FCC RF Test Report

APPLICANT	:	Microstrip LLC
EQUIPMENT	:	Digital Media Receiver
MODEL NAME	:	DW84JL
FCC ID	:	2ANZL-2474
STANDARD	:	FCC Part 15 Subpart E §15.407
CLASSIFICATION	:	(NII) Unlicensed National Information Infrastructure

The test was completed on Jun. 21, 2018. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

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

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager

Testing Laboratory
1190

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR7D0544-01E	Rev. 01	Initial issue of report	May 14, 2018
FR7D0544-01E	Rev. 02	Revising the test procedures description for 99% OB in section 3.1.3 and test data in appendix a.	Jun. 22, 2018

SUMMARY OF TEST RESULT

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

1 General Description

1.1 Applicant

Microstrip LLC
83 Wooster Heights Rd, Suite 125, Danbury, Connecticut, 06810

1.2 Product Feature of Equipment Under Test

Product Feature	
Equipment	Digital Media Receiver
Model Name	DW84JL
FCC ID	2ANZL-2474
EUT supports Radios application	Zigbee WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE

1.3 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Frequency Range	5180 MHz ~ 5240 MHz
Maximum Output Power	**<Ant. 1>** 802.11a : 19.28 dBm / 0.0847 W 802.11n HT20 : 19.19 dBm / 0.0830 W 802.11n HT40 : 18.58 dBm / 0.0721 W 802.11ac VHT20: 19.18 dBm / 0.0828 W 802.11ac VHT40: 18.50 dBm / 0.0708 W 802.11ac VHT80: 11.46 dBm / 0.0140 W **<Ant. 2>** 802.11a : 19.51 dBm / 0.0893 W 802.11n HT20 : 19.49 dBm / 0.0889 W 802.11n HT40 : 17.94 dBm / 0.0622 W 802.11ac VHT20: 19.43 dBm / 0.0877 W 802.11ac VHT40: 17.91 dBm / 0.0618 W 802.11ac VHT80: 10.17 dBm / 0.0104 W **MIMO <Ant. 1+2>** 802.11a : 20.32 dBm / 0.1076 W 802.11n HT20 : 20.51 dBm / 0.1125 W 802.11n HT40 : 20.12 dBm / 0.1028 W 802.11ac VHT20: 20.44 dBm / 0.1107 W 802.11ac VHT40: 20.05 dBm / 0.1012 W 802.11ac VHT80: 11.53 dBm / 0.0142 W

Standards-related Product Specification	
99% Occupied Bandwidth	**<Ant. 1>** 802.11a : 17.60 MHz 802.11n HT20 : 18.35 MHz 802.11n HT40 : 36.90 MHz 802.11ac VHT80 : 75.96 MHz **<Ant. 2>** 802.11a : 17.70 MHz 802.11n HT20 : 18.40 MHz 802.11n HT40 : 36.80 MHz 802.11ac VHT80 : 75.72 MHz **MIMO <Ant. 1>** 802.11a : 17.15 MHz 802.11n HT20 : 18.45 MHz 802.11n HT40 : 36.80 MHz 802.11ac VHT80 : 75.96 MHz **MIMO <Ant. 2>** 802.11a : 17.05 MHz 802.11n HT20 : 18.10 MHz 802.11n HT40 : 36.80 MHz 802.11ac VHT80 : 75.84 MHz
Antenna Type / Gain	**<Ant. 1>** : Fixed Internal Antenna with gain 6.86 dBi **<Ant. 2>** : Fixed Internal Antenna with gain 3.17 dBi
Antenna Function Description	

	Ant. 1	Ant. 2
802.11 a/n/ac	V	V
802.11 a/n/ac MIMO	V	V

Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)

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

1.4 Modification of EUT

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

1.5 Testing Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW1190 and 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, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978	
Test Site No.	**Sporton Site No.**	
	TH05-HY	CO05-HY

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

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

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

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 v02r01.
- FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ANSI C63.10-2013

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

2 Test Configuration of Equipment Under Test

a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

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

2.1 Carrier Frequency and Channel

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

Note:

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

2.2 Test Mode

Final test modes are considering the modulation and worse data rates as below table.

Single Mode

Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT20 (Covered by HT20)	MCS0
802.11ac VHT40 (Covered by HT40)	MCS0
802.11ac VHT80	MCS0

MIMO Mode

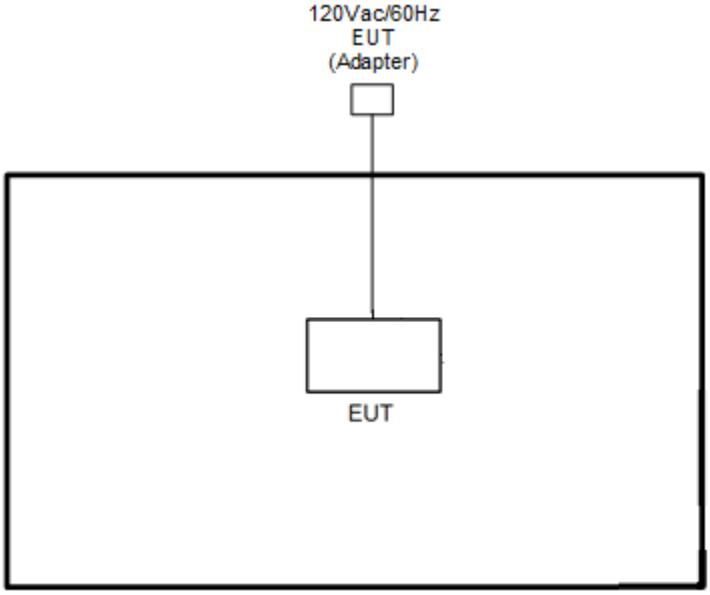
Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT20 (Covered by HT20)	MCS0
802.11ac VHT40 (Covered by HT40)	MCS0
802.11ac VHT80	MCS0

Test Cases	
AC Conducted Emission	Mode 1 : WLAN (5GHz) Link + Music Streaming + Adapter

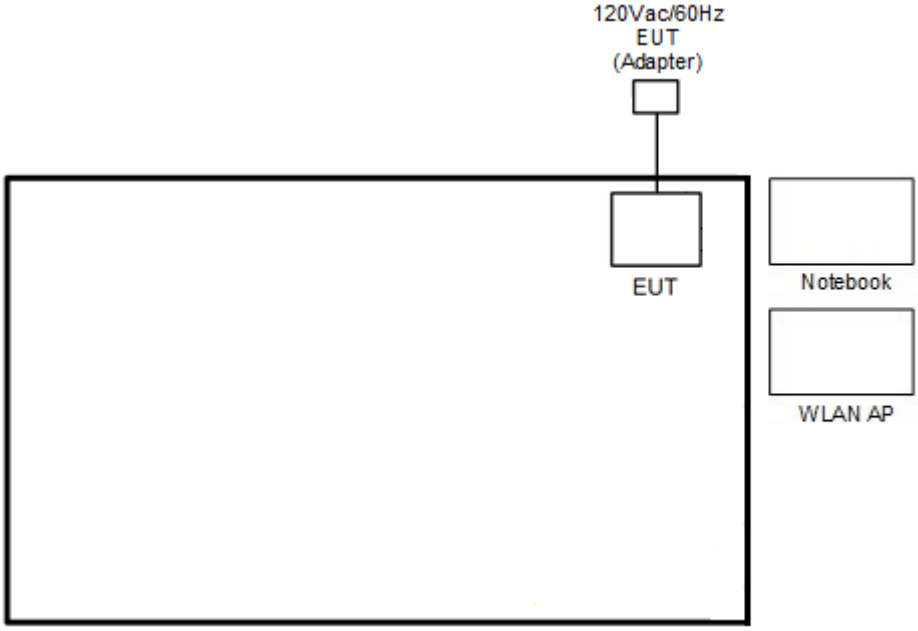
Ch. #		Band I：5150-5250 MHz			
		802.11a	802.11n HT20	802.11n HT40	802.11ac VHT80
L	Low	36	36	38	-
M	Middle	44	44	-	42
H	High	48	48	46	-

2.3 Connection Diagram of Test System

<WLAN Tx Mode>



<AC Conducted Emission Mode>



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Notebook	DELL	Latitude E6320	FCC DoC/ Contains FCC ID: QDS-BRCM1054	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
2.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8m

2.5 EUT Operation Test Setup

The RF test items, utility “special software tool” was installed in Notebook which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

2.6 Measurement Results Explanation Example

For all conducted test items:

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

Example :

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

Offset = RF cable loss + attenuator factor.

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

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

= 4.2 + 10 = 14.2 (dB)

3 Test Result

3.1 26dB & 99% Occupied Bandwidth Measurement

3.1.1 Description of 26dB & 99% Occupied Bandwidth

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

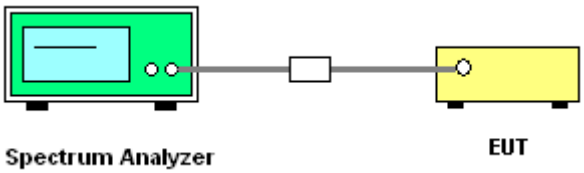
3.1.2 Measuring Instruments

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 v02r01. Section C) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the emission bandwidth and set the Video bandwidth (VBW) ≥ 3 * RBW.
8. Measure and record the results in the test report.

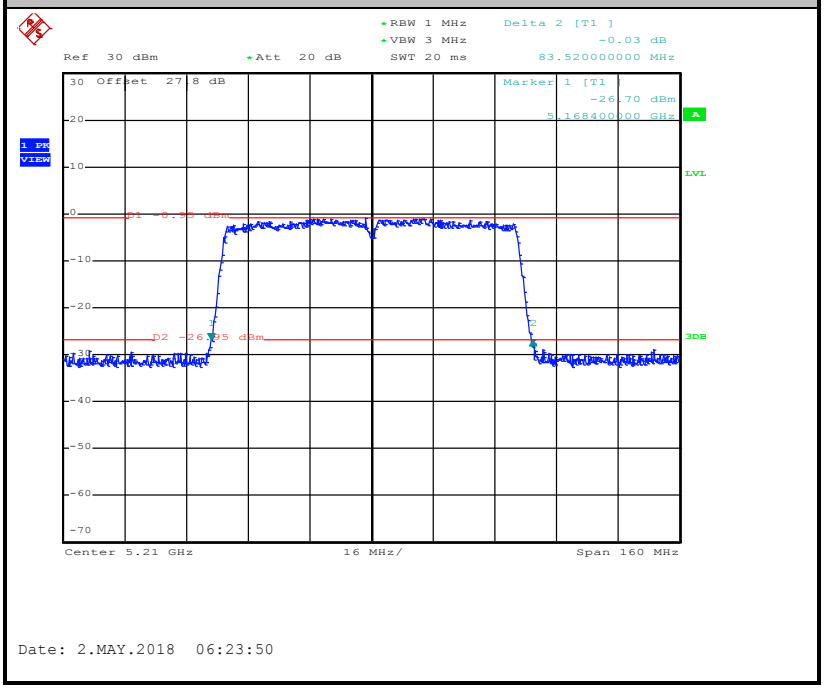
3.1.4 Test Setup



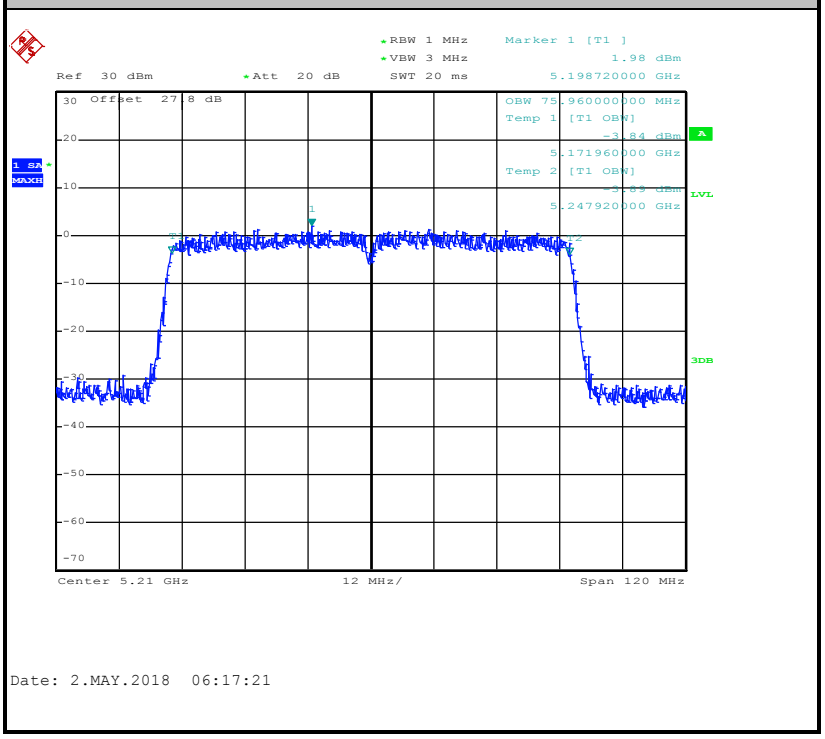
3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

Please refer to Appendix A.

Maximum 26dB Bandwidth



Maximum 99% Occupied Bandwidth



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

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

<FCC 14-30 CFR 15.407>

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

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.2.2 Measuring Instruments

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

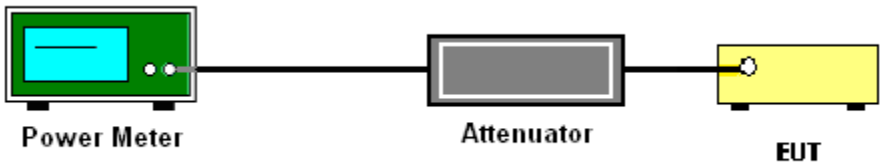
3.2.3 Test Procedures

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

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

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

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

<FCC 14-30 CFR 15.407>

For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band.

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section F) Maximum power spectral density.

 # Method SA-2 #

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

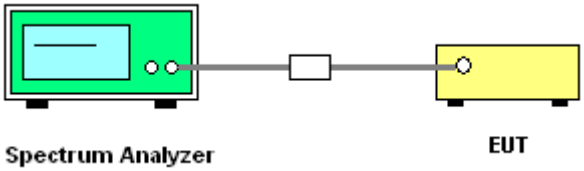
- Measure the duty cycle.
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz.
- Set VBW ≥ 3 MHz.
- Number of points in sweep ≥ 2 Span / RBW.
- Sweep time = auto.
- Detector = RMS
- Trace average at least 100 traces in power averaging mode.
- Add 10 log(1/x),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

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

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

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

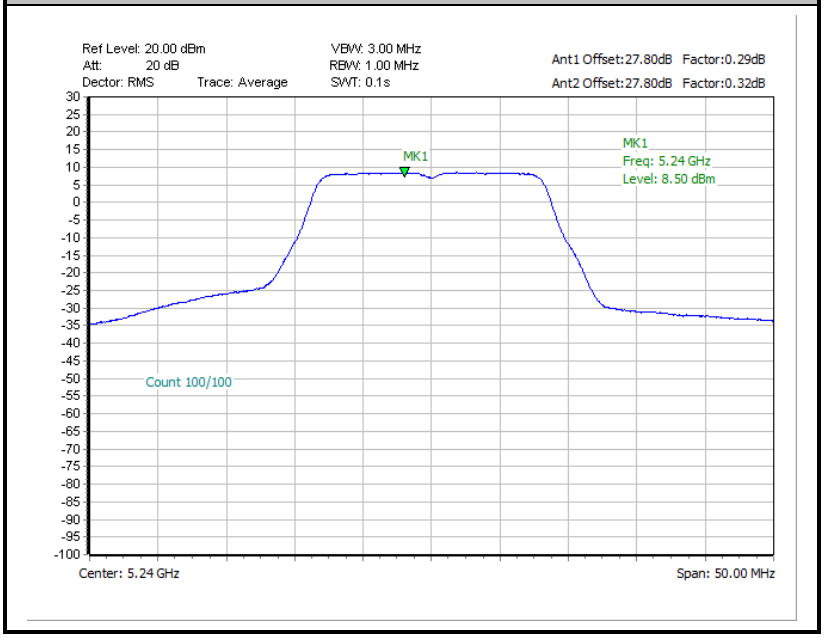
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

Worst Case Power Density (dBm/MHz) for MIMO 1+2



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

3.4 Unwanted Emissions Measurement

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

3.4.1 Limit of Unwanted Emissions

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

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

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

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

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

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

(3) KDB789033 D02 v02r01 G)2)c)

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

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

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

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

3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section G) Unwanted emissions measurement.

(1) Procedure for Unwanted Emissions Measurements Below 1000MHz

- RBW = 120 kHz
- VBW = 300 kHz
- Detector = Peak
- Trace mode = max hold

(2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz

- RBW = 1 MHz
- VBW ≥ 3 MHz
- Detector = Peak
- Sweep time = auto
- Trace mode = max hold

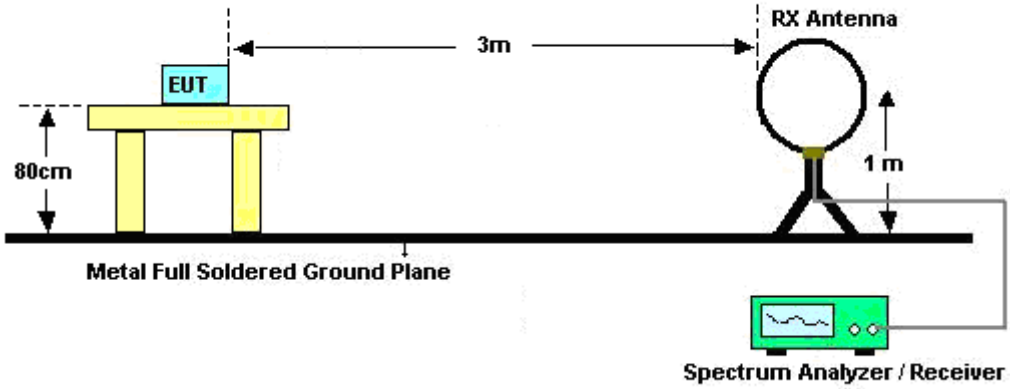
(3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

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

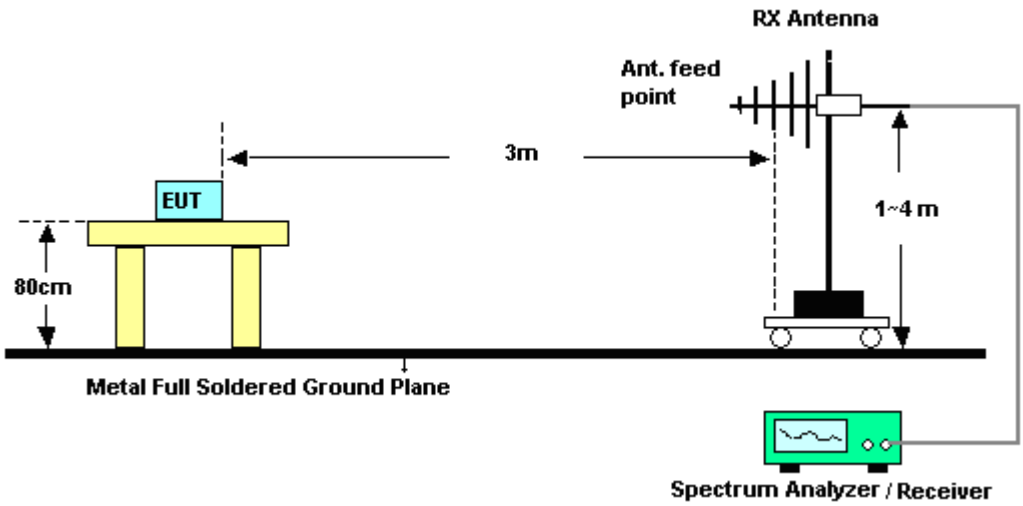
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband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

3.4.4 Test Setup

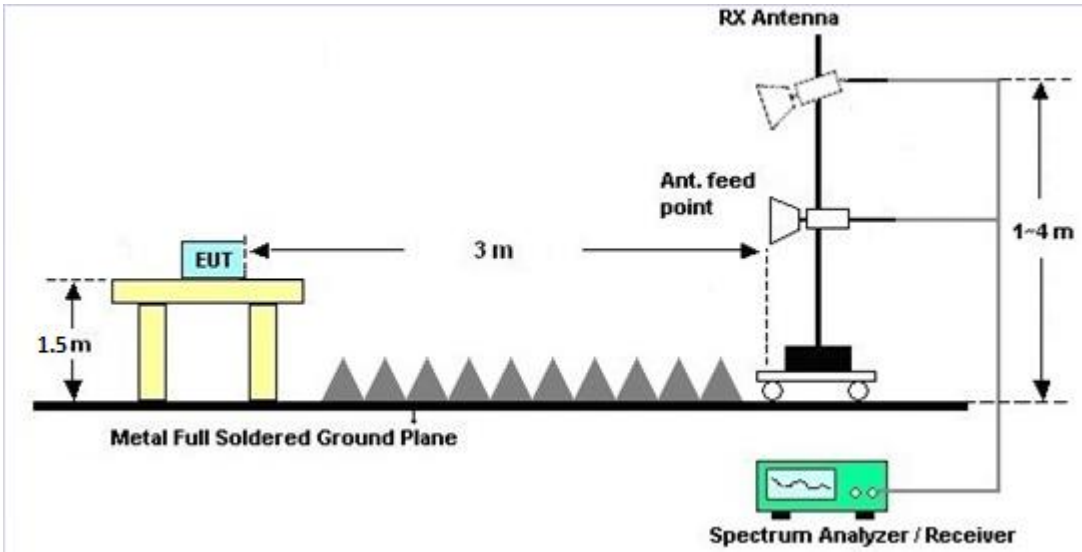
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

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

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

3.4.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix 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.

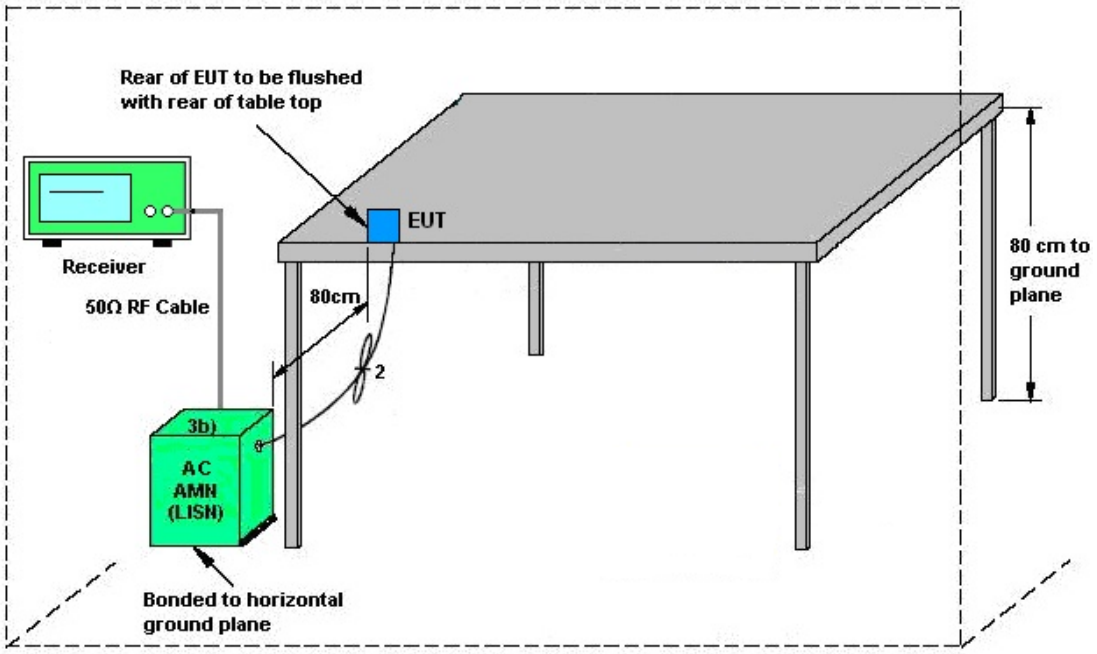
3.5.2 Measuring Instruments

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



AMN = Artificial mains network (LISN)
AE = Associated equipment
EUT = Equipment under test
ISN = Impedance stabilization network

3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.6 Automatically Discontinue Transmission

3.6.1 Limit of Automatically Discontinue Transmission

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

3.6.2 Measuring Instruments

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

3.6.3 Test Result of Automatically Discontinue Transmission

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

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

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

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

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

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

5180 MHz

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

3.7 Antenna Requirements

3.7.1 Standard Applicable

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

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 Antenna Gain

<CDD Modes >

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

Directional gain = GANT + Array Gain, where Array Gain is as follows.

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

Array Gain = 10 log(NANT/NSS=1) dB.

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 4.

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

The EUT supports CDD mode.

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

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

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

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

<CDD Modes>

	Ant. 1 (dBi)	Ant. 2 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
Band I	6.86	3.17	6.86	8.22	0.86	2.22

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

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

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	0932001	N/A	Sep. 26, 2017	Apr. 17, 2018~ Jun. 21, 2018	Sep. 25, 2018	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	0846202	300MHz~40GHz	Sep. 26, 2017	Apr. 17, 2018~ Jun. 21, 2018	Sep. 25, 2018	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP30	101067	9kHz ~ 30GHz	Nov. 13, 2017	Apr. 17, 2018~ Jun. 21, 2018	Nov. 12, 2018	Conducted (TH05-HY)
Switch Box & RF Cable	Burgeon	ETF-058	EC1300484	N/A	Mar. 01, 2018	Apr. 17, 2018~ Jun. 21, 2018	Feb. 28, 2019	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Apr. 22, 2018	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	3.6GHz	Dec. 08, 2017	Apr. 22, 2018	Dec. 07, 2018	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 30, 2017	Apr. 22, 2018	Nov. 29, 2018	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Dec. 08, 2017	Apr. 22, 2018	Dec. 07, 2018	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Apr. 22, 2018	N/A	Conduction (CO05-HY)
LF Cable	HUBER + SUHNER	RG-214/U	LF01	N/A	Jan. 03, 2018	Apr. 22, 2018	Jan. 02, 2019	Conduction (CO05-HY)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100851	N/A	Jan. 03, 2018	Apr. 22, 2018	Jan. 02, 2019	Conduction (CO05-HY)
Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz, VSWR : 2.5:1 max	Jul. 18, 2017	Apr. 20, 2018~ May 03, 2018	Jul. 17, 2018	Radiation (03CH11-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Jan. 16, 2018	Apr. 20, 2018~ May 03, 2018	Jan. 15, 2019	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D&N-6-06	35414&AT-N0602	30MHz~1GHz	Oct. 14, 2017	Apr. 20, 2018~ May 03, 2018	Oct. 13, 2018	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1326	1GHz ~ 18GHz	Oct. 16, 2017	Apr. 20, 2018~ May 03, 2018	Oct. 15, 2018	Radiation (03CH11-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Nov. 23, 2017	Apr. 20, 2018~ May 03, 2018	Nov. 22, 2018	Radiation (03CH11-HY)
Preamplifier	Keysight	83017A	MY53270080	1GHz~26.5GHz	Jan. 16, 2018	Apr. 20, 2018~ May 03, 2018	Jan. 15, 2020	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz ~ 44GHz	Oct. 19, 2017	Apr. 20, 2018~ May 03, 2018	Oct. 18, 2018	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Apr. 20, 2018~ May 03, 2018	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Apr. 20, 2018~ May 03, 2018	N/A	Radiation (03CH11-HY)
Preamplifier	MITEQ	AMF-7D-00101800-30-10P	1590074	1GHz~18GHz	May 22, 2017	Apr. 20, 2018~ May 03, 2018	May 21, 2018	Radiation (03CH11-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 27, 2017	Apr. 20, 2018~ May 03, 2018	Nov. 26, 2018	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4	9K-30M	Mar. 20, 2018	Apr. 20, 2018~ May 03, 2018	Mar. 19, 2019	Radiation (03CH11-HY)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4	30M-18G	Mar. 15, 2018	Apr. 20, 2018~ May 03, 2018	Mar. 14, 2019	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2589/2	30M-18G	Mar. 15, 2018	Apr. 20, 2018~ May 03, 2018	Mar. 14, 2019	Radiation (03CH11-HY)
Filter	Wainwright	WHKX8-5872.5-6750-18000-40ST	SN3	6.75GHz High Pass	Sep. 18, 2017	Apr. 20, 2018~ May 03, 2018	Sep. 17, 2018	Radiation (03CH11-HY)
Filter	Wainwright	WLK4-1000-1530-8000-40SS	SN11	1G Low Pass	Sep. 18, 2017	Apr. 20, 2018~ May 03, 2018	Sep. 17, 2018	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:	Rebecca Li / Luffy Lin	Temperature:	21~25	°C
Test Date:	2018/4/17~2018/06/21	Relative Humidity:	51~54	%

TEST RESULTS DATA
26dB and 99% OBW

Band I														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)			Note
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	36	5180	17.10	17.15	22.80	23.00	-		22.33	22.34		
11a	6Mbps	1	44	5220	17.60	17.70	27.57	34.80	-		22.46	22.48		
11a	6Mbps	1	48	5240	17.60	17.50	27.40	35.90	-		22.46	22.43		
HT20	MCS0	1	36	5180	18.25	18.10	23.57	23.50	-		22.61	22.58		
HT20	MCS0	1	44	5220	18.35	18.40	38.30	43.37	-		22.64	22.65		
HT20	MCS0	1	48	5240	18.35	18.30	35.45	39.07	-		22.64	22.62		
HT40	MCS0	1	38	5190	36.70	36.70	41.58	41.22	-		23.01	23.01		
HT40	MCS0	1	46	5230	36.90	36.80	60.41	41.82	-		23.01	23.01		
VHT80	MCS0	1	42	5210	75.96	75.72	81.92	82.56	-		23.01	23.01		
11a	6Mbps	2	36	5180	17.15	17.05	23.13	23.10	-		22.32			
11a	6Mbps	2	44	5220	17.10	16.95	23.43	22.86	-		22.29			
11a	6Mbps	2	48	5240	17.10	17.00	23.33	22.93	-		22.30			
HT20	MCS0	2	36	5180	18.15	18.10	23.45	23.10	-		22.58			
HT20	MCS0	2	44	5220	18.45	18.05	23.47	23.16	-		22.56			
HT20	MCS0	2	48	5240	18.20	18.10	23.26	23.20	-		22.58			
HT40	MCS0	2	38	5190	36.70	36.80	41.58	41.40	-		23.01			
HT40	MCS0	2	46	5230	36.80	36.80	41.94	41.34	-		23.01			
VHT80	MCS0	2	42	5210	75.96	75.84	83.52	82.56	-		23.01			

TEST RESULTS DATA
Average Power Table

FCC Band I															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)			Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	36	5180	0.32	0.32	16.70	15.71		23.14	24.00	6.86	3.17		Pass
11a	6Mbps	1	44	5220	0.32	0.32	19.28	19.51		23.14	24.00	6.86	3.17		Pass
11a	6Mbps	1	48	5240	0.32	0.32	19.06	19.40		23.14	24.00	6.86	3.17		Pass
HT20	MCS0	1	36	5180	0.34	0.34	16.59	16.30		23.14	24.00	6.86	3.17		Pass
HT20	MCS0	1	44	5220	0.34	0.34	19.19	19.49		23.14	24.00	6.86	3.17		Pass
HT20	MCS0	1	48	5240	0.34	0.34	19.05	19.43		23.14	24.00	6.86	3.17		Pass
HT40	MCS0	1	38	5190	0.66	0.66	12.44	11.11		23.14	24.00	6.86	3.17		Pass
HT40	MCS0	1	46	5230	0.66	0.66	18.58	17.94		23.14	24.00	6.86	3.17		Pass
VHT20	MCS0	1	36	5180	0.34	0.34	16.55	16.18		23.14	24.00	6.86	3.17		Pass
VHT20	MCS0	1	44	5220	0.34	0.34	19.18	19.43		23.14	24.00	6.86	3.17		Pass
VHT20	MCS0	1	48	5240	0.34	0.34	19.04	19.41		23.14	24.00	6.86	3.17		Pass
VHT40	MCS0	1	38	5190	0.62	0.69	12.41	11.09		23.14	24.00	6.86	3.17		Pass
VHT40	MCS0	1	46	5230	0.62	0.69	18.50	17.91		23.14	24.00	6.86	3.17		Pass
VHT80	MCS0	1	42	5210	1.18	1.20	11.46	10.17		23.14	24.00	6.86	3.17		Pass
11a	6Mbps	2	36	5180	0.29	0.32	15.86	16.14	19.02	23.14		6.86			Pass
11a	6Mbps	2	44	5220	0.29	0.32	17.03	17.37	20.22	23.14		6.86			Pass
11a	6Mbps	2	48	5240	0.29	0.32	17.14	17.46	20.32	23.14		6.86			Pass
HT20	MCS0	2	36	5180	0.31	0.34	15.94	16.16	19.06	23.14		6.86			Pass
HT20	MCS0	2	44	5220	0.31	0.34	17.42	17.57	20.51	23.14		6.86			Pass
HT20	MCS0	2	48	5240	0.31	0.34	17.27	17.63	20.47	23.14		6.86			Pass
HT40	MCS0	2	38	5190	0.62	0.62	9.31	9.87	12.61	23.14		6.86			Pass
HT40	MCS0	2	46	5230	0.62	0.62	16.90	17.31	20.12	23.14		6.86			Pass
VHT20	MCS0	2	36	5180	0.31	0.34	15.91	16.12	19.03	23.14		6.86			Pass
VHT20	MCS0	2	44	5220	0.31	0.34	17.42	17.43	20.43	23.14		6.86			Pass
VHT20	MCS0	2	48	5240	0.31	0.34	17.37	17.49	20.44	23.14		6.86			Pass
VHT40	MCS0	2	38	5190	0.62	0.62	9.39	9.70	12.56	23.14		6.86			Pass
VHT40	MCS0	2	46	5230	0.62	0.62	16.82	17.26	20.05	23.14		6.86			Pass
VHT80	MCS0	2	42	5210	1.14	1.19	8.15	8.85	11.53	23.14		6.86			Pass

