



# FCC RF Test Report

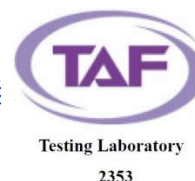
**APPLICANT** : Xiaomi Inc.  
**EQUIPMENT** : Mobile Phone  
**BRAND NAME** : MI  
**MODEL NAME** : 2014215  
**FCC ID** : 2AFZY-MI4215  
**STANDARD** : FCC Part 15 Subpart E §15.407  
**CLASSIFICATION** : (NII) Unlicensed National Information Infrastructure

The product was received on Sep. 30, 2015 and testing was completed on Nov. 04, 2015. We, SPORTON INTERNATIONAL (SHENZHEN) 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 (SHENZHEN) INC., the test report shall not be reproduced except in full.

Prepared by: Andy Yeh / Manager

Approved by: Jones Tsai / Manager



**SPORTON INTERNATIONAL (SHENZHEN) INC.**

**1F & 2F, Building A, Morning Business Center, No. 4003 ShiGu Rd., Xili Town,  
Nanshan District, Shenzhen, Guangdong, P. R. China**



## TABLE OF CONTENTS

<b>SUMMARY OF TEST RESULT .....</b>	<b>4</b>
<b>1 GENERAL DESCRIPTION .....</b>	<b>5</b>
1.1 Applicant .....	5
1.2 Manufacturer .....	5
1.3 Feature of Equipment Under Test .....	5
1.4 Product Specification of Equipment Under Test .....	6
1.5 Modification of EUT .....	8
1.6 Testing Location .....	8
1.7 Applicable Standards .....	8
<b>2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST .....</b>	<b>9</b>
2.1 Carrier Frequency Channel .....	9
2.2 Pre-Scanned RF Power .....	10
2.3 Test Mode .....	13
2.4 Connection Diagram of Test System .....	16
2.5 Support Unit used in test configuration and system .....	17
2.6 EUT Operation Test Setup .....	17
2.7 Measurement Results Explanation Example .....	17
<b>3 TEST RESULT .....</b>	<b>18</b>
3.1 26dB & 99% Occupied Bandwidth Measurement .....	18
3.2 Maximum Conducted Output Power Measurement .....	20
3.3 Power Spectral Density Measurement .....	22
3.4 Unwanted Radiated Emission Measurement .....	25
3.5 AC Conducted Emission Measurement .....	30
3.6 Frequency Stability Measurement .....	34
3.7 Automatically Discontinue Transmission .....	35
3.8 Antenna Requirements .....	36
<b>4 LIST OF MEASURING EQUIPMENTS .....</b>	<b>37</b>
<b>5 UNCERTAINTY OF EVALUATION .....</b>	<b>38</b>
<b>APPENDIX A. CONDUCTED TEST RESULTS</b>	
<b>APPENDIX B. RADIATED TEST RESULTS</b>	
<b>APPENDIX C. SETUP PHOTOGRAPHS</b>	



## REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR593004D	Rev. 01	Initial issue of report	Nov. 18, 2015

## SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	2.1049 15.403(i)	26dB & 99% Bandwidth	-	Pass	-
3.2	15.407(a)	Maximum Conducted Output Power	FCC ≤24 dBm (depend on band)	Pass	-
3.3	15.407(a)	Power Spectral Density	FCC ≤11 dBm (depend on band)	Pass	-
3.4	15.407(b)	Unwanted Emissions	≤ -17, -27 dBm (depend on band)&15.209(a)	Pass	Under limit 1.65 dB at 5470.000 MHz
3.5	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 13.19 dB at 0.660 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

**Xiaomi Inc.**

The Rainbow City of China Resources, NO.68, Qinghe Middle Street, Haidian District, Beijing, China

## 1.2 Manufacturer

**Xiaomi Inc.**

The Rainbow City of China Resources, NO.68, Qinghe Middle Street, Haidian District, Beijing, China

## 1.3 Feature of Equipment Under Test

Product Feature & Specification	
Equipment	Mobile Phone
Brand Name	MI
Model Name	2014215
FCC ID	2AFZY-MI4215
EUT supports Radios application	GSM/GPRS/EGPRS/WCDMA/HSPA/DC-HSDPA HSPA+(16QAM uplink is not supported)/ WLAN2.4GHz 802.11b/g/n HT20 WLAN5GHz 802.11a/n HT20/HT40 WLAN5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth v3.0+EDR/Bluetooth v4.0 LE
IMEI Code	Conducted: 867079021334053 Radiation: 867079021361494 Conduction: 867079021352147
HW Version	3501X4M000B
SW Version	MIUI 6
EUT Stage	Production Unit

**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

Product Specification subjective to this standard	
<b>Tx/Rx Frequency Range</b>	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5580 MHz and 5660 MHz ~ 5700 MHz
<b>Maximum Output Power to Antenna</b>	<b>&lt;5180 MHz ~ 5240 MHz&gt;</b> 802.11a : 16.26 dBm / 0.0423 W 802.11n HT20 : 16.22 dBm / 0.0419 W 802.11n HT40 : 15.89 dBm / 0.0388 W 802.11ac VHT20 : 11.19 dBm / 0.0132 W 802.11ac VHT40 : 11.03 dBm / 0.0127 W 802.11ac VHT80 : 11.48 dBm / 0.0141 W <b>&lt;5260 MHz ~ 5320 MHz&gt;</b> 802.11a : 15.74 dBm / 0.0375 W 802.11n HT20 : 15.70 dBm / 0.0372 W 802.11n HT40 : 15.58 dBm / 0.0361 W 802.11ac VHT20 : 10.56 dBm / 0.0114 W 802.11ac VHT40 : 10.62 dBm / 0.0115 W 802.11ac VHT80 : 11.02 dBm / 0.0126 W <b>&lt;5500 MHz ~ 5580 MHz and 5660 MHz ~ 5700 MHz&gt;</b> 802.11a : 15.53 dBm / 0.0357 W 802.11n HT20 : 15.46 dBm / 0.0352 W 802.11n HT40 : 15.51 dBm / 0.0356 W 802.11ac VHT20 : 10.52 dBm / 0.0113 W 802.11ac VHT40 : 10.33 dBm / 0.0108 W 802.11ac VHT80 : 10.84 dBm / 0.0121 W
<b>99% Occupied Bandwidth</b>	<b>&lt;5180 MHz ~ 5240 MHz&gt;</b> 802.11a : 18.50 MHz 802.11n HT20 : 19.30 MHz 802.11n HT40 : 36.60 MHz 802.11ac VHT20 : 19.30 MHz 802.11ac VHT40 : 36.80 MHz 802.11ac VHT80 : 74.88 MHz <b>&lt;5260 MHz ~ 5320 MHz&gt;</b> 802.11a : 18.55 MHz 802.11n HT20 : 18.70 MHz 802.11n HT40 : 36.60 MHz 802.11ac VHT20 : 19.30 MHz 802.11ac VHT40 : 36.70 MHz 802.11ac VHT80 : 74.88 MHz <b>&lt;5500 MHz ~ 5580 MHz and 5660 MHz ~ 5700 MHz&gt;</b> 802.11a : 18.50 MHz 802.11n HT20 : 18.85 MHz 802.11n HT40 : 36.60 MHz 802.11ac VHT20 : 19.25 MHz 802.11ac VHT40 : 36.60 MHz 802.11ac VHT80 : 74.88 MHz



<b>Antenna Type</b>	PIFA Antenna
<b>Antenna Gain</b>	<5180 MHz ~ 5240 MHz>: 1.30 dBi <5260 MHz ~ 5320 MHz>: 0.70 dBi <5500 MHz ~ 5580 MHz and 5660 MHz ~ 5700 MHz>: 0.10 dBi
<b>Type of Modulation</b>	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)

## 1.5 Modification of EUT

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

## 1.6 Testing Location

<b>Test Site</b>	SPORTON INTERNATIONAL (SHENZHEN) INC.	
<b>Test Site Location</b>	1F & 2F, Building A, Morning Business Center, No. 4003 ShiGu Rd., Xili Town, Nanshan District, Shenzhen, Guangdong, P. R. China TEL: +86-755-8637-9589 FAX: +86-755-8637-9595	
<b>Test Site No.</b>	<b>Sporton Site No.</b>	
	TH01-SZ	CO01-SZ

<b>Test Site</b>	SPORTON INTERNATIONAL (SHENZHEN) INC.	
<b>Test Site Location</b>	No. 3 Building, the third floor of south, Shahe River west, Fengzeyuan warehouse, Nanshan District, Shenzhen, Guangdong, P. R. China TEL: +86-755- 3320-2398	
<b>Test Site No.</b>	<b>Sporton Site No.</b>	<b>FCC Registration No.</b>
	03CH02-SZ	566869

**Note:** The test site complies with ANSI C63.4 2009 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 v01
- ♦ FCC KDB 644545 D03 Guidance for IEEE 802.11ac New Rules v01
- ♦ ANSI C63.10-2009

### Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. FCC permits the use of the 1.5 meter table above 1 GHz as an alternative in C63.10-2013 through inquiry tracking number 961829.
3. 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). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Y plane) were recorded in this report.

The final configuration from all the combinations and the worst-case data rates were investigated by measuring the maximum power across all the data rates and modulation modes under section 2.2.

Based on the worst configuration found above, the RF power setting is set individually to meet FCC compliance limit for the final conducted and radiated tests shown in section 2.3.

### 2.1 Carrier Frequency Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5180- 5240 MHz Band 1 (U-NII-1)	36	5180	44	5220
	<b>38</b>	<b>5190</b>	<b>46</b>	<b>5230</b>
	40	5200	48	5240
	42	5210		

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5260-5320 MHz Band 2 (U-NII-2A)	52	5260	60	5300
	<b>54</b>	<b>5270</b>	<b>62</b>	<b>5310</b>
	56	5280	64	5320
	58	5290		

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

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

## 2.2 Pre-Scanned RF Power

Preliminary tests were performed in different data rate and data rate associated with the highest power were chosen for full test in the following tables. Final Output Power equals to Measured Output Power adds the duty factor.

5GHz 802.11a RF Output Power (dBm)										
Power vs. Channel			Power vs. MCS Index							
Channel	Frequency (MHz)	MCS Index 6Mbps	Channel	9M bps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
CH 36	5180	16.26	CH 36	16.16	16.23	16.10	16.07	16.16	16.23	16.09
CH 44	5220	15.81								
CH 48	5240	15.77								
CH 52	5260	15.69	CH 64	15.59	15.70	15.50	15.50	15.62	15.65	15.53
CH 60	5300	15.56								
CH 64	5320	15.74								
CH 100	5500	15.53	CH 100	15.37	15.48	15.31	15.32	15.40	15.47	15.30
CH 116	5580	15.18								
CH 140	5700	15.04								

5GHz 802.11n HT20 RF Output Power (dBm)										
Power vs. Channel			Power vs. MCS Index							
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 36	5180	16.22	CH 36	16.04	16.08	16.17	16.10	16.19	16.16	16.02
CH 44	5220	15.74								
CH 48	5240	15.66								
CH 52	5260	15.61	CH 64	15.48	15.48	15.60	15.56	15.63	15.61	15.44
CH 60	5300	15.47								
CH 64	5320	15.70								
CH 100	5500	15.46	CH 100	15.26	15.26	15.32	15.31	15.34	15.37	15.21
CH 116	5580	15.10								
CH 140	5700	14.96								

5GHz 802.11n HT40 RF Output Power (dBm)										
Power vs. Channel			Power vs. MCS Index							
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 38	5190	15.89	CH 38	15.82	15.70	15.65	15.77	15.68	15.69	15.59
CH 46	5230	15.82								
CH 54	5270	15.53	CH 62	15.42	15.36	15.29	15.41	15.35	15.32	15.26
CH 62	5310	15.58								
CH 102	5510	15.51	CH 102	15.41	15.27	15.21	15.30	15.27	15.22	15.16
CH 110	5550	15.44								
CH 134	5670	14.89								

WLAN 5GHz 802.11ac VHT20 Average Power (dBm)											
Power vs. Channel			Power vs. MCS Index								
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
CH 36	5180	11.19	CH 36	11.14	11.17	11.04	11.09	11.11	11.06	10.98	11.13
CH 44	5220	10.65									
CH 48	5240	10.39									
CH 52	5260	10.44	CH 64	10.43	10.48	10.36	10.35	10.41	10.39	10.30	10.47
CH 60	5300	10.32									
CH 64	5320	10.56									
CH 100	5500	10.52	CH 100	10.41	10.46	10.34	10.37	10.38	10.38	10.23	10.41
CH 116	5580	9.99									
CH 140	5700	9.94									



WLAN 5GHz 802.11ac VHT40 Average Power (dBm)												
Power vs. Channel			Power vs. Data Rate									
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
CH 38	5190	11.03	CH 38	10.75	10.94	10.86	10.74	10.88	10.99	10.95	10.94	10.92
CH 46	5230	10.56										
CH 54	5270	10.56	CH 62	10.30	10.50	10.36	10.28	10.45	10.52	10.50	10.50	10.42
CH 62	5310	10.62										
CH 102	5510	10.33	CH 102	10.00	10.22	10.12	10.01	10.12	10.21	10.20	10.16	10.14
CH 110	5550	10.11										
CH 134	5670	9.97										

WLAN 5GHz 802.11ac VHT80 Average Power (dBm)												
Power vs. Channel			Power vs. Data Rate									
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
CH 42	5210	11.48	CH 42	11.30	11.37	11.46	11.41	11.41	11.44	11.42	11.42	11.33
CH 58	5290	11.02	CH 58	10.79	10.86	10.92	10.87	10.90	10.96	10.95	10.95	10.82
CH 106	5530	10.84	CH 106	10.61	10.69	10.80	10.76	10.73	10.75	10.75	10.75	10.64

## 2.3 Test Mode

Final test mode of conducted test items and radiated spurious emissions are considering the modulation and worse data rates from the power table described in section 2.2.

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

AC Conducted Emission	Mode 1 : GSM850 Idle + Bluetooth Link + WLAN (5GHz) Link + Earphone + USB Cable (Charging from Adapter)
Remark: For Radiated TCs, the tests were performed with adapter, earphone and USB cable.	



Ch. #		Band I : 5180-5240 MHz	Band II : 5260-5320 MHz	Band III : 5500-5580 MHz and 5660-5700 MHz
		802.11a	802.11a	802.11a
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140

Ch. #		Band I : 5180-5240 MHz	Band II : 5260-5320 MHz	Band III : 5500-5580 MHz and 5660-5700 MHz
		802.11n HT20	802.11n HT20	802.11n HT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140

Ch. #		Band I : 5180-5240 MHz	Band II : 5260-5320 MHz	Band III : 5500-5580 MHz and 5660-5700 MHz
		802.11n HT40	802.11n HT40	802.11n HT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134

Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5500-5580 MHz and 5660-5700 MHz
		802.11ac VHT20	802.11ac VHT20	802.11ac VHT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140

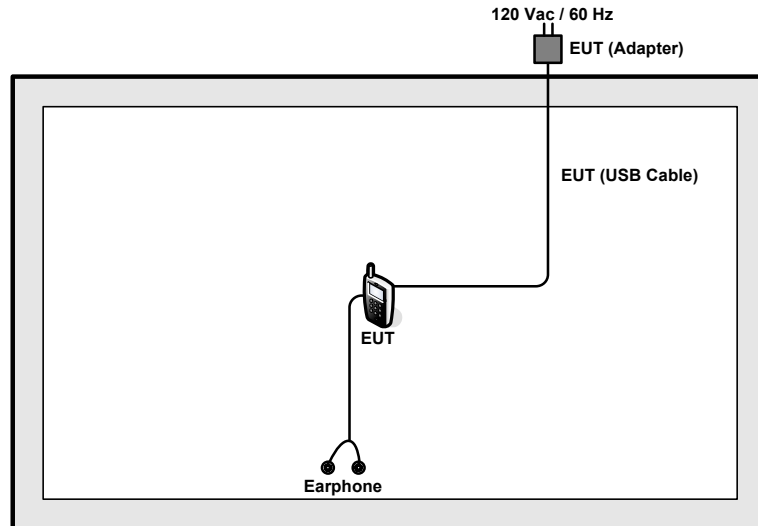


Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5500-5580 MHz and 5660-5700 MHz
		802.11ac VHT40	802.11ac VHT40	802.11ac VHT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134

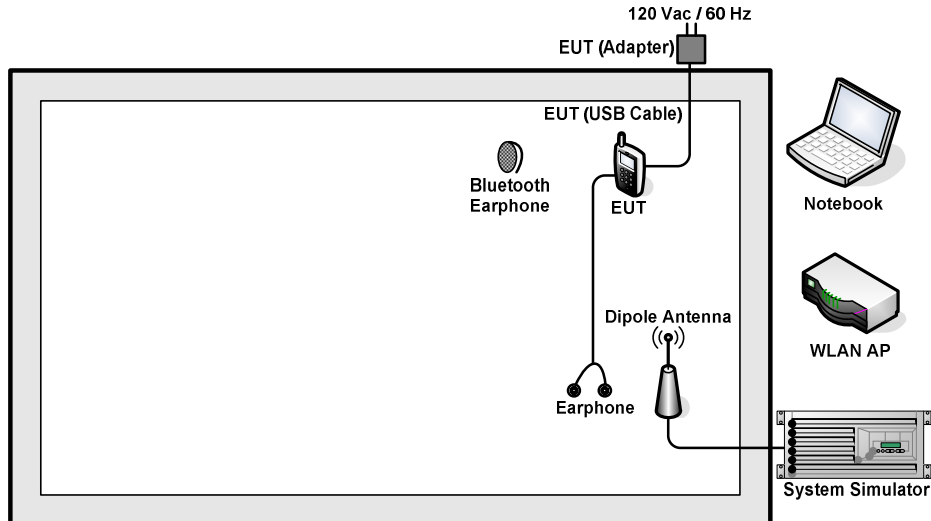
Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5500-5580 MHz and 5660-5700 MHz
		802.11ac VHT80	802.11ac VHT80	802.11ac VHT80
L	Low	-	-	-
M	Middle	42	58	106
H	High	-	-	-

## 2.4 Connection Diagram of Test System

### <WLAN Tx Mode>



### <AC Conducted Emission Mode>





## 2.5 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.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
3.	Notebook	Lenovo	E540	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
4.	Bluetooth Earphone	Nokia	BH-108	PYAHS-107W	N/A	N/A
5.	iPod Earphone	Apple	N/A	N/A	Unshielded, 1.2 m	N/A
6.	Earphone	Lenovo	SH100	N/A	Unshielded, 1.5 m	N/A

## 2.6 EUT Operation Test Setup

For WLAN RF test items, an engineering test program was provided and enabled to make EUT continuously transmit/receive.

