



# FCC RF Test Report

**APPLICANT** : Motorola Mobility, LLC  
**EQUIPMENT** : Mobile Cellular Phone  
**BRAND NAME** : Motorola  
**MODEL NAME** : 4054  
**FCC ID** : IHDT56QD1  
**STANDARD** : FCC Part 15 Subpart E §15.407  
**CLASSIFICATION** : (NII) Unlicensed National Information Infrastructure

The product was received on Aug. 06, 2014 and testing was completed on Sep. 15, 2014. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

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

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager



## SPORTON INTERNATIONAL INC.

No. 52, Hwa Ya 1<sup>st</sup> Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.

SPORTON INTERNATIONAL INC.

TEL : 886-3-327-3456

FAX : 886-3-328-4978

FCC ID : IHDT56QD1

Page Number : 1 of 64

Report Issued Date : Sep. 30, 2014

Report Version : Rev. 01

Report Template No.: BU5-FR15EWL Version 1.1



# TABLE OF CONTENTS

**REVISION HISTORY..... 3**

**SUMMARY OF TEST RESULT ..... 4**

**1 GENERAL DESCRIPTION ..... 5**

    1.1 Applicant ..... 5

    1.2 Manufacturer..... 5

    1.3 Feature of Equipment Under Test ..... 5

    1.4 Product Specification of Equipment Under Test..... 6

    1.5 Modification of EUT ..... 7

    1.6 Testing Location ..... 7

    1.7 Applicable Standards..... 7

**2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST ..... 8**

    2.1 Carrier Frequency and Channel ..... 9

    2.2 RF Power ..... 10

    2.3 Test Mode..... 16

    2.4 Connection Diagram of Test System..... 19

    2.5 Support Unit used in test configuration and system ..... 20

    2.6 EUT Operation Test Setup ..... 20

    2.7 Measurement Results Explanation Example..... 20

**3 TEST RESULT..... 21**

    3.1 26dB & 99% Occupied Bandwidth Measurement ..... 21

    3.2 Maximum Conducted Output Power Measurement ..... 29

    3.3 Power Spectral Density Measurement ..... 36

    3.4 Unwanted Emissions Measurement ..... 43

    3.5 AC Conducted Emission Measurement..... 48

    3.6 Frequency Stability Measurement ..... 58

    3.7 Automatically Discontinue Transmission ..... 60

    3.8 Antenna Requirements ..... 61

**4 LIST OF MEASURING EQUIPMENT ..... 63**

**5 UNCERTAINTY OF EVALUATION ..... 64**

**APPENDIX A. RADIATED SPURIOUS EMISSION**





### 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	≤ 17, 24, 30 dBm (depend on band)	Pass	-
3.3	15.407(a)	Power Spectral Density	≤ 4, 11, 17 dBm (depend on band)	Pass	-
3.4	15.407(b)	Unwanted Emissions	≤ -17, -27 dBm (depend on band)&15.209(a)	Pass	Under limit 0.22 dB at 5725.000 MHz
3.5	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 12.70 dB at 3.550 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

**Motorola Mobility, LLC**

222 W Merchandise Mart Plaza, Suite 1800, Chicago, IL 60654, United States

## 1.2 Manufacturer

**Motorola Mobility, LLC**

222 W Merchandise Mart Plaza, Suite 1800, Chicago, IL 60654, United States

## 1.3 Feature of Equipment Under Test

Product Feature	
<b>Equipment</b>	Mobile Cellular Phone
<b>Brand Name</b>	Motorola
<b>Model Name</b>	4054
<b>FCC ID</b>	IHDT56QD1
<b>IMEI Code</b>	990005300017812 990005300016731
<b>EUT supports Radios application</b>	CDMA/EV-DO/GSM/EGPRS/WCDMA/HSPA/LTE/NFC 2.4GHz WLAN 11b/g/n HT20 WLAN 11ac VHT20 5GHz WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth v3.0 EDR Bluetooth v4.0 - LE
<b>HW Version</b>	P2
<b>EUT Stage</b>	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.

Accessory List	
<b>AC Adapter</b>	Brand Name : Motorola
	Model Name : SPN5864A
<b>Earphone</b>	Brand Name : Motorola
	Model Name : SJYN1305A
<b>USB Cable</b>	Brand Name : Motorola
	Model Name : SKN6448A
<b>Battery</b>	Brand Name : LG
	Model Name : EZ30



### 1.4 Product Specification of Equipment Under Test

Product Specification subjective to this standard										
<b>Tx/Rx Channel Frequency Range</b>	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5700 MHz									
<b>Maximum Output Power</b>	<p><b>&lt;CDD Ant. 1 + 2&gt;</b></p> <p><b>&lt;5180 MHz ~ 5240 MHz&gt;</b>            802.11a : 21.69 dBm / 0.1476 W            802.11n HT20 : 20.94 dBm / 0.1242 W            802.11n HT40 : 19.32 dBm / 0.0855 W            802.11ac VHT20: 22.75 dBm / 0.1884 W            802.11ac VHT40: 21.31 dBm / 0.1352 W            802.11ac VHT80: 19.47 dBm / 0.0885 W</p> <p><b>&lt;5260 MHz ~ 5320 MHz&gt;</b>            802.11a : 21.61 dBm / 0.1449 W            802.11n HT20 : 21.28 dBm / 0.1343 W            802.11n HT40 : 19.50 dBm / 0.0891 W            802.11ac VHT20: 22.33 dBm / 0.1710 W            802.11ac VHT40: 21.09 dBm / 0.1285 W            802.11ac VHT80: 19.39 dBm / 0.0869 W</p> <p><b>&lt;5500 MHz ~ 5700 MHz&gt;</b>            802.11a : 21.20 dBm / 0.1318 W            802.11n HT20 : 21.08 dBm / 0.1282 W            802.11n HT40 : 20.62 dBm / 0.1153 W            802.11ac VHT20: 21.94 dBm / 0.1563 W            802.11ac VHT40: 21.84 dBm / 0.1528 W            802.11ac VHT80: 17.04 dBm / 0.0506 W</p>									
<b>Type of Modulation</b>	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)									
<b>Antenna Type</b>	Ant. 1 : Monopole(IFA) Antenna Ant. 2 : Monopole(ILA) Antenna									
<b>Antenna Gain</b>	<p><b>&lt;Ant. 1&gt;</b>  <b>&lt;5180 MHz ~ 5240 MHz&gt;</b> : -4.00dBi  <b>&lt;5250 MHz ~ 5350 MHz&gt;</b> : -3.50 dBi  <b>&lt;5500 MHz ~ 5700 MHz&gt;</b>: -3.20 dBi</p> <p><b>&lt;Ant. 2&gt;</b>  <b>&lt;5180 MHz ~ 5240 MHz&gt;</b>: -8.00dBi  <b>&lt;5250 MHz ~ 5350 MHz&gt;</b>: -7.00 dBi  <b>&lt;5500 MHz ~ 5700 MHz&gt;</b> : -6.00 dBi</p>									
<b>99% Occupied Bandwidth</b>	802.11a : 18.80 MHz 802.11n HT20 : 19.30 MHz 802.11n HT40 : 37.80 MHz 802.11ac VHT20 : 19.85 MHz 802.11ac VHT40 : 37.55 MHz 802.11ac VHT80 : 76.08 MHz									
<b>Antenna Function Description</b>	<table border="1"> <thead> <tr> <th></th> <th>Ant. 1</th> <th>Ant. 2</th> </tr> </thead> <tbody> <tr> <td>802.11 a MIMO</td> <td>V</td> <td>V</td> </tr> <tr> <td>802.11 n/ac MIMO</td> <td>V</td> <td>V</td> </tr> </tbody> </table>		Ant. 1	Ant. 2	802.11 a MIMO	V	V	802.11 n/ac MIMO	V	V
	Ant. 1	Ant. 2								
802.11 a MIMO	V	V								
802.11 n/ac MIMO	V	V								



### 1.5 Modification of EUT

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

### 1.6 Testing Location

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

<b>Test Site</b>	SPORTON INTERNATIONAL INC.		
<b>Test Site Location</b>	No. 52, Hwa Ya 1 <sup>st</sup> Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978		
<b>Test Site No.</b>	<b>Sporton Site No.</b>		
	TH02-HY	CO05-HY	03CH06-HY

### 1.7 Applicable Standards

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

- FCC Part 15 Subpart E
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v01
- FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- FCC KDB 644545 D03 Guidance for IEEE 802 11ac New Rules v01
- KDB 648474 D03 Handset Wireless Chargers Battery Covers v01r02
- ANSI C63.4-2003

**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 (X plane) were recorded in this report.

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

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



## 2.1 Carrier Frequency and Channel

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

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5250-5350 MHz Band 2 (U-NII-2A)	52	5260	60	5300
	<b>54</b>	<b>5270</b>	<b>62</b>	<b>5310</b>
	56	5280	64	5320
	58	5290		

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5470-5725 MHz Band 3 (U-NII-2C)	100	5500	120	5600
	<b>102</b>	<b>5510</b>	122	5610
	104	5520	124	5620
	106	5530	<b>126</b>	<b>5630</b>
	108	5540	128	5640
	<b>110</b>	<b>5550</b>	132	5660
	112	5560	<b>134</b>	<b>5670</b>
	116	5580	136	5680
	<b>118</b>	<b>5590</b>	140	5700

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
Straddle Channel	138	5690	144	5720
	<b>142</b>	<b>5710</b>		

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



## 2.2 RF Power

CDD <Ant. 1+2>

Channel	Frequency	5GHz 802.11a Average Power (dBm) (800ns)							
		Data Rate							
		6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps
CH 36	5180 MHz	21.48	21.40	21.42	21.44	21.38	21.34	21.22	20.54
CH 44	5220 MHz	21.69	21.55	21.64	21.61	21.60	21.63	21.67	20.57
CH 48	5240 MHz	21.58	21.54	21.52	21.46	21.51	21.54	21.48	20.49
CH 52	5260 MHz	21.61	21.56	21.60	21.51	21.48	21.59	21.53	20.52
CH 60	5300 MHz	21.56	21.53	21.52	21.51	21.51	21.52	21.44	20.56
CH 64	5320 MHz	21.58	21.07	21.23	21.38	21.29	21.50	21.57	20.47
CH 100	5500 MHz	21.16	21.07	21.02	21.06	20.93	21.13	21.12	20.20
CH 116	5580 MHz	21.20	21.14	21.07	21.04	21.09	21.19	21.18	20.04
CH 140	5700 MHz	19.66	19.47	19.52	19.61	19.46	19.48	19.58	19.65

Channel	Frequency	5GHz 802.11a Peak Power (dBm) (800ns)							
		Data Rate							
		6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps
CH 36	5180 MHz	26.77	26.62	26.71	26.73	27.20	27.22	27.27	27.00
CH 44	5220 MHz	26.74	26.73	26.68	26.63	27.16	27.18	27.15	26.87
CH 48	5240 MHz	26.76	26.66	26.68	26.67	27.08	27.05	27.00	26.67
CH 52	5260 MHz	26.72	26.53	26.58	26.56	26.98	26.99	26.97	26.65
CH 60	5300 MHz	26.53	26.62	26.54	26.51	26.51	27.04	27.06	26.78
CH 64	5320 MHz	26.72	26.49	26.57	26.62	27.05	27.08	27.14	26.77
CH 100	5500 MHz	26.52	26.58	26.56	26.54	27.02	27.09	27.10	26.75
CH 116	5580 MHz	26.41	26.30	26.24	26.26	26.65	26.66	26.76	26.39
CH 140	5700 MHz	25.84	25.87	25.92	26.04	26.53	26.58	26.62	26.55



Channel	Frequency	5GHz 802.11n HT20 Average Power (dBm) (800ns)							
		Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 36	5180 MHz	19.92	19.91	19.85	19.90	19.88	19.88	19.87	19.44
CH 44	5220 MHz	20.94	20.92	20.82	20.83	20.86	20.94	19.86	19.39
CH 48	5240 MHz	20.92	20.67	20.89	20.90	20.88	20.88	19.88	19.32
CH 52	5260 MHz	21.28	21.05	21.12	21.22	21.22	21.16	20.60	19.45
CH 60	5300 MHz	21.10	21.03	20.86	21.08	21.05	21.07	20.38	19.26
CH 64	5320 MHz	20.97	20.92	20.94	20.93	20.80	20.75	20.47	19.53
CH 100	5500 MHz	20.89	20.81	20.79	20.79	20.84	20.88	20.24	19.20
CH 116	5580 MHz	21.08	20.72	20.77	20.96	21.02	21.06	20.22	19.19
CH 140	5700 MHz	19.61	19.50	19.48	19.54	19.56	19.56	19.54	19.20

Channel	Frequency	5GHz 802.11n HT20 Peak Power (dBm) (800ns)							
		Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 36	5180 MHz	26.48	26.43	26.49	27.14	27.11	27.07	27.14	26.78
CH 44	5220 MHz	26.33	26.54	26.58	27.10	27.08	27.12	27.04	26.70
CH 48	5240 MHz	26.29	26.67	26.73	27.05	27.12	27.12	26.99	26.73
CH 52	5260 MHz	26.68	26.85	26.90	27.19	27.19	27.16	27.02	26.76
CH 60	5300 MHz	26.25	26.59	26.57	27.05	27.03	27.06	26.93	26.77
CH 64	5320 MHz	26.21	26.74	26.61	27.23	27.14	27.22	27.04	26.88
CH 100	5500 MHz	26.30	26.62	26.59	27.10	27.16	27.10	26.95	26.81
CH 116	5580 MHz	26.48	26.63	26.58	26.99	26.99	26.96	26.89	26.78
CH 140	5700 MHz	25.78	25.90	26.04	26.67	26.67	26.70	26.76	26.60



Channel	Frequency	5GHz 802.11n HT40 Average Power (dBm) (800ns)							
		Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 38	5190MHz	18.61	18.40	18.50	18.59	18.55	18.58	18.58	18.54
CH 46	5230MHz	19.32	19.28	19.27	19.27	19.29	19.25	19.29	18.71
CH 54	5270MHz	19.50	19.39	19.23	19.49	19.39	19.42	19.42	18.76
CH 62	5310MHz	19.37	19.31	19.23	19.32	19.29	19.29	19.33	18.82
CH 102	5510MHz	16.52	16.38	16.41	16.33	16.04	16.01	16.05	16.28
CH 110	5550MHz	20.62	20.33	20.43	20.50	20.44	20.43	19.36	19.70
CH 134	5670MHz	20.29	20.11	20.08	20.25	20.20	20.21	19.19	19.38

Channel	Frequency	5GHz 802.11n HT40 Peak Power (dBm) (800ns)							
		Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 38	5190MHz	25.61	25.86	25.89	26.62	26.64	26.60	26.60	26.57
CH 46	5230MHz	25.81	26.09	26.12	26.77	26.78	26.76	26.77	26.42
CH 54	5270MHz	25.84	26.07	26.13	26.69	26.58	26.65	26.64	26.37
CH 62	5310MHz	25.65	26.13	26.07	26.74	26.70	26.79	26.62	26.45
CH 102	5510MHz	23.81	23.59	23.49	25.40	25.45	25.44	25.40	25.37
CH 110	5550MHz	26.18	26.25	26.40	26.75	26.74	26.76	26.57	26.55
CH 134	5670MHz	26.03	25.90	26.02	26.40	26.49	26.46	26.24	26.34



Channel	Frequency	5GHz 802.11ac VHT20 Average Power (dBm) (800ns)								
		Data Rate								
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
CH 36	5180 MHz	20.96	20.93	20.90	20.93	20.49	20.54	18.55	18.55	18.43
CH 44	5220 MHz	22.75	22.52	22.55	21.71	20.59	20.63	18.48	18.25	18.49
CH 48	5240 MHz	22.48	22.43	22.44	21.77	20.61	20.76	18.51	18.47	18.48
CH 52	5260 MHz	22.33	22.30	22.29	21.88	20.68	20.67	18.44	18.48	18.43
CH 60	5300 MHz	22.16	22.14	22.12	21.75	20.52	20.68	18.54	18.45	18.54
CH 64	5320 MHz	21.31	21.29	21.29	21.27	20.55	20.80	18.64	18.51	18.60
CH 100	5500 MHz	20.75	20.62	20.66	20.74	20.96	20.29	19.08	18.08	18.01
CH 116	5580 MHz	21.94	21.92	21.87	21.92	21.40	20.31	19.15	18.01	18.12
CH 140	5700 MHz	19.43	19.36	19.41	19.37	19.39	19.35	19.31	19.31	19.14

Channel	Frequency	5GHz 802.11ac VHT20 Peak Power (dBm) (800ns)								
		Data Rate								
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
CH 36	5180 MHz	26.52	26.70	26.73	27.33	27.23	27.15	26.74	26.69	26.70
CH 44	5220 MHz	26.78	27.10	27.07	27.36	27.14	27.18	26.60	26.56	26.58
CH 48	5240 MHz	26.68	27.23	27.21	27.34	27.15	27.09	26.56	26.57	26.49
CH 52	5260 MHz	26.63	27.24	27.24	27.25	27.12	27.09	26.37	26.44	26.45
CH 60	5300 MHz	26.52	27.03	27.09	27.25	26.98	27.01	26.48	26.43	26.48
CH 64	5320 MHz	26.33	26.81	26.81	27.32	27.13	27.09	26.54	26.56	26.65
CH 100	5500 MHz	26.04	26.43	26.43	27.05	27.10	26.86	26.62	26.33	26.29
CH 116	5580 MHz	26.30	26.89	26.94	27.22	27.07	26.90	26.60	26.24	26.22
CH 140	5700 MHz	25.42	25.98	25.92	26.63	26.63	26.63	26.68	26.72	26.46



Channel	Frequency	5GHz 802.11ac VHT40 Average Power (dBm) (800ns)									
		Data Rate									
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
CH 38	5190MHz	18.91	18.68	18.75	18.75	18.84	18.86	18.74	18.03	18.04	17.14
CH 46	5230MHz	21.31	21.07	21.13	21.18	21.26	18.90	18.97	18.03	18.03	17.05
CH 54	5270MHz	21.09	20.92	21.00	21.07	21.04	18.68	18.81	17.72	17.67	16.60
CH 62	5310MHz	19.82	19.77	19.78	19.80	19.78	18.80	18.79	17.77	17.76	16.67
CH 102	5510MHz	17.25	17.21	17.22	17.10	17.21	17.24	17.24	17.21	17.23	17.23
CH 110	5550MHz	21.84	21.80	21.76	21.73	21.82	19.59	19.64	18.38	18.29	17.45
CH 134	5670MHz	21.84	21.83	21.77	21.63	21.69	19.26	19.24	18.20	18.25	17.13

Channel	Frequency	5GHz 802.11ac VHT40 Peak Power (dBm) (800ns)									
		Data Rate									
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
CH 38	5190MHz	25.82	25.75	25.69	26.55	26.51	26.67	26.59	26.21	26.29	25.82
CH 46	5230MHz	26.63	26.61	26.58	27.61	27.10	26.49	26.47	26.14	26.31	25.83
CH 54	5270MHz	26.44	26.31	26.52	26.87	26.86	26.48	26.42	26.06	26.03	25.75
CH 62	5310MHz	25.69	26.10	26.14	26.69	26.70	26.50	26.38	26.18	26.20	25.71
CH 102	5510MHz	24.87	24.68	24.60	25.72	25.69	25.71	25.72	25.80	25.71	25.61
CH 110	5550MHz	26.37	26.03	26.43	26.74	26.75	26.48	26.36	26.03	26.28	25.86
CH 134	5670MHz	26.18	26.14	26.08	26.42	26.51	26.19	26.13	25.79	25.81	25.61



Channel	Frequency	5GHz 802.11ac VHT80 Average Power (dBm) (800ns)									
		Data Rate									
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
CH 42	5210MHz	19.47	19.22	19.23	19.34	19.43	19.46	19.46	19.42	18.44	18.47
CH 58	5290MHz	19.39	19.31	19.22	19.38	19.36	19.33	19.32	18.40	18.56	18.46
CH 106	5530MHz	17.04	16.84	16.92	16.46	16.99	16.96	16.96	17.01	17.03	17.03
CH 122	5610MHz	19.42	19.04	19.05	19.29	19.33	19.34	17.01	18.41	18.52	18.53

Channel	Frequency	5GHz 802.11ac VHT80 Peak Power (dBm) (800ns)									
		Data Rate									
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
CH 42	5210MHz	25.34	25.47	25.16	26.29	26.28	26.69	26.43	26.50	25.92	25.83
CH 58	5290MHz	25.30	25.31	25.15	26.09	26.19	26.61	26.39	26.06	25.90	25.69
CH 106	5530MHz	22.49	22.84	22.42	24.99	25.14	25.57	25.07	25.69	25.24	25.04
CH 122	5610MHz	25.18	25.02	25.03	26.01	26.14	26.58	25.75	25.93	25.96	25.67

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

- a. The output power of MIMO mode are less than CDD mode, thus the CDD mode was recorded in this report.
- b. For 802.11ac mode, the output power of non-Beamforming mode is less than Beamforming mode, thus the Beamforming mode was recorded in this report, and the radiation emission test of non-Beamforming mode was be excluded.



## 2.3 Test Mode

Investigation has been done for all channels, modulations, data rates among all 5GHz bands, and only the worst results are shown in below table and following sections.

Test Cases				
	Test Items	Mode	Data rate	Test Channel
	Conducted TCs	26dB and 99% BW Power Spectral Density	802.11a	6 Mbps
802.11n HT20			MCS0	L/M/H/Straddle
802.11n HT40			MCS0	Band 1 & 2: L/H Band 3: L/M/H Straddle
802.11ac VHT20			MCS0	L/M/H/Straddle
802.11ac VHT40			MCS0	Band 1 & 2: L/H Band 3: L/M/H Straddle
802.11ac VHT80			MCS0	Band 1 & 2: M Band 3: M/H Straddle
20dB Occupied Bandwidth			802.11a	6 Mbps
		802.11n HT20	MCS0	Band 1: H
		802.11n HT40	MCS0	Band 1: H
		802.11ac VHT20	MCS0	Band 1: H
		802.11ac VHT40	MCS0	Band 1: H
		802.11ac VHT80	MCS0	Band 1: M
Output Power		802.11a	6 Mbps	L/M/H/Straddle
		802.11n HT20	MCS0	L/M/H/Straddle
		802.11n HT40	MCS0	Band 1 & 2: L/H Band 3: L/M/H Straddle
		802.11ac VHT20	MCS0	L/M/H
		802.11ac VHT40	MCS0	Band 1 & 2: L/H Band 3: L/M/H Straddle
		802.11ac VHT80	MCS0	Band 1 & 2: M Band 3: M/H Straddle



Test Cases				
Conducted	Test Items	Mode	Data rate	Test Channel
TCs	Frequency Stability	802.11a	6 Mbps	Band 1 & 3: L Band 2: H
		802.11a	6 Mbps	L/M/H
Radiated TCs	Radiated Band Edge	802.11n HT20	MCS0	L/M/H
		802.11n HT40	MCS0	L/M/H
		802.11ac VHT20	MCS0	L/M/H
		802.11ac VHT40	MCS0	L/H
		802.11ac VHT80	MCS0	M
		802.11a	6 Mbps	L/M/H/Straddle
	Radiated Spurious Emission	802.11n HT20	MCS0	L/M/H/Straddle
		802.11n HT40	MCS0	L/M/H/Straddle
		802.11ac VHT20	MCS0	L/M/H/Straddle
		802.11ac VHT40	MCS0	L/M/H/Straddle
		802.11ac VHT80	MCS0	M/Straddle
		802.11a	6 Mbps	L/M/H/Straddle
AC Conducted Emission	Mode 1 : GSM850 Idle + Bluetooth Link + WLAN (5GHz) Link + USB Cable (Charging from Adapter) + Earphone + MP3			
<b>Remark:</b> 1. For Radiated TCs, all test were performed with MIMO <Ant. 1 + 2> 2. All modes and data rates and positions were investigated, and the wireless charger configuration was evaluated.				

Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5725MHz
		802.11a	802.11a	802.11a
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5725MHz
		802.11n HT20	802.11n HT20	802.11n HT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144



Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5725MHz
		802.11n HT40	802.11n HT40	802.11n HT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134
Straddle		-	-	142

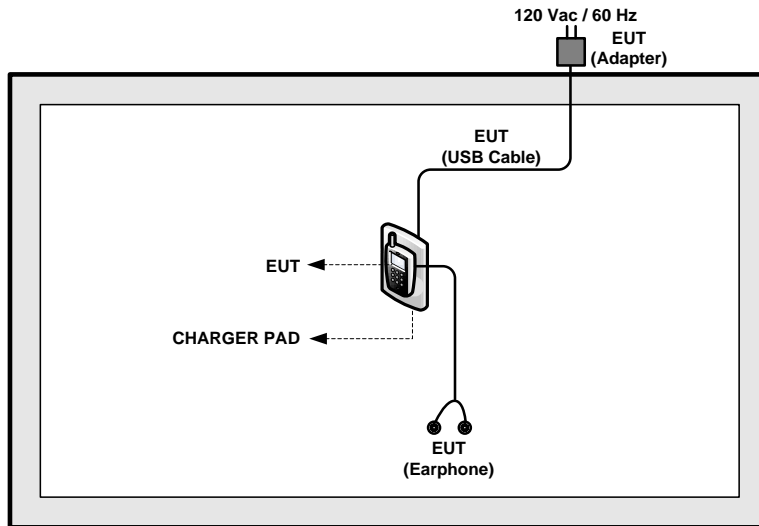
Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5725MHz
		802.11ac VHT20	802.11ac VHT20	802.11ac VHT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5725MHz
		802.11ac VHT40	802.11ac VHT40	802.11ac VHT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134
Straddle		-	-	142

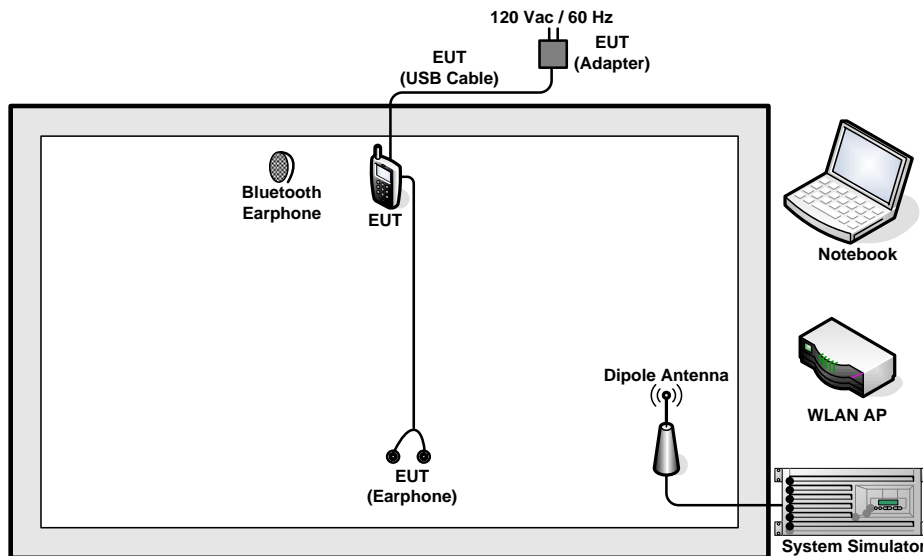
Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5725MHz
		802.11ac VHT80	802.11ac VHT80	802.11ac VHT80
L	Low	-	-	-
M	Middle	42	58	106
H	High	-	-	122
Straddle		-	-	138

## 2.4 Connection Diagram of Test System

### <WLAN Tx with CHARGER PAD Mode>



### <AC Conducted Emission Mode>





## 2.5 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
2.	WLAN AP	D-Link	DIR-628	KA2DIR628A2	N/A	Unshielded, 1.8 m
3.	Notebook	DELL	Latitude E6320	FCC DoC/ Contains FCC ID: QDS-BRCM1054	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
4.	Bluetooth Earphone	Sony Ericsson	MW600	PY7DDA-2029	N/A	N/A
5.	CHARGER PAD	SAMSUNG	EP-P100IEWE	A3LEPP100IJWU	N/A	shielded, 1.5 m

## 2.6 EUT Operation Test Setup

For WLAN function, programmed RF utility, “cmd” installed the notebook make the EUT provide functions like channel selection and power level for continuous transmitting and receiving signals.

## 2.7 Measurement Results Explanation Example

For all conducted test items:

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

Example :

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

*Offset = RF cable loss + attenuator factor.*

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

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

### 3 Test Result

#### 3.1 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 were applied for operations in the frequency band in accordance with FCC KDB 644545 D03.

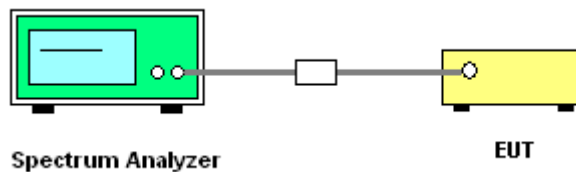
##### 3.1.2 Measuring Instruments

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 v01.  
Section C) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission.  
Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1MHz and set the Video bandwidth (VBW)  $\geq 3 * RBW$ .
8. Measure and record the results in the test report.

##### 3.1.4 Test Setup





3.1.5 Test Result of 26dB Bandwidth

Test Band :	5GHz band 1	Temperature :	21~26°C
Test Engineer :	Alex Lee	Relative Humidity :	45~54%

Mod.	Data Rate	N <sub>TX</sub>	Channel	Freq. (MHz)	99% Bandwidth (MHz)		-	IC 99% Bandwidth EIRP Limit (dBm)		-
					Ant 1	Ant 2		Ant 1	Ant 2	
11a	6Mbps	2	36	5180	18.25	18.00		22.55		
11a	6Mbps	2	44	5220	18.25	17.95		22.54		
11a	6Mbps	2	48	5240	17.30	17.25		22.37		
HT20	MCS0	2	36	5180	19.00	18.90		22.76		
HT20	MCS0	2	44	5220	19.15	18.90		22.76		
HT20	MCS0	2	48	5240	18.15	18.15		22.59		
HT40	MCS0	2	38	5190	36.60	36.60		23.01		
HT40	MCS0	2	46	5230	36.70	36.70		23.01		
VHT20	MCS0	2	36	5180	19.10	18.85		22.75		
VHT20	MCS0	2	44	5220	19.55	19.00		22.79		
VHT20	MCS0	2	48	5240	19.30	18.35		22.64		
VHT40	MCS0	2	38	5190	36.60	36.80		23.01		
VHT40	MCS0	2	46	5230	36.70	36.80		23.01		
VHT80	MCS0	2	42	5210	75.84	75.84		23.01		



<b>Test Band :</b>	5GHz band 2	<b>Temperature :</b>	21~26°C
<b>Test Engineer :</b>	Alex Lee	<b>Relative Humidity :</b>	45~54%

Mod.	Data Rate	N <sub>TX</sub>	Channel	Freq. (MHz)	99% Bandwidth (MHz)		26dB Bandwidth (MHz)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)	
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2
11a	6Mbps	2	52	5260	17.45	17.30	23.80	20.45	29.38		23.98	
11a	6Mbps	2	60	5300	18.30	18.20	23.25	22.85	29.60		23.98	
11a	6Mbps	2	64	5320	18.20	18.05	23.20	22.75	29.56		23.98	
HT20	MCS0	2	52	5260	18.25	18.05	25.90	21.30	29.56		23.98	
HT20	MCS0	2	60	5300	19.20	18.85	23.45	23.30	29.75		23.98	
HT20	MCS0	2	64	5320	19.25	18.90	23.55	23.10	29.76		23.98	
HT40	MCS0	2	54	5270	36.70	36.80	41.76	41.49	30.00		23.98	
HT40	MCS0	2	62	5310	36.70	36.80	41.58	41.31	30.00		23.98	
VHT20	MCS0	2	52	5260	20.35	18.25	41.65	23.60	29.61		23.98	
VHT20	MCS0	2	60	5300	19.85	19.20	37.95	23.30	29.83		23.98	
VHT20	MCS0	2	64	5320	19.10	18.90	23.45	23.10	29.76		23.98	
VHT40	MCS0	2	54	5270	36.80	36.80	41.76	41.40	30.00		23.98	
VHT40	MCS0	2	62	5310	36.70	36.60	41.76	41.22	30.00		23.98	
VHT80	MCS0	2	58	5290	75.96	75.84	82.56	82.24	30.00		23.98	



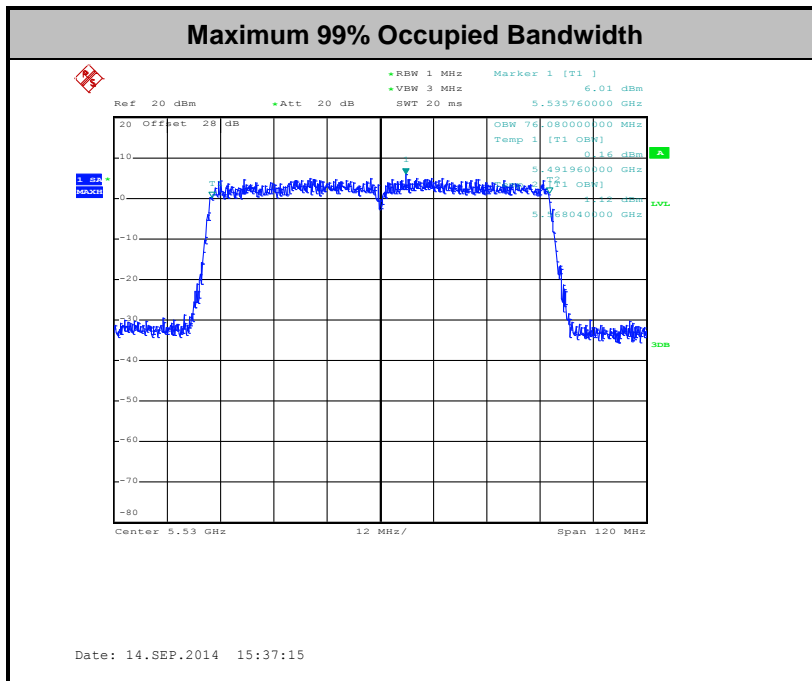
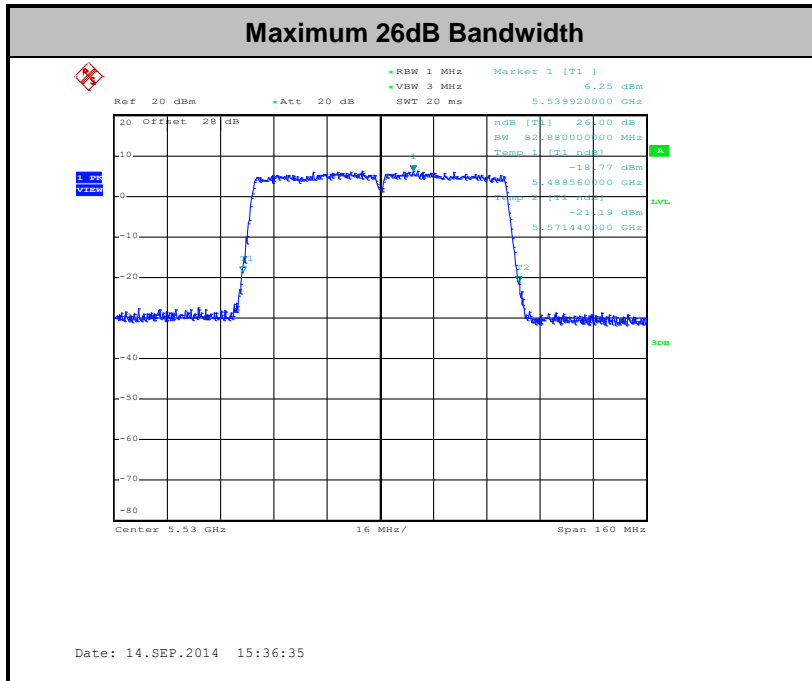
Test Band :	5GHz band 3	Temperature :	21~26°C
Test Engineer :	Alex Lee	Relative Humidity :	45~54%

Mod.	Data Rate	N <sub>TX</sub>	Channel	Freq. (MHz)	99% Bandwidth (MHz)		26dB Bandwidth (MHz)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)	
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2
11a	6Mbps	2	100	5500	18.35	18.00	23.20	22.75	29.55		23.98	
11a	6Mbps	2	116	5580	17.35	17.30	21.00	20.50	29.38		23.98	
11a	6Mbps	2	140	5700	18.25	17.95	23.10	22.70	29.54		23.98	
HT20	MCS0	2	100	5500	19.00	18.95	23.35	23.10	29.78		23.98	
HT20	MCS0	2	116	5580	18.20	18.10	22.25	20.80	29.58		23.98	
HT20	MCS0	2	140	5700	19.00	18.85	23.40	23.10	29.75		23.98	
HT40	MCS0	2	102	5510	36.70	36.70	41.40	41.49	30.00		23.98	
HT40	MCS0	2	110	5550	36.80	36.70	41.76	41.22	30.00		23.98	
HT40	MCS0	2	134	5670	36.90	36.70	41.76	41.40	30.00		23.98	
VHT20	MCS0	2	100	5500	19.00	18.95	23.45	23.20	29.78		23.98	
VHT20	MCS0	2	116	5580	18.80	18.30	36.55	22.40	29.62		23.98	
VHT20	MCS0	2	140	5700	19.00	18.90	23.35	23.10	29.76		23.98	
VHT40	MCS0	2	102	5510	36.70	36.80	41.58	41.40	30.00		23.98	
VHT40	MCS0	2	110	5550	37.50	36.90	43.11	41.58	30.00		23.98	
VHT40	MCS0	2	134	5670	37.50	36.90	69.03	41.49	30.00		23.98	
VHT80	MCS0	2	106	5530	76.08	75.84	82.88	82.08	30.00		23.98	
VHT80	MCS0	2	122	5610	75.96	75.96	82.24	82.24	30.00		23.98	



<b>Test Band :</b>	Straddle Channel	<b>Temperature :</b>	21~26°C
<b>Test Engineer :</b>	Alex Lee	<b>Relative Humidity :</b>	45~54%

Mod.	Data Rate	N <sub>TX</sub>	Channel	Freq. (MHz)	99% Bandwidth (MHz)		26dB Bandwidth (MHz)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)	
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2
11a	6Mbps	2	144	5720	18.80	18.35	33.40	22.95	-	-	-	-
				NII-2C	14.35	14.20	19.90	16.45	28.52	23.16		
				DTS	4.45	4.15	13.50	6.50	29.18	25.13		
HT20	MCS0	2	144	5720	19.30	19.00	30.70	23.30	-	-	-	-
				NII-2C	14.70	14.55	18.30	16.70	28.63	23.23		
				DTS	4.60	4.45	12.40	6.60	29.48	25.20		
HT40	MCS0	2	142	5710	37.80	37.00	71.55	41.58	-	-	-	-
				NII-2C	33.80	33.60	48.39	35.79	30.00	23.98		
				DTS	4.00	3.40	23.16	5.79	28.31	24.63		
VHT20	MCS0	2	144	5710	19.60	19.10	34.15	23.35	-	-	-	-
				NII-2C	14.85	14.60	19.65	16.65	28.64	23.21		
				DTS	4.75	4.50	14.50	6.70	29.53	25.26		
VHT40	MCS0	2	142	5710	37.30	36.80	62.64	41.58	-	-	-	-
				NII-2C	33.80	33.50	43.98	35.79	30.00	23.98		
				DTS	3.50	3.30	18.66	5.79	28.19	24.63		
VHT80	MCS0	2	138	5690	76.08	75.96	82.56	82.56	-	-	-	-
				NII-2C	73.16	73.04	76.28	76.12	30.00	23.98		
				DTS	2.92	2.92	6.28	6.44	27.65	24.98		



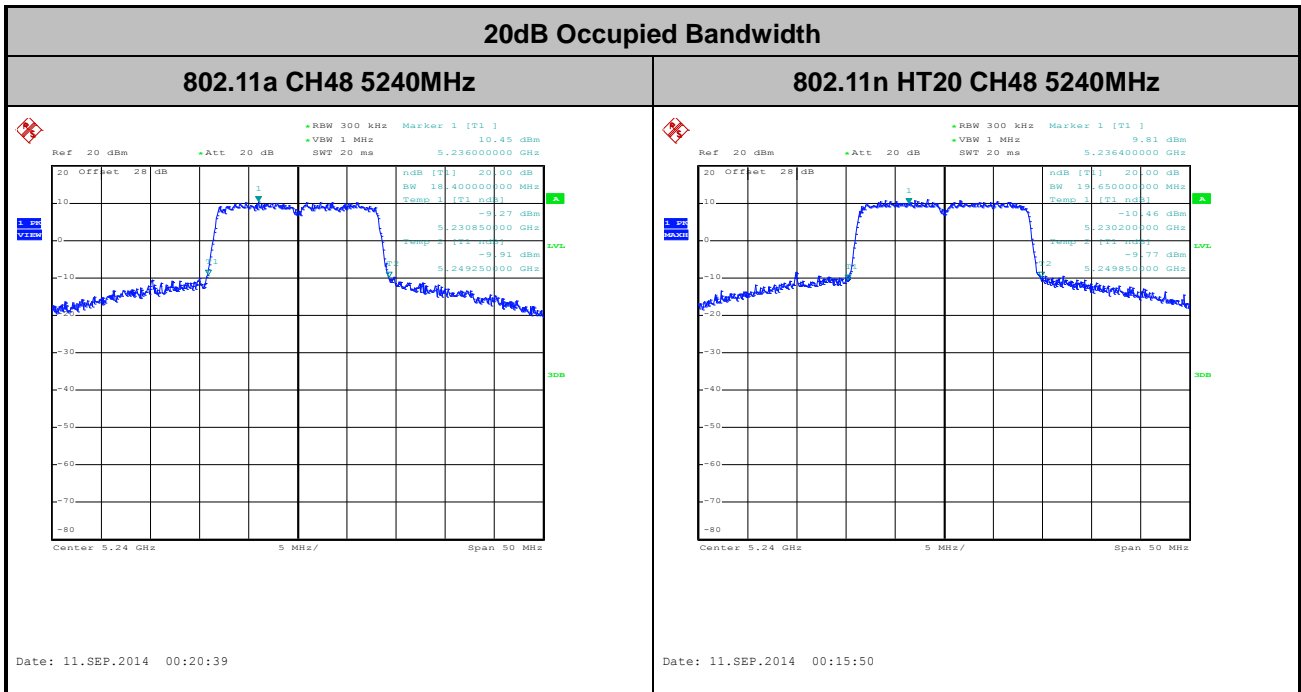
**Note:** The occupied channel bandwidth is maintained within the band of operation for all of the modulations.



3.1.6 Test Result of 20dB Occupied Bandwidth

Test Band :	5GHz band 1	Temperature :	21~26°C
Test Engineer :	Alex Lee	Relative Humidity :	45~54%

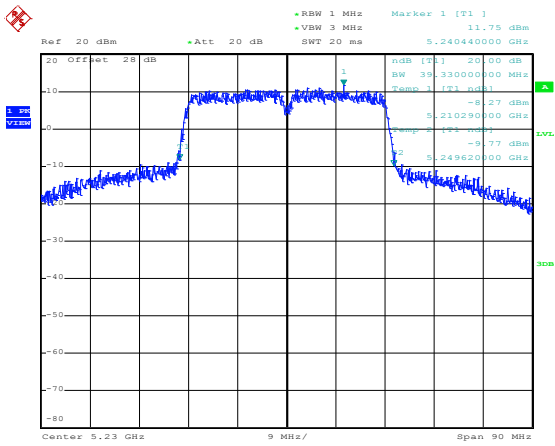
Mod.	Data Rate	NTX	Channel	Freq. (MHz)	20dB Bandwidth (MHz)		20dB Bandwidth Upper Frequency (FH) (MHz)		Upper Limit Line (MHz)	Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	2	48	5240	18.40	-	5249.25	-	5250	Pass
HT20	MCS0	2	48	5240	19.65	-	5249.85	-		Pass
HT40	MCS0	2	46	5230	39.33	-	5249.62	-		Pass
VHT20	MCS0	2	48	5240	19.55	-	5249.80	-		Pass
VHT40	MCS0	2	46	5230	39.87	-	5249.89	-		Pass
VHT80	MCS0	2	42	5210	79.68	-	5249.68	-		Pass





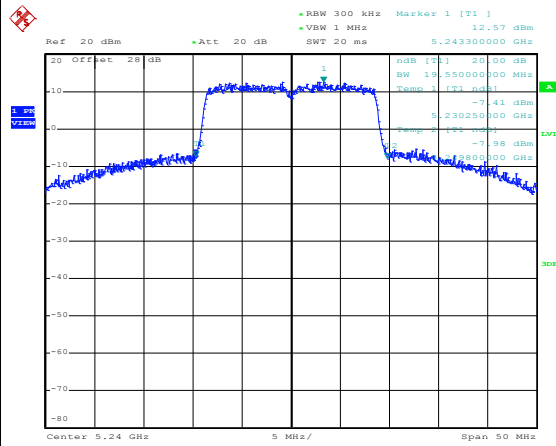
20dB Occupied Bandwidth

802.11n HT40 CH46 5230MHz



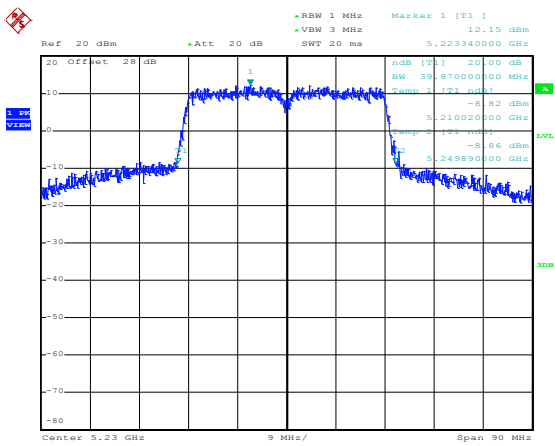
Date: 11.SEP.2014 00:26:43

802.11ac VHT20 CH48 5240MHz



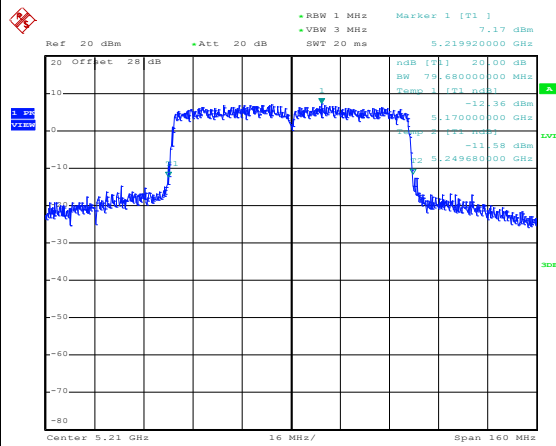
Date: 11.SEP.2014 00:28:49

802.11ac VHT40 CH46 5230MHz



Date: 11.SEP.2014 00:30:42

802.11ac VHT80 CH42 5210MHz



Date: 11.SEP.2014 00:34:13



## 3.2 Maximum Conducted Output Power Measurement

### 3.2.1 Limit of Maximum Conducted Output Power

<FCC 14-30 CFR 15.407>

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

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

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 v01.

