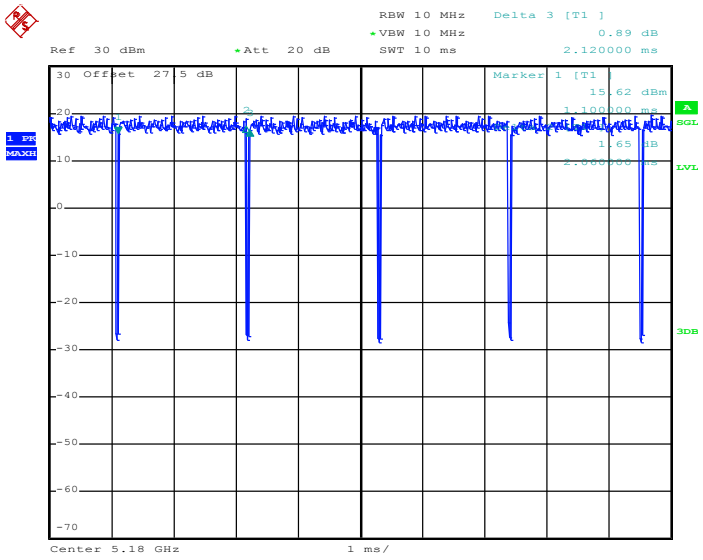
WIFI	5GHz WIFI	
ANT	802.11ac VHT80 LF	
1+2	Horizontal	Vertical
QP / Peak		

Appendix E. Duty Cycle Plots

Antenna	Band	Duty Cycle (%)	T(us)	1/T(kHz)	VBW Setting
1+2	802.11a for Ant. 1	97.17	2060.00	0.49	1kHz
1+2	802.11a for Ant. 2	97.17	2060.00	0.49	1kHz
1+2	5GHz 802.11n HT20 for Ant. 1	97.97	1930.00	0.52	1kHz
1+2	5GHz 802.11n HT20 for Ant. 2	97.97	1930.00	0.52	1kHz
1+2	5GHz 802.11n HT40 for Ant. 1	95.96	950.00	1.05	3kHz
1+2	5GHz 802.11n HT40 for Ant. 2	95.96	950.00	1.05	3kHz
1+2	5GHz 802.11ac VHT80 for Ant. 1	92.00	460.00	2.17	3kHz
1+2	5GHz 802.11ac VHT80 for Ant. 2	92.80	464.00	2.16	3kHz