For AC power line conducted emissions, the EUT was set to connect with the WLAN AP under large package sizes transmission.

## 2.7 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 6.5 dB and 10dB attenuator.

$$\begin{aligned}\text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)} \\ &= 6.5 + 10 = 16.5 \text{ (dB)}\end{aligned}$$

### **3 Test Result**

#### **3.1 26dB & 99% Occupied Bandwidth Measurement**

##### **3.1.1 Description of 26dB & 99% Occupied Bandwidth**

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

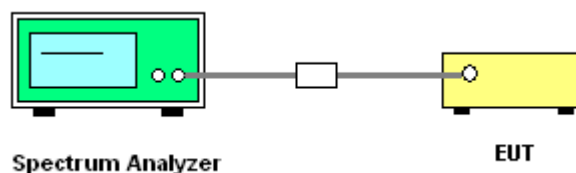
##### **3.1.2 Measuring Instruments**

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

##### **3.1.3 Test Procedures**

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.  
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)  $\geq 3 * \text{RBW}$ .
8. Measure and record the results in the test report.

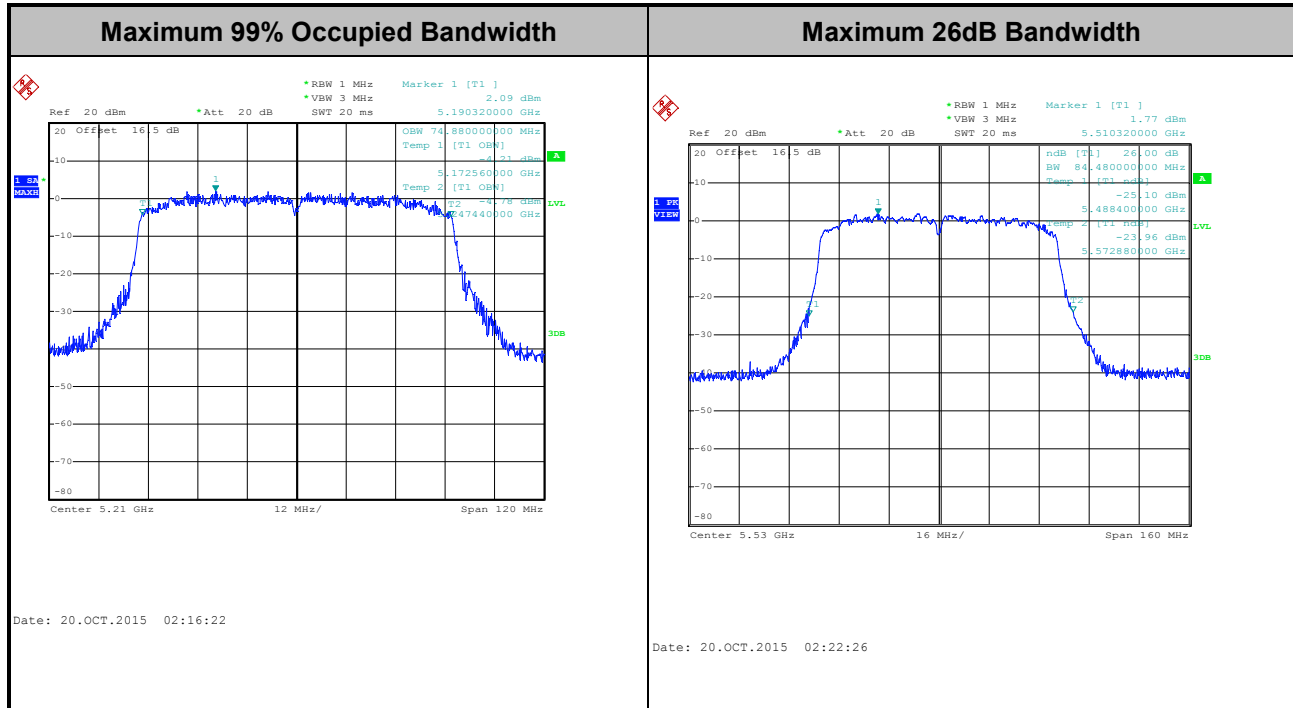
##### **3.1.4 Test Setup**





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

Please refer to Appendix A.



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

## 3.2 Maximum Conducted Output Power Measurement

### 3.2.1 Limit of Maximum Conducted Output Power

#### <FCC 14-30 CFR 15.407>

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

For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or  $11 \text{ dBm} + 10 \log B$ , where B is the 26 dB emission bandwidth in megahertz.

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

Note that U-NII-2 band, devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

### 3.2.2 Measuring Instruments

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

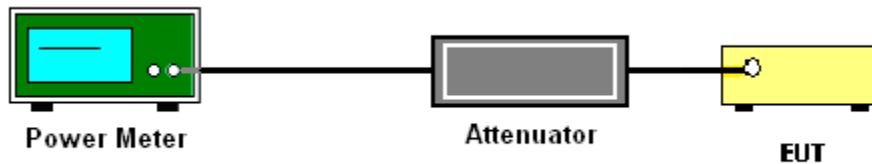
### 3.2.3 Test Procedures

The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.

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

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

### 3.2.4 Test Setup



### 3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.



### **3.3 Power Spectral Density Measurement**

#### **3.3.1 Limit of Power Spectral Density**

**<FCC 14-30 CFR 15.407>**

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

For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

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

#### **3.3.2 Measuring Instruments**

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

### 3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.

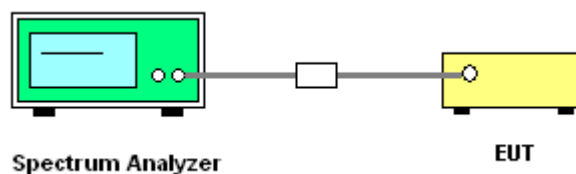
Section F) Maximum power spectral density.

#### # Method SA-2 #

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

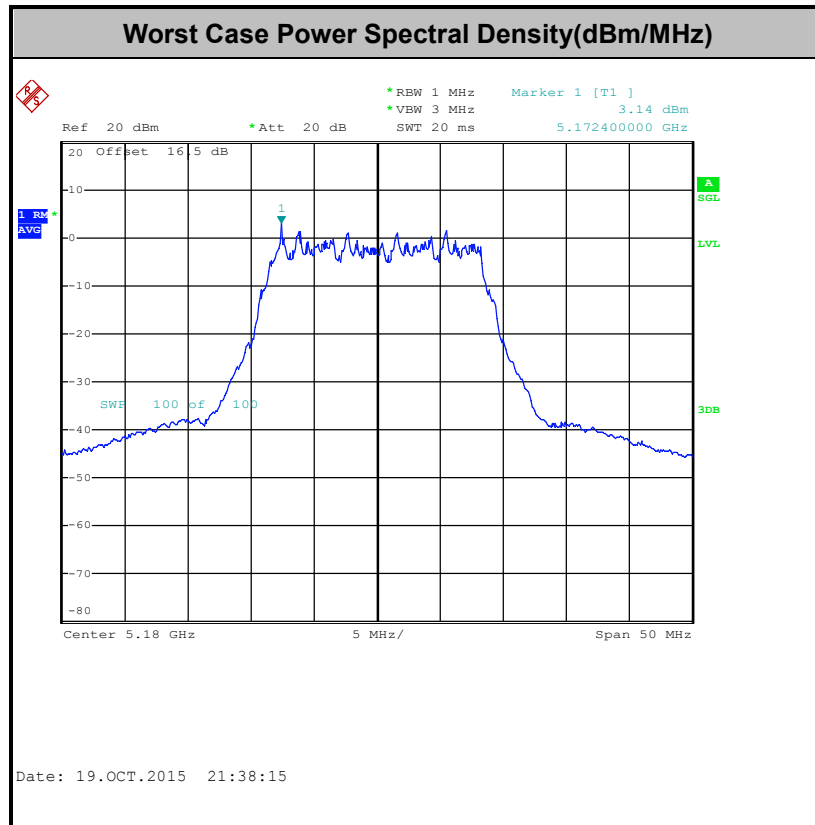
1. The testing follows Method SA-2 of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.
  - Measure the duty cycle.
  - Set span to encompass the entire emission bandwidth (EBW) of the signal.
  - Set RBW = 1 MHz.
  - Set VBW  $\geq$  3 MHz.
  - Number of points in sweep  $\geq$  2 Span / 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.
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.

### 3.3.4 Test Setup



### 3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.



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



### 3.4 Unwanted Radiated Emission Measurement

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

#### 3.4.1 Limit of Unwanted Emissions

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

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

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

- (2) Unwanted spurious emissions fallen in restricted bands 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.

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



EIRP (dBm)	Field Strength at 3m (dB $\mu$ V/m)
-17	78.3
- 27	68.3

- (3) KDB789033 v01 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 v01.

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

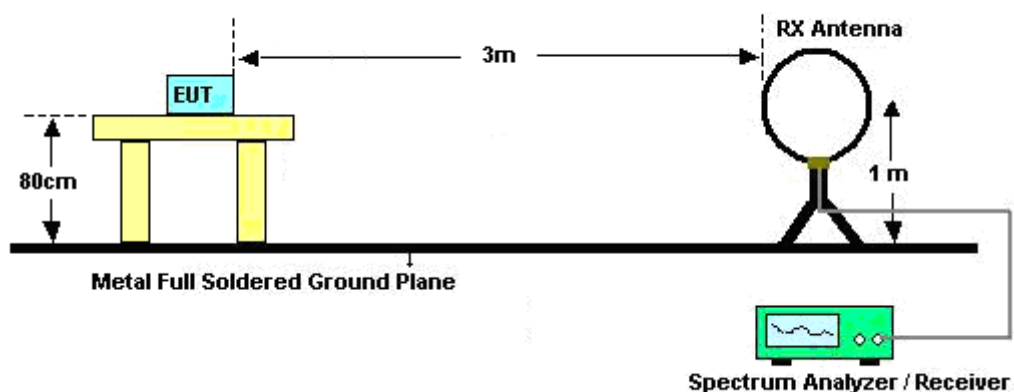
- RBW = 1 MHz
- VBW = 10 Hz, when duty cycle is no less than 98 percent.
- VBW  $\geq$  1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

Band	Duty Cycle (%)	T(ms)	1/T(kHz)	VBW Setting
802.11a	84.21	1.04	0.96	1kHz
802.11n HT20	82.96	0.97	1.03	3kHz
802.11n HT40	70.82	0.49	2.04	3kHz
802.11n VHT20	83.57	0.98	1.02	3kHz
802.11n VHT40	70.80	0.49	2.04	3kHz
802.11n VHT80	54.84	0.25	4.00	10kHz

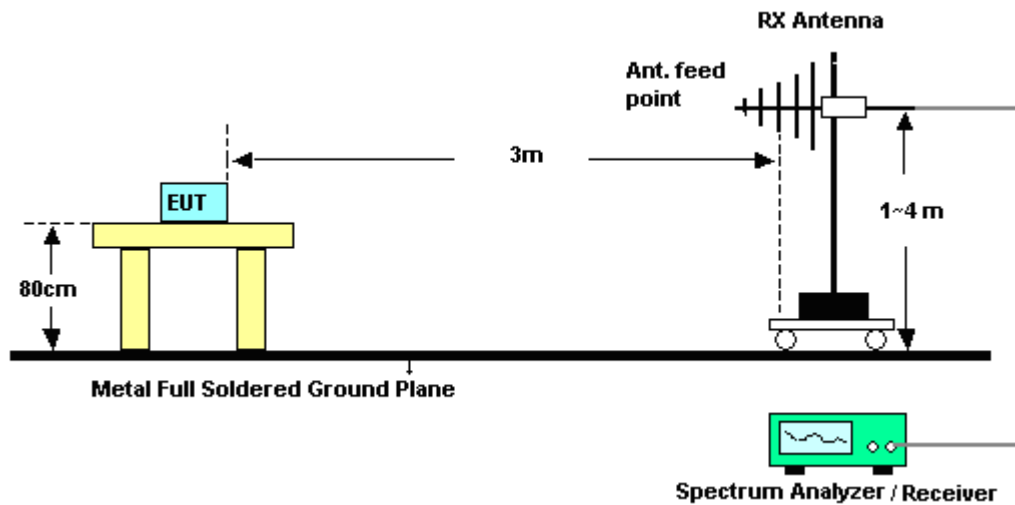
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband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

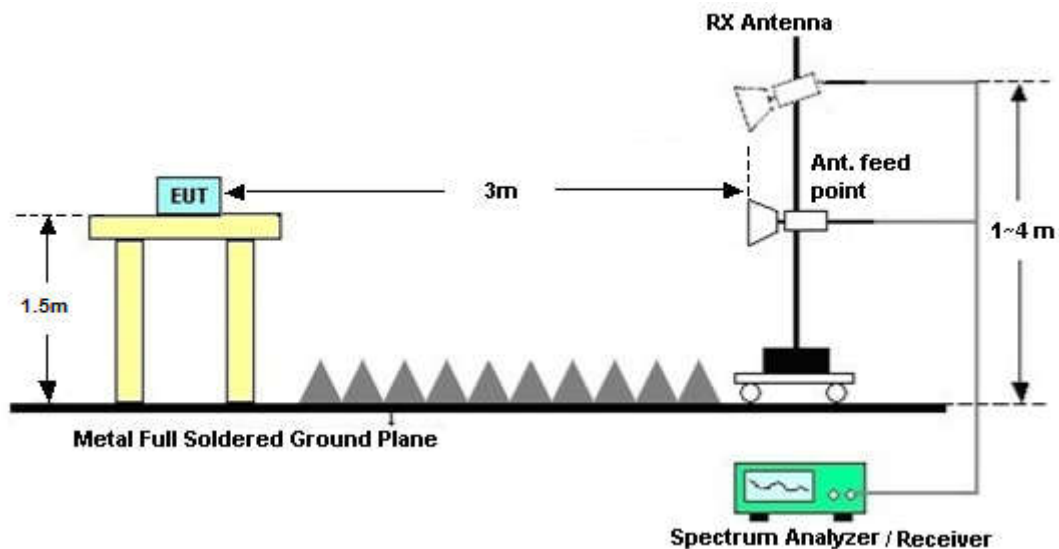
**For radiated emissions below 30MHz**



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



### 3.4.5 Test Results of Radiated 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 Band Edges

Please refer to Appendix B.

### 3.4.7 Test Result of Unwanted Radiated Emission (30MHz ~ 10th Harmonic)

Please refer to Appendix B.

