



FCC RF Test Report

APPLICANT : TP-Link Technologies Co., Ltd.
EQUIPMENT : AC1900 Smart Home Router with Touch Screen
BRAND NAME : TP-Link
MODEL NAME : SR20
MARKETING NAME : AC1900 Smart Home Router With Touch Screen
FCC ID : TE7SR20
STANDARD : FCC Part 15 Subpart E §15.407
CLASSIFICATION : (NII) Unlicensed National Information Infrastructure

The product was received on Feb. 11, 2016 and testing was completed on Sep. 14, 2016. 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



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TABLE OF CONTENTS

REVISION HISTORY	3
SUMMARY OF TEST RESULT	4
1 GENERAL DESCRIPTION	5
1.1 Applicant	5
1.2 Manufacturer	5
1.3 Product Feature of Equipment Under Test.....	5
1.4 Product Specification of Equipment Under Test.....	6
1.5 Modification of EUT	7
1.6 Testing Location	8
1.7 Applicable Standards.....	8
2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST	9
2.1 Carrier Frequency and Channel	9
2.2 Test Mode	10
2.3 Connection Diagram of Test System.....	12
2.4 Support Unit used in test configuration and system	13
2.5 EUT Operation Test Setup	13
2.6 Measurement Results Explanation Example.....	13
3 TEST RESULT	14
3.1 6dB and 26dB and 99% Occupied Bandwidth Measurement	14
3.2 Maximum Conducted Output Power Measurement	22
3.3 Power Spectral Density Measurement	24
3.4 Unwanted Emissions Measurement.....	31
3.5 AC Conducted Emission Measurement.....	36
3.6 Frequency Stability Measurement.....	42
3.7 Automatically Discontinue Transmission	43
3.8 Antenna Requirements	44
4 LIST OF MEASURING EQUIPMENT	46
5 UNCERTAINTY OF EVALUATION	47
APPENDIX A. CONDUCTED TEST RESULTS	
APPENDIX B. RADIATED SPURIOUS EMISSION	
APPENDIX C. RADIATED SPURIOUS EMISSION PLOTS	
APPENDIX D. DUTY CYCLE PLOTS	
APPENDIX E. SETUP PHOTOGRAPHS	



REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR612811D	Rev. 01	Initial issue of report	Nov. 01, 2016

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	2.1049 15.403(i)	6dB, 26dB and 99% Occupied Bandwidth	> 500kHz	Pass	-
3.2	15.407(a)	Maximum Conducted Output Power	≤ 30 dBm	Pass	-
3.3	15.407(a)	Power Spectral Density	≤ 17 dBm for U-NII-1	Pass	-
			≤ 30 dBm/500kHz for U-NII-3		
3.4	15.407(b)	Unwanted Emissions	≤ -17, -27 dBm (depend on band)&15.209(a) for U-NII-1	Pass	Under limit 0.26 dB at 5150.000 MHz
			15.407(b)(4)(i) &15.209(a) for U-NII-3		
3.5	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 2.30 dB at 0.638 MHz
3.6	15.407(g)	Frequency Stability	Within Operation Band	Pass	-
3.7	15.407(c)	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-
3.8	15.203 & 15.407(a)	Antenna Requirement	N/A	Pass	-



1 General Description

1.1 Applicant

TP-Link Technologies Co., Ltd.

Building 24 (floors 1,3,4,5) and 28 (floors1-4) Central Science and Technology Park,Shennan Rd,
Nanshan, Shenzhen,China

1.2 Manufacturer

TP-Link Technologies Co., Ltd.

Building 24 (floors 1,3,4,5) and 28 (floors1-4) Central Science and Technology Park,Shennan Rd,
Nanshan, Shenzhen,China

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	AC1900 Smart Home Router with Touch Screen
Brand Name	TP-Link
Model Name	SR20
Marketing Name	AC1900 Smart Home Router With Touch Screen
FCC ID	TE7SR20
EUT supports Radios application	WLAN a/b/g/n HT20/HT40 WLAN ac VHT20/VHT40/VHT80 Zigbee Z-Wave
HW Version	None Stated
SW Version	None Stated
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Frequency Range	5180 MHz ~ 5240 MHz 5745 MHz ~ 5825 MHz
Maximum Output Power to Antenna <CDD Modes>	MIMO <Ant. 1 + 2 + 3> <5180 MHz ~ 5240 MHz> 802.11a : 26.26 dBm / 0.4227 W 802.11n HT20 : 26.30 dBm / 0.4266 W 802.11n HT40 : 29.20 dBm / 0.8318 W 802.11ac VHT20: 26.29 dBm / 0.4256 W 802.11ac VHT40: 29.05 dBm / 0.8035 W 802.11ac VHT80: 18.34 dBm / 0.0682 W <5745 MHz ~ 5825 MHz> 802.11a : 29.81 dBm / 0.9572 W 802.11n HT20 : 29.91 dBm / 0.9795 W 802.11n HT40 : 29.99 dBm / 0.9977 W 802.11ac VHT20: 29.73 dBm / 0.9397 W 802.11ac VHT40: 29.73 dBm / 0.9397 W 802.11ac VHT80: 28.58 dBm / 0.7211 W
Maximum Output Power to Antenna <TXBF Modes>	MIMO <Ant. 1 + 2 + 3> <5180 MHz ~ 5240 MHz> 802.11n HT20 : 24.66 dBm / 0.2924 W 802.11n HT40 : 24.79 dBm / 0.3013 W 802.11ac VHT20: 24.66 dBm / 0.2924 W 802.11ac VHT40: 24.69 dBm / 0.2944 W 802.11ac VHT80: 13.88 dBm / 0.0244 W <5745 MHz ~ 5825 MHz> 802.11n HT20 : 28.68 dBm / 0.7379 W 802.11n HT40 : 28.69 dBm / 0.7396 W 802.11ac VHT20: 28.64 dBm / 0.7311 W 802.11ac VHT40: 28.62 dBm / 0.7278 W 802.11ac VHT80: 27.46 dBm / 0.5572 W
99% Occupied Bandwidth <CDD Modes>	<5180 MHz ~ 5240 MHz> 802.11a : 18.55 MHz 802.11n HT20 : 18.80 MHz 802.11n HT40 : 37.70 MHz 802.11ac VHT20 : 18.75 MHz 802.11ac VHT40 : 37.60 MHz 802.11ac VHT80 : 75.72 MHz <5745 MHz ~ 5825 MHz> 802.11a : 25.90 MHz 802.11n HT20 : 25.40 MHz 802.11n HT40 : 50.60 MHz 802.11ac VHT20 : 24.80 MHz 802.11ac VHT40 : 47.50 MHz 802.11ac VHT80 : 76.68 MHz

Standards-related Product Specification												
99% Occupied Bandwidth <TXBF Modes>	<5180 MHz ~ 5240 MHz> 802.11n HT20 : 18.70 MHz 802.11n HT40 : 36.80 MHz 802.11ac VHT20 : 18.75 MHz 802.11ac VHT40 : 36.80 MHz 802.11ac VHT80 : 76.20 MHz <5745 MHz ~ 5825 MHz> 802.11n HT20 : 29.80 MHz 802.11n HT40 : 57.20 MHz 802.11ac VHT20 : 29.30 MHz 802.11ac VHT40 : 56.90 MHz 802.11ac VHT80 : 76.80 MHz											
	<5180 MHz ~ 5240 MHz> Ant. 1 : PIFA Antenna with gain 3.82 dBi Ant. 2 : Dipole Antenna with gain 2.79 dBi Ant. 3 : Dipole Antenna with gain 3.28 dBi <5745 MHz ~ 5825 MHz> Ant. 1 : PIFA Antenna with gain 3.08 dBi Ant. 2 : Dipole Antenna with gain 2.47 dBi Ant. 3 : Dipole Antenna with gain 1.97 dBi											
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)											
Antenna Function Description	<table><tr><td></td><td>Ant. 1</td><td>Ant. 2</td><td>Ant. 3</td></tr><tr><td>802.11 a/n/ac MIMO</td><td>V</td><td>V</td><td>V</td></tr></table>					Ant. 1	Ant. 2	Ant. 3	802.11 a/n/ac MIMO	V	V	V
	Ant. 1	Ant. 2	Ant. 3									
802.11 a/n/ac MIMO	V	V	V									

Note: MIMO Ant. 1+2+3 is a calculated result from sum of the power MIMO Ant. 1, MIMO Ant. 2 and MIMO Ant. 3.

1.5 Modification of EUT

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

1.6 Testing Location

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

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

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

Test Site	SPORTON INTERNATIONAL INC.	
Test Site Location	No. 58 , Aly. 75, Ln. 564, Wenhua 3rd Rd., Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C. TEL: +886-3-327-0855	
Test Site No.	Sporton Site No.	
	03CH11-HY	

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

1.7 Applicable Standards

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

- ♦ FCC Part 15 Subpart E
- ♦ FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r03
- ♦ FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ♦ FCC KDB 644545 D03 Guidance for IEEE 802 11ac New Rules v01
- ♦ ANSI C63.10-2013

Remark:

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

2 Test Configuration of Equipment Under Test

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

2.1 Carrier Frequency and Channel

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

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5725-5850 MHz Band 4 (U-NII-3)	149	5745	157	5785
	151*	5755	159*	5795
	153	5765	161	5805
	155 [#]	5775	165	5825

Note:

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

2.2 Test Mode

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

<CDD Modes>

MIMO Antenna

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

<TXBF Modes>

MIMO Antenna

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

Test Cases	
AC Conducted Emission	Mode 1 : WLAN (5GHz) Link + Zigbee Link + Z-Wave Link + LAN Link + WAN Link + USB HD + Adapter 1



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

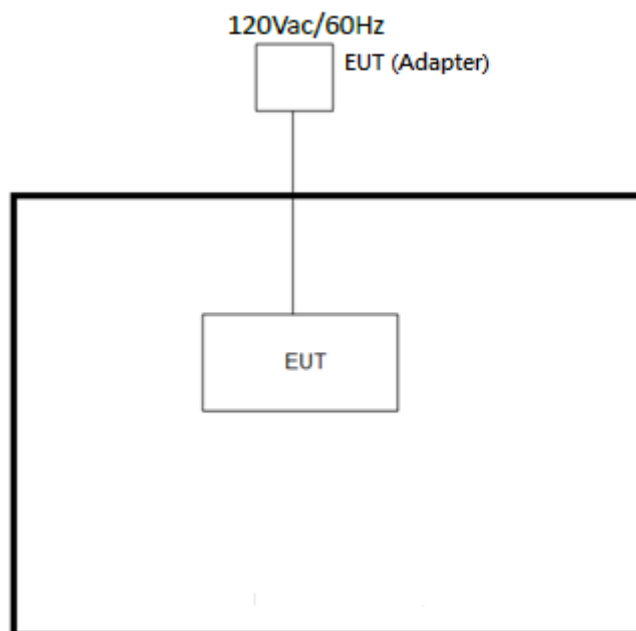
Ch. #		Band I : 5150-5250 MHz		
		802.11ac VHT20	802.11ac VHT40	802.11ac VHT80
L	Low	36	38	-
M	Middle	44	-	42
H	High	48	46	-

Ch. #		Band IV : 5725-5850 MHz		
		802.11a	802.11n HT20	802.11n HT40
L	Low	149	149	151
M	Middle	157	157	-
H	High	165	165	159

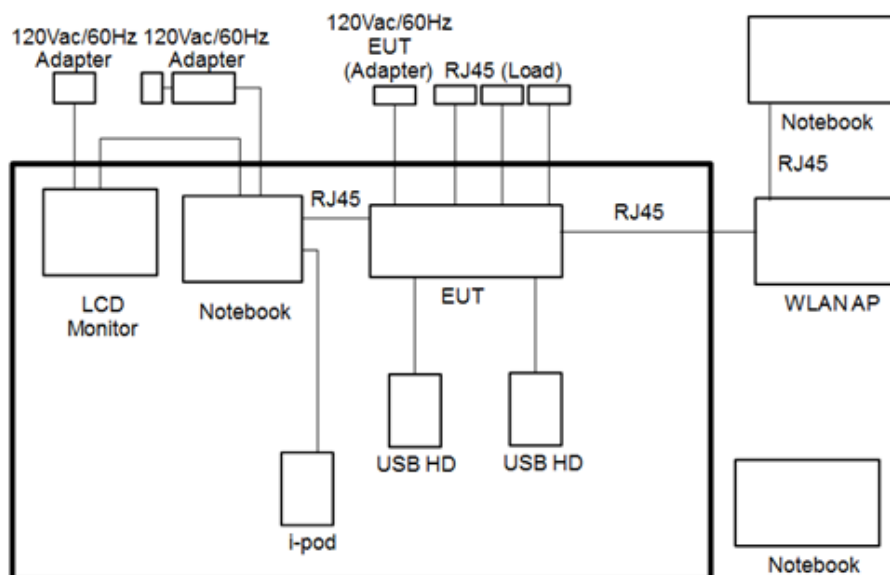
Ch. #		Band IV : 5725-5850 MHz		
		802.11ac VHT20	802.11ac VHT40	802.11ac VHT80
L	Low	149	151	-
M	Middle	157	-	155
H	High	165	159	-

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.	WLAN AP	D-Link	DIR-628	KA2DIR628A2	N/A	Unshielded, 1.8 m
2.	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
3.	LCD Monitor	DELL	U2410	FCC DoC	Shielded, 1.6 m	Unshielded, 1.8 m
4.	USB HD	WD	WDBAAR320 0ABK-PESN	FCC DoC	Unshielded, 0.5 m	N/A
5.	USB HD	PQI	H568V	FCC DoC	Unshielded, 0.5m	N/A
6.	iPod	Apple	A1199	FCC DoC	Shielded, 1.0 m	N/A

2.5 EUT Operation Test Setup

For WLAN CDD modes, programmed RF utility, "Mtool" installed in the notebook make the EUT provide functions like channel selection and power level for continuous transmitting and receiving signals.

For WLAN MIMO TXBF modes, the EUT was tested under normal operation and link to another device with power, modulation modes and data rates controlled by engineer mode command lines. The CMD software tool was used to make EUT 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.

$$\begin{aligned}
 \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)}. \\
 &= 4.2 + 10 = 14.2 \text{ (dB)}
 \end{aligned}$$

3 Test Result

3.1 6dB and 26dB and 99% Occupied Bandwidth Measurement

3.1.1 Description of 6dB and 26dB and 99% Occupied Bandwidth

For the 5.15–5.25 GHz bands

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

For the 5.725–5.85 GHz bands

The minimum 6 dB bandwidth shall be at least 500 kHz.

26dB and 99% Occupied bandwidth are reporting only.

3.1.2 Measuring Instruments

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

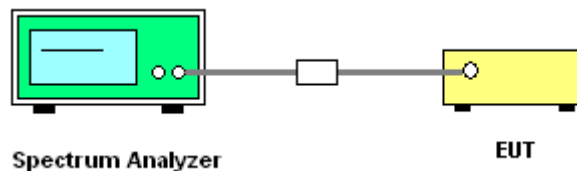
3.1.3 Test Procedures

For the 5.15–5.25 GHz bands

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r03.
Section C) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission.
Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1MHz and set the Video bandwidth (VBW) $\geq 3 * RBW$.
8. Measure and record the results in the test report.

For the 5.725–5.85 GHz bands

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r03.
Section C) Emission bandwidth for the band 5.725-5.85GHz
2. Set RBW = 100kHz.
3. Set the VBW $\geq 3 \times$ RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 6 dB down from the peak of the emission.
7. Measure and record the results in the test report.

3.1.4 Test Setup

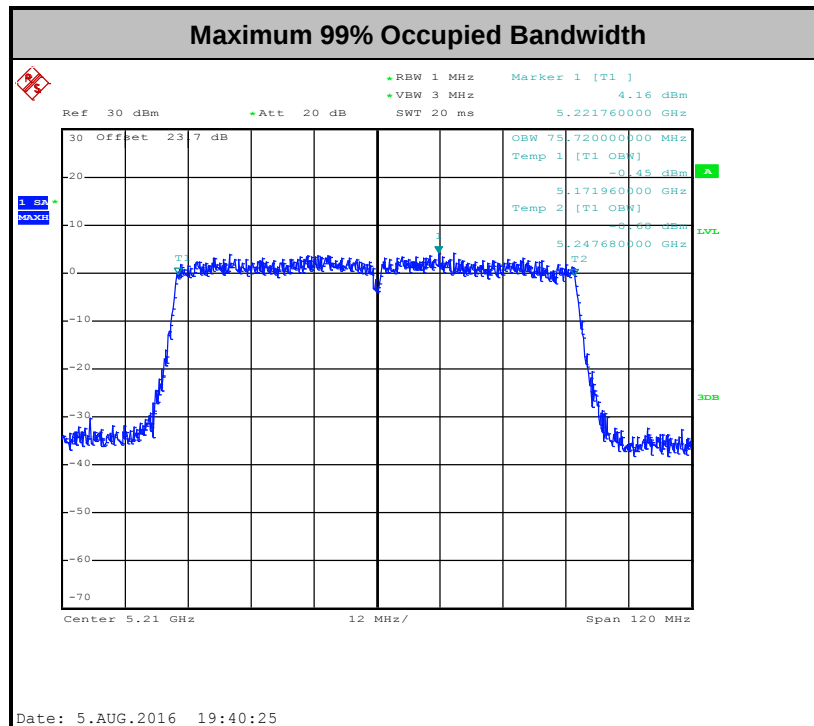
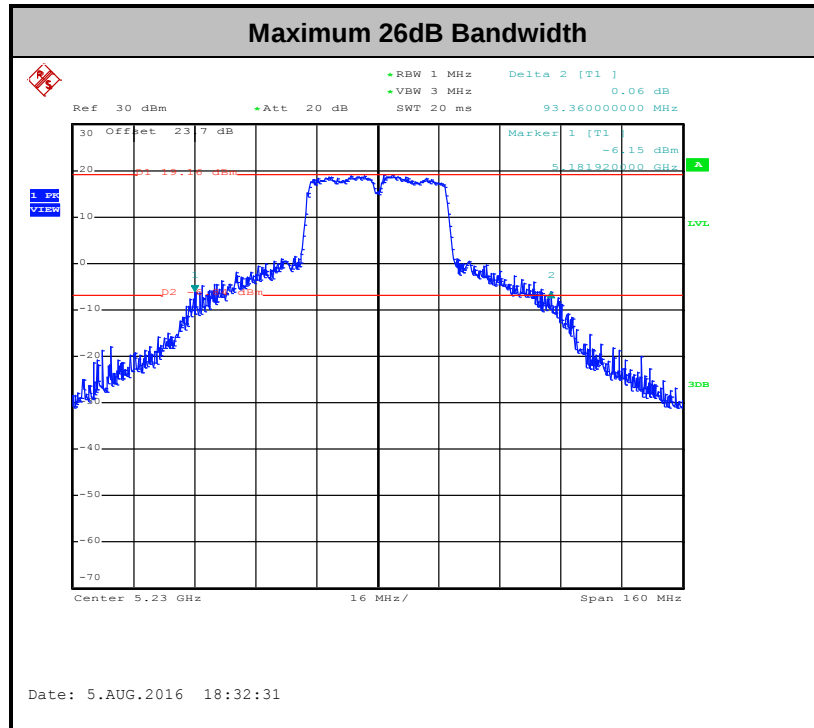


3.1.5 Test Result of 6dB & 26dB & 99% Occupied Bandwidth

Please refer to Appendix A.

For the 5.15–5.25 GHz bands

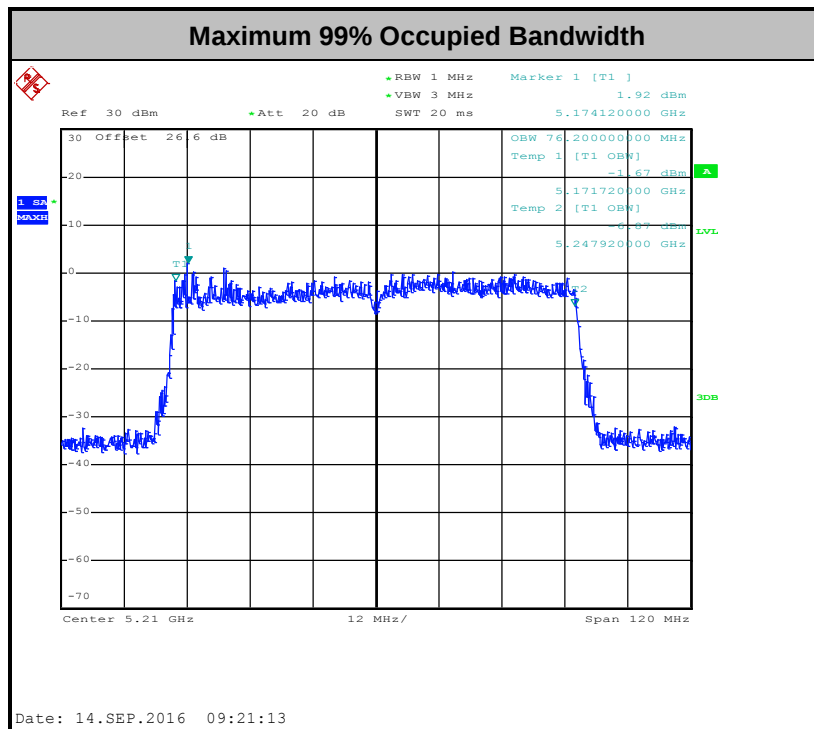
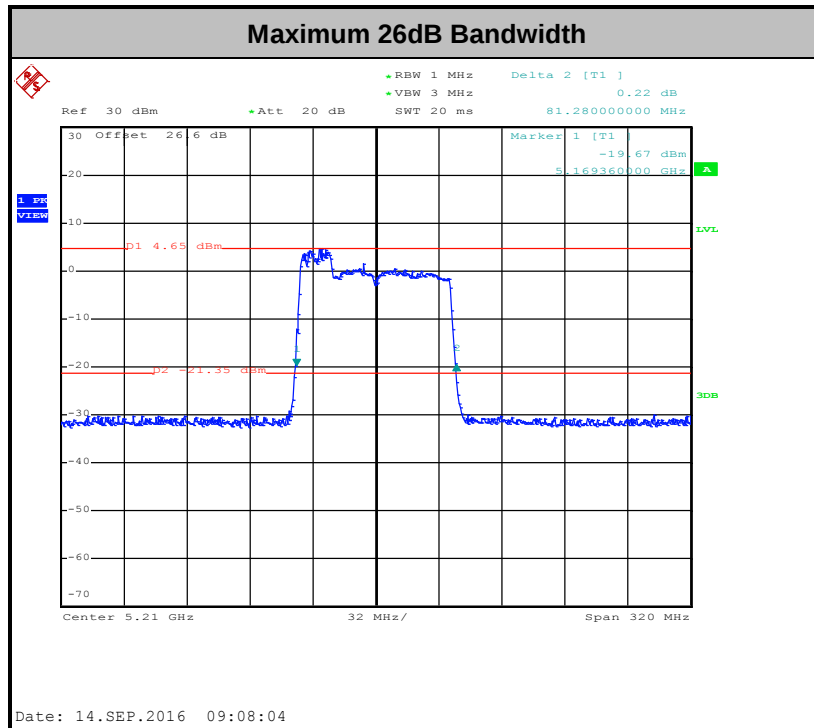
<CDD Modes>



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



<TXBF Modes>

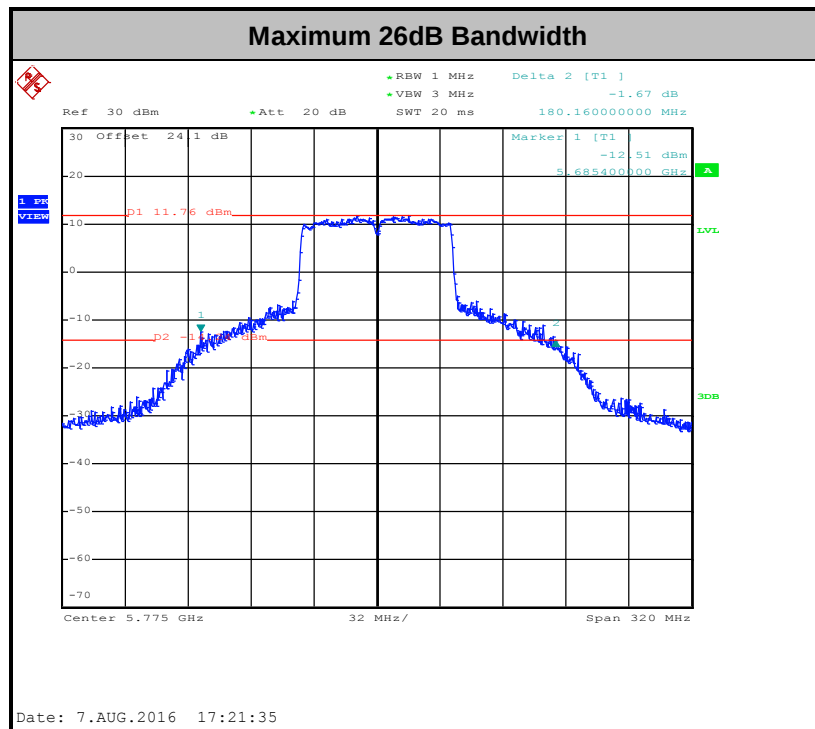
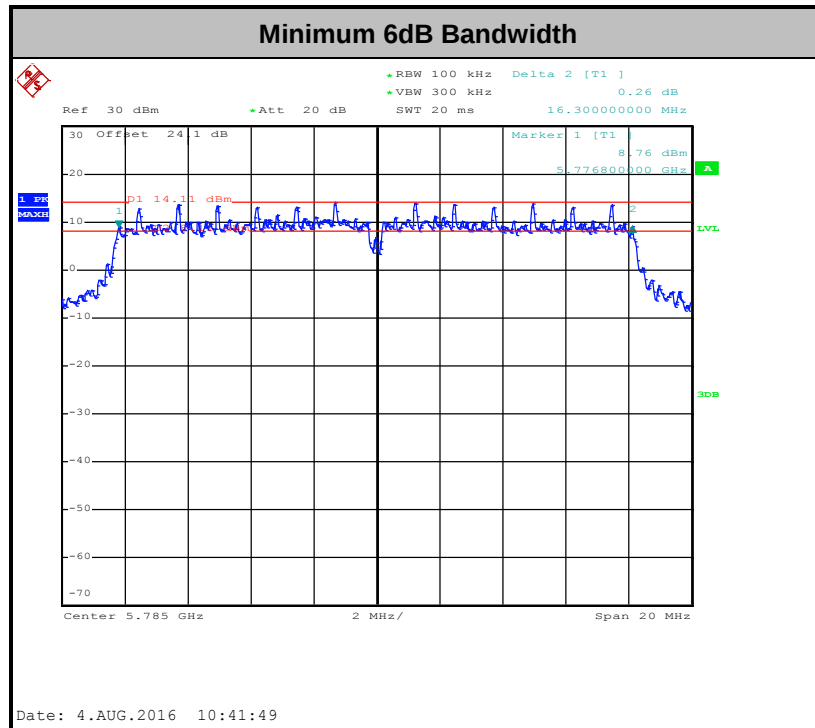


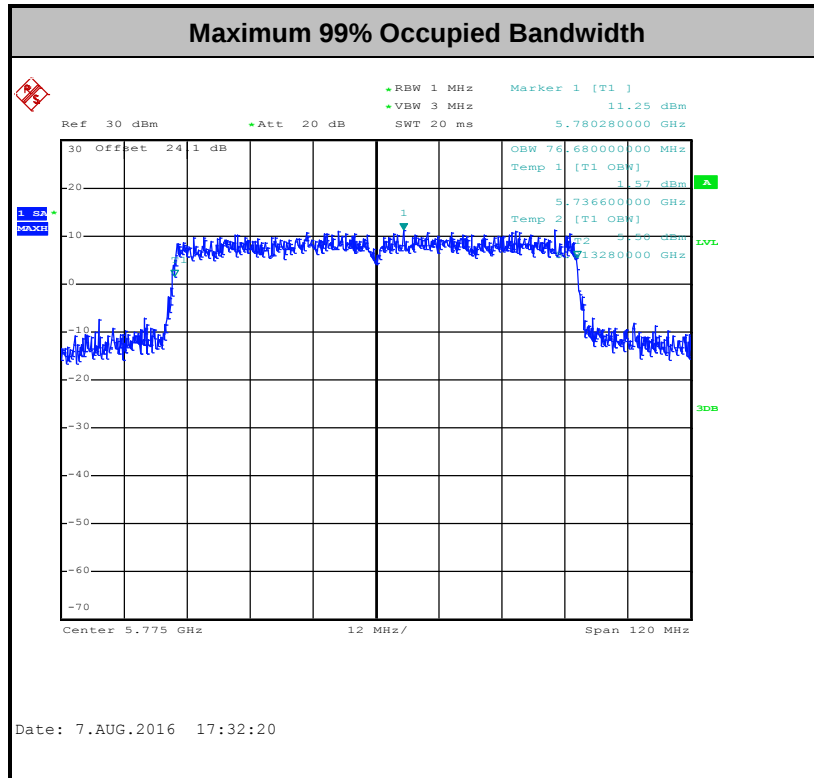
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.



