FCC RF Test Report

APPLICANT	:	HMD Global Oy
EQUIPMENT	:	Smart Phone
BRAND NAME	:	NOKIA
MODEL NAME	:	TA-1044
FCC ID	:	2AJOTTA-1044
STANDARD	:	FCC Part 15 Subpart E §15.407
CLASSIFICATION	:	(NII) Unlicensed National Information Infrastructure

The product was received on Jan. 20, 2017 and testing was completed on Mar. 02, 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.
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TABLE OF CONTENTS

SUMMARY OF TEST RESULT **4**
1 GENERAL DESCRIPTION **5**
1.1 Applicant 5
1.2 Manufacturer 5
1.3 Product Feature of Equipment Under Test 5
1.4 Modification of EUT 5
1.5 Testing Location 6
1.6 Applicable Standards 6
2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST **7**
2.1 Carrier Frequency Channel 7
2.2 Test Mode 9
2.3 Connection Diagram of Test System 10
2.4 Support Unit used in test configuration and system 10
2.5 EUT Operation Test Setup 10
2.6 Measurement Results Explanation Example 11
3 TEST RESULT **12**
3.1 26dB & 99% Occupied Bandwidth Measurement 12
3.2 Maximum Conducted Output Power Measurement 14
3.3 Power Spectral Density Measurement 17
3.4 Unwanted Radiated Emission Measurement 20
3.5 AC Conducted Emission Measurement 25
3.6 Frequency Stability Measurement 27
3.7 Automatically Discontinue Transmission 28
3.8 Antenna Requirements 29
4 LIST OF MEASURING EQUIPMENTS **30**
5 UNCERTAINTY OF EVALUATION **31**
APPENDIX A. CONDUCTED TEST RESULTS
APPENDIX B. AC CONDUCTED EMISSION TEST RESULT
APPENDIX C. RADIATED SPURIOUS EMISSION
APPENDIX D. RADIATED SPURIOUS EMISSION PLOTS
APPENDIX E. DUTY CYCLE PLOTS
APPENDIX F. SETUP PHOTOGRAPHS

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR712016F	Rev. 01	Initial issue of report	Mar. 24, 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	FCC ≤ 24 dBm (depend on band)	Pass	-
3.3	15.407(a)	Power Spectral Density	FCC ≤ 11 dBm (depend on band)	Pass	-
3.4	15.407(b)	Unwanted Emissions	≤ -17, -27 dBm (depend on band)&15.209(a)	Pass	Under limit 5.30 dB at 54.300 MHz
3.5	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 16.90 dB at 13.558 MHz
0	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

HMD Global Oy
Karaportti 2, 02610 Espoo, Finland

1.2 Manufacturer

HMD Global Oy
Karaportti 2, 02610 Espoo, Finland

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, Ant.+, FM Receiver, NFC, and GPS.

Product Specification subjective to this standard	
Antenna Type	WWAN: PIFA Antenna WLAN: PIFA Antenna Bluetooth: PIFA Antenna Ant.+: PIFA Antenna GPS/Glonass/Beidou : Monopole Antenna NFC : Loop Antenna

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.**
	03CH11-HY

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

1.6 Applicable Standards

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

- FCC Part 15 Subpart E
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r03.
- 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 (Y plane) were recorded in this report.

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

2.1 Carrier Frequency 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	5720

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: The above Frequency and Channel in "*" were 802.11n HT40.

2.2 Test Mode

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

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

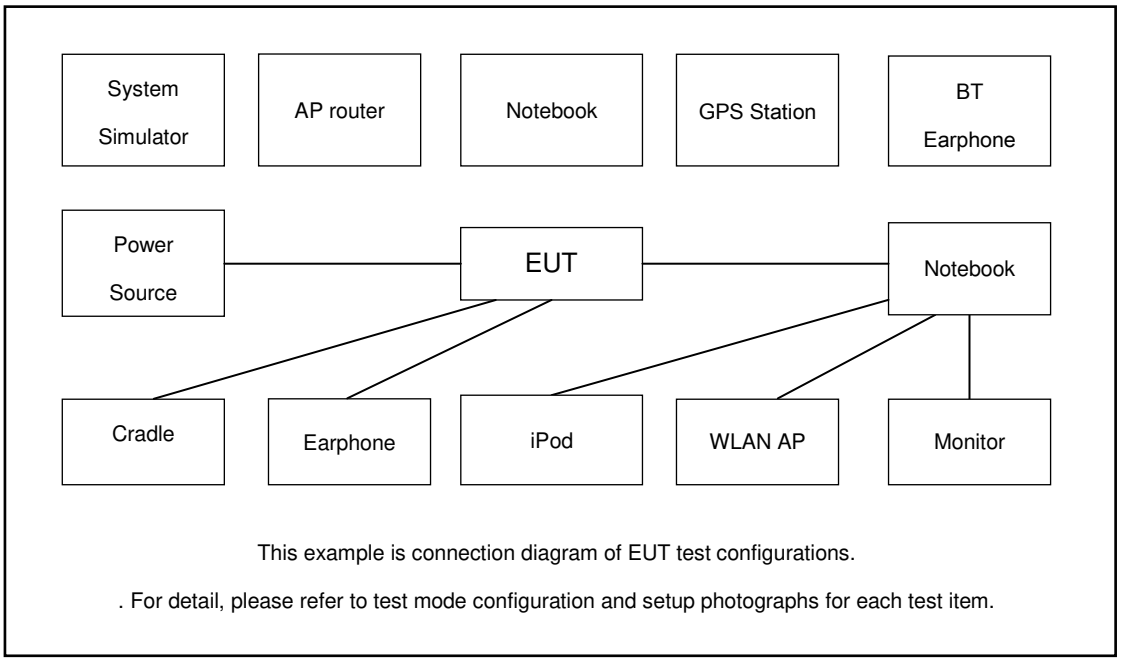
Test Cases	
AC Conducted Emission	Mode 1 : GSM 850 Idle + Bluetooth Link + WLAN (5GHz) Link + NFC On + Earphone + USB Cable (Charging from Adapter)

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

2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	Bluetooth Earphone	Sony Ericsson	MW600	PY7DDA-2029	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 and limits were applied for operations in the frequency band in accordance with FCC KDB 644545 D03.

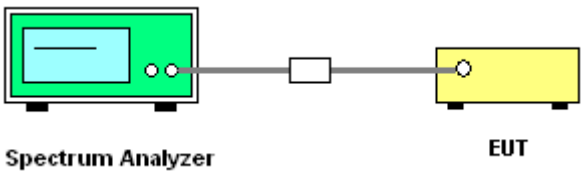
3.1.2 Measuring Instruments

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 v01r03. Section C) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1MHz and set the Video bandwidth (VBW) ≥ 3 * RBW.
8. Measure and record the results in the test report.

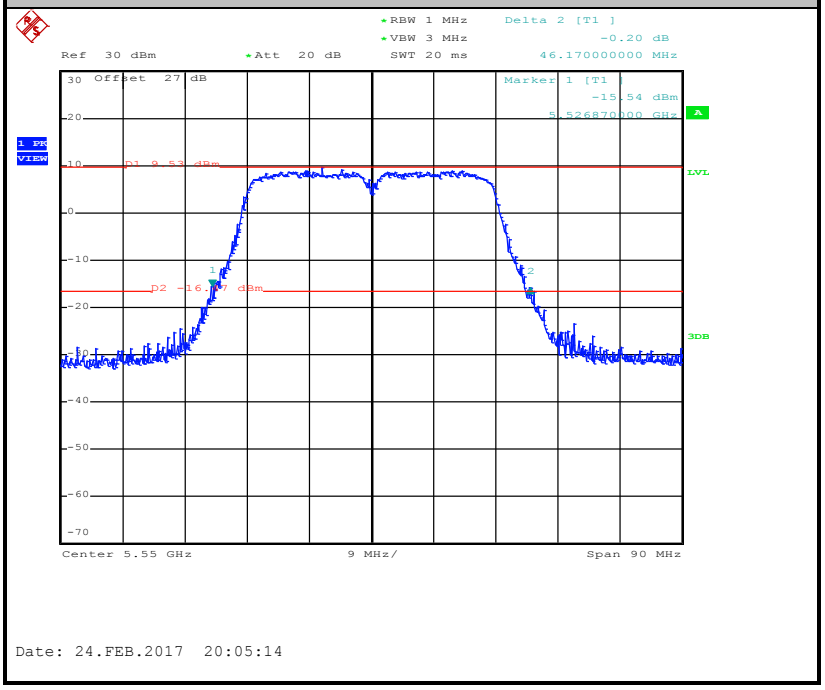
3.1.4 Test Setup



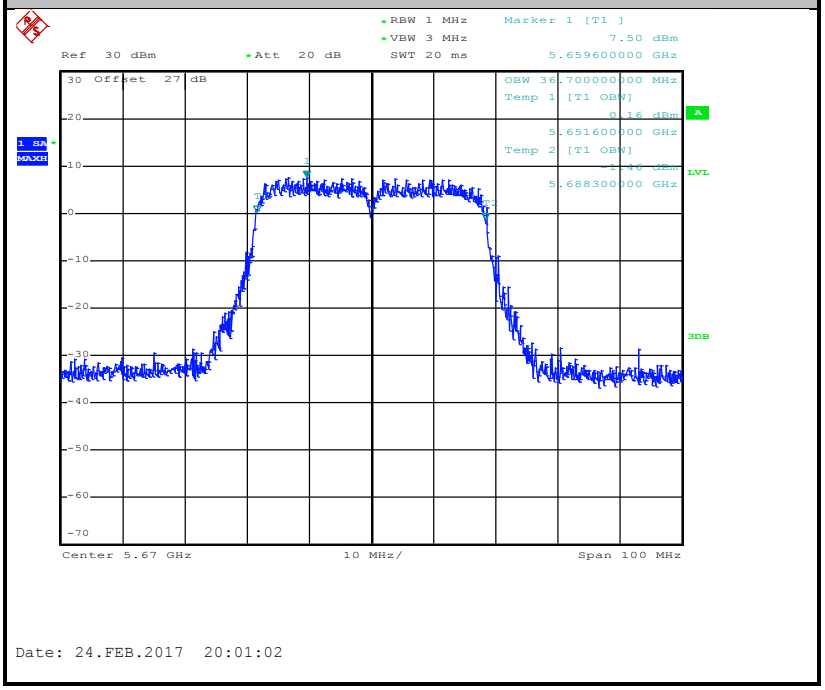
3.1.5 Test Result of 26dB & 99% Occupied Bandwidth Plots

Please refer to Appendix A.

Maximum 26dB Bandwidth



Maximum 99% Occupied Bandwidth



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

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

<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 v01r03.

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

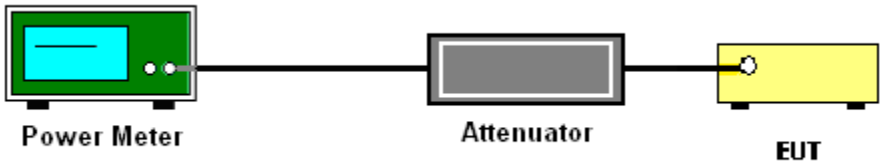
1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit continuously with a consistent duty cycle at its maximum power control level.
3. Measure the average power of the transmitter, and the average power is corrected with duty factor, 10 log(1/x), where x is 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 v01r03.

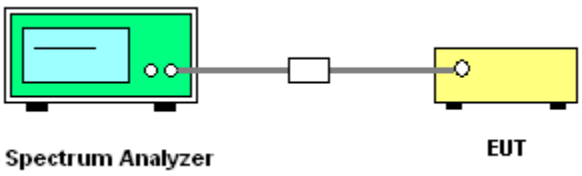
Compute power by integrating the spectrum across the 99% occupied bandwidth of the signal using the instrument's band power measurement function.

3.2.4 Test Setup

For normal channel:

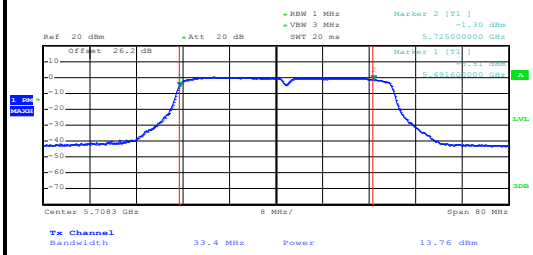
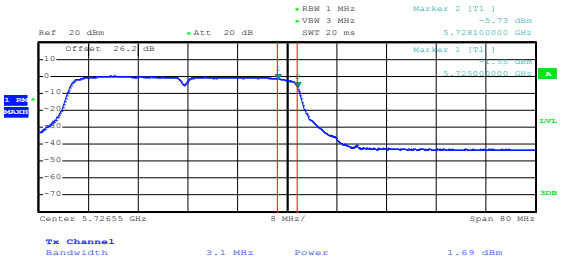


For straddle channel:



3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.

Worst Case Straddle Channel Power	
NII-2C Band	**DTS Band**
 Date: 27.FEB.2017 20:31:27	 Date: 27.FEB.2017 20:32:10

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

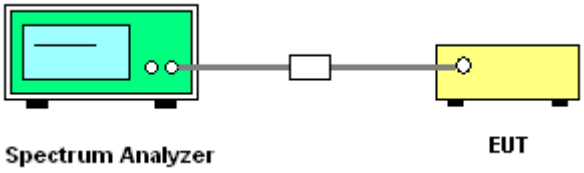
The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r03. Section F) Maximum power spectral density.

 # Method SA-2 #

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

1. The testing follows Method SA-2 of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r03.
   - Measure the duty cycle.
   - Set span to encompass the entire emission bandwidth (EBW) of the signal.
   - Set RBW = 1 MHz.
   - Set VBW ≥ 3 MHz.
   - Number of points in sweep ≥ 2 Span / RBW.
   - Sweep time = auto.
   - Detector = RMS
   - Trace average at least 100 traces in power averaging mode.
   - Add 10 log(1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add 10 log(1/0.25) = 6 dB if the duty cycle is 25 percent.
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.

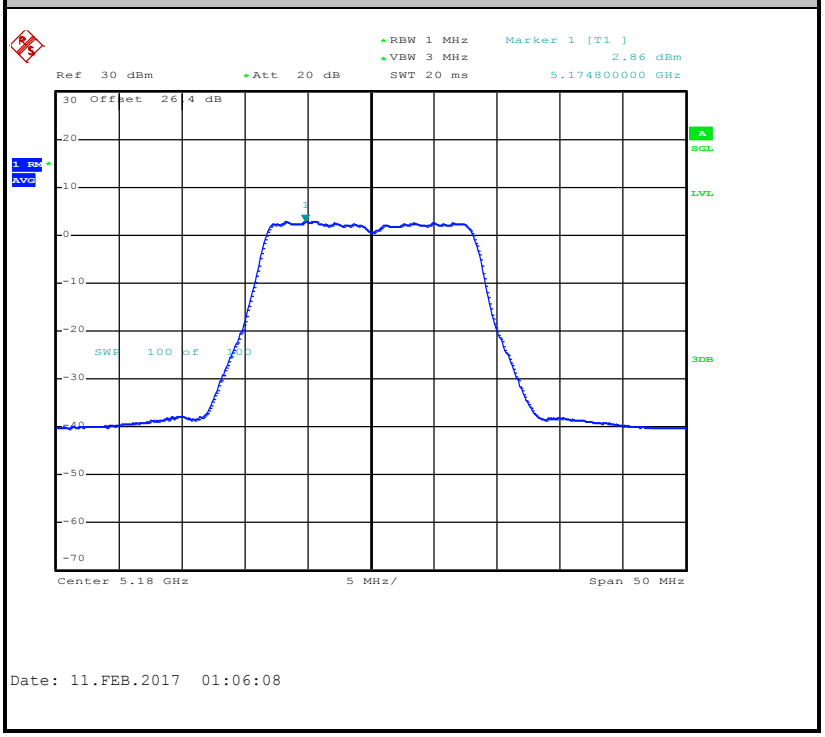
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

Worst Case Power Spectral Density(dBm/MHz)



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

3.4 Unwanted Radiated Emission Measurement

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

3.4.1 Limit of Unwanted Emissions

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

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

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

(2) Unwanted spurious emissions fallen in restricted bands per FCC Part15.205 shall comply with the general field strength limits set forth in § 15.209 as below table,

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

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

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

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

(3) KDB789033 D01 v01r03 G)2)c) As specified in 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in 15.407(b)(4)). However, an out-of-band emission that complies with both the average and peak limits of 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz peak emission limit.

3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r03. Section G) Unwanted emissions measurement.

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

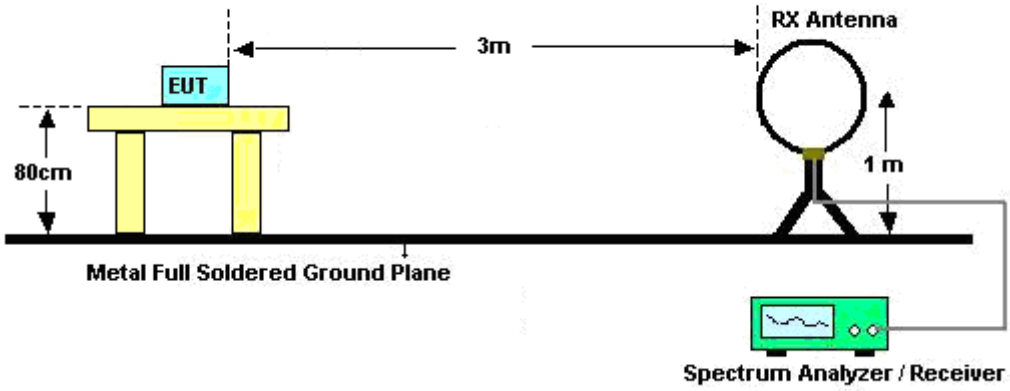
   (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
   - RBW = 1 MHz
   - VBW ≥ 3 MHz
   - Detector = Peak
   - Sweep time = auto
   - Trace mode = max hold

   (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz
   - RBW = 1 MHz
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

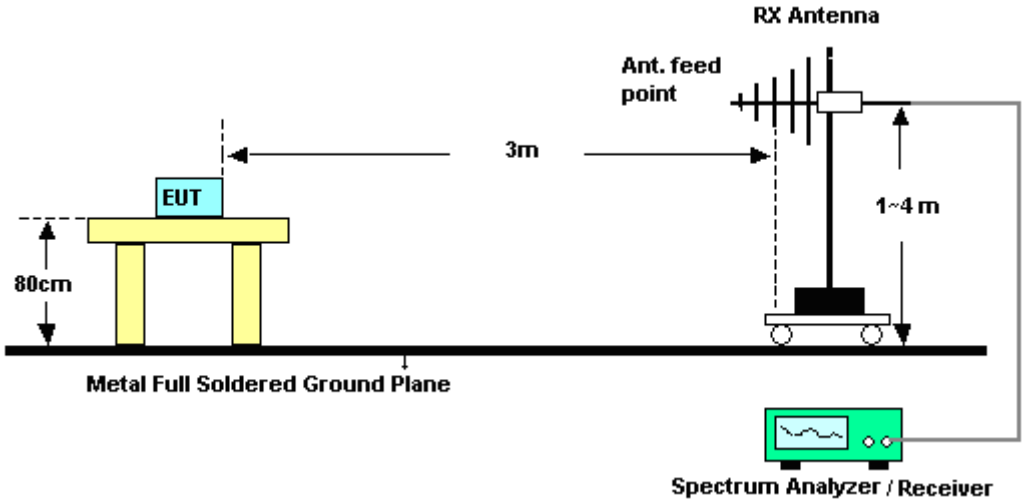
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

3.4.4 Test Setup

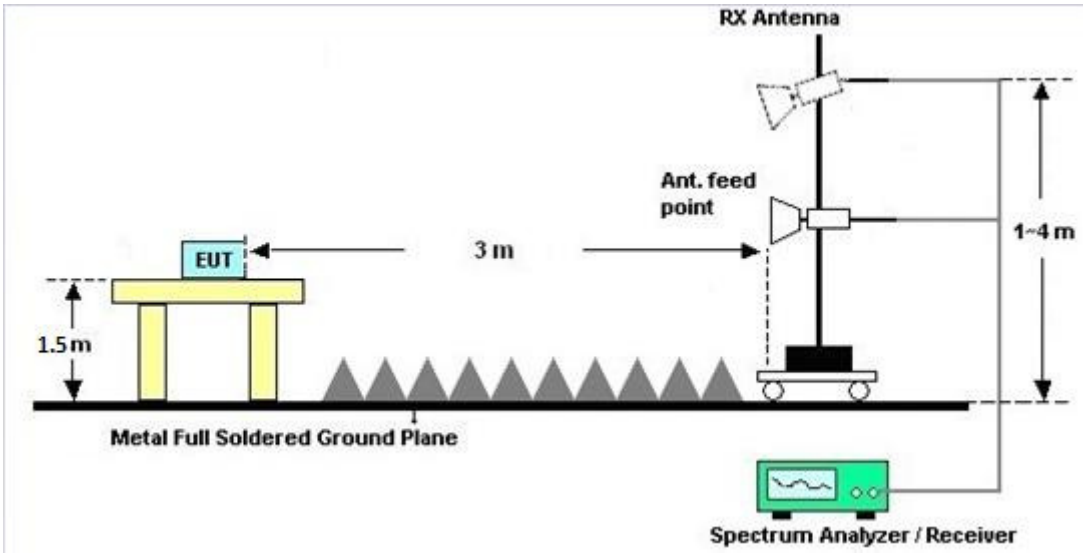
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

3.4.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix 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.

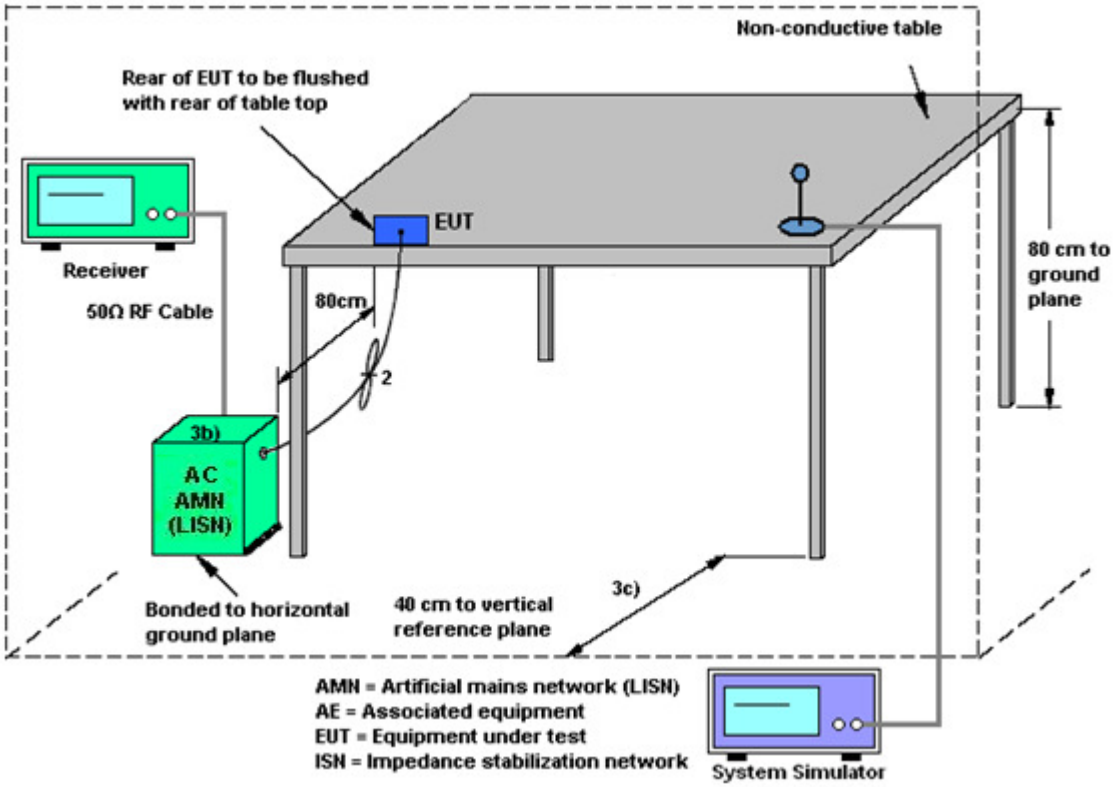
3.5.2 Measuring Instruments

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.