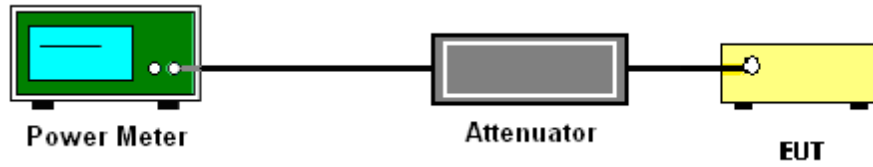
Method PM (Measurement using an RF average power meter):

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

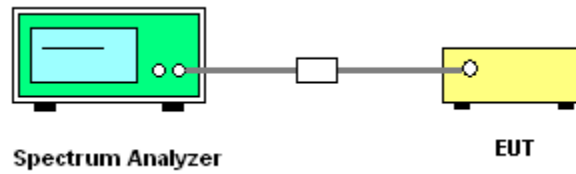
For straddle channel, the testing follows Method SA-3 (RMS detection with max hold) of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.

### 3.2.4 Test Setup

For normal channel:



For straddle channel:





3.2.5 Test Result of Maximum Conducted Output Power

Test Band :	5GHz band 1	Temperature :	21~26°C
Test Engineer :	Alex Lee	Relative Humidity :	45~54%

Mod.	Data Rate	N <sub>TX</sub>	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Power Limit (dBm)		DG (dBi)		-	Pass /Fail
					Ant. 1	Ant. 2	Ant. 1	Ant. 2	Sum Power	Ant. 1	Ant. 2	Ant. 1	Ant. 2		
11a	6Mbps	2	36	5180	0.10	0.10	18.80	18.10	21.48	24.00	-2.76		Pass		
11a	6Mbps	2	44	5220	0.10	0.10	19.00	18.32	21.69	24.00	-2.76		Pass		
11a	6Mbps	2	48	5240	0.10	0.10	18.89	18.22	21.58	24.00	-2.76		Pass		
HT20	MCS0	2	36	5180	0.11	0.11	16.94	16.88	19.92	24.00	-2.76		Pass		
HT20	MCS0	2	44	5220	0.11	0.11	18.36	17.44	20.94	24.00	-2.76		Pass		
HT20	MCS0	2	48	5240	0.11	0.11	18.37	17.38	20.92	24.00	-2.76		Pass		
HT40	MCS0	2	38	5190	0.23	0.23	15.28	15.91	18.61	24.00	-2.76		Pass		
HT40	MCS0	2	46	5230	0.23	0.23	16.19	16.43	19.32	24.00	-2.76		Pass		
VHT20	MCS0	2	36	5180	0.11	0.11	18.38	17.46	20.96	24.00	-2.76		Pass		
VHT20	MCS0	2	44	5220	0.11	0.11	20.22	19.19	22.75	24.00	-2.76		Pass		
VHT20	MCS0	2	48	5240	0.11	0.11	20.05	18.80	22.48	24.00	-2.76		Pass		
VHT40	MCS0	2	38	5190	0.22	0.22	15.47	16.29	18.91	24.00	-2.76		Pass		
VHT40	MCS0	2	46	5230	0.22	0.22	18.38	18.22	21.31	24.00	-2.76		Pass		
VHT80	MCS0	2	42	5210	0.43	0.48	16.33	16.58	19.47	24.00	-2.76		Pass		

Note:

- Final Output Power equals to Measured Output Power adds the duty factor.
- Sum Power is a calculated result from sum of the Ant 1 and Ant 2.
- For the band 5150-5250 MHz, the maximum average conducted output power shall not exceed lesser of 50 mW (17dBm) or 4 dBm + 10log (B), where B is 26dB BW for FCC.



Test Band :	5GHz band 2	Temperature :	21~26°C
Test Engineer :	Alex Lee	Relative Humidity :	45~54%

Mod.	Data Rate	N <sub>TX</sub>	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Power Limit (dBm)		DG (dBi)		-	Pass /Fail
					Ant. 1	Ant. 2	Ant. 1	Ant. 2	Sum Power	Ant. 1	Ant. 2	Ant. 1	Ant. 2		
					11a	6Mbps	2	52	5260	0.10	0.10	18.94	18.22		
11a	6Mbps	2	60	5300	0.10	0.10	18.90	18.15	21.56	23.98	-2.06	Pass			
11a	6Mbps	2	64	5320	0.10	0.10	18.83	18.28	21.58	23.98	-2.06	Pass			
HT20	MCS0	2	52	5260	0.11	0.11	18.77	17.70	21.28	23.98	-2.06	Pass			
HT20	MCS0	2	60	5300	0.11	0.11	18.71	17.37	21.10	23.98	-2.06	Pass			
HT20	MCS0	2	64	5320	0.11	0.11	18.46	17.38	20.97	23.98	-2.06	Pass			
HT40	MCS0	2	54	5270	0.23	0.23	16.59	16.39	19.50	23.98	-2.06	Pass			
HT40	MCS0	2	62	5310	0.23	0.23	16.36	16.37	19.37	23.98	-2.06	Pass			
VHT20	MCS0	2	52	5260	0.11	0.11	19.83	18.74	22.33	23.98	-2.06	Pass			
VHT20	MCS0	2	60	5300	0.11	0.11	19.45	18.82	22.16	23.98	-2.06	Pass			
VHT20	MCS0	2	64	5320	0.11	0.11	18.83	17.70	21.31	23.98	-2.06	Pass			
VHT40	MCS0	2	54	5270	0.22	0.22	18.11	18.04	21.09	23.98	-2.06	Pass			
VHT40	MCS0	2	62	5310	0.22	0.22	16.51	17.09	19.82	23.98	-2.06	Pass			
VHT80	MCS0	2	58	5290	0.43	0.48	16.18	16.57	19.39	23.98	-2.06	Pass			

**Note:**

- Final Output Power equals to Measured Output Power adds the duty factor.
- Sum Power is a calculated result from sum of the power Ant 1 and Ant 2.
- For the band 5250-5350 MHz, the maximum conducted output power shall not exceed the lesser of 250 mW (24dBm) or 11 dBm + 10log (B), where B is 26dB BW for FCC.



Test Band :	5GHz band 3	Temperature :	21~26°C
Test Engineer :	Alex Lee	Relative Humidity :	45~54%

Mod.	Data Rate	N <sub>TX</sub>	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Power Limit (dBm)		DG (dBi)		-	Pass /Fail
					Ant. 1	Ant. 2	Ant. 1	Ant. 2	Sum Power	Ant. 1	Ant. 2	Ant. 1	Ant. 2		
					11a	6Mbps	2	100	5500	0.10	0.10	18.55	17.71		
11a	6Mbps	2	116	5580	0.10	0.10	18.64	17.67	21.20	23.98	-1.48	Pass			
11a	6Mbps	2	140	5700	0.10	0.10	16.95	16.31	19.66	23.98	-1.48	Pass			
HT20	MCS0	2	100	5500	0.11	0.11	18.26	17.46	20.89	23.98	-1.48	Pass			
HT20	MCS0	2	116	5580	0.11	0.11	18.51	17.58	21.08	23.98	-1.48	Pass			
HT20	MCS0	2	140	5700	0.11	0.11	16.87	16.30	19.61	23.98	-1.48	Pass			
HT40	MCS0	2	102	5510	0.23	0.23	13.69	13.33	16.52	23.98	-1.48	Pass			
HT40	MCS0	2	110	5550	0.23	0.23	18.04	17.15	20.62	23.98	-1.48	Pass			
HT40	MCS0	2	134	5670	0.23	0.23	17.70	16.82	20.29	23.98	-1.48	Pass			
VHT20	MCS0	2	100	5500	0.11	0.11	18.30	17.10	20.75	23.98	-1.48	Pass			
VHT20	MCS0	2	116	5580	0.11	0.11	19.47	18.30	21.94	23.98	-1.48	Pass			
VHT20	MCS0	2	140	5700	0.11	0.11	16.97	15.79	19.43	23.98	-1.48	Pass			
VHT40	MCS0	2	102	5510	0.22	0.22	14.48	13.98	17.25	23.98	-1.48	Pass			
VHT40	MCS0	2	110	5550	0.22	0.22	19.48	18.06	21.84	23.98	-1.48	Pass			
VHT40	MCS0	2	134	5670	0.22	0.22	19.32	18.28	21.84	23.98	-1.48	Pass			
VHT80	MCS0	2	106	5530	0.43	0.48	14.27	13.77	17.04	23.98	-1.48	Pass			
VHT80	MCS0	2	122	5610	0.43	0.48	16.54	16.27	19.42	23.98	-1.48	Pass			

**Note:**

- Final Output Power equals to Measured Output Power adds the duty factor.
- Sum Power is a calculated result from sum of the power Ant 1 and Ant 2.
- For the 5470-5600MHz and 5650-5725MHz bands, the maximum conducted output power shall not exceed the lesser of 250 mW (24dBm) or 11 dBm + 10log (B), where B is 26dB BW for FCC.



Test Band :	Straddle Channel	Temperature :	21~26°C
Test Engineer :	Alex Lee	Relative Humidity :	45~54%

Mod.	Data Rate	N <sub>TX</sub>	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			EIRP Power Limit (dBm)		DG (dBi)		Pass /Fail
					Ant. 1	Ant. 2	Ant. 1	Ant. 2	Sum Power	Ant. 1	Ant. 2	Ant. 1	Ant. 2	
11a	6Mbps	2	144	5720	0.10	0.10	19.99	19.26	22.65	-	-1.48		Pass	
				NII-2C	0.10	0.10	18.95	18.31	21.65	23.16	-1.48		Pass	
				DTS	0.10	0.10	13.28	12.19	15.78	25.13	-1.48		Pass	
HT20	MCS0	2	144	5720	0.11	0.11	20.87	19.65	23.31	-	-1.48		Pass	
				NII-2C	0.11	0.11	19.83	18.60	22.27	23.23	-1.48		Pass	
				DTS	0.11	0.11	14.13	12.97	16.60	25.20	-1.48		Pass	
HT40	MCS0	2	142	5710	0.23	0.23	20.06	18.84	22.50	-	-1.48		Pass	
				NII-2C	0.23	0.23	19.68	18.45	22.12	23.98	-1.48		Pass	
				DTS	0.23	0.23	9.30	8.18	11.79	24.63	-1.48		Pass	
VHT20	MCS0	2	144	5720	0.11	0.11	19.08	18.23	21.69	-	-1.48		Pass	
				NII-2C	0.11	0.11	17.97	17.23	20.63	23.21	-1.48		Pass	
				DTS	0.11	0.11	12.60	11.38	15.04	25.26	-1.48		Pass	
VHT40	MCS0	2	142	5710	0.22	0.22	18.96	17.92	21.48	-	-1.48		Pass	
				NII-2C	0.22	0.22	18.60	17.53	21.11	23.98	-1.48		Pass	
				DTS	0.22	0.22	7.95	7.25	10.62	24.63	-1.48		Pass	
VHT80	MCS0	2	138	5690	0.43	0.48	16.59	16.14	19.38	-	-1.48		Pass	
				NII-2C	0.43	0.48	16.43	15.97	19.22	23.98	-1.48		Pass	
				DTS	0.43	0.48	2.10	1.92	5.02	24.98	-1.48		Pass	

**Note**

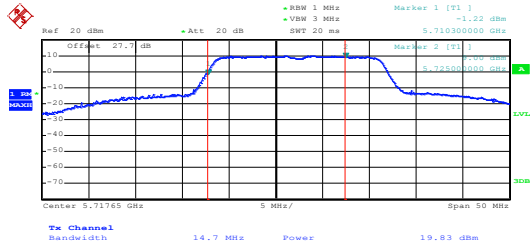
- Total power is a calculated result from sum of NII-2C band and DTS band.
- For NII-2C band falls into 5470-5725 MHz, the maximum conducted output power shall not exceed the lesser of 250 mW (24dBm) or 11 dBm + 10log (B), where B is 26dB BW for FCC.



Maximum Straddle Channel Power

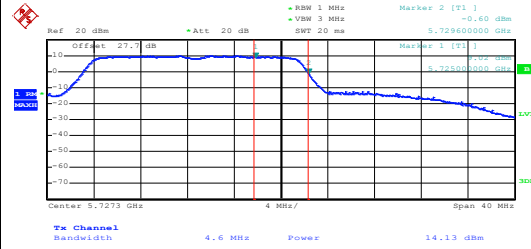
Ant. 1

NII-2C Band



Date: 5.SEP.2014 01:22:51

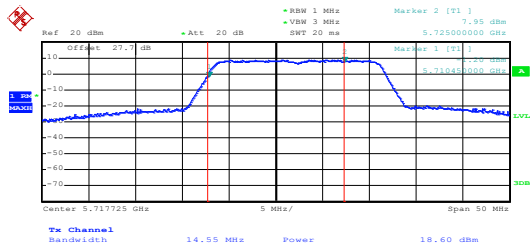
DTS Band



Date: 5.SEP.2014 01:22:01

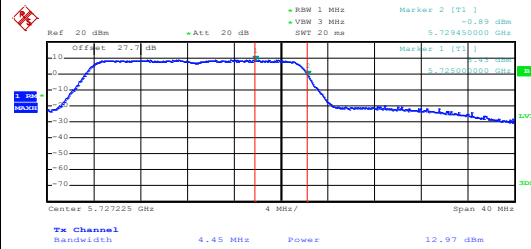
Ant. 2

NII-2C Band



Date: 5.SEP.2014 01:19:31

DTS Band



Date: 5.SEP.2014 01:20:53



### 3.3 Power Spectral Density Measurement

#### 3.3.1 Limit of Power Spectral Density

<FCC 14-30 CFR 15.407>

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

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

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 v01.

Section F) Maximum power spectral density.

**# Method SA-2 #**

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

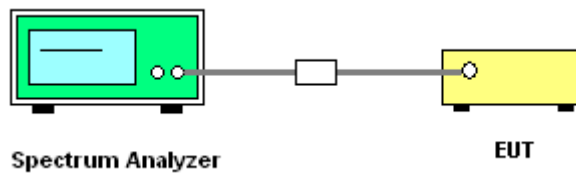
1. The testing follows Method SA-2 of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.
  - Measure the duty cycle.
  - Set span to encompass the entire emission bandwidth (EBW) of the signal.
  - Set RBW = 1 MHz.
  - Set VBW  $\geq$  3 MHz.
  - Number of points in sweep  $\geq$  2 Span / RBW.
  - Sweep time = auto.
  - Detector = RMS
  - Trace average at least 100 traces in power averaging mode.
  - Add  $10 \log(1/x)$ , where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add  $10 \log(1/0.25) = 6$  dB if the duty cycle is 25 percent.

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

Method (1): Measure and sum the spectra across the outputs.

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

### 3.3.4 Test Setup





3.3.5 Test Result of Power Spectral Density

Test Band :	5GHz band 1	Temperature :	21~26°C
Test Engineer :	Alex Lee	Relative Humidity :	45~54%

Mod.	Data Rate	N <sub>TX</sub>	CH.	Freq. (MHz)	Duty Factor (dB)		Average Power Density (dBm/MHz)			Average PSD Limit (dBm)		DG (dBi)		Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Sum Power	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	2	36	5180	0.10	0.10	-	-	9.80	11.00	-2.76	-	Pass	
11a	6Mbps	2	44	5220	0.10	0.10	-	-	9.83	11.00	-2.76	-	Pass	
11a	6Mbps	2	48	5240	0.10	0.10	-	-	9.86	11.00	-2.76	-	Pass	
HT20	MCS0	2	36	5180	0.11	0.11	-	-	8.34	11.00	-2.76	-	Pass	
HT20	MCS0	2	44	5220	0.11	0.11	-	-	9.47	11.00	-2.76	-	Pass	
HT20	MCS0	2	48	5240	0.11	0.11	-	-	9.43	11.00	-2.76	-	Pass	
HT40	MCS0	2	38	5190	0.23	0.23	-	-	3.77	11.00	-2.76	-	Pass	
HT40	MCS0	2	46	5230	0.23	0.23	-	-	4.65	11.00	-2.76	-	Pass	
VHT20	MCS0	2	36	5180	0.11	0.11	-	-	9.49	11.00	-2.76	-	Pass	
VHT20	MCS0	2	44	5220	0.11	0.11	-	-	10.50	11.00	-2.76	-	Pass	
VHT20	MCS0	2	48	5240	0.11	0.11	-	-	10.60	11.00	-2.76	-	Pass	
VHT40	MCS0	2	38	5190	0.22	0.22	-	-	3.76	11.00	-2.76	-	Pass	
VHT40	MCS0	2	46	5230	0.22	0.22	-	-	5.76	11.00	-2.76	-	Pass	
VHT80	MCS0	2	42	5210	0.43	0.48	-	-	1.11	11.00	-2.76	-	Pass	

Note: Sum PSD is a bin-by-bin combined result of Ant 1 and Ant 2.



Test Band :	5GHz band 2	Temperature :	21~26°C
Test Engineer :	Alex Lee	Relative Humidity :	45~54%

Mod.	Data Rate	N <sub>TX</sub>	CH.	Freq. (MHz)	Duty Factor (dB)		Average Power Density (dBm/MHz)			Average PSD Limit (dBm)		DG (dBi)		Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Sum Power	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	2	52	5260	0.10	0.10	-	-	10.03	11.00	-2.06	-	Pass	
11a	6Mbps	2	60	5300	0.10	0.10	-	-	10.26	11.00	-2.06	-	Pass	
11a	6Mbps	2	64	5320	0.10	0.10	-	-	10.29	11.00	-2.06	-	Pass	
HT20	MCS0	2	52	5260	0.11	0.11	-	-	9.67	11.00	-2.06	-	Pass	
HT20	MCS0	2	60	5300	0.11	0.11	-	-	9.62	11.00	-2.06	-	Pass	
HT20	MCS0	2	64	5320	0.11	0.11	-	-	9.73	11.00	-2.06	-	Pass	
HT40	MCS0	2	54	5270	0.23	0.23	-	-	4.66	11.00	-2.06	-	Pass	
HT40	MCS0	2	62	5310	0.23	0.23	-	-	4.83	11.00	-2.06	-	Pass	
VHT20	MCS0	2	52	5260	0.11	0.11	-	-	10.53	11.00	-2.06	-	Pass	
VHT20	MCS0	2	60	5300	0.11	0.11	-	-	10.36	11.00	-2.06	-	Pass	
VHT20	MCS0	2	64	5320	0.11	0.11	-	-	9.63	11.00	-2.06	-	Pass	
VHT40	MCS0	2	54	5270	0.22	0.22	-	-	5.92	11.00	-2.06	-	Pass	
VHT40	MCS0	2	62	5310	0.22	0.22	-	-	6.24	11.00	-2.06	-	Pass	
VHT80	MCS0	2	58	5290	0.43	0.48	-	-	1.02	11.00	-2.06	-	Pass	

Note: Sum PSD is a bin-by-bin combined result of Ant 1 and Ant 2.



Test Band :	5GHz band 3	Temperature :	21~26°C
Test Engineer :	Alex Lee	Relative Humidity :	45~54%

Mod.	Data Rate	N <sub>TX</sub>	CH.	Freq. (MHz)	Duty Factor (dB)		Average Power Density (dBm/MHz)			Average PSD Limit (dBm)		DG (dBi)		Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Sum Power	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	2	100	5500	0.10	0.10			10.02	11.00	-1.48		Pass	
11a	6Mbps	2	116	5580	0.10	0.10			10.74	11.00	-1.48		Pass	
11a	6Mbps	2	140	5700	0.10	0.10			8.21	11.00	-1.48		Pass	
HT20	MCS0	2	100	5500	0.11	0.11			9.56	11.00	-1.48		Pass	
HT20	MCS0	2	116	5580	0.11	0.11			9.19	11.00	-1.48		Pass	
HT20	MCS0	2	140	5700	0.11	0.11			7.78	11.00	-1.48		Pass	
HT40	MCS0	2	102	5510	0.23	0.23			1.83	11.00	-1.48		Pass	
HT40	MCS0	2	110	5550	0.23	0.23			5.84	11.00	-1.48		Pass	
HT40	MCS0	2	134	5670	0.23	0.23			5.28	11.00	-1.48	-	Pass	
VHT20	MCS0	2	100	5500	0.11	0.11			9.44	11.00	-1.48		Pass	
VHT20	MCS0	2	116	5580	0.11	0.11			10.27	11.00	-1.48		Pass	
VHT20	MCS0	2	140	5700	0.11	0.11			7.74	11.00	-1.48		Pass	
VHT40	MCS0	2	102	5510	0.22	0.22			2.68	11.00	-1.48		Pass	
VHT40	MCS0	2	110	5550	0.22	0.22			7.07	11.00	-1.48		Pass	
VHT40	MCS0	2	134	5670	0.22	0.22			6.25	11.00	-1.48		Pass	
VHT80	MCS0	2	106	5530	0.43	0.48			-1.21	11.00	-1.48		Pass	
VHT80	MCS0	2	122	5610	0.43	0.48			1.45	11.00	-1.48		Pass	

Note: Sum PSD is a bin-by-bin combined result of Ant 1 and Ant 2.

