

FCC/IC RF Test Report

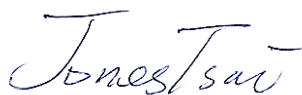
APPLICANT : Hon Hai Precision Industry Co., Ltd.
EQUIPMENT : 802.11a/b/g/n/ac 2T2R WLAN Module
BRAND NAME : Foxconn
MODEL NAME : WFUR6
FCC ID : RX3-WFUR6
IC : 2878F-WFUR6
STANDARD : FCC Part 15 Subpart E §15.407
IC RSS-210 issue 8
CLASSIFICATION : (NII) Unlicensed National Information Infrastructure

The product was received on Feb. 06, 2014 and testing was completed on Mar. 15, 2014. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the procedures and shown to be compliant 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.

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FCC ID : RX3-WFUR6

IC: 2878F-WFUR6

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR420682B	Rev. 01	Initial issue of report	Mar. 28, 2014
FR420682B	Rev. 02	Revising applied standards in section 1.7	Apr. 09, 2014

SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	15.403(i)	RSS-210 A9.2	26dB & 99% Bandwidth	-	Pass	-
3.1.6	15.407(a)	RSS-210 A9.2	Maximum Conducted Output Power	$\leq 17, 24, 30$ dBm (depend on band)	Pass	-
3.3	15.407(a)	RSS-210 A9.2	Power Spectral Density	$\leq 4, 11, 17$ dBm (depend on band)	Pass	-
3.4	15.407(a)(6)	RSS-210 A9.3	Peak Excursion Ratio	≤ 13 dB	Pass	-
3.5	15.407(b)	RSS-210 A9.3	Unwanted Emissions	$\leq -17, -27$ dBm (depend on band)&15.209(a)	Pass	Under limit 1.07 dB at 5150.000 MHz
3.6	15.207	RSS-Gen 7.2.4	AC Conducted Emission	15.207(a)	Pass	Under limit 11.60 dB at 0.174 MHz
3.7	15.407(g)	-	Frequency Stability	Within Operation Band	Pass	-
3.8	15.407(c)	RSS-210 A9.4	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-
3.9	15.203 & 15.407(a)	RSS-210 A9.2	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

Hon Hai Precision Industry Co., Ltd.

No. 151, Sec.1, Nankan Rd., Lujhu Township, Taoyuan County 33859, Taiwan(R.O.C)

1.2 Manufacturer

Hon Hai Precision Industry Co., Ltd.

No. 151, Sec.1, Nankan Rd., Lujhu Township, Taoyuan County 33859, Taiwan(R.O.C)

1.3 Feature of Equipment Under Test

Product Feature	
Equipment	802.11a/b/g/n/ac 2T2R WLAN Module
Brand Name	Foxconn
Model Name	WFUR6
FCC ID	RX3-WFUR6
IC	2878F-WFUR6
EUT supports Radios application	WLAN 11bgn (HT20/HT40) WLAN 11an (HT20/HT40) WLAN 11ac (VHT20/VHT40/VHT80)
EUT Stage	Identical Prototype

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

1.4 Product Specification of Equipment Under Test

Product Specification subjective to this standard	
Tx/Rx Channel Frequency Range	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5580 MHz and 5660 MHz ~ 5700 MHz
Maximum Output Power	<5180 MHz ~ 5240 MHz> <Ant. 1> 802.11a : 14.42 dBm / 0.0277 W SISO <Ant. Port 1> 802.11n HT20 : 15.86 dBm / 0.0385 W 802.11n HT40 : 15.13 dBm / 0.0326 W 802.11ac VHT20: 15.84 dBm / 0.0384 W 802.11ac VHT40: 15.09 dBm / 0.0323 W 802.11ac VHT80: 13.62 dBm / 0.0230 W <Ant. 2> 802.11a : 14.44 dBm / 0.0278 W SISO <Ant. Port 2> 802.11n HT20 : 15.87 dBm / 0.0386 W 802.11n HT40 : 15.48 dBm / 0.0353 W 802.11ac VHT20: 15.86 dBm / 0.0385 W 802.11ac VHT40: 15.21 dBm / 0.0332 W 802.11ac VHT80: 13.63 dBm / 0.0231 W MIMO <Ant. Port 1 + 2> 802.11n HT20 : 15.27 dBm / 0.0337 W 802.11n HT40 : 16.44 dBm / 0.0441 W 802.11ac VHT20: 15.49 dBm / 0.0354 W 802.11ac VHT40: 18.13 dBm / 0.0650 W 802.11ac VHT80: 14.66 dBm / 0.0292 W

Product Specification subjective to this standard	
Maximum Output Power	<5260 MHz ~ 5320 MHz> <Ant. 1> 802.11a : 14.39 dBm / 0.0275 W SISO <Ant. Port 1> 802.11n HT20 : 15.95 dBm / 0.0394 W 802.11n HT40 : 15.41 dBm / 0.0348 W 802.11ac VHT20: 15.94 dBm / 0.0393 W 802.11ac VHT40: 15.29 dBm / 0.0338 W 802.11ac VHT80: 13.61 dBm / 0.0230 W <Ant. 2> 802.11a : 14.49 dBm / 0.0281 W SISO <Ant. Port 2> 802.11n HT20 : 15.98 dBm / 0.0396 W 802.11n HT40 : 15.47 dBm / 0.0352 W 802.11ac VHT20: 15.95 dBm / 0.0394 W 802.11ac VHT40: 15.40 dBm / 0.0347 W 802.11ac VHT80: 13.67 dBm / 0.0233 W MIMO <Ant. Port 1 + 2> 802.11n HT20 : 15.34 dBm / 0.0342 W 802.11n HT40 : 16.46 dBm / 0.0443 W 802.11ac VHT20: 15.47 dBm / 0.0352 W 802.11ac VHT40: 18.37 dBm / 0.0687 W 802.11ac VHT80: 14.82 dBm / 0.0303 W
	<5500 MHz ~ 5580 MHz and 5660 MHz ~ 5700 MHz> <Ant. 1> 802.11a : 14.43 dBm / 0.0277 W SISO <Ant. Port 1> 802.11n HT20 : 15.90 dBm / 0.0389 W 802.11n HT40 : 15.31 dBm / 0.0340 W 802.11ac VHT20: 15.88 dBm / 0.0387 W 802.11ac VHT40: 15.31 dBm / 0.0340 W 802.11ac VHT80: 13.81 dBm / 0.0240 W <Ant. 2> 802.11a : 14.49 dBm / 0.0281 W SISO <Ant. Port 2> 802.11n HT20 : 15.96 dBm / 0.0394 W 802.11n HT40 : 15.48 dBm / 0.0353 W 802.11ac VHT20: 15.91 dBm / 0.0390 W 802.11ac VHT40: 15.44 dBm / 0.0350 W 802.11ac VHT80: 12.09 dBm / 0.0162 W MIMO <Ant. Port 1 + 2> 802.11n HT20 : 15.40 dBm / 0.0347 W 802.11n HT40 : 16.38 dBm / 0.0435 W 802.11ac VHT20: 15.33 dBm / 0.0341 W 802.11ac VHT40: 18.23 dBm / 0.0665 W 802.11ac VHT80: 14.74 dBm / 0.0298 W

Product Specification subjective to this standard			
99% Occupied Bandwidth	802.11a : 18.45 MHz		
	802.11n HT20 : 19.00 MHz		
	802.11n HT40 : 36.90 MHz		
	802.11ac VHT20 : 19.20 MHz		
	802.11ac VHT40 : 36.99 MHz		
	802.11ac VHT80 : 76.32 MHz		
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)		
	802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)		
Antenna Type / Gain	Please see below antenna information		
Antenna Function Description		Chain Port 1	Chain Port 2
	802.11 a	V	V
	802.11 n/ac SISO	V	V
	802.11 n/ac MIMO	V	V

Antenna Information			
Antenna 1 (Vizio_P60)	Manufacturer	Hon Hai Precision Industry Co., Ltd.	
	Antenna Type	Main : PIFA Antenna	Aux. : PIFA Antenna
	Peak Gain	Main : WLAN (2.4GHz): 3.42dBi WLAN (5GHz Band1): 1.5dBi WLAN (5GHz Band2): 1.5dBi WLAN (5GHz Band3): 1.19dBi WLAN (5GHz Band4): 3.86dBi	Aux. : WLAN (2.4GHz): 2.62dBi WLAN (5GHz Band1): 2.48dBi WLAN (5GHz Band2): 2.48dBi WLAN (5GHz Band3): 2.75dBi WLAN (5GHz Band4): 1.91dBi
	Antenna No.	Main : FX5526-11-001-C-TB00	Aux. : FX5526-11-002-C-TB00
Antenna 2 (Vizio_P70)	Manufacturer	Hon Hai Precision Industry Co., Ltd.	
	Antenna Type	Main : PIFA Antenna	Aux. : PIFA Antenna
	Peak Gain	Main : WLAN (2.4GHz): 3.33dBi WLAN (5GHz Band1): 2.42dBi WLAN (5GHz Band2): 2.42dBi WLAN (5GHz Band3): 2.31dBi WLAN (5GHz Band4): -0.7dBi	Aux. : WLAN (2.4GHz): 3.47dBi WLAN (5GHz Band1): 4.66dBi WLAN (5GHz Band2): 4.66dBi WLAN (5GHz Band3): 3.57dBi WLAN (5GHz Band4): 3.34dBi
	Antenna No.	Main : FX5541-11-001-C-TB00	Aux. : FX5541-11-002-C-TB00

Remark:

- All the tests were performed with Antenna 2.
- RSE tests were performed with Antenna set 2 (Vizio_P70) and verified Antenna set 1 (Vizio_P60). Only the worst case was reported.

1.5 Modification of EUT

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

1.6 Testing Site

Test Site	SPORTON INTERNATIONAL INC.			
Test Site Location	No. 52, Hwa Ya 1 st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL: +886-3-3273456 / FAX: +886-3-3284978			
Test Site No.	Sporton Site No.			FCC/IC Registration No.
	TH02-HY	CO05-HY	03CH06-HY	722060/4086B-1

The test site complies with ANSI C63.4 2003 requirement.

1.7 Applied 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 D01 General UNII Test Procedures v01r03
- ♦ FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ♦ FCC KDB 644545 D01 Guidance for IEEE 802.11ac v01r02.
- ♦ ANSI C63.4-2003
- ♦ IC RSS-210 Issued 8
- ♦ IC RSS-Gen Issue 3
- ♦ NOTICE 2012-DRS0126

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.
3. Per the section 2.2.3 of Notice of 2012-DRS0126, "Receivers Excluded from Industry Canada Requirements", only radiocommunication receivers operating in stand-alone mode within the band 30-960 MHz and scanner receivers are subject to Industry Canada requirements.



2 Test Configuration of Equipment Under Test

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

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

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

2.1 Carrier Frequency and Channel

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

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

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5470-5600 MHz and 5650-5725 MHz Band 3 (U-NII-2C)	100	5500	112	5560
	102	5510	116	5580
	104	5520	132	5660
	106	5530	134	5670
	108	5540	136	5680
	110	5550	140	5700

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

2.2 Pre-Scanned RF Power

Preliminary tests were performed in different data rate and data rate associated with the highest power were chosen for full test in the following tables.

Ant. 2 (Aux) is chosen for the final conducted and radiated test for 1TX/SISO mode due to higher conducted power and gain against Ant. 1(Main).

<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)	14.43	14.41	14.38	14.40	14.42	14.35	14.39	14.38

SISO <Ant. Port 1>

5GHz 802.11n HT20 mode								
Data Rate (MHz)	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Average Power (dBm)	15.95	15.93	15.91	15.90	15.93	15.89	15.87	15.85

5GHz 802.11n HT40 mode								
Data Rate (MHz)	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Average Power (dBm)	15.41	15.40	15.35	15.33	15.38	15.40	15.39	15.35

5GHz 802.11ac VHT20 mode									
Data Rate (MHz)	MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8
Average Power (dBm)	15.94	15.90	15.90	15.91	15.92	15.91	15.90	15.91	15.89

5GHz 802.11ac VHT40 mode										
Data Rate (MHz)	MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8	MCS 9
Average Power (dBm)	15.31	15.30	15.28	15.25	15.29	15.30	15.27	15.26	15.27	15.28

5GHz 802.11ac VHT80 mode										
Data Rate (MHz)	MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8	MCS 9
Average Power (dBm)	13.81	13.78	13.71	13.73	13.61	13.65	13.63	13.61	13.62	13.63

<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)	14.49	14.44	14.39	14.47	14.40	14.34	14.36	14.32

SISO <Ant. Port 2>

5GHz 802.11n HT20 mode								
Data Rate (MHz)	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Average Power (dBm)	15.98	15.95	15.93	15.91	15.90	15.96	15.95	15.93

5GHz 802.11n HT40 mode								
Data Rate (MHz)	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Average Power (dBm)	15.48	15.45	15.46	15.43	15.41	15.42	15.45	15.46

5GHz 802.11ac VHT20 mode									
Data Rate (MHz)	MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8
Average Power (dBm)	15.95	15.90	15.92	15.91	15.92	15.93	15.93	15.91	15.86

5GHz 802.11ac VHT40 mode										
Data Rate (MHz)	MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8	MCS 9
Average Power (dBm)	15.44	15.41	15.40	15.43	15.42	15.35	15.37	15.38	15.36	15.40

5GHz 802.11ac VHT80 mode										
Data Rate (MHz)	MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8	MCS 9
Average Power (dBm)	13.67	13.66	13.61	13.65	13.53	13.58	13.54	13.53	13.51	13.45

MIMO <Ant. 1+2>

5GHz 802.11n HT20 mode								
Data Rate (MHz)	MCS8	MCS9	MCS10	MCS 11	MCS12	MCS13	MCS14	MCS15
Average Power (dBm)	15.40	15.28	15.30	15.36	15.28	15.24	15.23	15.24

5GHz 802.11n HT40 mode								
Data Rate (MHz)	MCS8	MCS9	MCS10	MCS 11	MCS12	MCS13	MCS14	MCS15
Average Power (dBm)	16.46	16.35	16.36	16.41	16.27	16.32	16.26	16.33

5GHz 802.11ac VHT20 mode									
Data Rate (MHz)	MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8
Average Power (dBm)	15.49	15.44	15.45	15.44	15.48	15.47	15.46	15.41	15.37

5GHz 802.11ac VHT40 mode										
Data Rate (MHz)	MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8	MCS 9
Average Power (dBm)	18.37	18.36	18.33	18.26	18.25	18.25	18.26	18.22	18.21	18.22

5GHz 802.11ac VHT80 mode										
Data Rate (MHz)	MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8	MCS 9
Average Power (dBm)	14.82	14.76	14.79	14.68	14.64	14.72	14.65	14.70	14.68	14.72

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				
Conducted TCs	Test Items	Mode	Data rate	Test Channel
	26dB and 99% BW Power Spectral Density	802.11a	6 Mbps	L/M/H
		802.11n HT20	MCS0/ MCS8	L/M/H
		802.11n HT40	MCS0/ MCS8	L/M/H
		802.11ac VHT20	MCS0	L/M/H
		802.11ac VHT40	MCS0	L/M/H
		802.11ac VHT80	MCS0	M
	20dB Occupied Bandwidth	802.11a	6 Mbps	H
		802.11n HT20	MCS0	H
		802.11n HT40	MCS0	H
		802.11ac VHT20	MCS0	H
		802.11ac VHT40	MCS0	H
		802.11ac VHT80	MCS0	H
	Output Power	802.11a	6 Mbps	L/M/H
		802.11n HT20	MCS0/ MCS8	L/M/H
		802.11n HT40	MCS0/ MCS8	L/M/H
		802.11ac VHT20	MCS0	L/M/H
		802.11ac VHT40	MCS0	L/M/H
		802.11ac VHT80	MCS0	M
	Peak Excursion	802.11a	6 Mbps	L
		802.11n HT20	MCS0/ MCS8	L
		802.11n HT40	MCS0/ MCS8	L
		802.11ac VHT20	MCS0	L
		802.11ac VHT40	MCS0	L
		802.11ac VHT80	MCS0	L
	Frequency Stability	802.11a	6 Mbps	L

Test Cases				
Radiated TCs	Test Items	Mode	Data rate	Test Channel
	Radiated Band Edge	802.11a	6 Mbps	L/H
		802.11n HT20	MCS0/ MCS8	L/H
		802.11n HT40	MCS0/ MCS8	L/H
		802.11ac VHT80	MCS0	L/H
	Radiated Spurious Emission	802.11a	6 Mbps	L/M/H
		802.11n HT20	MCS0/ MCS8	L/M/H
		802.11n HT40	MCS0/ MCS8	L/M/H
		802.11ac VHT80	MCS0	M
AC Conducted Emission	Mode 1 : WLAN (5GHz) Link + USB Cable (Charging from Notebook)			

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

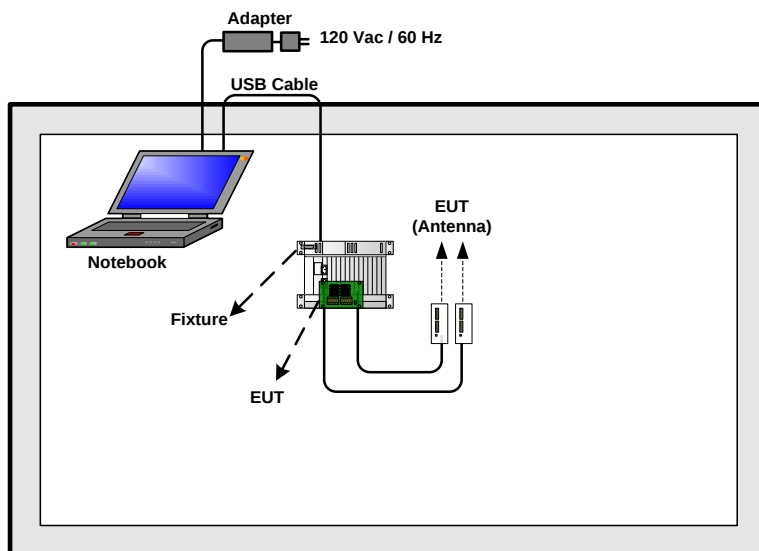
Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5600 MHz and 5650-5725MHz
		802.11ac VHT20	802.11ac VHT20	802.11ac VHT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140

Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5600 MHz and 5650-5725MHz
		802.11ac VHT40	802.11ac VHT40	802.11ac VHT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134

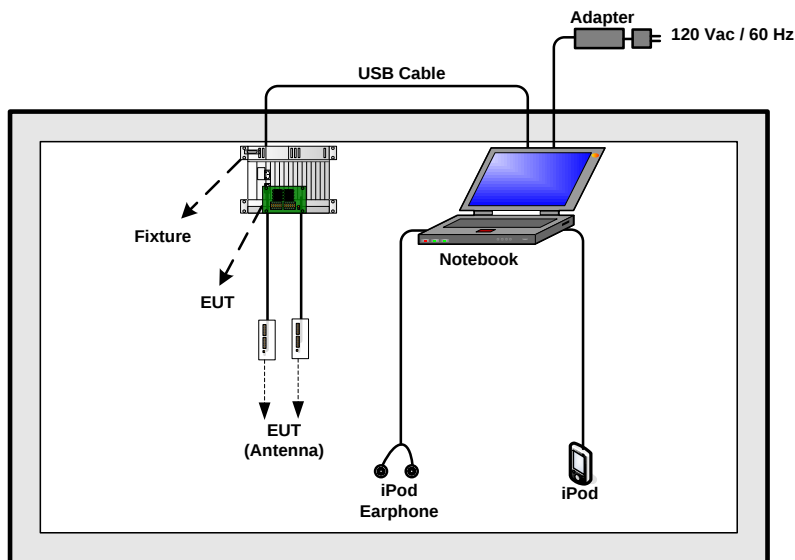
Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5600 MHz and 5650-5725MHz
		802.11ac VHT80	802.11ac VHT80	802.11ac VHT80
L	Low	-	-	-
M	Middle	42	58	106
H	High	-	-	-

2.4 Connection Diagram of Test System

<WLAN Tx Mode>



<AC Conducted Emission Mode>



2.5 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Notebook	DELL	Latitude E6320	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
2.	iPod	Apple	A1285	FCC DoC	Shielded, 1.0 m	N/A
3.	iPod Earphone	Apple	N/A	Verification	Unshielded, 1.0 m	N/A
4.	Fixture	NA	1P-112BJ00-20SB	NA	NA	NA

2.6 EUT Operation Test Setup

For WLAN function, programmed RF utility, "MPTool" installed in the notebook make the EUT provides functions like channel selection and power level for continuous transmitting and receiving signals.

2.7 Measurement Results Explanation Example

For all conducted test items:

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

Example :

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

Offset = RF cable loss + attenuator factor.

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

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

3 Test Result

3.1 26dB & 99% Bandwidth Measurement

3.1.1 Description of 26dB & 99% Occupied Bandwidth

There is no restriction limits for bandwidth. The maximum conducted output power can be limited by measured emission bandwidth (B).

For the band 5150-5250 MHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW (17dBm) or 4 dBm + 10log B.

For the bands 5250-5350 MHz, 5470-5600 MHz, and 5650-5725MHz, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW (24dBm) or 11 dBm + 10log B.

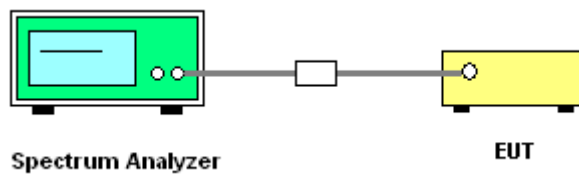
3.1.2 Measuring Instruments

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 D01 General UNII Test Procedures v01r03.
Section C) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1MHz and set the Video bandwidth (VBW) $\geq 3 * RBW$.
8. Measure and record the results in the test report.