TEST RESULTS DATA
Power Spectral Density

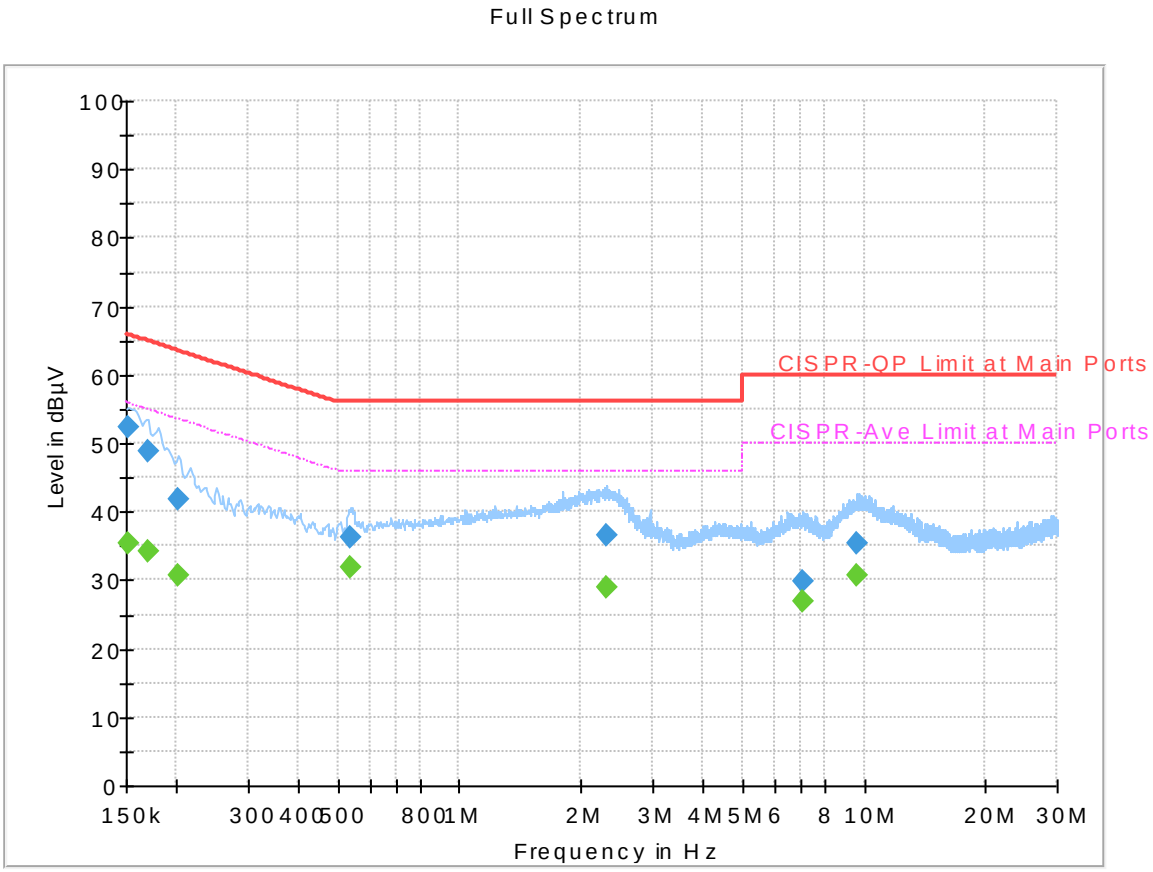
FCC Band I															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	36	5180	0.32	0.32	5.02	4.17		10.14	11.00	6.86	3.17		Pass
11a	6Mbps	1	44	5220	0.32	0.32	7.92	8.30		10.14	11.00	6.86	3.17		Pass
11a	6Mbps	1	48	5240	0.32	0.32	7.93	8.21		10.14	11.00	6.86	3.17		Pass
HT20	MCS0	1	36	5180	0.34	0.34	4.70	4.31		10.14	11.00	6.86	3.17		Pass
HT20	MCS0	1	44	5220	0.34	0.34	7.48	7.93		10.14	11.00	6.86	3.17		Pass
HT20	MCS0	1	48	5240	0.34	0.34	7.65	7.91		10.14	11.00	6.86	3.17		Pass
HT40	MCS0	1	38	5190	0.66	0.66	-2.36	-3.77		10.14	11.00	6.86	3.17		Pass
HT40	MCS0	1	46	5230	0.66	0.66	4.18	3.22		10.14	11.00	6.86	3.17		Pass
VHT80	MCS0	1	42	5210	1.18	1.20	-6.14	-7.18		10.14	11.00	6.86	3.17		Pass
11a	6Mbps	2	36	5180	0.29	0.32			7.40	8.78		8.22			Pass
11a	6Mbps	2	44	5220	0.29	0.32			8.44	8.78		8.22			Pass
11a	6Mbps	2	48	5240	0.29	0.32			8.50	8.78		8.22			Pass
HT20	MCS0	2	36	5180	0.31	0.34			7.05	8.78		8.22			Pass
HT20	MCS0	2	44	5220	0.31	0.34			8.46	8.78		8.22			Pass
HT20	MCS0	2	48	5240	0.31	0.34			8.46	8.78		8.22			Pass
HT40	MCS0	2	38	5190	0.62	0.62			-2.24	8.78		8.22			Pass
HT40	MCS0	2	46	5230	0.62	0.62			5.45	8.78		8.22			Pass
VHT80	MCS0	2	42	5210	1.14	1.19			-5.67	8.78		8.22			Pass

Appendix B. AC Conducted Emission Test Results

Test Engineer :	Shareef Yu	**Temperature :**	21~25℃
		Relative Humidity :	51~55%

EUT Information

Report NO :	7D0544-01
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

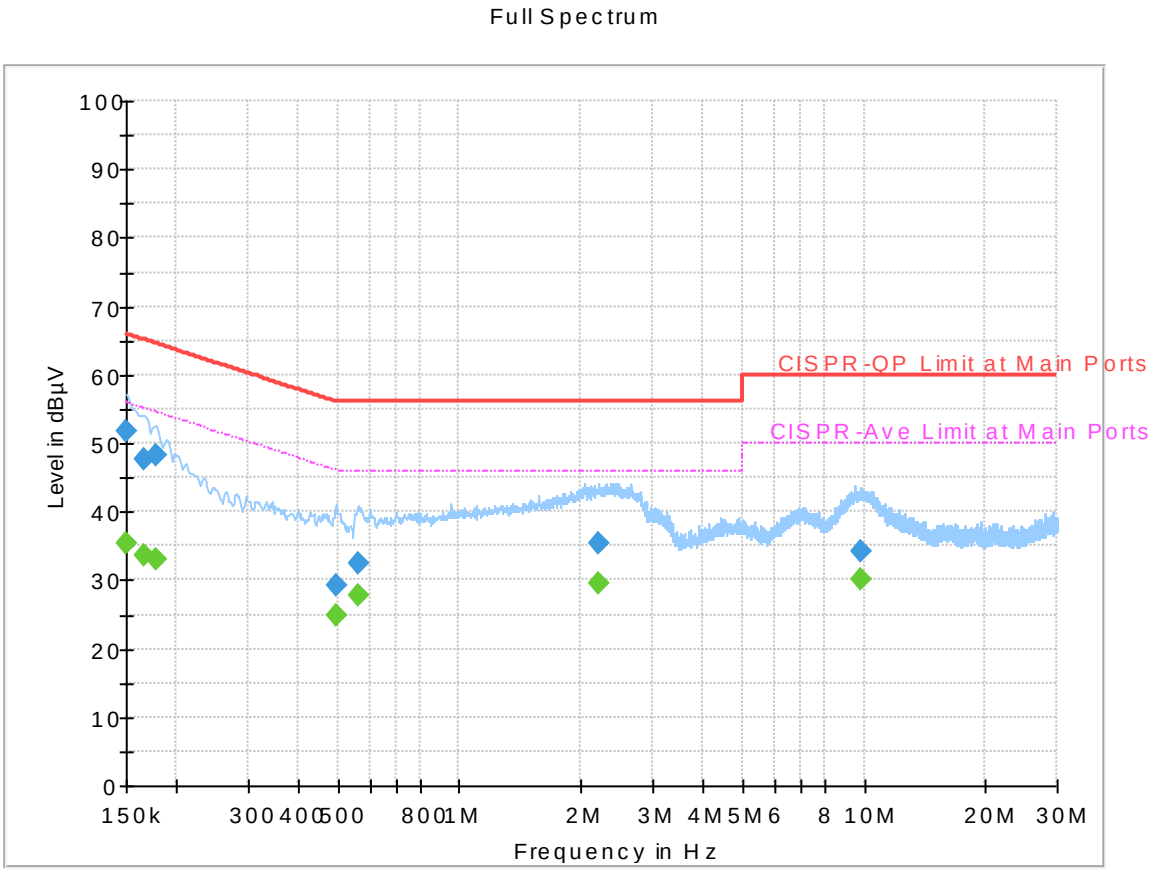


Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	35.25	55.88	20.63	L1	OFF	19.5
0.152250	52.30	---	65.88	13.58	L1	OFF	19.5
0.170250	---	34.11	54.95	20.84	L1	OFF	19.5
0.170250	48.74	---	64.95	16.21	L1	OFF	19.5
0.201750	---	30.57	53.54	22.97	L1	OFF	19.5
0.201750	41.79	---	63.54	21.75	L1	OFF	19.5
0.534750	---	31.92	46.00	14.08	L1	OFF	19.5
0.534750	36.28	---	56.00	19.72	L1	OFF	19.5
2.305500	---	29.09	46.00	16.91	L1	OFF	19.5
2.305500	36.65	---	56.00	19.35	L1	OFF	19.5
7.035000	---	26.97	50.00	23.03	L1	OFF	19.6
7.035000	29.80	---	60.00	30.20	L1	OFF	19.6
9.638250	---	30.64	50.00	19.36	L1	OFF	19.7
9.638250	35.50	---	60.00	24.50	L1	OFF	19.7

EUT Information

Report NO :	7D0544-01
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral



Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	---	35.27	56.00	20.73	N	OFF	19.5
0.150000	51.77	---	66.00	14.23	N	OFF	19.5
0.165750	---	33.50	55.17	21.67	N	OFF	19.5
0.165750	47.59	---	65.17	17.58	N	OFF	19.5
0.177000	---	33.05	54.63	21.58	N	OFF	19.5
0.177000	48.19	---	64.63	16.44	N	OFF	19.5
0.494250	---	24.81	46.10	21.29	N	OFF	19.5
0.494250	29.22	---	56.10	26.88	N	OFF	19.5
0.559500	---	27.75	46.00	18.25	N	OFF	19.5
0.559500	32.40	---	56.00	23.60	N	OFF	19.5
2.206500	---	29.44	46.00	16.56	N	OFF	19.4
2.206500	35.43	---	56.00	20.57	N	OFF	19.4
9.874500	---	30.00	50.00	20.00	N	OFF	19.7
9.874500	34.29	---	60.00	25.71	N	OFF	19.7

Appendix C. Radiated Spurious Emission

Test Engineer :	Hao Hsu, Chuan Zhu, and Ken Wu	Temperature :	22~25°C
		Relative Humidity :	52~57%

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5148.2	62.51	-11.49	74	54.74	31.75	9.05	33.03	100	358	P	H
		5148.98	51.73	-2.27	54	43.96	31.75	9.05	33.03	100	358	A	H
	*	5180	111.9	-	-	104.08	31.78	9.07	33.03	100	358	P	H
	*	5180	103.84	-	-	96.02	31.78	9.07	33.03	100	358	A	H
		5149.24	62.95	-11.05	74	55.18	31.75	9.05	33.03	117	338	P	V
		5148.98	52.12	-1.88	54	44.35	31.75	9.05	33.03	117	338	A	V
	*	5180	112.03	-	-	104.21	31.78	9.07	33.03	117	338	P	V
	*	5180	103.83	-	-	96.01	31.78	9.07	33.03	117	338	A	V
802.11a CH 44 5220MHz		5149.5	55.81	-18.19	74	48.04	31.75	9.05	33.03	100	349	P	H
		5150	47.48	-6.52	54	39.71	31.75	9.05	33.03	100	349	A	H
	*	5220	114.95	-	-	107.05	31.82	9.11	33.03	100	349	P	H
	*	5220	106.63	-	-	98.73	31.82	9.11	33.03	100	349	A	H
		5430.96	53.18	-20.82	74	44.91	32.03	9.26	33.02	100	349	P	H
		5445.12	45.65	-8.35	54	37.35	32.03	9.29	33.02	100	349	A	H
		5140.92	55.16	-18.84	74	47.39	31.75	9.05	33.03	100	336	P	V
		5146.38	47.95	-6.05	54	40.18	31.75	9.05	33.03	100	336	A	V
	*	5220	115.37	-	-	107.47	31.82	9.11	33.03	100	336	P	V
	*	5220	106.83	-	-	98.93	31.82	9.11	33.03	100	336	A	V
		5430.48	51.88	-22.12	74	43.61	32.03	9.26	33.02	100	336	P	V
		5444.4	44.92	-9.08	54	36.65	32.03	9.26	33.02	100	336	A	V

802.11a CH 48 5240MHz		5129.48	51.89	-22.11	74	44.16	31.73	9.03	33.03	111	352	P	H
		5137.8	43.41	-10.59	54	35.66	31.73	9.05	33.03	111	352	A	H
	*	5240	115.4	-	-	107.48	31.83	9.12	33.03	111	352	P	H
	*	5240	107.08	-	-	99.16	31.83	9.12	33.03	111	352	A	H
		5451.75	51.7	-22.3	74	43.38	32.05	9.29	33.02	111	352	P	H
		5452	45.44	-8.56	54	37.12	32.05	9.29	33.02	111	352	A	H
		5134.68	51.42	-22.58	74	43.67	31.73	9.05	33.03	100	338	P	V
		5134.68	43.5	-10.5	54	35.75	31.73	9.05	33.03	100	338	A	V
	*	5240	114.76	-	-	106.84	31.83	9.12	33.03	100	338	P	V
	*	5240	106.29	-	-	98.37	31.83	9.12	33.03	100	338	A	V
		5350	52.27	-21.73	74	44.16	31.95	9.19	33.03	100	338	P	V
		5451	44.42	-9.58	54	36.1	32.05	9.29	33.02	100	338	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		5396	57.74	-16.26	74	49.54	32	9.22	33.02	100	352	P	H
		5396	48.21	-5.79	54	40.01	32	9.22	33.02	100	352	A	H
		5614	55.01	-13.19	68.2	46.25	32.29	9.55	33.08	100	358	P	H
		10360	53.98	-14.22	68.2	56.56	39.51	14.94	57.03	338	9	P	H
		15540	45.84	-28.16	74	45.98	38	18.34	56.48	100	0	P	H
		5396	58.01	-15.99	74	49.81	32	9.22	33.02	117	338	P	V
		5396	48.22	-5.78	54	40.02	32	9.22	33.02	117	338	A	V
		10360	48.83	-19.37	68.2	51.41	39.51	14.94	57.03	100	0	P	V
		15540	46.23	-27.77	74	46.37	38	18.34	56.48	100	0	P	V
802.11a CH 44 5220MHz		4785	60.69	-13.31	74	53.6	31.23	8.94	33.08	100	349	P	H
		4785	49.79	-4.21	54	42.7	31.23	8.94	33.08	100	349	A	H
		5655	55	-13.2	68.2	46.05	32.38	9.68	33.11	100	349	P	H
		7000	52.6	-15.6	68.2	40.02	35.6	10.71	33.73	100	349	P	H
		10440	57.5	-10.7	68.2	59.91	39.61	14.99	57.01	336	9	P	H
		15660	55.37	-18.63	74	55.7	37.67	18.41	56.41	216	300	P	H
		15660	42.52	-11.48	54	42.85	37.67	18.41	56.41	216	300	A	H
		10440	56.93	-11.27	68.2	59.34	39.61	14.99	57.01	113	300	P	V
		15660	49.13	-24.87	74	49.46	37.67	18.41	56.41	100	0	P	V
802.11a CH 48 5240MHz		4803	60.33	-13.67	74	53.08	31.26	9.07	33.08	111	352	P	H
		4803	48.87	-5.13	54	41.62	31.26	9.07	33.08	111	352	A	H
		5676	54.59	-13.61	68.2	45.61	32.41	9.68	33.11	111	352	P	H
		10480	56.89	-11.31	68.2	59.18	39.68	15.03	57	328	15	P	H
		15720	49.37	-24.63	74	49.84	37.47	18.43	56.37	100	0	P	H
		10480	55.72	-12.48	68.2	58.01	39.68	15.03	57	260	300	P	V
		15720	48.97	-25.03	74	49.44	37.47	18.43	56.37	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		5145.86	61.27	-12.73	74	53.5	31.75	9.05	33.03	103	356	P	H
		5150	51.18	-2.82	54	43.41	31.75	9.05	33.03	103	356	A	H
	*	5180	112.07	-	-	104.25	31.78	9.07	33.03	103	356	P	H
	*	5180	103.13	-	-	95.31	31.78	9.07	33.03	103	356	A	H
		5149.5	61.49	-12.51	74	53.72	31.75	9.05	33.03	117	336	P	V
		5150	51.52	-2.48	54	43.75	31.75	9.05	33.03	117	336	A	V
	*	5180	112.45	-	-	104.63	31.78	9.07	33.03	117	336	P	V
	*	5180	103.09	-	-	95.27	31.78	9.07	33.03	117	336	A	V
802.11n HT20 CH 44 5220MHz		5149.76	55.72	-18.28	74	47.95	31.75	9.05	33.03	103	356	P	H
		5148.2	47.42	-6.58	54	39.65	31.75	9.05	33.03	103	356	A	H
	*	5220	115.29	-	-	107.39	31.82	9.11	33.03	103	356	P	H
	*	5220	106.39	-	-	98.49	31.82	9.11	33.03	103	356	A	H
		5430.75	51.95	-22.05	74	43.68	32.03	9.26	33.02	103	356	P	H
		5444.75	44.02	-9.98	54	35.72	32.03	9.29	33.02	103	356	A	H
		5148.2	55.45	-18.55	74	47.68	31.75	9.05	33.03	100	338	P	V
		5150	47.91	-6.09	54	40.14	31.75	9.05	33.03	100	338	A	V
	*	5220	115.64	-	-	107.74	31.82	9.11	33.03	100	338	P	V
	*	5220	106.51	-	-	98.61	31.82	9.11	33.03	100	338	A	V
		5430.75	52.62	-21.38	74	44.35	32.03	9.26	33.02	100	338	P	V
		5429.5	45.24	-8.76	54	36.97	32.03	9.26	33.02	100	338	A	V

802.11n HT20 CH 48 5240MHz		5137.8	51.52	-22.48	74	43.77	31.73	9.05	33.03	100	355	P	H
		5136.5	43.56	-10.44	54	35.81	31.73	9.05	33.03	100	355	A	H
	*	5240	116.06	-	-	108.14	31.83	9.12	33.03	100	355	P	H
	*	5240	107.02	-	-	99.1	31.83	9.12	33.03	100	355	A	H
		5359.5	51.75	-22.25	74	43.64	31.95	9.19	33.03	100	355	P	H
		5460	44.38	-9.62	54	36.06	32.05	9.29	33.02	100	355	A	H
		5150	52.12	-21.88	74	44.35	31.75	9.05	33.03	100	336	P	V
		5140.92	43.45	-10.55	54	35.68	31.75	9.05	33.03	100	336	A	V
	*	5240	115.63	-	-	107.71	31.83	9.12	33.03	100	336	P	V
	*	5240	106.39	-	-	98.47	31.83	9.12	33.03	100	336	A	V
		5453.5	51.87	-22.13	74	43.55	32.05	9.29	33.02	100	336	P	V
		5451	44.51	-9.49	54	36.19	32.05	9.29	33.02	100	336	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		5392	60.75	-13.25	74	52.59	31.98	9.2	33.02	103	356	P	H
		5392	50.36	-3.64	54	42.2	31.98	9.2	33.02	103	356	A	H
		10360	53.07	-15.13	68.2	55.65	39.51	14.94	57.03	292	9	P	H
		15540	45.09	-28.91	74	45.23	38	18.34	56.48	100	0	P	H
		5395	61.6	-12.4	74	53.4	32	9.22	33.02	117	336	P	V
		5395	50.8	-3.2	54	42.6	32	9.22	33.02	117	336	A	V
		10360	48.76	-19.44	68.2	51.34	39.51	14.94	57.03	100	0	P	V
		15540	45.36	-28.64	74	45.5	38	18.34	56.48	100	0	P	V
802.11n HT20 CH 44 5220MHz		4784	60.46	-13.54	74	53.37	31.23	8.94	33.08	103	356	P	H
		4784	49.68	-4.32	54	42.59	31.23	8.94	33.08	103	356	A	H
		5655	53.04	-15.16	68.2	44.09	32.38	9.68	33.11	103	356	P	H
		10440	56.63	-11.57	68.2	59.04	39.61	14.99	57.01	376	35	P	H
		15660	48.88	-25.12	74	49.21	37.67	18.41	56.41	100	0	P	H
		10440	56.19	-12.01	68.2	58.6	39.61	14.99	57.01	106	300	P	V
		15660	48.58	-25.42	74	48.91	37.67	18.41	56.41	100	0	P	V
802.11n HT20 CH 48 5240MHz		4803	60.4	-13.6	74	53.15	31.26	9.07	33.08	100	355	P	H
		4803	49.92	-4.08	54	42.67	31.26	9.07	33.08	100	355	A	H
		5676	53.87	-14.33	68.2	44.89	32.41	9.68	33.11	100	355	P	H
		10480	56.31	-11.89	68.2	58.6	39.68	15.03	57	333	15	P	H
		15720	51.93	-22.07	74	52.4	37.47	18.43	56.37	364	10	P	H
		15720	40.01	-13.99	54	40.48	37.47	18.43	56.37	364	10	A	H
		10480	55.19	-13.01	68.2	57.48	39.68	15.03	57	110	300	P	V
		15720	47.95	-26.05	74	48.42	37.47	18.43	56.37	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		5148.46	59.77	-14.23	74	52	31.75	9.05	33.03	201	338	P	H
		5150	53.43	-0.57	54	45.66	31.75	9.05	33.03	201	338	A	H
	*	5190	104.46	-	-	96.62	31.78	9.09	33.03	201	338	P	H
	*	5190	96.36	-	-	88.52	31.78	9.09	33.03	201	338	A	H
		5369.56	49.83	-24.17	74	41.69	31.97	9.2	33.03	201	338	P	H
		5415.76	41.11	-12.89	54	32.89	32.02	9.22	33.02	201	338	A	H
		5147.42	62.13	-11.87	74	54.36	31.75	9.05	33.03	100	332	P	V
		5149.24	52.93	-1.07	54	45.16	31.75	9.05	33.03	100	332	A	V
	*	5190	104.33	-	-	96.49	31.78	9.09	33.03	100	332	P	V
	*	5190	96.62	-	-	88.78	31.78	9.09	33.03	100	332	A	V
		5363.4	49.12	-24.88	74	40.99	31.97	9.19	33.03	100	332	P	V
		5365.92	41.19	-12.81	54	33.06	31.97	9.19	33.03	100	332	A	V
802.11n HT40 CH 46 5230MHz		5143.26	60.45	-13.55	74	52.68	31.75	9.05	33.03	234	339	P	H
		5149.5	53.14	-0.86	54	45.37	31.75	9.05	33.03	234	339	A	H
	*	5230	110.76	-	-	102.85	31.83	9.11	33.03	234	339	P	H
	*	5230	102.31	-	-	94.4	31.83	9.11	33.03	234	339	A	H
		5356.12	53.06	-20.94	74	44.95	31.95	9.19	33.03	234	339	P	H
		5350.24	45.85	-8.15	54	37.74	31.95	9.19	33.03	234	339	A	H
		5149.76	59.5	-14.5	74	51.73	31.75	9.05	33.03	100	335	P	V
		5149.5	52.25	-1.75	54	44.48	31.75	9.05	33.03	100	335	A	V
	*	5230	110.6	-	-	102.69	31.83	9.11	33.03	100	335	P	V
	*	5230	102.18	-	-	94.27	31.83	9.11	33.03	100	335	A	V
		5352.48	53.76	-20.24	74	45.65	31.95	9.19	33.03	100	335	P	V
		5350	46.35	-7.65	54	38.24	31.95	9.19	33.03	100	335	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		10380	46.06	-22.14	68.2	48.59	39.54	14.95	57.02	100	0	P	H
		15570	44.72	-29.28	74	44.91	37.91	18.36	56.46	100	0	P	H
		10380	45.96	-22.24	68.2	48.49	39.54	14.95	57.02	100	0	P	V
		15570	44.35	-29.65	74	44.54	37.91	18.36	56.46	100	0	P	V
802.11n HT40 CH 46 5230MHz		10460	49.95	-18.25	68.2	52.33	39.63	15	57.01	100	0	P	H
		15690	46.32	-27.68	74	46.73	37.57	18.41	56.39	100	0	P	H
		10460	49.36	-18.84	68.2	51.74	39.63	15	57.01	100	0	P	V
		15690	45.36	-28.64	74	45.77	37.57	18.41	56.39	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5150	57.16	-16.84	74	49.39	31.75	9.05	33.03	187	345	P	H
		5142.74	53.16	-0.84	54	45.39	31.75	9.05	33.03	187	345	A	H
	*	5210	98.74	-	-	90.86	31.82	9.09	33.03	187	345	P	H
	*	5210	91.86	-	-	83.98	31.82	9.09	33.03	187	345	A	H
		5398.12	48.1	-25.9	74	39.9	32	9.22	33.02	187	345	P	H
		5355.74	41.93	-12.07	54	33.82	31.95	9.19	33.03	187	345	A	H
		5138.58	58	-16	74	50.25	31.73	9.05	33.03	100	333	P	V
		5146.38	51.65	-2.35	54	43.88	31.75	9.05	33.03	100	333	A	V
	*	5210	98.71	-	-	90.83	31.82	9.09	33.03	100	333	P	V
	*	5210	91.83	-	-	83.95	31.82	9.09	33.03	100	333	A	V
		5423.6	48.05	-25.95	74	39.79	32.02	9.26	33.02	100	333	P	V
		5387.98	42.15	-11.85	54	33.99	31.98	9.2	33.02	100	333	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		10420	46.99	-21.21	68.2	49.45	39.58	14.98	57.02	100	0	P	H
		15630	44.46	-29.54	74	44.78	37.71	18.39	56.42	100	0	P	H
		10420	46.38	-21.82	68.2	48.84	39.58	14.98	57.02	100	0	P	V
		15630	44.72	-29.28	74	45.04	37.71	18.39	56.42	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

WIFI 802.11n HT40 (LF @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 LF		54.03	31.72	-8.28	40	50.57	12.61	1.03	32.49	-	-	P	H
		73.2	32.16	-7.84	40	51.06	12.35	1.24	32.49	-	-	P	H
		181.2	37.87	-5.63	43.5	53.78	14.72	1.78	32.41	100	150	P	H
		349.7	29.67	-16.33	46	39.37	20.22	2.43	32.35	-	-	P	H
		720.7	36.14	-9.86	46	38.12	26.9	3.53	32.41	-	-	P	H
		957.3	33.42	-12.58	46	29.52	30.97	4.07	31.14	-	-	P	H
		31.89	31.46	-8.54	40	39.87	23.24	0.84	32.49	-	-	P	V
		46.2	36	-4	40	51.75	15.72	1.02	32.49	100	283	P	V
		55.92	34.75	-5.25	40	54.11	12.1	1.03	32.49	-	-	P	V
		499.5	29.49	-16.51	46	35.29	23.69	2.89	32.38	-	-	P	V
		718.6	33.55	-12.45	46	35.59	26.84	3.53	32.41	-	-	P	V
		956.6	33.86	-12.14	46	30.01	30.92	4.07	31.14	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		5150	53.49	-20.51	74	45.72	31.75	9.05	33.03	100	99	P	H
		5148.98	45.28	-8.72	54	37.51	31.75	9.05	33.03	100	99	A	H
	*	5180	104.8	-	-	96.98	31.78	9.07	33.03	100	99	P	H
	*	5180	97.11	-	-	89.29	31.78	9.07	33.03	100	99	A	H
		5147.42	58.67	-15.33	74	50.9	31.75	9.05	33.03	100	97	P	V
		5148.72	50.79	-3.21	54	43.02	31.75	9.05	33.03	100	97	A	V
	*	5180	111.47	-	-	103.65	31.78	9.07	33.03	100	97	P	V
	*	5180	103.92	-	-	96.1	31.78	9.07	33.03	100	97	A	V
802.11a CH 44 5220MHz		5145.08	51.11	-22.89	74	43.34	31.75	9.05	33.03	122	97	P	H
		5149.5	43.04	-10.96	54	35.27	31.75	9.05	33.03	122	97	A	H
	*	5220	109.23	-	-	101.33	31.82	9.11	33.03	122	97	P	H
	*	5220	101.47	-	-	93.57	31.82	9.11	33.03	122	97	A	H
		5355.5	49.74	-24.26	74	41.63	31.95	9.19	33.03	122	97	P	H
		5374	41.18	-12.82	54	33.03	31.97	9.2	33.02	122	97	A	H
		5149.24	57.9	-16.1	74	50.13	31.75	9.05	33.03	100	98	P	V
		5149.5	48.18	-5.82	54	40.41	31.75	9.05	33.03	100	98	A	V
	*	5220	114.99	-	-	107.09	31.82	9.11	33.03	100	98	P	V
	*	5220	107.23	-	-	99.33	31.82	9.11	33.03	100	98	A	V
		5436	52.36	-21.64	74	44.09	32.03	9.26	33.02	100	98	P	V
		5430.75	44.12	-9.88	54	35.85	32.03	9.26	33.02	100	98	A	V

802.11a CH 48 5240MHz		5075.92	50.51	-23.49	74	42.88	31.68	8.99	33.04	118	98	P	H
		5083.98	42.48	-11.52	54	34.83	31.68	9.01	33.04	118	98	A	H
	*	5240	109.62	-	-	101.7	31.83	9.12	33.03	118	98	P	H
	*	5240	101.88	-	-	93.96	31.83	9.12	33.03	118	98	A	H
		5452.5	50.06	-23.94	74	41.74	32.05	9.29	33.02	118	98	P	H
		5453.75	41.36	-12.64	54	33.04	32.05	9.29	33.02	118	98	A	H
		5076.44	54.38	-19.62	74	46.75	31.68	8.99	33.04	101	96	P	V
		5081.9	46.45	-7.55	54	38.8	31.68	9.01	33.04	101	96	A	V
	*	5240	114.97	-	-	107.05	31.83	9.12	33.03	101	96	P	V
	*	5240	107.33	-	-	99.41	31.83	9.12	33.03	101	96	A	V
		5452.75	50.37	-23.63	74	42.05	32.05	9.29	33.02	101	96	P	V
		5396.75	43.84	-10.16	54	35.64	32	9.22	33.02	101	96	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. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		4750	53	-21	74	46.1	31.17	8.82	33.09	100	99	P	H
		4750	43.34	-10.66	54	36.44	31.17	8.82	33.09	100	99	A	H
		10360	47.52	-20.68	68.2	50.1	39.51	14.94	57.03	100	0	P	H
		15540	45.01	-28.99	74	45.15	38	18.34	56.48	100	0	P	H
		4750	55.74	-18.26	74	48.84	31.17	8.82	33.09	100	97	P	V
		4750	46.27	-7.73	54	39.37	31.17	8.82	33.09	100	97	A	V
		4858	53.03	-20.97	74	45.72	31.35	9.03	33.07	100	97	P	V
		4858	43.31	-10.69	54	36	31.35	9.03	33.07	100	97	A	V
		5014	56.27	-17.73	74	48.74	31.62	8.95	33.04	100	97	P	V
		5014	47.34	-6.66	54	39.81	31.62	8.95	33.04	100	97	A	V
		5338	51.84	-16.36	68.2	43.77	31.93	9.17	33.03	100	97	P	V
		5398	53.7	-20.3	74	45.5	32	9.22	33.02	100	97	P	V
		5398	44.27	-9.73	54	36.07	32	9.22	33.02	100	97	A	V
		5614	52.43	-15.77	68.2	43.67	32.29	9.55	33.08	100	97	P	V
		10360	45.88	-22.32	68.2	48.46	39.51	14.94	57.03	100	0	P	V
		15540	45.64	-28.36	74	45.78	38	18.34	56.48	100	0	P	V