### 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 $\mu$ 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.

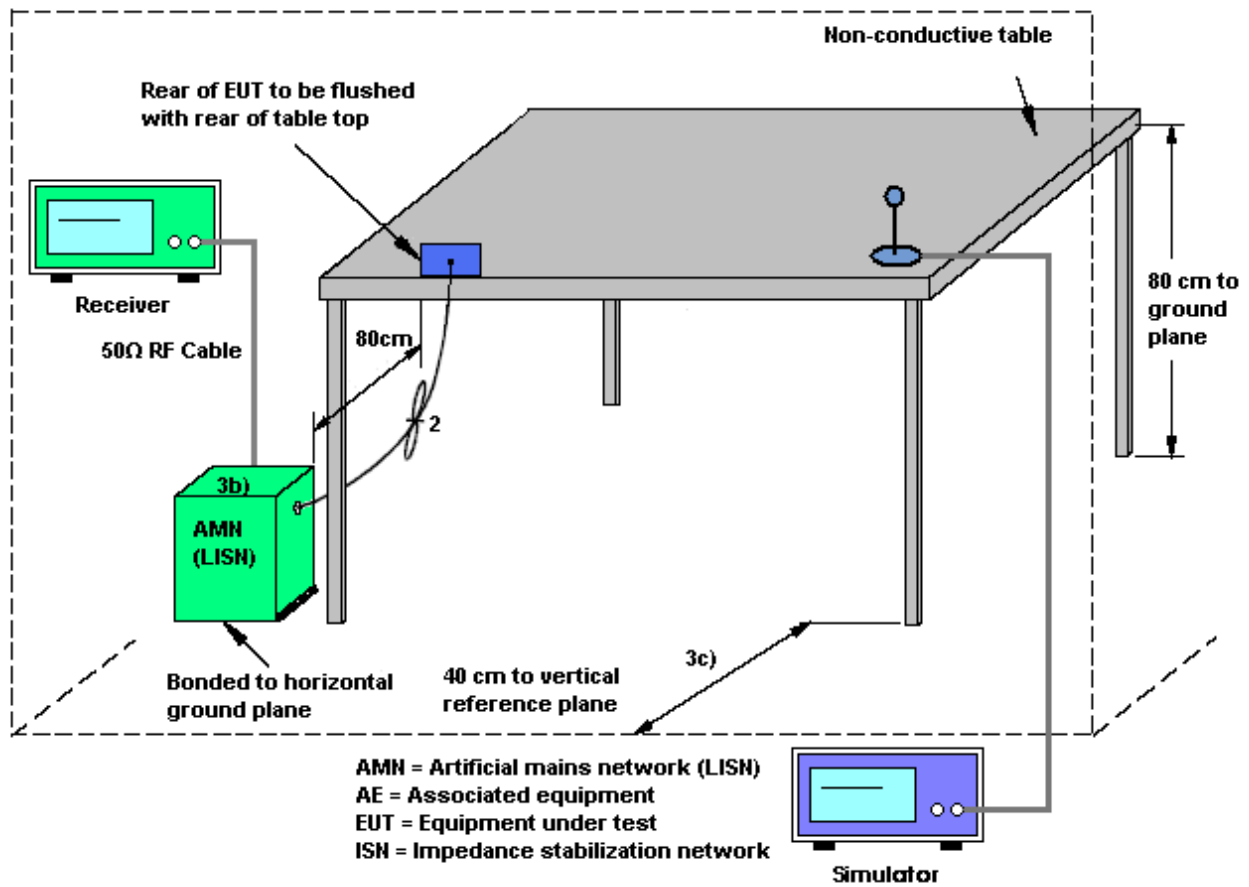
#### 3.5.2 Measuring Instruments

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

#### 3.5.3 Test Procedures

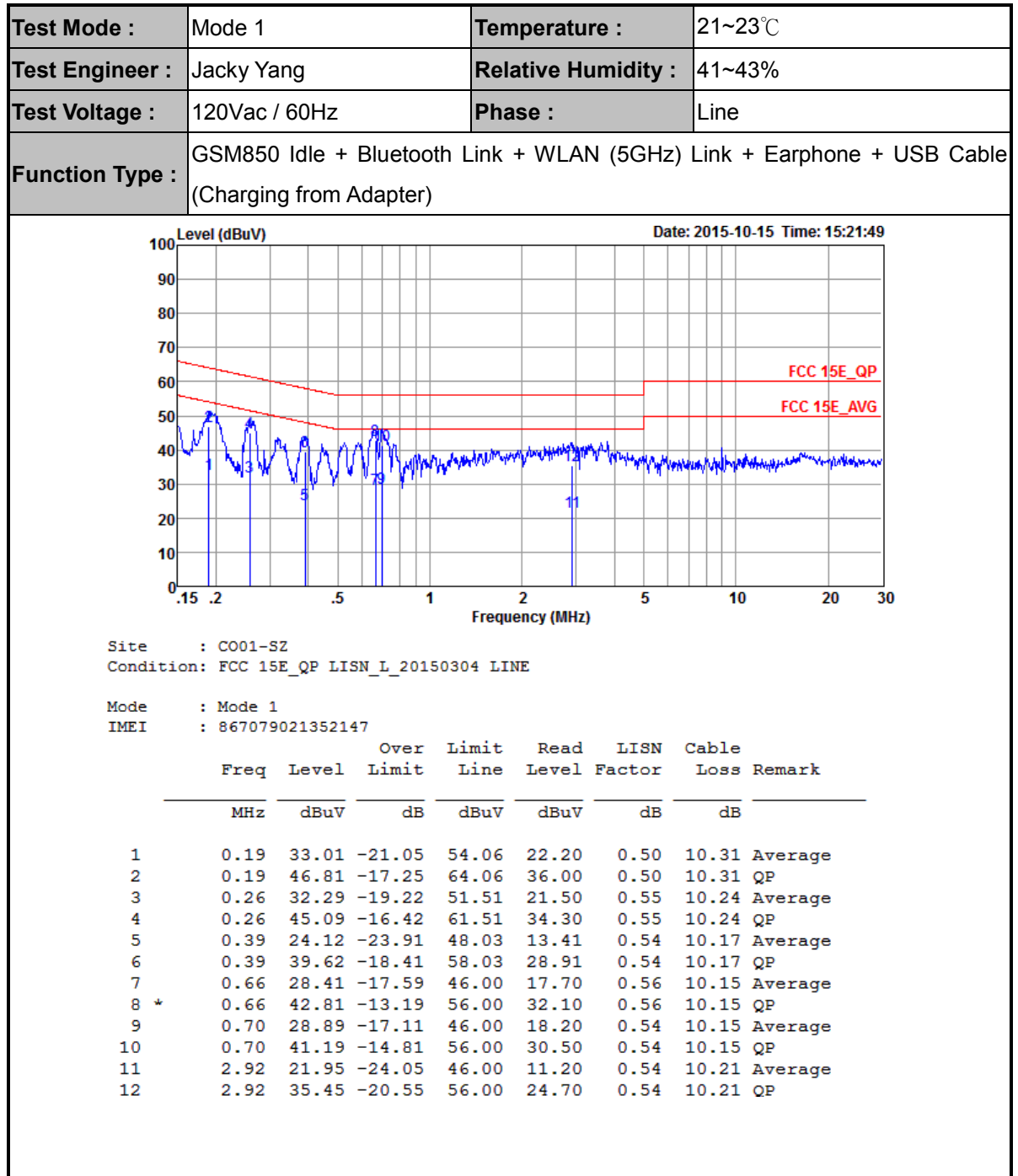
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
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





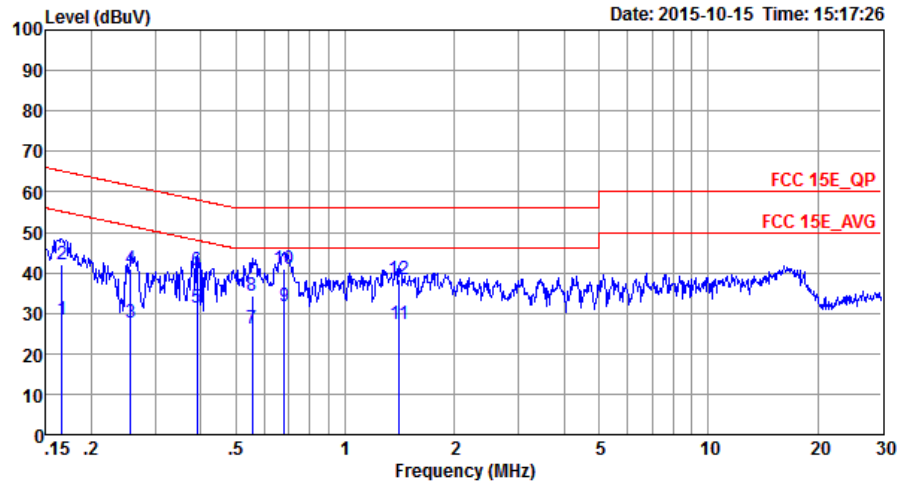
## 3.5.5 Test Result of AC Conducted Emission







Test Mode :	Mode 1	Temperature :	21~23°C
Test Engineer :	Jacky Yang	Relative Humidity :	41~43%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM850 Idle + Bluetooth Link + WLAN (5GHz) Link + Earphone + USB Cable (Charging from Adapter)		



Site : CO01-SZ  
Condition: FCC 15E\_QP LISN\_N\_20150304 NEUTRAL

Mode : Mode 1  
IMEI : 867079021352147

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.17	28.41	-26.75	55.16	17.60	0.47	10.34	Average
2	0.17	42.11	-23.05	65.16	31.30	0.47	10.34	QP
3	0.26	27.70	-23.86	51.56	16.90	0.56	10.24	Average
4	0.26	40.80	-20.76	61.56	30.00	0.56	10.24	QP
5	0.39	31.23	-16.80	48.03	20.51	0.55	10.17	Average
6	0.39	40.43	-17.60	58.03	29.71	0.55	10.17	QP
7	0.56	26.14	-19.86	46.00	15.40	0.59	10.15	Average
8	0.56	34.24	-21.76	56.00	23.50	0.59	10.15	QP
9 *	0.68	31.74	-14.26	46.00	21.03	0.56	10.15	Average
10	0.68	40.91	-15.09	56.00	30.20	0.56	10.15	QP
11	1.41	27.23	-18.77	46.00	16.50	0.56	10.17	Average
12	1.41	38.33	-17.67	56.00	27.60	0.56	10.17	QP

## **3.6 Frequency Stability Measurement**

### **3.6.1 Limit of Frequency Stability**

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

### **3.6.2 Measuring Instruments**

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

### **3.6.3 Test Procedures**

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

### **3.6.4 Test Setup**



### **3.6.5 Test Result of Frequency Stability**

Please refer to Appendix A.



## **3.7 Automatically Discontinue Transmission**

### **3.7.1 Limit of Automatically Discontinue Transmission**

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

### **3.7.2 Measuring Instruments**

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

### **3.7.3 Test Result of Automatically Discontinue Transmission**

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



## **3.8 Antenna Requirements**

### **3.8.1 Standard Applicable**

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

### **3.8.2 Antenna Anti-Replacement Construction**

An embedded-in antenna design is used.

### **3.8.3 Antenna Gain**

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



## 4 List of Measuring Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSP30	101400	9kHz~30GHz	Jan. 28, 2015	Oct. 19, 2015~ Oct. 20, 2015	Jan. 27, 2016	Conducted (TH01-SZ)
Pulse Power Sensor	Anritsu	MA2411B	1207253	30MHz~40GHz	Jan. 28, 2015	Oct. 19, 2015~ Oct. 20, 2015	Jan. 27, 2016	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1218010	50MHz Bandwidth	Jan. 28, 2015	Oct. 19, 2015~ Oct. 20, 2015	Jan. 27, 2016	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Aug. 07, 2015	Oct. 19, 2015~ Oct. 20, 2015	Aug. 06, 2016	Conducted (TH01-SZ)
EMI Test Receiver	R&S	ESR7	101404	9kHz~7GHz;Ma x 30dBm	Oct. 20, 2015	Nov. 04, 2015	Oct. 19, 2016	Radiation (03CH02-SZ)
Spectrum Analyzer	R&S	FSV40	101041	10kHz~40GHz; Max 30dBm	Oct. 20, 2015	Nov. 04, 2015	Oct. 19, 2016	Radiation (03CH02-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	May 06, 2015	Nov. 04, 2015	May 05, 2016	Radiation (03CH02-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	May 06, 2015	Nov. 04, 2015	May 05, 2016	Radiation (03CH02-SZ)
Double Ridge Horn Antenna	SCHWARZBEC K	BBHA 9120D	9120D-1285	1GHz~18GHz	Jan. 20, 2015	Nov. 04, 2015	Jan. 19, 2016	Radiation (03CH02-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Aug. 17, 2015	Nov. 04, 2015	Aug. 16, 2016	Radiation (03CH02-SZ)
Amplifier	ADVANTEST	BB525C	E9007003	9kHz ~3000MHz / 30 dB	Jan. 28, 2015	Nov. 04, 2015	Jan. 27, 2016	Radiation (03CH02-SZ)
Amplifier	Agilent	8449B	3008A01023	1GHz~26.5GHz	Oct. 20, 2015	Nov. 04, 2015	Oct. 19, 2016	Radiation (03CH02-SZ)
HF Amplifier	MITEQ	TTA1840- 35-HG	1871923	18GHz~40GHz	Jul. 08, 2015	Nov. 04, 2015	Jul. 07, 2016	Radiation (03CH02-SZ)
AC Power Source	Chroma	61601	616010002470	N/A	NCR	Nov. 04, 2015	NCR	Radiation (03CH02-SZ)
Turn Table	Chaintek	T-200	N/A	0~360 degree	NCR	Nov. 04, 2015	NCR	Radiation (03CH02-SZ)
Antenna Mast	Chaintek	MBS-400	N/A	1 m~4 m	NCR	Nov. 04, 2015	NCR	Radiation (03CH02-SZ)
EMI Receiver	R&S	ESC17	100724	9kHz~3GHz;	Jan. 28, 2015	Oct. 15, 2015	Jan. 27, 2016	Conduction (CO01-SZ)
AC LISN	EMCO	3816/2SH	103892	9kHz~30MHz	Feb. 02, 2015	Oct. 15, 2015	Feb. 01, 2016	Conduction (CO01-SZ)
AC LISN (for auxiliary equipment)	MessTec	AN3016	16850	9kHz~30MHz	Feb. 02, 2015	Oct. 15, 2015	Feb. 01, 2016	Conduction (CO01-SZ)
AC Power Source	Chroma	61602	616020000891	100Vac~250Vac	Aug. 07, 2015	Oct. 15, 2015	Aug. 06, 2016	Conduction (CO01-SZ)
Pulse Limiter	COM-POWER	LIT-153 Transient Limiter	53139	150kHz~30MHz	Oct. 24, 2014	Oct. 15, 2015	Oct. 23, 2015	Conduction (CO01-SZ)



## 5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	2.3 dB
---	--------

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

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.0 dB
---	--------



## **Appendix A. Conducted Test Results**

Test Engineer:	Mygai Mo	Temperature:	21~25	°C
Test Date:	2015/10/19~2015/10/20	Relative Humidity:	51~54	%



**TEST RESULTS DATA**  
**26dB and 99% OBW**

Band I										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)		
11a	6Mbps	1	36	5180	18.50	23.40	-	22.67		
11a	6Mbps	1	44	5220	18.35	23.55	-	22.64		
11a	6Mbps	1	48	5240	18.35	23.80	-	22.64		
HT20	MCS0	1	36	5180	19.30	24.00	-	22.86		
HT20	MCS0	1	44	5220	18.55	23.65	-	22.68		
HT20	MCS0	1	48	5240	18.60	23.60	-	22.70		
HT40	MCS0	1	38	5190	36.60	44.91	-	23.01		
HT40	MCS0	1	46	5230	36.60	44.46	-	23.01		
VHT20	MCS0	1	36	5180	19.30	23.85	-	22.86		
VHT20	MCS0	1	44	5220	19.25	24.05	-	22.84		
VHT20	MCS0	1	48	5240	19.20	24.05	-	22.83		
VHT40	MCS0	1	38	5190	36.60	44.64	-	23.01		
VHT40	MCS0	1	46	5230	36.80	44.64	-	23.01		
VHT80	MCS0	1	42	5210	74.88	84.00	-	23.01		

**TEST RESULTS DATA**  
**Average Power Table**

FCC Band I										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)		Pass/Fail
11a	6Mbps	1	36	5180	0.75	16.26	24.00	1.30		Pass
11a	6Mbps	1	44	5220	0.75	15.81	24.00	1.30		Pass
11a	6Mbps	1	48	5240	0.75	15.77	24.00	1.30		Pass
HT20	MCS0	1	36	5180	0.81	16.22	24.00	1.30		Pass
HT20	MCS0	1	44	5220	0.81	15.74	24.00	1.30		Pass
HT20	MCS0	1	48	5240	0.81	15.66	24.00	1.30		Pass
HT40	MCS0	1	38	5190	1.50	15.89	24.00	1.30		Pass
HT40	MCS0	1	46	5230	1.50	15.82	24.00	1.30		Pass
VHT20	MCS0	1	36	5180	0.78	11.19	24.00	1.30		Pass
VHT20	MCS0	1	44	5220	0.78	10.65	24.00	1.30		Pass
VHT20	MCS0	1	48	5240	0.78	10.39	24.00	1.30		Pass
VHT40	MCS0	1	38	5190	1.50	11.03	24.00	1.30		Pass
VHT40	MCS0	1	46	5230	1.50	10.56	24.00	1.30		Pass
VHT80	MCS0	1	42	5210	2.61	11.48	24.00	1.30		Pass

