FCC RF Test Report

APPLICANT	:	Dell Inc.
EQUIPMENT	:	Portable Computer
BRAND NAME	:	DELL
MODEL NAME	:	T14G
FCC ID	:	E2K-T14G001
STANDARD	:	FCC Part 15 Subpart E §15.407
CLASSIFICATION	:	(NII) Unlicensed National Information Infrastructure

The product was received on Nov. 07, 2014 and testing was completed on Dec. 24, 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 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.

TABLE OF CONTENTS

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR4N0733D	Rev. 01	Initial issue of report	Dec. 11, 2014
FR4N0733D	Rev. 02	Revising the Power Spectral Density Measurement information in section 3.3.5	Dec. 24, 2014

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	≤ 24 dBm (depend on band)	Pass	-
3.3	15.407(a)	Power Spectral Density	≤ 11 dBm (depend on band)	Pass	-
3.4	15.407(b)	Unwanted Emissions	≤ -17, -27 dBm (depend on band)&15.209(a)	Pass	Under limit 0.43 dB at 5469.360 MHz
3.5	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 6.20 dB at 0.470 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

Dell Inc.
One Dell Way Round Rock, TX 78682, USA

1.2 Manufacturer

Dell Inc.
One Dell Way Round Rock, TX 78682, USA

1.3 Feature of Equipment Under Test

Product Feature	
Equipment	Portable Computer
Brand Name	DELL
Model Name	T14G
FCC ID	E2K-T14G001
EUT supports Radios application	WLAN 11b/g/n (HT20) WLAN 11a/n (HT20/HT40) Bluetooth v4.0 EDR/LE
HW Version	DVT1 Stage
SW Version	X12
EUT Stage	Production Unit

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

1.4 Product Specification of Equipment Under Test

Product Specification subjective to this standard	
Tx/Rx Channel Frequency Range	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5580 MHz 5660 MHz ~ 5700 MHz
Maximum Output Power	**<Ant. 1>** **<5180 MHz ~ 5240 MHz>** 802.11a : 13.78 dBm / 0.0239 W 802.11n HT20 : 11.99 dBm / 0.0158 W 802.11n HT40 : 11.86 dBm / 0.0153 W **<5260 MHz ~ 5320 MHz>** 802.11a : 13.80 dBm / 0.0240 W 802.11n HT20 : 12.00 dBm / 0.0158 W 802.11n HT40 : 11.87 dBm / 0.0154 W **<5500 MHz ~ 5580 MHz and 5660 MHz ~ 5700 MHz >** 802.11a : 14.00 dBm / 0.0251 W 802.11n HT20 : 12.00 dBm / 0.0158 W 802.11n HT40 : 11.98 dBm / 0.0158 W **<Ant. 2>** **<5180 MHz ~ 5240 MHz>** 802.11a : 13.98 dBm / 0.0250 W 802.11n HT20 : 11.96 dBm / 0.0157 W 802.11n HT40 : 11.78 dBm / 0.0151 W **<5260 MHz ~ 5320 MHz>** 802.11a : 13.98 dBm / 0.0250 W 802.11n HT20 : 12.00 dBm / 0.0158 W 802.11n HT40 : 11.93 dBm / 0.0156 W **<5500 MHz ~ 5580 MHz and 5660 MHz ~ 5700 MHz >** 802.11a : 13.64 dBm / 0.0231 W 802.11n HT20 : 11.99 dBm / 0.0158 W 802.11n HT40 : 11.94 dBm / 0.0156 W **<MIMO Ant. 1 + 2>** **<5180 MHz ~ 5240 MHz>** 802.11n HT20 : 11.80 dBm / 0.0151 W 802.11n HT40 : 11.99 dBm / 0.0158 W **<5260 MHz ~ 5320 MHz>** 802.11n HT20 : 11.84 dBm / 0.0153 W 802.11n HT40 : 11.94 dBm / 0.0156 W **<5500 MHz ~ 5580 MHz and 5660 MHz ~ 5700 MHz >** 802.11n HT20 : 11.99 dBm / 0.0158 W 802.11n HT40 : 11.58 dBm / 0.0144 W

<table>
<tr><th colspan="2">Product Specification subjective to this standard</th></tr>
<tr><td>99% Occupied Bandwidth</td><td><Ant. 1>
<5180 MHz ~ 5240 MHz>
802.11a : 17.20 MHz
802.11n HT20 : 18.05 MHz
802.11n HT40 : 36.70 MHz
<5260 MHz ~ 5320 MHz>
802.11a : 17.25 MHz
802.11n HT20 : 18.05 MHz
802.11n HT40 : 36.90 MHz
<5500 MHz ~ 5580 MHz and 5660 MHz ~ 5700 MHz >
802.11a : 17.25 MHz
802.11n HT20 : 18.05 MHz
802.11n HT40 : 36.80 MHz
<MIMO Ant. 1 + 2>
<5180 MHz ~ 5240 MHz>
802.11n HT20 : 18.00 MHz
802.11n HT40 : 36.80 MHz
<5260 MHz ~ 5320 MHz>
802.11n HT20 : 18.05 MHz
802.11n HT40 : 36.80 MHz
<5500 MHz ~ 5580 MHz and 5660 MHz ~ 5700 MHz >
802.11n HT20 : 18.00 MHz
802.11n HT40 : 36.80 MHz</td></tr>
<tr><td>Antenna Type / Gain</td><td><5180 MHz ~ 5240 MHz>
Main Antenna : PIFA Antenna with gain -3.28 dBi
Aux. Antenna : PIFA Antenna with gain -0.62 dBi
<5260 MHz ~ 5320 MHz>
Main Antenna : PIFA Antenna with gain -1.99 dBi
Aux. Antenna : PIFA Antenna with gain -0.21 dBi
<5500 MHz ~ 5580 MHz and 5660 MHz ~ 5700 MHz >
Main Antenna : PIFA Antenna with gain 0.26 dBi
Aux. Antenna : PIFA Antenna with gain 1.28 dBi</td></tr>
<tr><td>Type of Modulation</td><td>802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)</td></tr>
<tr><td>Antenna Function Description</td><td>
<table>
<tr><td></td><td>Ant. 1</td><td>Ant. 2</td></tr>
<tr><td>802.11 a</td><td>V</td><td>V</td></tr>
<tr><td>802.11 n SISO</td><td>V</td><td>V</td></tr>
<tr><td>802.11 n MIMO</td><td>V</td><td>V</td></tr>
</table>
</td></tr>
</table>

1.5 Modification of EUT

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

1.6 Testing Location

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

Test Site	SPORTON INTERNATIONAL INC.		
Test Site Location	No. 52, Hwa Ya 1st 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		
Test Site No.	**Sporton Site No.**		
	TH02-HY	CO05-HY	03CH07-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.
- 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 for antenna 1, Y plane for antenna 2, Z plane for MIMO antenna 1+2) 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
	38	**5190**	**46**	**5230**
	40	5200	48	5240

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5250-5350 MHz Band 2 (U-NII-2A)	52	5260	60	5300
	54	**5270**	**62**	**5310**
	56	5280	64	5320

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5470-5600 MHz and 5650-5725 MHz Band 3 (U-NII-2C)	100	5500	116	5580
	102	**5510**	132	5660
	104	5520	**134**	**5670**
	108	5540	136	5680
	110	**5550**	140	5700
	112	5560		

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

2.2 Pre-Scanned RF Power

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

<Ant. 1>

5GHz 802.11a mode								
Data Rate (MHz)	6M bps	9M bps	12M bps	18M bps	24M bps	36M bps	48M bps	54M bps
Average Power (dBm)	**14.00**	13.94	13.90	13.98	13.86	13.55	13.90	13.91

SISO <Ant. 1>

5GHz 802.11n HT20 mode								
Data Rate (MHz)	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Average Power (dBm)	**12.00**	11.99	11.97	11.98	11.94	11.94	11.97	11.97

5GHz 802.11n HT40 mode								
Data Rate (MHz)	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Average Power (dBm)	**11.98**	11.96	11.95	11.97	11.90	11.93	11.95	11.95

<Ant. 2>

5GHz 802.11a mode								
Data Rate (MHz)	6M bps	9M bps	12M bps	18M bps	24M bps	36M bps	48M bps	54M bps
Average Power (dBm)	**13.98**	13.91	13.93	13.84	13.94	13.90	13.95	13.91

SISO <Ant. 2>

5GHz 802.11n HT20 mode								
Data Rate (MHz)	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Average Power (dBm)	**12.00**	11.97	11.95	11.95	11.97	11.98	11.96	11.93

5GHz 802.11n HT40 mode								
Data Rate (MHz)	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Average Power (dBm)	**11.94**	11.92	11.88	11.78	11.93	11.85	11.87	11.83

MIMO <Ant. 1+2>

5GHz 802.11n HT20 mode								
Data Rate (MHz)	**MCS0**	**MCS1**	**MCS2**	**MCS3**	**MCS4**	**MCS5**	**MCS6**	**MCS7**
Average Power (dBm)	**11.99**	11.92	11.90	11.95	11.96	11.90	11.94	11.87

5GHz 802.11n HT40 mode								
Data Rate (MHz)	**MCS0**	**MCS1**	**MCS2**	**MCS3**	**MCS4**	**MCS5**	**MCS6**	**MCS7**
Average Power (dBm)	**11.99**	11.97	11.86	11.91	11.95	11.94	11.92	11.91

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

2.3 Test Mode

Final results of test modes, data rates and test channels are shown as following table.

Test Cases				
	Test Items	**Mode**	**Data rate**	**Test Channel**
Conducted TCs	**26dB and 99% BW Power Spectral Density**	**802.11a**	**6 Mbps**	**L/M/H**
		802.11n HT20	**MCS0**	**L/M/H**
		802.11n HT40	**MCS0**	**L/M/H**
	Output Power	**802.11a**	**6 Mbps**	**L/M/H**
		802.11n HT20	**MCS0**	**L/M/H**
		802.11n HT40	**MCS0**	**L/M/H**
	Frequency Stability	**802.11a**	**6 Mbps**	**L/M/H**
		802.11n HT20	**MCS0**	**L/M/H**
		802.11n HT40	**MCS0**	**L/M/H**
Radiated TCs	**Radiated Band Edge**	**802.11a**	**6 Mbps**	**L/H**
		802.11n HT20	**MCS0**	**L/H**
		802.11n HT40	**MCS0**	**L/H**
	Radiated Spurious Emission	**802.11a**	**6 Mbps**	**L/M/H**
		802.11n HT20	**MCS0**	**L/M/H**
		802.11n HT40	**MCS0**	**L/M/H**
AC Conducted Emission	Mode 1 ： TC + TF			

Remark:

1. TC stands for Test Configuration, and consists of Data Link with USB HD, earphone, adapter, HDMI cable, LCD Monitor and SD card.
2. TF stands for Test Function, and consists of Bluetooth Link, WLAN (5GHz) Link, H Pattern, Camera, and MPEG4.

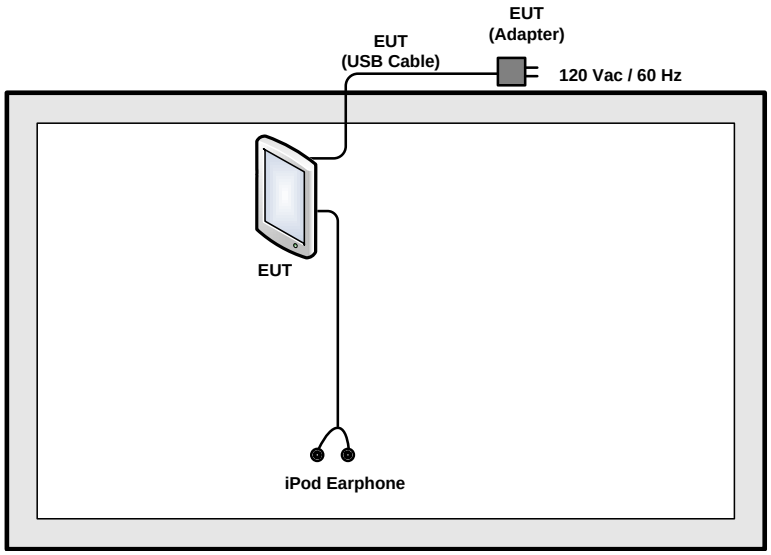
Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5600 MHz and 5650-5725MHz
		802.11a	802.11a	802.11a
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140

Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5600 MHz and 5650-5725MHz
		802.11n HT20	802.11n HT20	802.11n HT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140

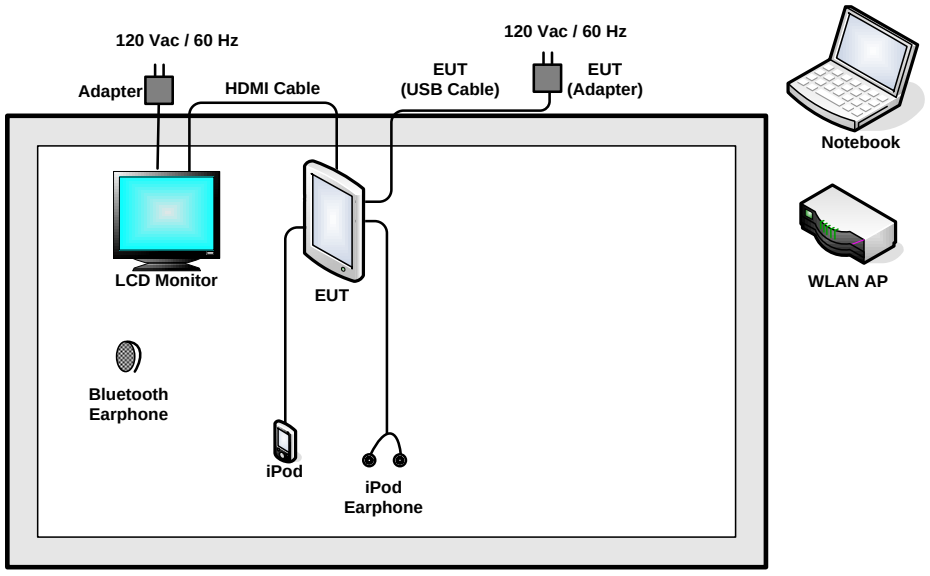
Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5600 MHz and 5650-5725MHz
		802.11n HT40	802.11n HT40	802.11n HT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134

2.4 Connection Diagram of Test System

<WLAN Tx Mode>



<AC Conducted Emission Mode>



2.5 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Bluetooth Earphone	Sony Ericsson	MW600	PY7DDA-2029	N/A	N/A
2.	WLAN AP	D-Link	DIR-865L	KA2IR865LA1	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.	iPod	Apple	A1285	FCC DoC	Shielded, 1.0 m	N/A
5.	iPod Earphone	Apple	N/A	Verification	Unshielded, 1.0 m	N/A
6.	LCD Monitor	DELL	U2410	FCC DoC	Shielded, 1.6 m	Unshielded, 1.8 m
7.	SD Card	SanDisk	MicroSD HC	FCC DoC	N/A	N/A

2.6 EUT Operation Test Setup

For WLAN function, programmed RF utility, “cmd command” installed in the EUT 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.

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

= 4.2 + 10 = 14.2 (dB)

3 Test Result

3.1 26dB & 99% Bandwidth Measurement

3.1.1 Description of 26dB & 99% Occupied Bandwidth

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

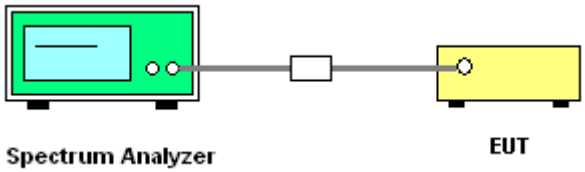
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01. Section C) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1MHz and set the Video bandwidth (VBW) ≥ 3 * RBW.
8. Measure and record the results in the test report.

3.1.4 Test Setup



3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

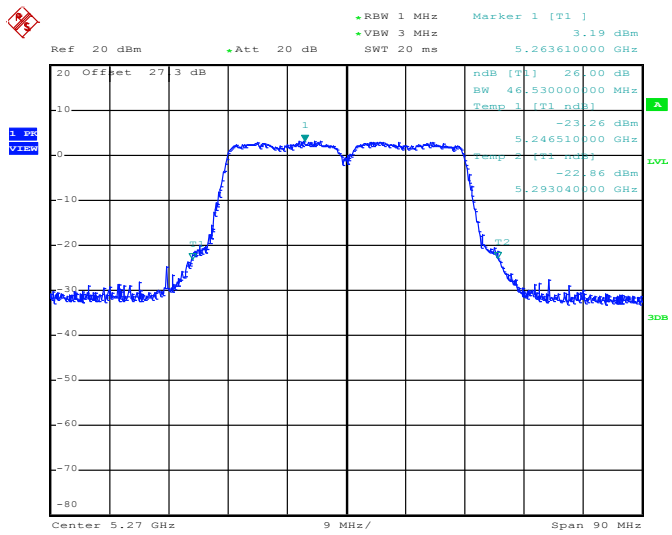
Test Band :	5GHz band 1,2,3	Temperature :	21~26℃
Test Engineer :	Osolemio Chang	Relative Humidity :	45~54%

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	99% Bandwidth (MHz)				IC 99% Bandwidth EIRP Limit (dBm)			
					Ant 1	Ant 2			Ant 1	Ant 2		
11a	6Mbps	1	36	5180	17.20	-			22.36	-		
11a	6Mbps	1	44	5220	17.15	-			22.34	-		
11a	6Mbps	1	48	5240	17.15	-			22.34	-		
HT20	MCS0	1	36	5180	17.90	-			22.53	-		
HT20	MCS0	1	44	5220	18.05	-			22.56	-		
HT20	MCS0	1	48	5240	17.95	-			22.54	-		
HT40	MCS0	1	38	5190	36.70	-			23.01	-		
HT40	MCS0	1	46	5230	36.70	-			23.01	-		
HT20	MCS0	2	36	5180	17.90	17.95			22.53			
HT20	MCS0	2	44	5220	17.90	18.00			22.53			
HT20	MCS0	2	48	5240	18.00	18.00			22.55			
HT40	MCS0	2	38	5190	36.70	36.70			23.01			
HT40	MCS0	2	46	5230	36.80	36.60			23.01			

Mod.	Data Rate	N_{TX}	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	1	52	5260	17.25	-	21.40	-	29.37	-	23.98	-
11a	6Mbps	1	60	5300	17.05	-	21.15	-	29.32	-	23.98	-
11a	6Mbps	1	64	5320	17.15	-	21.60	-	29.34	-	23.98	-
HT20	MCS0	1	52	5260	17.95	-	22.15	-	29.54	-	23.98	-
HT20	MCS0	1	60	5300	18.05	-	22.05	-	29.56	-	23.98	-
HT20	MCS0	1	64	5320	17.95	-	22.20	-	29.54	-	23.98	-
HT40	MCS0	1	54	5270	36.90	-	44.64	-	30.00	-	23.98	-
HT40	MCS0	1	62	5310	36.70	-	44.46	-	30.00	-	23.98	-
HT20	MCS0	2	52	5260	17.90	18.05	22.35	21.95	29.53		23.98	
HT20	MCS0	2	60	5300	18.00	17.95	22.20	21.95	29.54		23.98	
HT20	MCS0	2	64	5320	18.00	18.00	22.05	21.95	29.55		23.98	
HT40	MCS0	2	54	5270	36.80	36.70	46.53	45.90	30.00		23.98	
HT40	MCS0	2	62	5310	36.70	36.70	46.08	42.75	30.00		23.98	