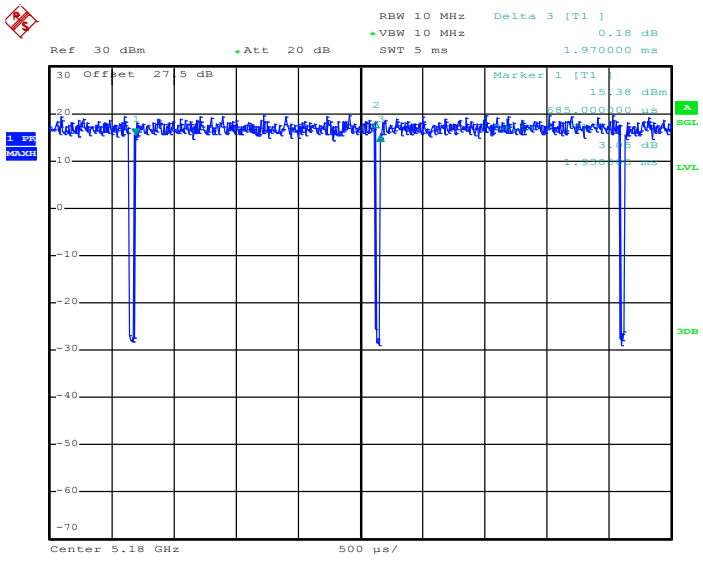
MIMO <Ant. 1>

802.11a



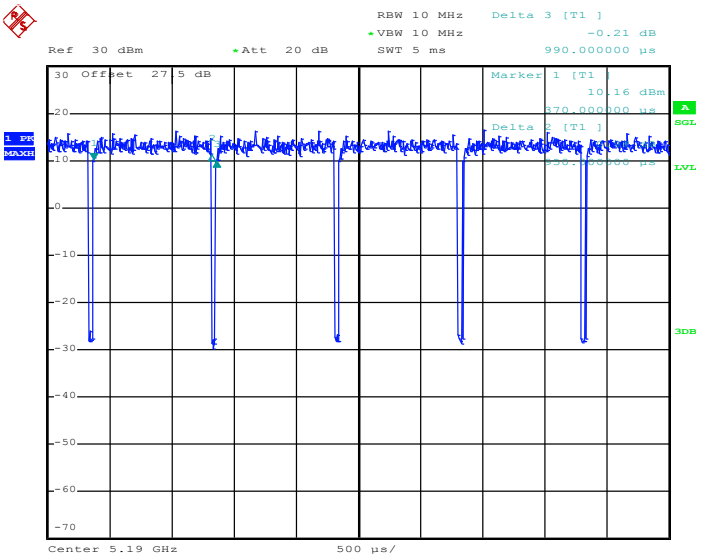
Date: 29.AUG.2017 23:51:21

802.11n HT20



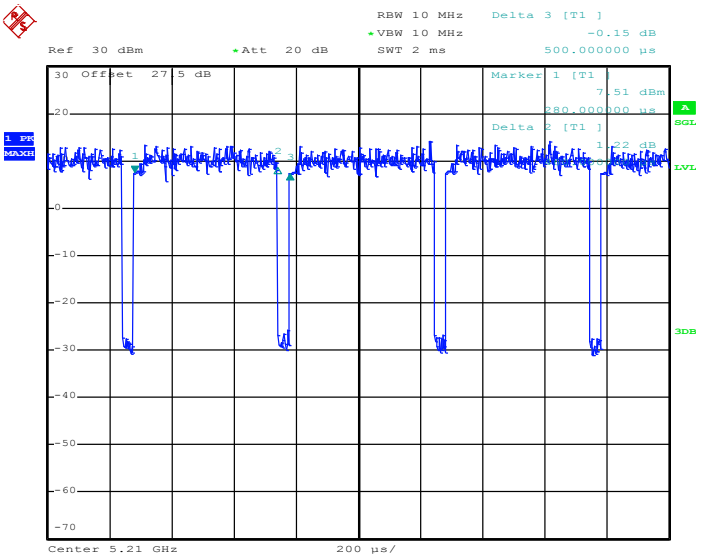
Date: 29.AUG.2017 23:59:09

802.11n HT40



Date: 30.AUG.2017 00:06:52

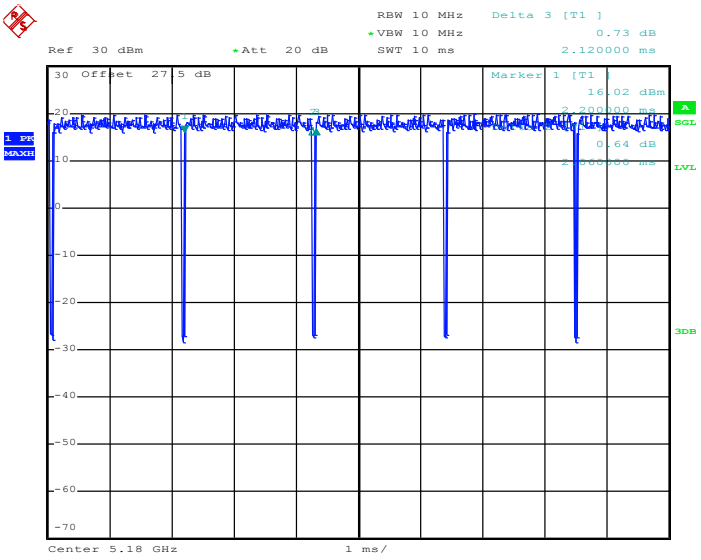
802.11ac VHT80



Date: 30.AUG.2017 00:28:28