For the 5.725–5.85 GHz bands

<CDD Modes>

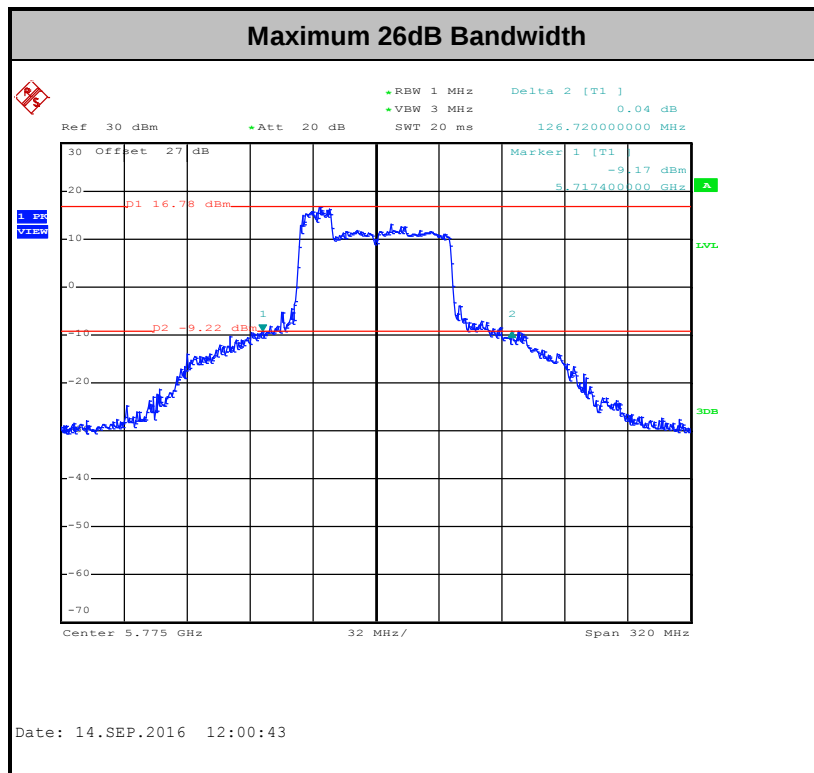
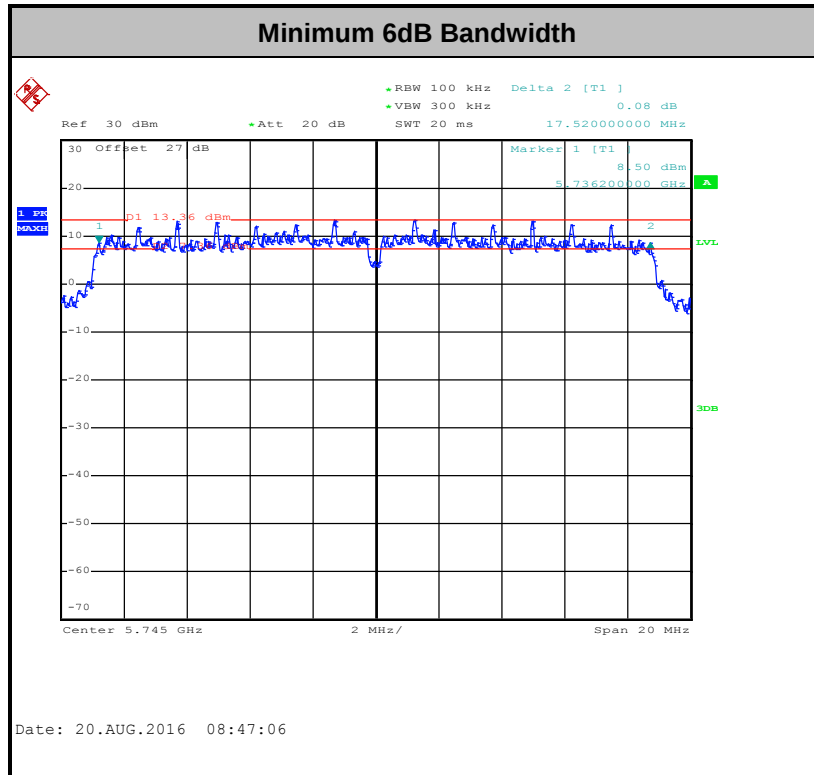


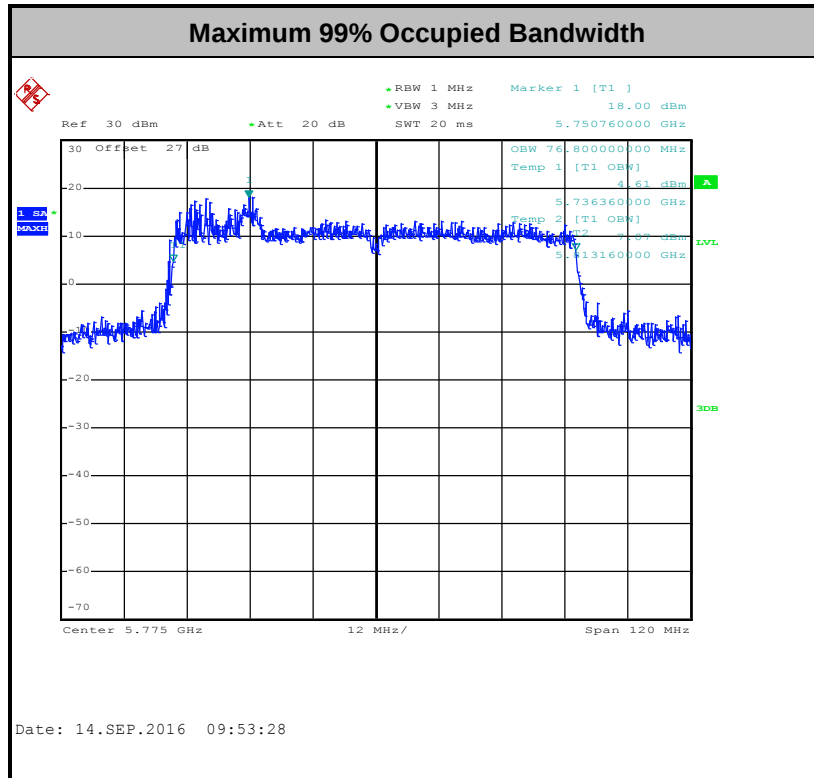


Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.



<TXBF Modes>





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

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

For the band 5.725–5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

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

CDD modes

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

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

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

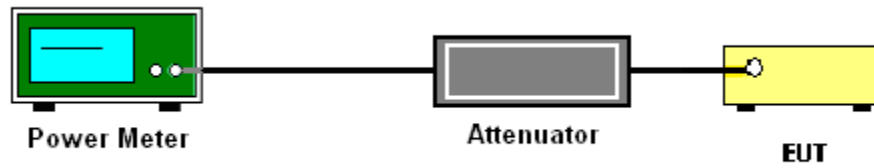
TXBF modes

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

Method PM-G (Measurement using a gated RF average power meter):

1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit at its maximum power control level.
3. Measure the average power of the transmitter
4. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

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

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.

For the band 5.725–5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

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

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

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

CDD modes

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 $\geq$ 3 MHz.
- Number of points in sweep $\geq$ 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.

TXBF modes**# Method SA-3 #**

(power averaging (rms) detection with max hold):

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
 - Set RBW = 1 MHz.
 - Set VBW $\geq$ 3 MHz
 - Number of points in sweep $\geq$ 2 Span / RBW.
 - Sweep time $\leq$ (number of points in sweep) $\times$ 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.
 - Detector = power averaging (rms).
 - Trace mode = max hold.
 - Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.
 -
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.

For the 5.15–5.25 GHz bands

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

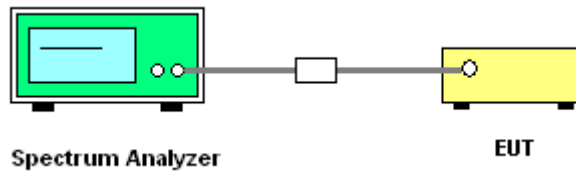
The total final Power Spectral Density is from a device with 3 transmitter outputs. The spectrum measurements of the individual outputs are all performed with the same span and number of points, the spectrum value in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and output 3 to obtain the value for the first frequency bin of the summed spectrum.

For the 5.725–5.85 GHz bands

Method (c): Measure and add $10 \log(N_{\text{ANT}})$ dB.

With this technique, spectrum measurements are performed at each output of the device, but rather than summing the spectra or the spectral peaks across the outputs, the quantity $10 \log(N_{\text{ANT}})$ dB is added to each spectrum value before comparing to the emission limit. The addition of $10 \log(N_{\text{ANT}})$ dB serves to apportion the emission limit among the N_{ANT} outputs so that each output is permitted to contribute no more than $1/N_{\text{ANT}}^{\text{th}}$ of the PSD limit.

3.3.4 Test Setup

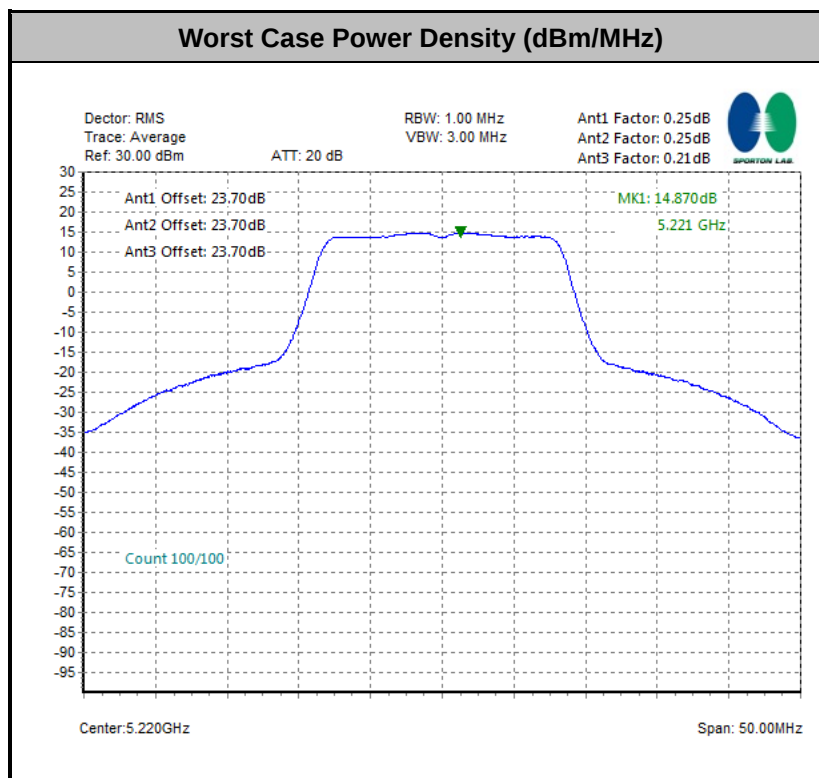


3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

<CDD Modes>

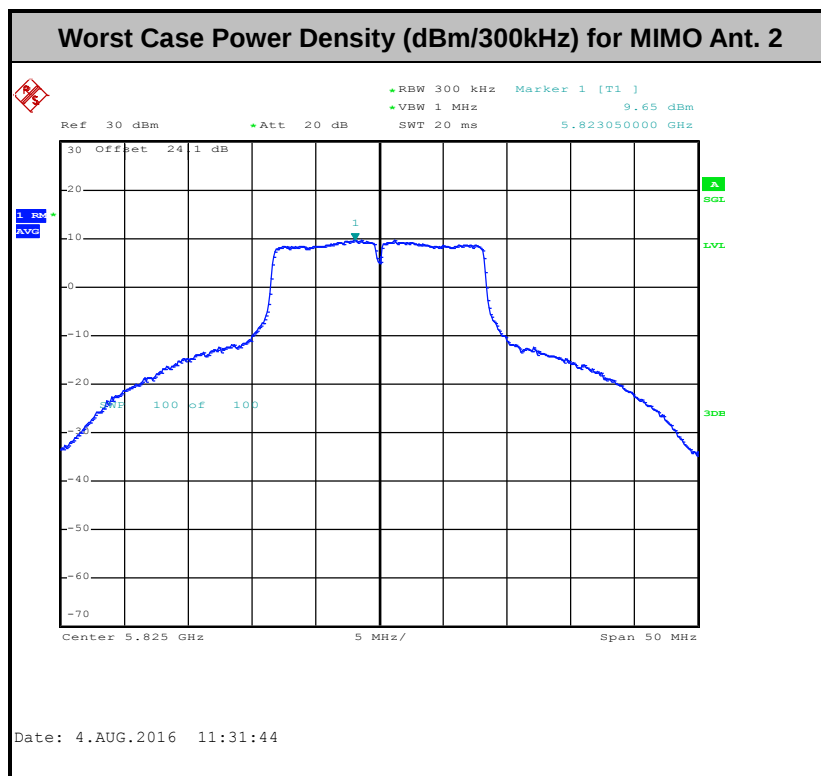
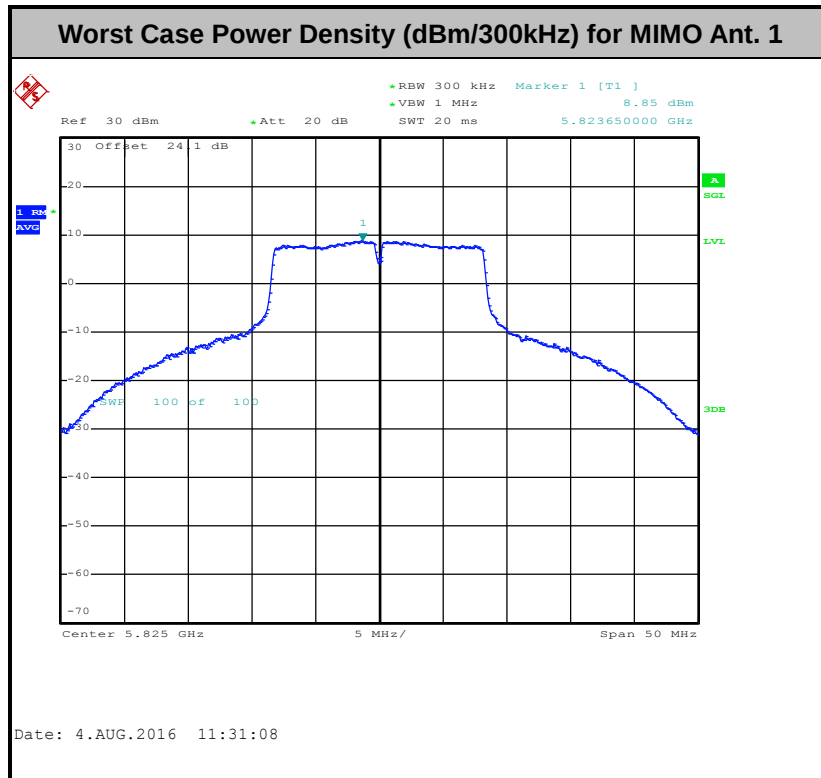
For the 5.15–5.25 GHz bands

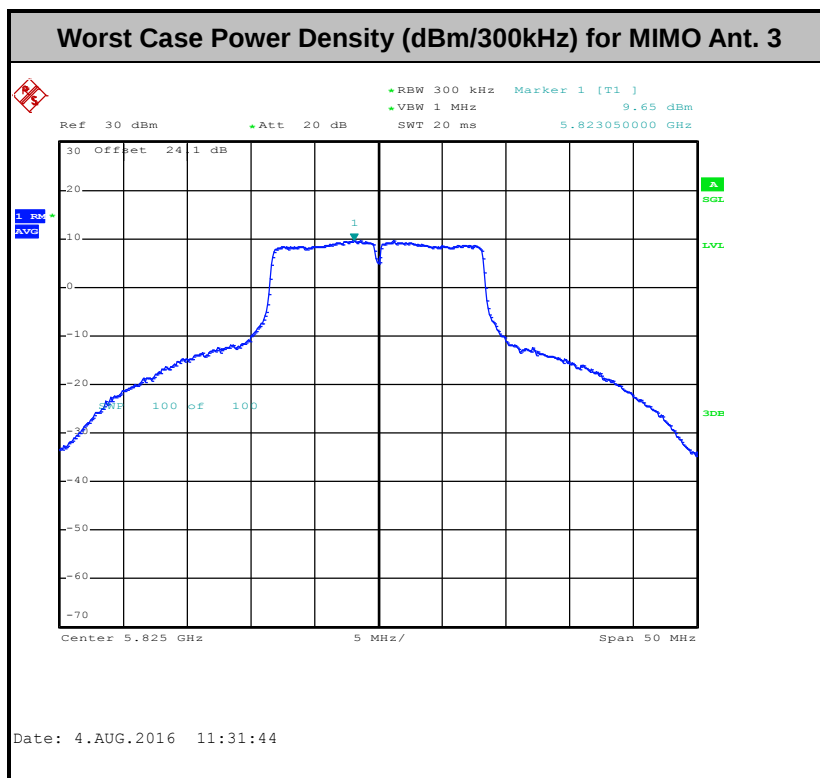


Note: Average Power Density (dB) = Measured value+ Duty Factor



For the 5.725–5.85 GHz bands

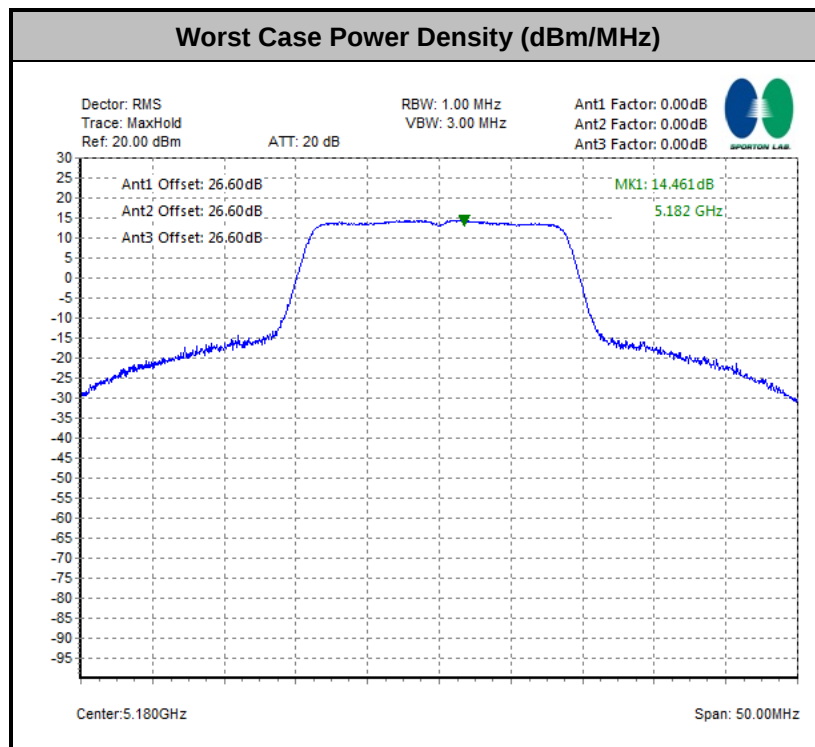






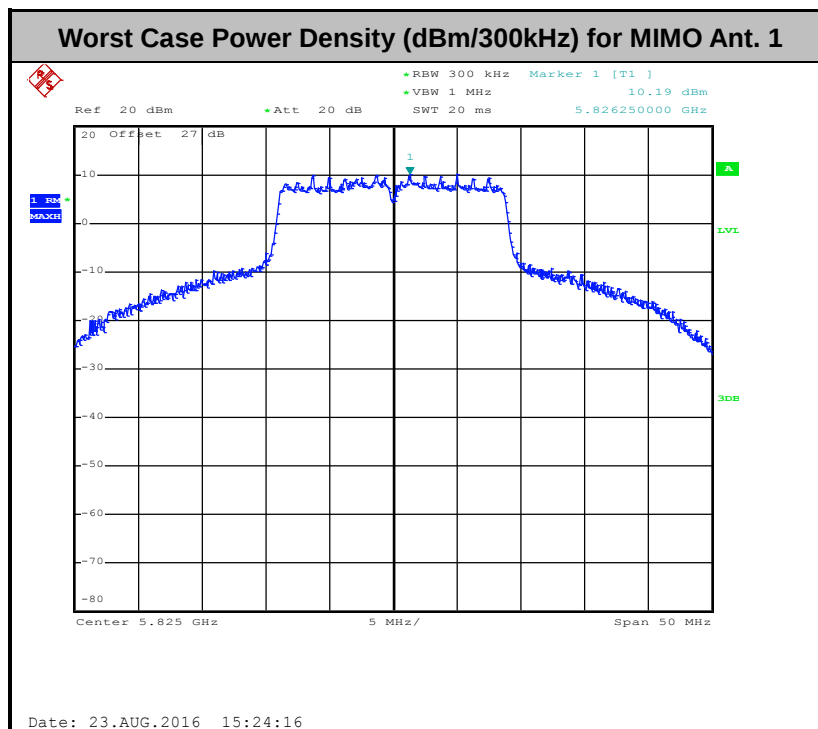
<TXBF Modes>

For the 5.15–5.25 GHz bands



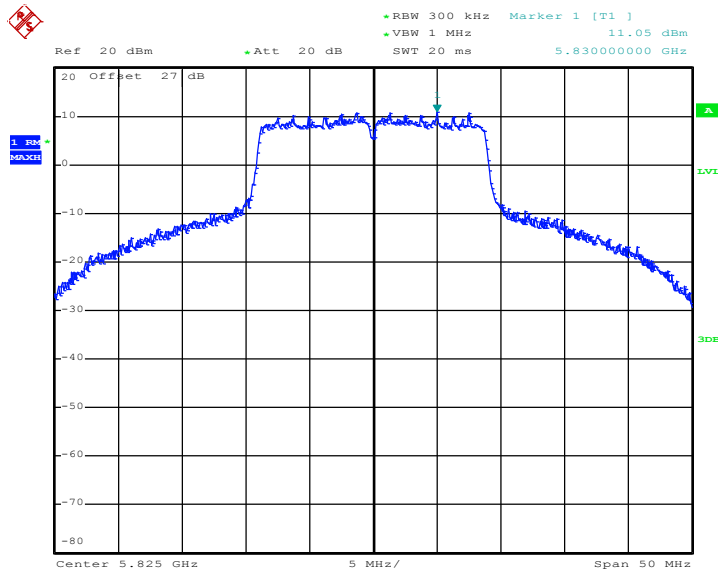
Note: Average Power Density (dB) = Measured value+ Duty Factor

For the 5.725–5.85 GHz bands



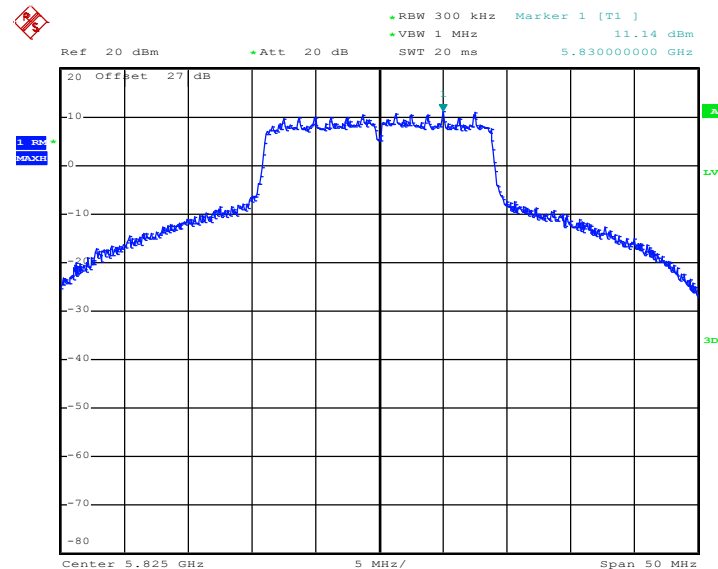


Worst Case Power Density (dBm/300kHz) for MIMO Ant. 2



Date: 23.AUG.2016 15:25:36

Worst Case Power Density (dBm/300kHz) for MIMO Ant. 3



Date: 23.AUG.2016 15:27:29

3.4 Unwanted Emissions Measurement

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

3.4.1 Limit of Unwanted Emissions

- (1) For transmitters operating in the 5150-5250 MHz band:

all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of -27dBm/MHz.

For transmitters operating in the 5.725-5.85 GHz band:

15.407(b)(4)(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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

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

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

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

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

(3) For the 5.15–5.25 GHz bands

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

(4) For the 5.725–5.85 GHz bands

KDB 789033 D02 General UNII Test Procedures New Rules v01r03 G)2)c) As specified in 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in 15.407(b)(4)). However, an out-of-band emission that complies with both the average and peak limits of 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz peak emission limit.