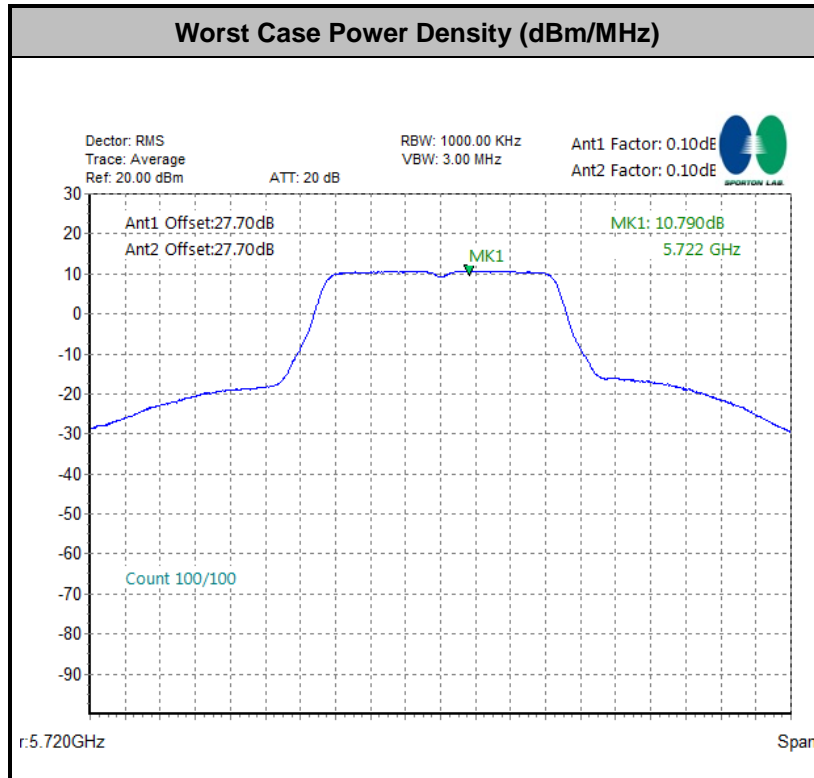


<b>Test Band :</b>	Straddle Channel	<b>Temperature :</b>	21~26°C
<b>Test Engineer :</b>	Alex Lee	<b>Relative Humidity :</b>	45~54%

Mod.	Data Rate	N <sub>TX</sub>	CH.	Freq. (MHz)	Duty Factor (dB)		Average Power Density (dBm/MHz)			Average PSD Limit (dBm)		DG (dBi)		-	Pass /Fail			
					Ant 1	Ant 2	Ant 1	Ant 2	Sum Power	Ant 1	Ant 2	Ant 1	Ant 2					
11a	6Mbps	2	144	NII-2C	0.10	0.10	-	-	-	-	-	-	-	-	Pass			
				DTS	0.10	0.10									10.79	11.00	-1.48	Pass
HT20	MCS0	2	144	NII-2C	0.11	0.11									10.61	11.00	-1.48	Pass
				DTS	0.11	0.11									10.61	11.00	-1.48	Pass
HT40	MCS0	2	142	NII-2C	0.23	0.23									7.35	11.00	-1.48	Pass
				DTS	0.23	0.23									7.35	11.00	-1.48	Pass
VHT20	MCS0	2	144	NII-2C	0.11	0.11									10.46	11.00	-1.48	Pass
				DTS	0.11	0.11									10.46	11.00	-1.48	Pass
VHT40	MCS0	2	142	NII-2C	0.22	0.22									7.22	11.00	-1.48	Pass
				DTS	0.22	0.22									7.22	11.00	-1.48	Pass
VHT80	MCS0	2	138	NII-2C	0.43	0.48									1.89	11.00	-1.48	Pass
				DTS	0.43	0.48									1.89	11.00	-1.48	Pass

**Note 1:** Sum PSD is a bin-by-bin combined result of Ant 1 and Ant 2.

**Note 2:** For NII-3 PSD measured value dBm/MHz is no worse than the limit line dBm/500kHz





### 3.4 Unwanted Emissions Measurement

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

#### 3.4.1 Limit of Unwanted Emissions

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

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

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

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

**Note:** Wireless charger configuration was evaluated.

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 (dBμV/m)
-17	78.3
- 27	68.3



- (3) KDB789033 v01 G)2)c) As specified in 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in 15.407(b)(4)). However, an out-of-band emission that complies with both the average and peak limits of 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz peak emission limit.

### **3.4.2 Measuring Instruments**

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

### **3.4.3 Test Procedures**

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

Section G) Unwanted emissions measurement.

(1) Procedure for Unwanted Emissions Measurements Below 1000MHz

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

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

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

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

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



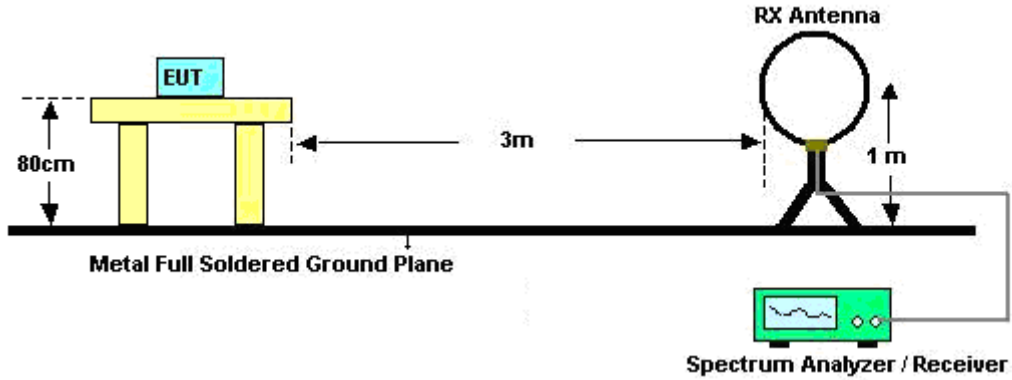
Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
1+2	802.11a Ant. 1	97.64	2070	0.48	1kHz
1+2	802.11a Ant. 2	97.64	2070	0.48	
1+2	802.11n HT20 for Ant. 1	97.46	1920	0.52	1kHz
1+2	802.11n HT20 for Ant. 2	97.46	1920	0.52	
1+2	802.11n HT40 for Ant. 1	94.95	940	1.06	3kHz
1+2	802.11n HT40 for Ant. 2	94.95	940	1.06	
1+2	802.11ac VHT20 for Ant. 1	97.49	1940	0.52	1kHz
1+2	802.11ac VHT20 for Ant. 2	97.47	1930	0.52	
1+2	802.11ac VHT40 for Ant. 1	95	950	1.05	3kHz
1+2	802.11ac VHT40 for Ant. 2	95	950	1.05	
1+2	802.11ac VHT80 for Ant. 1	90.59	462	2.16	3kHz
1+2	802.11ac VHT80 for Ant. 2	89.53	462	2.16	

- The EUT was placed on a rotatable table top 0.8 meter above ground.
- The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- 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.
- 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.
- 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.

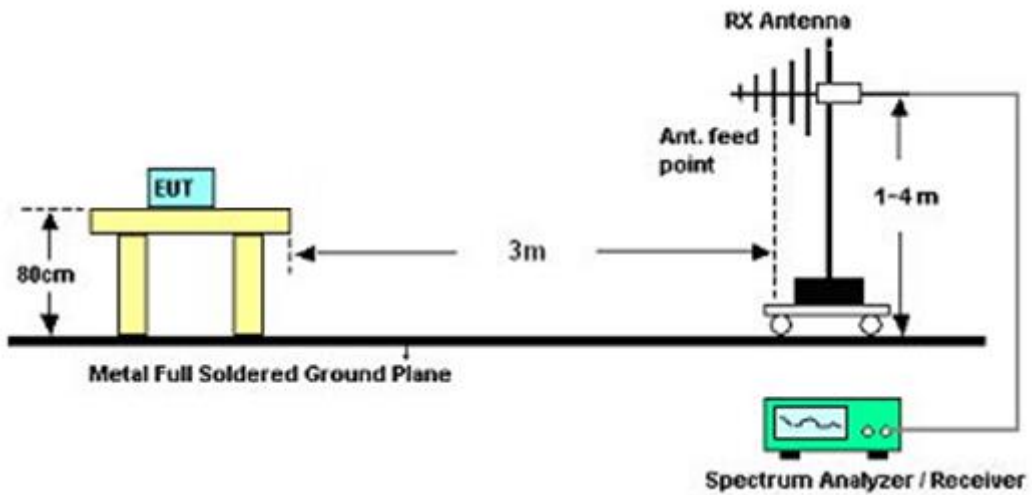
For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

### 3.4.4 Test Setup

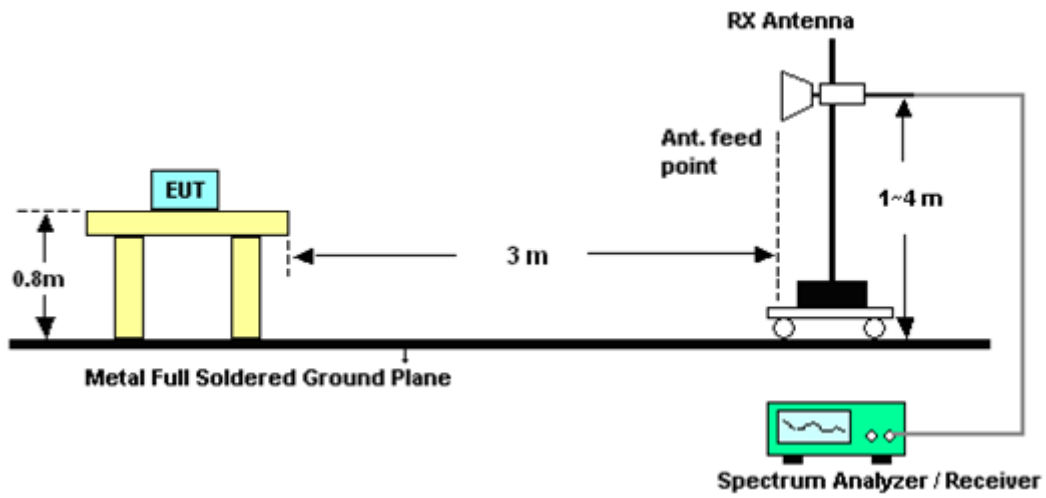
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



### 3.4.5 Test Result of Radiated Spurious Emission

Please refer Appendix A.



### 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.

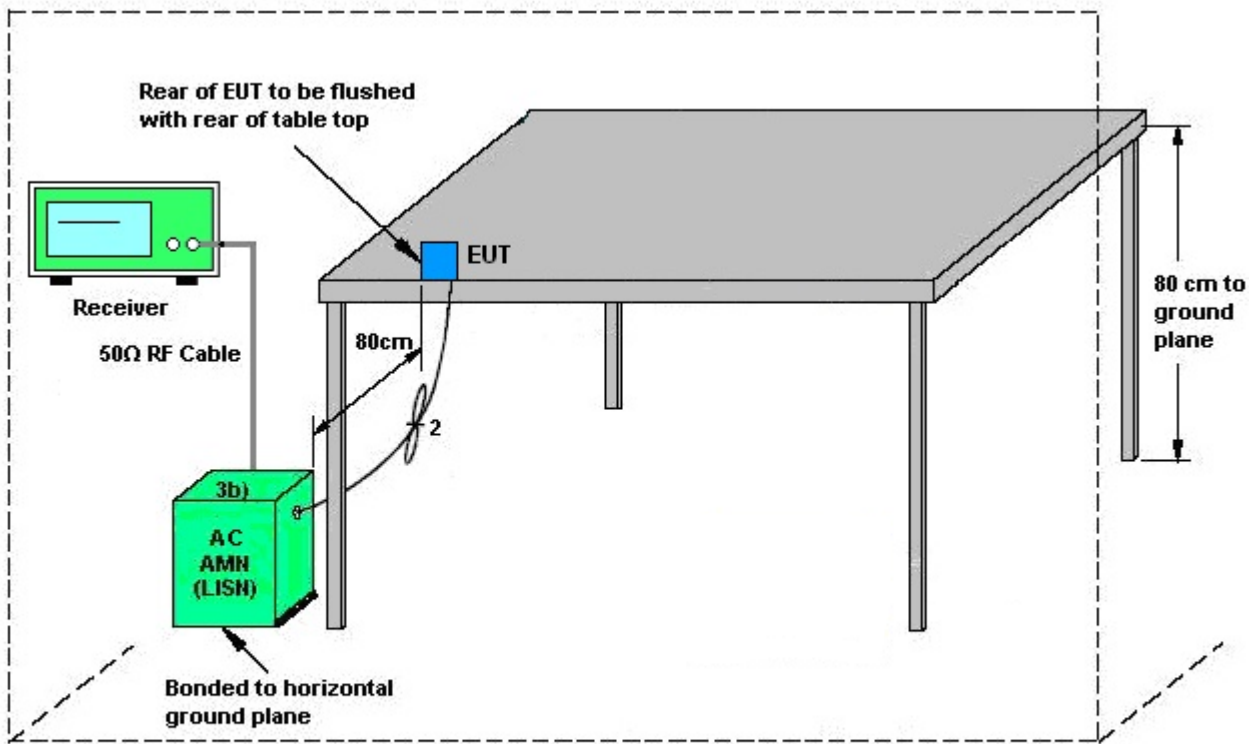
#### 3.5.2 Measuring Instruments

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

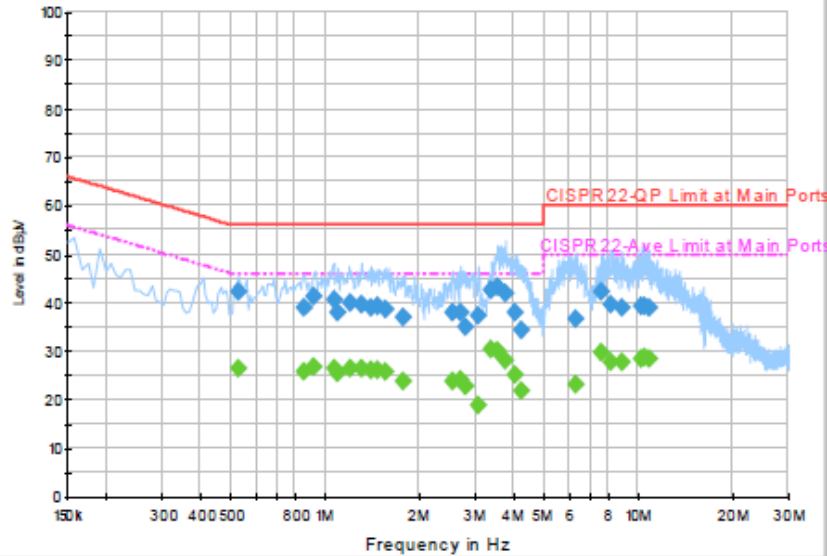


AMN = Artificial mains network (LISN)  
AE = Associated equipment  
EUT = Equipment under test  
ISN = Impedance stabilization network



### 3.5.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	20~22°C
Test Engineer :	Cosmo Xu	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM850 Idle + Bluetooth Link + WLAN (5GHz) Link + USB Cable (Charging from Adapter) + Earphone + MP3		

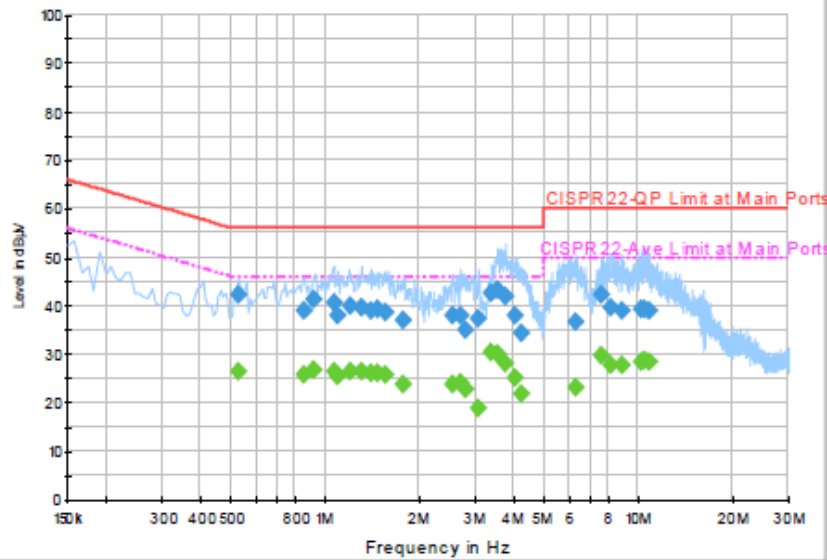


Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.526000	42.2	Off	L1	19.4	13.8	56.0
0.854000	38.8	Off	L1	19.6	17.2	56.0
0.918000	41.2	Off	L1	19.4	14.8	56.0
1.062000	40.7	Off	L1	19.5	15.3	56.0
1.094000	38.1	Off	L1	19.5	17.9	56.0
1.206000	39.8	Off	L1	19.5	16.2	56.0
1.302000	39.5	Off	L1	19.5	16.5	56.0
1.390000	39.1	Off	L1	19.5	16.9	56.0
1.462000	39.3	Off	L1	19.6	16.7	56.0
1.550000	38.6	Off	L1	19.4	17.4	56.0
1.758000	37.0	Off	L1	19.6	19.0	56.0
2.534000	37.8	Off	L1	19.5	18.2	56.0
2.702000	37.8	Off	L1	19.5	18.2	56.0
2.806000	34.9	Off	L1	19.6	21.1	56.0



Test Mode :	Mode 1	Temperature :	20~22°C
Test Engineer :	Cosmo Xu	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM850 Idle + Bluetooth Link + WLAN (5GHz) Link + USB Cable (Charging from Adapter) + Earphone + MP3		

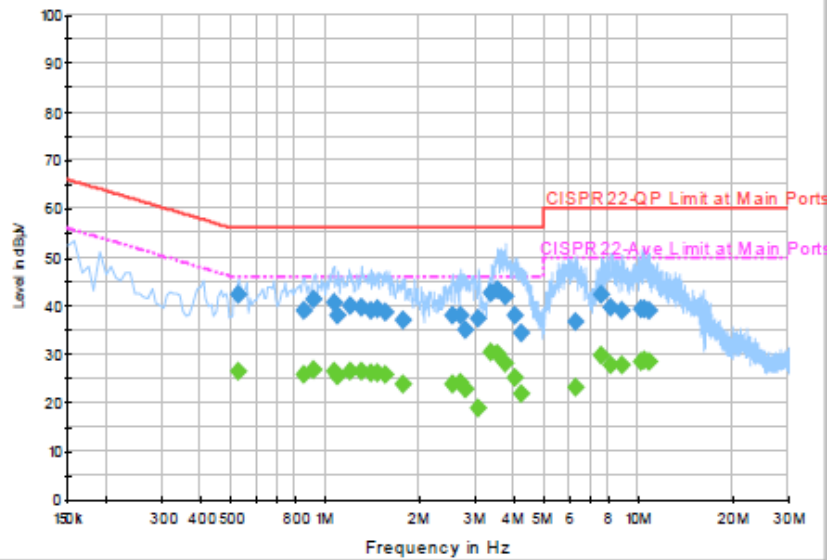


Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
3.086000	37.2	Off	L1	19.5	18.8	56.0
3.382000	42.7	Off	L1	19.6	13.3	56.0
3.550000	43.3	Off	L1	19.6	12.7	56.0
3.742000	41.8	Off	L1	19.6	14.2	56.0
4.046000	37.9	Off	L1	19.6	18.1	56.0
4.238000	34.4	Off	L1	19.6	21.6	56.0
6.318000	36.6	Off	L1	19.6	23.4	60.0
7.622000	42.4	Off	L1	19.6	17.6	60.0
8.190000	39.5	Off	L1	19.7	20.5	60.0
8.790000	38.9	Off	L1	19.7	21.1	60.0
10.230000	39.3	Off	L1	19.6	20.7	60.0
10.438000	39.2	Off	L1	19.7	20.8	60.0
10.790000	38.8	Off	L1	19.7	21.2	60.0



Test Mode :	Mode 1	Temperature :	20~22°C
Test Engineer :	Cosmo Xu	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM850 Idle + Bluetooth Link + WLAN (5GHz) Link + USB Cable (Charging from Adapter) + Earphone + MP3		

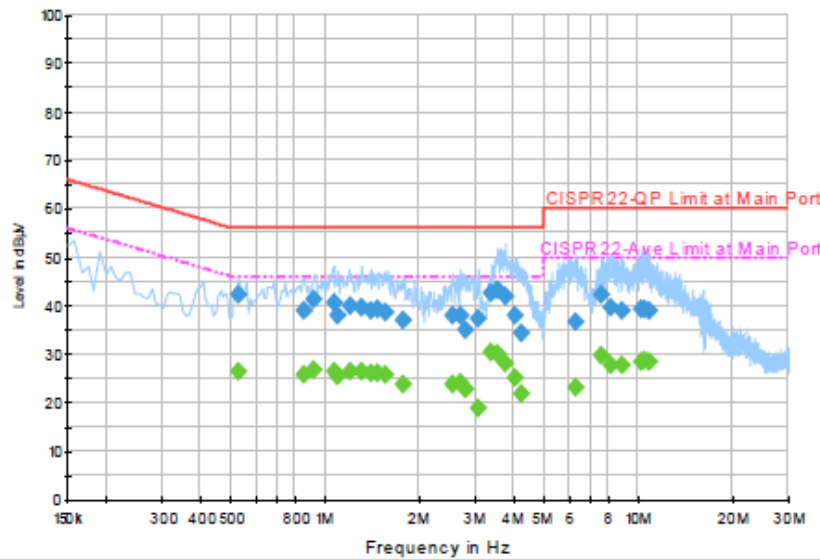


Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.526000	26.4	Off	L1	19.4	19.6	46.0
0.854000	25.7	Off	L1	19.6	20.3	46.0
0.918000	26.6	Off	L1	19.4	19.4	46.0
1.062000	26.5	Off	L1	19.5	19.5	46.0
1.094000	25.6	Off	L1	19.5	20.4	46.0
1.206000	26.3	Off	L1	19.5	19.7	46.0
1.302000	26.4	Off	L1	19.5	19.6	46.0
1.390000	26.0	Off	L1	19.5	20.0	46.0
1.462000	26.1	Off	L1	19.6	19.9	46.0
1.550000	25.7	Off	L1	19.4	20.3	46.0
1.758000	23.7	Off	L1	19.6	22.3	46.0
2.534000	23.6	Off	L1	19.5	22.4	46.0
2.702000	24.0	Off	L1	19.5	22.0	46.0



