# **FCC RF Test Report**

APPLICANT : Nyle Oswind Parry Limited Liability Company

EQUIPMENT : Tablet PC

MODEL NAME : GQY56XZ

FCC ID : 2ABO6-0725

STANDARD : FCC Part 15 Subpart E §15.407

**CLASSIFICATION**: (NII) Unlicensed National Information Infrastructure

The testing completed on Aug. 22, 2014. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

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

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager

#### SPORTON INTERNATIONAL INC.

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

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## **REVISION HISTORY**

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR432436-09D	Rev. 01	Initial issue of report	Aug. 02, 2014
FR432436-09D	Rev. 02	<ol> <li>Add FCC KDB 644545 D03 Guidance for IEEE 802.11ac v01 to section 1.6.</li> <li>Revise NII-3 Emission Bandwidth results in section 3.1.5 for Straddle Channel.</li> <li>Revise NII-3 power limit to 30 dBm in section 3.2.5 for Straddle Channel.</li> <li>Revise NII-3 PSD limit to 30 dBm/500kHz in section 3.3.5 for Straddle Channel.</li> </ol>	Aug. 22, 2014

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## **SUMMARY OF TEST RESULT**

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	2.1049 15.403(i)	RSS-210 A9.2	26dB Bandwidth	- Pass		-
3.2	15.407(a)	RSS-210 A9.2	Maximum Conducted Output Power	≤ 17, 24, 30 dBm (depend on band)	Pass	-
3.3	15.407(a)	RSS-210 A9.2	Power Spectral Density ≤ 4, 11, 17 of (depend on b		Pass	-
3.4	15.407(b)	RSS-210 A9.3	Unwanted Emissions	≤ -17, -27 dBm (depend on band)&15.209(a)	Pass	Under limit 0.56 dB at 5470.000 MHz
3.5	15.207	RSS-Gen 7.2.4	AC Conducted Emission			Under limit 6.30 dB at 3.702 MHz
3.6	15.407(g)	-	Frequency Stability	Frequency Stability Within Operation Band Pa		-
3.7	15.407(c)	RSS-210 A9.4	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-
3.8	15.203 & 15.407(a)	RSS-210 A9.2	Antenna Requirement	N/A	Pass	-

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## 1 **General Description**

## 1.1 Applicant

**Nyle Oswind Parry Limited Liability Company** 

7027 Old Madison Pike, Suite 108, Huntsville, Alabama 35806

## 1.2 Feature of Equipment Under Test

Product Feature					
Equipment	Tablet PC				
Model Name	GQY56XZ				
FCC ID	2ABO6-0725				
EUT supports Radios application	GSM/EGPRS/WCDMA/HSPA/LTE  <2.4GHz band> WLAN 11b/g/n HT20 WLAN 11ac VHT20 Bluetooth v4.0 EDR/LE  <5GHz band> WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80				

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

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## 1.3 Product Specification of Equipment Under Test

Product Sp	ecification subject	tive to this standa	ırd		
	5180 MHz ~ 5240	MHz			
Tx/Rx Channel Frequency Range	5260 MHz ~ 5320	MHz			
	5500 MHz ~ 5720	MHz			
	<5180 MHz ~ 5240	) MHz>			
	802.11a : 15.3 dBr	n / 0.0339 W			
	802.11n HT20 : 15	.3 dBm / 0.0339 W	1		
	802.11n HT40 : 15	.5 dBm / 0.0355 W	1		
	802.11ac VHT20:	15.4 dBm / 0.0347	W		
	802.11ac VHT40:	15.5 dBm / 0.0355	W		
	802.11ac VHT80:	15.4 dBm / 0.0347	W		
	<5260 MHz ~ 5320	) MHz>			
	802.11a : 15.1 dBr	n / 0.0324 W			
	802.11n HT20 : 15	.3 dBm / 0.0339 W	1		
Maximum Output Power	802.11n HT40 : 15	.3 dBm / 0.0339 W	1		
	802.11ac VHT20:	15.4 dBm / 0.0347	W		
	802.11ac VHT40:				
	802.11ac VHT80:	15.3 dBm / 0.0339	W		
	<5500 MHz ~ 5720 MHz>				
	802.11a : 15.2 dBm / 0.0331 W				
	802.11n HT20 : 15	.4 dBm / 0.0347 W	1		
	802.11n HT40 : 15.3 dBm / 0.0339 W				
	802.11ac VHT20:				
	802.11ac VHT40:				
	802.11ac VHT80:				
Type of Modulation	802.11a/n : OFDM	,	,		
Type or mediananen	802.11ac : OFDM		<u> 64QAM / 64QAM / 2</u>	56QAM)	
	<5180 MHz ~ 5240 MHz>				
	Ant. 1: Fixed internal Antenna with gain 2.50 dBi				
	Ant. 2: Fixed internal Antenna with gain 2.60 dBi				
<b>.</b>	<5260 MHz ~ 5320		' 4 00 ID'		
Antenna Type	Ant. 1 : Fixed inter	-			
	Ant. 2 : Fixed inter		gain 3.20 dBi		
	<5500 MHz ~ 5720		-'- 0 05 JD'		
	Ant. 1 : Fixed inter	· ·			
	Ant. 2 : Fixed inter	rnai Antenna with g	jain 2.40 dBi		
		Chain	Chain	]	
		Ant. 1	Ant. 2		
<b>.</b>	802.11a			1	
Antenna Function Description	MIMO	V	V		
	802.11n/ac			1	
	MIMO	V	V		
				ı 	

## 1.4 Modification of EUT

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

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## 1.5 Testing Location

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

Test Site	SPORTON INTERNATIONAL INC.				
	No. 52, Hwa Ya 1 <sup>st</sup> Rd., Hwa Ya Technology Park,				
Test Site Location	Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.				
rest Site Location	TEL: +886-3-327-3456				
	FAX: +886-3-328-4978				
Took Site No	Sporton Site No.				
Test Site No.	TH02-HY	CO05-HY	03CH08-HY		

## 1.6 Applicable Standards

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

- FCC Part 15 Subpart E
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v01
- FCC KDB 644545 D03 Guidance for IEEE 802.11ac v01
- FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ANSI C63.4-2003

#### Remark:

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

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## 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.

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## 2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
	36	5180	44	5220
5150-5250 MHz	38*	5190	46*	5230
Band I (U-NII-1)	40	5200	48	5240
(0 1411 1)	42#	5210		

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
	52	5260	60	5300
5250-5350 MHz	54*	5270	62*	5310
Band II (U-NII-2A)	56	5280	64	5320
(3 :::: 2/1)	58 <sup>#</sup>	5290		

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
	100	5500	120	5600
	102*	5510	122#	5610
	104	5520	124	5620
5470-57250 MHz	106#	5530	126*	5630
Band III	108	5540	128	5640
(U-NII-2C)	110*	5550	132	5660
	112	5560	134*	5670
	116	5580	136	5680
	118*	5590	140	5700

Frequency Band	Channel	Freq. Channel		Freq. (MHz)
Straddle Channel	144	5720	142*	5710
Straudie Charmei	138#	5690		

### Note:

1. The above Frequency and Channel in "\*" were 802.11n HT40 and 802.11ac VHT40.

2. The above Frequency and Channel in "#" were 802.11ac VHT80.

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## 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.

#### MIMO <Ant. 1+2>

5GHz 802.11a mode								
Data Rate	6M bps	9M bps	12M bps	18M bps	24M bps	36M bps	48M bps	54M bps
Average Power (dBm)	<mark>15.3</mark>	15.1	15.2	15.1	14.9	15.0	15.2	15.2

5GHz 802.11n HT20 mode								
Data Rate	MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7
Average Power (dBm)	<mark>15.4</mark>	15.2	15.0	15.3	15.2	15.3	15.3	15.3
Data Rate	MCS 8	MCS 9	MCS 10	MCS 11	MCS 12	MCS 13	MCS 14	MCS 15
Average Power (dBm)	15.3	15.2	15.1	15.2	15.2	15.2	15.2	15.2

5GHz 802.11n HT40 mode								
Data Rate	MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7
Average Power (dBm)	<mark>15.5</mark>	15.1	15.1	15.3	15.3	15.2	15.3	15.3
Data Rate	MCS 8	MCS 9	MCS 10	MCS 11	MCS 12	MCS 13	MCS 14	MCS 15
Average Power (dBm)	15.4	15.1	15.2	15.3	15.5	15.5	15.3	15.4

5GHz 802.11ac VHT20 mode									
Deta Deta					Nss=1				
Data Rate	MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8
Average Power (dBm)	<mark>15.4</mark>	15.1	14.8	15.2	15.2	15.2	15.3	15.2	15.2
Data Bata					Nss=2				
Data Rate	MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8
Average Power (dBm)	15.4	15.4	15.3	15.4	15.4	15.4	15.4	15.4	15.4

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5GHz 802.11ac VHT40 mode										
Dota Dota					Ns	s=1				
Data Rate	MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8	MCS 9
Average Power (dBm)	<mark>15.5</mark>	15.4	15.1	15.4	15.4	15.4	15.3	15.3	15.3	15.3
Deta Deta					Ns	s=2				
Data Rate	MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8	MCS 9
Average Power (dBm)	15.3	15.4	15.2	15.4	15.4	15.4	15.3	15.4	15.3	15.2

5GHz 802.11ac VHT80 mode										
Dota Bata					Ns	s=1				
Data Rate	MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8	MCS 9
Average Power (dBm)	<mark>15.4</mark>	15.2	15.3	15.2	15.2	15.2	15.2	15.3	15.0	14.9
Data Rate					Ns	s=2				
Data Kate	MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8	MCS 9
Average Power (dBm)	15.2	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3

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

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## 2.3 Test Mode

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

		Test Cases		
	Test Items	Mode	Data rate	Test Channel
		802.11a	6 Mbps	L/M/H/Straddle
		802.11n HT20	MCS0	L/M/H/Straddle
	26dB BW	802.11n HT40	MCS0	L/M/H/Straddle
	Power Spectral Density	802.11ac VHT20	MCS0	L/M/H/Straddle
		802.11ac VHT40	MCS0	L/M/H/Straddle
		802.11ac VHT80	MCS0	L/M/H/Straddle
		802.11a	6 Mbps	н
		802.11n HT20	MCS0	н
Conducted	20dB Occupied	802.11n HT40	MCS0	н
TCs	Bandwidth	802.11ac VHT20	MCS0	Н
		802.11ac VHT40	MCS0	Н
		802.11ac VHT80	MCS0	н
		802.11a	6 Mbps	L/M/H/Straddle
		802.11n HT20	MCS0	L/M/H/Straddle
	Output Baucan	802.11n HT40	MCS0	L/M/H/Straddle
	Output Power	802.11ac VHT20	MCS0	L/M/H/Straddle
		802.11ac VHT40	MCS0	L/M/H/Straddle
		802.11ac VHT80	MCS0	L/M/H/Straddle
	Frequency Stability	802.11a	6 Mbps	L

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		Test Cases				
	Test Items	Mode	Data rate	Test Channel		
		802.11a	6 Mbps	L/H/Straddle		
		802.11n HT20	MCS0	L/H/Straddle		
	Radiated Band Edge	802.11n HT40	MCS0	L/H/Straddle		
	Radialed Balld Edge	802.11ac VHT20	MCS0	L/H/Straddle		
Radiated		802.11ac VHT40	MCS0	L/M/H/Straddle		
TCs		802.11ac VHT80	MCS0	L/M/H/Straddle		
103		802.11a	6 Mbps	L/M/H/Straddle		
		802.11n HT20	MCS0	L/M/H/Straddle		
	Radiated Spurious	802.11n HT40	MCS0	L/M/H/Straddle		
	Emission	802.11ac VHT20	MCS0	L/M/H/Straddle		
		802.11ac VHT40	MCS0	L/M/H/Straddle		
		802.11ac VHT80	MCS0	L/M/H/Straddle		
	Mode 1 : GSM850 (GF	PRS class 8) Idle + WLA	N (5GHz) Link + Blueto	oth Link + Earphone +		
	HDMI Cable	with Monitor + HDMI to	o uUSB Dongle + USB	Cable (Charging from		
AC Conducted	Adapter) + Ca	amera (Front) <fig. 1=""></fig.>				
Emission	Mode 2 : GSM850 (GF	PRS class 8) Idle + WLA	N (5GHz) Link + Earpho	one + HDMI Cable with		
	Monitor + HDMI to uUSB Dongle + USB Cable (Charging from Adapter) + Camera					
	(Front) <fig.< td=""><td>2&gt;</td><td></td><td></td></fig.<>	2>				
Remark: The	worst case of conducted	d emission is mode 2;	only the test data of it	was reported.		

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

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

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

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

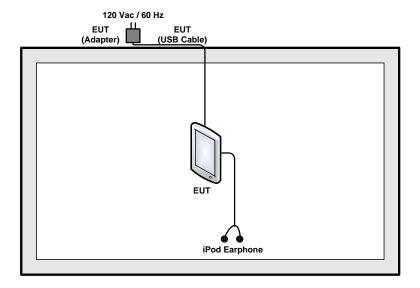
	Ch. #	Band I: 5150-5250 MHz	Band II: 5250-5350 MHz	Band III:5470-5725 MHz
	CII. #	802.11ac VHT40	802.11ac VHT40	802.11ac VHT40
L	Low	38	54	102
M	Middle	-	-	110
Н	High	46	62	134

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

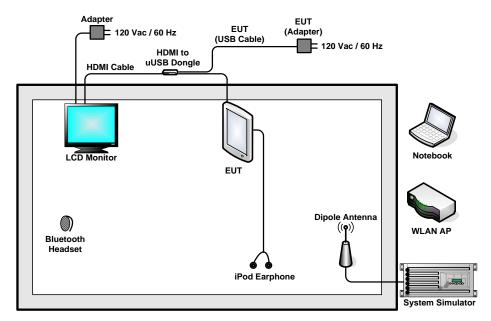
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## 2.4 Connection Diagram of Test System

#### <WLAN Tx Mode>



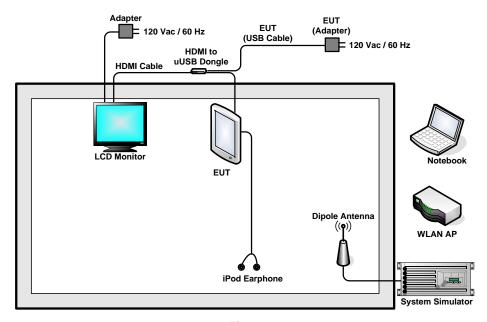
#### <EUT with Adapter and Bluetooth Earphone Mode for AC Conducted Emission>



<Fig. 1>

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### <EUT with Adapter Mode for AC Conducted Emission>



<Fig. 2>

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## 2.5 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
2.	Bluetooth Earphone	Sony Ericsson	MW600	PY7DDA-2029	N/A	N/A
3.	WLAN AP	AN AP D-Link		KA2DIR628A2	N/A	Unshielded, 1.8 m
4.	LCD Monitor	DELL	U2410	FCC DoC	Shielded, 1.6 m	Unshielded, 1.8 m
5.	HDMI to uUSB Dongle	N/A	PS56GR	N/A	Unshielded, 0.17 m	N/A
6.	iPod Earphone	Apple	N/A	Verification	Unshielded, 1.0 m	N/A
7.	Notebook	DELL	Latitude E6320	FCC DoC/ Contains FCC ID: QDS-BRCM1054	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

## 2.6 EUT Operation Test Setup

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

## 2.7 Measurement Results Explanation Example

#### For all conducted test items:

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

#### Example:

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

Offset = RF cable loss + attenuator factor.