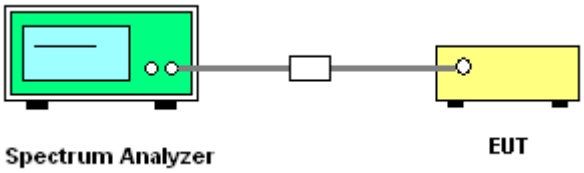
3.6.2 Measuring Instruments

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

According to FCC 47 CFR Section 15.407(a)(1)(2) ,if transmitting antenna directional gain is greater than 6 dBi, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.8.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.8.3 Antenna Gain

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

4 List of Measuring Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	0932001	300MHz~40GHz	Sep. 29, 2016	Feb. 09, 2017 ~ Feb. 27, 2017	Sep. 28, 2017	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	0846202	300MHz~40GHz	Sep. 29, 2016	Feb. 09, 2017 ~ Feb. 27, 2017	Sep. 28, 2017	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100055	9kHz-40GHz	Jul. 17, 2016	Feb. 09, 2017 ~ Feb. 27, 2017	Jul. 16, 2017	Conducted (TH05-HY)
Temperature Chamber	ESPEC	SH-641	92013720	-40℃ ~90℃	Sep. 01, 2016	Feb. 09, 2017 ~ Feb. 27, 2017	Aug. 31, 2017	Conducted (TH05-HY)
Programmable Power Supply	GW Instek	PSS-2005	EL890094	1V~20V 0.5A~5A	Oct. 11, 2016	Feb. 09, 2017 ~ Feb. 27, 2017	Oct. 10, 2017	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Feb. 09, 2017	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESCI 7	100724	9kHz~7GHz	Aug. 30, 2016	Feb. 09, 2017	Aug. 29, 2017	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 29, 2016	Feb. 09, 2017	Nov. 28, 2017	Conduction (CO05-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Nov. 10, 2016	Feb. 11, 2017 ~ Mar. 02, 2017	Nov. 09, 2017	Radiation (03CH11-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Sep .02, 2015	Feb. 11, 2017 ~ Mar. 02, 2017	Sep .01, 2017	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D	35414	30MHz~1GHz	Oct. 15, 2016	Feb. 11, 2017 ~ Mar. 02, 2017	Oct. 14, 2017	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1522	1GHz ~ 18GHz	Mar. 30, 2016	Feb. 11, 2017 ~ Mar. 02, 2017	Mar. 31, 2017	Radiation (03CH11-HY)
Preamplifier	Keysight	83017A	MY53270080	1GHz~26.5GHz	Nov. 10, 2016	Feb. 11, 2017 ~ Mar. 02, 2017	Nov. 09, 2017	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY52350276	10Hz ~ 44GHZ	Mar. 21, 2016	Feb. 11, 2017 ~ Mar. 02, 2017	Mar. 20, 2017	Radiation (03CH11-HY)
Controller	EMEC	EM 1000	N/A	Control Turn table & Ant Mast	N/A	Feb. 11, 2017 ~ Mar. 02, 2017	N/A	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Feb. 11, 2017 ~ Mar. 02, 2017	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Feb. 11, 2017 ~ Mar. 02, 2017	N/A	Radiation (03CH11-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1815698	1GHz~18GHz	Dec. 01, 2016	Feb. 11, 2017 ~ Mar. 02, 2017	Nov. 30, 2017	Radiation (03CH11-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 08, 2016	Feb. 11, 2017 ~ Mar. 02, 2017	Nov. 07, 2017	Radiation (03CH11-HY)

5 Uncertainty of Evaluation

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

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

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

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

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

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

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

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

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Derek Hsu	Temperature:	21~25	°C
Test Date:	2017/2/9~2017/02/27	Relative Humidity:	51~54	%

Report Number : FR712016F

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)		
11a	6Mbps	1	36	5180	17.95	23.50	-	22.54		
11a	6Mbps	1	44	5220	18.05	23.60	-	22.56		
11a	6Mbps	1	48	5240	18.20	24.00	-	22.60		
HT20	MCS0	1	36	5180	18.70	24.01	-	22.72		
HT20	MCS0	1	44	5220	18.90	24.12	-	22.76		
HT20	MCS0	1	48	5240	18.90	24.05	-	22.76		
HT40	MCS0	1	38	5190	36.60	45.18	-	23.01		
HT40	MCS0	1	46	5230	36.60	45.27	-	23.01		

Report Number : FR712016F

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
11a	6Mbps	1	36	5180	0.59	14.39	24.00	-2.94		Pass
11a	6Mbps	1	44	5220	0.59	14.24	24.00	-2.94		Pass
11a	6Mbps	1	48	5240	0.59	14.37	24.00	-2.94		Pass
HT20	MCS0	1	36	5180	0.63	14.42	24.00	-2.94		Pass
HT20	MCS0	1	44	5220	0.63	14.29	24.00	-2.94		Pass
HT20	MCS0	1	48	5240	0.63	14.29	24.00	-2.94		Pass
HT40	MCS0	1	38	5190	0.63	14.23	24.00	-2.94		Pass
HT40	MCS0	1	46	5230	0.63	14.11	24.00	-2.94		Pass

Report Number : FR712016F

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
11a	6Mbps	1	36	5180	0.59	3.45	11.00	-2.94		Pass
11a	6Mbps	1	44	5220	0.59	2.42	11.00	-2.94		Pass
11a	6Mbps	1	48	5240	0.59	2.77	11.00	-2.94		Pass
HT20	MCS0	1	36	5180	0.63	2.85	11.00	-2.94		Pass
HT20	MCS0	1	44	5220	0.63	2.39	11.00	-2.94		Pass
HT20	MCS0	1	48	5240	0.63	2.87	11.00	-2.94		Pass
HT40	MCS0	1	38	5190	0.63	0.51	11.00	-2.94		Pass
HT40	MCS0	1	46	5230	0.63	0.14	11.00	-2.94		Pass

Report Number : FR712016F

TEST RESULTS DATA
26dB and 99% OBW

Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6M bps	1	52	5260	18.05	24.00	23.56	29.56	23.98	
11a	6M bps	1	60	5300	18.20	23.90	23.60	29.60	23.98	
11a	6M bps	1	64	5320	18.05	23.70	23.56	29.56	23.98	
HT20	MCS 0	1	52	5260	19.10	23.72	23.81	29.81	23.98	
HT20	MCS 0	1	60	5300	19.00	23.94	23.79	29.79	23.98	
HT20	MCS 0	1	64	5320	18.75	23.70	23.73	29.73	23.98	
HT40	MCS 0	1	54	5270	36.50	45.00	23.98	30.00	23.98	
HT40	MCS 0	1	62	5310	36.60	45.54	23.98	30.00	23.98	

Report Number : FR712016F

TEST RESULTS DATA
Average Power Table

FCC Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail
11a	6M bps	1	52	5260	0.59	14.37	23.98	-2.43	30.00	Pass
11a	6M bps	1	60	5300	0.59	14.29	23.98	-2.43	30.00	Pass
11a	6M bps	1	64	5320	0.59	14.38	23.98	-2.43	30.00	Pass
HT20	MCS 0	1	52	5260	0.63	14.18	23.98	-2.43	30.00	Pass
HT20	MCS 0	1	60	5300	0.63	14.33	23.98	-2.43	30.00	Pass
HT20	MCS 0	1	64	5320	0.63	14.41	23.98	-2.43	30.00	Pass
HT40	MCS 0	1	54	5270	0.63	14.05	23.98	-2.43	30.00	Pass
HT40	MCS 0	1	62	5310	0.63	14.21	23.98	-2.43	30.00	Pass

Report Number : FR712016F

TEST RESULTS DATA
Power Spectral Density

Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)		Pass/Fail
11a	6M bps	1	52	5260	0.59	2.27	11.00	-2.43		Pass
11a	6M bps	1	60	5300	0.59	2.42	11.00	-2.43		Pass
11a	6M bps	1	64	5320	0.59	2.34	11.00	-2.43		Pass
HT20	MCS 0	1	52	5260	0.63	2.37	11.00	-2.43		Pass
HT20	MCS 0	1	60	5300	0.63	2.11	11.00	-2.43		Pass
HT20	MCS 0	1	64	5320	0.63	2.06	11.00	-2.43		Pass
HT40	MCS 0	1	54	5270	0.63	-0.79	11.00	-2.43		Pass
HT40	MCS 0	1	62	5310	0.63	-0.62	11.00	-2.43		Pass

TEST RESULTS DATA
26dB and 99% OBW

Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6M bps	1	100	5500	18.05	23.90	23.56	29.56	23.98	
11a	6M bps	1	116	5580	18.00	24.00	23.55	29.55	23.98	
11a	6M bps	1	140	5700	18.00	24.90	23.55	29.55	23.98	
HT20	MCS 0	1	100	5500	18.95	24.60	23.78	29.78	23.98	
HT20	MCS 0	1	116	5580	18.95	24.18	23.78	29.78	23.98	
HT20	MCS 0	1	140	5700	18.75	23.46	23.73	29.73	23.98	
HT40	MCS 0	1	102	5510	36.50	45.36	23.98	30.00	23.98	
HT40	MCS 0	1	110	5550	36.50	46.17	23.98	30.00	23.98	
HT40	MCS 0	1	134	5670	36.70	45.63	23.98	30.00	23.98	

TEST RESULTS DATA
Average Power Table

FCC Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail
11a	6M bps	1	100	5500	0.59	14.35	23.98	-2.39	30.00	Pass
11a	6M bps	1	116	5580	0.59	13.94	23.98	-2.39	30.00	Pass
11a	6M bps	1	140	5700	0.59	14.19	23.98	-2.39	30.00	Pass
HT20	MCS 0	1	100	5500	0.63	14.37	23.98	-2.39	30.00	Pass
HT20	MCS 0	1	116	5580	0.63	14.06	23.98	-2.39	30.00	Pass
HT20	MCS 0	1	140	5700	0.63	14.35	23.98	-2.39	30.00	Pass
HT40	MCS 0	1	102	5510	0.63	14.17	23.98	-2.39	30.00	Pass
HT40	MCS 0	1	110	5550	0.63	14.06	23.98	-2.39	30.00	Pass
HT40	MCS 0	1	134	5670	0.63	13.94	23.98	-2.39	30.00	Pass

Report Number : FR712016F

TEST RESULTS DATA
Power Spectral Density

Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)		Pass/Fail
11a	6M bps	1	100	5500	0.59	2.42	11.00	-2.39		Pass
11a	6M bps	1	116	5580	0.59	2.65	11.00	-2.39		Pass
11a	6M bps	1	140	5700	0.59	2.31	11.00	-2.39		Pass
HT20	MCS 0	1	100	5500	0.63	3.11	11.00	-2.39		Pass
HT20	MCS 0	1	116	5580	0.63	3.27	11.00	-2.39		Pass
HT20	MCS 0	1	140	5700	0.63	2.67	11.00	-2.39		Pass
HT40	MCS 0	1	102	5510	0.63	0.03	11.00	-2.39		Pass
HT40	MCS 0	1	110	5550	0.63	0.40	11.00	-2.39		Pass
HT40	MCS 0	1	134	5670	0.63	-0.37	11.00	-2.39		Pass

TEST RESULTS DATA
26dB and 99% OBW

Straddle Channel										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26dB Emission Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	6dB Emission Bandwidth (MHz)
11a	6Mbps	1	144	5720	17.90	23.50	-	-	-	16.32
				NII-2C	14.1	16.75	22.49	28.49	23.24	13.2
				NII-3	3.8	6.75	30.00	36.02	-	3.12
HT20	MCS0	1	144	5720	18.85	23.93	-	-	-	17.56
				NII-2C	14.6	16.975	22.64	28.64	23.30	13.8
				NII-3	4.25	6.95	30.00	36.02	-	3.76
HT40	MCS0	1	142	5710	36.50	45.36	-	-	-	35.04
				NII-2C	33.4	38.13	23.98	30.00	23.98	32.52
				NII-3	3.1	7.23	30.00	36.02	-	2.52

TEST RESULTS DATA
Average Power Table

FCC Straddle Channel										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)		Pass/Fail
11a	6Mbps	1	144	5720	0.59	13.75	-	-2.39		Pass
				NII-2C	0.59	12.82	23.24	-2.39		Pass
				NII-3	0.59	6.62	30.00	-2.39		Pass
HT20	MCS0	1	144	5720	0.63	13.83	-	-2.39		Pass
				NII-2C	0.63	12.89	23.30	-2.39		Pass
				NII-3	0.63	6.74	30.00	-2.39		Pass
HT40	MCS0	1	142	5710	0.63	14.02	-	-2.39		Pass
				NII-2C	0.63	13.76	23.98	-2.39		Pass
				NII-3	0.63	1.69	30.00	-2.39		Pass

Report Number : FR712016F

TEST RESULTS DATA
Power Spectral Density

Straddle Channel										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)		Pass/Fail
11a	6Mbps	1	144	NII-2C	0.59	2.26	11.00	-2.39		Pass
				NII-3	0.59	2.26	30.00	-2.39		Pass
HT20	MCS0	1	144	NII-2C	0.63	1.81	11.00	-2.39		Pass
				NII-3	0.63	1.81	30.00	-2.39		Pass
HT40	MCS0	1	142	NII-2C	0.63	-0.59	11.00	-2.39		Pass
				NII-3	0.63	-0.59	30.00	-2.39		Pass

Report Number : FR712016F

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	5179.950	-0.050	-9.65	55	3.8	
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	-30	3.8	
11a	6Mbps	1	36	5180	5179.950	-0.050	-9.65	20	4.2	
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	20	3.5	
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	20	3.8	

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	5319.950	-0.050	-9.40	55	3.8	
11a	6Mbps	1	64	5320	5320.025	0.025	4.70	-30	3.8	
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	20	4.2	
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	20	3.5	
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	20	3.8	

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	5499.950	-0.050	-9.09	55	3.8	
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	-30	3.8	
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	20	4.2	
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	20	3.5	
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	20	3.8	

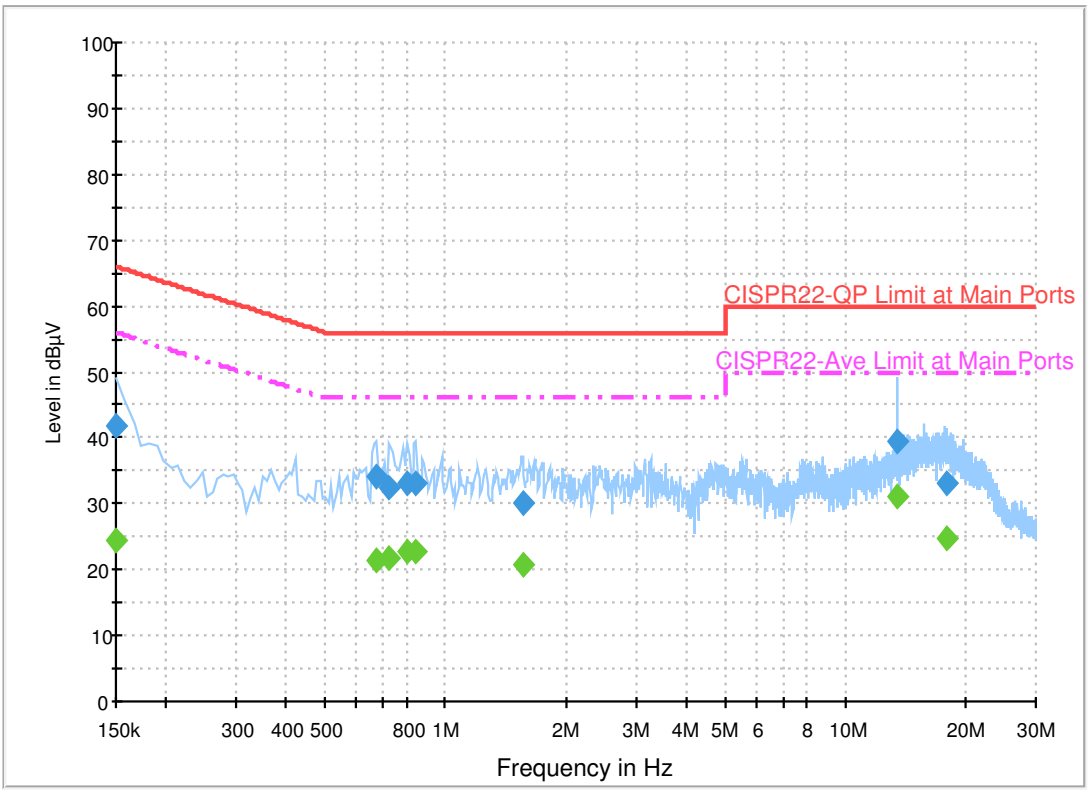
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Arthur Hsieh	**Temperature :**	21~22℃
		Relative Humidity :	58~60%

EUT Information

Report NO :	712016
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)
0.150000	41.9	Off	L1	19.6	24.1	66.0
0.670000	34.2	Off	L1	19.6	21.8	56.0
0.726000	32.5	Off	L1	19.6	23.5	56.0
0.806000	33.1	Off	L1	19.6	22.9	56.0
0.846000	33.3	Off	L1	19.6	22.7	56.0
1.558000	30.0	Off	L1	19.6	26.0	56.0
13.558000	39.3	Off	L1	20.2	20.7	60.0
18.054000	33.2	Off	L1	20.5	26.8	60.0

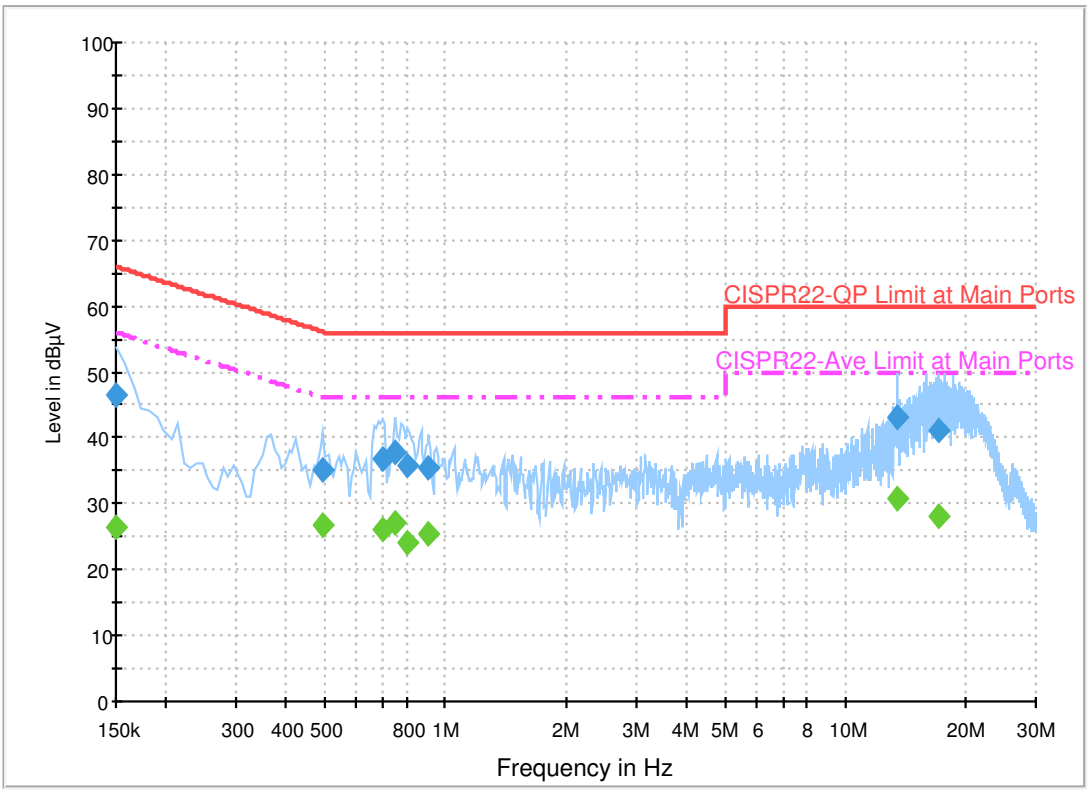
Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	24.4	Off	L1	19.6	31.6	56.0
0.670000	21.6	Off	L1	19.6	24.4	46.0
0.726000	21.8	Off	L1	19.6	24.2	46.0
0.806000	22.7	Off	L1	19.6	23.3	46.0
0.846000	22.7	Off	L1	19.6	23.3	46.0
1.558000	20.7	Off	L1	19.6	25.3	46.0
13.558000	31.0	Off	L1	20.2	19.0	50.0
18.054000	24.8	Off	L1	20.5	25.2	50.0

EUT Information

Report NO :	712016
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)
0.150000	46.6	Off	N	19.5	19.4	66.0
0.494000	35.1	Off	N	19.5	21.0	56.1
0.694000	36.9	Off	N	19.5	19.1	56.0
0.750000	37.7	Off	N	19.6	18.3	56.0
0.806000	35.8	Off	N	19.6	20.2	56.0
0.910000	35.5	Off	N	19.5	20.5	56.0
13.558000	43.1	Off	N	20.3	16.9	60.0
17.078000	41.3	Off	N	20.5	18.7	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	26.3	Off	N	19.5	29.7	56.0
0.494000	26.7	Off	N	19.5	19.4	46.1
0.694000	26.0	Off	N	19.5	20.0	46.0
0.750000	27.2	Off	N	19.6	18.8	46.0
0.806000	24.1	Off	N	19.6	21.9	46.0
0.910000	25.5	Off	N	19.5	20.5	46.0
13.558000	30.8	Off	N	20.3	19.2	50.0
17.078000	28.1	Off	N	20.5	21.9	50.0

Appendix C. Radiated Spurious Emission

Test Engineer :	J.C. Liang, Jacky Hung and Ken Wu	Temperature :	20~24°C
		Relative Humidity :	50~54%

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		5114.92	51.65	-22.35	74	41.34	32.16	11.19	33.04	159	143	P	H
		5072.8	42.55	-11.45	54	32.26	32.12	11.21	33.04	159	143	A	H
	*	5180	94.61	-	-	84.2	32.26	11.18	33.03	159	143	P	H
	*	5180	84.3	-	-	73.89	32.26	11.18	33.03	159	143	A	H
													H
													H
		5054.08	51.37	-22.63	74	41.12	32.07	11.22	33.04	252	194	P	V
		5127.4	42.58	-11.42	54	32.23	32.19	11.19	33.03	252	194	A	V
	*	5180	96.09	-	-	85.68	32.26	11.18	33.03	252	194	P	V
	*	5180	86.3	-	-	75.89	32.26	11.18	33.03	252	194	A	V
													V
													V
802.11a CH 44 5220MHz		5124.28	50.3	-23.7	74	39.95	32.19	11.19	33.03	139	148	P	H
		5046.8	42.51	-11.49	54	32.26	32.07	11.22	33.04	139	148	A	H
	*	5220	95.41	-	-	84.97	32.3	11.17	33.03	139	148	P	H
	*	5220	85.08	-	-	74.64	32.3	11.17	33.03	139	148	A	H
		5359.44	49.81	-24.19	74	39.07	32.49	11.28	33.03	139	148	P	H
		5448.48	41.59	-12.41	54	30.64	32.63	11.34	33.02	139	148	A	H
		5085.28	51.11	-22.89	74	40.82	32.12	11.21	33.04	256	195	P	V
		5081.12	42.61	-11.39	54	32.32	32.12	11.21	33.04	256	195	A	V
	*	5220	96.5	-	-	86.06	32.3	11.17	33.03	256	195	P	V
	*	5220	86.43	-	-	75.99	32.3	11.17	33.03	256	195	A	V
		5436.48	49.67	-24.33	74	38.74	32.61	11.34	33.02	256	195	P	V
		5449.92	41.55	-12.45	54	30.6	32.63	11.34	33.02	256	195	A	V