**TEST RESULTS DATA**  
**Power Spectral Density**

FCC Band I										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)	-	Pass/Fail
11a	6Mbps	1	36	5180	0.75	3.89	11.00	1.30		Pass
11a	6Mbps	1	44	5220	0.75	1.58	11.00	1.30		Pass
11a	6Mbps	1	48	5240	0.75	3.36	11.00	1.30		Pass
HT20	MCS0	1	36	5180	0.81	3.80	11.00	1.30		Pass
HT20	MCS0	1	44	5220	0.81	1.58	11.00	1.30		Pass
HT20	MCS0	1	48	5240	0.81	3.19	11.00	1.30		Pass
HT40	MCS0	1	38	5190	1.50	-4.76	11.00	1.30		Pass
HT40	MCS0	1	46	5230	1.50	-4.58	11.00	1.30		Pass
VHT20	MCS0	1	36	5180	0.78	-1.32	11.00	1.30		Pass
VHT20	MCS0	1	44	5220	0.78	-3.95	11.00	1.30		Pass
VHT20	MCS0	1	48	5240	0.78	-2.24	11.00	1.30		Pass
VHT40	MCS0	1	38	5190	1.50	-8.40	11.00	1.30		Pass
VHT40	MCS0	1	46	5230	1.50	-10.11	11.00	1.30		Pass
VHT80	MCS0	1	42	5210	2.61	-15.02	11.00	1.30		Pass

**TEST RESULTS DATA**  
**26dB and 99% OBW**

Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6M bps	1	52	5260	18.4	23.75	23.65	29.65	23.98	
11a	6M bps	1	60	5300	18.55	23.8	23.68	29.68	23.98	
11a	6M bps	1	64	5320	18.35	23.75	23.64	29.64	23.98	
HT20	MCS 0	1	52	5260	18.7	23.65	23.72	29.72	23.98	
HT20	MCS 0	1	60	5300	18.55	23.55	23.68	29.68	23.98	
HT20	MCS 0	1	64	5320	18.6	23.55	23.70	29.70	23.98	
HT40	MCS 0	1	54	5270	36.6	45.18	23.98	30.00	23.98	
HT40	MCS 0	1	62	5310	36.6	45	23.98	30.00	23.98	
VHT20	MCS 0	1	52	5260	19.15	24	23.82	29.82	23.98	
VHT20	MCS 0	1	60	5300	19.05	23.8	23.80	29.80	23.98	
VHT20	MCS 0	1	64	5320	19.3	24.05	23.86	29.86	23.98	
VHT40	MCS 0	1	54	5270	36.5	44.55	23.98	30.00	23.98	
VHT40	MCS 0	1	62	5310	36.7	44.73	23.98	30.00	23.98	
VHT80	MCS 0	1	58	5290	74.88	84.16	23.98	30.00	23.98	

**TEST RESULTS DATA**  
**Average Power Table**

FCC Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)		Pass/Fail
11a	6M bps	1	52	5260	0.75	15.69	23.98	0.70		Pass
11a	6M bps	1	60	5300	0.75	15.56	23.98	0.70		Pass
11a	6M bps	1	64	5320	0.75	15.74	23.98	0.70		Pass
HT20	MCS 0	1	52	5260	0.81	15.61	23.98	0.70		Pass
HT20	MCS 0	1	60	5300	0.81	15.47	23.98	0.70		Pass
HT20	MCS 0	1	64	5320	0.81	15.70	23.98	0.70		Pass
HT40	MCS 0	1	54	5270	1.50	15.53	23.98	0.70		Pass
HT40	MCS 0	1	62	5310	1.50	15.58	23.98	0.70		Pass
VHT20	MCS 0	1	52	5260	0.78	10.44	23.98	0.70		Pass
VHT20	MCS 0	1	60	5300	0.78	10.32	23.98	0.70		Pass
VHT20	MCS 0	1	64	5320	0.78	10.56	23.98	0.70		Pass
VHT40	MCS 0	1	54	5270	1.50	10.56	23.98	0.70		Pass
VHT40	MCS 0	1	62	5310	1.50	10.62	23.98	0.70		Pass
VHT80	MCS 0	1	58	5290	2.61	11.02	23.98	0.70		Pass

**TEST RESULTS DATA**  
**Power Spectral Density**

Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)		Pass/Fail
11a	6M bps	1	52	5260	0.75	3.08	11.00	0.70		Pass
11a	6M bps	1	60	5300	0.75	2.97	11.00	0.70		Pass
11a	6M bps	1	64	5320	0.75	1.14	11.00	0.70		Pass
HT20	MCS 0	1	52	5260	0.81	3.05	11.00	0.70		Pass
HT20	MCS 0	1	60	5300	0.81	3.00	11.00	0.70		Pass
HT20	MCS 0	1	64	5320	0.81	1.69	11.00	0.70		Pass
HT40	MCS 0	1	54	5270	1.50	-2.75	11.00	0.70		Pass
HT40	MCS 0	1	62	5310	1.50	-4.49	11.00	0.70		Pass
VHT20	MCS 0	1	52	5260	0.78	-2.11	11.00	0.70		Pass
VHT20	MCS 0	1	60	5300	0.78	-3.15	11.00	0.70		Pass
VHT20	MCS 0	1	64	5320	0.78	-6.17	11.00	0.70		Pass
VHT40	MCS 0	1	54	5270	1.50	-8.75	11.00	0.70		Pass
VHT40	MCS 0	1	62	5310	1.50	-9.95	11.00	0.70		Pass
VHT80	MCS 0	1	58	5290	2.61	-14.45	11.00	0.70		Pass

**TEST RESULTS DATA**  
**26dB and 99% OBW**

Band III										
Mod.	Data Rate	N <sub>TX</sub>	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6M bps	1	100	5500	18.5	23.55	23.67	29.67	23.98	
11a	6M bps	1	116	5580	18.15	23.35	23.59	29.59	23.98	
11a	6M bps	1	140	5700	18.45	23.55	23.66	29.66	23.98	
HT20	MCS 0	1	100	5500	18.5	23.55	23.67	29.67	23.98	
HT20	MCS 0	1	116	5580	18.7	23.7	23.72	29.72	23.98	
HT20	MCS 0	1	140	5700	18.85	23.95	23.75	29.75	23.98	
HT40	MCS 0	1	102	5510	36.6	45	23.98	30.00	23.98	
HT40	MCS 0	1	110	5550	36.5	44.64	23.98	30.00	23.98	
HT40	MCS 0	1	134	5670	36.5	44.55	23.98	30.00	23.98	
VHT20	MCS 0	1	100	5500	19.15	24.25	23.82	29.82	23.98	
VHT20	MCS 0	1	116	5580	19.25	24	23.84	29.84	23.98	
VHT20	MCS 0	1	140	5700	19.25	24	23.84	29.84	23.98	
VHT40	MCS 0	1	102	5510	36.6	44.91	23.98	30.00	23.98	
VHT40	MCS 0	1	110	5550	36.5	44.55	23.98	30.00	23.98	
VHT40	MCS 0	1	134	5670	36.4	44.73	23.98	30.00	23.98	
VHT80	MCS 0	1	106	5530	74.88	84.48	23.98	30.00	23.98	

**TEST RESULTS DATA**  
**Average Power Table**

FCC Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)		Pass/Fail
11a	6M bps	1	100	5500	0.75	15.53	23.98	0.10		Pass
11a	6M bps	1	116	5580	0.75	15.18	23.98	0.10		Pass
11a	6M bps	1	140	5700	0.75	15.04	23.98	0.10		Pass
HT20	MCS 0	1	100	5500	0.81	15.46	23.98	0.10		Pass
HT20	MCS 0	1	116	5580	0.81	15.10	23.98	0.10		Pass
HT20	MCS 0	1	140	5700	0.81	14.96	23.98	0.10		Pass
HT40	MCS 0	1	102	5510	1.50	15.51	23.98	0.10		Pass
HT40	MCS 0	1	110	5550	1.50	15.44	23.98	0.10		Pass
HT40	MCS 0	1	134	5670	1.50	14.89	23.98	0.10		Pass
VHT20	MCS 0	1	100	5500	0.78	10.52	23.98	0.10		Pass
VHT20	MCS 0	1	116	5580	0.78	9.99	23.98	0.10		Pass
VHT20	MCS 0	1	140	5700	0.78	9.94	23.98	0.10		Pass
VHT40	MCS 0	1	102	5510	1.50	10.33	23.98	0.10		Pass
VHT40	MCS 0	1	110	5550	1.50	10.11	23.98	0.10		Pass
VHT40	MCS 0	1	134	5670	1.50	9.97	23.98	0.10		Pass
VHT80	MCS 0	1	106	5530	2.61	10.84	23.98	0.10		Pass



**TEST RESULTS DATA**  
**Power Spectral Density**

Band III										
Mod.	Data Rate	N <sub>TX</sub>	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)		Pass/Fail
11a	6M bps	1	100	5500	0.75	2.97	11.00	0.10		Pass
11a	6M bps	1	116	5580	0.75	3.00	11.00	0.10		Pass
11a	6M bps	1	140	5700	0.75	2.85	11.00	0.10		Pass
HT20	MCS 0	1	100	5500	0.81	3.41	11.00	0.10		Pass
HT20	MCS 0	1	116	5580	0.81	2.61	11.00	0.10		Pass
HT20	MCS 0	1	140	5700	0.81	2.55	11.00	0.10		Pass
HT40	MCS 0	1	102	5510	1.50	-4.70	11.00	0.10		Pass
HT40	MCS 0	1	110	5550	1.50	-3.82	11.00	0.10		Pass
HT40	MCS 0	1	134	5670	1.50	-8.02	11.00	0.10		Pass
VHT20	MCS 0	1	100	5500	0.78	-2.05	11.00	0.10		Pass
VHT20	MCS 0	1	116	5580	0.78	-3.00	11.00	0.10		Pass
VHT20	MCS 0	1	140	5700	0.78	-2.98	11.00	0.10		Pass
VHT40	MCS 0	1	102	5510	1.50	-8.27	11.00	0.10		Pass
VHT40	MCS 0	1	110	5550	1.50	-8.83	11.00	0.10		Pass
VHT40	MCS 0	1	134	5670	1.50	-11.33	11.00	0.10		Pass
VHT80	MCS 0	1	106	5530	2.61	-15.89	11.00	0.10		Pass

**TEST RESULTS DATA**  
**Frequency Stability**

Band I										
Mod.	Data Rate	NTX	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	3.4	
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	20	4.35	
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	20	3.8	
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	-30	3.8	
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	50	3.8	

Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stability (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	20	3.4	
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	20	4.35	
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	20	3.8	
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	-30	3.8	
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	50	3.8	

Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stability (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6Mbps	1	100	5500	5500.050	0.050	9.09	20	3.4	
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	20	4.35	
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	20	3.8	
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	-30	3.8	
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	50	3.8	



## Appendix B. Radiated Test Results

### 15E Band 1 - 5150~5250MHz

#### WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11a CH 36 5180MHz		5149.25	56.4	-17.6	74	47.47	31.72	13.77	36.56	241	353	P	H
		5126.3	39.16	-14.84	54	30.22	31.71	13.77	36.54	241	353	A	H
	*	5180	103.32	-	-	94.41	31.75	13.76	36.6	241	353	P	H
	*	5180	92.41	-	-	83.5	31.75	13.76	36.6	241	353	A	H
		5149.55	66.41	-7.59	74	57.48	31.72	13.77	36.56	183	353	P	V
		5126.15	43.2	-10.8	54	34.25	31.71	13.78	36.54	183	353	A	V
	*	5180	110.09	-	-	101.18	31.75	13.76	36.6	183	353	P	V
	*	5180	99.03	-	-	90.12	31.75	13.76	36.6	183	353	A	V
802.11a CH 44 5220MHz		5073.95	51.78	-22.22	74	42.79	31.67	13.79	36.47	174	350	P	H
		5016.8	37.94	-16.06	54	28.93	31.61	13.79	36.39	174	350	A	H
	*	5220	101.65	-	-	92.76	31.77	13.76	36.64	174	350	P	H
	*	5220	91.83	-	-	82.94	31.77	13.76	36.64	174	350	A	H
		5388.72	51.81	-22.19	74	42.85	31.91	13.78	36.73	174	350	P	H
		5444.05	38.03	-15.97	54	29.04	31.95	13.79	36.75	174	350	A	H
		5016.2	52.14	-21.86	74	43.13	31.61	13.79	36.39	183	353	P	V
		5031.65	38.27	-15.73	54	29.26	31.63	13.79	36.41	183	353	A	V
	*	5220	109.4	-	-	100.51	31.77	13.76	36.64	183	353	P	V
	*	5220	98.53	-	-	89.64	31.77	13.76	36.64	183	353	A	V
		5360.89	51.36	-22.64	74	42.43	31.89	13.77	36.73	183	353	P	V
		5412.92	38.18	-15.82	54	29.21	31.93	13.79	36.75	183	353	A	V



<b>802.11a CH 48 5240MHz</b>		5058.5	51.33	-22.67	74	42.34	31.65	13.79	36.45	189	351	P	H
		5064.5	37.96	-16.04	54	28.97	31.65	13.79	36.45	189	351	A	H
	*	5240	102.06	-	-	93.17	31.79	13.76	36.66	189	351	P	H
	*	5240	91.9	-	-	83.01	31.79	13.76	36.66	189	351	A	H
		5421.06	51.33	-22.67	74	42.36	31.93	13.79	36.75	189	351	P	H
		5361	38.18	-15.82	54	29.25	31.89	13.77	36.73	189	351	A	H
		5046.8	51.73	-22.27	74	42.73	31.64	13.79	36.43	183	353	P	V
		5053.1	38.25	-15.75	54	29.25	31.64	13.79	36.43	183	353	A	V
	*	5240	109.17	-	-	100.28	31.79	13.76	36.66	183	353	P	V
	*	5240	98.13	-	-	89.24	31.79	13.76	36.66	183	353	A	V
		5442.84	51.65	-22.35	74	42.66	31.95	13.79	36.75	183	353	P	V
		5392.35	38.09	-15.91	54	29.13	31.91	13.78	36.73	183	353	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 15E band 1 5150~5250MHz

## WIFI 802.11a (Harmonic @ 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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	(dBμV)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11a CH 36 5180MHz		10360	49.95	-24.05	74	47.83	38.62	19.95	56.45	178	256	P	H
		15540	45.95	-28.05	74	38.12	38.54	25.03	55.74	196	265	P	H
		10360	49.5	-24.5	74	47.38	38.62	19.95	56.45	253	275	P	V
		15540	44.65	-29.35	74	36.82	38.54	25.03	55.74	235	278	P	V
802.11a CH 44 5220MHz		10440	50.95	-23.05	74	48.77	38.72	19.96	56.5	156	230	P	H
		15660	45.76	-28.24	74	37.95	38.17	25.07	55.43	179	225	P	H
		10440	50.73	-23.27	74	48.55	38.72	19.96	56.5	156	230	P	V
		15660	44.53	-29.47	74	36.72	38.17	25.07	55.43	179	225	P	V
802.11a CH 48 5240MHz		10480	49.51	-24.49	74	47.3	38.79	19.97	56.55	150	289	P	H
		15720	40.84	-33.16	74	33.04	37.96	25.09	55.25	200	291	P	H
		10480	49.57	-24.43	74	47.36	38.79	19.97	56.55	150	289	P	V
		15720	43.94	-30.06	74	36.14	37.96	25.09	55.25	200	291	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 1 5150~5250MHz**  
**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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
802.11n HT20 CH 36 5180MHz		5149.85	60.35	-13.65	74	51.42	31.72	13.77	36.56	158	6	P	H
		5149.85	41.3	-12.7	54	32.37	31.72	13.77	36.56	158	6	A	H
	*	5180	103.41	-	-	94.5	31.75	13.76	36.6	158	6	P	H
	*	5180	92.69	-	-	83.78	31.75	13.76	36.6	158	6	A	H
		5148.65	66.4	-7.6	74	57.47	31.72	13.77	36.56	192	2	P	V
		5150	46.22	-7.78	54	37.29	31.72	13.77	36.56	192	2	A	V
	*	5180	109.44	-	-	100.53	31.75	13.76	36.6	192	2	P	V
	*	5180	99	-	-	90.09	31.75	13.76	36.6	192	2	A	V
802.11n HT20 CH 44 5220MHz		5115.2	51.84	-22.16	74	42.88	31.69	13.78	36.51	150	360	P	H
		5071.85	38.64	-15.36	54	29.65	31.67	13.79	36.47	150	360	A	H
	*	5220	100.64	-	-	91.75	31.77	13.76	36.64	150	360	P	H
	*	5220	90.45	-	-	81.56	31.77	13.76	36.64	150	360	A	H
		5453.51	51.55	-22.45	74	42.55	31.96	13.8	36.76	150	360	P	H
		5422.16	38.89	-15.11	54	29.92	31.93	13.79	36.75	150	360	A	H
		5036.3	51.83	-22.17	74	42.82	31.63	13.79	36.41	243	6	P	V
		5027.75	39.34	-14.66	54	30.33	31.63	13.79	36.41	243	6	A	V
	*	5220	109.84	-	-	100.95	31.77	13.76	36.64	243	6	P	V
	*	5220	99.02	-	-	90.13	31.77	13.76	36.64	243	6	A	V
		5374.97	51.69	-22.31	74	42.75	31.89	13.78	36.73	243	6	P	V
		5370.13	38.92	-15.08	54	29.98	31.89	13.78	36.73	243	6	A	V