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

Offset(dB) = RF cable loss(dB) + attenuator factor(dB). = 4.2 + 10 = 14.2 (dB)

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### 3 Test Result

#### 3.1 26dB Bandwidth Measurement

### 3.1.1 Description of 26dB Bandwidth

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

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

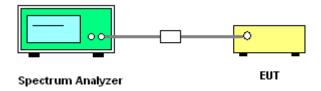
### 3.1.2 Measuring Instruments

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

#### 3.1.3 Test Procedures

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

### 3.1.4 Test Setup



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## 3.1.5 Test Result of 26dB Bandwidth

Test Band :	5GHz band I, II, III	Temperature :	<b>21~26</b> ℃
Test Engineer :	Bill Kuo and Stuart Lin	Relative Humidity :	45~54%

Mod.	Data Rate	N <sub>TX</sub>	Channel	Freq. (MHz)	99 Band (M	width -		Band EIRP	99% width Limit Bm)	-		
					Ant 1	Ant 2			Ant 1	Ant 2	-	-
11a	6Mbps	2	36	5180	18.20	18.10	-	-	22	.58	-	
11a	6Mbps	2	44	5220	18.20	17.95		ı	22	.54	-	•
11a	6Mbps	2	48	5240	18.25	18.05	ı	ı	22	.56	-	•
HT20	MCS0	2	36	5180	19.00	18.85		ı	22	.75	-	•
HT20	MCS0	2	44	5220	18.95	18.95	ı	ı	22.78		•	•
HT20	MCS0	2	48	5240	18.85	18.95	ı	ı	22.75		•	•
HT40	MCS0	2	38	5190	36.63	36.45	ı	ı	23.01		•	•
HT40	MCS0	2	46	5230	36.72	36.72	-	1	23	.01	-	•
VHT20	MCS0	2	36	5180	18.95	18.95	ı	ı	22	.78	•	•
VHT20	MCS0	2	44	5220	19.00	18.95	-	-	22	.78	-	
VHT20	MCS0	2	48	5240	18.90	19.00	-	-	22.76		-	
VHT40	MCS0	2	38	5190	36.63	36.81			23.01		-	
VHT40	MCS0	2	46	5230	36.72	36.63	3		23.01		-	
VHT80	MCS0	2	42	5210	76.02	76.02	-	-	23	.01		

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Mod.	Data Rate	N <sub>TX</sub>	Channel	Freq. (MHz)	Band	)% width Hz)	Band	26dB Bandwidth (MHz)		99% width Limit Bm)	Power	width																												
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2																												
11a	6Mbps	2	52	5260	18.00	18.00	23.10	22.90	29	.55	23	.98																												
11a	6Mbps	2	60	5300	18.10	18.10	23.05	22.95	29	.58	23.	.98																												
11a	6Mbps	2	64	5320	18.00	18.05	23.10	22.95	29.55		29.55		29.55		29.55		23	.98																						
HT20	MCS0	2	52	5260	18.90	18.90	23.25	23.10	29.76		29.76		29.76		29.76		29.76		29.76		29.76		29.76		29.76		29.76		29.76		29.76		29.76		29.76		29.76		23	.98
HT20	MCS0	2	60	5300	18.90	18.95	23.50	23.15	29.76		23	.98																												
HT20	MCS0	2	64	5320	19.05	18.95	23.25	23.15	29.78 23		.98																													
HT40	MCS0	2	54	5270	36.60	36.70	41.40	41.22	30	30.00		.98																												
HT40	MCS0	2	62	5310	36.70	36.80	41.40	41.31	30	.00	23	.98																												
VHT20	MCS0	2	52	5260	19.00	18.80	23.35	23.15	29	.74	23	.98																												
VHT20	MCS0	2	60	5300	18.90	18.90	23.35	23.25	29	.76	23	.98																												
VHT20	MCS0	2	64	5320	19.05	18.85	23.25	22.90	29.75		29.75		23	.98																										
VHT40	MCS0	2	54	5270	36.70	36.70	41.58	41.40	30.00		23	.98																												
VHT40	MCS0	2	62	5310	36.80	36.60	41.40	41.31	30.00		23.98																													
VHT80	MCS0	2	58	5290	75.96	76.08	82.40	82.40	30	.00	23	.98																												

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Mod.	Data Rate	N <sub>TX</sub>	Channel	Freq. (MHz)	Band	)% width Hz)	Band	dB width Hz)	Band EIRP	99% width Limit Bm)	Band Powe	26dB width r Limit Bm)																						
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2																						
11a	6Mbps	2	100	5500	18.25	18.00	23.05	22.80	29	.55	23	.98																						
11a	6Mbps	2	116	5580	18.30	17.95	23.15	22.85	29.54		29.54		23	.98																				
11a	6Mbps	2	140	5700	18.25	17.90	23.00	23.00	29.53		29.53		29.53		23	.98																		
HT20	MCS0	2	100	5500	19.05	19.00	23.40	23.30	29.79		29.79		29.79		29.79		29.79		29.79		23	.98												
HT20	MCS0	2	116	5580	18.95	18.80	23.35	23.20	29.74		29.74		29.74		29.74		29.74		29.74		29.74		29.74		29.74		29.74		29.74		29.74		23	.98
HT20	MCS0	2	140	5700	19.05	18.85	23.30	23.00	29.75		23	.98																						
HT40	MCS0	2	102	5510	36.60	36.80	41.40	41.31	30.00		23	.98																						
HT40	MCS0	2	110	5550	36.60	36.70	41.67	41.40	30	.00	23	.98																						
HT40	MCS0	2	134	5670	36.70	36.80	41.58	41.31	30.00		23	.98																						
VHT20	MCS0	2	100	5500	18.80	18.10	23.05	22.75	29.58		23	.98																						
VHT20	MCS0	2	116	5580	19.05	18.85	23.35	23.15	29	.75	23	.98																						
VHT20	MCS0	2	140	5700	19.05	18.85	23.25	23.10	29	.75	23	.98																						
VHT40	MCS0	2	102	5510	36.70	36.70	41.67	41.31	30.00		30.00		30.00		30.00		23	.98																
VHT40	MCS0	2	110	5550	36.60	36.80	41.40	41.40	30.00		23	.98																						
VHT40	MCS0	2	134	5670	36.70	36.70	41.40	41.31	30.00		30.00		30.00		23	.98																		
VHT80	MCS0	2	106	5530	75.96	75.84	82.24	82.24	30.00		23.98																							
VHT80	MCS0	2	122	5610	75.96	75.84	82.72	82.24	30	30.00		.98																						

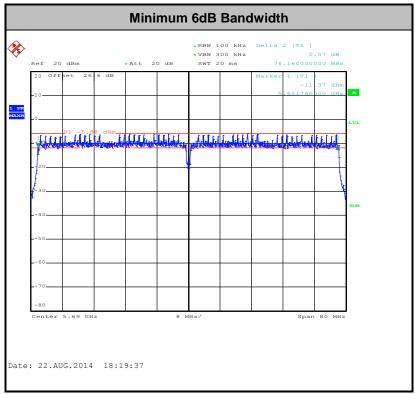
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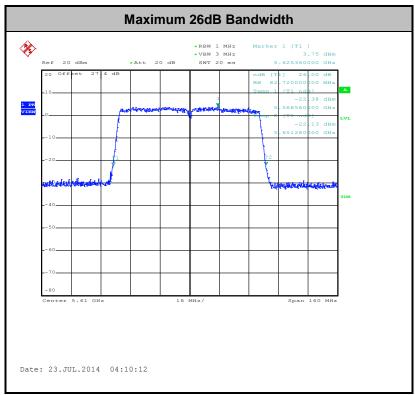
Test Band :	Straddle Channel	Temperature :	<b>21~26</b> ℃
Test Engineer :	Bill Kuo and Stuart Lin	Relative Humidity :	45~54%

Mod.	Data Rate	N <sub>TX</sub>	Channel	Freq. (MHz)		)% width Hz)	Emission Bandwidth (MHz)  Ant 1 Ant		Band EIRP	99% width Limit Bm)	Emis Band									
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2								
				5720	18.15	18.15	19.67	19.54		-		-								
11a	6Mbps	2	144	NII-2C	14.15	14.15	16.55	16.4	28	.51	23	.15								
				NII-3	4	4	3.12	3.14	29	.02		-								
				5720	19.05	18.90	20.51	20.46	-		-		-		-		-			-
HT20	MCS0	2	144	NII-2C	14.65	14.55	16.75	16.7	28	.63	23	.23								
				NII-3	4.4	4.35	3.76	3.76	29	.38		-								
				5710	36.70	36.80	38.95	38.86		-		-								
HT40	MCS0	2	142	NII-2C	33.4	33.5	35.79	35.7	30	.00	23	.98								
				NII-3	3.3	3.3	3.16	3.16	28	.19		-								
				5710	19.00	18.95	20.46	20.41		-		-								
VHT20	MCS0	2	144	NII-2C	14.55	14.55	16.7	16.65	28	.63	23	.21								
				NII-3	4.45	4.4	3.76	3.76	29	.43		-								
				5710	36.70	36.70	38.95	38.86		-		-								
VHT40	MCS0	2	142	NII-2C	33.4	33.5	35.79	35.7	30	.00	23	.98								
				NII-3	3.3	3.2	3.16	3.16	28	.05	5 -									
				5710	75.96	75.84	79.36	78.88		-		-								
VHT80	MCS0	2	138	NII-2C	73.04	73.04	76.44	75.96	30	.00	23	.98								
				NII-3	2.92	2.8	2.92	2.92	27	.47		-								

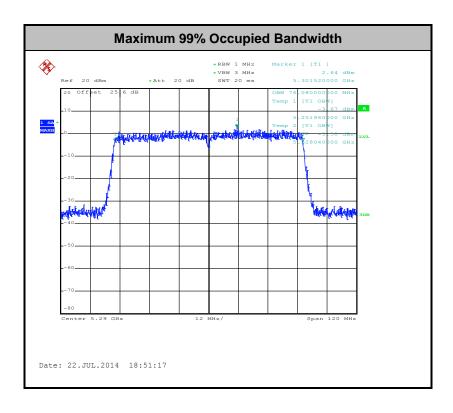
Note: For NII-3 Emission Bandwidth is 6dB Bandwidth.

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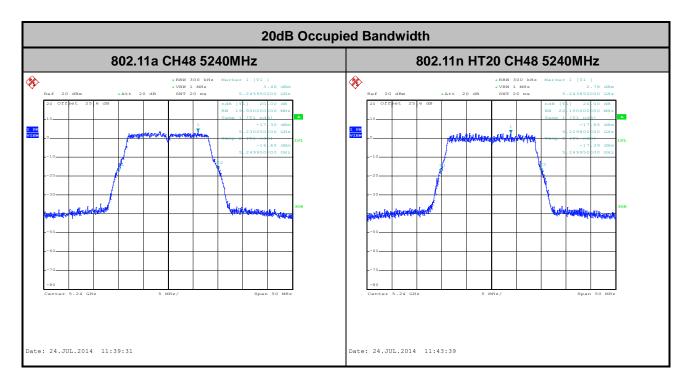


**Note:** The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

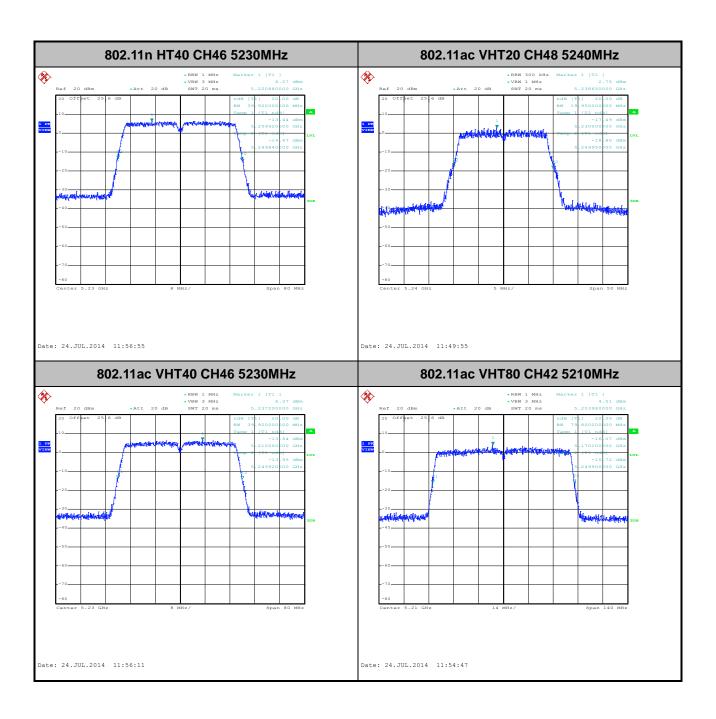
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## 3.1.6 Test Result of 20dB Occupied Bandwidth

Mod.	Data Rate	NTX	Channel	Freq. (MHz)	Band	dB width Hz)	Upper Fred	20dB Bandwidth Upper Frequency (FH) (MHz)		Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	2	48	5240	19.90		5249.95			Pass
HT20	MCS0	2	48	5240	20.15		5249.95			Pass
HT40	MCS0	2	46	5230	39.92		5249.84		5050	Pass
VHT20	MCS0	2	48	5240	19.95	-	5249.95	-	5250	Pass
VHT40	MCS0	2	46	5230	39.92		5249.92			Pass
VHT80	MCS0	2	42	5210	79.80		5249.90			Pass



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### 3.2 Maximum Conducted Output Power Measurement

### 3.2.1 Limit of Maximum Conducted Output Power

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

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

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

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

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

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

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

#### 3.2.2 Measuring Instruments

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

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#### 3.2.3 Test Procedures

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

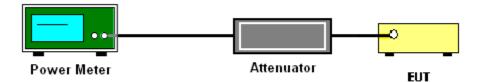
Method PM (Measurement using an RF average power meter):

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

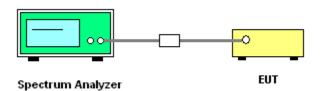
For straddle channel, the testing follows Method SA-3 (RMS detection with max hold) of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.

