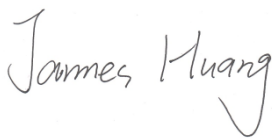


# FCC RF Test Report

**APPLICANT** : Bullitt Group  
**EQUIPMENT** : Smartphone  
**BRAND NAME** : KODAK  
**MODEL NAME** : EKTRA  
**MARKETING NAME** : KODAK EKTRA Smartphone  
**FCC ID** : ZL5EKTRA  
**STANDARD** : FCC Part 15 Subpart E §15.407  
**CLASSIFICATION** : (NII) Unlicensed National Information Infrastructure

The product was received on Mar. 07, 2017 and testing was completed on Apr. 13, 2017. We, Sporton International (KunShan) 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 (KunShan) INC., the test report shall not be reproduced except in full.



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Prepared by: James Huang / Manager



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Approved by: Jones Tsai / Manager



**Sporton International (KunShan) INC.**

**No.3-2, Pingxiang Road, Kunshan Development Zone, Jiangsu, China**



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## REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR730704E	Rev. 01	Initial issue of report	Apr. 14, 2017

## SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	2.1049 15.403(i)	26dB & 99% Bandwidth	-	Pass	-
3.2	15.407(a)	Maximum Conducted Output Power	FCC ≤ 24 dBm (depend on band)	Pass	-
3.3	15.407(a)	Power Spectral Density	FCC ≤ 11 dBm (depend on band)	Pass	-
3.4	15.407(b)	Unwanted Emissions	15.407(b) 15.209(a)	Pass	Under limit 3.10 dB at 5469.760 MHz
3.5	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 11.69 dB at 0.567 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

**Bullitt Group**

One Valpy, Valpy Street, Reading, Berkshire, RG1 1AR, UK

## 1.2 Manufacturer

**Shanghai Sunrise Simcom Limited**

No. 888, Shengli Rd., Qingpu, Shanghai, P.R.China 201700

## 1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Smartphone
Brand Name	KODAK
Model Name	EKTRA
Marketing Name	KODAK EKTRA Smartphone
FCC ID	ZL5EKTRA
EUT supports Radios application	GSM/GPRS/EGPRS/WCDMA/HSPA/ DC-HSDPA/HSPA+/LTE/NFC WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth v3.0 + EDR/Bluetooth v4.0 LE/Bluetooth v4.1 LE
IMEI Code	Conducted: 357682080001005 Conduction: 357682080000874 Radiation: NA
EUT Stage	Identical Prototype

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

## 1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
<b>Tx/Rx Frequency Range</b>	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5720 MHz
<b>Maximum Output Power to Antenna</b>	<b>&lt;5180 MHz ~ 5240 MHz&gt;</b> 802.11a : 12.19 dBm / 0.0166 W 802.11n HT20 : 12.18 dBm / 0.0165 W 802.11n HT40 : 12.31 dBm / 0.0170 W 802.11ac VHT80 : 8.69 dBm / 0.0074 W <b>&lt;5260 MHz ~ 5320 MHz&gt;</b> 802.11a : 12.10 dBm / 0.0162 W 802.11n HT20 : 12.08 dBm / 0.0161 W 802.11n HT40 : 9.70 dBm / 0.0093 W 802.11ac VHT80 : 4.94 dBm / 0.0031 W <b>&lt;5500 MHz ~ 5720 MHz &gt;</b> 802.11a : 12.32 dBm / 0.0171 W 802.11n HT20 : 12.24 dBm / 0.0167 W 802.11n HT40 : 10.92 dBm / 0.0124 W 802.11ac VHT80 : 4.62 dBm / 0.0029 W
<b>Maximum Output Power to Antenna for Straddle Channel</b>	802.11a : 11.32 dBm / 0.0136 W 802.11n HT20 : 11.47 dBm / 0.0140 W 802.11n HT40 : 11.31 dBm / 0.0135 W 802.11ac VHT80 : 11.52 dBm / 0.0142 W
<b>99% Occupied Bandwidth</b>	<b>&lt;5180 MHz ~ 5240 MHz&gt;</b> 802.11a : 17.73 MHz 802.11n HT20 : 18.48 MHz 802.11n HT40 : 36.36 MHz 802.11ac VHT80 : 75.52 MHz <b>&lt;5260 MHz ~ 5320 MHz&gt;</b> 802.11a : 17.98 MHz 802.11n HT20 : 18.48 MHz 802.11n HT40 : 36.16 MHz 802.11ac VHT80 : 75.64 MHz <b>&lt;5500 MHz ~ 5720 MHz &gt;</b> 802.11a : 17.98 MHz 802.11n HT20 : 18.28 MHz 802.11n HT40 : 36.16 MHz 802.11ac VHT80 : 75.64 MHz
<b>99% Occupied Bandwidth for Straddle Channel</b>	802.11a : 17.93 MHz 802.11n HT20 : 18.28 MHz 802.11n HT40 : 36.36 MHz 802.11ac VHT80 : 75.52 MHz
<b>Antenna Type / Gain</b>	<b>&lt;5180 MHz ~ 5240 MHz &gt;</b> PIFA Antenna with gain -4.1 dBi <b>&lt;5260 MHz ~ 5320 MHz &gt;</b> PIFA Antenna with gain -3.5 dBi <b>&lt;5500 MHz ~ 5720 MHz &gt;</b> PIFA Antenna with gain -0.5 dBi
<b>Type of Modulation</b>	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)



**Note:**

1. WLAN operation in 5600 MHz ~ 5650 MHz is notched.
2. For 802.11n HT20 / ac VHT20 and 802.11n HT40 / ac VHT40 mode, the whole testing have assessed only 802.11n HT20/ HT40 by referring to their maximum conducted power.

## **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 (KunShan) INC.	
<b>Test Site Location</b>	No.3-2, Pingxiang Road, Kunshan Development Zone, Jiangsu, China TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958	
<b>Test Site No.</b>	<b>Sporton Site No.</b>	
	TH01-KS	CO01-KS

<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>
	03CH03-SZ	565805

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

## 1.7 Applicable Standards

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

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

### Remark:

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



## 2 Test Configuration of Equipment Under Test

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

### 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
	38*	5190	46*	5230
	40	5200	48	5240
	42 <sup>#</sup>	5210	-	-

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

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5500-5720 MHz Band 3 (U-NII-2C)	100	5500	112	5560
	102*	5510	116	5580
	104	5520	132	5660
	106 <sup>#</sup>	5530	134*	5670
	108	5540	136	5680
	110*	5550	140	5700

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
Straddle Channel	138 <sup>#</sup>	5690	144	5720
	142*	5710	-	-

**Note:**

1. The above Frequency and Channel in "\*" were 802.11n HT40 and 802.11ac VHT40.
2. The above Frequency and Channel in "<sup>#</sup>" were 802.11ac VHT80.

## 2.2 Test Mode

Final test mode of conducted test items and radiated spurious emissions are considering the modulation and worse data rates 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 VHT80	MCS0

AC Conducted Emission	Mode 1 : GSM850 Idle + Bluetooth Link + WLAN Link (5G) + USB Cable (Charging from Adapter 1) + Earphone
<b>Remark:</b> 1. 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 : 5500-5720MHz
		802.11a	802.11a	802.11a
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

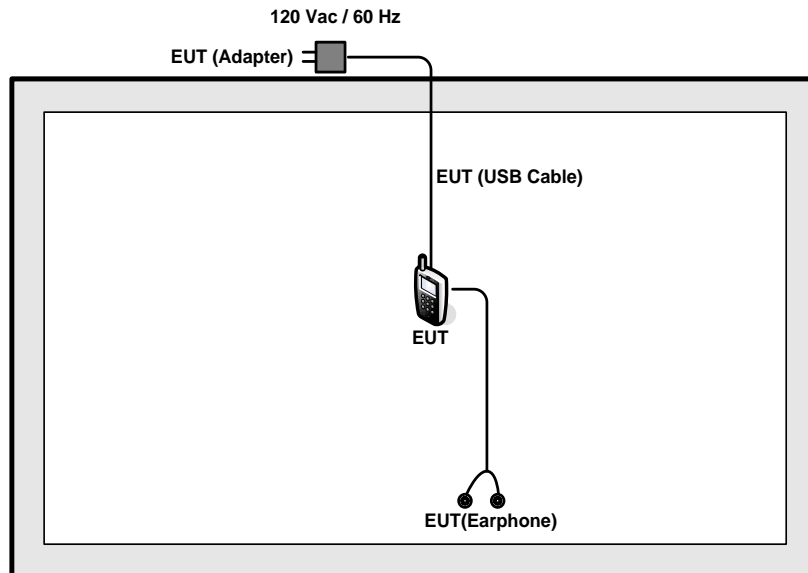
Ch. #		Band I : 5180-5240 MHz	Band II : 5260-5320 MHz	Band III : 5500-5720MHz
		802.11n HT20	802.11n HT20	802.11n HT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

Ch. #		Band I : 5180-5240 MHz	Band II : 5260-5320 MHz	Band III : 5500-5720MHz
		802.11n HT40	802.11n HT40	802.11n HT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134
Straddle		-	-	142

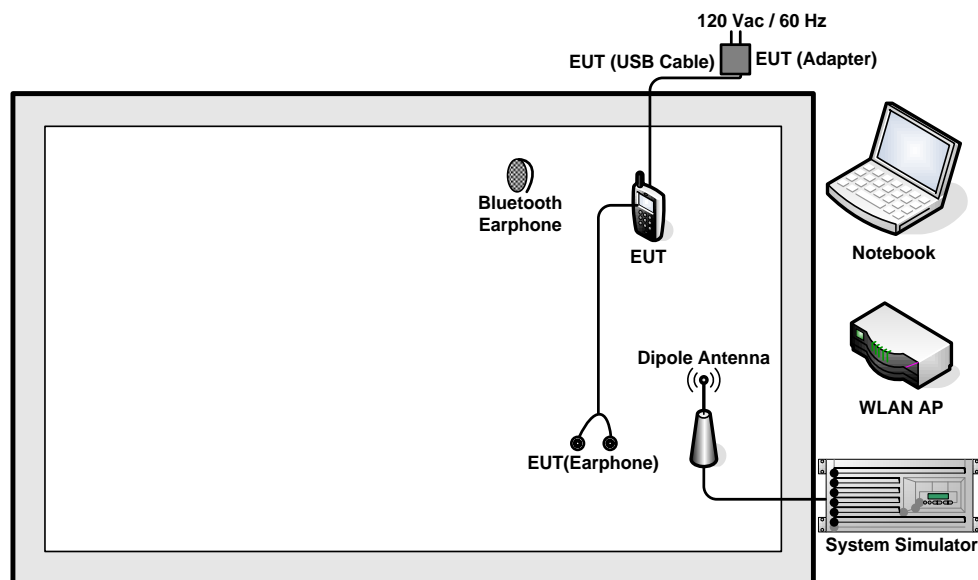
Ch. #		Band I : 5180-5240 MHz	Band II : 5260-5320 MHz	Band III : 5500-5720MHz
		802.11ac VHT80	802.11ac VHT80	802.11ac VHT80
L	Low	-	-	-
M	Middle	42	58	106
H	High	-	-	-
Straddle		-	-	138

## 2.3 Connection Diagram of Test System

### <WLAN Tx Mode>



### <AC Conducted Emission Mode>



## 2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
2.	WLAN AP	LINKSYS	WRT600N	Q87-WRT600NV11	N/A	Unshielded, 1.8 m
3.	Notebook	Lenovo	G480	N/A	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
4.	Bluetooth Earphone	Lenovo	LBH308	N/A	N/A	N/A

## 2.5 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 Notebook under large package sizes transmission.



## 2.6 Measurement Results Explanation Example

**For all conducted test items:**

The offset level is set in the spectrum analyzer to compensate the RF cable loss 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.

Offset = RF cable loss.

Following shows an offset computation example with cable loss 6.9 dB.

Offset (dB) = RF cable loss(dB).  
= 6.9 (dB)

### 3 Test Result

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

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

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

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

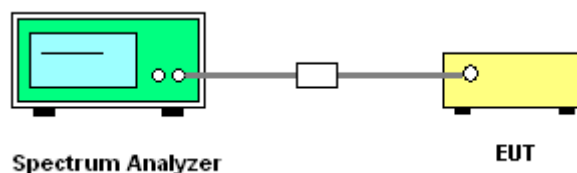
##### 3.1.2 Measuring Instruments

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

##### 3.1.3 Test Procedures

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

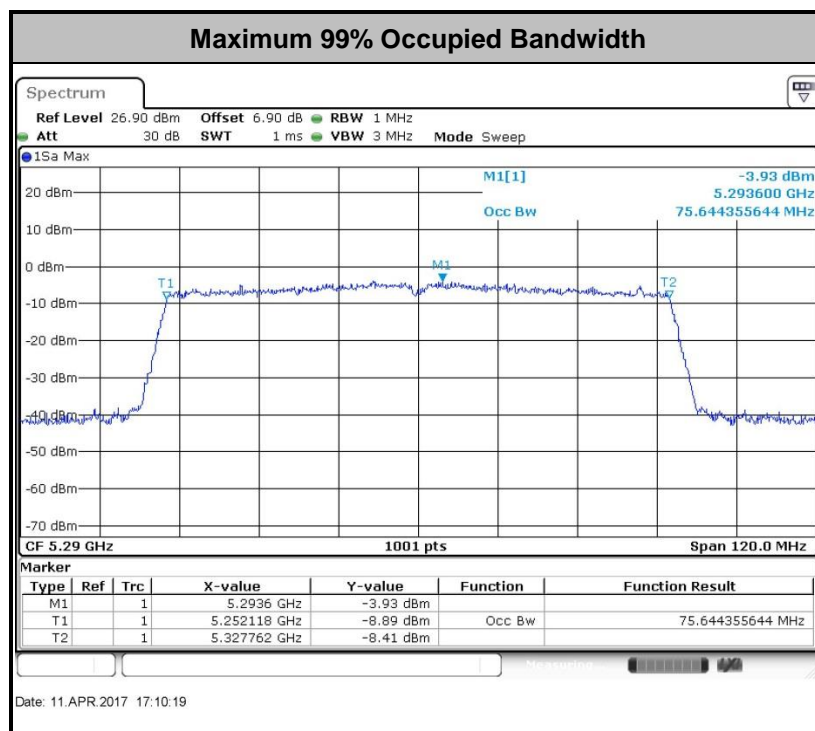
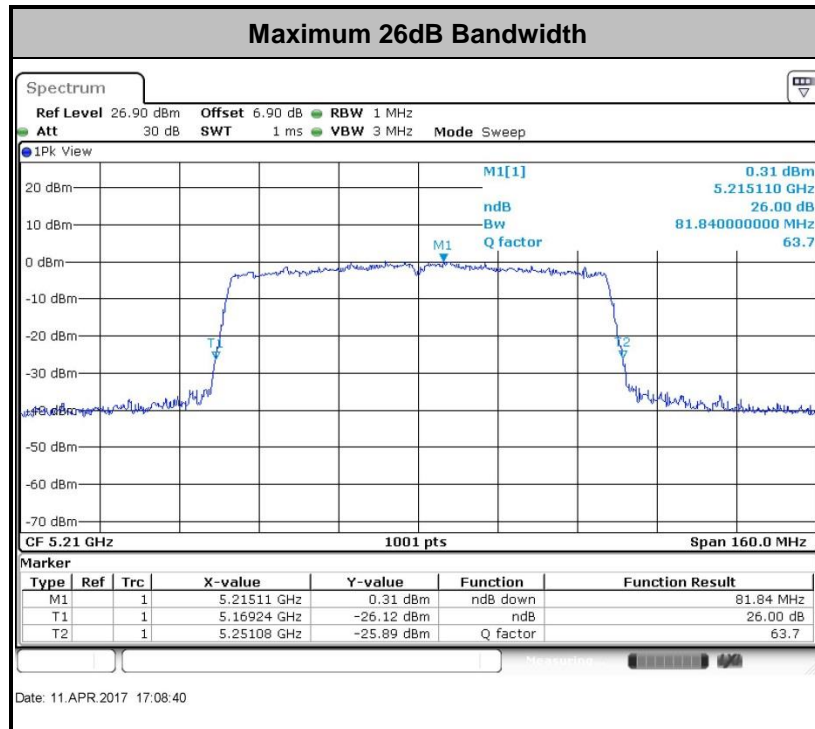
##### 3.1.4 Test Setup





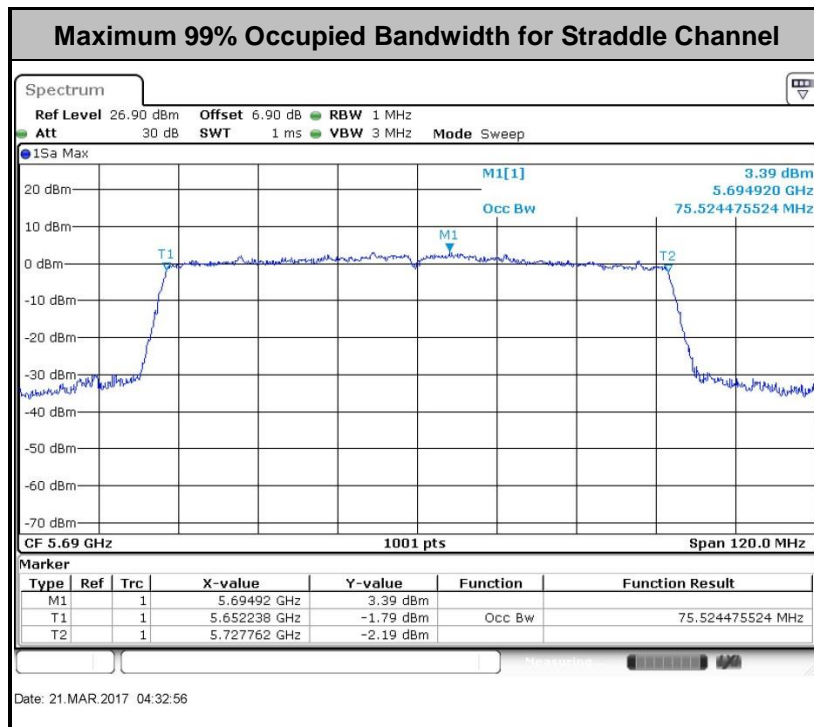
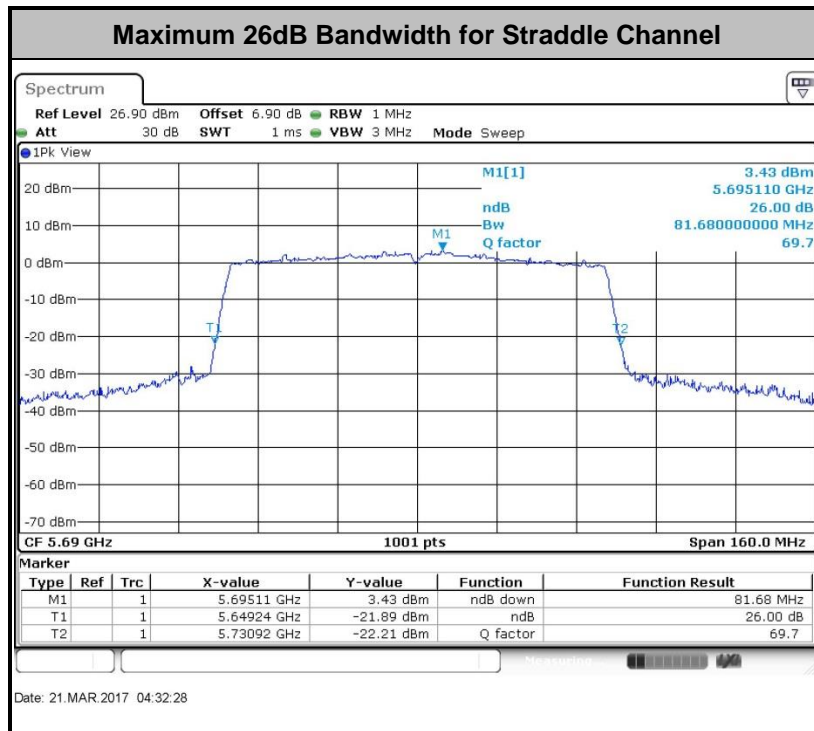
### 3.1.5 Test Result of 26dB & 99% Occupied Bandwidth Plots

Please refer to Appendix A.