<b>802.11n</b> <b>HT20</b> <b>CH 48</b> <b>5240MHz</b>		5129.3	51.83	-22.17	74	42.89	31.71	13.77	36.54	150	360	P	H
		5064.2	38.7	-15.3	54	29.71	31.65	13.79	36.45	150	360	A	H
	*	5240	100.66	-	-	91.77	31.79	13.76	36.66	150	360	P	H
	*	5240	90.3	-	-	81.41	31.79	13.76	36.66	150	360	A	H
		5362.21	51.37	-22.63	74	42.44	31.89	13.77	36.73	150	360	P	H
		5424.58	38.79	-15.21	54	29.82	31.93	13.79	36.75	150	360	A	H
		5026.55	51.6	-22.4	74	42.59	31.63	13.79	36.41	230	5	P	V
		5038.4	39.18	-14.82	54	30.18	31.64	13.79	36.43	230	5	A	V
	*	5240	109.04	-	-	100.15	31.79	13.76	36.66	230	5	P	V
	*	5240	98.23	-	-	89.34	31.79	13.76	36.66	230	5	A	V
		5419.08	51.78	-22.22	74	42.81	31.93	13.79	36.75	230	5	P	V
		5404.23	38.9	-15.1	54	29.94	31.92	13.78	36.74	230	5	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 1 5150~5250MHz**  
**WIFI 802.11n HT20 (Harmonic @ 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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	(dBμV)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11n HT20 CH 36 5180MHz		10360	46.34	-27.66	74	23.59	38.62	19.95	35.82	150	269	P	H
		15540	42.17	-31.83	74	11.86	38.54	25.03	33.26	179	236	P	H
		10360	45.67	-28.33	74	43.55	38.62	19.95	56.45	156	154	P	V
		15540	43.05	-30.95	74	35.22	38.54	25.03	55.74	264	254	P	V
802.11n HT20 CH 44 5220MHz		10440	47.07	-26.93	74	44.89	38.72	19.96	56.5	156	230	P	H
		15660	41.49	-32.51	74	33.68	38.17	25.07	55.43	179	225	P	H
		10440	45.87	-28.13	74	43.69	38.72	19.96	56.5	156	230	P	V
		15660	40.36	-33.64	74	32.55	38.17	25.07	55.43	179	225	P	V
802.11n HT20 CH 48 5240MHz		10480	47.67	-26.33	74	45.46	38.79	19.97	56.55	150	289	P	H
		15720	42.18	-31.82	74	34.38	37.96	25.09	55.25	200	291	P	H
		10480	47.37	-26.63	74	45.16	38.79	19.97	56.55	150	289	P	V
		15720	40.95	-33.05	74	33.15	37.96	25.09	55.25	200	291	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												





**15E band 1 5150~5250MHz**  
**WIFI 802.11n HT40 (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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	(dBμV)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11n HT40 CH 38 5190MHz		5149.85	63.58	-10.42	74	54.65	31.72	13.77	36.56	250	352	P	H
		5150	42.63	-11.37	54	33.7	31.72	13.77	36.56	250	352	A	H
	*	5190	99.06	-	-	90.15	31.75	13.76	36.6	250	352	P	H
	*	5190	89.05	-	-	80.14	31.75	13.76	36.6	250	352	A	H
		5459.01	51.96	-22.04	74	42.96	31.96	13.8	36.76	250	352	P	H
		5440.42	39.03	-14.97	54	30.04	31.95	13.79	36.75	250	352	A	H
		5147.15	72.03	-1.97	74	63.1	31.72	13.77	36.56	244	5	P	V
		5149.85	48.67	-5.33	54	39.74	31.72	13.77	36.56	244	5	A	V
	*	5190	105.84	-	-	96.93	31.75	13.76	36.6	244	5	P	V
	*	5190	95.69	-	-	86.78	31.75	13.76	36.6	244	5	A	V
		5435.03	51.9	-22.1	74	42.91	31.95	13.79	36.75	244	5	P	V
		5388.28	38.82	-15.18	54	29.86	31.91	13.78	36.73	244	5	A	V
802.11n HT40 CH 46 5230MHz		5126.45	51.06	-22.94	74	42.12	31.71	13.77	36.54	174	346	P	H
		5125.55	38.18	-15.82	54	29.23	31.71	13.78	36.54	174	346	A	H
	*	5230	99.48	-	-	90.59	31.79	13.76	36.66	174	346	P	H
	*	5230	89.18	-	-	80.29	31.79	13.76	36.66	174	346	A	H
		5420.18	51.18	-22.82	74	42.21	31.93	13.79	36.75	174	346	P	H
		5359.02	38.31	-15.69	54	29.38	31.88	13.77	36.72	174	346	A	H
		5148.05	54.42	-19.58	74	45.49	31.72	13.77	36.56	207	0	P	V
		5125.85	40.93	-13.07	54	31.98	31.71	13.78	36.54	207	0	A	V
	*	5230	105.09	-	-	96.2	31.79	13.76	36.66	207	0	P	V
	*	5230	95.09	-	-	86.2	31.79	13.76	36.66	207	0	A	V
		5394.33	51.17	-22.83	74	42.21	31.91	13.78	36.73	207	0	P	V
		5403.24	38.54	-15.46	54	29.58	31.92	13.78	36.74	207	0	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 1 5150~5250MHz**  
**WIFI 802.11n HT40 (Harmonic @ 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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	(dBμV)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11n HT40 CH 38 5190MHz		10380	47.21	-26.79	74	45.07	38.65	19.95	56.46	152	260	P	H
		15570	40.7	-33.3	74	32.87	38.44	25.04	55.65	189	238	P	H
		10380	47.05	-26.95	74	44.91	38.65	19.95	56.46	152	260	P	V
		15570	42.63	-31.37	74	34.8	38.44	25.04	55.65	189	238	P	V
802.11n HT40 CH 46 5230MHz		10460	47.28	-26.72	74	45.09	38.74	19.97	56.52	179	230	P	H
		15690	40.77	-33.23	74	32.97	38.06	25.08	55.34	180	225	P	H
		10460	47.21	-26.79	74	45.02	38.74	19.97	56.52	179	230	P	V
		15690	40.45	-33.55	74	32.65	38.06	25.08	55.34	180	225	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 1 5150~5250MHz**  
**WIFI 802.11ac VHT20 (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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
802.11ac VHT20 CH 36 5180MHz		5035.4	51.19	-22.81	74	42.18	31.63	13.79	36.41	224	347	P	H
		5055.95	39.4	-14.6	54	30.41	31.65	13.79	36.45	224	347	A	H
	*	5180	94.88	-	-	85.97	31.75	13.76	36.6	224	347	P	H
	*	5180	85.72	-	-	76.81	31.75	13.76	36.6	224	347	A	H
		5127.95	52.18	-21.82	74	43.24	31.71	13.77	36.54	193	349	P	V
		5127.8	41.71	-12.29	54	32.77	31.71	13.77	36.54	193	349	A	V
	*	5180	102.26	-	-	93.35	31.75	13.76	36.6	193	349	P	V
	*	5180	93.22	-	-	84.31	31.75	13.76	36.6	193	349	A	V
802.11ac VHT20 CH 44 5220MHz		5101.25	51.42	-22.58	74	42.45	31.68	13.78	36.49	219	360	P	H
		5055.2	39.23	-14.77	54	30.24	31.65	13.79	36.45	219	360	A	H
	*	5220	94.19	-	-	85.3	31.77	13.76	36.64	219	360	P	H
	*	5220	85.1	-	-	76.21	31.77	13.76	36.64	219	360	A	H
		5400.16	51.01	-22.99	74	42.05	31.92	13.78	36.74	219	360	P	H
		5429.31	39.52	-14.48	54	30.53	31.95	13.79	36.75	219	360	A	H
		5070.8	51.55	-22.45	74	42.56	31.65	13.79	36.45	193	349	P	V
		5046.05	39.26	-14.74	54	30.26	31.64	13.79	36.43	193	349	A	V
	*	5220	101.06	-	-	92.17	31.77	13.76	36.64	193	349	P	V
	*	5220	92.26	-	-	83.37	31.77	13.76	36.64	193	349	A	V
		5354.07	50.86	-23.14	74	41.93	31.88	13.77	36.72	193	349	P	V
		5402.58	40.21	-13.79	54	31.25	31.92	13.78	36.74	193	349	A	V



<b>802.11ac VHT20 CH 48 5240MHz</b>		5033	50.73	-23.27	74	41.72	31.63	13.79	36.41	219	360	P	H
		5086.55	39.38	-14.62	54	30.4	31.67	13.78	36.47	219	360	A	H
	*	5240	93.51	-	-	84.62	31.79	13.76	36.66	219	360	P	H
	*	5240	84.57	-	-	75.68	31.79	13.76	36.66	219	360	A	H
		5359.35	50.82	-23.18	74	41.89	31.88	13.77	36.72	219	360	P	H
		5370.46	39.6	-14.4	54	30.66	31.89	13.78	36.73	219	360	A	H
		5034.95	51.03	-22.97	74	42.02	31.63	13.79	36.41	193	349	P	V
		5078.9	39.51	-14.49	54	30.52	31.67	13.79	36.47	193	349	A	V
	*	5240	101.23	-	-	92.34	31.79	13.76	36.66	193	349	P	V
	*	5240	92.09	-	-	83.2	31.79	13.76	36.66	193	349	A	V
		5424.03	50.92	-23.08	74	41.95	31.93	13.79	36.75	193	349	P	V
		5406.1	39.61	-14.39	54	30.64	31.92	13.79	36.74	193	349	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 15E band 1 5150~5250MHz

## WIFI 802.11ac VHT20 (Harmonic @ 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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	(dBμV)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11ac		10360	47.53	-26.47	74	45.41	38.62	19.95	56.45	156	230	P	H
VHT20		15540	42.11	-31.89	74	34.28	38.54	25.03	55.74	179	225	P	H
CH 36		10360	46.98	-27.02	74	44.86	38.62	19.95	56.45	156	230	P	V
5180MHz		15540	43.15	-30.85	74	35.32	38.54	25.03	55.74	179	225	P	V
802.11ac		10440	47.27	-26.73	74	45.09	38.72	19.96	56.5	156	230	P	H
VHT20		15660	41.26	-32.74	74	33.45	38.17	25.07	55.43	179	225	P	H
CH 44		10440	46.85	-27.15	74	44.67	38.72	19.96	56.5	156	230	P	V
5220MHz		15660	40.08	-33.92	74	32.27	38.17	25.07	55.43	179	225	P	V
802.11ac		10480	47.49	-26.51	74	45.28	38.79	19.97	56.55	150	289	P	H
VHT20		15720	41.02	-32.98	74	33.22	37.96	25.09	55.25	200	291	P	H
CH 48		10480	46.8	-27.2	74	44.59	38.79	19.97	56.55	150	289	P	V
5240MHz		15720	40.5	-33.5	74	32.7	37.96	25.09	55.25	200	291	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 1 5150~5250MHz**  
**WIFI 802.11ac VHT40 (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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
802.11ac VHT40 CH 38 5190MHz		5076.8	51.81	-22.19	74	42.82	31.67	13.79	36.47	177	261	P	H
		5067.35	38.31	-15.69	54	29.32	31.65	13.79	36.45	177	261	A	H
	*	5190	95.08	-	-	86.17	31.75	13.76	36.6	177	261	P	H
	*	5190	86.25	-	-	77.34	31.75	13.76	36.6	177	261	A	H
		5440.2	51.56	-22.44	74	42.57	31.95	13.79	36.75	177	261	P	H
		5374.2	38.52	-15.48	54	29.58	31.89	13.78	36.73	177	261	A	H
		5148.5	53.77	-20.23	74	44.84	31.72	13.77	36.56	181	321	P	V
		5149.7	39.43	-14.57	54	30.5	31.72	13.77	36.56	181	321	A	V
	*	5190	100.35	-	-	91.44	31.75	13.76	36.6	181	321	P	V
	*	5190	91.21	-	-	82.3	31.75	13.76	36.6	181	321	A	V
		5452.85	51.15	-22.85	74	42.15	31.96	13.8	36.76	181	321	P	V
		5395.1	38.24	-15.76	54	29.28	31.92	13.78	36.74	181	321	A	V
802.11ac VHT40 CH 46 5230MHz		5048.3	51.07	-22.93	74	42.07	31.64	13.79	36.43	143	279	P	H
		5051.3	38.1	-15.9	54	29.1	31.64	13.79	36.43	143	279	A	H
	*	5230	94.21	-	-	85.32	31.79	13.76	36.66	143	279	P	H
	*	5230	84.96	-	-	76.07	31.79	13.76	36.66	143	279	A	H
		5370.9	51.18	-22.82	74	42.24	31.89	13.78	36.73	143	279	P	H
		5427	38.32	-15.68	54	29.35	31.93	13.79	36.75	143	279	A	H
		5074.7	51.22	-22.78	74	42.23	31.67	13.79	36.47	214	317	P	V
		5125.7	38.51	-15.49	54	29.56	31.71	13.78	36.54	214	317	A	V
	*	5230	99.91	-	-	91.02	31.79	13.76	36.66	214	317	P	V
	*	5230	89.81	-	-	80.92	31.79	13.76	36.66	214	317	A	V
		5399.72	51.21	-22.79	74	42.25	31.92	13.78	36.74	214	317	P	V
		5397.63	38.18	-15.82	54	29.22	31.92	13.78	36.74	214	317	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 15E band 1 5150~5250MHz

## WIFI 802.11ac VHT40 (Harmonic @ 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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	(dBμV)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11ac		10380	47.76	-26.24	74	45.62	38.65	19.95	56.46	152	260	P	H
VHT40		15570	41.24	-32.76	74	33.41	38.44	25.04	55.65	189	238	P	H
CH 38		10380	46.75	-27.25	74	44.61	38.65	19.95	56.46	152	260	P	V
5190MHz		15570	40.71	-33.29	74	32.88	38.44	25.04	55.65	189	238	P	V
802.11ac		10460	46.77	-27.23	74	44.58	38.74	19.97	56.52	179	230	P	H
VHT40		15690	40.97	-33.03	74	33.17	38.06	25.08	55.34	180	225	P	H
CH 46		10460	47.35	-26.65	74	45.16	38.74	19.97	56.52	179	230	P	V
5230MHz		15690	40.44	-33.56	74	32.64	38.06	25.08	55.34	180	225	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 1 5150~5250MHz**  
**WIFI 802.11ac VHT80 (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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	(dBμV)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11ac VHT80 CH 42 5210MHz		5140.85	51.41	-22.59	74	42.48	31.72	13.77	36.56	250	356	P	H
		5149.85	38.61	-15.39	54	29.68	31.72	13.77	36.56	250	356	A	H
	*	5210	93	-	-	84.11	31.77	13.76	36.64	250	356	P	H
	*	5210	82.41	-	-	73.52	31.77	13.76	36.64	250	356	A	H
		5442.62	51.56	-22.44	74	42.57	31.95	13.79	36.75	250	356	P	H
		5379.37	38.24	-15.76	54	29.28	31.91	13.78	36.73	250	356	A	H
		5149.4	54.53	-19.47	74	45.6	31.72	13.77	36.56	204	351	P	V
		5150	40.36	-13.64	54	31.43	31.72	13.77	36.56	204	351	A	V
	*	5210	96.6	-	-	87.71	31.77	13.76	36.64	204	351	P	V
	*	5210	86.26	-	-	77.37	31.77	13.76	36.64	204	351	A	V
		5399.83	51.1	-22.9	74	42.14	31.92	13.78	36.74	204	351	P	V
		5439.32	38.02	-15.98	54	29.03	31.95	13.79	36.75	204	351	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 1 5150~5250MHz****WIFI 802.11ac VHT80 (Harmonic @ 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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	(dBμV)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11ac VHT80 CH 42 5210MHz		10420	47.28	-26.72	74	45.12	38.69	19.96	56.49	156	230	P	H
		15630	42.24	-31.76	74	34.43	38.22	25.06	55.47	179	225	P	H
		10420	47.38	-26.62	74	45.22	38.69	19.96	56.49	156	230	P	V
		15630	42.59	-31.41	74	34.78	38.22	25.06	55.47	179	225	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 15E Band 2 - 5250~5350MHz

## WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11a CH 52 5260MHz		5071.4	51.46	-22.54	74	42.47	31.65	13.79	36.45	189	351	P	H
		5057.45	37.95	-16.05	54	28.96	31.65	13.79	36.45	189	351	A	H
	*	5260	101.94	-	-	93.07	31.81	13.75	36.69	189	351	P	H
	*	5260	91.91	-	-	83.04	31.81	13.75	36.69	189	351	A	H
		5391.03	52.01	-21.99	74	43.05	31.91	13.78	36.73	189	351	P	H
		5406.1	38.13	-15.87	54	29.16	31.92	13.79	36.74	189	351	A	H
		5072.15	52.39	-21.61	74	43.4	31.67	13.79	36.47	183	353	P	V
		5070.2	38.42	-15.58	54	29.43	31.65	13.79	36.45	183	353	A	V
	*	5260	108.96	-	-	100.09	31.81	13.75	36.69	183	353	P	V
	*	5260	97.42	-	-	88.55	31.81	13.75	36.69	183	353	A	V
		5407.64	51.45	-22.55	74	42.48	31.92	13.79	36.74	183	353	P	V
		5380.58	38.08	-15.92	54	29.12	31.91	13.78	36.73	183	353	A	V
802.11a CH 60 5300MHz		5011.1	51.11	-22.89	74	42.1	31.61	13.79	36.39	189	351	P	H
		5067.2	37.95	-16.05	54	28.96	31.65	13.79	36.45	189	351	A	H
	*	5300	102.24	-	-	93.34	31.84	13.76	36.7	189	351	P	H
	*	5300	92.17	-	-	83.27	31.84	13.76	36.7	189	351	A	H
		5352.53	52.94	-21.06	74	44.01	31.88	13.77	36.72	189	351	P	H
		5352.09	39.73	-14.27	54	30.8	31.88	13.77	36.72	189	351	A	H
		5140.85	51.99	-22.01	74	43.06	31.72	13.77	36.56	194	346	P	V
		5108.9	38.24	-15.76	54	29.28	31.69	13.78	36.51	194	346	A	V
	*	5300	108.77	-	-	99.87	31.84	13.76	36.7	194	346	P	V
	*	5300	96.89	-	-	87.99	31.84	13.76	36.7	194	346	A	V
		5352.09	53.98	-20.02	74	45.05	31.88	13.77	36.72	194	346	P	V
		5352.09	40.86	-13.14	54	31.93	31.88	13.77	36.72	194	346	A	V



<b>802.11a</b> <b>CH 64</b> <b>5320MHz</b>	*	5320	102.61	-	-	93.71	31.85	13.76	36.71	189	351	P	H
	*	5320	92.55	-	-	83.65	31.85	13.76	36.71	189	351	A	H
		5350.66	57.17	-16.83	74	48.24	31.88	13.77	36.72	189	351	P	H
		5372.88	39.57	-14.43	54	30.63	31.89	13.78	36.73	189	351	A	H
	*	5320	108.35	-	-	99.45	31.85	13.76	36.71	181	346	P	V
	*	5320	96.72	-	-	87.82	31.85	13.76	36.71	181	346	A	V
		5350.77	59.61	-14.39	74	50.68	31.88	13.77	36.72	181	346	P	V
		5372.11	40.58	-13.42	54	31.64	31.89	13.78	36.73	181	346	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 2 5250~5350MHz**  
**WIFI 802.11a (Harmonic @ 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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	(dBμV)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11a CH 52 5260MHz		10520	50.36	-23.64	74	48.07	38.84	19.98	56.53	150	220	P	H
		15780	41.46	-32.54	74	33.61	37.79	25.17	55.11	150	345	P	H
		10520	49.98	-24.02	74	47.69	38.84	19.98	56.53	150	220	P	V
		15780	43.91	-30.09	74	36.06	37.79	25.17	55.11	150	345	P	V
802.11a CH 60 5300MHz		10600	50.52	-23.48	74	47.68	38.95	20.25	56.36	185	215	P	H
		15900	42.19	-31.81	74	34.14	37.42	25.43	54.8	196	190	P	H
		10600	49.82	-24.18	74	46.98	38.95	20.25	56.36	185	215	P	V
		15900	43.61	-30.39	74	35.56	37.42	25.43	54.8	196	190	P	V
802.11a CH 64 5320MHz		10640	47.77	-26.23	74	44.68	39	20.39	56.3	152	135	P	H
		15960	43.02	-30.98	74	34.83	37.21	25.6	54.62	173	245	P	H
		10640	50.43	-23.57	74	47.34	39	20.39	56.3	152	135	P	V
		15960	41.93	-32.07	74	33.74	37.21	25.6	54.62	173	245	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 2 5250~5350MHz**  
**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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
802.11n HT20 CH 52 5260MHz		5022.5	52.01	-21.99	74	43	31.63	13.79	36.41	150	360	P	H
		5021	38.93	-15.07	54	29.92	31.63	13.79	36.41	150	360	A	H
	*	5260	100.36	-	-	91.49	31.81	13.75	36.69	150	360	P	H
	*	5260	90.64	-	-	81.77	31.81	13.75	36.69	150	360	A	H
		5360.89	51.8	-22.2	74	42.87	31.89	13.77	36.73	150	360	P	H
		5406.43	38.88	-15.12	54	29.91	31.92	13.79	36.74	150	360	A	H
		5048.3	51.35	-22.65	74	42.35	31.64	13.79	36.43	239	5	P	V
		5070.35	39.43	-14.57	54	30.44	31.65	13.79	36.45	239	5	A	V
	*	5260	108.49	-	-	99.62	31.81	13.75	36.69	239	5	P	V
	*	5260	98.53	-	-	89.66	31.81	13.75	36.69	239	5	A	V
		5381.68	51.52	-22.48	74	42.56	31.91	13.78	36.73	239	5	P	V
		5373.87	39.3	-14.7	54	30.36	31.89	13.78	36.73	239	5	A	V
802.11n HT20 CH 60 5300MHz		5040.65	52.42	-21.58	74	43.42	31.64	13.79	36.43	150	360	P	H
		5041.85	38.69	-15.31	54	29.69	31.64	13.79	36.43	150	360	A	H
	*	5300	101.66	-	-	92.76	31.84	13.76	36.7	150	360	P	H
	*	5300	91.27	-	-	82.37	31.84	13.76	36.7	150	360	A	H
		5352.42	52.28	-21.72	74	43.35	31.88	13.77	36.72	150	360	P	H
		5351.98	40.09	-13.91	54	31.16	31.88	13.77	36.72	150	360	A	H
		5094.8	51.48	-22.52	74	42.51	31.68	13.78	36.49	250	6	P	V
		5101.85	39.1	-14.9	54	30.13	31.68	13.78	36.49	250	6	A	V
	*	5300	107.18	-	-	98.28	31.84	13.76	36.7	250	6	P	V
	*	5300	97.06	-	-	88.16	31.84	13.76	36.7	250	6	A	V
		5351.98	54.43	-19.57	74	45.5	31.88	13.77	36.72	250	6	P	V
		5351.65	40.88	-13.12	54	31.95	31.88	13.77	36.72	250	6	A	V



<b>802.11n</b> <b>HT20</b> <b>CH 64</b> <b>5320MHz</b>	*	5320	100.52	-	-	91.62	31.85	13.76	36.71	150	353	P	H
	*	5320	91.54	-	-	82.64	31.85	13.76	36.71	150	353	A	H
		5351.1	59.53	-14.47	74	50.6	31.88	13.77	36.72	150	353	P	H
		5350	40.2	-13.8	54	31.27	31.88	13.77	36.72	150	353	A	H
	*	5320	107.47	-	-	98.57	31.85	13.76	36.71	250	340	P	V
	*	5320	97.27	-	-	88.37	31.85	13.76	36.71	250	340	A	V
		5355.28	59.66	-14.34	74	50.73	31.88	13.77	36.72	250	340	P	V
		5350	42.04	-11.96	54	33.11	31.88	13.77	36.72	250	340	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 2 5250~5350MHz**  
**WIFI 802.11n HT20 (Harmonic @ 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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	(dBμV)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11n		10520	45.79	-28.21	74	43.5	38.84	19.98	56.53	150	220	P	H
HT20		15780	41.82	-32.18	74	33.97	37.79	25.17	55.11	150	345	P	H
CH 52		10520	48.18	-25.82	74	45.89	38.84	19.98	56.53	150	220	P	V
5260MHz		15780	39.64	-34.36	74	31.79	37.79	25.17	55.11	150	345	P	V
802.11n		10600	43.82	-30.18	74	40.98	38.95	20.25	56.36	185	215	P	H
HT20		15900	39.55	-34.45	74	31.5	37.42	25.43	54.8	196	190	P	H
CH 60		10600	46.15	-27.85	74	43.31	38.95	20.25	56.36	185	215	P	V
5300MHz		15900	40.38	-33.62	74	32.33	37.42	25.43	54.8	196	190	P	V
802.11n		10640	45.31	-28.69	74	42.22	39	20.39	56.3	152	135	P	H
HT20		15960	42.41	-31.59	74	34.22	37.21	25.6	54.62	173	245	P	H
CH 64		10640	44.77	-29.23	74	41.68	39	20.39	56.3	152	135	P	V
5320MHz		15960	41.06	-32.94	74	32.87	37.21	25.6	54.62	173	245	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 2 5250~5350MHz**  
**WIFI 802.11n HT40 (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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
802.11n HT40 CH 54 5270MHz		5104.1	50.82	-23.18	74	41.85	31.68	13.78	36.49	191	1	P	H
		5076.05	37.88	-16.12	54	28.89	31.67	13.79	36.47	191	1	A	H
	*	5270	97.5	-	-	88.63	31.81	13.75	36.69	191	1	P	H
	*	5270	88.57	-	-	79.7	31.81	13.75	36.69	191	1	A	H
		5443.94	51.35	-22.65	74	42.36	31.95	13.79	36.75	191	1	P	H
		5378.16	38.31	-15.69	54	29.35	31.91	13.78	36.73	191	1	A	H
		5134.25	50.93	-23.07	74	41.99	31.71	13.77	36.54	154	344	P	V
		5069.45	38.19	-15.81	54	29.2	31.65	13.79	36.45	154	344	A	V
	*	5270	105.2	-	-	96.33	31.81	13.75	36.69	154	344	P	V
	*	5270	95.41	-	-	86.54	31.81	13.75	36.69	154	344	A	V
		5354.4	51.54	-22.46	74	42.61	31.88	13.77	36.72	154	344	P	V
		5371.89	38.85	-15.15	54	29.91	31.89	13.78	36.73	154	344	A	V
802.11n HT40 CH 62 5310MHz		5043.5	50.56	-23.44	74	41.56	31.64	13.79	36.43	191	1	P	H
		5024.45	37.98	-16.02	54	28.97	31.63	13.79	36.41	191	1	A	H
	*	5310	96.44	-	-	87.54	31.85	13.76	36.71	191	1	P	H
	*	5310	86.8	-	-	77.9	31.85	13.76	36.71	191	1	A	H
		5355.72	62.25	-11.75	74	53.32	31.88	13.77	36.72	191	1	P	H
		5350	43.06	-10.94	54	34.13	31.88	13.77	36.72	191	1	A	H
		5140.1	50.73	-23.27	74	41.8	31.72	13.77	36.56	150	38	P	V
		5064.2	38.05	-15.95	54	29.06	31.65	13.79	36.45	150	38	A	V
	*	5310	104.52	-	-	95.62	31.85	13.76	36.71	150	38	P	V
	*	5310	93.43	-	-	84.53	31.85	13.76	36.71	150	38	A	V
		5350	66.99	-7.01	74	58.06	31.88	13.77	36.72	150	38	P	V
		5350	46.87	-7.13	54	37.94	31.88	13.77	36.72	150	38	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												





**15E band 2 5250~5350MHz**  
**WIFI 802.11n HT40 (Harmonic @ 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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	(dBμV)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11n HT40 CH 54 5270MHz		10540	47.05	-26.95	74	44.56	38.86	20.12	56.49	150	220	P	H
		15810	41.17	-32.83	74	33.24	37.69	25.26	55.02	150	345	P	H
		10540	46.2	-27.8	74	43.71	38.86	20.12	56.49	150	220	P	V
		15810	40.76	-33.24	74	32.83	37.69	25.26	55.02	150	345	P	V
802.11n HT40 CH 62 5310MHz		10620	46.49	-27.51	74	43.45	38.98	20.39	56.33	185	215	P	H
		15930	40.41	-33.59	74	32.3	37.31	25.51	54.71	196	190	P	H
		10620	47.64	-26.36	74	44.6	38.98	20.39	56.33	185	215	P	V
		15930	40.56	-33.44	74	32.45	37.31	25.51	54.71	196	190	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 2 5250~5350MHz**  
**WIFI 802.11ac VHT20 (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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
802.11ac VHT20 CH 52 5260MHz		5049.35	50.81	-23.19	74	41.81	31.64	13.79	36.43	219	360	P	H
		5061.8	39.41	-14.59	54	30.42	31.65	13.79	36.45	219	360	A	H
	*	5260	94.63	-	-	85.76	31.81	13.75	36.69	219	360	P	H
	*	5260	85.47	-	-	76.6	31.81	13.75	36.69	219	360	A	H
		5392.57	51.16	-22.84	74	42.2	31.91	13.78	36.73	219	360	P	H
		5352.75	39.38	-14.62	54	30.45	31.88	13.77	36.72	219	360	A	H
		5119.4	50.97	-23.03	74	42.01	31.69	13.78	36.51	193	349	P	V
		5069.9	39.55	-14.45	54	30.56	31.65	13.79	36.45	193	349	A	V
	*	5260	101.19	-	-	92.32	31.81	13.75	36.69	193	349	P	V
	*	5260	91.67	-	-	82.8	31.81	13.75	36.69	193	349	A	V
		5420.62	51.43	-22.57	74	42.46	31.93	13.79	36.75	193	349	P	V
		5458.68	39.55	-14.45	54	30.55	31.96	13.8	36.76	193	349	A	V
802.11ac VHT20 CH 60 5300MHz		5020.4	50.71	-23.29	74	41.7	31.61	13.79	36.39	219	360	P	H
		5015	39.44	-14.56	54	30.43	31.61	13.79	36.39	219	360	A	H
	*	5300	94.62	-	-	85.72	31.84	13.76	36.7	219	360	P	H
	*	5300	85.19	-	-	76.29	31.84	13.76	36.7	219	360	A	H
		5391.25	50.71	-23.29	74	41.75	31.91	13.78	36.73	219	360	P	H
		5410.83	40	-14	54	31.03	31.92	13.79	36.74	219	360	A	H
		5018.6	51.07	-22.93	74	42.06	31.61	13.79	36.39	189	359	P	V
		5079.8	39.3	-14.7	54	30.31	31.67	13.79	36.47	189	359	A	V
	*	5300	100.55	-	-	91.65	31.84	13.76	36.7	189	359	P	V
	*	5300	91.27	-	-	82.37	31.84	13.76	36.7	189	359	A	V
		5449.22	51.08	-22.92	74	42.08	31.96	13.8	36.76	189	359	P	V
		5352.42	40.19	-13.81	54	31.26	31.88	13.77	36.72	189	359	A	V



<b>802.11ac</b> <b>VHT20</b> <b>CH 64</b> <b>5320MHz</b>	*	5320	94.73	-	-	85.83	31.85	13.76	36.71	219	360	P	H
	*	5320	85.04	-	-	76.14	31.85	13.76	36.71	219	360	A	H
		5421.5	51	-23	74	42.03	31.93	13.79	36.75	219	360	P	H
		5372.55	40.28	-13.72	54	31.34	31.89	13.78	36.73	219	360	A	H
	*	5320	100.23	-	-	91.33	31.85	13.76	36.71	190	345	P	V
	*	5320	91.22	-	-	82.32	31.85	13.76	36.71	190	345	A	V
		5372.66	51.35	-22.65	74	42.41	31.89	13.78	36.73	190	345	P	V
		5371.56	40.44	-13.56	54	31.5	31.89	13.78	36.73	190	345	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 15E band 2 5250~5350MHz