3.1.4 Test Setup





3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

Test Band :	5GHz band 1,2,3	Temperature :	21~26°C
Test Engineer :	Bill Kuo, Book Lin, Alex Lee, and Stuart Lin	Relative Humidity :	45~54%

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	36	5180	-	18.10	-	22.35	-	22.58	-	16.99
11a	6Mbps	1	44	5220	-	18.05	-	22.35	-	22.56	-	16.99
11a	6Mbps	1	48	5240	-	18.05	-	22.35	-	22.56	-	16.99
HT20	MCS0	1	36	5180	-	18.85	-	23.05	-	22.75	-	16.99
HT20	MCS0	1	44	5220	-	18.85	-	23.30	-	22.75	-	16.99
HT20	MCS0	1	48	5240	-	18.75	-	23.05	-	22.73	-	16.99
HT40	MCS0	1	38	5190	-	36.81	-	45.27	-	23.01	-	16.99
HT40	MCS0	1	46	5230	-	36.90	-	45.18	-	23.01	-	16.99
VHT20	MCS0	1	36	5180	-	18.95	-	23.15	-	22.78	-	16.99
VHT20	MCS0	1	44	5220	-	18.95	-	23.25	-	22.78	-	16.99
VHT20	MCS0	1	48	5240	-	18.80	-	23.15	-	22.74	-	16.99
VHT40	MCS0	1	38	5190	-	36.81	-	45.18	-	23.01	-	16.99
VHT40	MCS0	1	46	5230	-	36.81	-	45.09	-	23.01	-	16.99
VHT80	MCS0	1	42	5210	-	76.32	-	85.32	-	23.01	-	16.99



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
HT20	MCS8	2	36	5180	18.50	18.65	21.90	21.80	22.67		23.01	
HT20	MCS8	2	44	5220	18.65	18.60	21.70	21.70	22.70		23.01	
HT20	MCS8	2	48	5240	18.50	18.60	22.00	21.70	22.67		23.01	
HT40	MCS8	2	38	5190	36.81	36.81	45.18	44.91	23.01		23.01	
HT40	MCS8	2	46	5230	36.72	36.72	44.37	44.73	23.01		23.01	
VHT20	MCS0	2	36	5180	18.55	18.60	22.05	21.50	22.68		23.01	
VHT20	MCS0	2	44	5220	18.60	18.70	22.00	21.70	22.70		23.01	
VHT20	MCS0	2	48	5240	18.65	18.55	22.00	21.60	22.68		23.01	
VHT40	MCS0	2	38	5190	36.72	36.72	45.18	45.00	23.01		23.01	
VHT40	MCS0	2	46	5230	36.90	36.81	45.18	45.09	23.01		23.01	
VHT80	MCS0	2	42	5210	75.96	76.08	84.60	84.84	23.01		23.01	

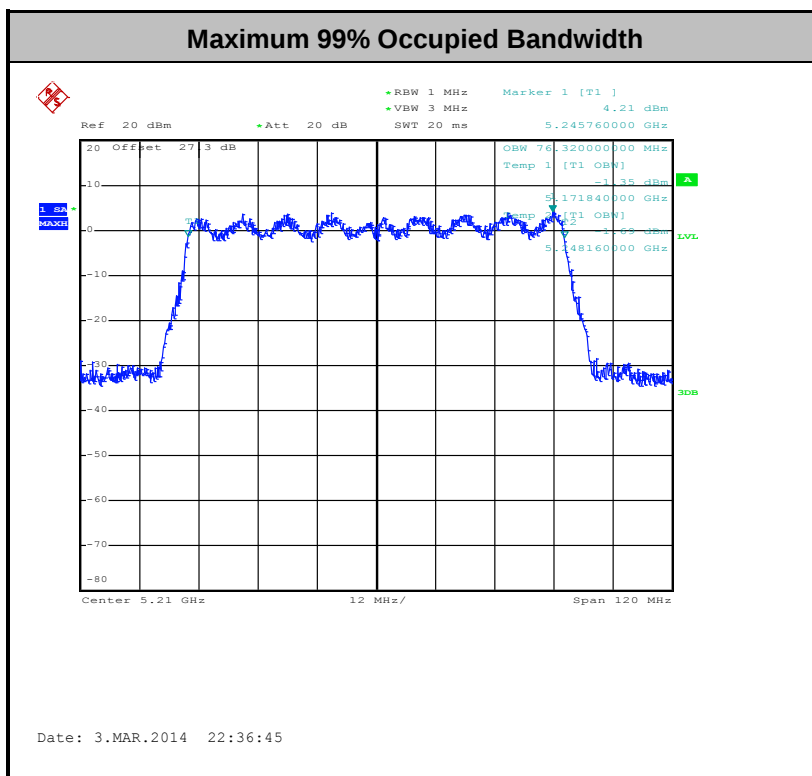
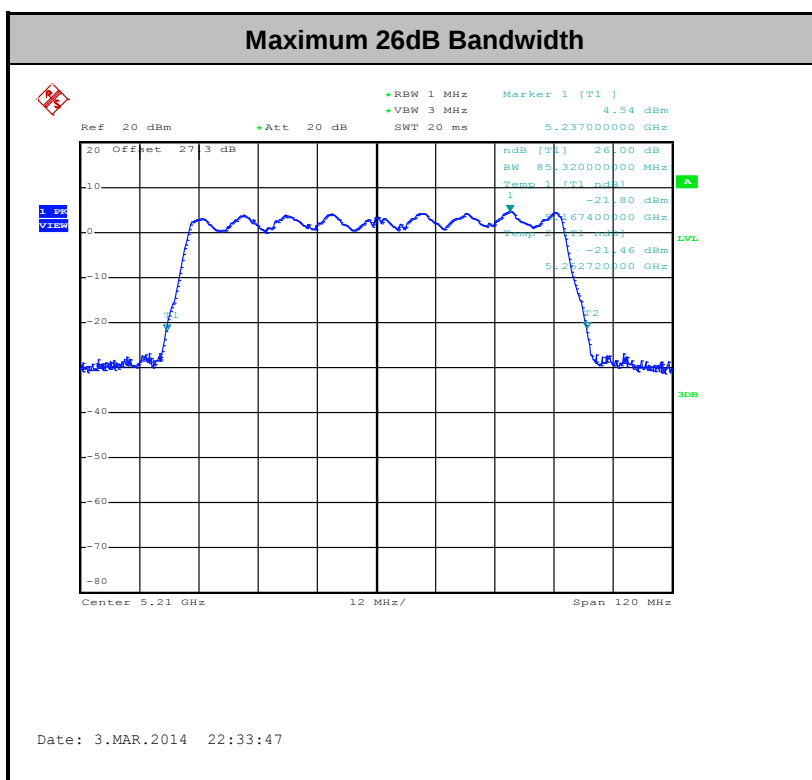
Mod.	Data Rate	N _{TX}	Channel	Freq. (MHz)	99% Bandwidth (MHz)		26dB Bandwidth (MHz)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)	
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2
11a	6Mbps	1	52	5260	-	18.05	-	22.70	-	29.56	-	23.98
11a	6Mbps	1	60	5300	-	18.10	-	22.55	-	29.58	-	23.98
11a	6Mbps	1	64	5320	-	18.30	-	22.40	-	29.62	-	23.98
HT20	MCS0	1	52	5260	-	18.85	-	23.00	-	29.75	-	23.98
HT20	MCS0	1	60	5300	-	18.80	-	23.15	-	29.74	-	23.98
HT20	MCS0	1	64	5320	-	18.90	-	23.20	-	29.76	-	23.98
HT40	MCS0	1	54	5270	-	36.90	-	45.27	-	30.00	-	23.98
HT40	MCS0	1	62	5310	-	36.81	-	45.72	-	30.00	-	23.98
VHT20	MCS0	1	52	5260	-	18.90	-	23.10	-	29.76	-	23.98
VHT20	MCS0	1	60	5300	-	18.90	-	23.30	-	29.76	-	23.98
VHT20	MCS0	1	64	5320	-	18.75	-	23.35	-	29.73	-	23.98
VHT40	MCS0	1	54	5270	-	36.99	-	45.27	-	30.00	-	23.98
VHT40	MCS0	1	62	5310	-	36.81	-	45.45	-	30.00	-	23.98
VHT80	MCS0	1	58	5290	-	73.32	-	85.08	-	30.00	-	23.98
HT20	MCS8	2	52	5260	18.60	18.60	22.00	21.45	29.70		23.98	
HT20	MCS8	2	60	5300	18.50	18.65	21.75	21.50	29.67		23.98	
HT20	MCS8	2	64	5320	18.55	18.65	21.95	21.50	29.68		23.98	
HT40	MCS8	2	54	5270	36.81	36.81	44.46	44.82	30.00		23.98	
HT40	MCS8	2	62	5310	36.72	36.90	45.27	44.91	30.00		23.98	
VHT20	MCS0	2	52	5260	18.55	18.55	21.95	21.45	29.68		23.98	
VHT20	MCS0	2	60	5300	18.60	18.60	22.15	21.60	29.70		23.98	
VHT20	MCS0	2	64	5320	18.55	18.70	21.80	21.75	29.68		23.98	
VHT40	MCS0	2	54	5270	36.72	36.90	44.82	44.91	30.00		23.98	
VHT40	MCS0	2	62	5310	36.72	36.90	45.09	44.82	30.00		23.98	
VHT80	MCS0	2	58	5290	75.96	76.08	84.36	84.72	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	-	18.25	-	22.80	-	29.61	-	23.98
11a	6Mbps	1	116	5580	-	18.35	-	23.00	-	29.64	-	23.98
11a	6Mbps	1	140	5700	-	18.45	-	26.45	-	29.66	-	23.98
HT20	MCS0	1	100	5500	-	18.75	-	23.00	-	29.73	-	23.98
HT20	MCS0	1	116	5580	-	18.85	-	23.20	-	29.75	-	23.98
HT20	MCS0	1	140	5700	-	19.00	-	23.70	-	29.79	-	23.98
HT40	MCS0	1	102	5510	-	36.81	-	45.54	-	30.00	-	23.98
HT40	MCS0	1	110	5550	-	36.81	-	44.82	-	30.00	-	23.98
HT40	MCS0	1	134	5670	-	36.90	-	45.90	-	30.00	-	23.98
VHT20	MCS0	1	100	5500	-	19.00	-	23.20	-	29.79	-	23.98
VHT20	MCS0	1	116	5580	-	19.05	-	23.25	-	29.80	-	23.98
VHT20	MCS0	1	140	5700	-	18.95	-	23.50	-	29.78	-	23.98
VHT40	MCS0	1	102	5510	-	36.90	-	45.63	-	30.00	-	23.98
VHT40	MCS0	1	110	5550	-	36.99	-	45.00	-	30.00	-	23.98
VHT40	MCS0	1	134	5670	-	36.90	-	45.63	-	30.00	-	23.98
VHT80	MCS0	1	106	5530	-	76.20	-	84.96	-	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
HT20	MCS8	2	100	5500	18.60	18.60	22.15	21.65	29.70		23.98	
HT20	MCS8	2	116	5580	18.80	18.60	22.05	21.60	29.70		23.98	
HT20	MCS8	2	140	5700	18.60	18.65	21.55	24.35	29.70		23.98	
HT40	MCS8	2	102	5510	36.99	36.72	44.73	44.73	30.00		23.98	
HT40	MCS8	2	110	5550	36.99	36.72	44.73	44.46	30.00		23.98	
HT40	MCS8	2	134	5670	36.99	36.72	44.82	45.00	30.00		23.98	
VHT20	MCS0	2	100	5500	18.70	18.65	21.90	21.60	29.71		23.98	
VHT20	MCS0	2	116	5580	18.85	18.60	22.85	21.55	29.70		23.98	
VHT20	MCS0	2	140	5700	19.20	18.75	30.20	21.65	29.73		23.98	
VHT40	MCS0	2	102	5510	36.81	36.81	44.91	45.00	30.00		23.98	
VHT40	MCS0	2	110	5550	36.72	36.90	44.82	44.73	30.00		23.98	
VHT40	MCS0	2	134	5670	36.99	36.72	45.36	45.00	30.00		23.98	
VHT80	MCS0	2	106	5530	75.96	75.96	84.96	85.20	30.00		23.98	



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

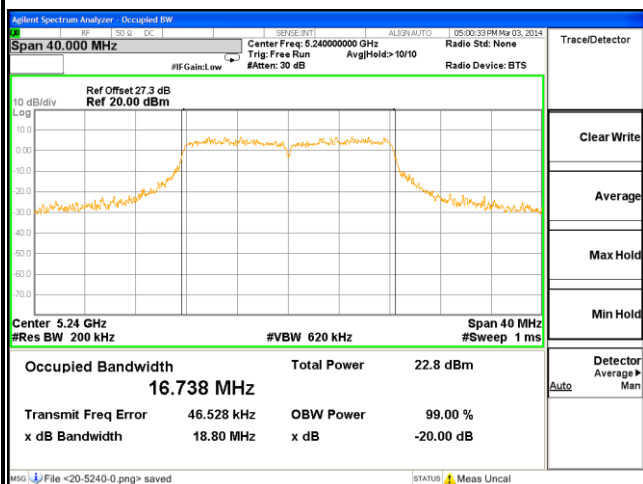
3.1.6 Test Result of 20dB Occupied Bandwidth

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	18.76	18.80	5249.38	5249.40	5250	Pass
HT20	MCS0	1	48	5240	19.73	19.86	5249.87	5249.93		Pass
HT40	MCS0	1	46	5230	39.52	39.11	5249.76	5249.56		Pass
VHT20	MCS0	1	48	5240	19.10	19.52	5249.55	5249.76		Pass
VHT40	MCS0	1	46	5230	39.08	39.81	5249.54	5249.91		Pass
VHT80	MCS0	1	42	5210	79.20	79.46	5249.60	5249.73		Pass
HT20	MCS8	2	48	5240	19.50		5249.75	-		Pass
HT40	MCS8	2	46	5230	39.34		5249.67			Pass
VHT20	MCS0	2	48	5240	19.17		5249.59			Pass
VHT40	MCS0	2	46	5230	39.01		5249.51			Pass
VHT80	MCS0	2	42	5210	78.53		5249.27			Pass

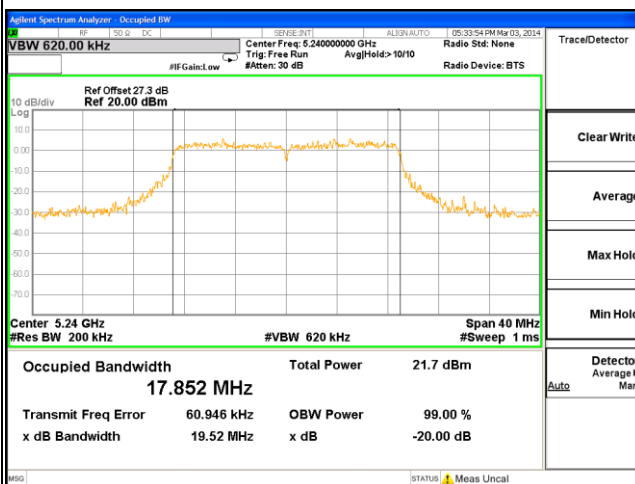


20dB Occupied Bandwidth

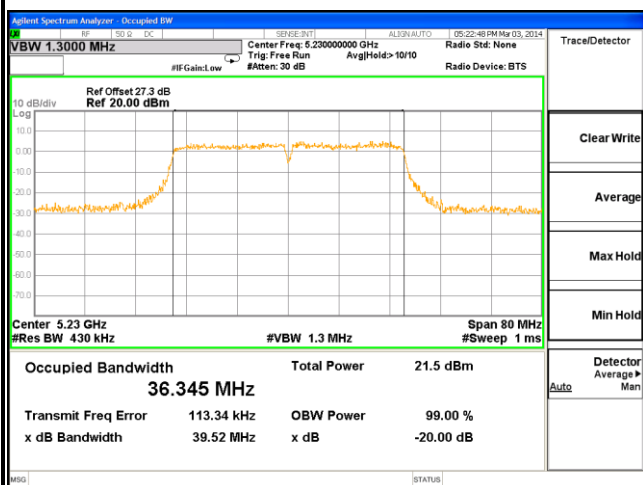
802.11a CH48 5240MHz



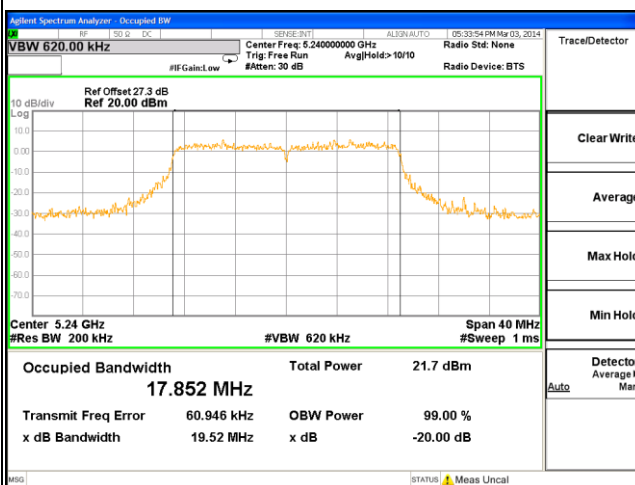
802.11n HT20 CH48 5240MHz

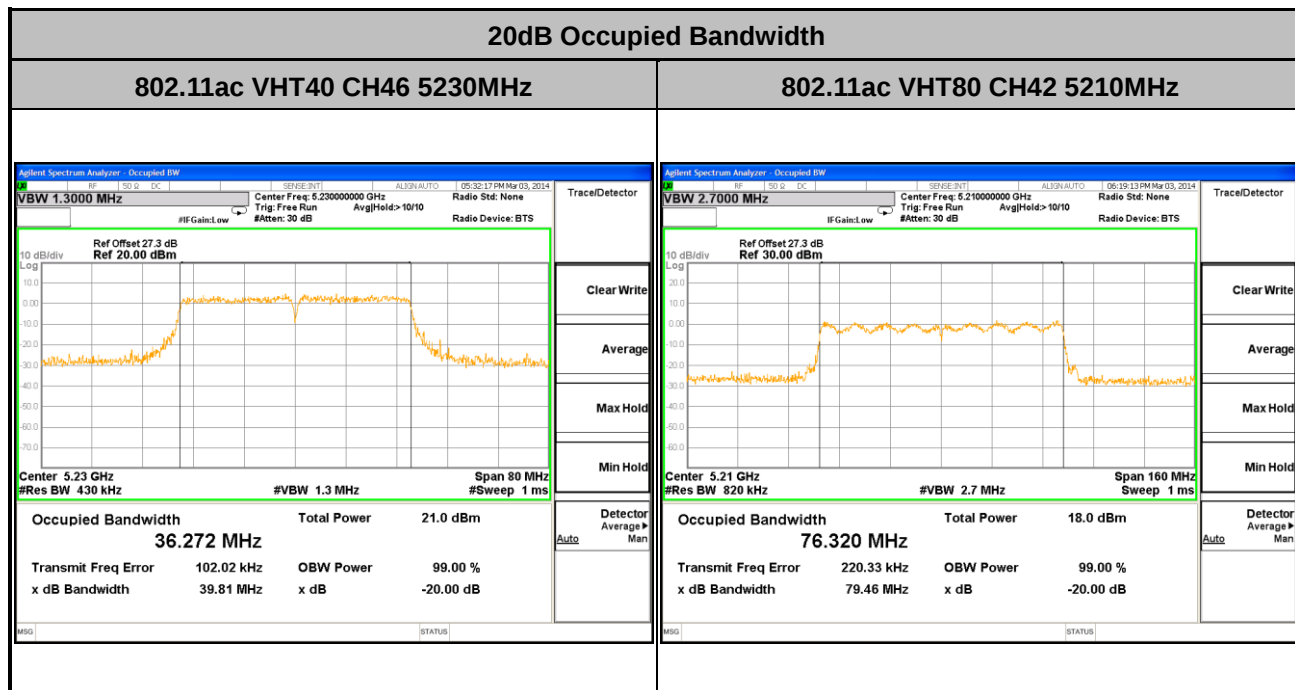


802.11n HT40 CH46 5230MHz



802.11ac VHT20 CH48 5240MHz





3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

For the band 5150-5250 MHz, the maximum conducted output power shall not exceed the lesser of 50 mW (17dBm) or $4 \text{ dBm} + 10\log B$, where B is the 26 dB emissions bandwidth in 1-MHz. If transmitting antenna directional gain is greater than 6 dBi, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the bands 5250-5350 MHz, 5470-5600 MHz, and 5650-5725 MHz, bands, the maximum conducted output power shall not exceed the lesser of 250 mW (24dBm) or $11 \text{ dBm} + 10\log B$, where B is the 26 dB emissions bandwidth in 1-MHz. If transmitting antenna directional gain is greater than 6 dBi, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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

3.2.2 Measuring Instruments

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

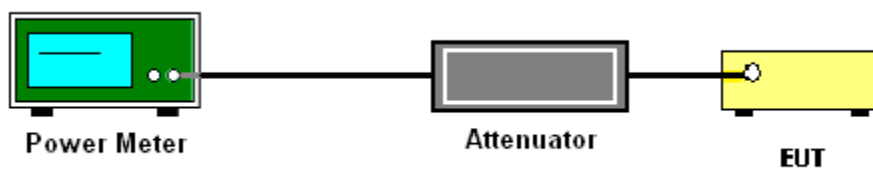
3.2.3 Test Procedures

The testing follows Method PM of FCC KDB 789033 D01 General UNII Test Procedures v01r03.