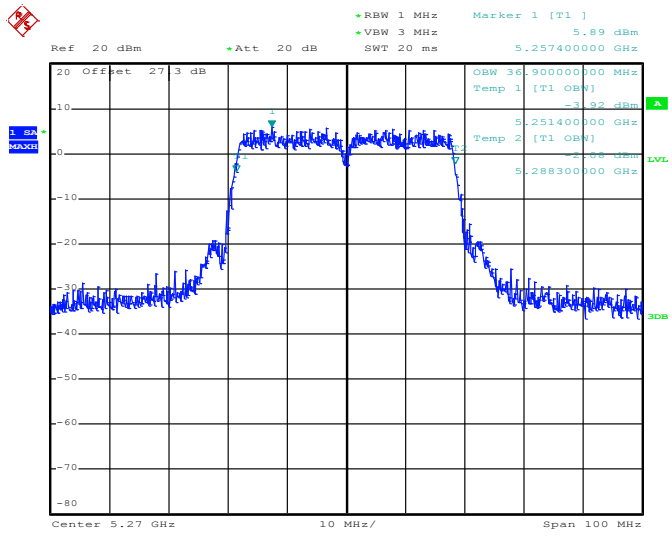
Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	99% Bandwidth (MHz)		26dB Bandwidth (MHz)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)	
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2
11a	6Mbps	1	100	5500	17.15	-	21.75	-	29.34	-	23.98	-
11a	6Mbps	1	116	5580	17.25	-	21.60	-	29.37	-	23.98	-
11a	6Mbps	1	140	5700	17.20	-	21.40	-	29.36	-	23.98	-
HT20	MCS0	1	100	5500	18.05	-	22.20	-	29.56	-	23.98	-
HT20	MCS0	1	116	5580	17.95	-	22.50	-	29.54	-	23.98	-
HT20	MCS0	1	140	5700	18.00	-	22.10	-	29.55	-	23.98	-
HT40	MCS0	1	102	5510	36.80	-	44.91	-	30.00	-	23.98	-
HT40	MCS0	1	110	5550	36.80	-	46.44	-	30.00	-	23.98	-
HT40	MCS0	1	134	5670	36.80	-	46.17	-	30.00	-	23.98	-
HT20	MCS0	2	100	5500	18.00	17.90	22.10	22.05	29.53		23.98	
HT20	MCS0	2	116	5580	17.95	17.90	22.00	21.80	29.53		23.98	
HT20	MCS0	2	140	5700	18.00	18.00	22.05	21.90	29.55		23.98	
HT40	MCS0	2	102	5510	36.70	36.70	44.73	44.55	30.00		23.98	
HT40	MCS0	2	110	5550	36.70	36.80	45.27	46.35	30.00		23.98	
HT40	MCS0	2	134	5670	36.80	36.70	46.17	44.82	30.00		23.98	

Maximum 26dB Bandwidth



Date: 22.NOV.2014 00:25:20

Maximum 99% Occupied Bandwidth



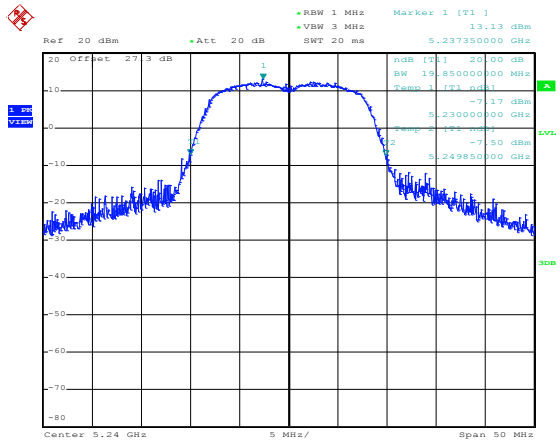
Date: 22.NOV.2014 00:00:22

3.1.6 Test Result of 20dB Occupied Bandwidth

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	1	48	5240	19.85	-	5249.85	-	5250	Pass
HT20	MCS0	1	48	5240	18.90	-	5249.40	-		Pass
HT40	MCS0	1	46	5230	40.23	-	5249.98	-		Pass
HT20	MCS0	2	48	5240	19.20	-	5249.55	-		Pass
HT40	MCS0	2	46	5230	40.14	-	5249.98	-		Pass

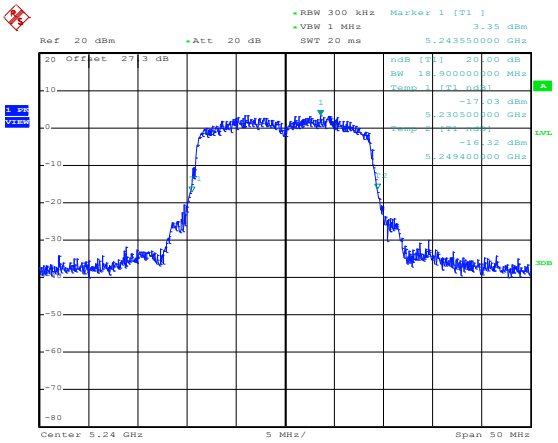
20dB Occupied Bandwidth

802.11a CH48 5240MHz



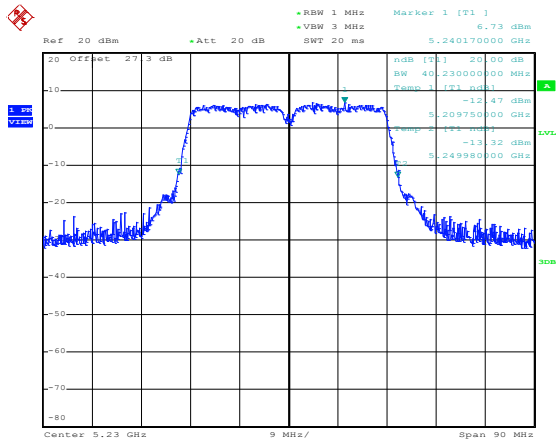
Date: 21.NOV.2014 21:18:57

802.11n HT20 CH48 5240MHz



Date: 21.NOV.2014 22:25:28

802.11n HT40 CH46 5230MHz



Date: 21.NOV.2014 23:57:38

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 dBm 10 log B, where B is the 26 dB emission bandwidth in megahertz.

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

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

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):

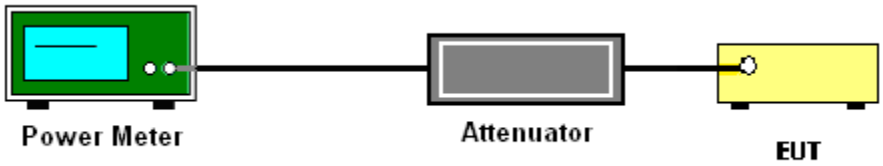
1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit continuously with a consistent duty cycle at its maximum power control level.
3. Measure the average power of the transmitter, and the average power is corrected with duty factor, 10 log(1/x), where x is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

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

3.2.4 Test Setup

For normal channel:



3.2.5 Test Result of Maximum Conducted Output Power

Test Band :	5GHz band 1	Temperature :	21~26℃
Test Engineer :	Osolemio Chang	Relative Humidity :	45~54%

Mod.	Data Rate	N_{TX}	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	1	36	5180	0.20	0.20	13.77	13.91	-	24.00	24.00	-3.28	-0.62		Pass
11a	6Mbps	1	44	5220	0.20	0.20	13.75	13.95		24.00	24.00	-3.28	-0.62		Pass
11a	6Mbps	1	48	5240	0.20	0.20	13.78	13.98		24.00	24.00	-3.28	-0.62		Pass
HT20	MCS0	1	36	5180	0.19	0.23	11.90	11.94		24.00	24.00	-3.28	-0.62		Pass
HT20	MCS0	1	44	5220	0.19	0.23	11.99	11.95		24.00	24.00	-3.28	-0.62		Pass
HT20	MCS0	1	48	5240	0.19	0.23	11.95	11.96		24.00	24.00	-3.28	-0.62		Pass
HT40	MCS0	1	38	5190	0.42	0.39	11.73	11.62		24.00	24.00	-3.28	-0.62		Pass
HT40	MCS0	1	46	5230	0.42	0.39	11.86	11.78		24.00	24.00	-3.28	-0.62		Pass
HT20	MCS0	2	36	5180	0.44	0.44	7.85	9.15	11.56	24.00		1.16			Pass
HT20	MCS0	2	44	5220	0.44	0.44	7.75	9.29	11.59	24.00		1.16			Pass
HT20	MCS0	2	48	5240	0.44	0.44	8.01	9.45	11.80	24.00		1.16			Pass
HT40	MCS0	2	38	5190	0.76	0.77	8.29	9.58	11.99	24.00		1.16			Pass
HT40	MCS0	2	46	5230	0.76	0.77	8.20	9.62	11.98	24.00		1.16			Pass

Note:

1. Final Output Power equals to Measured Output Power adds the duty factor.
2. Sum Power is a calculated result from sum of the Ant 1 and Ant 2.
3. For the band 5150-5250 MHz, the maximum conducted output power shall not exceed lesser of 250 mW (24dBm).

Test Band :	5GHz band 2	Temperature :	21~26℃
Test Engineer :	Osolemio Chang	Relative Humidity :	45~54%

Mod.	Data Rate	N_{TX}	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	1	52	5260	0.20	0.20	13.72	13.95		23.98		-1.99	-0.21		Pass
11a	6Mbps	1	60	5300	0.20	0.20	13.57	13.96		23.98		-1.99	-0.21		Pass
11a	6Mbps	1	64	5320	0.20	0.20	13.80	13.98		23.98		-1.99	-0.21		Pass
HT20	MCS0	1	52	5260	0.19	0.23	11.89	11.98		23.98		-1.99	-0.21		Pass
HT20	MCS0	1	60	5300	0.19	0.23	11.99	12.00	-	23.98	-	-1.99	-0.21	-	Pass
HT20	MCS0	1	64	5320	0.19	0.23	12.00	11.99		23.98		-1.99	-0.21		Pass
HT40	MCS0	1	54	5270	0.42	0.39	11.74	11.88		23.98		-1.99	-0.21		Pass
HT40	MCS0	1	62	5310	0.42	0.39	11.87	11.93		23.98		-1.99	-0.21		Pass
HT20	MCS0	2	52	5260	0.44	0.44	7.68	9.45	11.66	23.98		1.96			Pass
HT20	MCS0	2	60	5300	0.44	0.44	7.83	9.65	11.84	23.98		1.96			Pass
HT20	MCS0	2	64	5320	0.44	0.44	7.81	9.43	11.70	23.98		1.96			Pass
HT40	MCS0	2	54	5270	0.76	0.77	8.19	9.57	11.94	23.98		1.96			Pass
HT40	MCS0	2	62	5310	0.76	0.77	7.68	9.28	11.56	23.98		1.96			Pass

Note:

1. Final Output Power equals to Measured Output Power adds the duty factor.
2. Sum Power is a calculated result from sum of the power Ant 1 and Ant 2.
3. For the 5250-5350 MHz and 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.

Test Band :	5GHz band 3	Temperature :	21~26℃
Test Engineer :	Osolemio Chang	Relative Humidity :	45~54%

Mod.	Data Rate	N_{TX}	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	1	100	5500	0.20	0.20	14.00	13.64		23.98	-	0.26	1.28		Pass
11a	6Mbps	1	116	5580	0.20	0.20	13.99	13.62		23.98	-	0.26	1.28		Pass
11a	6Mbps	1	140	5700	0.20	0.20	12.58	12.45		23.98	-	0.26	1.28		Pass
HT20	MCS0	1	100	5500	0.19	0.23	11.54	11.99		23.98	-	0.26	1.28		Pass
HT20	MCS0	1	116	5580	0.19	0.23	12.00	11.96	-	23.98	-	0.26	1.28		Pass
HT20	MCS0	1	140	5700	0.19	0.23	11.97	11.94		23.98	-	0.26	1.28		Pass
HT40	MCS0	1	102	5510	0.42	0.39	9.86	9.60		23.98	-	0.26	1.28		Pass
HT40	MCS0	1	110	5550	0.42	0.39	11.93	11.80		23.98	-	0.26	1.28	-	Pass
HT40	MCS0	1	134	5670	0.42	0.39	11.98	11.94		23.98	-	0.26	1.28		Pass
HT20	MCS0	2	100	5500	0.44	0.44	9.46	8.45	11.99	23.98		3.80			Pass
HT20	MCS0	2	116	5580	0.44	0.44	9.33	8.30	11.85	23.98		3.80			Pass
HT20	MCS0	2	140	5700	0.44	0.44	9.33	7.64	11.57	23.98		3.80			Pass
HT40	MCS0	2	102	5510	0.76	0.77	9.22	7.78	11.57	23.98		3.80			Pass
HT40	MCS0	2	110	5550	0.76	0.77	9.23	7.78	11.58	23.98		3.80			Pass
HT40	MCS0	2	134	5670	0.76	0.77	9.15	7.72	11.50	23.98		3.80			Pass

Note:

1. Final Output Power equals to Measured Output Power adds the duty factor.
2. Sum Power is a calculated result from sum of the power Ant 1 and Ant 2.
3. For the 5250-5350 MHz and 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.

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

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

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

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

Section F) Maximum power spectral density.

 # Method SA-2 #

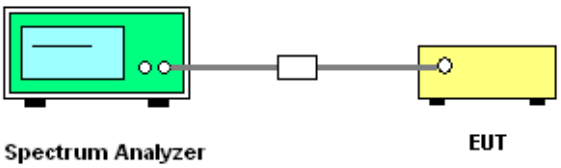
(trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

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 ≥ 3 MHz.
   - Number of points in sweep ≥ 2 Span / RBW.
   - Sweep time = auto.
   - Detector = RMS
   - Trace average at least 100 traces in power averaging mode.
   - Add 10 log(1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add 10 log(1/0.25) = 6 dB if the duty cycle is 25 percent.
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℃
Test Engineer :	Osolemio Chang	Relative Humidity :	45~54%

Mod.	Data Rate	N_{TX}	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	1	36	5180	0.20	0.20	3.76	2.25		11.00	11.00	-3.28	-0.62	Pass
11a	6Mbps	1	44	5220	0.20	0.20	3.48	2.78		11.00	11.00	-3.28	-0.62	Pass
11a	6Mbps	1	48	5240	0.20	0.20	3.33	2.78		11.00	11.00	-3.28	-0.62	Pass
HT20	MCS0	1	36	5180	0.19	0.23	1.73	1.06		11.00	11.00	-3.28	-0.62	Pass
HT20	MCS0	1	44	5220	0.19	0.23	1.47	1.57	-	11.00	11.00	-3.28	-0.62	Pass
HT20	MCS0	1	48	5240	0.19	0.23	1.27	1.71		11.00	11.00	-3.28	-0.62	Pass
HT40	MCS0	1	38	5190	0.42	0.39	-2.15	-3.39		11.00	11.00	-3.28	-0.62	Pass
HT40	MCS0	1	46	5230	0.42	0.39	-2.29	-2.89		11.00	11.00	-3.28	-0.62	Pass
HT20	MCS0	2	36	5180	0.44	0.44			0.12	11.00		1.16		Pass
HT20	MCS0	2	44	5220	0.44	0.44			0.40	11.00		1.16		Pass
HT20	MCS0	2	48	5240	0.44	0.44	-		0.18	11.00		1.16		Pass
HT40	MCS0	2	38	5190	0.76	0.77			-2.85	11.00		1.16		Pass
HT40	MCS0	2	46	5230	0.76	0.77			-2.63	11.00		1.16		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℃
Test Engineer :	Osolemio Chang	Relative Humidity :	45~54%

Mod.	Data Rate	N_{TX}	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	A nt1	Ant 2	
11a	6Mbps	1	52	5260	0.20	0.20	3.49	2.98	-	11.00	11.00	-1.99	-0.21	Pass
11a	6Mbps	1	60	5300	0.20	0.20	3.21	3.40		11.00	11.00	-1.99	-0.21	Pass
11a	6Mbps	1	64	5320	0.20	0.20	4.06	3.55		11.00	11.00	-1.99	-0.21	Pass
HT20	MCS0	1	52	5260	0.19	0.23	1.40	1.77		11.00	11.00	-1.99	-0.21	Pass
HT20	MCS0	1	60	5300	0.19	0.23	1.10	0.56		11.00	11.00	-1.99	-0.21	Pass
HT20	MCS0	1	64	5320	0.19	0.23	1.13	0.50		11.00	11.00	-1.99	-0.21	Pass
HT40	MCS0	1	54	5270	0.42	0.39	-2.37	-2.68		11.00	11.00	-1.99	-0.21	Pass
HT40	MCS0	1	62	5310	0.42	0.39	-2.44	-2.30		11.00	11.00	-1.99	-0.21	Pass
HT20	MCS0	2	52	5260	0.44	0.44	-		0.36	11.00		1.96		Pass
HT20	MCS0	2	60	5300	0.44	0.44			0.65	11.00		1.96		Pass
HT20	MCS0	2	64	5320	0.44	0.44			0.43	11.00		1.96		Pass
HT40	MCS0	2	54	5270	0.76	0.77			-2.65	11.00		1.96		Pass
HT40	MCS0	2	62	5310	0.76	0.77			-3.52	11.00		1.96		Pass

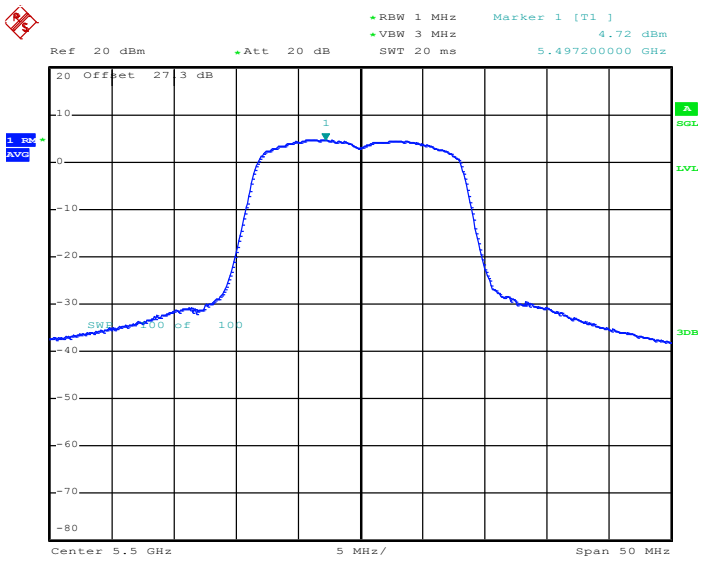
Note: Sum PSD is a bin-by-bin combined result of Ant 1 and Ant 2.