#### 3.2.4 Test Setup

For normal channel:



#### For straddle channel:



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## 3.2.5 Test Result of Maximum Conducted Output Power

Test Band :	5GHz band I	Temperature :	<b>21~26</b> ℃
Test Engineer :	Bill Kuo and Stuart Lin	Relative Humidity :	45~54%

Mod.	Data	N <sub>TX</sub>	CH.	Freq.	Fac	uty ctor B)		Averaç ducted (dBm	Power	FCC Power Limit (dBm)		DG (dBi)			Pass																																																						
	Rate			(MHz)	Ant. 1	Ant. 2	Ant. 1	Ant. 2	Sum Power	Ant. 1	Ant. 2	Ant. 1	Ant. 2		/Fail																																																						
11a	6Mbps	2	36	5180	0.30	0.28	12.1	12.5	15.3	24	.00	5.	56		Pass																																																						
11a	6Mbps	2	44	5220	0.30	0.28	12.0	12.5	15.3	24.00		24.00		24.00		24.00		5.	56		Pass																																																
11a	6Mbps	2	48	5240	0.30	0.28	12.0	12.0	15.0	24.00		24.00		24.00		24.00		24.00		5.	56		Pass																																														
HT20	MCS0	2	36	5180	0.31	0.33	12.0	12.5	15.2	24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		5.5	56		Pass																																						
HT20	MCS0	2	44	5220	0.31	0.33	12.0	12.5	15.3	24	.00	5.	56		Pass																																																						
HT20	MCS0	2	48	5240	0.31	0.33	12.0	12.0	15.0	24.00		5.	56		Pass																																																						
HT40	MCS0	2	38	5190	0.61	0.61	12.0	12.0	15.0	24.00		5.5	56		Pass																																																						
HT40	MCS0	2	46	5230	0.61	0.61	12.5	12.5	15.5	24.00		24.00		24.00		5.	56	-	Pass																																																		
VHT20	MCS0	2	36	5180	0.31	0.32	12.2	12.5	15.4	24.00		24.00		24.00		24.00		24.00		5.	56		Pass																																														
VHT20	MCS0	2	44	5220	0.31	0.32	12.2	12.5	15.3	24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		5.5	56		Pass
VHT20	MCS0	2	48	5240	0.31	0.32	12.0	12.0	15.0	24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		5.5	56		Pass		
VHT40	MCS0	2	38	5190	0.60	0.60	12.0	12.0	15.0	24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		5.5	56		Pass																																				
VHT40	MCS0	2	46	5230	0.60	0.60	12.5	12.5	15.5	24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		24.00		5.	56		Pass																																						
VHT80	MCS0	2	42	5210	1.14	1.18	12.2	12.5	15.4	24.00		24.00		5.	56		Pass																																																				

#### Note:

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

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Test Band :	5GHz band II	Temperature :	<b>21~26</b> ℃
Test Engineer :	Bill Kuo and Stuart Lin	Relative Humidity :	45~54%

					Du	uty		Averag	е	FC	CC	D	G																		
Mod.	Data Rate	N <sub>TX</sub>	CH.	Freq.		ctor B)	Cond	ucted F (dBm)	Power		r Limit Bm)	_	Bi)		Pass /Fail																
	Kale			(WIF12)	Ant. 1	Ant. 2	Ant. 1	Ant. 2	Sum Power	Ant. 1	Ant. 2	Ant. 1	Ant. 2		/Faii																
11a	6Mbps	2	52	5260	0.30	0.28	13.0	11.1	15.1	23	.98	5.	58		Pass																
11a	6Mbps	2	60	5300	0.30	0.28	13.0	11.1	15.1	23	.98	5.	58		Pass																
11a	6Mbps	2	64	5320	0.30	0.28	13.0	11.0	15.1	23.98		5.	58		Pass																
HT20	MCS0	2	52	5260	0.31	0.33	13.0	11.5	15.3	23	.98	5.	58		Pass																
HT20	MCS0	2	60	5300	0.31	0.33	13.0	11.5	15.3	23	.98	5.	58		Pass																
HT20	MCS0	2	64	5320	0.31	0.33	13.0	11.5	15.3	23	.98	5.	58		Pass																
HT40	MCS0	2	54	5270	0.61	0.61	13.0	11.5	15.3	23.98		5.	58		Pass																
HT40	MCS0	2	62	5310	0.61	0.61	12.9	11.5	15.3	23.98		23.98		23.98		5.	58	-	Pass												
VHT20	MCS0	2	52	5260	0.31	0.32	13.0	11.4	15.3	23.98		23.98		23.98		23.98		23.98		23.98		5.	58		Pass						
VHT20	MCS0	2	60	5300	0.31	0.32	13.0	11.5	15.4	23.98		23.98		23.98		23.98		23.98		23.98		23.98		23.98		5.	58		Pass		
VHT20	MCS0	2	64	5320	0.31	0.32	13.0	11.3	15.3	23.98		23.98		23.98		23.98		23.98		23.98		23.98		23.98		23.98		5.	58		Pass
VHT40	MCS0	2	54	5270	0.60	0.60	13.0	11.5	15.3	23.98		23.98		23.98		23.98		23.98		23.98		23.98		23.98		5.	58		Pass		
VHT40	MCS0	2	62	5310	0.60	0.60	12.5	10.8	14.8	23.98		23.98		23.98		23.98		23.98		23.98		23.98		23.98		5.	58		Pass		
VHT80	MCS0	2	58	5290	1.14	1.18	12.9	11.5	15.3	23.98		5.	58		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.

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Test Band :	5GHz band III	Temperature :	<b>21~26</b> ℃
Test Engineer :	Bill Kuo and Stuart Lin	Relative Humidity :	45~54%

Mod.	Data Rate	N <sub>TX</sub>	CH.	Freq.	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Power Limit (dBm)		DG (dBi)		-	Pass /Fail
	Nate			(MHz)	Ant. 1	Ant. 2	Ant. 1	Ant. 2	Sum Power	Ant. 1	Ant. 2	Ant. 1	Ant. 2		71 all
11a	6Mbps	2	100	5500	0.30	0.28	13.0	11.0	15.1	23.	.98	4.58			Pass
11a	6Mbps	2	116	5580	0.30	0.28	13.0	11.1	15.2	23.	.98	4.58			Pass
11a	6Mbps	2	140	5700	0.30	0.28	12.9	11.1	15.1	23.	.98	4.	58		Pass
HT20	MCS0	2	100	5500	0.31	0.33	13.0	11.5	15.3	23.	.98	4.	4.58		Pass
HT20	MCS0	2	116	5580	0.31	0.33	13.0	11.5	15.3	23.	.98	4.58			Pass
HT20	MCS0	2	140	5700	0.31	0.33	13.0	11.5	15.4	23.	.98	4.	58		Pass
HT40	MCS0	2	102	5510	0.61	0.61	12.5	10.8	14.7	23.	.98	4.58			Pass
HT40	MCS0	2	110	5550	0.61	0.61	13.0	11.5	15.3	23.	.98	4.	58		Pass
HT40	MCS0	2	134	5670	0.61	0.61	12.9	11.5	15.2	23.	.98	4.58		-	Pass
VHT20	MCS0	2	100	5500	0.31	0.32	12.9	11.4	15.2	23.	.98	8 4.58			Pass
VHT20	MCS0	2	116	5580	0.31	0.32	12.8	11.5	15.2	23.	23.98 4.58		58		Pass
VHT20	MCS0	2	140	5700	0.31	0.32	12.8	11.5	15.2	23.98		98 4.58			Pass
VHT40	MCS0	2	102	5510	0.60	0.60	12.0	10.5	14.3	23.98		4.58			Pass
VHT40	MCS0	2	110	5550	0.60	0.60	13.0	11.5	15.3	23.98		4.58			Pass
VHT40	MCS0	2	134	5670	0.60	0.60	12.9	11.4	15.3	23.98		4.58			Pass
VHT80	MCS0	2	106	5530	1.14	1.18	13.0	11.5	15.3	23.	.98	98 4.58			Pass
VHT80	MCS0	2	122	5610	1.14	1.18	13.0	11.3	15.2	23.98		4.	58		Pass

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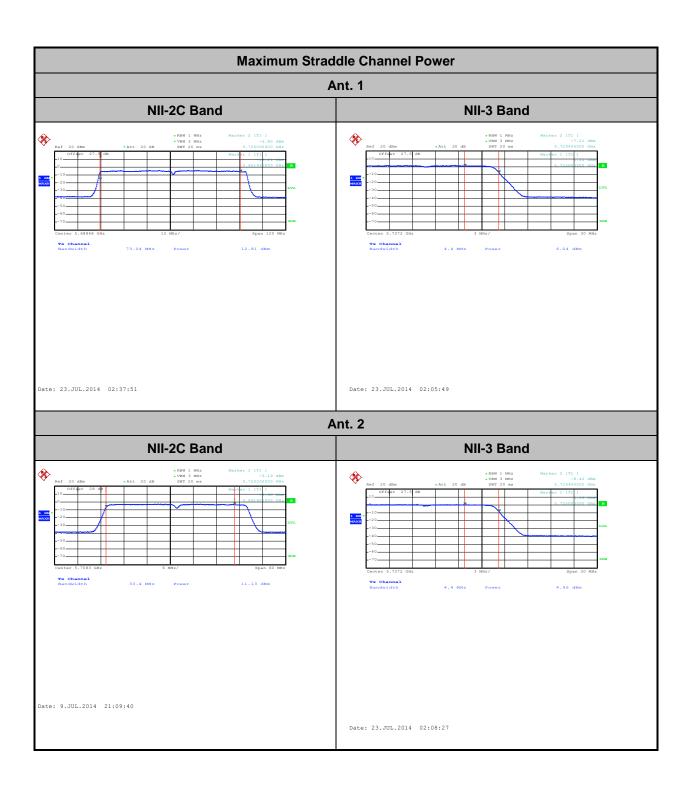
Test Band :	Straddle Channel	Temperature :	21~26°C	
Test Engineer :	Bill Kuo and Stuart Lin	Relative Humidity :	45~54%	

Mod.	Data Rate	N <sub>TX</sub>	<b>Channel</b>	Freq.	- (dB)		Average Conducted Power (dBm)			FCC Power Limit (dBm)		DG (dBi)		Pass /Fail	
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
				5720	0.30	0.28	12.9	11.0	15.1	-		4.58		-	
11a	6Mbps	2	144	NII-2C	0.30	0.28	12.0	10.1	14.1	23.15		4.58		Pass	
				NII-3	0.30	0.28	5.9	4.1	8.1	30.00		4.58		Pass	
			144	5720	0.31	0.33	12.8	11.5	15.3	-		4.58		-	
HT20	MCS0	2		NII-2C	0.31	0.33	11.8	10.5	14.2	23.23		4.58		Pass	
				NII-3	0.31	0.33	6.0	5.0	8.5	30.00		4.58		Pass	
HT40	MCS0	2		5720	0.61	0.61	12.8	11.5	15.2	-		4.58		-	
			142	NII-2C	0.61	0.61	12.4	11.1	14.8	23.98		4.58		Pass	
				NII-3	0.61	0.61	2.1	0.4	4.3	30.	.00	4.58		Pass	
			144	5720	0.31	0.32	12.9	11.5	15.3	-		4.58		-	
VHT20	MCS0	2		NII-2C	0.31	0.32	11.9	10.4	14.2	23.21		4.58		Pass	
				NII-3	0.31	0.32	6.0	5.0	8.6	30.00		4.58		Pass	
	MCS0	2			5710	0.60	0.60	12.8	11.5	15.2	-	-	4.5	58	-
VHT40			142	NII-2C	0.60	0.60	12.5	11.1	14.9	23.98		4.58		Pass	
				NII-3	0.60	0.60	2.1	0.4	4.3	30.	.00	4.5	58	Pass	
	MCS0			5690	1.14	1.18	13.0	11.2	15.2			4.5	58	-	
VHT80		2	138	NII-2C	1.14	1.18	12.8	11.1	15.0	23.	23.98		58	Pass	
				NII-3	1.14	1.18	-2.0	-3.8	0.2	30.	.00	4.5	58	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.

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## 3.3 Power Spectral Density Measurement

## 3.3.1 Limit of Power Spectral Density

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

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

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

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

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

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

### 3.3.2 Measuring Instruments

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

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#### 3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01. Section F) Maximum power spectral density.

#### # Method SA-2 #

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

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

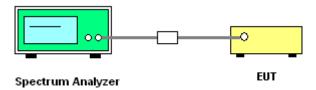
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- 2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
- 3. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.
- For MIMO mode, calculation method follows FCC KDB 662911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



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# 3.3.5 Test Result of Power Spectral Density

Test Band :	5GHz band I	Temperature :	<b>21~26</b> ℃
Test Engineer:	Bill Kuo and Stuart Lin	Relative Humidity :	45~54%

Mod.	Data	N <sub>TX</sub>	CH.	Freq.	Fac	ity ctor B)	Po	Avera wer De	ensity	PSD	Average PSD Limit (dBm)		G Bi)		Pass /Fail
	Rate			(MHz)	Ant 1	Ant 2	Ant 1	Ant 2	Sum Power	Ant 1	Ant 2	Ant 1	Ant 2		/Faii
11a	6Mbps	2	36	5180	0.30	0.28			3.33	11	.00	5.	56		Pass
11a	6Mbps	2	44	5220	0.30	0.28			3.32	11	.00	5.	56		Pass
11a	6Mbps	2	48	5240	0.30	0.28			2.98	11	.00	5.	56		Pass
HT20	MCS0	2	36	5180	0.31	0.33			2.91	11	11.00		56		Pass
HT20	MCS0	2	44	5220	0.31	0.33			2.94	11	.00	5.	56		Pass
HT20	MCS0	2	48	5240	0.31	0.33			2.51	11	.00	5.	56		Pass
HT40	MCS0	2	38	5190	0.61	0.61			-0.38	11	.00	5.	56		Pass
HT40	MCS0	2	46	5230	0.61	0.61	· ·	-	0.26	11	.00	5.	56	-	Pass
VHT20	MCS0	2	36	5180	0.31	0.32			3.00	11	.00	5.	56		Pass
VHT20	MCS0	2	44	5220	0.31	0.32			2.98	11	.00	5.	56		Pass
VHT20	MCS0	2	48	5240	0.31	0.32			2.56	11	.00	5.	56		Pass
VHT40	MCS0	2	38	5190	0.60	0.60			-0.56	11	.00	5.	56		Pass
VHT40	MCS0	2	46	5230	0.60	0.60			0.16	11	.00	5.	56		Pass
VHT80	MCS0	2	42	5210	1.14	1.18			-3.43	11	.00	5.	56		Pass

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

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Test Band :	5GHz band II	Temperature :	<b>21~26</b> ℃
Test Engineer :	Bill Kuo and Stuart Lin	Relative Humidity :	45~54%

Mod.	Data Rate	N <sub>TX</sub>	CH.	Freq.	Fac	ity ctor B)	Pov	Averag wer De	ensity		rage Limit Bm)	DG (dBi)			Pass /Fail
	Rate			(MHz)	Ant 1	Ant 2	Ant 1	Ant 2	Sum Power	Ant 1	Ant 2	Ant 1	Ant 2		/Faii
11a	6Mbps	2	52	5260	0.30	0.28			3.60	11.	.00	5.	58		Pass
11a	6Mbps	2	60	5300	0.30	0.28			3.85	11.	.00	5.	58		Pass
11a	6Mbps	2	64	5320	0.30	0.28			3.99	11	.00	5.	58		Pass
HT20	MCS0	2	52	5260	0.31	0.33			3.26	11.	.00	5.	58		Pass
HT20	MCS0	2	60	5300	0.31	0.33			3.50	11.	.00	5.	58		Pass
HT20	MCS0	2	64	5320	0.31	0.33			3.75	11.	.00	5.	58		Pass
HT40	MCS0	2	54	5270	0.61	0.61			0.21	11.	.00	5.	58		Pass
HT40	MCS0	2	62	5310	0.61	0.61			0.28	11.	.00	5.	58	-	Pass
VHT20	MCS0	2	52	5260	0.31	0.32			3.37	11.	.00	5.	58		Pass
VHT20	MCS0	2	60	5300	0.31	0.32			3.57	11.	.00	5.	58		Pass
VHT20	MCS0	2	64	5320	0.31	0.32			3.71	11.	.00	5.	58		Pass
VHT40	MCS0	2	54	5270	0.60	0.60			0.14	11	.00	5.	58		Pass
VHT40	MCS0	2	62	5310	0.60	0.60			0.14	11	.00	5.	58		Pass
VHT80	MCS0	2	58	5290	1.14	1.18			-3.10	11	.00	5.	58		Pass

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

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Test Band :	5GHz band III	Temperature :	<b>21~26</b> ℃
Test Engineer :	Bill Kuo and Stuart Lin	Relative Humidity :	45~54%

Mod.	Data Rate	N <sub>TX</sub>	CH.	Freq.	Fac	ity ctor B)	Po	Averag wer De	ensity	PSD	Average PSD Limit (dBm)		G Bi)		Pass /Fail
	Nate			(1411 12)	Ant 1	Ant 2	Ant 1	Ant 2	Sum Power	Ant 1	Ant 2	Ant 1	Ant 2		/i ali
11a	6Mbps	2	100	5500	0.30	0.28			4.69	11.	.00	4.	58		Pass
11a	6Mbps	2	116	5580	0.30	0.28			4.31	11.	.00	4.	58		Pass
11a	6Mbps	2	140	5700	0.30	0.28			4.38	11.	.00	4.	58		Pass
HT20	MCS0	2	100	5500	0.31	0.33			4.48	11.	.00	4.	58		Pass
HT20	MCS0	2	116	5580	0.31	0.33			4.30	11.	.00	4.	58		Pass
HT20	MCS0	2	140	5700	0.31	0.33			4.27	11.	.00	4.	58		Pass
HT40	MCS0	2	102	5510	0.61	0.61			-0.11	11.	.00	4.	58		Pass
HT40	MCS0	2	110	5550	0.61	0.61			0.85	11.	.00	4.	58		Pass
HT40	MCS0	2	134	5670	0.61	0.61			0.58	11.	.00	4.	58	-	Pass
VHT20	MCS0	2	100	5500	0.31	0.32			4.09	11.	.00	4.	58		Pass
VHT20	MCS0	2	116	5580	0.31	0.32			3.99	11.	.00	4.	58		Pass
VHT20	MCS0	2	140	5700	0.31	0.32			4.10	11.	.00	4.	58		Pass
VHT40	MCS0	2	102	5510	0.60	0.60			0.96	11.	.00	4.	58		Pass
VHT40	MCS0	2	110	5550	0.60	0.60			1.01	11.	.00	4.	58		Pass
VHT40	MCS0	2	134	5670	0.60	0.60			0.30	11.	.00	4.	58		Pass
VHT80	MCS0	2	106	5530	1.14	1.18			-3.34	11.	.00	4.	58		Pass
VHT80	MCS0	2	122	5610	1.14	1.18			-3.63	11.	.00	4.	58		Pass