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

1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit continuously with a consistent duty cycle at its maximum power control level.
3. Measure the average power of the transmitter, and the average power is corrected with duty factor, $10 \log(1/x)$, where x is the duty cycle.
4. 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





3.2.5 Test Result of Maximum Conducted Output Power

Test Band :	5GHz band 1	Temperature :	21~26℃
Test Engineer :	Bill Kuo, Book Lin, Alex Lee, and Stuart Lin	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	0.00	0.00	14.13	14.38	-	-	16.99	2.42	4.66	-	Pass
11a	6Mbps	1	44	5220	0.00	0.00	14.42	14.12		-	16.99	2.42	4.66		Pass
11a	6Mbps	1	48	5240	0.00	0.00	14.23	14.44		-	16.99	2.42	4.66		Pass
HT20	MCS0	1	36	5180	0.00	0.00	15.63	15.74		-	16.99	2.42	4.66		Pass
HT20	MCS0	1	44	5220	0.00	0.00	15.86	15.87		-	16.99	2.42	4.66		Pass
HT20	MCS0	1	48	5240	0.00	0.00	15.72	15.81		-	16.99	2.42	4.66		Pass
HT40	MCS0	1	38	5190	0.00	0.00	15.11	15.48		-	16.99	2.42	4.66		Pass
HT40	MCS0	1	46	5230	0.00	0.00	15.13	15.12		-	16.99	2.42	4.66		Pass
VHT20	MCS0	1	36	5180	0.00	0.00	15.84	15.86		-	16.99	2.42	4.66		Pass
VHT20	MCS0	1	44	5220	0.00	0.00	15.83	15.80		-	16.99	2.42	4.66		Pass
VHT20	MCS0	1	48	5240	0.00	0.00	15.82	15.78		-	16.99	2.42	4.66		Pass
VHT40	MCS0	1	38	5190	0.00	0.00	15.09	15.21		-	16.99	2.42	4.66		Pass
VHT40	MCS0	1	46	5230	0.00	0.00	15.01	15.18		-	16.99	2.42	4.66		Pass
VHT80	MCS0	1	42	5210	0.00	0.00	13.62	13.63		-	16.99	2.42	4.66		Pass



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		
HT20	MCS8	2	36	5180	0.00	0.00	12.40	12.11	15.27	22.39		6.62			Pass
HT20	MCS8	2	44	5220	0.00	0.00	12.41	11.95	15.20	22.39		6.62			Pass
HT20	MCS8	2	48	5240	0.00	0.00	12.22	11.62	14.94	22.39		6.62			Pass
HT40	MCS8	2	38	5190	0.00	0.00	13.37	13.14	16.27	22.39		6.62			Pass
HT40	MCS8	2	46	5230	0.00	0.00	13.61	13.24	16.44	22.39		6.62			Pass
VHT20	MCS0	2	36	5180	0.00	0.00	12.23	12.03	15.14	22.39		6.62			Pass
VHT20	MCS0	2	44	5220	0.00	0.00	12.42	12.00	15.23	22.39		6.62			Pass
VHT20	MCS0	2	48	5240	0.00	0.00	12.77	12.16	15.49	22.39		6.62			Pass
VHT40	MCS0	2	38	5190	0.00	0.00	15.32	14.91	18.13	22.39		6.62			Pass
VHT40	MCS0	2	46	5230	0.00	0.00	15.29	14.71	18.02	22.39		6.62			Pass
VHT80	MCS0	2	42	5210	0.00	0.00	11.76	11.54	14.66	22.39		6.62			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 average conducted output power shall not exceed lesser of 50 mW (17dBm) or 4 dBm + 10log (B), where B is 26dB BW for FCC.



Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			IC Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)		Pass /Fail
					Ant. 1	Ant. 2	Ant. 1	Ant. 2	Sum Power	Ant. 1	Ant. 2	Ant. 1	Ant. 2	Ant. 1	Ant. 2	
11a	6Mbps	1	36	5180	0.00	0.00	14.13	14.38	-	-	22.58	2.42	4.66	-	22.58	Pass
11a	6Mbps	1	44	5220	0.00	0.00	14.42	14.12			22.56	2.42	4.66		22.56	Pass
11a	6Mbps	1	48	5240	0.00	0.00	14.23	14.44			22.56	2.42	4.66		22.56	Pass
HT20	MCS0	1	36	5180	0.00	0.00	15.63	15.74			22.75	2.42	4.66		22.75	Pass
HT20	MCS0	1	44	5220	0.00	0.00	15.86	15.87			22.75	2.42	4.66		22.75	Pass
HT20	MCS0	1	48	5240	0.00	0.00	15.72	15.81			22.73	2.42	4.66		22.73	Pass
HT40	MCS0	1	38	5190	0.00	0.00	15.11	15.48			23.01	2.42	4.66		23.01	Pass
HT40	MCS0	1	46	5230	0.00	0.00	15.13	15.12			23.01	2.42	4.66		23.01	Pass
VHT20	MCS0	1	36	5180	0.00	0.00	15.84	15.86			22.78	2.42	4.66		22.78	Pass
VHT20	MCS0	1	44	5220	0.00	0.00	15.83	15.80			22.78	2.42	4.66		22.78	Pass
VHT20	MCS0	1	48	5240	0.00	0.00	15.82	15.78			22.74	2.42	4.66		22.74	Pass
VHT40	MCS0	1	38	5190	0.00	0.00	15.09	15.21			23.01	2.42	4.66		23.01	Pass
VHT40	MCS0	1	46	5230	0.00	0.00	15.01	15.18			23.01	2.42	4.66		23.01	Pass
VHT80	MCS0	1	42	5210	0.00	0.00	13.62	13.63			23.01	2.42	4.66		23.01	Pass

Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			IC Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)		Pass /Fail
					Ant. 1	Ant. 2	Ant. 1	Ant. 2	Sum Power	Ant. 1	Ant. 2	Ant. 1	Ant. 2	Ant. 1	Ant. 2	
HT20	MCS0	2	36	5180	0.00	0.00	12.40	12.11	15.27	16.05		6.62		22.67		Pass
HT20	MCS0	2	44	5220	0.00	0.00	12.41	11.95	15.20	16.07		6.62		22.70		Pass
HT20	MCS0	2	48	5240	0.00	0.00	12.22	11.62	14.94	16.05		6.62		22.67		Pass
HT40	MCS0	2	38	5190	0.00	0.00	13.37	13.14	16.27	16.39		6.62		23.01		Pass
HT40	MCS0	2	46	5230	0.00	0.00	13.61	13.24	16.44	16.39		6.62		23.01		Pass
VHT20	MCS0	2	36	5180	0.00	0.00	12.23	12.03	15.14	16.06		6.62		22.68		Pass
VHT20	MCS0	2	44	5220	0.00	0.00	12.42	12.00	15.23	16.07		6.62		22.70		Pass
VHT20	MCS0	2	48	5240	0.00	0.00	12.77	12.16	15.49	16.06		6.62		22.68		Pass
VHT40	MCS0	2	38	5190	0.00	0.00	15.32	14.91	18.13	16.39		6.62		23.01		Pass
VHT40	MCS0	2	46	5230	0.00	0.00	15.29	14.71	18.02	16.39		6.62		23.01		Pass
VHT80	MCS0	2	42	5210	0.00	0.00	11.76	11.54	14.66	16.39		6.62		23.01		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 band 5150-5250 MHz, the maximum average EIRP output power shall not exceed lesser of 200 mW (23dBm) or 10 dBm + 10log (B), where B is 99%OBW for IC.



Test Band :	5GHz band 2	Temperature :	21~26°C
Test Engineer :	Bill Kuo, Book Lin, Alex Lee, and Stuart Lin	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	0.00	0.00	14.09	14.18	-	-	23.98	2.42	4.66	-	Pass
11a	6Mbps	1	60	5300	0.00	0.00	14.39	14.46		-	23.98	2.42	4.66		Pass
11a	6Mbps	1	64	5320	0.00	0.00	14.25	14.49		-	23.98	2.42	4.66		Pass
HT20	MCS0	1	52	5260	0.00	0.00	15.95	15.92		-	23.98	2.42	4.66		Pass
HT20	MCS0	1	60	5300	0.00	0.00	15.73	15.98		-	23.98	2.42	4.66		Pass
HT20	MCS0	1	64	5320	0.00	0.00	15.78	15.97		-	23.98	2.42	4.66		Pass
HT40	MCS0	1	54	5270	0.00	0.00	15.32	15.47		-	23.98	2.42	4.66		Pass
HT40	MCS0	1	62	5310	0.00	0.00	15.41	14.88		-	23.98	2.42	4.66		Pass
VHT20	MCS0	1	52	5260	0.00	0.00	15.94	15.95		-	23.98	2.42	4.66		Pass
VHT20	MCS0	1	60	5300	0.00	0.00	15.55	15.94		-	23.98	2.42	4.66		Pass
VHT20	MCS0	1	64	5320	0.00	0.00	15.62	15.90		-	23.98	2.42	4.66		Pass
VHT40	MCS0	1	54	5270	0.00	0.00	15.29	15.40		-	23.98	2.42	4.66		Pass
VHT40	MCS0	1	62	5310	0.00	0.00	15.04	15.31		-	23.98	2.42	4.66		Pass
VHT80	MCS0	1	58	5290	0.00	0.00	13.61	13.67		-	23.98	2.42	4.66		Pass

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		
HT20	MCS8	2	52	5260	0.00	0.00	12.68	11.95	15.34	23.36		6.62			Pass
HT20	MCS8	2	60	5300	0.00	0.00	12.48	11.65	15.10	23.36		6.62			Pass
HT20	MCS8	2	64	5320	0.00	0.00	12.73	11.78	15.29	23.36		6.62			Pass
HT40	MCS8	2	54	5270	0.00	0.00	13.81	13.05	16.46	23.36		6.62			Pass
HT40	MCS8	2	62	5310	0.00	0.00	13.53	12.68	16.14	23.36		6.62			Pass
VHT20	MCS0	2	52	5260	0.00	0.00	12.42	11.62	15.05	23.36		6.62			Pass
VHT20	MCS0	2	60	5300	0.00	0.00	12.61	11.88	15.27	23.36		6.62			Pass
VHT20	MCS0	2	64	5320	0.00	0.00	12.93	11.94	15.47	23.36		6.62			Pass
VHT40	MCS0	2	54	5270	0.00	0.00	15.56	14.91	18.26	23.36		6.62			Pass
VHT40	MCS0	2	62	5310	0.00	0.00	15.93	14.71	18.37	23.36		6.62			Pass
VHT80	MCS0	2	58	5290	0.00	0.00	12.22	11.36	14.82	23.36		6.62			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 band 5250-5350 MHz, the maximum conducted output power shall not exceed the lesser of 250 mW (24dBm) or 11 dBm + 10log (B), where B is 26dB BW for FCC and 99% OBW for IC.



Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			IC Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)		Pass /Fail
					Ant. 1	Ant. 2	Ant. 1	Ant. 2	Sum Power	Ant. 1	Ant. 2	Ant. 1	Ant. 2	Ant. 1	Ant. 2	
11a	6Mbps	1	52	5260	0.00	0.00	14.09	14.18			24.90	2.42	4.66		29.56	Pass
11a	6Mbps	1	60	5300	0.00	0.00	14.39	14.46			24.92	2.42	4.66		29.58	Pass
11a	6Mbps	1	64	5320	0.00	0.00	14.25	14.49			24.96	2.42	4.66		29.62	Pass
HT20	MCS0	1	52	5260	0.00	0.00	15.95	15.92			25.09	2.42	4.66		29.75	Pass
HT20	MCS0	1	60	5300	0.00	0.00	15.73	15.98			25.08	2.42	4.66		29.74	Pass
HT20	MCS0	1	64	5320	0.00	0.00	15.78	15.97			25.10	2.42	4.66		29.76	Pass
HT40	MCS0	1	54	5270	0.00	0.00	15.32	15.47			25.34	2.42	4.66		30.00	Pass
HT40	MCS0	1	62	5310	0.00	0.00	15.41	14.88			25.34	2.42	4.66		30.00	Pass
VHT20	MCS0	1	52	5260	0.00	0.00	15.94	15.95			25.10	2.42	4.66		29.76	Pass
VHT20	MCS0	1	60	5300	0.00	0.00	15.55	15.94			25.10	2.42	4.66		29.76	Pass
VHT20	MCS0	1	64	5320	0.00	0.00	15.62	15.90			25.07	2.42	4.66		29.73	Pass
VHT40	MCS0	1	54	5270	0.00	0.00	15.29	15.40			25.34	2.42	4.66		30.00	Pass
VHT40	MCS0	1	62	5310	0.00	0.00	15.04	15.31			25.34	2.42	4.66		30.00	Pass
VHT80	MCS0	1	58	5290	0.00	0.00	13.61	13.67			25.34	2.42	4.66		30.00	Pass

Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			IC Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)		Pass /Fail
					Ant. 1	Ant. 2	Ant. 1	Ant. 2	Sum Power	Ant. 1	Ant. 2	Ant. 1	Ant. 2	Ant. 1	Ant. 2	
HT20	MCS0	2	36	5180	0.00	0.00	12.68	11.95	15.34	23.07		6.62		29.70		Pass
HT20	MCS0	2	44	5220	0.00	0.00	12.48	11.65	15.10	23.05		6.62		29.67		Pass
HT20	MCS0	2	48	5240	0.00	0.00	12.73	11.78	15.29	23.06		6.62		29.68		Pass
HT40	MCS0	2	38	5190	0.00	0.00	13.81	13.05	16.46	23.38		6.62		30.00		Pass
HT40	MCS0	2	46	5230	0.00	0.00	13.53	12.68	16.14	23.38		6.62		30.00		Pass
VHT20	MCS0	2	36	5180	0.00	0.00	12.42	11.62	15.05	23.06		6.62		29.68		Pass
VHT20	MCS0	2	44	5220	0.00	0.00	12.61	11.88	15.27	23.07		6.62		29.70		Pass
VHT20	MCS0	2	48	5240	0.00	0.00	12.93	11.94	15.47	23.06		6.62		29.68		Pass
VHT40	MCS0	2	38	5190	0.00	0.00	15.56	14.91	18.26	23.38		6.62		30.00		Pass
VHT40	MCS0	2	46	5230	0.00	0.00	15.93	14.71	18.37	23.38		6.62		30.00		Pass
VHT80	MCS0	2	42	5210	0.00	0.00	12.22	11.36	14.82	23.38		6.62		30.00		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 band 5250-5350 MHz, the maximum conducted output power shall not exceed the lesser of 250 mW (24dBm) or 11 dBm + 10log (B), where B is 26dB BW for FCC and 99% OBW for IC.



Test Band :	5GHz band 3	Temperature :	21~26°C
Test Engineer :	Bill Kuo, Book Lin, Alex Lee, and Stuart Lin	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	0.00	0.00	14.16	14.21	-	-	23.98	2.31	3.57	-	Pass
11a	6Mbps	1	116	5580	0.00	0.00	14.43	14.49		-	23.98	2.31	3.57		Pass
11a	6Mbps	1	140	5700	0.00	0.00	14.33	14.15		-	23.98	2.31	3.57		Pass
HT20	MCS0	1	100	5500	0.00	0.00	15.72	15.96		-	23.98	2.31	3.57		Pass
HT20	MCS0	1	116	5580	0.00	0.00	15.83	15.95		-	23.98	2.31	3.57		Pass
HT20	MCS0	1	140	5700	0.00	0.00	15.90	15.03		-	23.98	2.31	3.57		Pass
HT40	MCS0	1	102	5510	0.00	0.00	15.11	13.46		-	23.98	2.31	3.57		Pass
HT40	MCS0	1	110	5550	0.00	0.00	15.31	15.48		-	23.98	2.31	3.57		Pass
HT40	MCS0	1	134	5670	0.00	0.00	15.13	15.09		-	23.98	2.31	3.57		Pass
VHT20	MCS0	1	100	5500	0.00	0.00	15.88	15.83		-	23.98	2.31	3.57		Pass
VHT20	MCS0	1	116	5580	0.00	0.00	15.81	15.91		-	23.98	2.31	3.57		Pass
VHT20	MCS0	1	140	5700	0.00	0.00	15.59	15.67		-	23.98	2.31	3.57		Pass
VHT40	MCS0	1	102	5510	0.00	0.00	15.31	15.28		-	23.98	2.31	3.57		Pass
VHT40	MCS0	1	110	5550	0.00	0.00	15.25	15.44		-	23.98	2.31	3.57		Pass
VHT40	MCS0	1	134	5670	0.00	0.00	15.29	15.11		-	23.98	2.31	3.57		Pass
VHT80	MCS0	1	106	5530	0.00	0.00	13.81	12.09		-	23.98	2.31	3.57		Pass

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		
HT20	MCS8	2	100	5500	0.00	0.00	13.25	11.32	15.40	23.98		5.97			Pass
HT20	MCS8	2	116	5580	0.00	0.00	13.13	11.19	15.28	23.98		5.97			Pass
HT20	MCS8	2	140	5700	0.00	0.00	12.60	11.27	15.00	23.98		5.97			Pass
HT40	MCS8	2	102	5510	0.00	0.00	14.40	12.01	16.38	23.98		5.97			Pass
HT40	MCS8	2	110	5550	0.00	0.00	14.08	12.03	16.19	23.98		5.97			Pass
HT40	MCS8	2	134	5670	0.00	0.00	14.05	12.34	16.29	23.98		5.97			
VHT20	MCS0	2	100	5500	0.00	0.00	13.12	11.12	15.24	23.98		5.97		-	Pass
VHT20	MCS0	2	116	5580	0.00	0.00	12.98	10.92	15.08	23.98		5.97			Pass
VHT20	MCS0	2	140	5700	0.00	0.00	12.96	11.58	15.33	23.98		5.97			Pass
VHT40	MCS0	2	102	5510	0.00	0.00	16.11	13.68	18.07	23.98		5.97			Pass
VHT40	MCS0	2	110	5550	0.00	0.00	16.21	13.93	18.23	23.98		5.97			Pass
VHT40	MCS0	2	134	5670	0.00	0.00	16.09	14.11	18.22	23.98		5.97			
VHT80	MCS0	2	106	5530	0.00	0.00	12.85	10.23	14.74	23.98		5.97			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 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 and 99% OBW for IC.



Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			IC Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)		Pass /Fail
					Ant. 1	Ant. 2	Ant. 1	Ant. 2	Sum Power	Ant. 1	Ant. 2	Ant. 1	Ant. 2	Ant. 1	Ant. 2	
11a	6Mbps	1	100	5500	0.00	0.00	14.16	14.21	-	-	26.04	2.31	3.57	-	29.61	Pass
11a	6Mbps	1	116	5580	0.00	0.00	14.43	14.49			26.07	2.31	3.57		29.64	Pass
11a	6Mbps	1	140	5700	0.00	0.00	14.33	14.15			26.09	2.31	3.57		29.66	Pass
HT20	MCS0	1	100	5500	0.00	0.00	15.72	15.96			26.16	2.31	3.57		29.73	Pass
HT20	MCS0	1	116	5580	0.00	0.00	15.83	15.95			26.18	2.31	3.57		29.75	Pass
HT20	MCS0	1	140	5700	0.00	0.00	15.90	15.03			26.22	2.31	3.57		29.79	Pass
HT40	MCS0	1	102	5510	0.00	0.00	15.11	13.46			26.43	2.31	3.57		30.00	Pass
HT40	MCS0	1	110	5550	0.00	0.00	15.31	15.48			26.43	2.31	3.57		30.00	Pass
HT40	MCS0	1	134	5670	0.00	0.00	15.13	15.09			26.43	2.31	3.57		30.00	Pass
VHT20	MCS0	1	100	5500	0.00	0.00	15.88	15.83			26.22	2.31	3.57		29.79	Pass
VHT20	MCS0	1	116	5580	0.00	0.00	15.81	15.91			26.23	2.31	3.57		29.80	Pass
VHT20	MCS0	1	140	5700	0.00	0.00	15.59	15.67			26.21	2.31	3.57		29.78	Pass
VHT40	MCS0	1	102	5510	0.00	0.00	15.31	15.28			26.43	2.31	3.57		30.00	Pass
VHT40	MCS0	1	110	5550	0.00	0.00	15.25	15.44			26.43	2.31	3.57		30.00	Pass
VHT80	MCS0	1	106	5530	0.00	0.00	13.81	12.09			26.43	2.31	3.57		30.00	Pass

Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			IC Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)		Pass /Fail
					Ant. 1	Ant. 2	Ant. 1	Ant. 2	Sum Power	Ant. 1	Ant. 2	Ant. 1	Ant. 2	Ant. 1	Ant. 2	
HT20	MCS0	2	100	5500	0.00	0.00	13.25	11.32	15.40	23.70		5.97		29.70		Pass
HT20	MCS0	2	116	5580	0.00	0.00	13.13	11.19	15.28	23.70		5.97		29.70		Pass
HT20	MCS0	2	140	5700	0.00	0.00	12.60	11.27	15.00	23.70		5.97		29.70		Pass
HT40	MCS0	2	102	5510	0.00	0.00	14.40	12.01	16.38	23.98		5.97		30.00		Pass
HT40	MCS0	2	110	5550	0.00	0.00	14.08	12.03	16.19	23.98		5.97		30.00		Pass
HT40	MCS0	2	134	5670	0.00	0.00	14.05	12.34	16.29	23.98		5.97		30.00		Pass
VHT20	MCS0	2	100	5500	0.00	0.00	13.12	11.12	15.24	23.71		5.97		29.71		Pass
VHT20	MCS0	2	116	5580	0.00	0.00	12.98	10.92	15.08	23.70		5.97		29.70		Pass
VHT20	MCS0	2	140	5700	0.00	0.00	12.96	11.58	15.33	23.73		5.97		29.73		Pass
VHT40	MCS0	2	102	5510	0.00	0.00	16.11	13.68	18.07	23.98		5.97		30.00		Pass
VHT40	MCS0	2	110	5550	0.00	0.00	16.21	13.93	18.23	23.98		5.97		30.00		Pass
VHT40	MCS0	2	134	5670	0.00	0.00	16.09	14.11	18.22	23.98		5.97		30.00		Pass
VHT80	MCS0	2	106	5530	0.00	0.00	12.85	10.23	14.74	23.98		5.97		30.00		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 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 and 99% OBW for IC.

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

For the band 5150-5250 MHz, peak power spectral density shall not exceed 4 dBm in any 1-MHz.

For the bands 5250-5350 MHz, 5470-5600 MHz, and 5650-5725 MHz, peak power spectral density shall not exceed 11 dBm in any 1-MHz.

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 D01 General UNII Test Procedures v01r03.

Section F) Peak power spectral density (PPSD).

Note: Though the rule refers to “peak power spectral density”, the intent is to measure the maximum value of the time average of the power spectral density measured during a period of continuous transmission.

Method SA-2

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

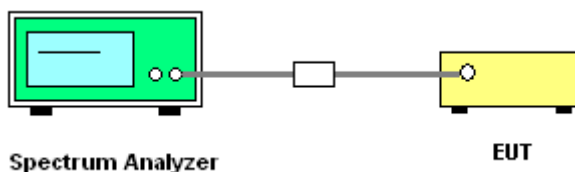
1. The testing follows Method SA-2 of FCC KDB 789033 D01 General UNII Test Procedures v01r03.
 - Measure the duty cycle.
 - Set span to encompass the entire emission bandwidth (EBW) of the signal.
 - Set RBW = 1 MHz.
 - Set VBW $\geq$ 3 MHz.
 - Number of points in sweep $\geq$ 2 Span / RBW.
 - Sweep time = auto.
 - Detector = RMS
 - Trace average at least 100 traces in power averaging mode.
 - Add $10 \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add $10 \log(1/0.25) = 6$ dB if the duty cycle is 25 percent.