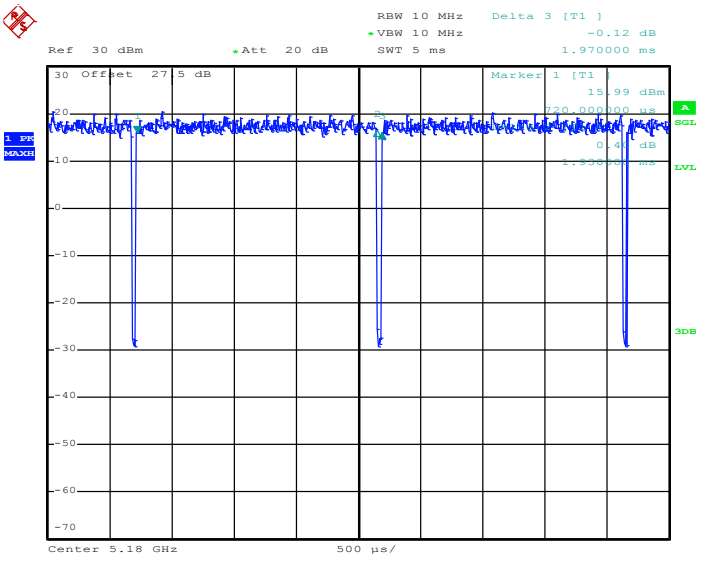
MIMO <Ant. 2>

802.11a



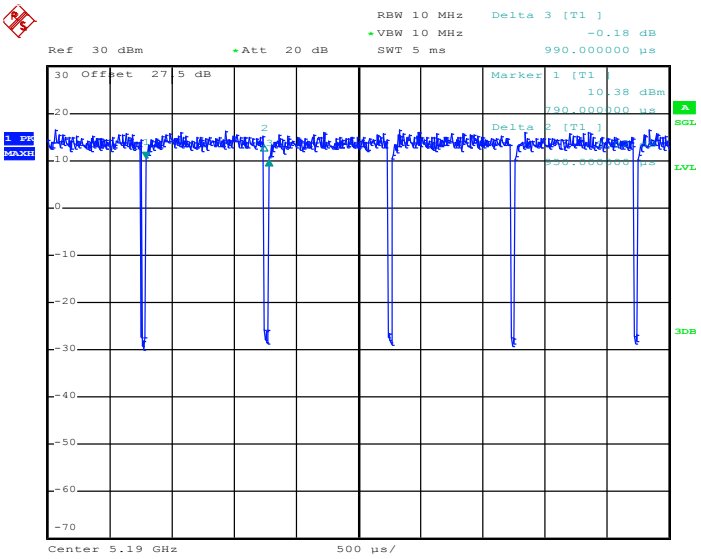
Date: 29.AUG.2017 23:52:08

802.11n HT20



Date: 30.AUG.2017 00:00:20

802.11n HT40



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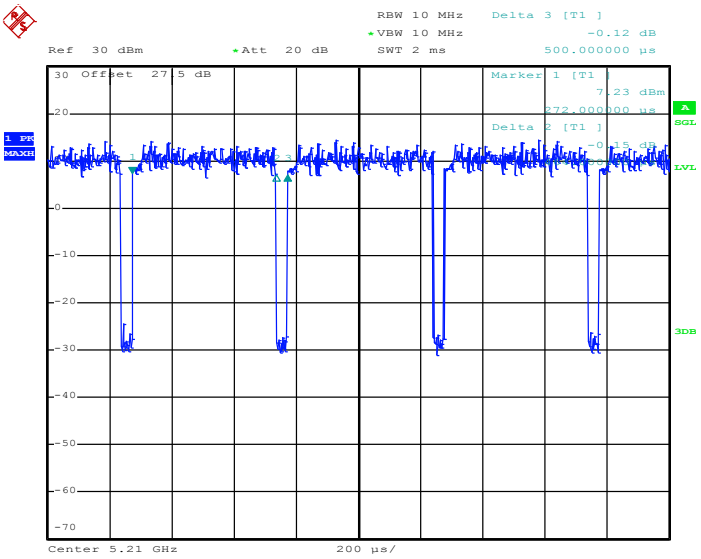
802.11ac VHT80



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