Test Band :	5GHz band 3	Temperature :	21~26℃
Test Engineer :	Osolemio Chang	Relative Humidity :	45~54%

Mod.	Data Rate	N_{TX}	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	1	100	5500	0.20	0.20	4.92	3.09		11.00	11.00	0.26	1.28	Pass
11a	6Mbps	1	116	5580	0.20	0.20	4.89	3.07		11.00	11.00	0.26	1.28	Pass
11a	6Mbps	1	140	5700	0.20	0.20	2.86	2.11		11.00	11.00	0.26	1.28	Pass
HT20	MCS0	1	100	5500	0.19	0.23	1.91	-0.31		11.00	11.00	0.26	1.28	Pass
HT20	MCS0	1	116	5580	0.19	0.23	1.88	0.72	-	11.00	11.00	0.26	1.28	Pass
HT20	MCS0	1	140	5700	0.19	0.23	1.71	0.08		11.00	11.00	0.26	1.28	Pass
HT40	MCS0	1	102	5510	0.42	0.39	-3.32	-4.00		11.00	11.00	0.26	1.28	Pass
HT40	MCS0	1	110	5550	0.42	0.39	-1.63	-3.14		11.00	11.00	0.26	1.28	Pass
HT40	MCS0	1	134	5670	0.42	0.39	-2.46	-3.12		11.00	11.00	0.26	1.28	Pass
HT20	MCS0	2	100	5500	0.44	0.44			1.05	11.00		3.80		Pass
HT20	MCS0	2	116	5580	0.44	0.44			0.69	11.00		3.80		Pass
HT20	MCS0	2	140	5700	0.44	0.44			-0.09	11.00		3.80		Pass
HT40	MCS0	2	102	5510	0.76	0.77		-	-3.24	11.00		3.80		Pass
HT40	MCS0	2	110	5550	0.76	0.77			-3.15	11.00		3.80		Pass
HT40	MCS0	2	134	5670	0.76	0.77			-4.02	11.00		3.80		Pass

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

Worst Case Power Density (dBm/MHz)



Date: 21.NOV.2014 21:37:46

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

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

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

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

$$E=\frac{1000000\sqrt{30P}}{3}$$ μV/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 ≥ 3 MHz
   - Detector = Peak
   - Sweep time = auto
   - Trace mode = max hold

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

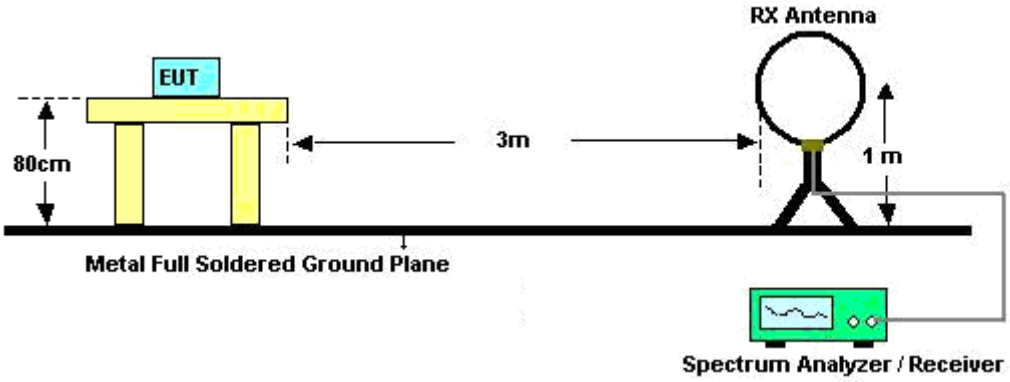
   - RBW = 1 MHz
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
1	802.11a	95.57	2075	0.48	1kHz
1	802.11n HT20	95.63	1931	0.52	1kHz
1	802.11n HT40	90.84	953	1.05	3kHz
1+2	802.11n HT40 for Ant1	90.44	986	1.01	3kHz
1+2	802.11n HT20 for Ant2	90.44	986	1.01	
1+2	802.11n HT40 for Ant1	83.87	500	2.00	3kHz
1+2	802.11n HT40 for Ant2	83.87	500	2.00	

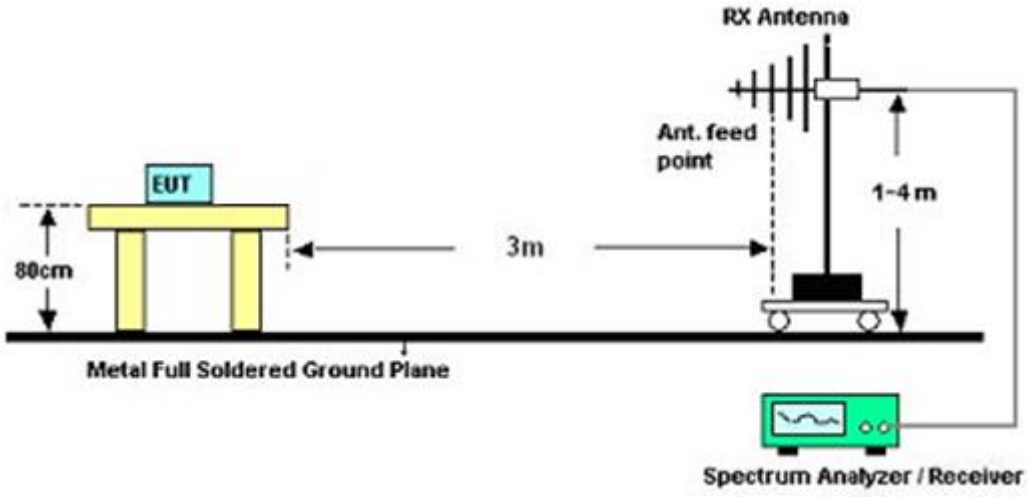
2. The EUT was placed on a rotatable table top 0.8 meter above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters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

3.4.4 Test Setup

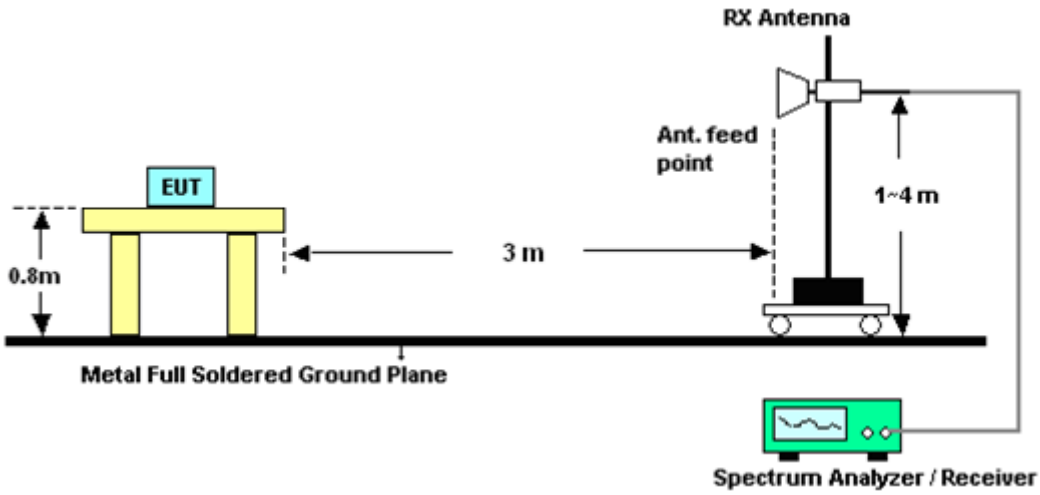
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

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

3.4.6 Test Result

Please refer to appendix B as below.

3.5 AC Conducted Emission Measurement

3.5.1 Limit of AC Conducted Emission

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

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

*Decreases with the logarithm of the frequency.

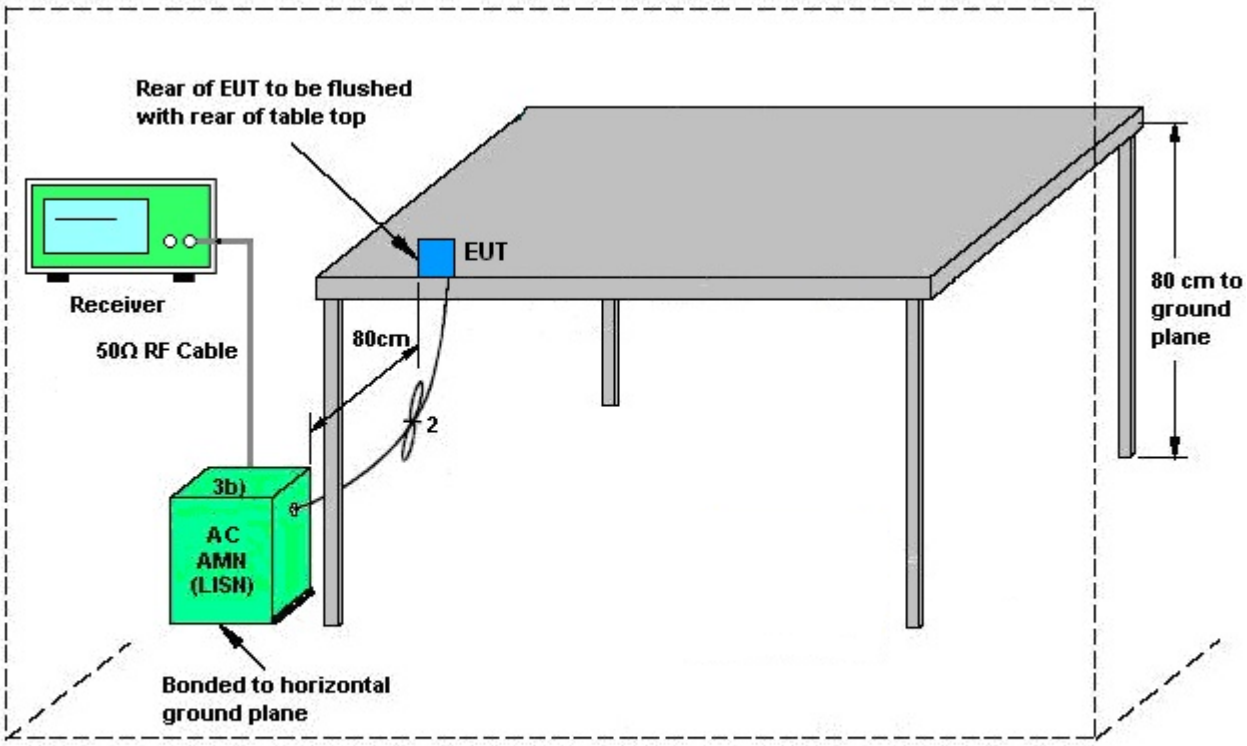
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

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

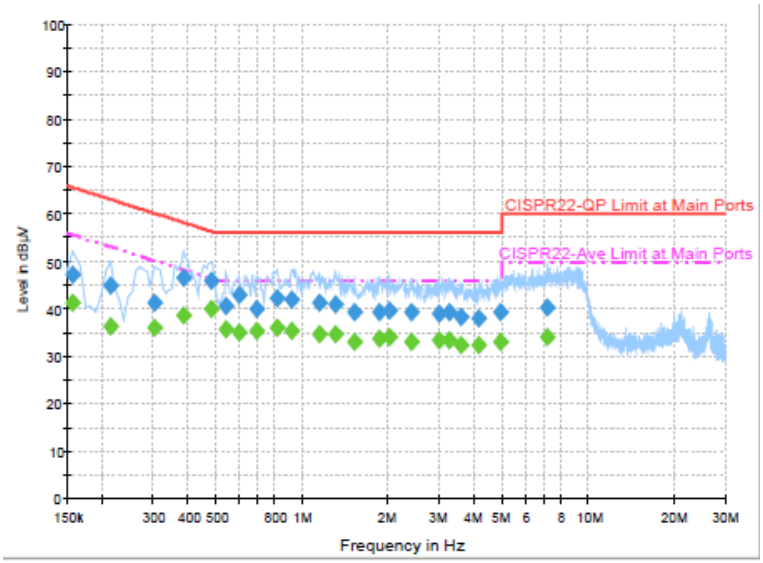
3.5.4 Test Setup



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

3.5.5 Test Result of AC Conducted Emission

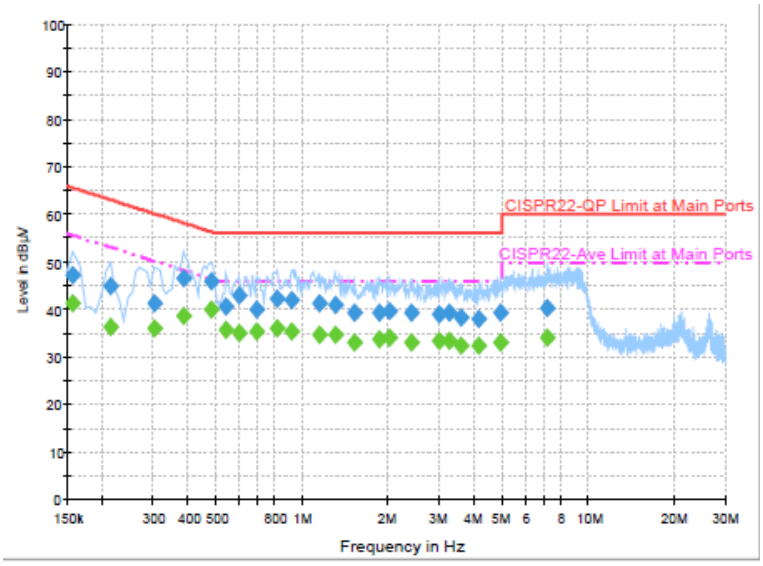
Test Mode :	Mode 1	Temperature :	21~23℃
Test Engineer :	Eric Jeng	Relative Humidity :	46~48%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	TC + TF		



Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	47.1	Off	L1	19.4	18.5	65.6
0.214000	44.7	Off	L1	19.4	18.3	63.0
0.302000	41.2	Off	L1	19.4	19.0	60.2
0.382000	46.4	Off	L1	19.4	11.8	58.2
0.478000	45.8	Off	L1	19.4	10.6	56.4
0.542000	40.7	Off	L1	19.4	15.3	56.0
0.598000	42.8	Off	L1	19.5	13.2	56.0
0.694000	40.0	Off	L1	19.5	16.0	56.0
0.814000	42.1	Off	L1	19.5	13.9	56.0
0.918000	42.0	Off	L1	19.5	14.0	56.0
1.150000	41.1	Off	L1	19.5	14.9	56.0
1.302000	40.8	Off	L1	19.5	15.2	56.0
1.518000	39.2	Off	L1	19.5	16.8	56.0
1.846000	39.3	Off	L1	19.5	16.7	56.0
2.014000	39.6	Off	L1	19.5	16.4	56.0
2.398000	39.2	Off	L1	19.5	16.8	56.0
3.006000	38.8	Off	L1	19.6	17.2	56.0
3.246000	39.3	Off	L1	19.6	16.7	56.0
3.566000	38.2	Off	L1	19.6	17.8	56.0
4.118000	38.0	Off	L1	19.6	18.0	56.0
4.918000	39.2	Off	L1	19.6	16.8	56.0
7.126000	40.1	Off	L1	19.6	19.9	60.0

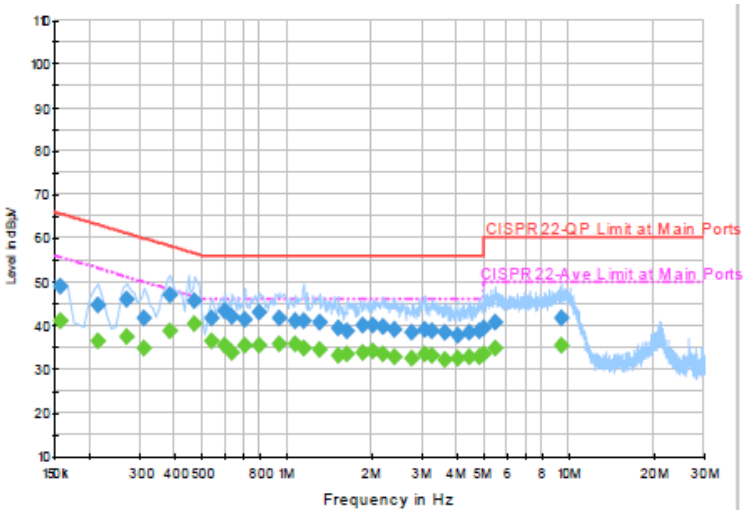
Test Mode :	Mode 1	Temperature :	21~23℃
Test Engineer :	Eric Jeng	Relative Humidity :	46~48%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	TC + TF		



Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	41.3	Off	L1	19.4	14.3	55.6
0.214000	36.4	Off	L1	19.4	16.6	53.0
0.302000	36.0	Off	L1	19.4	14.2	50.2
0.382000	38.7	Off	L1	19.4	9.5	48.2
0.478000	39.8	Off	L1	19.4	6.6	46.4
0.542000	35.8	Off	L1	19.4	10.2	46.0
0.598000	35.0	Off	L1	19.5	11.0	46.0
0.694000	35.5	Off	L1	19.5	10.5	46.0
0.814000	36.1	Off	L1	19.5	9.9	46.0
0.918000	35.4	Off	L1	19.5	10.6	46.0
1.150000	34.7	Off	L1	19.5	11.3	46.0
1.302000	34.7	Off	L1	19.5	11.3	46.0
1.518000	33.0	Off	L1	19.5	13.0	46.0
1.846000	33.5	Off	L1	19.5	12.5	46.0
2.014000	34.0	Off	L1	19.5	12.0	46.0
2.398000	33.0	Off	L1	19.5	13.0	46.0
3.006000	33.3	Off	L1	19.6	12.7	46.0
3.246000	33.3	Off	L1	19.6	12.7	46.0
3.566000	32.3	Off	L1	19.6	13.7	46.0
4.118000	32.4	Off	L1	19.6	13.6	46.0
4.918000	33.1	Off	L1	19.6	12.9	46.0
7.126000	34.1	Off	L1	19.6	15.9	50.0

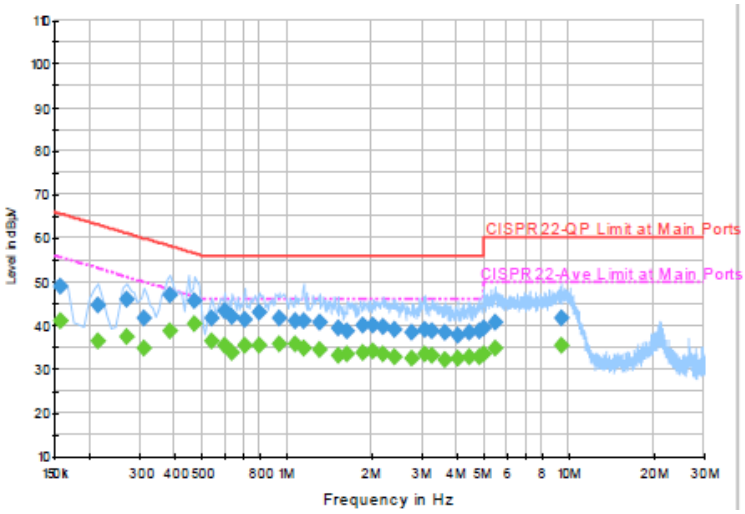
Test Mode :	Mode 1	Temperature :	21~23℃
Test Engineer :	Eric Jeng	Relative Humidity :	46~48%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	TC + TF		



Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	49.0	Off	N	19.4	16.6	65.6
0.214000	44.8	Off	N	19.4	18.2	63.0
0.270000	46.1	Off	N	19.4	15.0	61.1
0.310000	41.7	Off	N	19.4	18.3	60.0
0.382000	46.8	Off	N	19.4	11.4	58.2
0.470000	45.7	Off	N	19.5	10.8	56.5
0.542000	41.8	Off	N	19.4	14.2	56.0
0.598000	43.2	Off	N	19.5	12.8	56.0
0.638000	42.0	Off	N	19.5	14.0	56.0
0.710000	41.5	Off	N	19.5	14.5	56.0
0.798000	43.1	Off	N	19.5	12.9	56.0
0.934000	41.8	Off	N	19.5	14.2	56.0
1.062000	40.9	Off	N	19.5	15.1	56.0
1.142000	41.1	Off	N	19.5	14.9	56.0
1.302000	40.6	Off	N	19.5	15.4	56.0

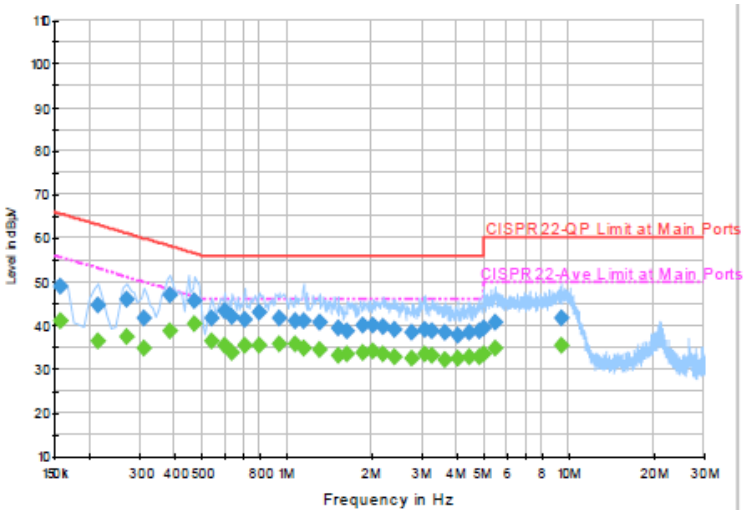
Test Mode :	Mode 1	Temperature :	21~23℃
Test Engineer :	Eric Jeng	Relative Humidity :	46~48%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	TC + TF		



Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
1.518000	39.5	Off	N	19.5	16.5	56.0
1.630000	38.8	Off	N	19.5	17.2	56.0
1.862000	39.9	Off	N	19.5	16.1	56.0
2.022000	40.0	Off	N	19.5	16.0	56.0
2.174000	39.7	Off	N	19.3	16.3	56.0
2.398000	39.2	Off	N	19.5	16.8	56.0
2.766000	38.2	Off	N	19.6	17.8	56.0
3.086000	39.1	Off	N	19.6	16.9	56.0
3.270000	38.7	Off	N	19.6	17.3	56.0
3.638000	38.3	Off	N	19.6	17.7	56.0
4.022000	37.8	Off	N	19.6	18.2	56.0
4.414000	38.5	Off	N	19.6	17.5	56.0
4.774000	38.8	Off	N	19.6	17.2	56.0
4.950000	39.5	Off	N	19.7	16.5	56.0
5.430000	40.7	Off	N	19.6	19.3	60.0
9.414000	41.6	Off	N	19.7	18.4	60.0

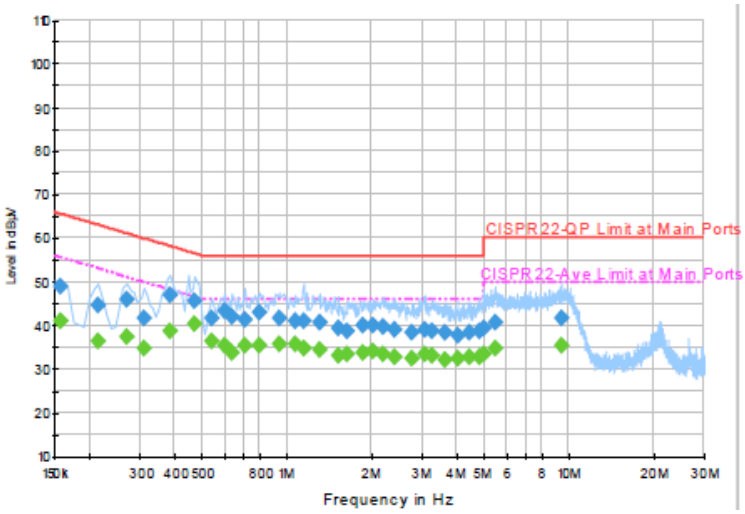
Test Mode :	Mode 1	Temperature :	21~23℃
Test Engineer :	Eric Jeng	Relative Humidity :	46~48%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	TC + TF		



Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	41.1	Off	N	19.4	14.5	55.6
0.214000	36.5	Off	N	19.4	16.5	53.0
0.270000	37.5	Off	N	19.4	13.6	51.1
0.310000	34.9	Off	N	19.4	15.1	50.0
0.382000	38.8	Off	N	19.4	9.4	48.2
0.470000	40.3	Off	N	19.5	6.2	46.5
0.542000	36.4	Off	N	19.4	9.6	46.0
0.598000	35.3	Off	N	19.5	10.7	46.0
0.638000	33.9	Off	N	19.5	12.1	46.0
0.710000	35.6	Off	N	19.5	10.4	46.0
0.798000	35.3	Off	N	19.5	10.7	46.0
0.934000	35.6	Off	N	19.5	10.4	46.0
1.062000	35.7	Off	N	19.5	10.3	46.0
1.142000	34.7	Off	N	19.5	11.3	46.0
1.302000	34.3	Off	N	19.5	11.7	46.0

Test Mode :	Mode 1	Temperature :	21~23℃
Test Engineer :	Eric Jeng	Relative Humidity :	46~48%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	TC + TF		



Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
1.518000	33.0	Off	N	19.5	13.0	46.0
1.630000	33.3	Off	N	19.5	12.7	46.0
1.862000	33.7	Off	N	19.5	12.3	46.0
2.022000	33.9	Off	N	19.5	12.1	46.0
2.174000	33.5	Off	N	19.3	12.5	46.0
2.398000	32.9	Off	N	19.5	13.1	46.0
2.766000	32.3	Off	N	19.6	13.7	46.0
3.086000	33.3	Off	N	19.6	12.7	46.0
3.270000	33.1	Off	N	19.6	12.9	46.0
3.638000	32.3	Off	N	19.6	13.7	46.0
4.022000	32.3	Off	N	19.6	13.7	46.0
4.414000	32.6	Off	N	19.6	13.4	46.0
4.774000	32.9	Off	N	19.6	13.1	46.0
4.950000	33.3	Off	N	19.7	12.7	46.0
5.430000	34.6	Off	N	19.6	15.4	50.0
9.414000	35.4	Off	N	19.7	14.6	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.

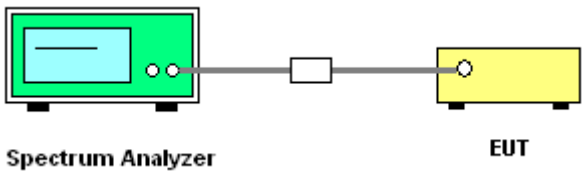
3.6.2 Measuring Instruments

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 :	Osolemio Chang

Mod.	Data Rate	NTX	Channel	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stability (ppm)	Temperature (°C)	Voltage (V)
11a	6Mbps	1	36	5180	5179.950	-0.050	-9.65	20	3.33
11a	6Mbps	1	36	5180	5179.950	-0.050	-9.65	20	4.07
11a	6Mbps	1	36	5180	5179.950	-0.050	-9.65	20	3.7
11a	6Mbps	1	36	5180	5179.950	-0.050	-9.65	-30	3.7
11a	6Mbps	1	36	5180	5179.925	-0.075	-14.48	50	3.7

Mod.	Data Rate	NTX	Channel	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stability (ppm)	Temperature (°C)	Voltage (V)
11a	6Mbps	1	64	5320	5319.950	-0.050	-9.40	20	3.33
11a	6Mbps	1	64	5320	5319.950	-0.050	-9.40	20	4.07
11a	6Mbps	1	64	5320	5319.950	-0.050	-9.40	20	3.7
11a	6Mbps	1	64	5320	5319.900	-0.100	-18.80	-30	3.7
11a	6Mbps	1	64	5320	5319.950	-0.050	-9.40	50	3.7

Mod.	Data Rate	NTX	Channel	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stability (ppm)	Temperature (°C)	Voltage (V)
11a	6Mbps	1	100	5500	5499.950	-0.050	-9.09	20	3.33
11a	6Mbps	1	100	5500	5499.950	-0.050	-9.09	20	4.07
11a	6Mbps	1	100	5500	5499.950	-0.050	-9.09	20	3.7
11a	6Mbps	1	100	5500	5499.950	-0.050	-9.09	-30	3.7
11a	6Mbps	1	100	5500	5499.950	-0.050	-9.09	50	3.7

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

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

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 kth antenna is being fed by spatial stream j, or zero if it is not;

G_k is the gain in dBi of the kth 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.

	Ant 1 (dBi)	Ant 2 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
Band I	-3.28	-0.62	1.16	1.16	0.00	0.00
Band II	-1.99	-0.21	1.96	1.96	0.00	0.00
Band III	0.26	1.28	3.80	3.80	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	Nov. 13, 2014~ Dec. 24, 2014	Jun. 08, 2015	Conducted (TH02-HY)
Power Meter	Anritsu	ML2495A	1036004	300MHz~40GHz	Aug. 09, 2014	Nov. 13, 2014~ Dec. 24, 2014	Aug. 08, 2015	Conducted (TH02-HY)
Power Sensor	Anritsu	MA2411B	1027253	300MHz~40GHz	Aug. 09, 2014	Nov. 13, 2014~ Dec. 24, 2014	Aug. 08, 2015	Conducted (TH02-HY)
EMI Test Receiver	Rohde & Schwarz	ESCS 30	100356	9kHz ~ 2.75GHz	Nov. 12, 2014	Nov. 13, 2014	Nov. 11, 2015	Conduction (CO05-HY)
LISN (for auxiliary equipment)	Rohde & Schwarz	ENV216	100081	9kHz ~ 30MHz	Dec. 12, 2013	Nov. 13, 2014	Dec. 11, 2014	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz ~ 30MHz	Dec. 04, 2013	Nov. 13, 2014	Dec. 03, 2014	Conduction (CO05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Nov. 13, 2014	N/A	Conduction (CO05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSV30	101749	10Hz ~ 30GHz	Feb. 10, 2014	Nov. 14, 2014~ Nov. 26, 2014	Feb. 09, 2015	Radiation (03CH07-HY)
EMI Test Receiver	Rohde & Schwarz	ESCI 7	100724	9 kHz~7 GHz	Aug. 30, 2014	Nov. 14, 2014~ Nov. 26, 2014	Aug. 29, 2015	Radiation (03CH07-HY)
Loop Antenna	TESEQ	HLA 6120	31244	9 kHz~30 MHz	Dec. 02, 2012	Nov. 14, 2014~ Nov. 26, 2014	Dec. 03, 2014	Radiation (03CH07-HY)
Bilog Antenna	Schaffner	CBL6111C	2726	30MHz ~ 1GHz	Sep. 27, 2014	Nov. 14, 2014~ Nov. 26, 2014	Sep. 26, 2015	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	75962	1GHz~18GHz	Aug. 19, 2014	Nov. 14, 2014~ Nov. 26, 2014	Aug. 18, 2015	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	18GHz~40GHz	Oct. 02, 2014	Nov. 14, 2014~ Nov. 26, 2014	Oct. 01, 2015	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	10 MHz ~ 1000MHz	Mar. 17, 2014	Nov. 14, 2014~ Nov. 26, 2014	Mar. 16, 2015	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A02362	1 GHz~26.5 GHz	Nov. 29, 2013	Nov. 14, 2014~ Nov. 26, 2014	Nov. 28, 2014	Radiation (03CH07-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1590075	DC~18 GHz	Apr. 21, 2014	Nov. 14, 2014~ Nov. 26, 2014	Apr. 20, 2015	Radiation (03CH07-HY)
Turn Table	ChainTek	ChainTek 3000	N/A	0 ~ 360 degree	N/A	Nov. 14, 2014~ Nov. 26, 2014	N/A	Radiation (03CH07-HY)
Antenna Mast	ChainTek	ChainTek 3000	N/A	N/A	N/A	Nov. 14, 2014~ Nov. 26, 2014	N/A	Radiation (03CH07-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**