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

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

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

3.3.4 Test Setup





3.3.5 Test Result of Power Spectral Density

Test Band :	5GHz band 1	Temperature :	21~26°C
Test Engineer :	Bill Kuo, Book Lin, Alex Lee, and Stuart Lin	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)		EIRP PSD Limit (dBm)		Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Sum Power	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	36	5180	0.00	0.00		3.70		4.00	4.00	2.42	4.66	10	10	Pass
11a	6Mbps	1	44	5220	0.00	0.00		3.68		4.00	4.00	2.42	4.66	10	10	Pass
11a	6Mbps	1	48	5240	0.00	0.00		3.96		4.00	4.00	2.42	4.66	10	10	Pass
HT20	MCS0	1	36	5180	0.00	0.00		3.95		4.00	4.00	2.42	4.66	10	10	Pass
HT20	MCS0	1	44	5220	0.00	0.00		3.94		4.00	4.00	2.42	4.66	10	10	Pass
HT20	MCS0	1	48	5240	0.00	0.00		3.76		4.00	4.00	2.42	4.66	10	10	Pass
HT40	MCS0	1	38	5190	0.00	0.00		0.66		4.00	4.00	2.42	4.66	10	10	Pass
HT40	MCS0	1	46	5230	0.00	0.00		0.20		4.00	4.00	2.42	4.66	10	10	Pass
VHT20	MCS0	1	36	5180	0.00	0.00		3.98		4.00	4.00	2.42	4.66	10	10	Pass
VHT20	MCS0	1	44	5220	0.00	0.00		3.94		4.00	4.00	2.42	4.66	10	10	Pass
VHT20	MCS0	1	48	5240	0.00	0.00		3.81		4.00	4.00	2.42	4.66	10	10	Pass
VHT40	MCS0	1	38	5190	0.00	0.00		0.30		4.00	4.00	2.42	4.66	10	10	Pass
VHT40	MCS0	1	46	5230	0.00	0.00		0.09		4.00	4.00	2.42	4.66	10	10	Pass
VHT80	MCS0	1	42	5210	0.00	0.00		-3.95		4.00	4.00	2.42	4.66	10	10	Pass



Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Duty Factor (dB)		Average Power Density (dBm/MHz)			Average PSD Limit (dBm)		DG (dBi)		EIRP PSD Limit (dBm)		Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Sum Power	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
HT20	MCS8	2	36	5180	0.00	0.00	-	3.28	3.38	6.62	10	Pass				
HT20	MCS8	2	44	5220	0.00	0.00		3.27	3.38	6.62	10	Pass				
HT20	MCS8	2	48	5240	0.00	0.00		3.08	3.38	6.62	10	Pass				
HT40	MCS8	2	38	5190	0.00	0.00		2.85	3.38	6.62	10	Pass				
HT40	MCS8	2	46	5230	0.00	0.00		3.10	3.38	6.62	10	Pass				
VHT20	MCS0	2	36	5180	0.00	0.00		3.26	3.38	6.62	10	Pass				
VHT20	MCS0	2	44	5220	0.00	0.00		3.34	3.38	6.62	10	Pass				
VHT20	MCS0	2	48	5240	0.00	0.00		3.11	3.38	6.62	10	Pass				
VHT40	MCS0	2	38	5190	0.00	0.00		2.18	3.38	6.62	10	Pass				
VHT40	MCS0	2	46	5230	0.00	0.00		2.67	3.38	6.62	10	Pass				
VHT80	MCS0	2	42	5210	0.00	0.00		-0.32	3.38	6.62	10	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 :	Bill Kuo, Book Lin, Alex Lee, and Stuart Lin	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	52	5260	0.00	0.00		5.28		11.00	11.00	2.42	4.66		Pass
11a	6Mbps	1	60	5300	0.00	0.00		5.21		11.00	11.00	2.42	4.66		Pass
11a	6Mbps	1	64	5320	0.00	0.00		5.05		11.00	11.00	2.42	4.66		Pass
HT20	MCS0	1	52	5260	0.00	0.00		4.08		11.00	11.00	2.42	4.66		Pass
HT20	MCS0	1	60	5300	0.00	0.00		4.23		11.00	11.00	2.42	4.66		Pass
HT20	MCS0	1	64	5320	0.00	0.00		4.04		11.00	11.00	2.42	4.66		Pass
HT40	MCS0	1	54	5270	0.00	0.00		0.31		11.00	11.00	2.42	4.66		Pass
HT40	MCS0	1	62	5310	0.00	0.00		0.69		11.00	11.00	2.42	4.66		Pass
VHT20	MCS0	1	52	5260	0.00	0.00		3.85		11.00	11.00	2.42	4.66		Pass
VHT20	MCS0	1	60	5300	0.00	0.00		4.33		11.00	11.00	2.42	4.66		Pass
VHT20	MCS0	1	64	5320	0.00	0.00		4.14		11.00	11.00	2.42	4.66		Pass
VHT40	MCS0	1	54	5270	0.00	0.00		0.14		11.00	11.00	2.42	4.66		Pass
VHT40	MCS0	1	62	5310	0.00	0.00		-0.10		11.00	11.00	2.42	4.66		Pass
VHT80	MCS0	1	58	5290	0.00	0.00		-3.88		11.00	11.00	2.42	4.66		Pass



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		
HT20	MCS8	2	52	5260	0.00	0.00	-		6.72	10.38	6.62			-	Pass
HT20	MCS8	2	60	5300	0.00	0.00			6.66	10.38	6.62				Pass
HT20	MCS8	2	64	5320	0.00	0.00			6.50	10.38	6.62				Pass
HT40	MCS8	2	54	5270	0.00	0.00			3.05	10.38	6.62				Pass
HT40	MCS8	2	62	5310	0.00	0.00			2.96	10.38	6.62				Pass
VHT20	MCS0	2	52	5260	0.00	0.00			6.28	10.38	6.62				Pass
VHT20	MCS0	2	60	5300	0.00	0.00			6.36	10.38	6.62				Pass
VHT20	MCS0	2	64	5320	0.00	0.00			6.23	10.38	6.62				Pass
VHT40	MCS0	2	54	5270	0.00	0.00			2.86	10.38	6.62				Pass
VHT40	MCS0	2	62	5310	0.00	0.00			3.24	10.38	6.62				Pass
VHT80	MCS0	2	58	5290	0.00	0.00			-0.56	10.38	6.62				Pass

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



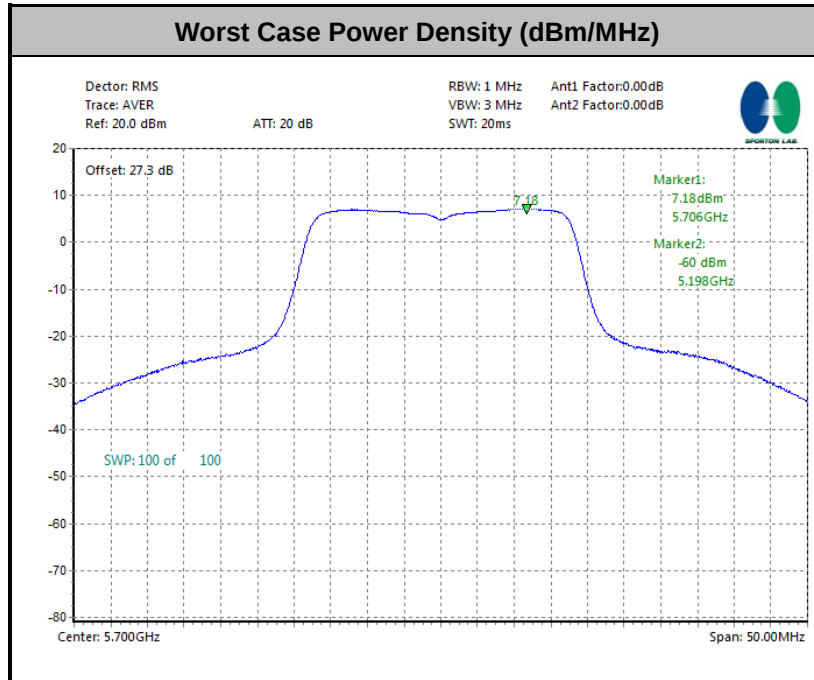
Test Band :	5GHz band 3	Temperature :	21~26°C
Test Engineer :	Bill Kuo, Book Lin, Alex Lee, and Stuart Lin	Relative Humidity :	45~54%

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	0.00	0.00		5.05		11.00	11.00	2.31	3.57		Pass
11a	6Mbps	1	116	5580	0.00	0.00		4.56		11.00	11.00	2.31	3.57		Pass
11a	6Mbps	1	140	5700	0.00	0.00		5.48		11.00	11.00	2.31	3.57		Pass
HT20	MCS0	1	100	5500	0.00	0.00		3.78		11.00	11.00	2.31	3.57		Pass
HT20	MCS0	1	116	5580	0.00	0.00		3.27		11.00	11.00	2.31	3.57		Pass
HT20	MCS0	1	140	5700	0.00	0.00		4.25		11.00	11.00	2.31	3.57		Pass
HT40	MCS0	1	102	5510	0.00	0.00		0.48		11.00	11.00	2.31	3.57		Pass
HT40	MCS0	1	110	5550	0.00	0.00		0.49		11.00	11.00	2.31	3.57		Pass
HT40	MCS0	1	134	5670	0.00	0.00	-	-0.20	-	11.00	11.00	2.31	3.57	-	Pass
VHT20	MCS0	1	100	5500	0.00	0.00		4.38		11.00	11.00	2.31	3.57		Pass
VHT20	MCS0	1	116	5580	0.00	0.00		3.81		11.00	11.00	2.31	3.57		Pass
VHT20	MCS0	1	140	5700	0.00	0.00		3.84		11.00	11.00	2.31	3.57		Pass
VHT40	MCS0	1	102	5510	0.00	0.00		0.16		11.00	11.00	2.31	3.57		Pass
VHT40	MCS0	1	110	5550	0.00	0.00		0.36		11.00	11.00	2.31	3.57		Pass
VHT40	MCS0	1	134	5670	0.00	0.00		-0.25		11.00	11.00	2.31	3.57		Pass
VHT80	MCS0	1	106	5530	0.00	0.00		-3.54		11.00	11.00	2.31	3.57		Pass



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		
HT20	MCS8	2	100	5500	0.00	0.00	-		6.44	11.00	5.97			-	Pass
HT20	MCS8	2	116	5580	0.00	0.00			6.12	11.00	5.97				Pass
HT20	MCS8	2	140	5700	0.00	0.00			6.57	11.00	5.97				Pass
HT40	MCS8	2	102	5510	0.00	0.00			3.28	11.00	5.97				Pass
HT40	MCS8	2	110	5550	0.00	0.00			3.31	11.00	5.97				Pass
HT40	MCS8	2	134	5670	0.00	0.00			3.14	11.00	5.97				Pass
VHT20	MCS0	2	100	5500	0.00	0.00			6.87	11.00	5.97				Pass
VHT20	MCS0	2	116	5580	0.00	0.00			6.45	11.00	5.97				Pass
VHT20	MCS0	2	140	5700	0.00	0.00			7.18	11.00	5.97				Pass
VHT40	MCS0	2	102	5510	0.00	0.00			3.09	11.00	5.97				Pass
VHT40	MCS0	2	110	5550	0.00	0.00			3.47	11.00	5.97				Pass
VHT40	MCS0	2	134	5670	0.00	0.00			3.09	11.00	5.97				Pass
VHT80	MCS0	2	106	5530	0.00	0.00			-0.15	11.00	5.97				Pass

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



3.4 Peak Excursion Ratio Measurement

3.4.1 Limit of Peak Excursion Ratio

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the maximum conducted output power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

3.4.2 Measuring Instruments

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

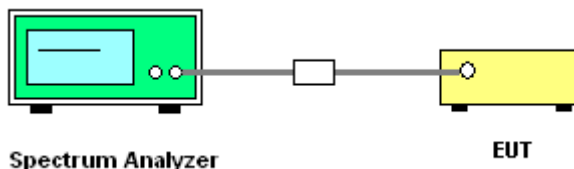
3.4.3 Test Procedures

The testing follows FCC KDB 789033 D01 General UNII Test Procedures v01r03.

Section G) Peak excursion measurement

1. The transmitter output is connected to the spectrum analyzer.
2. Set the spectrum analyzer span to view the entire emission bandwidth.
3. Find the maximum of the peak-max-hold spectrum.
 - *Set RBW = 1MHz.
 - *Set VBW $\geq$ 3MHz.
 - *Detector = peak.
 - *Trace mode = max-hold.
 - *Allow the sweeps to continue until the trace stabilizes.
 - *Use the peak search function to find the peak of the spectrum.
4. Use the procedure found under section 3.3 to measure the PPSD.
5. Compute the ratio of the maximum of the peak-max-hold spectrum to the PPSD.

3.4.4 Test Setup

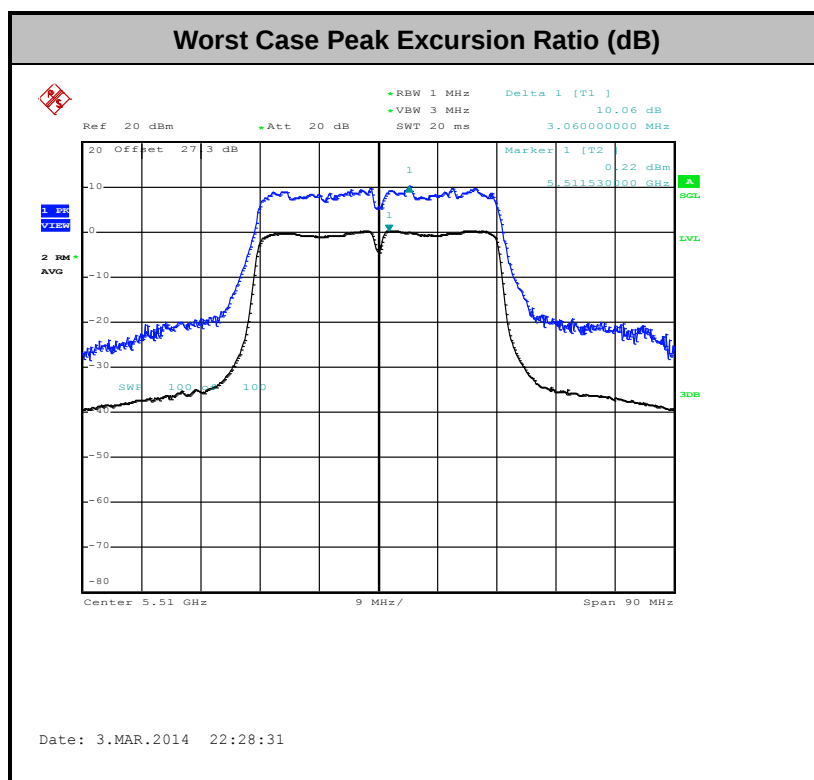


3.4.5 Test Result of Peak Excursion Ratio

Test Band :	5GHz band 3	Temperature :	21~26°C
Test Engineer :	Bill Kuo, Book Lin, Alex Lee, and Stuart Lin	Relative Humidity :	45~54%

Mod.	Data Rate	N _{TX}	Ch.	Freq. (MHz)	Peak Excursion Ratio (dB)					Max. Limits (dB)	Pass/Fail
					BPSK	QPSK	16QAM	64QAM	256QAM		
11a	6Mbps	1	100	5500	8.33	9.20	9.06	9.01	-	13	Pass
HT20	MCS0	1	100	5500	8.62	9.08	9.03	9.40	-	13	Pass
HT40	MCS0	1	102	5510	8.41	8.72	8.86	9.93	-	13	Pass
VHT20	MCS0	1	100	5500	8.56	9.24	8.99	9.64	9.41	13	Pass
VHT40	MCS0	1	102	5510	8.40	8.71	8.87	10.06	8.91	13	Pass
VHT80	MCS0	1	106	5530	8.34	8.27	9.23	8.80	9.15	13	Pass

Note: All modulation measured based on the minimum data rate setting.



Note: Peak Excursion Ratio (dB) = Peak – (Average + Duty Cycle Offset)

3.5 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.

3.5.1 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.

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

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

- (3) KDB789033 v01r03 H)2)c)(i) 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.

3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

1. The testing follows FCC KDB 789033 D01 General UNII Test Procedures v01r03.
Section H) 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
 - The setting follows the H) 5) of FCC KDB 789033.
 - RBW = 1 MHz
 - VBW $\geq$ 3 MHz
 - Detector = Peak
 - Sweep time = auto
 - Trace mode = max hold

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

- The setting follows H) 6) of FCC KDB 789033.
- RBW = 1 MHz
- VBW = 10 Hz, when duty cycle is no less than 98 percent.
- $VBW \geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

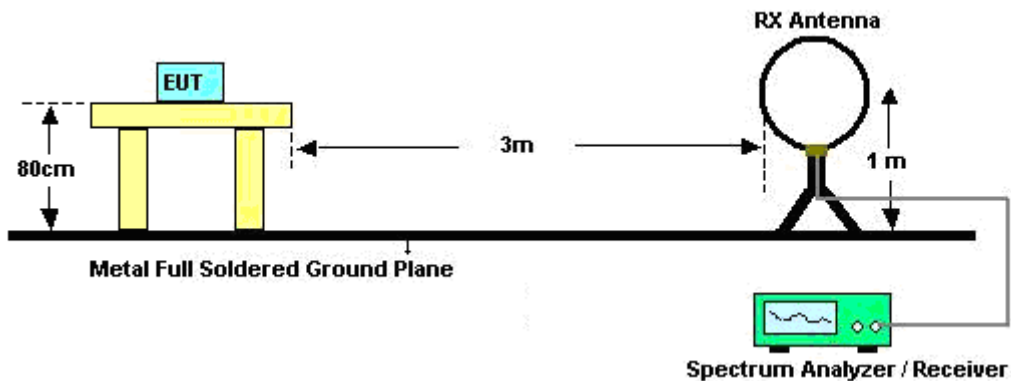
Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
2	802.11a	100	-	-	10Hz
2	802.11n HT20	100	-	-	
2	802.11n HT40	100	-	-	
1+2	802.11n HT40 for Ant1	100	-	-	
1+2	802.11n HT20 for Ant2	100	-	-	
1+2	802.11n HT40 for Ant1	100	-	-	
1+2	802.11n HT40 for Ant2	100	-	-	

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

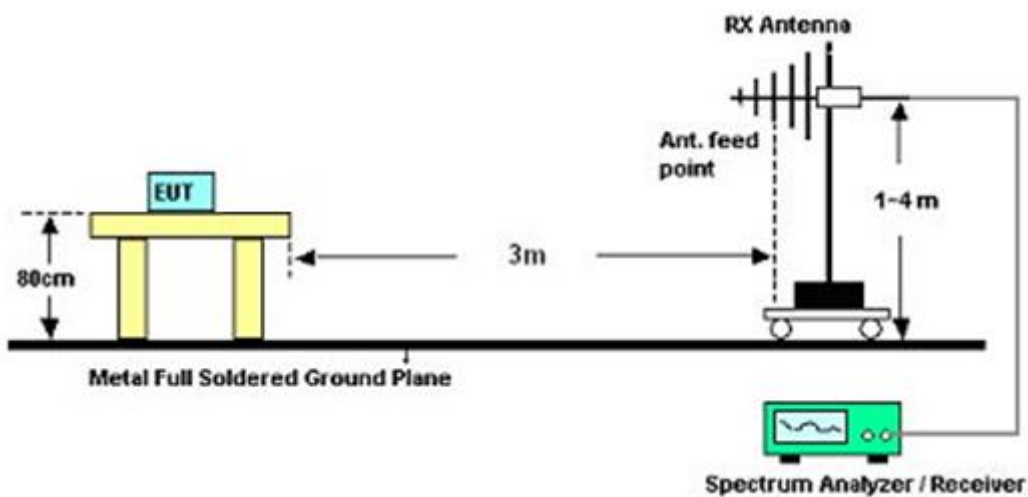
For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again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

3.5.4 Test Setup

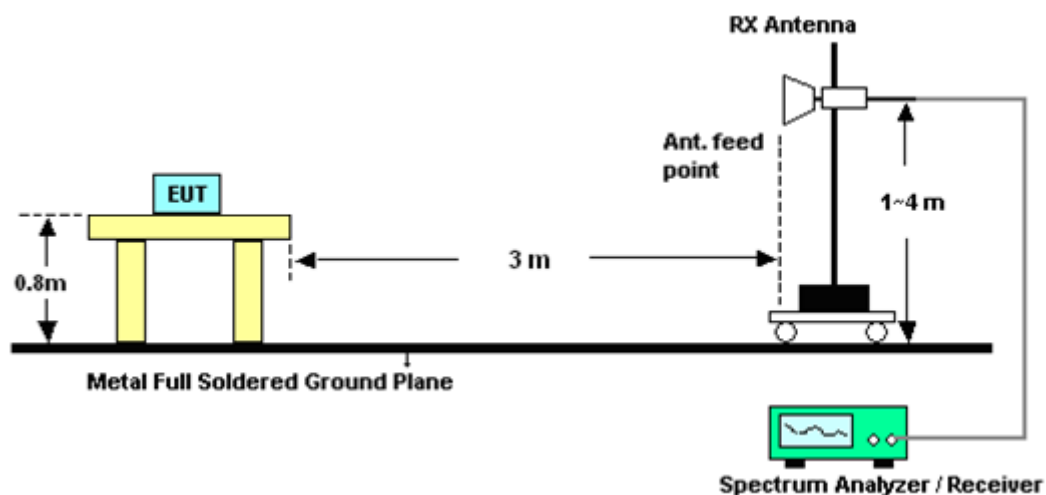
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.5.5 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.