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 44 5220MHz		4786	53.4	-20.6	74	46.31	31.23	8.94	33.08	122	97	P	H
		4786	43.69	-10.31	54	36.6	31.23	8.94	33.08	122	97	A	H
		10440	54.08	-14.12	68.2	56.49	39.61	14.99	57.01	245	333	P	H
		15660	48	-26	74	48.33	37.67	18.41	56.41	100	0	P	H
		4780	57.61	-16.39	74	50.55	31.2	8.94	33.08	100	98	P	V
		4780	48.42	-5.58	54	41.36	31.2	8.94	33.08	100	98	A	V
		4900	55.06	-18.94	74	47.72	31.41	8.99	33.06	100	98	P	V
		4900	44.79	-9.21	54	37.45	31.41	8.99	33.06	100	98	A	V
		5002	55.59	-18.41	74	48.1	31.6	8.93	33.04	100	98	P	V
		5002	46.54	-7.46	54	39.05	31.6	8.93	33.04	100	98	A	V
		5062	57.3	-16.7	74	49.68	31.67	8.99	33.04	100	98	P	V
		5062	48.33	-5.67	54	40.71	31.67	8.99	33.04	100	98	A	V
		5380	54.29	-19.71	74	46.13	31.98	9.2	33.02	100	98	P	V
		5380	44.98	-9.02	54	36.82	31.98	9.2	33.02	100	98	A	V
		5434	54.58	-19.42	74	46.31	32.03	9.26	33.02	100	98	P	V
		5434	45.76	-8.24	54	37.49	32.03	9.26	33.02	100	98	A	V
		10440	56.11	-12.09	68.2	58.52	39.61	14.99	57.01	317	315	P	V
		15660	54.03	-19.97	74	54.36	37.67	18.41	56.41	187	348	A	V
		15660	41.99	-12.01	54	42.32	37.67	18.41	56.41	187	348	P	V

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 48 5240MHz		4804	53.58	-20.42	74	46.33	31.26	9.07	33.08	118	98	P	H
		4804	44.15	-9.85	54	36.9	31.26	9.07	33.08	118	98	A	H
		5086	54	-20	74	46.35	31.68	9.01	33.04	118	98	P	H
		5086	44.08	-9.92	54	36.43	31.68	9.01	33.04	118	98	A	H
		10480	49.32	-18.88	68.2	51.61	39.68	15.03	57	100	0	P	H
		15720	48.69	-25.31	74	49.16	37.47	18.43	56.37	100	0	P	H
		4804	58.54	-15.46	74	51.29	31.26	9.07	33.08	101	96	P	V
		4804	48.8	-5.2	54	41.55	31.26	9.07	33.08	101	96	A	V
		4930	55.05	-18.95	74	47.66	31.48	8.97	33.06	101	96	P	V
		4930	44.94	-9.06	54	37.55	31.48	8.97	33.06	101	96	A	V
		5014	55.58	-18.42	74	48.05	31.62	8.95	33.04	101	96	P	V
		5014	46.33	-7.67	54	38.8	31.62	8.95	33.04	101	96	A	V
		5086	57.45	-16.55	74	49.8	31.68	9.01	33.04	101	96	P	V
		5086	48.24	-5.76	54	40.59	31.68	9.01	33.04	101	96	A	V
		5404	55.31	-18.69	74	47.11	32	9.22	33.02	101	96	P	V
		5404	45.79	-8.21	54	37.59	32	9.22	33.02	101	96	A	V
		5464	52.4	-15.8	68.2	44.06	32.07	9.29	33.02	101	96	P	V
		10480	54.25	-13.95	68.2	56.54	39.68	15.03	57	324	312	P	V
		15720	49.87	-24.13	74	50.34	37.47	18.43	56.37	100	0	P	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. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		5139.88	53.27	-20.73	74	45.5	31.75	9.05	33.03	126	98	P	H
		5149.24	46.16	-7.84	54	38.39	31.75	9.05	33.03	126	98	A	H
	*	5180	105.92	-	-	98.1	31.78	9.07	33.03	126	98	P	H
	*	5180	97.98	-	-	90.16	31.78	9.07	33.03	126	98	A	H
		5144.56	61.45	-12.55	74	53.68	31.75	9.05	33.03	100	97	P	V
		5150	52.45	-1.55	54	44.68	31.75	9.05	33.03	100	97	A	V
	*	5180	111.86	-	-	104.04	31.78	9.07	33.03	100	97	P	V
	*	5180	103.94	-	-	96.12	31.78	9.07	33.03	100	97	A	V
802.11n HT20 CH 44 5220MHz		5150	51.79	-22.21	74	44.02	31.75	9.05	33.03	136	95	P	H
		5148.98	43.32	-10.68	54	35.55	31.75	9.05	33.03	136	95	A	H
	*	5220	109.56	-	-	101.66	31.82	9.11	33.03	136	95	P	H
	*	5220	101.48	-	-	93.58	31.82	9.11	33.03	136	95	A	H
		5408.75	49.98	-24.02	74	41.78	32	9.22	33.02	136	95	P	H
		5429.75	41.14	-12.86	54	32.87	32.03	9.26	33.02	136	95	A	H
		5148.72	56.53	-17.47	74	48.76	31.75	9.05	33.03	100	95	P	V
		5150	48.51	-5.49	54	40.74	31.75	9.05	33.03	100	95	A	V
	*	5220	114.78	-	-	106.88	31.82	9.11	33.03	100	95	P	V
	*	5220	107.09	-	-	99.19	31.82	9.11	33.03	100	95	A	V
		5430.25	51.28	-22.72	74	43.01	32.03	9.26	33.02	100	95	P	V
		5429.5	43.97	-10.03	54	35.7	32.03	9.26	33.02	100	95	A	V

802.11n HT20 CH 48 5240MHz		5086.58	51.39	-22.61	74	43.74	31.68	9.01	33.04	115	97	P	H
		5083.2	42.58	-11.42	54	34.93	31.68	9.01	33.04	115	97	A	H
	*	5240	109.99	-	-	102.07	31.83	9.12	33.03	115	97	P	H
	*	5240	101.91	-	-	93.99	31.83	9.12	33.03	115	97	A	H
		5379.25	48.51	-25.49	74	40.35	31.98	9.2	33.02	115	97	P	H
		5452.5	41.45	-12.55	54	33.13	32.05	9.29	33.02	115	97	A	H
		5086.58	53.62	-20.38	74	45.97	31.68	9.01	33.04	100	97	P	V
		5077.74	46.48	-7.52	54	38.85	31.68	8.99	33.04	100	97	A	V
	*	5240	115.11	-	-	107.19	31.83	9.12	33.03	100	97	P	V
	*	5240	107.15	-	-	99.23	31.83	9.12	33.03	100	97	A	V
		5391.5	52.75	-21.25	74	44.59	31.98	9.2	33.02	100	97	P	V
		5395.25	43.8	-10.2	54	35.6	32	9.22	33.02	100	97	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		10360	46.74	-21.46	68.2	49.32	39.51	14.94	57.03	100	0	P	H
		15540	45.4	-28.6	74	45.54	38	18.34	56.48	100	0	A	H
		4750	55.86	-18.14	74	48.96	31.17	8.82	33.09	100	97	P	V
		4750	46.38	-7.62	54	39.48	31.17	8.82	33.09	100	97	A	V
		4960	54.19	-19.81	74	46.75	31.54	8.95	33.05	100	97	P	V
		4960	44.99	-9.01	54	37.55	31.54	8.95	33.05	100	97	A	V
		5020	56.45	-17.55	74	48.92	31.62	8.95	33.04	100	97	P	V
		5020	47.13	-6.87	54	39.6	31.62	8.95	33.04	100	97	A	V
		5332	52.77	-15.43	68.2	44.7	31.93	9.17	33.03	100	97	P	V
		5398	54.07	-19.93	74	45.87	32	9.22	33.02	100	97	P	V
		5398	44.43	-9.57	54	36.23	32	9.22	33.02	100	97	A	V
		10360	45.83	-22.37	68.2	48.41	39.51	14.94	57.03	100	0	P	V
		15540	46.79	-27.21	74	46.93	38	18.34	56.48	100	0	P	V
802.11n HT20 CH 44 5220MHz		10440	53.42	-14.78	68.2	55.83	39.61	14.99	57.01	248	332	P	H
		15660	48.85	-25.15	74	49.18	37.67	18.41	56.41	100	0	P	H
		4786	58.55	-15.45	74	51.46	31.23	8.94	33.08	100	95	P	V
		4786	48.32	-5.68	54	41.23	31.23	8.94	33.08	100	95	A	V
		4906	53.81	-20.19	74	46.44	31.44	8.99	33.06	100	95	P	V
		4906	44.69	-9.31	54	37.32	31.44	8.99	33.06	100	95	A	V
		4996	55.81	-18.19	74	48.32	31.6	8.93	33.04	100	95	P	V
		4996	46.23	-7.77	54	38.74	31.6	8.93	33.04	100	95	A	V
		5062	56.61	-17.39	74	48.99	31.67	8.99	33.04	100	95	P	V
		5062	47.65	-6.35	54	40.03	31.67	8.99	33.04	100	95	A	V
		10440	54.75	-13.45	68.2	57.16	39.61	14.99	57.01	310	313	P	V
		15660	48.96	-25.04	74	49.29	37.67	18.41	56.41	100	0	P	V

802.11n HT20 CH 48 5240MHz		4810	52.85	-21.15	74	45.6	31.26	9.07	33.08	115	97	P	H
		4810	43.61	-10.39	54	36.36	31.26	9.07	33.08	115	97	A	H
		5086	53.49	-20.51	74	45.84	31.68	9.01	33.04	115	97	P	H
		5086	44.03	-9.97	54	36.38	31.68	9.01	33.04	115	97	A	H
		5398	52.3	-21.7	74	44.1	32	9.22	33.02	115	97	P	H
		5398	42.81	-11.19	54	34.61	32	9.22	33.02	115	97	A	H
		10480	52.16	-16.04	68.2	54.45	39.68	15.03	57	322	352	P	H
		15720	47.74	-26.26	74	48.21	37.47	18.43	56.37	100	0	P	H
		4798	57.95	-16.05	74	50.73	31.23	9.07	33.08	100	97	P	V
		4798	48.75	-5.25	54	41.53	31.23	9.07	33.08	100	97	A	V
		5014	55.98	-18.02	74	48.45	31.62	8.95	33.04	100	97	P	V
		5014	46.19	-7.81	54	38.66	31.62	8.95	33.04	100	97	A	V
		5074	57.44	-16.56	74	49.81	31.68	8.99	33.04	100	97	P	V
		5074	48.18	-5.82	54	40.55	31.68	8.99	33.04	100	97	A	V
		5404	54.67	-19.33	74	46.47	32	9.22	33.02	100	97	P	V
		5404	45.37	-8.63	54	37.17	32	9.22	33.02	100	97	A	V
		5464	51.92	-16.28	68.2	43.58	32.07	9.29	33.02	100	97	P	V
		10480	53.93	-14.27	68.2	56.22	39.68	15.03	57	258	312	P	V
		15720	48.35	-25.65	74	48.82	37.47	18.43	56.37	100	0	P	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. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		5148.2	55.34	-18.66	74	47.57	31.75	9.05	33.03	100	97	P	H
		5149.5	48.38	-5.62	54	40.61	31.75	9.05	33.03	100	97	A	H
	*	5190	98.67	-	-	90.83	31.78	9.09	33.03	100	97	P	H
	*	5190	90.32	-	-	82.48	31.78	9.09	33.03	100	97	A	H
		5416.6	48.34	-25.66	74	40.12	32.02	9.22	33.02	100	97	P	H
		5411.84	40.01	-13.99	54	31.79	32.02	9.22	33.02	100	97	A	H
		5149.76	61.09	-12.91	74	53.32	31.75	9.05	33.03	100	98	P	V
		5150	53.36	-0.64	54	45.59	31.75	9.05	33.03	100	98	A	V
	*	5190	104.17	-	-	96.33	31.78	9.09	33.03	100	98	P	V
	*	5190	96.41	-	-	88.57	31.78	9.09	33.03	100	98	A	V
		5432.28	47.65	-26.35	74	39.38	32.03	9.26	33.02	100	98	P	V
		5355.28	40.59	-13.41	54	32.48	31.95	9.19	33.03	100	98	A	V
802.11n HT40 CH 46 5230MHz		5149.76	54.9	-19.1	74	47.13	31.75	9.05	33.03	191	115	P	H
		5148.72	48.23	-5.77	54	40.46	31.75	9.05	33.03	191	115	A	H
	*	5230	105.75	-	-	97.84	31.83	9.11	33.03	191	115	P	H
	*	5230	97.43	-	-	89.52	31.83	9.11	33.03	191	115	A	H
		5379.64	47.86	-26.14	74	39.7	31.98	9.2	33.02	191	115	P	H
		5384.12	40.64	-13.36	54	32.48	31.98	9.2	33.02	191	115	A	H
		5144.56	60.03	-13.97	74	52.26	31.75	9.05	33.03	100	107	P	V
		5148.2	52.41	-1.59	54	44.64	31.75	9.05	33.03	100	107	A	V
	*	5230	109.8	-	-	101.89	31.83	9.11	33.03	100	107	P	V
	*	5230	101.23	-	-	93.32	31.83	9.11	33.03	100	107	A	V
		5383.28	50.12	-23.88	74	41.96	31.98	9.2	33.02	100	107	P	V
		5376.84	42.43	-11.57	54	34.28	31.97	9.2	33.02	100	107	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		10380	45.57	-22.63	68.2	48.1	39.54	14.95	57.02	100	0	P	H
		15570	44.19	-29.81	74	44.38	37.91	18.36	56.46	100	0	P	H
		10380	46.03	-22.17	68.2	48.56	39.54	14.95	57.02	100	0	P	V
		15570	44.41	-29.59	74	44.6	37.91	18.36	56.46	100	0	P	V
802.11n HT40 CH 46 5230MHz		10460	46.77	-21.43	68.2	49.15	39.63	15	57.01	100	0	P	H
		15690	45.13	-28.87	74	45.54	37.57	18.41	56.39	100	0	P	H
		10460	46.58	-21.62	68.2	48.96	39.63	15	57.01	100	0	P	V
		15690	45.58	-28.42	74	45.99	37.57	18.41	56.39	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5147.94	54.99	-19.01	74	47.22	31.75	9.05	33.03	200	115	P	H
		5148.2	48.84	-5.16	54	41.07	31.75	9.05	33.03	200	115	A	H
	*	5210	93.54	-	-	85.66	31.82	9.09	33.03	200	115	P	H
	*	5210	86.58	-	-	78.7	31.82	9.09	33.03	200	115	A	H
		5438.94	47.44	-26.56	74	39.17	32.03	9.26	33.02	200	115	P	H
		5443.88	41.36	-12.64	54	33.09	32.03	9.26	33.02	200	115	A	H
		5144.3	57.63	-16.37	74	49.86	31.75	9.05	33.03	100	95	P	V
		5150	53.34	-0.66	54	45.57	31.75	9.05	33.03	100	95	A	V
	*	5210	99.7	-	-	91.82	31.82	9.09	33.03	100	95	P	V
	*	5210	92.25	-	-	84.37	31.82	9.09	33.03	100	95	A	V
		5367.44	49.32	-24.68	74	41.18	31.97	9.2	33.03	100	95	P	V
		5359.12	41.53	-12.47	54	33.42	31.95	9.19	33.03	100	95	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		10420	46.95	-21.25	68.2	49.41	39.58	14.98	57.02	100	0	P	H
		15630	44.27	-29.73	74	44.59	37.71	18.39	56.42	100	0	P	H
		10420	46.88	-21.32	68.2	49.34	39.58	14.98	57.02	100	0	P	V
		15630	44.47	-29.53	74	44.79	37.71	18.39	56.42	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

WIFI 802.11n HT40 (LF @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 LF		47.82	22.58	-17.42	40	38.74	15.31	1.02	32.49	-	-	P	H
		115.05	26.22	-17.28	43.5	40.24	17.02	1.43	32.47	-	-	P	H
		214.95	28.28	-15.22	43.5	43.85	15.04	1.78	32.39	-	-	P	H
		412.7	27.15	-18.85	46	34.58	22.23	2.68	32.34	-	-	P	H
		764.1	29.78	-16.22	46	30.55	27.93	3.58	32.28	-	-	P	H
		955.9	33.22	-12.78	46	29.37	30.92	4.07	31.14	100	0	P	H
		40.8	31.25	-8.75	40	44.23	18.68	0.83	32.49	-	-	P	V
		47.01	36.77	-3.23	40	52.93	15.31	1.02	32.49	100	287	P	V
		55.92	31.96	-8.04	40	51.32	12.1	1.03	32.49	-	-	P	V
		430.2	25.72	-20.28	46	32.73	22.66	2.68	32.35	-	-	P	V
		713.7	33.5	-12.5	46	35.72	26.73	3.48	32.43	-	-	P	V
		952.4	33.79	-12.21	46	30.19	30.71	4.07	31.18	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5146.64	58.38	-15.62	74	50.61	31.75	9.05	33.03	220	360	P	H
		5150	49.47	-4.53	54	41.7	31.75	9.05	33.03	220	360	A	H
	*	5180	111.11	-	-	103.29	31.78	9.07	33.03	220	360	P	H
	*	5180	103.59	-	-	95.77	31.78	9.07	33.03	220	360	A	H
		5148.2	61.29	-12.71	74	53.52	31.75	9.05	33.03	100	98	P	V
		5147.94	52.32	-1.68	54	44.55	31.75	9.05	33.03	100	98	A	V
	*	5180	114.01	-	-	106.19	31.78	9.07	33.03	100	98	P	V
	*	5180	106.95	-	-	99.13	31.78	9.07	33.03	100	98	A	V
802.11a CH 44 5220MHz		5139.88	54.8	-19.2	74	47.03	31.75	9.05	33.03	210	360	P	H
		5148.2	46.7	-7.3	54	38.93	31.75	9.05	33.03	210	360	A	H
	*	5220	114.76	-	-	106.86	31.82	9.11	33.03	210	360	P	H
	*	5220	107.06	-	-	99.16	31.82	9.11	33.03	210	360	A	H
		5434.5	53.83	-20.17	74	45.56	32.03	9.26	33.02	210	360	P	H
		5444.75	46.32	-7.68	54	38.02	32.03	9.29	33.02	210	360	A	H
		5148.72	56.82	-17.18	74	49.05	31.75	9.05	33.03	100	99	P	V
		5149.24	48.54	-5.46	54	40.77	31.75	9.05	33.03	100	99	A	V
	*	5220	117.54	-	-	109.64	31.82	9.11	33.03	100	99	P	V
	*	5220	109.94	-	-	102.04	31.82	9.11	33.03	100	99	A	V
		5444.5	54.4	-19.6	74	46.13	32.03	9.26	33.02	100	99	P	V
		5445	47.05	-6.95	54	38.75	32.03	9.29	33.02	100	99	A	V

802.11a CH 48 5240MHz		5126.62	51.15	-22.85	74	43.42	31.73	9.03	33.03	209	357	P	H
		5149.5	42.8	-11.2	54	35.03	31.75	9.05	33.03	209	357	A	H
	*	5240	114.75	-	-	106.83	31.83	9.12	33.03	209	357	P	H
	*	5240	107.11	-	-	99.19	31.83	9.12	33.03	209	357	A	H
		5459	52.28	-21.72	74	43.96	32.05	9.29	33.02	209	357	P	H
		5455.5	45.41	-8.59	54	37.09	32.05	9.29	33.02	209	357	A	H
		5087.62	54.9	-19.1	74	47.25	31.68	9.01	33.04	100	110	P	V
		5074.62	45.69	-8.31	54	38.06	31.68	8.99	33.04	100	110	A	V
	*	5240	117.2	-	-	109.28	31.83	9.12	33.03	100	110	P	V
	*	5240	109.86	-	-	101.94	31.83	9.12	33.03	100	110	A	V
		5352.5	52.18	-21.82	74	44.07	31.95	9.19	33.03	100	110	P	V
		5451	46.3	-7.7	54	37.98	32.05	9.29	33.02	100	110	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+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		4750	53.71	-20.29	74	46.81	31.17	8.82	33.09	220	360	P	H
		4750	44.14	-9.86	54	37.24	31.17	8.82	33.09	220	360	A	H
		5392	55.96	-18.04	74	47.8	31.98	9.2	33.02	220	360	P	H
		5392	45.28	-8.72	54	37.12	31.98	9.2	33.02	220	360	A	H
		5614	54.33	-13.87	68.2	45.57	32.29	9.55	33.08	220	360	P	H
		10360	52.97	-15.23	68.2	55.55	39.51	14.94	57.03	189	331	P	H
		15540	48.38	-25.62	74	48.52	38	18.34	56.48	100	0	P	H
		4744	59.05	-14.95	74	52.19	31.13	8.82	33.09	100	100	P	V
		4744	50.66	-3.34	54	43.8	31.13	8.82	33.09	100	100	A	V
		4858	53.55	-20.45	74	46.24	31.35	9.03	33.07	100	100	P	V
		4858	44.85	-9.15	54	37.54	31.35	9.03	33.07	100	100	A	V
		5020	56.84	-17.16	74	49.31	31.62	8.95	33.04	100	100	P	V
		5020	47.28	-6.72	54	39.75	31.62	8.95	33.04	100	100	A	V
		5338	52.85	-15.35	68.2	44.78	31.93	9.17	33.03	100	100	P	V
		5398	55.59	-18.41	74	47.39	32	9.22	33.02	100	100	P	V
		5398	47.54	-6.46	54	39.34	32	9.22	33.02	100	100	A	V
		5620	57.49	-10.71	68.2	48.7	32.32	9.55	33.08	100	100	P	V
		10360	48.91	-19.29	68.2	51.49	39.51	14.94	57.03	100	0	P	V
		15540	46.6	-27.4	74	46.74	38	18.34	56.48	100	0	P	V

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 44 5220MHz		4780	55.56	-18.44	74	48.5	31.2	8.94	33.08	210	360	P	H
		4780	45.68	-8.32	54	38.62	31.2	8.94	33.08	210	360	A	H
		5008	53.74	-20.26	74	46.21	31.62	8.95	33.04	210	360	P	H
		5008	43.62	-10.38	54	36.09	31.62	8.95	33.04	210	360	A	H
		5446	56.27	-17.73	74	47.95	32.05	9.29	33.02	210	360	P	H
		5446	48.03	-5.97	54	39.71	32.05	9.29	33.02	210	360	A	H
		5662	53.75	-14.45	68.2	44.8	32.38	9.68	33.11	210	360	P	H
		10440	57.38	-10.82	68.2	59.79	39.61	14.99	57.01	102	374	P	H
		15660	54.3	-19.7	74	54.63	37.67	18.41	56.41	216	302	P	H
		15660	43.58	-10.42	54	43.91	37.67	18.41	56.41	216	302	A	H
		4780	59.71	-14.29	74	52.65	31.2	8.94	33.08	100	99	P	V
		4780	51.52	-2.48	54	44.46	31.2	8.94	33.08	100	99	A	V
		4894	55.31	-18.69	74	47.95	31.41	9.01	33.06	100	99	P	V
		4894	45.54	-8.46	54	38.18	31.41	9.01	33.06	100	99	A	V
		4984	55.39	-18.61	74	47.94	31.57	8.93	33.05	100	99	P	V
		4984	45.66	-8.34	54	38.21	31.57	8.93	33.05	100	99	A	V
		5056	57.2	-16.8	74	49.58	31.67	8.99	33.04	100	99	P	V
		5056	47.72	-6.28	54	40.1	31.67	8.99	33.04	100	99	A	V
		5446	56.09	-17.91	74	47.77	32.05	9.29	33.02	100	99	P	V
		5446	48.27	-5.73	54	39.95	32.05	9.29	33.02	100	99	A	V
		5662	56.32	-11.88	68.2	47.37	32.38	9.68	33.11	100	99	P	V
		10440	58.54	-9.66	68.2	60.95	39.61	14.99	57.01	263	300	P	V
		15660	55.35	-18.65	74	55.68	37.67	18.41	56.41	100	126	P	V
		15660	42.95	-11.05	54	43.28	37.67	18.41	56.41	100	126	A	V

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 48 5240MHz		4798	55.71	-18.29	74	48.49	31.23	9.07	33.08	209	357	P	H
		4798	46.7	-7.3	54	39.48	31.23	9.07	33.08	209	357	A	H
		5452	55.89	-18.11	74	47.57	32.05	9.29	33.02	209	357	P	H
		5452	47.55	-6.45	54	39.23	32.05	9.29	33.02	209	357	A	H
		5668	54.17	-14.03	68.2	45.19	32.41	9.68	33.11	209	357	P	H
		10480	57.66	-10.54	68.2	59.95	39.68	15.03	57	361	35	P	H
		15720	49.96	-24.04	74	50.43	37.47	18.43	56.37	100	0	P	H
		4810	58.33	-15.67	74	51.08	31.26	9.07	33.08	100	110	P	V
		4810	49.97	-4.03	54	42.72	31.26	9.07	33.08	100	110	A	V
		5026	55.1	-18.9	74	47.56	31.63	8.95	33.04	100	110	P	V
		5026	45.24	-8.76	54	37.7	31.63	8.95	33.04	100	110	A	V
		5080	56.99	-17.01	74	49.36	31.68	8.99	33.04	100	110	P	V
		5080	47.01	-6.99	54	39.38	31.68	8.99	33.04	100	110	A	V
		5452	57.25	-16.75	74	48.93	32.05	9.29	33.02	100	110	P	V
		5452	48.16	-5.84	54	39.84	32.05	9.29	33.02	100	110	A	V
		5674	55.59	-12.61	68.2	46.61	32.41	9.68	33.11	100	110	P	V
		10480	56.35	-11.85	68.2	58.64	39.68	15.03	57	100	63	P	V
		15720	54.5	-19.5	74	54.97	37.47	18.43	56.37	100	117	P	V
		15720	42.97	-11.03	54	43.44	37.47	18.43	56.37	100	117	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		5148.2	58.12	-15.88	74	50.35	31.75	9.05	33.03	210	360	P	H
		5150	49.7	-4.3	54	41.93	31.75	9.05	33.03	210	360	A	H
	*	5180	110.48	-	-	102.66	31.78	9.07	33.03	210	360	P	H
	*	5180	102.98	-	-	95.16	31.78	9.07	33.03	210	360	A	H
		5146.38	60.97	-13.03	74	53.2	31.75	9.05	33.03	100	95	P	V
		5148.98	52.25	-1.75	54	44.48	31.75	9.05	33.03	100	95	A	V
	*	5180	112.96	-	-	105.14	31.78	9.07	33.03	100	95	P	V
	*	5180	105.77	-	-	97.95	31.78	9.07	33.03	100	95	A	V
	*	5180	112.96	-	-	105.14	31.78	9.07	33.03	100	95	P	V
	*	5180	105.77	-	-	97.95	31.78	9.07	33.03	100	95	A	V
802.11n HT20 CH 44 5220MHz		5147.42	54.52	-19.48	74	46.75	31.75	9.05	33.03	192	360	P	H
		5149.5	46.71	-7.29	54	38.94	31.75	9.05	33.03	192	360	A	H
	*	5220	113.52	-	-	105.62	31.82	9.11	33.03	192	360	P	H
	*	5220	106.39	-	-	98.49	31.82	9.11	33.03	192	360	A	H
		5442	53.11	-20.89	74	44.84	32.03	9.26	33.02	192	360	P	H
		5444	46.51	-7.49	54	38.24	32.03	9.26	33.02	192	360	A	H
		5149.24	57.6	-16.4	74	49.83	31.75	9.05	33.03	100	97	P	V
		5149.76	49.95	-4.05	54	42.18	31.75	9.05	33.03	100	97	A	V
	*	5220	116.2	-	-	108.3	31.82	9.11	33.03	100	97	P	V
	*	5220	108.55	-	-	100.65	31.82	9.11	33.03	100	97	A	V
		5444	53.99	-20.01	74	45.72	32.03	9.26	33.02	100	97	P	V
		5444	46.55	-7.45	54	38.28	32.03	9.26	33.02	100	97	A	V

802.11n HT20 CH 48 5240MHz		5128.96	51.04	-22.96	74	43.31	31.73	9.03	33.03	210	358	P	H
		5150	42.93	-11.07	54	35.16	31.75	9.05	33.03	210	358	A	H
	*	5240	113.82	-	-	105.9	31.83	9.12	33.03	210	358	P	H
	*	5240	106.5	-	-	98.58	31.83	9.12	33.03	210	358	A	H
		5452.75	52.65	-21.35	74	44.33	32.05	9.29	33.02	210	358	P	H
		5459.5	45.01	-8.99	54	36.69	32.05	9.29	33.02	210	358	A	H
		5087.62	54.53	-19.47	74	46.88	31.68	9.01	33.04	100	99	P	V
		5084.5	45.74	-8.26	54	38.09	31.68	9.01	33.04	100	99	A	V
	*	5240	116.27	-	-	108.35	31.83	9.12	33.03	100	99	P	V
	*	5240	108.93	-	-	101.01	31.83	9.12	33.03	100	99	A	V
		5459.75	52.39	-21.61	74	44.07	32.05	9.29	33.02	100	99	P	V
		5460	45.44	-8.56	54	37.12	32.05	9.29	33.02	100	99	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		4744	53.13	-20.87	74	46.27	31.13	8.82	33.09	210	360	P	H
		4744	44.08	-9.92	54	37.22	31.13	8.82	33.09	210	360	A	H
		5392	56.1	-17.9	74	47.94	31.98	9.2	33.02	210	360	P	H
		5392	47.42	-6.58	54	39.26	31.98	9.2	33.02	210	360	A	H
		5614	53.9	-14.3	68.2	45.14	32.29	9.55	33.08	210	360	P	H
		10360	51.69	-16.51	68.2	54.27	39.51	14.94	57.03	105	111	P	H
		15540	45.36	-28.64	74	45.5	38	18.34	56.48	100	0	P	H
		4756	57.47	-16.53	74	50.57	31.17	8.82	33.09	100	100	P	V
		4756	49.34	-4.66	54	42.44	31.17	8.82	33.09	100	100	A	V
		5020	56.43	-17.57	74	48.9	31.62	8.95	33.04	100	100	P	V
		5020	46.88	-7.12	54	39.35	31.62	8.95	33.04	100	100	A	V
		5404	55.32	-18.68	74	47.12	32	9.22	33.02	100	100	P	V
		5404	46.82	-7.18	54	38.62	32	9.22	33.02	100	100	A	V
		5620	55.55	-12.65	68.2	46.76	32.32	9.55	33.08	100	100	P	V
		10360	49.42	-18.78	68.2	52	39.51	14.94	57.03	100	0	P	V
		15540	46.06	-27.94	74	46.2	38	18.34	56.48	100	0	P	V

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 44 5220MHz		4786	54.6	-19.4	74	47.51	31.23	8.94	33.08	192	360	P	H
		4786	45.52	-8.48	54	38.43	31.23	8.94	33.08	192	360	A	H
		5446	56.73	-17.27	74	48.41	32.05	9.29	33.02	192	360	P	H
		5446	47.91	-6.09	54	39.59	32.05	9.29	33.02	192	360	A	H
		5650	55.49	-12.71	68.2	46.6	32.38	9.61	33.1	192	360	P	H
		10440	56.84	-11.36	68.2	59.25	39.61	14.99	57.01	376	36	P	H
		15660	49.98	-24.02	74	50.31	37.67	18.41	56.41	100	0	P	H
		4786	58.93	-15.07	74	51.84	31.23	8.94	33.08	100	97	P	V
		4786	50.87	-3.13	54	43.78	31.23	8.94	33.08	100	97	A	V
		4906	55.04	-18.96	74	47.67	31.44	8.99	33.06	100	97	P	V
		4906	45.39	-8.61	54	38.02	31.44	8.99	33.06	100	97	A	V
		4996	55.14	-18.86	74	47.65	31.6	8.93	33.04	100	97	P	V
		4996	45.8	-8.2	54	38.31	31.6	8.93	33.04	100	97	A	V
		5056	57.07	-16.93	74	49.45	31.67	8.99	33.04	100	97	P	V
		5056	47.73	-6.27	54	40.11	31.67	8.99	33.04	100	97	A	V
		5104	55.9	-18.1	74	48.23	31.7	9.01	33.04	100	97	P	V
		5104	45.8	-8.2	54	38.13	31.7	9.01	33.04	100	97	A	V
		5434	56.44	-17.56	74	48.17	32.03	9.26	33.02	100	97	P	V
		5434	48.31	-5.69	54	40.04	32.03	9.26	33.02	100	97	A	V
		5656	58.13	-10.07	68.2	49.18	32.38	9.68	33.11	100	97	P	V
		10440	56.79	-11.41	68.2	59.2	39.61	14.99	57.01	100	67	P	V
		15660	53.81	-20.19	74	54.14	37.67	18.41	56.41	102	117	P	V
		15660	43.01	-10.99	54	43.34	37.67	18.41	56.41	102	117	A	V