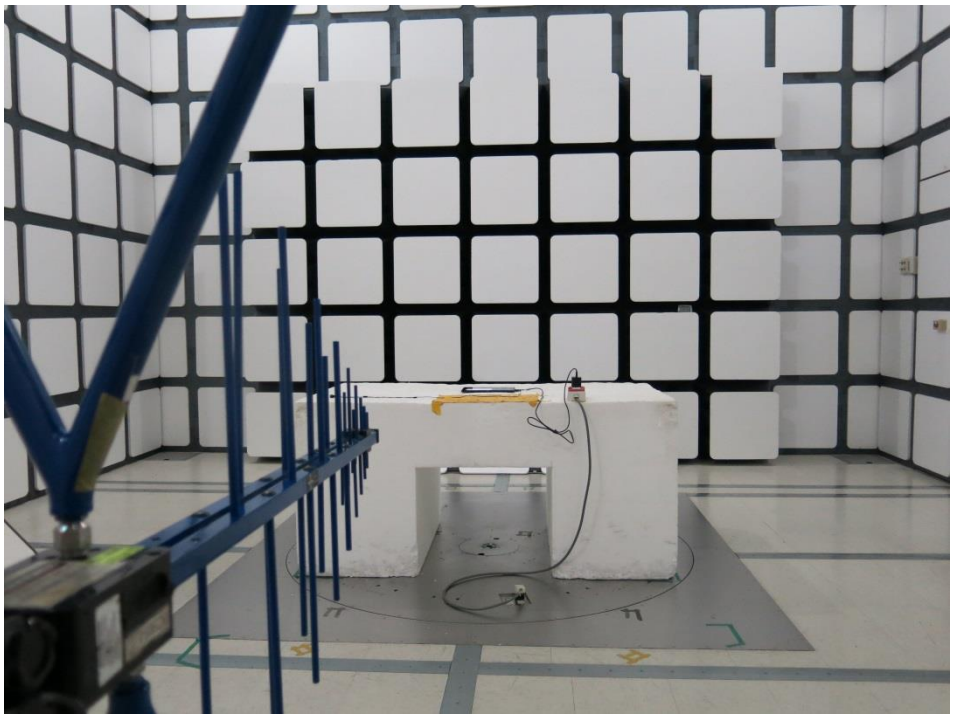
Appendix A. Setup Photographs

<Conducted Emission>

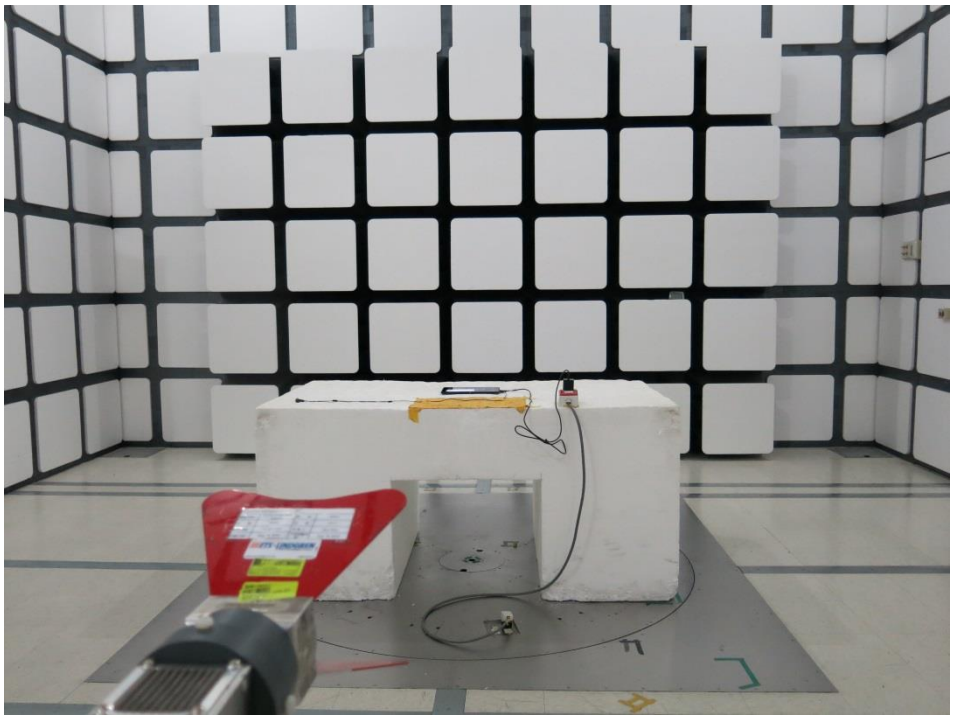
<Radiated Emission>

X Plane

LF

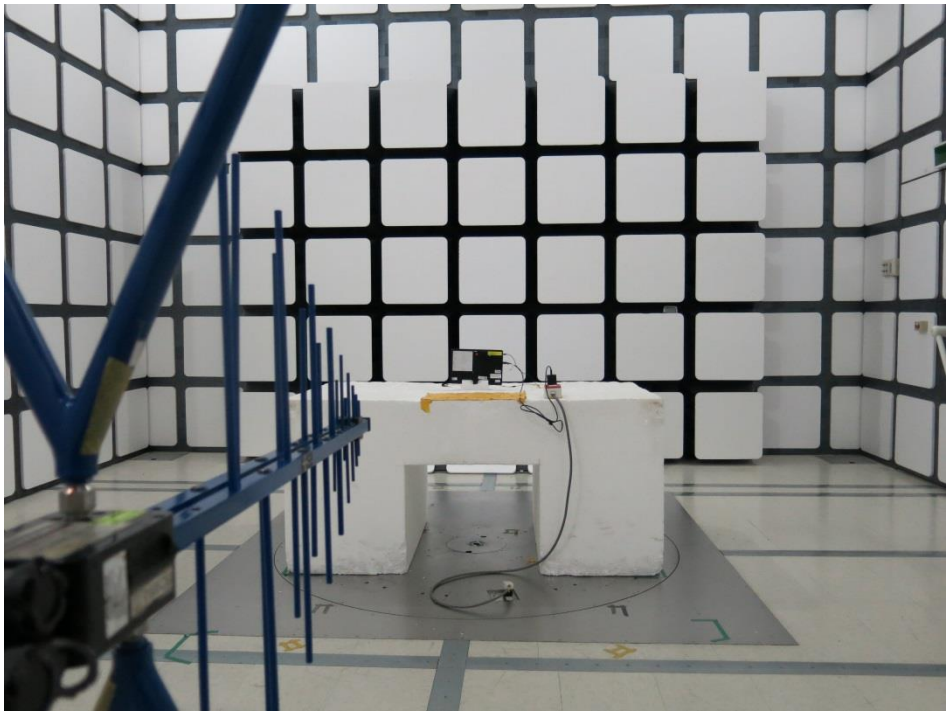


HF

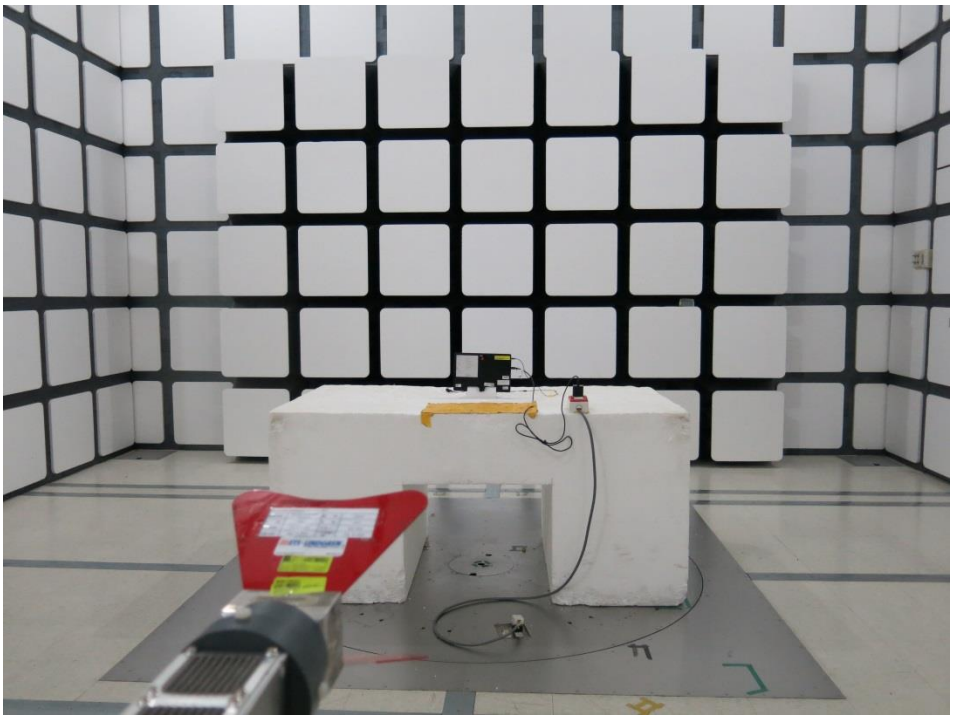


Y Plane

LF

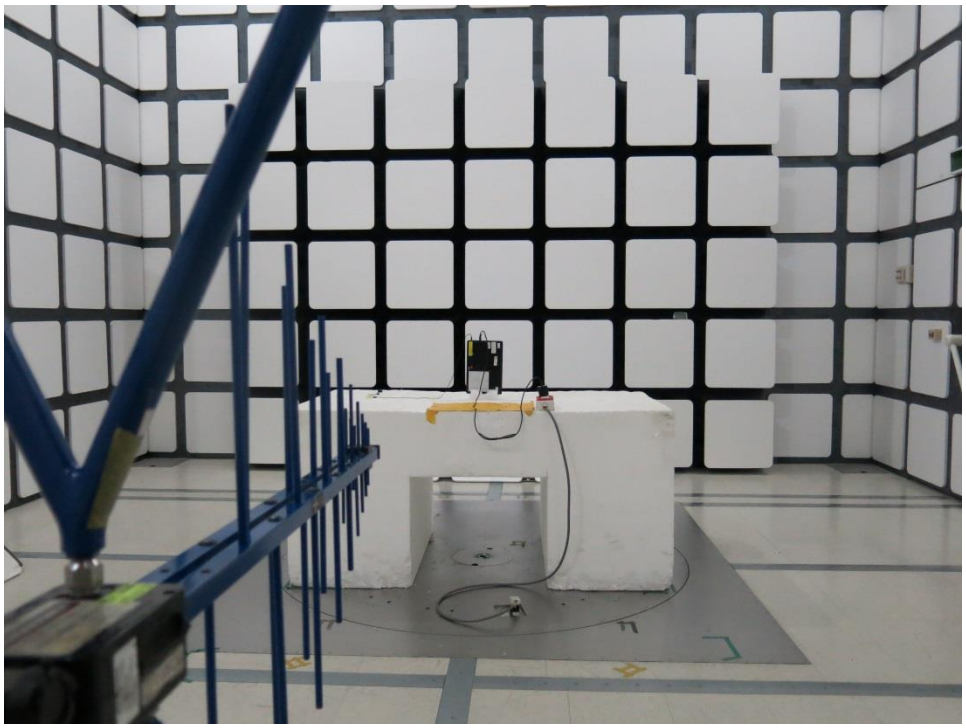


HF

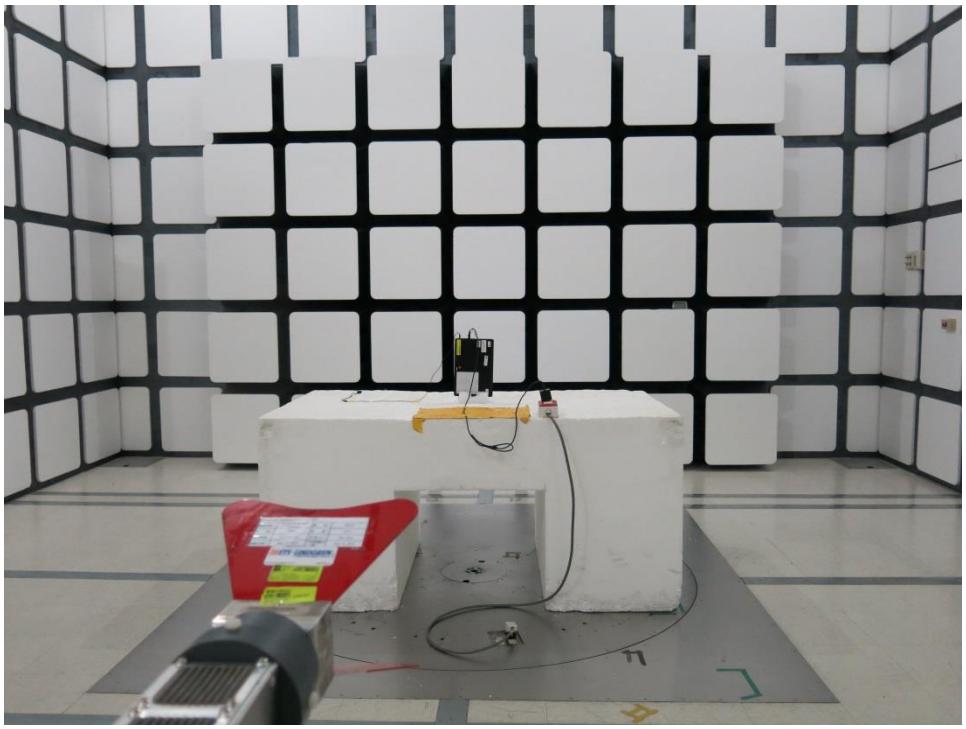


Z Plane

LF



HF



Appendix B. Radiated Spurious Emission

Test Engineer :	Derreck Chen, Ken Wu and Nick Yu	Temperature :	21~23°C
		Relative Humidity :	47~49%

15E band 1 5150~5250MHz

WIFI 802.11n HT20(Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5082.5	54.34	-19.66	74	43.05	34.52	9.16	32.39	113	356	P	H
		5149.55	41.78	-12.22	54	30.52	34.61	9.14	32.49	113	356	A	H
	*	5179	101.79	-	-	90.52	34.66	9.13	32.52	113	356	P	H
	*	5179	90.04	-	-	78.77	34.66	9.13	32.52	113	356	A	H
802.11n													H
HT20													H
CH 36		5129.15	55.9	-18.1	74	44.61	34.59	9.15	32.45	118	328	P	V
5180MHz		5145.95	42.5	-11.5	54	31.24	34.61	9.14	32.49	118	328	A	V
	*	5182	100.96	-	-	89.69	34.66	9.13	32.52	118	328	P	V
	*	5182	91.13	-	-	79.86	34.66	9.13	32.52	118	328	A	V
													V
													V
		5135.9	54.46	-19.54	74	43.17	34.59	9.15	32.45	112	357	P	H
		5148.05	41.28	-12.72	54	30.02	34.61	9.14	32.49	112	357	A	H
	*	5222	101.24	-	-	90.02	34.7	9.17	32.65	112	357	P	H
	*	5222	90.28	-	-	79.06	34.7	9.17	32.65	112	357	A	H
802.11n		5437.45	54.68	-19.32	74	43.44	35.01	9.71	33.48	112	357	P	H
HT20		5362.43	41.76	-12.24	54	30.53	34.91	9.5	33.18	112	357	A	H
CH 44		5075.6	55.78	-18.22	74	44.49	34.52	9.16	32.39	108	169	P	V
5220MHz		5065.25	42.13	-11.87	54	30.82	34.49	9.17	32.35	108	169	A	V
	*	5218	101.42	-	-	90.1	34.7	9.17	32.55	108	169	P	V
	*	5218	91.1	-	-	79.78	34.7	9.17	32.55	108	169	A	V
		5373.54	55.9	-18.1	74	44.77	34.91	9.5	33.28	108	169	P	V
		5373.54	43.18	-10.82	54	32.05	34.91	9.5	33.28	108	169	A	V

802.11n HT20 CH 48 5240MHz		5140.1	54.92	-19.08	74	43.62	34.61	9.14	32.45	102	357	P	H
		5093.6	41.46	-12.54	54	30.19	34.54	9.15	32.42	102	357	A	H
	*	5242	101.69	-	-	90.36	34.75	9.23	32.65	102	357	P	H
	*	5242	90.12	-	-	78.79	34.75	9.23	32.65	102	357	A	H
		5367.93	55.54	-18.46	74	44.31	34.91	9.5	33.18	102	357	P	H
		5386.08	41.88	-12.12	54	30.67	34.94	9.55	33.28	102	357	A	H
		5092.4	55.33	-18.67	74	44.03	34.54	9.15	32.39	137	164	P	V
		5084.9	41.86	-12.14	54	30.57	34.52	9.16	32.39	137	164	A	V
	*	5238	101.58	-	-	90.27	34.73	9.23	32.65	137	164	P	V
	*	5238	91.11	-	-	79.8	34.73	9.23	32.65	137	164	A	V
		5366.94	55.07	-18.93	74	43.84	34.91	9.5	33.18	137	164	P	V
		5393.78	42.38	-11.62	54	31.17	34.94	9.55	33.28	137	164	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E band 1 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		10359	44.48	-29.52	74	52.25	37.22	13.88	58.87	100	0	P	H
		15540	45.34	-28.66	74	46.96	40.34	15.53	57.49	100	0	P	H
802.11n													H
HT20													H
CH 36		10359	45.32	-28.68	74	53.09	37.22	13.88	58.87	100	0	P	V
5180MHz		15540	45.52	-28.48	74	47.14	40.34	15.53	57.49	100	0	P	V
													V
													V
		10440	44.21	-29.79	74	51.91	37.26	13.92	58.88	200	0	P	H
		15660	45.93	-28.07	74	47.2	40.49	15.59	57.35	100	0	P	H
802.11n													H
HT20													H
CH 44		10440	43.79	-30.21	74	51.49	37.26	13.92	58.88	100	0	P	V
5220MHz		15660	45.12	-28.88	74	46.39	40.49	15.59	57.35	100	0	P	V
													V
													V
		10479	44.3	-29.7	74	51.96	37.29	13.94	58.89	100	0	P	H
		15720	46.3	-27.7	74	47.38	40.57	15.62	57.27	100	0	P	H
802.11n													H
HT20													H
CH 48		10479	43.94	-30.06	74	51.6	37.29	13.94	58.89	100	0	P	V
5240MHz		15720	45.36	-28.64	74	46.44	40.57	15.62	57.27	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E band 1 5150~5250MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 38 5190MHz		5149.7	57.77	-16.23	74	46.51	34.61	9.14	32.49	103	356	P	H
		5149.85	42.98	-11.02	54	31.72	34.61	9.14	32.49	103	356	A	H
	*	5192	98.98	-	-	87.7	34.68	9.12	32.52	103	356	P	H
	*	5192	87.98	-	-	76.7	34.68	9.12	32.52	103	356	A	H
		5421.83	54.85	-19.15	74	43.63	34.98	9.63	33.39	103	356	P	H
		5356.05	42.48	-11.52	54	31.27	34.89	9.5	33.18	103	356	A	H
		5144.75	61.62	-12.38	74	50.36	34.61	9.14	32.49	129	323	P	V
		5149.7	45.04	-8.96	54	33.78	34.61	9.14	32.49	129	323	A	V
	*	5192	99.84	-	-	88.56	34.68	9.12	32.52	129	323	P	V
	*	5192	90.23	-	-	78.95	34.68	9.12	32.52	129	323	A	V
		5357.26	55.19	-18.81	74	43.98	34.89	9.5	33.18	129	323	P	V
		5354.4	43.03	-10.97	54	31.88	34.89	9.44	33.18	129	323	A	V
802.11n HT40 CH 46 5230MHz		5091.35	55.03	-18.97	74	43.72	34.54	9.16	32.39	113	356	P	H
		5077.85	42.5	-11.5	54	31.21	34.52	9.16	32.39	113	356	A	H
	*	5229	98.55	-	-	87.3	34.73	9.17	32.65	113	356	P	H
	*	5229	88.31	-	-	77.06	34.73	9.17	32.65	113	356	A	H
		5388.06	54.9	-19.1	74	43.69	34.94	9.55	33.28	113	356	P	H
		5392.9	42.4	-11.6	54	31.19	34.94	9.55	33.28	113	356	A	H
		5065.1	55.13	-18.87	74	43.82	34.49	9.17	32.35	126	227	P	V
		5095.85	42.73	-11.27	54	31.46	34.54	9.15	32.42	126	227	A	V
	*	5228	100.33	-	-	89.08	34.73	9.17	32.65	126	227	P	V
	*	5228	90.43	-	-	79.18	34.73	9.17	32.65	126	227	A	V
		5387.95	55.61	-18.39	74	44.4	34.94	9.55	33.28	126	227	P	V
		5376.18	43.55	-10.45	54	32.42	34.91	9.5	33.28	126	227	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E band 1 5150~5250MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		10380	45.31	-28.69	74	53.06	37.23	13.89	58.87	100	0	P	H
		15570	47.75	-26.25	74	49.28	40.38	15.54	57.45	100	0	P	H
802.11n													H
HT40													H
CH 38		10380	44.29	-29.71	74	52.04	37.23	13.89	58.87	100	0	P	V
5190MHz		15570	46.94	-27.06	74	48.47	40.38	15.54	57.45	100	0	P	V
													V
													V
		10461	44.89	-29.11	74	52.56	37.28	13.93	58.88	100	0	P	H
		15690	46.47	-27.53	74	47.65	40.53	15.6	57.31	100	0	P	H
802.11n													H
HT40													H
CH 46		10461	44.68	-29.32	74	52.35	37.28	13.93	58.88	100	0	P	V
5230MHz		15690	47.11	-26.89	74	48.29	40.53	15.6	57.31	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E band 2 5250~5350MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5109.35	54.86	-19.14	74	43.57	34.56	9.15	32.42	102	355	P	H
		5114.3	41.28	-12.72	54	29.99	34.56	9.15	32.42	102	355	A	H
	*	5262	101.92	-	-	90.63	34.77	9.28	32.76	102	355	P	H
	*	5262	91.67	-	-	80.38	34.77	9.28	32.76	102	355	A	H
802.11n		5351.43	55.03	-18.97	74	43.88	34.89	9.44	33.18	102	355	P	H
HT20		5412.26	42.09	-11.91	54	30.87	34.98	9.63	33.39	102	355	A	H
CH 52		5130.35	55.03	-18.97	74	43.74	34.59	9.15	32.45	100	164	P	V
5260MHz		5114.45	41.99	-12.01	54	30.7	34.56	9.15	32.42	100	164	A	V
	*	5262	101.4	-	-	90.11	34.77	9.28	32.76	100	164	P	V
	*	5262	90.99	-	-	79.7	34.77	9.28	32.76	100	164	A	V
		5405.66	55.33	-18.67	74	44.13	34.96	9.63	33.39	100	164	P	V
		5407.2	42.43	-11.57	54	31.23	34.96	9.63	33.39	100	164	A	V
		5043.65	54.86	-19.14	74	43.56	34.47	9.18	32.35	101	358	P	H
		5148.65	41.46	-12.54	54	30.2	34.61	9.14	32.49	101	358	A	H
	*	5298	102.31	-	-	91.12	34.82	9.34	32.97	101	358	P	H
	*	5298	91.53	-	-	80.34	34.82	9.34	32.97	101	358	A	H
802.11n		5369.36	55.16	-18.84	74	43.93	34.91	9.5	33.18	101	358	P	H
HT20		5354.62	42.03	-11.97	54	30.88	34.89	9.44	33.18	101	358	A	H
CH 60		5142.8	54.78	-19.22	74	43.48	34.61	9.14	32.45	105	170	P	V
5300MHz		5149.4	41.96	-12.04	54	30.7	34.61	9.14	32.49	105	170	A	V
	*	5298	101.77	-	-	90.58	34.82	9.34	32.97	105	170	P	V
	*	5298	91.82	-	-	80.63	34.82	9.34	32.97	105	170	A	V
		5394.77	55.35	-18.65	74	44.12	34.96	9.55	33.28	105	170	P	V
		5357.37	42.54	-11.46	54	31.33	34.89	9.5	33.18	105	170	A	V

	*	5318	103.47	-	-	92.21	34.84	9.39	32.97	100	177	P	H
	*	5318	93.28	-	-	82.02	34.84	9.39	32.97	100	177	A	H
		5359.68	56.64	-17.36	74	45.43	34.89	9.5	33.18	100	177	P	H
		5352.31	43.97	-10.03	54	32.82	34.89	9.44	33.18	100	177	A	H
802.11n													H
HT20													H
CH 64	*	5318	102.08	-	-	90.82	34.84	9.39	32.97	117	37	P	V
5320MHz	*	5318	91.41	-	-	80.15	34.84	9.39	32.97	117	37	A	V
		5377.61	55.84	-18.16	74	44.68	34.94	9.5	33.28	117	37	P	V
		5352.53	42.76	-11.24	54	31.61	34.89	9.44	33.18	117	37	A	V
													V
													V

Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.