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

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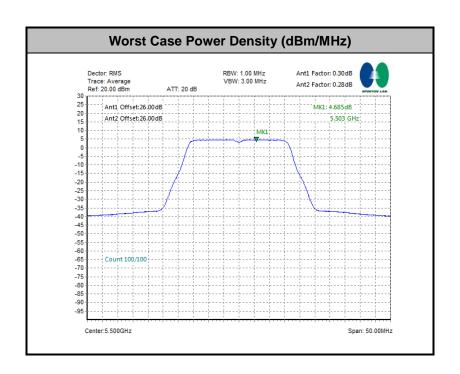
Test Band :	Straddle Channel	Temperature :	<b>21~26</b> ℃
Test Engineer :	Bill Kuo and Stuart Lin	Relative Humidity :	45~54%

Mod.	Data Rate	N <sub>TX</sub>	CH.	Freq.	Fac	ity ctor B)	Po	Averag wer De	ensity	PSD	Average PSD Limit (dBm)  Ant 1 Ant 2		G Bi)		Pass /Fail		
	Kale			(WITIZ)	Ant 1	Ant 2	Ant 1	Ant 2	Sum Power	Ant 1			Ant 2		/Faii		
11a	6Mbps	2	144	NII-2C	0.30	0.28			3.20	11	.00	4.	58		Pass		
Ha	olvibbs	2	144	NII-3	0.30	0.28			3.20	30	.00	4.	58		Pass		
HT20	MCS0	2	144	NII-2C	0.31	0.33			2.91	11.00		4.58			Pass		
11120	IVICSU	2	144	NII-3	0.31	0.33			2.91	30	30.00		58		Pass		
HT40	MCS0	2	142	NII-2C	0.61	0.61			-1.88	11	.00	00 4.58			Pass		
11140	IVICSU	2	142	NII-3	0.61	0.61			-1.88	30	.00	4.	58		Pass		
VHT20	MCS0	2	144	NII-2C	0.31	0.32	,	_	2.69	11	.00	4.	58	-	Pass		
V11120	IVICSU	۷	144	NII-3	0.31	0.32			2.69	30	.00	4.	58		Pass		
VHT40	MCS0	2	142	NII-2C	0.60	0.60			-1.75	11	11.00		11.00 4.5		58		Pass
VIII40	IVICSU		142	NII-3	0.60	0.60			-1.75	30	.00	4.	58		Pass		
VHT80	MCS0	2	138	NII-2C	1.14	1.18			-3.42	11	.00	4.	58		Pass		
V11160	IVICOU	۷	130	NII-3	1.14	1.18			-3.42	30	.00	4.	58		Pass		

Note: For NII-3 PSD, limit is 30 dBm/500kHz.

If measured value meet 30 dBm/MHz, then it also compliance with 30dBm/500kHz.

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### 3.4 Unwanted Emissions Measurement

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

### 3.4.1 Limit of Unwanted Emissions

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

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

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

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

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

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

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

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

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

## 3.4.2 Measuring Instruments

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

#### 3.4.3 Test Procedures

- The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.
   Section G) Unwanted emissions measurement.
  - (1) Procedure for Unwanted Emissions Measurements Below 1000MHz
    - RBW = 120 kHz
    - VBW = 300 kHz
    - Detector = Peak
    - Trace mode = max hold
  - (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
    - RBW = 1 MHz
    - VBW ≥ 3 MHz
    - Detector = Peak
    - Sweep time = auto
    - Trace mode = max hold
  - (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz
    - RBW = 1 MHz
    - VBW = 10 Hz, when duty cycle is no less than 98 percent.
    - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

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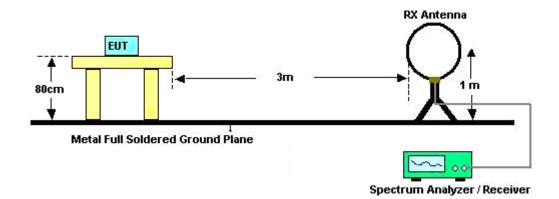
Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting		
1+2	802.11a for Ant 1	93.23	1432	0.70	4111-		
1+2	802.11a for Ant 2	93.72	1432	0.70	1kHz		
1+2	802.11n HT20 for Ant 1	93.06	1340	0.75	4111		
1+2	802.11n HT20 for Ant 2	92.78	1336	0.75	1kHz		
1+2	802.11n HT40 for Ant 1	86.98	668	1.50			
1+2	802.11n HT40 for Ant 2	86.98	668	1.50	3kHz		
1+2	802.11ac VHT20 for Ant 1	93.06	1340	0.75	4111		
1+2	802.11ac VHT20 for Ant 2	92.82	1344	0.74	1kHz		
1+2	802.11ac VHT40 for Ant 1	87.05	672	1.49	0111		
1+2	802.11ac VHT40 for Ant 2	87.11	676	1.48	3kHz		
1+2	802.11ac VHT80 for Ant 1	76.85	332	3.01	40111-		
1+2	802.11ac VHT80 for Ant 2	76.15	332	3.01	10kHz		

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

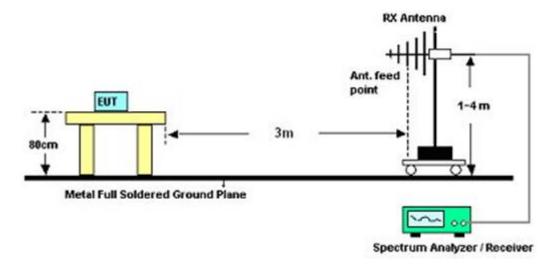
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## 3.4.4 Test Setup

### For radiated emissions below 30MHz

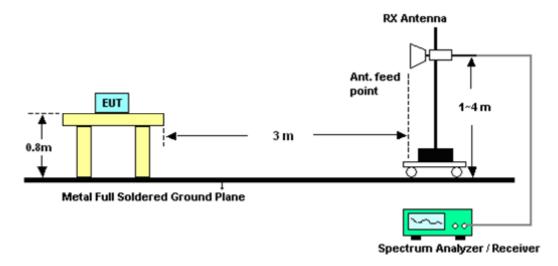


#### For radiated emissions from 30MHz to 1GHz



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#### For radiated emissions above 1GHz



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

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

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## 3.4.6 Test Result of Radiated Band Edges

## MIMO <Ant. 1 + 2>

Test Mode :	802.11a	Temperature :	22~24°C
Test Channel :	36	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL									
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5148.35	55.11	-18.89	74	45.4	35.12	8.94	34.35	100	151	Peak
5150	44.21	-9.79	54	34.5	35.12	8.94	34.35	100	151	Average

	ANTENNA POLARITY : VERTICAL										
Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark	
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	( dB )	( cm )	(deg)		
5150	57.63	-16.37	74	47.92	35.12	8.94	34.35	102	82	Peak	
5149.85	46.13	-7.87	54	36.42	35.12	8.94	34.35	102	82	Average	

Test Mode :	802.11a	Temperature :	22~24°C
Test Channel :	48	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL											
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark		
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos			
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)			
5142.2	54.42	-19.58	74	44.72	35.12	8.94	34.36	100	152	Peak		
5148.8	42.8	-11.2	54	33.09	35.12	8.94	34.35	100	152	Average		
5367.71	55.24	-18.76	74	44.59	35.29	9.69	34.33	100	152	Peak		
5451.97	43.76	-10.24	54	32.79	35.36	9.93	34.32	100	152	Average		

	ANTENNA POLARITY : VERTICAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	( dB )	(dBµV/m)	(dBµV)	( dB )	( dB )	( dB )	( cm )	( deg )		
5148.5	54.11	-19.89	74	44.4	35.12	8.94	34.35	101	91	Peak	
5148.65	43.03	-10.97	54	33.32	35.12	8.94	34.35	101	91	Average	
5352.31	55.64	-18.36	74	45.09	35.28	9.6	34.33	101	91	Peak	
5354.18	44.37	-9.63	54	33.82	35.28	9.6	34.33	101	91	Average	

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Test Mode :	802.11a	Temperature :	22~24°C
Test Channel :	52	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL											
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark		
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos			
(MHz)	( dBµV/m )	( dB )	$(dB\mu V/m)$	(dBµV)	( dB )	( dB )	( dB )	( cm )	( deg )			
5103.05	53.79	-20.21	74	44.19	35.08	8.88	34.36	100	166	Peak		
5138.9	42.98	-11.02	54	33.32	35.11	8.91	34.36	100	166	Average		
5435.69	55.27	-18.73	74	44.32	35.35	9.93	34.33	100	166	Peak		
5361.44	44.15	-9.85	54	33.5	35.29	9.69	34.33	100	166	Average		

	ANTENNA POLARITY : VERTICAL											
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark		
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos			
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)			
5099.3	54.26	-19.74	74	44.66	35.08	8.88	34.36	101	128	Peak		
5116.7	43.07	-10.93	54	33.43	35.09	8.91	34.36	101	128	Average		
5361	55.54	-18.46	74	44.89	35.29	9.69	34.33	101	128	Peak		
5359.9	44.46	-9.54	54	33.82	35.28	9.69	34.33	101	128	Average		

Test Mode :	802.11a	Temperature :	22~24°C
Test Channel :	64	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL									
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5351.76	55.93	-18.07	74	45.38	35.28	9.6	34.33	100	177	Peak
5351.1	44.8	-9.2	54	34.25	35.28	9.6	34.33	100	177	Average

	ANTENNA POLARITY : VERTICAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	(dB)	(dBµV/m)	(dBµV)	( dB )	(dB)	( dB )	( cm )	(deg)		
5364.41	57.68	-16.32	74	47.03	35.29	9.69	34.33	101	139	Peak	
5350	45.95	-8.05	54	35.4	35.28	9.6	34.33	101	139	Average	

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Test Mode :	802.11a	Temperature :	22~24°C
Test Channel :	100	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL									
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5452.08	55.74	-18.26	74	44.71	35.36	9.99	34.32	108	359	Peak
5469.04	45.09	-8.91	54	34.05	35.37	9.99	34.32	108	359	Average

	ANTENNA POLARITY : VERTICAL										
Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark	
(MHz)	( dBµV/m )		( dBµV/m )	(dBµV)	(dB)	(dB)	(dB)	(cm)	(deg)		
5469.04	58.65	-15.35	74	47.61	35.37	9.99	34.32	100	156	Peak	
5470	46.77	-7.23	54	35.73	35.37	9.99	34.32	100	156	Average	

Test Mode :	802.11a	Temperature :	22~24°C
Test Channel :	140	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL									
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5725.64	58.88	-15.12	74	46.79	35.71	10.77	34.39	100	144	Peak
5726.44	46.76	-7.24	54	34.67	35.71	10.77	34.39	100	144	Average

	ANTENNA POLARITY : VERTICAL									
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	( dB )	( cm )	(deg)	
5732.2	57.81	-16.19	74	45.73	35.71	10.77	34.4	113	356	Peak
5727.24	46.31	-7.69	54	34.22	35.71	10.77	34.39	113	356	Average

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Test Mode :	802.11a	Temperature :	22~24°C
Test Channel :	144	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)		
5384.44	55.08	-18.92	74	44.31	35.31	9.79	34.33	100	140	Peak	
5465.68	43.79	-10.21	54	32.75	35.37	9.99	34.32	100	140	Average	
5878.8	56.78	-17.22	74	44.12	35.93	11.17	34.44	100	140	Peak	
5870.8	45.64	-8.36	54	32.98	35.93	11.17	34.44	100	140	Average	

	ANTENNA POLARITY : VERTICAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)		
5393.08	54.89	-19.11	74	44.12	35.31	9.79	34.33	123	356	Peak	
5469.76	43.91	-10.09	54	32.87	35.37	9.99	34.32	123	356	Average	
5882.56	57.08	-16.92	74	44.42	35.93	11.17	34.44	123	356	Peak	
5890	45.59	-8.41	54	32.85	35.96	11.23	34.45	123	356	Average	

Test Mode :	802.11n HT20	Temperature :	22~24°C
Test Channel :	36	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL									
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5149.7	57.14	-16.86	74	47.43	35.12	8.94	34.35	100	44	Peak
		1	1		1	1	1	I		ı

	ANTENNA POLARITY : VERTICAL									
Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	( dB )	( cm )	(deg)	
5148.65	58.83	-15.17	74	49.12	35.12	8.94	34.35	101	90	Peak
5149.7	45.97	-8.03	54	36.26	35.12	8.94	34.35	101	90	Average

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Test Mode :	802.11n HT20	Temperature :	22~24°C
Test Channel :	48	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
(MHz)	( dBµV/m )	Limit ( dB )	Line ( dBµV/m )	Level (dBµV)	Factor ( dB )	Loss (dB)	Factor ( dB )	Pos (cm)	Pos (deg)		
5010.5	54.37	-19.63	74	44.99	35.01	8.74	34.37	111	149	Peak	
5148.8	42.78	-11.22	54	33.07	35.12	8.94	34.35	111	149	Average	
5451.86	54.94	-19.06	74	43.97	35.36	9.93	34.32	111	149	Peak	
5453.07	43.86	-10.14	54	32.83	35.36	9.99	34.32	111	149	Average	

	ANTENNA POLARITY : VERTICAL									
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
( MHz )	( dBµV/m )	Limit ( dB )	Line ( dBµV/m )	Level (dBµV)	Factor ( dB )	Loss (dB)	Factor ( dB )	Pos ( cm )	Pos ( deg )	
5121.8	54.05	-19.95	74	44.41	35.09	8.91	34.36	100	89	Peak
5144.15	43.06	-10.94	54	33.35	35.12	8.94	34.35	100	89	Average
5366.17	55.51	-18.49	74	44.86	35.29	9.69	34.33	100	89	Peak
5450.1	44.53	-9.47	54	33.56	35.36	9.93	34.32	100	89	Average

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Test Mode :	802.11n HT20	Temperature :	22~24°C
Test Channel :	52	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	( dB )	$(dB\mu V/m)$	(dBµV)	( dB )	( dB )	( dB )	( cm )	( deg )		
5146.7	54.4	-19.6	74	44.69	35.12	8.94	34.35	100	176	Peak	
5147.75	42.89	-11.11	54	33.18	35.12	8.94	34.35	100	176	Average	
5355.94	54.89	-19.11	74	44.34	35.28	9.6	34.33	100	176	Peak	
5362.32	43.92	-10.08	54	33.27	35.29	9.69	34.33	100	176	Average	

	ANTENNA POLARITY : VERTICAL											
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark		
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos			
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)			
5078.6	53.89	-20.11	74	44.34	35.07	8.84	34.36	102	143	Peak		
5148.95	42.92	-11.08	54	33.21	35.12	8.94	34.35	102	143	Average		
5376.73	56.37	-17.63	74	45.72	35.29	9.69	34.33	102	143	Peak		
5360.56	44.53	-9.47	54	33.88	35.29	9.69	34.33	102	143	Average		