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





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



## **3.2 Maximum Conducted Output Power Measurement**

### **3.2.1 Limit of Maximum Conducted Output Power**

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

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

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

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

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

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

### **3.2.2 Measuring Instruments**

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

### 3.2.3 Test Procedures

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

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

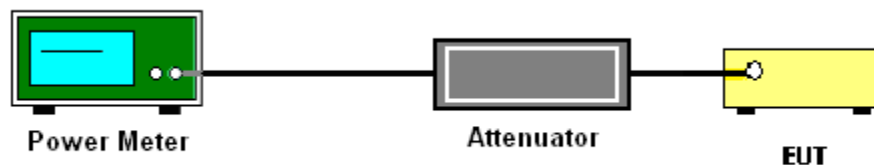
1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit continuously with a consistent duty cycle at its maximum power control level.
3. Measure the average power of the transmitter, and the average power is corrected with duty factor,  $10 \log(1/x)$ , where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

For straddle channel, the testing follows Method SA-3 (RMS detection with max hold) of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r03.

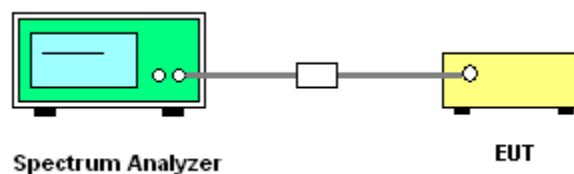
Compute power by integrating the spectrum across the 99% occupied bandwidth of the signal using the instrument's band power measurement function.

### 3.2.4 Test Setup

For normal channel:



For straddle channel:





### 3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.

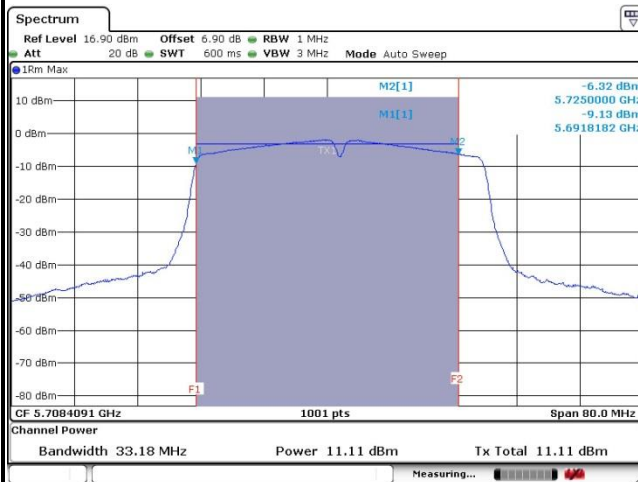




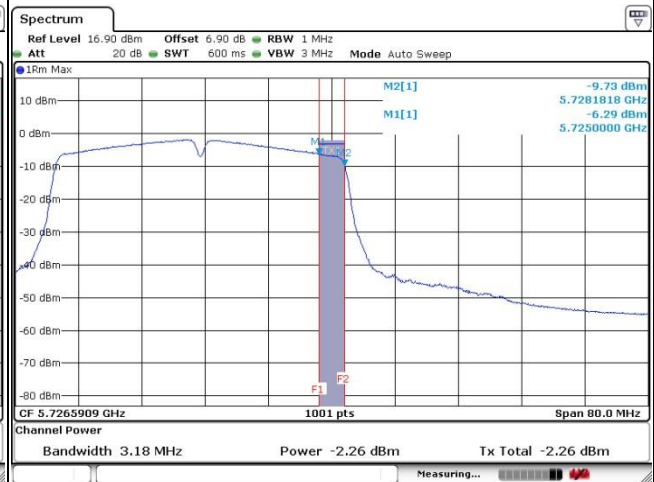
## Maximum Straddle Channel Power

## 802.11n-HT40

## NII-2C Band

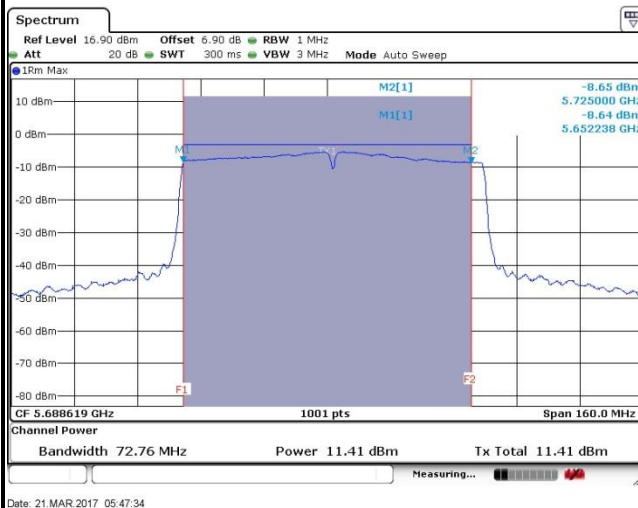


## NII-3 Band

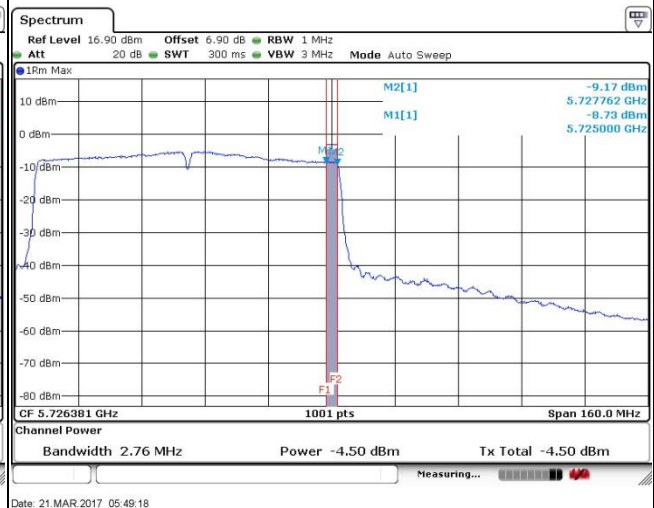


## 802.11ac VHT80

## NII-2C Band



## NII-3 Band





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

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

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

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

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

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

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

#### **3.3.2 Measuring Instruments**

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

### 3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r03.

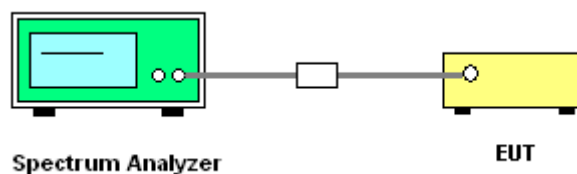
Section F) Maximum power spectral density.

#### # Method SA-2 #

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

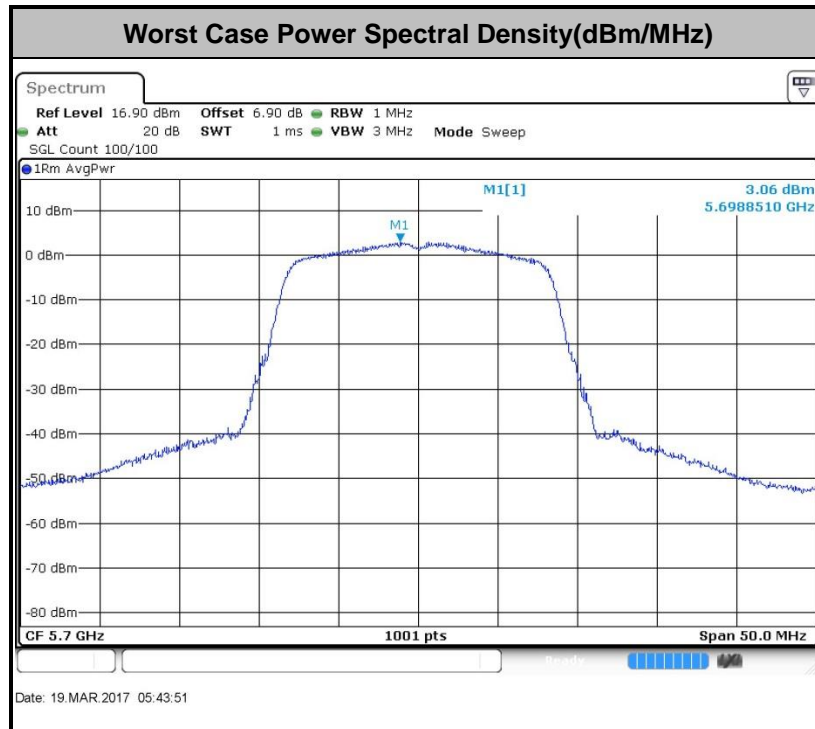
1. The testing follows Method SA-2 of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r03.
  - Measure the duty cycle.
  - Set span to encompass the entire emission bandwidth (EBW) of the signal.
  - Set RBW = 1 MHz.
  - Set VBW  $\geq$  3 MHz.
  - Number of points in sweep  $\geq$  2 Span / 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 Part 15.205.

#### 3.4.1 Limit of Unwanted Emissions

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

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

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

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

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

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

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

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

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

### 3.4.2 Measuring Instruments

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

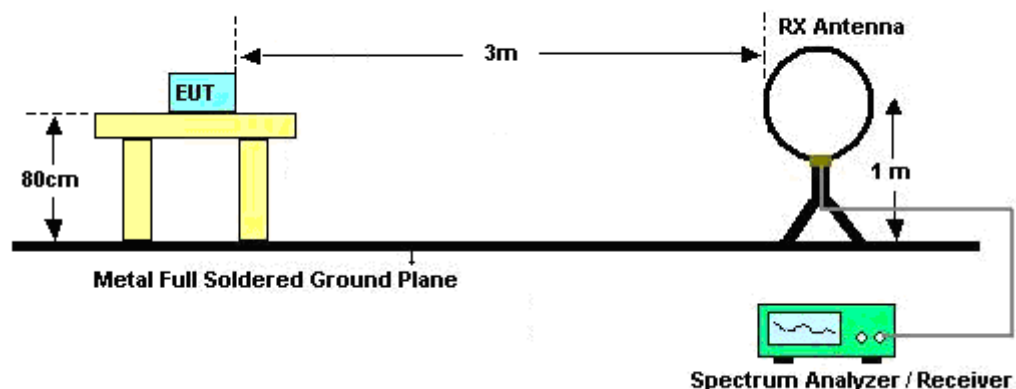
### 3.4.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r03. Section G) Unwanted emissions measurement.
  - (1) Procedure for Unwanted Emissions Measurements Below 1000MHz
    - RBW = 120 kHz
    - VBW = 300 kHz
    - Detector = Peak
    - Trace mode = max hold
  - (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
    - RBW = 1 MHz
    - VBW  $\geq$  3 MHz
    - Detector = Peak
    - Sweep time = auto
    - Trace mode = max hold
  - (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz
    - RBW = 1 MHz
    - VBW = 10 Hz, when duty cycle is no less than 98 percent.
    - VBW  $\geq$  1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

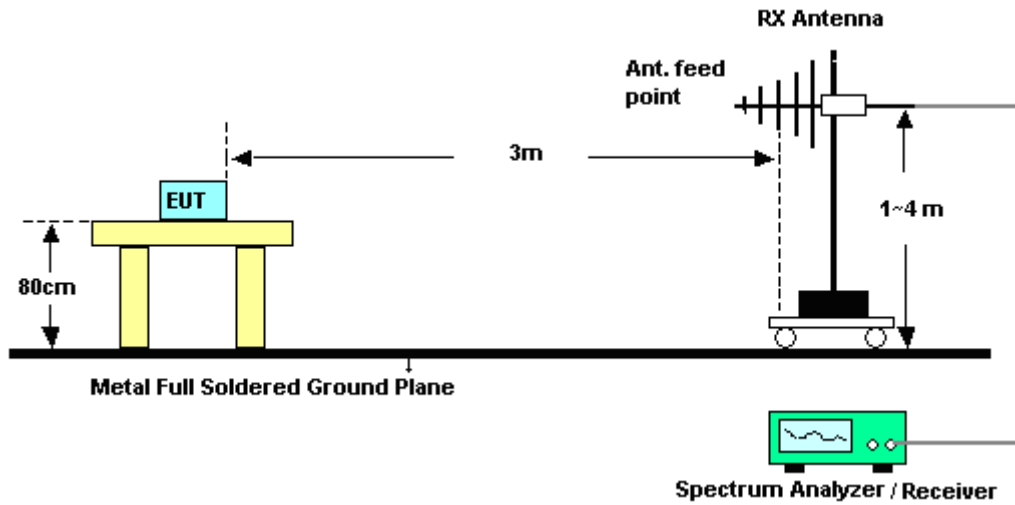
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband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

### 3.4.4 Test Setup

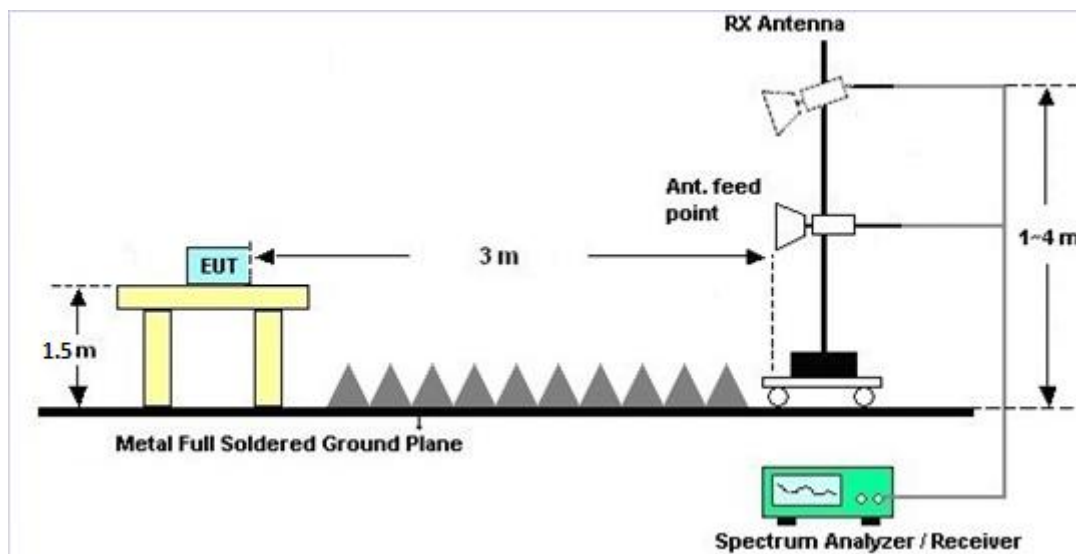
**For radiated emissions below 30MHz**



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz





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

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

### **3.4.6 Test Result of Radiated Spurious at Band Edges**

Please refer to Appendix B.

### **3.4.7 Duty Cycle**

Please refer to Appendix C.

### **3.4.8 Test Result of Radiated Spurious Emissions (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.

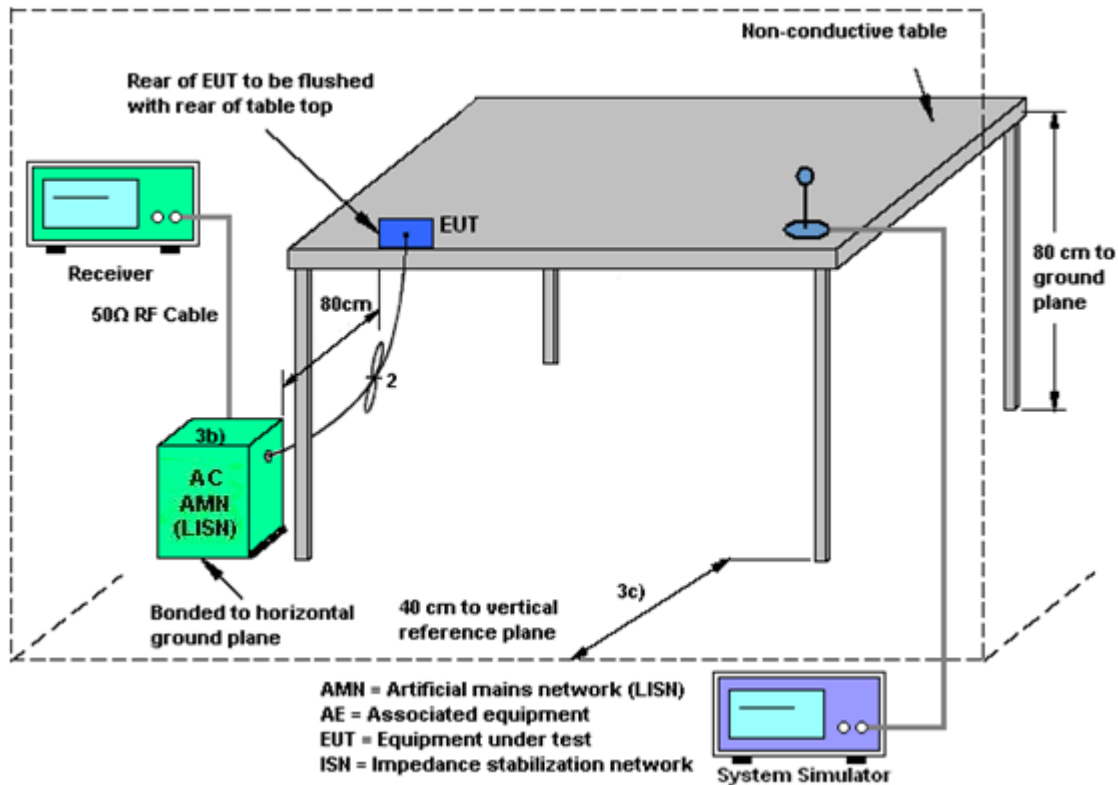
#### 3.5.2 Measuring Instruments

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.