3.5.6 Test Result of Radiated Band Edges

<Ant. Port 2>

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	36	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5147.15	67.97	-6.03	74	56.43	34.45	10.44	33.35	138	88	Peak
5150	50.42	-3.58	54	38.88	34.45	10.44	33.35	138	88	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5147.75	68.38	-5.62	74	56.84	34.45	10.44	33.35	107	126	Peak
5150	51.31	-2.69	54	39.77	34.45	10.44	33.35	107	126	Average



Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	48	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5124.95	55.4	-18.6	74	43.93	34.43	10.4	33.36	122	87	Peak
5150	44.19	-9.81	54	32.65	34.45	10.44	33.35	122	87	Average
5397.52	56.08	-17.92	74	43.84	34.7	10.79	33.25	122	87	Peak
5435.03	44.72	-9.28	54	32.36	34.73	10.86	33.23	122	87	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5136.05	56.27	-17.73	74	44.8	34.43	10.4	33.36	105	126	Peak
5149.25	44.64	-9.36	54	33.1	34.45	10.44	33.35	105	126	Average
5392.68	56.46	-17.54	74	44.24	34.68	10.79	33.25	105	126	Peak
5356.38	44.81	-9.19	54	32.68	34.65	10.75	33.27	105	126	Average



Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	52	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5141.15	54.86	-19.14	74	43.33	34.45	10.44	33.36	108	88	Peak
5143.1	44.21	-9.79	54	32.68	34.45	10.44	33.36	108	88	Average
5386.85	57.52	-16.48	74	45.3	34.68	10.79	33.25	108	88	Peak
5413.8	45.37	-8.63	54	33.07	34.72	10.82	33.24	108	88	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5133.2	55.24	-18.76	74	43.77	34.43	10.4	33.36	105	128	Peak
5147.75	44.22	-9.78	54	32.68	34.45	10.44	33.35	105	128	Average
5436.9	56.31	-17.69	74	43.95	34.73	10.86	33.23	105	128	Peak
5414.24	44.71	-9.29	54	32.41	34.72	10.82	33.24	105	128	Average

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5352.97	68.28	-5.72	74	56.18	34.65	10.72	33.27	133	89	Peak
5350	49.14	-4.86	54	37.04	34.65	10.72	33.27	133	89	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5352.09	66.45	-7.55	74	54.35	34.65	10.72	33.27	104	122	Peak
5350	48.51	-5.49	54	36.41	34.65	10.72	33.27	104	122	Average



Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	100	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5467.12	69.75	-4.25	74	57.31	34.77	10.89	33.22	103	90	Peak
5470	50.93	-3.07	54	38.49	34.77	10.89	33.22	103	90	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5467.12	69.35	-4.65	74	56.91	34.77	10.89	33.22	101	138	Peak
5470	50.83	-3.17	54	38.39	34.77	10.89	33.22	101	138	Average

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	140	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5725	70.33	-3.67	74	57.26	35.02	11.34	33.29	134	80	Peak
5725	51.54	-2.46	54	38.47	35.02	11.34	33.29	134	80	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5725.88	72	-2	74	58.93	35.02	11.34	33.29	107	135	Peak
5725	52.83	-1.17	54	39.76	35.02	11.34	33.29	107	135	Average



SISO <Ant. Port 2>

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	36	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5147.6	66.33	-7.67	74	54.79	34.45	10.44	33.35	100	145	Peak
5150	47.72	-6.28	54	36.18	34.45	10.44	33.35	100	145	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5145.95	62.73	-11.27	74	51.19	34.45	10.44	33.35	116	241	Peak
5150	46.41	-7.59	54	34.87	34.45	10.44	33.35	116	241	Average

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	48	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5114.75	54.92	-19.08	74	43.51	34.42	10.37	33.38	100	153	Peak
5144.6	44.06	-9.94	54	32.52	34.45	10.44	33.35	100	153	Average
5458.46	56.91	-17.09	74	44.49	34.75	10.89	33.22	100	153	Peak
5443.28	44.65	-9.35	54	32.29	34.73	10.86	33.23	100	153	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5129.3	55.5	-18.5	74	44.03	34.43	10.4	33.36	100	272	Peak
5142.5	43.85	-10.15	54	32.32	34.45	10.44	33.36	100	272	Average
5459.56	56.48	-17.52	74	44.06	34.75	10.89	33.22	100	272	Peak
5442.18	44.82	-9.18	54	32.46	34.73	10.86	33.23	100	272	Average



Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	52	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5133.05	55.43	-18.57	74	43.96	34.43	10.4	33.36	100	151	Peak
5146.85	44.11	-9.89	54	32.57	34.45	10.44	33.35	100	151	Average
5389.05	55.82	-18.18	74	43.6	34.68	10.79	33.25	100	151	Peak
5414.46	44.72	-9.28	54	32.42	34.72	10.82	33.24	100	151	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5080.7	54.84	-19.16	74	43.52	34.38	10.33	33.39	100	272	Peak
5144.45	43.87	-10.13	54	32.33	34.45	10.44	33.35	100	272	Average
5423.48	56.7	-17.3	74	44.4	34.72	10.82	33.24	100	272	Peak
5440.53	44.93	-9.07	54	32.57	34.73	10.86	33.23	100	272	Average

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5350.44	64.69	-9.31	74	52.59	34.65	10.72	33.27	100	147	Peak
5350	47.56	-6.44	54	35.46	34.65	10.72	33.27	100	147	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5350.44	63.15	-10.85	74	51.05	34.65	10.72	33.27	100	124	Peak
5350	46.81	-7.19	54	34.71	34.65	10.72	33.27	100	124	Average



Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	100	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5469.04	71.59	-2.41	74	59.15	34.77	10.89	33.22	113	87	Peak
5470	50.23	-3.77	54	37.79	34.77	10.89	33.22	113	87	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5468.4	70.22	-3.78	74	57.78	34.77	10.89	33.22	100	127	Peak
5470	49.38	-4.62	54	36.94	34.77	10.89	33.22	100	127	Average

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	140	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5727.08	72.59	-1.41	74	59.52	35.02	11.34	33.29	122	89	Peak
5725	49.38	-4.62	54	36.31	35.02	11.34	33.29	122	89	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5725.16	61.04	-12.96	74	47.97	35.02	11.34	33.29	100	66	Peak
5725	45.9	-8.1	54	32.83	35.02	11.34	33.29	100	66	Average



Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	38	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5149.7	69.17	-4.83	74	57.63	34.45	10.44	33.35	100	137	Peak
5150	52.93	-1.07	54	41.39	34.45	10.44	33.35	100	137	Average
5452.63	55.98	-18.02	74	43.56	34.75	10.89	33.22	100	137	Peak
5450.87	44.67	-9.33	54	32.28	34.75	10.86	33.22	100	137	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5150	66.88	-7.12	74	55.34	34.45	10.44	33.35	102	240	Peak
5150	50.9	-3.1	54	39.36	34.45	10.44	33.35	102	240	Average
5451.2	56.4	-17.6	74	44.01	34.75	10.86	33.22	102	240	Peak
5449.66	44.79	-9.21	54	32.41	34.75	10.86	33.23	102	240	Average



Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	46	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5149.55	56.38	-17.62	74	44.84	34.45	10.44	33.35	100	137	Peak
5149.85	44.76	-9.24	54	33.22	34.45	10.44	33.35	100	137	Average
5392.68	55.82	-18.18	74	43.6	34.68	10.79	33.25	100	137	Peak
5451.2	44.68	-9.32	54	32.29	34.75	10.86	33.22	100	137	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5064.5	54.67	-19.33	74	43.4	34.37	10.3	33.4	103	128	Peak
5145.95	43.92	-10.08	54	32.38	34.45	10.44	33.35	103	128	Average
5431.84	57.12	-16.88	74	44.76	34.73	10.86	33.23	103	128	Peak
5443.72	45.17	-8.83	54	32.81	34.73	10.86	33.23	103	128	Average



Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	54	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5142.95	54.96	-19.04	74	43.43	34.45	10.44	33.36	120	87	Peak
5149.7	44.04	-9.96	54	32.5	34.45	10.44	33.35	120	87	Average
5351.32	58.66	-15.34	74	46.56	34.65	10.72	33.27	120	87	Peak
5350	46.21	-7.79	54	34.11	34.65	10.72	33.27	120	87	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5135.15	54.9	-19.1	74	43.43	34.43	10.4	33.36	104	127	Peak
5147	43.96	-10.04	54	32.42	34.45	10.44	33.35	104	127	Average
5359.13	57.75	-16.25	74	45.62	34.65	10.75	33.27	104	127	Peak
5429.86	45.31	-8.69	54	32.95	34.73	10.86	33.23	104	127	Average



Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	62	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5094.65	55.47	-18.53	74	44.08	34.4	10.37	33.38	119	87	Peak
5146.55	43.91	-10.09	54	32.37	34.45	10.44	33.35	119	87	Average
5351.32	72.55	-1.45	74	60.45	34.65	10.72	33.27	119	87	Peak
5350	52.16	-1.84	54	40.06	34.65	10.72	33.27	119	87	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5049.35	55.15	-18.85	74	43.9	34.35	10.3	33.4	125	263	Peak
5145.8	43.89	-10.11	54	32.35	34.45	10.44	33.35	125	263	Average
5351.21	63.68	-10.32	74	51.58	34.65	10.72	33.27	125	263	Peak
5350	46.94	-7.06	54	34.84	34.65	10.72	33.27	125	263	Average



Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	102	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5470	68.76	-5.24	74	56.32	34.77	10.89	33.22	126	89	Peak
5470	52.53	-1.47	54	40.09	34.77	10.89	33.22	126	89	Average
5756.12	57.13	-16.87	74	43.99	35.06	11.39	33.31	126	89	Peak
5738.2	45.44	-8.56	54	32.36	35.04	11.34	33.3	126	89	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5469.84	63.95	-10.05	74	51.51	34.77	10.89	33.22	100	128	Peak
5470	49.03	-4.97	54	36.59	34.77	10.89	33.22	100	128	Average
5728.04	56.69	-17.31	74	43.62	35.02	11.34	33.29	100	128	Peak
5761.88	45.31	-8.69	54	32.17	35.06	11.39	33.31	100	128	Average



Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	134	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5462.64	55.6	-18.4	74	43.16	34.77	10.89	33.22	111	90	Peak
5461.36	44.72	-9.28	54	32.3	34.75	10.89	33.22	111	90	Average
5725.16	68.72	-5.28	74	55.65	35.02	11.34	33.29	111	90	Peak
5725	51.35	-2.65	54	38.28	35.02	11.34	33.29	111	90	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5453.68	56.02	-17.98	74	43.6	34.75	10.89	33.22	108	130	Peak
5464.08	44.68	-9.32	54	32.24	34.77	10.89	33.22	108	130	Average
5725.16	62.44	-11.56	74	49.37	35.02	11.34	33.29	108	130	Peak
5725	47.79	-6.21	54	34.72	35.02	11.34	33.29	108	130	Average



Test Mode :	802.11n VHT80	Temperature :	23~24°C
Test Channel :	42	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5139.35	67.35	-6.65	74	55.88	34.43	10.4	33.36	110	85	Peak
5144.9	52.73	-1.27	54	41.19	34.45	10.44	33.35	110	85	Average
5389.49	56.07	-17.93	74	43.85	34.68	10.79	33.25	110	85	Peak
5458.46	44.74	-9.26	54	32.32	34.75	10.89	33.22	110	85	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5149.4	60.56	-13.44	74	49.02	34.45	10.44	33.35	126	270	Peak
5148.35	47.46	-6.54	54	35.92	34.45	10.44	33.35	126	270	Average
5458.24	55.98	-18.02	74	43.56	34.75	10.89	33.22	126	270	Peak
5444.6	44.69	-9.31	54	32.33	34.73	10.86	33.23	126	270	Average



Test Mode :	802.11n VHT80	Temperature :	23~24°C
Test Channel :	58	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5013.2	55.46	-18.54	74	44.33	34.32	10.23	33.42	120	88	Peak
5150	44.07	-9.93	54	32.53	34.45	10.44	33.35	120	88	Average
5352.86	70.74	-3.26	74	58.64	34.65	10.72	33.27	120	88	Peak
5350	52.66	-1.34	54	40.56	34.65	10.72	33.27	120	88	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5138.75	55.51	-18.49	74	44.04	34.43	10.4	33.36	124	264	Peak
5148.2	43.97	-10.03	54	32.43	34.45	10.44	33.35	124	264	Average
5352.75	65.46	-8.54	74	53.36	34.65	10.72	33.27	124	264	Peak
5350	49.25	-4.75	54	37.15	34.65	10.72	33.27	124	264	Average



Test Mode :	802.11n VHT80	Temperature :	23~24°C
Test Channel :	106	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5469.84	67.66	-6.34	74	55.22	34.77	10.89	33.22	126	90	Peak
5468.56	52.83	-1.17	54	40.39	34.77	10.89	33.22	126	90	Average
5726.44	57.63	-16.37	74	44.56	35.02	11.34	33.29	126	90	Peak
5738.6	45.66	-8.34	54	32.58	35.04	11.34	33.3	126	90	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5467.76	62.9	-11.1	74	50.46	34.77	10.89	33.22	100	129	Peak
5468.56	49.77	-4.23	54	37.33	34.77	10.89	33.22	100	129	Average
5727.88	56.85	-17.15	74	43.78	35.02	11.34	33.29	100	129	Peak
5763.8	45.32	-8.68	54	32.18	35.06	11.39	33.31	100	129	Average



MIMO <Ant. Port 1 + 2>

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	36	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5150	67.34	-6.66	74	55.8	34.45	10.44	33.35	127	102	Peak
5150	50.21	-3.79	54	38.67	34.45	10.44	33.35	127	102	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5150	64.4	-9.6	74	52.86	34.45	10.44	33.35	120	128	Peak
5150	48.69	-5.31	54	37.15	34.45	10.44	33.35	120	128	Average

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	48	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5136.65	55.39	-18.61	74	43.92	34.43	10.4	33.36	122	87	Peak
5150	44.29	-9.71	54	32.75	34.45	10.44	33.35	122	87	Average
5419.74	57.5	-16.5	74	45.2	34.72	10.82	33.24	122	87	Peak
5399.94	46.36	-7.64	54	34.11	34.7	10.79	33.24	122	87	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5147.15	55.28	-18.72	74	43.74	34.45	10.44	33.35	105	123	Peak
5150	44.21	-9.79	54	32.67	34.45	10.44	33.35	105	123	Average
5400.16	56.66	-17.34	74	44.41	34.7	10.79	33.24	105	123	Peak
5400.05	46.13	-7.87	54	33.88	34.7	10.79	33.24	105	123	Average



Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	52	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5132.9	56.35	-17.65	74	44.88	34.43	10.4	33.36	108	127	Peak
5141.9	44.01	-9.99	54	32.48	34.45	10.44	33.36	108	127	Average
5382.45	55.94	-18.06	74	43.72	34.68	10.79	33.25	108	127	Peak
5420.07	45.07	-8.93	54	32.77	34.72	10.82	33.24	108	127	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5104.85	55.29	-18.71	74	43.9	34.4	10.37	33.38	103	116	Peak
5150	43.98	-10.02	54	32.44	34.45	10.44	33.35	103	116	Average
5422.93	55.99	-18.01	74	43.69	34.72	10.82	33.24	103	116	Peak
5419.96	45.71	-8.29	54	33.41	34.72	10.82	33.24	103	116	Average

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5350.55	62.34	-11.66	74	50.24	34.65	10.72	33.27	108	126	Peak
5350	46.36	-7.64	54	34.26	34.65	10.72	33.27	108	126	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5350.11	62.57	-11.43	74	50.47	34.65	10.72	33.27	103	116	Peak
5350	46.25	-7.75	54	34.15	34.65	10.72	33.27	103	116	Average

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	100	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5469.2	66.07	-7.93	74	53.63	34.77	10.89	33.22	102	123	Peak
5470	47.89	-6.11	54	35.45	34.77	10.89	33.22	102	123	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5470	61.49	-12.51	74	49.05	34.77	10.89	33.22	110	127	Peak
5470	46.32	-7.68	54	33.88	34.77	10.89	33.22	110	127	Average

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	140	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5726.92	71.15	-2.85	74	58.08	35.02	11.34	33.29	100	133	Peak
5725	52.84	-1.16	54	39.77	35.02	11.34	33.29	100	133	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5725.16	69.27	-4.73	74	56.2	35.02	11.34	33.29	102	243	Peak
5725	51.34	-2.66	54	38.27	35.02	11.34	33.29	102	243	Average



Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	38	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5146.4	68.1	-5.9	74	56.56	34.45	10.44	33.35	109	125	Peak
5150	51.83	-2.17	54	40.29	34.45	10.44	33.35	109	125	Average
5401.92	55.8	-18.2	74	43.55	34.7	10.79	33.24	109	125	Peak
5443.94	44.6	-9.4	54	32.24	34.73	10.86	33.23	109	125	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5148.65	62.71	-11.29	74	51.17	34.45	10.44	33.35	101	260	Peak
5150	47.88	-6.12	54	36.34	34.45	10.44	33.35	101	260	Average
5440.2	55.53	-18.47	74	43.17	34.73	10.86	33.23	101	260	Peak
5441.85	44.7	-9.3	54	32.34	34.73	10.86	33.23	101	260	Average



Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	46	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5137.7	55.93	-18.07	74	44.46	34.43	10.4	33.36	100	139	Peak
5150	44.47	-9.53	54	32.93	34.45	10.44	33.35	100	139	Average
5452.08	55.82	-18.18	74	43.4	34.75	10.89	33.22	100	139	Peak
5450.76	44.59	-9.41	54	32.2	34.75	10.86	33.22	100	139	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5135.9	55.21	-18.79	74	43.74	34.43	10.4	33.36	100	257	Peak
5142.95	43.89	-10.11	54	32.36	34.45	10.44	33.36	100	257	Average
5435.36	55.8	-18.2	74	43.44	34.73	10.86	33.23	100	257	Peak
5442.84	44.61	-9.39	54	32.25	34.73	10.86	33.23	100	257	Average



Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	54	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5092.85	55.06	-18.94	74	43.67	34.4	10.37	33.38	107	92	Peak
5120.15	43.94	-10.06	54	32.48	34.42	10.4	33.36	107	92	Average
5438.99	55.86	-18.14	74	43.5	34.73	10.86	33.23	107	92	Peak
5444.49	44.72	-9.28	54	32.36	34.73	10.86	33.23	107	92	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5080.55	54.77	-19.23	74	43.45	34.38	10.33	33.39	102	114	Peak
5149.4	43.82	-10.18	54	32.28	34.45	10.44	33.35	102	114	Average
5356.93	56.38	-17.62	74	44.25	34.65	10.75	33.27	102	114	Peak
5430.08	44.84	-9.16	54	32.48	34.73	10.86	33.23	102	114	Average



Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	62	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5125.85	55.42	-18.58	74	43.95	34.43	10.4	33.36	119	97	Peak
5150	43.96	-10.04	54	32.42	34.45	10.44	33.35	119	97	Average
5352.09	64.16	-9.84	74	52.06	34.65	10.72	33.27	119	97	Peak
5350	47.04	-6.96	54	34.94	34.65	10.72	33.27	119	97	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5148.05	54.85	-19.15	74	43.31	34.45	10.44	33.35	102	115	Peak
5148.5	43.96	-10.04	54	32.42	34.45	10.44	33.35	102	115	Average
5350.11	65.69	-8.31	74	53.59	34.65	10.72	33.27	102	115	Peak
5350	50.63	-3.37	54	38.53	34.65	10.72	33.27	102	115	Average



Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	102	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5466.16	68.36	-5.64	74	55.92	34.77	10.89	33.22	100	115	Peak
5470	52.71	-1.29	54	40.27	34.77	10.89	33.22	100	115	Average
5757	56.96	-17.04	74	43.82	35.06	11.39	33.31	100	115	Peak
5757.64	45.6	-8.4	54	32.46	35.06	11.39	33.31	100	115	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5469.84	62.69	-11.31	74	50.25	34.77	10.89	33.22	109	112	Peak
5470	48.52	-5.48	54	36.08	34.77	10.89	33.22	109	112	Average
5737.16	56.51	-17.49	74	43.43	35.04	11.34	33.3	109	112	Peak
5760.84	45.24	-8.76	54	32.1	35.06	11.39	33.31	109	112	Average



Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	134	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5440.72	55.69	-18.31	74	43.33	34.73	10.86	33.23	100	132	Peak
5465.68	44.74	-9.26	54	32.3	34.77	10.89	33.22	100	132	Average
5725.64	66.47	-7.53	74	53.4	35.02	11.34	33.29	100	132	Peak
5725	48.04	-5.96	54	34.97	35.02	11.34	33.29	100	132	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5468.08	56.05	-17.95	74	43.61	34.77	10.89	33.22	102	247	Peak
5455.6	44.59	-9.41	54	32.17	34.75	10.89	33.22	102	247	Average
5725.4	61.18	-12.82	74	48.11	35.02	11.34	33.29	102	247	Peak
5725.32	46.66	-7.34	54	33.59	35.02	11.34	33.29	102	247	Average



Test Mode :	802.11n VHT80	Temperature :	23~24°C
Test Channel :	42	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5141	65.37	-8.63	74	53.84	34.45	10.44	33.36	110	150	Peak
5148.05	51.58	-2.42	54	40.04	34.45	10.44	33.35	110	150	Average
5363.64	56.63	-17.37	74	44.48	34.67	10.75	33.27	110	150	Peak
5440.53	44.75	-9.25	54	32.39	34.73	10.86	33.23	110	150	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5141	60.65	-13.35	74	49.12	34.45	10.44	33.36	100	247	Peak
5148.05	47.06	-6.94	54	35.52	34.45	10.44	33.35	100	247	Average
5451.09	56.78	-17.22	74	44.39	34.75	10.86	33.22	100	247	Peak
5441.96	44.85	-9.15	54	32.49	34.73	10.86	33.23	100	247	Average



Test Mode :	802.11n VHT80	Temperature :	23~24°C
Test Channel :	58	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5052.35	55.22	-18.78	74	43.97	34.35	10.3	33.4	108	145	Peak
5147.6	44.08	-9.92	54	32.54	34.45	10.44	33.35	108	145	Average
5352.31	64.81	-9.19	74	52.71	34.65	10.72	33.27	108	145	Peak
5351.21	49.23	-4.77	54	37.13	34.65	10.72	33.27	108	145	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5129.3	55.24	-18.76	74	43.77	34.43	10.4	33.36	100	260	Peak
5145.05	43.97	-10.03	54	32.43	34.45	10.44	33.35	100	260	Average
5353.52	63.4	-10.6	74	51.3	34.65	10.72	33.27	100	260	Peak
5357.15	48.22	-5.78	54	36.09	34.65	10.75	33.27	100	260	Average