3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

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

(1) Procedure for Unwanted Emissions Measurements Below 1000MHz

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

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

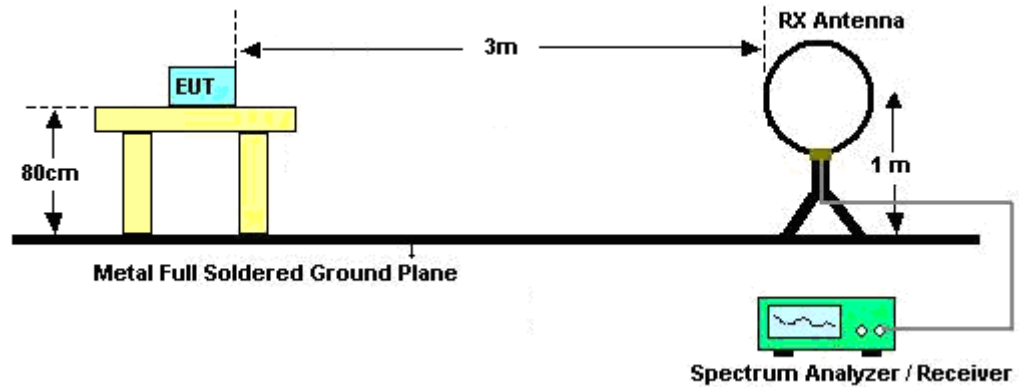
- RBW = 1 MHz
- VBW $\geq$ 3 MHz
- Detector = Peak
- Sweep time = auto
- Trace mode = max hold

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

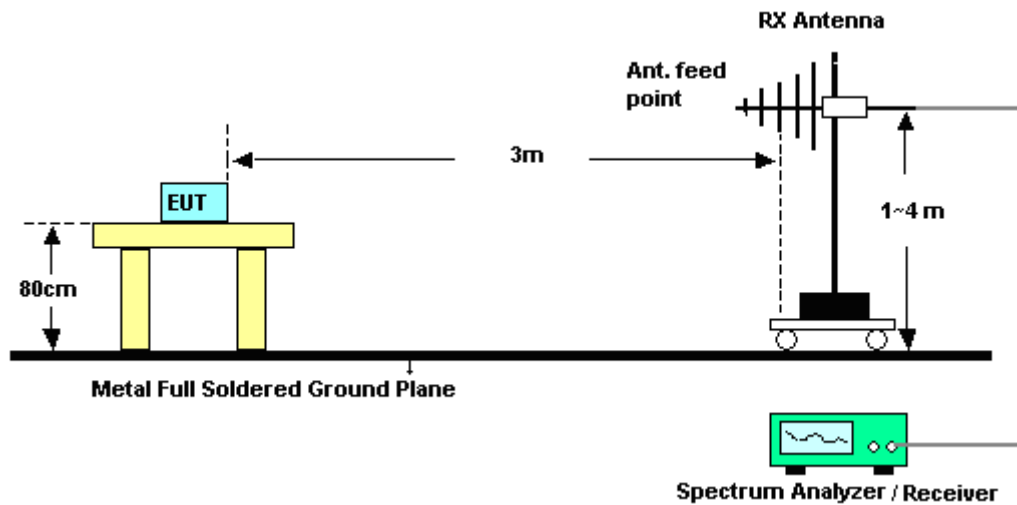
- RBW = 1 MHz
 - VBW = 10 Hz, when duty cycle is no less than 98 percent.
 - $VBW \geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
2.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

3.4.4 Test Setup

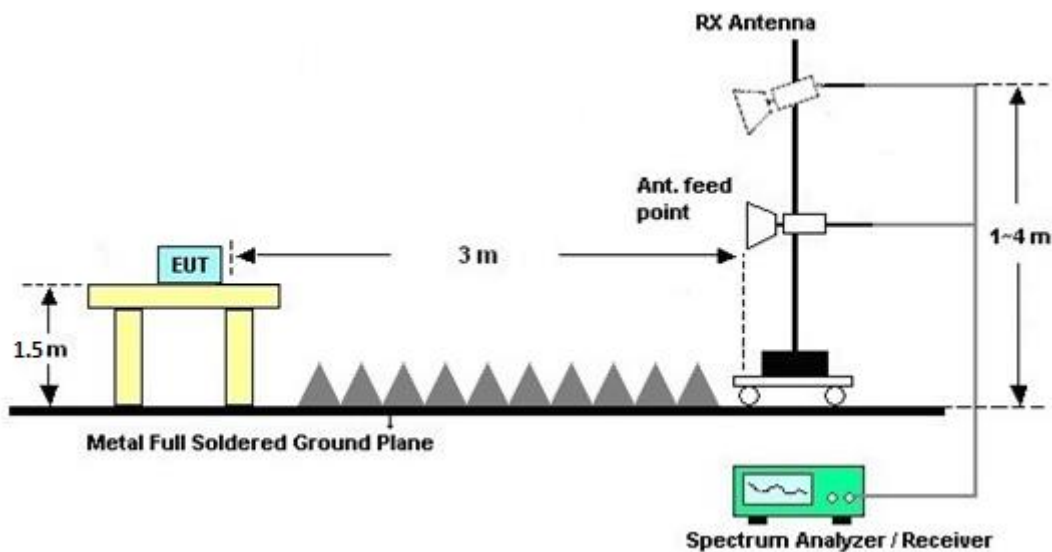
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

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

3.4.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix B and C.

3.4.7 Duty Cycle

Please refer to Appendix D.

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

Please refer to Appendix B and C.

3.5 AC Conducted Emission Measurement

3.5.1 Limit of AC Conducted Emission

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

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

*Decreases with the logarithm of the frequency.

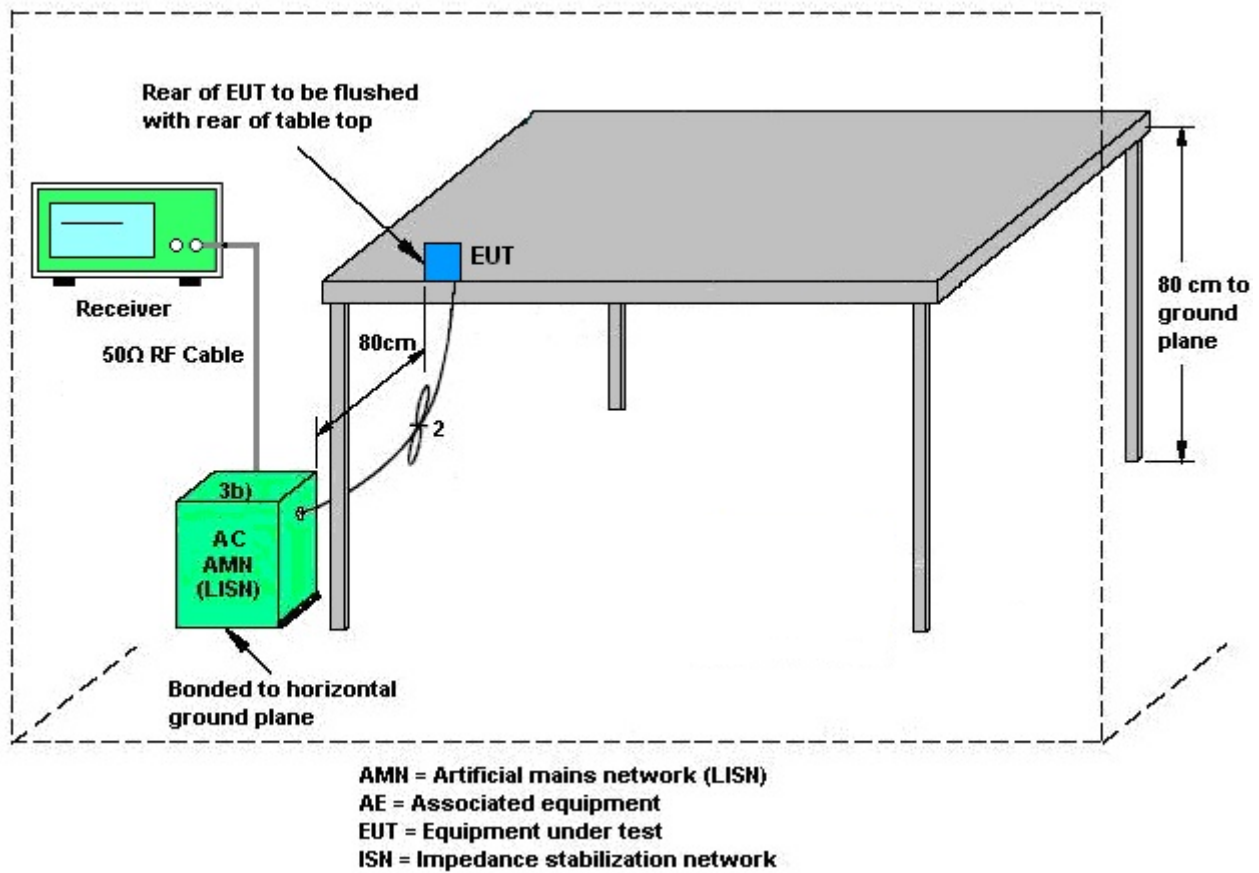
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

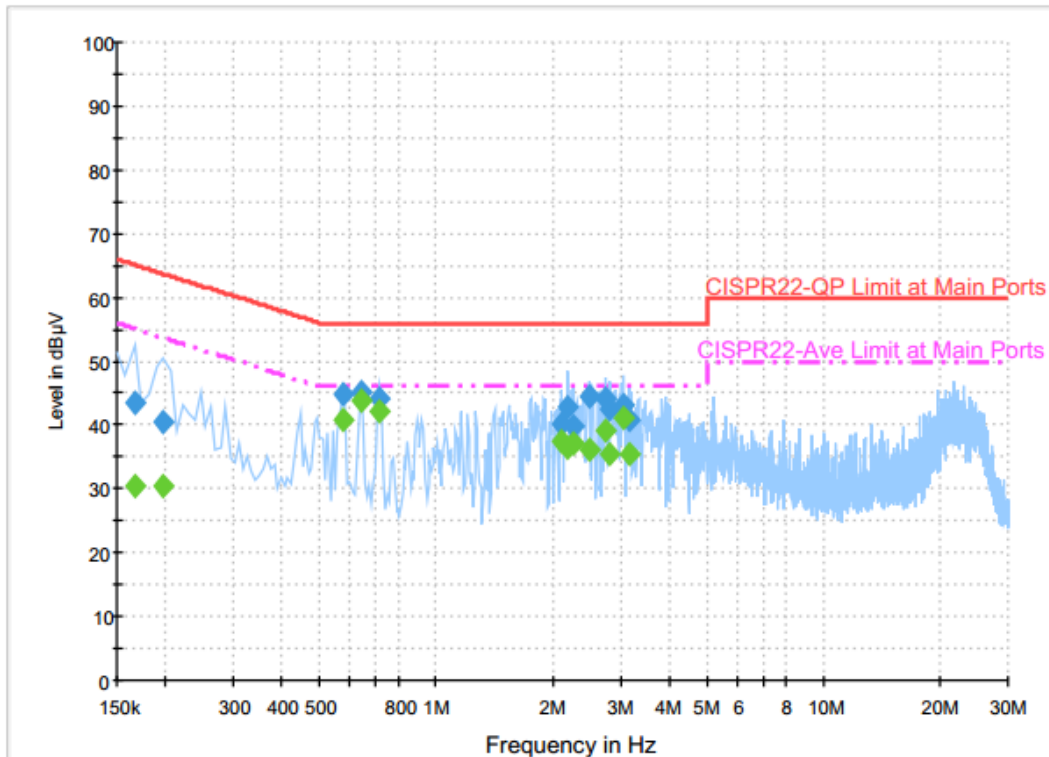
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.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

3.5.4 Test Setup



3.5.5 Test Result of AC Conducted Emission

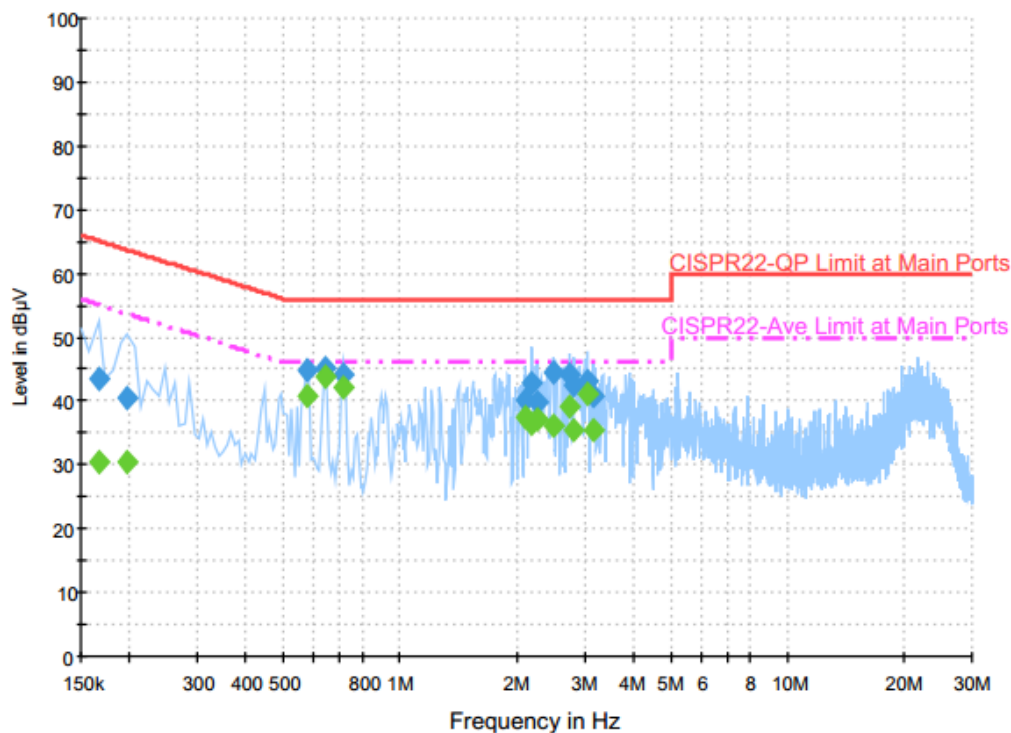
Test Mode :	Mode 1	Temperature :	23~24℃
Test Engineer :	Arthur Hsieh	Relative Humidity :	58~59%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WLAN (5GHz) Link + Zigbee Link + Z-Wave Link + LAN Link + WAN Link + USB HD + Adapter 1		



Final Result : QuasiPeak

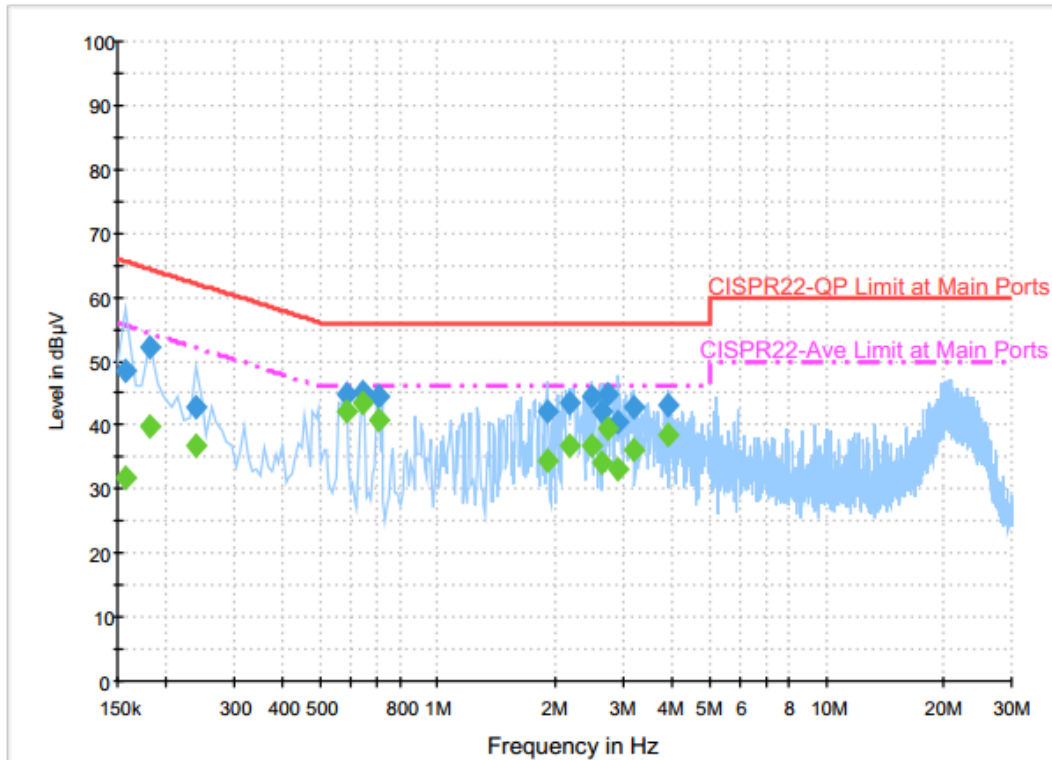
Frequency (MHz)	QuasiPeak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.166000	43.6	Off	L1	19.6	21.6	65.2
0.198000	40.6	Off	L1	19.6	23.1	63.7
0.574000	44.8	Off	L1	19.6	11.2	56.0
0.638000	45.3	Off	L1	19.6	10.7	56.0
0.710000	44.3	Off	L1	19.6	11.7	56.0
2.118000	40.2	Off	L1	19.5	15.8	56.0
2.182000	42.7	Off	L1	19.5	13.3	56.0
2.278000	40.0	Off	L1	19.5	16.0	56.0
2.486000	44.3	Off	L1	19.6	11.7	56.0
2.734000	44.1	Off	L1	19.6	11.9	56.0
2.822000	42.5	Off	L1	19.6	13.5	56.0
3.038000	43.0	Off	L1	19.6	13.0	56.0
3.158000	40.8	Off	L1	19.6	15.2	56.0

Test Mode :	Mode 1	Temperature :	23~24°C
Test Engineer :	Arthur Hsieh	Relative Humidity :	58~59%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WLAN (5GHz) Link + Zigbee Link + Z-Wave Link + LAN Link + WAN Link + USB HD + Adapter 1		


Final Result : Average

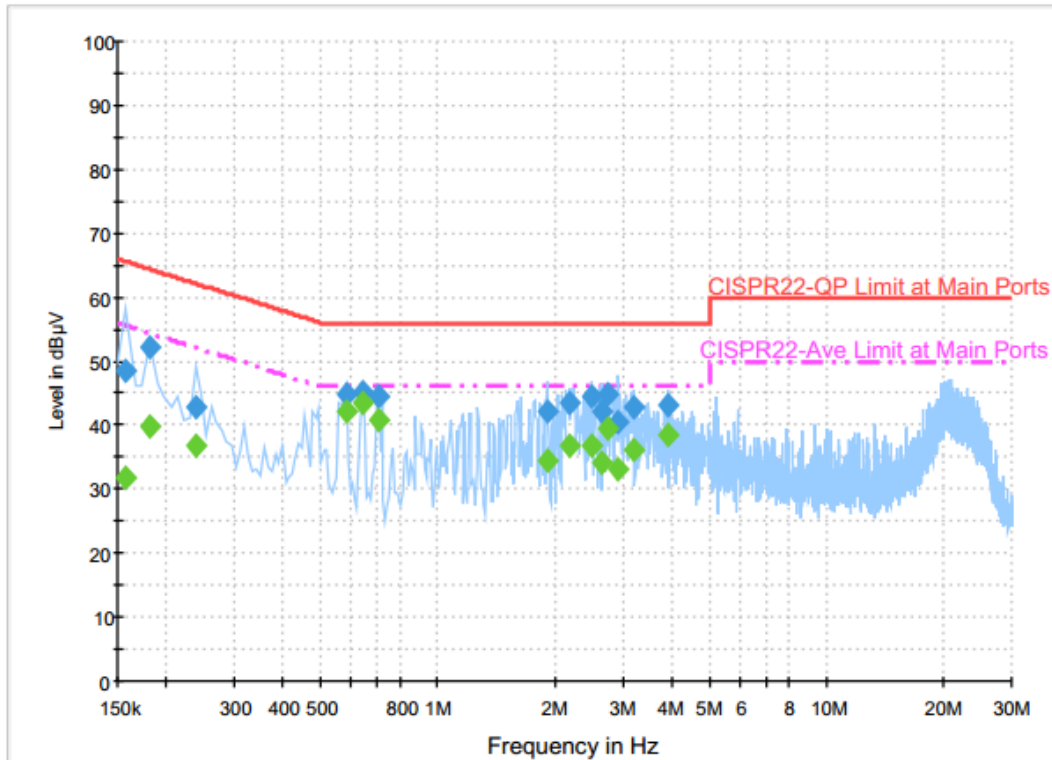
Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.166000	30.5	Off	L1	19.6	24.7	55.2
0.198000	30.5	Off	L1	19.6	23.2	53.7
0.574000	40.8	Off	L1	19.6	5.2	46.0
0.638000	43.7	Off	L1	19.6	2.3	46.0
0.710000	42.2	Off	L1	19.6	3.8	46.0
2.118000	37.4	Off	L1	19.5	8.6	46.0
2.182000	36.4	Off	L1	19.5	9.6	46.0
2.278000	37.0	Off	L1	19.5	9.0	46.0
2.486000	36.2	Off	L1	19.6	9.8	46.0
2.734000	39.2	Off	L1	19.6	6.8	46.0
2.822000	35.4	Off	L1	19.6	10.6	46.0
3.038000	41.2	Off	L1	19.6	4.8	46.0
3.158000	35.6	Off	L1	19.6	10.4	46.0

Test Mode :	Mode 1	Temperature :	23~24°C
Test Engineer :	Arthur Hsieh	Relative Humidity :	58~59%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	WLAN (5GHz) Link + Zigbee Link + Z-Wave Link + LAN Link + WAN Link + USB HD + Adapter 1		


Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.158000	48.4	Off	N	19.6	17.2	65.6
0.182000	52.2	Off	N	19.6	12.2	64.4
0.238000	42.8	Off	N	19.6	19.4	62.2
0.582000	44.9	Off	N	19.6	11.1	56.0
0.638000	45.3	Off	N	19.6	10.7	56.0
0.702000	44.6	Off	N	19.6	11.4	56.0
1.918000	42.1	Off	N	19.6	13.9	56.0
2.182000	43.5	Off	N	19.5	12.5	56.0
2.486000	44.5	Off	N	19.6	11.5	56.0
2.646000	42.0	Off	N	19.6	14.0	56.0
2.734000	44.9	Off	N	19.6	11.1	56.0
2.918000	40.6	Off	N	19.6	15.4	56.0
3.190000	42.7	Off	N	19.6	13.3	56.0
3.894000	43.3	Off	N	19.6	12.7	56.0

Test Mode :	Mode 1	Temperature :	23~24°C
Test Engineer :	Arthur Hsieh	Relative Humidity :	58~59%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	WLAN (5GHz) Link + Zigbee Link + Z-Wave Link + LAN Link + WAN Link + USB HD + Adapter 1		


Final Result : Average

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.158000	31.7	Off	N	19.6	23.9	55.6
0.182000	39.7	Off	N	19.6	14.7	54.4
0.238000	36.7	Off	N	19.6	15.5	52.2
0.582000	42.0	Off	N	19.6	4.0	46.0
0.638000	43.6	Off	N	19.6	2.4	46.0
0.702000	41.0	Off	N	19.6	5.0	46.0
1.918000	34.3	Off	N	19.6	11.7	46.0
2.182000	36.7	Off	N	19.5	9.3	46.0
2.486000	36.8	Off	N	19.6	9.2	46.0
2.646000	34.0	Off	N	19.6	12.0	46.0
2.734000	39.4	Off	N	19.6	6.6	46.0
2.918000	33.0	Off	N	19.6	13.0	46.0
3.190000	36.0	Off	N	19.6	10.0	46.0
3.894000	38.3	Off	N	19.6	7.7	46.0

3.6 Frequency Stability Measurement

3.6.1 Limit of Frequency Stability

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

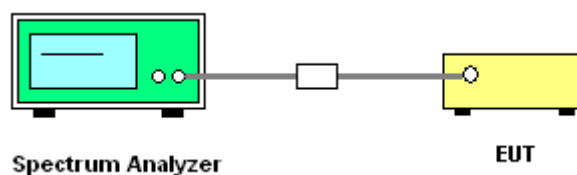
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

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

3.6.4 Test Setup



3.6.5 Test Result of Frequency Stability

Please refer to Appendix A.



3.7 Automatically Discontinue Transmission

3.7.1 Limit of Automatically Discontinue Transmission

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

3.7.2 Measuring Instruments

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

3.7.3 Test Result of Automatically Discontinue Transmission

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

3.8 Antenna Requirements

3.8.1 Standard Applicable

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

3.8.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.8.3 Antenna Gain

CDD modes

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

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

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

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

For power measurements on IEEE 802.11 devices,

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

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

The EUT supports CDD mode.

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

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

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

The directional gain "DG" is calculated as following table.

				DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
	Ant 1 (dBi)	Ant 2 (dBi)	Ant 3 (dBi)				
Band I	3.82	2.79	3.28	3.82	8.08	0.00	2.08
Band IV	3.08	2.47	1.97	3.08	7.29	0.00	1.29

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

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

TXBF modes

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

$$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

where

Each antenna is driven by no more than one spatial stream;

N_{SS} = the number of independent spatial streams of data;

N_{ANT} = the total number of antennas

$g_{j,k} = 10^{G_k/20}$ if the k th antenna is being fed by spatial stream j , or zero if it is not;
 G_k is the gain in dBi of the k th antenna.

The EUT supports beamforming for 802.11ac modes.

The directional gain calculation is following F2)e)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.

				DG	DG	Power	PSD
				for	for	Limit	Limit
	Ant 1	Ant 2	Ant 3	Power	PSD	Reduction	Reduction
	(dBi)	(dBi)	(dBi)	(dBi)	(dBi)	(dB)	(dB)
Band I	3.82	2.79	3.28	8.08	8.08	2.08	2.08
Band IV	3.08	2.47	1.97	7.29	7.29	1.29	1.29

Power Limit Reduction = $DG(Power) - 6dBi$, (min = 0)

PSD Limit Reduction = $DG(PSD) - 6dBi$, (min = 0)



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	0932001	300MHz~40GHz	Oct. 05, 2015	Feb. 11, 2016 ~ Sep. 14, 2016	Oct. 04, 2016	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	0846202	300MHz~40GHz	Oct. 05, 2015	Feb. 11, 2016 ~ Sep. 14, 2016	Oct. 04, 2016	Conducted (TH05-HY)
Temperature Chamber	ESPEC	SH-641	92013720	-40℃ ~90℃	Sep. 08, 2015	Feb. 11, 2016 ~ Aug. 31, 2016	Sep. 07, 2016	Conducted (TH05-HY)
Temperature Chamber	ESPEC	SH-641	92013720	-40℃ ~90℃	Sep. 01, 2016	Sep. 01, 2016 ~ Sep. 14, 2016	Aug. 31, 2017	Conducted (TH05-HY)
Programmable Power Supply	GW Instek	PSS-2005	GEO821763	N/A	Nov. 13, 2015	Feb. 11, 2016 ~ Sep. 14, 2016	Nov. 12, 2016	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz-40GHz	Nov. 23, 2015	Feb. 11, 2016 ~ Sep. 14, 2016	Nov. 22, 2016	Conducted (TH05-HY)
Power Sensor	DARE	RadiPower	15I00041SN O09	10MHz~6GHz	May 03, 2016	Feb. 11, 2016 ~ Sep. 14, 2016	May 02, 2017	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Apr. 21, 2016	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESCI 7	100724	9kHz~7GHz	Aug. 26, 2015	Apr. 21, 2016	Aug. 25, 2016	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Dec. 02, 2015	Apr. 21, 2016	Dec. 01, 2016	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Dec. 14, 2015	Apr. 21, 2016	Dec. 13, 2016	Conduction (CO05-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Sep. 02, 2015	Jul. 13, 2016 ~ Sep. 05, 2016	Sep. 01, 2017	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D	35414	30MHz~1GHz	Nov. 17, 2015	Jul. 13, 2016 ~ Sep. 05, 2016	Nov. 16, 2016	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1326	1GHz ~ 18GHz	Oct. 08, 2015	Jul. 13, 2016 ~ Sep. 05, 2016	Oct. 07, 2016	Radiation (03CH11-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 02, 2015	Jul. 13, 2016 ~ Sep. 05, 2016	Nov. 01, 2016	Radiation (03CH11-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Nov. 20, 2015	Jul. 13, 2016 ~ Sep. 05, 2016	Nov. 19, 2016	Radiation (03CH11-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1902247	1GHz~18GHz	Jul. 01, 2015	Jul. 13, 2016 ~ Jun. 21, 2016	Jun. 30, 2016	Radiation (03CH11-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1902247	1GHz~18GHz	Jun. 22, 2016	Jun. 22, 2016 ~ Sep. 05, 2016	Jun. 21, 2017	Radiation (03CH11-HY)
Preamplifier	Keysight	83017A	MY53270080	1GHz~26.5GHz	Nov. 19, 2015	Jul. 13, 2016 ~ Sep. 05, 2016	Nov. 18, 2016	Radiation (03CH11-HY)
Preamplifier	MITEQ	TTA0204	1872107	2GHz~40GHz	Feb. 15, 2016	Jul. 13, 2016 ~ Sep. 05, 2016	Feb. 14, 2017	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz ~ 44GHZ	Sep. 24, 2015	Jul. 13, 2016 ~ Sep. 05, 2016	Sep. 23, 2016	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Jul. 13, 2016 ~ Sep. 05, 2016	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Jul. 13, 2016 ~ Sep. 05, 2016	N/A	Radiation (03CH11-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.26
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.20
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.50
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.20
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Appendix A. Conducted Test Results

<CDD Modes>

Report Number : FR612811D

Test Engineer:	PH Yang	Temperature:	22~25	°C
Test Date:	2016/02/11~2016/08/10	Relative Humidity:	51~54	%