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 48 5240MHz		4810	55.38	-18.62	74	48.13	31.26	9.07	33.08	210	358	P	H
		4810	45.97	-8.03	54	38.72	31.26	9.07	33.08	210	358	A	H
		5026	53.25	-20.75	74	45.71	31.63	8.95	33.04	210	358	P	H
		5026	43.33	-10.67	54	35.79	31.63	8.95	33.04	210	358	A	H
		5458	55.31	-18.69	74	46.99	32.05	9.29	33.02	210	358	P	H
		5458	47.15	-6.85	54	38.83	32.05	9.29	33.02	210	358	A	H
		5680	52.96	-15.24	68.2	43.92	32.41	9.75	33.12	210	358	P	H
		10480	57	-11.2	68.2	59.29	39.68	15.03	57	100	35	P	H
		15720	49.67	-24.33	74	50.14	37.47	18.43	56.37	100	0	P	H
		4810	58.86	-15.14	74	51.61	31.26	9.07	33.08	100	99	P	V
		4810	50.81	-3.19	54	43.56	31.26	9.07	33.08	100	99	A	V
		4918	54.75	-19.25	74	47.38	31.44	8.99	33.06	100	99	P	V
		4918	45.31	-8.69	54	37.94	31.44	8.99	33.06	100	99	A	V
		5086	56.77	-17.23	74	49.12	31.68	9.01	33.04	100	99	P	V
		5086	47.08	-6.92	54	39.43	31.68	9.01	33.04	100	99	A	V
		5458	55.77	-18.23	74	47.45	32.05	9.29	33.02	100	99	P	V
		5458	47.45	-6.55	54	39.13	32.05	9.29	33.02	100	99	A	V
		5686	56	-12.2	68.2	46.93	32.44	9.75	33.12	100	99	P	V
		10480	56.46	-11.74	68.2	58.75	39.68	15.03	57	100	66	P	V
		15720	49	-25	74	49.47	37.47	18.43	56.37	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		5148.46	55.44	-18.56	74	47.67	31.75	9.05	33.03	211	360	P	H
		5150	48.82	-5.18	54	41.05	31.75	9.05	33.03	211	360	A	H
	*	5190	103.99	-	-	96.15	31.78	9.09	33.03	211	360	P	H
	*	5190	93.31	-	-	85.47	31.78	9.09	33.03	211	360	A	H
		5458.6	48.24	-25.76	74	39.92	32.05	9.29	33.02	211	360	P	H
		5432	40.36	-13.64	54	32.09	32.03	9.26	33.02	211	360	A	H
		5149.24	57.89	-16.11	74	50.12	31.75	9.05	33.03	100	94	P	V
		5148.98	52.02	-1.98	54	44.25	31.75	9.05	33.03	100	94	A	V
	*	5190	104.31	-	-	96.47	31.78	9.09	33.03	100	94	P	V
	*	5190	96.62	-	-	88.78	31.78	9.09	33.03	100	94	A	V
		5380.76	47.98	-26.02	74	39.82	31.98	9.2	33.02	100	94	P	V
		5447.4	40.44	-13.56	54	32.12	32.05	9.29	33.02	100	94	A	V
802.11n HT40 CH 46 5230MHz		5145.6	55.25	-18.75	74	47.48	31.75	9.05	33.03	207	356	P	H
		5150	49.41	-4.59	54	41.64	31.75	9.05	33.03	207	356	A	H
	*	5230	108.44	-	-	100.53	31.83	9.11	33.03	207	356	P	H
	*	5230	100.99	-	-	93.08	31.83	9.11	33.03	207	356	A	H
		5412.68	49.44	-24.56	74	41.22	32.02	9.22	33.02	207	356	P	H
		5355.28	42.43	-11.57	54	34.32	31.95	9.19	33.03	207	356	A	H
		5149.5	58.61	-15.39	74	50.84	31.75	9.05	33.03	100	97	P	V
		5148.72	52.7	-1.3	54	44.93	31.75	9.05	33.03	100	97	A	V
	*	5230	111.29	-	-	103.38	31.83	9.11	33.03	100	97	P	V
	*	5230	104.06	-	-	96.15	31.83	9.11	33.03	100	97	A	V
		5377.4	49.26	-24.74	74	41.11	31.97	9.2	33.02	100	97	P	V
		5393.64	42.63	-11.37	54	34.45	31.98	9.22	33.02	100	97	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		10380	46.34	-21.86	68.2	48.87	39.54	14.95	57.02	100	0	P	H
		15570	44.24	-29.76	74	44.43	37.91	18.36	56.46	100	0	P	H
		10380	46.06	-22.14	68.2	48.59	39.54	14.95	57.02	100	0	P	V
		15570	43.84	-30.16	74	44.03	37.91	18.36	56.46	100	0	P	V
802.11n HT40 CH 46 5230MHz		10460	49.86	-18.34	68.2	52.24	39.63	15	57.01	100	0	P	H
		15690	44.84	-29.16	74	45.25	37.57	18.41	56.39	100	0	P	H
		10460	53.88	-14.32	68.2	56.26	39.63	15	57.01	266	312	P	V
		15690	44.64	-29.36	74	45.05	37.57	18.41	56.39	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5146.9	54.73	-19.27	74	46.96	31.75	9.05	33.03	196	356	P	H
		5147.68	47.36	-6.64	54	39.59	31.75	9.05	33.03	196	356	A	H
	*	5210	95.99	-	-	88.11	31.82	9.09	33.03	196	356	P	H
	*	5210	88.77	-	-	80.89	31.82	9.09	33.03	196	356	A	H
		5457.4	49.47	-24.53	74	41.15	32.05	9.29	33.02	196	356	P	H
		5435.04	41.74	-12.26	54	33.47	32.03	9.26	33.02	196	356	A	H
		5134.94	57.09	-16.91	74	49.34	31.73	9.05	33.03	100	98	P	V
		5148.72	52.17	-1.83	54	44.4	31.75	9.05	33.03	100	98	A	V
	*	5210	99.02	-	-	91.14	31.82	9.09	33.03	100	98	P	V
	*	5210	93.28	-	-	85.4	31.82	9.09	33.03	100	98	A	V
		5362.24	47.42	-26.58	74	39.29	31.97	9.19	33.03	100	98	P	V
		5350.54	41.94	-12.06	54	33.83	31.95	9.19	33.03	100	98	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		10420	46.6	-21.6	68.2	49.06	39.58	14.98	57.02	100	0	P	H
		15630	45.18	-28.82	74	45.5	37.71	18.39	56.42	100	0	P	H
		10420	46.08	-22.12	68.2	48.54	39.58	14.98	57.02	100	0	P	V
		15630	44.86	-29.14	74	45.18	37.71	18.39	56.42	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

WIFI 802.11n HT40 (LF @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 LF		47.55	23.64	-16.36	40	39.8	15.31	1.02	32.49	-	-	P	H
		101.55	30.48	-13.02	43.5	45.57	15.98	1.41	32.48	-	-	P	H
		214.95	27.66	-15.84	43.5	43.23	15.04	1.78	32.39	-	-	P	H
		408.5	27.5	-18.5	46	35.1	22.04	2.69	32.33	-	-	P	H
		708.8	28.55	-17.45	46	30.9	26.61	3.48	32.44	-	-	P	H
		957.3	33.64	-12.36	46	29.74	30.97	4.07	31.14	100	0	P	H
		40.8	30.87	-9.13	40	43.85	18.68	0.83	32.49	-	-	P	V
		47.01	36.07	-3.93	40	52.23	15.31	1.02	32.49	100	280	P	V
		55.92	31.31	-8.69	40	50.67	12.1	1.03	32.49	-	-	P	V
		432.3	25.97	-20.03	46	32.96	22.68	2.68	32.35	-	-	P	V
		727	28.5	-17.5	46	30.17	27.19	3.53	32.39	-	-	P	V
		953.8	34.52	-11.48	46	30.85	30.76	4.07	31.16	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

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

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

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

1. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dBμV/m) = Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
3. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

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

= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

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

= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)

= 43.54 (dBμV/m)

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

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

Both peak and average measured complies with the limit line, so test result is "PASS".

Appendix D. Radiated Spurious Emission Plots

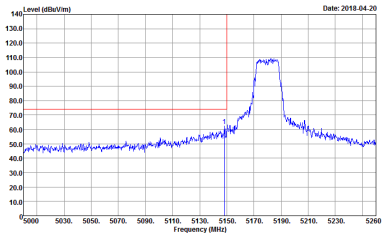
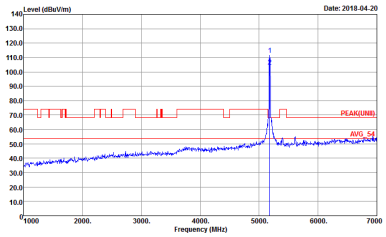
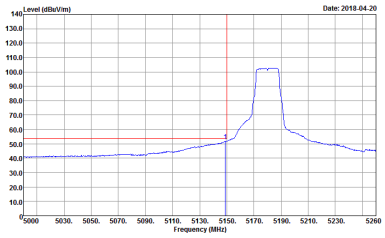
Test Engineer :	Hao Hsu, Chuan Zhu, and Ken Wu	**Temperature :**	22~25°C
		Relative Humidity :	52~57%

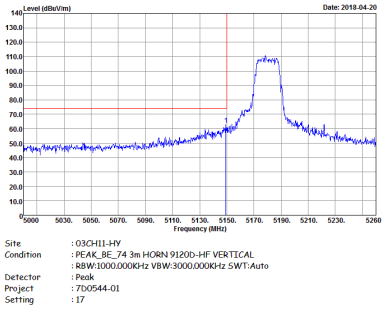
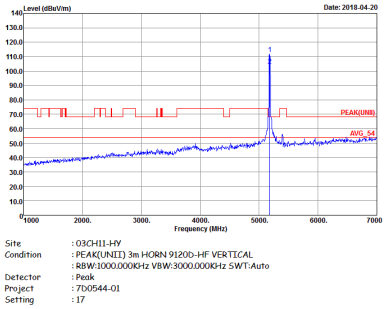
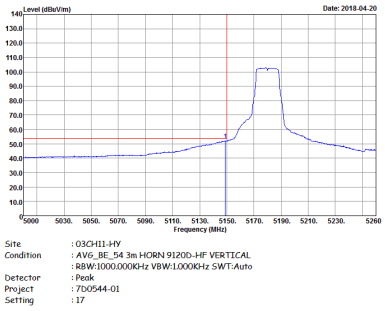
Note symbol

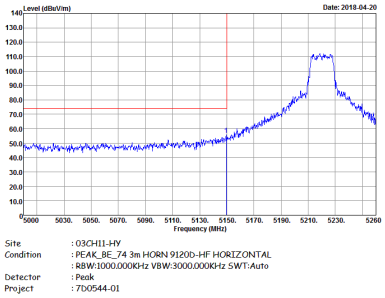
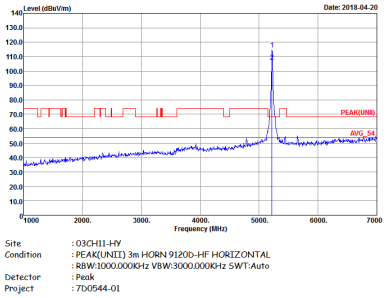
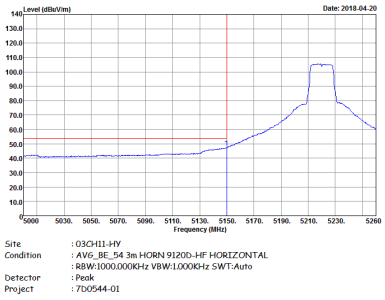
-L	**Low channel location**
-R	**High channel location**

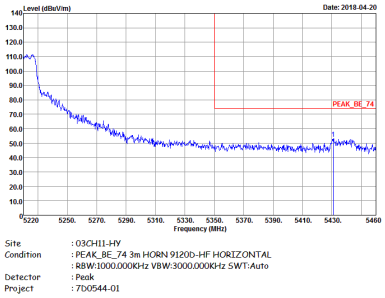
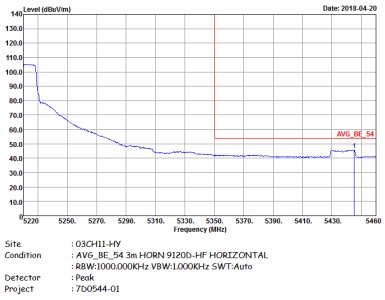
Band 1 - 5150~5250MHz

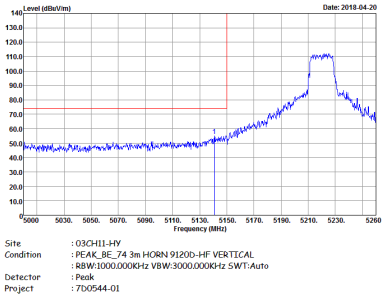
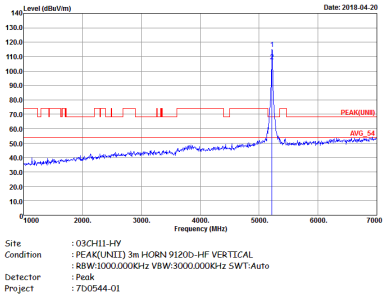
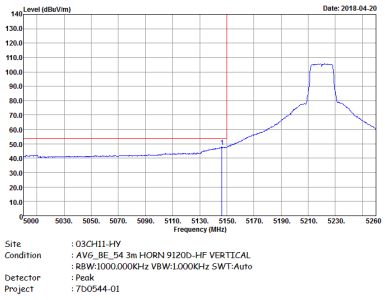
WIFI 802.11a (Band Edge @ 3m)

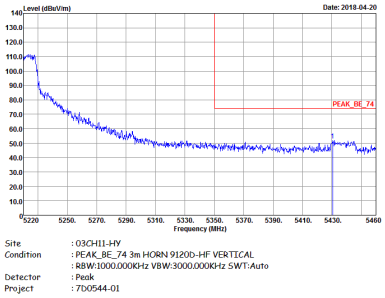
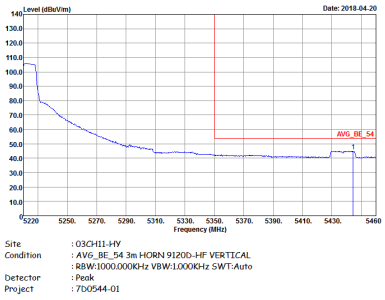
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 17	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 17
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 17	Left blank

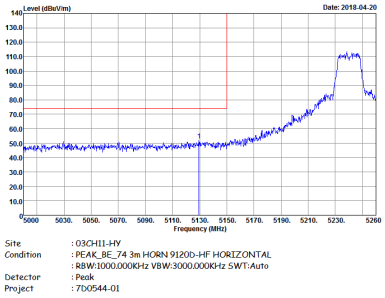
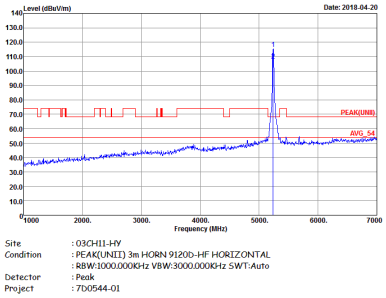
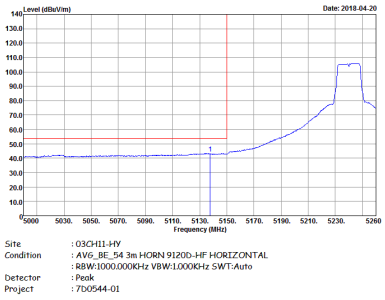
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

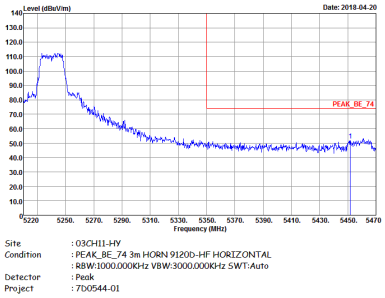
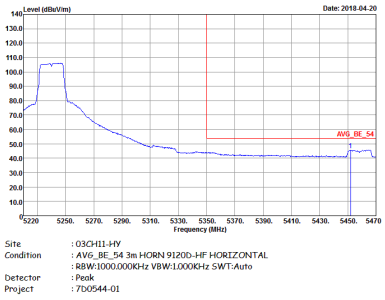
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

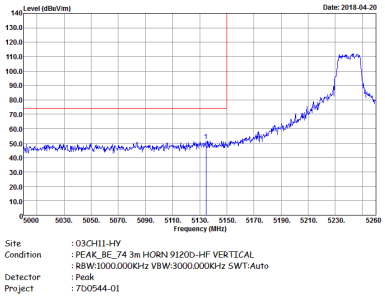
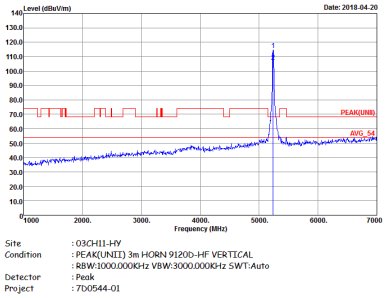
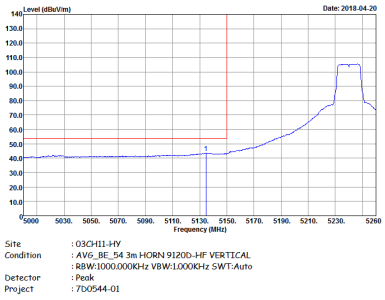
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

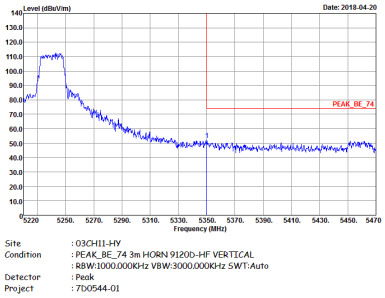
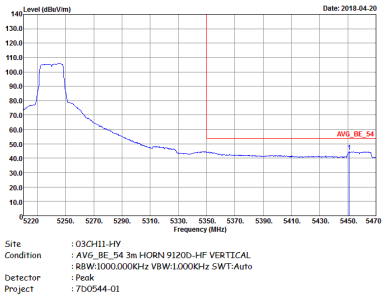
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

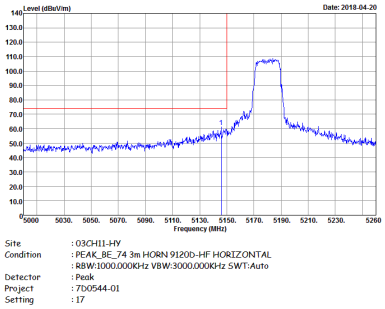
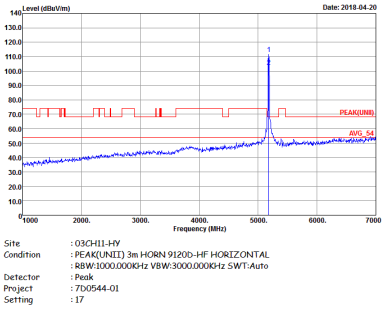
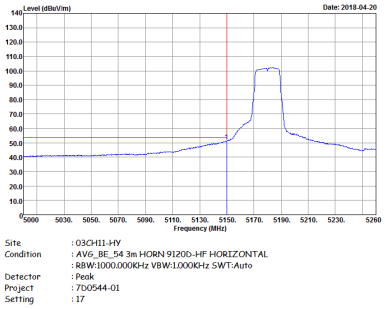
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

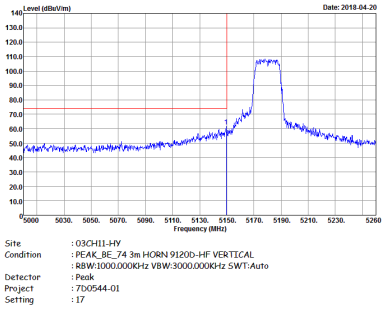
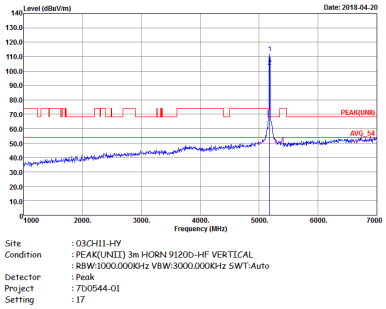
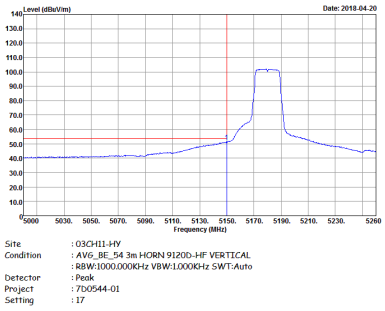
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

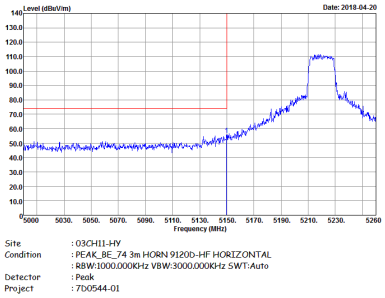
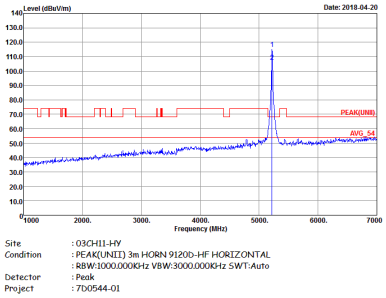
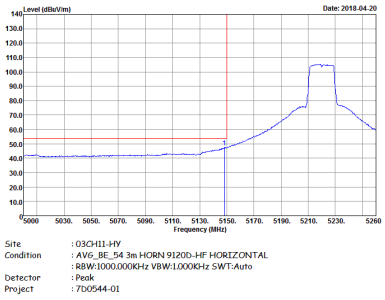
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

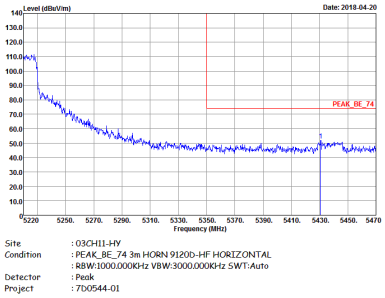
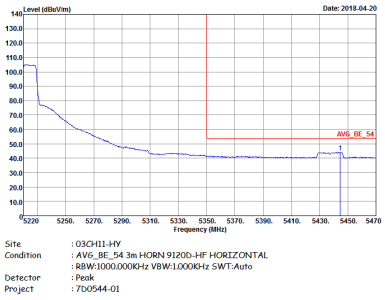
Band 1 5150~5250MHz

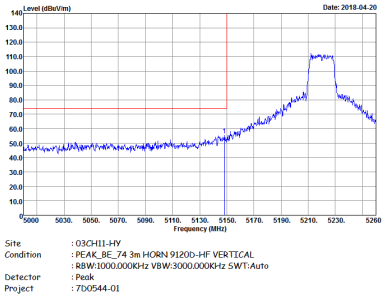
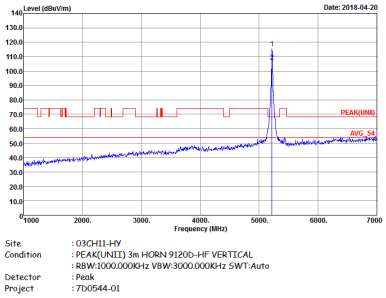
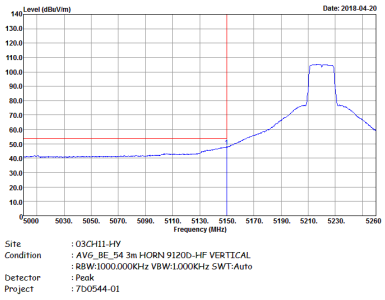
WIFI 802.11n HT20 (Band Edge @ 3m)

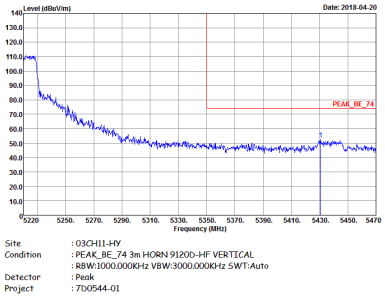
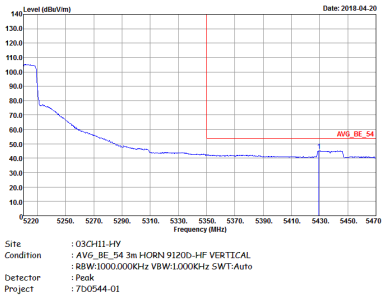
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

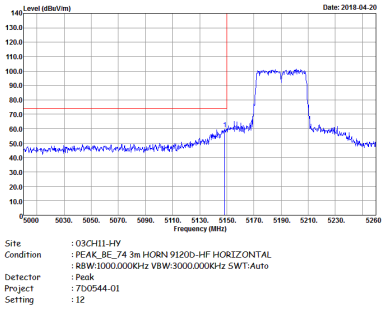
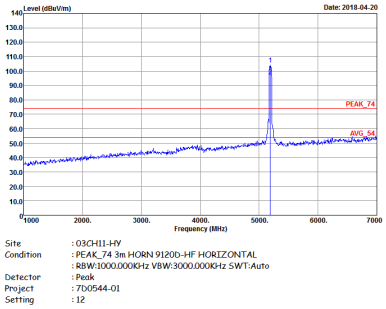
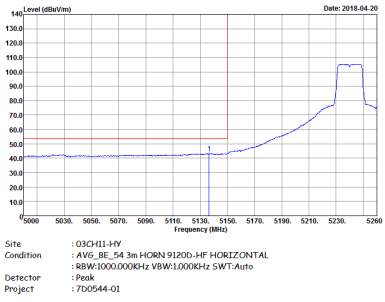
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

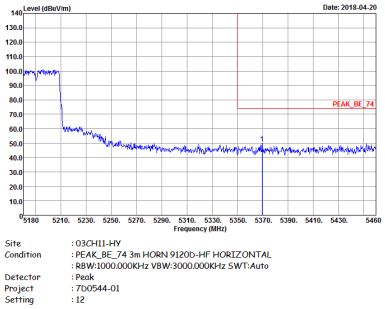
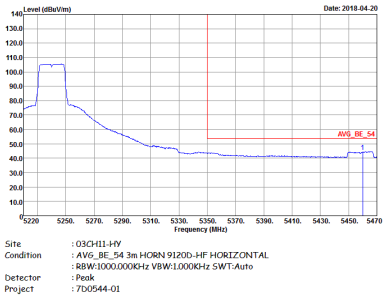
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

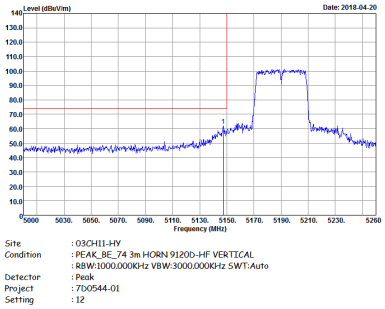
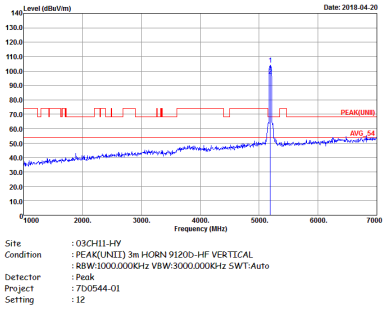
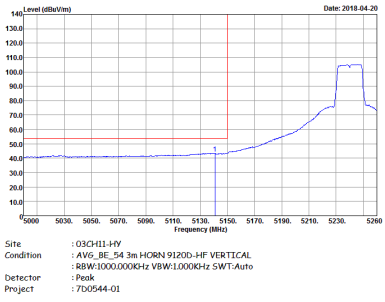
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

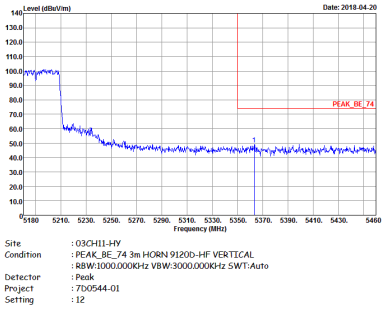
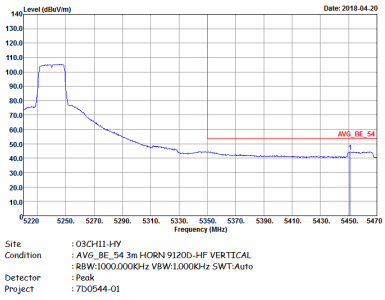
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

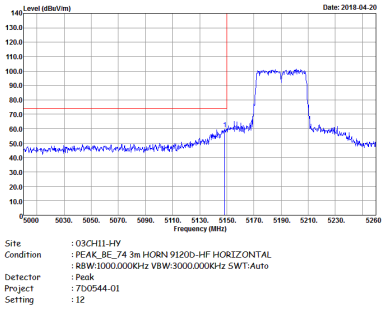
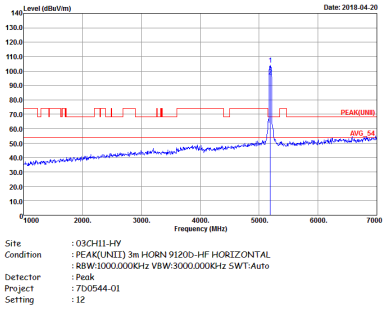
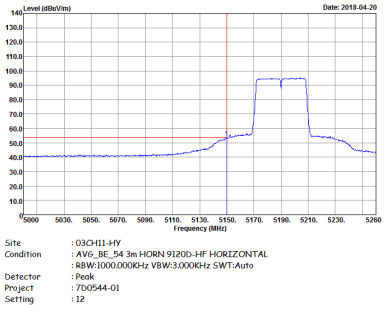
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

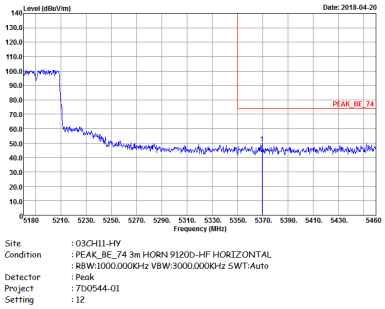
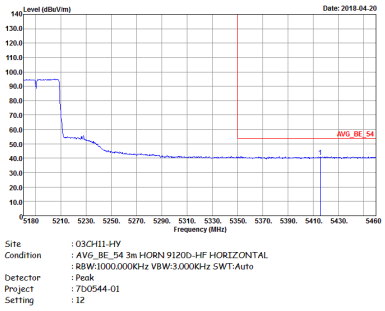
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

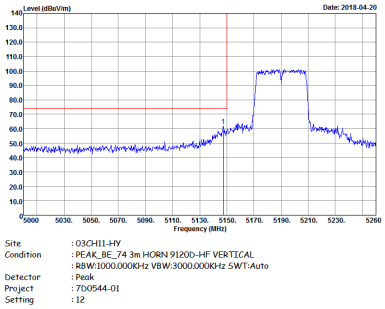
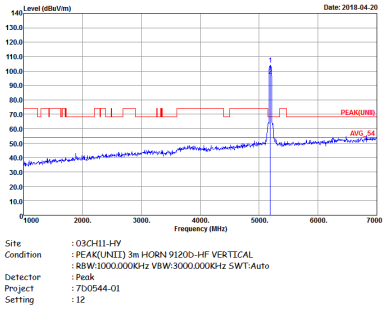
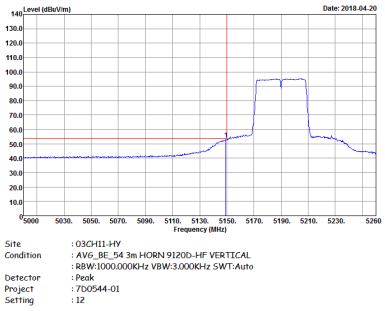
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