802.11a CH 48 5240MHz		5133.9	51.25	-22.75	74	40.9	32.19	11.19	33.03	165	148	P	H
		5022.36	42.58	-11.42	54	32.35	32.05	11.22	33.04	165	148	A	H
	*	5240	94.49	-	-	84	32.33	11.19	33.03	165	148	P	H
	*	5240	84.36	-	-	73.87	32.33	11.19	33.03	165	148	A	H
		5401.2	49.86	-24.14	74	39.01	32.56	11.31	33.02	165	148	P	H
		5439.6	41.64	-12.36	54	30.71	32.61	11.34	33.02	165	148	A	H
		5135.46	51.72	-22.28	74	41.37	32.19	11.19	33.03	213	200	P	V
		5044.2	42.48	-11.52	54	32.23	32.07	11.22	33.04	213	200	A	V
	*	5240	97.08	-	-	86.59	32.33	11.19	33.03	213	200	P	V
	*	5240	86.67	-	-	76.18	32.33	11.19	33.03	213	200	A	V
		5450.64	50.56	-23.44	74	39.61	32.63	11.34	33.02	213	200	P	V
		5457.84	41.53	-12.47	54	30.58	32.63	11.34	33.02	213	200	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		10360	44.56	-29.44	74	46.84	39.84	15.02	57.14	100	0	P	H
		15540	43.16	-30.84	74	45.01	38.21	18.16	58.22	100	0	P	H
													H
													H
		10360	43.62	-30.38	74	45.9	39.84	15.02	57.14	100	0	P	V
		15540	43.06	-30.94	74	44.91	38.21	18.16	58.22	100	0	P	V
													V
													V
802.11a CH 44 5220MHz		10440	44.66	-29.34	74	46.68	39.92	15.08	57.02	100	0	P	H
		15660	42.71	-31.29	74	44.21	38.23	18.23	57.96	100	0	P	H
													H
													H
		10440	43.99	-30.01	74	46.01	39.92	15.08	57.02	100	0	P	V
		15660	42.61	-31.39	74	44.11	38.23	18.23	57.96	100	0	P	V
													V
													V
802.11a CH 48 5240MHz		10480	44.34	-29.66	74	46.18	39.98	15.11	56.93	100	0	P	H
		15720	42.74	-31.26	74	44.03	38.24	18.28	57.81	100	0	P	H
													H
													H
		10480	44.58	-29.42	74	46.42	39.98	15.11	56.93	100	0	P	V
		15720	43.59	-30.41	74	44.88	38.24	18.28	57.81	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		5014.82	51.09	-22.91	74	40.87	32.02	11.24	33.04	159	143	P	H
		5128.7	42.45	-11.55	54	32.1	32.19	11.19	33.03	159	143	A	H
	*	5180	95.33	-	-	84.92	32.26	11.18	33.03	159	143	P	H
	*	5180	84.7	-	-	74.29	32.26	11.18	33.03	159	143	A	H
													H
													H
		5033.02	50.27	-23.73	74	40.04	32.05	11.22	33.04	274	196	P	V
		5063.44	42.46	-11.54	54	32.2	32.09	11.21	33.04	274	196	A	V
	*	5180	96.04	-	-	85.63	32.26	11.18	33.03	274	196	P	V
	*	5180	85.56	-	-	75.15	32.26	11.18	33.03	274	196	A	V
													V
													V
802.11n HT20 CH 44 5220MHz		5113.1	51.65	-22.35	74	41.34	32.16	11.19	33.04	228	148	P	H
		5097.24	42.63	-11.37	54	32.32	32.14	11.21	33.04	228	148	A	H
	*	5220	94.68	-	-	84.24	32.3	11.17	33.03	228	148	P	H
	*	5220	84.59	-	-	74.15	32.3	11.17	33.03	228	148	A	H
		5440.08	51.33	-22.67	74	40.4	32.61	11.34	33.02	228	148	P	H
		5450.88	41.71	-12.29	54	30.76	32.63	11.34	33.02	228	148	A	H
		5019.24	50.81	-23.19	74	40.59	32.02	11.24	33.04	292	195	P	V
		5081.64	42.45	-11.55	54	32.16	32.12	11.21	33.04	292	195	A	V
	*	5220	96.46	-	-	86.02	32.3	11.17	33.03	292	195	P	V
	*	5220	85.84	-	-	75.4	32.3	11.17	33.03	292	195	A	V
		5384.64	50.11	-23.89	74	39.28	32.54	11.31	33.02	292	195	P	V
		5445.36	41.82	-12.18	54	30.89	32.61	11.34	33.02	292	195	A	V

802.11n HT20 CH 48 5240MHz		5144.82	51.21	-22.79	74	40.85	32.21	11.18	33.03	213	148	P	H
		5053.04	42.59	-11.41	54	32.34	32.07	11.22	33.04	213	148	A	H
	*	5240	95.05	-	-	84.56	32.33	11.19	33.03	213	148	P	H
	*	5240	84.68	-	-	74.19	32.33	11.19	33.03	213	148	A	H
		5411.52	49.43	-24.57	74	38.56	32.58	11.31	33.02	213	148	P	H
		5442.96	41.59	-12.41	54	30.66	32.61	11.34	33.02	213	148	A	H
		5033.28	51.49	-22.51	74	41.26	32.05	11.22	33.04	309	192	P	V
		5077.74	42.49	-11.51	54	32.2	32.12	11.21	33.04	309	192	A	V
	*	5240	95.89	-	-	85.4	32.33	11.19	33.03	309	192	P	V
	*	5240	85.91	-	-	75.42	32.33	11.19	33.03	309	192	A	V
		5445.84	49.93	-24.07	74	38.98	32.63	11.34	33.02	309	192	P	V
		5453.28	41.53	-12.47	54	30.58	32.63	11.34	33.02	309	192	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		10360	45.16	-28.84	74	47.44	39.84	15.02	57.14	100	0	P	H
		15540	43.92	-30.08	74	45.77	38.21	18.16	58.22	100	0	P	H
													H
													H
		10360	44.67	-29.33	74	46.95	39.84	15.02	57.14	100	0	P	V
		15540	44.48	-29.52	74	46.33	38.21	18.16	58.22	100	0	P	V
													V
													V
802.11n HT20 CH 44 5220MHz		10440	44.63	-29.37	74	46.65	39.92	15.08	57.02	100	0	P	H
		15660	43.99	-30.01	74	45.49	38.23	18.23	57.96	100	0	P	H
													H
													H
		10440	44.79	-29.21	74	46.81	39.92	15.08	57.02	100	0	P	V
		15660	44.95	-29.05	74	46.45	38.23	18.23	57.96	100	0	P	V
													V
													V
802.11n HT20 CH 48 5240MHz		10480	44.77	-29.23	74	46.61	39.98	15.11	56.93	100	0	P	H
		15720	43.13	-30.87	74	44.42	38.24	18.28	57.81	100	0	P	H
													H
													H
		10480	44.1	-29.9	74	45.94	39.98	15.11	56.93	100	0	P	V
		15720	42.65	-31.35	74	43.94	38.24	18.28	57.81	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		5044.46	51.97	-22.03	74	41.72	32.07	11.22	33.04	172	99	P	H
		5129.48	43.23	-10.77	54	32.88	32.19	11.19	33.03	172	99	A	H
	*	5190	91.19	-	-	80.79	32.26	11.17	33.03	172	99	P	H
	*	5190	80.55	-	-	70.15	32.26	11.17	33.03	172	99	A	H
		5452.32	49.7	-24.3	74	38.75	32.63	11.34	33.02	172	99	P	H
		5447.28	42.23	-11.77	54	31.28	32.63	11.34	33.02	172	99	A	H
		5028.34	50.56	-23.44	74	40.33	32.05	11.22	33.04	281	185	P	V
		5080.86	43.2	-10.8	54	32.91	32.12	11.21	33.04	281	185	A	V
	*	5190	92.7	-	-	82.3	32.26	11.17	33.03	281	185	P	V
	*	5190	82.32	-	-	71.92	32.26	11.17	33.03	281	185	A	V
		5454.72	51.77	-22.23	74	40.82	32.63	11.34	33.02	281	185	P	V
		5449.44	42.18	-11.82	54	31.23	32.63	11.34	33.02	281	185	A	V
802.11n HT40 CH 46 5230MHz		5134.68	50.8	-23.2	74	40.45	32.19	11.19	33.03	200	163	P	H
		5014.04	43.24	-10.76	54	33.02	32.02	11.24	33.04	200	163	A	H
	*	5230	90.48	-	-	79.99	32.33	11.19	33.03	200	163	P	H
	*	5230	80.02	-	-	69.53	32.33	11.19	33.03	200	163	A	H
		5389.44	50.1	-23.9	74	39.27	32.54	11.31	33.02	200	163	P	H
		5437.2	42.16	-11.84	54	31.23	32.61	11.34	33.02	200	163	A	H
		5030.16	51.53	-22.47	74	41.3	32.05	11.22	33.04	265	185	P	V
		5105.82	43.12	-10.88	54	32.81	32.16	11.19	33.04	265	185	A	V
	*	5230	92.34	-	-	81.85	32.33	11.19	33.03	265	185	P	V
	*	5230	82.38	-	-	71.89	32.33	11.19	33.03	265	185	A	V
		5353.44	50.17	-23.83	74	39.43	32.49	11.28	33.03	265	185	P	V
		5457.36	42.24	-11.76	54	31.29	32.63	11.34	33.02	265	185	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		10380	46.04	-27.96	74	48.27	39.86	15.02	57.11	100	0	P	H
		15570	43.65	-30.35	74	45.4	38.21	18.19	58.15	100	0	P	H
													H
													H
		10380	45.63	-28.37	74	47.86	39.86	15.02	57.11	100	0	P	V
		15570	43.98	-30.02	74	45.73	38.21	18.19	58.15	100	0	P	V
													V
													V
802.11n HT40 CH 46 5230MHz		10460	45.86	-28.14	74	47.83	39.94	15.08	56.99	100	0	P	H
		15690	43.77	-30.23	74	45.15	38.24	18.26	57.88	100	0	P	H
													H
													H
		10460	44.11	-29.89	74	46.08	39.94	15.08	56.99	100	0	P	V
		15690	43.06	-30.94	74	44.44	38.24	18.26	57.88	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 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 52 5260MHz		5098.28	50.73	-23.27	74	40.42	32.14	11.21	33.04	207	148	P	H
		5055.12	42.57	-11.43	54	32.3	32.09	11.22	33.04	207	148	A	H
	*	5260	95.23	-	-	84.7	32.37	11.19	33.03	207	148	P	H
	*	5260	84.73	-	-	74.2	32.37	11.19	33.03	207	148	A	H
		5406.24	49.78	-24.22	74	38.93	32.56	11.31	33.02	207	148	P	H
		5448.72	41.56	-12.44	54	30.61	32.63	11.34	33.02	207	148	A	H
		5098.28	50.63	-23.37	74	40.32	32.14	11.21	33.04	237	200	P	V
		5076.96	42.45	-11.55	54	32.16	32.12	11.21	33.04	237	200	A	V
	*	5260	96.69	-	-	86.16	32.37	11.19	33.03	237	200	P	V
	*	5260	86.88	-	-	76.35	32.37	11.19	33.03	237	200	A	V
		5445.12	49.72	-24.28	74	38.79	32.61	11.34	33.02	237	200	P	V
		5451.6	41.6	-12.4	54	30.65	32.63	11.34	33.02	237	200	A	V
802.11a CH 60 5300MHz		5009.88	51.1	-22.9	74	40.88	32.02	11.24	33.04	253	147	P	H
		5073.84	42.48	-11.52	54	32.19	32.12	11.21	33.04	253	147	A	H
	*	5300	96.38	-	-	85.77	32.42	11.22	33.03	253	147	P	H
	*	5300	85.97	-	-	75.36	32.42	11.22	33.03	253	147	A	H
		5429.52	49.62	-24.38	74	38.69	32.61	11.34	33.02	253	147	P	H
		5457.36	41.69	-12.31	54	30.74	32.63	11.34	33.02	253	147	A	H
		5062.14	51.19	-22.81	74	40.93	32.09	11.21	33.04	267	197	P	V
		5088.4	42.69	-11.31	54	32.4	32.12	11.21	33.04	267	197	A	V
	*	5300	99.52	-	-	88.91	32.42	11.22	33.03	267	197	P	V
	*	5300	89.07	-	-	78.46	32.42	11.22	33.03	267	197	A	V
		5456.4	50.22	-23.78	74	39.27	32.63	11.34	33.02	267	197	P	V
		5352.24	42.49	-11.51	54	31.75	32.49	11.28	33.03	267	197	A	V

802.11a CH 64 5320MHz	*	5320	97.18	-	-	86.52	32.44	11.25	33.03	234	145	P	H
	*	5320	87.38	-	-	76.72	32.44	11.25	33.03	234	145	A	H
		5454.08	50.28	-23.72	74	39.33	32.63	11.34	33.02	234	145	P	H
		5372.32	41.77	-12.23	54	31.01	32.51	11.28	33.03	234	145	A	H
													H
													H
	*	5320	98.66	-	-	88	32.44	11.25	33.03	275	197	P	V
	*	5320	89.28	-	-	78.62	32.44	11.25	33.03	275	197	A	V
		5435.2	51.08	-22.92	74	40.15	32.61	11.34	33.02	275	197	P	V
		5372.16	42.39	-11.61	54	31.63	32.51	11.28	33.03	275	197	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 52 5260MHz		10520	43.98	-30.02	74	45.76	39.99	15.13	56.9	100	0	P	H
		15780	44.37	-29.63	74	45.5	38.26	18.3	57.69	100	0	P	H
													H
													H
		10520	43.86	-30.14	74	45.64	39.99	15.13	56.9	100	0	P	V
		15780	43.7	-30.3	74	44.83	38.26	18.3	57.69	100	0	P	V
													V
													V
802.11a CH 60 5300MHz		10600	43.54	-30.46	74	45.31	39.92	15.19	56.88	100	0	P	H
		15900	42.28	-31.72	74	43.06	38.28	18.37	57.43	100	0	P	H
													H
													H
		10600	44.52	-29.48	74	46.29	39.92	15.19	56.88	100	0	P	V
		15900	42.01	-31.99	74	42.79	38.28	18.37	57.43	100	0	P	V
													V
													V
802.11a CH 64 5320MHz		10640	42.75	-31.25	74	44.51	39.89	15.22	56.87	100	0	P	H
		15960	42.74	-31.26	74	43.31	38.29	18.42	57.28	100	0	P	H
													H
													H
		10640	45.08	-28.92	74	46.84	39.89	15.22	56.87	100	0	P	V
		15960	43.73	-30.27	74	44.3	38.29	18.42	57.28	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 52 5260MHz		5065	51.66	-22.34	74	41.4	32.09	11.21	33.04	243	163	P	H
		5076.7	42.47	-11.53	54	32.18	32.12	11.21	33.04	243	163	A	H
	*	5260	93.07	-	-	82.54	32.37	11.19	33.03	243	163	P	H
	*	5260	83.19	-	-	72.66	32.37	11.19	33.03	243	163	A	H
		5448.72	50.38	-23.62	74	39.43	32.63	11.34	33.02	243	163	P	H
		5441.28	41.6	-12.4	54	30.67	32.61	11.34	33.02	243	163	A	H
		5065.26	52.04	-21.96	74	41.78	32.09	11.21	33.04	256	206	P	V
		5081.64	42.55	-11.45	54	32.26	32.12	11.21	33.04	256	206	A	V
	*	5260	95.41	-	-	84.88	32.37	11.19	33.03	256	206	P	V
	*	5260	84.7	-	-	74.17	32.37	11.19	33.03	256	206	A	V
		5358	50.44	-23.56	74	39.7	32.49	11.28	33.03	256	206	P	V
		5440.8	41.75	-12.25	54	30.82	32.61	11.34	33.02	256	206	A	V
802.11n HT20 CH 60 5300MHz		5026.78	50.71	-23.29	74	40.48	32.05	11.22	33.04	235	119	P	H
		5021.58	42.49	-11.51	54	32.26	32.05	11.22	33.04	235	119	A	H
	*	5300	94.67	-	-	84.06	32.42	11.22	33.03	235	119	P	H
	*	5300	84.23	-	-	73.62	32.42	11.22	33.03	235	119	A	H
		5437.68	51.07	-22.93	74	40.14	32.61	11.34	33.02	235	119	P	H
		5452.8	41.59	-12.41	54	30.64	32.63	11.34	33.02	235	119	A	H
		5013	50.9	-23.1	74	40.68	32.02	11.24	33.04	257	192	P	V
		5044.98	42.48	-11.52	54	32.23	32.07	11.22	33.04	257	192	A	V
	*	5300	95.82	-	-	85.21	32.42	11.22	33.03	257	192	P	V
	*	5300	85.68	-	-	75.07	32.42	11.22	33.03	257	192	A	V
		5405.76	49.66	-24.34	74	38.81	32.56	11.31	33.02	257	192	P	V
		5448.96	41.56	-12.44	54	30.61	32.63	11.34	33.02	257	192	A	V

	*	5320	94.98	-	-	84.32	32.44	11.25	33.03	228	153	P	H
	*	5320	84.9	-	-	74.24	32.44	11.25	33.03	228	153	A	H
		5454.4	50.33	-23.67	74	39.38	32.63	11.34	33.02	228	153	P	H
		5455.04	41.76	-12.24	54	30.81	32.63	11.34	33.02	228	153	A	H
802.11n													H
HT20													H
CH 64	*	5320	97.02	-	-	86.36	32.44	11.25	33.03	267	214	P	V
5320MHz	*	5320	86.53	-	-	75.87	32.44	11.25	33.03	267	214	A	V
		5452.64	50.45	-23.55	74	39.5	32.63	11.34	33.02	267	214	P	V
		5372.32	42.17	-11.83	54	31.41	32.51	11.28	33.03	267	214	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 52 5260MHz		10520	44.31	-29.69	74	46.09	39.99	15.13	56.9	100	0	P	H
		15780	42.61	-31.39	74	43.74	38.26	18.3	57.69	100	0	P	H
													H
													H
		10520	43.85	-30.15	74	45.63	39.99	15.13	56.9	100	0	P	V
		15780	43.65	-30.35	74	44.78	38.26	18.3	57.69	100	0	P	V
													V
													V
802.11n HT20 CH 60 5300MHz		10600	43.16	-30.84	74	44.93	39.92	15.19	56.88	100	0	P	H
		15900	42.54	-31.46	74	43.32	38.28	18.37	57.43	100	0	P	H
													H
													H
		10600	43.27	-30.73	74	45.04	39.92	15.19	56.88	100	0	P	V
		15900	42.2	-31.8	74	42.98	38.28	18.37	57.43	100	0	P	V
													V
													V
802.11n HT20 CH 64 5320MHz		10640	44.37	-29.63	74	46.13	39.89	15.22	56.87	100	0	P	H
		15960	43.36	-30.64	74	43.93	38.29	18.42	57.28	100	0	P	H
													H
													H
		10640	43.46	-30.54	74	45.22	39.89	15.22	56.87	100	0	P	V
		15960	43.36	-30.64	74	43.93	38.29	18.42	57.28	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 54 5270MHz		5074.36	50.57	-23.43	74	40.28	32.12	11.21	33.04	200	163	P	H
		5014.04	43.22	-10.78	54	33	32.02	11.24	33.04	200	163	A	H
	*	5270	91.11	-	-	80.55	32.37	11.22	33.03	200	163	P	H
	*	5270	80.6	-	-	70.04	32.37	11.22	33.03	200	163	A	H
		5418.48	50.1	-23.9	74	39.23	32.58	11.31	33.02	200	163	P	H
		5459.28	42.13	-11.87	54	31.18	32.63	11.34	33.02	200	163	A	H
		5067.34	52	-22	74	41.74	32.09	11.21	33.04	252	193	P	V
		5096.46	43.28	-10.72	54	32.97	32.14	11.21	33.04	252	193	A	V
	*	5270	92.92	-	-	82.36	32.37	11.22	33.03	252	193	P	V
	*	5270	82.73	-	-	72.17	32.37	11.22	33.03	252	193	A	V
		5396.4	50.98	-23.02	74	40.13	32.56	11.31	33.02	252	193	P	V
		5455.44	42.2	-11.8	54	31.25	32.63	11.34	33.02	252	193	A	V
802.11n HT40 CH 62 5310MHz		5059.02	51.4	-22.6	74	41.13	32.09	11.22	33.04	208	163	P	H
		5055.9	43.19	-10.81	54	32.92	32.09	11.22	33.04	208	163	A	H
	*	5310	91.23	-	-	80.57	32.44	11.25	33.03	208	163	P	H
	*	5310	81.32	-	-	70.66	32.44	11.25	33.03	208	163	A	H
		5373.6	49.78	-24.22	74	39.01	32.51	11.28	33.02	208	163	P	H
		5444.16	42.16	-11.84	54	31.23	32.61	11.34	33.02	208	163	A	H
		5068.12	50.42	-23.58	74	40.16	32.09	11.21	33.04	240	200	P	V
		5047.58	43.29	-10.71	54	33.04	32.07	11.22	33.04	240	200	A	V
	*	5310	94.55	-	-	83.89	32.44	11.25	33.03	240	200	P	V
	*	5310	84.01	-	-	73.35	32.44	11.25	33.03	240	200	A	V
		5362.56	50.02	-23.98	74	39.26	32.51	11.28	33.03	240	200	P	V
		5414.88	42.18	-11.82	54	31.31	32.58	11.31	33.02	240	200	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 54 5270MHz		10540	44.57	-29.43	74	46.36	39.97	15.13	56.89	100	0	P	H
		15810	43.17	-30.83	74	44.2	38.26	18.33	57.62	100	0	P	H
													H
													H
		10540	43.76	-30.24	74	45.55	39.97	15.13	56.89	100	0	P	V
		15810	43.32	-30.68	74	44.35	38.26	18.33	57.62	100	0	P	V
													V
													V
802.11n HT40 CH 62 5310MHz		10620	43.02	-30.98	74	44.81	39.9	15.19	56.88	100	0	P	H
		15930	43.04	-30.96	74	43.7	38.29	18.4	57.35	100	0	P	H
													H
													H
		10620	43.57	-30.43	74	45.36	39.9	15.19	56.88	100	0	P	V
		15930	43.24	-30.76	74	43.9	38.29	18.4	57.35	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 Ant.	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		5428.24	50.49	-23.51	74	39.59	32.58	11.34	33.02	201	150	P	H
		5447.92	42.35	-11.65	54	31.4	32.63	11.34	33.02	201	150	A	H
	*	5500	99.78	-	-	88.72	32.7	11.38	33.02	201	150	P	H
	*	5500	91.81	-	-	80.75	32.7	11.38	33.02	201	150	A	H
													H
													H
		5464.4	50.69	-23.31	74	39.68	32.65	11.38	33.02	216	205	P	V
		5447.76	43.48	-10.52	54	32.53	32.63	11.34	33.02	216	205	A	V
	*	5500	102.76	-	-	91.7	32.7	11.38	33.02	216	205	P	V
	*	5500	95.22	-	-	84.16	32.7	11.38	33.02	216	205	A	V
													V
													V
802.11a CH 116 5580MHz		5356	50.14	-23.86	74	39.4	32.49	11.28	33.03	196	159	P	H
		5466.88	41.91	-12.09	54	30.9	32.65	11.38	33.02	196	159	A	H
	*	5580	101.8	-	-	90.63	32.8	11.44	33.07	196	159	P	H
	*	5580	94.36	-	-	83.19	32.8	11.44	33.07	196	159	A	H
		5735.075	50.38	-23.62	74	39.03	33.04	11.46	33.15	196	159	P	H
		5763.6	42.18	-11.82	54	30.82	33.06	11.46	33.16	196	159	A	H
		5438.08	50.64	-23.36	74	39.71	32.61	11.34	33.02	225	197	P	V
		5467.84	41.79	-12.21	54	30.78	32.65	11.38	33.02	225	197	A	V
	*	5580	106.48	-	-	95.31	32.8	11.44	33.07	225	197	P	V
	*	5580	98.87	-	-	87.7	32.8	11.44	33.07	225	197	A	V
		5749.075	49.72	-24.28	74	38.37	33.04	11.46	33.15	225	197	P	V
		5760.625	42.18	-11.82	54	30.82	33.06	11.46	33.16	225	197	A	V

802.11a CH 140 5700MHz	*	5700	101.86	-	-	90.54	32.97	11.47	33.12	200	176	P	H
	*	5700	91.93	-	-	80.61	32.97	11.47	33.12	200	176	A	H
		5752.76	50.81	-23.19	74	39.44	33.06	11.46	33.15	200	176	P	H
		5752.12	44.08	-9.92	54	32.71	33.06	11.46	33.15	200	176	A	H
													H
													H
	*	5700	105.46	-	-	94.14	32.97	11.47	33.12	226	206	P	V
	*	5700	95.75	-	-	84.43	32.97	11.47	33.12	226	206	A	V
		5733.8	51.04	-22.96	74	39.72	33.01	11.46	33.15	226	206	P	V
		5752.28	44.87	-9.13	54	33.5	33.06	11.46	33.15	226	206	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	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	45.34	-28.66	74	47.05	39.6	15.49	56.8	100	0	P	H
		16500	44.16	-29.84	74	41.29	39.2	19.27	55.6	100	0	P	H
													H
													H
		11000	45.26	-28.74	74	46.97	39.6	15.49	56.8	100	0	P	V
		16500	45.01	-28.99	74	42.14	39.2	19.27	55.6	100	0	P	V
													V
													V
802.11a CH 116 5580MHz		11160	45.81	-28.19	74	47.84	39.43	15.61	57.07	100	0	P	H
		16740	47.4	-26.6	74	42.91	40.55	19.68	55.74	100	0	P	H
													H
													H
		11160	47.48	-26.52	74	49.51	39.43	15.61	57.07	100	0	P	V
		16740	46.88	-27.12	74	42.39	40.55	19.68	55.74	100	0	P	V
													V
													V
802.11a CH 140 5700MHz		11400	47.79	-26.21	74	50.24	39.2	15.79	57.44	100	0	P	H
		17100	49	-25	74	42.64	42.36	20.3	56.3	100	0	P	H
													H
													H
		11400	48.21	-25.79	74	50.66	39.2	15.79	57.44	100	0	P	V
		17100	50	-24	74	43.64	42.36	20.3	56.3	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 100 5500MHz		5448.24	50.88	-23.12	74	39.93	32.63	11.34	33.02	294	151	P	H
		5448.4	42.23	-11.77	54	31.28	32.63	11.34	33.02	294	151	A	H
	*	5500	98.47	-	-	87.41	32.7	11.38	33.02	294	151	P	H
	*	5500	88.16	-	-	77.1	32.7	11.38	33.02	294	151	A	H
													H
													H
		5367.76	52.14	-21.86	74	41.38	32.51	11.28	33.03	251	205	P	V
		5447.92	43.08	-10.92	54	32.13	32.63	11.34	33.02	251	205	A	V
	*	5500	101.68	-	-	90.62	32.7	11.38	33.02	251	205	P	V
	*	5500	91.26	-	-	80.2	32.7	11.38	33.02	251	205	A	V
													V
													V
802.11n HT20 CH 116 5580MHz		5465.44	50.43	-23.57	74	39.42	32.65	11.38	33.02	278	158	P	H
		5468.56	41.77	-12.23	54	30.76	32.65	11.38	33.02	278	158	A	H
	*	5580	99.17	-	-	88	32.8	11.44	33.07	278	158	P	H
	*	5580	88.37	-	-	77.2	32.8	11.44	33.07	278	158	A	H
		5756.425	50.01	-23.99	74	38.65	33.06	11.46	33.16	278	158	P	H
		5748.375	42.36	-11.64	54	31.01	33.04	11.46	33.15	278	158	A	H
		5455.84	50.41	-23.59	74	39.46	32.63	11.34	33.02	224	208	P	V
		5461.36	41.66	-12.34	54	30.67	32.63	11.38	33.02	224	208	A	V
	*	5580	103.71	-	-	92.54	32.8	11.44	33.07	224	208	P	V
	*	5580	93.33	-	-	82.16	32.8	11.44	33.07	224	208	A	V
		5737.35	50.62	-23.38	74	39.27	33.04	11.46	33.15	224	208	P	V
		5759.05	42.22	-11.78	54	30.86	33.06	11.46	33.16	224	208	A	V