TEST RESULTS DATA
26dB and 99% OBW

FCC Band I																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	26 dB Bandwidth (MHz)				99% Bandwidth (MHz)				IC 99% Bandwidth EIRP Limit (dBm)			
					Ant 1	Ant 2	Ant 3	Ant 4	Ant 1	Ant 2	Ant 3	Ant 4	Ant 1	Ant 2	Ant 3	Ant 4
11a	6Mbps	3	36	5180	30.10	27.05	22.10		18.20	17.75	17.80		22.60	22.49	22.50	
11a	6Mbps	3	44	5220	33.15	28.80	29.05		18.15	17.75	17.75		22.59	22.49	22.49	
11a	6Mbps	3	48	5240	37.20	37.55	33.90		18.55	18.30	17.95		22.68	22.62	22.54	
HT20	MCS0	3	36	5180	38.90	23.00	25.40		18.80	18.55	18.50		22.74	22.68	22.67	
HT20	MCS0	3	44	5220	38.50	23.55	27.65		18.75	18.65	18.60		22.73	22.71	22.70	
HT20	MCS0	3	48	5240	30.95	25.40	24.50		18.80	18.60	18.55		22.74	22.70	22.68	
HT40	MCS0	3	38	5190	41.27	40.95	40.66		36.60	36.50	36.50		23.01	23.01	23.01	
HT40	MCS0	3	46	5230	93.36	72.70	75.05		37.70	37.10	37.20		23.01	23.01	23.01	
VHT20	MCS0	3	36	5180	32.35	25.15	22.70		18.75	18.55	18.65		22.73	22.68	22.71	
VHT20	MCS0	3	44	5220	36.10	25.25	26.15		18.65	18.55	18.65		22.71	22.68	22.71	
VHT20	MCS0	3	48	5240	34.05	25.60	24.85		18.75	18.70	18.55		22.73	22.72	22.68	
VHT40	MCS0	3	38	5190	40.97	41.17	40.36		36.60	36.70	36.60		23.01	23.01	23.01	
VHT40	MCS0	3	46	5230	89.26	75.89	71.93		37.60	37.10	37.00		23.01	23.01	23.01	
VHT80	MCS0	3	42	5210	82.56	81.44	81.60		75.72	75.72	75.60		23.01	23.01	23.01	

TEST RESULTS DATA
Average Power Table

FCC Band I															
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Ant	Average Conducted Power with duty factor (dBm)					FCC Power Limit (dBm)	DG (dBi)	FCC EIRP Power (dBm)	FCC EIRP Power Limit (dBm)	Pass/Fail
						Ant 1	Ant 2	Ant 3	Ant 4	SUM					
11a	6Mbps	3	36	5180	1+2+3	21.94	21.38	20.77		26.16	30.00	3.82	29.98	-	Pass
11a	6Mbps	3	44	5220	1+2+3	21.96	21.48	20.97		26.26	30.00	3.82	30.08	-	Pass
11a	6Mbps	3	48	5240	1+2+3	21.64	21.25	20.41		25.90	30.00	3.82	29.72	-	Pass
HT20	MCS0	3	36	5180	1+2+3	21.85	21.30	20.80		26.11	30.00	3.82	29.93	-	Pass
HT20	MCS0	3	44	5220	1+2+3	22.00	21.46	20.96		26.26	30.00	3.82	30.08	-	Pass
HT20	MCS0	3	48	5240	1+2+3	22.01	21.63	20.87		26.30	30.00	3.82	30.12	-	Pass
HT40	MCS0	3	38	5190	1+2+3	14.79	14.54	14.09		19.26	30.00	3.82	23.08	-	Pass
HT40	MCS0	3	46	5230	1+2+3	24.67	24.73	23.83		29.20	30.00	3.82	33.02	-	Pass
VHT20	MCS0	3	36	5180	1+2+3	21.81	21.34	20.76		26.10	30.00	3.82	29.92	-	Pass
VHT20	MCS0	3	44	5220	1+2+3	21.98	21.42	20.88		26.22	30.00	3.82	30.04	-	Pass
VHT20	MCS0	3	48	5240	1+2+3	22.06	21.59	20.83		26.29	30.00	3.82	30.11	-	Pass
VHT40	MCS0	3	38	5190	1+2+3	14.64	14.61	13.92		19.17	30.00	3.82	22.99	-	Pass
VHT40	MCS0	3	46	5230	1+2+3	24.52	24.64	23.60		29.05	30.00	3.82	32.87	-	Pass
VHT80	MCS0	3	42	5210	1+2+3	13.63	13.68	13.39		18.34	30.00	3.82	22.16	-	Pass

TEST RESULTS DATA
Power Spectral Density

FCC Band I													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Ant	Duty Factor (dB)				Average PSD with Duty Factor (dBm/MHz)	PSD Limit (dBm/MHz)	DG (dBi)	Pass /Fail
						Ant 1	Ant 2	Ant 3	Ant 4				
11a	6Mbps	3	36	5180	1+2+3	0.25	0.25	0.21		14.754	14.92	8.08	Pass
11a	6Mbps	3	44	5220	1+2+3	0.25	0.25	0.21		14.870	14.92	8.08	Pass
11a	6Mbps	3	48	5240	1+2+3	0.25	0.25	0.21		14.834	14.92	8.08	Pass
HT20	MCS0	3	36	5180	1+2+3	0.25	0.25	0.25		14.504	14.92	8.08	Pass
HT20	MCS0	3	44	5220	1+2+3	0.25	0.25	0.25		14.643	14.92	8.08	Pass
HT20	MCS0	3	48	5240	1+2+3	0.25	0.25	0.25		14.646	14.92	8.08	Pass
HT40	MCS0	3	38	5190	1+2+3	0.48	0.48	0.43		4.674	14.92	8.08	Pass
HT40	MCS0	3	46	5230	1+2+3	0.48	0.48	0.43		14.776	14.92	8.08	Pass
VHT20	MCS0	3	36	5180	1+2+3	0.11	0.07	0.07		14.376	14.92	8.08	Pass
VHT20	MCS0	3	44	5220	1+2+3	0.11	0.07	0.07		14.501	14.92	8.08	Pass
VHT20	MCS0	3	48	5240	1+2+3	0.11	0.07	0.07		14.539	14.92	8.08	Pass
VHT40	MCS0	3	38	5190	1+2+3	0.14	0.13	0.14		4.549	14.92	8.08	Pass
VHT40	MCS0	3	46	5230	1+2+3	0.14	0.13	0.14		14.667	14.92	8.08	Pass
VHT80	MCS0	3	42	5210	1+2+3	0.27	0.22	0.28		0.433	14.92	8.08	Pass

TEST RESULTS DATA
Frequency Stability

FCC Band I										
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stability (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	20	10.8	
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	20	13.2	
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	20	12	
11a	6Mbps	1	36	5180	5180.025	0.025	4.83	-30	12	
11a	6Mbps	1	36	5180	5179.975	-0.025	-4.83	50	12	

Report Number : FR612811D

Test Engineer:	PH Yang	Temperature:	22~25	°C
Test Date:	2016/02/11~2016/08/10	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 99% OBW

FCC Band IV																	
Mod.	Data Rate	Ntx	CH.	Freq. (MHz)	99% Bandwidth (MHz)			26 dB Bandwidth (MHz)			6 dB Bandwidth (MHz)			6 dB Bandwidth Min. Limit (MHz)			Pass/Fail
					Ant 1	Ant 2	Ant 3	Ant 1	Ant 2	Ant 3	Ant 1	Ant 2	Ant 3	Ant 1	Ant 2	Ant 3	
11a	6Mbps	3	149	5745	23.60	20.30	25.90	43.45	39.70	43.00	17.64	16.34	16.32	0.5			Pass
11a	6Mbps	3	157	5785	23.95	20.05	25.45	43.70	40.50	45.50	16.32	16.30	16.32	0.5			Pass
11a	6Mbps	3	165	5825	24.05	19.50	23.75	43.90	40.50	45.20	16.30	16.30	16.32	0.5			Pass
HT20	MCS0	3	149	5745	24.75	20.95	24.70	49.22	46.46	47.60	17.58	17.58	17.58	0.5			Pass
HT20	MCS0	3	157	5785	25.40	20.05	24.65	48.62	46.82	48.35	17.54	17.58	17.54	0.5			Pass
HT20	MCS0	3	165	5825	24.35	20.55	24.95	49.09	46.53	47.94	17.54	17.58	17.56	0.5			Pass
HT40	MCS0	3	151	5755	50.60	39.30	49.20	99.42	91.12	97.68	36.28	36.36	36.28	0.5			Pass
HT40	MCS0	3	159	5795	48.20	39.00	48.10	99.89	92.12	98.28	36.28	36.28	36.28	0.5			Pass
VHT20	MCS0	3	149	5745	24.15	19.90	23.00	47.42	46.44	47.84	17.54	17.58	17.56	0.5			Pass
VHT20	MCS0	3	157	5785	24.60	20.60	23.60	48.31	46.64	48.00	17.58	17.58	17.60	0.5			Pass
VHT20	MCS0	3	165	5825	24.80	19.80	23.35	48.10	46.84	47.93	17.58	17.58	17.58	0.5			Pass
VHT40	MCS0	3	151	5755	46.90	38.30	45.40	100.26	96.15	95.40	36.32	36.36	36.28	0.5			Pass
VHT40	MCS0	3	159	5795	46.80	38.50	47.50	97.03	94.84	96.61	36.04	36.36	36.28	0.5			Pass
VHT80	MCS0	3	155	5775	76.44	76.20	76.68	180.16	158.08	161.60	75.92	76.40	75.44	0.5			Pass

TEST RESULTS DATA
Average Power Table

FCC Band IV															
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Average Conducted Power with duty factor (dBm)				FCC Conducted Power Limit (dBm)			DG (dBi)			Pass/Fail
					Ant 1	Ant 2	Ant 3	SUM	Ant 1	Ant 2	Ant 3	Ant 1	Ant 2	Ant 3	
11a	6Mbps	3	149	5745	24.74	25.14	25.17	29.79	30.00			3.08			Pass
11a	6Mbps	3	157	5785	24.80	25.21	25.1	29.81	30.00			3.08			Pass
11a	6Mbps	3	165	5825	24.57	25.30	25.19	29.80	30.00			3.08			Pass
HT20	MCS0	3	149	5745	24.84	25.21	25.36	29.91	30.00			3.08			Pass
HT20	MCS0	3	157	5785	24.76	25.21	25.17	29.82	30.00			3.08			Pass
HT20	MCS0	3	165	5825	24.61	25.16	25.2	29.77	30.00			3.08			Pass
HT40	MCS0	3	151	5755	24.93	25.33	25.39	29.99	30.00			3.08			Pass
HT40	MCS0	3	159	5795	24.83	25.30	25.4	29.96	30.00			3.08			Pass
VHT20	MCS0	3	149	5745	24.70	25.09	25.07	29.73	30.00			3.08			Pass
VHT20	MCS0	3	157	5785	24.63	25.03	25.03	29.67	30.00			3.08			Pass
VHT20	MCS0	3	165	5825	24.43	25.05	25.07	29.63	30.00			3.08			Pass
VHT40	MCS0	3	151	5755	24.73	25.04	25.09	29.73	30.00			3.08			Pass
VHT40	MCS0	3	159	5795	24.69	25.03	25.1	29.71	30.00			3.08			Pass
VHT80	MCS0	3	155	5775	23.23	24.05	24.09	28.58	30.00			3.08			Pass

TEST RESULTS DATA
Power Spectral Density

FCC Band IV															
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Average Power Density with RBW and duty factor (dBm/500kHz)				Average PSD Limit (dBm/500kHz)			DG (dBi)			Pass /Fail
					Ant 1	Ant 2	Ant 3	SUM	Ant 1	Ant 2	Ant 3	Ant 1	Ant 2	Ant 3	
11a	6Mbps	3	149	5745	11.63	9.79	9.75	16.77	28.71			7.29			Pass
11a	6Mbps	3	157	5785	11.14	9.55	9.51	16.53	28.71			7.29			Pass
11a	6Mbps	3	165	5825	11.31	9.90	9.86	16.88	28.71			7.29			Pass
HT20	MCS0	3	149	5745	10.17	8.60	8.36	15.58	28.71			7.29			Pass
HT20	MCS0	3	157	5785	9.54	7.88	5.63	14.86	28.71			7.29			Pass
HT20	MCS0	3	165	5825	7.63	6.22	6.07	13.20	28.71			7.29			Pass
HT40	MCS0	3	151	5755	6.94	5.28	4.50	12.27	28.71			7.29			Pass
HT40	MCS0	3	159	5795	6.47	5.12	4.72	12.11	28.71			7.29			Pass
VHT20	MCS0	3	149	5745	7.09	5.26	4.88	12.25	28.71			7.29			Pass
VHT20	MCS0	3	157	5785	7.29	5.74	5.35	12.73	28.71			7.29			Pass
VHT20	MCS0	3	165	5825	7.70	6.87	6.55	13.86	28.71			7.29			Pass
VHT40	MCS0	3	151	5755	4.15	2.44	2.31	9.43	28.71			7.29			Pass
VHT40	MCS0	3	159	5795	4.27	2.82	2.63	9.81	28.71			7.29			Pass
VHT80	MCS0	3	155	5775	-0.21	-1.92	-1.94	5.07	28.71			7.29			Pass

TEST RESULTS DATA
Frequency Stability

FCC Band IV										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stability (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6Mbps	1	149	5745	5744.950	-0.050	-8.70	20	10.8	
11a	6Mbps	1	149	5745	5744.950	-0.050	-8.70	20	13.2	
11a	6Mbps	1	149	5745	5744.950	-0.050	-8.70	20	12	
11a	6Mbps	1	149	5745	5745.050	0.050	8.70	-30	12	
11a	6Mbps	1	149	5745	5744.950	-0.050	-8.70	50	12	



<TXBF Modes>

Report Number : FR612811D

Test Engineer:	PH Yang	Temperature:	21~25	°C
Test Date:	2016/08/16~2016/09/14	Relative Humidity:	51~54	%

TEST RESULTS DATA
26dB and 99% OBW

FCC Band I																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	26 dB Bandwidth (MHz)				99% Bandwidth (MHz)				IC 99% Bandwidth EIRP Limit (dBm)			
					Ant 1	Ant 2	Ant 3	Ant 4	Ant 1	Ant 2	Ant 3	Ant 4	Ant 1	Ant 2	Ant 3	Ant 4
HT20	MCS0	3	36	5180	30.58	24.49	21.95		18.70	18.70	18.45		22.72	22.72	22.66	
HT20	MCS0	3	44	5220	29.25	25.71	25.20		18.65	18.70	18.55		22.71	22.72	22.68	
HT20	MCS0	3	48	5240	30.43	25.29	26.48		18.65	18.50	18.55		22.71	22.67	22.68	
HT40	MCS0	3	38	5190	41.57	41.46	41.30		36.70	36.70	36.60		23.01	23.01	23.01	
HT40	MCS0	3	46	5230	44.80	41.88	41.12		36.80	36.50	36.70		23.01	23.01	23.01	
VHT20	MCS0	3	36	5180	30.14	22.57	22.38		18.55	18.55	18.50		22.68	22.68	22.67	
VHT20	MCS0	3	44	5220	27.63	24.29	22.20		18.75	18.65	18.55		22.73	22.71	22.68	
VHT20	MCS0	3	48	5240	24.20	22.67	22.16		18.70	18.55	18.50		22.72	22.68	22.67	
VHT40	MCS0	3	38	5190	41.65	41.83	41.12		36.60	36.70	36.60		23.01	23.01	23.01	
VHT40	MCS0	3	46	5230	46.91	42.39	41.69		36.80	36.60	36.70		23.01	23.01	23.01	
VHT80	MCS0	3	42	5210	81.28	81.12	80.96		76.08	76.20	75.96		23.01	23.01	23.01	

TEST RESULTS DATA
Average Power Table

FCC Band I															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Ant	Average Conducted Power with duty factor (dBm)					FCC Power Limit (dBm)	DG (dBi)	FCC EIRP Power (dBm)	FCC EIRP Power Limit (dBm)	Pass/Fail
						Ant 1	Ant 2	Ant 3	Ant 4	SUM					
HT20	MCS0	3	36	5180	1+2+3	20.30	20.10	19.20		24.66	27.92	8.08	32.74	-	Pass
HT20	MCS0	3	44	5220	1+2+3	20.00	20.30	19.10		24.60	27.92	8.08	32.68	-	Pass
HT20	MCS0	3	48	5240	1+2+3	19.90	20.10	19.10		24.49	27.92	8.08	32.57	-	Pass
HT40	MCS0	3	38	5190	1+2+3	14.30	14.00	14.00		18.87	27.92	8.08	26.95	-	Pass
HT40	MCS0	3	46	5230	1+2+3	20.20	20.30	19.50		24.79	27.92	8.08	32.86	-	Pass
VHT20	MCS0	3	36	5180	1+2+3	20.10	20.20	19.30		24.66	27.92	8.08	32.73	-	Pass
VHT20	MCS0	3	44	5220	1+2+3	19.90	20.10	19.10		24.49	27.92	8.08	32.57	-	Pass
VHT20	MCS0	3	48	5240	1+2+3	20.00	20.20	19.10		24.56	27.92	8.08	32.64	-	Pass
VHT40	MCS0	3	38	5190	1+2+3	14.20	13.90	14.00		18.81	27.92	8.08	26.88	-	Pass
VHT40	MCS0	3	46	5230	1+2+3	20.00	20.30	19.40		24.69	27.92	8.08	32.77	-	Pass
VHT80	MCS0	3	42	5210	1+2+3	9.10	9.50	8.70		13.88	27.92	8.08	21.96	-	Pass

TEST RESULTS DATA
Power Spectral Density

FCC Band I													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Ant	Average PSD with Duty Factor (dBm/MHz)					PSD Limit (dBm/MHz)	DG (dBi)	Pass /Fail
						Ant 1	Ant 2	Ant 3	Ant 4	SUM			
HT20	MCS0	3	36	5180	1+2+3					14.461	14.92	8.08	Pass
HT20	MCS0	3	44	5220	1+2+3					14.315	14.92	8.08	Pass
HT20	MCS0	3	48	5240	1+2+3					14.045	14.92	8.08	Pass
HT40	MCS0	3	38	5190	1+2+3					9.236	14.92	8.08	Pass
HT40	MCS0	3	46	5230	1+2+3					14.087	14.92	8.08	Pass
VHT20	MCS0	3	36	5180	1+2+3					14.380	14.92	8.08	Pass
VHT20	MCS0	3	44	5220	1+2+3					14.134	14.92	8.08	Pass
VHT20	MCS0	3	48	5240	1+2+3					14.053	14.92	8.08	Pass
VHT40	MCS0	3	38	5190	1+2+3					9.338	14.92	8.08	Pass
VHT40	MCS0	3	46	5230	1+2+3					13.969	14.92	8.08	Pass
VHT80	MCS0	3	42	5210	1+2+3					1.657	14.92	8.08	Pass

Report Number : FR612811D

Test Engineer:	PH Yang	Temperature:	21~25	°C
Test Date:	2016/08/16~2016/09/14	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 99% OBW

FCC Band IV																	
Mod.	Data Rate	Ntx	CH.	Freq. (MHz)	99% Bandwidth (MHz)			26 dB Bandwidth (MHz)			6 dB Bandwidth (MHz)			6 dB Bandwidth Min. Limit (MHz)			Pass/Fail
					Ant 1	Ant 2	Ant 3	Ant 1	Ant 2	Ant 3	Ant 1	Ant 2	Ant 3	Ant 1	Ant 2	Ant 3	
HT20	MCS0	3	149	5745	28.30	24.60	29.20	49.54	49.08	49.23	17.60	17.54	17.54	0.5			Pass
HT20	MCS0	3	157	5785	28.20	26.20	28.30	49.28	48.79	50.37	17.58	17.58	17.56	0.5			Pass
HT20	MCS0	3	165	5825	28.80	25.10	29.80	49.55	48.69	50.58	17.58	17.60	17.56	0.5			Pass
HT40	MCS0	3	151	5755	55.90	48.20	56.80	98.36	88.82	96.48	35.12	35.08	35.04	0.5			Pass
HT40	MCS0	3	159	5795	56.30	50.10	57.20	99.18	90.95	98.67	35.44	35.68	35.60	0.5			Pass
VHT20	MCS0	3	149	5745	27.95	25.10	28.60	49.34	47.91	49.76	17.52	17.54	17.56	0.5			Pass
VHT20	MCS0	3	157	5785	29.00	26.55	28.30	49.95	48.74	49.60	17.58	17.58	17.60	0.5			Pass
VHT20	MCS0	3	165	5825	28.55	26.10	29.30	50.37	48.94	49.92	17.58	17.58	17.56	0.5			Pass
VHT40	MCS0	3	151	5755	54.80	49.70	55.30	96.92	95.87	96.91	35.68	35.00	35.64	0.5			Pass
VHT40	MCS0	3	159	5795	56.90	51.00	56.40	97.95	95.99	100.40	35.68	35.08	35.64	0.5			Pass
VHT80	MCS0	3	155	5775	76.32	76.08	76.80	126.72	126.08	109.92	62.88	75.76	72.96	0.5			Pass

TEST RESULTS DATA
Average Power Table

FCC Band IV															
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Average Conducted Power with duty factor (dBm)				FCC Conducted Power Limit (dBm)			DG (dBi)			Pass/Fail
					Ant 1	Ant 2	Ant 3	SUM	Ant 1	Ant 2	Ant 3	Ant 1	Ant 2	Ant 3	
11a	6Mbps	3	149	5745	23.23	23.75	23.64	28.32	28.71			7.29			Pass
11a	6Mbps	3	157	5785	23.21	23.77	23.54	28.28	28.71			7.29			Pass
11a	6Mbps	3	165	5825	23.04	23.65	23.68	28.24	28.71			7.29			Pass
HT20	MCS0	3	149	5745	23.50	24.20	24.00	28.68	28.71			7.29			Pass
HT20	MCS0	3	157	5785	23.40	24.20	24.00	28.65	28.71			7.29			Pass
HT20	MCS0	3	165	5825	23.50	24.10	24.00	28.65	28.71			7.29			Pass
HT40	MCS0	3	151	5755	23.40	24.20	24.00	28.65	28.71			7.29			Pass
HT40	MCS0	3	159	5795	23.40	24.30	24.00	28.69	28.71			7.29			Pass
VHT20	MCS0	3	149	5745	23.50	24.00	24.00	28.61	28.71			7.29			Pass
VHT20	MCS0	3	157	5785	23.60	24.00	24.00	28.64	28.71			7.29			Pass
VHT20	MCS0	3	165	5825	23.60	24.10	23.90	28.64	28.71			7.29			Pass
VHT40	MCS0	3	151	5755	23.40	24.20	23.90	28.62	28.71			7.29			Pass
VHT40	MCS0	3	159	5795	23.50	24.10	23.90	28.61	28.71			7.29			Pass
VHT80	MCS0	3	155	5775	22.10	23.00	22.90	27.46	28.71			7.29			Pass

TEST RESULTS DATA
Power Spectral Density

FCC Band IV															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density with RBW and duty factor (dBm/500kHz)				Average PSD Limit (dBm/500kHz)			DG (dBi)			Pass /Fail
					Ant 1	Ant 2	Ant 3	SUM	Ant 1	Ant 2	Ant 3	Ant 1	Ant 2	Ant 3	
HT20	MCS0	3	149	5745	12.14	12.48	12.55	17.32	28.71			7.29			Pass
HT20	MCS0	3	157	5785	12.09	12.92	12.92	17.69	28.71			7.29			Pass
HT20	MCS0	3	165	5825	12.43	13.06	13.23	18.00	28.71			7.29			Pass
HT40	MCS0	3	151	5755	11.98	12.86	12.01	17.63	28.71			7.29			Pass
HT40	MCS0	3	159	5795	12.20	13.19	12.41	17.96	28.71			7.29			Pass
VHT20	MCS0	3	149	5745	12.35	12.89	12.46	17.66	28.71			7.29			Pass
VHT20	MCS0	3	157	5785	12.63	12.97	12.90	17.74	28.71			7.29			Pass
VHT20	MCS0	3	165	5825	12.41	13.27	13.36	18.13	28.71			7.29			Pass
VHT40	MCS0	3	151	5755	11.91	12.48	12.66	17.43	28.71			7.29			Pass
VHT40	MCS0	3	159	5795	11.60	13.11	12.65	17.88	28.71			7.29			Pass
VHT80	MCS0	3	155	5775	8.47	9.05	11.93	16.70	28.71			7.29			Pass



Appendix B. Radiated Spurious Emission

Test Engineer :	J.C. Liang, Jacky Hung and Ken Wu	Temperature :	20~23°C
		Relative Humidity :	50~54%

<CDD Modes>

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		5149.5	56.58	-17.42	74	48.24	31.58	10.23	33.47	343	139	P	H
		5148.98	49.5	-4.5	54	41.16	31.58	10.23	33.47	343	139	A	H
	*	5180	117.12	-	-	108.74	31.62	10.23	33.47	343	139	P	H
	*	5180	110.15	-	-	101.77	31.62	10.23	33.47	343	139	A	H
													H
													H
		5149.5	63.78	-10.22	74	55.44	31.58	10.23	33.47	100	115	P	V
		5150	53.43	-0.57	54	45.09	31.58	10.23	33.47	100	115	A	V
	*	5180	120.76	-	-	112.38	31.62	10.23	33.47	100	115	P	V
	*	5180	113.75	-	-	105.37	31.62	10.23	33.47	100	115	A	V
													V
													V
802.11a CH 44 5220MHz		5066.04	52.69	-21.31	74	44.47	31.48	10.21	33.47	238	138	P	H
		5140.92	46.13	-7.87	54	37.79	31.58	10.23	33.47	238	138	A	H
	*	5220	117.08	-	-	108.65	31.66	10.24	33.47	238	138	P	H
	*	5220	110.19	-	-	101.76	31.66	10.24	33.47	238	138	A	H
		5382.72	57.66	-16.34	74	48.41	31.86	10.87	33.48	238	138	P	H
		5382	50.53	-3.47	54	41.28	31.86	10.87	33.48	238	138	A	H
		5146.12	60.53	-13.47	74	52.19	31.58	10.23	33.47	100	100	P	V
		5136.24	51.3	-2.7	54	42.99	31.56	10.22	33.47	100	100	A	V
	*	5220	118.75	-	-	110.32	31.66	10.24	33.47	100	100	P	V
	*	5220	111.57	-	-	103.14	31.66	10.24	33.47	100	100	A	V
		5377.68	60.99	-13.01	74	51.86	31.86	10.75	33.48	100	100	P	V
		5377.92	53.4	-0.6	54	44.27	31.86	10.75	33.48	100	100	A	V