Test Mode :	Mode 1	Temperature :	20~22°C
Test Engineer :	Cosmo Xu	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM850 Idle + Bluetooth Link + WLAN (5GHz) Link + USB Cable (Charging from Adapter) + Earphone + MP3		

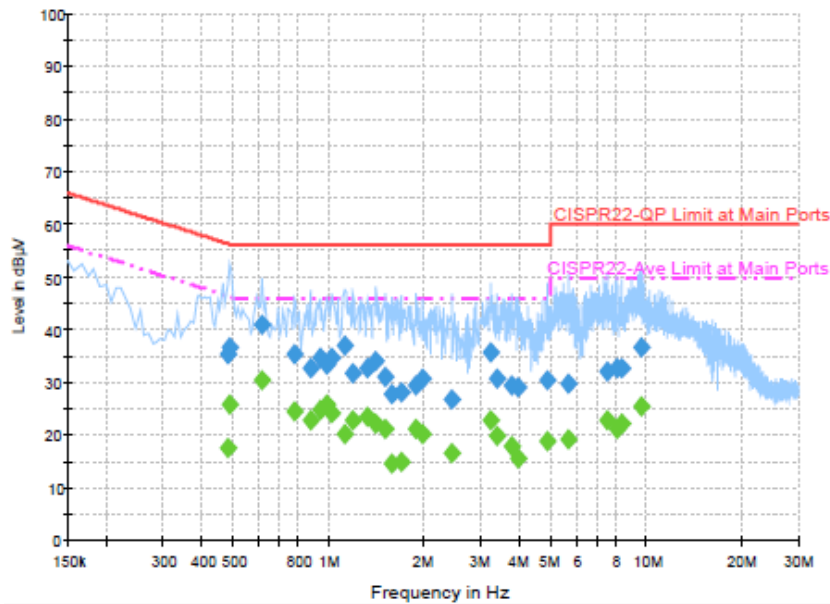


Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
2.806000	22.8	Off	L1	19.6	23.2	46.0
3.086000	18.9	Off	L1	19.5	27.1	46.0
3.382000	30.4	Off	L1	19.6	15.6	46.0
3.550000	29.9	Off	L1	19.6	16.1	46.0
3.742000	28.1	Off	L1	19.6	17.9	46.0
4.046000	25.1	Off	L1	19.6	20.9	46.0
4.238000	21.8	Off	L1	19.6	24.2	46.0
6.318000	23.0	Off	L1	19.6	27.0	50.0
7.622000	29.6	Off	L1	19.6	20.4	50.0
8.190000	27.6	Off	L1	19.7	22.4	50.0
8.790000	27.6	Off	L1	19.7	22.4	50.0
10.230000	28.5	Off	L1	19.6	21.5	50.0
10.438000	28.8	Off	L1	19.7	21.2	50.0
10.790000	28.4	Off	L1	19.7	21.6	50.0



Test Mode :	Mode 1	Temperature :	20~22°C
Test Engineer :	Cosmo Xu	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM850 Idle + Bluetooth Link + WLAN (5GHz) Link + USB Cable (Charging from Adapter) + Earphone + MP3		

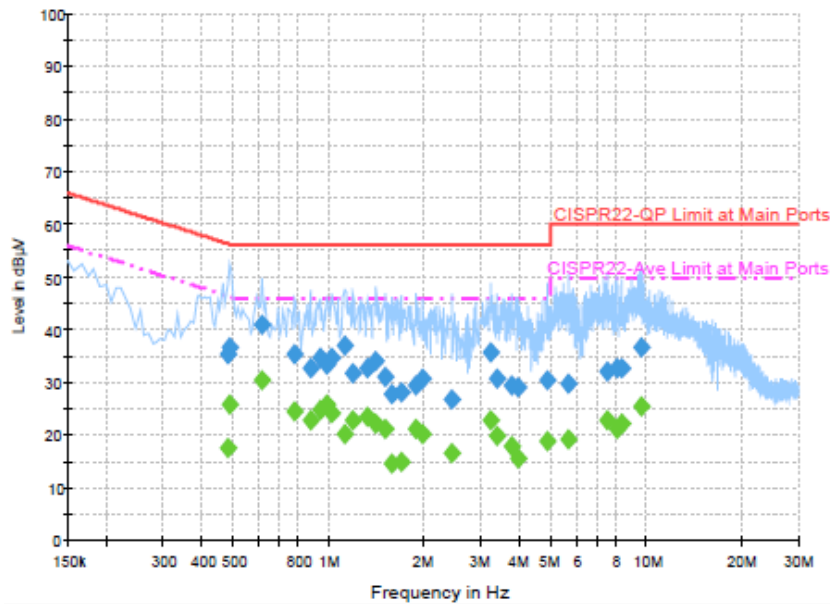


Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.478000	35.2	Off	N	19.5	21.2	56.4
0.486000	36.8	Off	N	19.4	19.4	56.2
0.614000	40.8	Off	N	19.4	15.2	56.0
0.774000	35.4	Off	N	19.5	20.6	56.0
0.870000	32.7	Off	N	19.5	23.3	56.0
0.934000	34.7	Off	N	19.5	21.3	56.0
0.982000	33.4	Off	N	19.5	22.6	56.0
1.022000	34.5	Off	N	19.5	21.5	56.0
1.118000	36.9	Off	N	19.5	19.1	56.0
1.190000	31.8	Off	N	19.5	24.2	56.0
1.318000	32.8	Off	N	19.5	23.2	56.0
1.406000	33.9	Off	N	19.5	22.1	56.0
1.502000	30.9	Off	N	19.5	25.1	56.0
1.574000	27.7	Off	N	19.5	28.3	56.0



Test Mode :	Mode 1	Temperature :	20~22°C
Test Engineer :	Cosmo Xu	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM850 Idle + Bluetooth Link + WLAN (5GHz) Link + USB Cable (Charging from Adapter) + Earphone + MP3		

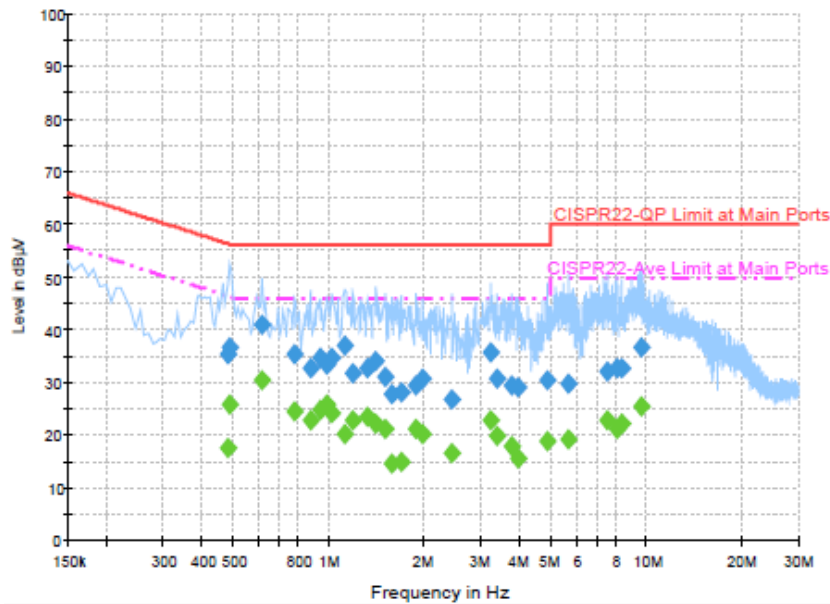


Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
1.678000	28.0	Off	N	19.6	28.0	56.0
1.886000	29.3	Off	N	19.5	26.7	56.0
1.974000	30.6	Off	N	19.6	25.4	56.0
2.430000	26.7	Off	N	19.6	29.3	56.0
3.222000	35.6	Off	N	19.6	20.4	56.0
3.374000	30.5	Off	N	19.6	25.5	56.0
3.758000	29.3	Off	N	19.6	26.7	56.0
3.934000	29.2	Off	N	19.5	26.8	56.0
4.846000	30.4	Off	N	19.6	25.6	56.0
5.654000	29.6	Off	N	19.6	30.4	60.0
7.470000	32.1	Off	N	19.6	27.9	60.0
8.014000	32.8	Off	N	19.7	27.2	60.0
8.358000	32.8	Off	N	19.7	27.2	60.0
9.558000	36.6	Off	N	19.7	23.4	60.0



Test Mode :	Mode 1	Temperature :	20~22°C
Test Engineer :	Cosmo Xu	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM850 Idle + Bluetooth Link + WLAN (5GHz) Link + USB Cable (Charging from Adapter) + Earphone + MP3		

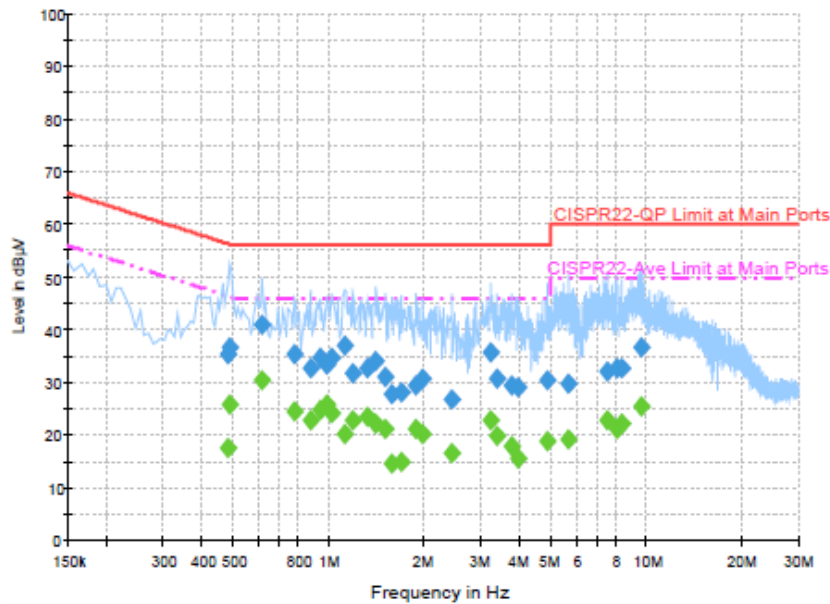


Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.478000	17.4	Off	N	19.5	29.0	46.4
0.486000	25.7	Off	N	19.4	20.5	46.2
0.614000	30.4	Off	N	19.4	15.6	46.0
0.774000	24.6	Off	N	19.5	21.4	46.0
0.870000	22.9	Off	N	19.5	23.1	46.0
0.934000	24.9	Off	N	19.5	21.1	46.0
0.982000	25.6	Off	N	19.5	20.4	46.0
1.022000	24.2	Off	N	19.5	21.8	46.0
1.118000	20.2	Off	N	19.5	25.8	46.0
1.190000	22.8	Off	N	19.5	23.2	46.0
1.318000	23.4	Off	N	19.5	22.6	46.0
1.406000	22.2	Off	N	19.5	23.8	46.0
1.502000	21.1	Off	N	19.5	24.9	46.0
1.574000	14.5	Off	N	19.5	31.5	46.0



Test Mode :	Mode 1	Temperature :	20~22°C
Test Engineer :	Cosmo Xu	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM850 Idle + Bluetooth Link + WLAN (5GHz) Link + USB Cable (Charging from Adapter) + Earphone + MP3		



Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
1.678000	14.7	Off	N	19.6	31.3	46.0
1.886000	21.0	Off	N	19.5	25.0	46.0
1.974000	20.3	Off	N	19.6	25.7	46.0
2.430000	16.5	Off	N	19.6	29.5	46.0
3.222000	22.9	Off	N	19.6	23.1	46.0
3.374000	19.9	Off	N	19.6	26.1	46.0
3.758000	17.8	Off	N	19.6	28.2	46.0
3.934000	15.5	Off	N	19.5	30.5	46.0
4.846000	18.9	Off	N	19.6	27.1	46.0
5.654000	19.0	Off	N	19.6	31.0	50.0
7.470000	22.7	Off	N	19.6	27.3	50.0
8.014000	21.0	Off	N	19.7	29.0	50.0
8.358000	22.1	Off	N	19.7	27.9	50.0
9.558000	25.5	Off	N	19.7	24.5	50.0

## 3.6 Frequency Stability Measurement

### 3.6.1 Limit of Frequency Stability

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

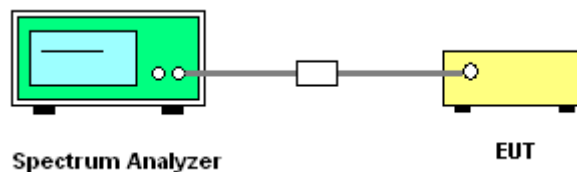
### 3.6.2 Measuring Instruments

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

### 3.6.3 Test Procedures

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

### 3.6.4 Test Setup





3.6.5 Test Result of Frequency Stability

Test Band :	5GHz band 1,2,3	Test Engineer :	Alex Lee
-------------	-----------------	-----------------	----------

Mod.	Data Rate	N <sub>TX</sub>	Channel	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stability (ppm)	Temperature (°C)	Voltage (V)
11a	6Mbps	2	36	5180	5180.000	0.000	0.00	20	3.4
11a	6Mbps	2	36	5180	5180.000	0.000	0.00	20	4.35
11a	6Mbps	2	36	5180	5180.000	0.000	0.00	20	3.8
11a	6Mbps	2	36	5180	5180.000	0.000	0.00	-30	3.8
11a	6Mbps	2	36	5180	5180.000	0.000	0.00	50	3.8

Mod.	Data Rate	N <sub>TX</sub>	Channel	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stability (ppm)	Temperature (°C)	Voltage (V)
11a	6Mbps	2	64	5320	5320.000	0.000	0.00	20	3.4
11a	6Mbps	2	64	5320	5320.000	0.000	0.00	20	4.35
11a	6Mbps	2	64	5320	5320.000	0.000	0.00	20	3.8
11a	6Mbps	2	64	5320	5320.050	0.050	9.40	-30	3.8
11a	6Mbps	2	64	5320	5320.000	0.000	0.00	50	3.8

Mod.	Data Rate	N <sub>TX</sub>	Channel	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stability (ppm)	Temperature (°C)	Voltage (V)
11a	6Mbps	2	100	5500	5500.000	0.000	0.00	20	3.4
11a	6Mbps	2	100	5500	5500.000	0.000	0.00	20	4.35
11a	6Mbps	2	100	5500	5500.000	0.000	0.00	20	3.8
11a	6Mbps	2	100	5500	5500.050	0.050	9.09	-30	3.8
11a	6Mbps	2	100	5500	5500.000	0.000	0.00	50	3.8

Note: Center Frequency = (Low Frequency + High Frequency) / 2.



## **3.7 Automatically Discontinue Transmission**

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

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

### **3.7.2 Measuring Instruments**

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

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

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

### 3.8 Antenna Requirements

#### 3.8.1 Standard Applicable

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

#### 3.8.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

#### 3.8.3 Antenna Gain

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

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

where

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

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

$N_{ANT}$  = the total number of antennas

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

The EUT supports CDD mode.

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

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



			<b>DG</b>	<b>DG</b>	<b>Power</b>	<b>PSD</b>
			<b>for</b>	<b>for</b>	<b>Limit</b>	<b>Limit</b>
	<b>Ant 1</b>	<b>Ant 2</b>	<b>Power</b>	<b>PSD</b>	<b>Reduction</b>	<b>Reduction</b>
	<b>(dBi)</b>	<b>(dBi)</b>	<b>(dBi)</b>	<b>(dBi)</b>	<b>(dB)</b>	<b>(dB)</b>
<b>Band I</b>	-4.00	-8.00	-2.76	-2.76	0.00	0.00
<b>Band II</b>	-3.50	-7.00	-2.06	-2.06	0.00	0.00
<b>Band III</b>	-3.20	-6.00	-1.48	-1.48	0.00	0.00

*Power Limit Reduction = DG(Power) – 6dBi, ( min = 0 )*

*PSD Limit Reduction = DG(PSD) – 6dBi, ( min = 0 )*



## 4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	Rohde & Schwarz	FSP40	100055	9kHz~40GHz	Jun. 09, 2014	Aug. 15, 2014~ Sep. 15, 2014	Jun. 08, 2015	Conducted (TH02-HY)
Power Meter	Anritsu	ML2495A	1036004	300MHz~40GHz	Aug. 09, 2014	Aug. 15, 2014~ Sep. 15, 2014	Aug. 08, 2015	Conducted (TH02-HY)
Power Sensor	Anritsu	MA2411B	1027253	300MHz~40GHz	Aug. 09, 2014	Aug. 15, 2014~ Sep. 15, 2014	Aug. 08, 2015	Conducted (TH02-HY)
Spectrum Analyzer	R&S	FSP30	101067	9kHz ~ 30GHz	Nov. 20, 2013	Aug. 24, 2014~ Sep. 12, 2014	Nov. 19, 2014	Radiation (03CH06-HY)
Spectrum Analyzer	Agilent	E4408B	MY44211030	9kHz ~ 26.5GHz	Dec. 02, 2013	Aug. 24, 2014~ Sep. 12, 2014	Dec. 01, 2014	Radiation (03CH06-HY)
EMI Test Receiver	R&S	ESVS10	834468/0003	20MHz ~ 1000MHz	May 06, 2014	Aug. 24, 2014~ Sep. 12, 2014	May 05, 2015	Radiation (03CH06-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100330	9 kHz~30 MHz	Nov. 15, 2012	Aug. 24, 2014~ Sep. 12, 2014	Nov. 14, 2014	Radiation (03CH06-HY)
Bilog Antenna	Schaffner	CBL6112B	2885	30MHz ~ 2GHz	Oct. 10, 2013	Aug. 24, 2014~ Sep. 12, 2014	Oct. 09, 2014	Radiation (03CH06-HY)
Double Ridge Horn Antenna	EMCO	3117	00066583	1GHz ~ 18GHz	Jul. 24, 2014	Aug. 24, 2014~ Sep. 12, 2014	Jul. 23, 2015	Radiation (03CH06-HY)
Amplifier	SONOMA	310N	186713	9kHz ~ 1GHz	Apr. 16, 2014	Aug. 24, 2014~ Sep. 12, 2014	Apr. 15, 2015	Radiation (03CH06-HY)
Preamplifier	EMCI	EMC051845	SN980048	1GHz ~ 18GHz	Jul. 17, 2014	Aug. 24, 2014~ Sep. 12, 2014	Jul. 16, 2015	Radiation (03CH06-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	15GHz ~ 40GHz	Oct. 03, 2013	Aug. 24, 2014~ Sep. 12, 2014	Oct. 02, 2014	Radiation (03CH06-HY)
Preamplifier	Agilent	8449B	3008A01917	1GHz ~ 26.5GHz	Apr. 10, 2014	Aug. 24, 2014~ Sep. 12, 2014	Apr. 09, 2015	Radiation (03CH06-HY)
Turn Table	INN-CO	DS2000	420/650/00	0 ~ 360 degree	N/A	Aug. 24, 2014~ Sep. 12, 2014	N/A	Radiation (03CH06-HY)
Antenna Mast	MF	MF-7802	MF780208212	1 m ~ 4 m	N/A	Aug. 24, 2014~ Sep. 12, 2014	N/A	Radiation (03CH06-HY)
EMI Test Receiver	Rohde & Schwarz	ESCS 30	100356	9kHz ~ 2.75GHz	Nov. 15, 2013	Aug. 19, 2014	Nov. 14, 2014	Conduction (CO05-HY)
LISN (for auxiliary equipment)	Rohde & Schwarz	ENV216	100081	9kHz ~ 30MHz	Dec. 12, 2013	Aug. 19, 2014	Dec. 11, 2014	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz ~ 30MHz	Dec. 04, 2013	Aug. 19, 2014	Dec. 03, 2014	Conduction (CO05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Aug. 19, 2014	N/A	Conduction (CO05-HY)



## 5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	2.26
---	------

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

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	4.50
---	------



## Appendix A. Radiated Spurious Emission

Test Engineer :	Kai Wang	Temperature :	23~24°C
		Relative Humidity :	45~46%

15E Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		5144.45	59.88	-14.12	74	50.4	34.65	8.82	33.99	100	28	P	H
		5149.55	48.05	-5.95	54	38.57	34.65	8.82	33.99	100	28	A	H
	*	5181	101.72	-	-	92.27	34.68	8.76	33.99	100	28	P	H
	*	5181	91.46	-	-	82.01	34.68	8.76	33.99	100	28	A	H
		5144.75	61.88	-12.12	74	52.4	34.65	8.82	33.99	115	170	P	V
		5149.25	49.09	-4.91	54	39.61	34.65	8.82	33.99	115	170	A	V
	*	5182	104.94	-	-	95.49	34.68	8.76	33.99	115	170	P	V
	*	5182	94.86	-	-	85.41	34.68	8.76	33.99	115	170	A	V
802.11a CH 44 5220MHz		5147.9	55.9	-18.1	74	46.42	34.65	8.82	33.99	107	1	P	H
		5149.7	44.07	-9.93	54	34.59	34.65	8.82	33.99	107	1	A	H
	*	5222	112.03	-	-	102.6	34.72	8.7	33.99	107	1	P	H
	*	5222	101.75	-	-	92.32	34.72	8.7	33.99	107	1	A	H
		5438.44	53.59	-20.41	74	43.89	34.93	8.75	33.98	107	1	P	H
		5444.05	43.22	-10.78	54	33.52	34.93	8.75	33.98	107	1	A	H
		5143.25	53.79	-20.21	74	44.25	34.65	8.88	33.99	120	14	P	V
		5149.1	43.02	-10.98	54	33.54	34.65	8.82	33.99	120	14	A	V
	*	5222	107.88	-	-	98.45	34.72	8.7	33.99	120	14	P	V
	*	5222	98.7	-	-	89.27	34.72	8.7	33.99	120	14	A	V
		5386.52	53.63	-20.37	74	44	34.88	8.73	33.98	120	14	P	V
		5442.51	42.47	-11.53	54	32.77	34.93	8.75	33.98	120	14	A	V



WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 48 5240MHz		5147.9	53.2	-20.8	74	43.72	34.65	8.82	33.99	117	355	P	H
		5149.1	42.61	-11.39	54	33.13	34.65	8.82	33.99	117	355	A	H
	*	5240	110.58	-	-	101.14	34.73	8.7	33.99	117	355	P	H
	*	5240	101.23	-	-	91.79	34.73	8.7	33.99	117	355	A	H
		5454.5	54.55	-19.45	74	44.8	34.95	8.78	33.98	117	355	P	H
		5454.94	43.29	-10.71	54	33.54	34.95	8.78	33.98	117	355	A	H
		5145.05	53.02	-20.98	74	43.54	34.65	8.82	33.99	100	19	P	V
		5149.85	42.56	-11.44	54	33.08	34.65	8.82	33.99	100	19	A	V
	*	5240	108.57	-	-	99.13	34.73	8.7	33.99	100	19	P	V
	*	5240	99.04	-	-	89.6	34.73	8.7	33.99	100	19	A	V
		5448.23	52.99	-21.01	74	43.27	34.95	8.75	33.98	100	19	P	V
		5452.63	42.4	-11.6	54	32.65	34.95	8.78	33.98	100	19	A	V
	Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



**15E band 1 5150~5250MHz**

**WIFI 802.11a (Harmonic @ 3m)**

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	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	48.14	-25.86	74	58.62	37.29	12.92	60.69	100	0	P	H
		15540	47.72	-26.28	74	50.04	40.13	17.02	59.47	100	0	P	H
		10360	43.46	-30.54	74	53.94	37.29	12.92	60.69	100	0	P	V
		15540	48.15	-25.85	74	50.47	40.13	17.02	59.47	100	0	P	V
802.11a CH 44 5220MHz		10440	53.23	-20.77	74	63.45	37.35	13.02	60.59	104	254	P	H
		10440	42.07	-11.93	54	52.29	37.35	13.02	60.59	104	254	A	H
		15660	48.1	-25.9	74	50.16	40.26	17.02	59.34	100	0	P	H
		10440	47.08	-26.92	74	57.3	37.35	13.02	60.59	100	0	P	V
		15660	48.53	-25.47	74	50.59	40.26	17.02	59.34	100	0	P	V
802.11a CH 48 5240MHz		10480	54.78	-19.22	74	64.82	37.39	13.09	60.52	100	104	P	H
		10480	42.1	-11.9	54	52.14	37.39	13.09	60.52	100	104	A	H
		15720	48.31	-25.69	74	50.24	40.32	17.03	59.28	100	0	P	H
		10480	47.41	-26.59	74	57.45	37.39	13.09	60.52	100	0	P	V
		15720	48.69	-25.31	74	50.62	40.32	17.03	59.28	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E band 1 5150~5250MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

Table with 14 columns: WIFI Ant. 1+2, 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). Rows include data for 802.11n HT20 CH 36 (5180MHz) and 802.11n HT20 CH 44 (5220MHz).