	*	5700	101.2	-	-	89.88	32.97	11.47	33.12	289	163	P	H
	*	5700	90.54	-	-	79.22	32.97	11.47	33.12	289	163	A	H
		5751.96	51.81	-22.19	74	40.44	33.06	11.46	33.15	289	163	P	H
		5751.88	43.03	-10.97	54	31.66	33.06	11.46	33.15	289	163	A	H
802.11n													H
HT20													H
CH 140	*	5700	104.28	-	-	92.96	32.97	11.47	33.12	212	208	P	V
5700MHz	*	5700	93.92	-	-	82.6	32.97	11.47	33.12	212	208	A	V
		5725.96	53.01	-20.99	74	41.67	33.01	11.46	33.13	212	208	P	V
		5751.8	45.19	-8.81	54	33.82	33.06	11.46	33.15	212	208	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 100 5500MHz		11000	44.03	-29.97	74	45.74	39.6	15.49	56.8	100	0	P	H
		16500	44.56	-29.44	74	41.69	39.2	19.27	55.6	100	0	P	H
													H
													H
		11000	44.28	-29.72	74	45.99	39.6	15.49	56.8	100	0	P	V
		16500	44.7	-29.3	74	41.83	39.2	19.27	55.6	100	0	P	V
													V
													V
802.11n HT20 CH 116 5580MHz		11160	46.5	-27.5	74	48.53	39.43	15.61	57.07	100	0	P	H
		16740	47.08	-26.92	74	42.59	40.55	19.68	55.74	100	0	P	H
													H
													H
		11160	45.53	-28.47	74	47.56	39.43	15.61	57.07	100	0	P	V
		16740	47.21	-26.79	74	42.72	40.55	19.68	55.74	100	0	P	V
													V
													V
802.11n HT20 CH 140 5700MHz		11400	44.03	-29.97	74	46.48	39.2	15.79	57.44	100	0	P	H
		17100	49.18	-24.82	74	42.82	42.36	20.3	56.3	100	0	P	H
													H
													H
		11400	44.77	-29.23	74	47.22	39.2	15.79	57.44	100	0	P	V
		17100	48.99	-25.01	74	42.63	42.36	20.3	56.3	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 102 5510MHz		5035.62	50.53	-23.47	74	40.3	32.05	11.22	33.04	209	156	P	H
		5087.88	43.21	-10.79	54	32.92	32.12	11.21	33.04	209	156	A	H
	*	5510	93.3	-	-	82.22	32.7	11.41	33.03	209	156	P	H
	*	5510	86.72	-	-	75.64	32.7	11.41	33.03	209	156	A	H
		5438.4	50.48	-23.52	74	39.55	32.61	11.34	33.02	209	156	P	H
		5454	43.63	-10.37	54	32.68	32.63	11.34	33.02			P	H
		5465.68	50.59	-23.41	74	39.58	32.65	11.38	33.02	240	204	P	V
		5468.32	43.18	-10.82	54	32.17	32.65	11.38	33.02	240	204	A	V
	*	5510	97.21	-	-	86.13	32.7	11.41	33.03	240	204	P	V
	*	5510	89.45	-	-	78.37	32.7	11.41	33.03	240	204	A	V
		5745.575	49.96	-24.04	74	38.61	33.04	11.46	33.15	240	204	P	V
		5765	42.82	-11.18	54	31.46	33.06	11.46	33.16	240	204	A	V
802.11n HT40 CH 110 5550MHz		5405.44	50.85	-23.15	74	40	32.56	11.31	33.02	202	165	P	H
		5465.44	42.4	-11.6	54	31.39	32.65	11.38	33.02	202	165	A	H
	*	5550	94.22	-	-	83.06	32.77	11.44	33.05	202	165	P	H
	*	5550	86.46	-	-	75.3	32.77	11.44	33.05	202	165	A	H
		5734.55	50.87	-23.13	74	39.52	33.04	11.46	33.15	202	165	P	H
		5747.85	42.58	-11.42	54	31.23	33.04	11.46	33.15	202	165	A	H
		5364.4	49.62	-24.38	74	38.86	32.51	11.28	33.03	231	204	P	V
		5458.72	42.74	-11.26	54	31.79	32.63	11.34	33.02	231	204	A	V
	*	5550	98.94	-	-	87.78	32.77	11.44	33.05	231	204	P	V
	*	5550	91.01	-	-	79.85	32.77	11.44	33.05	231	204	A	V
		5759.4	51.04	-22.96	74	39.68	33.06	11.46	33.16	231	204	P	V
		5762.2	42.93	-11.07	54	31.57	33.06	11.46	33.16	231	204	A	V

802.11n HT40 CH 134 5670MHz		5363.2	49.46	-24.54	74	38.7	32.51	11.28	33.03	218	169	P	H
		5468.8	42.49	-11.51	54	31.48	32.65	11.38	33.02	218	169	A	H
	*	5670	97.26	-	-	85.96	32.94	11.47	33.11	218	169	P	H
	*	5670	88.8	-	-	77.5	32.94	11.47	33.11	218	169	A	H
		5753.1	50.75	-23.25	74	39.38	33.06	11.46	33.15	218	169	P	H
		5763.075	42.98	-11.02	54	31.62	33.06	11.46	33.16	218	169	A	H
		5428	51.18	-22.82	74	40.28	32.58	11.34	33.02	238	199	P	V
		5455.84	42.26	-11.74	54	31.31	32.63	11.34	33.02	238	199	A	V
	*	5670	100.41	-	-	89.11	32.94	11.47	33.11	238	199	P	V
	*	5670	92.46	-	-	81.16	32.94	11.47	33.11	238	199	A	V
		5764.475	51.45	-22.55	74	40.09	33.06	11.46	33.16	238	199	P	V
		5754.5	43.28	-10.72	54	31.91	33.06	11.46	33.15	238	199	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 102 5510MHz		11020	45.72	-28.28	74	47.48	39.58	15.49	56.83	100	0	P	H
		16530	45.31	-28.69	74	42.2	39.39	19.34	55.62	100	0	P	H
													H
													H
		11020	45.35	-28.65	74	47.11	39.58	15.49	56.83	100	0	P	V
		16530	44.86	-29.14	74	41.75	39.39	19.34	55.62	100	0	P	V
													V
													V
802.11n HT40 CH 110 5550MHz		11100	47.65	-26.35	74	49.56	39.5	15.55	56.96	100	0	P	H
		16650	45.98	-28.02	74	42.06	40.07	19.54	55.69	100	0	P	H
													H
													H
		11100	46.7	-27.3	74	48.61	39.5	15.55	56.96	100	0	P	V
		16650	46.61	-27.39	74	42.69	40.07	19.54	55.69	100	0	P	V
													V
													V
802.11n HT40 CH 134 5670MHz		11340	46	-28	74	48.33	39.27	15.73	57.33	100	0	P	H
		17010	48.63	-25.37	74	42.38	42.06	20.16	55.97	100	0	P	H
													H
													H
		11340	46.41	-27.59	74	48.74	39.27	15.73	57.33	100	0	P	V
		17010	48.88	-25.12	74	42.63	42.06	20.16	55.97	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 - Straddle Channel

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 144 5720MHz	*	5720	99.75	-	-	88.41	33.01	11.46	33.13	260	171	P	H
	*	5720	91.64	-	-	80.3	33.01	11.46	33.13	260	171	A	H
													H
													H
													H
													H
	*	5720	102.33	-	-	90.99	33.01	11.46	33.13	169	175	P	V
	*	5720	94.66	-	-	83.32	33.01	11.46	33.13	169	175	A	V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 144 5720MHz		11440	45.6	-28.4	74	55.97	39.17	15.82	65.36	100	0	P	H
		17160	50.56	-23.44	74	51.89	42.6	20.44	64.37	100	0	A	H
													H
													H
		11440	46.18	-27.82	74	56.55	39.17	15.82	65.36	100	0	P	V
		17160	49.06	-24.94	74	50.39	42.6	20.44	64.37	100	0	A	V
													V
													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 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 144 5720MHz	*	5720	98.41	-	-	87.07	33.01	11.46	33.13	263	169	P	H
	*	5720	91.17	-	-	79.83	33.01	11.46	33.13	263	169	A	H
													H
													H
													H
													H
	*	5720	102.59	-	-	91.25	33.01	11.46	33.13	140	174	P	V
	*	5720	95.22	-	-	83.88	33.01	11.46	33.13	140	174	A	V
													V
													V
													V
													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	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 144 5720MHz		11440	45.35	-28.65	74	55.72	39.17	15.82	65.36	100	0	P	H
		17160	50.26	-23.74	74	51.59	42.6	20.44	64.37	100	0	P	H
													H
													H
		11440	47.22	-26.78	74	57.59	39.17	15.82	65.36	100	0	P	V
		17160	48.52	-25.48	74	49.85	42.6	20.44	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.												

Band 3 - Straddle Channel

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 142 5710MHz	*	5710	97.77	-	-	86.45	32.99	11.46	33.13	249	174	P	H
	*	5710	89.42	-	-	78.1	32.99	11.46	33.13	249	174	A	H
													H
													H
													H
													H
	*	5710	100.1	-	-	88.78	32.99	11.46	33.13	137	174	P	V
	*	5710	92.55	-	-	81.23	32.99	11.46	33.13	137	174	A	V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 142 5710MHz		11420	44.14	-29.86	74	54.52	39.18	15.79	65.35	100	0	P	H
		17130	49.11	-24.89	74	50.67	42.48	20.37	64.41	100	0	P	H
													H
													H
		11420	44.26	-29.74	74	54.64	39.18	15.79	65.35	100	0	P	V
		17130	47.52	-26.48	74	49.08	42.48	20.37	64.41	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

WIFI 802.11n HT20 (LF @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 LF		98.58	28.16	-15.34	43.5	43.15	15.98	1.51	32.48	-	-	P	H
		197.13	27.94	-15.56	43.5	42.93	15.79	2.1	32.88	-	-	P	H
		228.45	27.89	-18.11	46	41.46	16.83	2.34	32.74	-	-	P	H
		673.8	27.89	-18.11	46	29.98	26.44	3.94	32.47	-	-	P	H
		919.5	33.2	-12.8	46	30.31	29.75	4.63	31.49	-	-	P	H
		953.8	33.68	-12.32	46	29.56	30.59	4.69	31.16	152	252	P	H
													H
													H
													H
													H
													H
													H
		54.3	34.7	-5.3	40	52.2	13.7	1.29	32.49	244	196	P	V
		184.17	22.28	-21.22	43.5	37.76	15.24	2.1	32.82	-	-	P	V
		194.97	24.97	-18.53	43.5	40.09	15.65	2.1	32.87	-	-	P	V
		459.6	25.25	-20.75	46	31.05	23.45	3.11	32.36	-	-	P	V
		892.9	32.52	-13.48	46	30.49	29.16	4.57	31.7	-	-	P	V
		922.3	33.94	-12.06	46	30.94	29.83	4.63	31.46	-	-	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		(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

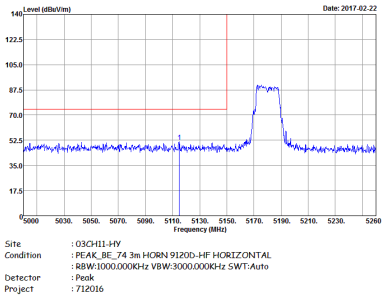
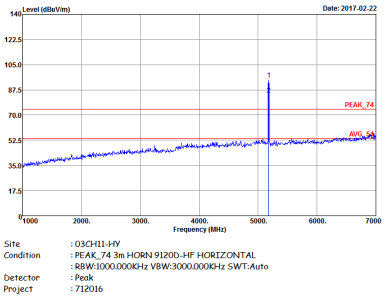
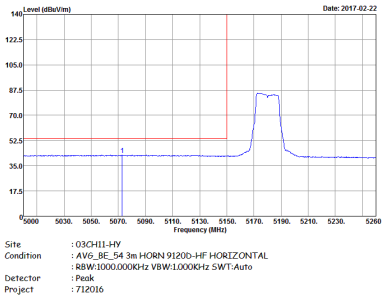
Test Engineer :	J.C. Liang, Jacky Hung and Ken Wu	**Temperature :**	20~24°C
		Relative Humidity :	50~54%

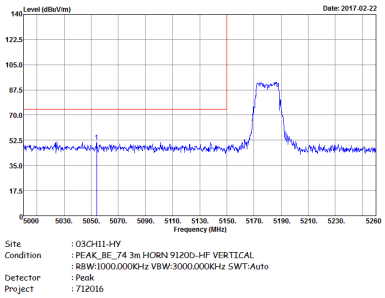
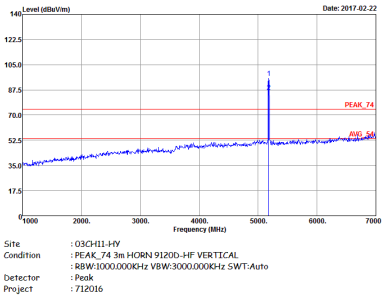
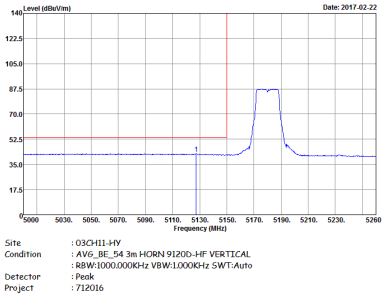
Note symbol

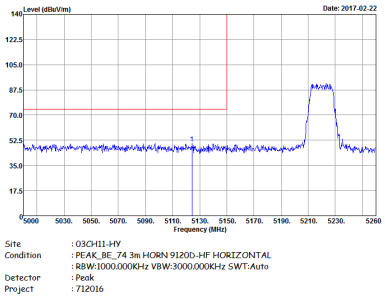
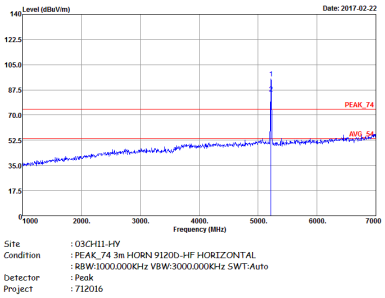
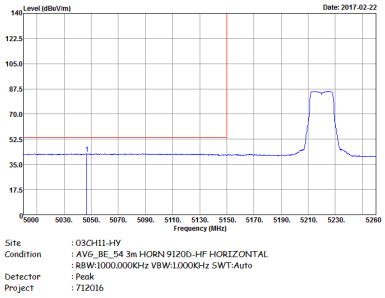
-L	**Low channel location**
-R	**High channel location**

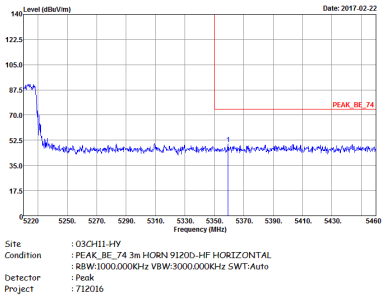
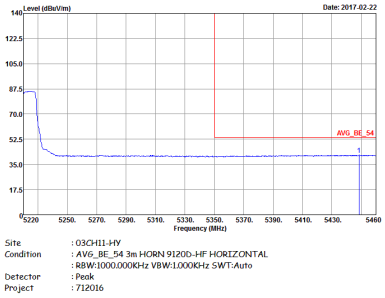
Band 1 - 5150~5250MHz

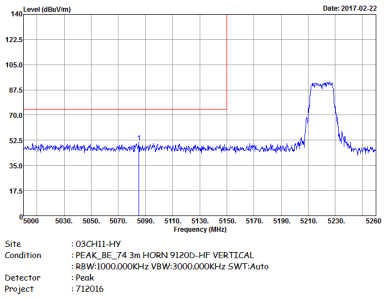
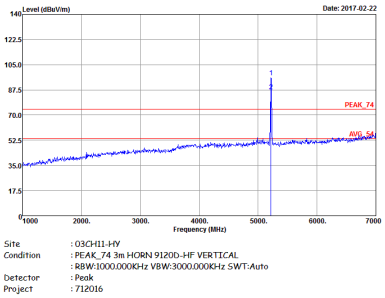
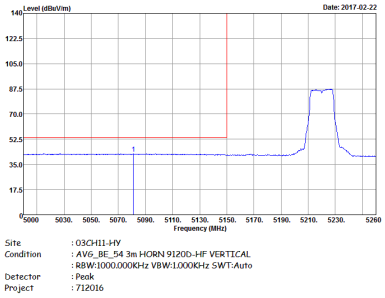
WIFI 802.11a (Band Edge @ 3m)

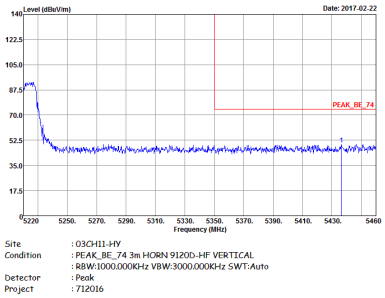
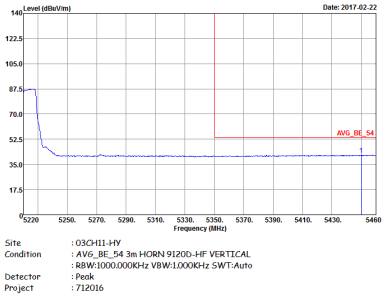
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

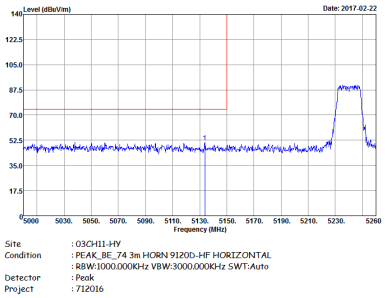
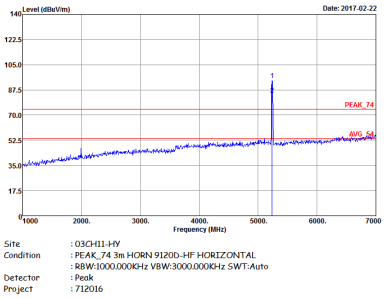
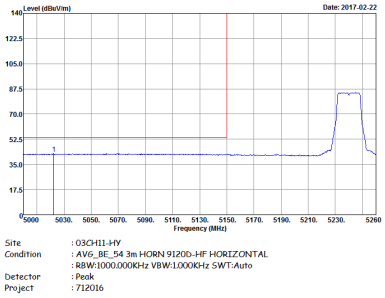
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

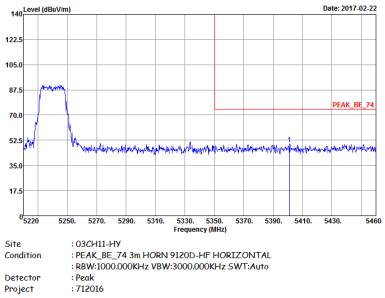
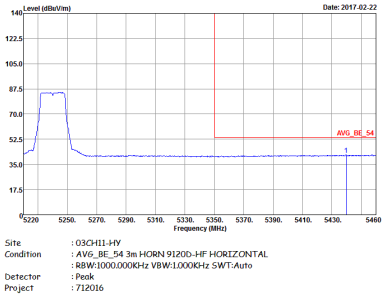
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

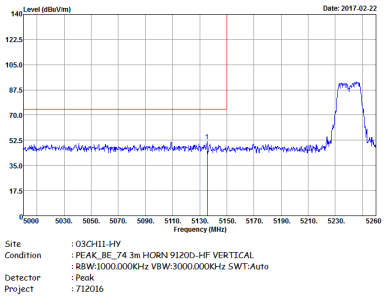
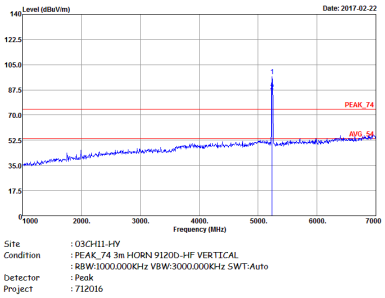
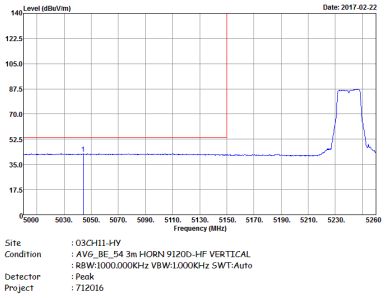
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

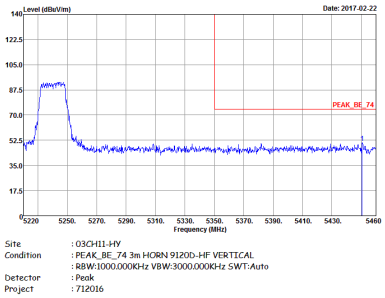
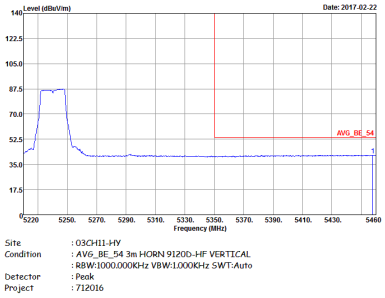
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

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

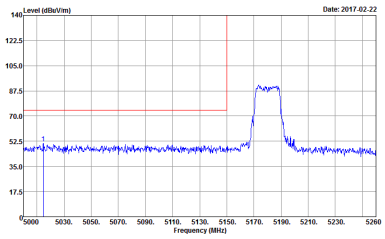
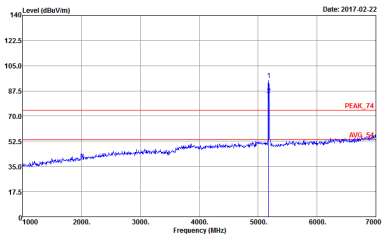
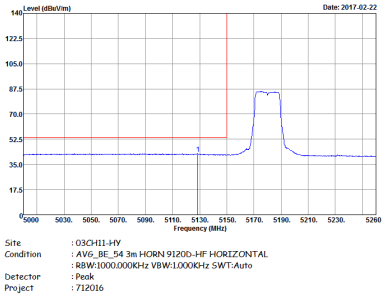
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