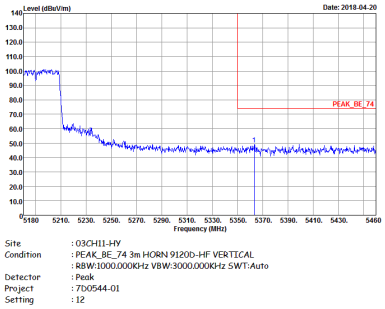
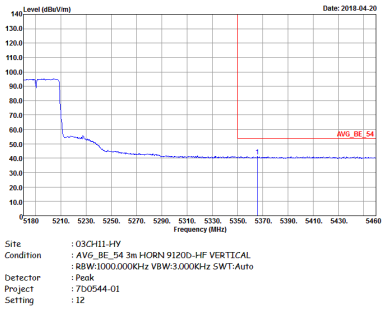
Band 1 5150~5250MHz

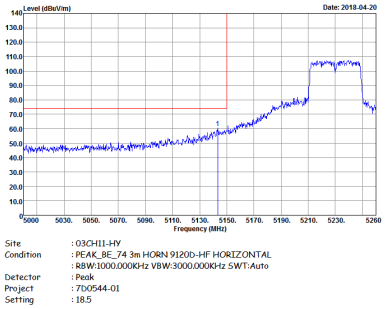
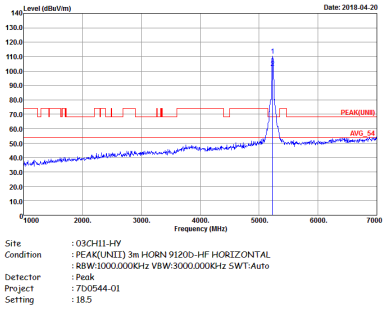
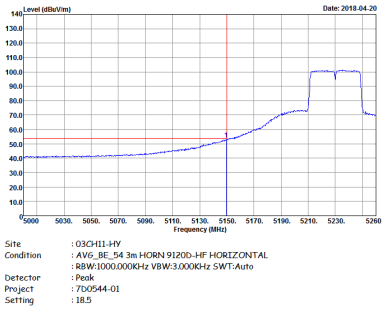
WIFI 802.11n HT40 (Band Edge @ 3m)

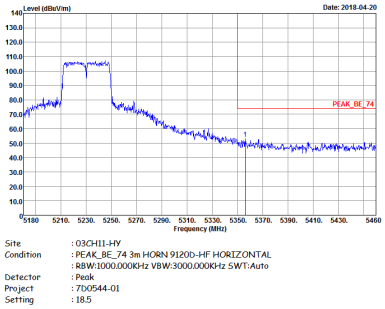
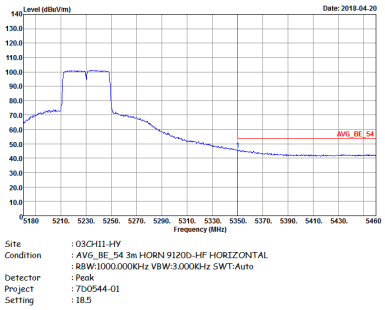
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

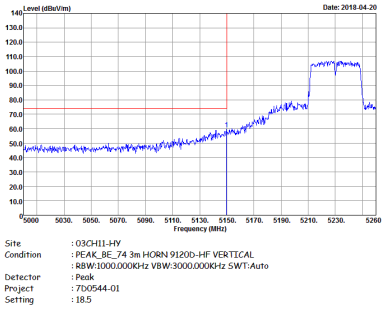
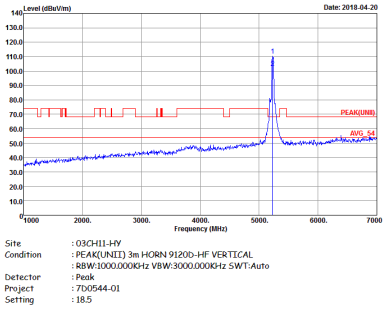
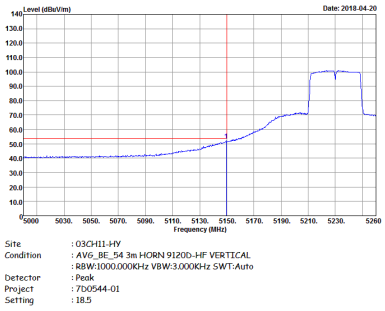
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

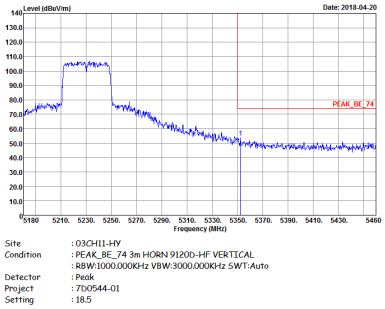
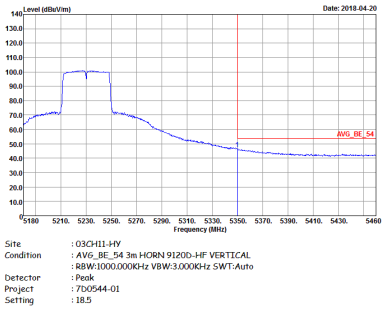
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

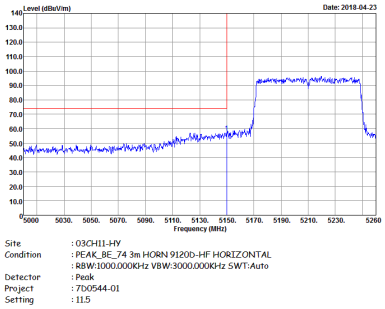
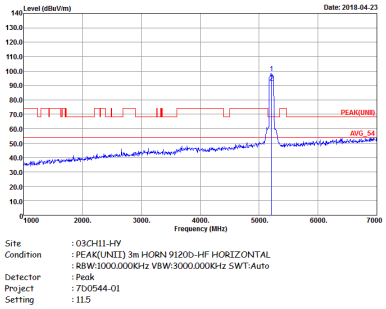
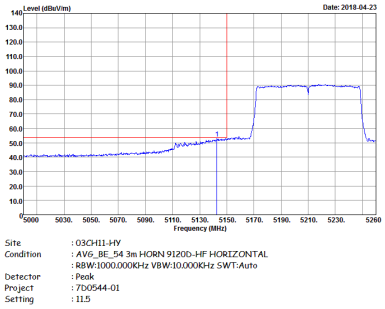
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

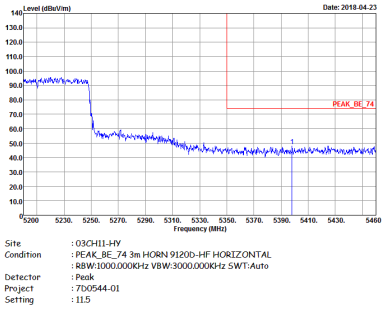
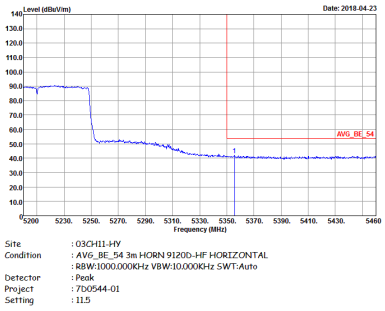
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

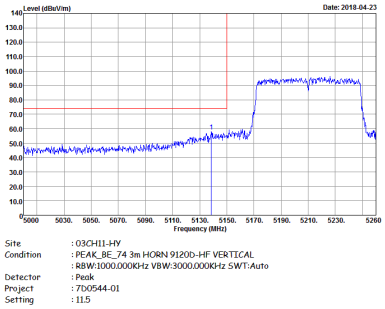
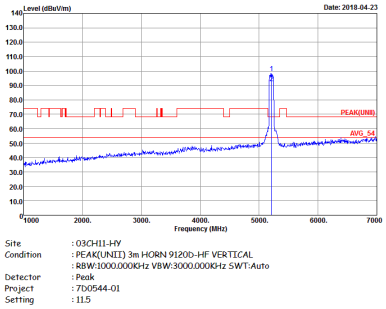
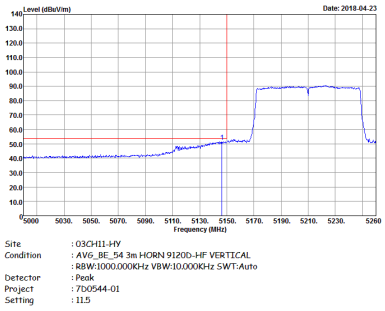
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

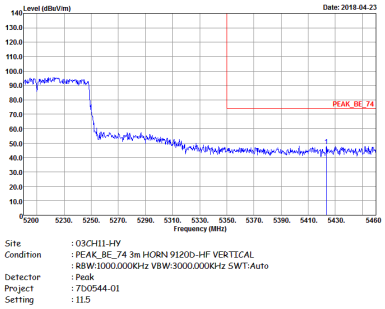
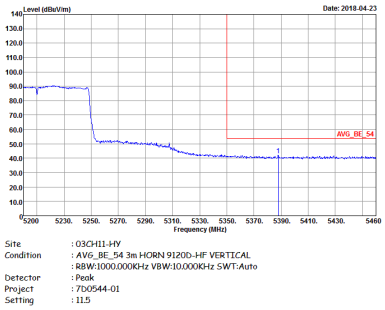
Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

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

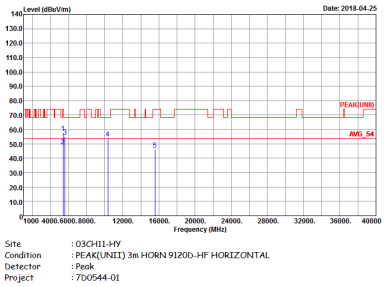
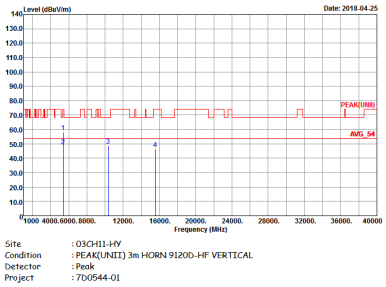
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

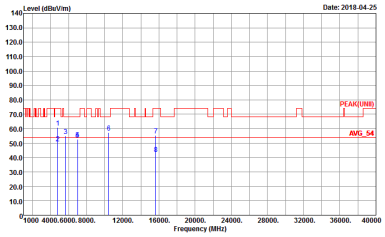
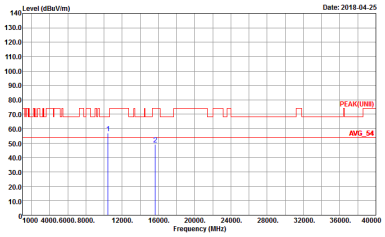
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

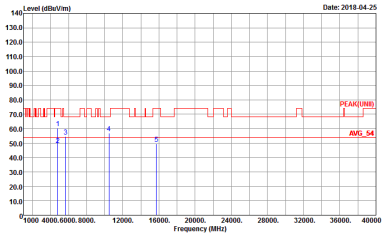
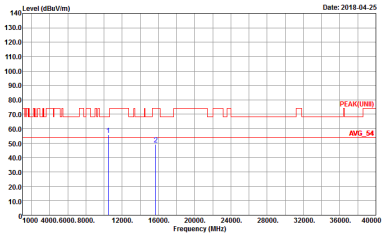
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 1 - 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

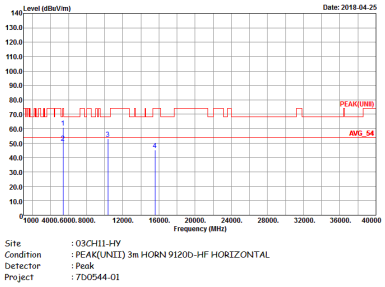
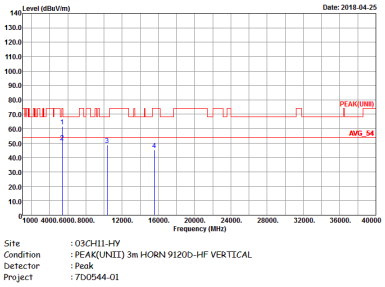
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH36 5180MHz	
1	Horizontal	Vertical
Peak Avg.	 	

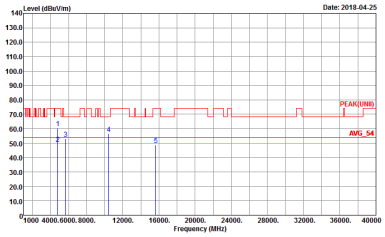
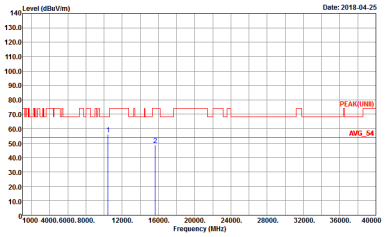
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH44 5220MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 7D0544-01	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 7D0544-01

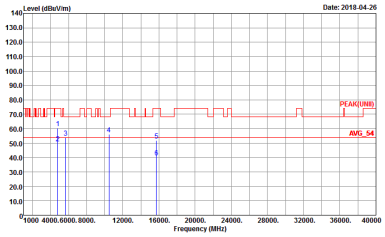
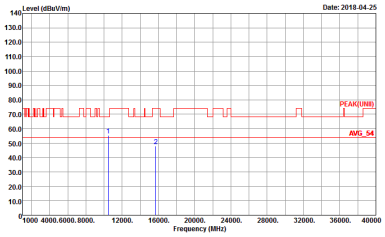
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH48 5240MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 7D0544-01	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 7D0544-01

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

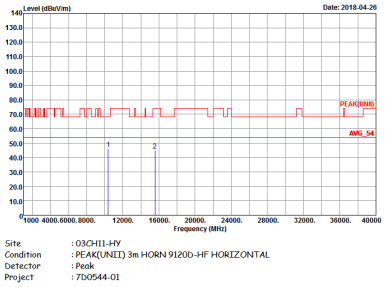
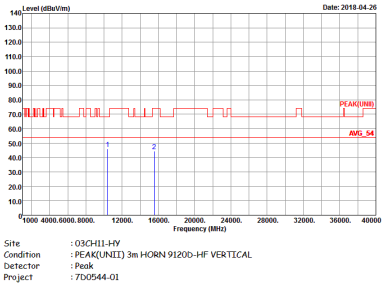
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1	Horizontal	Vertical
Peak Avg.		

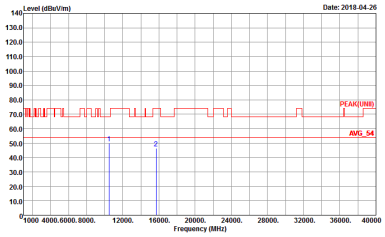
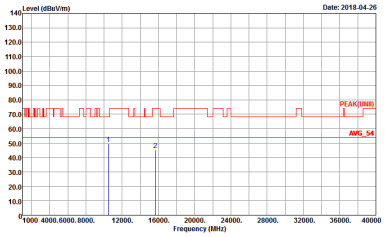
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH44 5220MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 7D0544-01	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 7D0544-01

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH48 5240MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 7D0544-01	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 7D0544-01

Band 1 5150~5250MHz

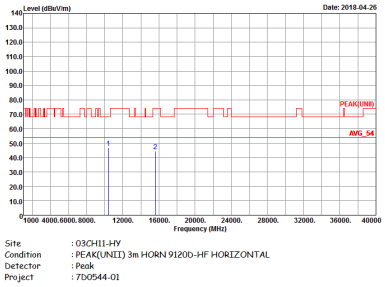
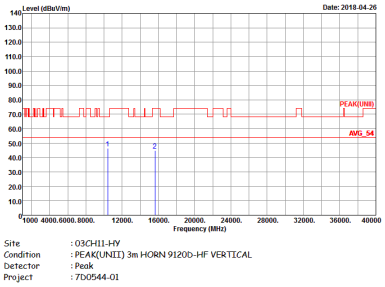
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT40 CH38 5190MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT40 CH46 5230MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 7D0544-01	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 7D0544-01

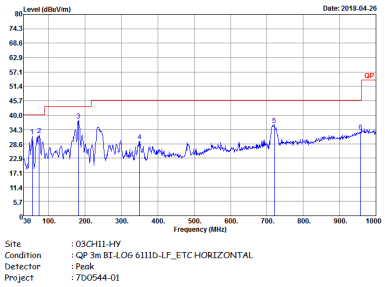
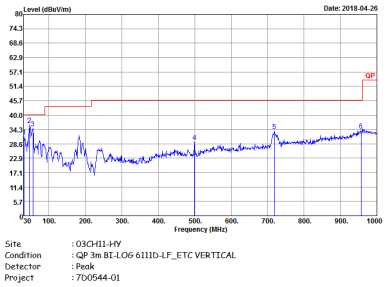
Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz	
1	Horizontal	Vertical
Peak Avg.		

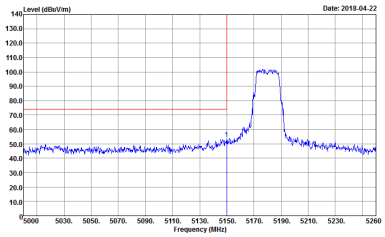
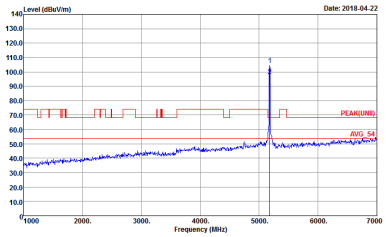
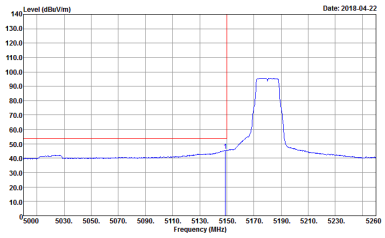
Emission below 1GHz

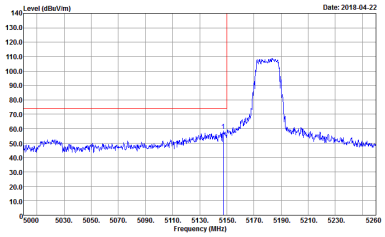
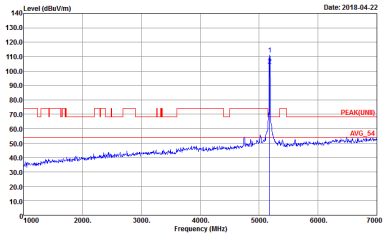
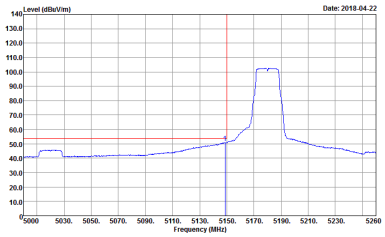
5GHz WIFI 802.11n HT40 (LF)

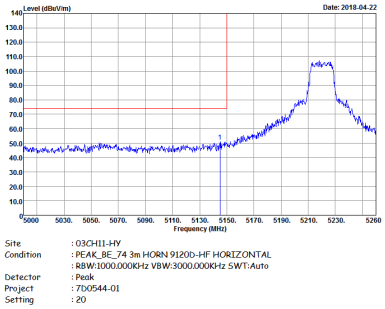
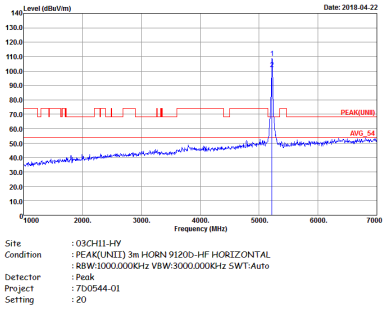
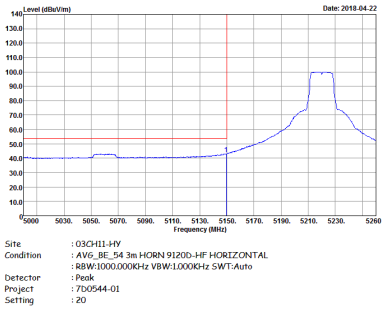
WIFI	5GHz WIFI	
ANT	802.11n HT40 LF	
1	Horizontal	Vertical
QP / Peak		

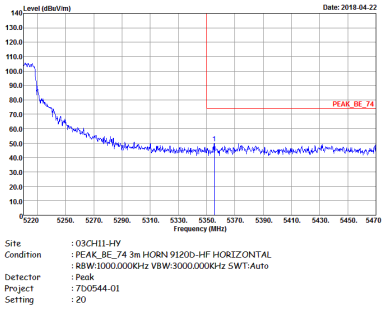
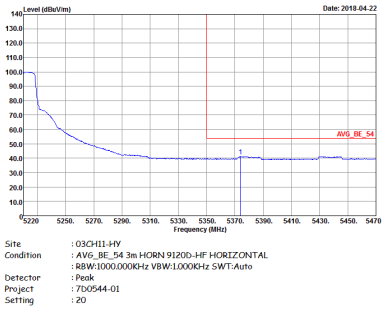
Band 1 - 5150~5250MHz

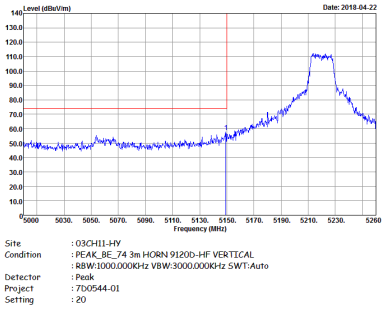
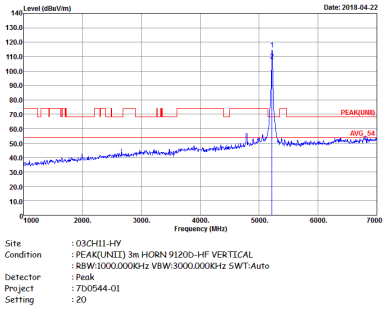
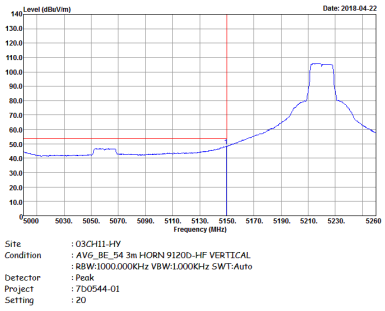
WIFI 802.11a (Band Edge @ 3m)

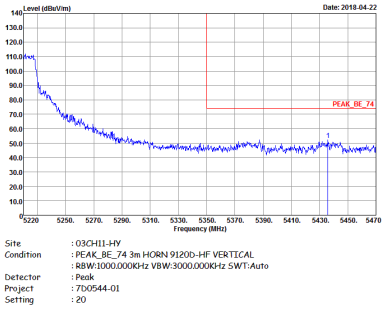
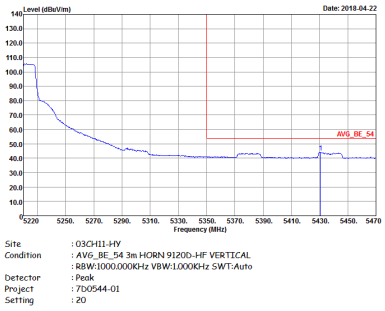
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
2	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 16	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 16
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 16	Left blank

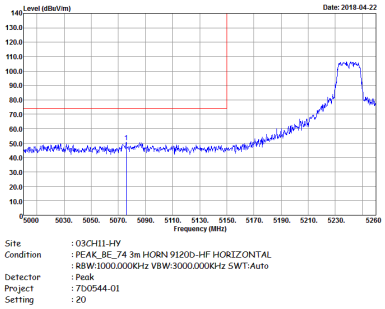
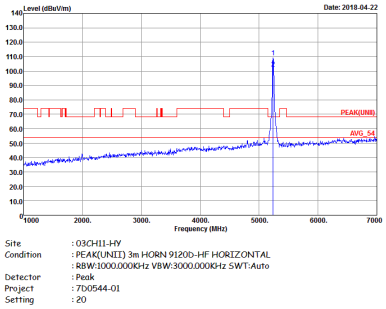
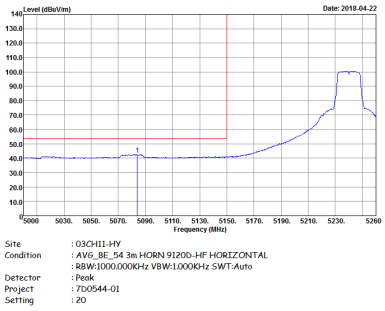
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 16	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 16
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 16	Left blank

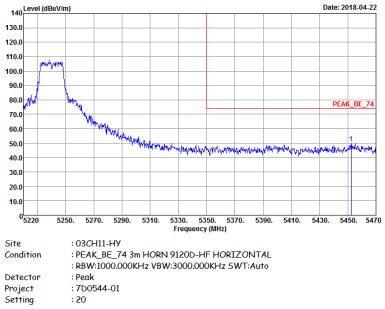
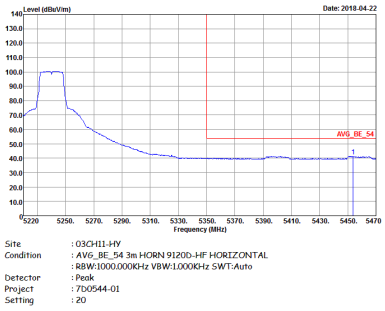
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
2	Horizontal	Fundamental
Peak		
Avg.		Left blank

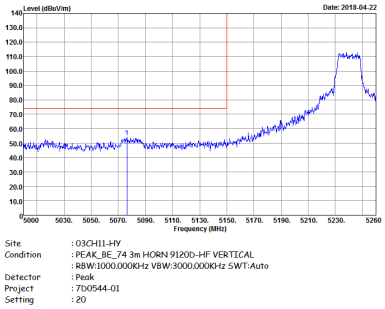
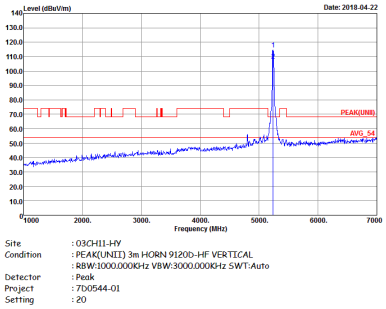
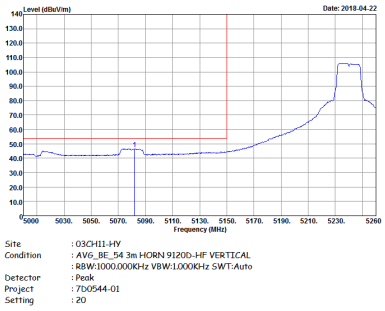
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

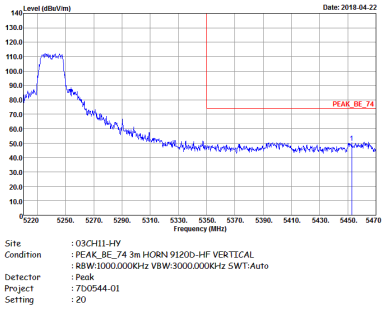
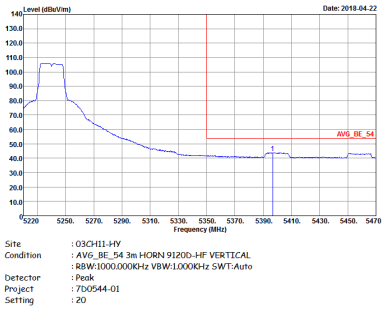
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

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

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

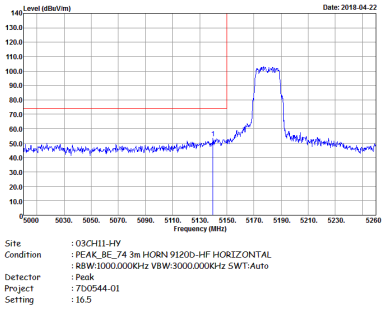
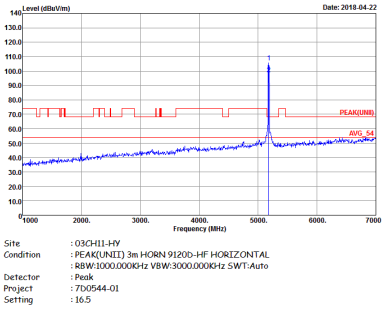
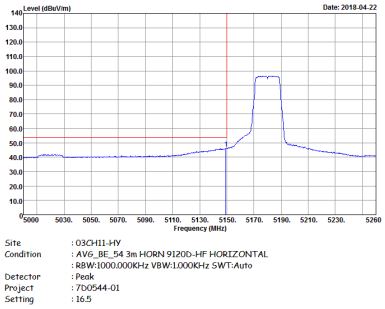
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

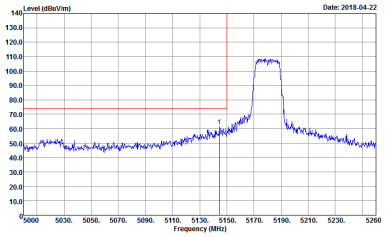
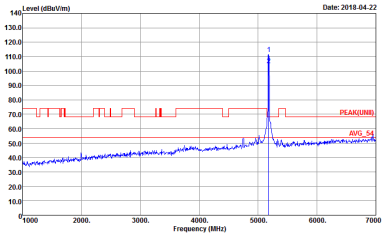
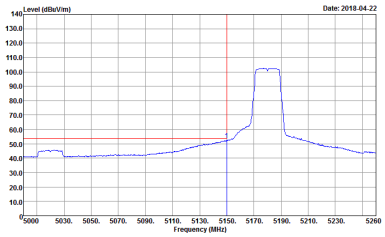
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

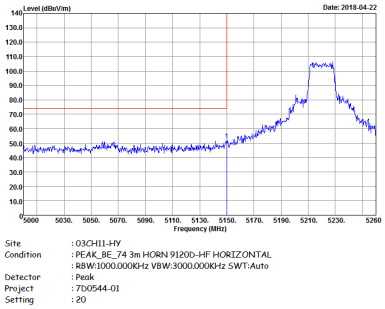
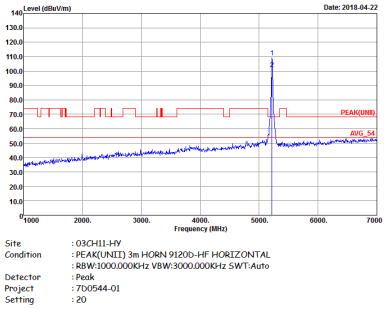
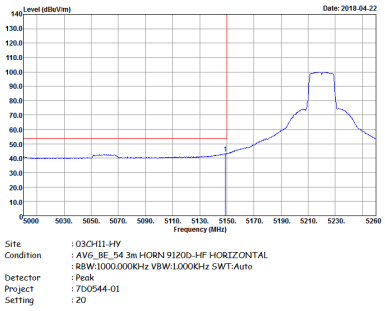
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

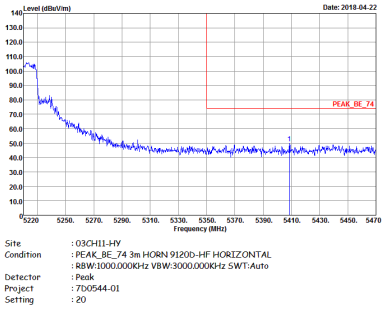
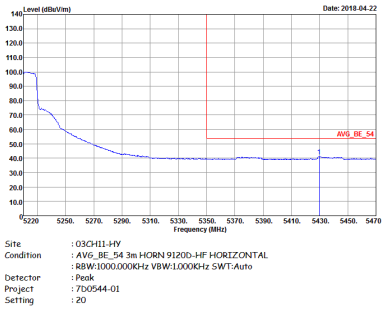
Band 1 5150~5250MHz

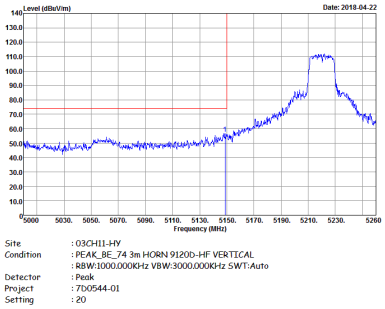
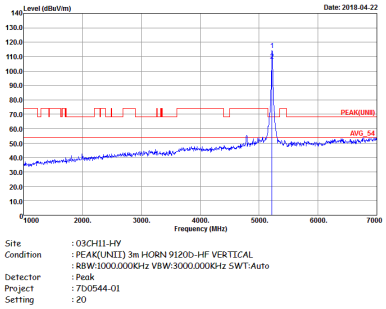
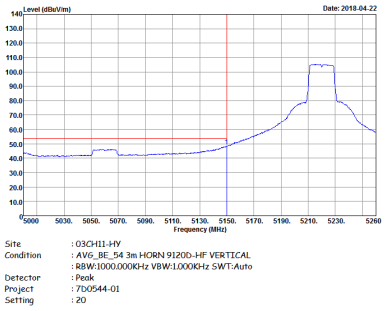
WIFI 802.11n HT20 (Band Edge @ 3m)