15E band 2 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		10521	43.29	-30.71	74	50.84	37.32	13.97	58.84	100	0	P	H
		15780	46.97	-27.03	74	47.91	40.63	15.65	57.22	100	0	P	H
802.11n													H
HT20													H
CH 52		10521	43.75	-30.25	74	51.3	37.32	13.97	58.84	100	0	P	V
5260MHz		15780	46.44	-27.56	74	47.38	40.63	15.65	57.22	100	0	P	V
													V
													V
		10599	42.27	-31.73	74	49.45	37.42	14.01	58.61	100	0	P	H
		15900	46.44	-27.56	74	47.02	40.78	15.72	57.08	100	0	P	H
802.11n													H
HT20													H
CH 60		10599	42.99	-31.01	74	50.17	37.42	14.01	58.61	100	0	P	V
5300MHz		15900	46.25	-27.75	74	46.83	40.78	15.72	57.08	100	0	P	V
													V
													V
		10641	43.18	-30.82	74	50.2	37.47	14.03	58.52	100	0	P	H
		15960	46.21	-27.79	74	46.61	40.86	15.74	57	100	0	P	H
802.11n													H
HT20													H
CH 64		10641	42.26	-31.74	74	49.28	37.47	14.03	58.52	100	0	P	V
5320MHz		15960	47.17	-26.83	74	47.57	40.86	15.74	57	100	0	P	V
													V
													V

Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.

15E band 2 5250~5350MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 54 5270MHz		5091.2	54.61	-19.39	74	43.3	34.54	9.16	32.39	100	357	P	H
		5136.35	41.96	-12.04	54	30.67	34.59	9.15	32.45	100	357	A	H
	*	5272	97.47	-	-	86.28	34.77	9.28	32.86	100	357	P	H
	*	5272	87.27	-	-	76.08	34.77	9.28	32.86	100	357	A	H
		5402.91	55.48	-18.52	74	44.36	34.96	9.55	33.39	100	357	P	H
		5412.59	42.39	-11.61	54	31.17	34.98	9.63	33.39	100	357	A	H
		5129.45	55.69	-18.31	74	44.4	34.59	9.15	32.45	126	250	P	V
		5137.55	43.01	-10.99	54	31.72	34.59	9.15	32.45	126	250	A	V
	*	5268	100.83	-	-	89.54	34.77	9.28	32.76	126	250	P	V
	*	5268	91.62	-	-	80.33	34.77	9.28	32.76	126	250	A	V
		5409.4	56.38	-17.62	74	45.18	34.96	9.63	33.39	126	250	P	V
		5405.22	43.33	-10.67	54	32.13	34.96	9.63	33.39	126	250	A	V
802.11n HT40 CH 62 5310MHz		5108.9	54.35	-19.65	74	43.06	34.56	9.15	32.42	100	356	P	H
		5149.55	42.3	-11.7	54	31.04	34.61	9.14	32.49	100	356	A	H
	*	5312	97.64	-	-	86.38	34.84	9.39	32.97	100	356	P	H
	*	5312	86.7	-	-	75.44	34.84	9.39	32.97	100	356	A	H
		5352.53	57.38	-16.62	74	46.23	34.89	9.44	33.18	100	356	P	H
		5358.8	42.86	-11.14	54	31.65	34.89	9.5	33.18	100	356	A	H
		5000.45	54.88	-19.12	74	43.58	34.4	9.19	32.29	123	251	P	V
		5148.35	42.34	-11.66	54	31.08	34.61	9.14	32.49	123	251	A	V
	*	5312	100.07	-	-	88.81	34.84	9.39	32.97	123	251	P	V
	*	5312	90.99	-	-	79.73	34.84	9.39	32.97	123	251	A	V
		5352.64	65.64	-8.36	74	54.49	34.89	9.44	33.18	123	251	P	V
		5350.44	44.87	-9.13	54	33.72	34.89	9.44	33.18	123	251	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E band 2 5250~5350MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		11589	44.87	-29.13	74	48.74	38.32	14.55	56.74	100	0	P	H
		17385	50.02	-23.98	74	47.03	42.09	17.13	56.23	100	0	P	H
802.11n													H
HT40													H
CH 54		11589	45.17	-28.83	74	49.04	38.32	14.55	56.74	100	0	P	V
5270MHz		17385	50.33	-23.67	74	47.34	42.09	17.13	56.23	100	0	P	V
													V
													V
		10620	44	-30	74	51.11	37.44	14.02	58.57	100	0	P	H
		15930	47.44	-26.56	74	47.93	40.82	15.73	57.04	100	0	P	H
802.11n													H
HT40													H
CH 62		10620	44.5	-29.5	74	51.61	37.44	14.02	58.57	100	0	P	V
5310MHz		15930	47.65	-26.35	74	48.14	40.82	15.73	57.04	100	0	P	V
													V
													V

Remark	
	1. No other spurious found.
	2. All results are PASS against Peak and Average limit line.

15E band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5458.8	56.82	-17.18	74	45.57	35.03	9.79	33.57	106	29	P	H
		5470	44.03	-9.97	54	32.76	35.05	9.79	33.57	106	29	A	H
	*	5503	102.01	-	-	90.69	35.1	9.96	33.74	106	29	P	H
	*	5503	92.6	-	-	81.28	35.1	9.96	33.74	106	29	A	H
802.11n													H
HT20													H
CH 100		5465.68	55.78	-18.22	74	44.51	35.05	9.79	33.57	116	82	P	V
5500MHz		5466.96	43.16	-10.84	54	31.89	35.05	9.79	33.57	116	82	A	V
	*	5502	99.58	-	-	88.26	35.1	9.96	33.74	116	82	P	V
	*	5502	90.49	-	-	79.17	35.1	9.96	33.74	116	82	A	V
													V
													V
		5389.04	55.02	-18.98	74	43.81	34.94	9.55	33.28	104	347	P	H
		5360.88	41.59	-12.41	54	30.36	34.91	9.5	33.18	104	347	A	H
	*	5579	101.5	-	-	90.17	35.14	10.2	34.01	104	347	P	H
	*	5579	91.87	-	-	80.54	35.14	10.2	34.01	104	347	A	H
802.11n		5749.72	54.7	-19.3	74	43.65	35.24	9.98	34.17	104	347	P	H
HT20		5750.68	41.25	-12.75	54	30.2	35.24	9.98	34.17	104	347	A	H
CH 116		5360.56	56.06	-17.94	74	44.83	34.91	9.5	33.18	100	246	P	V
5580MHz		5358.64	43.67	-10.33	54	32.46	34.89	9.5	33.18	100	246	A	V
	*	5578	103.97	-	-	92.64	35.14	10.2	34.01	100	246	P	V
	*	5578	94.32	-	-	82.99	35.14	10.2	34.01	100	246	A	V
		5730.76	55	-19	74	43.91	35.23	10.03	34.17	100	246	P	V
		5756.36	41.17	-12.83	54	30.13	35.26	9.98	34.2	100	246	A	V

	*	5698	98.42	-	-	87.25	35.21	10.08	34.12	100	347	P	H
	*	5698	86.82	-	-	75.65	35.21	10.08	34.12	100	347	A	H
		5726.52	56.04	-17.96	74	44.93	35.23	10.03	34.15	100	347	P	H
		5725.16	42.45	-11.55	54	31.34	35.23	10.03	34.15	100	347	A	H
802.11n													H
HT20													H
CH 140	*	5698	100.57	-	-	89.4	35.21	10.08	34.12	177	221	P	V
5700MHz	*	5698	91	-	-	79.83	35.21	10.08	34.12	177	221	A	V
		5727.56	60.25	-13.75	74	49.14	35.23	10.03	34.15	177	221	P	V
		5725	44.15	-9.85	54	33.04	35.23	10.03	34.15	177	221	A	V
													V
													V

Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.

15E band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		11001	44.57	-29.43	74	50	37.9	14.23	57.56	100	0	P	H
		16500	46.93	-27.07	74	45.24	41.4	16.26	55.97	100	0	P	H
802.11n													H
HT20													H
CH 100		11001	45.14	-28.86	74	50.57	37.9	14.23	57.56	100	0	P	V
5500MHz		16500	47.29	-26.71	74	45.6	41.4	16.26	55.97	100	0	P	V
													V
													V
		11160	45.85	-28.15	74	50.9	38	14.31	57.36	100	0	P	H
		16740	48.49	-25.51	74	46.17	41.88	16.49	56.05	100	0	P	H
802.11n													H
HT20													H
CH 116		11160	46.09	-27.91	74	51.14	38	14.31	57.36	100	0	P	V
5580MHz		16740	49.48	-24.52	74	47.16	41.88	16.49	56.05	100	0	P	V
													V
													V
		11400	45.87	-28.13	74	50.36	38.14	14.44	57.07	100	0	P	H
		17100	50.79	-23.21	74	47.78	42.32	16.85	56.16	100	0	P	H
802.11n													H
HT20													H
CH 140		11400	47.29	-26.71	74	51.78	38.14	14.44	57.07	100	0	P	V
5700MHz		17100	50.72	-23.28	74	47.71	42.32	16.85	56.16	100	0	P	V
													V
													V

Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.

15E band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5469.84	62.17	-11.83	74	50.9	35.05	9.79	33.57	100	64	P	H
		5469.68	46.59	-7.41	54	35.32	35.05	9.79	33.57	100	64	A	H
	*	5512	94.47	-	-	83.15	35.1	9.96	33.74	100	64	P	H
	*	5512	84.6	-	-	73.28	35.1	9.96	33.74	100	64	A	H
802.11n		5743.32	54.69	-19.31	74	43.64	35.24	9.98	34.17	100	64	P	H
HT40		5753.56	41.86	-12.14	54	30.79	35.26	9.98	34.17	100	64	A	H
CH 102		5470	66.39	-7.61	74	55.12	35.05	9.79	33.57	100	248	P	V
5510MHz		5469.04	51.23	-2.77	54	39.96	35.05	9.79	33.57	100	248	A	V
	*	5508	100.73	-	-	89.41	35.1	9.96	33.74	100	248	P	V
	*	5508	91.66	-	-	80.34	35.1	9.96	33.74	100	248	A	V
		5738.04	54.34	-19.66	74	43.24	35.24	10.03	34.17	100	248	P	V
		5750.12	41.85	-12.15	54	30.8	35.24	9.98	34.17	100	248	A	V
		5434.32	55.24	-18.76	74	44	35.01	9.71	33.48	100	68	P	H
		5458.16	42.91	-11.09	54	31.66	35.03	9.79	33.57	100	68	A	H
	*	5548	93.95	-	-	82.53	35.13	10.12	33.83	100	68	P	H
	*	5548	84.32	-	-	72.9	35.13	10.12	33.83	100	68	A	H
802.11n		5760.28	54.92	-19.08	74	43.88	35.26	9.98	34.2	100	68	P	H
HT40		5750.52	41.93	-12.07	54	30.88	35.24	9.98	34.17	100	68	A	H
CH 110		5466.64	57.1	-16.9	74	45.83	35.05	9.79	33.57	100	236	P	V
5550MHz		5462.16	44.6	-9.4	54	33.35	35.03	9.79	33.57	100	236	A	V
	*	5548	100.32	-	-	88.9	35.13	10.12	33.83	100	236	P	V
	*	5548	91.36	-	-	79.94	35.13	10.12	33.83	100	236	A	V
		5743.32	54.23	-19.77	74	43.18	35.24	9.98	34.17	100	236	P	V
		5755.64	42.13	-11.87	54	31.06	35.26	9.98	34.17	100	236	A	V

802.11n HT40 CH 134 5670MHz		5377.52	55.98	-18.02	74	44.82	34.94	9.5	33.28	101	341	P	H
		5370.48	42.6	-11.4	54	31.37	34.91	9.5	33.18	101	341	A	H
	*	5668	94.79	-	-	83.5	35.2	10.18	34.09	101	341	P	H
	*	5668	85.14	-	-	73.85	35.2	10.18	34.09	101	341	A	H
		5731.96	55.3	-18.7	74	44.21	35.23	10.03	34.17	101	341	P	H
		5752.04	42.22	-11.78	54	31.15	35.26	9.98	34.17	101	341	A	H
		5430.32	57.17	-16.83	74	45.93	35.01	9.71	33.48	125	213	P	V
		5458.48	43.91	-10.09	54	32.66	35.03	9.79	33.57	125	213	A	V
	*	5668	99.57	-	-	88.28	35.2	10.18	34.09	125	213	P	V
	*	5668	89.8	-	-	78.51	35.2	10.18	34.09	125	213	A	V
		5727.64	56.3	-17.7	74	45.19	35.23	10.03	34.15	125	213	P	V
		5742.28	42.9	-11.1	54	31.85	35.24	9.98	34.17	125	213	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 HT40 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		11019	46.65	-27.35	74	52.05	37.91	14.23	57.54	100	0	P	H
		16530	48.4	-25.6	74	46.63	41.47	16.28	55.98	100	0	P	H
802.11n													H
HT40													H
CH 102		11019	46.93	-27.07	74	52.33	37.91	14.23	57.54	100	0	P	V
5510MHz		16530	48.43	-25.57	74	46.66	41.47	16.28	55.98	100	0	P	V
													V
													V
		11100	47.09	-26.91	74	52.29	37.96	14.28	57.44	100	0	P	H
		16650	49	-25	74	46.91	41.71	16.4	56.02	100	0	P	H
802.11n													H
HT40													H
CH 110		11100	46.5	-27.5	74	51.7	37.96	14.28	57.44	100	0	P	V
5550MHz		16650	48.06	-25.94	74	45.97	41.71	16.4	56.02	100	0	P	V
													V
													V
		11340	46.96	-27.04	74	51.59	38.1	14.42	57.15	100	0	P	H
		17010	49.57	-24.43	74	46.56	42.39	16.75	56.13	100	0	P	H
802.11n													H
HT40													H
CH 134		11340	45.97	-28.03	74	50.6	38.1	14.42	57.15	100	0	P	V
5670MHz		17010	48.99	-25.01	74	45.98	42.39	16.75	56.13	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E Emission below 1GHz

WIFI 802.11n HT40 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 LF		46.74	27.06	-12.94	40	47.79	9.8	0.67	31.2	144	247	P	H
		60.51	20.43	-19.57	40	44.97	6	0.76	31.3			P	H
		76.98	26.19	-13.81	40	49.66	6.87	0.86	31.2			P	H
		475	19.49	-26.51	46	30.37	17.55	2.37	30.8			P	H
		671.7	23.42	-22.58	46	30.58	20.42	2.88	30.46			P	H
		871.2	25.63	-20.37	46	29.7	22.99	3.3	30.36			P	H
													H
													H
													H
													H
													H
													H
		76.17	30.36	-9.64	40	53.83	6.87	0.86	31.2	166	58	P	V
		151.77	27.99	-15.51	43.5	47.14	10.76	1.21	31.12			P	V
		160.68	27.36	-16.14	43.5	46.97	10.36	1.22	31.19			P	V
		475	23.07	-22.93	46	33.95	17.55	2.37	30.8			P	V
		594	23.69	-22.31	46	32.1	19.54	2.67	30.62			P	V
		862.8	26.66	-19.34	46	30.6	23.14	3.29	30.37			P	V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against limit line.

15E band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5469.2	62.67	-11.33	74	51.4	35.05	9.79	33.57	100	42	P	H
		5467.76	47.93	-6.07	54	36.66	35.05	9.79	33.57	100	42	A	H
	*	5508	91.84	-	-	80.52	35.1	9.96	33.74	100	42	P	H
	*	5508	82.21	-	-	70.89	35.1	9.96	33.74	100	42	A	H
802.11n		5747	56.18	-17.82	74	45.13	35.24	9.98	34.17	100	42	P	H
HT40		5749.32	42.84	-11.16	54	31.79	35.24	9.98	34.17	100	42	A	H
CH 102		5468.24	68.83	-5.17	74	57.56	35.05	9.79	33.57	101	51	P	V
5510MHz		5468.56	51.24	-2.76	54	39.97	35.05	9.79	33.57	101	51	A	V
	*	5507	97.91	-	-	86.59	35.1	9.96	33.74	101	51	P	V
	*	5508	88.9	-	-	77.58	35.1	9.96	33.74	101	51	A	V
		5757.72	56	-18	74	44.96	35.26	9.98	34.2	101	51	P	V
		5726.6	42.85	-11.15	54	31.74	35.23	10.03	34.15	101	51	A	V

15E band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		11020	46.46	-27.54	74	51.85	37.91	14.24	57.54	100	0	P	H
		16530	48.64	-25.36	74	46.87	41.47	16.28	55.98	100	0	P	H
802.11n													H
HT40													H
CH 102		11020	46.18	-27.82	74	51.57	37.91	14.24	57.54	100	0	P	V
5510MHz		16530	48.75	-25.25	74	46.98	41.47	16.28	55.98	100	0	P	V
													V
													V

15E Emission below 1GHz

WIFI 802.11n HT40 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 LF		47.28	28.43	-11.57	40	49.51	9.45	0.67	31.2	132	274	P	H
		76.98	25.92	-14.08	40	49.39	6.87	0.86	31.2			P	H
		163.38	24.42	-19.08	43.5	44.42	9.94	1.22	31.16			P	H
		631.8	23.58	-22.42	46	30.94	20.4	2.78	30.54			P	H
		745.9	24.79	-21.21	46	30	22.14	3.05	30.4			P	H
		913.9	27.05	-18.95	46	30.33	23.68	3.37	30.33			P	H
													H
													H
													H
													H
													H
													H
		39.18	26.94	-13.06	40	43.09	14.44	0.61	31.2			P	V
		76.44	30.39	-9.61	40	53.86	6.87	0.86	31.2	188	78	P	V
		152.31	27.94	-15.56	43.5	47.1	10.76	1.21	31.13			P	V
		475	24.32	-21.68	46	35.2	17.55	2.37	30.8			P	V
		751.5	26.26	-19.74	46	31.5	22.1	3.06	30.4			P	V
		961.5	28.19	-25.81	54	30.36	24.71	3.47	30.35			P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

15E Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5146.55	66.52	-7.48	74	55.26	34.61	9.14	32.49	100	4	P	H
		5149.7	50.62	-3.38	54	39.36	34.61	9.14	32.49	100	4	A	H
	*	5182	109.38	-	-	98.11	34.66	9.13	32.52	100	4	P	H
	*	5182	99.67	-	-	88.4	34.66	9.13	32.52	100	4	A	H
													H
													H
		5148.05	64.06	-9.94	74	52.8	34.61	9.14	32.49	198	230	P	V
		5149.55	47.03	-6.97	54	35.77	34.61	9.14	32.49	198	230	A	V
	*	5182	104.62	-	-	93.35	34.66	9.13	32.52	198	230	P	V
	*	5182	95.17	-	-	83.9	34.66	9.13	32.52	198	230	A	V
													V
													V
802.11a CH 44 5220MHz		5067.8	60.93	-13.07	74	49.66	34.49	9.17	32.39	100	5	P	H
		5066.6	48.42	-5.58	54	37.11	34.49	9.17	32.35	100	5	A	H
	*	5218	110.02	-	-	98.7	34.7	9.17	32.55	100	5	P	H
	*	5218	99.7	-	-	88.38	34.7	9.17	32.55	100	5	A	H
		5367.27	58.5	-15.5	74	47.27	34.91	9.5	33.18	100	5	P	H
		5366.94	46.21	-7.79	54	34.98	34.91	9.5	33.18	100	5	A	H
		5139.35	56.04	-17.96	74	44.75	34.59	9.15	32.45	197	227	P	V
		5067.05	43.26	-10.74	54	31.95	34.49	9.17	32.35	197	227	A	V
	*	5218	105.66	-	-	94.34	34.7	9.17	32.55	197	227	P	V
	*	5218	96.09	-	-	84.77	34.7	9.17	32.55	197	227	A	V
		5376.51	56.17	-17.83	74	45.04	34.91	9.5	33.28	197	227	P	V
		5373.32	43.9	-10.1	54	32.77	34.91	9.5	33.28	197	227	A	V