Test Mode :	802.11n HT20	Temperature :	22~24°C
Test Channel :	64	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL									
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	(dB)	(dBµV/m)	(dBµV)	( dB )	(dB)	( dB )	( cm )	(deg)	
5354.84	56.85	-17.15	74	46.3	35.28	9.6	34.33	100	178	Peak
5350	45.06	-8.94	54	34.51	35.28	9.6	34.33	100	178	Average

	ANTENNA POLARITY : VERTICAL									
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5352.75	57.92	-16.08	74	47.37	35.28	9.6	34.33	100	140	Peak
5350.11	46.32	-7.68	54	35.77	35.28	9.6	34.33	100	140	Average

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Test Mode :	802.11n HT20	Temperature :	22~24°C
Test Channel :	100	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL									
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5458.32	55.49	-18.51	74	44.46	35.36	9.99	34.32	107	348	Peak
5468.88	44.85	-9.15	54	33.81	35.37	9.99	34.32	107	348	Average

	ANTENNA POLARITY : VERTICAL									
Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	( dB )	( cm )	(deg)	
5464.88	59.9	-14.1	74	48.86	35.37	9.99	34.32	100	156	Peak
5470	47.86	-6.14	54	36.82	35.37	9.99	34.32	100	156	Average

Test Mode :	802.11n HT20	Temperature :	22~24°C
Test Channel :	140	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL									
Frequency	ency Level Over Limit Read Antenna Cable Preamp Ant Table Remark									
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5725.32	57.7	-16.3	74	45.61	35.71	10.77	34.39	100	145	Peak
5725.24	46.65	-7.35	54	34.56	35.71	10.77	34.39	100	145	Average

	ANTENNA POLARITY : VERTICAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	( dB )	( cm )	(deg)		
5737.72	57.36	-16.64	74	45.25	35.74	10.77	34.4	115	356	Peak	
5725.96	46.23	-7.77	54	34.14	35.71	10.77	34.39	115	356	Average	

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Test Mode :	802.11n HT20	Temperature :	22~24°C
Test Channel :	144	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL											
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark		
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos			
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)			
5399.56	54.45	-19.55	74	43.67	35.32	9.79	34.33	100	143	Peak		
5466.16	43.78	-10.22	54	32.74	35.37	9.99	34.32	100	143	Average		
5871.28	57.08	-16.92	74	44.42	35.93	11.17	34.44	100	143	Peak		
5872.4	45.59	-8.41	54	32.93	35.93	11.17	34.44	100	143	Average		

	ANTENNA POLARITY : VERTICAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)		
5413.72	54.97	-19.03	74	44.11	35.33	9.86	34.33	103	124	Peak	
5465.32	43.78	-10.22	54	32.74	35.37	9.99	34.32	103	124	Average	
5852.48	56.89	-17.11	74	44.33	35.88	11.11	34.43	103	124	Peak	
5874.08	45.65	-8.35	54	32.99	35.93	11.17	34.44	103	124	Average	

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Test Mode :	802.11n HT40	Temperature :	22~24°C
Test Channel :	38	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	( deg )		
5145.5	60.51	-13.49	74	50.8	35.12	8.94	34.35	100	151	Peak	
5150	49.15	-4.85	54	39.44	35.12	8.94	34.35	100	151	Average	
5453.62	54.75	-19.25	74	43.72	35.36	9.99	34.32	100	151	Peak	
5459.89	44.16	-9.84	54	33.13	35.36	9.99	34.32	100	151	Average	

	ANTENNA POLARITY : VERTICAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
(MHz)	( dBµV/m )	Limit ( dB )	Line ( dBµV/m )	Level (dBµV)	Factor ( dB )	Loss (dB)	Factor ( dB )	Pos ( cm )	Pos ( deg )		
5149.55	64.01	-9.99	74	54.3	35.12	8.94	34.35	113	91	Peak	
5149.7	51.74	-2.26	54	42.03	35.12	8.94	34.35	113	91	Average	
5458.57	55.43	-18.57	74	44.4	35.36	9.99	34.32	113	91	Peak	
5354.07	44.6	-9.4	54	34.05	35.28	9.6	34.33	113	91	Peak	

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Test Mode :	802.11n HT40	Temperature :	22~24°C
Test Channel :	46	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	( deg )		
5149.7	54.34	-19.66	74	44.63	35.12	8.94	34.35	100	150	Peak	
5147.9	44.14	-9.86	54	34.43	35.12	8.94	34.35	100	150	Average	
5378.71	54.95	-19.05	74	44.28	35.31	9.69	34.33	100	150	Peak	
5449	44.19	-9.81	54	33.23	35.36	9.93	34.33	100	150	Average	

	ANTENNA POLARITY : VERTICAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)		
5148.95	57.02	-16.98	74	47.31	35.12	8.94	34.35	101	86	Peak	
5149.55	45.07	-8.93	54	35.36	35.12	8.94	34.35	101	86	Average	
5389.93	56.46	-17.54	74	45.69	35.31	9.79	34.33	101	86	Peak	
5350	44.98	-9.02	54	34.43	35.28	9.6	34.33	101	86	Average	

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Test Mode :	802.11n HT40	Temperature :	22~24°C
Test Channel :	54	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL											
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark		
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos			
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)			
5098.4	53.67	-20.33	74	44.07	35.08	8.88	34.36	100	178	Peak		
5150	43.32	-10.68	54	33.61	35.12	8.94	34.35	100	178	Average		
5355.28	55.67	-18.33	74	45.12	35.28	9.6	34.33	100	178	Peak		
5350.11	44.94	-9.06	54	34.39	35.28	9.6	34.33	100	178	Average		

	ANTENNA POLARITY : VERTICAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	( deg )		
5126.45	54.71	-19.29	74	45.05	35.11	8.91	34.36	101	140	Peak	
5137.25	43.21	-10.79	54	33.55	35.11	8.91	34.36	101	140	Average	
5351.76	57.09	-16.91	74	46.54	35.28	9.6	34.33	101	140	Peak	
5353.08	46.06	-7.94	54	35.51	35.28	9.6	34.33	101	140	Average	

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Test Mode :	802.11n HT40	Temperature :	22~24°C
Test Channel :	62	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
(MHz)	( dBµV/m )	Limit (dB)	Line ( dBµV/m )	Level (dBµV)	Factor ( dB )	Loss (dB)	Factor ( dB )	Pos (cm)	Pos (deg)		
5087	53.42	-20.58	74	43.87	35.07	8.84	34.36	100	178	Peak	
5140.85	43.13	-10.87	54	33.43	35.12	8.94	34.36	100	178	Average	
5351.87	63.06	-10.94	74	52.51	35.28	9.6	34.33	100	178	Peak	
5352.42	50.69	-3.31	54	40.14	35.28	9.6	34.33	100	178	Average	

	ANTENNA POLARITY : VERTICAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)		
5062.1	53.46	-20.54	74	43.96	35.05	8.81	34.36	102	142	Peak	
5148.5	43.17	-10.83	54	33.46	35.12	8.94	34.35	102	142	Average	
5352.09	66.96	-7.04	74	56.41	35.28	9.6	34.33	102	142	Peak	
5351.65	52.47	-1.53	54	41.92	35.28	9.6	34.33	102	142	Average	

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Test Mode :	802.11n HT40	Temperature :	22~24°C
Test Channel :	102	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	( deg )		
5467.6	61.22	-12.78	74	50.18	35.37	9.99	34.32	136	342	Peak	
5470	48.83	-5.17	54	37.79	35.37	9.99	34.32	136	342	Average	
5743.32	56.06	-17.94	74	43.87	35.74	10.85	34.4	136	342	Peak	
5753.88	45.32	-8.68	54	33.11	35.76	10.85	34.4	136	342	Average	

	ANTENNA POLARITY : VERTICAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)		
5469.36	65.69	-8.31	74	54.65	35.37	9.99	34.32	100	150	Peak	
5469.84	53.37	-0.63	54	42.33	35.37	9.99	34.32	100	150	Average	
5755.08	55.86	-18.14	74	43.65	35.76	10.85	34.4	100	150	Peak	
5761.72	45.29	-8.71	54	33.09	35.76	10.85	34.41	100	150	Average	

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Test Mode :	802.11n HT40	Temperature :	22~24°C
Test Channel :	110	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	( deg )		
5448.4	54.99	-19.01	74	44.03	35.36	9.93	34.33	103	142	Peak	
5468.56	44.79	-9.21	54	33.75	35.37	9.99	34.32	103	142	Average	
5741	55.89	-18.11	74	43.7	35.74	10.85	34.4	103	142	Peak	
5761.56	45.36	-8.64	54	33.16	35.76	10.85	34.41	103	142	Average	

	ANTENNA POLARITY : VERTICAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)		
5464.4	57.54	-16.46	74	46.5	35.37	9.99	34.32	100	163	Peak	
5467.76	46.31	-7.69	54	35.27	35.37	9.99	34.32	100	163	Average	
5755.96	56.46	-17.54	74	44.26	35.76	10.85	34.41	100	163	Peak	
5753.16	45.41	-8.59	54	33.2	35.76	10.85	34.4	100	163	Average	

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Test Mode :	802.11n HT40	Temperature :	22~24°C
Test Channel :	134	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
(MHz)	( dBµV/m )	Limit ( dB )	Line ( dBµV/m )	Level (dBµV)	Factor ( dB )	Loss (dB)	Factor ( dB )	Pos ( cm )	Pos (deg)		
5382	55.22	-18.78	74	44.45	35.31	9.79	34.33	101	140	Peak	
5451.28	44.24	-9.76	54	33.27	35.36	9.93	34.32	101	140	Average	
5726.52	58.4	-15.6	74	46.31	35.71	10.77	34.39	101	140	Peak	
5728.52	47.22	-6.78	54	35.13	35.71	10.77	34.39	101	140	Average	

	ANTENNA POLARITY : VERTICAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)		
5358.32	55.08	-18.92	74	44.44	35.28	9.69	34.33	135	163	Peak	
5434	44.38	-9.62	54	33.43	35.35	9.93	34.33	135	163	Average	
5726.2	57.73	-16.27	74	45.64	35.71	10.77	34.39	135	163	Peak	
5725	46.4	-7.6	54	34.31	35.71	10.77	34.39	135	163	Average	

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Test Mode :	802.11n HT40	Temperature :	22~24°C
Test Channel :	142	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	( deg )		
5431.6	54.8	-19.2	74	43.85	35.35	9.93	34.33	100	139	Peak	
5467.36	44.15	-9.85	54	33.11	35.37	9.99	34.32	100	139	Average	
5853.36	56.56	-17.44	74	44	35.88	11.11	34.43	100	139	Peak	
5872.16	45.83	-8.17	54	33.17	35.93	11.17	34.44	100	139	Average	

	ANTENNA POLARITY : VERTICAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)		
5415.88	55.11	-18.89	74	44.25	35.33	9.86	34.33	104	140	Peak	
5453.2	44.19	-9.81	54	33.16	35.36	9.99	34.32	104	140	Average	
5874.16	56.69	-17.31	74	44.03	35.93	11.17	34.44	104	140	Peak	
5888.64	45.91	-8.09	54	33.17	35.96	11.23	34.45	104	140	Average	

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Test Mode :	802.11ac VHT20	Temperature :	22~24°C
Test Channel :	36	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL									
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	( dB )	(dBµV/m)	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5148.5	56.44	-17.56	74	46.73	35.12	8.94	34.35	100	150	Peak
5148.8	44.72	-9.28	54	35.01	35.12	8.94	34.35	100	150	Average

	ANTENNA POLARITY : VERTICAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	(dB)	(dBµV/m)	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)		
5146.7	58.96	-15.04	74	49.25	35.12	8.94	34.35	102	102	Peak	
5150	46.32	-7.68	54	36.61	35.12	8.94	34.35	102	102	Average	

Test Mode :	802.11ac VHT20	Temperature :	22~24°C
Test Channel :	48	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)		
5075.45	54.25	-19.75	74	44.7	35.07	8.84	34.36	100	151	Peak	
5137.7	42.85	-11.15	54	33.19	35.11	8.91	34.36	100	151	Average	

	ANTENNA POLARITY: VERTICAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)		
5352.97	55.23	-18.77	74	44.68	35.28	9.6	34.33	100	151	Peak	
5451.2	43.8	-10.2	54	32.83	35.36	9.93	34.32	100	151	Average	

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Test Mode :	802.11ac VHT20	Temperature :	22~24°C
Test Channel :	52	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	( deg )		
5136.2	53.75	-20.25	74	44.09	35.11	8.91	34.36	100	178	Peak	
5147.3	42.87	-11.13	54	33.16	35.12	8.94	34.35	100	178	Average	
5364.08	55.6	-18.4	74	44.95	35.29	9.69	34.33	100	178	Peak	
5352.31	43.9	-10.1	54	33.35	35.28	9.6	34.33	100	178	Average	

	ANTENNA POLARITY : VERTICAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)		
5021.3	53.84	-20.16	74	44.41	35.03	8.77	34.37	100	122	Peak	
5148.8	42.93	-11.07	54	33.22	35.12	8.94	34.35	100	122	Average	
5373.54	55.19	-18.81	74	44.54	35.29	9.69	34.33	100	122	Peak	
5364.3	44.45	-9.55	54	33.8	35.29	9.69	34.33	100	122	Average	

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Test Mode :	802.11ac VHT20	Temperature :	22~24°C
Test Channel :	64	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL									
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	( dB )	(dBµV/m)	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5352.97	56.54	-17.46	74	45.99	35.28	9.6	34.33	100	180	Peak
5350	45.27	-8.73	54	34.72	35.28	9.6	34.33	100	180	Average

	ANTENNA POLARITY : VERTICAL									
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	(dB)	(dBµV/m)	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5358.25	58.34	-15.66	74	47.7	35.28	9.69	34.33	101	140	Peak
5350.11	46.62	-7.38	54	36.07	35.28	9.6	34.33	101	140	Average

Test Mode :	802.11ac VHT20	Temperature :	22~24°C
Test Channel :	100	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL									
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5469.68	56.02	-17.98	74	44.98	35.37	9.99	34.32	109	328	Peak
5470	45	-9	54	33.96	35.37	9.99	34.32	109	328	Average

	ANTENNA POLARITY : VERTICAL									
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5469.52	59.2	-14.8	74	48.16	35.37	9.99	34.32	100	149	Peak
5469.84	47.54	-6.46	54	36.5	35.37	9.99	34.32	100	149	Average

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Test Mode :	802.11ac VHT20	Temperature :	22~24°C
Test Channel :	140	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL									
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	(dB)	(dBµV/m)	(dBµV)	( dB )	(dB)	( dB )	( cm )	(deg)	
5726.2	58.31	-15.69	74	46.22	35.71	10.77	34.39	100	141	Peak
5725.24	46.88	-7.12	54	34.79	35.71	10.77	34.39	100	141	Average

	ANTENNA POLARITY : VERTICAL									
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5727.88	58.61	-15.39	74	46.52	35.71	10.77	34.39	114	122	Peak
5730.52	46.98	-7.02	54	34.9	35.71	10.77	34.4	114	122	Average

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Test Mode :	802.11ac VHT20	Temperature :	22~24°C
Test Channel :	144	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL										
Frequency	Level	Over Limit	Limit Line	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
(MHz)	( dBµV/m )		( dBµV/m )	Level (dBµV)	Factor ( dB )	Loss (dB)	Factor ( dB )	Pos (cm)	Pos (deg)		
5407.72	55.34	-18.66	74	44.49	35.32	9.86	34.33	100	139	Peak	
5451.88	43.83	-10.17	54	32.86	35.36	9.93	34.32	100	139	Average	
5868.96	56.54	-17.46	74	43.9	35.91	11.17	34.44	100	139	Peak	
5878.24	45.55	-8.45	54	32.89	35.93	11.17	34.44	100	139	Average	

	ANTENNA POLARITY : VERTICAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	( deg )		
5418.4	55.39	-18.61	74	44.53	35.33	9.86	34.33	103	120	Peak	
5464.96	43.77	-10.23	54	32.73	35.37	9.99	34.32	103	120	Average	
5888.08	57.15	-16.85	74	44.41	35.96	11.23	34.45	103	120	Peak	
5875.84	45.63	-8.37	54	32.97	35.93	11.17	34.44	103	120	Average	