802.11a CH 48 5240MHz		5080.86	56.02	-17.98	74	47.78	31.5	10.21	33.47	229	78	P	H
		5081.9	48.72	-5.28	54	40.48	31.5	10.21	33.47	229	78	A	H
	*	5240	120.14	-	-	111.56	31.68	10.37	33.47	229	78	P	H
	*	5240	113.32	-	-	104.74	31.68	10.37	33.47	229	78	A	H
		5402.16	60.38	-13.62	74	51.11	31.88	10.87	33.48	229	78	P	H
		5400.96	51.84	-2.16	54	42.57	31.88	10.87	33.48	229	78	A	H
		5078.26	56.44	-17.56	74	48.2	31.5	10.21	33.47	100	265	P	V
		5078.52	50.3	-3.7	54	42.06	31.5	10.21	33.47	100	265	A	V
	*	5240	122.93	-	-	114.35	31.68	10.37	33.47	100	265	P	V
	*	5240	115.98	-	-	107.4	31.68	10.37	33.47	100	265	A	V
		5396.88	59.98	-14.02	74	50.71	31.88	10.87	33.48	100	265	P	V
		5396.4	53.39	-0.61	54	44.12	31.88	10.87	33.48	100	265	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+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		10360	43.74	-30.26	74	40.17	39.79	14.86	51.08	100	0	P	H
		15540	49.64	-24.36	74	44.95	38.6	17.89	51.8	100	0	P	H
													H
													H
		10360	59.89	-14.11	74	56.32	39.79	14.86	51.08	106	113	P	V
		10360	49.82	-4.18	54	46.25	39.79	14.86	51.08	106	113	A	V
		15540	56.81	-17.19	74	52.12	38.6	17.89	51.8	208	357	P	V
		15540	46.19	-7.81	54	41.5	38.6	17.89	51.8	208	357	A	V
802.11a CH 44 5220MHz		10440	47.18	-26.82	74	43.54	39.89	14.91	51.16	100	0	P	H
		15660	50.57	-23.43	74	46.2	38.23	17.94	51.8	100	0	P	H
													H
													H
		10440	61.51	-12.49	74	57.87	39.89	14.91	51.16	382	233	P	V
		10440	51.51	-2.49	54	47.87	39.89	14.91	51.16	382	233	A	V
		15660	59.06	-14.94	74	54.69	38.23	17.94	51.8	211	324	P	V
		15660	48.35	-5.65	54	43.98	38.23	17.94	51.8	211	324	A	V
802.11a CH 48 5240MHz		10480	50.55	-23.45	74	46.84	39.97	14.94	51.2	100	0	P	H
		15720	54.52	-19.48	74	50.32	38.03	17.97	51.8	100	302	P	H
		15720	44.73	-9.27	54	40.53	38.03	17.97	51.8	100	302	A	H
													H
		10480	55.81	-18.19	74	52.1	39.97	14.94	51.2	100	2	P	V
		10480	48.01	-5.99	54	44.3	39.97	14.94	51.2	100	2	A	V
		15720	59.19	-14.81	74	54.99	38.03	17.97	51.8	214	357	P	V
		15720	49.39	-4.61	54	45.19	38.03	17.97	51.8	214	357	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+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		5148.72	59.55	-14.45	74	51.21	31.58	10.23	33.47	215	94	P	H
		5149.24	51.59	-2.41	54	43.25	31.58	10.23	33.47	215	94	A	H
	*	5180	116.66	-	-	108.28	31.62	10.23	33.47	215	94	P	H
	*	5180	109.27	-	-	100.89	31.62	10.23	33.47	215	94	A	H
													H
													H
		5150	64.19	-9.81	74	55.85	31.58	10.23	33.47	100	270	P	V
		5150	53.74	-0.26	54	45.4	31.58	10.23	33.47	100	270	A	V
	*	5180	119.3	-	-	110.92	31.62	10.23	33.47	100	270	P	V
	*	5180	113.05	-	-	104.67	31.62	10.23	33.47	100	270	A	V
													V
													V
802.11n HT20 CH 44 5220MHz		5139.36	56.84	-17.16	74	48.53	31.56	10.22	33.47	210	94	P	H
		5138.84	49.19	-4.81	54	40.88	31.56	10.22	33.47	210	94	A	H
	*	5220	119.12	-	-	110.69	31.66	10.24	33.47	210	94	P	H
	*	5220	111.72	-	-	103.29	31.66	10.24	33.47	210	94	A	H
		5378.64	57.35	-16.65	74	48.22	31.86	10.75	33.48	210	94	P	H
		5379.12	50.11	-3.89	54	40.98	31.86	10.75	33.48	210	94	A	H
		5141.7	58.22	-15.78	74	49.88	31.58	10.23	33.47	100	265	P	V
		5141.18	52.15	-1.85	54	43.81	31.58	10.23	33.47	100	265	A	V
	*	5220	123.55	-	-	115.12	31.66	10.24	33.47	100	265	P	V
	*	5220	115.44	-	-	107.01	31.66	10.24	33.47	100	265	A	V
		5387.52	60.2	-13.8	74	50.95	31.86	10.87	33.48	100	265	P	V
		5381.52	53.02	-0.98	54	43.77	31.86	10.87	33.48	100	265	A	V



802.11n HT20 CH 48 5240MHz		5079.56	55.62	-18.38	74	47.38	31.5	10.21	33.47	222	94	P	H
		5079.3	46.72	-7.28	54	38.48	31.5	10.21	33.47	222	94	A	H
	*	5240	119.27	-	-	110.69	31.68	10.37	33.47	222	94	P	H
	*	5240	111.77	-	-	103.19	31.68	10.37	33.47	222	94	A	H
		5394	58.29	-15.71	74	49.04	31.86	10.87	33.48	222	94	P	H
		5399.04	50.96	-3.04	54	41.69	31.88	10.87	33.48	222	94	A	H
		5075.14	56.42	-17.58	74	48.18	31.5	10.21	33.47	100	265	P	V
		5079.3	49.03	-4.97	54	40.79	31.5	10.21	33.47	100	265	A	V
	*	5240	122.77	-	-	114.19	31.68	10.37	33.47	100	265	P	V
	*	5240	114.87	-	-	106.29	31.68	10.37	33.47	100	265	A	V
		5402.16	59.7	-14.3	74	50.43	31.88	10.87	33.48	100	265	P	V
		5396.88	53.11	-0.89	54	43.84	31.88	10.87	33.48	100	265	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+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		10360	41.42	-26.88	68.3	37.85	39.79	14.86	51.08	100	0	P	H
		15540	45.49	-28.51	74	40.8	38.6	17.89	51.8	100	0	P	H
													H
													H
		10360	62.44	-5.86	68.3	58.87	39.79	14.86	51.08	100	0	P	V
		15540	50.84	-23.16	74	46.15	38.6	17.89	51.8	100	0	P	V
													V
													V
802.11n HT20 CH 44 5220MHz		10440	44.52	-23.78	68.3	40.88	39.89	14.91	51.16	100	0	P	H
		15660	58.47	-15.53	74	54.1	38.23	17.94	51.8	100	302	P	H
		15660	47.9	-6.1	54	43.53	38.23	17.94	51.8	100	302	A	H
													H
		10440	63.43	-4.87	68.3	59.79	39.89	14.91	51.16	100	0	P	V
		15660	62.49	-11.51	74	58.12	38.23	17.94	51.8	217	325	P	V
		15660	50.67	-3.33	54	46.3	38.23	17.94	51.8	217	325	A	V
													V
802.11n HT20 CH 48 5240MHz		10480	48.77	-19.53	68.3	45.06	39.97	14.94	51.2	100	0	P	H
		15720	59.6	-14.4	74	55.4	38.03	17.97	51.8	100	301	P	H
		15720	47.4	-6.6	54	43.2	38.03	17.97	51.8	100	301	A	H
													H
		10480	63.1	-5.2	68.3	59.39	39.97	14.94	51.2	100	0	P	V
		15720	63.9	-10.1	74	59.7	38.03	17.97	51.8	214	324	P	V
		15720	50.68	-3.32	54	46.48	38.03	17.97	51.8	214	324	A	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		5148.72	55.66	-18.34	74	47.32	31.58	10.23	33.47	222	96	P	H
		5148.46	49.52	-4.48	54	41.18	31.58	10.23	33.47	222	96	A	H
	*	5190	106.79	-	-	98.4	31.62	10.24	33.47	222	96	P	H
	*	5190	99.7	-	-	91.31	31.62	10.24	33.47	222	96	A	H
		5354.16	48.68	-25.32	74	39.59	31.82	10.75	33.48	222	96	P	H
		5354.4	42.37	-11.63	54	33.28	31.82	10.75	33.48	222	96	A	H
		5146.64	60.42	-13.58	74	52.08	31.58	10.23	33.47	100	265	P	V
		5146.9	52.86	-1.14	54	44.52	31.58	10.23	33.47	100	265	A	V
	*	5190	112.09	-	-	103.7	31.62	10.24	33.47	100	265	P	V
	*	5190	103.51	-	-	95.12	31.62	10.24	33.47	100	265	A	V
		5351.28	51.39	-22.61	74	42.3	31.82	10.75	33.48	100	265	P	V
		5356.56	44.48	-9.52	54	35.39	31.82	10.75	33.48	100	265	A	V
802.11n HT40 CH 46 5230MHz		5144.04	57.3	-16.7	74	48.96	31.58	10.23	33.47	224	94	P	H
		5148.72	50.09	-3.91	54	41.75	31.58	10.23	33.47	224	94	A	H
	*	5230	116.77	-	-	108.19	31.68	10.37	33.47	224	94	P	H
	*	5230	109.6	-	-	101.02	31.68	10.37	33.47	224	94	A	H
		5383.92	57.33	-16.67	74	48.08	31.86	10.87	33.48	224	94	P	H
		5394.24	49.14	-4.86	54	39.89	31.86	10.87	33.48	224	94	A	H
		5141.18	60.78	-13.22	74	52.44	31.58	10.23	33.47	100	265	P	V
		5145.86	53.67	-0.33	54	45.33	31.58	10.23	33.47	100	265	A	V
	*	5230	120.77	-	-	112.19	31.68	10.37	33.47	100	265	P	V
	*	5230	112.61	-	-	104.03	31.68	10.37	33.47	100	265	A	V
		5386.32	58.67	-15.33	74	49.42	31.86	10.87	33.48	100	265	P	V
		5386.8	51.46	-2.54	54	42.21	31.86	10.87	33.48	100	265	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+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		10380	42.81	-31.19	74	39.26	39.81	14.86	51.12	100	0	P	H
		15570	42.25	-31.75	74	37.66	38.49	17.9	51.8	100	0	P	H
													H
													H
		10380	46.33	-27.67	74	42.78	39.81	14.86	51.12	100	0	P	V
		15570	41.6	-32.4	74	37.01	38.49	17.9	51.8	100	0	P	V
													V
													V
802.11n HT40 CH 46 5230MHz		10460	47.24	-21.06	68.3	43.61	39.92	14.91	51.2	100	0	P	H
		15690	48.75	-25.25	74	44.46	38.13	17.96	51.8	100	0	P	H
													H
													H
		10460	61.67	-6.63	68.3	58.04	39.92	14.91	51.2	100	0	P	V
		15690	59.19	-14.81	74	54.9	38.13	17.96	51.8	207	324	P	V
		15690	47.08	-6.92	54	42.79	38.13	17.96	51.8	207	324	A	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5143.26	57.07	-16.93	74	48.73	31.58	10.23	33.47	223	95	P	H
		5148.46	50.93	-3.07	54	42.59	31.58	10.23	33.47	223	95	A	H
	*	5210	102.92	-	-	94.49	31.66	10.24	33.47	223	95	P	H
	*	5210	95.72	-	-	87.29	31.66	10.24	33.47	223	95	A	H
		5396.4	48.76	-25.24	74	39.49	31.88	10.87	33.48	223	95	P	H
		5358.72	40.79	-13.21	54	31.7	31.82	10.75	33.48	223	95	A	H
		5141.18	61.29	-12.71	74	52.95	31.58	10.23	33.47	100	265	P	V
		5145.6	53.73	-0.27	54	45.39	31.58	10.23	33.47	100	265	A	V
	*	5210	107.02	-	-	98.59	31.66	10.24	33.47	100	265	P	V
	*	5210	98.52	-	-	90.09	31.66	10.24	33.47	100	265	A	V
		5364.72	50.99	-23.01	74	41.88	31.84	10.75	33.48	100	265	P	V
		5382	42.59	-11.41	54	33.34	31.86	10.87	33.48	100	265	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+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		10420	41.96	-32.04	74	38.36	39.87	14.89	51.16	100	0	P	H
		15630	42.12	-31.88	74	37.69	38.29	17.94	51.8	100	0	P	H
													H
													H
		10420	44.06	-29.94	74	40.46	39.87	14.89	51.16	100	0	P	V
		15630	41.7	-32.3	74	37.27	38.29	17.94	51.8	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

WIFI 802.11n HT20 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2+3		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 LF		79.41	28.87	-11.13	40	45.91	13.58	1.17	31.79	-	-	P	H
		203.07	36.3	-7.2	43.5	50.29	16.05	1.74	31.78	-	-	P	H
		232.23	42.78	-3.22	46	55.51	17.06	1.98	31.77	100	214	P	H
		449.8	33.77	-12.23	46	38.63	23.3	3.68	31.84	-	-	P	H
		720	34.16	-11.84	46	35.55	27.09	3.54	32.02	-	-	P	H
		1000	38.37	-15.63	54	34.59	30.5	3.92	30.64	-	-	P	H
													H
													H
													H
													H
													H
													H
		79.41	36.09	-3.91	40	53.13	13.58	1.17	31.79	-	-	P	V
		171.75	40.08	-3.42	43.5	54.41	15.77	1.68	31.78	312	258	P	V
		233.58	41.09	-4.91	46	53.66	17.22	1.98	31.77	-	-	P	V
		361.6	39.78	-6.22	46	47.81	21.41	2.34	31.78	-	-	P	V
		540.1	29.6	-16.4	46	33.86	24.66	3.03	31.95	-	-	P	V
		720	31.08	-14.92	46	32.47	27.09	3.54	32.02	-	-	P	V
													V
													V
												V	
												V	
												V	
												V	
												V	
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

**Band 4 - 5725~5850MHz****WIFI 802.11a (Band Edge @ 3m)**

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2+3		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 149 5745MHz		5648.2	56.03	-12.27	68.3	46.69	32.19	10.69	33.54	235	82	P	H
		5696.4	65.75	-36.9	102.65	56.37	32.27	10.67	33.56	235	82	P	H
		5719.2	80.95	-29.73	110.68	71.56	32.31	10.65	33.57	235	82	P	H
		5724	87.95	-32.07	120.02	78.56	32.31	10.65	33.57	235	82	P	H
	*	5745	121.77	-	-	112.37	32.34	10.63	33.57	235	82	P	H
	*	5745	114.7	-	-	105.3	32.34	10.63	33.57	235	82	A	H
													H
													H
		5608.2	55.63	-12.67	68.3	46.31	32.14	10.71	33.53	100	174	P	V
		5698.8	64.18	-40.24	104.42	54.8	32.27	10.67	33.56	100	174	P	V
		5718.2	83.38	-27.02	110.4	73.99	32.31	10.65	33.57	100	174	P	V
		5722.2	87.39	-28.53	115.92	78	32.31	10.65	33.57	100	174	P	V
	*	5746	123.59	-	-	114.19	32.34	10.63	33.57	100	174	P	V
	*	5746	116.45	-	-	107.05	32.34	10.63	33.57	100	174	A	V
													V
													V



WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 157 5785MHz		5620.6	55.72	-12.58	68.3	46.39	32.17	10.69	33.53	100	90	P	H
		5699.4	57.17	-47.69	104.86	47.79	32.27	10.67	33.56	100	90	P	H
		5700.6	57.91	-47.56	105.47	48.53	32.29	10.65	33.56	100	90	P	H
		5721.8	53.8	-61.2	115	44.41	32.31	10.65	33.57	100	90	P	H
	*	5785	117.48	-	-	108.07	32.39	10.61	33.59	100	90	P	H
	*	5785	109.9	-	-	100.49	32.39	10.61	33.59	100	90	A	H
		5851	53.14	-66.88	120.02	43.49	32.48	10.78	33.61	100	90	P	H
		5861	58.27	-50.95	109.22	48.44	32.51	10.94	33.62	100	90	P	H
		5888.4	51.29	-44.06	95.35	41.42	32.56	10.94	33.63	100	90	P	H
		5942.8	56.31	-11.99	68.3	46.06	32.63	11.27	33.65	100	90	P	H
													H
													H
		5623.6	59.29	-9.01	68.3	49.96	32.17	10.69	33.53	100	95	P	V
		5699.8	60.01	-45.14	105.15	50.63	32.27	10.67	33.56	100	95	P	V
		5701.6	62.76	-42.99	105.75	53.38	32.29	10.65	33.56	100	95	P	V
		5723	57.23	-60.51	117.74	47.84	32.31	10.65	33.57	100	95	P	V
	*	5785	122.41	-	-	113	32.39	10.61	33.59	100	95	P	V
	*	5785	114.22	-	-	104.81	32.39	10.61	33.59	100	95	A	V
		5851.6	58.48	-60.17	118.65	48.83	32.48	10.78	33.61	100	95	P	V
		5862.2	63.65	-45.23	108.88	53.82	32.51	10.94	33.62	100	95	P	V
		5911.4	57.4	-20.93	78.33	47.35	32.58	11.11	33.64	100	95	P	V
		5942.4	61.55	-6.75	68.3	51.3	32.63	11.27	33.65	100	95	P	V
													V
													V



WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 165 5825MHz	*	5825	118.32	-	-	108.68	32.46	10.78	33.6	221	83	P	H
	*	5825	110.67	-	-	101.03	32.46	10.78	33.6	221	83	A	H
		5850	79.9	-42.4	122.3	70.25	32.48	10.78	33.61	221	83	P	H
		5856.8	68.51	-41.89	110.4	58.83	32.51	10.78	33.61	221	83	P	H
		5878.6	62.74	-39.89	102.63	52.89	32.53	10.94	33.62	221	83	P	H
		5943	52.95	-15.35	68.3	42.7	32.63	11.27	33.65	221	83	P	H
													H
													H
	*	5825	121.81	-	-	112.17	32.46	10.78	33.6	100	94	P	V
	*	5825	114.31	-	-	104.67	32.46	10.78	33.6	100	94	A	V
		5850.6	82.17	-38.76	120.93	72.52	32.48	10.78	33.61	100	94	P	V
		5861.4	72.68	-36.43	109.11	62.85	32.51	10.94	33.62	100	94	P	V
		5882.4	63.97	-35.83	99.8	54.12	32.53	10.94	33.62	100	94	P	V
		5943	55.44	-12.86	68.3	45.19	32.63	11.27	33.65	100	94	P	V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 149 5745MHz		11490	58.32	-15.68	74	54.06	39.91	15.59	51.24	100	225	P	H
		11490	49.11	-4.89	54	44.85	39.91	15.59	51.24	100	225	A	H
		17235	52.75	-15.55	68.3	45.14	41	18.6	51.99	100	0	P	H
													H
		11490	61.36	-12.64	74	57.1	39.91	15.59	51.24	100	207	P	V
		11490	52.78	-1.22	54	48.52	39.91	15.59	51.24	100	207	A	V
		17235	58.23	-10.07	68.3	50.62	41	18.6	51.99	100	0	P	V
													V
802.11a CH 157 5785MHz		11570	56.12	-17.88	74	51.98	39.76	15.64	51.26	100	224	P	H
		11570	46.64	-7.36	54	42.5	39.76	15.64	51.26	100	224	A	H
		17355	49.37	-18.93	68.3	41.38	41.35	18.65	52.01	100	0	P	H
													H
		11570	60.94	-13.06	74	56.8	39.76	15.64	51.26	100	207	P	V
		11570	51.66	-2.34	54	47.52	39.76	15.64	51.26	100	207	A	V
		17355	57.44	-10.86	68.3	49.45	41.35	18.65	52.01	100	0	P	V
													V
802.11a CH 165 5825MHz		11650	49.64	-24.36	74	45.62	39.62	15.69	51.29	100	0	P	H
		17475	50.31	-17.99	68.3	41.93	41.7	18.7	52.02	100	0	P	H
													H
													H
		11650	61.92	-12.08	74	57.9	39.62	15.69	51.29	100	207	P	V
		11650	51.82	-2.18	54	47.8	39.62	15.69	51.29	100	207	A	V
		17475	53.62	-14.68	68.3	45.24	41.7	18.7	52.02	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 149 5745MHz		5616.2	53.14	-15.16	68.3	43.79	32.17	10.71	33.53	100	91	P	H
		5697	61.79	-41.3	103.09	52.41	32.27	10.67	33.56	100	91	P	H
		5719	74.46	-36.16	110.62	65.07	32.31	10.65	33.57	100	91	P	H
		5722.4	88.39	-27.98	116.37	79	32.31	10.65	33.57	100	91	P	H
	*	5746	119.74	-	-	110.34	32.34	10.63	33.57	100	91	P	H
	*	5746	112.31	-	-	102.91	32.34	10.63	33.57	100	91	A	H
													H
													H
		5622.4	55.55	-12.75	68.3	46.22	32.17	10.69	33.53	100	95	P	V
		5697	63.74	-39.35	103.09	54.36	32.27	10.67	33.56	100	95	P	V
		5720	81.26	-29.64	110.9	71.87	32.31	10.65	33.57	100	95	P	V
		5722.8	90.31	-26.97	117.28	80.92	32.31	10.65	33.57	100	95	P	V
	*	5745	122.64	-	-	113.24	32.34	10.63	33.57	100	95	P	V
	*	5745	116.11	-	-	106.71	32.34	10.63	33.57	100	95	A	V
													V
													V



WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 157 5785MHz		5617.2	56.25	-12.05	68.3	46.9	32.17	10.71	33.53	128	91	P	H
		5696.6	57.34	-45.45	102.79	47.96	32.27	10.67	33.56	128	91	P	H
		5711.2	58.37	-50.07	108.44	49	32.29	10.65	33.57	128	91	P	H
		5720.8	55.53	-57.19	112.72	46.14	32.31	10.65	33.57	128	91	P	H
	*	5785	117.42	-	-	108.01	32.39	10.61	33.59	128	91	P	H
	*	5785	110.34	-	-	100.93	32.39	10.61	33.59	128	91	A	H
		5850	53.43	-68.87	122.3	43.78	32.48	10.78	33.61	128	91	P	H
		5866.4	57.68	-50.03	107.71	47.85	32.51	10.94	33.62	128	91	P	H
		5913.4	52.43	-24.43	76.86	42.38	32.58	11.11	33.64	128	91	P	H
		5947	55.6	-12.7	68.3	45.35	32.63	11.27	33.65	128	91	P	H
													H
													H
		5622.4	60.12	-8.18	68.3	50.79	32.17	10.69	33.53	100	94	P	V
		5696.6	61.94	-40.85	102.79	52.56	32.27	10.67	33.56	100	94	P	V
		5711.8	61.91	-46.7	108.61	52.54	32.29	10.65	33.57	100	94	P	V
		5721.6	58	-56.55	114.55	48.61	32.31	10.65	33.57	100	94	P	V
	*	5785	121.94	-	-	112.53	32.39	10.61	33.59	100	94	P	V
	*	5785	114.35	-	-	104.94	32.39	10.61	33.59	100	94	A	V
		5854.6	58.2	-53.61	111.81	48.52	32.51	10.78	33.61	100	94	P	V
		5871.6	64.75	-41.5	106.25	54.9	32.53	10.94	33.62	100	94	P	V
		5897.6	56.35	-32.19	88.54	46.48	32.56	10.94	33.63	100	94	P	V
		5946.8	61.61	-6.69	68.3	51.36	32.63	11.27	33.65	100	94	P	V
													V
													V



WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 165 5825MHz	*	5825	117.76	-	-	108.12	32.46	10.78	33.6	100	95	P	H
	*	5825	110.12	-	-	100.48	32.46	10.78	33.6	100	95	A	H
		5850.4	76.69	-44.7	121.39	67.04	32.48	10.78	33.61	100	95	P	H
		5856.4	76.34	-34.17	110.51	66.66	32.51	10.78	33.61	100	95	P	H
		5902.2	58.89	-26.24	85.13	48.85	32.56	11.11	33.63	100	95	P	H
		5935	53.04	-15.26	68.3	42.98	32.6	11.11	33.65	100	95	P	H
													H
													H
	*	5825	122.17	-	-	112.53	32.46	10.78	33.6	100	95	P	V
	*	5825	114.76	-	-	105.12	32.46	10.78	33.6	100	95	A	V
		5850.8	83.77	-36.71	120.48	74.12	32.48	10.78	33.61	100	95	P	V
		5855.2	75.87	-34.97	110.84	66.19	32.51	10.78	33.61	100	95	P	V
		5876	65.13	-39.43	104.56	55.28	32.53	10.94	33.62	100	95	P	V
		5946.4	55.68	-12.62	68.3	45.43	32.63	11.27	33.65	100	95	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 149 5745MHz		11490	59.05	-14.95	74	54.79	39.91	15.59	51.24	100	226	P	H
		11490	49.47	-4.53	54	45.21	39.91	15.59	51.24	100	226	A	H
		17235	50.6	-17.7	68.3	42.99	41	18.6	51.99	100	0	P	H
													H
		11490	64.1	-9.9	74	59.84	39.91	15.59	51.24	100	208	P	V
		11490	53.56	-0.44	54	49.3	39.91	15.59	51.24	100	208	A	V
		17235	58.88	-9.42	68.3	51.27	41	18.6	51.99	100	0	P	V
													V
802.11n HT20 CH 157 5785MHz		11570	57.63	-16.37	74	53.49	39.76	15.64	51.26	100	226	P	H
		11570	48.9	-5.1	54	44.76	39.76	15.64	51.26	100	226	A	H
		17355	50.53	-17.77	68.3	42.54	41.35	18.65	52.01	100	0	P	H
													H
		11570	61.76	-12.24	74	57.62	39.76	15.64	51.26	100	206	P	V
		11570	53	-1	54	48.86	39.76	15.64	51.26	100	206	A	V
		17355	57.91	-10.39	68.3	49.92	41.35	18.65	52.01	100	0	P	V
													V
802.11n HT20 CH 165 5825MHz		11650	50.72	-23.28	74	46.7	39.62	15.69	51.29	100	0	P	H
		17475	51.42	-16.88	68.3	43.04	41.7	18.7	52.02	100	0	P	H
													H
													H
		11650	63.24	-10.76	74	59.22	39.62	15.69	51.29	100	207	P	V
		11650	53.05	-0.95	54	49.03	39.62	15.69	51.29	100	207	A	V
		17475	54.59	-13.71	68.3	46.21	41.7	18.7	52.02	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 151 5755MHz		5647.8	59.27	-9.03	68.3	49.93	32.19	10.69	33.54	400	334	P	H
		5694	73.38	-27.5	100.88	64	32.27	10.67	33.56	400	334	P	H
		5718.6	89.24	-21.27	110.51	79.85	32.31	10.65	33.57	400	334	P	H
		5724.2	92.54	-27.94	120.48	83.15	32.31	10.65	33.57	400	334	P	H
	*	5755	116.86	-	-	107.44	32.36	10.63	33.57	400	334	P	H
	*	5755	109.48	-	-	100.06	32.36	10.63	33.57	400	334	A	H
		5850	59.4	-62.9	122.3	49.75	32.48	10.78	33.61	400	334	P	H
		5873	58.63	-47.23	105.86	48.78	32.53	10.94	33.62	400	334	P	H
		5914.4	57.45	-18.67	76.12	47.4	32.58	11.11	33.64	400	334	P	H
		5931.4	57.42	-10.88	68.3	47.35	32.6	11.11	33.64	400	334	P	H
													H
													H
		5647.4	61.27	-7.03	68.3	51.93	32.19	10.69	33.54	100	94	P	V
		5697.6	76.59	-26.94	103.53	67.21	32.27	10.67	33.56	100	94	P	V
		5716.4	91.6	-18.29	109.89	82.23	32.29	10.65	33.57	100	94	P	V
		5722	93.9	-21.56	115.46	84.51	32.31	10.65	33.57	100	94	P	V
	*	5755	119.84	-	-	110.42	32.36	10.63	33.57	100	94	P	V
	*	5755	112.34	-	-	102.92	32.36	10.63	33.57	100	94	A	V
		5852.8	67.84	-48.08	115.92	58.19	32.48	10.78	33.61	100	94	P	V
		5857.6	62.58	-47.59	110.17	52.9	32.51	10.78	33.61	100	94	P	V
		5912	60.68	-17.21	77.89	50.63	32.58	11.11	33.64	100	94	P	V
		5932	60.28	-8.02	68.3	50.21	32.6	11.11	33.64	100	94	P	V
													V
													V



WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 159 5795MHz		5622.4	54.1	-14.2	68.3	44.77	32.17	10.69	33.53	377	336	P	H
		5698.2	59.96	-44.01	103.97	50.58	32.27	10.67	33.56	377	336	P	H
		5718.6	63.86	-46.65	110.51	54.47	32.31	10.65	33.57	377	336	P	H
		5721	63.89	-49.29	113.18	54.5	32.31	10.65	33.57	377	336	P	H
	*	5795	116.45	-	-	107.02	32.41	10.61	33.59	377	336	P	H
	*	5795	109.97	-	-	100.54	32.41	10.61	33.59	377	336	A	H
		5854.6	68.64	-43.17	111.81	58.96	32.51	10.78	33.61	377	336	P	H
		5858.6	69.34	-40.55	109.89	59.67	32.51	10.78	33.62	377	336	P	H
		5879.8	62.19	-39.54	101.73	52.34	32.53	10.94	33.62	377	336	P	H
		5939	57.94	-10.36	68.3	47.85	32.63	11.11	33.65	377	336	P	H
													H
													H
		5627	58.84	-9.46	68.3	49.51	32.17	10.69	33.53	100	94	P	V
		5697.4	63.91	-39.47	103.38	54.53	32.27	10.67	33.56	100	94	P	V
		5716.2	68.53	-41.31	109.84	59.16	32.29	10.65	33.57	100	94	P	V
		5723.2	70.48	-47.72	118.2	61.09	32.31	10.65	33.57	100	94	P	V
	*	5795	120.38	-	-	110.95	32.41	10.61	33.59	100	94	P	V
	*	5795	113.42	-	-	103.99	32.41	10.61	33.59	100	94	A	V
		5851.4	76.08	-43.03	119.11	66.43	32.48	10.78	33.61	100	94	P	V
		5863.6	73.97	-34.52	108.49	64.14	32.51	10.94	33.62	100	94	P	V
		5901.8	67.06	-18.37	85.43	57.02	32.56	11.11	33.63	100	94	P	V
		5946.6	61.42	-6.88	68.3	51.17	32.63	11.27	33.65	100	94	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant. 1+2+3		(MHz)	(dBμV/m)	Limit (dB)	Line (dBμV/m)	Level (dBμV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11n HT40 CH 151 5755MHz		11510	56.9	-17.1	74	52.63	39.9	15.61	51.24	100	223	P	H
		11510	47.09	-6.91	54	42.82	39.9	15.61	51.24	100	223	A	H
		17265	50.17	-18.13	68.3	42.45	41.1	18.62	52	100	0	P	H
													H
		11510	61.06	-12.94	74	56.79	39.9	15.61	51.24	100	207	P	V
		11510	50.95	-3.05	54	46.68	39.9	15.61	51.24	100	207	A	V
		17265	53.22	-15.08	68.3	45.5	41.1	18.62	52	100	0	P	V
													V
802.11n HT40 CH 159 5795MHz		11590	57.63	-16.37	74	53.5	39.73	15.66	51.26	100	225	P	H
		11590	48.26	-5.74	54	44.13	39.73	15.66	51.26	100	225	A	H
		17385	51.38	-16.92	68.3	43.28	41.45	18.66	52.01	100	0	P	H
													H
		11590	62.03	-11.97	74	57.9	39.73	15.66	51.26	100	206	P	V
		11590	51.94	-2.06	54	47.81	39.73	15.66	51.26	100	206	A	V
		17385	54.67	-13.63	68.3	46.57	41.45	18.66	52.01	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 155 5775MHz		5650	62.63	-5.67	68.3	53.26	32.22	10.69	33.54	324	111	P	H
		5698	80.31	-23.52	103.83	70.93	32.27	10.67	33.56	324	111	P	H
		5718.4	83.88	-26.57	110.45	74.49	32.31	10.65	33.57	324	111	P	H
		5722.4	85.97	-30.4	116.37	76.58	32.31	10.65	33.57	324	111	P	H
	*	5775	112.09	-	-	102.65	32.39	10.63	33.58	324	111	P	H
	*	5775	105.77	-	-	96.33	32.39	10.63	33.58	324	111	A	H
		5852.8	80.57	-35.35	115.92	70.92	32.48	10.78	33.61	324	111	P	H
		5856.4	78.68	-31.83	110.51	69	32.51	10.78	33.61	324	111	P	H
		5877	71.78	-32.03	103.81	61.93	32.53	10.94	33.62	324	111	P	H
		5927	62.12	-6.18	68.3	52.05	32.6	11.11	33.64	324	111	P	H
													H
													H
		5646.4	66.35	-1.95	68.3	57.01	32.19	10.69	33.54	100	94	P	V
		5697	86.94	-16.15	103.09	77.56	32.27	10.67	33.56	100	94	P	V
		5702.4	86.32	-19.65	105.97	76.94	32.29	10.65	33.56	100	94	P	V
		5722.2	88.77	-27.15	115.92	79.38	32.31	10.65	33.57	100	94	P	V
	*	5775	115.85	-	-	106.41	32.39	10.63	33.58	100	94	P	V
	*	5775	108.79	-	-	99.35	32.39	10.63	33.58	100	94	A	V
		5851	85.24	-34.78	120.02	75.59	32.48	10.78	33.61	100	94	P	V
		5857.2	84.57	-25.71	110.28	74.89	32.51	10.78	33.61	100	94	P	V
		5875	76.11	-29.19	105.3	66.26	32.53	10.94	33.62	100	94	P	V
		5941.2	63.83	-4.47	68.3	53.58	32.63	11.27	33.65	100	94	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												


Band 4 5725~5850MHz
WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 155 5775MHz		11550	48.05	-25.95	74	43.86	39.8	15.64	51.25	100	0	P	H
		17328	44.94	-23.36	68.3	37.06	41.25	18.63	52	100	0	P	H
													H
													H
		11550	56.18	-17.82	74	51.99	39.8	15.64	51.25	100	206	P	V
		11550	45.86	-8.14	54	41.67	39.8	15.64	51.25	100	206	A	V
		17328	50.38	-17.92	68.3	42.5	41.25	18.63	52	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

5GHz WIFI 802.11n HT20 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2+3		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
5GHz 802.11n HT20 LF		79.41	29.8	-10.2	40	46.84	13.58	1.17	31.79	-	-	P	H
		231.15	42.2	-3.8	46	55.01	16.98	1.98	31.77	210	53	P	H
		265.71	41.2	-4.8	46	51.38	19.46	2.13	31.77	-	-	P	H
		449.8	34.47	-11.53	46	39.33	23.3	3.68	31.84	-	-	P	H
		639.5	34.95	-11.05	46	37.54	26.09	3.36	32.04	-	-	P	H
		720	34.34	-11.66	46	35.73	27.09	3.54	32.02	-	-	P	H
													H
													H
													H
													H
													H
													H
		49.17	24.53	-15.47	40	40.07	15.33	0.93	31.8	-	-	P	V
		151.23	21.29	-22.21	43.5	34.04	17.35	1.68	31.78	-	-	P	V
		207.93	25	-18.5	43.5	38.89	16.15	1.74	31.78	-	-	P	V
		360.9	37.02	-8.98	46	45.08	21.38	2.34	31.78	285	289	P	V
		449.8	29.02	-16.98	46	33.88	23.3	3.68	31.84	-	-	P	V
		876.1	34.69	-11.31	46	33.34	29.06	3.84	31.55	-	-	P	V
													V
													V
													V
													V
													V
												V	
												V	
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Note symbol

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



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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2+3		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 01													
2412MHz		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

1. Level(dBμV/m) =

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

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

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 43.54 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

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



<TXBF Modes>

Band 1 - 5150~5250MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		5146.38	57.59	-16.41	74	49.25	31.58	10.23	33.47	230	125	P	H
		5149.76	46.63	-7.37	54	38.29	31.58	10.23	33.47	230	125	A	H
	*	5180	117.17	-	-	108.79	31.62	10.23	33.47	230	125	P	H
	*	5180	109.07	-	-	100.69	31.62	10.23	33.47	230	125	A	H
													H
													H
		5147.94	60.46	-13.54	74	52.12	31.58	10.23	33.47	100	269	P	V
		5150	53.15	-0.85	54	44.81	31.58	10.23	33.47	100	269	A	V
	*	5180	120.07	-	-	111.69	31.62	10.23	33.47	100	269	P	V
	*	5180	112.41	-	-	104.03	31.62	10.23	33.47	100	269	A	V
													V
													V
802.11n HT20 CH 44 5220MHz		5065.52	53.11	-20.89	74	44.89	31.48	10.21	33.47	226	101	P	H
		5067.34	46.41	-7.59	54	38.19	31.48	10.21	33.47	226	101	A	H
	*	5220	117.76	-	-	109.33	31.66	10.24	33.47	226	101	P	H
	*	5220	109.62	-	-	101.19	31.66	10.24	33.47	226	101	A	H
		5386.08	56.52	-17.48	74	47.27	31.86	10.87	33.48	226	101	P	H
		5387.04	50.8	-3.2	54	41.55	31.86	10.87	33.48	226	101	A	H
		5138.58	56.18	-17.82	74	47.87	31.56	10.22	33.47	100	268	P	V
		5139.1	48.25	-5.75	54	39.94	31.56	10.22	33.47	100	268	A	V
	*	5220	120.52	-	-	112.09	31.66	10.24	33.47	100	268	P	V
	*	5220	112.12	-	-	103.69	31.66	10.24	33.47	100	268	A	V
		5381.28	59.42	-14.58	74	50.17	31.86	10.87	33.48	100	268	P	V
		5381.28	52.76	-1.24	54	43.51	31.86	10.87	33.48	100	268	A	V



802.11n HT20 CH 48 5240MHz		5084.5	51.59	-22.41	74	43.35	31.5	10.21	33.47	246	132	P	H
		5085.54	45.96	-8.04	54	37.72	31.5	10.21	33.47	246	132	A	H
	*	5240	118.17	-	-	109.59	31.68	10.37	33.47	246	132	P	H
	*	5240	110.37	-	-	101.79	31.68	10.37	33.47	246	132	A	H
		5404.32	60.08	-13.92	74	50.81	31.88	10.87	33.48	246	132	P	H
		5404.56	52.81	-1.19	54	43.54	31.88	10.87	33.48	246	132	P	H
		5087.1	52.22	-21.78	74	43.98	31.5	10.21	33.47	100	267	P	V
		5021.58	45.51	-8.49	54	37.34	31.44	10.2	33.47	100	267	A	V
	*	5240	120.37	-	-	111.79	31.68	10.37	33.47	100	267	P	V
	*	5240	112.47	-	-	103.89	31.68	10.37	33.47	100	267	A	V
		5401.68	59.03	-14.97	74	49.76	31.88	10.87	33.48	100	267	P	V
		5400.96	52.1	-1.9	54	42.83	31.88	10.87	33.48	100	267	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+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		10360	47.23	-26.77	74	43.66	39.79	14.86	51.08	100	0	P	H
		15540	49.51	-24.49	74	44.82	38.6	17.89	51.8	100	0	P	H
													H
													H
		10360	48.11	-25.89	74	44.54	39.79	14.86	51.08	100	0	P	V
		15540	56.89	-17.11	74	52.2	38.6	17.89	51.8	214	356	P	V
		15540	45.93	-8.07	54	41.24	38.6	17.89	51.8	214	356	A	V
													V
802.11n HT20 CH 44 5220MHz		10440	47.59	-26.41	74	43.95	39.89	14.91	51.16	100	0	P	H
		15660	48.89	-25.11	74	44.52	38.23	17.94	51.8	100	0	P	H
													H
													H
		10440	49.97	-24.03	74	46.33	39.89	14.91	51.16	100	0	P	V
		15660	55.36	-18.64	74	50.99	38.23	17.94	51.8	219	356	P	V
		15660	44.1	-9.9	54	39.73	38.23	17.94	51.8	219	356	A	V
													V
802.11n HT20 CH 48 5240MHz		10480	46.88	-27.12	74	43.17	39.97	14.94	51.2	100	0	P	H
		15720	48.4	-25.6	74	44.2	38.03	17.97	51.8	100	0	P	H
													H
													H
		10480	50.87	-23.13	74	47.16	39.97	14.94	51.2	100	0	P	V
		15720	56.76	-17.24	74	52.56	38.03	17.97	51.8	205	327	P	V
		15720	44.17	-9.83	54	39.97	38.03	17.97	51.8	205	327	A	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		5146.9	54.51	-19.49	74	46.17	31.58	10.23	33.47	211	95	P	H
		5150	46.44	-7.56	54	38.1	31.58	10.23	33.47	211	95	A	H
	*	5190	109.01	-	-	100.62	31.62	10.24	33.47	211	95	P	H
	*	5190	100.96	-	-	92.57	31.62	10.24	33.47	211	95	A	H
		5351.28	53.23	-20.77	74	44.14	31.82	10.75	33.48	211	95	P	H
		5351.04	44.49	-9.51	54	35.4	31.82	10.75	33.48	211	95	A	H
		5147.68	60.82	-13.18	74	52.48	31.58	10.23	33.47	100	264	P	V
		5148.72	52.55	-1.45	54	44.21	31.58	10.23	33.47	100	264	A	V
	*	5190	112.13	-	-	103.74	31.62	10.24	33.47	100	264	P	V
	*	5190	101.93	-	-	93.54	31.62	10.24	33.47	100	264	A	V
		5359.44	52.08	-21.92	74	42.99	31.82	10.75	33.48	100	264	P	V
		5363.28	44.92	-9.08	54	35.81	31.84	10.75	33.48	100	264	A	V
802.11n HT40 CH 46 5230MHz		5084.24	51.47	-22.53	74	43.23	31.5	10.21	33.47	265	134	P	H
		5145.34	44.65	-9.35	54	36.31	31.58	10.23	33.47	265	134	A	H
	*	5230	113.7	-	-	105.12	31.68	10.37	33.47	265	134	P	H
	*	5230	106.41	-	-	97.83	31.68	10.37	33.47	265	134	A	H
		5383.2	55.94	-18.06	74	46.69	31.86	10.87	33.48	265	134	P	H
		5384.64	49.57	-4.43	54	40.32	31.86	10.87	33.48	265	134	A	H
		5087.36	53.01	-20.99	74	44.77	31.5	10.21	33.47	100	114	P	V
		5083.2	46.52	-7.48	54	38.28	31.5	10.21	33.47	100	114	A	V
	*	5230	113.75	-	-	105.17	31.68	10.37	33.47	100	114	P	V
	*	5230	108.75	-	-	100.17	31.68	10.37	33.47	100	114	A	V
		5383.92	57.17	-16.83	74	47.92	31.86	10.87	33.48	100	114	P	V
		5376.96	49.25	-4.75	54	40.14	31.84	10.75	33.48	100	114	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+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		10380	43.45	-30.55	74	39.9	39.81	14.86	51.12	100	0	P	H
		15570	42.41	-31.59	74	37.82	38.49	17.9	51.8	100	0	P	H
													H
													H
		10380	43.22	-30.78	74	39.67	39.81	14.86	51.12	100	0	P	V
		15570	42.62	-31.38	74	38.03	38.49	17.9	51.8	100	0	P	V
													V
													V
802.11n HT40 CH 46 5230MHz		10460	43.25	-30.75	74	39.62	39.92	14.91	51.2			P	H
		15690	48.86	-25.14	74	44.57	38.13	17.96	51.8	100	0	P	H
													H
													H
		10460	48.3	-25.7	74	44.67	39.92	14.91	51.2	100	0	P	V
		15690	47.29	-26.71	74	43	38.13	17.96	51.8	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5146.64	60.7	-13.3	74	52.36	31.58	10.23	33.47	223	95	P	H
		5135.72	53.4	-0.6	54	45.09	31.56	10.22	33.47	223	95	A	H
	*	5210	99.38	-	-	90.95	31.66	10.24	33.47	223	95	P	H
	*	5210	92.55	-	-	84.12	31.66	10.24	33.47	223	95	A	H
		5391.36	48.13	-25.87	74	38.88	31.86	10.87	33.48	223	95	P	H
		5397.6	41.45	-12.55	54	32.18	31.88	10.87	33.48	223	95	A	H
		5137.8	56.88	-17.12	74	48.57	31.56	10.22	33.47	100	270	P	V
		5124.8	53.41	-0.59	54	45.1	31.56	10.22	33.47	100	270	A	V
	*	5210	103.69	-	-	95.26	31.66	10.24	33.47	100	270	P	V
	*	5210	96.94	-	-	88.51	31.66	10.24	33.47	100	270	A	V
		5364.48	50.82	-23.18	74	41.71	31.84	10.75	33.48	100	270	P	V
		5385.6	45.07	-8.93	54	35.82	31.86	10.87	33.48	100	270	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

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

WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		10420	43.57	-30.43	74	39.97	39.87	14.89	51.16	100	0	P	H
		15630	42.99	-31.01	74	38.56	38.29	17.94	51.8	100	0	P	H
													H
													H
		10420	42.34	-31.66	74	38.74	39.87	14.89	51.16	100	0	P	V
		15630	41.82	-32.18	74	37.39	38.29	17.94	51.8	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Emission below 1GHz

WIFI 802.11ac VHT80 (LF @ 3m)

WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
WIFI 802.11ac VHT80 LF		139.62	36.19	-7.31	43.5	48.59	17.9	1.48	31.78	-	-	P	H
		234.12	43.93	-2.07	46	56.5	17.22	1.98	31.77	100	28	QP	H
		265.71	42.7	-3.3	46	52.88	19.46	2.13	31.77	-	-	P	H
		449.8	34.54	-11.46	46	39.4	23.3	3.68	31.84	-	-	P	H
		720	35.48	-10.52	46	36.87	27.09	3.54	32.02	-	-	P	H
		874.7	37.45	-8.55	46	36.11	29.05	3.84	31.55	-	-	P	H
													H
													H
													H
													H
													H
													H
		140.97	39.88	-3.62	43.5	52.13	17.85	1.68	31.78	125	233	P	V
		171.75	38.21	-5.29	43.5	52.54	15.77	1.68	31.78	-	-	P	V
		233.58	39.13	-6.87	46	51.7	17.22	1.98	31.77	-	-	P	V
		328.7	31.41	-14.59	46	40.44	20.51	2.23	31.77	-	-	P	V
		575.8	31.56	-14.44	46	35.26	25.27	3.03	32	-	-	P	V
		720	32.02	-13.98	46	33.41	27.09	3.54	32.02	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Band 4 - 5725~5850MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2+3		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 149 5745MHz		5630.8	51.44	-16.76	68.2	42.12	32.17	10.69	33.54	114	102	P	H
		5697.6	57.42	-46.01	103.43	48.04	32.27	10.67	33.56	114	102	P	H
		5719.8	73.47	-37.27	110.74	64.08	32.31	10.65	33.57	114	102	P	H
		5724.4	80.38	-40.45	120.83	70.99	32.31	10.65	33.57	114	102	P	H
	*	5745	119.82	-	-	110.42	32.34	10.63	33.57	114	102	P	H
	*	5745	112.29	-	-	102.89	32.34	10.63	33.57	114	102	A	H
													H
													H
		5619.8	57.24	-10.96	68.2	47.89	32.17	10.71	33.53	100	76	P	V
		5672.2	64.55	-20.12	84.67	55.19	32.24	10.67	33.55	100	76	P	V
		5719.8	74.63	-36.11	110.74	65.24	32.31	10.65	33.57	100	76	P	V
		5725	87.31	-34.89	122.2	77.92	32.31	10.65	33.57	100	76	P	V
	*	5745	124.17	-	-	114.77	32.34	10.63	33.57	100	76	P	V
	*	5745	116.36	-	-	106.96	32.34	10.63	33.57	100	76	A	V
													V
													V



WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 157 5785MHz		5623	54.68	-13.52	68.2	45.35	32.17	10.69	33.53	100	96	P	H
		5699.6	57.63	-47.28	104.91	48.25	32.27	10.67	33.56	100	96	P	H
		5701	57.96	-47.52	105.48	48.58	32.29	10.65	33.56	100	96	P	H
		5725	53.22	-68.98	122.2	43.83	32.31	10.65	33.57	100	96	P	H
	*	5785	118.13	-	-	108.72	32.39	10.61	33.59	100	96	P	H
	*	5785	111.53	-	-	102.12	32.39	10.61	33.59	100	96	A	H
		5852.8	52.2	-63.62	115.82	42.55	32.48	10.78	33.61	100	96	P	H
		5858.4	60.37	-49.48	109.85	50.7	32.51	10.78	33.62	100	96	P	H
		5918	52.38	-20.98	73.36	42.33	32.58	11.11	33.64	100	96	P	H
		5938.2	57.97	-10.23	68.2	47.91	32.6	11.11	33.65	100	96	P	H
													H
													H
		5632.6	56.92	-11.28	68.2	47.58	32.19	10.69	33.54	100	106	P	V
		5698.2	57.87	-46	103.87	48.49	32.27	10.67	33.56	100	106	P	V
		5710.6	61.11	-47.06	108.17	51.74	32.29	10.65	33.57	100	106	P	V
		5724.2	54.5	-65.88	120.38	45.11	32.31	10.65	33.57	100	106	P	V
	*	5785	121.15	-	-	111.74	32.39	10.61	33.59	100	106	P	V
	*	5785	114.88	-	-	105.47	32.39	10.61	33.59	100	106	A	V
		5850.2	55.6	-66.14	121.74	45.95	32.48	10.78	33.61	100	106	P	V
		5872.4	63.16	-42.77	105.93	53.31	32.53	10.94	33.62	100	106	P	V
		5905	55.69	-27.27	82.96	45.63	32.58	11.11	33.63	100	106	P	V
		5950	61.93	-6.27	68.2	51.68	32.63	11.27	33.65	100	106	P	V
													V
													V



WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 165 5825MHz	*	5825	118.67	-	-	109.03	32.46	10.78	33.6	100	91	P	H
	*	5825	111.17	-	-	101.53	32.46	10.78	33.6	100	91	A	H
		5850.4	78.44	-42.85	121.29	68.79	32.48	10.78	33.61	100	91	P	H
		5856.2	69.6	-40.86	110.46	59.92	32.51	10.78	33.61	100	91	P	H
		5907.8	57.64	-23.25	80.89	47.58	32.58	11.11	33.63	100	91	P	H
		5948.2	52.11	-16.09	68.2	41.86	32.63	11.27	33.65	100	91	P	H
													H
													H
	*	5825	121.32	-	-	111.68	32.46	10.78	33.6	100	90	P	V
	*	5825	114.66	-	-	105.02	32.46	10.78	33.6	100	90	A	V
		5852.4	84.49	-32.24	116.73	74.84	32.48	10.78	33.61	100	90	P	V
		5856.2	78.62	-31.84	110.46	68.94	32.51	10.78	33.61	100	90	P	V
		5903.6	61.83	-22.17	84	51.79	32.56	11.11	33.63	100	90	P	V
		5938.8	55.77	-12.43	68.2	45.68	32.63	11.11	33.65	100	90	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 149 5745MHz		11490	50.82	-23.18	74	46.56	39.91	15.59	51.24	100	0	P	H
		17235	48.37	-19.83	68.2	40.76	41	18.6	51.99	100	0	P	H
													H
													H
		11490	60.07	-13.93	74	55.81	39.91	15.59	51.24	139	178	P	V
		11490	49.36	-4.64	54	45.1	39.91	15.59	51.24	139	178	A	V
		17235	55.09	-13.11	68.2	47.48	41	18.6	51.99	100	0	P	V
													V
802.11n HT20 CH 157 5785MHz		11570	47.68	-26.32	74	43.54	39.76	15.64	51.26	100	0	P	H
		17355	49.61	-18.59	68.2	41.62	41.35	18.65	52.01	100	0	P	H
													H
													H
		11570	56.91	-17.09	74	52.77	39.76	15.64	51.26	100	211	P	V
		11570	46.68	-7.32	54	42.54	39.76	15.64	51.26	100	211	A	V
		17355	55.91	-12.29	68.2	47.92	41.35	18.65	52.01	100	0	P	V
													V
802.11n HT20 CH 165 5825MHz		11650	50.29	-23.71	74	46.27	39.62	15.69	51.29	100	0	P	H
		17475	46.57	-21.63	68.2	38.19	41.7	18.7	52.02	100	0	P	H
													H
													H
		11650	58.92	-15.08	74	54.9	39.62	15.69	51.29	100	227	P	V
		11650	49.2	-4.8	54	45.18	39.62	15.69	51.29	100	227	A	V
		17475	53.49	-14.71	68.2	45.11	41.7	18.7	52.02	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 151 5755MHz		5607	54.32	-13.88	68.2	45	32.14	10.71	33.53	100	97	P	H
		5699.8	68.67	-36.38	105.05	59.29	32.27	10.67	33.56	100	97	P	H
		5719.4	81.47	-29.16	110.63	72.08	32.31	10.65	33.57	100	97	P	H
		5724.4	84.2	-36.63	120.83	74.81	32.31	10.65	33.57	100	97	P	H
	*	5755	115.35	-	-	105.93	32.36	10.63	33.57	100	97	P	H
	*	5755	109	-	-	99.58	32.36	10.63	33.57	100	97	A	H
		5853	57.61	-57.75	115.36	47.96	32.48	10.78	33.61	100	97	P	H
		5864.6	54.61	-53.5	108.11	44.78	32.51	10.94	33.62	100	97	P	H
		5924	56.26	-12.68	68.94	46.19	32.6	11.11	33.64	100	97	P	H
		5926.2	54.5	-13.7	68.2	44.43	32.6	11.11	33.64	100	97	P	H
													H
													H
		5649.2	57.68	-10.52	68.2	48.34	32.19	10.69	33.54	100	94	P	V
		5678	66.79	-22.17	88.96	57.43	32.24	10.67	33.55	100	94	P	V
		5716.8	86.43	-23.48	109.91	77.06	32.29	10.65	33.57	100	94	P	V
		5722.8	86.98	-30.2	117.18	77.59	32.31	10.65	33.57	100	94	P	V
	*	5755	117.6	-	-	108.18	32.36	10.63	33.57	100	94	P	V
	*	5755	112.59	-	-	103.17	32.36	10.63	33.57	100	94	A	V
		5850.6	61.59	-59.24	120.83	51.94	32.48	10.78	33.61	100	94	P	V
		5857.4	60.09	-50.04	110.13	50.41	32.51	10.78	33.61	100	94	P	V
		5923.8	59.62	-9.46	69.08	49.55	32.6	11.11	33.64	100	94	P	V
		5925.6	57.53	-10.67	68.2	47.46	32.6	11.11	33.64	100	94	P	V
													V
													V



WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 159 5795MHz		5649.2	52.96	-15.24	68.2	43.62	32.19	10.69	33.54	100	104	P	H
		5687.6	56.62	-39.43	96.05	47.24	32.27	10.67	33.56	100	104	P	H
		5719.8	63.49	-47.25	110.74	54.1	32.31	10.65	33.57	100	104	P	H
		5720.05	63.48	-47.43	110.91	54.09	32.31	10.65	33.57	100	104	P	H
	*	5795	115.28	-	-	105.85	32.41	10.61	33.59	100	104	P	H
	*	5795	107.84	-	-	98.41	32.41	10.61	33.59	100	104	A	H
		5852.4	66.75	-49.98	116.73	57.1	32.48	10.78	33.61	100	104	P	H
		5856.4	64.95	-45.46	110.41	55.27	32.51	10.78	33.61	100	104	P	H
		5920	53.24	-18.65	71.89	43.19	32.58	11.11	33.64	100	104	P	H
		5949.8	53.57	-14.63	68.2	43.32	32.63	11.27	33.65	100	104	P	H
													H
													H
		5640	57.88	-10.32	68.2	48.54	32.19	10.69	33.54	100	111	P	V
		5653.8	55.44	-15.58	71.02	46.08	32.22	10.69	33.55	100	111	P	V
		5713	65.45	-43.39	108.84	56.08	32.29	10.65	33.57	100	111	P	V
		5724	67.85	-52.07	119.92	58.46	32.31	10.65	33.57	100	111	P	V
	*	5795	118.2	-	-	108.77	32.41	10.61	33.59	100	111	P	V
	*	5795	112.58	-	-	103.15	32.41	10.61	33.59	100	111	A	V
		5850.4	74.12	-47.17	121.29	64.47	32.48	10.78	33.61	100	111	P	V
		5860.2	73.25	-36.09	109.34	63.42	32.51	10.94	33.62	100	111	P	V
		5908.2	62.02	-18.58	80.6	51.96	32.58	11.11	33.63	100	111	P	V
		5937.8	61.94	-6.26	68.2	51.88	32.6	11.11	33.65	100	111	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 151 5755MHz		11510	56.06	-17.94	74	51.79	39.9	15.61	51.24	100	222	P	H
		11510	46.12	-7.88	54	41.85	39.9	15.61	51.24	100	222	A	H
		17265	50.53	-17.67	68.2	42.81	41.1	18.62	52	100	0	P	H
													H
		11510	61.65	-12.35	74	57.38	39.9	15.61	51.24	100	207	P	V
		11510	49.65	-4.35	54	45.38	39.9	15.61	51.24	100	207	A	V
		17265	55.81	-12.39	68.2	48.09	41.1	18.62	52	100	0	P	V
													V
802.11n HT40 CH 159 5795MHz		11590	49.51	-24.49	74	45.38	39.73	15.66	51.26	100	0	P	H
		17385	48.38	-19.82	68.2	40.28	41.45	18.66	52.01	100	0	P	H
													H
													H
		11590	58.96	-15.04	74	54.83	39.73	15.66	51.26	100	217	P	V
		11590	47.96	-6.04	54	43.83	39.73	15.66	51.26	100	217	A	V
		17385	54.73	-13.47	68.2	46.63	41.45	18.66	52.01	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 155 5775MHz		5650	57.08	-11.12	68.2	47.71	32.22	10.69	33.54	100	104	P	H
		5657.2	60.62	-12.93	73.55	51.26	32.22	10.69	33.55	100	104	P	H
		5719.6	78.47	-32.22	110.69	69.08	32.31	10.65	33.57	100	104	P	H
		5724.4	78.79	-42.04	120.83	69.4	32.31	10.65	33.57	100	104	P	H
	*	5775	113.31	-	-	103.87	32.39	10.63	33.58	100	104	P	H
	*	5775	108.03	-	-	98.59	32.39	10.63	33.58	100	104	A	H
		5850.8	73.92	-46.46	120.38	64.27	32.48	10.78	33.61	100	104	P	H
		5868.6	73.74	-33.25	106.99	63.91	32.51	10.94	33.62	100	104	P	H
		5922.8	55.66	-14.16	69.82	45.59	32.6	11.11	33.64	100	104	P	H
		5931	54.25	-13.95	68.2	44.18	32.6	11.11	33.64	100	104	P	H
													H
													H
		5646.6	67.49	-0.71	68.2	58.15	32.19	10.69	33.54	100	88	P	V
		5696.8	85.34	-17.5	102.84	75.96	32.27	10.67	33.56	100	88	P	V
		5718.6	86.56	-23.85	110.41	77.17	32.31	10.65	33.57	100	88	P	V
		5723.6	87.09	-31.92	119.01	77.7	32.31	10.65	33.57	100	88	P	V
	*	5775	119.15	-	-	109.71	32.39	10.63	33.58	100	88	P	V
	*	5775	113	-	-	103.56	32.39	10.63	33.58	100	88	A	V
		5854.2	83.4	-29.22	112.62	73.72	32.51	10.78	33.61	100	88	P	V
		5856	82.71	-27.81	110.52	73.03	32.51	10.78	33.61	100	88	P	V
		5875.4	76.54	-28.36	104.9	66.69	32.53	10.94	33.62	100	88	P	V
		5941.2	62.5	-5.7	68.2	52.25	32.63	11.27	33.65	100	88	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												