802.11a CH 48 5240MHz		5091.65	60.43	-13.57	74	49.12	34.54	9.16	32.39	100	4	P	H
		5087	47.42	-6.58	54	36.13	34.52	9.16	32.39	100	4	A	H
	*	5238	110.52	-	-	99.21	34.73	9.23	32.65	100	4	P	H
	*	5238	100.17	-	-	88.86	34.73	9.23	32.65	100	4	A	H
		5394.55	57.39	-16.61	74	46.16	34.96	9.55	33.28	100	4	P	H
		5393.45	44.53	-9.47	54	33.32	34.94	9.55	33.28	100	4	A	H
		5086.25	56.71	-17.29	74	45.42	34.52	9.16	32.39	162	228	P	V
		5087.3	43.56	-10.44	54	32.27	34.52	9.16	32.39	162	228	A	V
	*	5242	104.56	-	-	93.23	34.75	9.23	32.65	162	228	P	V
	*	5242	95.33	-	-	84	34.75	9.23	32.65	162	228	A	V
		5387.18	56.6	-17.4	74	45.39	34.94	9.55	33.28	162	228	P	V
		5392.57	43.99	-10.01	54	32.78	34.94	9.55	33.28	162	228	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	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		10360	43.21	-30.79	74	50.98	37.22	13.88	58.87	100	0	P	H
		15540	45.01	-28.99	74	46.63	40.34	15.53	57.49	100	0	P	H
													H
													H
		10360	44.55	-29.45	74	52.32	37.22	13.88	58.87	100	0	P	V
		15540	45.19	-28.81	74	46.81	40.34	15.53	57.49	100	0	P	V
													V
													V
802.11a CH 44 5220MHz		10440	43.59	-30.41	74	51.29	37.26	13.92	58.88	100	0	P	H
		15660	44.17	-29.83	74	45.44	40.49	15.59	57.35	100	0	P	H
													H
													H
		10440	43.33	-30.67	74	51.03	37.26	13.92	58.88	100	0	P	V
		15660	44.81	-29.19	74	46.08	40.49	15.59	57.35	100	0	P	V
													V
													V
802.11a CH 48 5240MHz		10480	43.74	-30.26	74	51.4	37.29	13.94	58.89	100	0	P	H
		15720	45.51	-28.49	74	46.59	40.57	15.62	57.27	100	0	P	H
													H
													H
		10480	43.12	-30.88	74	50.78	37.29	13.94	58.89	100	0	P	V
		15720	45.35	-28.65	74	46.43	40.57	15.62	57.27	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E band 1 5150~5250MHz

WIFI 802.11n HT20(Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5147.45	64.17	-9.83	74	52.91	34.61	9.14	32.49	100	5	P	H
		5149.55	47.67	-6.33	54	36.41	34.61	9.14	32.49	100	5	A	H
	*	5183	107.43	-	-	96.16	34.66	9.13	32.52	100	5	P	H
	*	5183	98.12	-	-	86.85	34.66	9.13	32.52	100	5	A	H
802.11n													H
HT20													H
CH 36		5149.7	60.46	-13.54	74	49.2	34.61	9.14	32.49	198	231	P	V
5180MHz		5148.35	44.31	-9.69	54	33.05	34.61	9.14	32.49	198	231	A	V
	*	5178	102.25	-	-	90.98	34.66	9.13	32.52	198	231	P	V
	*	5178	92.87	-	-	81.6	34.66	9.13	32.52	198	231	A	V
													V
													V
		5069.3	59.18	-14.82	74	47.92	34.49	9.16	32.39	100	337	P	H
		5068.25	47.56	-6.44	54	36.3	34.49	9.16	32.39	100	337	A	H
	*	5220	109.47	-	-	98.15	34.7	9.17	32.55	100	337	P	H
	*	5220	100.03	-	-	88.71	34.7	9.17	32.55	100	337	A	H
802.11n		5365.95	59.44	-14.56	74	48.21	34.91	9.5	33.18	100	337	P	H
HT20		5366.5	47.68	-6.32	54	36.45	34.91	9.5	33.18	100	337	A	H
CH 44		5065.7	55.1	-18.9	74	43.79	34.49	9.17	32.35	196	229	P	V
5220MHz		5067.05	42.21	-11.79	54	30.9	34.49	9.17	32.35	196	229	A	V
	*	5219	102.49	-	-	91.17	34.7	9.17	32.55	196	229	P	V
	*	5219	92.62	-	-	81.3	34.7	9.17	32.55	196	229	A	V
		5412.37	55.84	-18.16	74	44.62	34.98	9.63	33.39	196	229	P	V
		5373.87	42.8	-11.2	54	31.67	34.91	9.5	33.28	196	229	A	V

802.11n HT20 CH 48 5240MHz		5092.55	59.73	-14.27	74	48.43	34.54	9.15	32.39	100	336	P	H
		5092.7	46.92	-7.08	54	35.62	34.54	9.15	32.39	100	336	A	H
	*	5238	109.12	-	-	97.81	34.73	9.23	32.65	100	336	P	H
	*	5238	99.37	-	-	88.06	34.73	9.23	32.65	100	336	A	H
		5386.52	58.78	-15.22	74	47.57	34.94	9.55	33.28	100	336	P	H
		5386.52	46.01	-7.99	54	34.8	34.94	9.55	33.28	100	336	A	H
		5054.3	55.55	-18.45	74	44.26	34.47	9.17	32.35	196	251	P	V
		5094.05	42.47	-11.53	54	31.2	34.54	9.15	32.42	196	251	A	V
	*	5240	101.22	-	-	89.91	34.73	9.23	32.65	196	251	P	V
	*	5240	91.77	-	-	80.46	34.73	9.23	32.65	196	251	A	V
		5413.8	55.65	-18.35	74	44.43	34.98	9.63	33.39	196	251	P	V
		5395.54	41.94	-12.06	54	30.71	34.96	9.55	33.28	196	251	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E band 1 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		10360	43.01	-30.99	74	50.78	37.22	13.88	58.87	100	0	P	H
		15540	44.96	-29.04	74	46.58	40.34	15.53	57.49	100	0	P	H
802.11n													H
HT20													H
CH 36		10360	43.84	-30.16	74	51.61	37.22	13.88	58.87	100	0	P	V
5180MHz		15540	45.31	-28.69	74	46.93	40.34	15.53	57.49	100	0	P	V
													V
													V
		10440	43.24	-30.76	74	50.94	37.26	13.92	58.88	100	0	P	H
		15660	44.69	-29.31	74	45.96	40.49	15.59	57.35	100	0	P	H
802.11n													H
HT20													H
CH 44		10440	42.72	-31.28	74	50.42	37.26	13.92	58.88	100	0	P	V
5220MHz		15660	44.79	-29.21	74	46.06	40.49	15.59	57.35	100	0	P	V
													V
													V
		10479	43.26	-30.74	74	50.92	37.29	13.94	58.89	100	0	P	H
		15720	45.74	-28.26	74	46.82	40.57	15.62	57.27	100	0	P	H
802.11n													H
HT20													H
CH 48		10479	43.87	-30.13	74	51.53	37.29	13.94	58.89	100	0	P	V
5240MHz		15720	45.07	-28.93	74	46.15	40.57	15.62	57.27	100	0	P	V
													V
													V

Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.

15E band 1 5150~5250MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 38 5190MHz		5144.3	71.47	-2.53	74	60.21	34.61	9.14	32.49	100	15	P	H
		5149.85	52.29	-1.71	54	41.03	34.61	9.14	32.49	100	15	A	H
	*	5188	106.12	-	-	94.85	34.66	9.13	32.52	100	15	P	H
	*	5188	96.23	-	-	84.96	34.66	9.13	32.52	100	15	A	H
		5354.29	56.63	-17.37	74	45.48	34.89	9.44	33.18	100	15	P	H
		5356.49	44.7	-9.3	54	33.49	34.89	9.5	33.18	100	15	A	H
		5149.25	63.28	-10.72	74	52.02	34.61	9.14	32.49	181	249	P	V
		5149.7	46.07	-7.93	54	34.81	34.61	9.14	32.49	181	249	A	V
	*	5193	99.2	-	-	87.92	34.68	9.12	32.52	181	249	P	V
	*	5193	89.4	-	-	78.12	34.68	9.12	32.52	181	249	A	V
		5412.81	55.38	-18.62	74	44.16	34.98	9.63	33.39	181	249	P	V
		5352.42	42.29	-11.71	54	31.14	34.89	9.44	33.18	181	249	A	V
802.11n HT40 CH 46 5230MHz		5146.1	61.15	-12.85	74	49.89	34.61	9.14	32.49	100	13	P	H
		5087	46.75	-7.25	54	35.46	34.52	9.16	32.39	100	13	A	H
	*	5230	105.59	-	-	94.34	34.73	9.17	32.65	100	13	P	H
	*	5230	95.93	-	-	84.68	34.73	9.17	32.65	100	13	A	H
		5373.65	56.81	-17.19	74	45.68	34.91	9.5	33.28	100	13	P	H
		5368.15	44.18	-9.82	54	32.95	34.91	9.5	33.18	100	13	A	H
		5078.3	56.18	-17.82	74	44.89	34.52	9.16	32.39	179	250	P	V
		5148.05	42.94	-11.06	54	31.68	34.61	9.14	32.49	179	250	A	V
	*	5230	98.84	-	-	87.59	34.73	9.17	32.65	179	250	P	V
	*	5230	89.36	-	-	78.11	34.73	9.17	32.65	179	250	A	V
		5379.37	55.63	-18.37	74	44.47	34.94	9.5	33.28	179	250	P	V
		5368.04	42.59	-11.41	54	31.36	34.91	9.5	33.18	179	250	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E band 1 5150~5250MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		10380	43.94	-30.06	74	51.69	37.23	13.89	58.87	100	0	P	H
		15570	46.23	-27.77	74	47.76	40.38	15.54	57.45	100	0	P	H
802.11n													H
HT40													H
CH 38		10380	43.06	-30.94	74	50.81	37.23	13.89	58.87	100	0	P	V
5190MHz		15570	46.65	-27.35	74	48.18	40.38	15.54	57.45	100	0	P	V
													V
													V
		10461	43.36	-30.64	74	51.03	37.28	13.93	58.88	100	0	P	H
		15690	45.25	-28.75	74	46.43	40.53	15.6	57.31	100	0	P	H
802.11n													H
HT40													H
CH 46		10461	43.32	-30.68	74	50.99	37.28	13.93	58.88	100	0	P	V
5230MHz		15690	45.12	-28.88	74	46.3	40.53	15.6	57.31	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E Band 2 - 5250~5350MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 52 5260MHz		5110.1	58.63	-15.37	74	47.34	34.56	9.15	32.42	100	3	P	H
		5114.45	46.94	-7.06	54	35.65	34.56	9.15	32.42	100	3	A	H
	*	5262	108.61	-	-	97.32	34.77	9.28	32.76	100	3	P	H
	*	5262	99.41	-	-	88.12	34.77	9.28	32.76	100	3	A	H
		5373.32	56.14	-17.86	74	45.01	34.91	9.5	33.28	100	3	P	H
		5405.33	43.62	-10.38	54	32.42	34.96	9.63	33.39	100	3	A	H
		5104.4	55.62	-18.38	74	44.35	34.54	9.15	32.42	195	228	P	V
		5107.1	42.61	-11.39	54	31.32	34.56	9.15	32.42	195	228	A	V
	*	5263	105.01	-	-	93.72	34.77	9.28	32.76	195	228	P	V
	*	5263	95.5	-	-	84.21	34.77	9.28	32.76	195	228	A	V
		5365.07	56.31	-17.69	74	45.08	34.91	9.5	33.18	195	228	P	V
		5406.21	43.05	-10.95	54	31.85	34.96	9.63	33.39	195	228	A	V
802.11a CH 60 5300MHz		5149.1	57.24	-16.76	74	45.98	34.61	9.14	32.49	110	349	P	H
		5147.9	44	-10	54	32.74	34.61	9.14	32.49	110	349	A	H
	*	5303	109.87	-	-	98.68	34.82	9.34	32.97	110	349	P	H
	*	5303	100.24	-	-	89.05	34.82	9.34	32.97	110	349	A	H
		5350.55	60.46	-13.54	74	49.31	34.89	9.44	33.18	110	349	P	H
		5350.44	47.37	-6.63	54	36.22	34.89	9.44	33.18	110	349	A	H
		5002.7	56.14	-17.86	74	44.84	34.4	9.19	32.29	190	226	P	V
		5146.25	42.35	-11.65	54	31.09	34.61	9.14	32.49	190	226	A	V
	*	5298	104.78	-	-	93.59	34.82	9.34	32.97	190	226	P	V
	*	5298	95.29	-	-	84.1	34.82	9.34	32.97	190	226	A	V
		5350.66	56.69	-17.31	74	45.54	34.89	9.44	33.18	190	226	P	V
		5350.11	44.3	-9.7	54	33.15	34.89	9.44	33.18	190	226	A	V

802.11a CH 64 5320MHz	*	5318	109.89	-	-	98.63	34.84	9.39	32.97	109	349	P	H
	*	5318	100.42	-	-	89.16	34.84	9.39	32.97	109	349	A	H
		5351.76	66.53	-7.47	74	55.38	34.89	9.44	33.18	109	349	P	H
		5350.22	51.14	-2.86	54	39.99	34.89	9.44	33.18	109	349	A	H
													H
													H
	*	5318	105.6	-	-	94.34	34.84	9.39	32.97	192	230	P	V
	*	5318	95.72	-	-	84.46	34.84	9.39	32.97	192	230	A	V
		5351.1	61.18	-12.82	74	50.03	34.89	9.44	33.18	192	230	P	V
		5350	46.43	-7.57	54	35.28	34.89	9.44	33.18	192	230	A	V
													V
													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	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 52 5260MHz		10520	43.89	-30.11	74	51.44	37.32	13.97	58.84	100	0	P	H
		15780	47.08	-26.92	74	48.02	40.63	15.65	57.22	100	0	P	H
													H
													H
		10520	42.77	-31.23	74	50.32	37.32	13.97	58.84	100	0	P	V
		15780	46.06	-27.94	74	47	40.63	15.65	57.22	100	0	P	V
													V
													V
802.11a CH 60 5300MHz		10600	42.01	-31.99	74	49.19	37.42	14.01	58.61	100	0	P	H
		15900	45.3	-28.7	74	45.88	40.78	15.72	57.08	100	0	P	H
													H
													H
		10600	42.26	-31.74	74	49.44	37.42	14.01	58.61	100	0	P	V
		15900	45.78	-28.22	74	46.36	40.78	15.72	57.08	100	0	P	V
													V
													V
802.11a CH 64 5320MHz		10640	41.94	-32.06	74	48.96	37.47	14.03	58.52	100	0	P	H
		15960	46.05	-27.95	74	46.45	40.86	15.74	57	100	0	P	H
													H
													H
		10640	41.9	-32.1	74	48.92	37.47	14.03	58.52	100	0	P	V
		15960	46.63	-27.37	74	47.03	40.86	15.74	57	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E band 2 5250~5350MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5114.45	58.84	-15.16	74	47.55	34.56	9.15	32.42	100	336	P	H
		5113.25	47.08	-6.92	54	35.79	34.56	9.15	32.42	100	336	A	H
	*	5262	108.22	-	-	96.93	34.77	9.28	32.76	100	336	P	H
	*	5262	99.02	-	-	87.73	34.77	9.28	32.76	100	336	A	H
802.11n		5405.22	56.81	-17.19	74	45.61	34.96	9.63	33.39	100	336	P	H
HT20		5406.43	44.2	-9.8	54	33	34.96	9.63	33.39	100	336	A	H
CH 52		5020.25	54.73	-19.27	74	43.45	34.42	9.18	32.32	177	251	P	V
5260MHz		5115.2	41.86	-12.14	54	30.57	34.56	9.15	32.42	177	251	A	V
	*	5259	99.38	-	-	88.14	34.77	9.23	32.76	177	251	P	V
	*	5259	90.01	-	-	78.77	34.77	9.23	32.76	177	251	A	V
		5384.32	55.65	-18.35	74	44.44	34.94	9.55	33.28	177	251	P	V
		5414.46	42.72	-11.28	54	31.5	34.98	9.63	33.39	177	251	A	V
		5148.65	57.27	-16.73	74	46.01	34.61	9.14	32.49	111	336	P	H
		5148.8	44.6	-9.4	54	33.34	34.61	9.14	32.49	111	336	A	H
	*	5298	108.08	-	-	96.89	34.82	9.34	32.97	111	336	P	H
	*	5298	98.79	-	-	87.6	34.82	9.34	32.97	111	336	A	H
802.11n		5350.33	58.04	-15.96	74	46.89	34.89	9.44	33.18	111	336	P	H
HT20		5350.44	45.32	-8.68	54	34.17	34.89	9.44	33.18	111	336	A	H
CH 60		5146.7	54.91	-19.09	74	43.65	34.61	9.14	32.49	159	251	P	V
5300MHz		5146.1	41.78	-12.22	54	30.52	34.61	9.14	32.49	159	251	A	V
	*	5300	100.94	-	-	89.75	34.82	9.34	32.97	159	251	P	V
	*	5300	90.99	-	-	79.8	34.82	9.34	32.97	159	251	A	V
		5451.2	55.25	-18.75	74	44.08	35.03	9.71	33.57	159	251	P	V
		5351.54	42.58	-11.42	54	31.43	34.89	9.44	33.18	159	251	A	V

	*	5320	108.13	-	-	96.87	34.84	9.39	32.97	110	352	P	H
	*	5320	97.49	-	-	86.23	34.84	9.39	32.97	110	352	A	H
		5351.87	63.06	-10.94	74	51.91	34.89	9.44	33.18	110	352	P	H
		5350.55	47.73	-6.27	54	36.58	34.89	9.44	33.18	110	352	A	H
802.11n													H
HT20													H
CH 64	*	5320	97.8	-	-	86.54	34.84	9.39	32.97	100	330	P	V
5320MHz	*	5320	88.65	-	-	77.39	34.84	9.39	32.97	100	330	A	V
		5350.11	55.95	-18.05	74	44.8	34.89	9.44	33.18	100	330	P	V
		5352.09	43.37	-10.63	54	32.22	34.89	9.44	33.18	100	330	A	V
													V
													V

Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.