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Test Mode :	802.11ac VHT40	Temperature :	22~24°C
Test Channel :	38	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	( deg )		
5146.85	65.21	-8.79	74	55.5	35.12	8.94	34.35	102	91	Peak	
5150	53.14	-0.86	54	43.43	35.12	8.94	34.35	102	91	Average	
5392.57	55.25	-18.75	74	44.48	35.31	9.79	34.33	102	91	Peak	
5353.63	44.6	-9.4	54	34.05	35.28	9.6	34.33	102	91	Average	

	ANTENNA POLARITY : VERTICAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)		
5145.35	63.19	-10.81	74	53.48	35.12	8.94	34.35	110	54	Peak	
5150	50.34	-3.66	54	40.63	35.12	8.94	34.35	110	54	Average	
5428.65	54.7	-19.3	74	43.75	35.35	9.93	34.33	110	54	Peak	
5441.96	44.23	-9.77	54	33.28	35.35	9.93	34.33	110	54	Average	

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Test Mode :	802.11ac VHT40	Temperature :	22~24°C
Test Channel :	46	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	( deg )		
5144	55.22	-18.78	74	45.51	35.12	8.94	34.35	100	148	Peak	
5150	44.07	-9.93	54	34.36	35.12	8.94	34.35	100	148	Average	
5438.22	54.95	-19.05	74	44	35.35	9.93	34.33	100	148	Peak	
5450.43	44.2	-9.8	54	33.23	35.36	9.93	34.32	100	148	Average	

	ANTENNA POLARITY : VERTICAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	( dB )	(dBµV/m)	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)		
5150	55.45	-18.55	74	45.74	35.12	8.94	34.35	100	92	Peak	
5149.85	44.72	-9.28	54	35.01	35.12	8.94	34.35	100	92	Average	
5366.17	55.64	-18.36	74	44.99	35.29	9.69	34.33	100	92	Peak	
5372.44	44.96	-9.04	54	34.31	35.29	9.69	34.33	100	92	Average	

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Test Mode :	802.11ac VHT40	Temperature :	22~24°C
Test Channel :	54	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)		
5137.55	53.84	-20.16	74	44.18	35.11	8.91	34.36	100	179	Peak	
5148.65	43.12	-10.88	54	33.41	35.12	8.94	34.35	100	179	Average	
5350.44	55.92	-18.08	74	45.37	35.28	9.6	34.33	100	179	Peak	
5350.77	44.74	-9.26	54	34.19	35.28	9.6	34.33	100	179	Average	

	ANTENNA POLARITY : VERTICAL										
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)		
5143.85	54.11	-19.89	74	44.4	35.12	8.94	34.35	101	127	Peak	
5148.95	43.22	-10.78	54	33.51	35.12	8.94	34.35	101	127	Average	
5357.81	55.82	-18.18	74	45.18	35.28	9.69	34.33	101	127	Peak	
5350.99	45.28	-8.72	54	34.73	35.28	9.6	34.33	101	127	Average	

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Test Mode :	802.11ac VHT40	Temperature :	22~24°C
Test Channel :	62	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

ANTENNA POLARITY : HORIZONTAL											
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	( dB )	(dBµV/m)	(dBµV)	( dB )	( dB )	( dB )	( cm )	( deg )		
5149.55	53.94	-20.06	74	44.23	35.12	8.94	34.35	100	180	Peak	
5147.9	43.12	-10.88	54	33.41	35.12	8.94	34.35	100	180	Average	
5354.51	63.66	-10.34	74	53.11	35.28	9.6	34.33	100	180	Peak	
5350	51.69	-2.31	54	41.14	35.28	9.6	34.33	100	180	Average	

ANTENNA POLARITY : VERTICAL											
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark	
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)		
5085.95	54.53	-19.47	74	44.98	35.07	8.84	34.36	101	135	Peak	
5149.7	43.12	-10.88	54	33.41	35.12	8.94	34.35	101	135	Average	
5356.93	66.75	-7.25	74	56.11	35.28	9.69	34.33	101	135	Peak	
5352.09	53.42	-0.58	54	42.87	35.28	9.6	34.33	101	135	Average	

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Test Mode :	802.11ac VHT40	Temperature :	22~24°C
Test Channel :	102	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL												
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark			
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos				
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	(cm)	(deg)				
5469.04	60.71	-13.29	74	49.67	35.37	9.99	34.32	107	360	Peak			
5468.72	49.5	-4.5	54	38.46	35.37	9.99	34.32	107	360	Average			
5752.92	55.77	-18.23	74	43.56	35.76	10.85	34.4	107	360	Peak			
5743.64	45.35	-8.65	54	33.16	35.74	10.85	34.4	107	360	Average			

	ANTENNA POLARITY : VERTICAL											
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark		
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos			
(MHz)	( dBµV/m )	(dB)	(dBµV/m)	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)			
5465.2	67.53	-6.47	74	56.49	35.37	9.99	34.32	100	154	Peak		
5469.68	53.23	-0.77	54	42.19	35.37	9.99	34.32	100	154	Average		
5764.84	55.73	-18.27	74	43.45	35.76	10.93	34.41	100	154	Peak		
5763.32	45.32	-8.68	54	33.12	35.76	10.85	34.41	100	154	Average		

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Test Mode :	802.11n VHT40	Temperature :	22~24°C
Test Channel :	110	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL												
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark			
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos				
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	(cm)	(deg)				
5467.44	55.21	-18.79	74	44.17	35.37	9.99	34.32	104	142	Peak			
5466.32	44.77	-9.23	54	33.73	35.37	9.99	34.32	104	142	Average			
5735.56	55.78	-18.22	74	43.67	35.74	10.77	34.4	104	142	Peak			
5748.2	45.33	-8.67	54	33.14	35.74	10.85	34.4	104	142	Average			

	ANTENNA POLARITY : VERTICAL											
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark		
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos			
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)			
5467.28	57.94	-16.06	74	46.9	35.37	9.99	34.32	108	157	Peak		
5469.84	46.67	-7.33	54	35.63	35.37	9.99	34.32	108	157	Average		
5749.32	56.2	-17.8	74	44.01	35.74	10.85	34.4	108	157	Peak		
5761.64	45.38	-8.62	54	33.18	35.76	10.85	34.41	108	157	Average		

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Test Mode :	802.11ac VHT40	Temperature :	22~24°C
Test Channel :	134	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL											
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark		
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos			
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	( deg )			
5366.64	54.72	-19.28	74	44.07	35.29	9.69	34.33	102	144	Peak		
5447.76	44.06	-9.94	54	33.1	35.36	9.93	34.33	102	144	Average		
5733.32	58.29	-15.71	74	46.21	35.71	10.77	34.4	102	144	Peak		
5728.2	46.7	-7.3	54	34.61	35.71	10.77	34.39	102	144	Average		

	ANTENNA POLARITY : VERTICAL											
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark		
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos			
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)			
5398.64	54.53	-19.47	74	43.75	35.32	9.79	34.33	108	172	Peak		
5460.88	44.07	-9.93	54	33.04	35.36	9.99	34.32	108	172	Average		
5726.2	59.28	-14.72	74	47.19	35.71	10.77	34.39	108	172	Peak		
5726.2	47.12	-6.88	54	35.03	35.71	10.77	34.39	108	172	Average		

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Test Mode :	802.11ac VHT40	Temperature :	22~24°C
Test Channel :	142	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL												
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark			
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos				
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	( deg )				
5441.32	54.56	-19.44	74	43.61	35.35	9.93	34.33	100	147	Peak			
5469.04	44	-10	54	32.96	35.37	9.99	34.32	100	147	Average			
5855.28	57.52	-16.48	74	44.93	35.91	11.11	34.43	100	147	Peak			
5889.6	45.86	-8.14	54	33.12	35.96	11.23	34.45	100	147	Average			

	ANTENNA POLARITY : VERTICAL											
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark		
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos			
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)			
5377.36	54.89	-19.11	74	44.24	35.29	9.69	34.33	106	140	Peak		
5450.2	44.16	-9.84	54	33.19	35.36	9.93	34.32	106	140	Average		
5854.32	56.54	-17.46	74	43.95	35.91	11.11	34.43	106	140	Peak		
5880.8	45.8	-8.2	54	33.14	35.93	11.17	34.44	106	140	Average		

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Test Mode :	802.11ac VHT80	Temperature :	22~24°C
Test Channel :	42	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL											
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark		
(MHz)	( dBµV/m )	Limit ( dB )	Line ( dBµV/m )	Level (dBµV)	Factor ( dB )	Loss (dB)	Factor ( dB )	Pos (cm)	Pos (deg)			
5147.9	61.74	-12.26	74	52.03	35.12	8.94	34.35	100	150	Peak		
5148.2	50.94	-3.06	54	41.23	35.12	8.94	34.35	100	150	Average		
5392.35	55.02	-18.98	74	44.25	35.31	9.79	34.33	100	150	Peak		
5408.96	44.76	-9.24	54	33.91	35.32	9.86	34.33	100	150	Average		

			AN	TENNA PO	LARITY: V	ERTICAL				
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5139.65	64.6	-9.4	74	54.93	35.12	8.91	34.36	100	93	Peak
5144.9	53.37	-0.63	54	43.66	35.12	8.94	34.35	100	93	Average
5368.81	56.9	-17.1	74	46.25	35.29	9.69	34.33	100	93	Peak
5350.55	46.08	-7.92	54	35.53	35.28	9.6	34.33	100	93	Average

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Test Mode :	802.11ac VHT80	Temperature :	22~24°C
Test Channel :	58	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL												
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark			
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos				
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	(cm)	(deg)				
5143.7	53.76	-20.24	74	44.06	35.12	8.94	34.36	100	177	Peak			
5147.45	44.08	-9.92	54	34.37	35.12	8.94	34.35	100	177	Average			
5360.23	61.28	-12.72	74	50.64	35.28	9.69	34.33	100	177	Peak			
5350.11	50.57	-3.43	54	40.02	35.28	9.6	34.33	100	177	Average			

	ANTENNA POLARITY : VERTICAL											
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark		
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos			
(MHz)	( dBµV/m )	( dB )	(dBµV/m)	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)			
5146.1	54.46	-19.54	74	44.75	35.12	8.94	34.35	101	134	Peak		
5149.25	43.92	-10.08	54	34.21	35.12	8.94	34.35	101	134	Average		
5383.99	63.61	-10.39	74	52.84	35.31	9.79	34.33	101	134	Peak		
5352.31	52.59	-1.41	54	42.04	35.28	9.6	34.33	101	134	Average		

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Test Mode :	802.11ac VHT80	Temperature :	22~24°C
Test Channel :	106	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL												
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark			
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos				
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	(cm)	(deg)				
5464.4	61.99	-12.01	74	50.95	35.37	9.99	34.32	110	347	Peak			
5464.56	50.63	-3.37	54	39.59	35.37	9.99	34.32	110	347	Average			
5733.64	56.36	-17.64	74	44.28	35.71	10.77	34.4	110	347	Peak			
5762.52	45.58	-8.42	54	33.38	35.76	10.85	34.41	110	347	Average			

	ANTENNA POLARITY : VERTICAL											
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark		
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos			
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)			
5433.84	65.21	-8.79	74	54.26	35.35	9.93	34.33	100	155	Peak		
5470	53.44	-0.56	54	42.4	35.37	9.99	34.32	100	155	Average		
5758.44	56.45	-17.55	74	44.25	35.76	10.85	34.41	100	155	Peak		
5757.08	45.77	-8.23	54	33.57	35.76	10.85	34.41	100	155	Average		

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Test Mode :	802.11ac VHT80	Temperature :	22~24°C
Test Channel :	122	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL												
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark			
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos				
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)				
5464.56	55.47	-18.53	74	44.43	35.37	9.99	34.32	102	141	Peak			
5468.08	45.45	-8.55	54	34.41	35.37	9.99	34.32	102	141	Average			
5727.96	57.3	-16.7	74	45.21	35.71	10.77	34.39	102	141	Peak			
5725.64	46.75	-7.25	54	34.66	35.71	10.77	34.39	102	141	Average			

	ANTENNA POLARITY : VERTICAL												
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark			
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos				
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)				
5460.72	57.33	-16.67	74	46.3	35.36	9.99	34.32	107	166	Peak			
5468.08	46.54	-7.46	54	35.5	35.37	9.99	34.32	107	166	Average			
5733	58.3	-15.7	74	46.22	35.71	10.77	34.4	107	166	Peak			
5725.72	47.46	-6.54	54	35.37	35.71	10.77	34.39	107	166	Average			

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Test Mode :	802.11ac VHT80	Temperature :	22~24°C
Test Channel :	138	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang		

	ANTENNA POLARITY : HORIZONTAL									
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	( deg )	
5442.48	54.5	-19.5	74	43.55	35.35	9.93	34.33	100	145	Peak
5374.64	44.42	-9.58	54	33.77	35.29	9.69	34.33	100	145	Average
5853.44	56.3	-17.7	74	43.74	35.88	11.11	34.43	100	145	Peak
5861.04	46.18	-7.82	54	33.54	35.91	11.17	34.44	100	145	Average

	ANTENNA POLARITY : VERTICAL									
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5359.12	54.55	-19.45	74	43.91	35.28	9.69	34.33	137	358	Peak
5402.32	44.43	-9.57	54	33.65	35.32	9.79	34.33	137	358	Average
5882.48	56.12	-17.88	74	43.46	35.93	11.17	34.44	137	358	Peak
5858.8	46.34	-7.66	54	33.76	35.91	11.11	34.44	137	358	Average

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

## MIMO <Ant. 1 + 2>

WIIWIO VAIIC. I I							
Test Mode :	802.11a	Temperature :	22~24°C				
Test Channel :	36	Relative Humidity :	46~48%				
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1. 5182 MHz is fundamental sign	al which can be ignored					
	2. Average measurement was not performed if peak level went lower than						
Remark :	average limit.  3. 10359 MHz is not within a rest	ricted band, and satisfies	both the average and				
	peak limits of 15.209.	, and a second s					
	4. No spurious emissions are det	ected other than listed poir	nts as below.				

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )		(dB)	Loss (dB)	(dB)	(cm)	( deg )	
5182	95.92	-	-	86.14	35.15	8.98	34.35	100	151	Average
5182	106.04	-	-	96.26	35.15	8.98	34.35	100	151	Peak
10359	46.68	-7.32	54	51.29	37.95	14.89	57.45	100	0	Peak
15540	46.32	-7.68	54	45.5	40.31	19.08	58.57	100	0	Peak

Test Mode :	802	2.11a	Temperature :	22~24°C				
Test Channel :	36		Relative Humidity :	46~48%				
Test Engineer :	Ivai	n Chiang and Kyle Jhuang	Polarization :	Vertical				
	1. 5178 MHz is fundamental signal which can be ignore							
	2.	2. Average measurement was not performed if peak level went lower						
Remark :		average limit.						
Remark.	3. 10359 MHz is not within a restricted band, and satisfies both the average							
	4.	No spurious emissions are detecte	d other than listed points	as below.				

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	(dBµV/m)	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	( dB )	(cm)	(deg)	
5178	99.72	-	-	89.94	35.15	8.98	34.35	102	82	Average
5178	110.22	-	-	100.44	35.15	8.98	34.35	102	82	Peak
10359	46.39	-7.61	54	51	37.95	14.89	57.45	100	0	Peak
15540	48.14	-5.86	54	47.32	40.31	19.08	58.57	100	0	Peak

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Test Mode :	802	2.11a	Temperature :	22~24°C				
Test Channel :	44		Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1.	5222 MHz is fundamental signal which can be ignored						
	2.	Average measurement was not performed if peak level went lower th						
Remark :		average limit.						
Nemark.	3.	10442 MHz is not within a restricted band, and satisfies both the average a						
		peak limits of 15.209.						
	4.	No spurious emissions are dete	cted other than listed po	ints as below.				