Test Mode :	802.11n VHT80	Temperature :	23~24°C
Test Channel :	106	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5467.92	66.84	-7.16	74	54.4	34.77	10.89	33.22	102	120	Peak
5468.24	52.92	-1.08	54	40.48	34.77	10.89	33.22	102	120	Average
5761	57.54	-16.46	74	44.4	35.06	11.39	33.31	102	120	Peak
5741.96	45.84	-8.16	54	32.71	35.04	11.39	33.3	102	120	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5466.96	62.55	-11.45	74	50.11	34.77	10.89	33.22	100	134	Peak
5468.08	50.19	-3.81	54	37.75	34.77	10.89	33.22	100	134	Average
5732.44	56.21	-17.79	74	43.15	35.02	11.34	33.3	100	134	Peak
5760.04	45.39	-8.61	54	32.25	35.06	11.39	33.31	100	134	Average

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

<Ant. Port 2>

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	36	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5182 MHz is fundamental signal which can be ignored. 2. 10359 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5182	100.71	-	-	89.1	34.48	10.47	33.34	138	88	Average
5182	111.51	-	-	99.9	34.48	10.47	33.34	138	88	Peak
10359	49.54	-24.46	74	57.09	37.17	10.64	55.36	100	0	Peak
15540	44.79	-9.21	54	47.09	39.73	11.79	53.82	150	216	Average
15540	57	-17	74	59.3	39.73	11.79	53.82	150	216	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	36	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5178 MHz is fundamental signal which can be ignored. 2. 10359 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5178	101.36	-	-	89.75	34.48	10.47	33.34	107	126	Average
5178	111.81	-	-	100.2	34.48	10.47	33.34	107	126	Peak
10359	49.62	-24.38	74	57.17	37.17	10.64	55.36	100	0	Peak
15540	45.79	-8.21	54	48.04	39.75	11.79	53.79	100	144	Average
15540	59.56	-14.44	74	61.81	39.75	11.79	53.79	100	144	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	44	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5222 MHz is fundamental signal which can be ignored. 2. 10440 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5222	102.25	-	-	90.5	34.53	10.54	33.32	110	87	Average
5222	111.94	-	-	100.19	34.53	10.54	33.32	110	87	Peak
10440	50.27	-23.73	74	57.67	37.23	10.65	55.28	100	0	Peak
15660	43.79	-10.21	54	45.74	39.86	11.75	53.56	143	175	Average
15660	56.52	-17.48	74	58.47	39.86	11.75	53.56	143	175	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	44	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5218 MHz is fundamental signal which can be ignored. 2. 10440 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5218	100.67	-	-	88.92	34.53	10.54	33.32	106	131	Average
5218	110.7	-	-	98.95	34.53	10.54	33.32	106	131	Peak
10440	50.62	-23.38	74	58.02	37.23	10.65	55.28	100	0	Peak
15660	46.76	-7.24	54	48.71	39.86	11.75	53.56	155	127	Average
15660	58.91	-15.09	74	60.86	39.86	11.75	53.56	155	127	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	48	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5242 MHz is fundamental signal which can be ignored. 2. 10479 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5242	101.57	-	-	89.75	34.55	10.58	33.31	122	87	Average
5242	110.94	-	-	99.12	34.55	10.58	33.31	122	87	Peak
10479	49.87	-24.13	74	57.15	37.28	10.66	55.22	100	0	Peak
15720	45.9	-8.1	54	47.65	39.92	11.74	53.41	148	225	Average
15720	57.9	-16.1	74	59.65	39.92	11.74	53.41	148	225	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	48	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5242 MHz is fundamental signal which can be ignored. 2. 10479 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5242	102.16	-	-	90.35	34.55	10.58	33.32	105	126	Average
5242	112.06	-	-	100.25	34.55	10.58	33.32	105	126	Peak
10479	50.25	-23.75	74	57.53	37.28	10.66	55.22	100	0	Peak
15720	45.69	-8.31	54	47.44	39.92	11.74	53.41	109	170	Average
15720	57.42	-16.58	74	59.17	39.92	11.74	53.41	109	170	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	52	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5258 MHz is fundamental signal which can be ignored. 2. 10521 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5258	103.42	-	-	91.6	34.55	10.58	33.31	108	88	Average
5258	113.86	-	-	102.04	34.55	10.58	33.31	108	88	Peak
10521	49.92	-24.08	74	57.12	37.31	10.67	55.18	100	0	Peak
15780	46.15	-7.85	54	47.74	39.98	11.72	53.29	152	227	Average
15780	57.96	-16.04	74	59.55	39.98	11.72	53.29	152	227	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	52	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5258 MHz is fundamental signal which can be ignored. 2. 10520 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5258	100.96	-	-	89.14	34.55	10.58	33.31	105	128	Average
5258	111.65	-	-	99.83	34.55	10.58	33.31	105	128	Peak
10520	50.13	-23.87	74	57.33	37.31	10.67	55.18	100	0	Peak
15780	47.53	-6.47	54	49.12	39.98	11.72	53.29	122	138	Average
15780	60.61	-13.39	74	62.2	39.98	11.72	53.29	122	138	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	60	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5302 MHz is fundamental signal which can be ignored.. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5302	101.7	-	-	89.75	34.6	10.65	33.3	109	88	Average
5302	112.15	-	-	100.2	34.6	10.65	33.3	109	88	Peak
10600	50.11	-23.89	74	57.15	37.36	10.68	55.08	100	0	Peak
15900	46.48	-7.52	54	47.73	40.1	11.68	53.03	161	229	Average
15900	59.24	-14.76	74	60.49	40.1	11.68	53.03	161	229	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	60	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5298 MHz is fundamental signal which can be ignored. 2. 10599 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5298	102.34	-	-	90.41	34.58	10.65	33.3	105	126	Average
5298	112.87	-	-	100.94	34.58	10.65	33.3	105	126	Peak
10599	50.67	-23.33	74	57.71	37.36	10.68	55.08	100	0	Peak
15900	46.56	-7.44	54	47.81	40.1	11.68	53.03	125	138	Average
15900	60.28	-13.72	74	61.53	40.1	11.68	53.03	125	138	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5322 MHz is fundamental signal which can be ignored.. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5322	101.12	-	-	89.11	34.62	10.68	33.29	133	89	Average
5322	111.8	-	-	99.79	34.62	10.68	33.29	133	89	Peak
10641	50.16	-23.84	74	57.12	37.38	10.69	55.03	100	0	Peak
15960	45.77	-8.23	54	46.82	40.17	11.66	52.88	148	227	Average
15960	58.37	-15.63	74	59.42	40.17	11.66	52.88	148	227	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5318 MHz is fundamental signal which can be ignored.. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5318	100.13	-	-	88.12	34.62	10.68	33.29	104	122	Average
5318	110.66	-	-	98.65	34.62	10.68	33.29	104	122	Peak
10641	48.98	-25.02	74	55.94	37.38	10.69	55.03	100	0	Peak
15960	47.19	-6.81	54	48.24	40.17	11.66	52.88	121	142	Average
15960	59.11	-14.89	74	60.16	40.17	11.66	52.88	121	142	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	100	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5502 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit. 3. 16500 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5502	100.32	-	-	87.82	34.78	10.93	33.21	103	90	Average
5502	110.3	-	-	97.8	34.78	10.93	33.21	103	90	Peak
11001	50.47	-23.53	74	56.71	37.6	10.76	54.6	100	0	Peak
16500	43.9	-10.1	54	44.38	41	11.82	53.3	164	230	Average
16500	55.56	-18.44	74	56.04	41	11.82	53.3	164	230	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	100	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5498 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit. 3. 16500 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5498	99.79	-	-	87.29	34.78	10.93	33.21	101	138	Average
5498	110.72	-	-	98.22	34.78	10.93	33.21	101	138	Peak
11001	50.7	-23.3	74	56.94	37.6	10.76	54.6	100	0	Peak
16500	44.26	-9.74	54	44.74	41	11.82	53.3	148	150	Average
16500	54.88	-19.12	74	55.36	41	11.82	53.3	148	150	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	116	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5582 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit. 3. 16740 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5582	101.71	-	-	88.98	34.89	11.09	33.25	102	90	Average
5582	111.92	-	-	99.19	34.89	11.09	33.25	102	90	Peak
11160	50.01	-23.99	74	55.83	37.67	10.84	54.33	100	0	Peak
16740	43.23	-10.77	54	43.19	41.24	11.91	53.11	129	222	Average
16740	55.29	-18.71	74	55.25	41.24	11.91	53.11	129	222	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	116	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5579 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit. 3. 16740 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5579	100.43	-	-	87.71	34.87	11.09	33.24	111	140	Average
5579	110.97	-	-	98.25	34.87	11.09	33.24	111	140	Peak
11160	50.26	-23.74	74	56.08	37.67	10.84	54.33	100	0	Peak
16740	43.53	-10.47	54	43.49	41.24	11.91	53.11	125	149	Average
16740	55.22	-18.78	74	55.18	41.24	11.91	53.11	125	149	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	140	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5698 MHz is fundamental signal which can be ignored. 2. 17100 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
229.8	32.29	-13.71	46	52.18	10.2	1.65	31.74	-	-	Peak
234.66	35.37	-10.63	46	54.64	10.8	1.67	31.74	-	-	Peak
242.76	35.72	-10.28	46	54.09	11.67	1.7	31.74	102	196	Peak
301.4	24.08	-21.92	46	40.65	13.24	1.91	31.72	-	-	Peak
366.5	25.79	-20.21	46	40.61	14.86	2.11	31.79	-	-	Peak
721.4	27.25	-18.75	46	36.46	19.84	2.96	32.01	-	-	Peak
5698	101.2	-	-	88.19	34.99	11.3	33.28	134	80	Average
5698	111.82	-	-	98.81	34.99	11.3	33.28	134	80	Peak
11400	50.2	-23.8	74	55.41	37.76	10.99	53.96	100	0	Peak
17100	50.61	-23.39	74	50.25	41.34	12.12	53.1	100	0	Peak



Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	140	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5702 MHz is fundamental signal which can be ignored. 2. 17100 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
174.45	27.16	-16.34	43.5	47.76	9.6	1.55	31.75	100	208	Peak
237.9	28.32	-17.68	46	47.22	11.16	1.68	31.74	-	-	Peak
243.84	27.87	-18.13	46	46.15	11.76	1.7	31.74	-	-	Peak
454	22.75	-23.25	46	35.29	17.02	2.32	31.88	-	-	Peak
503	23.27	-22.73	46	34.88	17.83	2.49	31.93	-	-	Peak
665.4	27.84	-18.16	46	37.59	19.45	2.83	32.03	-	-	Peak
5702	102.75	-	-	89.73	35.01	11.3	33.29	107	135	Average
5702	112.02	-	-	99	35.01	11.3	33.29	107	135	Peak
11400	50.38	-23.62	74	55.59	37.76	10.99	53.96	100	0	Peak
17100	50.81	-23.19	74	50.45	41.34	12.12	53.1	100	0	Peak

SISO <Ant. Port 2>

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	36	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5182 MHz is fundamental signal which can be ignored.. 2. 10360 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5182	96.39	-	-	84.78	34.48	10.47	33.34	100	145	Average
5182	106.46	-	-	94.85	34.48	10.47	33.34	100	145	Peak
10360	50.02	-23.98	74	57.57	37.17	10.64	55.36	100	0	Peak
15540	50.61	-23.39	74	52.91	39.73	11.79	53.82	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	36	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5182 MHz is fundamental signal which can be ignored.. 2. 10360 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5182	97.53	-	-	85.92	34.48	10.47	33.34	116	241	Average
5182	102.61	-	-	91	34.48	10.47	33.34	116	241	Peak
10360	50.42	-23.58	74	57.97	37.17	10.64	55.36	100	0	Peak
15540	50	-24	74	52.3	39.73	11.79	53.82	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	44	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5222 MHz is fundamental signal which can be ignored. 2. 10440 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5222	99.15	-	-	87.41	34.52	10.54	33.32	100	145	Average
5222	110.1	-	-	98.36	34.52	10.54	33.32	100	145	Peak
10440	50.11	-23.89	74	57.51	37.23	10.65	55.28	100	0	Peak
15660	50.06	-23.94	74	52.01	39.86	11.75	53.56	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	44	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5222 MHz is fundamental signal which can be ignored. 2. 10440 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5222	92.97	-	-	81.23	34.52	10.54	33.32	102	238	Average
5222	104.04	-	-	92.3	34.52	10.54	33.32	102	238	Peak
10440	49.62	-24.38	74	57.02	37.23	10.65	55.28	100	0	Peak
15660	50.61	-23.39	74	52.56	39.86	11.75	53.56	100	0	Peak



Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	48	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5242 MHz is fundamental signal which can be ignored. 2. 10480 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5242	98.84	-	-	87.03	34.55	10.58	33.32	100	153	Average
5242	108.93	-	-	97.12	34.55	10.58	33.32	100	153	Peak
10480	50.43	-23.57	74	57.71	37.28	10.66	55.22	100	0	Peak
15720	50.29	-23.71	74	52.04	39.92	11.74	53.41	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	48	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5242 MHz is fundamental signal which can be ignored. 2. 10480 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5242	94.1	-	-	82.29	34.55	10.58	33.32	100	272	Average
5242	104.02	-	-	92.21	34.55	10.58	33.32	100	272	Peak
10480	49.37	-24.63	74	56.65	37.28	10.66	55.22	100	0	Peak
15720	50.59	-23.41	74	52.34	39.92	11.74	53.41	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	52	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5262 MHz is fundamental signal which can be ignored. 2. 10520 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5262	98.3	-	-	86.43	34.57	10.61	33.31	100	151	Average
5262	108.82	-	-	96.95	34.57	10.61	33.31	100	151	Peak
10520	49.89	-24.11	74	57.09	37.31	10.67	55.18	100	0	Peak
15780	50.68	-23.32	74	52.27	39.98	11.72	53.29	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	52	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5262 MHz is fundamental signal which can be ignored. 2. 10520 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5262	96.83	-	-	84.96	34.57	10.61	33.31	100	272	Average
5262	107.14	-	-	95.27	34.57	10.61	33.31	100	272	Peak
10520	50	-24	74	57.2	37.31	10.67	55.18	100	0	Peak
15780	50.03	-23.97	74	51.62	39.98	11.72	53.29	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	60	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5302 MHz is fundamental signal which can be ignored. 2. 10599 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5302	97.1	-	-	85.14	34.6	10.65	33.29	100	151	Average
5302	107.57	-	-	95.64	34.58	10.65	33.3	100	151	Peak
10599	50.39	-23.61	74	57.43	37.36	10.68	55.08	100	0	Peak
15900	50.38	-23.62	74	51.63	40.1	11.68	53.03	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	60	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5302 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5302	95.72	-	-	83.76	34.6	10.65	33.29	100	126	Average
5302	106.13	-	-	94.17	34.6	10.65	33.29	100	126	Peak
10600	50.27	-23.73	74	57.31	37.36	10.68	55.08	100	0	Peak
15900	50.41	-23.59	74	51.66	40.1	11.68	53.03	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5322 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5322	97.4	-	-	85.39	34.62	10.68	33.29	100	147	Average
5322	107.82	-	-	95.81	34.62	10.68	33.29	100	147	Peak
10641	50.37	-23.63	74	57.33	37.38	10.69	55.03	100	0	Peak
15960	50.72	-23.28	74	51.77	40.17	11.66	52.88	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5322 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5322	95.6	-	-	83.59	34.62	10.68	33.29	100	124	Average
5322	106.07	-	-	94.06	34.62	10.68	33.29	100	124	Peak
10640	49.73	-24.27	74	56.69	37.38	10.69	55.03	100	0	Peak
15960	50.55	-23.45	74	51.6	40.17	11.66	52.88	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	100	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5502 MHz is fundamental signal which can be ignored. 2. 16500 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5502	100.07	-	-	87.53	34.8	10.96	33.22	113	87	Average
5502	110.51	-	-	97.97	34.8	10.96	33.22	113	87	Peak
11001	50.57	-23.43	74	56.81	37.6	10.76	54.6	100	0	Peak
16500	50.33	-23.67	74	50.81	41	11.82	53.3	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	100	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5502 MHz is fundamental signal which can be ignored. 2. 16500 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5502	97.68	-	-	85.14	34.8	10.96	33.22	100	127	Average
5502	108.17	-	-	95.63	34.8	10.96	33.22	100	127	Peak
11001	50.07	-23.93	74	56.31	37.6	10.76	54.6	100	0	Peak
16500	50.18	-23.82	74	50.66	41	11.82	53.3	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	116	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5580 MHz is fundamental signal which can be ignored. 2. 16740 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5580	100.19	-	-	87.47	34.87	11.09	33.24	124	89	Average
5580	111.24	-	-	98.52	34.87	11.09	33.24	124	89	Peak
11160	50.01	-23.99	74	55.83	37.67	10.84	54.33	100	0	Peak
16740	50.48	-23.52	74	50.44	41.24	11.91	53.11	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	116	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5582 MHz is fundamental signal which can be ignored. 2. 16740 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5582	98.68	-	-	85.95	34.89	11.09	33.25	100	132	Average
5582	109.29	-	-	96.56	34.89	11.09	33.25	100	132	Peak
11160	50.39	-23.61	74	56.21	37.67	10.84	54.33	100	0	Peak
16740	50.04	-23.96	74	50	41.24	11.91	53.11	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	140	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5704 MHz is fundamental signal which can be ignored. 2. 17100 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30.54	17.87	-22.13	40	31.12	17.9	0.65	31.8	-	-	Peak
122.34	23.17	-20.33	43.5	41.57	12.12	1.23	31.75	-	-	Peak
240.6	33.9	-12.1	46	52.46	11.49	1.69	31.74	123	254	Peak
300	26.02	-19.98	46	42.63	13.2	1.91	31.72	-	-	Peak
364.4	22.66	-23.34	46	37.48	14.85	2.11	31.78	-	-	Peak
480.6	21.67	-24.33	46	33.66	17.61	2.31	31.91	-	-	Peak
5704	100.94	-	-	87.91	35.01	11.3	33.28	122	89	Average
5704	111.62	-	-	98.59	35.01	11.3	33.28	122	89	Peak
11400	49.76	-24.24	74	54.97	37.76	10.99	53.96	100	0	Peak
17100	50.02	-23.98	74	49.66	41.34	12.12	53.1	100	0	Peak



Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	140	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5702 MHz is fundamental signal which can be ignored. 2. 17100 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30.54	24	-16	40	37.25	17.9	0.65	31.8	100	215	Peak
243.84	29.11	-16.89	46	47.39	11.76	1.7	31.74	-	-	Peak
278.94	23.82	-22.18	46	40.89	12.82	1.84	31.73	-	-	Peak
480.6	23.2	-22.8	46	35.19	17.61	2.31	31.91	-	-	Peak
531	25.04	-20.96	46	36.12	18.37	2.52	31.97	-	-	Peak
723.5	22.96	-23.04	46	32.12	19.87	2.97	32	-	-	Peak
5702	95.27	-	-	82.25	35.01	11.3	33.29	100	66	Average
5702	106.06	-	-	93.04	35.01	11.3	33.29	100	66	Peak
11400	50.32	-23.68	74	55.53	37.76	10.99	53.96	100	0	Peak
17100	50.84	-23.16	74	50.48	41.34	12.12	53.1	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	38	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5194 MHz is fundamental signal which can be ignored. 2. 10380 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
123.15	22.42	-21.08	43.5	40.85	12.08	1.24	31.75	-	-	Peak
248.16	33.2	-12.8	46	51	12.22	1.72	31.74	100	135	Peak
269.76	28.15	-17.85	46	45.07	13	1.81	31.73	-	-	Peak
300	27.31	-18.69	46	43.92	13.2	1.91	31.72	-	-	Peak
665.4	28.92	-17.08	46	38.67	19.45	2.83	32.03	-	-	Peak
725.6	27.5	-18.5	46	36.62	19.91	2.97	32	-	-	Peak
5194	93.08	-	-	81.41	34.5	10.51	33.34	100	137	Average
5194	103.3	-	-	91.63	34.5	10.51	33.34	100	137	Peak
10380	50.16	-23.84	74	57.68	37.18	10.64	55.34	100	0	Peak
15570	50.74	-23.26	74	52.94	39.77	11.78	53.75	100	0	Peak



Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	38	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5194 MHz is fundamental signal which can be ignored. 2. 10380 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
120.45	21.65	-21.85	43.5	39.98	12.2	1.22	31.75	-	-	Peak
175.8	26.31	-17.19	43.5	46.98	9.55	1.53	31.75	111	218	Peak
183.9	25.68	-17.82	43.5	46.91	9.06	1.46	31.75	-	-	Peak
300	23.35	-22.65	46	39.96	13.2	1.91	31.72	-	-	Peak
480.6	24.61	-21.39	46	36.6	17.61	2.31	31.91	-	-	Peak
748	23.48	-22.52	46	32.25	20.18	3.04	31.99	-	-	Peak
5194	90.83	-	-	79.15	34.5	10.51	33.33	102	240	Average
5194	100.99	-	-	89.31	34.5	10.51	33.33	102	240	Peak
10380	49.85	-24.15	74	57.37	37.18	10.64	55.34	100	0	Peak
15570	50.42	-23.58	74	52.62	39.77	11.78	53.75	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	46	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5232 MHz is fundamental signal which can be ignored. 2. 10460 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5232	95.93	-	-	84.18	34.53	10.54	33.32	100	137	Average
5232	106.41	-	-	94.66	34.53	10.54	33.32	100	137	Peak
10460	50.78	-23.22	74	58.09	37.27	10.66	55.24	100	0	Peak
15690	50.54	-23.46	74	52.38	39.89	11.75	53.48	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	46	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5234 MHz is fundamental signal which can be ignored. 2. 10460 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5234	92.58	-	-	80.77	34.55	10.58	33.32	103	128	Average
5234	102.71	-	-	90.9	34.55	10.58	33.32	103	128	Peak
10460	50.45	-23.55	74	57.8	37.25	10.66	55.26	100	0	Peak
15690	50.33	-23.67	74	52.17	39.89	11.75	53.48	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	54	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5268 MHz is fundamental signal which can be ignored. 2. 10540 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5268	98.31	-	-	86.42	34.58	10.61	33.3	120	87	Average
5268	108.5	-	-	96.61	34.58	10.61	33.3	120	87	Peak
10540	50.29	-23.71	74	57.46	37.32	10.67	55.16	100	0	Peak
15810	50.89	-23.11	74	52.39	40.01	11.71	53.22	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	54	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5268 MHz is fundamental signal which can be ignored. 2. 10540 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5268	96.1	-	-	84.23	34.57	10.61	33.31	104	127	Average
5268	106.61	-	-	94.74	34.57	10.61	33.31	104	127	Peak
10540	50.58	-23.42	74	57.75	37.32	10.67	55.16	100	0	Peak
15810	50.31	-23.69	74	51.81	40.01	11.71	53.22	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	62	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5306 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5306	98.73	-	-	86.77	34.6	10.65	33.29	119	87	Average
5306	108.96	-	-	97	34.6	10.65	33.29	119	87	Peak
10620	50.96	-23.04	74	57.96	37.37	10.69	55.06	100	0	Peak
15930	50.28	-23.72	74	51.43	40.13	11.67	52.95	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	62	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5308 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5308	92.65	-	-	80.69	34.6	10.65	33.29	125	263	Average
5308	103.37	-	-	91.41	34.6	10.65	33.29	125	263	Peak
10620	50.47	-23.53	74	57.47	37.37	10.69	55.06	100	0	Peak
15930	50.72	-23.28	74	51.87	40.13	11.67	52.95	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	102	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5508 MHz is fundamental signal which can be ignored. 2. 16550 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5508	96.33	-	-	83.83	34.78	10.93	33.21	126	89	Average
5508	106.93	-	-	94.43	34.78	10.93	33.21	126	89	Peak
11020	49.78	-24.22	74	55.98	37.61	10.76	54.57	100	0	Peak
16550	50.88	-23.12	74	51.25	41.05	11.84	53.26	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	102	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5512 MHz is fundamental signal which can be ignored. 2. 16530 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5512	91.59	-	-	79.09	34.78	10.93	33.21	100	128	Average
5512	102.24	-	-	89.74	34.78	10.93	33.21	100	128	Peak
11020	50.29	-23.71	74	56.49	37.61	10.76	54.57	100	0	Peak
16530	50.45	-23.55	74	50.86	41.03	11.83	53.27	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	110	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5552 MHz is fundamental signal which can be ignored. 2. 16650 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5552	97.12	-	-	84.46	34.85	11.05	33.24	125	89	Average
5552	107.35	-	-	94.69	34.85	11.05	33.24	125	89	Peak
11100	50.93	-23.07	74	56.91	37.64	10.82	54.44	100	0	Peak
16650	50.64	-23.36	74	50.78	41.16	11.88	53.18	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	110	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5552 MHz is fundamental signal which can be ignored. 2. 16650 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5552	93.91	-	-	81.25	34.85	11.05	33.24	109	130	Average
5552	104.69	-	-	92.03	34.85	11.05	33.24	109	130	Peak
11100	50.79	-23.21	74	56.77	37.64	10.82	54.44	100	0	Peak
16650	50.83	-23.17	74	50.97	41.16	11.88	53.18	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	134	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5672 MHz is fundamental signal which can be ignored. 2. 17010 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5672	97.63	-	-	84.72	34.96	11.22	33.27	111	90	Average
5672	107.96	-	-	95.05	34.96	11.22	33.27	111	90	Peak
11340	50.55	-23.45	74	55.93	37.73	10.96	54.07	100	0	Peak
17010	50.67	-23.33	74	50.13	41.47	12	52.93	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	134	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5668 MHz is fundamental signal which can be ignored. 2. 17010 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5668	93.58	-	-	80.67	34.96	11.22	33.27	108	130	Average
5668	103.77	-	-	90.86	34.96	11.22	33.27	108	130	Peak
11340	50.98	-23.02	74	56.36	37.73	10.96	54.07	100	0	Peak
17010	50.67	-23.33	74	50.13	41.47	12	52.93	100	0	Peak

Test Mode :	802.11n VHT80	Temperature :	23~24°C
Test Channel :	42	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5208 MHz is fundamental signal which can be ignored. 2. 10420 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5208	93.8	-	-	81.98	34.55	10.58	33.31	110	85	Average
5208	103.68	-	-	91.86	34.55	10.58	33.31	110	85	Peak
10420	50.24	-23.76	74	57.67	37.22	10.65	55.3	100	0	Peak
15630	50.78	-23.22	74	52.78	39.84	11.76	53.6	100	0	Peak

Test Mode :	802.11n VHT80	Temperature :	23~24°C
Test Channel :	42	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5214 MHz is fundamental signal which can be ignored. 2. 10420 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5214	88.07	-	-	76.25	34.55	10.58	33.31	126	270	Average
5214	97.59	-	-	85.77	34.55	10.58	33.31	126	270	Peak
10420	50.63	-23.37	74	58.06	37.22	10.65	55.3	100	0	Peak
15630	50.86	-23.14	74	52.86	39.84	11.76	53.6	100	0	Peak



Test Mode :	802.11n VHT80	Temperature :	23~24°C
Test Channel :	58	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5294 MHz is fundamental signal which can be ignored. 2. 10581 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5294	93.7	-	-	81.74	34.6	10.65	33.29	120	88	Average
5294	104.19	-	-	92.23	34.6	10.65	33.29	120	88	Peak
10581	50.4	-23.6	74	57.47	37.35	10.68	55.1	100	0	Peak
15870	50.76	-23.24	74	52.06	40.08	11.69	53.07	100	0	Peak

Test Mode :	802.11n VHT80	Temperature :	23~24°C
Test Channel :	58	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5292 MHz is fundamental signal which can be ignored. 2. 10580 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5292	90.63	-	-	78.67	34.6	10.65	33.29	124	264	Average
5292	100.81	-	-	88.85	34.6	10.65	33.29	124	264	Peak
10580	50.78	-23.22	74	57.85	37.35	10.68	55.1	100	0	Peak
15870	50.74	-23.26	74	52.04	40.08	11.69	53.07	100	0	Peak

Test Mode :	802.11n VHT80	Temperature :	23~24°C
Test Channel :	106	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5534 MHz is fundamental signal which can be ignored. 2. 16590 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
122.34	22.27	-21.23	43.5	40.67	12.12	1.23	31.75	-	-	Peak
181.74	25.63	-17.87	43.5	46.69	9.24	1.45	31.75	-	-	Peak
239.25	32.92	-13.08	46	51.57	11.4	1.69	31.74	112	321	Peak
300	27.03	-18.97	46	43.64	13.2	1.91	31.72	-	-	Peak
723.5	28.54	-17.46	46	37.7	19.87	2.97	32	-	-	Peak
959.4	25.02	-20.98	46	31.26	21.39	3.35	30.98	-	-	Peak
5534	92.88	-	-	80.22	34.85	11.05	33.24	126	90	Average
5534	103.22	-	-	90.56	34.85	11.05	33.24	126	90	Peak
11060	50.15	-23.85	74	56.22	37.63	10.79	54.49	100	0	Peak
16590	50.53	-23.47	74	50.81	41.09	11.86	53.23	100	0	Peak



Test Mode :	802.11n VHT80	Temperature :	23~24°C
Test Channel :	106	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5532 MHz is fundamental signal which can be ignored. 2. 16590 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	24.4	-15.6	40	37.06	18.5	0.64	31.8	100	253	Peak
179.85	27.01	-16.49	43.5	47.94	9.35	1.47	31.75	-	-	Peak
246.54	27.78	-18.22	46	45.76	12.04	1.72	31.74	-	-	Peak
480.6	24.02	-21.98	46	36.01	17.61	2.31	31.91	-	-	Peak
665.4	30.01	-15.99	46	39.76	19.45	2.83	32.03	-	-	Peak
858.6	23.62	-22.38	46	31.27	20.8	3.25	31.7	-	-	Peak
5532	88.67	-	-	76.17	34.78	10.93	33.21	100	129	Average
5532	98.49	-	-	85.99	34.78	10.93	33.21	100	129	Peak
11060	50.81	-23.19	74	56.88	37.63	10.79	54.49	100	0	Peak
16590	50.37	-23.63	74	50.65	41.09	11.86	53.23	100	0	Peak

MIMO <Ant. Port 1 + 2>

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	36	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5178 MHz is fundamental signal which can be ignored. 2. 10359 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5178	101.78	-	-	90.17	34.48	10.47	33.34	127	102	Average
5178	113.27	-	-	101.66	34.48	10.47	33.34	127	102	Peak
10359	49.44	-24.56	74	56.99	37.17	10.64	55.36	100	0	Peak
15540	43.99	-10.01	54	46.29	39.73	11.79	53.82	145	229	Average
15540	56.02	-17.98	74	58.32	39.73	11.79	53.82	145	229	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	36	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5182 MHz is fundamental signal which can be ignored. 2. 10359 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5182	99.99	-	-	88.38	34.48	10.47	33.34	120	128	Average
5182	111.3	-	-	99.69	34.48	10.47	33.34	120	128	Peak
10359	49.75	-24.25	74	57.3	37.17	10.64	55.36	100	0	Peak
15540	46.1	-7.9	54	48.4	39.73	11.79	53.82	150	225	Average
15540	59.18	-14.82	74	61.48	39.73	11.79	53.82	150	225	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	44	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5222 MHz is fundamental signal which can be ignored. 2. 10440 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5222	99.09	-	-	87.35	34.52	10.54	33.32	122	87	Average
5222	110.78	-	-	99.04	34.52	10.54	33.32	122	87	Peak
10440	49.9	-24.1	74	57.3	37.23	10.65	55.28	100	0	Peak
15660	44.94	-9.06	54	46.89	39.86	11.75	53.56	153	227	Average
15660	57.11	-16.89	74	59.06	39.86	11.75	53.56	153	227	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	44	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5222 MHz is fundamental signal which can be ignored. 2. 10440 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5222	101.19	-	-	89.44	34.53	10.54	33.32	120	130	Average
5222	112.35	-	-	100.6	34.53	10.54	33.32	120	130	Peak
10440	50.8	-23.2	74	58.2	37.23	10.65	55.28	100	0	Peak
15660	43.74	-10.26	54	45.69	39.86	11.75	53.56	146	206	Average
15660	56.89	-17.11	74	58.84	39.86	11.75	53.56	146	206	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	48	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5242 MHz is fundamental signal which can be ignored. 2. 10479 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5242	101.6	-	-	89.79	34.55	10.58	33.32	122	87	Average
5242	112.39	-	-	100.58	34.55	10.58	33.32	122	87	Peak
10479	49.41	-24.59	74	56.69	37.28	10.66	55.22	100	0	Peak
15720	42.37	-11.63	54	44.12	39.92	11.74	53.41	153	230	Average
15720	54.57	-19.43	74	56.32	39.92	11.74	53.41	153	230	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	48	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5242 MHz is fundamental signal which can be ignored. 2. 10479 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5242	100.31	-	-	88.5	34.55	10.58	33.32	105	123	Average
5242	111.03	-	-	99.22	34.55	10.58	33.32	105	123	Peak
10479	50.91	-23.09	74	58.19	37.28	10.66	55.22	100	0	Peak
15720	43.37	-10.63	54	45.12	39.92	11.74	53.41	160	206	Average
15720	55.6	-18.4	74	57.35	39.92	11.74	53.41	160	206	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	52	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5261 MHz is fundamental signal which can be ignored. 2. 10521 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5261	100.3	-	-	88.43	34.57	10.61	33.31	108	127	Average
5261	111.08	-	-	99.21	34.57	10.61	33.31	108	127	Peak
10521	50.36	-23.64	74	57.56	37.31	10.67	55.18	100	0	Peak
15780	43.97	-10.03	54	45.56	39.98	11.72	53.29	151	226	Average
15780	55.56	-18.44	74	57.15	39.98	11.72	53.29	151	226	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	52	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5261 MHz is fundamental signal which can be ignored. 2. 10521 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5261	99.97	-	-	88.1	34.57	10.61	33.31	103	116	Average
5261	110.97	-	-	99.1	34.57	10.61	33.31	103	116	Peak
10521	49.79	-24.21	74	56.99	37.31	10.67	55.18	100	0	Peak
15780	42.76	-11.24	54	44.35	39.98	11.72	53.29	150	210	Average
15780	54.4	-19.6	74	55.99	39.98	11.72	53.29	150	210	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	60	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5301 MHz is fundamental signal which can be ignored. 2. 10599 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5301	99.29	45.29	-	-	34.6	10.65	33.29	108	139	Average
5301	110.75	36.75	-	-	34.6	10.65	33.29	108	139	Peak
10599	50.81	-23.19	74	57.85	37.36	10.68	55.08	100	0	Peak
15900	43.01	-10.99	54	44.26	40.1	11.68	53.03	149	227	Average
15900	55.13	-18.87	74	56.38	40.1	11.68	53.03	149	227	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	60	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5301 MHz is fundamental signal which can be ignored. 2. 10599 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5301	97.94	43.94	-	-	34.6	10.65	33.29	102	116	Average
5301	109	35	-	-	34.6	10.65	33.29	102	116	Peak
10599	50.22	-23.78	74	57.26	37.36	10.68	55.08	100	0	Peak
15900	42.48	-11.52	54	43.73	40.1	11.68	53.03	146	218	Average
15900	53.52	-20.48	74	54.77	40.1	11.68	53.03	146	218	Peak



Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5319 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5319	99.34	45.34	-	-	34.62	10.68	33.29	108	126	Average
5319	110.44	36.44	-	-	34.62	10.68	33.29	108	126	Peak
10641	49.38	-24.62	74	56.34	37.38	10.69	55.03	100	0	Peak
15960	42.18	-11.82	54	43.23	40.17	11.66	52.88	154	228	Average
15960	54.87	-19.13	74	55.92	40.17	11.66	52.88	154	228	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5319 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5319	98.46	44.46	-	-	34.62	10.68	33.29	103	116	Average
5319	109.48	35.48	-	-	34.62	10.68	33.29	103	116	Peak
10641	49.89	-24.11	74	56.85	37.38	10.69	55.03	100	0	Peak
15960	43.36	-10.64	54	44.41	40.17	11.66	52.88	141	202	Average
15960	55.61	-18.39	74	56.66	40.17	11.66	52.88	141	202	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	100	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5501 MHz is fundamental signal which can be ignored. 2. 16500 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5501	99.91	-	-	87.37	34.8	10.96	33.22	102	123	Average
5501	110.92	-	-	98.38	34.8	10.96	33.22	102	123	Peak
11001	50.39	-23.61	74	56.63	37.6	10.76	54.6	100	0	Peak
16500	50.82	-23.18	74	51.3	41	11.82	53.3	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	100	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5501 MHz is fundamental signal which can be ignored. 2. 16500 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5501	98.97	-	-	86.43	34.8	10.96	33.22	110	127	Average
5501	109.67	-	-	97.13	34.8	10.96	33.22	110	127	Peak
11001	50.51	-23.49	74	56.75	37.6	10.76	54.6	100	0	Peak
16500	50.11	-23.89	74	50.59	41	11.82	53.3	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	116	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5581 MHz is fundamental signal which can be ignored. 2. 16740 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5581	99.44	-	-	86.73	34.87	11.09	33.25	100	118	Average
5581	110.46	-	-	97.75	34.87	11.09	33.25	100	118	Peak
11160	49.76	-24.24	74	55.58	37.67	10.84	54.33	100	0	Peak
16740	50.75	-23.25	74	50.71	41.24	11.91	53.11	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	116	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5581 MHz is fundamental signal which can be ignored. 2. 16740 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5581	98.14	-	-	85.43	34.87	11.09	33.25	108	117	Average
5581	109.51	-	-	96.8	34.87	11.09	33.25	108	117	Peak
11160	49.52	-24.48	74	55.34	37.67	10.84	54.33	100	0	Peak
16740	50.92	-23.08	74	50.88	41.24	11.91	53.11	100	0	Peak



Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	140	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5701 MHz is fundamental signal which can be ignored. 2. 17100 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
234.66	34.35	-11.65	46	53.62	10.8	1.67	31.74	-	-	Peak
242.76	35.51	-10.49	46	53.88	11.67	1.7	31.74	100	154	Peak
252.75	33.35	-12.65	46	50.48	12.85	1.75	31.73	-	-	Peak
300	24.38	-21.62	46	40.99	13.2	1.91	31.72	-	-	Peak
499.5	23.14	-22.86	46	34.8	17.79	2.48	31.93	-	-	Peak
723.5	27.26	-18.74	46	36.42	19.87	2.97	32	-	-	Peak
5701	100.1	-	-	87.07	35.01	11.3	33.28	100	133	Average
5701	111.9	-	-	98.87	35.01	11.3	33.28	100	133	Peak
11400	50.05	-23.95	74	55.26	37.76	10.99	53.96	100	0	Peak
17100	50.81	-23.19	74	50.45	41.34	12.12	53.1	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	140	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5699 MHz is fundamental signal which can be ignored. 2. 17100 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
125.04	23.52	-19.98	43.5	42.02	12	1.25	31.75	-	-	Peak
174.45	26.05	-17.45	43.5	46.65	9.6	1.55	31.75	-	-	Peak
243.84	28.72	-17.28	46	47	11.76	1.7	31.74	103	227	Peak
420.4	22.86	-23.14	46	35.66	16.8	2.24	31.84	-	-	Peak
517	23.71	-22.29	46	35.18	17.97	2.51	31.95	-	-	Peak
667.5	26.01	-19.99	46	35.74	19.47	2.83	32.03	-	-	Peak
5699	99.48	-	-	86.47	34.99	11.3	33.28	102	243	Average
5699	110.41	-	-	97.4	34.99	11.3	33.28	102	243	Peak
11400	49.65	-24.35	74	54.86	37.76	10.99	53.96	100	0	Peak
17100	50.21	-23.79	74	49.85	41.34	12.12	53.1	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	38	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5192 MHz is fundamental signal which can be ignored.. 2. 10380 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5192	94.86	-	-	83.19	34.5	10.51	33.34	109	125	Average
5192	106.24	-	-	94.57	34.5	10.51	33.34	109	125	Peak
10380	49.86	-24.14	74	57.38	37.18	10.64	55.34	100	0	Peak
15570	50.96	-23.04	74	53.16	39.77	11.78	53.75	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	38	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5189MHz is fundamental signal which can be ignored.. 2. 10380 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5189	92.31	-	-	80.66	34.48	10.51	33.34	101	260	Average
5189	103.34	-	-	91.69	34.48	10.51	33.34	101	260	Peak
10380	49.65	-24.35	74	57.17	37.18	10.64	55.34	100	0	Peak
15570	50.47	-23.53	74	52.67	39.77	11.78	53.75	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	46	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5232 MHz is fundamental signal which can be ignored.. 2. 10461 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5232	95.3	-	-	83.55	34.53	10.54	33.32	100	139	Average
5232	106.38	-	-	94.63	34.53	10.54	33.32	100	139	Peak
10461	49.48	-24.52	74	56.79	37.27	10.66	55.24	100	0	Peak
15690	50.09	-23.91	74	51.93	39.89	11.75	53.48	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	46	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5232 MHz is fundamental signal which can be ignored.. 2. 10461 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5228	93.09	-	-	81.34	34.53	10.54	33.32	100	257	Average
5228	104.42	-	-	92.67	34.53	10.54	33.32	100	257	Peak
10461	50.1	-23.9	74	57.41	37.27	10.66	55.24	100	0	Peak
15690	50.81	-23.19	74	52.65	39.89	11.75	53.48	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	54	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5272 MHz is fundamental signal which can be ignored. 2. 10539 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5272	95.2	-	-	83.32	34.57	10.61	33.3	107	92	Average
5272	106.91	-	-	95.03	34.57	10.61	33.3	107	92	Peak
10539	50.19	-23.81	74	57.36	37.32	10.67	55.16	100	0	Peak
15810	50.44	-23.56	74	51.94	40.01	11.71	53.22	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	54	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5272 MHz is fundamental signal which can be ignored. 2. 10539 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5272	94.38	-	-	82.49	34.58	10.61	33.3	102	114	Average
5272	105.54	-	-	93.65	34.58	10.61	33.3	102	114	Peak
10539	49.77	-24.23	74	56.94	37.32	10.67	55.16	100	0	Peak
15810	50.49	-23.51	74	51.99	40.01	11.71	53.22	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	62	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5312 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5312	93	-	-	80.99	34.62	10.68	33.29	119	97	Average
5312	104.02	-	-	92.01	34.62	10.68	33.29	119	97	Peak
10620	50.43	-23.57	74	57.43	37.37	10.69	55.06	100	0	Peak
15930	50.68	-23.32	74	51.83	40.13	11.67	52.95	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	62	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5312 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5312	94.24	-	-	82.23	34.62	10.68	33.29	102	115	Average
5312	106.04	-	-	94.03	34.62	10.68	33.29	102	115	Peak
10620	49.87	-24.13	74	56.87	37.37	10.69	55.06	100	0	Peak
15930	50.99	-23.01	74	52.14	40.13	11.67	52.95	100	0	Peak



Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	102	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5512 MHz is fundamental signal which can be ignored. 2. 16530 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
233.04	34.03	-11.97	46	53.55	10.56	1.66	31.74	-	-	Peak
239.25	35.41	-10.59	46	54.06	11.4	1.69	31.74	102	169	Peak
247.35	34.11	-11.89	46	52	12.13	1.72	31.74	-	-	Peak
326.6	24.68	-21.32	46	40.75	13.7	1.98	31.75	-	-	Peak
665.4	25.78	-20.22	46	35.53	19.45	2.83	32.03	-	-	Peak
723.5	27.46	-18.54	46	36.62	19.87	2.97	32	-	-	Peak
5512	96.44	-	-	83.9	34.8	10.96	33.22	100	115	Average
5512	107.09	-	-	94.55	34.8	10.96	33.22	100	115	Peak
11019	50.24	-23.76	74	56.44	37.61	10.76	54.57	100	0	Peak
16530	50.64	-23.36	74	51.05	41.03	11.83	53.27	100	0	Peak



Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	102	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5512 MHz is fundamental signal which can be ignored. 2. 16530 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
169.86	26.54	-16.96	43.5	46.86	9.8	1.63	31.75	-	-	Peak
235.2	27.49	-18.51	46	46.64	10.92	1.67	31.74	-	-	Peak
241.95	28.93	-17.07	46	47.3	11.67	1.7	31.74	-	-	Peak
480.6	23.59	-22.41	46	35.58	17.61	2.31	31.91	-	-	Peak
520.5	23.93	-22.07	46	35.35	18.03	2.51	31.96	-	-	Peak
665.4	31.8	-14.2	46	41.55	19.45	2.83	32.03	102	257	Peak
5512	90.43	-	-	77.89	34.8	10.96	33.22	109	112	Average
5512	101.67	-	-	89.13	34.8	10.96	33.22	109	112	Peak
11019	50.42	-23.58	74	56.62	37.61	10.76	54.57	100	0	Peak
16530	50.28	-23.72	74	50.69	41.03	11.83	53.27	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	110	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5552 MHz is fundamental signal which can be ignored. 2. 16650 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5552	97.43	-	-	84.77	34.85	11.05	33.24	100	118	Average
5552	108.97	-	-	96.31	34.85	11.05	33.24	100	118	Peak
11100	49.98	-24.02	74	55.96	37.64	10.82	54.44	100	0	Peak
16650	50.3	-23.7	74	50.44	41.16	11.88	53.18	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	110	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5552 MHz is fundamental signal which can be ignored. 2. 16650 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5552	90.55	-	-	77.89	34.85	11.05	33.24	110	261	Average
5552	101.34	-	-	88.68	34.85	11.05	33.24	110	261	Peak
11100	50.83	-23.17	74	56.81	37.64	10.82	54.44	100	0	Peak
16650	50.03	-23.97	74	50.17	41.16	11.88	53.18	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	134	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5672 MHz is fundamental signal which can be ignored. 2. 17010 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5672	97.91	-	-	84.95	34.97	11.26	33.27	100	132	Average
5672	108.81	-	-	95.85	34.97	11.26	33.27	100	132	Peak
11340	50.29	-23.71	74	55.67	37.73	10.96	54.07	100	0	Peak
17010	50.76	-23.24	74	50.22	41.47	12	52.93	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~24°C
Test Channel :	134	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5672 MHz is fundamental signal which can be ignored. 2. 17010 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5672	93.57	-	-	80.61	34.97	11.26	33.27	102	247	Average
5672	104.57	-	-	91.61	34.97	11.26	33.27	102	247	Peak
11340	50.64	-23.36	74	56.02	37.73	10.96	54.07	100	0	Peak
17010	50.56	-23.44	74	50.02	41.47	12	52.93	100	0	Peak

Test Mode :	802.11n VHT80	Temperature :	23~24°C
Test Channel :	42	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5212 MHz is fundamental signal which can be ignored. 2. 10419 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5212	92.18	-	-	80.45	34.52	10.54	33.33	110	150	Average
5212	102.96	-	-	91.23	34.52	10.54	33.33	110	150	Peak
10419	50.11	-23.89	74	57.54	37.22	10.65	55.3	100	0	Peak
15630	50.38	-23.62	74	52.38	39.84	11.76	53.6	100	0	Peak

Test Mode :	802.11n VHT80	Temperature :	23~24°C
Test Channel :	42	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5210 MHz is fundamental signal which can be ignored. 2. 10419 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5210	88.43	-	-	76.73	34.52	10.51	33.33	100	247	Average
5210	99.73	-	-	88.03	34.52	10.51	33.33	100	247	Peak
10419	50.01	-23.99	74	57.44	37.22	10.65	55.3	100	0	Peak
15630	50.76	-23.24	74	52.76	39.84	11.76	53.6	100	0	Peak

Test Mode :	802.11n VHT80	Temperature :	23~24°C
Test Channel :	58	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5292 MHz is fundamental signal which can be ignored. 2. 10581 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5292	91.85	-	-	79.92	34.58	10.65	33.3	108	145	Average
5292	102.6	-	-	90.67	34.58	10.65	33.3	108	145	Peak
10581	49.83	-24.17	74	56.9	37.35	10.68	55.1	100	0	Peak
15861	50.58	-23.42	74	51.93	40.06	11.69	53.1	100	0	Peak

Test Mode :	802.11n VHT80	Temperature :	23~24°C
Test Channel :	58	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5292 MHz is fundamental signal which can be ignored. 2. 10581 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5292	88.98	-	-	77.05	34.58	10.65	33.3	100	260	Average
5292	100.4	-	-	88.47	34.58	10.65	33.3	100	260	Peak
10581	50.3	-23.7	74	57.37	37.35	10.68	55.1	100	0	Peak
15861	50.95	-23.05	74	52.3	40.06	11.69	53.1	100	0	Peak



Test Mode :	802.11n VHT80	Temperature :	23~24°C
Test Channel :	106	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Horizontal
Remark :	1. 5532 MHz is fundamental signal which can be ignored. 2. 16590 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
229.8	32.51	-13.49	46	52.4	10.2	1.65	31.74	-	-	Peak
240.06	34.67	-11.33	46	53.23	11.49	1.69	31.74	103	167	Peak
245.46	34.18	-11.82	46	52.26	11.95	1.71	31.74	-	-	Peak
364.4	24.49	-21.51	46	39.31	14.85	2.11	31.78	-	-	Peak
664	23.27	-22.73	46	33.02	19.45	2.83	32.03	-	-	Peak
721.4	27.08	-18.92	46	36.29	19.84	2.96	32.01	-	-	Peak
5532	93.14	-	-	80.54	34.83	11	33.23	102	120	Average
5532	103.29	-	-	90.69	34.83	11	33.23	102	120	Peak
11061	50.19	-23.81	74	56.26	37.63	10.79	54.49	100	0	Peak
16590	50.35	-23.65	74	50.63	41.09	11.86	53.23	100	0	Peak



Test Mode :	802.11n VHT80	Temperature :	23~24°C
Test Channel :	106	Relative Humidity :	45~46%
Test Engineer :	Gavin Wu	Polarization :	Vertical
Remark :	1. 5532 MHz is fundamental signal which can be ignored. 2. 16590 MHz is not within a restricted band, and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
171.75	26.85	-16.65	43.5	47.28	9.72	1.6	31.75	100	193	Peak
235.2	27.47	-18.53	46	46.62	10.92	1.67	31.74	-	-	Peak
242.76	28.77	-17.23	46	47.14	11.67	1.7	31.74	-	-	Peak
441.4	22.92	-23.08	46	35.69	16.81	2.29	31.87	-	-	Peak
480.6	23.13	-22.87	46	35.12	17.61	2.31	31.91	-	-	Peak
664	29.08	-16.92	46	38.83	19.45	2.83	32.03	-	-	Peak
5532	89.6	-	-	77	34.83	11	33.23	100	134	Average
5532	99.55	-	-	86.95	34.83	11	33.23	100	134	Peak
11061	50.82	-23.18	74	56.89	37.63	10.79	54.49	100	0	Peak
16590	50.92	-23.08	74	51.2	41.09	11.86	53.23	100	0	Peak

3.6 AC Conducted Emission Measurement

3.6.1 Limit of AC Conducted Emission

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

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

*Decreases with the logarithm of the frequency.

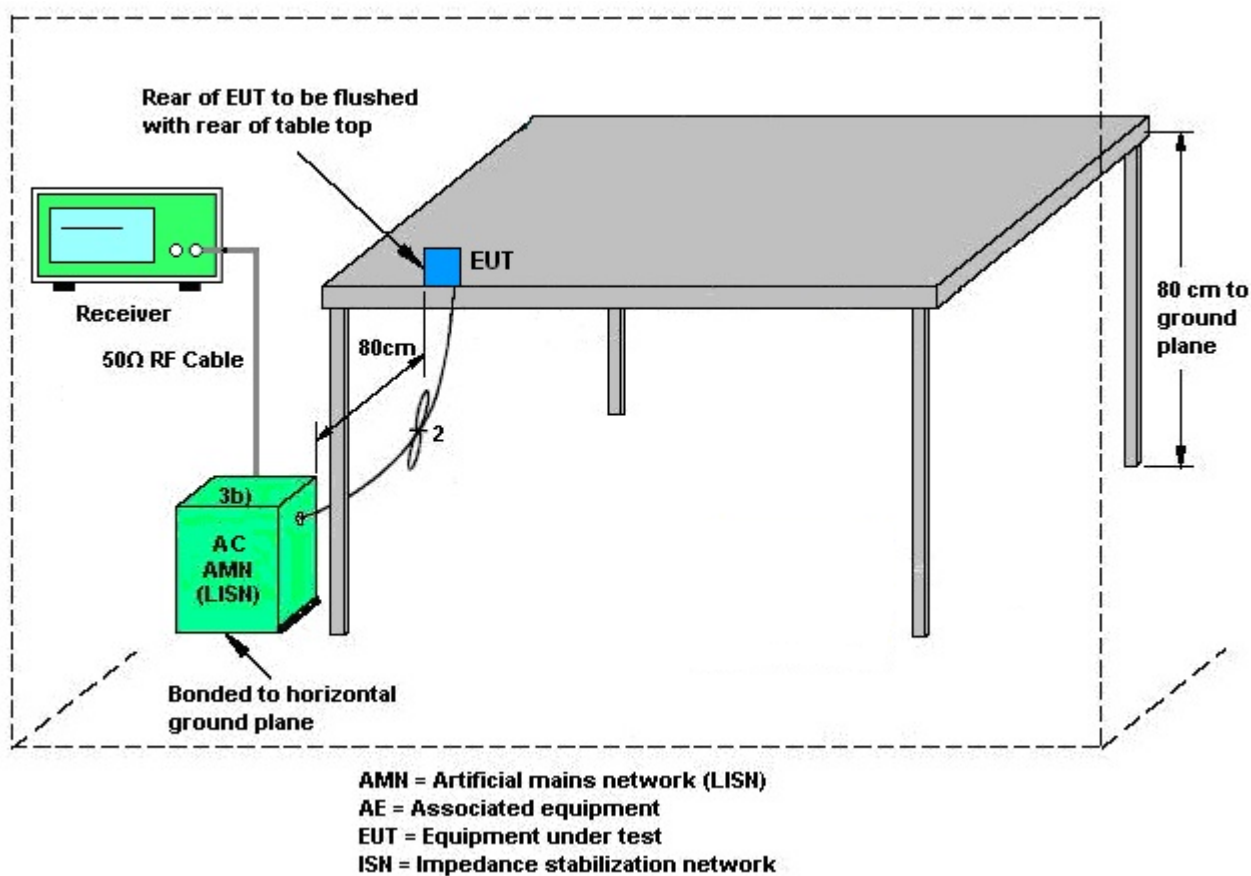
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

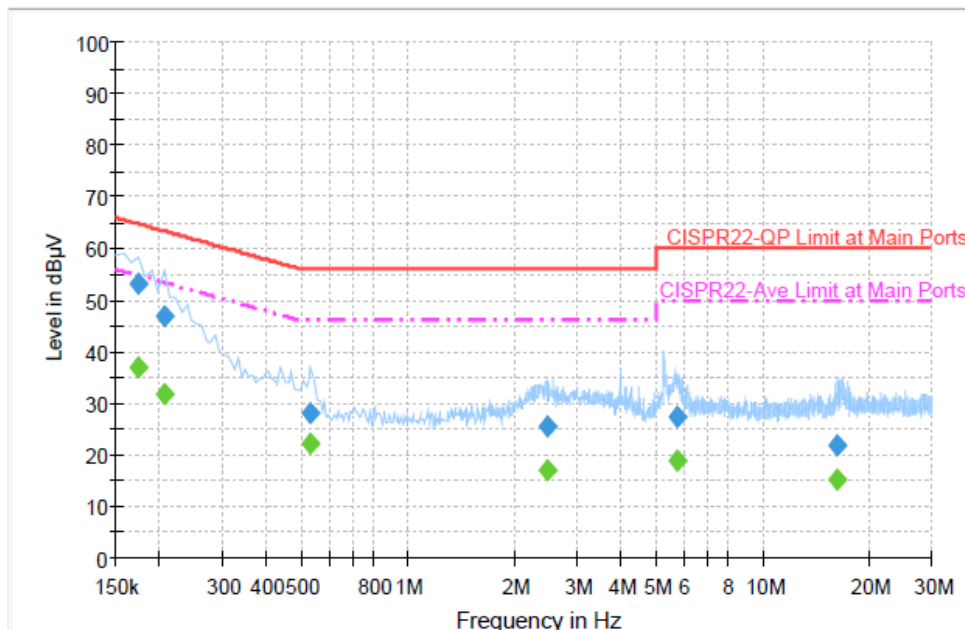
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.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

3.6.4 Test Setup



3.6.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	20~22℃
Test Engineer :	Cosmo Xu	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WLAN (5GHz) Link + USB Cable (Charging from Notebook)		



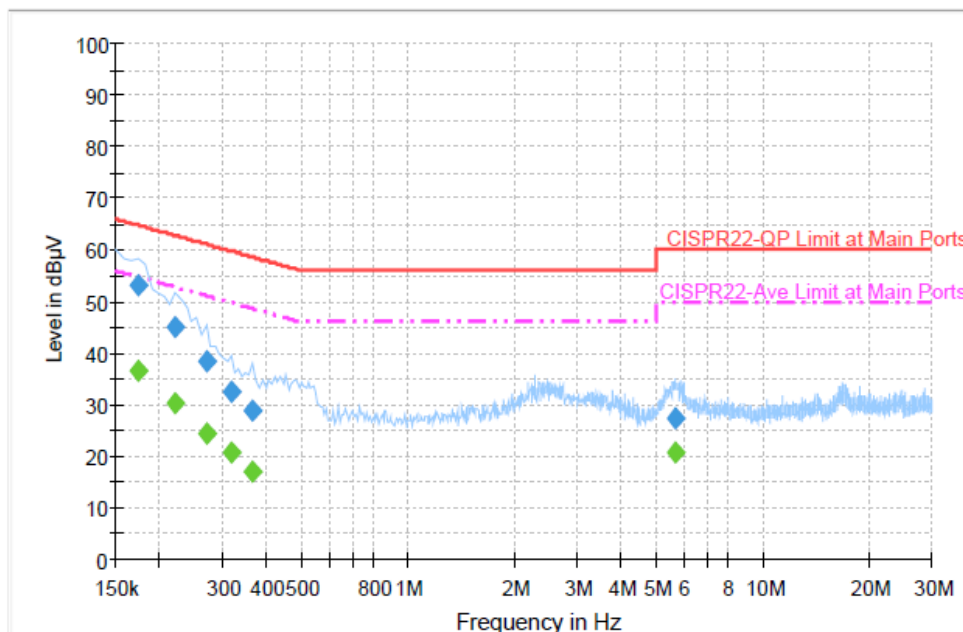
Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.174000	53.2	Off	L1	19.3	11.6	64.8
0.206000	47.0	Off	L1	19.3	16.4	63.4
0.534000	28.1	Off	L1	19.5	27.9	56.0
2.462000	25.4	Off	L1	19.5	30.6	56.0
5.734000	27.4	Off	L1	19.6	32.6	60.0
16.262000	21.7	Off	L1	19.8	38.3	60.0

Final Result : Average

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.174000	37.0	Off	L1	19.3	17.8	54.8
0.206000	31.8	Off	L1	19.3	21.6	53.4
0.534000	22.0	Off	L1	19.5	24.0	46.0
2.462000	17.0	Off	L1	19.5	29.0	46.0
5.734000	18.8	Off	L1	19.6	31.2	50.0
16.262000	15.2	Off	L1	19.8	34.8	50.0

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


Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.174000	53.0	Off	N	19.3	11.8	64.8
0.222000	45.0	Off	N	19.4	17.7	62.7
0.270000	38.4	Off	N	19.6	22.7	61.1
0.318000	32.4	Off	N	19.5	27.4	59.8
0.366000	28.6	Off	N	19.6	30.0	58.6
5.670000	27.4	Off	N	19.6	32.6	60.0

Final Result : Average

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.174000	36.4	Off	N	19.3	18.4	54.8
0.222000	30.3	Off	N	19.4	22.4	52.7
0.270000	24.5	Off	N	19.6	26.6	51.1
0.318000	20.7	Off	N	19.5	29.1	49.8
0.366000	16.9	Off	N	19.6	31.7	48.6
5.670000	20.5	Off	N	19.6	29.5	50.0

3.7 Frequency Stability Measurement

3.7.1 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.

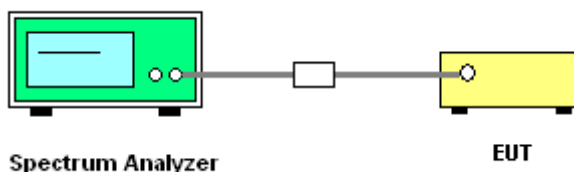
3.7.2 Measuring Instruments

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

3.7.3 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.

3.7.4 Test Setup



3.7.5 Test Result of Frequency Stability

Test Band :	5GHz band 1,2,3	Test Engineer :	Bill Kuo, Book Lin, Alex Lee, and Stuart Lin
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Mod.	Data Rate	N _{TX}	Channel	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stability (ppm)	Temperature (°C)	Voltage (V)
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	20	3.0
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	20	3.6
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	20	3.3
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	-30	3.3
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	50	3.3

Mod.	Data Rate	N _{TX}	Channel	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stability (ppm)	Temperature (°C)	Voltage (V)
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	20	3.0
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	20	3.6
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	20	3.3
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	-30	3.3
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	50	3.3

Mod.	Data Rate	N _{TX}	Channel	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stability (ppm)	Temperature (°C)	Voltage (V)
11a	6Mbps	1	100	5500	5499.975	-0.025	-4.55	20	3.0
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	20	3.6
11a	6Mbps	1	100	5500	5499.950	-0.050	-9.09	20	3.3
11a	6Mbps	1	100	5500	5499.950	-0.050	-9.09	-30	3.3
11a	6Mbps	1	100	5500	5499.950	-0.050	-9.09	50	3.3

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



3.8 Automatically Discontinue Transmission

3.8.1 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.

3.8.2 Measuring Instruments

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

3.8.3 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.

3.9 Antenna Requirements

3.9.1 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.

3.9.2 Antenna Anti-Replacement Construction

Non-standard antenna connector is used.

3.9.3 Antenna Gain

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

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

where

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

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

N_{ANT} = the total number of antennas

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

The EUT supports CDD mode.

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

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



			DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
	Ant 1 (dBi)	Ant 2 (dBi)				
Band I	2.42	4.66	6.62	6.62	0.62	0.62
Band II	2.42	4.66	6.62	6.62	0.62	0.62
Band III	2.31	3.57	5.97	5.97	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. 07, 2013	Mar. 01, 2014~ Mar. 05, 2014	Jun. 06, 2014	Conducted (TH02-HY)
Power Meter	Anritsu	ML2495A	1036004	300MHz~40GHz	Aug. 17, 2013	Mar. 01, 2014~ Mar. 05, 2014	Aug. 16, 2014	Conducted (TH02-HY)
Power Sensor	Anritsu	MA2411B	1027253	300MHz~40GHz	Aug. 17, 2013	Mar. 01, 2014~ Mar. 05, 2014	Aug. 16, 2014	Conducted (TH02-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz~40GHz	Oct. 23, 2013	Feb. 26, 2014~ Mar. 15, 2014	Oct. 22, 2014	Radiation (03CH06-HY)
Spectrum Analyzer	Agilent	E4408B	MY44211030	9kHz ~ 26.5GHz	Dec. 02, 2013	Feb. 26, 2014~ Mar. 15, 2014	Dec. 01, 2014	Radiation (03CH06-HY)
EMI Test Receiver	R&S	ESVS10	834468/0003	20MHz ~ 1000MHz	May 06, 2013	Feb. 26, 2014~ Mar. 15, 2014	May 05, 2014	Radiation (03CH06-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	860004/0001	9kHz ~ 30MHz	Jul. 03, 2012	Feb. 26, 2014~ Mar. 15, 2014	Jul. 02, 2014	Radiation (03CH06-HY)
Bilog Antenna	Schaffner	CBL6112B	2885	30MHz ~ 2GHz	Oct. 10, 2013	Feb. 26, 2014~ Mar. 15, 2014	Oct. 09, 2014	Radiation (03CH06-HY)
Double Ridge Horn Antenna	EMCO	3117	00066583	1GHz ~ 18GHz	Aug. 02, 2013	Feb. 26, 2014~ Mar. 15, 2014	Aug. 01, 2014	Radiation (03CH06-HY)
Amplifier	Agilent	310N	186713	9kHz ~ 1GHz	Apr. 12, 2013	Feb. 26, 2014~ Mar. 15, 2014	Apr. 11, 2014	Radiation (03CH06-HY)
Pre Amplifier	EMCI	EMC051845	SN980048	1GHz ~ 18GHz	Jul. 18, 2013	Feb. 26, 2014~ Mar. 15, 2014	Jul. 17, 2014	Radiation (03CH06-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	15GHz ~ 40GHz	Oct. 03, 2013	Feb. 26, 2014~ Mar. 15, 2014	Oct. 02, 2014	Radiation (03CH06-HY)
Preamplifier	Agilent	8449B	3008A01917	1GHz ~ 26.5GHz	Apr. 12, 2013	Feb. 26, 2014~ Mar. 15, 2014	Apr. 11, 2014	Radiation (03CH06-HY)
Turn Table	INN-CO	DS2000	420/650/00	0 ~ 360 degree	N/A	Feb. 26, 2014~ Mar. 15, 2014	N/A	Radiation (03CH06-HY)
Antenna Mast	MF	MF-7802	MF780208212	1 m ~ 4 m	N/A	Feb. 26, 2014~ Mar. 15, 2014	N/A	Radiation (03CH06-HY)
EMI Test Receiver	Rohde & Schwarz	ESCS 30	100356	9kHz ~ 2.75GHz	Nov. 15, 2013	Feb. 26, 2014	Nov. 14, 2014	Conduction (CO05-HY)
LISN (for auxiliary equipment)	Rohde & Schwarz	ENV216	100081	9kHz ~ 30MHz	Dec. 12, 2013	Feb. 26, 2014	Dec. 11, 2014	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz ~ 30MHz	Dec. 04, 2013	Feb. 26, 2014	Dec. 03, 2014	Conduction (CO05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Feb. 26, 2014	N/A	Conduction (CO05-HY)



5 Uncertainty of Evaluation

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

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

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