15E band 2 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		10521	43.39	-30.61	74	50.94	37.32	13.97	58.84	100	0	P	H
		15780	46.83	-27.17	74	47.77	40.63	15.65	57.22	100	0	P	H
802.11n													H
HT20													H
CH 52		10521	43.29	-30.71	74	50.84	37.32	13.97	58.84	100	0	P	V
5260MHz		15780	46.35	-27.65	74	47.29	40.63	15.65	57.22	100	0	P	V
													V
													V
		10600	42.7	-31.3	74	49.88	37.42	14.01	58.61	100	0	P	H
		15840	45.44	-28.56	74	46.19	40.71	15.68	57.14	100	0	P	H
802.11n													H
HT20													H
CH 60		10599	41.81	-32.19	74	48.99	37.42	14.01	58.61	100	0	P	V
5300MHz		15840	45.54	-28.46	74	46.29	40.71	15.68	57.14	100	0	P	V
													V
													V
		10641	42.48	-31.52	74	49.5	37.47	14.03	58.52	100	0	P	H
		15960	45.75	-28.25	74	46.15	40.86	15.74	57	100	0	P	H
802.11n													H
HT20													H
CH 64		10641	42.29	-31.71	74	49.31	37.47	14.03	58.52	100	0	P	V
5320MHz		15960	46.84	-27.16	74	47.24	40.86	15.74	57	100	0	P	V
													V
													V

Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.

15E band 2 5250~5350MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 54 5270MHz		5137.55	59.13	-14.87	74	47.84	34.59	9.15	32.45	100	17	P	H
		5133.35	46.81	-7.19	54	35.52	34.59	9.15	32.45	100	17	A	H
	*	5270	104.36	-	-	93.07	34.77	9.28	32.76	100	17	P	H
	*	5270	94.71	-	-	83.42	34.77	9.28	32.76	100	17	A	H
		5365.84	56.88	-17.12	74	45.65	34.91	9.5	33.18	100	17	P	H
		5351.87	43.49	-10.51	54	32.34	34.89	9.44	33.18	100	17	A	H
		5125.85	55.16	-18.84	74	43.87	34.59	9.15	32.45	160	247	P	V
		5135.45	42.28	-11.72	54	30.99	34.59	9.15	32.45	160	247	A	V
	*	5270	96.5	-	-	85.21	34.77	9.28	32.76	160	247	P	V
	*	5270	87.3	-	-	76.01	34.77	9.28	32.76	160	247	A	V
		5373.32	54.89	-19.11	74	43.76	34.91	9.5	33.28	160	247	P	V
		5352.75	42.7	-11.3	54	31.55	34.89	9.44	33.18	160	247	A	V
802.11n HT40 CH 62 5310MHz		5138.45	54.9	-19.1	74	43.61	34.59	9.15	32.45	111	337	P	H
		5144	42.97	-11.03	54	31.71	34.61	9.14	32.49	111	337	A	H
	*	5308	104.77	-	-	93.53	34.82	9.39	32.97	111	337	P	H
	*	5308	94.65	-	-	83.41	34.82	9.39	32.97	111	337	A	H
		5351.76	70.52	-3.48	74	59.37	34.89	9.44	33.18	111	337	P	H
		5350	51.47	-2.53	54	40.32	34.89	9.44	33.18	111	337	A	H
		5007.05	55.22	-18.78	74	43.9	34.42	9.19	32.29	160	248	P	V
		5145.8	42.15	-11.85	54	30.89	34.61	9.14	32.49	160	248	A	V
	*	5312	97.48	-	-	86.22	34.84	9.39	32.97	160	248	P	V
	*	5312	88.31	-	-	77.05	34.84	9.39	32.97	160	248	A	V
		5354.4	63.48	-10.52	74	52.33	34.89	9.44	33.18	160	248	P	V
		5351.1	46.25	-7.75	54	35.1	34.89	9.44	33.18	160	248	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E band 2 5250~5350MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		10539	42.86	-31.14	74	50.35	37.34	13.97	58.8	100	0	P	H
		15810	45.87	-28.13	74	46.71	40.67	15.67	57.18	100	0	P	H
802.11n													H
HT40													H
CH 54		10539	43.81	-30.19	74	51.3	37.34	13.97	58.8	100	0	P	V
5270MHz		15810	46.13	-27.87	74	46.97	40.67	15.67	57.18	100	0	P	V
													V
													V
		10620	41.77	-32.23	74	48.88	37.44	14.02	58.57	100	0	P	H
		15930	45.73	-28.27	74	46.22	40.82	15.73	57.04	100	0	P	H
802.11n													H
HT40													H
CH 62		10620	41.71	-32.29	74	48.82	37.44	14.02	58.57	100	0	P	V
5310MHz		15930	47.02	-26.98	74	47.51	40.82	15.73	57.04	100	0	P	V
													V
													V

Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.

15E Band 3 - 5470~5725MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 100 5500MHz		5462.8	70.39	-3.61	74	59.12	35.05	9.79	33.57	118	167	P	H
		5470	51.34	-2.66	54	40.07	35.05	9.79	33.57	118	167	A	H
	*	5502	108.44	-	-	97.12	35.1	9.96	33.74	118	167	P	H
	*	5502	98.92	-	-	87.6	35.1	9.96	33.74	118	167	A	H
													H
													H
		5469.84	67.01	-6.99	74	55.74	35.05	9.79	33.57	150	110	P	V
		5469.84	48.64	-5.36	54	37.37	35.05	9.79	33.57	150	110	A	V
	*	5502	104.56	-	-	93.24	35.1	9.96	33.74	150	110	P	V
	*	5502	95.19	-	-	83.87	35.1	9.96	33.74	150	110	A	V
													V
													V
802.11a CH 116 5580MHz		5436.24	57.94	-16.06	74	46.7	35.01	9.71	33.48	105	355	P	H
		5358.96	45.34	-8.66	54	34.13	34.89	9.5	33.18	105	355	A	H
	*	5578	110.02	-	-	98.69	35.14	10.2	34.01	105	355	P	H
	*	5578	100.54	-	-	89.21	35.14	10.2	34.01	105	355	A	H
		5727.48	55.09	-18.91	74	43.98	35.23	10.03	34.15	105	355	P	H
		5761.16	41.73	-12.27	54	30.69	35.26	9.98	34.2	105	355	A	H
		5399.44	56.6	-17.4	74	45.48	34.96	9.55	33.39	195	236	P	V
		5359.28	42.81	-11.19	54	31.6	34.89	9.5	33.18	195	236	A	V
	*	5578	104.62	-	-	93.29	35.14	10.2	34.01	195	236	P	V
	*	5578	95.35	-	-	84.02	35.14	10.2	34.01	195	236	A	V
		5735.72	55.28	-18.72	74	44.18	35.24	10.03	34.17	195	236	P	V
		5759.24	41.7	-12.3	54	30.66	35.26	9.98	34.2	195	236	A	V

802.11a CH 140 5700MHz	*	5698	107.09	-	-	95.92	35.21	10.08	34.12	102	356	P	H
	*	5698	97.19	-	-	86.02	35.21	10.08	34.12	102	356	A	H
		5727	72.42	-1.58	74	61.31	35.23	10.03	34.15	102	356	P	H
		5725.16	52.23	-1.77	54	41.12	35.23	10.03	34.15	102	356	A	H
													H
													H
	*	5698	101.52	-	-	90.35	35.21	10.08	34.12	176	233	P	V
	*	5698	91.85	-	-	80.68	35.21	10.08	34.12	176	233	A	V
		5725.88	66.32	-7.68	74	55.21	35.23	10.03	34.15	176	233	P	V
		5725.08	48.16	-5.84	54	37.05	35.23	10.03	34.15	176	233	A	V
													V
													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	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 100 5500MHz		11000	44.32	-29.68	74	49.75	37.9	14.23	57.56	100	0	P	H
		16500	47.48	-26.52	74	45.79	41.4	16.26	55.97	100	0	P	H
													H
													H
		11000	44.98	-29.02	74	50.41	37.9	14.23	57.56	100	0	P	V
		16500	47.93	-26.07	74	46.24	41.4	16.26	55.97	100	0	P	V
													V
													V
802.11a CH 116 5580MHz		11160	45.37	-28.63	74	50.42	38	14.31	57.36	100	0	P	H
		16740	48.25	-25.75	74	45.93	41.88	16.49	56.05	100	0	P	H
													H
													H
		11160	45.48	-28.52	74	50.53	38	14.31	57.36	100	0	P	V
		16740	47.23	-26.77	74	44.91	41.88	16.49	56.05	100	0	P	V
													V
													V
802.11a CH 140 5700MHz		11400	45.92	-28.08	74	50.41	38.14	14.44	57.07	100	0	P	H
		17100	49	-25	74	45.99	42.32	16.85	56.16	100	0	P	H
													H
													H
		11400	46.12	-27.88	74	50.61	38.14	14.44	57.07	100	0	P	V
		17100	48.47	-25.53	74	45.46	42.32	16.85	56.16	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5468.72	62.91	-11.09	74	51.64	35.05	9.79	33.57	103	49	P	H
		5469.36	47.98	-6.02	54	36.71	35.05	9.79	33.57	103	49	A	H
	*	5498	105.51	-	-	94.2	35.1	9.87	33.66	103	49	P	H
	*	5498	95.9	-	-	84.59	35.1	9.87	33.66	103	49	A	H
802.11n													H
HT20													H
CH 100		5466.32	59.61	-14.39	74	48.34	35.05	9.79	33.57	184	231	P	V
5500MHz		5469.2	45.05	-8.95	54	33.78	35.05	9.79	33.57	184	231	A	V
	*	5498	101.04	-	-	89.73	35.1	9.87	33.66	184	231	P	V
	*	5498	90.37	-	-	79.06	35.1	9.87	33.66	184	231	A	V
													V
													V
		5465.04	57.71	-16.29	74	46.44	35.05	9.79	33.57	102	20	P	H
		5351.6	45.06	-8.94	54	33.91	34.89	9.44	33.18	102	20	A	H
	*	5582	108.4	-	-	97.06	35.15	10.2	34.01	102	20	P	H
	*	5582	98.92	-	-	87.58	35.15	10.2	34.01	102	20	A	H
802.11n		5762.12	55.52	-18.48	74	44.48	35.26	9.98	34.2	102	20	P	H
HT20		5760.28	41.94	-12.06	54	30.9	35.26	9.98	34.2	102	20	A	H
CH 116		5450.8	54.88	-19.12	74	43.71	35.03	9.71	33.57	136	66	P	V
5580MHz		5406.64	41.93	-12.07	54	30.73	34.96	9.63	33.39	136	66	A	V
	*	5578	97.85	-	-	86.52	35.14	10.2	34.01	136	66	P	V
	*	5578	88.76	-	-	77.43	35.14	10.2	34.01	136	66	A	V
		5729.08	55.36	-18.64	74	44.25	35.23	10.03	34.15	136	66	P	V
		5761.4	41.43	-12.57	54	30.39	35.26	9.98	34.2	136	66	A	V

	*	5699	106.99	-	-	95.82	35.21	10.08	34.12	100	19	P	H
	*	5699	97.07	-	-	85.9	35.21	10.08	34.12	100	19	A	H
		5727.24	70.24	-3.76	74	59.13	35.23	10.03	34.15	100	19	P	H
		5725.08	51.6	-2.4	54	40.49	35.23	10.03	34.15	100	19	A	H
802.11n													H
HT20													H
CH 140	*	5699	99.1	-	-	87.93	35.21	10.08	34.12	174	231	P	V
5700MHz	*	5699	89.91	-	-	78.74	35.21	10.08	34.12	174	231	A	V
		5725.8	63.28	-10.72	74	52.17	35.23	10.03	34.15	174	231	P	V
		5725.16	46.38	-7.62	54	35.27	35.23	10.03	34.15	174	231	A	V
													V
													V

Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.

15E band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		11001	44.23	-29.77	74	49.66	37.9	14.23	57.56	100	0	P	H
		16500	47.26	-26.74	74	45.57	41.4	16.26	55.97	100	0	P	H
802.11n													H
HT20													H
CH 100		11001	44.76	-29.24	74	50.19	37.9	14.23	57.56	100	0	P	V
5500MHz		16500	46.87	-27.13	74	45.18	41.4	16.26	55.97	100	0	P	V
													V
													V
		11160	44.75	-29.25	74	49.8	38	14.31	57.36	100	0	P	H
		16740	46.82	-27.18	74	44.5	41.88	16.49	56.05	100	0	P	H
802.11n													H
HT20													H
CH 116		11160	44.2	-29.8	74	49.25	38	14.31	57.36	100	0	P	V
5580MHz		16740	46.78	-27.22	74	44.46	41.88	16.49	56.05	100	0	P	V
													V
													V
		11400	45.11	-28.89	74	49.6	38.14	14.44	57.07	100	0	P	H
		17100	48.77	-25.23	74	45.76	42.32	16.85	56.16	100	0	P	H
802.11n													H
HT20													H
CH 140		11400	45.22	-28.78	74	49.71	38.14	14.44	57.07	100	0	P	V
5700MHz		17100	48.6	-25.4	74	45.59	42.32	16.85	56.16	100	0	P	V
													V
													V

Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.

15E band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5468.08	68.94	-5.06	74	57.67	35.05	9.79	33.57	106	359	P	H
		5469.36	53.57	-0.43	54	42.3	35.05	9.79	33.57	106	359	A	H
	*	5506	102.31	-	-	90.99	35.1	9.96	33.74	106	359	P	H
	*	5506	92.52	-	-	81.2	35.1	9.96	33.74	106	359	A	H
802.11n		5758.12	55.45	-18.55	74	44.41	35.26	9.98	34.2	106	359	P	H
HT40		5761.4	41.93	-12.07	54	30.89	35.26	9.98	34.2	106	359	A	H
CH 102		5466.16	65.56	-8.44	74	54.29	35.05	9.79	33.57	200	231	P	V
5510MHz		5470	50.07	-3.93	54	38.8	35.05	9.79	33.57	200	231	A	V
	*	5507	98.64	-	-	87.32	35.1	9.96	33.74	200	231	P	V
	*	5507	88.75	-	-	77.43	35.1	9.96	33.74	200	231	A	V
		5755.56	56.03	-17.97	74	44.96	35.26	9.98	34.17	200	231	P	V
		5762.2	41.96	-12.04	54	30.92	35.26	9.98	34.2	200	231	A	V
		5465.52	62.03	-11.97	74	50.76	35.05	9.79	33.57	103	22	P	H
		5469.84	48.89	-5.11	54	37.62	35.05	9.79	33.57	103	22	A	H
	*	5548	104.49	-	-	93.07	35.13	10.12	33.83	103	22	P	H
	*	5548	94.88	-	-	83.23	35.13	10.12	33.83	103	22	A	H
802.11n		5753.16	54.88	-19.12	74	43.81	35.26	9.98	34.17	103	22	P	H
HT40		5759.56	42.19	-11.81	54	31.15	35.26	9.98	34.2	103	22	A	H
CH 110		5455.44	55.37	-18.63	74	44.12	35.03	9.79	33.57	167	99	P	V
5550MHz		5468.72	42.49	-11.51	54	31.22	35.05	9.79	33.57	167	99	A	V
	*	5550	95.51	-	-	84.09	35.13	10.12	33.83	167	99	P	V
	*	5550	85.7	-	-	74.28	35.13	10.12	33.83	167	99	A	V
		5763.48	54.58	-19.42	74	43.54	35.26	9.98	34.2	167	99	P	V
		5758.12	41.92	-12.08	54	30.88	35.26	9.98	34.2	167	99	A	V

		5432.24	57.95	-16.05	74	46.71	35.01	9.71	33.48	101	17	P	H
		5458.8	46.06	-7.94	54	34.81	35.03	9.79	33.57	101	17	A	H
	*	5668	104.36	-	-	93.07	35.2	10.18	34.09	101	17	P	H
	*	5668	95.51	-	-	84.22	35.2	10.18	34.09	101	17	A	H
802.11n		5725.16	64.63	-9.37	74	53.52	35.23	10.03	34.15	101	17	P	H
HT40		5725.48	48.79	-5.21	54	37.68	35.23	10.03	34.15	101	17	A	H
CH 134		5441.36	55.2	-18.8	74	43.96	35.01	9.71	33.48	176	234	P	V
5670MHz		5440.56	43.16	-10.84	54	31.92	35.01	9.71	33.48	176	234	A	V
	*	5668	97.13	-	-	85.84	35.2	10.18	34.09	176	234	P	V
	*	5668	88.13	-	-	76.84	35.2	10.18	34.09	176	234	A	V
		5726.76	57.96	-16.04	74	46.85	35.23	10.03	34.15	176	234	P	V
		5725	43.91	-10.09	54	32.8	35.23	10.03	34.15	176	234	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 HT40 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		11019	45.28	-28.72	74	50.68	37.91	14.23	57.54	100	0	P	H
		16530	47.42	-26.58	74	45.65	41.47	16.28	55.98	100	0	P	H
802.11n													H
HT40													H
CH 102		11019	44.58	-29.42	74	49.98	37.91	14.23	57.54	100	0	P	V
5510MHz		16530	46.09	-27.91	74	44.32	41.47	16.28	55.98	100	0	P	V
													V
													V
		11100	45.56	-28.44	74	50.76	37.96	14.28	57.44	100	0	P	H
		16650	46.66	-27.34	74	44.57	41.71	16.4	56.02	100	0	P	H
802.11n													H
HT40													H
CH 110		11100	44.85	-29.15	74	50.05	37.96	14.28	57.44	100	0	P	V
5550MHz		16650	46.77	-27.23	74	44.68	41.71	16.4	56.02	100	0	P	V
													V
													V
		11340	44.59	-29.41	74	49.22	38.1	14.42	57.15	100	0	P	H
		17010	47.15	-26.85	74	44.14	42.39	16.75	56.13	100	0	P	H
802.11n													H
HT40													H
CH 134		11340	44.71	-29.29	74	49.34	38.1	14.42	57.15	100	0	P	V
5670MHz		17010	46.34	-27.66	74	43.33	42.39	16.75	56.13	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E Emission below 1GHz

WIFI 802.11n HT40 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 LF		47.55	25.4	-14.6	40	46.48	9.45	0.67	31.2	110	344	P	H
		133.14	21.92	-21.58	43.5	40.16	11.7	1.16	31.1			P	H
		250.59	22.5	-23.5	46	39.57	12.4	1.53	31			P	H
		568.1	21.28	-24.72	46	29.66	19.75	2.6	30.73			P	H
		645.1	23.09	-22.91	46	30.37	20.4	2.83	30.51			P	H
		862.8	26.18	-19.82	46	30.12	23.14	3.29	30.37			P	H
													H
													H
													H
													H
													H
													H
		45.93	29.13	-10.87	40	49.52	10.15	0.66	31.2	133	158	P	V
		66.99	25.25	-14.75	40	49.51	6.16	0.82	31.24			P	V
		135.03	24.64	-18.86	43.5	43.07	11.5	1.17	31.1			P	V
		620.6	21.42	-24.58	46	29.01	20.22	2.75	30.56			P	V
		780.2	22.83	-23.17	46	28.06	22	3.11	30.34			P	V
		967.1	26.47	-27.53	54	28.55	24.77	3.48	30.33			P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

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

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

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

1. Level(dBμV/m) =

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

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

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 43.54 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

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