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

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

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

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

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
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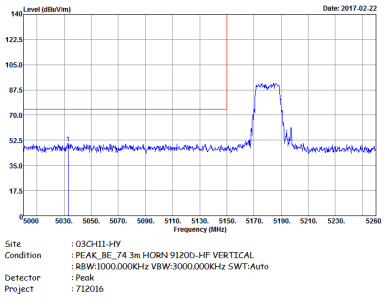
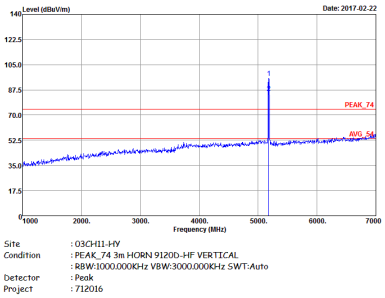
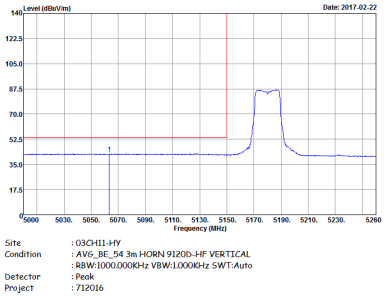
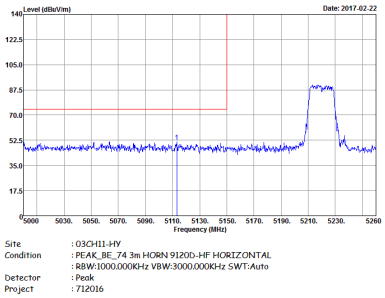
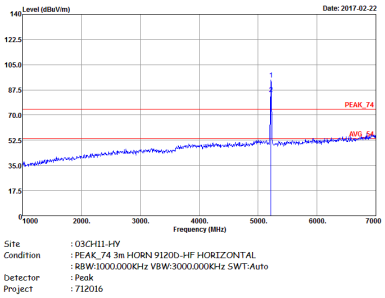
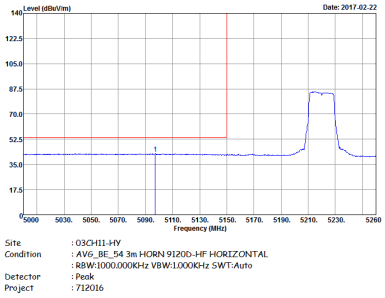
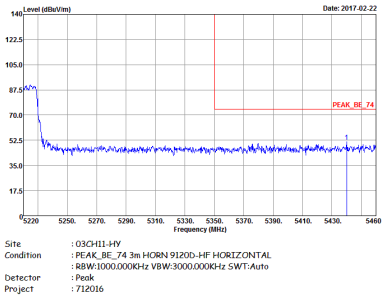
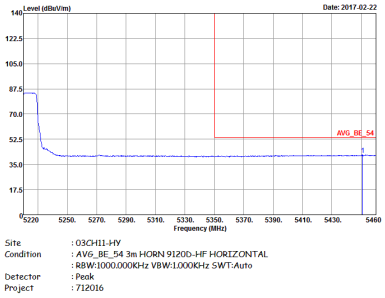
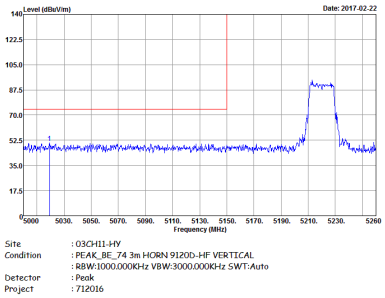
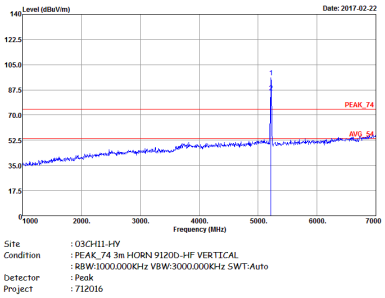
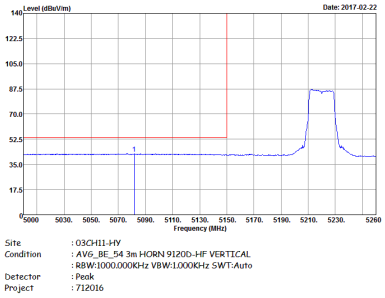
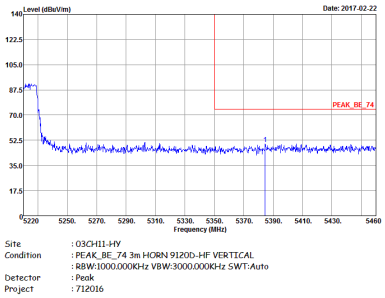
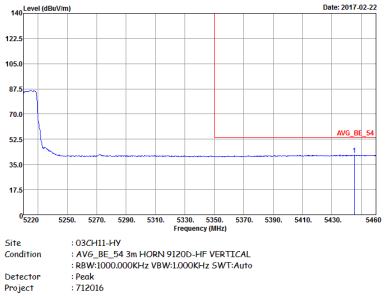
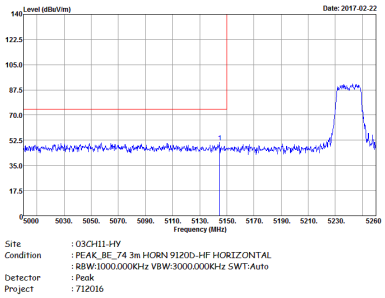
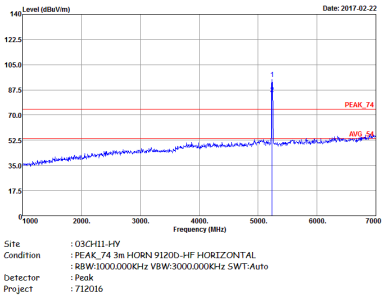
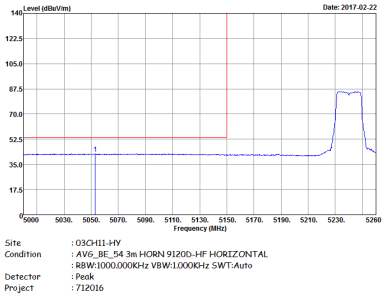
1	Vertical	Fundamental
Peak		
Avg.		Left blank

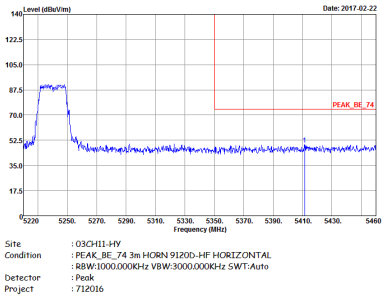
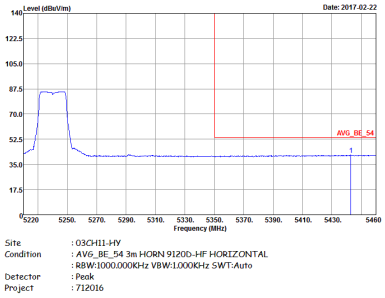
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

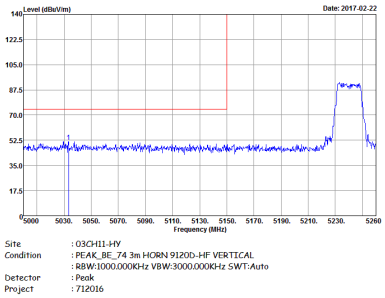
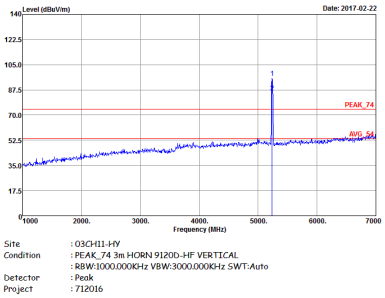
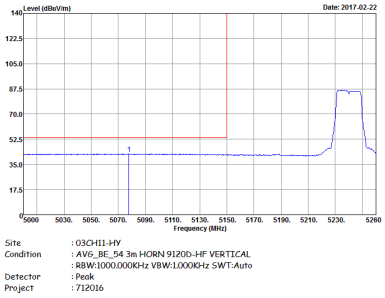
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

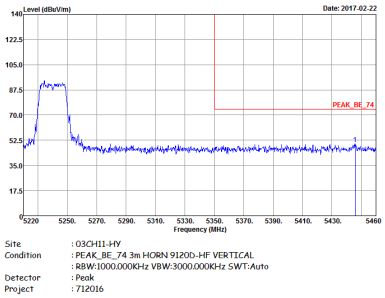
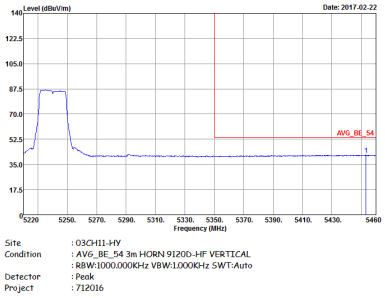
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

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

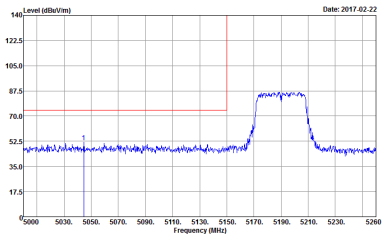
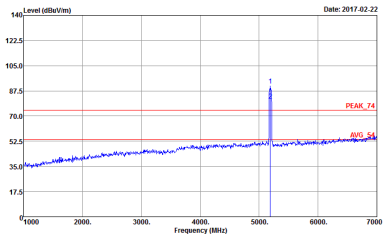
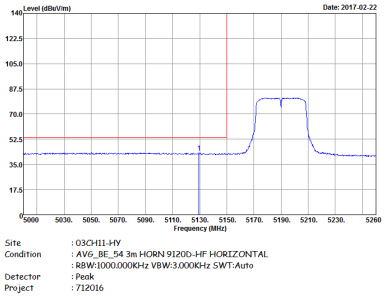
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

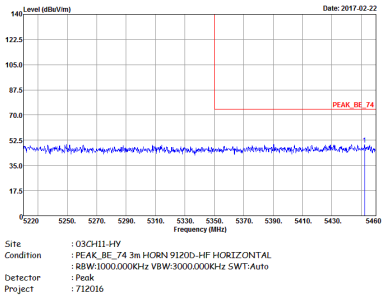
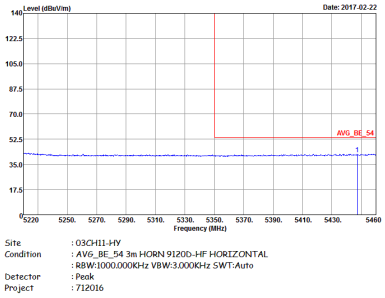
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

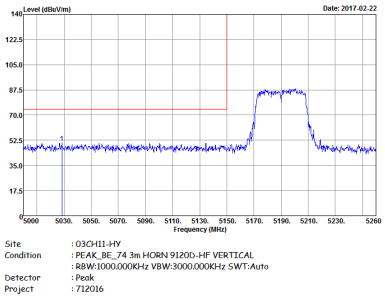
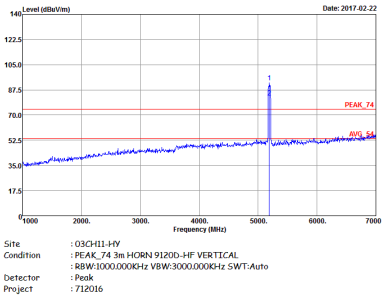
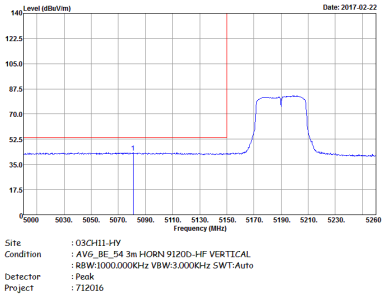
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

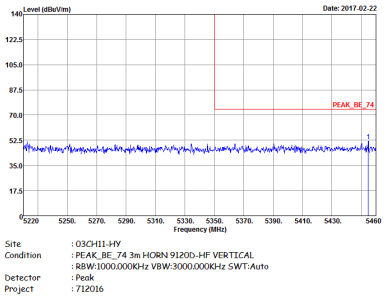
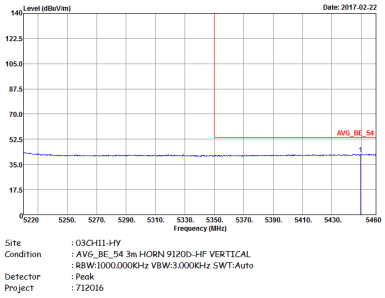
Band 1 5150~5250MHz

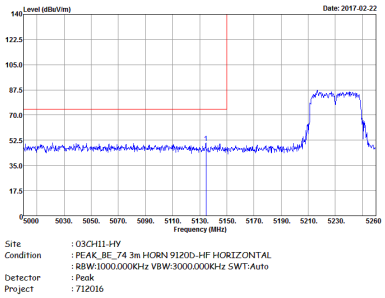
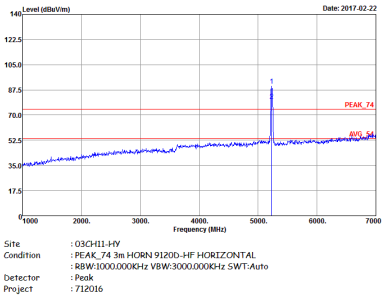
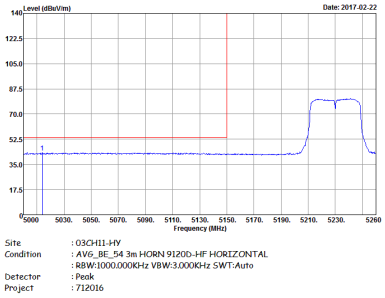
WIFI 802.11n HT40 (Band Edge @ 3m)

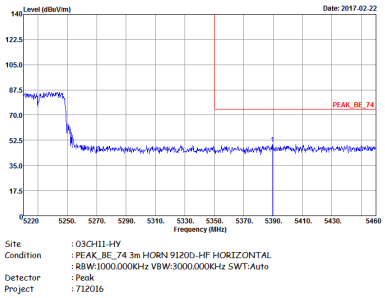
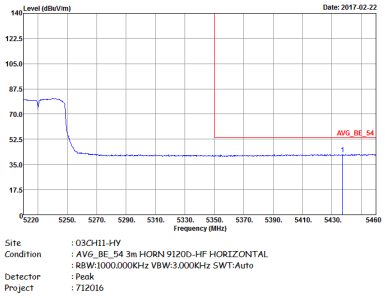
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

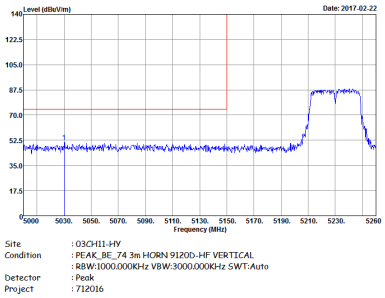
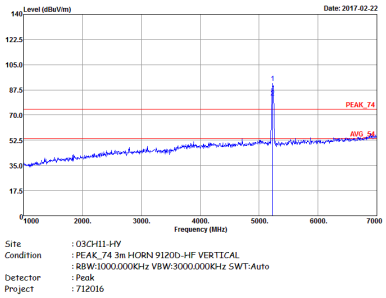
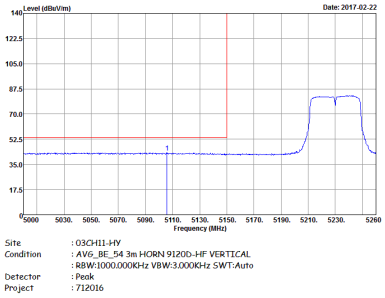
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

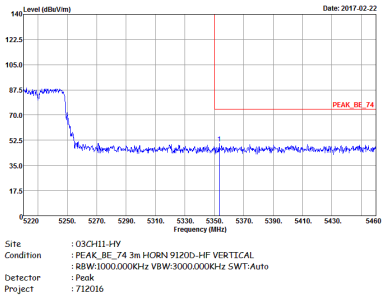
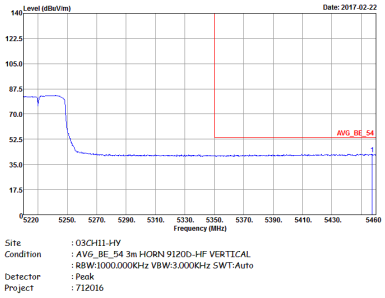
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

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

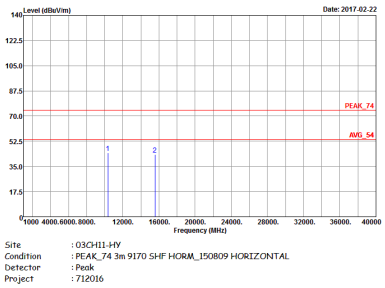
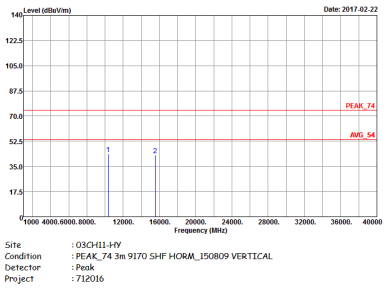
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

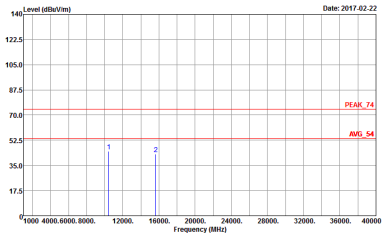
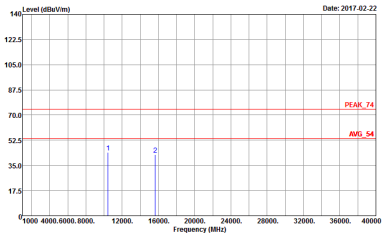
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

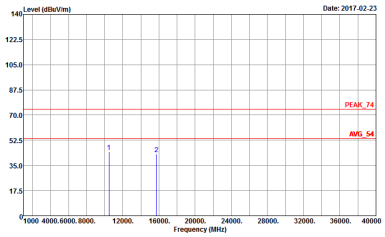
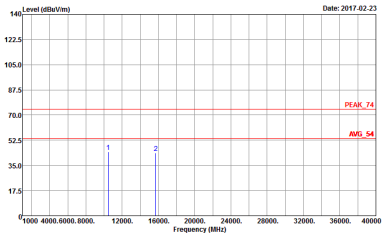
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 1 - 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

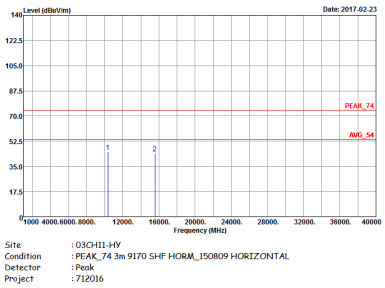
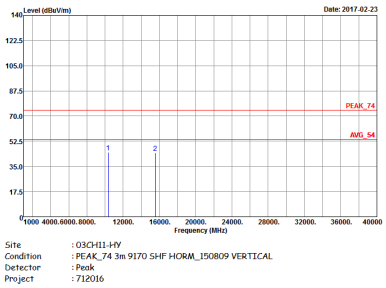
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH36 5180MHz	
1	Horizontal	Vertical
Peak Avg.		

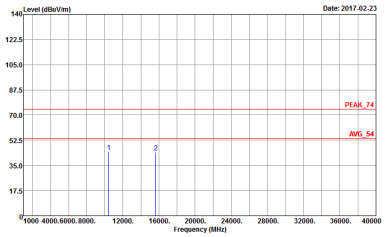
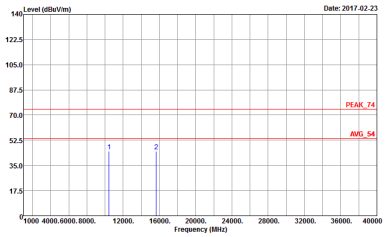
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH44 5220MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 HORIZONTAL Detector : Peak Project : 712016	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 VERTICAL Detector : Peak Project : 712016

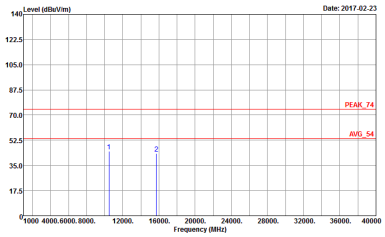
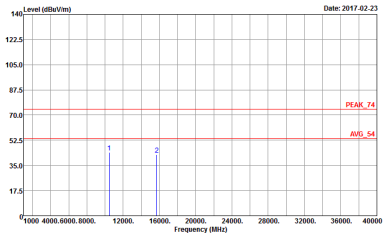
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH48 5240MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 HORIZONTAL Detector : Peak Project : 712016	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 VERTICAL Detector : Peak Project : 712016

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

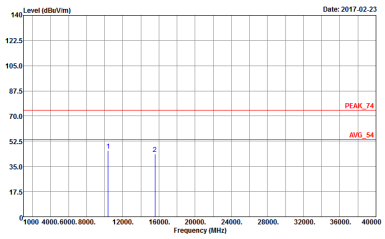
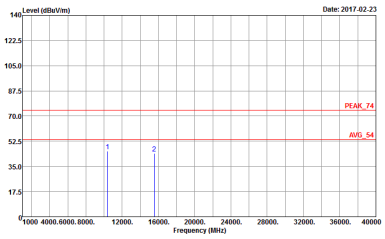
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1	Horizontal	Vertical
Peak Avg.		

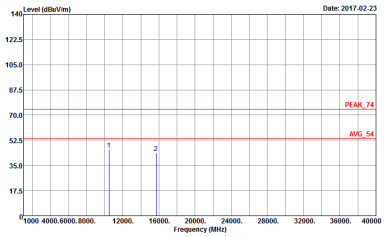
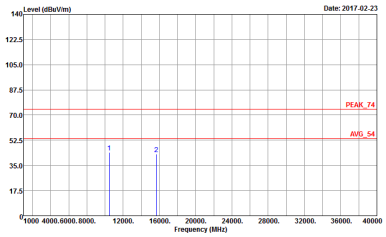
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH44 5220MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 HORIZONTAL Detector : Peak Project : 712016	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 VERTICAL Detector : Peak Project : 712016

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH48 5240MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 HORIZONTAL Detector : Peak Project : 712016	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 VERTICAL Detector : Peak Project : 712016

Band 1 5150~5250MHz

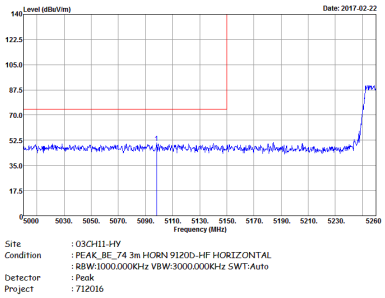
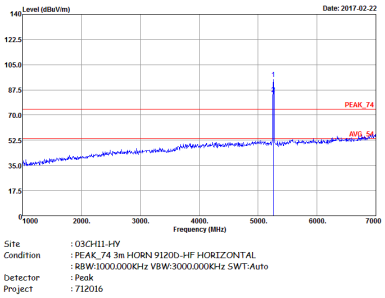
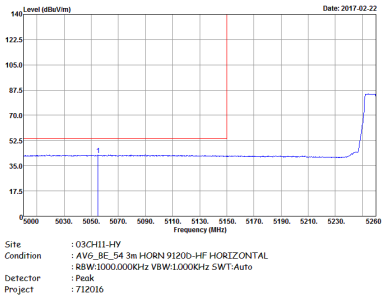
WIFI 802.11n HT40 (Harmonic @ 3m)

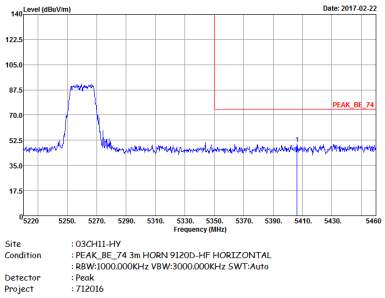
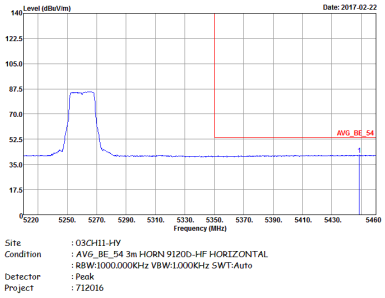
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT40 CH38 5190MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 HORIZONTAL Detector : Peak Project : 712016	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 VERTICAL Detector : Peak Project : 712016

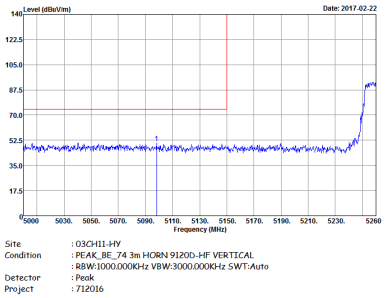
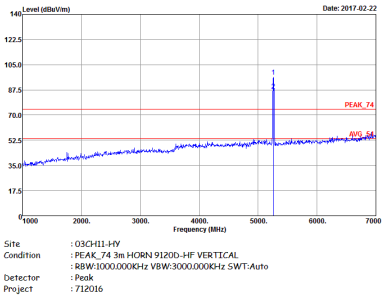
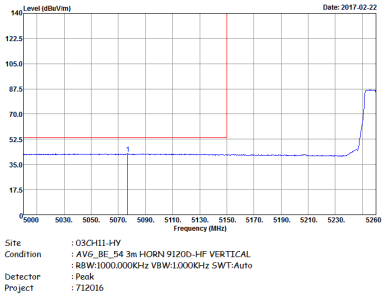
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT40 CH46 5230MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 HORIZONTAL Detector : Peak Project : 712016	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 VERTICAL Detector : Peak Project : 712016

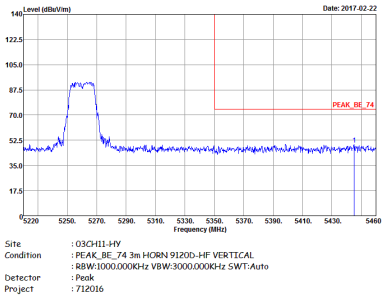
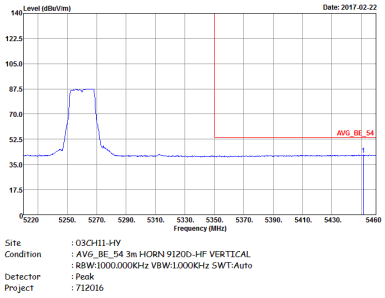
Band 2 - 5250~5350MHz