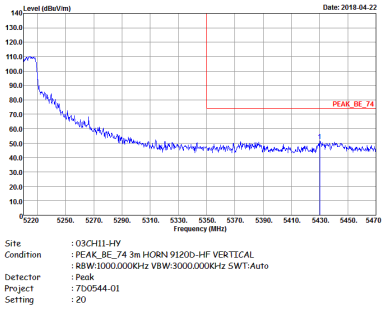
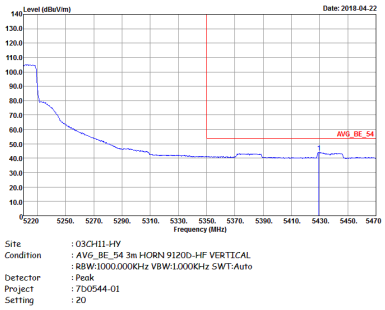
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
2	Horizontal	Fundamental
Peak		
Avg.		Left blank

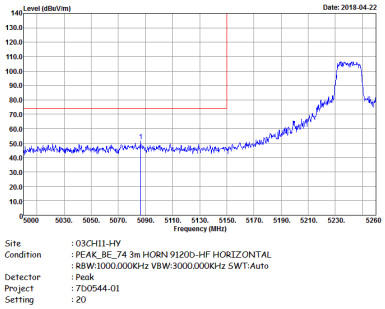
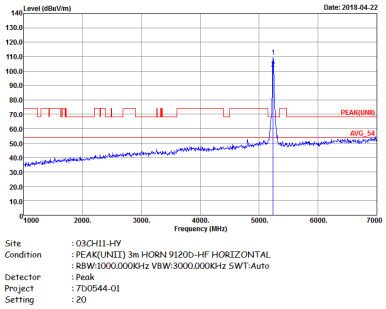
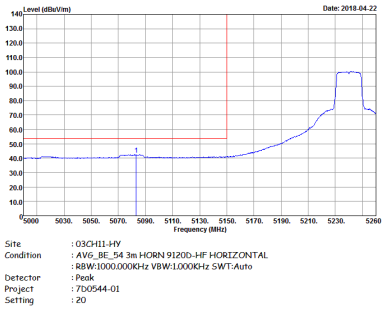
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 16.5	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 16.5
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 16.5	Left blank

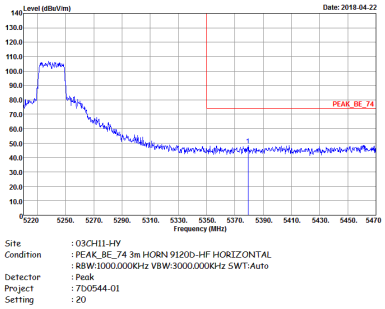
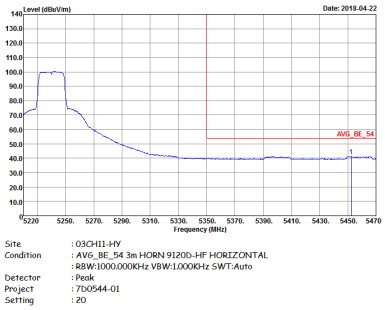
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
2	Horizontal	Fundamental
Peak		
Avg.		Left blank

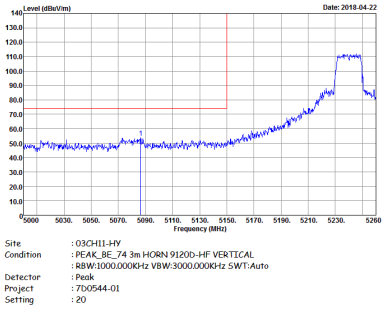
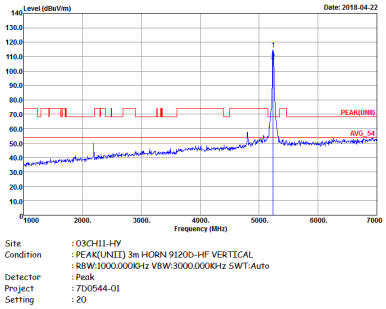
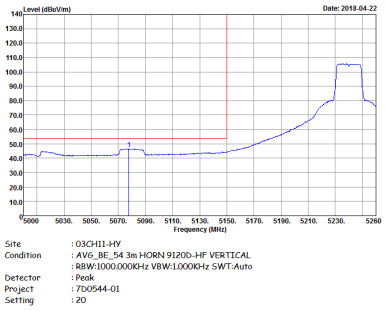
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

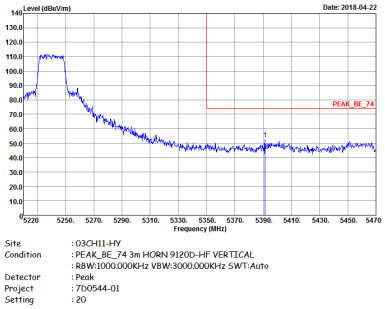
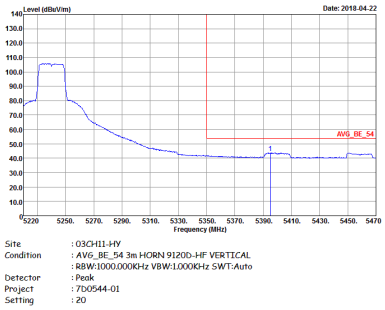
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

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

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

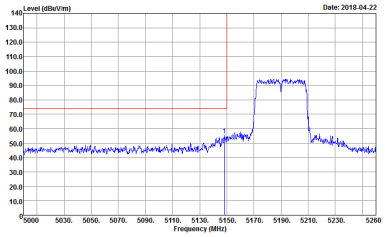
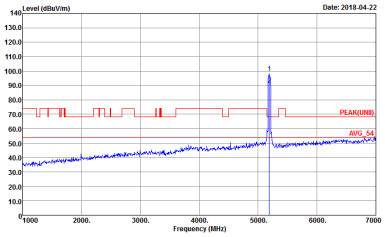
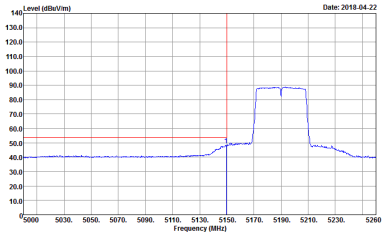
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

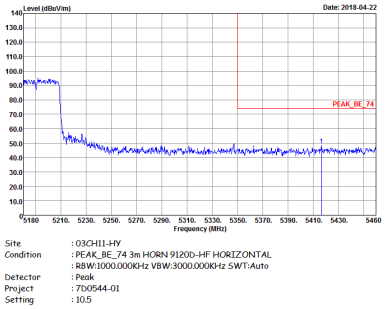
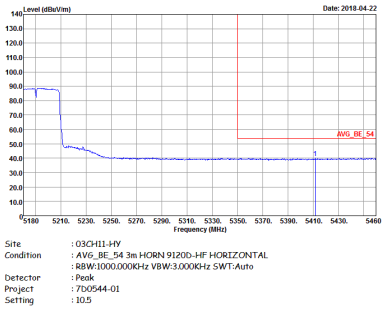
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

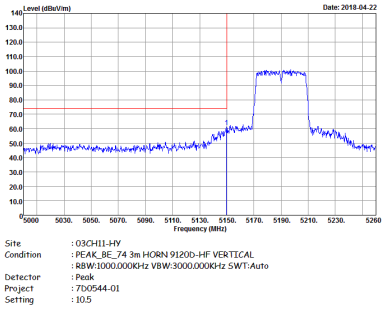
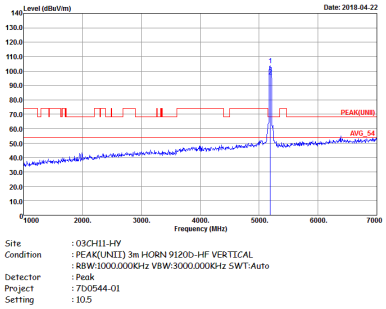
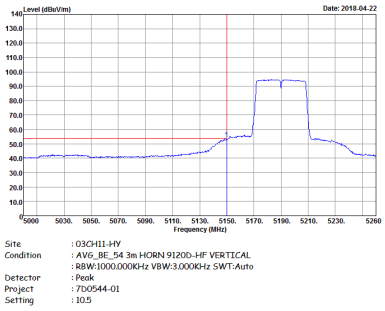
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

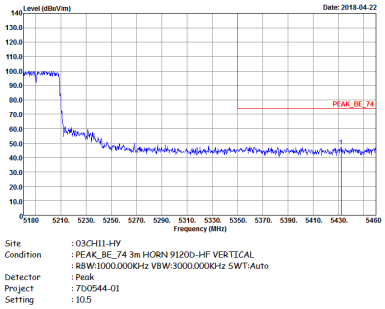
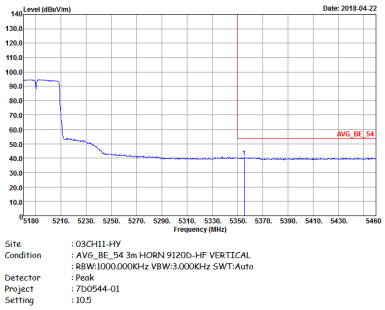
Band 1 5150~5250MHz

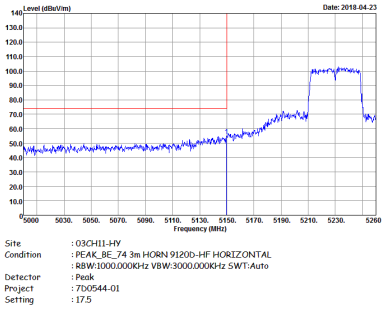
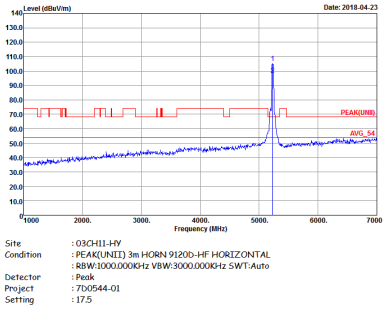
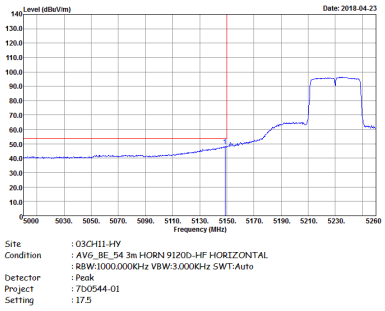
WIFI 802.11n HT40 (Band Edge @ 3m)

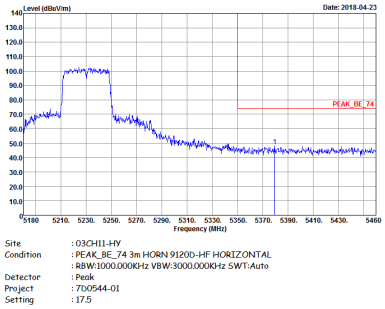
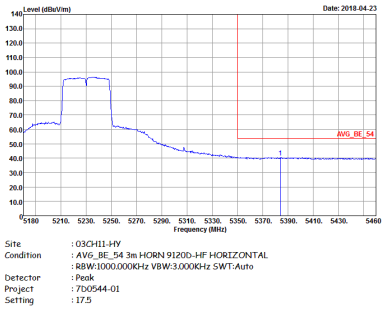
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
2	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 10.5	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 10.5
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 10.5	Left blank

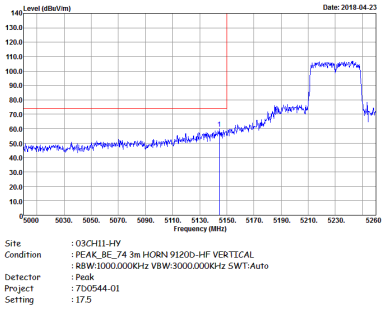
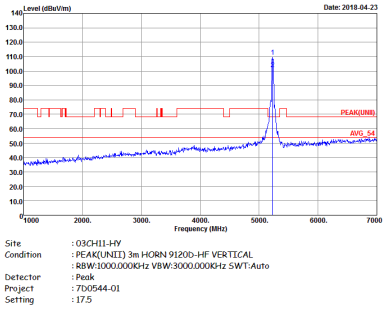
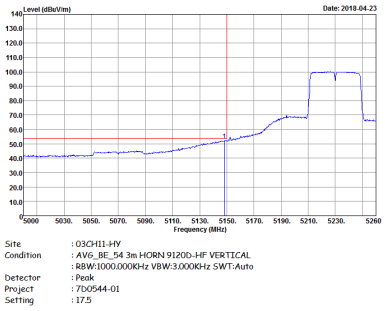
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

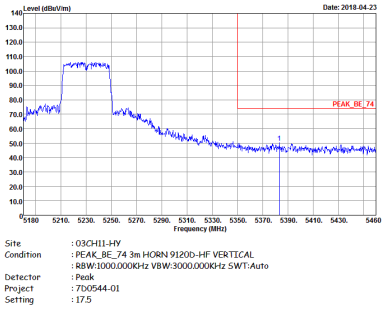
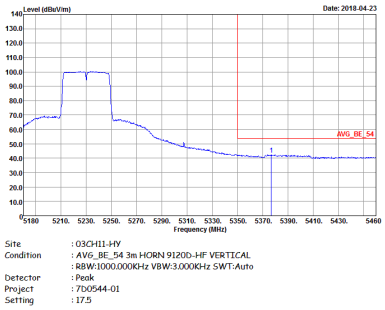
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

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

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

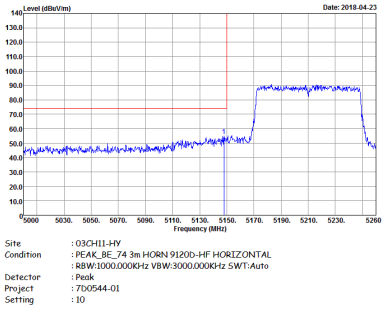
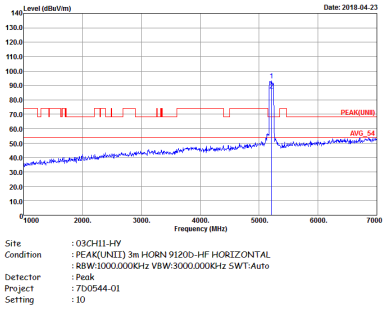
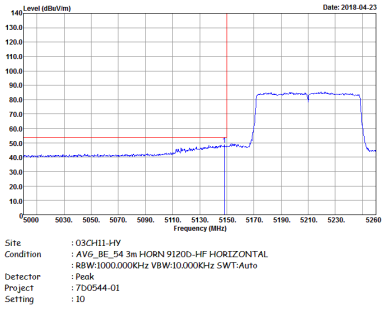
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

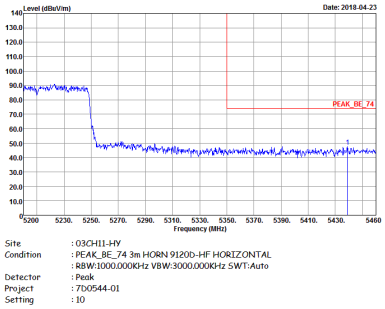
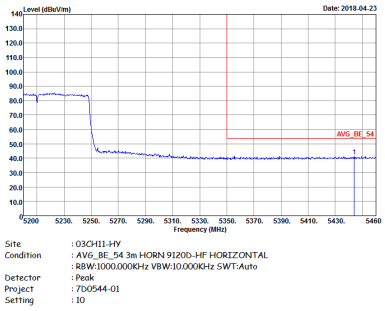
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

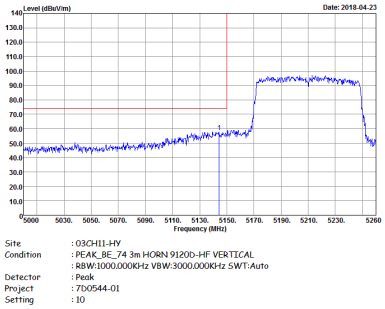
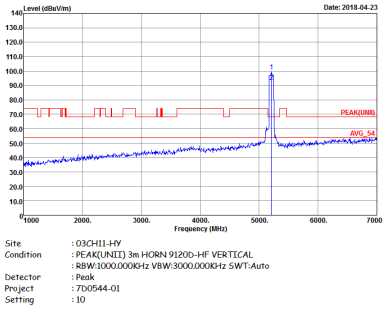
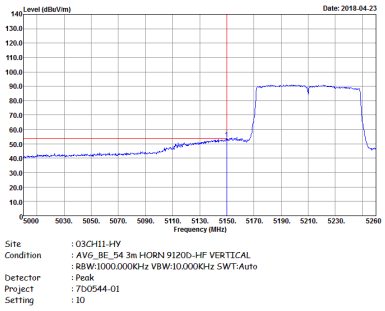
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

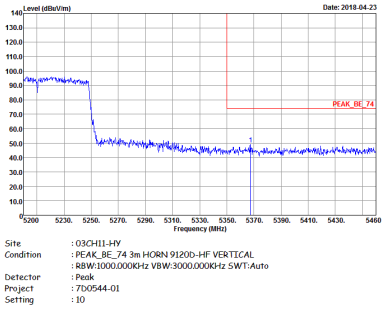
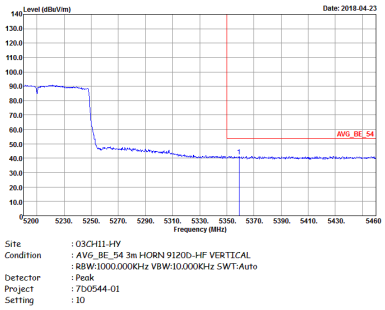
Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

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

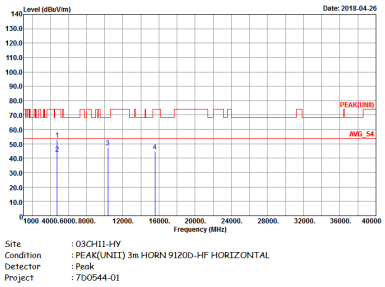
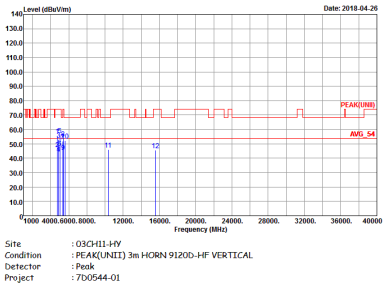
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

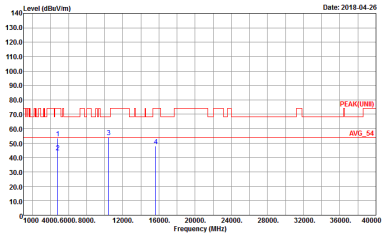
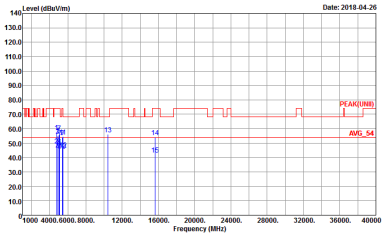
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

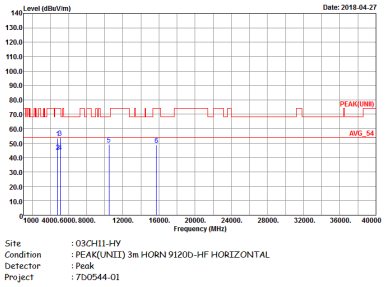
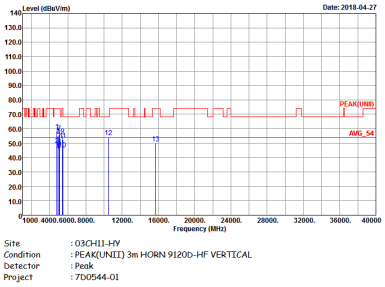
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 1 - 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

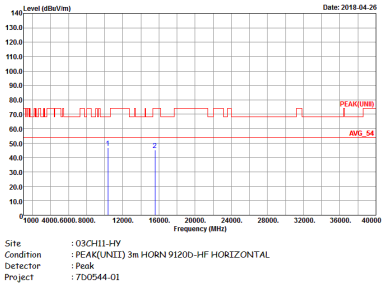
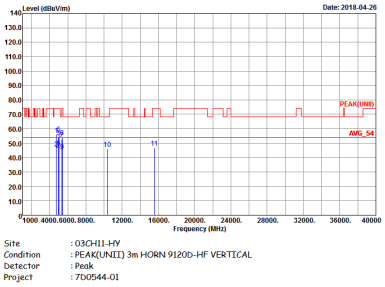
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH36 5180MHz	
2	Horizontal	Vertical
Peak Avg.	 	

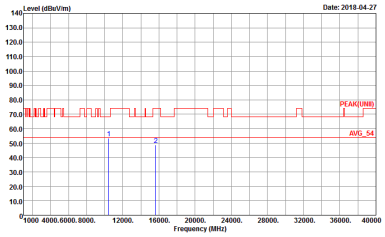
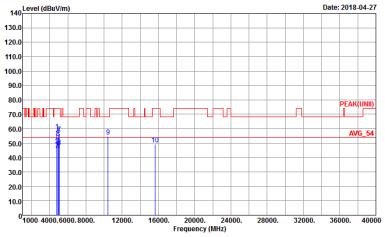
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH44 5220MHz	
2	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 7D0544-01	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 7D0544-01

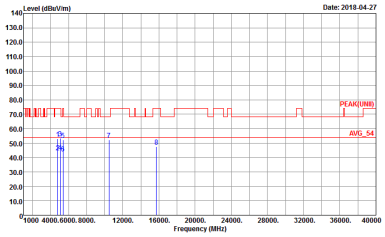
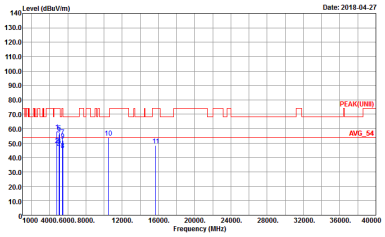
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH48 5240MHz	
2	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 7D0544-01	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 7D0544-01

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

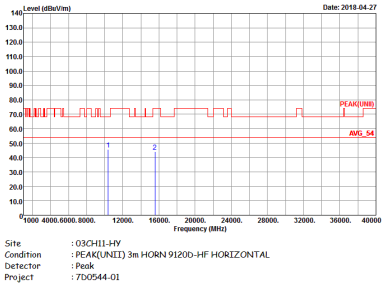
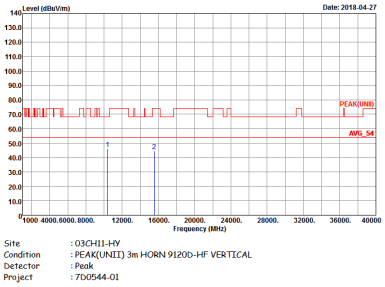
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
2	Horizontal	Vertical
Peak Avg.		

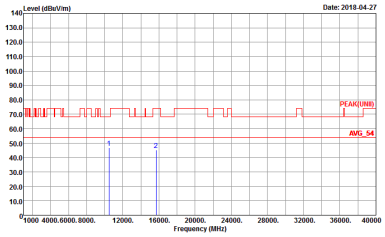
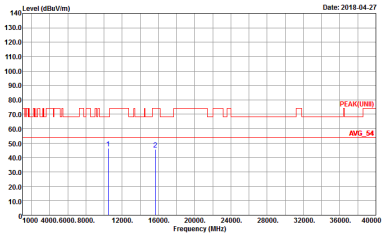
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH44 5220MHz	
2	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 7D0544-01	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 7D0544-01

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH48 5240MHz	
2	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 7D0544-01	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 7D0544-01

Band 1 5150~5250MHz

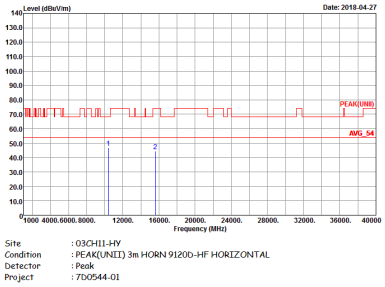
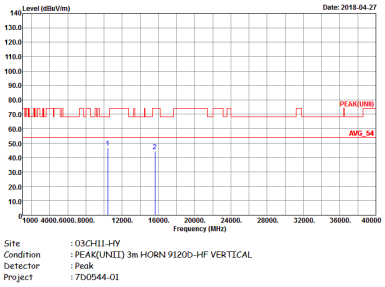
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT40 CH38 5190MHz	
2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT40 CH46 5230MHz	
2	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 7D0544-01	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 7D0544-01

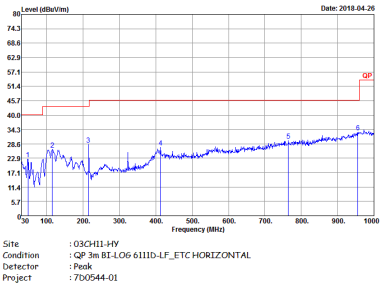
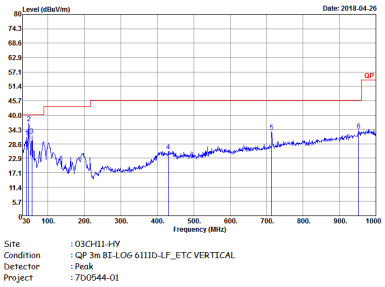
Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz	
2	Horizontal	Vertical
Peak Avg.		

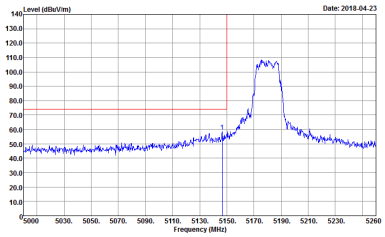
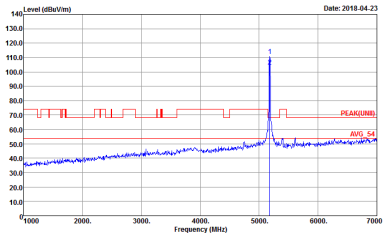
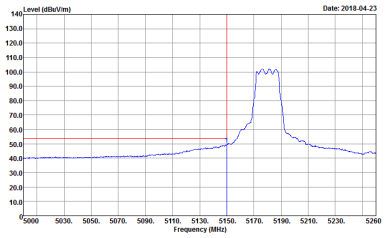
Emission below 1GHz

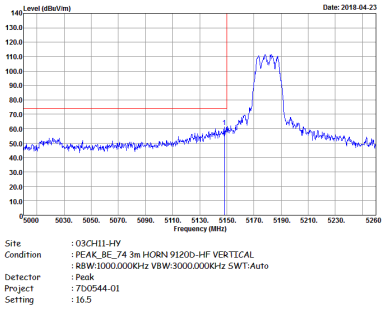
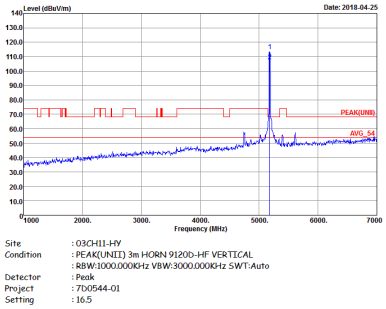
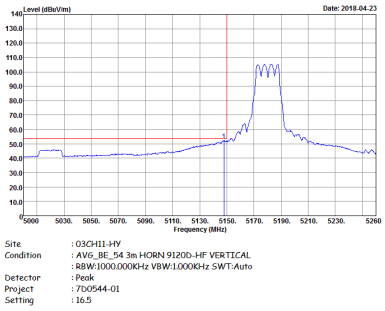
5GHz WIFI 802.11n HT40 (LF)

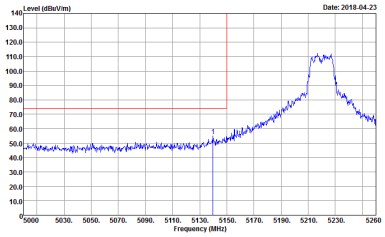
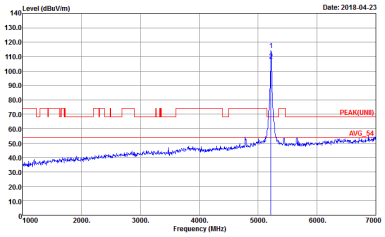
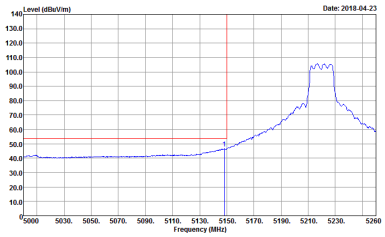
WIFI	5GHz WIFI	
ANT	802.11n HT40 LF	
2	Horizontal	Vertical
QP / Peak		

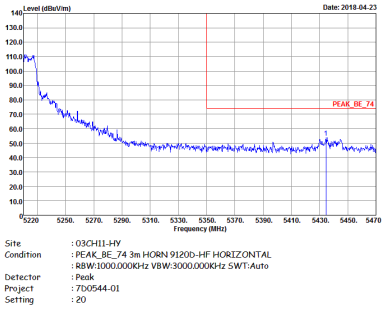
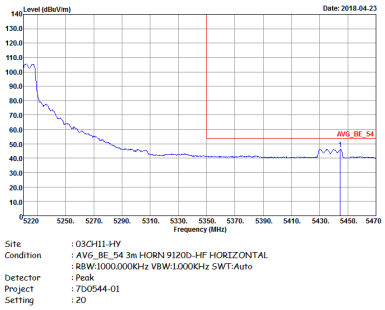
Band 1 - 5150~5250MHz

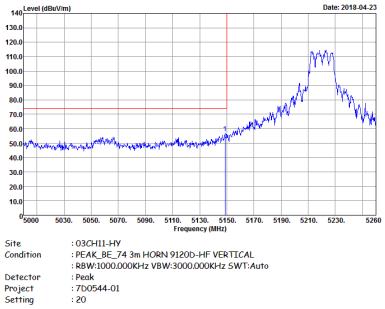
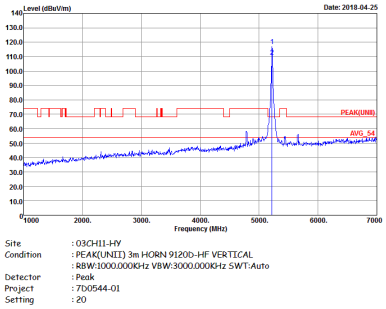
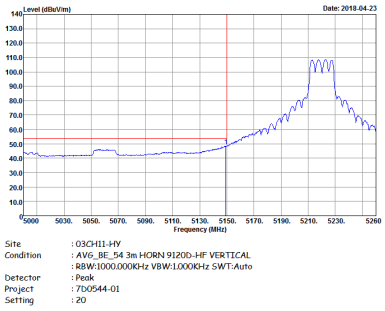
WIFI 802.11a (Band Edge @ 3m)

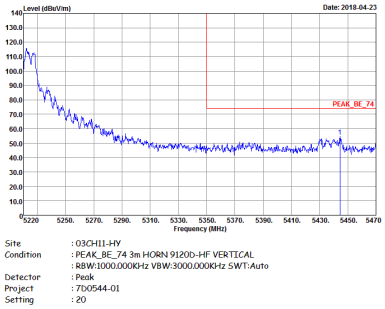
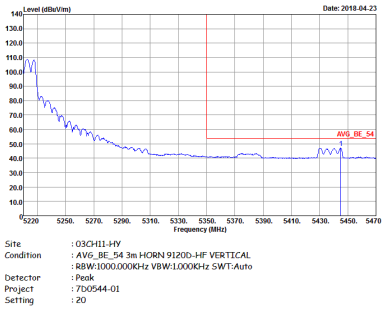
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 16.5	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 16.5
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 16.5	Left blank

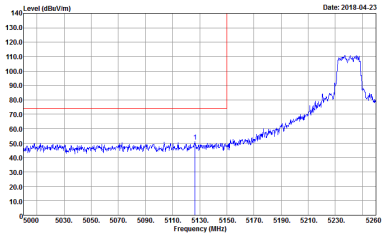
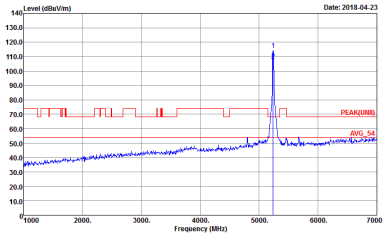
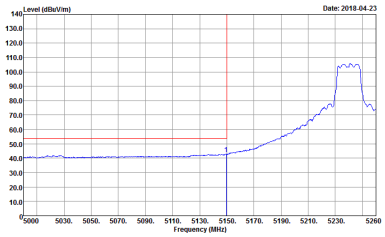
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

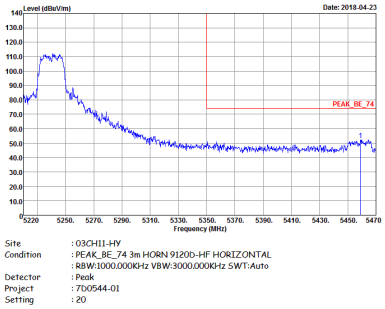
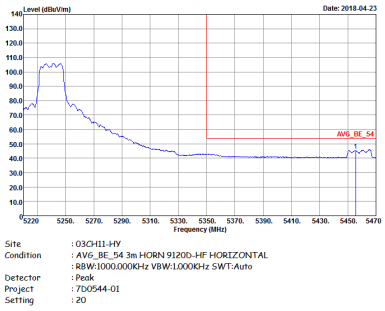
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 20	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 20
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 20	Left blank