ĺ	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
ı			Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
	(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	(cm)	(deg)	
	5222	96.67	-	-	86.74	35.17	9.11	34.35	100	151	Average
	5222	106.85	-	-	96.92	35.17	9.11	34.35	100	151	Peak
	10442	46.46	-7.54	54	51.01	37.97	14.91	57.43	100	0	Peak
	15662	49.82	-4.18	54	48.91	40.36	19.03	58.48	100	0	Peak

Test Mode :	802	2.11a	Temperature :	22~24°C				
Test Channel :	44		Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical				
	1.	5222 MHz is fundamental signal	which can be ignored					
	2.	Average measurement was not	performed if peak level went lower than the					
Remark :		average limit.						
Remark.	3. 10442 MHz is not within a restricted band, and satisfies both the average							
peak limits of 15.209.								
	4.	No spurious emissions are detect	ed other than listed points	s as below.				

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
5222	99.45	-	-	89.52	35.17	9.11	34.35	101	89	Average
5222	109.96	-	-	100.03	35.17	9.11	34.35	101	89	Peak
10442	47.66	-6.34	54	52.21	37.97	14.91	57.43	100	0	Peak
15658	49.58	-4.42	54	48.67	40.36	19.03	58.48	100	0	Peak

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Test Mode :	802.11a	Temperature :	22~24°C
Test Channel :	48	Relative Humidity :	46~48%
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Horizontal
Remark :	<ol> <li>5240 MHz is fundamental signal v</li> <li>Average measurement was not average limit.</li> </ol>	J	went lower than the
	<ol> <li>10482 MHz is not within a restrict peak limits of 15.209.</li> <li>No spurious emissions are detect</li> </ol>		

	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
I	(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	( dB )	( cm )	(deg)	
	5240	96.69	-	-	86.65	35.19	9.2	34.35	100	152	Average
	5240	107.02	-	-	96.98	35.19	9.2	34.35	100	152	Peak
	10482	47.13	-6.87	54	51.63	37.99	14.92	57.41	100	0	Peak
	15722	49.4	-4.6	54	48.43	40.39	19	58.42	100	0	Peak

Test Mode :	802	2.11a	Temperature :	22~24°C				
Test Channel :	48		Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical				
	1.	5238 MHz is fundamental signal which can be ignored						
	2.	Average measurement was not performed if peak level went lower that						
Remark :		average limit.						
Remark.	3.	10478 MHz is not within a restric	10478 MHz is not within a restricted band, and satisfies both the ave					
		peak limits of 15.209.						
	4.	No spurious emissions are detected other than listed points as below.						

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant		Remark
(MHz)	( dBµV/m )	Limit ( dB )	Line ( dBµV/m )	Level (dBµV)	Factor ( dB )	Loss (dB)	Factor (dB)	Pos (cm)	Pos ( deg )	
5238	99.59	-	-	89.55	35.19	9.2	34.35	101	91	Average
5238	110.52	-	-	100.48	35.19	9.2	34.35	101	91	Peak
10478	45.69	-8.31	54	50.19	37.99	14.92	57.41	100	0	Peak
15722	49.36	-4.64	54	48.39	40.39	19	58.42	100	0	Peak

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Test Mode :	802.11a	Temperature :	22~24°C				
Test Channel :	52	Relative Humidity :	46~48%				
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1. 5258 MHz is fundamental signal	which can be ignored.					
	2. Average measurement was not	performed if peak level we	nt lower than the				
Remark :	average limit.	average limit.					
inemark.	3. 10521 MHz is not within a restric	10521 MHz is not within a restricted band, and satisfies both the average					
	peak limits of 15.209.						
	4. No spurious emissions are detec	ted other than listed points	as below.				

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant		Remark
(MHz)	( dBµV/m )	Limit ( dB )	Line ( dBµV/m )	Level (dBµV)	Factor ( dB )	Loss (dB)	Factor ( dB )	Pos (cm)	Pos ( deg )	
5258	97.13	-	-	87.07	35.2	9.2	34.34	100	166	Average
5258	107.34	-	-	97.28	35.2	9.2	34.34	100	166	Peak
10521	44.16	-9.84	54	47.44	38.01	14.94	56.23	100	0	Peak
15780	45.73	-8.27	54	42.13	40.41	18.97	55.78	100	0	Peak

Test Mode :	802.11a		Temperature :	22~24°C				
Test Channel :	52		Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical				
	1.	5262 MHz is fundamental signal which can be ignored						
	2.	Average measurement was not performed if peak level went lower t						
Remark :		average limit.						
Remark.	3.	10521 MHz is not within a restric	estricted band, and satisfies both the average and					
		peak limits of 15.209.						
	4.	No spurious emissions are detected other than listed points as below.						

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	(cm)	( deg )	
5262	98.27	-	-	88.1	35.21	9.3	34.34	101	128	Average
5262	109.95	-	-	99.78	35.21	9.3	34.34	101	128	Peak
10521	44	-10	54	47.28	38.01	14.94	56.23	100	0	Peak
15780	47.22	-6.78	54	43.62	40.41	18.97	55.78	100	0	Peak

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Test Mode :	802	2.11a	Temperature :	22~24°C				
Test Channel :	60		Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1.	5298 MHz is fundamental signal	which can be ignored					
	2.	Average measurement was not performed if peak level went lower the						
Remark :		average limit.	erage limit. 599 MHz is not within a restricted band, and satisfies both the aver					
Nemark.	3.	10599 MHz is not within a restrict						
		peak limits of 15.209.						
	4.	No spurious emissions are detect	ed other than listed points a	as below.				

ĺ	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
Į			Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
	(MHz)	(dBµV/m)	(dB)	$(dB\mu V/m)$	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
	5298	97.65	-	-	87.35	35.24	9.4	34.34	100	168	Average
	5298	107.84	-	-	97.54	35.24	9.4	34.34	100	168	Peak
	10599	47.65	-6.35	54	50.77	38.08	14.96	56.16	100	0	Peak
	15900	47.87	-6.13	54	43.87	40.46	18.92	55.38	100	0	Peak

Test Mode :	802	2.11a	Temperature :	22~24°C				
Test Channel :	60		Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical				
	1.	5302 MHz is fundamental signal	signal which can be ignored					
	2.	2. Average measurement was not performed if peak level went lo						
Remark :		average limit.						
Remark.	3.	10598 MHz is not within a restric	598 MHz is not within a restricted band, and satisfies both the aver					
		peak limits of 15.209.						
	4.	No spurious emissions are detected other than listed points as below.						

Fr	equency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
	5302	100.03	-	-	89.73	35.24	9.4	34.34	102	142	Average
	5302	110.09	-	-	99.79	35.24	9.4	34.34	102	142	Peak
	10598	49.84	-4.16	54	52.96	38.08	14.96	56.16	100	0	Peak
	15900	47.98	-6.02	54	43.98	40.46	18.92	55.38	100	0	Peak

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Test Mode :	802.11a	Temperature :	22~24°C			
Test Channel :	64	Relative Humidity :	46~48%			
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Horizontal			
	1. 5318 MHz is fundamental signal v	which can be ignored				
Remark :	2. Average measurement was not performed if peak level went lower than					
Kemark.	average limit.					
	3. No spurious emissions are detect	ed other than listed points a	as below.			

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
5318	96.89	-	-	86.48	35.25	9.5	34.34	100	177	Average
5318	106.51	-	-	96.1	35.25	9.5	34.34	100	177	Peak
10641	46.9	-7.1	54	49.94	38.11	14.98	56.13	100	0	Peak
15960	45.44	-8.56	54	41.2	40.49	18.9	55.15	100	0	Peak

Test Mode :	802	2.11a	Temperature :	22~24°C		
Test Channel :	64		Relative Humidity :	46~48%		
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical		
	1.	5318 MHz is fundamental signal	which can be ignored			
Remark :	2. Average measurement was not performed if peak level went lower the					
Remark:		average limit.				
	3.	No spurious emissions are detect	ed other than listed points a	as below.		

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	$(dB\mu V/m)$	(dB)	$(dB\mu V/m)$	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5318	99.78	-	-	89.37	35.25	9.5	34.34	101	139	Average
5318	110.05	-	-	99.64	35.25	9.5	34.34	101	139	Peak
10641	46.95	-7.05	54	49.99	38.11	14.98	56.13	100	0	Peak
15960	47.64	-6.36	54	43.4	40.49	18.9	55.15	100	0	Peak

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Test Mode :	802.11a	•	Temperature :	22~24°C			
Test Channel :	100		Relative Humidity :	46~48%			
Test Engineer :	Ivan Chiang and Kyle	Jhuang	Polarization :	Horizontal			
	1. 5502 MHz is funda	amental signal w	signal which can be ignored				
	2. Average measure	ment was not p	performed if peak level we	nt lower than the			
Remark :	average limit.						
Nemark.	3. 16500 MHz is not within a restricted band, and satisfies both the aver						
	peak limits of 15.2	09.					
	4. No spurious emissions are detected other than listed points as below.						

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
(MHz)	( dBµV/m )	Limit (dB)	Line ( dBµV/m )	Level (dBµV)	Factor ( dB )	Loss (dB)	Factor (dB)	Pos (cm)	Pos ( deg )	
41.07	21.06	-18.94	40	39.14	12.8	0.94	31.82	100	58	Peak
160.95	22.85	-20.65	43.5	42.71	10.06	1.86	31.78	-	-	Peak
243.57	18.06	-27.94	46	35.89	11.66	2.28	31.77	-	-	Peak
412	20.82	-25.18	46	33.4	16.28	2.95	31.81	-	-	Peak
649.3	23.31	-22.69	46	32.56	19.01	3.78	32.04	-	-	Peak
976.2	25.72	-28.28	54	30.79	21.06	4.7	30.83	-	-	Peak
5502	96.12	-	-	84.92	35.4	10.13	34.33	108	359	Average
5502	106.08	-	-	94.88	35.4	10.13	34.33	108	359	Peak
11001	47	-7	54	49.36	38.4	15.09	55.85	100	0	Peak
16500	45.26	-8.74	54	40.54	41.8	19.02	56.1	100	0	Peak

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Test Mode :	302.11a		Temperature :	22~24°C						
Test Channel :	100		Relative Humidity :	46~48%						
Test Engineer :	van Chiang and Kyle	Jhuang	Polarization :	Vertical						
	1. 5498 MHz is fund	ch can be ignored								
	2. Average measure	nt lower than the								
Remark :	average limit.	average limit.								
Nemark.	3. 16500 MHz is not	16500 MHz is not within a restricted band, and satisfies both the ave peak limits of 15.209.								
	peak limits of 15.2									
	4. No spurious emissions are detected other than listed points as									

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
( MU - )	( dD::\//m \	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	( dB )	(cm)	( deg )	
40.8	33.74	-6.26	40	51.82	12.8	0.94	31.82	100	116	Peak
122.61	19.52	-23.98	43.5	37.56	12.12	1.62	31.78	-	-	Peak
169.32	24.63	-18.87	43.5	44.81	9.7	1.9	31.78	-	-	Peak
348.3	21.81	-24.19	46	36.57	14.3	2.72	31.78	-	-	Peak
549.2	24.38	-21.62	46	34.14	18.74	3.46	31.96	-	-	Peak
599.6	25.86	-20.14	46	35.66	18.6	3.64	32.04	-	-	Peak
5498	98.97	-	-	87.83	35.4	10.06	34.32	100	156	Average
5498	109.82	-	-	98.68	35.4	10.06	34.32	100	156	Peak
11001	46.6	-7.4	54	48.96	38.4	15.09	55.85	100	0	Peak
16500	44.65	-9.35	54	39.93	41.8	19.02	56.1	100	0	Peak

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Test Mode :	802	2.11a	Temperature :	22~24°C				
Test Channel :	116	6	Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1.	5578 MHz is fundamental signal	signal which can be ignored.					
	2.	Average measurement was not	performed if peak level w	ent lower than the				
Remark :		average limit.						
Nemark.	3.	16740 MHz is not within a restricted band, and satisfies both the average						
		peak limits of 15.209.						
	4.	No spurious emissions are detected other than listed points as below.						

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	(cm)	(deg)	
5578	97.62	-	-	86.14	35.5	10.33	34.35	104	44	Average
5578	107.33	-	-	95.85	35.5	10.33	34.35	104	44	Peak
11160	45.65	-8.35	54	47.84	38.5	15.14	55.83	100	0	Peak
16740	46.81	-7.19	54	41.4	41.99	19.09	55.67	100	0	Peak

Test Mode :	802	2.11a	Temperature :	22~24°C			
Test Channel :	116	3	Relative Humidity :	46~48%			
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical			
	1.	5582 MHz is fundamental signal	which can be ignored.				
	2.	Average measurement was not	t performed if peak level went lower than the				
Remark :	average limit.						
Remark.	3.	3. 16740 MHz is not within a restricted band, and satisfies both the ave					
		peak limits of 15.209.					
	4.	4. No spurious emissions are detected other than listed points as below.					

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	( dB )	( cm )	(deg)	
5582	99.65	-	-	88.15	35.52	10.33	34.35	108	166	Average
5582	109.98	-	-	98.48	35.52	10.33	34.35	108	166	Peak
11160	45.99	-8.01	54	48.18	38.5	15.14	55.83	100	0	Peak
16740	47.16	-6.84	54	41.75	41.99	19.09	55.67	100	0	Peak

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Test Mode :	802	2.11a	Temperature :	22~24°C			
Test Channel :	140	)	Relative Humidity :	46~48%			
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Horizontal			
	1.	5698 MHz is fundamental signal	signal which can be ignored.				
	2.	Average measurement was not p	performed if peak level went lower than the				
Remark :	average limit.						
Remark.	3.	s. 17100 MHz is not within a restricted band, and satisfies both the average					
		peak limits of 15.209.					
	4.	. No spurious emissions are detected other than listed points as below.					

ĺ	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
l			Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
	(MHz)	$(dB\mu V/m)$	(dB)	$(dB\mu V/m)$	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
	5698	95.79	-	-	83.8	35.67	10.7	34.38	100	144	Average
	5698	104.93	-	-	92.94	35.67	10.7	34.38	100	144	Peak
	11400	46.12	-7.88	54	48.07	38.64	15.22	55.81	100	0	Peak
	17100	47.71	-6.29	54	41.86	42.06	19.18	55.39	100	0	Peak

Test Mode :	802.11a	Temperature :	22~24°C					
Test Channel :	140	Relative Humidity :	46~48%					
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Vertical					
	1. 5702 MHz is fundamental signal	5702 MHz is fundamental signal which can be ignored.						
	2. Average measurement was not	vent lower than the						
Remark :	average limit.							
Remark.	3. 17100 MHz is not within a restric	17100 MHz is not within a restricted band, and satisfies both the average						
	peak limits of 15.209.							
	4. No spurious emissions are detec	ted other than listed points	s as below.					

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	( dB )	( cm )	(deg)	
5702	96.02	-	-	84.01	35.69	10.7	34.38	113	356	Average
5702	106.14	-	-	94.13	35.69	10.7	34.38	113	356	Peak
11400	46.31	-7.69	54	48.26	38.64	15.22	55.81	100	0	Peak
17100	47.65	-6.35	54	41.8	42.06	19.18	55.39	100	0	Peak

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Test Mode :	802	2.11a	Temperature :	22~24°C				
Test Channel :	144	4	Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1.	5718 MHz is fundamental signal which can be ignored.						
	2.	Average measurement was not performed if peak level went lower t						
Remark :		average limit.	average limit.					
Remark.	3.	17160 MHz is not within a restric	MHz is not within a restricted band, and satisfies both the ave					
		peak limits of 15.209.						
	4.	No spurious emissions are detect	ed other than listed points	s as below.				