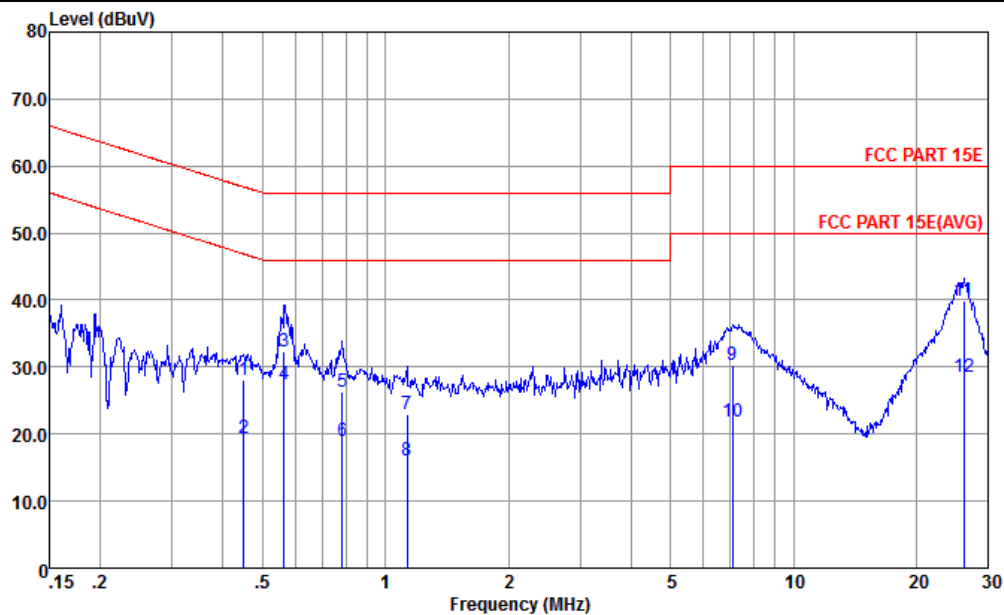
### 3.5.4 Test Setup





## 3.5.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	22~24℃
Test Engineer :	Amos Zhang	Relative Humidity :	42~46%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM850 Idle + Bluetooth Link + WLAN Link (5G) + USB Cable (Charging from Adapter 1) + Earphone		



Site : CO01-KS  
Condition : FCC PART 15E LISN-L-20151024 LINE

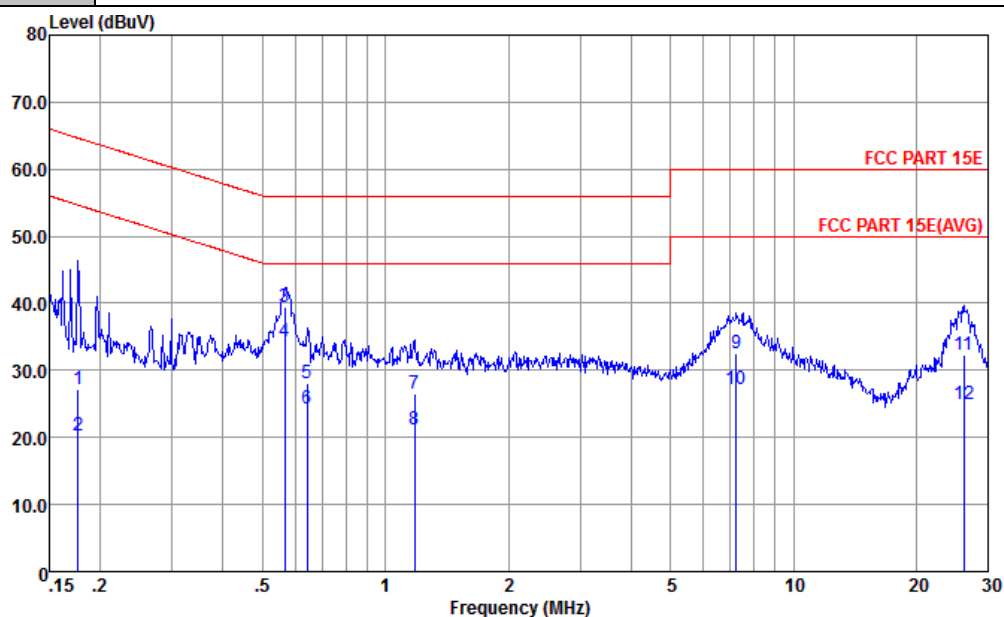
mode : Mode 1  
IMEI : 357682080000874

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.449	28.02	-28.87	56.89	17.60	0.23	10.19	QP
2	0.449	19.32	-27.57	46.89	8.90	0.23	10.19	Average
3	0.564	32.32	-23.68	56.00	21.91	0.23	10.18	QP
4 *	0.564	27.32	-18.68	46.00	16.91	0.23	10.18	Average
5	0.783	26.32	-29.68	56.00	15.91	0.24	10.17	QP
6	0.783	19.02	-26.98	46.00	8.61	0.24	10.17	Average
7	1.129	23.03	-32.97	56.00	12.60	0.24	10.19	QP
8	1.129	16.03	-29.97	46.00	5.60	0.24	10.19	Average
9	7.100	30.42	-29.58	60.00	19.90	0.23	10.29	QP
10	7.100	21.82	-28.18	50.00	11.30	0.23	10.29	Average
11	26.139	39.89	-20.11	60.00	28.90	0.22	10.77	QP
12	26.139	28.59	-21.41	50.00	17.60	0.22	10.77	Average





<b>Test Mode :</b>	Mode 1	<b>Temperature :</b>	22~24℃
<b>Test Engineer :</b>	Amos Zhang	<b>Relative Humidity :</b>	42~46%
<b>Test Voltage :</b>	120Vac / 60Hz	<b>Phase :</b>	Neutral
<b>Function Type :</b>	GSM850 Idle + Bluetooth Link + WLAN Link (5G) + USB Cable (Charging from Adapter 1) + Earphone		



Site : CO01-KS  
Condition : FCC PART 15E LISN-N-20151024 NEUTRAL

mode : Mode 1  
IMEI : 357682080000874

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.177	27.26	-37.38	64.64	16.59	0.31	10.36	QP
2	0.177	20.26	-34.38	54.64	9.59	0.31	10.36	Average
3	0.567	39.41	-16.59	56.00	28.90	0.33	10.18	QP
4 *	0.567	34.31	-11.69	46.00	23.80	0.33	10.18	Average
5	0.644	28.11	-27.89	56.00	17.60	0.33	10.18	QP
6	0.644	24.31	-21.69	46.00	13.80	0.33	10.18	Average
7	1.178	26.46	-29.54	56.00	15.90	0.37	10.19	QP
8	1.178	21.16	-24.84	46.00	10.60	0.37	10.19	Average
9	7.252	32.48	-27.52	60.00	21.90	0.29	10.29	QP
10	7.252	27.18	-22.82	50.00	16.60	0.29	10.29	Average
11	26.139	32.21	-27.79	60.00	21.20	0.24	10.77	QP
12	26.139	24.91	-25.09	50.00	13.90	0.24	10.77	Average

## 3.6 Frequency Stability Measurement

### 3.6.1 Limit of Frequency Stability

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

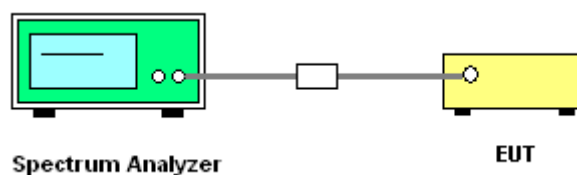
### 3.6.2 Measuring Instruments

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

### 3.6.3 Test Procedures

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

### 3.6.4 Test Setup



### 3.6.5 Test Result of Frequency Stability

Please refer to Appendix A.



## **3.7 Automatically Discontinue Transmission**

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

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

### **3.7.2 Measuring Instruments**

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

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

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



## **3.8 Antenna Requirements**

### **3.8.1 Standard Applicable**

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

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

An embedded-in antenna design is used.

### **3.8.3 Antenna Gain**

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



## 4 List of Measuring Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Aug. 09, 2016	Mar. 16, 2017~ Apr. 11, 2017	Aug. 08, 2017	Conducted (TH01-KS)
Pulse Power Sensor	Anritsu	MA2411B	0917070	300MHz~40GHz	Jan. 19, 2017	Mar. 16, 2017~ Apr. 11, 2017	Jan. 18, 2018	Conducted (TH01-KS)
Power Meter	Anritsu	ML2495A	1005002	50MHz Bandwidth	Jan. 19, 2017	Mar. 16, 2017~ Apr. 11, 2017	Jan. 18, 2018	Conducted (TH01-KS)
Thermal Chamber	Ten Billion	TTC-B3S	TBN-960502	-40~+150°C	Oct. 13, 2016	Mar. 16, 2017~ Apr. 11, 2017	Oct. 12, 2017	Conducted (TH01-KS)
EMI Test Receiver&SA	KEYSIGHT	N9038A	MY54450083	20Hz~8.4GHz	May 07, 2016	Mar. 16, 2017~ Apr. 13, 2017	May 06, 2017	Radiation (03CH03-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150246	10Hz~44GHz	May 07, 2016	Mar. 16, 2017~ Apr. 13, 2017	May 06, 2017	Radiation (03CH03-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	May 07, 2016	Mar. 16, 2017~ Apr. 13, 2017	May 06, 2017	Radiation (03CH03-SZ)
Bilog Antenna	TeseQ	CBL6112D	35408	30MHz~2GHz	May 21, 2016	Mar. 16, 2017~ Apr. 13, 2017	May 20, 2017	Radiation (03CH03-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1355	1GHz~18GHz	May 07, 2016	Mar. 16, 2017~ Apr. 13, 2017	May 06, 2017	Radiation (03CH03-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18GHz~40GHz	Aug. 10, 2016	Mar. 16, 2017~ Apr. 13, 2017	Aug. 09, 2017	Radiation (03CH03-SZ)
Amplifier	Burgeon	BPA-530	102210	0.01Hz~3000MHz	Oct. 11, 2016	Mar. 16, 2017~ Apr. 13, 2017	Oct. 10, 2017	Radiation (03CH03-SZ)
Amplifier	Agilent Technologies	83017A	MY39501302	500MHz~26.5GHz	Jan. 06, 2017	Mar. 16, 2017~ Apr. 13, 2017	Jan. 05, 2018	Radiation (03CH03-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 16, 2016	Mar. 16, 2017~ Apr. 13, 2017	Jul. 15, 2017	Radiation (03CH03-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	NCR	Mar. 16, 2017~ Apr. 13, 2017	NCR	Radiation (03CH03-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Mar. 16, 2017~ Apr. 13, 2017	NCR	Radiation (03CH03-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Mar. 16, 2017~ Apr. 13, 2017	NCR	Radiation (03CH03-SZ)
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz	Apr. 29, 2016	Apr. 11, 2017	Apr. 28, 2017	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Oct. 13, 2016	Apr. 11, 2017	Oct. 12, 2017	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060105	9kHz~30MHz	Oct. 13, 2016	Apr. 11, 2017	Oct. 12, 2017	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 13, 2016	Apr. 11, 2017	Oct. 12, 2017	Conduction (CO01-KS)

NCR: No Calibration Required

## 5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	2.3dB
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### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.1dB
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### Uncertainty of Radiated Emission Measurement (1GHz ~ 18GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.0dB
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### Uncertainty of Radiated Emission Measurement (18GHz ~ 40GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.0dB
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## **Appendix A. Conducted Test Results**

Report Number : FR730704E

Test Engineer:	Silent Hai	Temperature:	21~25	°C
Test Date:	2017/3/16~2017/4/11	Relative Humidity:	51~55	%



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

Band I										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)		
11a	6Mbps	1	36	5180	17.63	21.13	-	22.46		
11a	6Mbps	1	44	5220	17.63	21.43	-	22.46		
11a	6Mbps	1	48	5240	17.73	21.18	-	22.49		
HT20	MCS0	1	36	5180	18.43	25.18	-	22.66		
HT20	MCS0	1	44	5220	18.48	25.62	-	22.67		
HT20	MCS0	1	48	5240	18.48	25.48	-	22.67		
HT40	MCS0	1	38	5190	36.26	41.27	-	23.01		
HT40	MCS0	1	46	5230	36.36	41.63	-	23.01		
VHT80	MCS0	1	42	5210	75.52	81.84	-	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	0.11	12.19	24.00	-4.10		Pass
11a	6Mbps	1	44	5220	0.11	12.17	24.00	-4.10		Pass
11a	6Mbps	1	48	5240	0.11	12.09	24.00	-4.10		Pass
HT20	MCS0	1	36	5180	0.12	12.18	24.00	-4.10		Pass
HT20	MCS0	1	44	5220	0.12	12.15	24.00	-4.10		Pass
HT20	MCS0	1	48	5240	0.12	12.06	24.00	-4.10		Pass
HT40	MCS0	1	38	5190	0.24	12.31	24.00	-4.10		Pass
HT40	MCS0	1	46	5230	0.24	12.25	24.00	-4.10		Pass
VHT80	MCS0	1	42	5210	0.46	8.69	24.00	-4.10		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	0.11	3.05	11.00	-4.10		Pass
11a	6Mbps	1	44	5220	0.11	2.71	11.00	-4.10		Pass
11a	6Mbps	1	48	5240	0.11	2.83	11.00	-4.10		Pass
HT20	MCS0	1	36	5180	0.12	2.28	11.00	-4.10		Pass
HT20	MCS0	1	44	5220	0.12	2.60	11.00	-4.10		Pass
HT20	MCS0	1	48	5240	0.12	2.75	11.00	-4.10		Pass
HT40	MCS0	1	38	5190	0.24	-0.56	11.00	-4.10		Pass
HT40	MCS0	1	46	5230	0.24	-1.09	11.00	-4.10		Pass
VHT80	MCS0	1	42	5210	0.46	-7.96	11.00	-4.10		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	17.98	21.28	23.55	29.55	23.98	
11a	6M bps	1	60	5300	17.88	21.38	23.52	29.52	23.98	
11a	6M bps	1	64	5320	17.98	21.43	23.55	29.55	23.98	
HT20	MCS 0	1	52	5260	18.43	25.52	23.66	29.66	23.98	
HT20	MCS 0	1	60	5300	18.48	25.23	23.67	29.67	23.98	
HT20	MCS 0	1	64	5320	18.48	24.88	23.67	29.67	23.98	
HT40	MCS 0	1	54	5270	36.16	41.45	23.98	30.00	23.98	
HT40	MCS 0	1	62	5310	36.16	41.36	23.98	30.00	23.98	
VHT80	MCS 0	1	58	5290	75.64	81.84	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)	EIRP Power Limit (dBm)	Pass/Fail
11a	6M bps	1	52	5260	0.11	12.10	23.98	-3.50	26.99	Pass
11a	6M bps	1	60	5300	0.11	12.02	23.98	-3.50	26.99	Pass
11a	6M bps	1	64	5320	0.11	11.95	23.98	-3.50	26.99	Pass
HT20	MCS 0	1	52	5260	0.12	12.08	23.98	-3.50	26.99	Pass
HT20	MCS 0	1	60	5300	0.12	11.97	23.98	-3.50	26.99	Pass
HT20	MCS 0	1	64	5320	0.12	11.94	23.98	-3.50	26.99	Pass
HT40	MCS 0	1	54	5270	0.24	9.70	23.98	-3.50	26.99	Pass
HT40	MCS 0	1	62	5310	0.24	9.35	23.98	-3.50	26.99	Pass
VHT80	MCS 0	1	58	5290	0.46	4.94	23.98	-3.50	26.99	Pass

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

Band II										
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)		Pass/Fail
11a	6M bps	1	52	5260	0.11	2.95	11.00	-3.50		Pass
11a	6M bps	1	60	5300	0.11	2.66	11.00	-3.50		Pass
11a	6M bps	1	64	5320	0.11	2.69	11.00	-3.50		Pass
HT20	MCS 0	1	52	5260	0.12	2.69	11.00	-3.50		Pass
HT20	MCS 0	1	60	5300	0.12	2.25	11.00	-3.50		Pass
HT20	MCS 0	1	64	5320	0.12	2.08	11.00	-3.50		Pass
HT40	MCS 0	1	54	5270	0.24	-3.94	11.00	-3.50		Pass
HT40	MCS 0	1	62	5310	0.24	-3.83	11.00	-3.50		Pass
VHT80	MCS 0	1	58	5290	0.46	-11.97	11.00	-3.50		Pass

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

Band III										
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6M bps	1	100	5500	17.98	21.28	23.55	29.55	23.98	
11a	6M bps	1	116	5580	17.88	21.28	23.52	29.52	23.98	
11a	6M bps	1	140	5700	17.93	21.23	23.54	29.54	23.98	
HT20	MCS 0	1	100	5500	18.28	21.33	23.62	29.62	23.98	
HT20	MCS 0	1	116	5580	18.23	21.23	23.61	29.61	23.98	
HT20	MCS 0	1	140	5700	18.23	21.78	23.61	29.61	23.98	
HT40	MCS 0	1	102	5510	36.16	41.54	23.98	30.00	23.98	
HT40	MCS 0	1	110	5550	36.16	41.45	23.98	30.00	23.98	
HT40	MCS 0	1	134	5670	36.06	41.36	23.98	30.00	23.98	
VHT80	MCS 0	1	106	5530	75.64	81.84	23.98	30.00	23.98	

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

FCC Band III										
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail
11a	6M bps	1	100	5500	0.11	12.03	23.98	-0.50	26.99	Pass
11a	6M bps	1	116	5580	0.11	12.02	23.98	-0.50	26.99	Pass
11a	6M bps	1	140	5700	0.11	12.32	23.98	-0.50	26.99	Pass
HT20	MCS 0	1	100	5500	0.12	11.85	23.98	-0.50	26.99	Pass
HT20	MCS 0	1	116	5580	0.12	11.97	23.98	-0.50	26.99	Pass
HT20	MCS 0	1	140	5700	0.12	12.24	23.98	-0.50	26.99	Pass
HT40	MCS 0	1	102	5510	0.24	10.38	23.98	-0.50	26.99	Pass
HT40	MCS 0	1	110	5550	0.24	10.45	23.98	-0.50	26.99	Pass
HT40	MCS 0	1	134	5670	0.24	10.92	23.98	-0.50	26.99	Pass
VHT80	MCS 0	1	106	5530	0.46	4.62	23.98	-0.50	26.99	Pass



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

Band III										
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)		Pass/Fail
11a	6M bps	1	100	5500	0.11	2.51	11.00	-0.50		Pass
11a	6M bps	1	116	5580	0.11	2.41	11.00	-0.50		Pass
11a	6M bps	1	140	5700	0.11	3.17	11.00	-0.50		Pass
HT20	MCS 0	1	100	5500	0.12	2.31	11.00	-0.50		Pass
HT20	MCS 0	1	116	5580	0.12	2.48	11.00	-0.50		Pass
HT20	MCS 0	1	140	5700	0.12	2.66	11.00	-0.50		Pass
HT40	MCS 0	1	102	5510	0.24	-2.38	11.00	-0.50		Pass
HT40	MCS 0	1	110	5550	0.24	-2.62	11.00	-0.50		Pass
HT40	MCS 0	1	134	5670	0.24	-2.39	11.00	-0.50		Pass
VHT80	MCS 0	1	106	5530	0.46	-12.62	11.00	-0.50		Pass

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

Straddle Channel											
Mod.	Data Rate	N <sub>TX</sub>	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26dB Emission Bandwidth (MHz)	6dB Emission Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6Mbps	1	144	5720	17.93	21.28	15.10	-	-	-	
				NII-2C	14.041	15.639	12.552	22.47	28.47	22.94	
				NII-3	3.8911	5.639	2.5529	30.00	36.02	-	
HT20	MCS0	1	144	5720	18.28	21.33	15.10	-	-	-	
				NII-2C	14.1908	15.639	12.552	22.52	28.52	22.94	
				NII-3	4.0909	5.689	2.5529	30.00	36.02	-	
HT40	MCS0	1	142	5710	36.36	41.63	504.54	-	-	-	
				NII-2C	33.1818	35.859	502	23.98	30.00	23.98	
				NII-3	3.1818	5.769	2.543	30.00	36.02	-	
VHT80	MCS0	1	138	5690	75.52	81.68	75.12	-	-	-	
				NII-2C	72.762	75.76	72.562	23.98	30.00	23.98	
				NII-3	2.762	5.92	2.5629	30.00	36.02	-	

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

FCC Straddle Channel										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)		Pass/Fail
11a	6Mbps	1	144	5720	0.11	11.32	-	-0.50		Pass
				NII-2C	0.11	10.66	22.94	-0.50		Pass
				NII-3	0.11	2.80	30.00	-0.50		Pass
HT20	MCS0	1	144	5720	0.12	11.47	-	-0.50		Pass
				NII-2C	0.12	10.83	22.94	-0.50		Pass
				NII-3	0.12	2.83	30.00	-0.50		Pass
HT40	MCS0	1	142	5710	0.24	11.31	-	-0.50		Pass
				NII-2C	0.24	11.11	23.98	-0.50		Pass
				NII-3	0.24	-2.26	30.00	-0.50		Pass
VHT80	MCS0	1	138	5690	0.46	11.52	-	-0.50		Pass
				NII-2C	0.46	11.41	23.98	-0.50		Pass
				NII-3	0.46	-4.50	30.00	-0.50		Pass