WIFI Ant. 1+2	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 48 5240MHz		5149.1	53.42	-20.58	74	43.94	34.65	8.82	33.99	106	358	P	H
		5149.1	42.54	-11.46	54	33.06	34.65	8.82	33.99	106	358	A	H
	*	5238	109.72	-	-	100.28	34.73	8.7	33.99	106	358	P	H
	*	5238	100.51	-	-	91.07	34.73	8.7	33.99	106	358	A	H
		5457.14	53.7	-20.3	74	43.95	34.95	8.78	33.98	106	358	P	H
		5451.42	43.12	-10.88	54	33.37	34.95	8.78	33.98	106	358	A	H
		5054.75	52.62	-21.38	74	42.97	34.57	9.07	33.99	109	24	P	V
		5146.7	42.23	-11.77	54	32.75	34.65	8.82	33.99	109	24	A	V
	*	5238	103.44	-	-	94	34.73	8.7	33.99	109	24	P	V
	*	5238	94.17	-	-	84.73	34.73	8.7	33.99	109	24	A	V
		5454.17	53.34	-20.66	74	43.59	34.95	8.78	33.98	109	24	P	V
		5456.48	42.34	-11.66	54	32.59	34.95	8.78	33.98	109	24	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 1 5150~5250MHz**

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

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		10360	47.26	-26.74	74	57.74	37.29	12.92	60.69	100	0	P	H
		15540	47.54	-26.46	74	49.86	40.13	17.02	59.47	100	0	P	H
		10360	43.97	-30.03	74	54.45	37.29	12.92	60.69	100	0	P	V
		15540	48.62	-25.38	74	50.94	40.13	17.02	59.47	100	0	P	V
802.11n HT20 CH 44 5220MHz		10440	49.63	-24.37	74	59.85	37.35	13.02	60.59	100	0	P	H
		15660	49.23	-24.77	74	51.29	40.26	17.02	59.34	100	0	P	H
		10440	44.3	-29.7	74	54.52	37.35	13.02	60.59	100	0	P	V
		15660	48.7	-25.3	74	50.76	40.26	17.02	59.34	100	0	P	V
802.11n HT20 CH 48 5240MHz		10480	50.07	-23.93	74	60.11	37.39	13.09	60.52	100	0	P	H
		15720	48.02	-25.98	74	49.95	40.32	17.03	59.28	100	0	P	H
		10480	46.23	-27.77	74	56.27	37.39	13.09	60.52	100	0	P	V
		15720	47.07	-26.93	74	49	40.32	17.03	59.28	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E band 1 5150~5250MHz  
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	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		5145.65	63.95	-10.05	74	54.47	34.65	8.82	33.99	102	27	P	H
		5147.9	49.68	-4.32	54	40.2	34.65	8.82	33.99	102	27	A	H
	*	5192	98.33	-	-	88.92	34.7	8.7	33.99	102	27	P	H
	*	5192	99.02	-	-	89.61	34.7	8.7	33.99	102	27	A	H
		5366.83	52.79	-21.21	74	43.18	34.87	8.72	33.98	102	27	P	H
		5447.57	42.39	-11.61	54	32.67	34.95	8.75	33.98	102	27	A	H
		5148.35	66.33	-7.67	74	56.85	34.65	8.82	33.99	102	181	P	V
		5148.65	52.3	-1.7	54	42.82	34.65	8.82	33.99	102	181	A	V
	*	5189	102.88	-	-	93.43	34.68	8.76	33.99	102	181	P	V
	*	5189	93.21	-	-	83.76	34.68	8.76	33.99	102	181	A	V
		5389.38	53.44	-20.56	74	43.81	34.88	8.73	33.98	102	181	P	V
		5451.2	42.33	-11.67	54	32.58	34.95	8.78	33.98	102	181	A	V
802.11n HT40 CH 46 5230MHz		5140.4	55.42	-18.58	74	45.88	34.65	8.88	33.99	108	320	P	H
		5147.45	44.42	-9.58	54	34.94	34.65	8.82	33.99	108	320	A	H
	*	5230	103.26	-	-	93.82	34.73	8.7	33.99	108	320	P	H
	*	5230	93.12	-	-	83.68	34.73	8.7	33.99	108	320	A	H
		5416.22	53.15	-20.85	74	43.48	34.92	8.73	33.98	108	320	P	H
		5395.98	42.56	-11.44	54	32.91	34.9	8.73	33.98	108	320	A	H
		5147.6	54.71	-19.29	74	45.23	34.65	8.82	33.99	110	22	P	V
		5147.45	43.61	-10.39	54	34.13	34.65	8.82	33.99	110	22	A	V
	*	5230	100.99	-	-	91.55	34.73	8.7	33.99	110	22	P	V
	*	5230	91.24	-	-	81.8	34.73	8.7	33.99	110	22	A	V
		5427.66	52.77	-21.23	74	43.08	34.92	8.75	33.98	110	22	P	V
		5452.3	42.39	-11.61	54	32.64	34.95	8.78	33.98	110	22	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E band 1 5150~5250MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2	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		10380	42.15	-31.85	74	52.55	37.31	12.95	60.66	100	0	P	H
HT40		15570	47.55	-26.45	74	49.79	40.17	17.02	59.43	100	0	P	H
CH 38		10380	42.85	-31.15	74	53.25	37.31	12.95	60.66	100	0	P	V
5190MHz		15570	47.45	-26.55	74	49.69	40.17	17.02	59.43	100	0	P	V
802.11n		10460	45.01	-28.99	74	55.16	37.36	13.06	60.57	100	0	P	H
HT40		15690	46.65	-27.35	74	48.64	40.29	17.03	59.31	100	0	P	H
CH 46		10460	43.66	-30.34	74	53.81	37.36	13.06	60.57	100	0	P	V
5230MHz		15690	46.93	-27.07	74	48.92	40.29	17.03	59.31	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E band 1 5150~5250MHz
WIFI 802.11ac VHT20 (Band Edge @ 3m)

Table with 14 columns: WIFI Ant. 1+2, 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). Rows include data for 802.11ac VHT20 CH 36 (5180MHz) and 802.11ac VHT20 CH 44 (5220MHz).



WIFI Ant. 1+2	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 48 5240MHz		5096.45	52.63	-21.37	74	43.08	34.6	8.94	33.99	100	26	P	H
		5070.05	42.15	-11.85	54	32.56	34.57	9.01	33.99	100	26	A	H
	*	5242	106.24	-	-	96.78	34.75	8.7	33.99	100	26	P	H
	*	5242	96.62	-	-	87.16	34.75	8.7	33.99	100	26	A	H
		5432.72	52.72	-21.28	74	43.02	34.93	8.75	33.98	100	26	P	H
		5449.88	42.49	-11.51	54	32.74	34.95	8.78	33.98	100	26	A	H
		5149.7	53.72	-20.28	74	44.24	34.65	8.82	33.99	101	176	P	V
		5148.95	42.37	-11.63	54	32.89	34.65	8.82	33.99	101	176	A	V
	*	5241	107.89	-	-	98.45	34.73	8.7	33.99	101	176	P	V
	*	5241	98.31	-	-	88.87	34.73	8.7	33.99	101	176	A	V
		5355.17	53.42	-20.58	74	43.83	34.85	8.72	33.98	101	176	P	V
		5452.08	42.62	-11.38	54	32.87	34.95	8.78	33.98	101	176	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E band 1 5150~5250MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	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	42.95	-31.05	74	53.43	37.29	12.92	60.69	100	0	P	H
		15540	46.73	-27.27	74	49.05	40.13	17.02	59.47	100	0	P	H
		10360	46.25	-27.75	74	56.73	37.29	12.92	60.69	100	0	P	V
		15540	47.44	-26.56	74	49.76	40.13	17.02	59.47	100	0	P	V
802.11ac VHT20 CH 44 5220MHz		10440	45.7	-28.3	74	55.92	37.35	13.02	60.59	100	0	P	H
		15680	48.08	-25.92	74	50.11	40.27	17.03	59.33	100	0	P	H
		10440	50.23	-23.77	74	60.42	37.36	13.02	60.57	100	0	P	V
		15680	47.13	-26.87	74	49.16	40.27	17.03	59.33	100	0	P	V
802.11ac VHT20 CH 48 5240MHz		10480	46.49	-27.51	74	56.58	37.37	13.09	60.55	100	0	P	H
		15720	46.99	-27.01	74	48.92	40.32	17.03	59.28	100	0	P	H
		10480	52.15	-21.85	74	62.24	37.37	13.09	60.55	133	50	P	V
		10480	42.82	-11.18	54	52.91	37.37	13.09	60.55	133	50	A	V
		15720	47.57	-26.43	74	49.5	40.32	17.03	59.28	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E band 1 5150~5250MHz  
WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1+2	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		5145.2	63.77	-10.23	74	54.29	34.65	8.82	33.99	101	26	P	H
		5148.05	49.34	-4.66	54	39.86	34.65	8.82	33.99	101	26	A	H
	*	5188	97.67	-	-	88.22	34.68	8.76	33.99	101	26	P	H
	*	5188	88.64	-	-	79.19	34.68	8.76	33.99	101	26	A	H
		5407.86	53.92	-20.08	74	44.27	34.9	8.73	33.98	101	26	P	H
		5415.01	42.4	-11.6	54	32.73	34.92	8.73	33.98	101	26	A	H
		5148.05	65.17	-8.83	74	55.69	34.65	8.82	33.99	104	164	P	V
		5148.35	52.01	-1.99	54	42.53	34.65	8.82	33.99	104	164	A	V
	*	5192	101.16	-	-	91.69	34.7	8.76	33.99	104	164	P	V
	*	5192	92.15	-	-	82.68	34.7	8.76	33.99	104	164	A	V
		5449.55	53.4	-20.6	74	43.68	34.95	8.75	33.98	104	164	P	V
		5416	42.42	-11.58	54	32.75	34.92	8.73	33.98	104	164	A	V
802.11ac VHT40 CH 46 5230MHz		5145.5	53.79	-20.21	74	44.31	34.65	8.82	33.99	100	30	P	H
		5148.5	43.34	-10.66	54	33.86	34.65	8.82	33.99	100	30	A	H
	*	5232	100.69	-	-	91.25	34.73	8.7	33.99	100	30	P	H
	*	5232	91.33	-	-	81.89	34.73	8.7	33.99	100	30	A	H
		5383.33	53.21	-20.79	74	43.58	34.88	8.73	33.98	100	30	P	H
		5366.83	42.59	-11.41	54	32.98	34.87	8.72	33.98	100	30	A	H
		5138.45	55.04	-18.96	74	45.52	34.63	8.88	33.99	103	161	P	V
		5148.2	44.71	-9.29	54	35.23	34.65	8.82	33.99	103	161	A	V
	*	5228	103.63	-	-	94.19	34.73	8.7	33.99	103	161	P	V
	*	5228	94.25	-	-	84.81	34.73	8.7	33.99	103	161	A	V
		5456.59	53.89	-20.11	74	44.14	34.95	8.78	33.98	103	161	P	V
		5355.06	42.69	-11.31	54	33.1	34.85	8.72	33.98	103	161	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E band 1 5150~5250MHz

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1+2	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	43.61	-30.39	74	54.01	37.31	12.95	60.66	100	0	P	H
		15570	47.67	-26.33	74	49.91	40.17	17.02	59.43	100	0	P	H
		10380	43.81	-30.19	74	54.21	37.31	12.95	60.66	100	0	P	V
		15570	47.83	-26.17	74	50.07	40.17	17.02	59.43	100	0	P	V
802.11ac VHT40 CH 46 5230MHz		10460	43.89	-30.11	74	54.04	37.36	13.06	60.57	100	0	P	H
		15690	46.43	-27.57	74	48.42	40.29	17.03	59.31	100	0	P	H
		10460	43.62	-30.38	74	53.77	37.36	13.06	60.57	100	0	P	V
		15690	47.43	-26.57	74	49.42	40.29	17.03	59.31	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 1 5150~5250MHz**  
**WIFI 802.11ac VHT80 (Band Edge @ 3m)**

WIFI Ant. 1+2	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		5149.85	58.8	-15.2	74	49.32	34.65	8.82	33.99	100	24	P	H
		5150	47.42	-6.58	54	37.94	34.65	8.82	33.99	100	24	A	H
	*	5211	94.95	-	-	85.52	34.72	8.7	33.99	100	24	P	H
	*	5211	85.14	-	-	75.71	34.72	8.7	33.99	100	24	A	H
		5439.98	53.16	-20.84	74	43.46	34.93	8.75	33.98	100	24	P	H
		5350.33	42.94	-11.06	54	33.35	34.85	8.72	33.98	100	24	A	H
		5149.25	63.73	-10.27	74	54.25	34.65	8.82	33.99	102	171	P	V
		5148.35	52.76	-1.24	54	43.28	34.65	8.82	33.99	102	171	A	V
	*	5212	97.98	-	-	88.55	34.72	8.7	33.99	102	171	P	V
	*	5212	88.33	-	-	78.9	34.72	8.7	33.99	102	171	A	V
		5351.43	54.32	-19.68	74	44.73	34.85	8.72	33.98	102	171	P	V
		5351.1	43.49	-10.51	54	33.9	34.85	8.72	33.98	102	171	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

**15E band 1 5150~5250MHz**  
**WIFI 802.11ac VHT80 (Harmonic @ 3m)**

WIFI Ant. 1+2	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	44.15	-29.85	74	54.45	37.33	12.99	60.62	100	0	P	H
		15630	47.6	-26.4	74	49.7	40.24	17.02	59.36	100	0	P	H
		10420	40.1	-33.9	74	50.4	37.33	12.99	60.62	100	0	P	V
		15630	47.64	-26.36	74	49.74	40.24	17.02	59.36	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E Band 2 - 5250~5350MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 1+2	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		5007.65	52.97	-21.03	74	43.25	34.52	9.19	33.99	107	356	P	H
		5149.55	42.35	-11.65	54	32.87	34.65	8.82	33.99	107	356	A	H
	*	5260	111.25	-	-	101.75	34.77	8.71	33.98	107	356	P	H
	*	5260	101.26	-	-	91.76	34.77	8.71	33.98	107	356	A	H
		5404.23	53.54	-20.46	74	43.89	34.9	8.73	33.98	107	356	P	H
		5411.82	42.55	-11.45	54	32.88	34.92	8.73	33.98	107	356	A	H
		5128.7	53.37	-20.63	74	43.85	34.63	8.88	33.99	109	18	P	V
		5143.85	42.21	-11.79	54	32.73	34.65	8.82	33.99	109	18	A	V
	*	5260	108.12	-	-	98.62	34.77	8.71	33.98	109	18	P	V
	*	5260	98.61	-	-	89.11	34.77	8.71	33.98	109	18	A	V
		5433.49	53.17	-20.83	74	43.47	34.93	8.75	33.98	109	18	P	V
		5446.8	42.33	-11.67	54	32.61	34.95	8.75	33.98	109	18	A	V
802.11a CH 60 5300MHz		5004.05	53.99	-20.01	74	44.27	34.52	9.19	33.99	104	356	P	H
		5074.85	42.36	-11.64	54	32.76	34.58	9.01	33.99	104	356	A	H
	*	5301	112.23	-	-	102.69	34.8	8.72	33.98	104	356	P	H
	*	5301	102.34	-	-	92.8	34.8	8.72	33.98	104	356	A	H
		5350.22	62.58	-11.42	74	52.99	34.85	8.72	33.98	104	356	P	H
		5350.33	47.61	-6.39	54	38.02	34.85	8.72	33.98	104	356	A	H
		5107.55	53.56	-20.44	74	43.99	34.62	8.94	33.99	152	2	P	V
		5071.85	42.22	-11.78	54	32.62	34.58	9.01	33.99	152	2	A	V
	*	5302	108.11	-	-	98.57	34.8	8.72	33.98	152	2	P	V
	*	5302	98.15	-	-	88.61	34.8	8.72	33.98	152	2	A	V
		5350.33	58.51	-15.49	74	48.92	34.85	8.72	33.98	152	2	P	V
		5350.11	45.3	-8.7	54	35.71	34.85	8.72	33.98	152	2	A	V



WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBµV/m )	Over Limit ( dB )	Limit Line ( dBµV/m )	Read Level (dBµV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 64 5320MHz	*	5320	105.68	-	-	96.12	34.82	8.72	33.98	100	23	P	H
	*	5320	95.75	-	-	86.19	34.82	8.72	33.98	100	23	A	H
		5350	65.53	-8.47	74	55.94	34.85	8.72	33.98	100	23	P	H
		5350	50.62	-3.38	54	41.03	34.85	8.72	33.98	100	23	A	H
	*	5320	109.52	-	-	99.96	34.82	8.72	33.98	100	174	P	V
	*	5320	99.29	-	-	89.73	34.82	8.72	33.98	100	174	A	V
		5351.65	68.87	-5.13	74	59.28	34.85	8.72	33.98	100	174	P	V
		5351.21	53.61	-0.39	54	44.02	34.85	8.72	33.98	100	174	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E band 2 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	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	54.67	-19.33	74	64.59	37.41	13.12	60.45	100	108	P	H
		10520	44.47	-9.53	54	54.39	37.41	13.12	60.45	100	108	A	H
		15780	48.63	-25.37	74	50.44	40.38	17.03	59.22	100	0	P	H
		10520	49.25	-24.75	74	59.17	37.41	13.12	60.45	100	0	P	V
		15780	49.21	-24.79	74	51.02	40.38	17.03	59.22	100	0	P	V
802.11a CH 60 5300MHz		10600	55.13	-18.87	74	64.65	37.46	13.23	60.21	101	115	P	H
		10600	45.71	-8.29	54	55.23	37.46	13.23	60.21	101	115	A	H
		15900	48.52	-25.48	74	50.08	40.5	17.04	59.1	100	0	P	H
		10600	48.33	-25.67	74	57.85	37.46	13.23	60.21	100	0	P	V
		15900	48.39	-25.61	74	49.95	40.5	17.04	59.1	100	0	P	V
802.11a CH 64 5320MHz		10640	54.52	-19.48	74	63.85	37.48	13.3	60.11	100	110	P	H
		10640	43.19	-10.81	54	52.52	37.48	13.3	60.11	100	110	A	H
		15960	48.02	-25.98	74	49.43	40.57	17.05	59.03	100	0	P	H
		10640	49.07	-24.93	74	58.4	37.48	13.3	60.11	100	0	P	V
		15960	47.92	-26.08	74	49.33	40.57	17.05	59.03	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E band 2 5250~5350MHz  
WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	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		5143.4	53.77	-20.23	74	44.23	34.65	8.88	33.99	106	357	P	H
		5148.05	42.37	-11.63	54	32.89	34.65	8.82	33.99	106	357	A	H
	*	5258	109.85	-	-	100.37	34.75	8.71	33.98	106	357	P	H
	*	5258	100.25	-	-	90.77	34.75	8.71	33.98	106	357	A	H
		5350	53.22	-20.78	74	43.63	34.85	8.72	33.98	106	357	P	H
		5410.61	42.55	-11.45	54	32.9	34.9	8.73	33.98	106	357	A	H
		5003.3	53	-21	74	43.3	34.5	9.19	33.99	108	20	P	V
		5147.15	42.18	-11.82	54	32.7	34.65	8.82	33.99	108	20	A	V
	*	5258	104.25	-	-	94.77	34.75	8.71	33.98	108	20	P	V
	*	5258	94.87	-	-	85.39	34.75	8.71	33.98	108	20	A	V
		5407.53	53.02	-20.98	74	43.37	34.9	8.73	33.98	108	20	P	V
		5449.11	42.25	-11.75	54	32.53	34.95	8.75	33.98	108	20	A	V
802.11n HT20 CH 60 5300MHz		5112.95	53.08	-20.92	74	43.51	34.62	8.94	33.99	106	0	P	H
		5149.4	42.32	-11.68	54	32.84	34.65	8.82	33.99	106	0	A	H
	*	5300	108.14	-	-	98.6	34.8	8.72	33.98	106	0	P	H
	*	5300	97.45	-	-	87.91	34.8	8.72	33.98	106	0	A	H
		5350.44	55.47	-18.53	74	45.88	34.85	8.72	33.98	106	0	P	H
		5350.66	44.11	-9.89	54	34.52	34.85	8.72	33.98	106	0	A	H
		5060.75	53.13	-20.87	74	43.48	34.57	9.07	33.99	108	354	P	V
		5129.15	42.11	-11.89	54	32.59	34.63	8.88	33.99	108	354	A	V
	*	5300	106.86	-	-	97.32	34.8	8.72	33.98	108	354	P	V
	*	5300	97.28	-	-	87.74	34.8	8.72	33.98	108	354	A	V
		5352.2	55.19	-18.81	74	45.6	34.85	8.72	33.98	108	354	P	V
		5350	44.31	-9.69	54	34.72	34.85	8.72	33.98	108	354	A	V



WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 64 5320MHz		5355.72	64.42	-9.58	74	54.83	34.85	8.72	33.98	109	24	P	H
		5351.21	48.46	-5.54	54	38.87	34.85	8.72	33.98	109	24	A	H
	*	5320	104.11	-	-	94.55	34.82	8.72	33.98	109	24	P	H
	*	5320	94.13	-	-	84.57	34.82	8.72	33.98	109	24	A	H
		5350.44	69.44	-4.56	74	59.85	34.85	8.72	33.98	114	163	P	V
		5350.22	52.72	-1.28	54	43.13	34.85	8.72	33.98	114	163	A	V
	*	5326	108.66	-	-	99.1	34.82	8.72	33.98	114	163	P	V
	*	5326	98.7	-	-	89.14	34.82	8.72	33.98	114	163	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E band 2 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	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	52.17	-21.83	74	62.09	37.41	13.12	60.45	100	110	P	H
		10520	40.99	-13.01	54	50.91	37.41	13.12	60.45	100	110	A	H
		15780	48.5	-25.5	74	50.31	40.38	17.03	59.22	100	0	P	H
		10520	45.97	-28.03	74	55.89	37.41	13.12	60.45	100	0	P	V
		15780	49.97	-24.03	74	51.78	40.38	17.03	59.22	100	0	P	V
802.11n HT20 CH 60 5300MHz		10600	54.02	-19.98	74	63.54	37.46	13.23	60.21	101	114	P	H
		10600	43.84	-10.16	54	53.36	37.46	13.23	60.21	101	114	A	H
		15900	47.34	-26.66	74	48.9	40.5	17.04	59.1	100	0	P	H
		10600	47.55	-26.45	74	57.07	37.46	13.23	60.21	100	0	P	V
		15900	47.77	-26.23	74	49.33	40.5	17.04	59.1	100	0	P	V
802.11n HT20 CH 64 5320MHz		10640	54.44	-19.56	74	63.77	37.48	13.3	60.11	100	109	P	H
		10640	43.08	-10.92	54	52.41	37.48	13.3	60.11	100	109	A	H
		15960	47.51	-26.49	74	48.92	40.57	17.05	59.03	100	0	P	H
		10640	47.8	-26.2	74	57.13	37.48	13.3	60.11	100	0	P	V
		15960	47.62	-26.38	74	49.03	40.57	17.05	59.03	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 2 5250~5350MHz**  
**WIFI 802.11n HT40 (Band Edge @ 3m)**

WIFI Ant. 1+2	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		5137.85	53.07	-20.93	74	43.55	34.63	8.88	33.99	108	315	P	H	
		5149.55	42.56	-11.44	54	33.08	34.65	8.82	33.99	108	315	A	H	
	*	5270	104.43	-	-	94.93	34.77	8.71	33.98	108	315	P	H	
	*	5270	95.01	-	-	85.51	34.77	8.71	33.98	108	315	A	H	
		5362.87	54.13	-19.87	74	44.52	34.87	8.72	33.98	108	315	P	H	
		5351.76	43.54	-10.46	54	33.95	34.85	8.72	33.98	108	315	A	H	
		5131.4	52.77	-21.23	74	43.25	34.63	8.88	33.99	110	358	P	V	
		5148.35	42.31	-11.69	54	32.83	34.65	8.82	33.99	110	358	A	V	
	*	5270	102.09	-	-	92.59	34.77	8.71	33.98	110	358	P	V	
	*	5270	91.88	-	-	82.38	34.77	8.71	33.98	110	358	A	V	
		5356.05	54.78	-19.22	74	45.19	34.85	8.72	33.98	110	358	P	V	
		5352.75	43.05	-10.95	54	33.46	34.85	8.72	33.98	110	358	A	V	
	802.11n HT40 CH 62 5310MHz		5052.2	53.07	-20.93	74	43.44	34.55	9.07	33.99	100	24	P	H
			5149.7	42.3	-11.7	54	32.82	34.65	8.82	33.99	100	24	A	H
*		5313	101.48	-	-	91.94	34.8	8.72	33.98	100	24	P	H	
*		5313	92.11	-	-	82.55	34.82	8.72	33.98	100	24	A	H	
		5350.11	65.61	-8.39	74	56.02	34.85	8.72	33.98	100	24	P	H	
		5350	50.36	-3.64	54	40.77	34.85	8.72	33.98	100	24	A	H	
		5126	52.71	-21.29	74	43.19	34.63	8.88	33.99	100	172	P	V	
		5145.05	42.32	-11.68	54	32.84	34.65	8.82	33.99	100	172	A	V	
*		5312	103.32	-	-	93.78	34.8	8.72	33.98	100	172	P	V	
*		5312	94.24	-	-	84.7	34.8	8.72	33.98	100	172	A	V	
		5355.83	67.01	-6.99	74	57.42	34.85	8.72	33.98	100	172	P	V	
		5350.88	52.21	-1.79	54	42.62	34.85	8.72	33.98	100	172	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.													



15E band 2 5250~5350MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2	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		10540	46.66	-27.34	74	56.48	37.42	13.16	60.4	100	0	P	H
HT40		15810	48.65	-25.35	74	50.39	40.41	17.04	59.19	100	0	P	H
CH 54		10540	43.99	-30.01	74	53.81	37.42	13.16	60.4	100	0	P	V
5270MHz		15810	48.28	-25.72	74	50.02	40.41	17.04	59.19	100	0	P	V
802.11n		10620	45.08	-28.92	74	54.51	37.47	13.26	60.16	100	0	P	H
HT40		15930	48.58	-25.42	74	50.08	40.53	17.04	59.07	100	0	P	H
CH 62		10620	46.6	-27.4	74	56.03	37.47	13.26	60.16	100	0	P	V
5310MHz		15930	48.16	-25.84	74	49.66	40.53	17.04	59.07	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E band 2 5250~5350MHz  
WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1+2	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		5047.1	52.89	-21.11	74	43.26	34.55	9.07	33.99	100	72	P	H
		5148.95	42.16	-11.84	54	32.68	34.65	8.82	33.99	100	72	A	H
	*	5261	103.32	-	-	93.82	34.77	8.71	33.98	100	72	P	H
	*	5261	93.71	-	-	84.21	34.77	8.71	33.98	100	72	A	H
		5445.59	52.74	-21.26	74	43.02	34.95	8.75	33.98	100	72	P	H
		5444.16	42.24	-11.76	54	32.54	34.93	8.75	33.98	100	72	A	H
		5139.05	52.69	-21.31	74	43.17	34.63	8.88	33.99	114	160	P	V
		5099.3	42.13	-11.87	54	32.58	34.6	8.94	33.99	114	160	A	V
	*	5258	106.84	-	-	97.36	34.75	8.71	33.98	114	160	P	V
	*	5258	97.22	-	-	87.74	34.75	8.71	33.98	114	160	A	V
		5411.27	53.35	-20.65	74	43.7	34.9	8.73	33.98	114	160	P	V
		5416.22	42.35	-11.65	54	32.68	34.92	8.73	33.98	114	160	A	V
802.11ac VHT20 CH 60 5300MHz		5124.5	52.93	-21.07	74	43.41	34.63	8.88	33.99	100	22	P	H
		5068.85	42.11	-11.89	54	32.52	34.57	9.01	33.99	100	22	A	H
	*	5301	102.69	-	-	93.15	34.8	8.72	33.98	100	22	P	H
	*	5301	93.19	-	-	83.65	34.8	8.72	33.98	100	22	A	H
		5350.55	54.93	-19.07	74	45.34	34.85	8.72	33.98	100	22	P	H
		5350.77	43.64	-10.36	54	34.05	34.85	8.72	33.98	100	22	A	H
		5122.25	52.92	-21.08	74	43.41	34.62	8.88	33.99	100	162	P	V
		5147.3	42.05	-11.95	54	32.57	34.65	8.82	33.99	100	162	A	V
	*	5302	106.75	-	-	97.21	34.8	8.72	33.98	100	162	P	V
	*	5302	97.41	-	-	87.87	34.8	8.72	33.98	100	162	A	V
		5350.66	60.28	-13.72	74	50.69	34.85	8.72	33.98	100	162	P	V
		5350	46.86	-7.14	54	37.27	34.85	8.72	33.98	100	162	A	V



WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 64 5320MHz	*	5321	102.41	-	-	92.85	34.82	8.72	33.98	100	22	P	H
	*	5321	92.36	-	-	82.8	34.82	8.72	33.98	100	22	A	H
		5351.1	59.93	-14.07	74	50.34	34.85	8.72	33.98	100	22	P	H
		5350	47.02	-6.98	54	37.43	34.85	8.72	33.98	100	22	A	H
	*	5319	106.75	-	-	97.19	34.82	8.72	33.98	100	163	P	V
	*	5319	97.17	-	-	87.61	34.82	8.72	33.98	100	163	A	V
		5352.75	66.46	-7.54	74	56.87	34.85	8.72	33.98	100	163	P	V
		5350.55	52.64	-1.36	54	43.05	34.85	8.72	33.98	100	163	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E band 2 5250~5350MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	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		10520	48.55	-25.45	74	58.47	37.41	13.12	60.45	100	0	P	H
		15780	47.84	-26.16	74	49.65	40.38	17.03	59.22	100	0	P	H
		10520	53.3	-20.7	74	63.18	37.41	13.16	60.45	132	52	P	V
		10520	45.26	-8.74	54	55.14	37.41	13.16	60.45	132	52	A	V
		15780	50.01	-23.99	74	51.82	40.38	17.03	59.22	100	0	P	V
802.11ac VHT20 CH 60 5300MHz		10600	48.53	-25.47	74	58.05	37.46	13.23	60.21	100	0	P	H
		15900	47.59	-26.41	74	49.15	40.5	17.04	59.1	100	0	P	H
		10600	54.67	-19.33	74	64.19	37.46	13.23	60.21	137	53	P	V
		10600	46.37	-7.63	54	55.89	37.46	13.23	60.21	137	53	A	V
		15900	47.58	-26.42	74	49.14	40.5	17.04	59.1	100	0	P	V
802.11ac VHT20 CH 64 5320MHz		10640	46.85	-27.15	74	56.18	37.48	13.3	60.11	100	0	P	H
		15960	48.63	-25.37	74	50.04	40.57	17.05	59.03	100	0	P	H
		10640	50.66	-23.34	74	59.99	37.48	13.3	60.11	100	0	P	V
		15960	47.48	-26.52	74	48.89	40.57	17.05	59.03	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 2 5250~5350MHz**  
**WIFI 802.11ac VHT40 (Band Edge @ 3m)**

WIFI Ant. 1+2	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		5094.65	53.48	-20.52	74	43.93	34.6	8.94	33.99	100	24	P	H	
		5148.5	42.37	-11.63	54	32.89	34.65	8.82	33.99	100	24	A	H	
	*	5271	100.1	-	-	90.6	34.77	8.71	33.98	100	24	P	H	
	*	5271	90.35	-	-	80.85	34.77	8.71	33.98	100	24	A	H	
		5350	54.69	-19.31	74	45.1	34.85	8.72	33.98	100	24	P	H	
		5350.66	43.67	-10.33	54	34.08	34.85	8.72	33.98	100	24	A	H	
		5133.8	53.37	-20.63	74	43.85	34.63	8.88	33.99	102	165	P	V	
		5148.65	42.46	-11.54	54	32.98	34.65	8.82	33.99	102	165	A	V	
	*	5271	103.85	-	-	94.35	34.77	8.71	33.98	102	165	P	V	
	*	5271	94.5	-	-	85	34.77	8.71	33.98	102	165	A	V	
		5350.44	57.44	-16.56	74	47.85	34.85	8.72	33.98	102	165	P	V	
		5350.66	45.74	-8.26	54	36.15	34.85	8.72	33.98	102	165	A	V	
	802.11ac VHT40 CH 62 5310MHz		5136.65	53.27	-20.73	74	43.75	34.63	8.88	33.99	102	21	P	H
			5149.25	42.28	-11.72	54	32.8	34.65	8.82	33.99	102	21	A	H
*		5310	100.71	-	-	91.15	34.82	8.72	33.98	102	21	P	H	
*		5310	90.73	-	-	81.17	34.82	8.72	33.98	102	21	A	H	
		5352.42	65.84	-8.16	74	56.25	34.85	8.72	33.98	102	21	P	H	
		5350	51.42	-2.58	54	41.83	34.85	8.72	33.98	102	21	A	H	
		5136.05	52.77	-21.23	74	43.25	34.63	8.88	33.99	100	168	P	V	
		5148.65	42.18	-11.82	54	32.7	34.65	8.82	33.99	100	168	A	V	
*		5312	103.45	-	-	93.89	34.82	8.72	33.98	100	168	P	V	
*		5312	93.5	-	-	83.94	34.82	8.72	33.98	100	168	A	V	
		5355.72	68.73	-5.27	74	59.14	34.85	8.72	33.98	100	168	P	V	
		5352.53	52.37	-1.63	54	42.78	34.85	8.72	33.98	100	168	A	V	
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.													



15E band 2 5250~5350MHz

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10540	44.19	-29.81	74	54.01	37.42	13.16	60.4	100	0	P	H
VHT40		15810	47.41	-26.59	74	49.15	40.41	17.04	59.19	100	0	P	H
CH 54		10540	43.91	-30.09	74	53.73	37.42	13.16	60.4	100	0	P	V
5270MHz		15810	47.53	-26.47	74	49.27	40.41	17.04	59.19	100	0	P	V
802.11ac		10620	44.59	-29.41	74	54.02	37.47	13.26	60.16	100	0	P	H
VHT40		15930	47.98	-26.02	74	49.48	40.53	17.04	59.07	100	0	P	H
CH 62		10620	45.25	-28.75	74	54.68	37.47	13.26	60.16	100	0	P	V
5310MHz		15930	47.65	-26.35	74	49.15	40.53	17.04	59.07	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 2 5250~5350MHz**  
**WIFI 802.11ac VHT80 (Band Edge @ 3m)**

WIFI Ant. 1+2	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		5148.65	53.53	-20.47	74	44.05	34.65	8.82	33.99	100	25	P	H
		5130.8	42.83	-11.17	54	33.31	34.63	8.88	33.99	100	25	A	H
	*	5288	95.51	-	-	86	34.78	8.71	33.98	100	25	P	H
	*	5288	86.13	-	-	76.62	34.78	8.71	33.98	100	25	A	H
		5362.54	59.66	-14.34	74	50.05	34.87	8.72	33.98	100	25	P	H
		5350.33	45.64	-8.36	54	36.05	34.85	8.72	33.98	100	25	A	H
		5134.1	53.23	-20.77	74	43.71	34.63	8.88	33.99	100	173	P	V
		5148.05	42.87	-11.13	54	33.39	34.65	8.82	33.99	100	173	A	V
	*	5293	98.48	-	-	88.95	34.8	8.71	33.98	100	173	P	V
	*	5293	88.99	-	-	79.46	34.8	8.71	33.98	100	173	A	V
		5350.55	62.44	-11.56	74	52.85	34.85	8.72	33.98	100	173	P	V
		5363.31	49.07	-4.93	54	39.46	34.87	8.72	33.98	100	173	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

**15E band 2 5250~5350MHz**  
**WIFI 802.11ac VHT80 (Harmonic @ 3m)**

WIFI Ant. 1+2	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		10580	44.74	-29.26	74	54.32	37.45	13.23	60.26	100	0	P	H
		15870	47.58	-26.42	74	49.18	40.48	17.04	59.12	100	0	P	H
		10580	45.16	-28.84	74	54.74	37.45	13.23	60.26	100	0	P	V
		15870	47.84	-26.16	74	49.44	40.48	17.04	59.12	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E Band 3 - 5470~5725MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 1+2	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		5470	61.37	-12.63	74	51.6	34.97	8.78	33.98	100	231	P	H
		5470	48.69	-5.31	54	38.92	34.97	8.78	33.98	100	231	A	H
	*	5500	104.92	-	-	95.1	35	8.8	33.98	100	231	P	H
	*	5500	95.82	-	-	86	35	8.8	33.98	100	231	A	H
		5467.92	68.52	-5.48	74	58.75	34.97	8.78	33.98	100	92	P	V
		5469.04	51.75	-2.25	54	41.98	34.97	8.78	33.98	100	92	A	V
	*	5500	108.48	-	-	98.66	35	8.8	33.98	100	92	P	V
	*	5500	97.82	-	-	88	35	8.8	33.98	100	92	A	V
802.11a CH 140 5700MHz	*	5699	110.76	-	-	100.53	35.11	9.11	33.99	107	356	P	H
	*	5699	100.84	-	-	90.61	35.11	9.11	33.99	107	356	A	H
		5727.16	68.75	-5.25	74	58.45	35.13	9.16	33.99	107	356	P	H
		5726.44	50.92	-3.08	54	40.62	35.13	9.16	33.99	107	356	A	H
	*	5702	107.71	-	-	97.47	35.12	9.11	33.99	100	345	P	V
	*	5702	97.8	-	-	87.56	35.12	9.11	33.99	100	345	A	V
		5725	63.54	-10.46	74	53.24	35.13	9.16	33.99	100	345	P	V
		5725	48.33	-5.67	54	38.03	35.13	9.16	33.99	100	345	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	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	48.49	-25.51	74	56.11	37.7	13.78	59.1	100	0	P	H
		16500	46.18	-27.82	74	46.44	41.2	17.44	58.9	100	0	P	H
		11000	47.82	-26.18	74	55.44	37.7	13.78	59.1	100	0	P	V
		16500	45.3	-28.7	74	45.56	41.2	17.44	58.9	100	0	P	V
802.11a CH 140 5700MHz		11400	43.47	-30.53	74	49.73	38.02	14.34	58.62	100	0	P	H
		17100	46.64	-27.36	74	46.13	41.22	17.89	58.6	100	0	P	H
		11400	42.37	-31.63	74	48.63	38.02	14.34	58.62	100	0	P	V
		17100	46.73	-27.27	74	46.22	41.22	17.89	58.6	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E band 3 - 5470~5725MHz  
WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	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		5467.28	64.2	-9.8	74	54.43	34.97	8.78	33.98	101	32	P	H
		5470	48.03	-5.97	54	38.26	34.97	8.78	33.98	101	32	A	H
	*	5492	103.84	-	-	94.04	34.98	8.8	33.98	101	32	P	H
	*	5492	93.82	-	-	84.02	34.98	8.8	33.98	101	32	A	H
		5470	67.05	-6.95	74	57.28	34.97	8.78	33.98	100	81	P	V
		5469.52	51.92	-2.08	54	42.15	34.97	8.78	33.98	100	81	A	V
	*	5502	107.96	-	-	98.11	35	8.83	33.98	100	81	P	V
	*	5502	98.01	-	-	88.16	35	8.83	33.98	100	81	A	V
802.11n HT20 CH 140 5700MHz	*	5696	101.39	-	-	91.16	35.11	9.11	33.99	100	76	P	H
	*	5696	91.45	-	-	81.22	35.11	9.11	33.99	100	76	A	H
		5725.08	60.55	-13.45	74	50.25	35.13	9.16	33.99	100	76	P	H
		5725.88	45.98	-8.02	54	35.68	35.13	9.16	33.99	100	76	A	H
	*	5695	105.77	-	-	95.54	35.11	9.11	33.99	103	252	P	V
	*	5695	95.81	-	-	85.58	35.11	9.11	33.99	103	252	A	V
		5725.24	65.82	-8.18	74	55.52	35.13	9.16	33.99	103	252	P	V
		5725.16	50.83	-3.17	54	40.53	35.13	9.16	33.99	103	252	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	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	48.31	-25.69	74	55.93	37.7	13.78	59.1	100	0	P	H
		16500	46.6	-27.4	74	46.86	41.2	17.44	58.9	100	0	P	H
		11000	48.01	-25.99	74	55.63	37.7	13.78	59.1	100	0	P	V
		16500	46.23	-27.77	74	46.49	41.2	17.44	58.9	100	0	P	V
802.11n HT20 CH 140 5700MHz		11400	43.28	-30.72	74	49.54	38.02	14.34	58.62	100	0	P	H
		17100	46.29	-27.71	74	45.78	41.22	17.89	58.6	100	0	P	H
		11400	42.52	-31.48	74	48.78	38.02	14.34	58.62	100	0	P	V
		17100	46.68	-27.32	74	46.17	41.22	17.89	58.6	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 3 - 5470~5725MHz**  
**WIFI 802.11n HT40 (Band Edge @ 3m)**