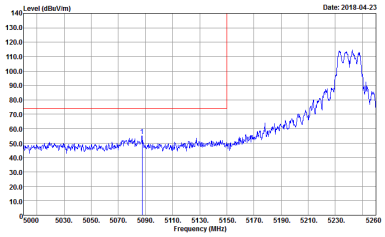
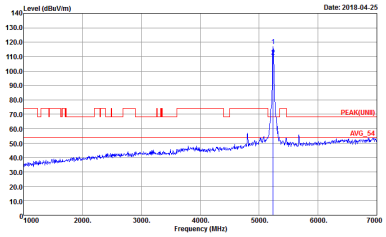
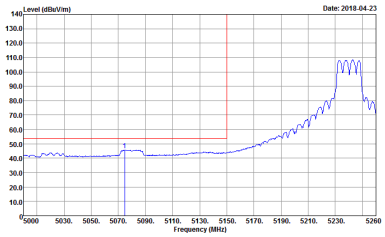
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

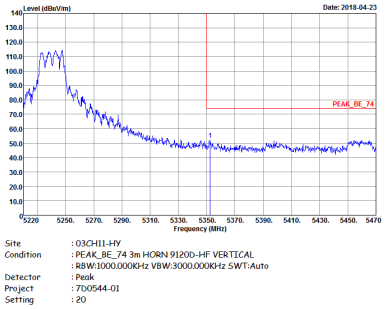
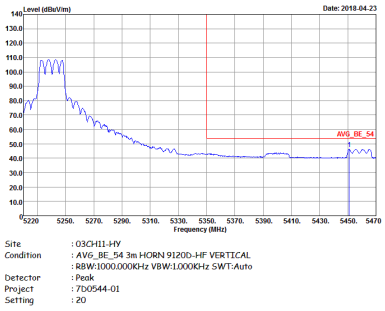
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

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

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 20	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 20
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 20	Left blank

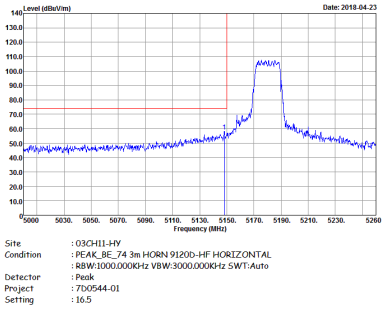
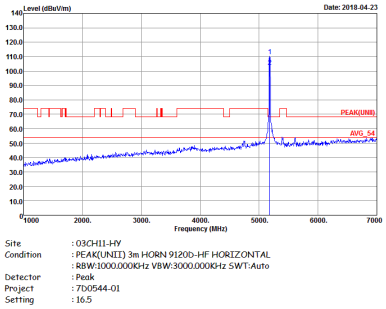
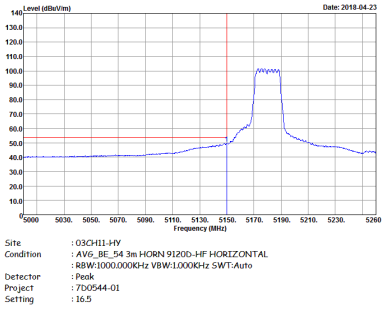
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

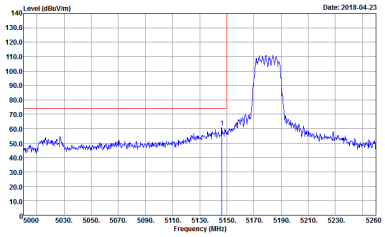
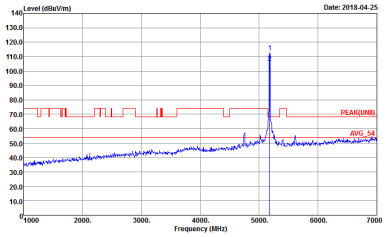
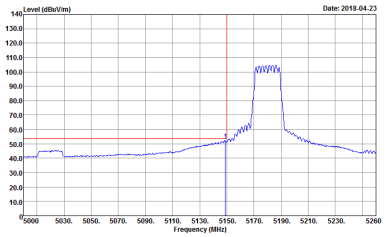
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
1+2	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 20	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 20
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 20	Left blank

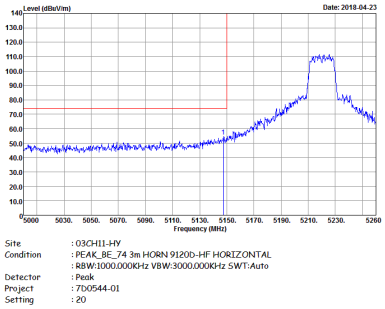
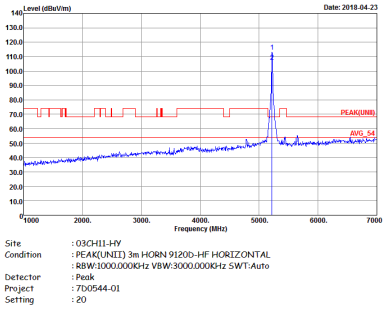
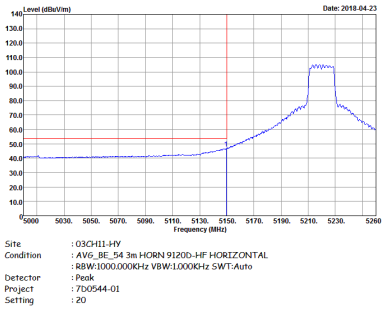
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

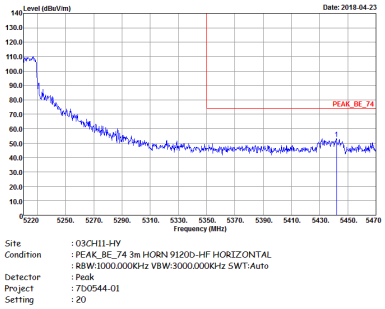
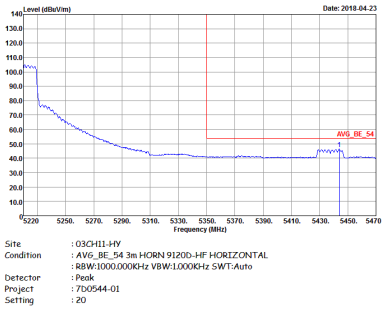
Band 1 5150~5250MHz

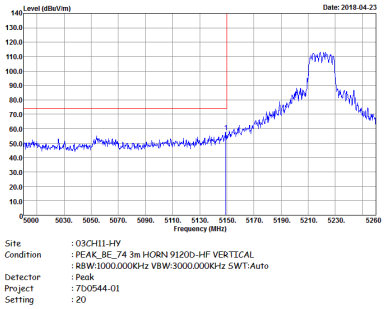
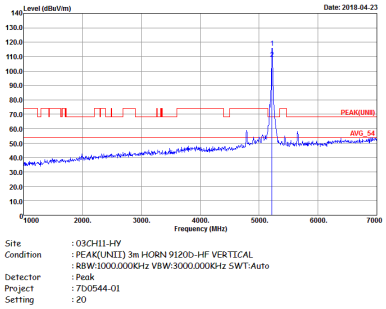
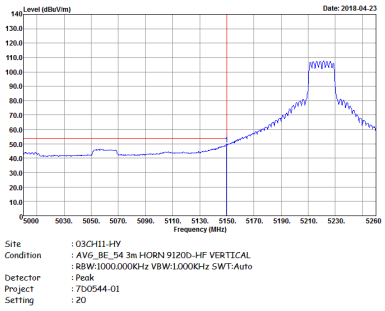
WIFI 802.11n HT20 (Band Edge @ 3m)

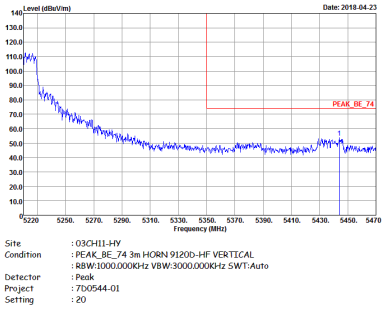
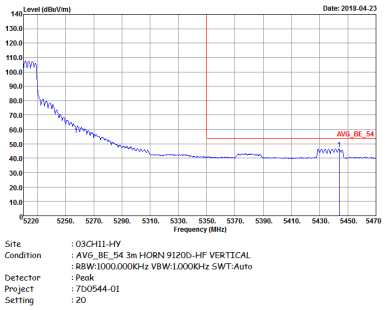
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

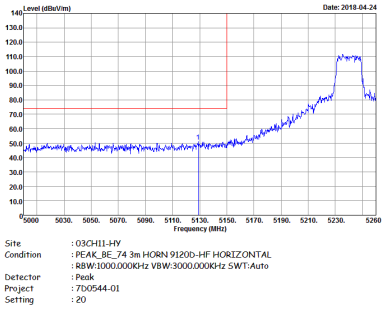
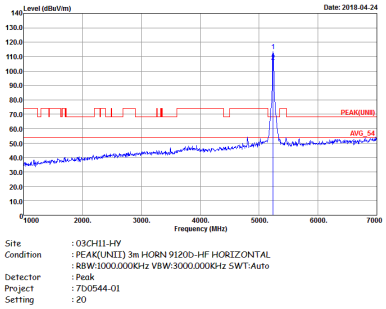
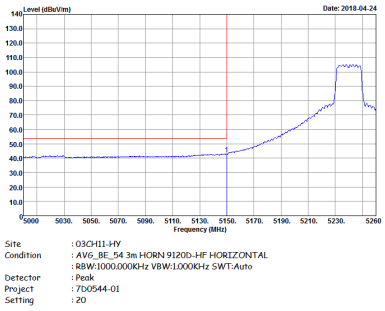
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 16.5	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 16.5
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 16.5	Left blank

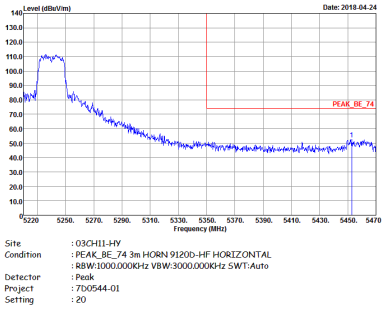
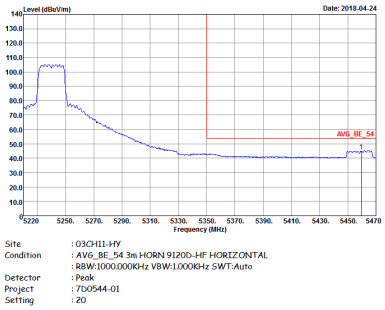
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

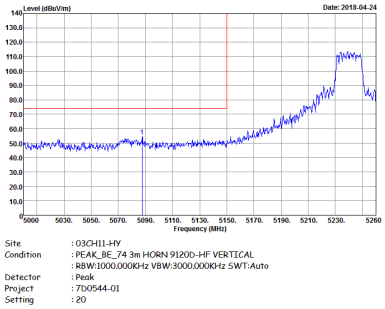
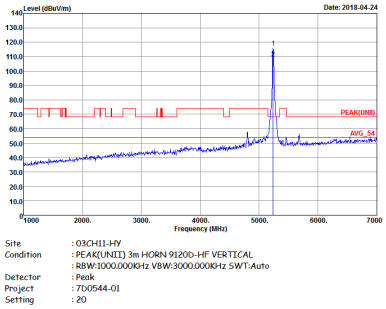
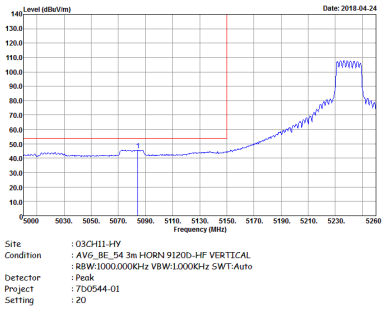
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

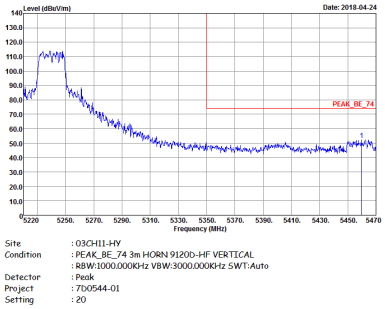
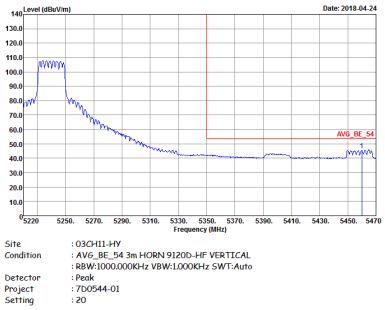
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

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

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

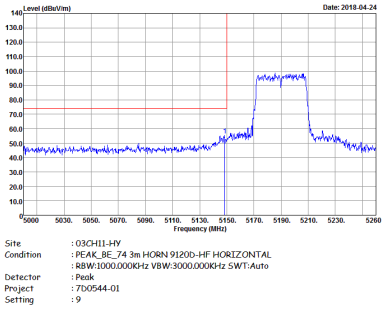
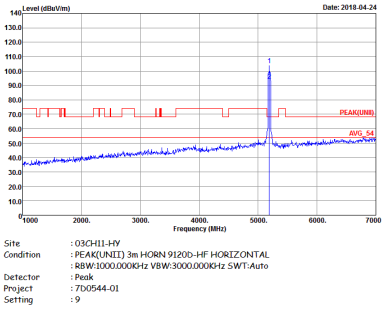
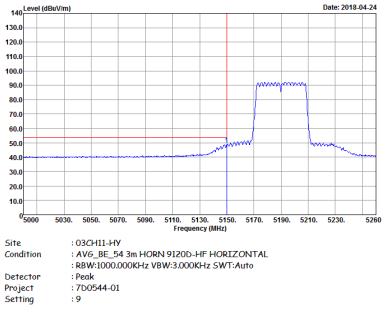
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

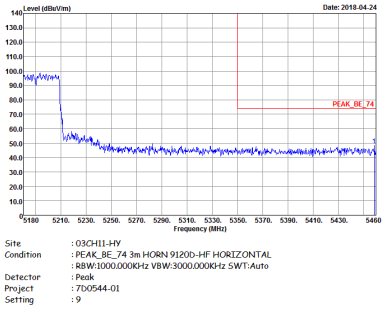
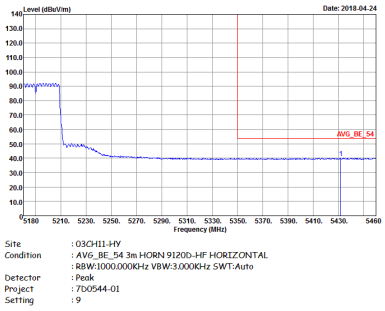
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

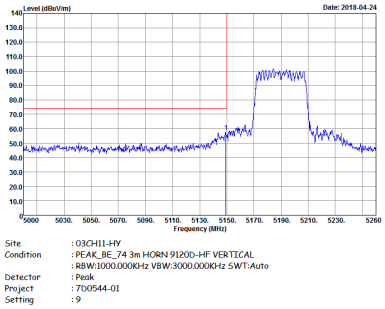
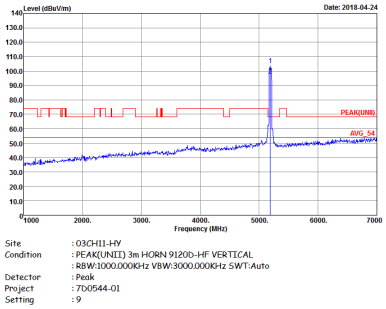
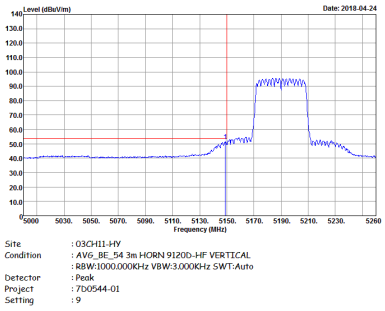
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

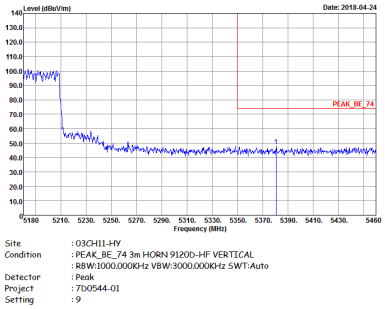
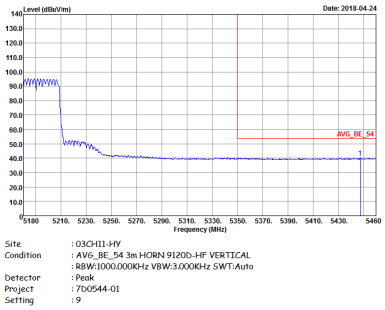
Band 1 5150~5250MHz

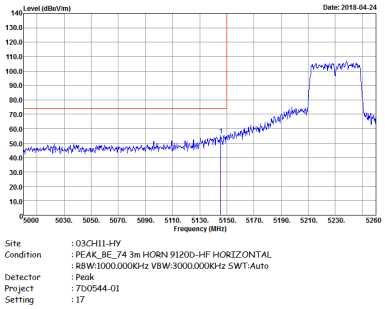
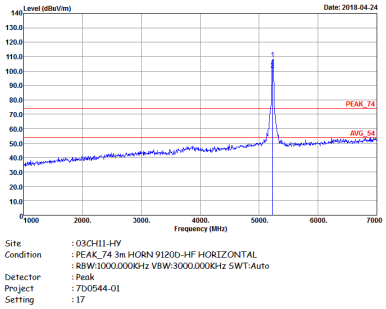
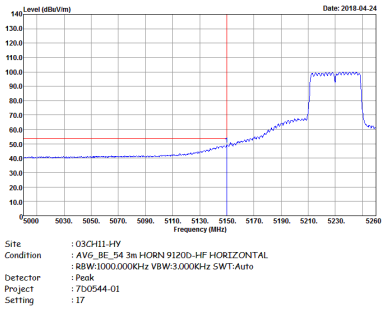
WIFI 802.11n HT40 (Band Edge @ 3m)

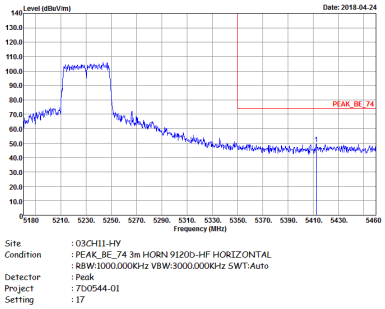
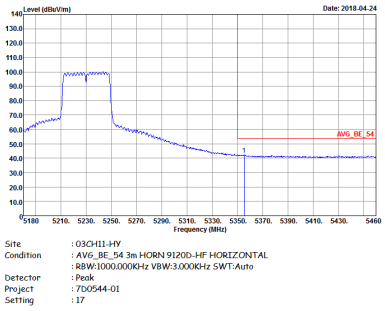
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

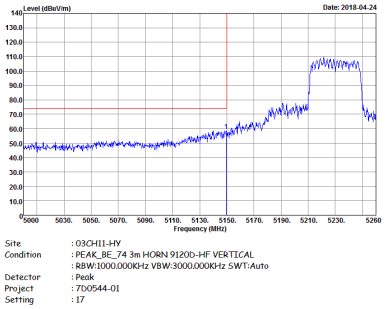
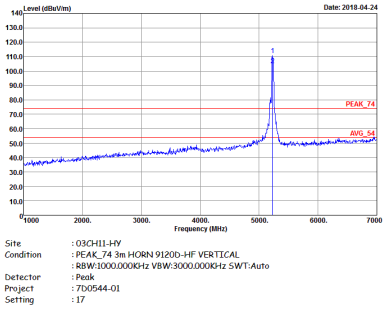
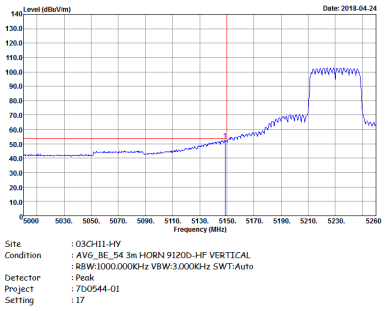
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

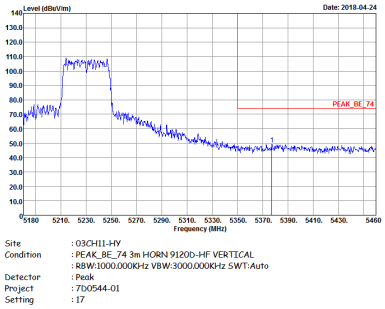
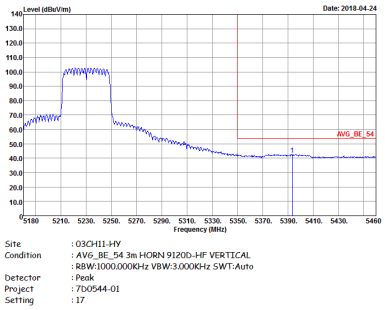
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

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

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

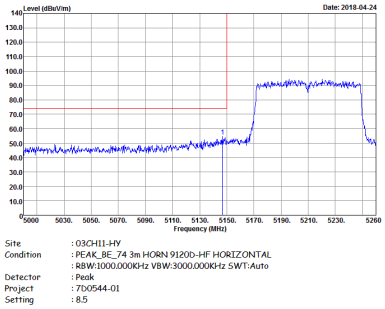
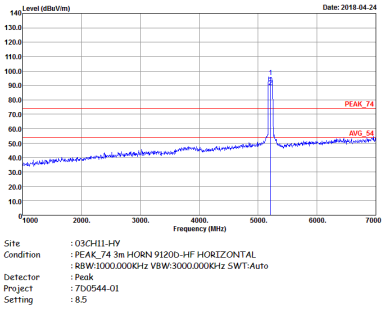
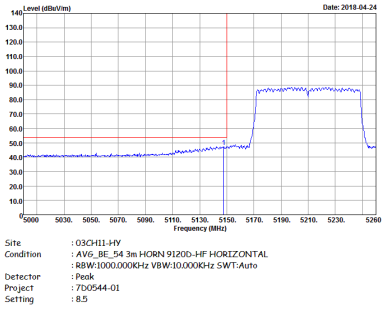
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

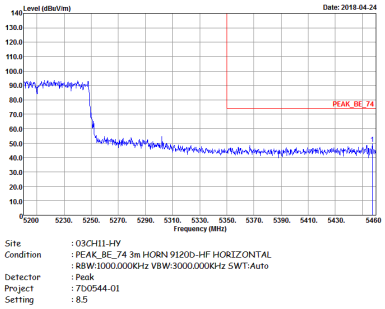
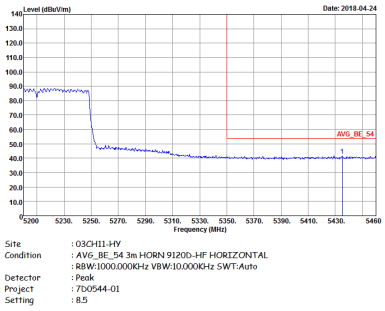
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

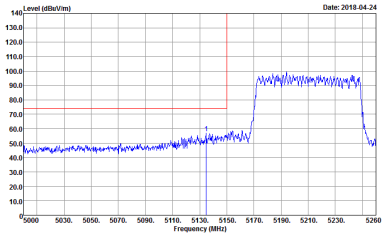
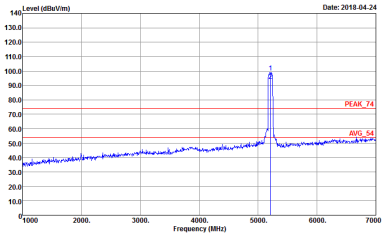
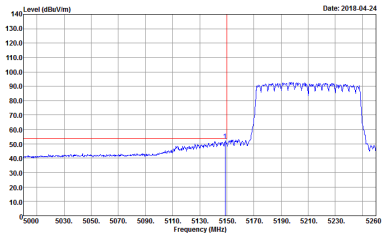
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

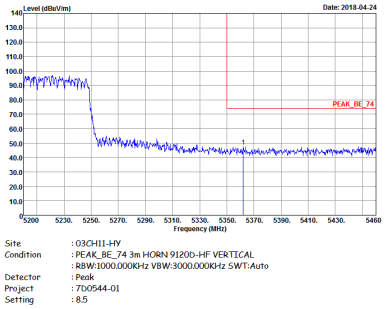
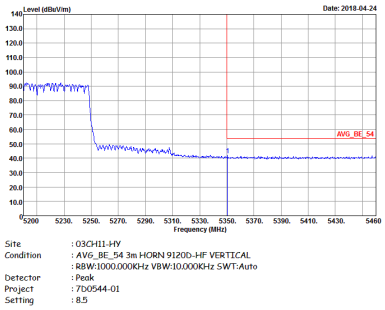
Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

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

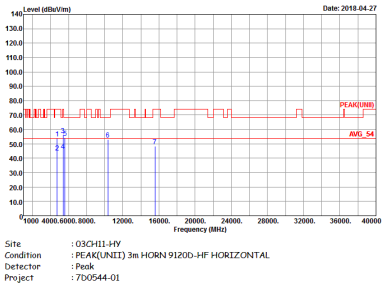
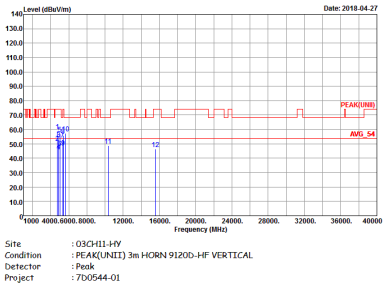
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

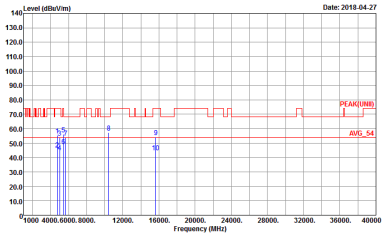
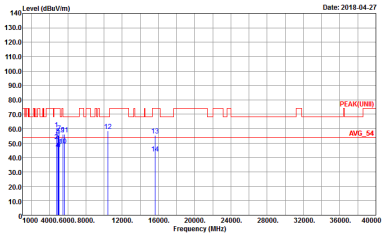
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
1+2	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 8.5	 Site : 03CH11-HY Condition : PEAK_74 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 8.5
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto Detector : Peak Project : 7D0544-01 Setting : 8.5	Left blank

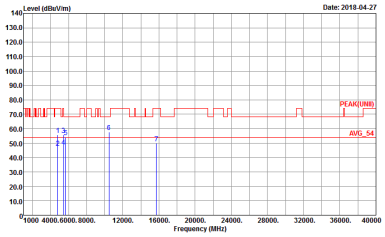
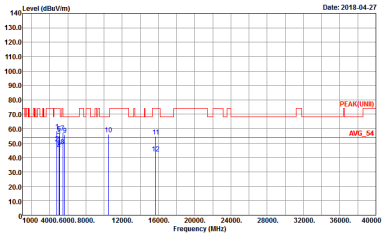
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 1 - 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

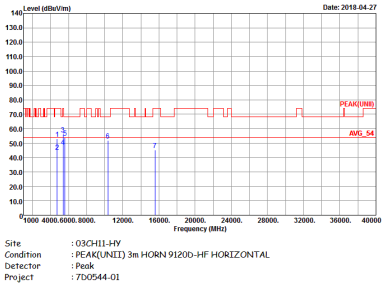
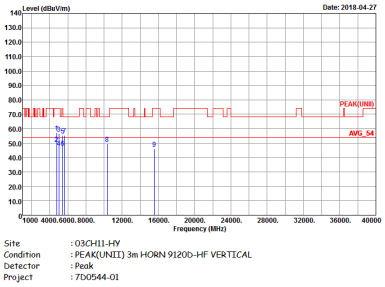
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH36 5180MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 7D0544-01	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 7D0544-01

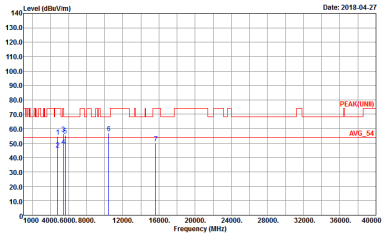
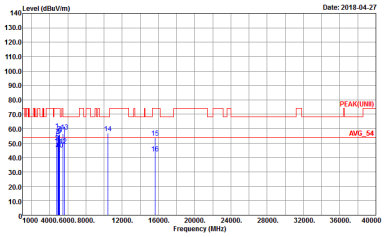
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH44 5220MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 7D0544-01	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 7D0544-01

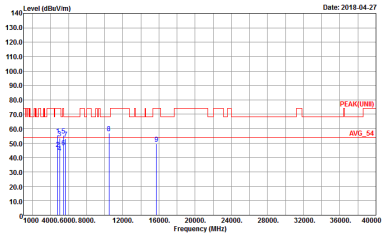
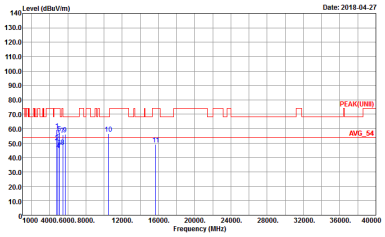
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH48 5240MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 7D0544-01	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 7D0544-01

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

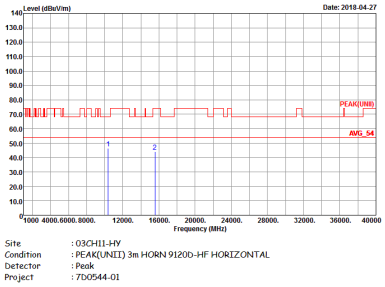
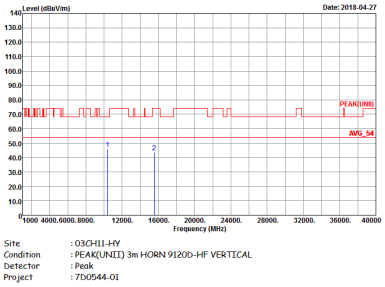
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1+2	Horizontal	Vertical
Peak Avg.		