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

Straddle Channel										
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)		Pass/Fail
11a	6Mbps	1	144	NII-2C	0.11	1.19	11.00	-0.50		Pass
				NII-3	0.11	1.19	30.00	-0.50		Pass
HT20	MCS0	1	144	NII-2C	0.12	1.29	11.00	-0.50		Pass
				NII-3	0.12	1.29	30.00	-0.50		Pass
HT40	MCS0	1	142	NII-2C	0.24	-1.48	11.00	-0.50		Pass
				NII-3	0.24	-1.48	30.00	-0.50		Pass
VHT80	MCS0	1	138	NII-2C	0.46	-5.06	11.00	-0.50		Pass
				NII-3	0.46	-5.06	30.00	-0.50		Pass

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

Band I										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stablility (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6Mbps	1	36	5180	5180.025	0.025	4.83	50	3.85	
11a	6Mbps	1	36	5180	5180.025	0.025	4.83	-30	3.85	
11a	6Mbps	1	36	5180	5180.025	0.025	4.83	20	4.4	
11a	6Mbps	1	36	5180	5180.025	0.025	4.83	20	3.5	
11a	6Mbps	1	36	5180	5180.025	0.025	4.83	20	3.85	

Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stablility (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6Mbps	1	64	5320	5320.025	0.025	4.70	50	3.85	
11a	6Mbps	1	64	5320	5320.025	0.025	4.70	-30	3.85	
11a	6Mbps	1	64	5320	5320.025	0.025	4.70	20	4.4	
11a	6Mbps	1	64	5320	5320.025	0.025	4.70	20	3.5	
11a	6Mbps	1	64	5320	5320.025	0.025	4.70	20	3.85	

Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stablility (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6Mbps	1	100	5500	5500.025	0.025	4.55	50	3.85	
11a	6Mbps	1	100	5500	5500.025	0.025	4.55	-30	3.85	
11a	6Mbps	1	100	5500	5500.025	0.025	4.55	20	4.4	
11a	6Mbps	1	100	5500	5500.025	0.025	4.55	20	3.5	
11a	6Mbps	1	100	5500	5500.025	0.025	4.55	20	3.85	



## Appendix B. Radiated Spurious Emission

### Band 1 - 5150~5250MHz

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

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
802.11a CH 36 5180MHz		5115.7	52.59	-21.41	74	42.6	32.92	9.12	32.05	150	327	P	H
		5150	44.29	-9.71	54	34.32	32.93	9.12	32.08	150	327	A	H
	*	5180	104.22	-	-	94.14	32.94	9.24	32.1	150	327	P	H
	*	5180	95.33	-	-	85.25	32.94	9.24	32.1	150	327	A	H
		5088.14	52.5	-21.5	74	42.62	32.92	8.99	32.03	185	207	P	V
		5148.98	43.53	-10.47	54	33.56	32.93	9.12	32.08	185	207	A	V
	*	5180	102.04	-	-	91.96	32.94	9.24	32.1	185	207	P	V
	*	5180	93.18	-	-	83.1	32.94	9.24	32.1	185	207	A	V
802.11a CH 44 5220MHz		5140.66	52.44	-21.56	74	42.45	32.93	9.12	32.06	150	357	P	H
		5128.44	43.08	-10.92	54	33.09	32.93	9.12	32.06	150	357	A	H
		5220	103.79	-	-	93.59	32.94	9.37	32.11	150	357	P	H
		5220	95.87	-	-	85.67	32.94	9.37	32.11	150	357	A	H
		5353.2	52.92	-21.08	74	42.7	32.97	9.47	32.22	150	357	P	H
		5350.08	43.56	-10.44	54	33.34	32.97	9.47	32.22	150	357	A	H
		5132.08	53.15	-20.85	74	43.16	32.93	9.12	32.06	176	232	P	V
		5147.16	42.81	-11.19	54	32.84	32.93	9.12	32.08	176	232	A	V
		5220	100.6	-	-	90.4	32.94	9.37	32.11	176	232	P	V
		5220	92.94	-	-	82.74	32.94	9.37	32.11	176	232	A	V
		5364.96	51.86	-22.14	74	41.64	32.97	9.47	32.22	176	232	P	V
		5352.72	41.95	-12.05	54	31.73	32.97	9.47	32.22	176	232	A	V



802.11a CH 48 5240MHz		5068.12	51.57	-22.43	74	41.82	32.91	8.87	32.03	165	357	P	H
		5148.98	42.79	-11.21	54	32.82	32.93	9.12	32.08	165	357	A	H
	*	5240	104.85	-	-	94.64	32.95	9.39	32.13	165	357	P	H
	*	5240	96.3	-	-	86.09	32.95	9.39	32.13	165	357	A	H
		5432.64	52.29	-21.71	74	42.15	32.99	9.42	32.27	165	357	P	H
		5360.16	44	-10	54	33.78	32.97	9.47	32.22	165	357	A	H
		5123.5	51.74	-22.26	74	41.75	32.93	9.12	32.06	183	215	P	V
		5150.02	42.79	-11.21	54	32.82	32.93	9.12	32.08	183	215	A	V
	*	5240	101.62	-	-	91.41	32.95	9.39	32.13	183	215	P	V
	*	5240	93.43	-	-	83.22	32.95	9.39	32.13	183	215	A	V
		5402.88	50.58	-23.42	74	40.36	32.98	9.49	32.25	183	215	P	V
		5351.76	42.24	-11.76	54	32.02	32.97	9.47	32.22	183	215	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 1 5150~5250MHz

## WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11a CH 36 5180MHz		10360	52.28	-21.72	74	60.67	39.71	12.75	60.85	152	260	P	H
		10360	42.22	-11.78	54	50.61	39.71	12.75	60.85	152	260	A	H
		15540	49.27	-24.73	74	58.24	37.97	15.21	62.15	189	238	P	H
		10360	52.04	-21.96	74	60.43	39.71	12.75	60.85	152	260	P	V
		10360	41.97	-12.03	54	50.36	39.71	12.75	60.85	152	260	A	V
		15540	49.3	-24.7	74	58.27	37.97	15.21	62.15	189	238	P	V
802.11a CH 44 5220MHz		10440	51.12	-22.88	74	59.28	39.85	12.79	60.8	150	230	P	H
		10440	40.9	-13.1	54	49.06	39.85	12.79	60.8	150	230	A	H
		15660	50.49	-23.51	74	59.51	37.88	15.3	62.2	150	230	P	H
		10440	52.07	-21.93	74	60.23	39.85	12.79	60.8	150	230	P	V
		10440	41.71	-12.29	54	49.87	39.85	12.79	60.8	150	230	A	V
		15660	50.05	-23.95	74	59.07	37.88	15.3	62.2	150	230	P	V
802.11a CH 48 5240MHz		10480	50.91	-23.09	74	58.89	39.96	12.82	60.76	150	289	P	H
		15720	49.67	-24.33	74	58.76	37.82	15.33	62.24	150	291	P	H
		10480	51.68	-22.32	74	59.66	39.96	12.82	60.76	150	289	P	V
		10480	42.23	-11.77	54	50.21	39.96	12.82	60.76	150	289	A	V
		15720	50.27	-23.73	74	59.36	37.82	15.33	62.24	150	291	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												





## Band 1 5150~5250MHz

## WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11n HT20 CH 36 5180MHz		5073.58	52.27	-21.73	74	42.51	32.92	8.87	32.03	150	42	P	H
		5148.72	44.01	-9.99	54	34.04	32.93	9.12	32.08	150	42	A	H
	*	5180	101.55	-	-	91.47	32.94	9.24	32.1	150	42	P	H
	*	5180	92.35	-	-	82.27	32.94	9.24	32.1	150	42	A	H
		5141.18	53.35	-20.65	74	43.36	32.93	9.12	32.06	157	299	P	V
		5148.46	43.76	-10.24	54	33.79	32.93	9.12	32.08	157	299	A	V
	*	5180	102.68	-	-	92.6	32.94	9.24	32.1	157	299	P	V
	*	5180	93.18	-	-	83.1	32.94	9.24	32.1	157	299	A	V
802.11n HT20 CH 44 5220MHz		5046.8	52.01	-21.99	74	42.24	32.91	8.87	32.01	175	48	P	H
		5145.86	42.87	-11.13	54	32.9	32.93	9.12	32.08	175	48	A	H
	*	5220	102.34	-	-	92.14	32.94	9.37	32.11	175	48	P	H
	*	5220	93.88	-	-	83.68	32.94	9.37	32.11	175	48	A	H
		5361.84	51.74	-22.26	74	41.52	32.97	9.47	32.22	175	48	P	H
		5358	43.21	-10.79	54	32.99	32.97	9.47	32.22	175	48	A	H
		5057.98	52.55	-21.45	74	42.78	32.91	8.87	32.01	167	277	P	V
		5149.5	42.95	-11.05	54	32.98	32.93	9.12	32.08	167	277	A	V
	*	5220	104.39	-	-	94.19	32.94	9.37	32.11	167	277	P	V
	*	5220	95.2	-	-	85	32.94	9.37	32.11	167	277	A	V
		5378.4	52.05	-21.95	74	41.83	32.98	9.47	32.23	167	277	P	V
		5352.72	43.4	-10.6	54	33.18	32.97	9.47	32.22	167	277	A	V



<b>802.11n</b>  <b>HT20</b>  <b>CH 48</b>  <b>5240MHz</b>		5143.52	51.34	-22.66	74	41.35	32.93	9.12	32.06	150	48	P	H
		5144.82	42.83	-11.17	54	32.86	32.93	9.12	32.08	150	48	A	H
	*	5240	103.9	-	-	93.69	32.95	9.39	32.13	150	48	P	H
	*	5240	94.55	-	-	84.34	32.95	9.39	32.13	150	48	A	H
		5393.28	52.76	-21.24	74	42.52	32.98	9.49	32.23	150	48	P	H
		5360.16	44.08	-9.92	54	33.86	32.97	9.47	32.22	150	48	A	H
		5013.78	52.37	-21.63	74	42.71	32.9	8.74	31.98	150	277	P	V
		5148.98	42.85	-11.15	54	32.88	32.93	9.12	32.08	150	277	A	V
	*	5240	104.97	-	-	94.76	32.95	9.39	32.13	150	277	P	V
	*	5240	95.32	-	-	85.11	32.95	9.39	32.13	150	277	A	V
		5363.04	52.64	-21.36	74	42.42	32.97	9.47	32.22	150	277	P	V
		5351.52	44	-10	54	33.78	32.97	9.47	32.22	150	277	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11n HT20 CH 36 5180MHz		10360	51.03	-22.97	74	59.42	39.71	12.75	60.85	152	260	P	H
		10360	40.82	-13.18	54	49.21	39.71	12.75	60.85	152	260	A	H
		15540	50.61	-23.39	74	59.58	37.97	15.21	62.15	189	238	P	H
		10360	51.83	-22.17	74	60.22	39.71	12.75	60.85	152	260	P	V
		10360	41.45	-12.55	54	49.84	39.71	12.75	60.85	152	260	A	V
		15540	48.93	-25.07	74	57.9	37.97	15.21	62.15	189	238	P	V
802.11n HT20 CH 44 5220MHz		10440	52.06	-21.94	74	60.22	39.85	12.79	60.8	150	230	P	H
		10440	42.27	-11.73	54	50.43	39.85	12.79	60.8	150	230	A	H
		15660	51.32	-22.68	74	60.34	37.88	15.3	62.2	150	230	P	H
		15660	40.84	-13.16	54	49.86	37.88	15.3	62.2	150	230	A	H
		10440	51.49	-22.51	74	59.65	39.85	12.79	60.8	150	230	P	V
		10440	41.09	-12.91	54	49.25	39.85	12.79	60.8	150	230	A	V
802.11n HT20 CH 48 5240MHz		10480	52.2	-21.8	74	60.18	39.96	12.82	60.76	150	289	P	H
		10480	41.54	-12.46	54	49.52	39.96	12.82	60.76	150	289	A	H
		15720	49.81	-24.19	74	58.9	37.82	15.33	62.24	150	291	P	H
		10480	52.48	-21.52	74	60.46	39.96	12.82	60.76	150	289	P	V
		10480	42.25	-11.75	54	50.23	39.96	12.82	60.76	150	289	A	V
		15720	49.62	-24.38	74	58.71	37.82	15.33	62.24	150	291	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 1 5150~5250MHz

## WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11n HT40 CH 38 5190MHz		5148.72	53.95	-20.05	74	43.98	32.93	9.12	32.08	150	41	P	H
		5149.76	47.19	-6.81	54	37.22	32.93	9.12	32.08	150	41	A	H
	*	5190	100.51	-	-	90.43	32.94	9.24	32.1	150	41	P	H
	*	5190	91.85	-	-	81.77	32.94	9.24	32.1	150	41	A	H
		5442.96	51.5	-22.5	74	41.36	32.99	9.42	32.27	150	41	P	H
		5354.16	43.6	-10.4	54	33.38	32.97	9.47	32.22	150	41	A	H
		5148.98	58.68	-15.32	74	48.71	32.93	9.12	32.08	150	298	P	V
		5149.5	46.72	-7.28	54	36.75	32.93	9.12	32.08	150	298	A	V
	*	5190	100.94	-	-	90.86	32.94	9.24	32.1	150	298	P	V
	*	5190	91.98	-	-	81.9	32.94	9.24	32.1	150	298	A	V
		5353.92	53.63	-20.37	74	43.41	32.97	9.47	32.22	150	298	P	V
		5355.12	43.79	-10.21	54	33.57	32.97	9.47	32.22	150	298	A	V
802.11n HT40 CH 46 5230MHz		5055.12	51.57	-22.43	74	41.8	32.91	8.87	32.01	153	42	P	H
		5143.52	43.8	-10.2	54	33.81	32.93	9.12	32.06	153	42	A	H
	*	5230	101.5	-	-	91.31	32.95	9.37	32.13	153	42	P	H
	*	5230	92.89	-	-	82.7	32.95	9.37	32.13	153	42	A	H
		5381.28	52.36	-21.64	74	42.14	32.98	9.47	32.23	153	42	P	H
		5350.08	44.17	-9.83	54	33.95	32.97	9.47	32.22	153	42	A	H
		5034.58	51.83	-22.17	74	42.18	32.91	8.74	32	183	279	P	V
		5133.64	43.69	-10.31	54	33.7	32.93	9.12	32.06	183	279	A	V
	*	5230	102.15	-	-	91.96	32.95	9.37	32.13	183	279	P	V
	*	5230	93.62	-	-	83.43	32.95	9.37	32.13	183	279	A	V
		5369.76	52.68	-21.32	74	42.46	32.97	9.47	32.22	183	279	P	V
		5350.56	44.99	-9.01	54	34.77	32.97	9.47	32.22	183	279	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 1 5150~5250MHz**  
**WIFI 802.11n HT40 (Harmonic @ 3m)**

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		10380	51.39	-22.61	74	59.72	39.74	12.77	60.84	150	360	P	H
		10380	41.27	-12.73	54	49.6	39.74	12.77	60.84	150	360	A	H
		15570	49.62	-24.38	74	58.6	37.94	15.24	62.16	150	360	P	H
		10380	51.02	-22.98	74	59.35	39.74	12.77	60.84	150	360	P	V
		10380	40.91	-13.09	54	49.24	39.74	12.77	60.84	150	360	A	V
		15570	49.07	-24.93	74	58.05	37.94	15.24	62.16	150	360	P	V
802.11n HT40 CH 46 5230MHz		10460	42.06	-11.94	54	50.14	39.89	12.82	60.79	150	360	A	H
		15690	50.28	-23.72	74	59.32	37.85	15.33	62.22	150	225	P	H
		10460	51.56	-22.44	74	59.64	39.89	12.82	60.79	150	360	P	V
		10460	41.43	-12.57	54	49.51	39.89	12.82	60.79	150	360	A	V
		15690	51.13	-22.87	74	60.17	37.85	15.33	62.22	150	225	P	V
		15690	40.83	-13.17	54	49.87	37.85	15.33	62.22	150	225	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11ac VHT20 CH 36 5180MHz		5100.88	52.49	-21.51	74	42.63	32.92	8.99	32.05	154	115	P	H
		5148.98	43.8	-10.2	54	33.83	32.93	9.12	32.08	154	115	A	H
	*	5180	102.25	-	-	92.17	32.94	9.24	32.1	154	115	P	H
	*	5180	93.88	-	-	83.8	32.94	9.24	32.1	154	115	A	H
		5132.34	52.77	-21.23	74	42.78	32.93	9.12	32.06	170	271	P	V
		5145.08	44.22	-9.78	54	34.25	32.93	9.12	32.08	170	271	A	V
	*	5180	103.45	-	-	93.37	32.94	9.24	32.1	170	271	P	V
	*	5180	94.88	-	-	84.8	32.94	9.24	32.1	170	271	A	V
802.11ac VHT20 CH 44 5220MHz		5071.5	52.18	-21.82	74	42.42	32.92	8.87	32.03	155	113	P	H
		5139.88	43.38	-10.62	54	33.39	32.93	9.12	32.06	155	113	A	H
	*	5220	103.06	-	-	92.86	32.94	9.37	32.11	155	113	P	H
	*	5220	94.22	-	-	84.02	32.94	9.37	32.11	155	113	A	H
		5352.24	51.46	-22.54	74	41.24	32.97	9.47	32.22	155	113	P	H
		5353.2	43.19	-10.81	54	32.97	32.97	9.47	32.22	155	113	A	H
		5056.94	51.45	-22.55	74	41.68	32.91	8.87	32.01	165	286	P	V
		5150	43.55	-10.45	54	33.58	32.93	9.12	32.08	165	286	A	V
	*	5220	104.97	-	-	94.77	32.94	9.37	32.11	165	286	P	V
	*	5220	96.07	-	-	85.87	32.94	9.37	32.11	165	286	A	V
		5364.96	51.73	-22.27	74	41.51	32.97	9.47	32.22	165	286	P	V
		5352.96	44.31	-9.69	54	34.09	32.97	9.47	32.22	165	286	A	V



<b>802.11ac</b>  <b>VHT20</b>  <b>CH 48</b>  <b>5240MHz</b>		5053.04	51.92	-22.08	74	42.15	32.91	8.87	32.01	150	50	P	H
		5144.3	43.17	-10.83	54	33.2	32.93	9.12	32.08	150	50	A	H
	*	5240	102.9	-	-	92.69	32.95	9.39	32.13	150	50	P	H
	*	5240	93.94	-	-	83.73	32.95	9.39	32.13	150	50	A	H
		5395.68	51.89	-22.11	74	41.65	32.98	9.49	32.23	150	50	P	H
		5351.04	43.84	-10.16	54	33.62	32.97	9.47	32.22	150	50	A	H
		5102.18	51.58	-22.42	74	41.72	32.92	8.99	32.05	150	271	P	V
		5101.14	43.49	-10.51	54	33.63	32.92	8.99	32.05	150	271	A	V
	*	5240	103.63	-	-	93.42	32.95	9.39	32.13	150	271	P	V
	*	5240	95.58	-	-	85.37	32.95	9.39	32.13	150	271	A	V
		5363.04	52.16	-21.84	74	41.94	32.97	9.47	32.22	150	271	P	V
		5350.56	44.61	-9.39	54	34.39	32.97	9.47	32.22	150	271	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11ac VHT20 CH 36 5180MHz		10360	51.81	-22.19	74	60.2	39.71	12.75	60.85	152	260	P	H
		10360	42.59	-11.41	54	50.98	39.71	12.75	60.85	152	260	A	H
		15540	49.39	-24.61	74	58.36	37.97	15.21	62.15	189	238	P	H
		10360	51.64	-22.36	74	60.03	39.71	12.75	60.85	152	260	P	V
		10360	42.91	-11.09	54	51.3	39.71	12.75	60.85	152	260	A	V
		15540	49.23	-24.77	74	58.2	37.97	15.21	62.15	189	238	P	V
802.11ac VHT20 CH 44 5220MHz		10440	51.93	-22.07	74	60.09	39.85	12.79	60.8	150	230	P	H
		10440	43.45	-10.55	54	51.61	39.85	12.79	60.8	150	230	A	H
		15660	50.51	-23.49	74	59.53	37.88	15.3	62.2	150	230	P	H
		10440	52.54	-21.46	74	60.7	39.85	12.79	60.8	150	230	P	V
		10440	43.09	-10.91	54	51.25	39.85	12.79	60.8	150	230	A	V
		15660	50.2	-23.8	74	59.22	37.88	15.3	62.2	150	230	P	V
802.11ac VHT20 CH 48 5240MHz		10480	51.84	-22.16	74	59.82	39.96	12.82	60.76	150	289	P	H
		10480	42.13	-11.87	54	50.11	39.96	12.82	60.76	150	289	A	H
		15720	50.42	-23.58	74	59.51	37.82	15.33	62.24	150	291	P	H
		10480	50.87	-23.13	74	58.85	39.96	12.82	60.76	150	289	P	V
		15720	49.78	-24.22	74	58.87	37.82	15.33	62.24	150	291	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												