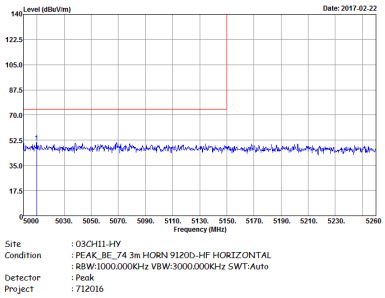
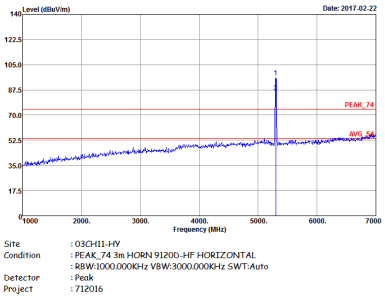
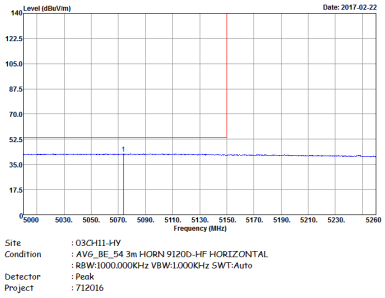
WIFI 802.11a (Band Edge @ 3m)

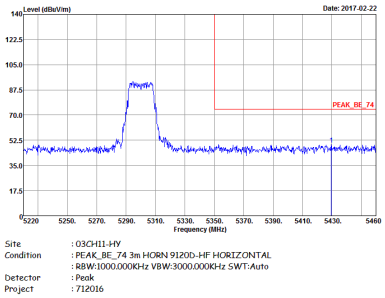
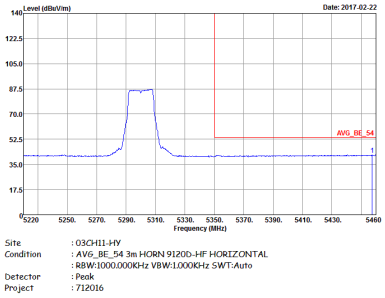
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

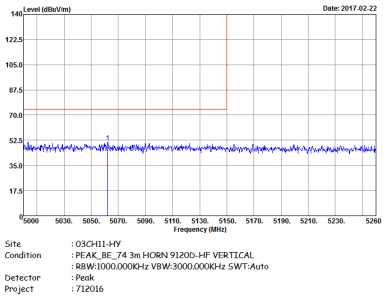
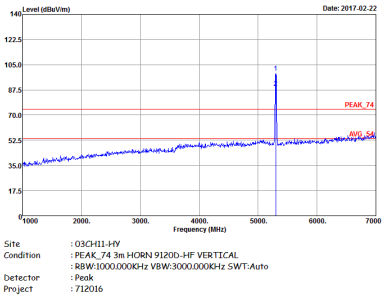
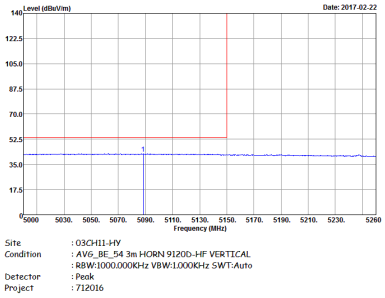
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

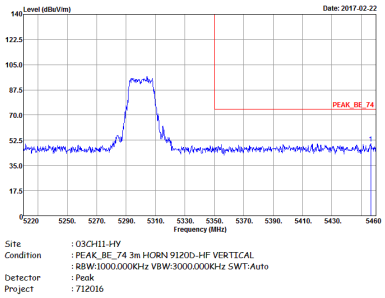
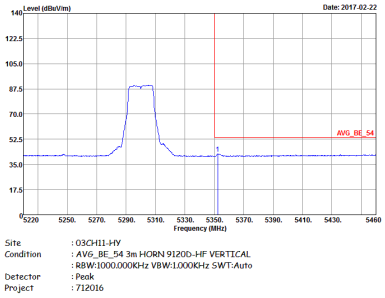
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

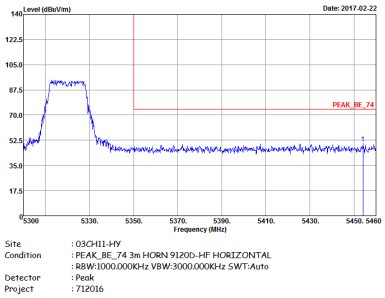
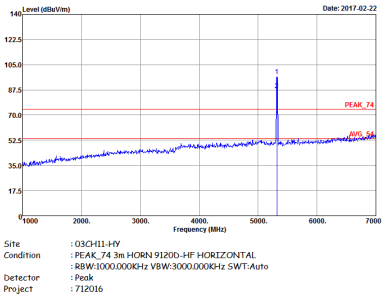
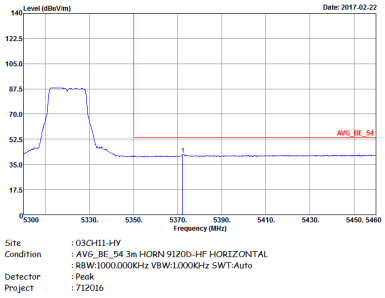
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

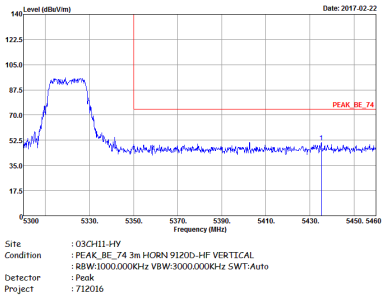
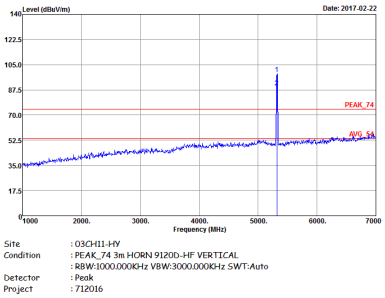
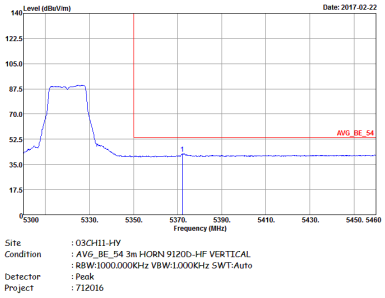
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

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

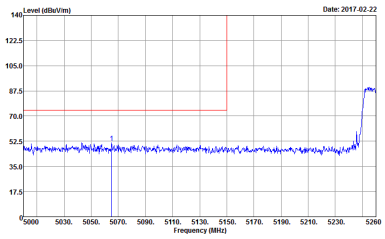
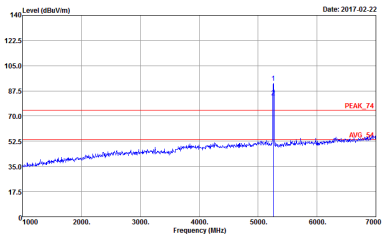
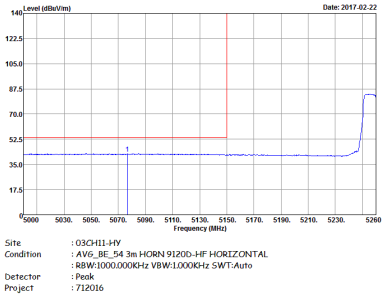
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

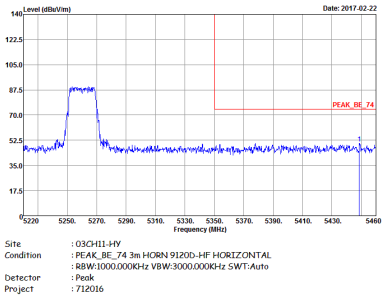
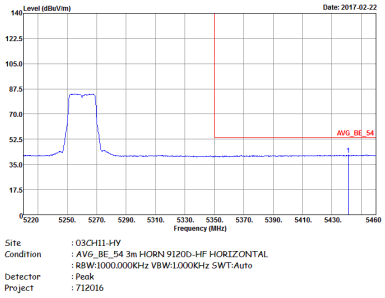
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

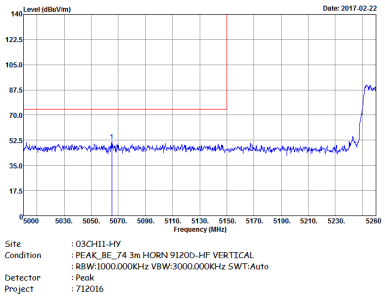
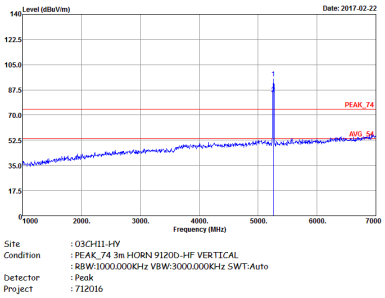
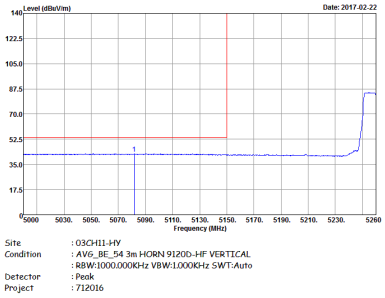
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

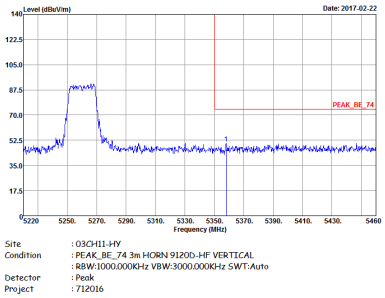
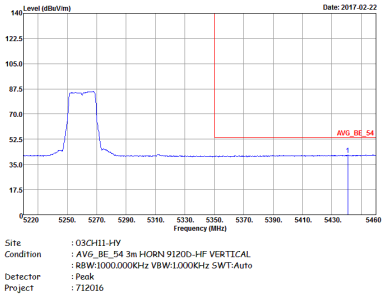
Band 2 5250~5350MHz

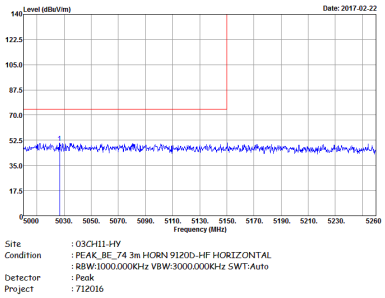
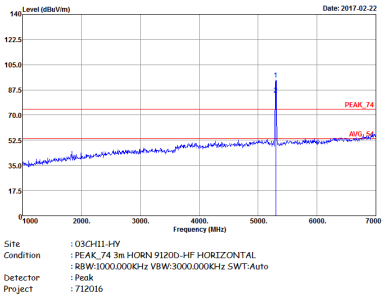
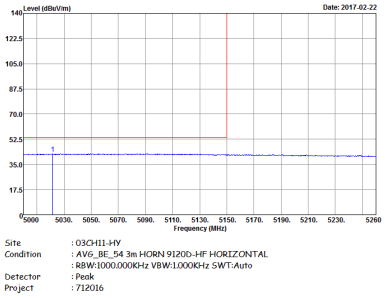
WIFI 802.11n HT20 (Band Edge @ 3m)

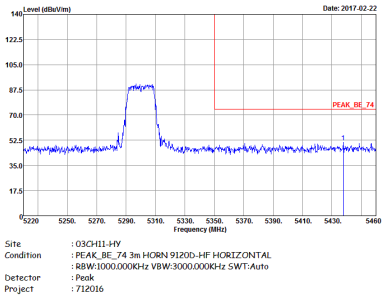
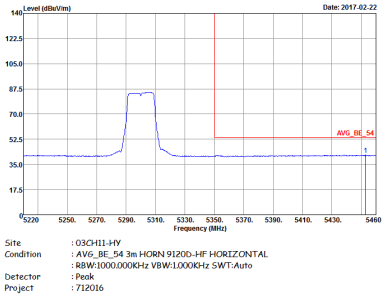
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

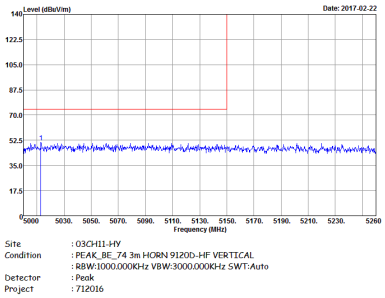
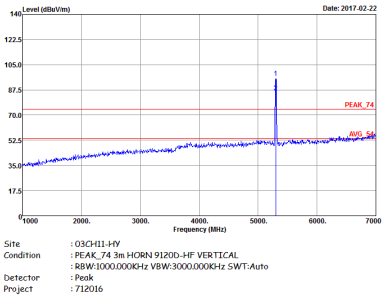
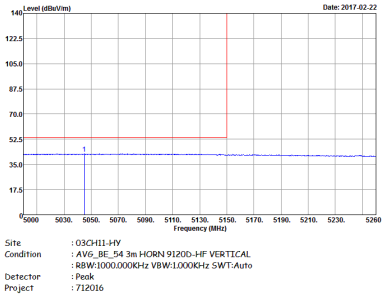
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

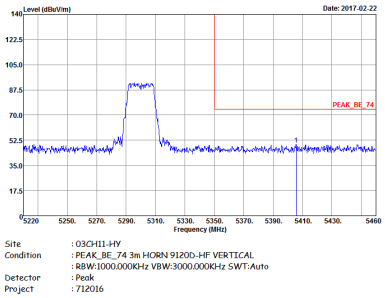
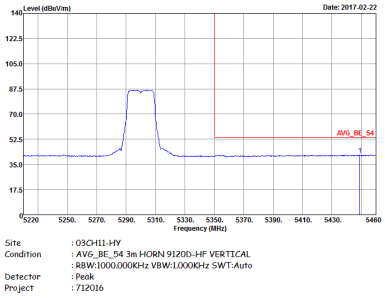
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

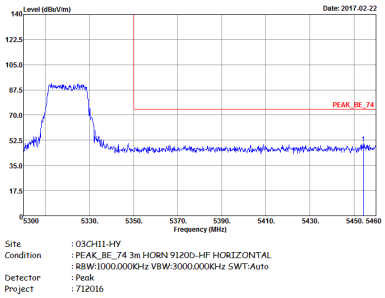
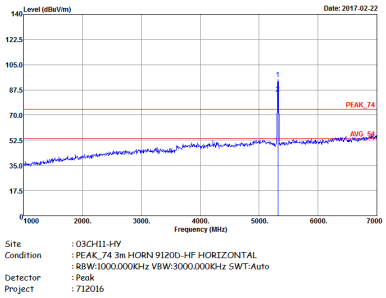
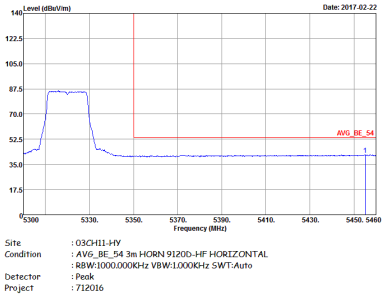
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

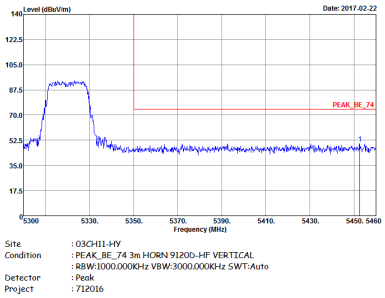
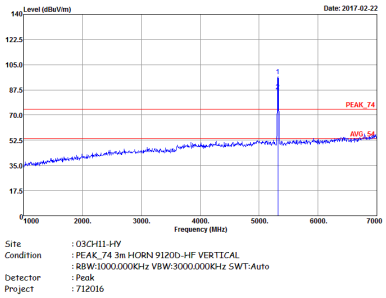
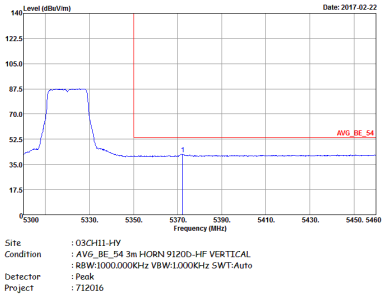
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

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

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

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

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

Band 2 5250~5350MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
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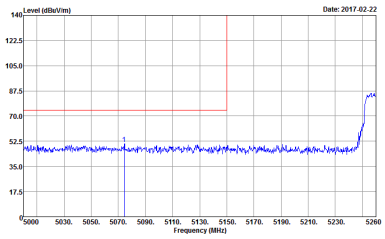
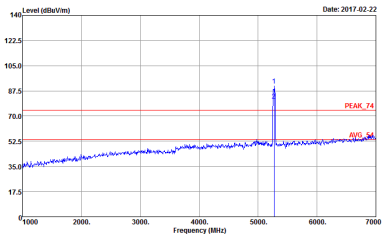
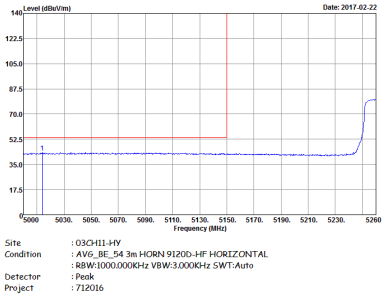
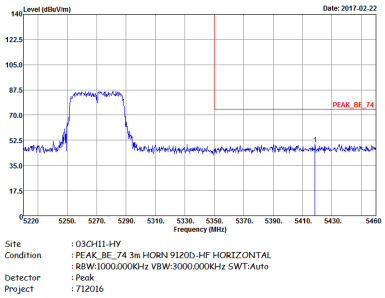
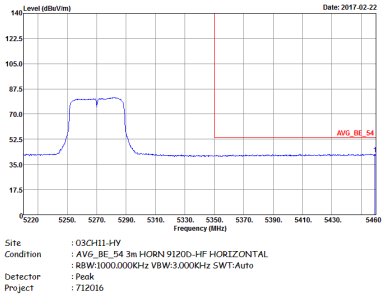
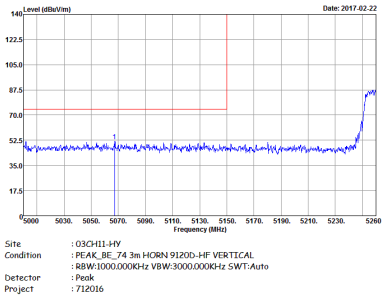
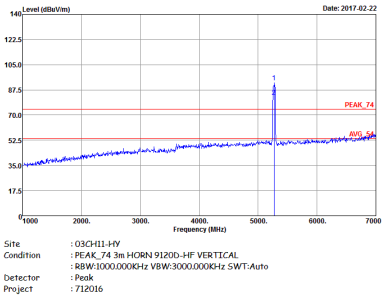
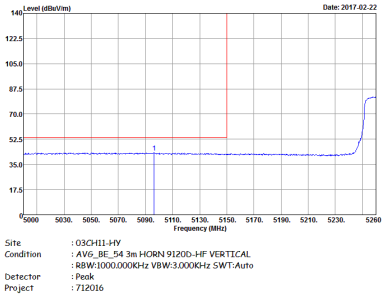
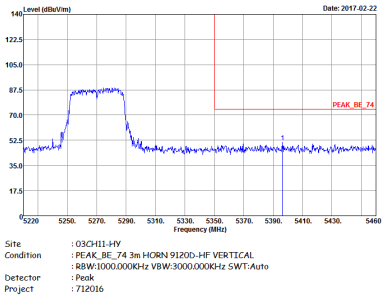
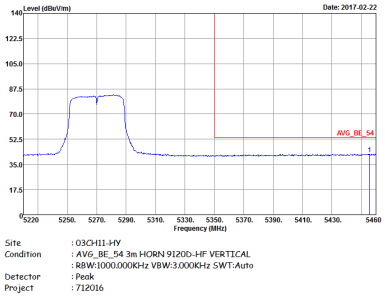
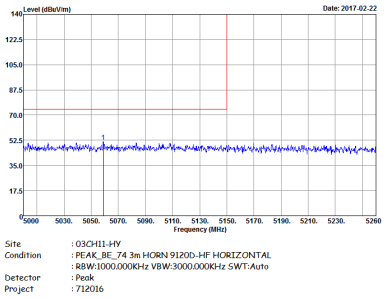
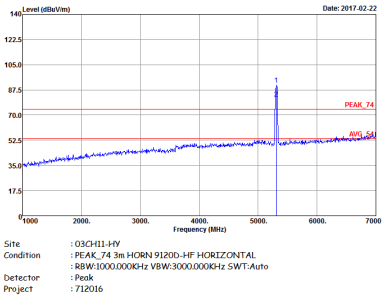
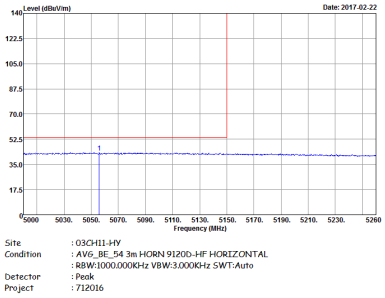
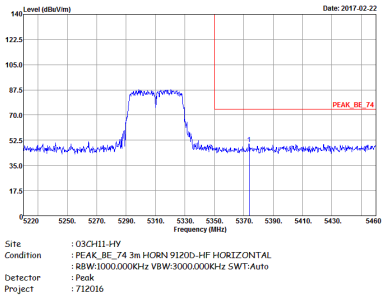
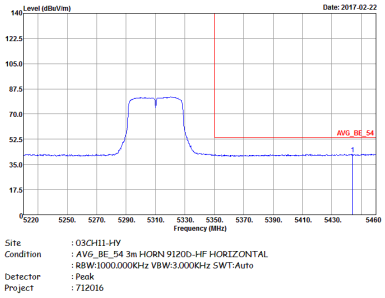
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

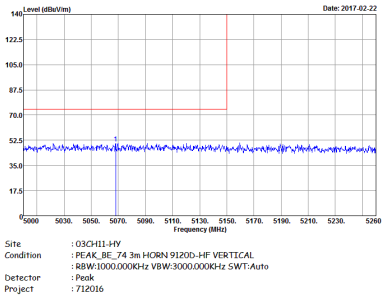
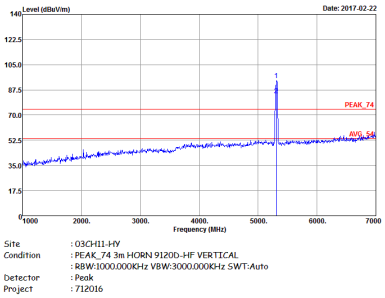
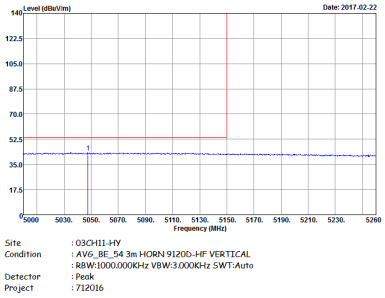
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

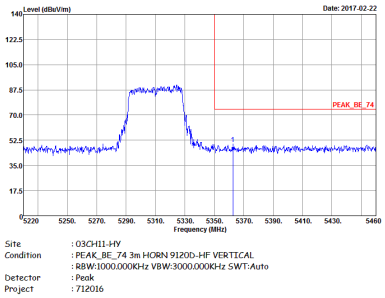
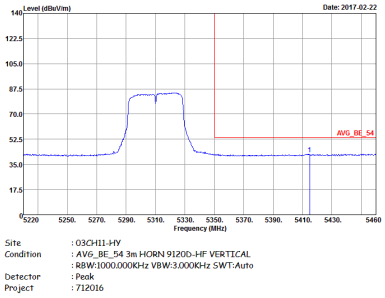
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - L	
1	Vertical	Vertical
Peak		
Avg.		Left blank

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

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

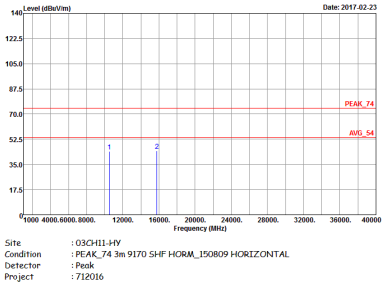
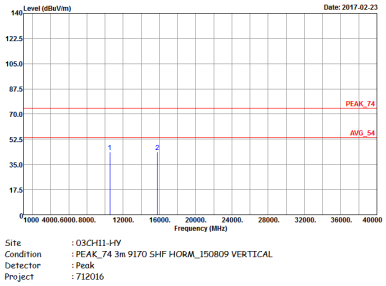
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

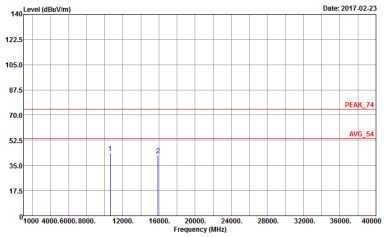
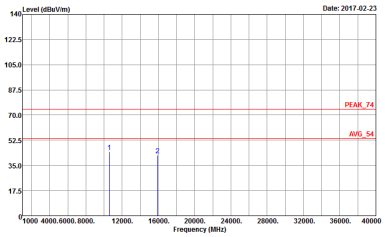
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

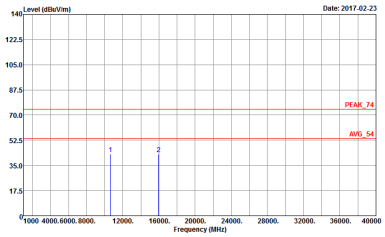
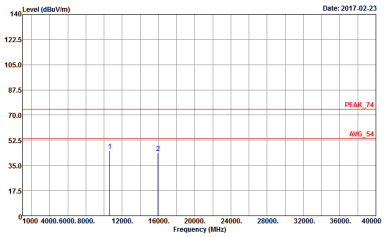
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 2 - 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

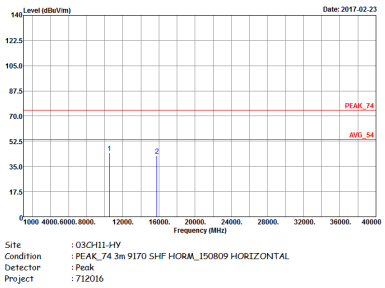
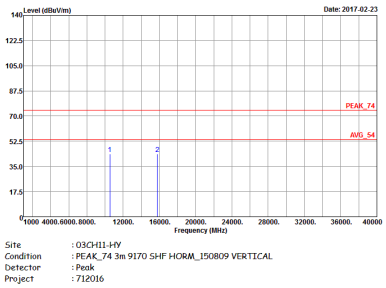
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH52 5260MHz	
1	Horizontal	Vertical
Peak Avg.		