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	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		5465.04	66.6	-7.4	74	56.83	34.97	8.78	33.98	102	305	P	H
		5470	52.88	-1.12	54	43.11	34.97	8.78	33.98	102	305	A	H
	*	5510	103.95	-	-	94.1	35	8.83	33.98	102	305	P	H
	*	5510	94	-	-	84.15	35	8.83	33.98	102	305	A	H
		5743.88	53.61	-20.39	74	43.24	35.14	9.22	33.99	102	305	P	H
		5752.68	42.95	-11.05	54	32.56	35.16	9.22	33.99	102	305	A	H
		5469.36	60.03	-13.97	74	50.26	34.97	8.78	33.98	104	52	P	V
		5468.56	46.55	-7.45	54	36.78	34.97	8.78	33.98	104	52	A	V
	*	5510	97.94	-	-	88.09	35	8.83	33.98	104	52	P	V
	*	5510	88.25	-	-	78.4	35	8.83	33.98	104	52	A	V
		5749.4	53.63	-20.37	74	43.26	35.14	9.22	33.99	104	52	P	V
		5759.8	42.9	-11.1	54	32.47	35.16	9.27	34	104	52	A	V
802.11n HT40 CH 134 5670MHz		5412.88	53.07	-20.93	74	43.4	34.92	8.73	33.98	107	360	P	H
		5462.96	42.55	-11.45	54	32.78	34.97	8.78	33.98	107	360	A	H
	*	5670	105.67	-	-	95.5	35.1	9.06	33.99	107	360	P	H
	*	5670	95.67	-	-	85.5	35.1	9.06	33.99	107	360	A	H
		5726.76	64.31	-9.69	74	54.01	35.13	9.16	33.99	107	360	P	H
		5726.28	50.6	-3.4	54	40.3	35.13	9.16	33.99	107	360	A	H
		5412.88	53.99	-20.01	74	44.32	34.92	8.73	33.98	109	33	P	V
		5441.2	42.37	-11.63	54	32.67	34.93	8.75	33.98	109	33	A	V
	*	5670	102.71	-	-	92.54	35.1	9.06	33.99	109	33	P	V
	*	5670	92.52	-	-	82.35	35.1	9.06	33.99	109	33	A	V
		5727.72	64.09	-9.91	74	53.79	35.13	9.16	33.99	109	33	P	V
		5725.72	49.25	-4.75	54	38.95	35.13	9.16	33.99	109	33	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2	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	43.01	-30.99	74	50.56	37.71	13.82	59.08	100	0	P	H
		16530	47.3	-26.7	74	47.51	41.21	17.46	58.88	100	0	P	H
		11020	43.95	-30.05	74	51.5	37.71	13.82	59.08	100	0	P	V
		16530	46.84	-27.16	74	47.05	41.21	17.46	58.88	100	0	P	V
802.11n HT40 CH 134 5670MHz		11340	45.38	-28.62	74	51.87	37.97	14.24	58.7	100	0	P	H
		17010	46.69	-27.31	74	46.17	41.29	17.83	58.6	100	0	P	H
		11340	45.43	-28.57	74	51.92	37.97	14.24	58.7	100	0	P	V
		17010	46.88	-27.12	74	46.36	41.29	17.83	58.6	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E band 3 - 5470~5725MHz  
WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	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		5467.6	62.16	-11.84	74	52.39	34.97	8.78	33.98	102	232	P	H
		5470	49.35	-4.65	54	39.58	34.97	8.78	33.98	102	232	A	H
	*	5498	101.29	-	-	91.47	35	8.8	33.98	102	232	P	H
	*	5498	91.66	-	-	81.84	35	8.8	33.98	102	232	A	H
		5469.2	69.26	-4.74	74	59.49	34.97	8.78	33.98	101	74	P	V
		5469.68	53.6	-0.4	54	43.83	34.97	8.78	33.98	101	74	A	V
	*	5501	107.42	-	-	97.57	35	8.83	33.98	101	74	P	V
	*	5501	97.88	-	-	88.03	35	8.83	33.98	101	74	A	V
802.11ac VHT20 CH 140 5700MHz	*	5701	103.22	-	-	92.98	35.12	9.11	33.99	103	290	P	H
	*	5701	93.84	-	-	83.6	35.12	9.11	33.99	103	290	A	H
		5725	67.05	-6.95	74	56.75	35.13	9.16	33.99	103	290	P	H
		5725.8	51.79	-2.21	54	41.49	35.13	9.16	33.99	103	290	A	H
	*	5698	105.87	-	-	95.64	35.11	9.11	33.99	110	69	P	V
	*	5698	96.42	-	-	86.19	35.11	9.11	33.99	110	69	A	V
		5725.08	69.84	-4.16	74	59.54	35.13	9.16	33.99	110	69	P	V
		5725	53.78	-0.22	54	43.48	35.13	9.16	33.99	110	69	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E band 3 - 5470~5725MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1+2	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	45.51	-28.49	74	53.13	37.7	13.78	59.1	100	0	P	H
		16500	46.55	-27.45	74	46.81	41.2	17.44	58.9	100	0	P	H
		11000	50.53	-23.47	74	58.15	37.7	13.78	59.1	100	0	P	V
		16500	47.19	-26.81	74	47.45	41.2	17.44	58.9	100	0	P	V
802.11ac VHT20 CH 140 5700MHz		11400	45.2	-28.8	74	51.46	38.02	14.34	58.62	100	0	P	H
		17100	47.59	-26.41	74	47.08	41.22	17.89	58.6	100	0	P	H
		11400	45.17	-28.83	74	51.43	38.02	14.34	58.62	100	0	P	V
		17100	47.23	-26.77	74	46.72	41.22	17.89	58.6	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E band 3 - 5470~5725MHz

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	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		5458.48	59.77	-14.23	74	50.02	34.95	8.78	33.98	101	240	P	H
		5468.24	46.34	-7.66	54	36.57	34.97	8.78	33.98	101	240	A	H
	*	5509	95.54	-	-	85.69	35	8.83	33.98	101	240	P	H
	*	5509	86.35	-	-	76.5	35	8.83	33.98	101	240	A	H
		5747.8	53.91	-20.09	74	43.54	35.14	9.22	33.99	101	240	P	H
		5743.96	43.08	-10.92	54	32.71	35.14	9.22	33.99	101	240	A	H
		5464.08	66.81	-7.19	74	57.04	34.97	8.78	33.98	102	71	P	V
		5469.68	52.48	-1.52	54	42.71	34.97	8.78	33.98	102	71	A	V
	*	5508	101.81	-	-	91.96	35	8.83	33.98	102	71	P	V
	*	5508	92.49	-	-	82.64	35	8.83	33.98	102	71	A	V
		5733.72	54.52	-19.48	74	44.16	35.13	9.22	33.99	102	71	P	V
		5733.88	43.01	-10.99	54	32.65	35.13	9.22	33.99	102	71	A	V
802.11ac VHT40 CH 134 5670MHz		5401.04	52.78	-21.22	74	43.13	34.9	8.73	33.98	100	239	P	H
		5450.32	42.45	-11.55	54	32.7	34.95	8.78	33.98	100	239	A	H
	*	5672	101.29	-	-	91.12	35.1	9.06	33.99	100	239	P	H
	*	5672	91.85	-	-	81.68	35.1	9.06	33.99	100	239	A	H
		5725.64	64.71	-9.29	74	54.41	35.13	9.16	33.99	100	239	P	H
		5725.88	51.77	-2.23	54	41.47	35.13	9.16	33.99	100	239	A	H
		5402.8	53.13	-20.87	74	43.48	34.9	8.73	33.98	100	16	P	V
		5453.68	42.46	-11.54	54	32.71	34.95	8.78	33.98	100	16	A	V
	*	5671	102.62	-	-	92.45	35.1	9.06	33.99	100	16	P	V
	*	5671	93.42	-	-	83.25	35.1	9.06	33.99	100	16	A	V
		5727.24	65.17	-8.83	74	54.87	35.13	9.16	33.99	100	16	P	V
		5726.28	52.22	-1.78	54	41.92	35.13	9.16	33.99	100	16	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E band 3 - 5470~5725MHz

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1+2	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		11020	44.82	-29.18	74	52.37	37.71	13.82	59.08	100	0	P	H
VHT40		16530	47.57	-26.43	74	47.78	41.21	17.46	58.88	100	0	P	H
CH 102		11020	44.78	-29.22	74	52.33	37.71	13.82	59.08	100	0	P	V
5510MHz		16530	47.3	-26.7	74	47.51	41.21	17.46	58.88	100	0	P	V
802.11ac		11340	46.38	-27.62	74	52.87	37.97	14.24	58.7	100	0	P	H
VHT40		17010	47.6	-26.4	74	47.08	41.29	17.83	58.6	100	0	P	H
CH 134		11340	45.8	-28.2	74	52.29	37.97	14.24	58.7	100	0	P	V
5670MHz		17010	47.17	-26.83	74	46.65	41.29	17.83	58.6	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 3 5470~5725MHz**  
**WIFI 802.11ac VHT80 (Band Edge @ 3m)**

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	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		5460.88	58.5	-15.5	74	48.75	34.95	8.78	33.98	100	229	P	H	
		5467.92	47.9	-6.1	54	38.13	34.97	8.78	33.98	100	229	A	H	
	*	5531	93.56	-	-	83.67	35.02	8.85	33.98	100	229	P	H	
	*	5531	85.5	-	-	75.61	35.02	8.85	33.98	100	229	A	H	
		5729.32	54.57	-19.43	74	44.27	35.13	9.16	33.99	100	229	P	H	
		5746.6	43.11	-10.89	54	32.74	35.14	9.22	33.99	100	229	A	H	
		5458.8	63.81	-10.19	74	54.06	34.95	8.78	33.98	100	70	P	V	
		5464.4	52.31	-1.69	54	42.54	34.97	8.78	33.98	100	70	A	V	
	*	5531	97.83	-	-	87.94	35.02	8.85	33.98	100	70	P	V	
	*	5531	89.2	-	-	79.31	35.02	8.85	33.98	100	70	A	V	
		5755	54.11	-19.89	74	43.72	35.16	9.22	33.99	100	70	P	V	
		5735.32	43.15	-10.85	54	32.78	35.14	9.22	33.99	100	70	A	V	
	802.11ac VHT80 CH 122 5610MHz		5468.08	55.95	-18.05	74	46.18	34.97	8.78	33.98	102	38	P	H
			5468.56	44.12	-9.88	54	34.35	34.97	8.78	33.98	102	38	A	H
*		5610	94.78	20.78	74	84.76	35.06	8.95	33.99	102	38	P	H	
*		5610	84.08	30.08	54	74.06	35.06	8.95	33.99	102	38	A	H	
		5725.64	55.75	-18.25	74	45.45	35.13	9.16	33.99	102	38	P	H	
		5738.52	44.21	-9.79	54	33.84	35.14	9.22	33.99	102	38	A	H	
		5467.28	59.97	-14.03	74	50.2	34.97	8.78	33.98	100	83	P	V	
		5464.56	46.37	-7.63	54	36.6	34.97	8.78	33.98	100	83	A	V	
*		5610	99.9	25.9	74	89.88	35.06	8.95	33.99	100	83	P	V	
*		5610	88.86	34.86	54	78.84	35.06	8.95	33.99	100	83	A	V	
		5736.68	60.6	-13.4	74	50.23	35.14	9.22	33.99	100	83	P	V	
		5725.72	46.38	-7.62	54	36.08	35.13	9.16	33.99	100	83	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.													



**15E band 3 5470~5725MHz**

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

WIFI Ant. 1+2	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	44.44	-29.56	74	51.82	37.75	13.89	59.02	100	0	P	H
		16590	46.34	-27.66	74	46.47	41.22	17.5	58.85	100	0	P	H
		11060	44.2	-29.8	74	51.58	37.75	13.89	59.02	100	0	P	V
		16590	47.56	-26.44	74	47.69	41.22	17.5	58.85	100	0	P	V
802.11ac VHT80 CH 122 5610MHz		11220	44.73	-29.27	74	51.6	37.87	14.1	58.84	100	0	P	H
		16830	47.49	-26.51	74	47.22	41.27	17.7	58.7	100	0	P	H
		11220	46.05	-27.95	74	52.92	37.87	14.1	58.84	100	0	P	V
		16830	48.19	-25.81	74	47.92	41.27	17.7	58.7	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E Band 3 - Straddle Channel

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 144 5720MHz	*	5719	110.64	-	-	100.34	35.13	9.16	33.99	113	306	P	H
	*	5719	100.72	-	-	90.42	35.13	9.16	33.99	113	306	A	H
	*	5722	108.15	-	-	97.85	35.13	9.16	33.99	126	41	P	V
	*	5722	98.24	-	-	87.94	35.13	9.16	33.99	126	41	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E band 3 - Straddle Channel

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 144 5720MHz		11440	47.11	-26.89	74	53.23	38.05	14.41	58.58	100	0	P	H
		17160	46.81	-27.19	74	46.29	41.17	17.95	58.6	100	0	P	H
		11440	45.72	-28.28	74	51.87	38.05	14.38	58.58	100	0	P	V
		17160	47.54	-26.46	74	47.02	41.17	17.95	58.6	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E band 3 - Straddle Channel

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBµV/m )	Over Limit ( dB )	Limit Line ( dBµV/m )	Read Level ( dBµV )	Antenna Factor ( dB/m )	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	*	5722	109.53	-	-	99.23	35.13	9.16	33.99	114	307	P	H
	*	5722	99.6	-	-	89.3	35.13	9.16	33.99	114	307	A	H
	*	5718	107.06	-	-	96.76	35.13	9.16	33.99	116	31	P	V
	*	5718	97.67	-	-	87.37	35.13	9.16	33.99	116	31	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E band 3 - Straddle Channel

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBµV/m )	Over Limit ( dB )	Limit Line ( dBµV/m )	Read Level ( dBµV )	Antenna Factor ( dB/m )	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	48.31	-25.69	74	54.43	38.05	14.41	58.58	100	0	P	H
		17160	47.81	-26.19	74	47.29	41.17	17.95	58.6	100	0	P	H
		11440	46.72	-27.28	74	52.87	38.05	14.38	58.58	100	0	P	V
		17160	46.54	-27.46	74	46.02	41.17	17.95	58.6	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**15E band 3 - Straddle Channel**

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

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n	*	5712	106.73	-	-	96.43	35.13	9.16	33.99	104	304	P	H
HT40	*	5712	97.33	-	-	87.03	35.13	9.16	33.99	104	304	A	H
CH 142	*	5708	103.77	-	-	93.54	35.11	9.11	33.99	117	32	P	V
5710MHz	*	5708	94.98	-	-	84.75	35.11	9.11	33.99	117	32	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

**15E band 3 - Straddle Channel**

**WIFI 802.11n HT40 (Harmonic @ 3m)**

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n		11420	45.46	-28.54	74	51.65	38.03	14.38	58.6	100	0	P	H
HT40		17130	47.78	-26.22	74	47.26	41.19	17.93	58.6	100	0	P	H
CH 142		11420	45.08	-28.92	74	51.27	38.03	14.38	58.6	100	0	P	V
5710MHz		17130	47.42	-26.58	74	46.9	41.19	17.93	58.6	100	0	P	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E band 3 - Straddle Channel

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11ac	*	5718	104.22	-	-	93.92	35.13	9.16	33.99	100	260	P	H
VHT20	*	5718	94.29	-	-	83.99	35.13	9.16	33.99	100	260	A	H
CH 144	*	5719	108.36	-	-	98.06	35.13	9.16	33.99	103	235	P	V
5720MHz	*	5719	98.93	-	-	88.63	35.13	9.16	33.99	103	235	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E band 3 - Straddle Channel

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11ac		11440	47.11	-26.89	74	53.23	38.05	14.41	58.58	100	0	P	H
VHT20		17160	46.81	-27.19	74	46.29	41.17	17.95	58.6	100	0	P	H
CH 144		11440	45.72	-28.28	74	51.87	38.05	14.38	58.58	100	0	P	V
5720MHz		17160	47.54	-26.46	74	47.02	41.17	17.95	58.6	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E band 3 - Straddle Channel

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac	*	5711	101.7	-	-	91.41	35.12	9.16	33.99	100	264	P	H
VHT40	*	5711	92.04	-	-	81.75	35.12	9.16	33.99	100	264	A	H
CH 142	*	5712	107.04	-	-	96.75	35.12	9.16	33.99	103	231	P	V
5710MHz	*	5712	97.04	-	-	86.75	35.12	9.16	33.99	103	231	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E band 3 - Straddle Channel

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11420	45.89	-28.11	74	52.08	38.03	14.38	58.6	100	0	P	H
VHT40		17130	46.88	-27.12	74	46.36	41.19	17.93	58.6	100	0	P	H
CH 142		11420	44.4	-29.6	74	50.59	38.03	14.38	58.6	100	0	P	V
5710MHz		17130	46.87	-27.13	74	46.35	41.19	17.93	58.6	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E band 3 - Straddle Channel

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac	*	5692	96.67	-	-	86.44	35.11	9.11	33.99	100	241	P	H
VHT80	*	5692	87.92	-	-	77.69	35.11	9.11	33.99	100	241	A	H
CH 138	*	5694	102.98	-	-	92.75	35.11	9.11	33.99	104	228	P	V
5690MHz	*	5694	93.5	-	-	83.27	35.11	9.11	33.99	104	228	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E band 3 - Straddle Channel

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11380	45.68	-28.32	74	52	38.01	14.31	58.64	100	0	P	H
VHT80		17070	47.11	-26.89	74	46.59	41.25	17.87	58.6	100	0	P	H
CH 138		11380	44.65	-29.35	74	50.97	38.01	14.31	58.64	100	0	P	V
5690MHz		17070	46.83	-27.17	74	46.31	41.25	17.87	58.6	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E Emission below 1GHz

WIFI 802.11a (LF @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11a LF		62.4	26.34	-13.66	40	50.82	6.4	0.89	31.77			P	H
		169.05	38.36	-5.14	43.5	58.68	9.82	1.61	31.75	123	59	P	H
		187.95	38.28	-5.22	43.5	59.5	9.06	1.47	31.75			P	H
		443.5	20.35	-25.65	46	33.09	16.83	2.3	31.87			P	H
		679.4	22.34	-23.66	46	32.11	19.41	2.85	32.03			P	H
		896.4	24.51	-21.49	46	31.68	21.02	3.36	31.55			P	H
		30	30.79	-9.21	40	43.45	18.5	0.64	31.8			P	V
		35.94	31.32	-8.68	40	47.43	14.98	0.7	31.79	100	135	P	V
		168.24	33.73	-9.77	43.5	54.05	9.82	1.61	31.75			P	V
		438.6	20.3	-25.7	46	33.07	16.8	2.29	31.86			P	V
		662.6	23.27	-22.73	46	33.05	19.43	2.82	32.03			P	V
		863.5	24.47	-21.53	46	32.06	20.83	3.27	31.69			P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



15E Emission below 1GHz

WIFI 802.11n HT20 (LF @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBµV/m )	Over Limit ( dB )	Limit Line ( dBµV/m )	Read Level (dBµV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 LF		0.01053	35.68	-91.48	127.16	15.15	20.24	0.29				A	H
		0.07671	26.36	-83.55	109.91	6.06	20.01	0.29				A	H
		0.09674	22.49	-85.4	107.89	2.24	19.96	0.29				QP	H
		0.12048	20.4	-85.59	105.99	0.17	19.94	0.29				A	H
		0.14208	51.72	-52.83	104.55	31.51	19.92	0.29				A	H
		0.45974	41.08	-53.27	94.35	20.91	19.88	0.29				A	H
		1.496	45.83	-18.27	64.1	25.61	19.91	0.31		100	44	QP	H
		11.864	37.07	-32.93	70	16.6	20.07	0.4				QP	H
		19.528	38.21	-31.79	70	17.4	20.38	0.43				QP	H
		27.93	35.57	-34.43	70	14.41	20.66	0.5				QP	H
		62.4	24.11	-15.89	40	48.59	6.4	0.89	31.77			P	H
		168.24	36.55	-6.95	43.5	56.87	9.82	1.61	31.75	139	95	P	H
		186.06	36.16	-7.34	43.5	57.42	9.02	1.47	31.75			P	H
		471.5	19.71	-26.29	46	31.88	17.42	2.31	31.9			P	H
		653.5	22.39	-23.61	46	32.16	19.46	2.81	32.04			P	H
	888	24.6	-21.4	46	31.94	20.9	3.34	31.58			P	H	



WIFI Ant. 1+2	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 LF		0.01262	38.82	-86.76	125.58	18.27	20.26	0.29				A	V
		0.07668	28.79	-81.12	109.91	8.47	20.03	0.29				A	V
		0.09668	22.18	-85.72	107.9	1.9	19.99	0.29				QP	V
		0.13124	26.17	-79.07	105.24	5.92	19.96	0.29				A	V
		0.1458	52.69	-51.64	104.33	32.45	19.95	0.29				A	V
		0.45804	48.29	-46.1	94.39	28.1	19.9	0.29				A	V
		1.211	37.92	-28.02	65.94	17.69	19.92	0.31		100	279	QP	V
		11.264	36.26	-33.74	70	16.06	19.81	0.39				QP	V
		23.596	36.67	-33.33	70	16.16	20.06	0.45				QP	V
		27.94	37.16	-32.84	70	16.6	20.06	0.5				QP	V
		35.94	31.59	-8.41	40	47.7	14.98	0.7	31.79	100	68	P	V
		44.04	30.17	-9.83	40	50.93	10.26	0.76	31.78			P	V
		161.76	33.15	-10.35	43.5	53.38	10.02	1.5	31.75			P	V
		496	19.77	-26.23	46	31.51	17.75	2.44	31.93			P	V
		597.5	22.52	-23.48	46	32.45	19.37	2.76	32.06			P	V
		858.6	24.46	-21.54	46	32.11	20.8	3.25	31.7			P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



15E Emission below 1GHz

WIFI 802.11n HT40 (LF @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 LF		62.4	23.55	-16.45	40	48.03	6.4	0.89	31.77			P	H
		169.05	36.26	-7.24	43.5	56.58	9.82	1.61	31.75	186	326	P	H
		184.44	35.82	-7.68	43.5	57.05	9.06	1.46	31.75			P	H
		406.4	18.16	-27.84	46	31.66	16.12	2.21	31.83			P	H
		679.4	22.36	-23.64	46	32.13	19.41	2.85	32.03			P	H
		875.4	24.92	-21.08	46	32.36	20.9	3.3	31.64			P	H
		35.94	31	-9	40	47.11	14.98	0.7	31.79	102	76	P	V
		43.5	29.77	-10.23	40	50.54	10.26	0.76	31.79			P	V
		162.3	32.94	-10.56	43.5	53.17	10.02	1.5	31.75			P	V
		417.6	20.07	-25.93	46	32.97	16.7	2.24	31.84			P	V
		627.6	22.93	-23.07	46	32.44	19.75	2.79	32.05			P	V
		884.5	24.34	-21.66	46	31.71	20.9	3.33	31.6			P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



15E Emission below 1GHz

WIFI 802.11ac VHT80 (LF @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 LF		62.4	24.09	-15.91	40	48.57	6.4	0.89	31.77			P	H
		169.05	36.46	-7.04	43.5	56.78	9.82	1.61	31.75	137	25	P	H
		192	35.72	-7.78	43.5	56.88	9.1	1.49	31.75			P	H
		426	19.45	-26.55	46	32.25	16.8	2.25	31.85			P	H
		667.5	22.26	-23.74	46	31.99	19.47	2.83	32.03			P	H
		893.6	24.91	-21.09	46	32.16	20.96	3.35	31.56			P	H
		35.94	30.94	-9.06	40	47.05	14.98	0.7	31.79	100	246	P	V
		44.04	29.84	-10.16	40	50.6	10.26	0.76	31.78			P	V
		160.95	33.05	-10.45	43.5	53.25	10.06	1.49	31.75			P	V
		429.5	20.02	-25.98	46	32.81	16.8	2.26	31.85			P	V
		648.6	22.8	-23.2	46	32.53	19.51	2.8	32.04			P	V
		914.6	24.44	-21.56	46	31.42	21.05	3.36	31.39			P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



**Note symbol**

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



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

WIFI Ant. 1+2	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 )
802.11b		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 01		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H
2412MHz													

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

**For Peak Limit @ 2390MHz:**

- 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)
- Over Limit(dB)  
= Level(dBμV/m) – Limit Line(dBμV/m)  
= 55.45(dBμV/m) – 74(dBμV/m)  
= -18.55(dB)

**For Average Limit @ 2390MHz:**

- 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)
- 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”.