## Band 1 5150~5250MHz

## WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11ac VHT40 CH 38 5190MHz		5143.26	52.85	-21.15	74	42.86	32.93	9.12	32.06	150	115	P	H
		5149.5	44.99	-9.01	54	35.02	32.93	9.12	32.08	150	115	A	H
	*	5190	98.52	-	-	88.44	32.94	9.24	32.1	150	115	P	H
	*	5190	90.09	-	-	80.01	32.94	9.24	32.1	150	115	A	H
		5356.08	50.99	-23.01	74	40.77	32.97	9.47	32.22	150	115	P	H
		5362.56	42.44	-11.56	54	32.22	32.97	9.47	32.22	150	115	A	H
		5141.96	52.4	-21.6	74	42.41	32.93	9.12	32.06	161	262	P	V
		5150.02	44.62	-9.38	54	34.65	32.93	9.12	32.08	161	262	A	V
	*	5190	100.55	-	-	90.47	32.94	9.24	32.1	161	262	P	V
	*	5190	91.78	-	-	81.7	32.94	9.24	32.1	161	262	A	V
		5456.88	51.15	-22.85	74	41.02	32.99	9.42	32.28	161	262	P	V
		5354.64	43.56	-10.44	54	33.34	32.97	9.47	32.22	161	262	A	V
802.11ac VHT40 CH 46 5230MHz		5143.52	52.43	-21.57	74	42.44	32.93	9.12	32.06	150	114	P	H
		5145.86	43.42	-10.58	54	33.45	32.93	9.12	32.08	150	114	A	H
	*	5230	99.87	-	-	89.68	32.95	9.37	32.13	150	114	P	H
	*	5230	91.8	-	-	81.61	32.95	9.37	32.13	150	114	A	H
		5353.2	51.42	-22.58	74	41.2	32.97	9.47	32.22	150	114	P	H
		5350.32	42.93	-11.07	54	32.71	32.97	9.47	32.22	150	114	A	H
		5048.1	52.41	-21.59	74	42.64	32.91	8.87	32.01	150	266	P	V
		5145.86	43.32	-10.68	54	33.35	32.93	9.12	32.08	150	266	A	V
	*	5230	101.22	-	-	91.03	32.95	9.37	32.13	150	266	P	V
	*	5230	92.64	-	-	82.45	32.95	9.37	32.13	150	266	A	V
		5362.56	52.5	-21.5	74	42.28	32.97	9.47	32.22	150	266	P	V
		5350.08	44.77	-9.23	54	34.55	32.97	9.47	32.22	150	266	A	V
Remark	1. No other spurious found.												
	2. All results are PASS against Peak and Average limit line.												



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 38 5190MHz		10380	52.87	-21.13	74	61.2	39.74	12.77	60.84	150	360	P	H
		10380	43.3	-10.7	54	51.63	39.74	12.77	60.84	150	360	A	H
		15570	49.11	-24.89	74	58.09	37.94	15.24	62.16	150	360	P	H
		10380	51.29	-22.71	74	59.62	39.74	12.77	60.84	150	360	P	V
		10380	41.55	-12.45	54	49.88	39.74	12.77	60.84	150	360	A	V
		15570	49.78	-24.22	74	58.76	37.94	15.24	62.16	150	360	P	V
802.11ac VHT40 CH 46 5230MHz		10460	52.33	-21.67	74	60.41	39.89	12.82	60.79	150	360	P	H
		10460	42.81	-11.19	54	50.89	39.89	12.82	60.79	150	360	A	H
		15690	49.7	-24.3	74	58.74	37.85	15.33	62.22	150	225	P	H
		10460	52.08	-21.92	74	60.16	39.89	12.82	60.79	150	360	P	V
		10460	42.34	-11.66	54	50.42	39.89	12.82	60.79	150	360	A	V
		15690	50.15	-23.85	74	59.19	37.85	15.33	62.22	150	225	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11ac VHT80 CH 42 5210MHz		5144.82	62.01	-11.99	74	52.04	32.93	9.12	32.08	152	104	P	H
		5148.2	49.21	-4.79	54	39.24	32.93	9.12	32.08	152	104	A	H
	*	5210	93.21	-	-	83.01	32.94	9.37	32.11	152	104	P	H
	*	5210	86.14	-	-	75.94	32.94	9.37	32.11	152	104	A	H
		5389.92	53.1	-20.9	74	42.86	32.98	9.49	32.23	152	104	P	H
		5353.2	45.48	-8.52	54	35.26	32.97	9.47	32.22	152	104	A	H
		5111.28	58.99	-15.01	74	49.13	32.92	8.99	32.05	150	294	P	V
		5145.86	48.85	-5.15	54	38.88	32.93	9.12	32.08	150	294	A	V
	*	5210	93.9	-	-	83.7	32.94	9.37	32.11	150	294	P	V
	*	5210	86.19	-	-	75.99	32.94	9.37	32.11	150	294	A	V
		5366.16	57.13	-16.87	74	46.91	32.97	9.47	32.22	150	294	P	V
		5352	49.17	-4.83	54	38.95	32.97	9.47	32.22	150	294	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		10420	52.2	-21.8	74	60.4	39.82	12.79	60.81	250	0	P	H
		10420	42.54	-11.46	54	50.74	39.82	12.79	60.81	250	0	A	H
		15630	48.05	-25.95	74	57.09	37.89	15.27	62.2	150	0	P	H
		10420	51.61	-22.39	74	59.81	39.82	12.79	60.81	250	0	P	V
		10420	41.49	-12.51	54	49.69	39.82	12.79	60.81	250	0	A	V
		15630	47.62	-26.38	74	56.66	37.89	15.27	62.2	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 2 - 5250~5350MHz

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
802.11a CH 52 5260MHz		5145.86	51.72	-22.28	74	41.75	32.93	9.12	32.08	150	357	P	H
		5148.2	42.84	-11.16	54	32.87	32.93	9.12	32.08	150	357	A	H
	*	5260	105.92	-	-	95.73	32.95	9.39	32.15	150	357	P	H
	*	5260	96.88	-	-	86.69	32.95	9.39	32.15	150	357	A	H
		5363.04	52.73	-21.27	74	42.51	32.97	9.47	32.22	150	357	P	H
		5357.52	44.25	-9.75	54	34.03	32.97	9.47	32.22	150	357	A	H
		5053.3	51.54	-22.46	74	41.77	32.91	8.87	32.01	184	230	P	V
		5033.8	42.6	-11.4	54	32.95	32.91	8.74	32	184	230	A	V
	*	5260	101.87	-	-	91.68	32.95	9.39	32.15	184	230	P	V
	*	5260	93.86	-	-	83.67	32.95	9.39	32.15	184	230	A	V
		5352.72	51.41	-22.59	74	41.19	32.97	9.47	32.22	184	230	P	V
		5350.8	42.34	-11.66	54	32.12	32.97	9.47	32.22	184	230	A	V
802.11a CH 60 5300MHz		5052.78	52.45	-21.55	74	42.68	32.91	8.87	32.01	153	357	P	H
		5145.86	42.53	-11.47	54	32.56	32.93	9.12	32.08	153	357	A	H
	*	5300	105.07	-	-	94.87	32.96	9.42	32.18	153	357	P	H
	*	5300	97.29	-	-	87.09	32.96	9.42	32.18	153	357	A	H
		5353.44	53.7	-20.3	74	43.48	32.97	9.47	32.22	153	357	P	H
		5351.76	45.21	-8.79	54	34.99	32.97	9.47	32.22	153	357	A	H
		5033.54	51.15	-22.85	74	41.5	32.91	8.74	32	172	200	P	V
		5073.32	42.41	-11.59	54	32.65	32.92	8.87	32.03	172	200	A	V
	*	5300	102.53	-	-	92.33	32.96	9.42	32.18	172	200	P	V
	*	5300	94.41	-	-	84.21	32.96	9.42	32.18	172	200	A	V
		5365.92	51.39	-22.61	74	41.17	32.97	9.47	32.22	172	200	P	V
		5365.44	43.2	-10.8	54	32.98	32.97	9.47	32.22	172	200	A	V



<b>802.11a</b> <b>CH 64</b> <b>5320MHz</b>	*	5320	104.91	-	-	94.69	32.96	9.44	32.18	150	357	P	H
	*	5320	96.91	-	-	86.69	32.96	9.44	32.18	150	357	A	H
		5351.04	53.6	-20.4	74	43.38	32.97	9.47	32.22	150	357	P	H
		5350.72	46.15	-7.85	54	35.93	32.97	9.47	32.22	150	357	A	H
	*	5320	102.01	-	-	91.79	32.96	9.44	32.18	182	226	P	V
	*	5320	93.31	-	-	83.09	32.96	9.44	32.18	182	226	A	V
		5351.36	52.1	-21.9	74	41.88	32.97	9.47	32.22	182	226	P	V
		5351.04	44.19	-9.81	54	33.97	32.97	9.47	32.22	182	226	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 2 5250~5350MHz

## WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11a CH 52 5260MHz		10520	51.61	-22.39	74	59.49	39.99	12.84	60.71	150	220	P	H
		10520	41.1	-12.9	54	48.98	39.99	12.84	60.71	150	220	A	H
		15780	49.91	-24.09	74	59	37.78	15.39	62.26	150	345	P	H
		10520	51.87	-22.13	74	59.75	39.99	12.84	60.71	150	220	P	V
		10520	41.37	-12.63	54	49.25	39.99	12.84	60.71	150	220	A	V
		15780	50	-24	74	59.09	37.78	15.39	62.26	150	345	P	V
802.11a CH 60 5300MHz		10600	53.09	-20.91	74	60.77	39.96	12.88	60.52	185	215	P	H
		10600	43.37	-10.63	54	51.05	39.96	12.88	60.52	185	215	A	H
		15900	50.04	-23.96	74	59.2	37.68	15.48	62.32	196	190	P	H
		10600	51.83	-22.17	74	59.51	39.96	12.88	60.52	185	215	P	V
		10600	41	-13	54	48.68	39.96	12.88	60.52	185	215	A	V
		15900	51.39	-22.61	74	60.55	37.68	15.48	62.32	196	190	P	V
		15900	41.65	-12.35	54	50.81	37.68	15.48	62.32	196	190	A	V
802.11a CH 64 5320MHz		10640	52.01	-21.99	74	59.61	39.94	12.91	60.45	152	135	P	H
		10640	41.52	-12.48	54	49.12	39.94	12.91	60.45	152	135	A	H
		15960	49.2	-24.8	74	58.38	37.63	15.54	62.35	173	245	P	H
		10640	52.71	-21.29	74	60.31	39.94	12.91	60.45	152	135	P	V
		10640	42.28	-11.72	54	49.88	39.94	12.91	60.45	152	135	A	V
		15960	49.93	-24.07	74	59.11	37.63	15.54	62.35	173	245	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 2 5250~5350MHz

## WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11n HT20 CH 52 5260MHz		5062.14	51.54	-22.46	74	41.77	32.91	8.87	32.01	150	40	P	H
		5143.78	42.65	-11.35	54	32.68	32.93	9.12	32.08	150	40	A	H
	*	5260	103.03	-	-	92.84	32.95	9.39	32.15	150	40	P	H
	*	5260	94.1	-	-	83.91	32.95	9.39	32.15	150	40	A	H
		5364	51.67	-22.33	74	41.45	32.97	9.47	32.22	150	40	P	H
		5350.32	43.23	-10.77	54	33.01	32.97	9.47	32.22	150	40	A	H
		5148.98	52.03	-21.97	74	42.06	32.93	9.12	32.08	164	277	P	V
		5142.48	42.61	-11.39	54	32.62	32.93	9.12	32.06	164	277	A	V
	*	5260	104.75	-	-	94.56	32.95	9.39	32.15	164	277	P	V
	*	5260	95.69	-	-	85.5	32.95	9.39	32.15	164	277	A	V
		5354.16	52.35	-21.65	74	42.13	32.97	9.47	32.22	164	277	P	V
		5350.32	44.01	-9.99	54	33.79	32.97	9.47	32.22	164	277	A	V
802.11n HT20 CH 60 5300MHz		5116.74	51.71	-22.29	74	41.72	32.92	9.12	32.05	172	49	P	H
		5074.36	42.54	-11.46	54	32.78	32.92	8.87	32.03	172	49	A	H
	*	5300	104.98	-	-	94.78	32.96	9.42	32.18	172	49	P	H
	*	5300	95.31	-	-	85.11	32.96	9.42	32.18	172	49	A	H
		5350.32	53.04	-20.96	74	42.82	32.97	9.47	32.22	172	49	P	H
		5355.84	44.89	-9.11	54	34.67	32.97	9.47	32.22	172	49	A	H
		5053.3	52.02	-21.98	74	42.25	32.91	8.87	32.01	152	277	P	V
		5118.3	42.48	-11.52	54	32.5	32.92	9.12	32.06	152	277	A	V
	*	5300	105.58	-	-	95.38	32.96	9.42	32.18	152	277	P	V
	*	5300	96.02	-	-	85.82	32.96	9.42	32.18	152	277	A	V
		5361.6	53.6	-20.4	74	43.38	32.97	9.47	32.22	152	277	P	V
		5351.04	44.83	-9.17	54	34.61	32.97	9.47	32.22	152	277	A	V





<b>802.11n</b> <b>HT20</b> <b>CH 64</b> <b>5320MHz</b>	*	5320	105.34	-	-	95.12	32.96	9.44	32.18	166	47	P	H
	*	5320	95.92	-	-	85.7	32.96	9.44	32.18	166	47	A	H
		5350.4	59.05	-14.95	74	48.83	32.97	9.47	32.22	166	47	P	H
		5350.08	45.48	-8.52	54	35.26	32.97	9.47	32.22	166	47	A	H
	*	5320	104.74	-	-	94.52	32.96	9.44	32.18	150	279	P	V
	*	5320	96.2	-	-	85.98	32.96	9.44	32.18	150	279	A	V
		5354.56	57.25	-16.75	74	47.03	32.97	9.47	32.22	150	279	P	V
		5351.04	45.66	-8.34	54	35.44	32.97	9.47	32.22	150	279	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 2 5250~5350MHz

## WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11n HT20 CH 52 5260MHz		10520	51.37	-22.63	74	59.25	39.99	12.84	60.71	150	220	P	H
		10520	41	-13	54	48.88	39.99	12.84	60.71	150	220	A	H
		15780	50.32	-23.68	74	59.41	37.78	15.39	62.26	150	345	P	H
		10520	51.14	-22.86	74	59.02	39.99	12.84	60.71	150	220	P	V
		10520	41.39	-12.61	54	49.27	39.99	12.84	60.71	150	220	A	V
		15780	50.01	-23.99	74	59.1	37.78	15.39	62.26	150	345	P	V
802.11n HT20 CH 60 5300MHz		10600	51.01	-22.99	74	58.69	39.96	12.88	60.52	185	215	P	H
		10600	40.43	-13.57	54	48.11	39.96	12.88	60.52	185	215	A	H
		15900	50.25	-23.75	74	59.41	37.68	15.48	62.32	196	190	P	H
		10600	51.77	-22.23	74	59.45	39.96	12.88	60.52	185	215	P	V
		10600	41.58	-12.42	54	49.26	39.96	12.88	60.52	185	215	A	V
		15900	50.49	-23.51	74	59.65	37.68	15.48	62.32	196	190	P	V
802.11n HT20 CH 64 5320MHz		10640	51.36	-22.64	74	58.96	39.94	12.91	60.45	152	135	P	H
		10640	41.09	-12.91	54	48.69	39.94	12.91	60.45	152	135	A	H
		15960	49.45	-24.55	74	58.63	37.63	15.54	62.35	173	245	P	H
		10640	51.29	-22.71	74	58.89	39.94	12.91	60.45	152	135	P	V
		10640	40.91	-13.09	54	48.51	39.94	12.91	60.45	152	135	A	V
		15960	49.57	-24.43	74	58.75	37.63	15.54	62.35	173	245	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 2 5250~5350MHz

## WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11n HT40 CH 54 5270MHz		5127.92	51.86	-22.14	74	41.87	32.93	9.12	32.06	150	42	P	H
		5105.56	43.21	-10.79	54	33.35	32.92	8.99	32.05	150	42	A	H
	*	5270	101.01	-	-	90.82	32.95	9.39	32.15	150	42	P	H
	*	5270	92.73	-	-	82.54	32.95	9.39	32.15	150	42	A	H
		5362.08	52.39	-21.61	74	42.17	32.97	9.47	32.22	150	42	P	H
		5350.08	44.79	-9.21	54	34.57	32.97	9.47	32.22	150	42	A	H
		5015.08	51.81	-22.19	74	42.15	32.9	8.74	31.98	176	279	P	V
		5149.76	43.33	-10.67	54	33.36	32.93	9.12	32.08	176	279	A	V
	*	5270	102.8	-	-	92.61	32.95	9.39	32.15	176	279	P	V
	*	5270	94.78	-	-	84.59	32.95	9.39	32.15	176	279	A	V
		5352.48	53.79	-20.21	74	43.57	32.97	9.47	32.22	176	279	P	V
		5350.56	45.3	-8.7	54	35.08	32.97	9.47	32.22	176	279	A	V
802.11n HT40 CH 62 5310MHz		5070.7	52.12	-21.88	74	42.37	32.91	8.87	32.03	192	51	P	H
		5066.85	42.89	-11.11	54	33.12	32.91	8.87	32.01	192	51	A	H
	*	5310	99.22	-	-	89	32.96	9.44	32.18	192	51	P	H
	*	5310	92.09	-	-	81.87	32.96	9.44	32.18	192	51	A	H
		5352.96	61.61	-12.39	74	51.39	32.97	9.47	32.22	192	51	P	H
		5350.8	49.43	-4.57	54	39.21	32.97	9.47	32.22	192	51	A	H
		5073.5	51.31	-22.69	74	41.55	32.92	8.87	32.03	181	286	P	V
		5120.05	42.65	-11.35	54	32.67	32.92	9.12	32.06	181	286	A	V
	*	5310	100.71	-	-	90.49	32.96	9.44	32.18	181	286	P	V
	*	5310	91.66	-	-	81.44	32.96	9.44	32.18	181	286	A	V
		5353.44	60.96	-13.04	74	50.74	32.97	9.47	32.22	181	286	P	V
		5350.56	48.9	-5.1	54	38.68	32.97	9.47	32.22	181	286	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 54 5270MHz		10540	51.42	-22.58	74	59.24	39.99	12.86	60.67	150	220	P	H
		10540	40.96	-13.04	54	48.78	39.99	12.86	60.67	150	220	A	H
		15810	50.35	-23.65	74	59.46	37.75	15.42	62.28	150	345	P	H
		10540	51.27	-22.73	74	59.09	39.99	12.86	60.67	150	220	P	V
		10540	40.85	-13.15	54	48.67	39.99	12.86	60.67	150	220	A	V
		15810	50.52	-23.48	74	59.63	37.75	15.42	62.28	150	345	P	V
802.11n HT40 CH 62 5310MHz		10620	52.19	-21.81	74	59.82	39.95	12.91	60.49	160	220	P	H
		10620	47.63	-6.37	54	55.26	39.95	12.91	60.49	160	220	A	H
		15930	49.88	-24.12	74	59.05	37.66	15.51	62.34	165	100	P	H
		10620	52.12	-21.88	74	59.75	39.95	12.91	60.49	172	220	P	V
		10620	45.49	-8.51	54	53.12	39.95	12.91	60.49	172	220	A	V
		15930	48.29	-25.71	74	57.46	37.66	15.51	62.34	155	100	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 2 5250~5350MHz

## WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11ac VHT20 CH 52 5260MHz		5138.84	52	-22	74	42.01	32.93	9.12	32.06	150	52	P	H
		5130.26	42.77	-11.23	54	32.78	32.93	9.12	32.06	150	52	A	H
	*	5260	102.67	-	-	92.48	32.95	9.39	32.15	150	52	P	H
	*	5260	94.85	-	-	84.66	32.95	9.39	32.15	150	52	A	H
		5369.04	51.72	-22.28	74	41.5	32.97	9.47	32.22	150	52	P	H
		5351.28	44.02	-9.98	54	33.8	32.97	9.47	32.22	150	52	A	H
		5077.48	52.92	-21.08	74	43.04	32.92	8.99	32.03	158	262	P	V
		5078.26	43.04	-10.96	54	33.16	32.92	8.99	32.03	158	262	A	V
	*	5260	104.94	-	-	94.75	32.95	9.39	32.15	158	262	P	V
	*	5260	96.89	-	-	86.7	32.95	9.39	32.15	158	262	A	V
		5359.2	53.34	-20.66	74	43.12	32.97	9.47	32.22	158	262	P	V
		5350.08	45.25	-8.75	54	35.03	32.97	9.47	32.22	158	262	A	V
802.11ac VHT20 CH 60 5300MHz		5140.4	50.71	-23.29	74	40.72	32.93	9.12	32.06	150	79	P	H
		5034.58	42.62	-11.38	54	32.97	32.91	8.74	32	150	79	A	H
	*	5300	103.83	-	-	93.63	32.96	9.42	32.18	150	79	P	H
	*	5300	94.9	-	-	84.7	32.96	9.42	32.18	150	79	A	H
		5368.56	52.69	-21.31	74	42.47	32.97	9.47	32.22	150	79	P	H
		5352	44.78	-9.22	54	34.56	32.97	9.47	32.22	150	79	A	H
		5060.84	51.82	-22.18	74	42.05	32.91	8.87	32.01	156	265	P	V
		5146.12	42.81	-11.19	54	32.84	32.93	9.12	32.08	156	265	A	V
	*	5300	105.22	-	-	95.02	32.96	9.42	32.18	156	265	P	V
	*	5300	96.75	-	-	86.55	32.96	9.42	32.18	156	265	A	V
		5351.04	54.25	-19.75	74	44.03	32.97	9.47	32.22	156	265	P	V
		5352	45.87	-8.13	54	35.65	32.97	9.47	32.22	156	265	A	V



<b>802.11ac</b>  <b>VHT20</b>  <b>CH 64</b>  <b>5320MHz</b>	*	5320	103.29	-	-	93.07	32.96	9.44	32.18	150	79	P	H
	*	5320	94.41	-	-	84.19	32.96	9.44	32.18	150	79	A	H
		5350.24	53.96	-20.04	74	43.74	32.97	9.47	32.22	150	79	P	H
		5350.56	44.86	-9.14	54	34.64	32.97	9.47	32.22	150	79	A	H
	*	5320	105.48	-	-	95.26	32.96	9.44	32.18	154	263	P	V
	*	5320	96.58	-	-	86.36	32.96	9.44	32.18	154	263	A	V
		5350.08	54.18	-19.82	74	43.96	32.97	9.47	32.22	154	263	P	V
		5350.08	46.23	-7.77	54	36.01	32.97	9.47	32.22	154	263	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 2 5250~5350MHz

## WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamplifier Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 52 5260MHz		10520	51.64	-22.36	74	59.52	39.99	12.84	60.71	150	220	P	H
		10520	41.64	-12.36	54	49.52	39.99	12.84	60.71	150	220	A	H
		15780	49.83	-24.17	74	58.92	37.78	15.39	62.26	150	345	P	H
		10520	51.55	-22.45	74	59.43	39.99	12.84	60.71	150	220	P	V
		10520	41	-13	54	48.88	39.99	12.84	60.71	150	220	A	V
		15780	50.15	-23.85	74	59.24	37.78	15.39	62.26	150	345	P	V
802.11ac VHT20 CH 60 5300MHz		10600	51.29	-22.71	74	58.97	39.96	12.88	60.52	185	215	P	H
		10600	41.28	-12.72	54	48.96	39.96	12.88	60.52	185	215	A	H
		15900	50.84	-23.16	74	60	37.68	15.48	62.32	196	190	P	H
		10600	51.41	-22.59	74	59.09	39.96	12.88	60.52	185	215	P	V
		10600	41.2	-12.8	54	48.88	39.96	12.88	60.52	185	215	A	V
		15900	49.73	-24.27	74	58.89	37.68	15.48	62.32	196	190	P	V
802.11ac VHT20 CH 64 5320MHz		10640	52.27	-21.73	74	59.87	39.94	12.91	60.45	152	135	P	H
		10640	42.1	-11.9	54	49.7	39.94	12.91	60.45	152	135	A	H
		15960	48.52	-25.48	74	57.7	37.63	15.54	62.35	173	245	P	H
		10640	51.58	-22.42	74	59.18	39.94	12.91	60.45	152	135	P	V
		10640	42.52	-11.48	54	50.12	39.94	12.91	60.45	152	135	A	V
		15960	49.1	-24.9	74	58.28	37.63	15.54	62.35	173	245	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 2 5250~5350MHz

## WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11ac VHT40 CH 54 5270MHz		5043.42	51.51	-22.49	74	41.74	32.91	8.87	32.01	150	54	P	H
		5131.3	42.91	-11.09	54	32.92	32.93	9.12	32.06	150	54	A	H
	*	5270	100.24	-	-	90.05	32.95	9.39	32.15	150	54	P	H
	*	5270	92.17	-	-	81.98	32.95	9.39	32.15	150	54	A	H
		5378.16	51.48	-22.52	74	41.26	32.98	9.47	32.23	150	54	P	H
		5351.76	44.26	-9.74	54	34.04	32.97	9.47	32.22	150	54	A	H
		5042.64	51.89	-22.11	74	42.12	32.91	8.87	32.01	158	266	P	V
		5150.02	42.85	-11.15	54	32.88	32.93	9.12	32.08	158	266	A	V
	*	5270	101.75	-	-	91.56	32.95	9.39	32.15	158	266	P	V
	*	5270	93.73	-	-	83.54	32.95	9.39	32.15	158	266	A	V
		5380.8	53.36	-20.64	74	43.14	32.98	9.47	32.23	158	266	P	V
		5362.08	45	-9	54	34.78	32.97	9.47	32.22	158	266	A	V
802.11ac VHT40 CH 62 5310MHz		5126.1	51.57	-22.43	74	41.58	32.93	9.12	32.06	150	53	P	H
		5130.26	42.78	-11.22	54	32.79	32.93	9.12	32.06	150	53	A	H
	*	5310	98.26	-	-	88.04	32.96	9.44	32.18	150	53	P	H
	*	5310	91.62	-	-	81.4	32.96	9.44	32.18	150	53	A	H
		5353.92	57.34	-16.66	74	47.12	32.97	9.47	32.22	150	53	P	H
		5350.8	48.57	-5.43	54	38.35	32.97	9.47	32.22	150	53	A	H
		5049.4	52.01	-21.99	74	42.24	32.91	8.87	32.01	150	264	P	V
		5145.86	42.82	-11.18	54	32.85	32.93	9.12	32.08	150	264	A	V
	*	5310	100.91	-	-	90.69	32.96	9.44	32.18	150	264	P	V
	*	5310	93.25	-	-	83.03	32.96	9.44	32.18	150	264	A	V
		5352.72	60	-14	74	49.78	32.97	9.47	32.22	150	264	P	V
		5351.28	49.9	-4.1	54	39.68	32.97	9.47	32.22	150	264	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												





## Band 2 5250~5350MHz

## WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 54 5270MHz		10540	53.16	-20.84	74	60.98	39.99	12.86	60.67	150	220	P	H
		10540	42.63	-11.37	54	50.45	39.99	12.86	60.67	150	220	A	H
		15810	50.28	-23.72	74	59.39	37.75	15.42	62.28	150	345	P	H
		10540	51.16	-22.84	74	58.98	39.99	12.86	60.67	150	220	P	V
		10540	40.99	-13.01	54	48.81	39.99	12.86	60.67	150	220	A	V
		15810	49.68	-24.32	74	58.79	37.75	15.42	62.28	150	345	P	V
802.11ac VHT40 CH 62 5310MHz		10620	51.54	-22.46	74	59.17	39.95	12.91	60.49	150	220	P	H
		10620	41.33	-12.67	54	48.96	39.95	12.91	60.49	150	220	A	H
		15930	49.9	-24.1	74	59.07	37.66	15.51	62.34	150	100	P	H
		10620	51.89	-22.11	74	59.52	39.95	12.91	60.49	150	220	P	V
		10620	41.9	-12.1	54	49.53	39.95	12.91	60.49	150	220	A	V
		15930	49.28	-24.72	74	58.45	37.66	15.51	62.34	150	100	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 2 5250~5350MHz

## WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11ac VHT80 CH 58 5290MHz		5054.08	51.68	-22.32	74	41.91	32.91	8.87	32.01	167	57	P	H
		5048.62	43.84	-10.16	54	34.07	32.91	8.87	32.01	167	57	A	H
	*	5297	91.69	-	-	81.49	32.96	9.42	32.18	167	57	P	H
	*	5297	83.09	-	-	72.89	32.96	9.42	32.18	167	57	A	H
		5353.44	65	-9	74	54.78	32.97	9.47	32.22	167	57	P	H
		5357.28	50.8	-3.2	54	40.58	32.97	9.47	32.22	167	57	A	H
		5031.98	51.31	-22.69	74	41.66	32.91	8.74	32	152	254	P	V
		5048.1	44.02	-9.98	54	34.25	32.91	8.87	32.01	152	254	A	V
	*	5290	91.55	-	-	81.34	32.96	9.42	32.17	152	254	P	V
	*	5290	83.58	-	-	73.37	32.96	9.42	32.17	152	254	A	V
		5350.8	65.26	-8.74	74	55.04	32.97	9.47	32.22	152	254	P	V
		5351.04	50.69	-3.31	54	40.47	32.97	9.47	32.22	152	254	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 2 5250~5350MHz

## WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10580	49.9	-24.1	74	57.61	39.97	12.88	60.56	250	0	P	H
VHT80		15870	48.63	-25.37	74	57.79	37.7	15.45	62.31	150	0	P	H
CH 58		10580	50.28	-23.72	74	57.99	39.97	12.88	60.56	250	0	P	V
5290MHz		15870	49.07	-24.93	74	58.23	37.7	15.45	62.31	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - 5470~5725MHz

## WIFI 802.11a (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		5470	54.28	-19.72	74	44.22	32.99	9.35	32.28	150	59	P	H
		5469.52	45.57	-8.43	54	35.51	32.99	9.35	32.28	150	59	A	H
	*	5500	103.79	-	-	93.74	33	9.35	32.3	150	59	P	H
	*	5500	97.11	-	-	87.06	33	9.35	32.3	150	59	A	H
		5469.04	53.1	-20.9	74	43.04	32.99	9.35	32.28	150	278	P	V
		5470	45.67	-8.33	54	35.61	32.99	9.35	32.28	150	278	A	V
	*	5500	104.31	-	-	94.26	33	9.35	32.3	150	278	P	V
	*	5500	96.33	-	-	86.28	33	9.35	32.3	150	278	A	V
802.11a CH 116 5580MHz		5464.24	53.92	-20.08	74	43.79	32.99	9.42	32.28	150	53	P	H
		5459.92	44.19	-9.81	54	34.06	32.99	9.42	32.28	150	53	A	H
	*	5580	106.05	-	-	95.91	33.08	9.22	32.16	150	53	P	H
	*	5580	97.94	-	-	87.8	33.08	9.22	32.16	150	53	A	H
		5765	52.27	-21.73	74	41.32	33.31	9.54	31.9	150	53	P	H
		5747.325	43	-11	54	32.11	33.29	9.54	31.94	150	53	A	H
		5466.88	52.19	-21.81	74	42.13	32.99	9.35	32.28	161	270	P	V
		5464.96	44.14	-9.86	54	34.01	32.99	9.42	32.28	161	270	A	V
	*	5580	105.03	-	-	94.89	33.08	9.22	32.16	161	270	P	V
	*	5580	96.14	-	-	86	33.08	9.22	32.16	161	270	A	V
		5757.125	52.14	-21.86	74	41.19	33.31	9.54	31.9	161	270	P	V
		5727.025	43.15	-10.85	54	32.42	33.27	9.44	31.98	161	270	A	V



<b>802.11a</b> <b>CH 140</b> <b>5700MHz</b>	*	5700	105.57	-	-	94.91	33.23	9.44	32.01	150	55	P	H
	*	5700	97.28	-	-	86.62	33.23	9.44	32.01	150	55	A	H
		5747	54.73	-19.27	74	43.84	33.29	9.54	31.94	150	55	P	H
		5725	46.38	-7.62	54	35.65	33.27	9.44	31.98	150	55	A	H
	*	5700	105.49	-	-	94.83	33.23	9.44	32.01	150	271	P	V
	*	5700	97.63	-	-	86.97	33.23	9.44	32.01	150	271	A	V
		5731.32	55.78	-18.22	74	45.01	33.27	9.44	31.94	150	271	P	V
		5726.92	46.27	-7.73	54	35.54	33.27	9.44	31.98	150	271	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 3 - 5470~5725MHz**  
**WIFI 802.11a (Harmonic @ 3m)**

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11a CH 100 5500MHz		11000	55.14	-18.86	74	61.89	39.8	13.11	59.66	163	230	P	H
		11000	44.51	-9.49	54	51.26	39.8	13.11	59.66	163	230	A	H
		16500	50.54	-23.46	74	57.45	38.5	15.85	61.26	178	296	P	H
		11000	52.88	-21.12	74	59.63	39.8	13.11	59.66	163	230	P	V
		11000	42.04	-11.96	54	48.79	39.8	13.11	59.66	163	230	A	V
		16500	50.55	-23.45	74	57.46	38.5	15.85	61.26	178	296	P	V
802.11a CH 116 5580MHz		11160	55.44	-18.56	74	62.09	39.77	13.23	59.65	170	200	P	H
		11160	44.7	-9.3	54	51.35	39.77	13.23	59.65	170	200	A	H
		16740	51.04	-22.96	74	56.74	38.98	16.01	60.69	156	350	P	H
		16740	40.62	-13.38	54	46.32	38.98	16.01	60.69	156	350	A	H
		11160	54.53	-19.47	74	61.18	39.77	13.23	59.65	170	200	P	V
		11160	44.22	-9.78	54	50.87	39.77	13.23	59.65	170	200	A	V
802.11a CH 140 5700MHz		11400	56.55	-17.45	74	63.1	39.72	13.37	59.64	150	285	P	H
		11400	47.06	-6.94	54	53.61	39.72	13.37	59.64	150	285	A	H
		17100	52.15	-21.85	74	56.27	39.74	16.22	60.08	165	246	P	H
		17100	42.41	-11.59	54	46.53	39.74	16.22	60.08	165	246	A	H
		11400	57.19	-16.81	74	63.74	39.72	13.37	59.64	150	285	P	V
		11400	46.4	-7.6	54	52.95	39.72	13.37	59.64	150	285	A	V
		17100	52.38	-21.62	74	56.5	39.74	16.22	60.08	165	246	P	V
		17100	42.04	-11.96	54	46.16	39.74	16.22	60.08	165	246	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 3 - 5470~5725MHz**  
**WIFI 802.11n HT20 (Band Edge @ 3m)**

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11n HT20 CH 100 5500MHz		5426	53.23	-20.77	74	43.03	32.98	9.49	32.27	150	51	P	H
		5468.88	45.67	-8.33	54	35.61	32.99	9.35	32.28	150	51	A	H
	*	5500	104.63	-	-	94.58	33	9.35	32.3	150	51	P	H
	*	5500	96.78	-	-	86.73	33	9.35	32.3	150	51	A	H
		5432.72	52.97	-21.03	74	42.83	32.99	9.42	32.27	174	279	P	V
		5468.56	45.45	-8.55	54	35.39	32.99	9.35	32.28	174	279	A	V
	*	5500	104.23	-	-	94.18	33	9.35	32.3	174	279	P	V
	*	5500	96.11	-	-	86.06	33	9.35	32.3	174	279	A	V
802.11n HT20 CH 116 5580MHz		5464.96	52.63	-21.37	74	42.5	32.99	9.42	32.28	150	51	P	H
		5459.68	44.24	-9.76	54	34.11	32.99	9.42	32.28	150	51	A	H
	*	5580	104.82	-	-	94.68	33.08	9.22	32.16	150	51	P	H
	*	5580	97.03	-	-	86.89	33.08	9.22	32.16	150	51	A	H
		5758.525	52.09	-21.91	74	41.14	33.31	9.54	31.9	150	51	P	H
		5745.4	42.91	-11.09	54	32.02	33.29	9.54	31.94	150	51	A	H
		5460.4	51.86	-22.14	74	41.73	32.99	9.42	32.28	168	279	P	V
		5459.92	44.15	-9.85	54	34.02	32.99	9.42	32.28	168	279	A	V
	*	5580	104.41	-	-	94.27	33.08	9.22	32.16	168	279	P	V
	*	5580	95.83	-	-	85.69	33.08	9.22	32.16	168	279	A	V
		5729.125	53.45	-20.55	74	42.72	33.27	9.44	31.98	168	279	P	V
		5729.125	42.99	-11.01	54	32.26	33.27	9.44	31.98	168	279	A	V



<b>802.11n HT20 CH 140 5700MHz</b>	*	5700	105.71	-	-	95.05	33.23	9.44	32.01	154	56	P	H
	*	5700	96.55	-	-	85.89	33.23	9.44	32.01	154	56	A	H
		5725.64	54.82	-19.18	74	44.09	33.27	9.44	31.98	154	56	P	H
		5725.32	46.78	-7.22	54	36.05	33.27	9.44	31.98	154	56	A	H
	*	5700	105.49	-	-	94.83	33.23	9.44	32.01	150	271	P	V
	*	5700	96.55	-	-	85.89	33.23	9.44	32.01	150	271	A	V
		5733.8	55.09	-18.91	74	44.32	33.27	9.44	31.94	150	271	P	V
		5725	46.68	-7.32	54	35.95	33.27	9.44	31.98	150	271	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												