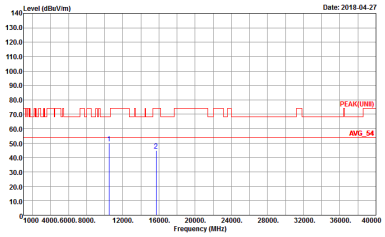
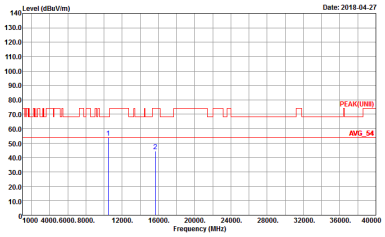
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH44 5220MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 7D0544-01	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 7D0544-01

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH48 5240MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 7D0544-01	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 7D0544-01

Band 1 5150~5250MHz

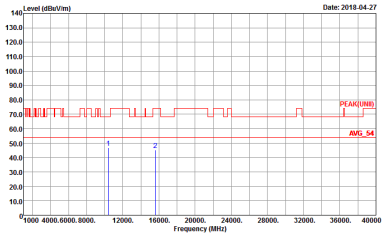
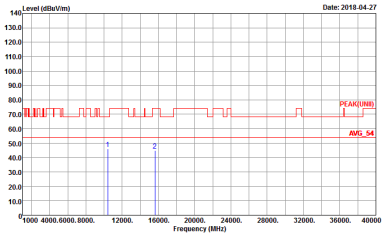
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT40 CH38 5190MHz	
1+2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT40 CH46 5230MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 7D0544-01	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 7D0544-01

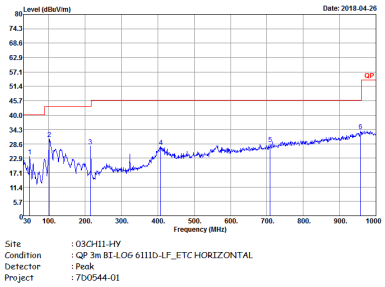
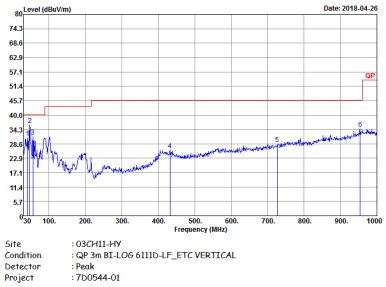
Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 7D0544-01	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 7D0544-01

Emission below 1GHz

5GHz WIFI 802.11n HT40 (LF)

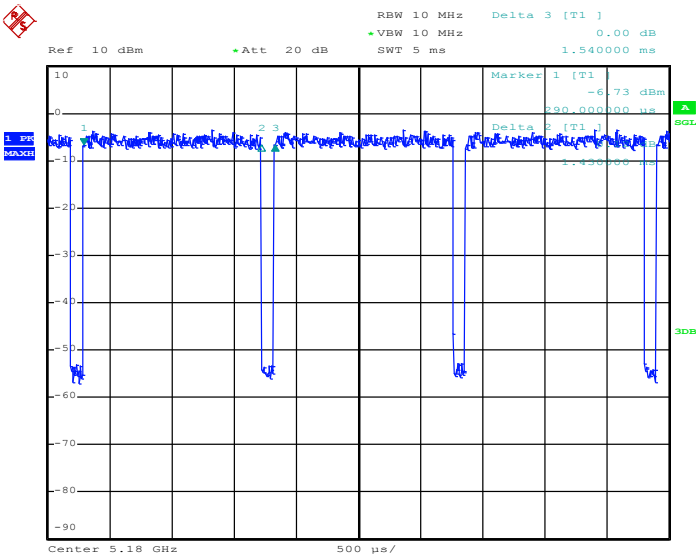
WIFI	5GHz WIFI	
ANT	802.11n HT40 LF	
1+2	Horizontal	Vertical
QP / Peak		

Appendix E. Duty Cycle Plots

Antenna	Band	Duty Cycle (%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor (dB)
1	802.11a	92.86	1430.00	0.699	1kHz	0.32
2	802.11a	92.86	1430.00	0.699	1kHz	0.32
1+2	802.11a for Antenna 1	93.46	1430.00	0.699	1kHz	0.29
1+2	802.11a for Antenna 2	92.86	1430.00	0.699	1kHz	0.32
1	5GHz 802.11n HT20	92.41	1340.00	0.746	1kHz	0.34
2	5GHz 802.11n HT20	92.41	1340.00	0.746	1kHz	0.34
1+2	5GHz 802.11n HT20 for Antenna 1	93.06	1340.00	0.746	1kHz	0.31
1+2	5GHz 802.11n HT20 for Antenna 2	92.41	1340.00	0.746	1kHz	0.34
1	5GHz 802.11n HT40	85.94	660.00	1.515	3kHz	0.66
2	5GHz 802.11n HT40	85.94	660.00	1.515	3kHz	0.66
1+2	5GHz 802.11n HT40 for Antenna 1	86.61	660.00	1.515	3kHz	0.62
1+2	5GHz 802.11n HT40 for Antenna 2	86.67	663.00	1.508	3kHz	0.62
1	5GHz 802.11ac VHT20	92.41	1340.00	0.746	1kHz	0.34
2	5GHz 802.11ac VHT20	92.47	1350.00	0.740	1kHz	0.34
1+2	5GHz 802.11ac VHT20 for Antenna 1	93.13	1355.00	0.738	1kHz	0.31
1+2	5GHz 802.11ac VHT20 for Antenna 2	92.47	1350.00	0.741	1kHz	0.34
1	5GHz 802.11ac VHT40	86.72	666.00	1.501	3kHz	0.61
2	5GHz 802.11ac VHT40	85.27	660.00	1.510	3kHz	0.69
1+2	5GHz 802.11ac VHT40 for Antenna 1	86.72	666.00	1.502	3kHz	0.62
1+2	5GHz 802.11ac VHT40 for Antenna 2	86.72	666.00	1.502	3kHz	0.62
1	5GHz 802.11ac VHT80	76.15	332.00	3.012	10kHz	1.18
2	5GHz 802.11ac VHT80	75.93	328.00	3.049	10kHz	1.20
1+2	5GHz 802.11ac VHT80 for Antenna 1	76.85	332.00	3.012	10kHz	1.14
1+2	5GHz 802.11ac VHT80 for Antenna 2	76.04	330.00	3.030	10kHz	1.19

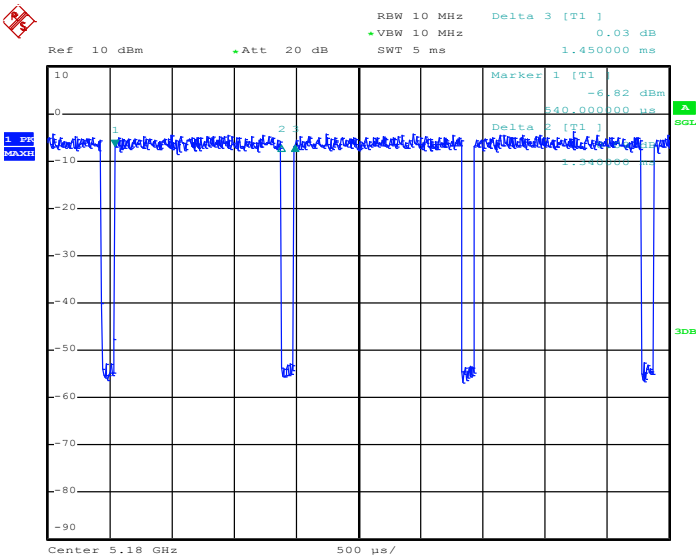
<Ant. 1>

802.11a



Date: 17.APR.2018 11:37:43

802.11n HT20



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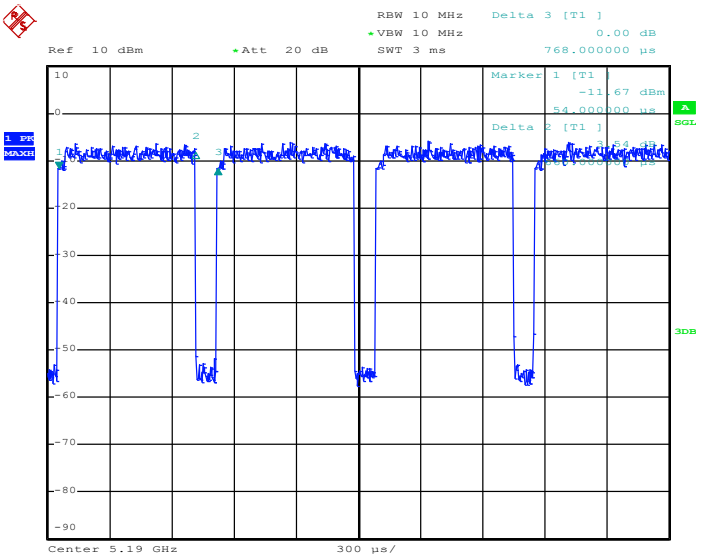
802.11n HT40



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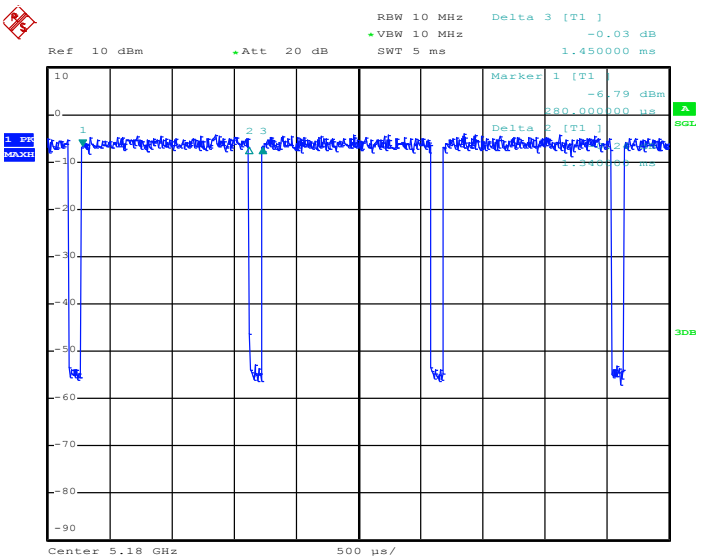
802.11ac VHT20



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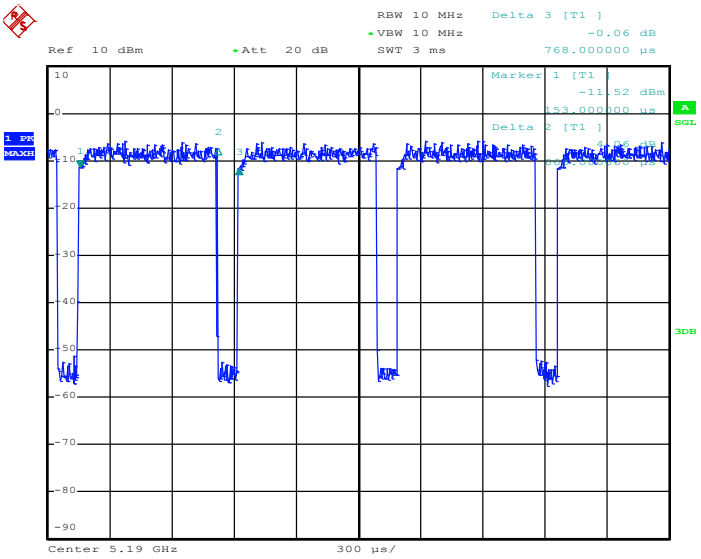
802.11ac VHT40



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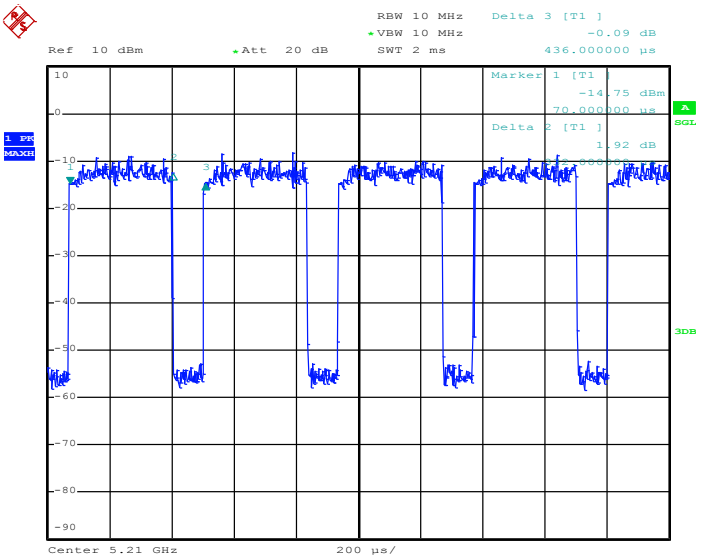
802.11ac VHT80



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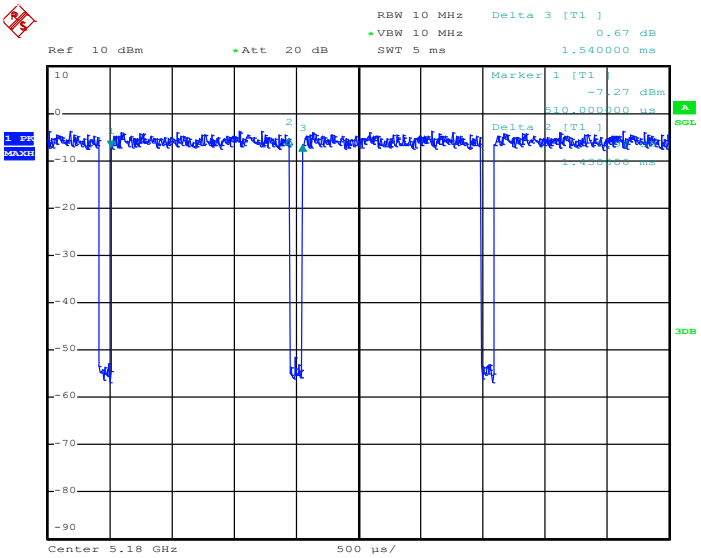
<Ant. 2>

802.11a



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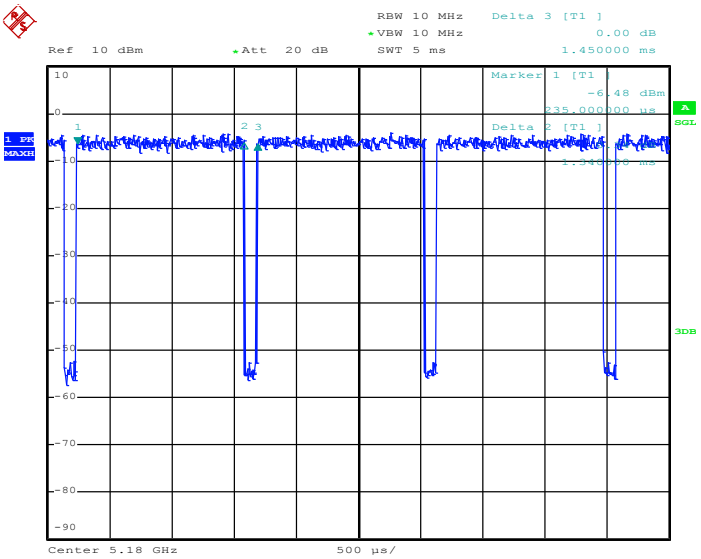
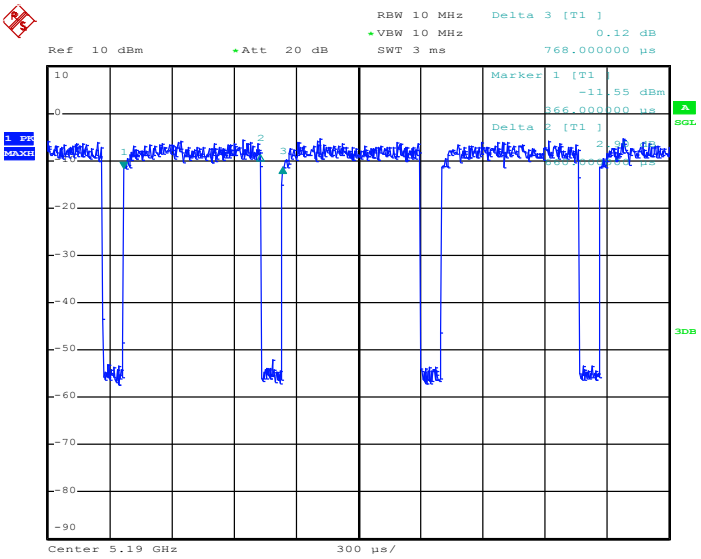
802.11n HT20



Date: 17.APR.2018 11:53:43

802.11n HT40



Date: 17.APR.2018 12:03:33

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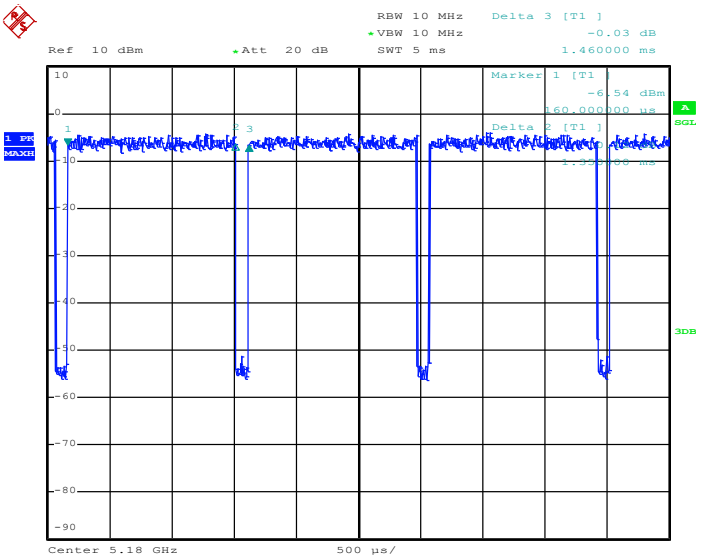

Date: 17.APR.2018 12:07:05

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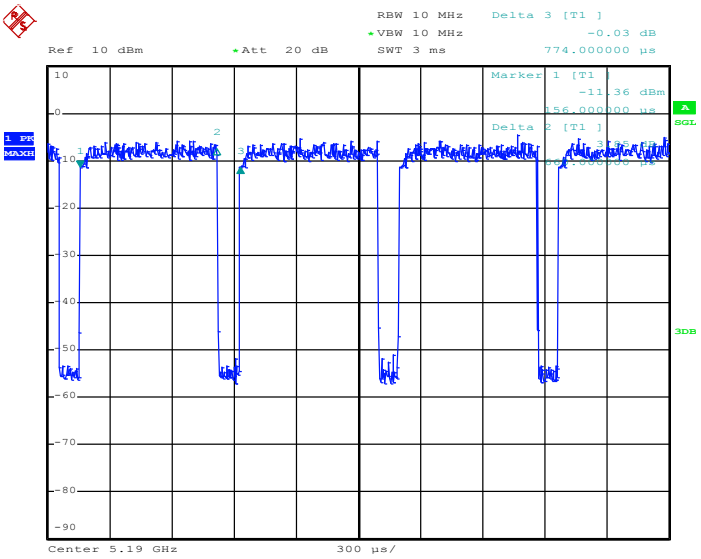

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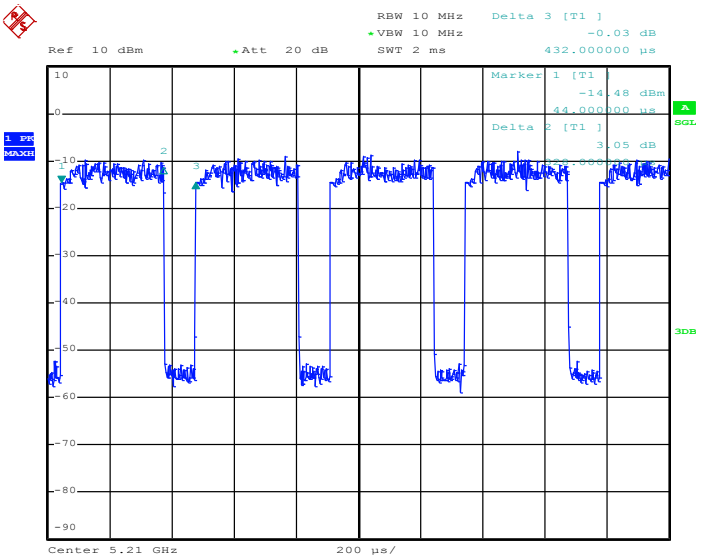
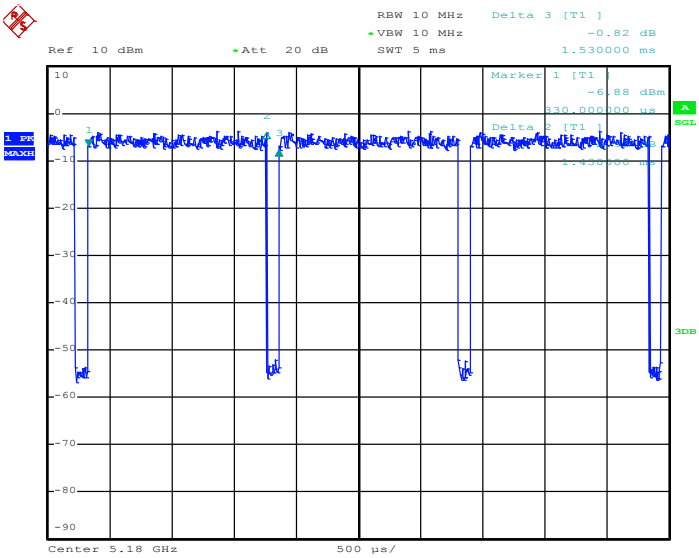


Date: 17.APR.2018 12:17:04

MIMO <Ant. 1>

802.11a



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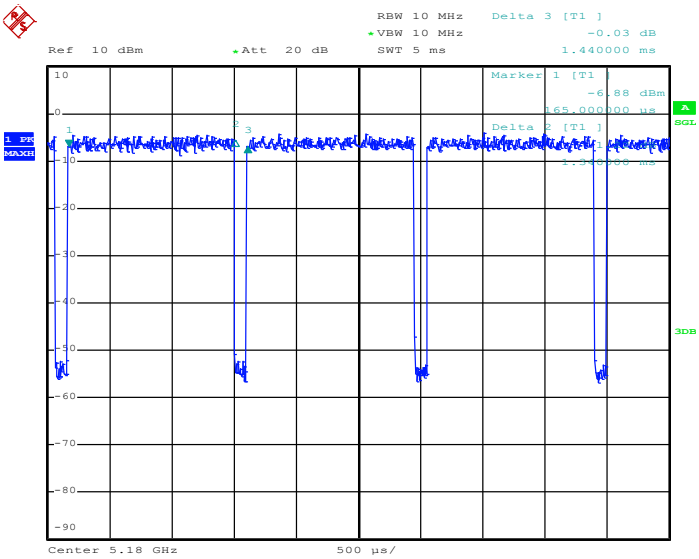

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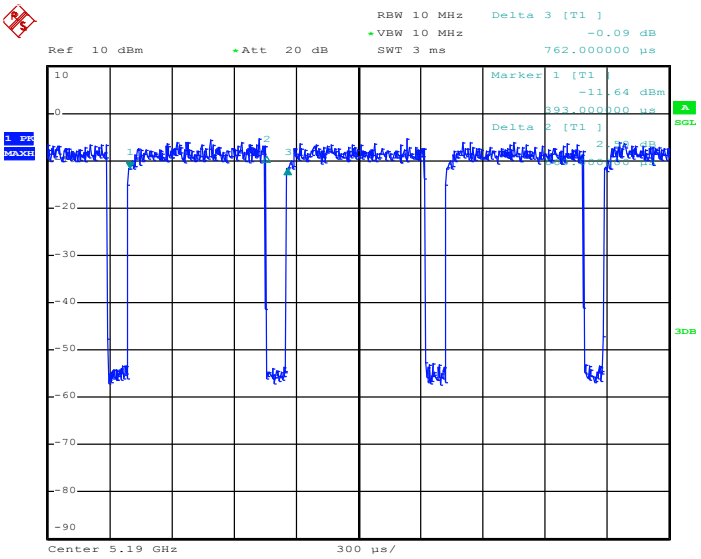

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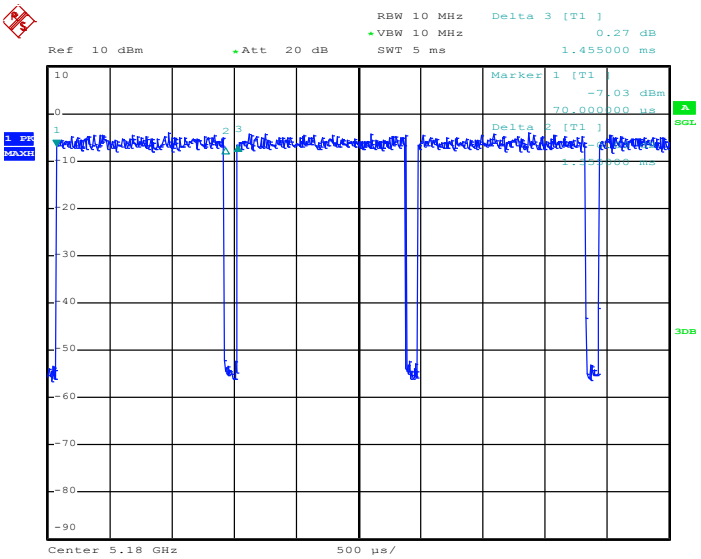

Date: 17.APR.2018 12:07:58

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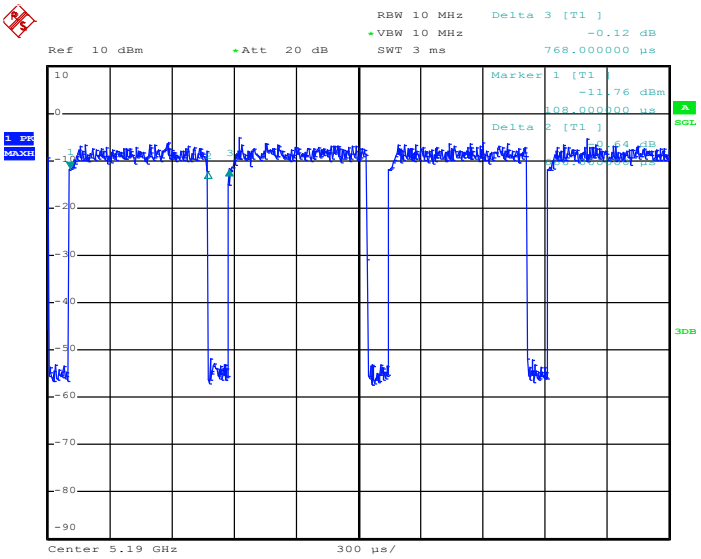

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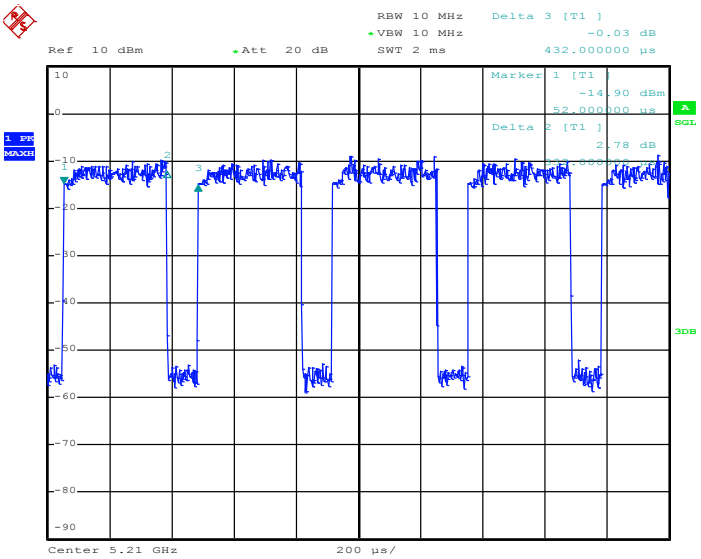

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MIMO <Ant. 2>

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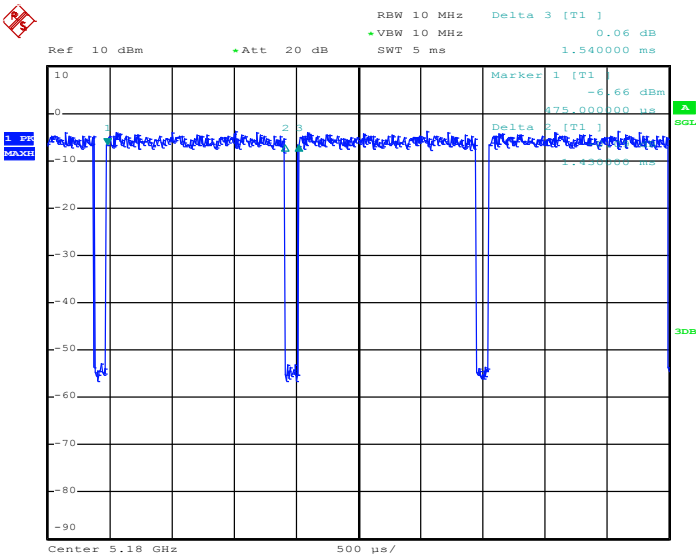

Date: 17.APR.2018 11:50:50

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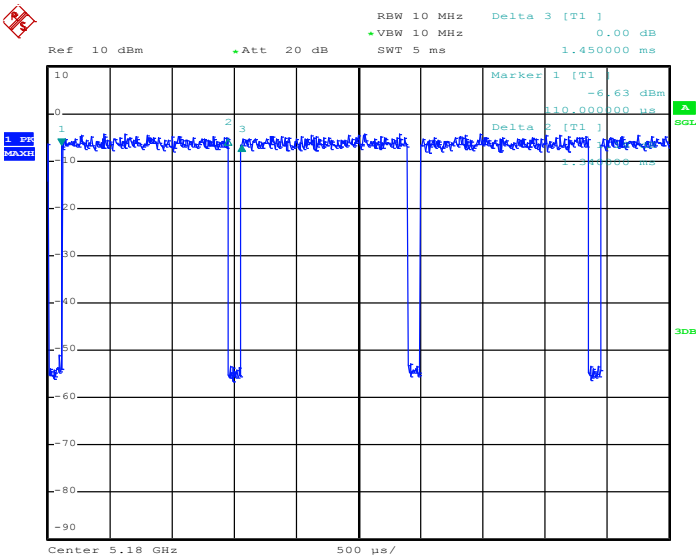

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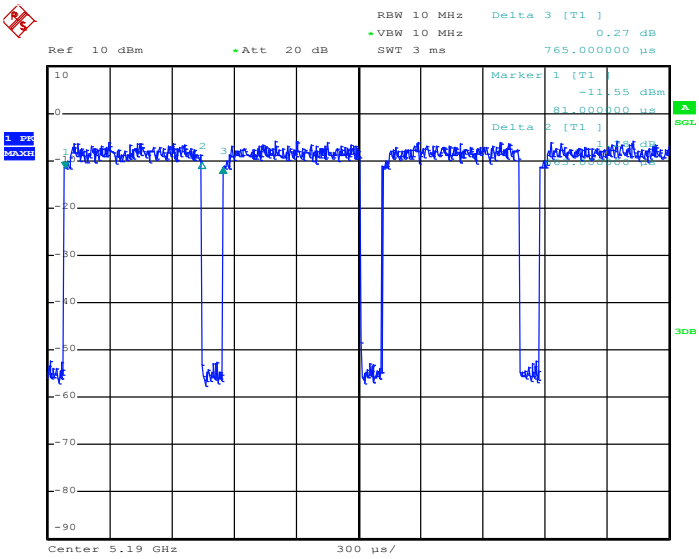

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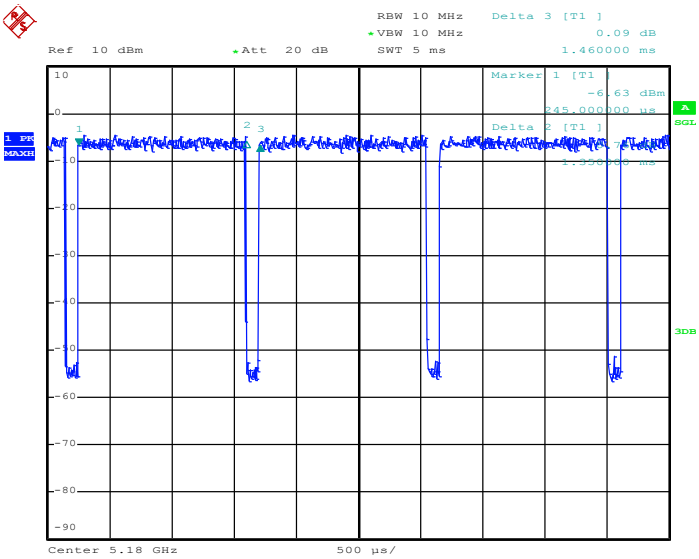

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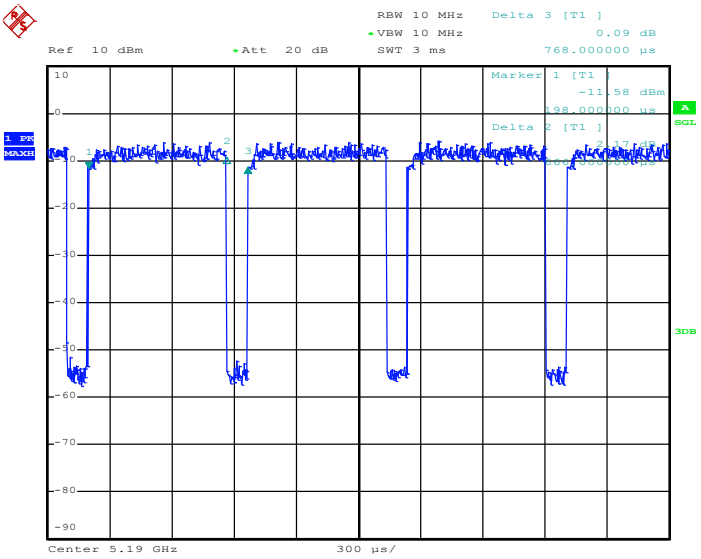

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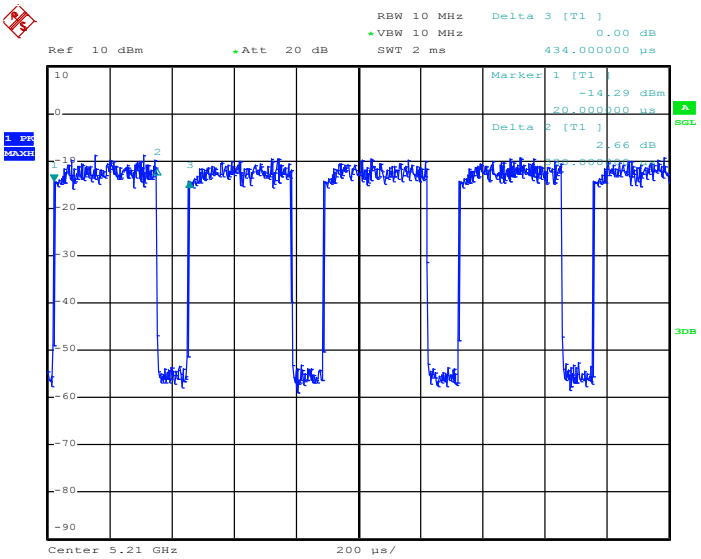

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