Band 4 5725~5850MHz
WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1+2+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 155 5775MHz		11550	45.56	-28.44	74	41.37	39.8	15.64	51.25	100	0	P	H
		17325	46.91	-21.29	68.2	39.03	41.25	18.63	52	100	0	P	H
													H
													H
		11550	53.4	-20.6	74	49.21	39.8	15.64	51.25	100	205	P	V
		11550	47	-7	54	42.81	39.8	15.64	51.25	100	205	A	V
		17325	50.72	-17.48	68.2	42.84	41.25	18.63	52	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

5GHz WIFI 802.11ac VHT80 (LF @ 3m)

WIFI Ant. 1+2+3.	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
5GHz 802.11ac VHT80 LF		140.97	37.87	-5.63	43.5	50.12	17.85	1.68	31.78	-	-	P	H
		172.83	39.11	-4.39	43.5	53.5	15.71	1.68	31.78	-	-	P	H
		235.2	43.8	-3.2	46	56.21	17.38	1.98	31.77	100	29	QP	H
		449.8	34.84	-11.16	46	39.7	23.3	3.68	31.84	-	-	P	H
		608.7	35.22	-10.78	46	38.31	25.79	3.16	32.04	-	-	P	H
		720	34.9	-11.1	46	36.29	27.09	3.54	32.02	-	-	P	H
													H
													H
													H
													H
													H
													H
		140.43	39.57	-3.93	43.5	51.82	17.85	1.68	31.78	-	-	P	V
		202.53	40.2	-3.3	43.5	54.19	16.05	1.74	31.78	242	341	P	V
		234.93	42.3	-3.7	46	54.79	17.3	1.98	31.77	-	-	P	V
		449.8	30.98	-15.02	46	35.84	23.3	3.68	31.84	-	-	P	V
		609.4	32.74	-13.26	46	35.83	25.79	3.16	32.04	-	-	P	V
		720	31.29	-14.71	46	32.68	27.09	3.54	32.02	-	-	P	V
													V
													V
												V	
												V	
												V	
												V	
												V	
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Note symbol

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



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

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

1. Level(dBμV/m) =

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

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

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 43.54 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

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



Appendix C. Radiated Spurious Emission

Test Engineer :	J.C. Liang, Jacky Hung and Ken Wu	Temperature :	20~23°C
		Relative Humidity :	50~54%

Note symbol

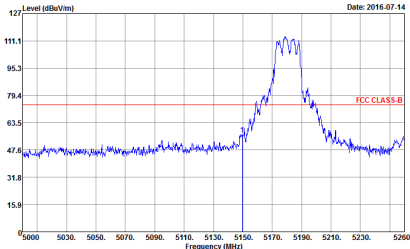
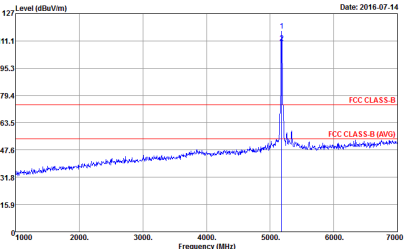
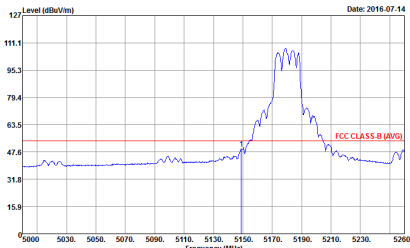
-L	Low channel location
-R	High channel location



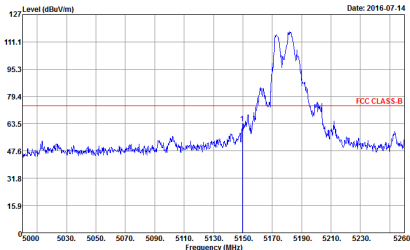
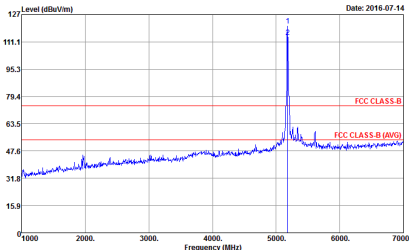
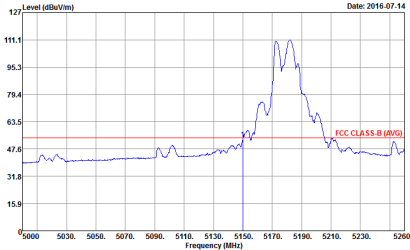
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Band 1 - 5150~5250MHz

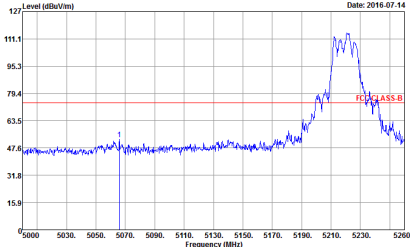
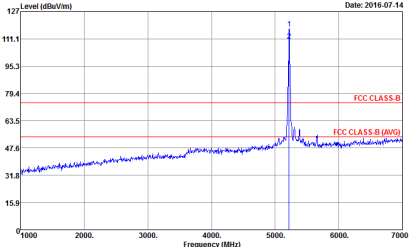
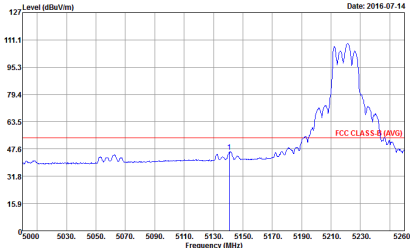
WIFI 802.11a (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1+2+3	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 612811 Mode : 1 Setting : 88	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 612811 Mode : 1 Setting : 88
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 612811 Mode : 1 Setting : 88	Left blank

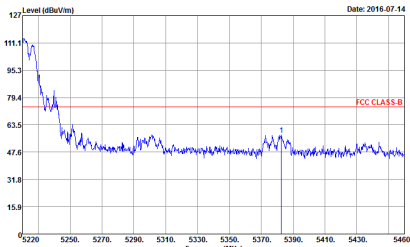
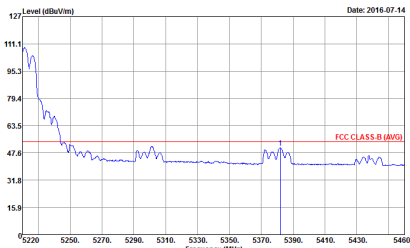


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1+2+3	Vertical	Fundamental
Peak	 Site : 03CH11-HV Condition : FCC CLASS-B 3m HORN 91200-HF VERTICAL Detector : Peak Project : 612811 Mode : 1 Setting : 88	 Site : 03CH11-HV Condition : FCC CLASS-B 3m HORN 91200-HF VERTICAL Detector : Peak Project : 612811 Mode : 1 Setting : 88
Avg.	 Site : 03CH11-HV Condition : FCC CLASS-B (AVG) 3m HORN 91200-HF VERTICAL Detector : Peak Project : 612811 Mode : 1 Setting : 88	Left blank

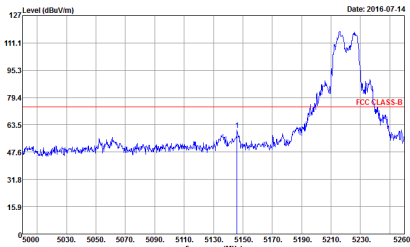
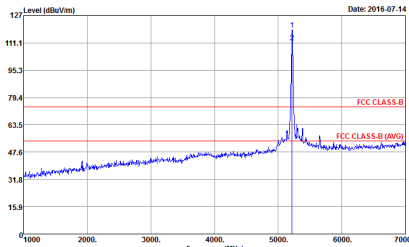
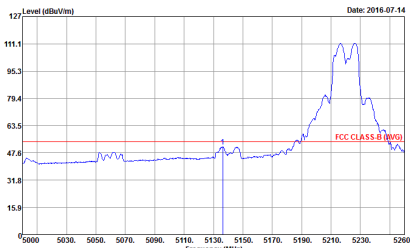


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1+2+3	Horizontal	Fundamental
Peak	 Site : 03CH11-HV Condition : FCC CLASS-B 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 612811 Mode : 2 Power : 90	 Site : 03CH11-HV Condition : FCC CLASS-B 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 612811 Mode : 2 Power : 90
Avg.	 Site : 03CH11-HV Condition : FCC CLASS-B (AVG) 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 612811 Mode : 2 Power : 90	Left blank

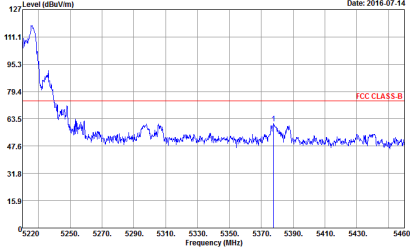
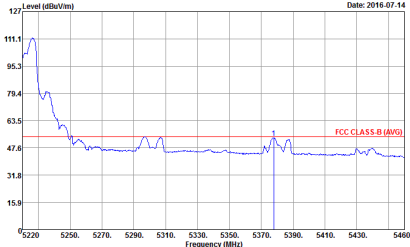


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
1+2+3	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 2 Power : 90	Left blank
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 2 Power : 90	Left blank

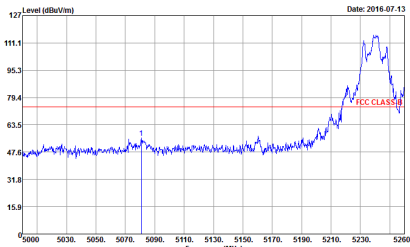
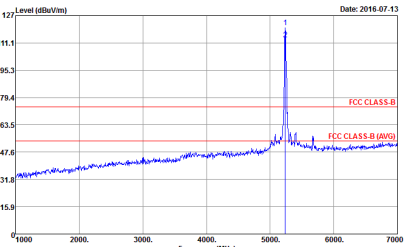
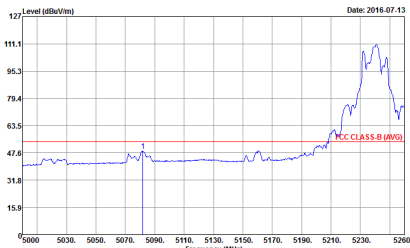


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1+2+3	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 2 Power : 90	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 2 Power : 90
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 2 Power : 90	Left blank

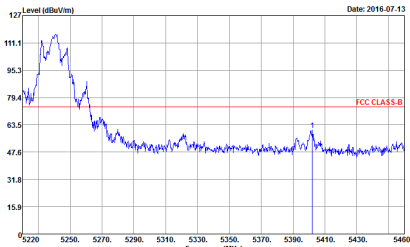
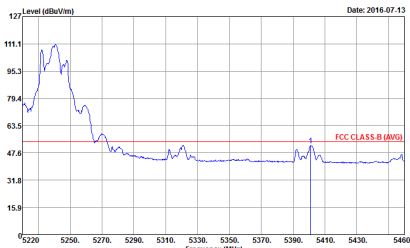


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
1+2+3	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 2 Power : 90	Left blank
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 2 Power : 90	Left blank

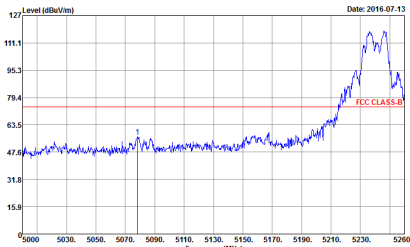
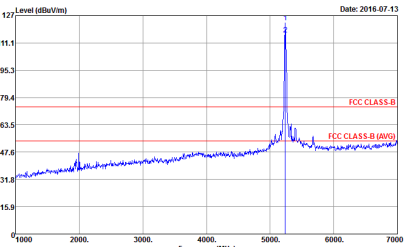
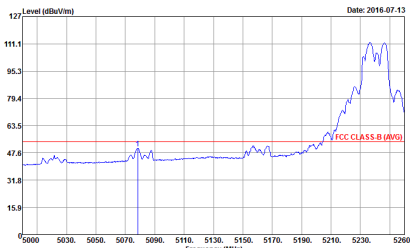


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
1+2+3	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 2 Setting : 98	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 2 Setting : 98
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 2 Setting : 98	Left blank

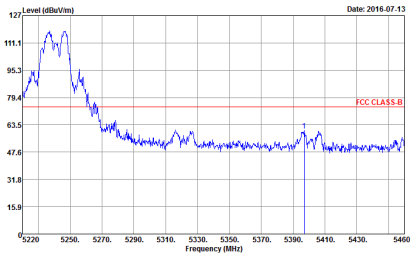
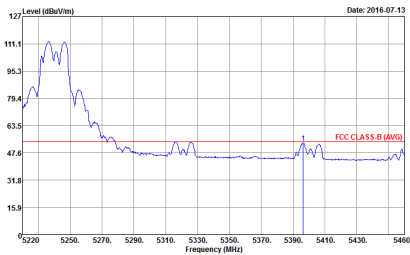


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1+2+3	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 2 Setting : 98	Left blank
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 2 Setting : 98	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
1+2+3	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 2 Setting : 98	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 2 Setting : 98
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 2 Setting : 98	Left blank

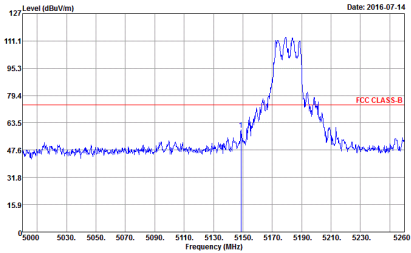
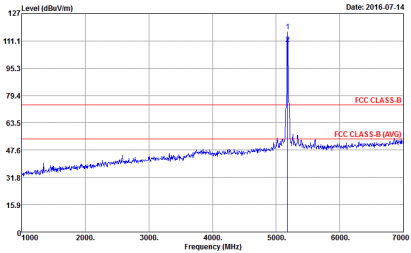
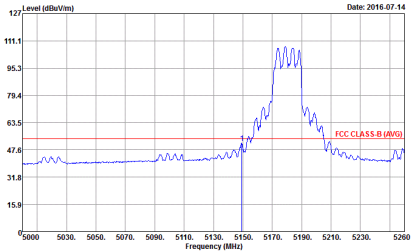


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1+2+3	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 2 Setting : 98	Left blank
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 2 Setting : 98	Left blank

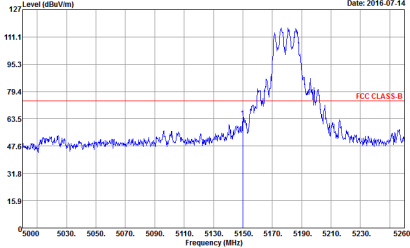
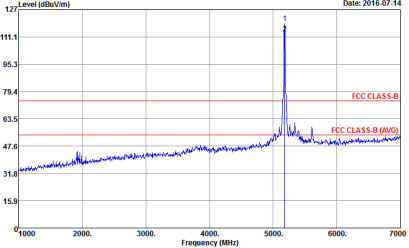
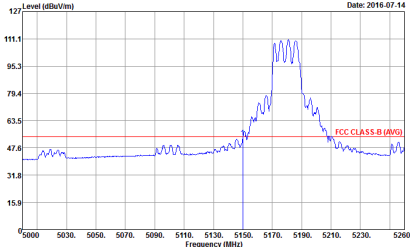


Band 1 5150~5250MHz

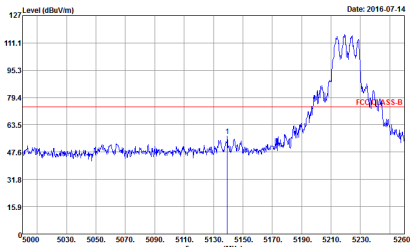
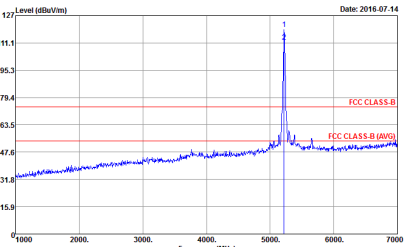
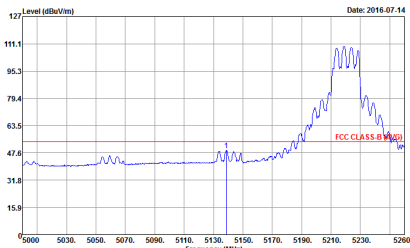
WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1+2+3	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 612811 Mode : 4 Setting : 86	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 612811 Mode : 4 Setting : 86
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 612811 Mode : 4 Setting : 86	Left blank

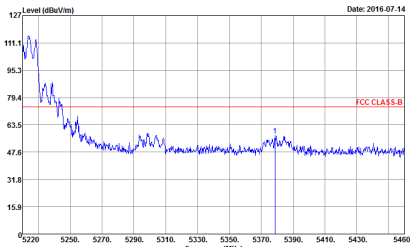
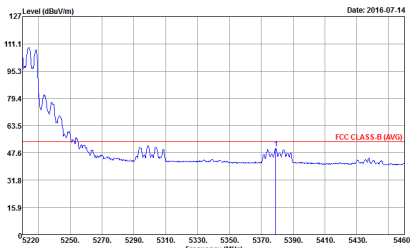


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1+2+3	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 4 Setting : 86	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 4 Setting : 86
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 4 Setting : 86	Left blank

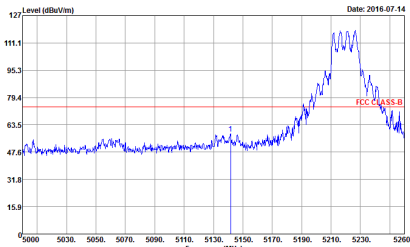
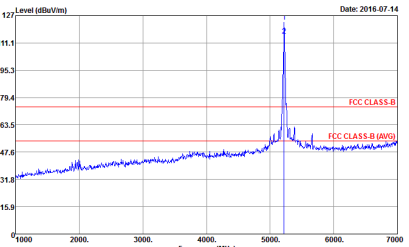
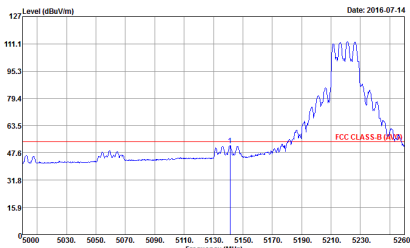


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
1+2+3	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 5 Setting : 98	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 5 Setting : 98
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 5 Setting : 98	Left blank

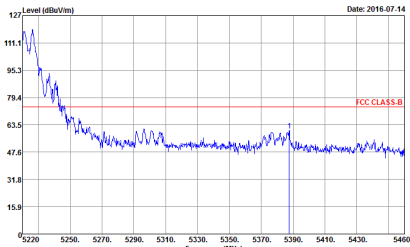
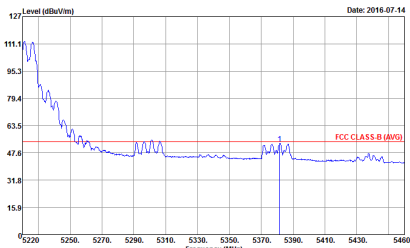


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
1+2+3	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 5 Setting : 98	Left blank
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 5 Setting : 98	Left blank

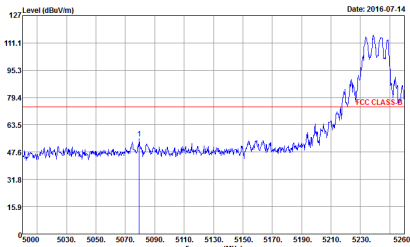
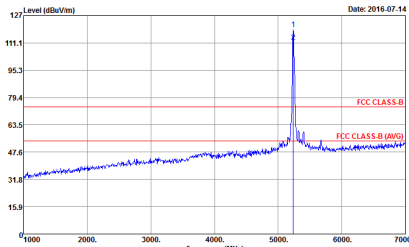
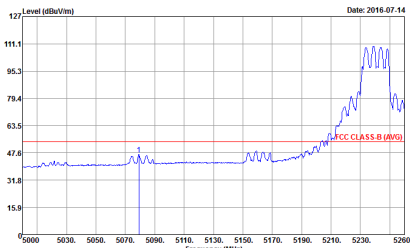


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
1+2+3	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 5 Setting : 98	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 5 Setting : 98
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 5 Setting : 98	Left blank

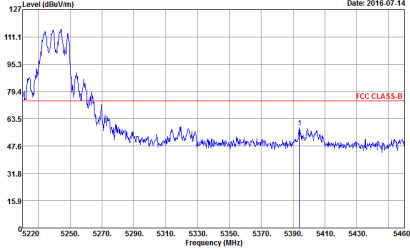
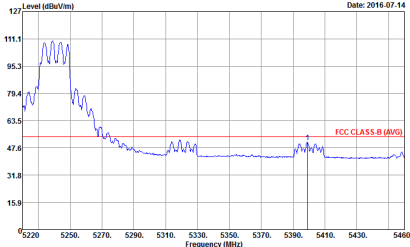


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
1+2+3	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 5 Setting : 98	Left blank
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 5 Setting : 98	Left blank

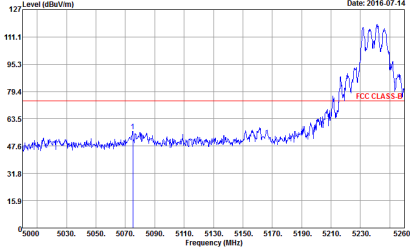
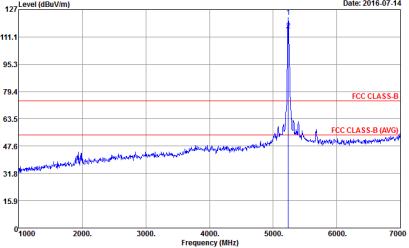
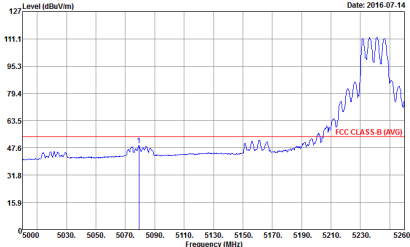


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
1+2+3	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 6 Power : 98	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 6 Power : 98
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 6 Power : 98	Left blank

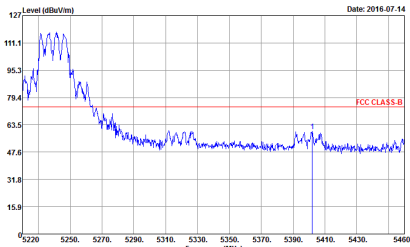
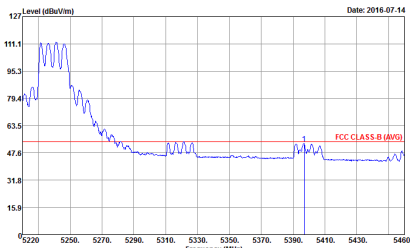


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
1+2+3	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 6 Power : 98	Left blank
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 6 Power : 98	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
1+2+3	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 6 Power : 98	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 6 Power : 98
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 6 Power : 98	Left blank

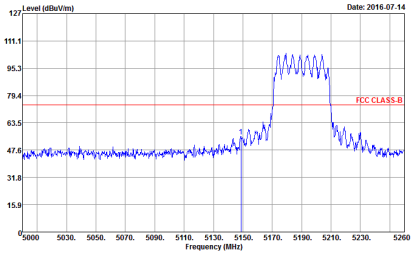
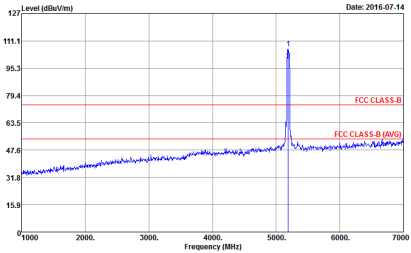
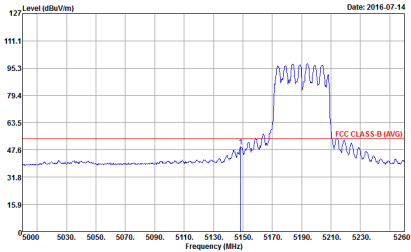


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
1+2+3	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 6 Power : 98	Left blank
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 6 Power : 98	Left blank

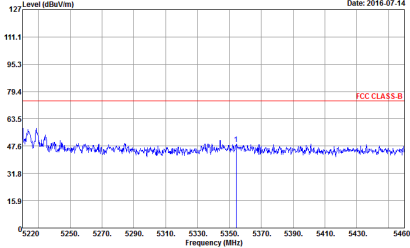
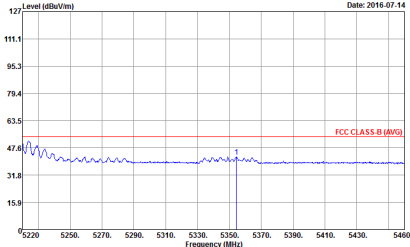


Band 1 5150~5250MHz

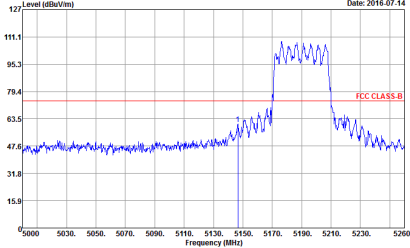
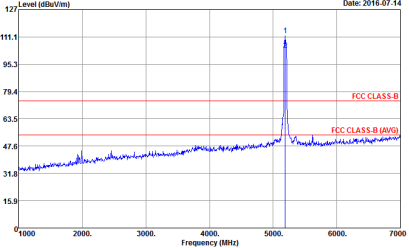
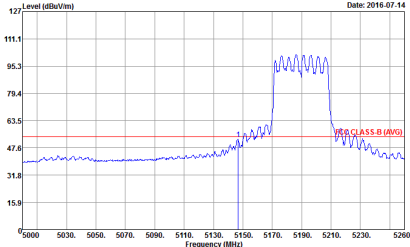
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1+2+3	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 612811 Mode : 7 Setting : 58	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 612811 Mode : 7 Setting : 58
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 612811 Mode : 7 Setting : 58	Left blank

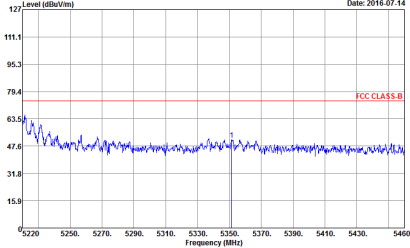
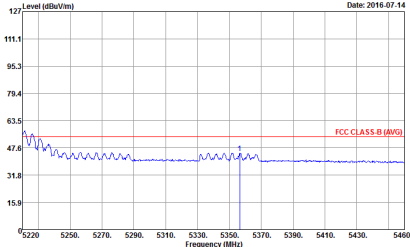