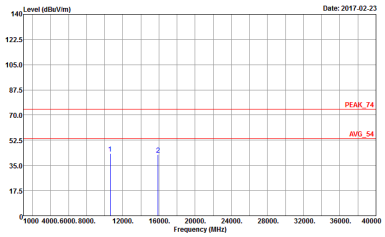
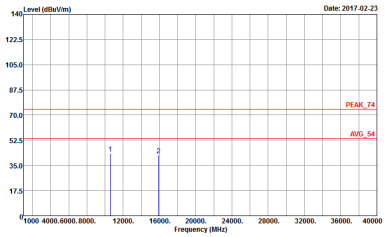
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH60 5300MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 HORIZONTAL Detector : Peak Project : 712016	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 VERTICAL Detector : Peak Project : 712016

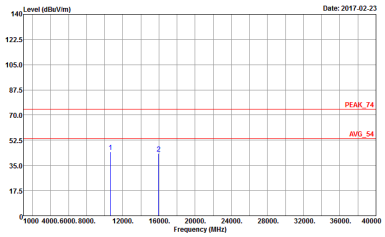
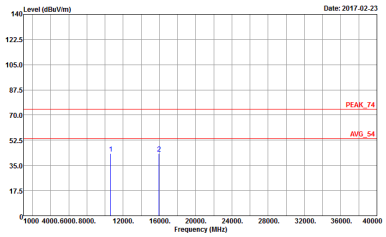
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH64 5320MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 HORIZONTAL Detector : Peak Project : 712016	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 VERTICAL Detector : Peak Project : 712016

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

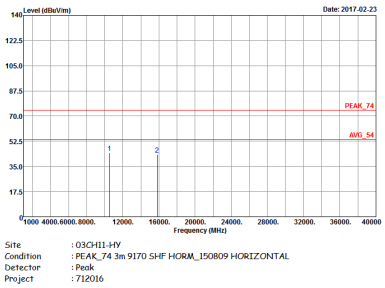
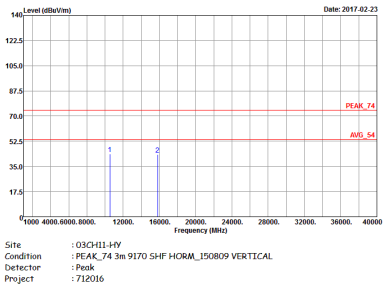
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH52 5260MHz	
1	Horizontal	Vertical
Peak Avg.		

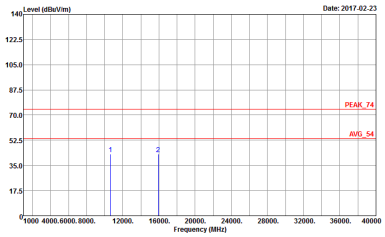
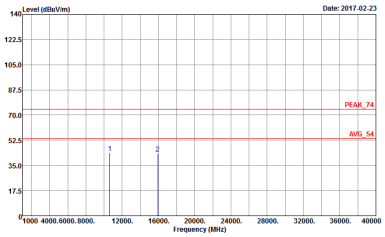
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH60 5300MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 HORIZONTAL Detector : Peak Project : 712016	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 VERTICAL Detector : Peak Project : 712016

WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH64 5320MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 HORIZONTAL Detector : Peak Project : 712016	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 VERTICAL Detector : Peak Project : 712016

Band 2 5250~5350MHz

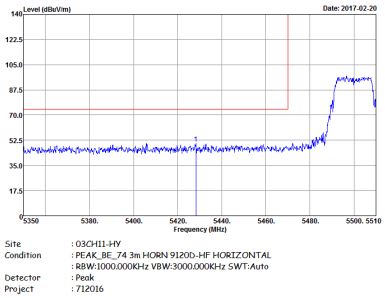
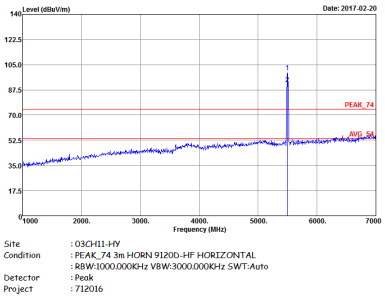
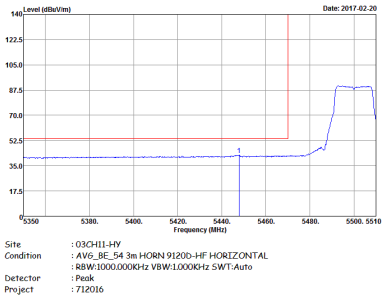
WIFI 802.11n HT40 (Harmonic @ 3m)

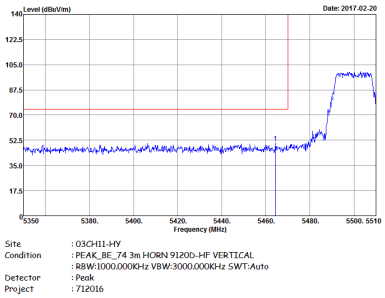
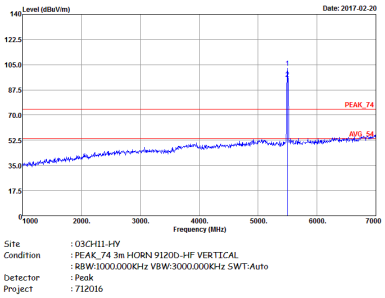
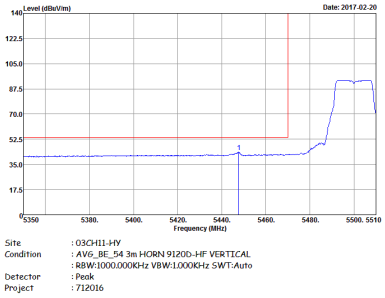
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT40 CH54 5270	
1	Horizontal	Vertical
Peak Avg.		

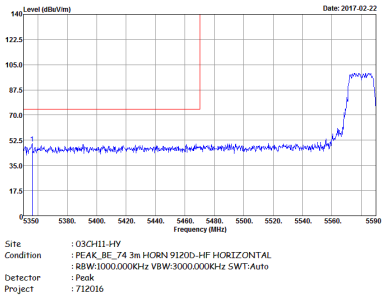
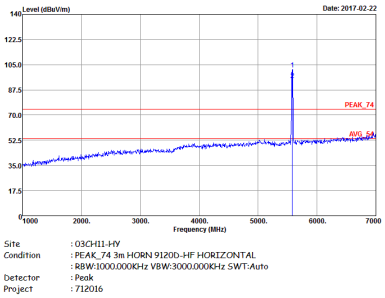
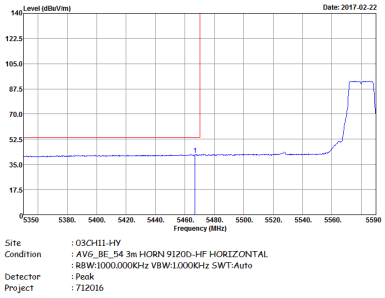
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT40 CH62 5310	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 HORIZONTAL Detector : Peak Project : 712016	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 VERTICAL Detector : Peak Project : 712016

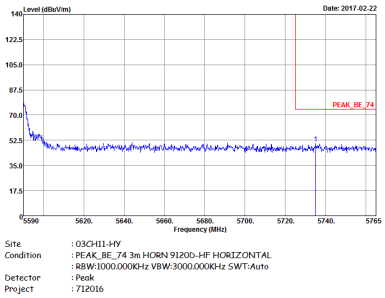
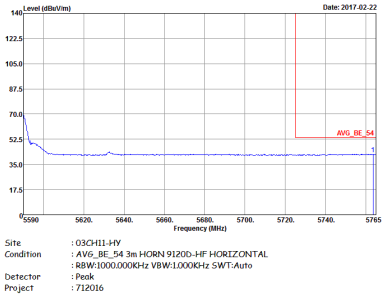
Band 3 - 5470~5725MHz

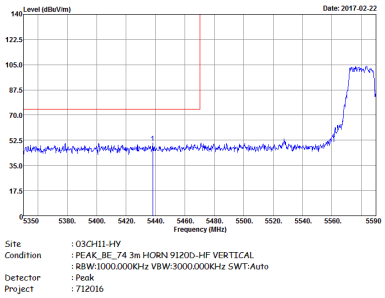
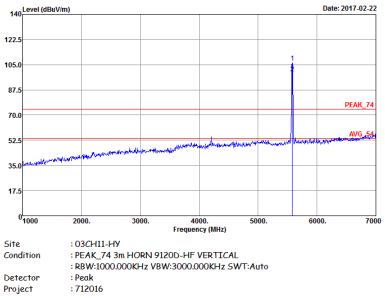
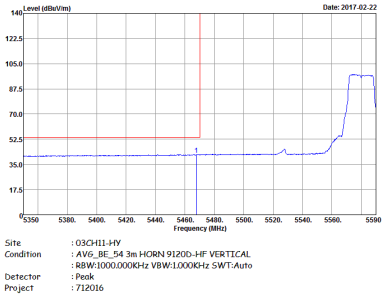
WIFI 802.11a (Band Edge @ 3m)

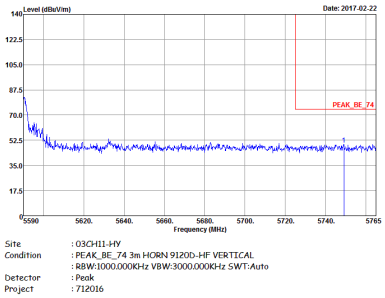
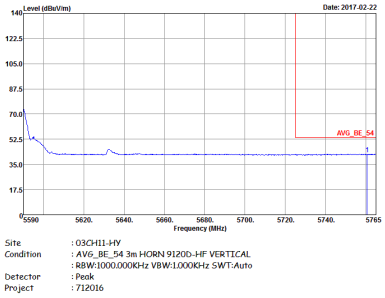
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

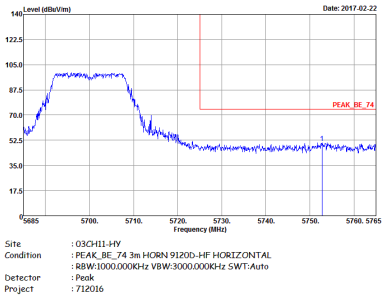
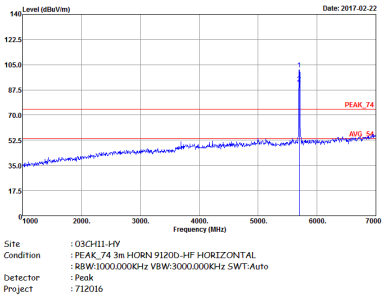
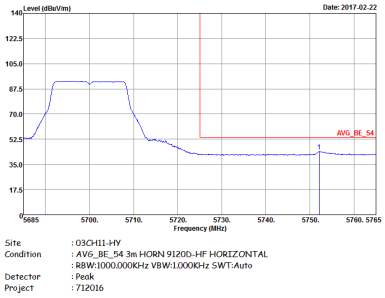
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

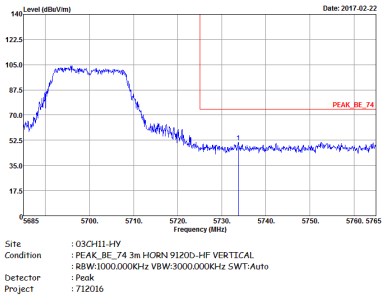
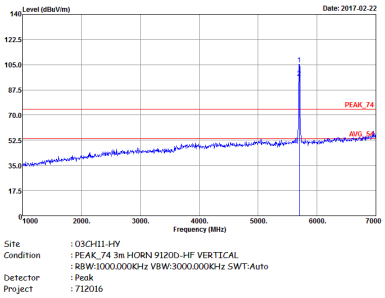
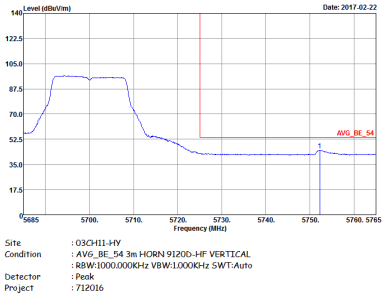
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

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

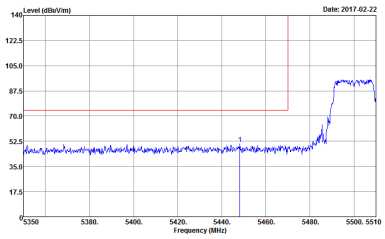
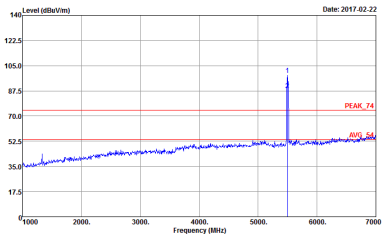
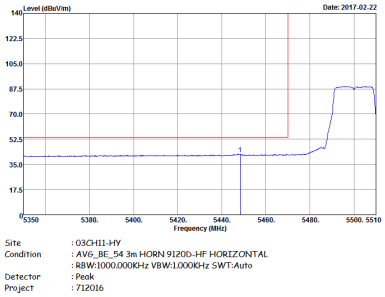
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

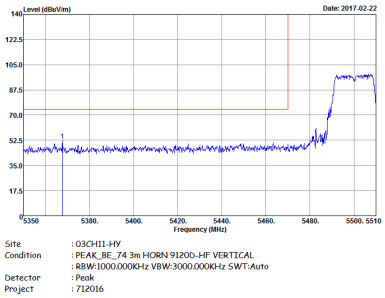
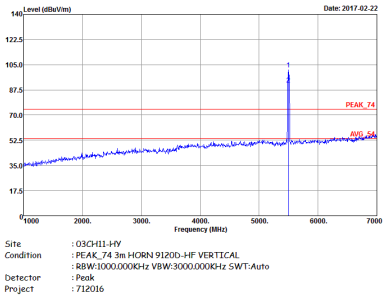
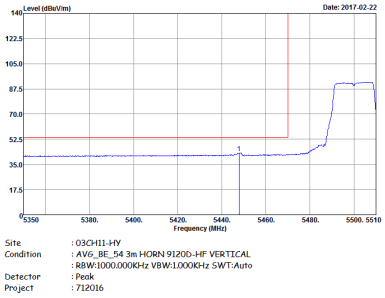
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

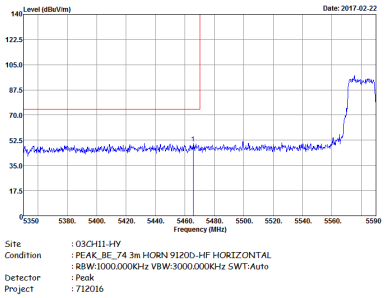
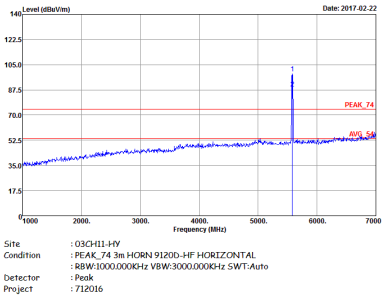
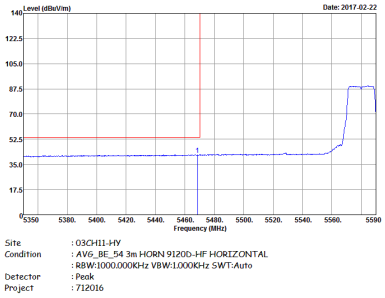
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

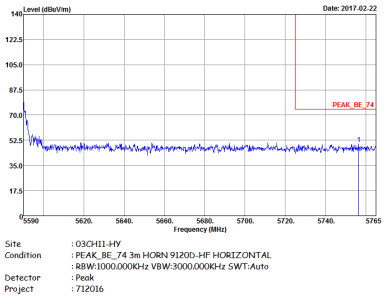
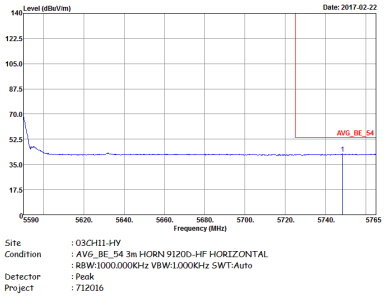
Band 3 5470~5725MHz

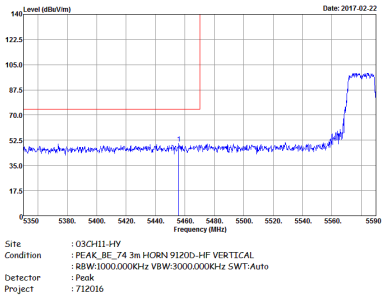
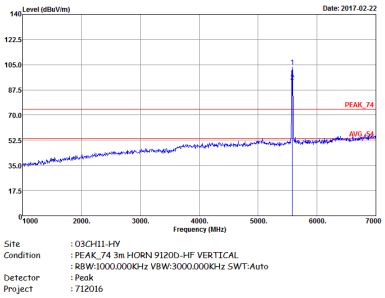
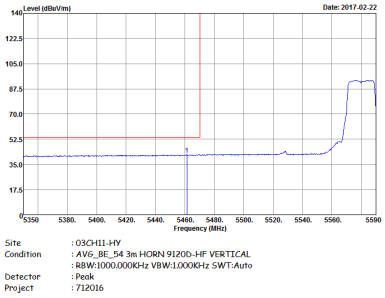
WIFI 802.11n HT20 (Band Edge @ 3m)

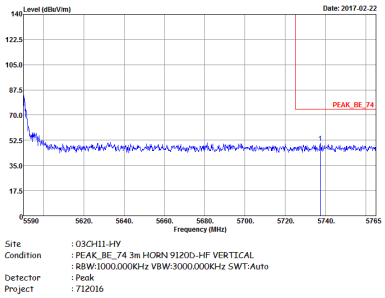
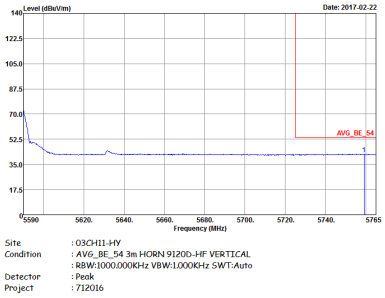
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

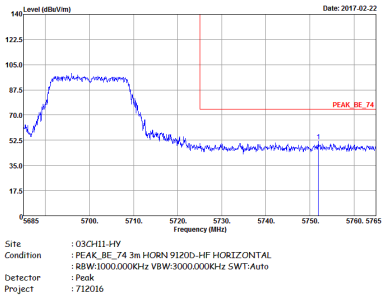
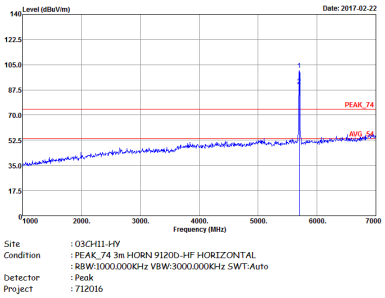
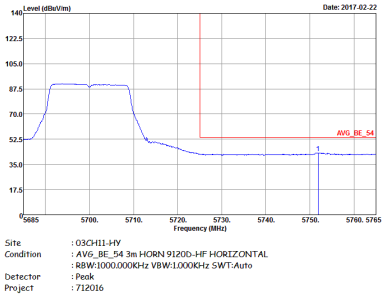
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

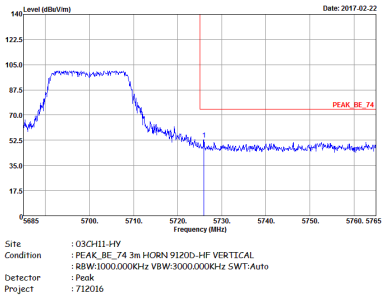
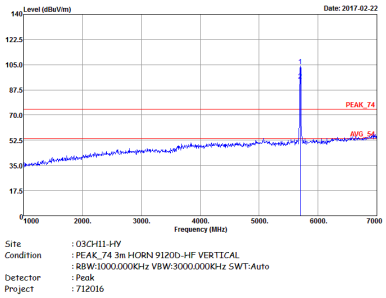
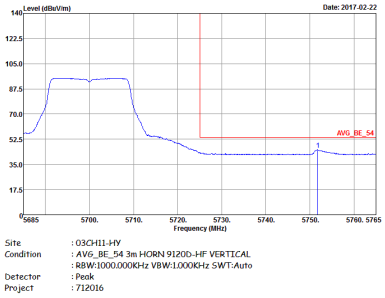
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

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

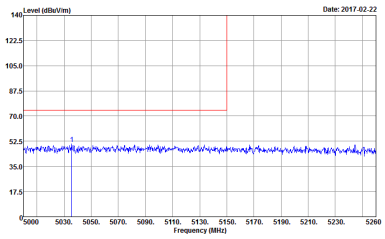
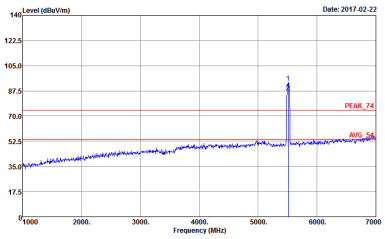
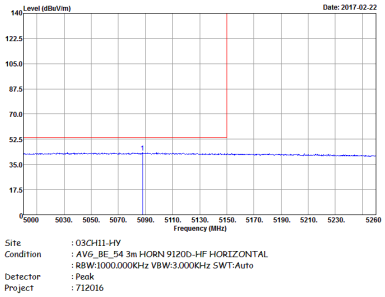
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

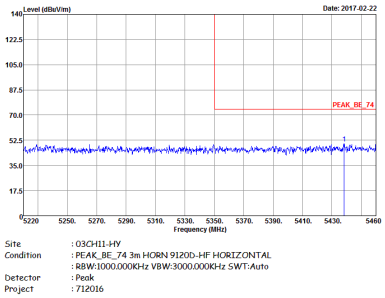
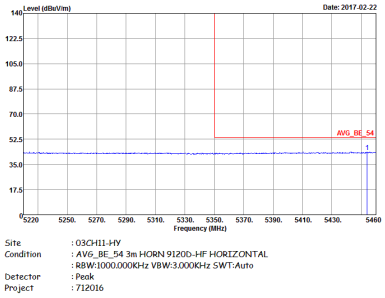
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

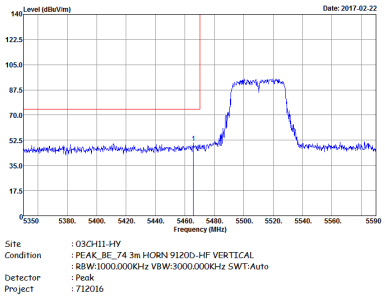
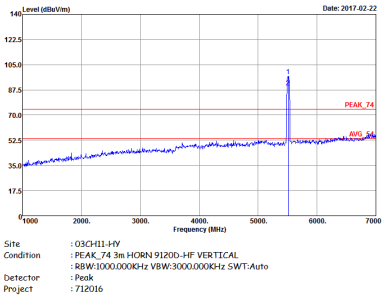
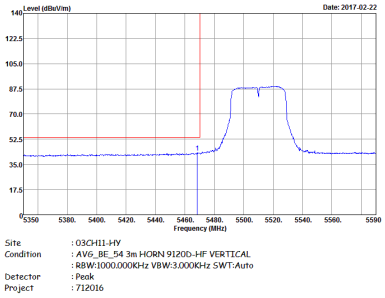
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
1	Vertical	Fundamental
Peak.		
Avg.		Left blank

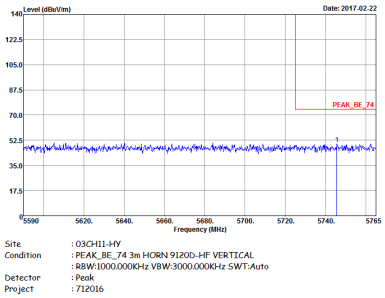
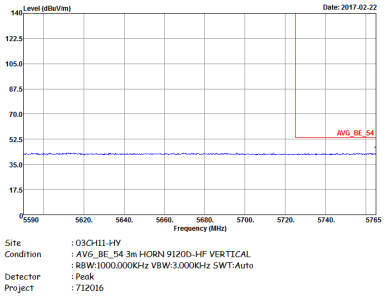
Band 3 5470~5725MHz