## WIFI 802.11ac VHT20 (Harmonic @ 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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	(dBμV)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11ac		10520	47.18	-26.82	74	44.89	38.84	19.98	56.53	150	220	P	H
VHT20		15780	41.61	-32.39	74	33.76	37.79	25.17	55.11	150	345	P	H
CH 52		10520	47.62	-26.38	74	45.33	38.84	19.98	56.53	150	220	P	V
5260MHz		15780	41.07	-32.93	74	33.22	37.79	25.17	55.11	150	345	P	V
802.11ac		10600	47.02	-26.98	74	44.18	38.95	20.25	56.36	185	215	P	H
VHT20		15900	39.9	-34.1	74	31.85	37.42	25.43	54.8	196	190	P	H
CH 60		10600	47.27	-26.73	74	44.43	38.95	20.25	56.36	185	215	P	V
5300MHz		15900	40.24	-33.76	74	32.19	37.42	25.43	54.8	196	190	P	V
802.11ac		10640	45.28	-28.72	74	42.19	39	20.39	56.3	152	135	P	H
VHT20		15960	41.42	-32.58	74	33.23	37.21	25.6	54.62	173	245	P	H
CH 64		10640	47.07	-26.93	74	43.98	39	20.39	56.3	152	135	P	V
5320MHz		15960	40.44	-33.56	74	32.25	37.21	25.6	54.62	173	245	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 2 5250~5350MHz**  
**WIFI 802.11ac VHT40 (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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
802.11ac VHT40 CH 54 5270MHz		5123.6	51.19	-22.81	74	42.24	31.71	13.78	36.54	155	192	P	H
		5072.75	38.19	-15.81	54	29.2	31.67	13.79	36.47	155	192	A	H
	*	5270	95.28	-	-	86.41	31.81	13.75	36.69	155	192	P	H
	*	5270	85.94	-	-	77.07	31.81	13.75	36.69	155	192	A	H
		5401.59	51.46	-22.54	74	42.5	31.92	13.78	36.74	155	192	P	H
		5374.2	38.6	-15.4	54	29.66	31.89	13.78	36.73	155	192	A	H
		5067.65	50.88	-23.12	74	41.89	31.65	13.79	36.45	223	341	P	V
		5071.7	38.17	-15.83	54	29.18	31.67	13.79	36.47	223	341	A	V
	*	5270	100.25	-	-	91.38	31.81	13.75	36.69	223	341	P	V
	*	5270	90.14	-	-	81.27	31.81	13.75	36.69	223	341	A	V
		5396.09	50.9	-23.1	74	41.94	31.92	13.78	36.74	223	341	P	V
		5375.19	38.46	-15.54	54	29.52	31.89	13.78	36.73	223	341	A	V
802.11ac VHT40 CH 62 5310MHz		5057.15	51.11	-22.89	74	42.12	31.65	13.79	36.45	163	54	P	H
		5065.55	38.14	-15.86	54	29.15	31.65	13.79	36.45	163	54	A	H
	*	5310	94.95	-	-	86.05	31.85	13.76	36.71	163	54	P	H
	*	5310	85.71	-	-	76.81	31.85	13.76	36.71	163	54	A	H
		5361.66	50.9	-23.1	74	41.97	31.89	13.77	36.73	163	54	P	H
		5446.36	38.4	-15.6	54	29.4	31.96	13.8	36.76	163	54	A	H
		5037.2	50.85	-23.15	74	41.84	31.63	13.79	36.41	172	289	P	V
		5026.4	38.19	-15.81	54	29.18	31.63	13.79	36.41	172	289	A	V
	*	5310	99.47	-	-	90.57	31.85	13.76	36.71	172	289	P	V
	*	5310	89.23	-	-	80.33	31.85	13.76	36.71	172	289	A	V
		5351.98	52.7	-21.3	74	43.77	31.88	13.77	36.72	172	289	P	V
		5413.8	38.41	-15.59	54	29.44	31.93	13.79	36.75	172	289	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 15E band 2 5250~5350MHz

## WIFI 802.11ac VHT40 (Harmonic @ 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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	(dBμV)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11ac		10540	46.03	-27.97	74	43.54	38.86	20.12	56.49	150	220	P	H
VHT40		15810	40.11	-33.89	74	32.18	37.69	25.26	55.02	150	345	P	H
CH 54		10540	48.15	-25.85	74	45.66	38.86	20.12	56.49	150	220	P	V
5270MHz		15810	40.78	-33.22	74	32.85	37.69	25.26	55.02	150	345	P	V
802.11ac		10620	46.36	-27.64	74	43.32	38.98	20.39	56.33	185	215	P	H
VHT40		15930	41.3	-32.7	74	33.19	37.31	25.51	54.71	196	190	P	H
CH 62		10620	45.19	-28.81	74	42.15	38.98	20.39	56.33	185	215	P	V
5310MHz		15930	41.23	-32.77	74	33.12	37.31	25.51	54.71	196	190	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 2 5250~5350MHz**  
**WIFI 802.11ac VHT80 (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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	(dBμV)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
<b>802.11ac</b> <b>VHT80</b> <b>CH 58</b> <b>5290MHz</b>		5102.15	50.55	-23.45	74	41.58	31.68	13.78	36.49	210	353	P	H
		5029.85	37.91	-16.09	54	28.9	31.63	13.79	36.41	210	353	A	H
	*	5290	91.89	-	-	82.99	31.83	13.76	36.69	210	353	P	H
	*	5290	81.82	-	-	72.92	31.83	13.76	36.69	210	353	A	H
		5428.65	52.17	-21.83	74	43.18	31.95	13.79	36.75	210	353	P	H
		5373.32	38.21	-15.79	54	29.27	31.89	13.78	36.73	210	353	A	H
		5054.6	51.17	-22.83	74	42.18	31.65	13.79	36.45	214	0	P	V
		5033.3	38.04	-15.96	54	29.03	31.63	13.79	36.41	214	0	A	V
	*	5290	95.96	-	-	87.06	31.83	13.76	36.69	214	0	P	V
	*	5290	85.38	-	-	76.48	31.83	13.76	36.69	214	0	A	V
		5450.1	50.95	-23.05	74	41.95	31.96	13.8	36.76	214	0	P	V
		5350.22	38.29	-15.71	54	29.36	31.88	13.77	36.72	214	0	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

**15E band 2 5250~5350MHz****WIFI 802.11ac VHT80 (Harmonic @ 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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	(dBμV)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11ac VHT80 CH 58 5290MHz		10580	45.63	-28.37	74	42.84	38.93	20.25	56.39	250	360	P	H
		15870	41.45	-32.55	74	33.48	37.47	25.34	54.84	250	0	P	H
		10580	46.44	-27.56	74	43.65	38.93	20.25	56.39	250	360	P	V
		15870	41.31	-32.69	74	33.34	37.47	25.34	54.84	250	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												





## 15E Band 3 - 5470~5725MHz

## WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11a CH 100 5500MHz		5467.12	60.45	-13.55	74	51.45	31.97	13.8	36.77	150	360	P	H
		5470	40.85	-13.15	54	31.85	31.97	13.8	36.77	150	360	A	H
	*	5500	105.92	-	-	96.89	32	13.81	36.78	150	360	P	H
	*	5500	95.81	-	-	86.78	32	13.81	36.78	150	360	A	H
		5466.8	60.85	-13.15	74	51.85	31.97	13.8	36.77	150	14	P	V
		5470	41.57	-12.43	54	32.57	31.97	13.8	36.77	150	14	A	V
	*	5500	104.08	-	-	95.05	32	13.81	36.78	150	14	P	V
	*	5500	93.53	-	-	84.5	32	13.81	36.78	150	14	A	V
802.11a CH 116 5580MHz		5425.2	52.07	-21.93	74	43.1	31.93	13.79	36.75	150	0	P	H
		5388.72	38.33	-15.67	54	29.37	31.91	13.78	36.73	150	0	A	H
	*	5580	105.57	-	-	96.25	32.11	13.98	36.77	150	0	P	H
	*	5580	95.04	-	-	85.72	32.11	13.98	36.77	150	0	A	H
		5749.8	51.69	-22.31	74	41.75	32.39	14.31	36.76	150	0	P	H
		5763.96	38.91	-15.09	54	28.95	32.41	14.31	36.76	150	0	A	H
		5394.8	51.35	-22.65	74	42.39	31.92	13.78	36.74	150	23	P	V
		5403.28	38.17	-15.83	54	29.21	31.92	13.78	36.74	150	23	A	V
	*	5580	103.39	-	-	94.07	32.11	13.98	36.77	150	23	P	V
	*	5580	92.39	-	-	83.07	32.11	13.98	36.77	150	23	A	V
		5737.16	51.93	-22.07	74	41.99	32.39	14.31	36.76	150	23	P	V
		5751.96	38.96	-15.04	54	29	32.41	14.31	36.76	150	23	A	V



<b>802.11a</b> <b>CH 140</b> <b>5700MHz</b>	*	5700	105.75	-	-	95.98	32.3	14.23	36.76	150	0	P	H
	*	5700	95.33	-	-	85.56	32.3	14.23	36.76	150	0	A	H
		5725.56	66.05	-7.95	74	56.22	32.36	14.23	36.76	150	0	P	H
		5725	44.34	-9.66	54	34.51	32.36	14.23	36.76	150	0	A	H
	*	5700	103.72	-	-	93.95	32.3	14.23	36.76	150	23	P	V
	*	5700	93.6	-	-	83.83	32.3	14.23	36.76	150	23	A	V
		5727.72	63.65	-10.35	74	53.74	32.36	14.31	36.76	150	23	P	V
		5725	42.67	-11.33	54	32.84	32.36	14.23	36.76	150	23	A	V
<b>Remark</b>	<ol style="list-style-type: none"><li>1. No other spurious found.</li><li>2. All results are PASS against Peak and Average limit line.</li></ol>												



## 15E band 3 - 5470~5725MHz

## WIFI 802.11a (Harmonic @ 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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	(dBμV)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11a CH 100 5500MHz		11000	49.45	-24.55	74	44.38	39.5	21.17	55.6	163	230	P	H
		16500	41.47	-32.53	74	31.41	38.47	25.16	53.57	178	296	P	H
		11000	49.98	-24.02	74	44.91	39.5	21.17	55.6	163	230	P	V
		16500	40.05	-33.95	74	29.99	38.47	25.16	53.57	178	296	P	V
802.11a CH 116 5580MHz		11160	49.85	-24.15	74	44.24	39.35	22	55.74	170	200	P	H
		16740	40.82	-33.18	74	30.33	39.11	25.32	53.94	156	350	P	H
		11160	48.81	-25.19	74	43.2	39.35	22	55.74	170	200	P	V
		16740	42.71	-31.29	74	32.22	39.11	25.32	53.94	156	350	P	V
802.11a CH 140 5700MHz		11400	50.32	-23.68	74	44.66	39.13	22.47	55.94	150	285	P	H
		17100	43.6	-30.4	74	32.47	40.48	25.46	54.81	165	246	P	H
		11400	50.66	-23.34	74	45	39.13	22.47	55.94	150	285	P	V
		17100	44.67	-29.33	74	33.54	40.48	25.46	54.81	165	246	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 3 - 5470~5725MHz**  
**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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
802.11n HT20 CH 100 5500MHz		5468.24	59.3	-14.7	74	50.3	31.97	13.8	36.77	150	360	P	H
		5470	43.76	-10.24	54	34.76	31.97	13.8	36.77	150	360	A	H
	*	5500	102.81	-	-	93.78	32	13.81	36.78	150	360	P	H
	*	5500	92.72	-	-	83.69	32	13.81	36.78	150	360	A	H
		5467.6	62.26	-11.74	74	53.26	31.97	13.8	36.77	220	32	P	V
		5470	43.95	-10.05	54	34.95	31.97	13.8	36.77	220	32	A	V
	*	5500	105.86	-	-	96.83	32	13.81	36.78	220	32	P	V
	*	5500	95.55	-	-	86.52	32	13.81	36.78	220	32	A	V
802.11n HT20 CH 116 5580MHz		5387.76	51.65	-22.35	74	42.69	31.91	13.78	36.73	150	353	P	H
		5389.2	38.85	-15.15	54	29.89	31.91	13.78	36.73	150	353	A	H
	*	5580	103.12	-	-	93.8	32.11	13.98	36.77	150	353	P	H
	*	5580	92.87	-	-	83.55	32.11	13.98	36.77	150	353	A	H
		5746.12	52.7	-21.3	74	42.76	32.39	14.31	36.76	150	353	P	H
		5763.4	39.76	-14.24	54	29.8	32.41	14.31	36.76	150	353	A	H
		5469.04	52.27	-21.73	74	43.27	31.97	13.8	36.77	150	20	P	V
		5400.88	39	-15	54	30.04	31.92	13.78	36.74	150	20	A	V
	*	5580	105.52	-	-	96.2	32.11	13.98	36.77	150	20	P	V
	*	5580	95.58	-	-	86.26	32.11	13.98	36.77	150	20	A	V
		5739.72	52.5	-21.5	74	42.56	32.39	14.31	36.76	150	20	P	V
		5745.24	39.64	-14.36	54	29.7	32.39	14.31	36.76	150	20	A	V



<b>802.11n</b> <b>HT20</b> <b>CH 140</b> <b>5700MHz</b>	*	5700	106.42	-	-	96.65	32.3	14.23	36.76	150	353	P	H
	*	5700	96.04	-	-	86.27	32.3	14.23	36.76	150	353	A	H
		5725.56	66.59	-7.41	74	56.76	32.36	14.23	36.76	150	353	P	H
		5725	46.63	-7.37	54	36.8	32.36	14.23	36.76	150	353	A	H
	*	5700	105.66	-	-	95.89	32.3	14.23	36.76	150	20	P	V
	*	5700	96.51	-	-	86.74	32.3	14.23	36.76	150	20	A	V
		5725.08	65.01	-8.99	74	55.18	32.36	14.23	36.76	150	20	P	V
		5725.08	45.98	-8.02	54	36.15	32.36	14.23	36.76	150	20	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 15E band 3 - 5470~5725MHz

## WIFI 802.11n HT20 (Harmonic @ 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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	(dBμV)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11n		11000	48.23	-25.77	74	43.16	39.5	21.17	55.6	163	230	P	H
HT20		16500	38.97	-35.03	74	28.91	38.47	25.16	53.57	178	296	P	H
CH 100		11000	48	-26	74	42.93	39.5	21.17	55.6	163	230	P	V
5500MHz		16500	38.52	-35.48	74	28.46	38.47	25.16	53.57	178	296	P	V
802.11n		11160	49.49	-24.51	74	43.88	39.35	22	55.74	170	200	P	H
HT20		16740	40.79	-33.21	74	30.3	39.11	25.32	53.94	156	350	P	H
CH 116		11160	47.83	-26.17	74	42.22	39.35	22	55.74	170	200	P	V
5580MHz		16740	37.23	-36.77	74	26.74	39.11	25.32	53.94	156	350	P	V
802.11n		11400	49.27	-24.73	74	43.61	39.13	22.47	55.94	150	285	P	H
HT20		17100	40.5	-33.5	74	29.37	40.48	25.46	54.81	165	246	P	H
CH 140		11400	50.07	-23.93	74	44.41	39.13	22.47	55.94	150	285	P	V
5700MHz		17100	41.42	-32.58	74	30.29	40.48	25.46	54.81	165	246	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 3 - 5470~5725MHz**  
**WIFI 802.11n HT40 (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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11n HT40 CH 102 5510MHz		5469.84	68.87	-5.13	74	59.87	31.97	13.8	36.77	156	121	P	H
		5470	49.48	-4.52	54	40.48	31.97	13.8	36.77	156	121	A	H
	*	5510	97.91	-	-	88.88	32	13.81	36.78	156	121	P	H
	*	5510	87.55	-	-	78.52	32	13.81	36.78	156	121	A	H
		5756.12	51.68	-22.32	74	41.72	32.41	14.31	36.76	156	121	P	H
		5750.44	38.84	-15.16	54	28.9	32.39	14.31	36.76	156	121	A	H
		5468.56	71.3	-2.7	74	62.3	31.97	13.8	36.77	150	12	P	V
		5470	52.35	-1.65	54	43.35	31.97	13.8	36.77	150	12	A	V
	*	5510	100.9	-	-	91.87	32	13.81	36.78	150	12	P	V
	*	5510	90.49	-	-	81.46	32	13.81	36.78	150	12	A	V
		5761.48	51.39	-22.61	74	41.43	32.41	14.31	36.76	150	12	P	V
		5760.52	38.9	-15.1	54	28.94	32.41	14.31	36.76	150	12	A	V
802.11n HT40 CH 110 5550MHz		5467.44	51.19	-22.81	74	42.19	31.97	13.8	36.77	156	121	P	H
		5446.16	38.62	-15.38	54	29.62	31.96	13.8	36.76	156	121	A	H
	*	5550	99.74	-	-	90.55	32.08	13.89	36.78	156	121	P	H
	*	5550	89.47	-	-	80.28	32.08	13.89	36.78	156	121	A	H
		5760.2	51.92	-22.08	74	41.96	32.41	14.31	36.76	156	121	P	H
		5758.92	39.17	-14.83	54	29.21	32.41	14.31	36.76	156	121	A	H
		5465.68	51.69	-22.31	74	42.69	31.97	13.8	36.77	155	13	P	V
		5445.84	39.02	-14.98	54	30.03	31.96	13.79	36.76	155	13	A	V
	*	5550	101.09	-	-	91.9	32.08	13.89	36.78	155	13	P	V
	*	5550	90.69	-	-	81.5	32.08	13.89	36.78	155	13	A	V
		5730.44	51.54	-22.46	74	41.63	32.36	14.31	36.76	155	13	P	V
		5734.92	38.9	-15.1	54	28.96	32.39	14.31	36.76	155	13	A	V