**Band 3 - 5470~5725MHz**  
**WIFI 802.11n HT20 (Harmonic @ 3m)**

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11n HT20 CH 100 5500MHz		11000	54.59	-19.41	74	61.34	39.8	13.11	59.66	163	230	P	H
		11000	44.67	-9.33	54	51.42	39.8	13.11	59.66	163	230	A	H
		16500	52.32	-21.68	74	59.23	38.5	15.85	61.26	178	296	P	H
		16500	41.77	-12.23	54	48.68	38.5	15.85	61.26	178	296	A	H
		11000	53.86	-20.14	74	60.61	39.8	13.11	59.66	163	230	P	V
		11000	43.49	-10.51	54	50.24	39.8	13.11	59.66	163	230	A	V
		16500	50.92	-23.08	74	57.83	38.5	15.85	61.26	178	296	P	V
802.11n HT20 CH 116 5580MHz		11160	55.49	-18.51	74	62.14	39.77	13.23	59.65	170	200	P	H
		11160	44.93	-9.07	54	51.58	39.77	13.23	59.65	170	200	A	H
		16740	50.98	-23.02	74	56.68	38.98	16.01	60.69	156	350	P	H
		11160	56.78	-17.22	74	63.43	39.77	13.23	59.65	170	200	P	V
		11160	46.52	-7.48	54	53.17	39.77	13.23	59.65	170	200	A	V
		16740	51.03	-22.97	74	56.73	38.98	16.01	60.69	156	350	P	V
		16740	40.89	-13.11	54	46.59	38.98	16.01	60.69	156	350	A	V
802.11n HT20 CH 140 5700MHz		11400	56.58	-17.42	74	63.13	39.72	13.37	59.64	150	285	P	H
		11400	46.18	-7.82	54	52.73	39.72	13.37	59.64	150	285	A	H
		17100	52.32	-21.68	74	56.44	39.74	16.22	60.08	165	246	P	H
		17100	42.76	-11.24	54	46.88	39.74	16.22	60.08	165	246	A	H
		11400	58.21	-15.79	74	64.76	39.72	13.37	59.64	150	285	P	V
		11400	47.76	-6.24	54	54.31	39.72	13.37	59.64	150	285	A	V
		17100	51.49	-22.51	74	55.61	39.74	16.22	60.08	165	246	P	V
		17100	41.75	-12.25	54	45.87	39.74	16.22	60.08	165	246	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - 5470~5725MHz

## WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11n HT40 CH 102 5510MHz		5470	62.86	-11.14	74	52.8	32.99	9.35	32.28	167	58	P	H
		5469.76	50.9	-3.1	54	40.84	32.99	9.35	32.28	167	58	A	H
	*	5510	101.25	-	-	91.22	33	9.29	32.26	167	58	P	H
	*	5510	92.97	-	-	82.94	33	9.29	32.26	167	58	A	H
		5758.7	51.92	-22.08	74	40.97	33.31	9.54	31.9	167	58	P	H
		5752.4	42.81	-11.19	54	31.9	33.31	9.54	31.94	167	58	A	H
		5466.88	55.67	-18.33	74	45.61	32.99	9.35	32.28	170	272	P	V
		5469.76	49.87	-4.13	54	39.81	32.99	9.35	32.28	170	272	A	V
	*	5510	99.91	-	-	89.88	33	9.29	32.26	170	272	P	V
	*	5510	92.04	-	-	82.01	33	9.29	32.26	170	272	A	V
		5764.37	50.76	-23.24	74	39.81	33.31	9.54	31.9	170	272	P	V
		5739.17	42.74	-11.26	54	31.85	33.29	9.54	31.94	170	272	A	V
802.11n HT40 CH 110 5550MHz		5465.2	53.97	-20.03	74	43.84	32.99	9.42	32.28	165	57	P	H
		5468.56	46.46	-7.54	54	36.4	32.99	9.35	32.28	165	57	A	H
	*	5550	104.8	-	-	94.75	33.06	9.22	32.23	165	57	P	H
	*	5550	95.77	-	-	85.72	33.06	9.22	32.23	165	57	A	H
		5739.17	51.96	-22.04	74	41.07	33.29	9.54	31.94	165	57	P	H
		5726.57	44.08	-9.92	54	33.35	33.27	9.44	31.98	165	57	A	H
		5469.52	53.22	-20.78	74	43.16	32.99	9.35	32.28	172	275	P	V
		5466.4	45.59	-8.41	54	35.53	32.99	9.35	32.28	172	275	A	V
	*	5550	100.89	-	-	90.84	33.06	9.22	32.23	172	275	P	V
	*	5550	92.92	-	-	82.87	33.06	9.22	32.23	172	275	A	V
		5731.295	51.6	-22.4	74	40.83	33.27	9.44	31.94	172	275	P	V
		5746.1	43.19	-10.81	54	32.3	33.29	9.54	31.94	172	275	A	V



<b>802.11n</b>  <b>HT40</b>  <b>CH 134</b>  <b>5670MHz</b>		5430.5	52.17	-21.83	74	42.03	32.99	9.42	32.27	167	55	P	H
		5467.95	43.7	-10.3	54	33.64	32.99	9.35	32.28	167	55	A	H
	*	5670	105.29	-	-	94.78	33.21	9.35	32.05	167	55	P	H
	*	5670	97.64	-	-	87.13	33.21	9.35	32.05	167	55	A	H
		5732.555	53.95	-20.05	74	43.18	33.27	9.44	31.94	167	55	P	H
		5724.995	46.96	-7.04	54	36.23	33.27	9.44	31.98	167	55	A	H
		5456.4	51.09	-22.91	74	40.96	32.99	9.42	32.28	171	273	P	V
		5467.6	43.22	-10.78	54	33.16	32.99	9.35	32.28	171	273	A	V
	*	5670	103.33	-	-	92.82	33.21	9.35	32.05	171	273	P	V
	*	5670	94.79	-	-	84.28	33.21	9.35	32.05	171	273	A	V
		5739.485	54.63	-19.37	74	43.74	33.29	9.54	31.94	171	273	P	V
		5729.09	44.96	-9.04	54	34.23	33.27	9.44	31.98	171	273	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 3 - 5470~5725MHz**  
**WIFI 802.11n HT40 (Harmonic @ 3m)**

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11n HT40 CH 102 5510MHz		11020	51.57	-22.43	74	58.29	39.8	13.14	59.66	156	230	P	H
		11020	46.53	-7.47	54	53.25	39.8	13.14	59.66	156	230	A	H
		16530	50.51	-23.49	74	57.25	38.57	15.87	61.18	162	300	P	H
		11020	53.74	-20.26	74	60.46	39.8	13.14	59.66	155	230	P	V
		11020	47.53	-6.47	54	54.25	39.8	13.14	59.66	155	230	A	V
		16530	49.94	-24.06	74	56.68	38.57	15.87	61.18	185	300	P	V
802.11n HT40 CH 110 5550MHz		11100	51.58	-22.42	74	58.27	39.78	13.18	59.65	150	200	P	H
		11100	41.14	-12.86	54	47.83	39.78	13.18	59.65	150	200	A	H
		16650	50.75	-23.25	74	56.89	38.81	15.94	60.89	150	350	P	H
		11100	52.06	-21.94	74	58.75	39.78	13.18	59.65	150	200	P	V
		11100	41.51	-12.49	54	48.2	39.78	13.18	59.65	150	200	A	V
		16650	51.25	-22.75	74	57.39	38.81	15.94	60.89	150	350	P	V
802.11n HT40 CH 134 5670MHz		11340	54.32	-19.68	74	60.91	39.73	13.32	59.64	200	360	P	H
		11340	43.75	-10.25	54	50.34	39.73	13.32	59.64	200	360	A	H
		17010	51.14	-22.86	74	55.49	39.54	16.18	60.07	200	360	P	H
		17010	41.67	-12.33	54	46.02	39.54	16.18	60.07	200	360	A	H
		11340	55.35	-18.65	74	61.94	39.73	13.32	59.64	200	360	P	V
		11340	45.1	-8.9	54	51.69	39.73	13.32	59.64	200	360	A	V
		17010	52.34	-21.66	74	56.69	39.54	16.18	60.07	200	360	P	V
		17010	42.49	-11.51	54	46.84	39.54	16.18	60.07	200	360	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 3 - 5470~5725MHz**  
**WIFI 802.11ac VHT20 (Band Edge @ 3m)**

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11ac VHT20 CH 100 5500MHz		5470	52.63	-21.37	74	42.57	32.99	9.35	32.28	150	84	P	H
		5469.04	44.92	-9.08	54	34.86	32.99	9.35	32.28	150	84	A	H
	*	5500	103.36	-	-	93.31	33	9.35	32.3	150	84	P	H
	*	5500	94.83	-	-	84.78	33	9.35	32.3	150	84	A	H
		5463.44	54.06	-19.94	74	43.93	32.99	9.42	32.28	150	263	P	V
		5469.84	45.96	-8.04	54	35.9	32.99	9.35	32.28	150	263	A	V
	*	5500	104.32	-	-	94.27	33	9.35	32.3	150	263	P	V
	*	5500	95.67	-	-	85.62	33	9.35	32.3	150	263	A	V
802.11ac VHT20 CH 116 5580MHz		5469.52	52.7	-21.3	74	42.64	32.99	9.35	32.28	158	74	P	H
		5460.64	43.16	-10.84	54	33.03	32.99	9.42	32.28	158	74	A	H
	*	5580	103.67	-	-	93.53	33.08	9.22	32.16	158	74	P	H
	*	5580	95.71	-	-	85.57	33.08	9.22	32.16	158	74	A	H
		5726.5	51.39	-22.61	74	40.66	33.27	9.44	31.98	158	74	P	H
		5763.25	42.85	-11.15	54	31.9	33.31	9.54	31.9	158	74	A	H
		5456.32	51.79	-22.21	74	41.66	32.99	9.42	32.28	150	265	P	V
		5459.92	44.1	-9.9	54	33.97	32.99	9.42	32.28	150	265	A	V
	*	5580	103.84	-	-	93.7	33.08	9.22	32.16	150	265	P	V
	*	5580	96.3	-	-	86.16	33.08	9.22	32.16	150	265	A	V
		5748.025	52.03	-21.97	74	41.14	33.29	9.54	31.94	150	265	P	V
		5732.275	43.29	-10.71	54	32.52	33.27	9.44	31.94	150	265	A	V



<b>802.11ac</b>  <b>VHT20</b>  <b>CH 140</b>  <b>5700MHz</b>	*	5700	104.96	-	-	94.3	33.23	9.44	32.01	163	57	P	H
	*	5700	96.69	-	-	86.03	33.23	9.44	32.01	163	57	A	H
		5725.32	54.02	-19.98	74	43.29	33.27	9.44	31.98	163	57	P	H
		5725	45.73	-8.27	54	35	33.27	9.44	31.98	163	57	A	H
	*	5700	105.01	-	-	94.35	33.23	9.44	32.01	150	266	P	V
	*	5700	96.65	-	-	85.99	33.23	9.44	32.01	150	266	A	V
		5729.72	54.3	-19.7	74	43.57	33.27	9.44	31.98	150	266	P	V
		5725.16	45.87	-8.13	54	35.14	33.27	9.44	31.98	150	266	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - 5470~5725MHz

## WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 100 5500MHz		11000	54.12	-19.88	74	60.87	39.8	13.11	59.66	163	230	P	H
		11000	43.66	-10.34	54	50.41	39.8	13.11	59.66	163	230	A	H
		16500	50.27	-23.73	74	57.18	38.5	15.85	61.26	178	296	P	H
		11000	54.2	-19.8	74	60.95	39.8	13.11	59.66	163	230	P	V
		11000	43.88	-10.12	54	50.63	39.8	13.11	59.66	163	230	A	V
		16500	49.95	-24.05	74	56.86	38.5	15.85	61.26	178	296	P	V
802.11ac VHT20 CH 116 5580MHz		11160	56.31	-17.69	74	62.96	39.77	13.23	59.65	170	200	P	H
		11160	46.49	-7.51	54	53.14	39.77	13.23	59.65	170	200	A	H
		16740	50.96	-23.04	74	56.66	38.98	16.01	60.69	156	350	P	H
		11160	55.25	-18.75	74	61.9	39.77	13.23	59.65	170	200	P	V
		11160	45.03	-8.97	54	51.68	39.77	13.23	59.65	170	200	A	V
		16740	51.27	-22.73	74	56.97	38.98	16.01	60.69	156	350	P	V
802.11ac VHT20 CH 140 5700MHz		11400	58.63	-15.37	74	65.18	39.72	13.37	59.64	150	285	P	H
		11400	48.68	-5.32	54	55.23	39.72	13.37	59.64	150	285	A	H
		17100	51.19	-22.81	74	55.31	39.74	16.22	60.08	165	246	P	H
		17100	41.5	-12.5	54	45.62	39.74	16.22	60.08	165	246	A	H
		11400	58.59	-15.41	74	65.14	39.72	13.37	59.64	150	285	P	V
		11400	48.33	-5.67	54	54.88	39.72	13.37	59.64	150	285	A	V
		17100	51.14	-22.86	74	55.26	39.74	16.22	60.08	165	246	P	V
		17100	42.09	-11.91	54	46.21	39.74	16.22	60.08	165	246	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 3 - 5470~5725MHz**  
**WIFI 802.11ac VHT40 (Band Edge @ 3m)**

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11ac VHT40 CH 102 5510MHz		5466.64	56.37	-17.63	74	46.31	32.99	9.35	32.28	150	64	P	H
		5470	50.21	-3.79	54	40.15	32.99	9.35	32.28	150	64	A	H
	*	5510	99.57	-	-	89.54	33	9.29	32.26	150	64	P	H
	*	5510	92.67	-	-	82.64	33	9.29	32.26	150	64	A	H
		5760.975	50.52	-23.48	74	39.57	33.31	9.54	31.9	150	64	P	H
		5749.95	42.58	-11.42	54	31.69	33.29	9.54	31.94	150	64	A	H
		5469.52	56.94	-17.06	74	46.88	32.99	9.35	32.28	150	268	P	V
		5470	50.75	-3.25	54	40.69	32.99	9.35	32.28	150	268	A	V
	*	5510	100.12	-	-	90.09	33	9.29	32.26	150	268	P	V
	*	5510	92.45	-	-	82.42	33	9.29	32.26	150	268	A	V
		5748.725	51.59	-22.41	74	40.7	33.29	9.54	31.94	150	268	P	V
		5750.3	42.76	-11.24	54	31.87	33.29	9.54	31.94	150	268	A	V
802.11ac VHT40 CH 110 5550MHz		5468.08	53.11	-20.89	74	43.05	32.99	9.35	32.28	156	64	P	H
		5468.32	44.9	-9.1	54	34.84	32.99	9.35	32.28	156	64	A	H
	*	5550	101.52	-	-	91.47	33.06	9.22	32.23	156	64	P	H
	*	5550	93.48	-	-	83.43	33.06	9.22	32.23	156	64	A	H
		5749.6	52.21	-21.79	74	41.32	33.29	9.54	31.94	156	64	P	H
		5729.125	42.58	-11.42	54	31.85	33.27	9.44	31.98	156	64	A	H
		5439.52	53.49	-20.51	74	43.35	32.99	9.42	32.27	150	264	P	V
		5460.88	45.37	-8.63	54	35.24	32.99	9.42	32.28	150	264	A	V
	*	5550	102.39	-	-	92.34	33.06	9.22	32.23	150	264	P	V
	*	5550	93.46	-	-	83.41	33.06	9.22	32.23	150	264	A	V
		5750.475	51.09	-22.91	74	40.2	33.29	9.54	31.94	150	264	P	V
		5727.9	42.83	-11.17	54	32.1	33.27	9.44	31.98	150	264	A	V





<b>802.11ac</b> <b>VHT40</b> <b>CH 134</b> <b>5670MHz</b>		5452.96	50.27	-23.73	74	40.14	32.99	9.42	32.28	204	55	P	H
		5462.32	42.16	-11.84	54	32.03	32.99	9.42	32.28	204	55	A	H
	*	5670	102.2	-	-	91.69	33.21	9.35	32.05	204	55	P	H
	*	5670	93.91	-	-	83.4	33.21	9.35	32.05	204	55	A	H
		5747.675	53.47	-20.53	74	42.58	33.29	9.54	31.94	204	55	P	H
		5728.25	45.26	-8.74	54	34.53	33.27	9.44	31.98	204	55	A	H
		5429.2	50.47	-23.53	74	40.33	32.99	9.42	32.27	150	242	P	V
		5465.2	42.54	-11.46	54	32.41	32.99	9.42	32.28	150	242	A	V
	*	5670	102.76	-	-	92.25	33.21	9.35	32.05	150	242	P	V
	*	5670	94.38	-	-	83.87	33.21	9.35	32.05	150	242	A	V
		5731.05	52.8	-21.2	74	42.03	33.27	9.44	31.94	150	242	P	V
		5725.8	44.82	-9.18	54	34.09	33.27	9.44	31.98	150	242	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - 5470~5725MHz

## WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11ac VHT40 CH 102 5510MHz		11020	52.76	-21.24	74	59.48	39.8	13.14	59.66	150	230	P	H
		11020	43.9	-10.1	54	50.62	39.8	13.14	59.66	150	230	A	H
		16530	50.35	-23.65	74	57.09	38.57	15.87	61.18	150	300	P	H
		11020	52.89	-21.11	74	59.61	39.8	13.14	59.66	150	230	P	V
		11020	42.79	-11.21	54	49.51	39.8	13.14	59.66	150	230	A	V
		16530	50.26	-23.74	74	57	38.57	15.87	61.18	150	300	P	V
802.11ac VHT40 CH 110 5550MHz		11100	52.8	-21.2	74	59.49	39.78	13.18	59.65	150	200	P	H
		11100	43.33	-10.67	54	50.02	39.78	13.18	59.65	150	200	A	H
		16650	51.05	-22.95	74	57.19	38.81	15.94	60.89	150	350	P	H
		16650	40.66	-13.34	54	46.8	38.81	15.94	60.89	150	350	A	H
		11100	53.87	-20.13	74	60.56	39.78	13.18	59.65	150	200	P	V
		11100	44.16	-9.84	54	50.85	39.78	13.18	59.65	150	200	A	V
802.11ac VHT40 CH 134 5670MHz		11340	52.21	-21.79	74	58.8	39.73	13.32	59.64	200	360	P	H
		11340	42.05	-11.95	54	48.64	39.73	13.32	59.64	200	360	A	H
		17010	51.19	-22.81	74	55.54	39.54	16.18	60.07	200	360	P	H
		17010	41.49	-12.51	54	45.84	39.54	16.18	60.07	200	360	A	H
		11340	54.58	-19.42	74	61.17	39.73	13.32	59.64	200	360	P	V
		11340	44.21	-9.79	54	50.8	39.73	13.32	59.64	200	360	A	V
		17010	51.68	-22.32	74	56.03	39.54	16.18	60.07	200	360	P	V
		17010	42.06	-11.94	54	46.41	39.54	16.18	60.07	200	360	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 5470~5725MHz

## WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 106 5530MHz		5470	51.86	-22.14	74	41.8	32.99	9.35	32.28	172	50	P	H
		5468.8	50.24	-3.76	54	40.18	32.99	9.35	32.28	172	50	A	H
	*	5530	92.5	-	-	82.42	33.02	9.29	32.23	172	50	P	H
	*	5530	84.76	-	-	74.68	33.02	9.29	32.23	172	50	A	H
		5730.035	50.64	-23.36	74	39.91	33.27	9.44	31.98	172	50	P	H
		5728.145	43.59	-10.41	54	32.86	33.27	9.44	31.98	172	50	A	H
		5462.8	62.96	-11.04	74	52.83	32.99	9.42	32.28	161	257	P	V
		5415.52	49.92	-4.08	54	39.7	32.98	9.49	32.25	161	257	A	V
	*	5530	91.02	-	-	80.94	33.02	9.29	32.23	161	257	P	V
	*	5530	83.74	-	-	73.66	33.02	9.29	32.23	161	257	A	V
		5743.895	50.55	-23.45	74	39.66	33.29	9.54	31.94	161	257	P	V
		5748.62	43.32	-10.68	54	32.43	33.29	9.54	31.94	161	257	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 5470~5725MHz

## WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 106 5530MHz		11060	50.97	-23.03	74	57.68	39.79	13.16	59.66	250	0	P	H
		16590	50.37	-23.63	74	56.83	38.67	15.92	61.05	150	0	P	H
		11060	51.87	-22.13	74	58.58	39.79	13.16	59.66	250	0	P	V
		11060	42.29	-11.71	54	49	39.79	13.16	59.66	250	0	A	V
		16590	49.91	-24.09	74	56.37	38.67	15.92	61.05	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Band 3 - Straddle Channel

## WIFI 802.11a (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 144 5720MHz	*	5720	106.71	-	-	95.98	33.27	9.44	31.98	176	48	P	H
		5720	98.8	-	-	88.07	33.27	9.44	31.98	176	48	A	H
	*	5722	106.55	-	-	95.82	33.27	9.44	31.98	157	279	P	V
		5722	98.33	-	-	87.6	33.27	9.44	31.98	157	279	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 3 - Straddle Channel**  
**WIFI 802.11a (Harmonic @ 3m)**

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
<b>802.11a CH 144 5720MHz</b>		11440	59.3	-14.7	74	65.83	39.71	13.39	59.63	250	0	P	H
		11440	49.03	-4.97	54	55.56	39.71	13.39	59.63	250	0	A	H
		17160	50.53	-23.47	74	54.47	39.9	16.25	60.09	150	0	P	H
		11440	60.32	-13.68	74	66.85	39.71	13.39	59.63	250	0	P	V
		11440	49.44	-4.56	54	55.97	39.71	13.39	59.63	250	0	A	V
		17160	50.18	-23.82	74	54.12	39.9	16.25	60.09	150	0	P	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 3 - Straddle Channel**  
**WIFI 802.11n HT20 (Band Edge @ 3m)**

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n	*	5720	106.11	-	-	95.38	33.27	9.44	31.98	189	60	P	H
HT20		5720	98.12	-	-	87.39	33.27	9.44	31.98	189	60	A	H
CH 144	*	5720	105.1	-	-	94.37	33.27	9.44	31.98	151	252	P	V
5720MHz		5720	97.48	-	-	86.75	33.27	9.44	31.98	151	252	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 3 - Straddle Channel**  
**WIFI 802.11n HT20 (Harmonic @ 3m)**

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 144 5720MHz		11440	58.14	-15.86	74	64.67	39.71	13.39	59.63	250	0	P	H
		11440	47.7	-6.3	54	54.23	39.71	13.39	59.63	250	0	A	H
		17160	50.52	-23.48	74	54.46	39.9	16.25	60.09	150	0	P	H
		11440	59.59	-14.41	74	66.12	39.71	13.39	59.63	250	0	P	V
		11440	49.48	-4.52	54	56.01	39.71	13.39	59.63	250	0	A	V
		17160	50.89	-23.11	74	54.83	39.9	16.25	60.09	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												





**Band 3 - Straddle Channel**  
**WIFI 802.11n HT40 (Band Edge @ 3m)**

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11n	*	5710	104.87	-	-	94.16	33.25	9.44	31.98	178	46	P	H
HT40	*	5710	94.46	-	-	83.75	33.25	9.44	31.98	178	46	A	H
CH 142	*	5710	102.6	-	-	91.89	33.25	9.44	31.98	192	292	P	V
5710MHz		5710	93.07	-	-	82.36	33.25	9.44	31.98	192	292	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 3 - Straddle Channel**  
**WIFI 802.11n HT40 (Harmonic @ 3m)**

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11n HT40 CH 142 5710MHz		11420	55.72	-18.28	74	62.27	39.72	13.37	59.64	250	0	P	H
		11420	45.81	-8.19	54	52.36	39.72	13.37	59.64	250	0	A	H
		17130	50.82	-23.18	74	54.83	39.82	16.25	60.08	150	0	P	H
		11420	56.63	-17.37	74	63.18	39.72	13.37	59.64	250	0	P	V
		11420	47.24	-6.76	54	53.79	39.72	13.37	59.64	250	0	A	V
		17130	50	-24	74	54.01	39.82	16.25	60.08	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 3 - Straddle Channel**  
**WIFI 802.11ac VHT20 (Band Edge @ 3m)**

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac	*	5720	104.18	-	-	95.21	33.27	7.68	31.98	233	51	P	H
VHT20	*	5720	96.37	-	-	87.4	33.27	7.68	31.98	233	51	A	H
CH 144	*	5720	102.37	-	-	93.4	33.27	7.68	31.98	221	264	P	V
5720MHz	*	5720	94.5	-	-	85.53	33.27	7.68	31.98	221	264	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 3 - Straddle Channel**  
**WIFI 802.11ac VHT20 (Harmonic @ 3m)**

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 144 5720MHz		11440	57.83	-16.17	74	64.36	39.71	13.39	59.63	250	0	P	H
		11440	47.73	-6.27	54	54.26	39.71	13.39	59.63	250	0	A	H
		17160	50.21	-23.79	74	54.15	39.9	16.25	60.09	150	0	P	H
		11440	61.1	-12.9	74	67.63	39.71	13.39	59.63	250	0	P	V
		11440	50.07	-3.93	54	56.6	39.71	13.39	59.63	250	0	A	V
		17160	50.53	-23.47	74	54.47	39.9	16.25	60.09	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 3 - Straddle Channel**  
**WIFI 802.11ac VHT40 (Band Edge @ 3m)**

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11ac	*	5710	102.94	-	-	92.23	33.25	9.44	31.98	217	52	P	H
VHT40		5710	95.6	-	-	84.89	33.25	9.44	31.98	217	52	A	H
CH 142	*	5710	102.82	-	-	92.11	33.25	9.44	31.98	250	279	P	V
5710MHz		5710	93.56	-	-	82.85	33.25	9.44	31.98	250	279	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 3 - Straddle Channel**  
**WIFI 802.11ac VHT40 (Harmonic @ 3m)**

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11ac VHT40 CH 142 5710MHz		11420	55.65	-18.35	74	62.2	39.72	13.37	59.64	250	0	P	H
		11420	46.66	-7.34	54	53.21	39.72	13.37	59.64	250	0	A	H
		17130	50.84	-23.16	74	54.85	39.82	16.25	60.08	150	0	P	H
		11420	57.2	-16.8	74	63.75	39.72	13.37	59.64	250	0	P	V
		11420	47.86	-6.14	54	54.41	39.72	13.37	59.64	250	0	A	V
		17130	50.62	-23.38	74	54.63	39.82	16.25	60.08	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 3 - Straddle Channel**  
**WIFI 802.11ac VHT80 (Band Edge @ 3m)**

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac	*	5690	100.29	-	-	89.72	33.23	9.35	32.01	231	56	P	H
VHT80		5690	92.3	-	-	81.73	33.23	9.35	32.01	231	56	A	H
CH 138	*	5690	99.06	-	-	88.49	33.23	9.35	32.01	190	255	P	V
5690MHz		5690	91.05	-	-	80.48	33.23	9.35	32.01	190	255	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 3 - Straddle Channel**  
**WIFI 802.11ac VHT80 (Harmonic @ 3m)**

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 138 5690MHz		11380	51.85	-22.15	74	58.43	39.72	13.34	59.64	250	0	P	H
		11380	44.69	-9.31	54	51.27	39.72	13.34	59.64	250	0	A	H
		17070	50.07	-23.93	74	54.29	39.66	16.2	60.08	150	0	P	H
		11380	51.5	-22.5	74	58.08	39.72	13.34	59.64	250	0	P	V
		11380	43.72	-10.28	54	50.3	39.72	13.34	59.64	250	0	A	V
		17070	50.1	-23.9	74	54.32	39.66	16.2	60.08	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												





## Emission below 1GHz

## WIFI 802.11n HT40 (LF @ 3m)

WIFI	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		101.78	24.61	-18.89	43.5	36.79	18.76	0.8	31.74	-	-	P	H
		159.01	29.8	-13.7	43.5	42.79	17.41	1.09	31.49	-	-	P	H
		201.69	34.73	-8.77	43.5	49.11	15.69	1.26	31.33	100	60	P	H
		296.75	26.16	-19.84	46	36.86	19.04	1.62	31.36	-	-	P	H
		450.98	30.68	-15.32	46	34.94	24.86	2.03	31.15	-	-	P	H
		938.89	31.72	-14.28	46	30.66	29.21	3.05	31.2	-	-	P	H
		37.76	28.71	-11.29	40	36.95	23.34	0.41	31.99	150	200	P	V
		103.72	27.29	-16.21	43.5	39.49	18.72	0.81	31.73	-	-	P	V
		203.63	31.33	-12.17	43.5	45.61	15.78	1.27	31.33	-	-	P	V
		422.85	28.75	-17.25	46	32.48	25.49	1.99	31.21	-	-	P	V
		679.9	30.38	-15.62	46	32.31	26.73	2.58	31.24	-	-	P	V
		991.27	33.47	-20.53	54	31.29	30.23	3.18	31.23	-	-	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.
!	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+2		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
802.11b		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 01													
2412MHz		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

1. Level(dBμV/m) =

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

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

**For Peak Limit @ 2390MHz:**

1. Level(dBμV/m)

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

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

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

**For Average Limit @ 2390MHz:**

1. Level(dBμV/m)

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

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

= 43.54 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

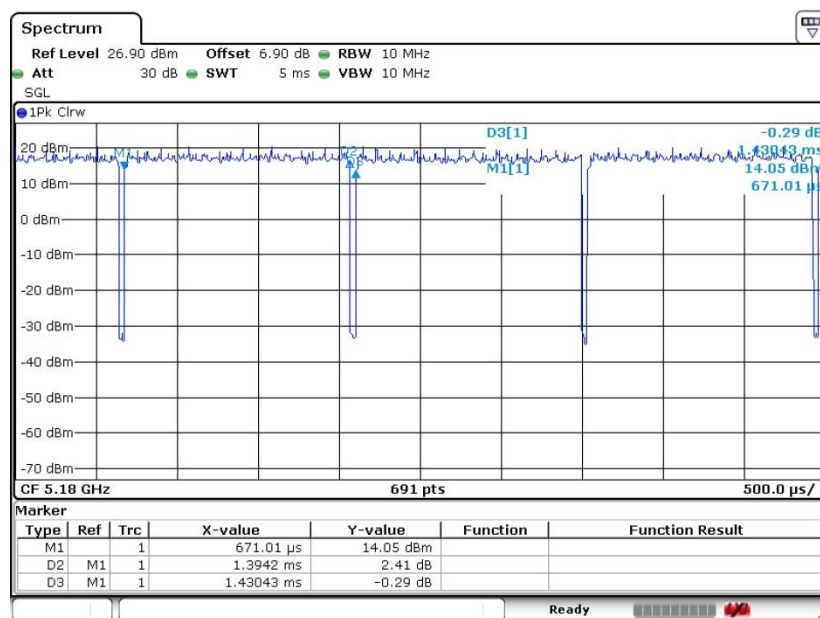
= -10.46(dB)

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

## Appendix C. Duty Cycle Plots

Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
802.11a	97.47	1.394	0.717	1kHz
802.11n HT20	97.30	1.307	0.765	1kHz
802.11n HT40	94.71	0.649	1.540	3kHz
802.11ac VHT20	94.52	0.675	1.481	3kHz
802.11ac VHT40	94.74	0.652	1.533	3kHz
802.11ac VHT80	89.96	0.325	3.080	10kHz

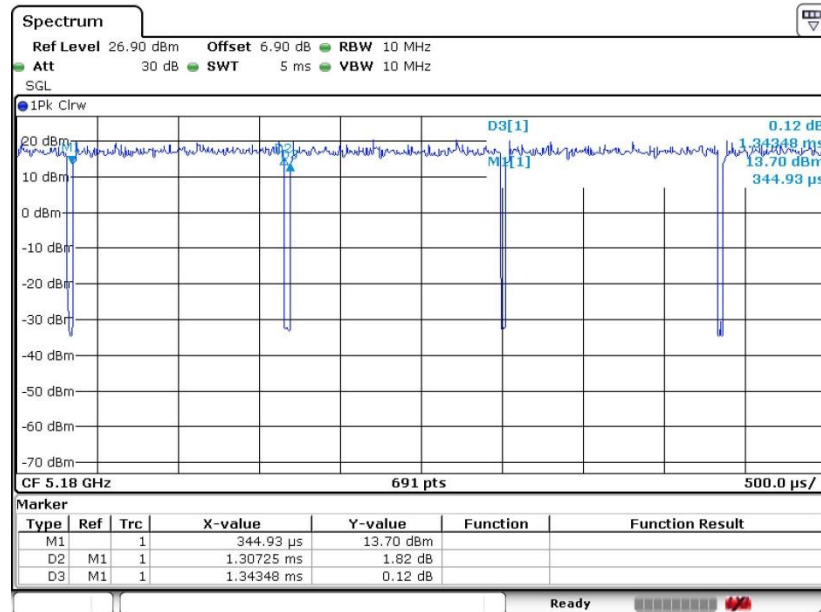
### 802.11a



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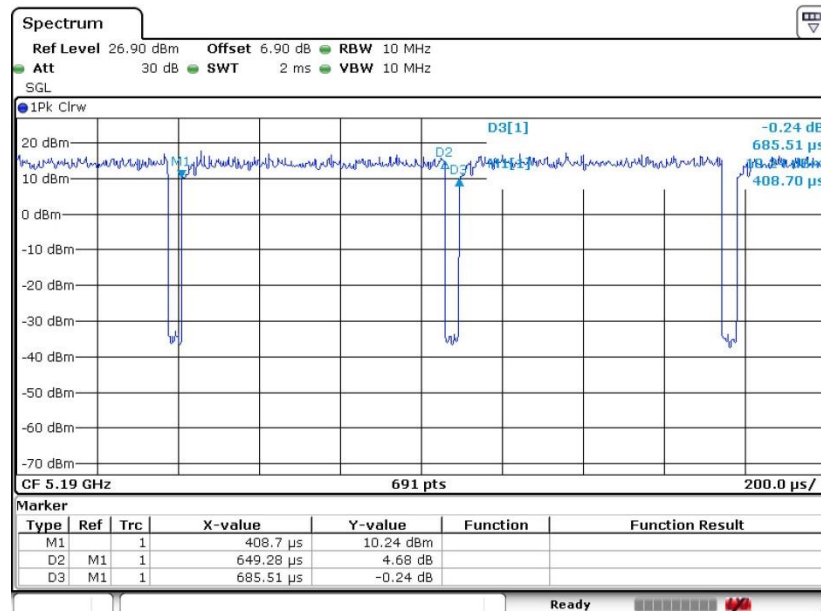


802.11n HT20



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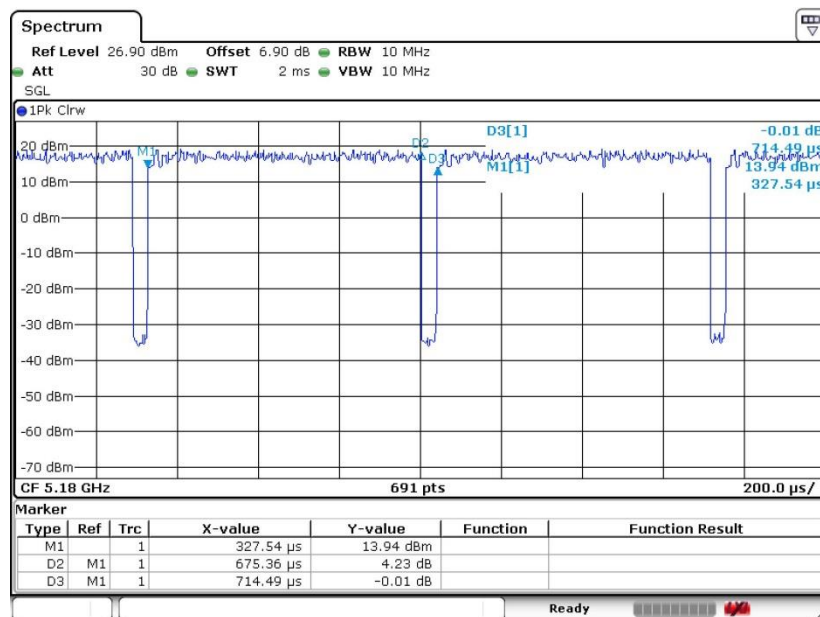
802.11n HT40



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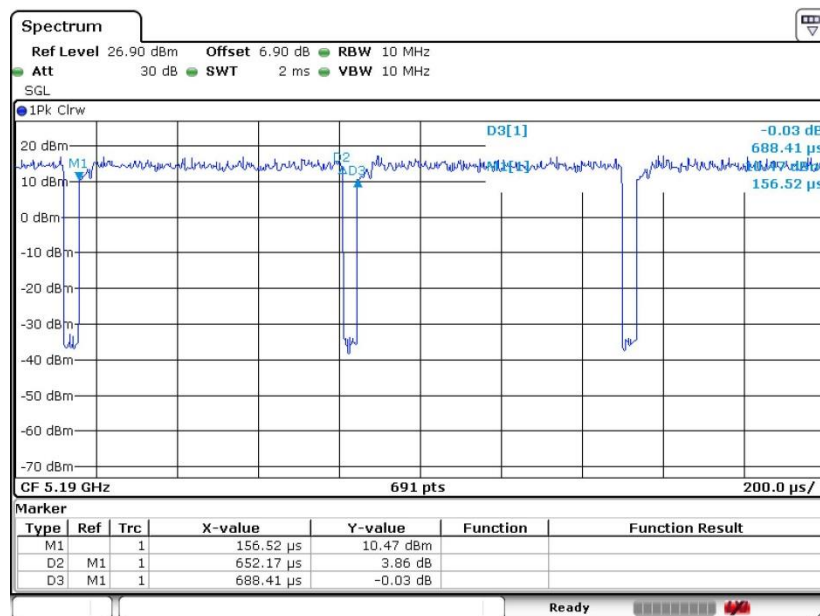


## 802.11ac VHT20



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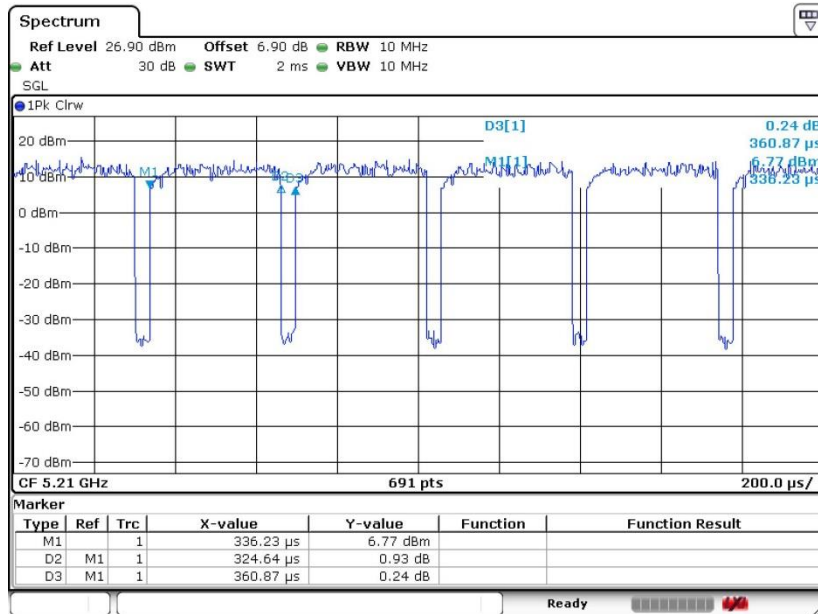
## 802.11ac VHT40



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802.11ac VHT80



Date: 16.MAR.2017 18:08:36