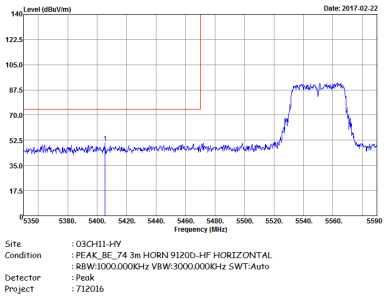
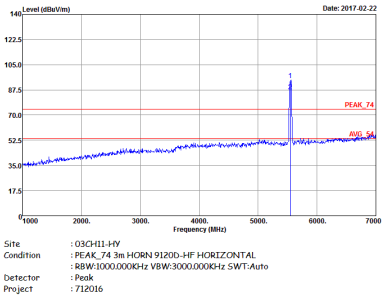
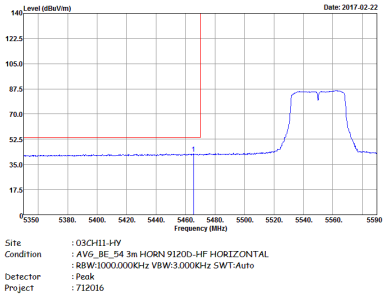
WIFI 802.11n HT40 (Band Edge @ 3m)

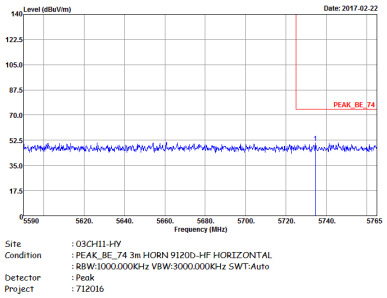
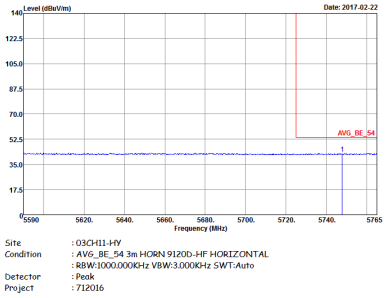
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

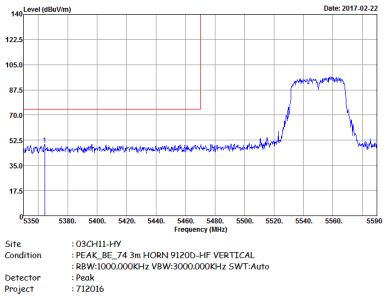
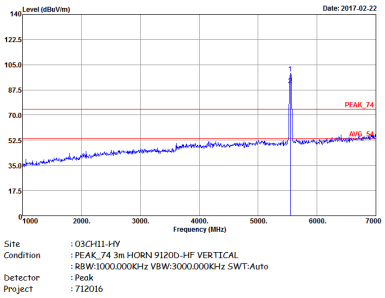
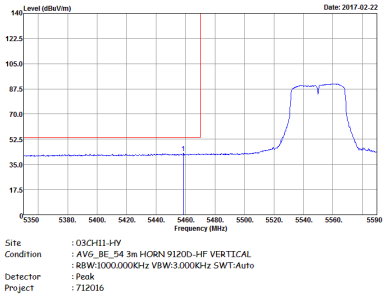
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

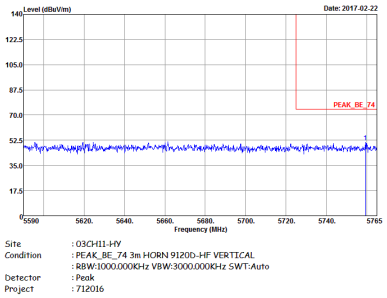
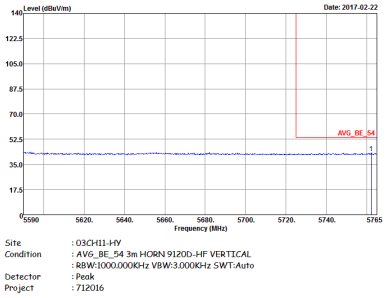
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

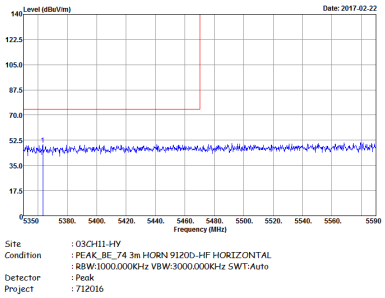
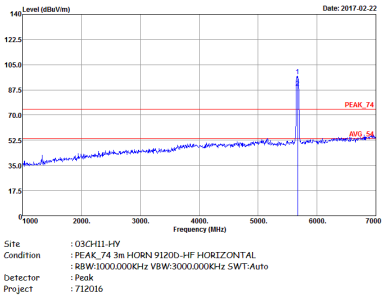
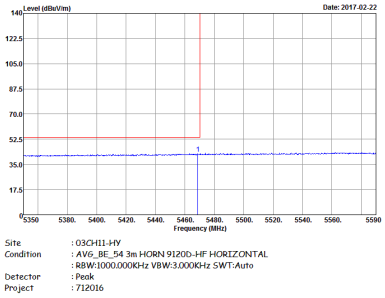
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

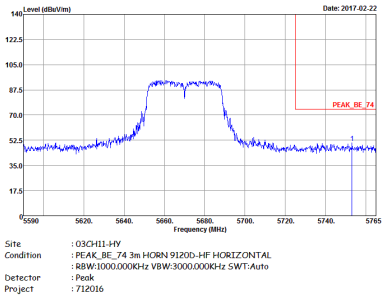
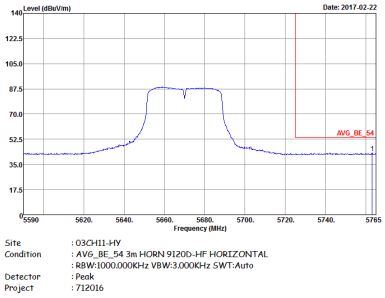
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

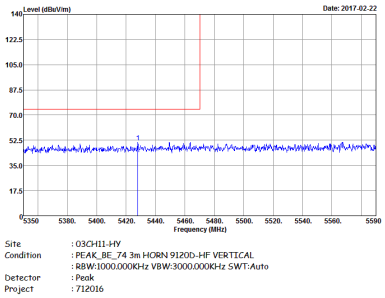
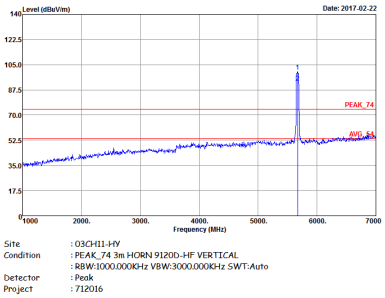
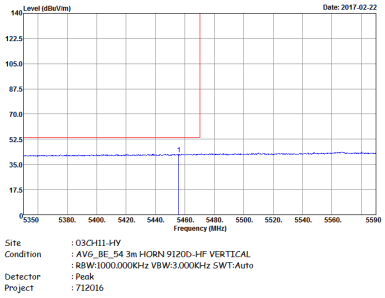
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

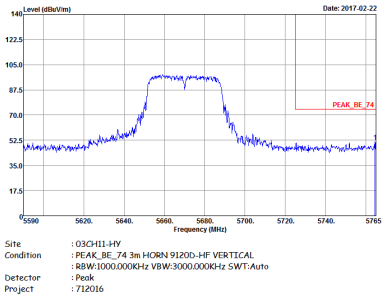
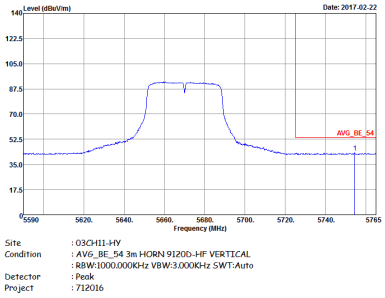
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

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

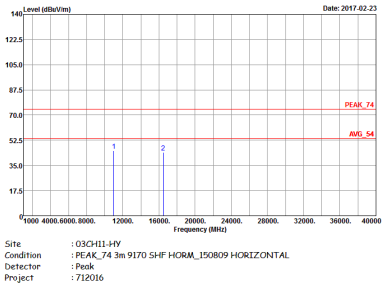
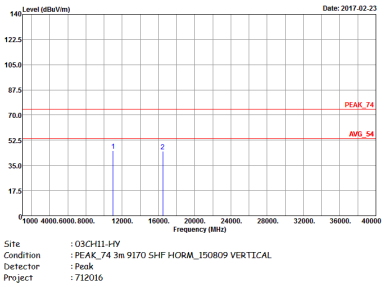
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

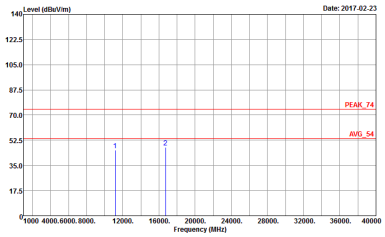
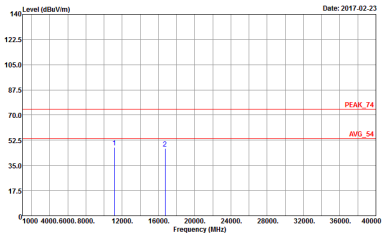
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

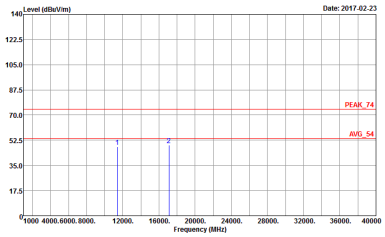
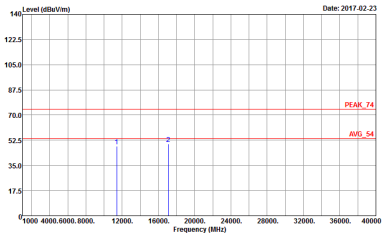
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

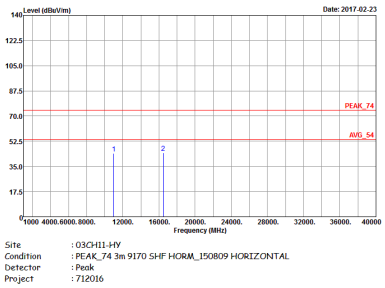
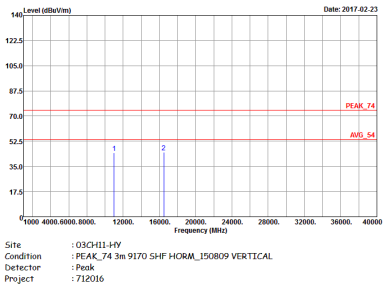
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH100 5500MHz	
1	Horizontal	Vertical
Peak Avg.		

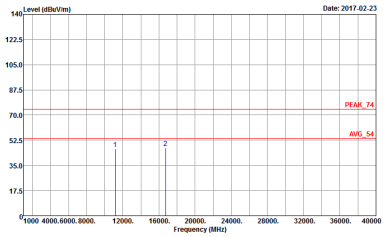
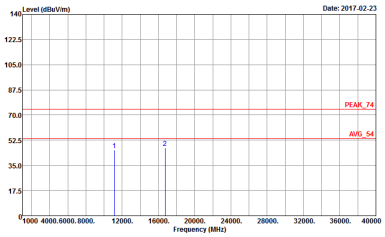
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH116 5580MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 HORIZONTAL Detector : Peak Project : 712016	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 VERTICAL Detector : Peak Project : 712016

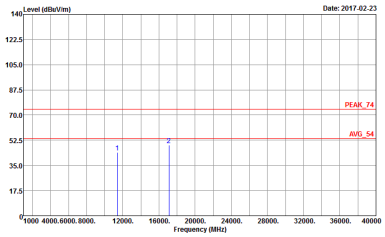
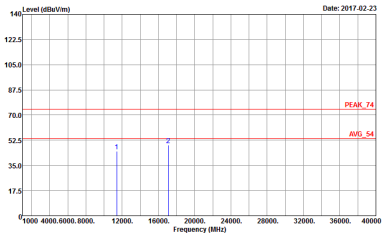
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH140 5700MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 HORIZONTAL Detector : Peak Project : 712016	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 VERTICAL Detector : Peak Project : 712016

Band 3 5470~5725MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

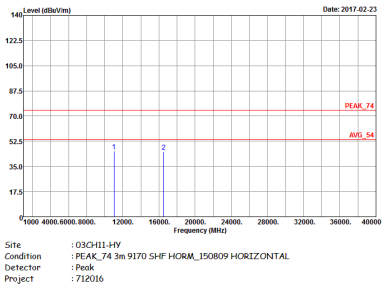
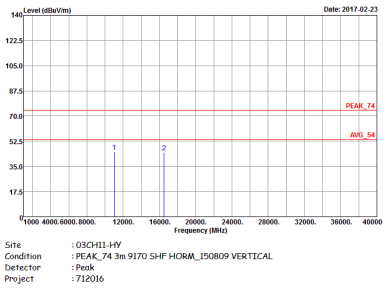
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1	Horizontal	Vertical
Peak Avg.		

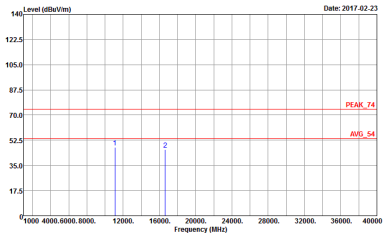
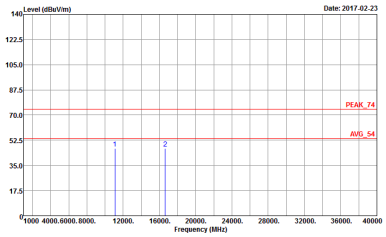
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT20 CH116 5580MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 HORIZONTAL Detector : Peak Project : 712016	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 VERTICAL Detector : Peak Project : 712016

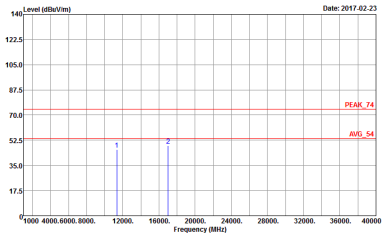
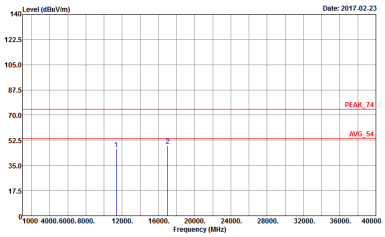
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 HORIZONTAL Detector : Peak Project : 712016	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 VERTICAL Detector : Peak Project : 712016

Band 3 5470~5725MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

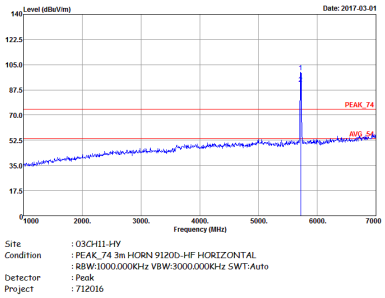
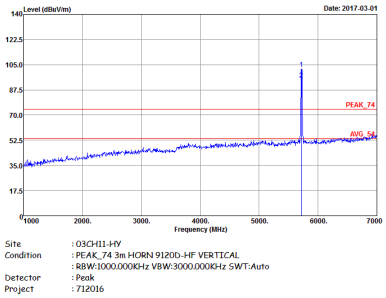
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT40 CH102 5510MHz	
1	Horizontal	Vertical
Peak Avg.		

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

WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT40 CH134 5670MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 HORIZONTAL Detector : Peak Project : 712016	 Site : 03CH11-HY Condition : PEAK_74 3m 9170 SHF HORM_150809 VERTICAL Detector : Peak Project : 712016

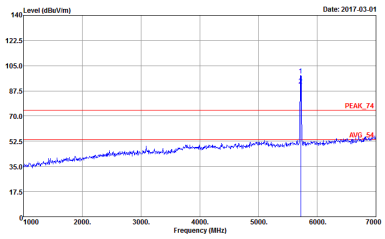
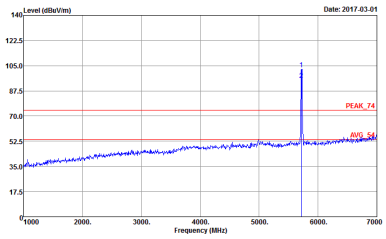
Band 3 - Straddle Channel

WIFI 802.11a (Fundamental @ 3m)

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

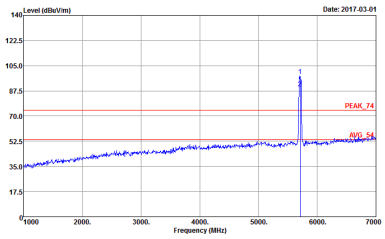
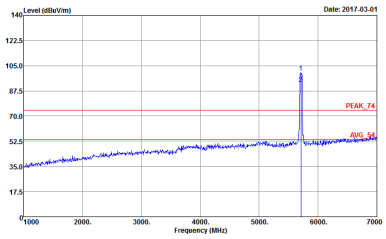
Band 3 – Straddle Channel

WIFI 802.11n HT20 (Fundamental @ 3m)

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

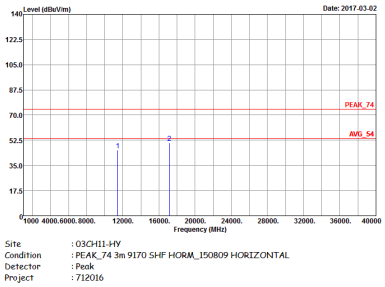
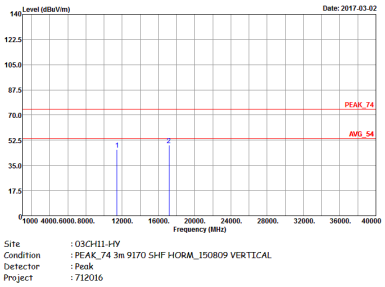
Band 3 – Straddle Channel

WIFI 802.11n HT40 (Fundamental @ 3m)

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

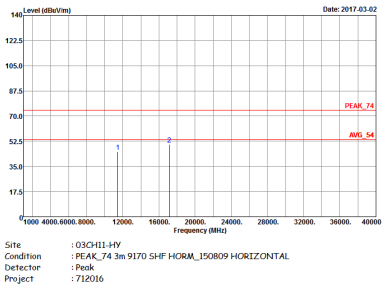
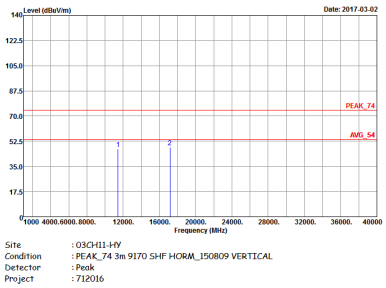
Band 3 - Straddle Channel

WIFI 802.11a (Harmonic @ 3m)

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

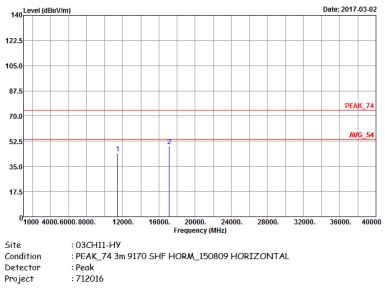
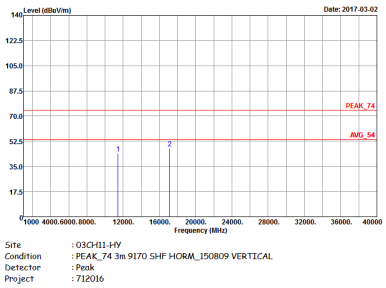
Band 3 – Straddle Channel

WIFI 802.11n HT20 (Harmonic @ 3m)

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

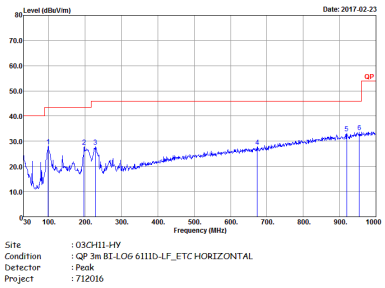
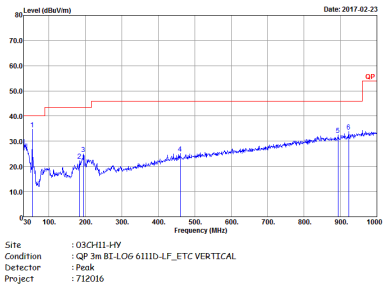
Band 3 – Straddle Channel

WIFI 802.11n HT40 (Harmonic @ 3m)

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

Emission below 1GHz

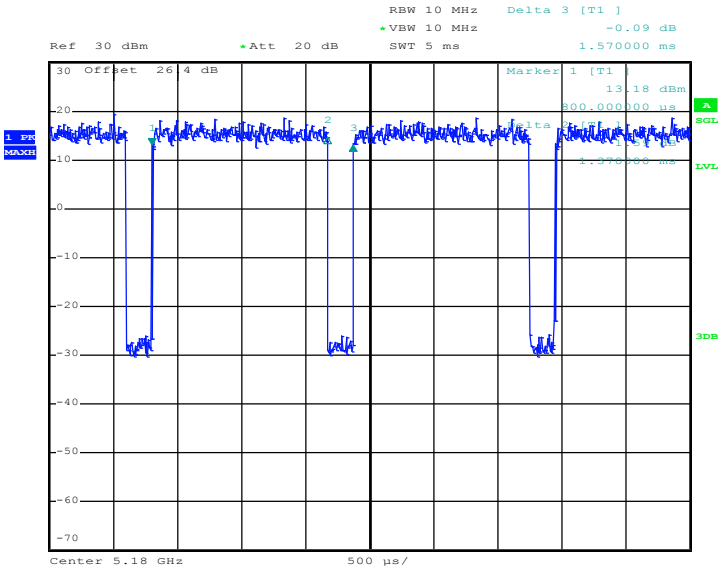
5GHz WIFI 802.11n HT20 (LF)

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

Appendix E. Duty Cycle Plots

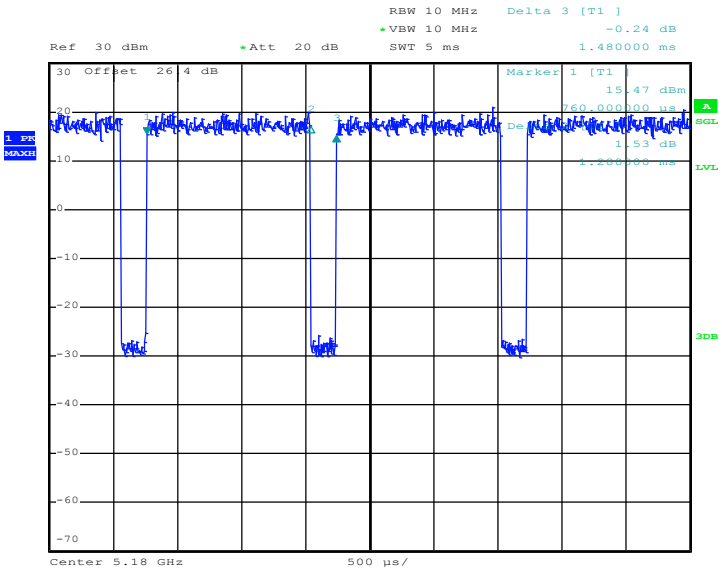
Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
802.11a	87.26	1370	0.73	1kHz
5GHz 802.11n HT20	86.49	1280	0.78	1kHz
5GHz 802.11n HT40	86.49	640	1.56	3kHz

802.11a



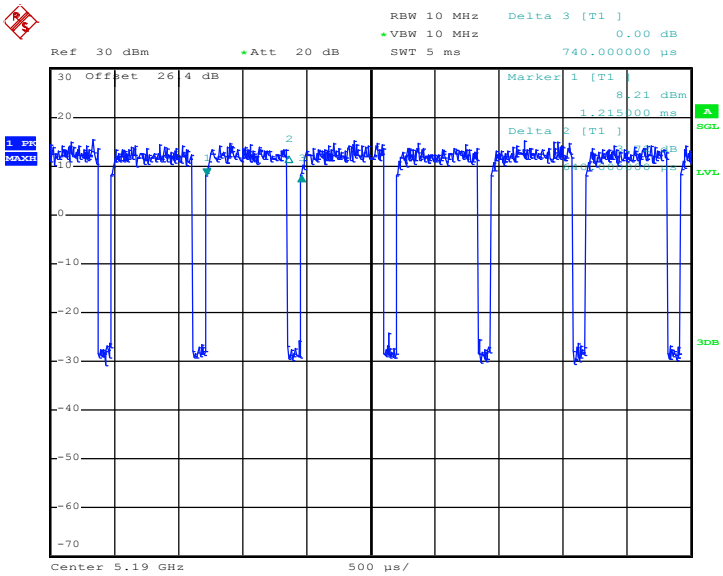
Date: 9.FEB.2017 21:06:17

5GHz 802.11n HT20



Date: 9.FEB.2017 21:21:49

5GHz 802.11n HT40



Date: 15.FEB.2017 22:14:11