<b>802.11n HT40 CH 134 5670MHz</b>		5358.16	50.71	-23.29	74	41.78	31.88	13.77	36.72	161	123	P	H
		5368.4	38.07	-15.93	54	29.13	31.89	13.78	36.73	161	123	A	H
	*	5670	101.89	-	-	92.24	32.28	14.14	36.77	161	123	P	H
	*	5670	91.17	-	-	81.52	32.28	14.14	36.77	161	123	A	H
		5729	59.03	-14.97	74	49.12	32.36	14.31	36.76	161	123	P	H
		5725.32	42.58	-11.42	54	32.75	32.36	14.23	36.76	161	123	A	H
		5381.2	51.05	-22.95	74	42.09	31.91	13.78	36.73	155	13	P	V
		5389.68	38.08	-15.92	54	29.12	31.91	13.78	36.73	155	13	A	V
	*	5670	100.6	-	-	90.95	32.28	14.14	36.77	155	13	P	V
	*	5670	90.36	-	-	80.71	32.28	14.14	36.77	155	13	A	V
		5726.68	58.15	-15.85	74	48.24	32.36	14.31	36.76	155	13	P	V
		5725.24	42.61	-11.39	54	32.78	32.36	14.23	36.76	155	13	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												





## 15E band 3 - 5470~5725MHz

## WIFI 802.11n HT40 (Harmonic @ 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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11n		11020	50.29	-23.71	74	45.04	39.48	21.38	55.61	163	230	P	H
HT40		16530	38.46	-35.54	74	28.33	38.56	25.19	53.62	178	296	P	H
CH 102		11020	48.98	-25.02	74	43.73	39.48	21.38	55.61	163	230	P	V
5510MHz		16530	39.32	-34.68	74	29.19	38.56	25.19	53.62	178	296	P	V
802.11n		11100	50.53	-23.47	74	45.02	39.41	21.79	55.69	163	230	P	H
HT40		16650	39.31	-34.69	74	28.97	38.88	25.27	53.81	178	296	P	H
CH 110		11100	50.49	-23.51	74	44.98	39.41	21.79	55.69	163	230	P	V
5550MHz		16650	39.74	-34.26	74	29.4	38.88	25.27	53.81	178	296	P	V
802.11n		11340	49.56	-24.44	74	43.74	39.19	22.52	55.89	170	200	P	H
HT40		17010	43.21	-30.79	74	32.23	39.91	25.48	54.41	156	350	P	H
CH 134		11340	48.38	-25.62	74	42.56	39.19	22.52	55.89	170	200	P	V
5670MHz		17010	41.43	-32.57	74	30.45	39.91	25.48	54.41	156	350	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 3 - 5470~5725MHz**  
**WIFI 802.11ac VHT20 (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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
802.11ac VHT20 CH 100 5500MHz		5354.16	50.89	-23.11	74	41.96	31.88	13.77	36.72	219	360	P	H
		5446.96	40.03	-13.97	54	31.03	31.96	13.8	36.76	219	360	A	H
	*	5500	94.16	-	-	85.13	32	13.81	36.78	219	360	P	H
	*	5500	85.34	-	-	76.31	32	13.81	36.78	219	360	A	H
		5414.64	51.8	-22.2	74	42.83	31.93	13.79	36.75	150	4	P	V
		5447.92	40.18	-13.82	54	31.18	31.96	13.8	36.76	150	4	A	V
	*	5500	97.09	-	-	88.06	32	13.81	36.78	150	4	P	V
	*	5500	88.06	-	-	79.03	32	13.81	36.78	150	4	A	V
802.11ac VHT20 CH 116 5580MHz		5449.2	50.58	-23.42	74	41.58	31.96	13.8	36.76	150	125	P	H
		5353.52	39.34	-14.66	54	30.41	31.88	13.77	36.72	150	125	A	H
	*	5580	95.16	-	-	85.84	32.11	13.98	36.77	150	125	P	H
	*	5580	85.67	-	-	76.35	32.11	13.98	36.77	150	125	A	H
		5755.88	51.38	-22.62	74	41.42	32.41	14.31	36.76	150	125	P	H
		5740.6	40.4	-13.6	54	30.46	32.39	14.31	36.76	150	125	A	H
		5436.56	50.93	-23.07	74	41.94	31.95	13.79	36.75	154	2	P	V
		5415.28	39.58	-14.42	54	30.61	31.93	13.79	36.75	154	2	A	V
	*	5580	97.32	-	-	88	32.11	13.98	36.77	154	2	P	V
	*	5580	88.63	-	-	79.31	32.11	13.98	36.77	154	2	A	V
		5759.32	52.1	-21.9	74	42.14	32.41	14.31	36.76	154	2	P	V
		5733.32	40.66	-13.34	54	30.75	32.36	14.31	36.76	154	2	A	V



<b>802.11ac</b> <b>VHT20</b> <b>CH 140</b> <b>5700MHz</b>	*	5700	98.23	-	-	88.46	32.3	14.23	36.76	150	125	P	H
	*	5700	89.11	-	-	79.34	32.3	14.23	36.76	150	125	A	H
		5751.72	52.17	-21.83	74	42.21	32.41	14.31	36.76	150	125	P	H
		5751.64	41.38	-12.62	54	31.42	32.41	14.31	36.76	150	125	A	H
	*	5700	97.52	-	-	87.75	32.3	14.23	36.76	154	2	P	V
	*	5700	88.13	-	-	78.36	32.3	14.23	36.76	154	2	A	V
		5736.2	52.13	-21.87	74	42.19	32.39	14.31	36.76	154	2	P	V
		5751.56	41	-13	54	31.04	32.41	14.31	36.76	154	2	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 15E band 3 - 5470~5725MHz

## WIFI 802.11ac VHT20 (Harmonic @ 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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	(dBμV)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11ac		11000	49.29	-24.71	74	44.22	39.5	21.17	55.6	163	230	P	H
VHT20		16500	40.31	-33.69	74	30.25	38.47	25.16	53.57	178	296	P	H
CH 100		11000	48.85	-25.15	74	43.78	39.5	21.17	55.6	163	230	P	V
5500MHz		16500	38.62	-35.38	74	28.56	38.47	25.16	53.57	178	296	P	V
802.11ac		11160	48.93	-25.07	74	43.32	39.35	22	55.74	170	200	P	H
VHT20		16740	40.86	-33.14	74	30.37	39.11	25.32	53.94	156	350	P	H
CH 116		11160	49.24	-24.76	74	43.63	39.35	22	55.74	170	200	P	V
5580MHz		16740	40.56	-33.44	74	30.07	39.11	25.32	53.94	156	350	P	V
802.11ac		11400	49.06	-24.94	74	43.4	39.13	22.47	55.94	150	285	P	H
VHT20		17100	42.76	-31.24	74	31.63	40.48	25.46	54.81	165	246	P	H
CH 140		11400	50.07	-23.93	74	44.41	39.13	22.47	55.94	150	285	P	V
5700MHz		17100	42.91	-31.09	74	31.78	40.48	25.46	54.81	165	246	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 3 - 5470~5725MHz**  
**WIFI 802.11ac VHT40 (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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
<b>802.11ac</b> <b>VHT40</b> <b>CH 102</b> <b>5510MHz</b>		5424.4	51.37	-22.63	74	42.4	31.93	13.79	36.75	206	167	P	H
		5421.04	38.39	-15.61	54	29.42	31.93	13.79	36.75	206	167	A	H
	*	5510	95.24	-	-	86.21	32	13.81	36.78	206	167	P	H
	*	5510	85.52	-	-	76.49	32	13.81	36.78	206	167	A	H
		5752.52	51.53	-22.47	74	41.57	32.41	14.31	36.76	206	167	P	H
		5750.04	38.95	-15.05	54	29.01	32.39	14.31	36.76	206	167	A	H
		5468.88	51.2	-22.8	74	42.2	31.97	13.8	36.77	174	316	P	V
		5405.68	38.92	-15.08	54	29.96	31.92	13.78	36.74	174	316	A	V
	*	5510	96.68	-	-	87.65	32	13.81	36.78	174	316	P	V
	*	5510	87.54	-	-	78.51	32	13.81	36.78	174	316	A	V
		5764.2	51.79	-22.21	74	41.83	32.41	14.31	36.76	174	316	P	V
		5752.12	38.82	-15.18	54	28.86	32.41	14.31	36.76	174	316	A	V
<b>802.11ac</b> <b>VHT40</b> <b>CH 110</b> <b>5550MHz</b>		5400.56	51.08	-22.92	74	42.12	31.92	13.78	36.74	192	247	P	H
		5445.04	38.39	-15.61	54	29.4	31.95	13.79	36.75	192	247	A	H
	*	5550	94.88	-	-	85.69	32.08	13.89	36.78	192	247	P	H
	*	5550	85.15	-	-	75.96	32.08	13.89	36.78	192	247	A	H
		5763.72	51.47	-22.53	74	41.51	32.41	14.31	36.76	192	247	P	H
		5751.4	39.25	-14.75	54	29.31	32.39	14.31	36.76	192	247	A	H
		5446.96	50.78	-23.22	74	41.78	31.96	13.8	36.76	156	311	P	V
		5445.68	38.52	-15.48	54	29.53	31.96	13.79	36.76	156	311	A	V
	*	5550	96.56	-	-	87.37	32.08	13.89	36.78	156	311	P	V
	*	5550	87.56	-	-	78.37	32.08	13.89	36.78	156	311	A	V
		5754.36	51.71	-22.29	74	41.75	32.41	14.31	36.76	156	311	P	V
		5750.6	38.9	-15.1	54	28.96	32.39	14.31	36.76	156	311	A	V



<b>802.11ac</b> <b>VHT40</b> <b>CH 134</b> <b>5670MHz</b>		5459.28	50.64	-23.36	74	41.64	31.96	13.8	36.76	173	261	P	H
		5442.48	38.41	-15.59	54	29.42	31.95	13.79	36.75	173	261	A	H
	*	5670	96.14	-	-	86.49	32.28	14.14	36.77	173	261	P	H
	*	5670	87.96	-	-	78.31	32.28	14.14	36.77	173	261	A	H
		5753.56	51.68	-22.32	74	41.72	32.41	14.31	36.76	173	261	P	H
		5760.44	38.9	-15.1	54	28.94	32.41	14.31	36.76	173	261	A	H
		5386.96	50.57	-23.43	74	41.61	31.91	13.78	36.73	244	330	P	V
		5396.88	38.27	-15.73	54	29.31	31.92	13.78	36.74	244	330	A	V
	*	5670	96.86	-	-	87.21	32.28	14.14	36.77	244	330	P	V
	*	5670	86.63	-	-	76.98	32.28	14.14	36.77	244	330	A	V
		5739.32	51.47	-22.53	74	41.53	32.39	14.31	36.76	244	330	P	V
		5750.6	39.04	-14.96	54	29.1	32.39	14.31	36.76	244	330	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 15E band 3 - 5470~5725MHz

## WIFI 802.11ac VHT40 (Harmonic @ 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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11ac		11020	49.63	-24.37	74	44.38	39.48	21.38	55.61	163	230	P	H
VHT40		16530	41.75	-32.25	74	31.62	38.56	25.19	53.62	178	296	P	H
CH 102		11020	48.61	-25.39	74	43.36	39.48	21.38	55.61	163	230	P	V
5510MHz		16530	42.12	-31.88	74	31.99	38.56	25.19	53.62	178	296	P	V
802.11ac		11100	48.62	-25.38	74	43.11	39.41	21.79	55.69	163	230	P	H
VHT40		16650	41.34	-32.66	74	31	38.88	25.27	53.81	178	296	P	H
CH 110		11100	47.23	-26.77	74	41.72	39.41	21.79	55.69	163	230	P	V
5550MHz		16650	39.08	-34.92	74	28.74	38.88	25.27	53.81	178	296	P	V
802.11ac		11340	49.06	-24.94	74	43.24	39.19	22.52	55.89	170	200	P	H
VHT40		17010	43.06	-30.94	74	32.08	39.91	25.48	54.41	156	350	P	H
CH 134		11340	49.96	-24.04	74	44.14	39.19	22.52	55.89	170	200	P	V
5670MHz		17010	46.67	-27.33	74	35.69	39.91	25.48	54.41	156	350	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 3 5470~5725MHz**  
**WIFI 802.11ac VHT80 (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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	(dBμV)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
<b>802.11ac</b> <b>VHT80</b> <b>CH 106</b> <b>5530MHz</b>		5469.04	52.17	-21.83	74	43.17	31.97	13.8	36.77	244	348	P	H
		5457.04	38.59	-15.41	54	29.59	31.96	13.8	36.76	244	348	A	H
	*	5530	92.92	-	-	83.78	32.03	13.89	36.78	244	348	P	H
	*	5530	82.09	-	-	72.95	32.03	13.89	36.78	244	348	A	H
		5752.84	52.08	-21.92	74	42.12	32.41	14.31	36.76	244	348	P	H
		5759.64	38.75	-15.25	54	28.79	32.41	14.31	36.76	244	348	A	H
		5467.92	52.03	-21.97	74	43.03	31.97	13.8	36.77	222	48	P	V
		5467.92	38.59	-15.41	54	29.59	31.97	13.8	36.77	222	48	A	V
	*	5530	92.62	-	-	83.48	32.03	13.89	36.78	222	48	P	V
	*	5530	81.96	-	-	72.82	32.03	13.89	36.78	222	48	A	V
		5754.84	51.46	-22.54	74	41.5	32.41	14.31	36.76	222	48	P	V
		5742.92	38.93	-15.07	54	28.99	32.39	14.31	36.76	222	48	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												





## 15E band 3 5470~5725MHz

## WIFI 802.11ac VHT80 (Harmonic @ 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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	(dBμV)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11ac		10660	45.6	-28.4	74	42.3	39.03	20.53	56.26	250	360	P	H
VHT80		16590	41.57	-32.43	74	31.36	38.7	25.21	53.7	250	0	P	H
CH 106		11060	47.32	-26.68	74	41.96	39.44	21.58	55.66	250	360	P	V
5530MHz		16590	40.66	-33.34	74	30.45	38.7	25.21	53.7	250	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 15E Emission below 1GHz

## WIFI 802.11n HT40 (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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	(dBμV)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11n HT40 LF		30	18.73	-21.27	40	28.4	19.6	1.22	30.49	-	-	P	H
		56.19	18.58	-21.42	40	38.4	9.06	1.68	30.56	-	-	P	H
		108.57	30.06	-13.44	43.5	45.62	12.94	2.01	30.51	136	256	P	H
		294.81	18.98	-27.02	46	32.06	13.93	3.28	30.29	-	-	P	H
		616.85	24.29	-21.71	46	29.55	19.8	4.69	29.75	-	-	P	H
		971.87	29.86	-24.14	54	31.69	21.31	5.97	29.11	-	-	P	H
		38.73	19.16	-20.84	40	34.69	15.01	1.22	31.76	-	-	P	V
		56.19	20.09	-19.91	40	41.06	9.06	1.68	31.71	-	-	P	V
		100.81	31.53	-11.97	43.5	49.26	11.84	2.01	31.58	159	240	P	V
		392.78	18.96	-27.04	46	31.23	15.31	3.67	31.25	-	-	P	V
		743.92	25.07	-20.93	46	29.91	21.26	5.13	31.23	-	-	P	V
		953.44	27.93	-18.07	46	31.99	21.39	5.82	31.27	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

**Note symbol**

*	<b>Fundamental Frequency</b> which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency per 15.209(c).
!	Test result is <b>over limit</b> line.
P/A	<b>P</b> eak or <b>A</b> verage
H/V	<b>H</b> orizontal or <b>V</b> ertical



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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
802.11b		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”.