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
1+2+3	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 7 Setting : 58	Left blank
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 7 Setting : 58	Left blank

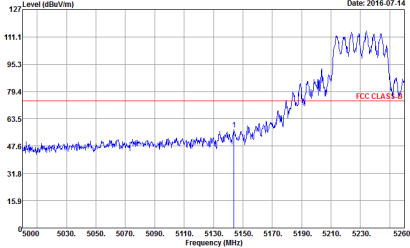
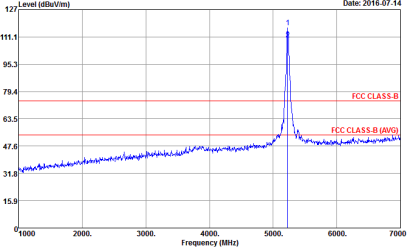
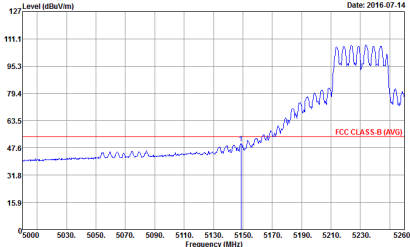


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1+2+3	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 7 Setting : 58	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 7 Setting : 58
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 7 Setting : 58	Left blank

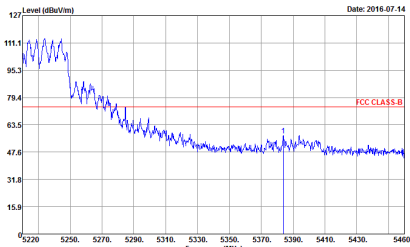
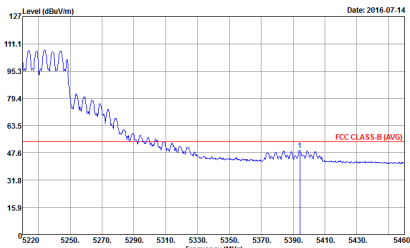


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
1+2+3	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 7 Setting : 58	Left blank
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 7 Setting : 58	Left blank

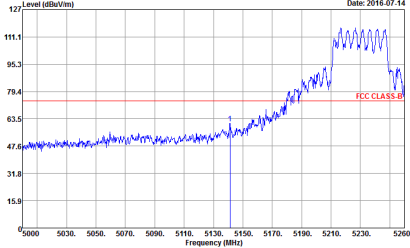
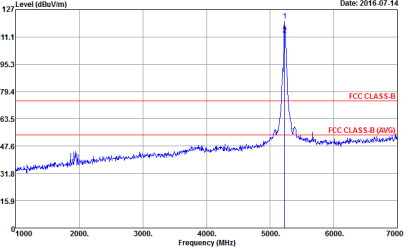
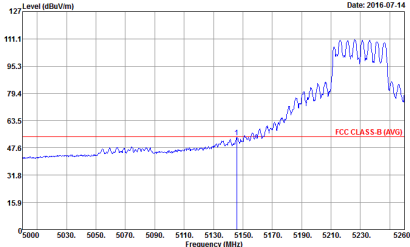


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
1+2+3	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 8 Setting : 99	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 8 Setting : 99
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 8 Setting : 99	Left blank

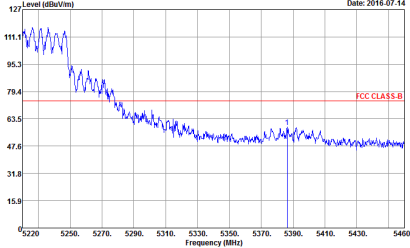
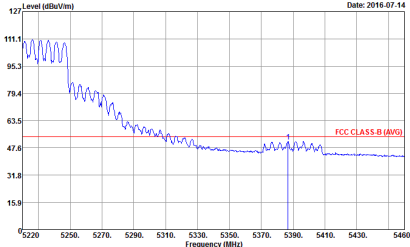


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1+2+3	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 8 Setting : 99	Left blank
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 8 Setting : 99	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
1+2+3	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 8 Setting : 99	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 8 Setting : 99
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 8 Setting : 99	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1+2+3	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 8 Setting : 99	Left blank
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 8 Setting : 99	Left blank

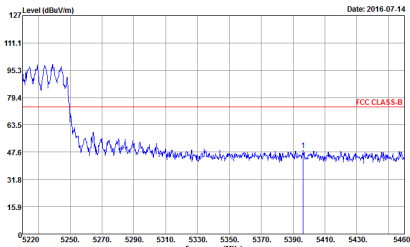
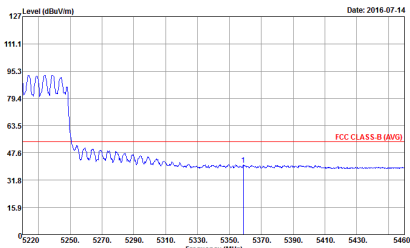


Band 1 5150~5250MHz

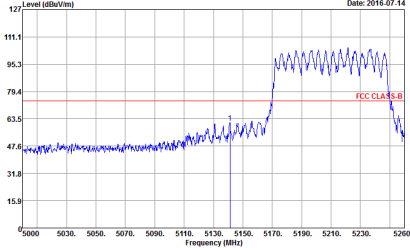
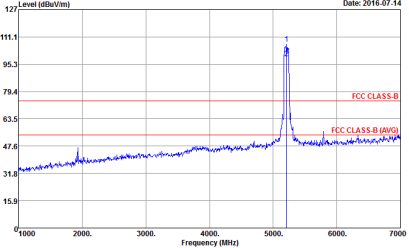
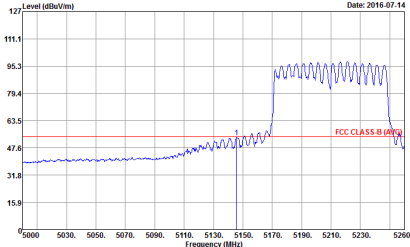
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
1+2+3	Horizontal	Fundamental
Peak	Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 612811 Mode : 9 Setting : 54	Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 612811 Mode : 9 Setting : 54
Avg.	Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 612811 Mode : 9 Setting : 54	Left blank

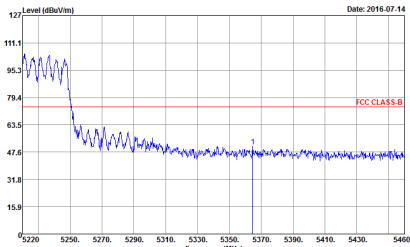
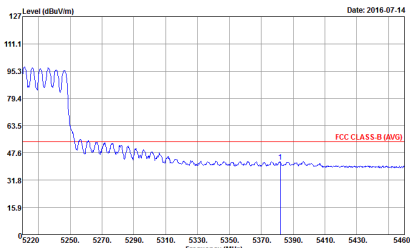


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
1+2+3	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 9 Setting : 54	Left blank
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 9 Setting : 54	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
1+2+3	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 9 Setting : 54	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 9 Setting : 54
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 9 Setting : 54	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
1+2+3	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 9 Setting : 54	Left blank
Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B (AVG) 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 9 Setting : 54	Left blank

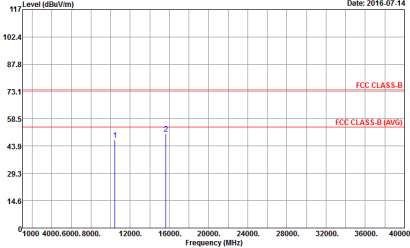
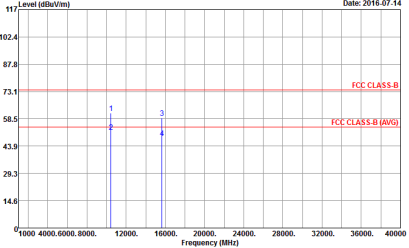


Band 1 - 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH36 5180MHz	
1+2+3	Horizontal	Vertical
Peak Avg.	117 102.4 87.8 73.1 58.5 43.9 29.3 14.6 0 Level (dBuV/m) Date: 2016-07-14 Frequency (MHz) Site : 03CH11-HY Condition : FCC CLASS-B 3m 9170 SHF HORM_150809 HORIZONTAL Detector : Peak Project : 612811 Mode : 1	117 102.4 87.8 73.1 58.5 43.9 29.3 14.6 0 Level (dBuV/m) Date: 2016-07-14 Frequency (MHz) Site : 03CH11-HY Condition : FCC CLASS-B 3m 9170 SHF HORM_150809 VERTICAL Detector : Peak Project : 612811 Mode : 1



WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH44 5220MHz	
1+2+3	Horizontal	Vertical
Peak Avg.	117 Level (dBuV/m) Date: 2016.07.14  Site : 03CH11-HV Condition : FCC CLASS-B 3m 9170 SHF HORM_150809 HORIZONTAL Detector : Peak Project : 612811 Mode : 2 Setting : 90	117 Level (dBuV/m) Date: 2016.07.14  Site : 03CH11-HV Condition : FCC CLASS-B 3m 9170 SHF HORM_150809 VERTICAL Detector : Peak Project : 612811 Mode : 2 Setting : 90

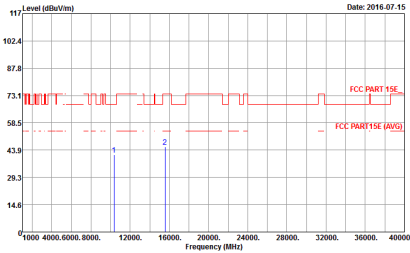
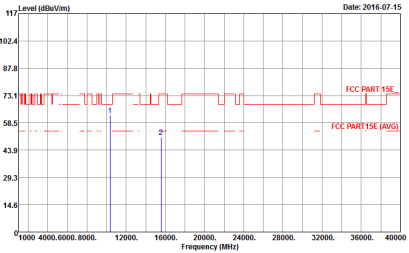


WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH48 5240MHz	
1+2+3	Horizontal	Vertical
Peak Avg.	117 Level (dBuV/m) Date: 2016.07.13 Site : 03CH11-HV Condition : FCC CLASS-B 3m 9170 SHF HORM_150809 HORIZONTAL Detector : Peak Project : 612811 Mode : 3	117 Level (dBuV/m) Date: 2016.07.13 Site : 03CH11-HV Condition : FCC CLASS-B 3m 9170 SHF HORM_150809 VERTICAL Detector : Peak Project : 612811 Mode : 3

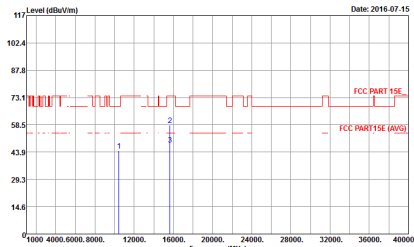
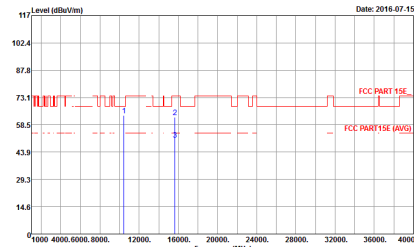


Band 1 5150~5250MHz

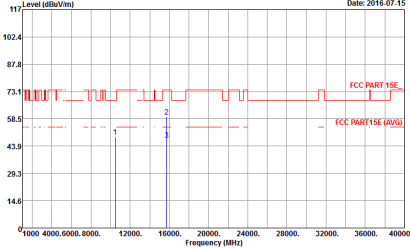
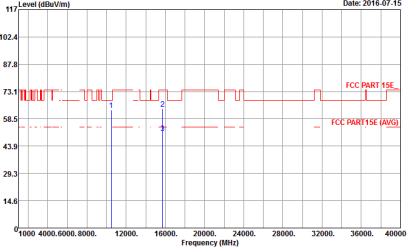
WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1+2+3	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : FCC PART 15E_3m 9170 SHF HORM_150809 HORIZONTAL Detector : Peak Project : 612811 Mode : 4	 Site : 03CH11-HY Condition : FCC PART 15E_3m 9170 SHF HORM_150809 VERTICAL Detector : Peak Project : 612811 Mode : 4



WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH44 5220MHz	
1+2+3	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : FCC PART 15E_3m 9170 SHF HORM_150809 HORIZONTAL Detector : Peak Project : 612811 Mode : 5	 Site : 03CH11-HY Condition : FCC PART 15E_3m 9170 SHF HORM_150809 VERTICAL Detector : Peak Project : 612811 Mode : 5



WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH48 5240MHz	
1+2+3	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : FCC PART 15E_3m 9170 SHF HORM_150809 HORIZONTAL Detector : Peak Project : 612811 Mode : 6	 Site : 03CH11-HY Condition : FCC PART 15E_3m 9170 SHF HORM_150809 VERTICAL Detector : Peak Project : 612811 Mode : 6

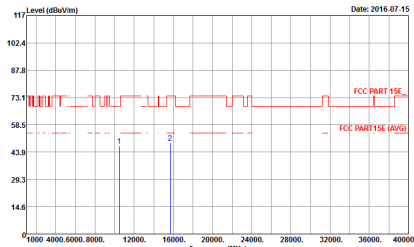
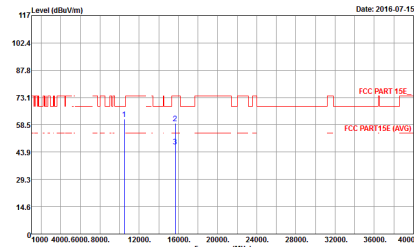


Band 1 5150~5250MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT40 CH38 5190MHz	
1+2+3	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2016-07-15 Site : 03CH11-HY Condition : FCC CLASS-B 3m 9170 SHF HORM_150809 HORIZONTAL Detector : Peak Project : 612811 Mode : 7	Level (dBuV/m) Date: 2016-07-15 Site : 03CH11-HY Condition : FCC CLASS-B 3m 9170 SHF HORM_150809 VERTICAL Detector : Peak Project : 612811 Mode : 7

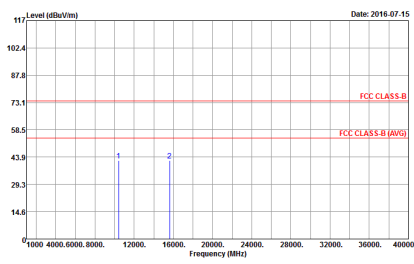
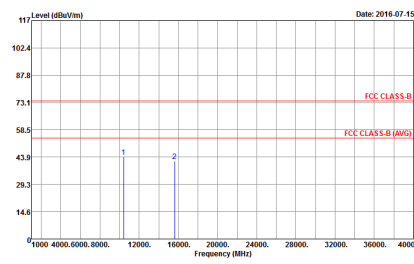


WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT40 CH46 5230MHz	
1+2+3	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : FCC PART 15E_3m 9170 SHF HORM_150809 HORIZONTAL Detector : Peak Project : 612811 Mode : 8	 Site : 03CH11-HY Condition : FCC PART 15E_3m 9170 SHF HORM_150809 VERTICAL Detector : Peak Project : 612811 Mode : 8



Band 1 5150~5250MHz

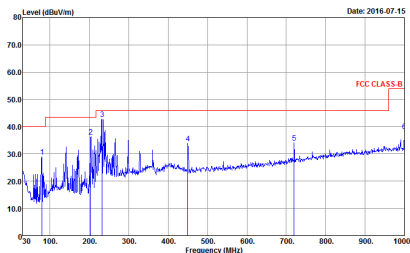
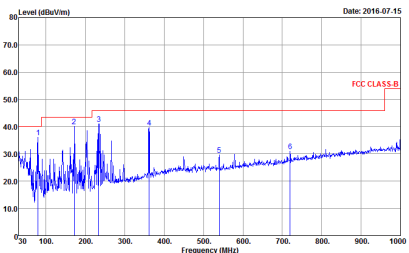
WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz	
1+2+3	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : FCC CLASS-B 3m 9170 SHF HORM_150809 HORIZONTAL Detector : Peak Project : 612811 Mode : 9	 Site : 03CH11-HY Condition : FCC CLASS-B 3m 9170 SHF HORM_150809 VERTICAL Detector : Peak Project : 612811 Mode : 9



Emission below 1GHz

5GHz WIFI 802.11n HT20 (LF)

WIFI	5GHz WIFI	
ANT	802.11n HT20 LF	
1+2+3	Horizontal	Vertical
QP / Peak	 Site : 03CH11-HY Condition : FCC CLASS-B 3m BT-LOG 61110-LF_ETC HORIZONTAL Detector : Peak Project : 612811 Mode : 10	 Site : 03CH11-HY Condition : FCC CLASS-B 3m BT-LOG 61110-LF_ETC VERTICAL Detector : Peak Project : 612811 Mode : 10

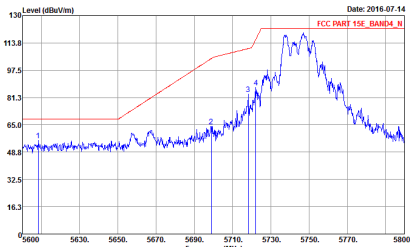
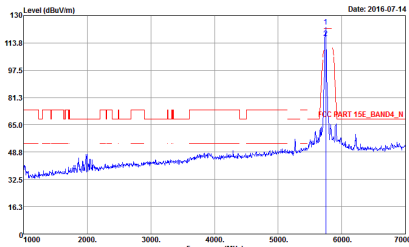


Band 4 - 5725~5850MHz

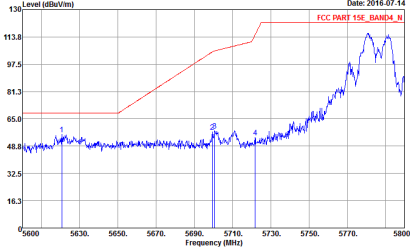
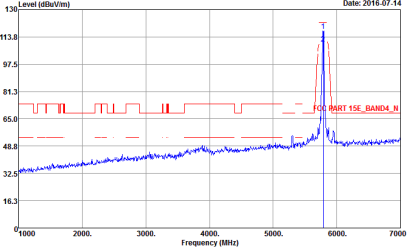
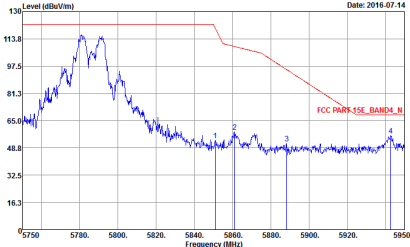
WIFI 802.11a (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
1+2+3	Horizontal	Fundamental
Peak	Level (dBuV/m) Date: 2016-07-14 FCC PART 15E_BAND4_N Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : II	Level (dBuV/m) Date: 2016-07-14 FCC PART 15E_BAND4_N Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : II

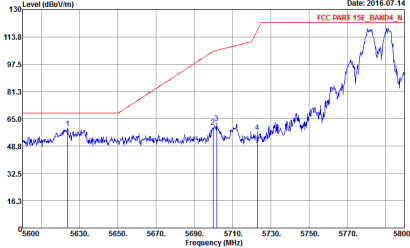
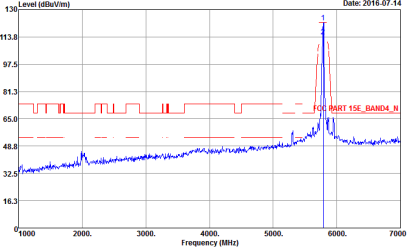
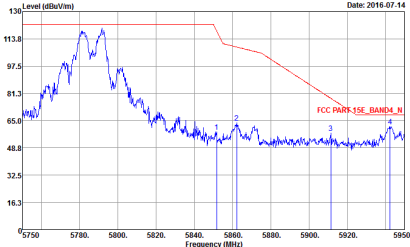


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
1+2+3	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : II	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : II



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
1+2+3	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 12	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 12
Peak	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 12	Left blank



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
1+2+3	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 12	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 12
Peak	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 12	Left blank



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1+2+3	Horizontal	Fundamental
Peak	Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 13	Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 13



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHZ	
1+2+3	Vertical	Fundamental
Peak	Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 13	Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 13

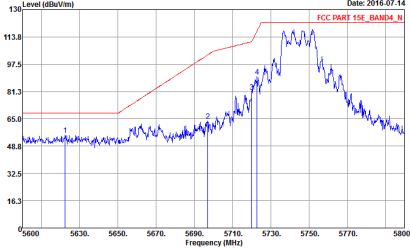
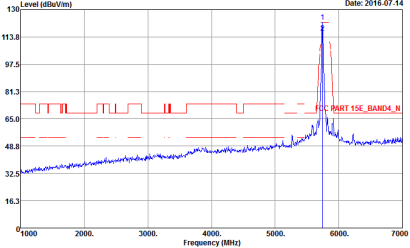


Band 4 5725~5850MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
1+2+3	Horizontal	Fundamental
Peak	Level (dBuV/m) Date: 2016-07-14 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 612811 Mode : 14	Level (dBuV/m) Date: 2016-07-14 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 612811 Mode : 14

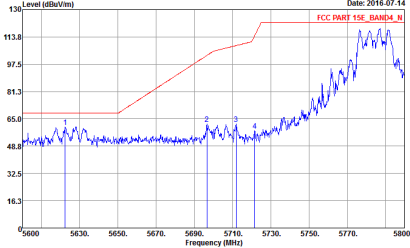
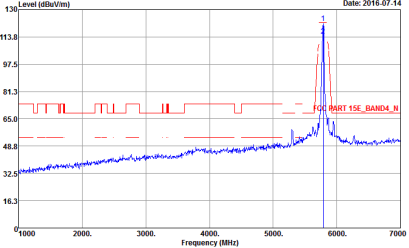
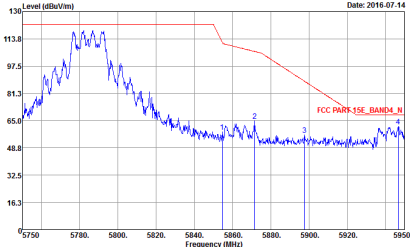


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
1+2+3	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 14	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 14

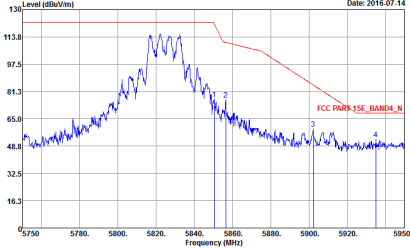
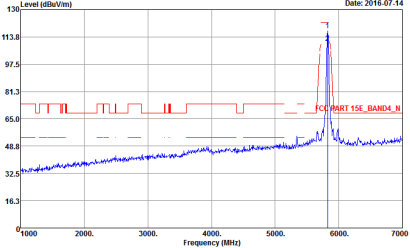


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1+2+3	Horizontal	Fundamental
Peak	Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 15	Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 15
Peak	Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 15	Left blank

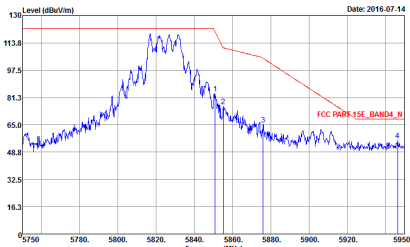
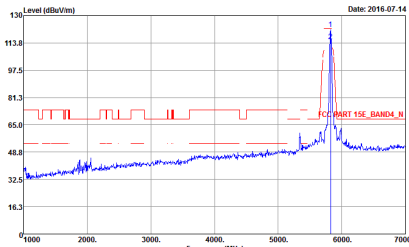


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1+2+3	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 15	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 15
Peak	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 15	Left blank



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
1+2+3	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 16	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 16

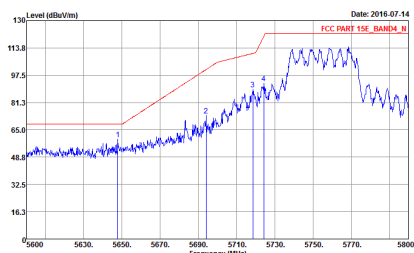
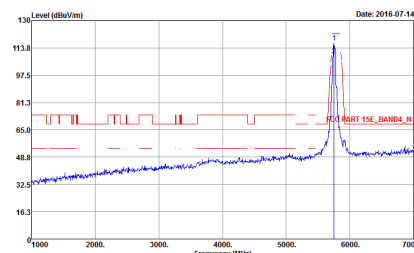
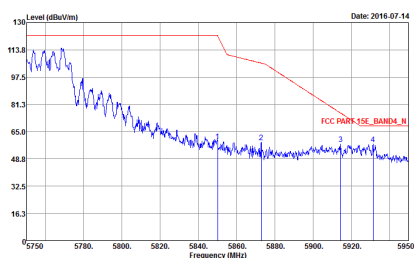


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
1+2+3	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 16	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 16

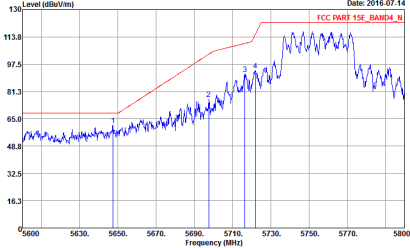
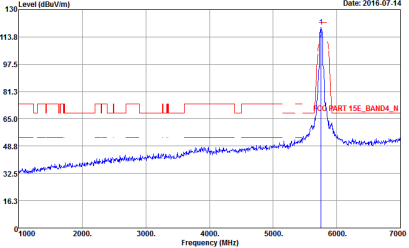
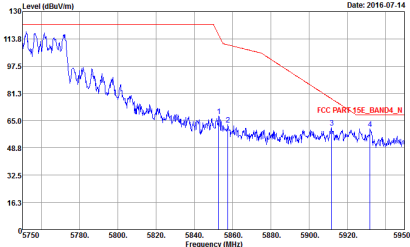


Band 4 5725~5850MHz

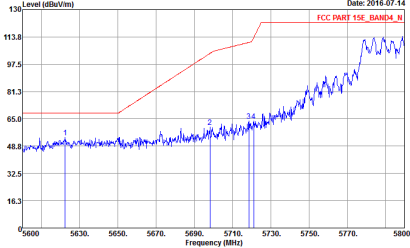
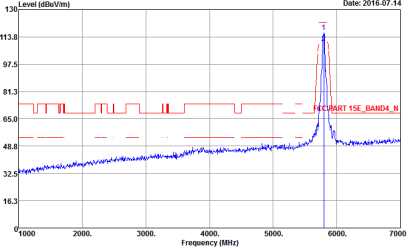
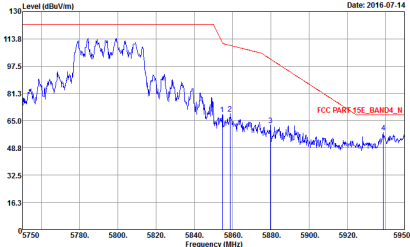
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
1+2+3	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 91200-HF HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 612811 Date: 2016-07-14	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 91200-HF HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 612811 Date: 2016-07-14
Peak	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 91200-HF HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 612811 Date: 2016-07-14	Left blank

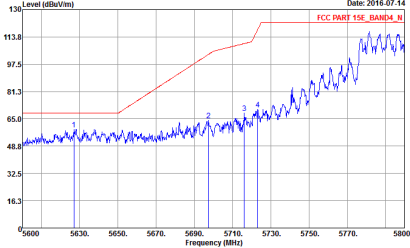
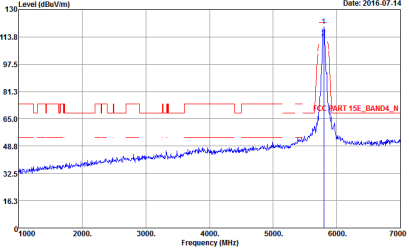
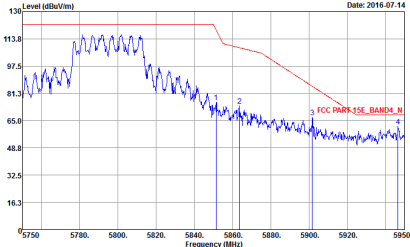


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
1+2+3	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 17	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 17
Peak	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 17	Left blank



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
1+2+3	Horizontal	Fundamental
Peak	 Site : 03CHI1-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 18	 Site : 03CHI1-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 18
Peak	 Site : 03CHI1-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 18	Left blank



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
1+2+3	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 18	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 18
Peak	 Site : 03CH11-HY Condition : FCC PART 15E_BAND4_N 3m HORN 9120D-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 612811 Mode : 18	Left blank