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	(dB)	(dBµV/m)	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5718	95.65	-	-	83.56	35.71	10.77	34.39	100	140	Average
5718	105.92	-	-	93.83	35.71	10.77	34.39	100	140	Peak
11439	44.3	-9.7	54	46.22	38.66	15.23	55.81	100	0	Peak
17160	45.97	-8.03	54	40.31	41.97	19.2	55.51	100	0	Peak

Test Mode :	802	2.11a	Temperature :	22~24°C				
Test Channel :	144	4	Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical				
	1.	5722 MHz is fundamental signal						
	2.	2. Average measurement was not performed if peak level went lower						
Remark :		average limit.						
Remark.	3.	17160 MHz is not within a restricted band, and satisfies both the average						
		peak limits of 15.209.						
	4.	No spurious emissions are detect	ed other than listed points	s as below.				

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	( dB )	(dB)	( cm )	(deg)	
5722	94.66	-	-	82.57	35.71	10.77	34.39	123	356	Average
5722	105.2	-	-	93.11	35.71	10.77	34.39	123	356	Peak
11439	44.8	-9.2	54	46.72	38.66	15.23	55.81	100	0	Peak
17160	46.58	-7.42	54	40.92	41.97	19.2	55.51	100	0	Peak

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Test Mode :	802	2.11n HT20	Temperature :	22~24°C				
Test Channel :	36		Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1.	5182 MHz is fundamental signal						
	2.	Average measurement was not performed if peak level went lower that						
Remark :		average limit.	verage limit. 0359 MHz is not within a restricted band, and satisfies both the ave					
Nemark.	3.	10359 MHz is not within a restric						
		peak limits of 15.209.						
	4.	No spurious emissions are detect	ed other than listed points	s as below.				

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	$(dB\mu V/m)$	(dB)	$(dB\mu V/m)$	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5182	95.25	-	-	85.47	35.15	8.98	34.35	100	44	Average
5182	104.95	-	-	95.17	35.15	8.98	34.35	100	44	Peak
10359	47.44	-6.56	54	52.05	37.95	14.89	57.45	100	0	Peak
15540	36.39	-17.61	54	35.57	40.31	19.08	58.57	100	0	Peak

Test Mode :	802	2.11n HT20	Temperature :	22~24°C				
Test Channel :	36		Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical				
	1.	. 5178 MHz is fundamental signal which can be ignored.						
	2.	Average measurement was not performed if peak level went lower to						
Remark :		average limit.						
Nemark.	3.	10359 MHz is not within a restrict	59 MHz is not within a restricted band, and satisfies both the average					
		peak limits of 15.209.						
	4.	No spurious emissions are detect	ed other than listed points	s as below.				

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
5178	98.63	-	-	88.85	35.15	8.98	34.35	101	90	Average
5178	109.05	-	-	99.27	35.15	8.98	34.35	101	90	Peak
10359	48.28	-5.72	54	52.89	37.95	14.89	57.45	100	0	Peak
15540	37.24	-16.76	54	36.42	40.31	19.08	58.57	100	0	Peak

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Test Mode :	802	2.11n HT20	Temperature :	22~24°C				
Test Channel :	44		Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1.	5222 MHz is fundamental signal which can be ignored.						
	2.	Average measurement was not performed if peak level went lower th						
Remark :		average limit.	erage limit. 440 MHz is not within a restricted band, and satisfies both the aver					
Nemark.	3.	10440 MHz is not within a restric						
		peak limits of 15.209.						
	4.	No spurious emissions are detect	ed other than listed points	s as below.				

Fr	equency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
			Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
	(MHz)	( dBµV/m )	(dB)	(dBµV/m)	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
	5222	94.9	-	-	84.97	35.17	9.11	34.35	100	146	Average
	5222	105.14	-	-	95.21	35.17	9.11	34.35	100	146	Peak
	10440	45.68	-8.32	54	50.23	37.97	14.91	57.43	100	0	Peak
	15660	47.12	-6.88	54	46.21	40.36	19.03	58.48	100	0	Peak

Test Mode :	802.11n HT20		Temperature :	22~24°C				
Test Channel :	44		Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical				
	1.	5222 MHz is fundamental signal	which can be ignored.					
	2.	. Average measurement was not performed if peak level went lowe						
Remark :		average limit.	verage limit.					
Nemark.	3.	10440 MHz is not within a restric	140 MHz is not within a restricted band, and satisfies both the average					
		peak limits of 15.209.						
	4.	No spurious emissions are detect	ed other than listed points	s as below.				

Frequenc	y Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	(dBµV/m)	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
5222	99.13	-	-	89.2	35.17	9.11	34.35	114	95	Average
5222	109.72	-	-	99.79	35.17	9.11	34.35	114	95	Peak
10440	46.48	-7.52	54	51.03	37.97	14.91	57.43	100	0	Peak
15660	50.93	-3.07	54	50.02	40.36	19.03	58.48	100	0	Peak

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Test Mode :	802.11n HT20	Temperature :	22~24°C				
Test Channel :	48	Relative Humidity :	46~48%				
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1. 5242 MHz is fundamental signal	al which can be ignored.					
	2. Average measurement was not	performed if peak level w	ent lower than the				
Remark :	average limit.	average limit.					
Remark.	3. 10478 MHz is not within a restric	10478 MHz is not within a restricted band, and satisfies both the aver					
	peak limits of 15.209.						
	4. No spurious emissions are detec	ted other than listed points	s as below.				

	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
I			Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
	(MHz)	(dBµV/m)	(dB)	$(dB\mu V/m)$	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
	5242	95.14	-	-	85.09	35.2	9.2	34.35	111	149	Average
	5242	104.97	-	-	94.92	35.2	9.2	34.35	111	149	Peak
	10478	48.05	-5.95	54	52.55	37.99	14.92	57.41	100	0	Peak
	15722	49.05	-4.95	54	48.08	40.39	19	58.42	100	0	Peak

Test Mode :	802.11n HT20		Temperature :	22~24°C				
Test Channel :	48		Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical				
	1.	5238 MHz is fundamental signal	nal which can be ignored.					
	2.	Average measurement was not	vent lower than the					
Remark :		average limit.						
Remark.	3.	10479 MHz is not within a restric	79 MHz is not within a restricted band, and satisfies both the average					
		peak limits of 15.209.						
	4.	No spurious emissions are detect	ed other than listed points	s as below.				

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
5238	99.6	-	-	89.56	35.19	9.2	34.35	100	89	Average
5238	110.23	-	-	100.19	35.19	9.2	34.35	100	89	Peak
10479	47.97	-6.03	54	52.47	37.99	14.92	57.41	100	0	Peak
15720	49.41	-4.59	54	48.44	40.39	19	58.42	100	0	Peak

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Test Mode :	802.11n HT20	Temperature :	22~24°C				
Test Channel :	52	Relative Humidity :	46~48%				
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1. 5258 MHz is fundamental signal	al which can be ignored.					
	2. Average measurement was not	vent lower than the					
Remark :	average limit.	average limit.					
Kemark.	3. 10521 MHz is not within a restric	10521 MHz is not within a restricted band, and satisfies both the ave					
	peak limits of 15.209.						
	4. No spurious emissions are detec	ted other than listed points	s as below.				

Ī	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
			Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
١	(MHz)	( dBµV/m )	( dB )	(dBµV/m)	(dBµV)	( dB )	( dB )	( dB )	(cm)	(deg)	
	5258	96.96	-	-	86.9	35.2	9.2	34.34	100	176	Average
	5258	107.49	-	-	97.43	35.2	9.2	34.34	100	176	Peak
	10521	47.66	-6.34	54	50.94	38.01	14.94	56.23	100	0	Peak
	15780	47.44	-6.56	54	43.84	40.41	18.97	55.78	100	0	Peak

Test Mode :	802.11n HT20		Temperature :	22~24°C				
Test Channel :	52		Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical				
	1.	5262 MHz is fundamental signal	which can be ignored.					
	2.	Average measurement was not	vent lower than the					
Remark :		average limit.	verage limit. 0521 MHz is not within a restricted band, and satisfies both the avera					
Remark.	3.	10521 MHz is not within a restrict						
		peak limits of 15.209.						
	4.	No spurious emissions are detect	ed other than listed points	s as below.				

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	( dB )	( cm )	(deg)	
5262	99.58	-	-	89.41	35.21	9.3	34.34	102	143	Average
5262	109.31	-	-	99.14	35.21	9.3	34.34	102	143	Peak
10521	49.1	-4.9	54	52.38	38.01	14.94	56.23	100	0	Peak
15780	46.87	-7.13	54	43.27	40.41	18.97	55.78	100	0	Peak

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Test Mode :	802	2.11n HT20	Temperature :	22~24°C				
Test Channel :	60		Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1.	5302 MHz is fundamental signal which can be ignored.						
	2.	Average measurement was not performed if peak level went lower						
Remark :		average limit.	verage limit. 0599 MHz is not within a restricted band, and satisfies both the aver					
Kemark.	3.	10599 MHz is not within a restricte						
		peak limits of 15.209.						
	4.	No spurious emissions are detecte	d other than listed points	s as below.				

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	( dB )	( cm )	(deg)	
5302	96.7	-	-	86.4	35.24	9.4	34.34	100	180	Average
5302	106.51	-	-	96.21	35.24	9.4	34.34	100	180	Peak
10599	49.12	-4.88	54	52.24	38.08	14.96	56.16	100	0	Peak
15900	47.84	-6.16	54	43.84	40.46	18.92	55.38	100	0	Peak

Test Mode :	802	2.11n HT20	Temperature :	22~24°C				
Test Channel :	60		Relative Humidity :	46~48%				
Test Engineer :	lva	n Chiang and Kyle Jhuang	Polarization :	Vertical				
	1.	. 5302 MHz is fundamental signal which can be ignored.						
	2.	2. Average measurement was not performed if peak level went lower than t						
Remark :		average limit.						
Nemark.	3.	10599 MHz is not within a restricted band, and satisfies both the average ar						
		peak limits of 15.209.						
	4.	No spurious emissions are detected other than listed points as below.						

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	( dB )	( cm )	(deg)	
5302	99.37	-	-	89.07	35.24	9.4	34.34	101	142	Average
5302	109.3	-	-	99	35.24	9.4	34.34	101	142	Peak
10599	47.95	-6.05	54	51.07	38.08	14.96	56.16	100	0	Peak
15900	47.44	-6.56	54	43.44	40.46	18.92	55.38	100	0	Peak

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Test Mode :	802.11n HT20	Temperature :	22~24°C			
Test Channel :	64	Relative Humidity :	46~48%			
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Horizontal			
	1. 5318 MHz is fundamental signal wh	nich can be ignored.				
Remark :	2. Average measurement was not performed if peak level went lower than the					
Kemark.	average limit.					
	3. No spurious emissions are detected	d other than listed points	s as below.			

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	( dB )	( cm )	(deg)	
5318	95.77	-	-	85.36	35.25	9.5	34.34	100	178	Average
5318	105.79	-	-	95.38	35.25	9.5	34.34	100	178	Peak
10641	47.4	-6.6	54	50.44	38.11	14.98	56.13	100	0	Peak
15960	46.42	-7.58	54	42.18	40.49	18.9	55.15	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	22~24°C			
Test Channel :	64	Relative Humidity :	46~48%			
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Vertical			
	5318 MHz is fundamental signal which can be ignored.					
Remark :	2. Average measurement was not performed if peak level went lower than the					
Remark.	average limit.					
	3. No spurious emissions are detected other than listed points as below.					

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	(cm)	( deg )	
5318	98.29	-	-	87.88	35.25	9.5	34.34	100	140	Average
5318	108.67	-	-	98.26	35.25	9.5	34.34	100	140	Peak
10641	48.59	-5.41	54	51.63	38.11	14.98	56.13	100	0	Peak
15960	47.33	-6.67	54	43.09	40.49	18.9	55.15	100	0	Peak

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Test Mode :	802.11n HT20		Temperature :	22~24°C			
Test Channel :	100		Relative Humidity :	46~48%			
Test Engineer :	Ivan Chiang and K	yle Jhuang	Polarization :	Horizontal			
	1. 5498 MHz is fu	ındamental signal w	hich can be ignored.				
	2. Average measurement was not performed if peak level went lower than						
Remark :	average limit.	average limit.					
Nemark.	3. 16500 MHz is	16500 MHz is not within a restricted band, and satisfies both the average and					
	peak limits of 1	5.209.					
	4. No spurious en	No spurious emissions are detected other than listed points as below.					

Frequency	Level	Over Limit	Limit Line	Read	Antenna Factor	Cable	Preamp	Ant	Table	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	Level (dBµV)	(dB)	Loss (dB)	Factor (dB)	Pos (cm)	Pos ( deg )	
40.8	21.5	-18.5	40	39.58	12.8	0.94	31.82	100	17	Peak
169.05	22.84	-20.66	43.5	42.98	9.74	1.9	31.78	-	-	Peak
243.57	19.07	-26.93	46	36.9	11.66	2.28	31.77	-	-	Peak
326.6	19.59	-26.41	46	35.05	13.67	2.64	31.77	-	-	Peak
599.6	21.54	-24.46	46	31.34	18.6	3.64	32.04	-	-	Peak
849.5	21.19	-24.81	46	28.31	20.2	4.36	31.68	-	-	Peak
5498	94.18	-	-	83.04	35.4	10.06	34.32	107	348	Average
5498	103.88	-	-	92.74	35.4	10.06	34.32	107	348	Peak
11001	47.72	-6.28	54	50.08	38.4	15.09	55.85	100	0	Peak
16500	45.54	-8.46	54	40.82	41.8	19.02	56.1	100	0	Peak

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Test Mode :	802.11n HT20	Temperature :	22~24°C						
Test Channel :	100	Relative Humidity :	46~48%						
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Vertical						
	1. 5498 MHz is fundamental signal	1. 5498 MHz is fundamental signal which can be ignored.							
	2. Average measurement was not performed if peak level went lower that								
Remark :	average limit.								
Nemark.	3. 16500 MHz is not within a restricted band, and satisfies both the average an								
	peak limits of 15.209.								
	4. No spurious emissions are detec	ted other than listed points	s as below.						

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )		(dB)	(dB)	(dB)	(cm)	( deg )	
40.8	33.03	-6.97	40	51.11	12.8	0.94	31.82	100	59	Peak
169.59	24.61	-18.89	43.5	44.79	9.7	1.9	31.78	-	-	Peak
224.13	21	-25	46	41.04	9.56	2.18	31.78	-	-	Peak
346.2	21.34	-24.66	46	36.2	14.2	2.72	31.78	-	-	Peak
599.6	26.2	-19.8	46	36	18.6	3.64	32.04	-	-	Peak
924.4	23.56	-22.44	46	29.71	20.54	4.55	31.24	-	-	Peak
5498	98.35	-	-	87.21	35.4	10.06	34.32	100	156	Average
5498	108.09	-	-	96.95	35.4	10.06	34.32	100	156	Peak
11001	46.56	-7.44	54	48.92	38.4	15.09	55.85	100	0	Peak
16500	46.27	-7.73	54	41.55	41.8	19.02	56.1	100	0	Peak

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Test Mode :	802	2.11n HT20	Temperature :	22~24°C				
Test Channel :	116	3	Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1.	. 5578 MHz is fundamental signal which can be ignored.						
	2.	2. Average measurement was not performed if peak level went lower than t						
Remark :		average limit.						
Nemark.	3.	16740 MHz is not within a restricted band, and satisfies both the average and						
		peak limits of 15.209.						
	4.	. No spurious emissions are detected other than listed points as below.						

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBµV/m)	(dB)	$(dB\mu V/m)$	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5578	96.26	-	-	84.78	35.5	10.33	34.35	104	141	Average
5578	106.36	-	-	94.88	35.5	10.33	34.35	104	141	Peak
11160	49.26	-4.74	54	51.45	38.5	15.14	55.83	100	0	Peak
16740	47.74	-6.26	54	42.33	41.99	19.09	55.67	100	0	Peak

Test Mode :	802	2.11n HT20	Temperature :	22~24°C				
Test Channel :	116	5	Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical				
	1.	5578 MHz is fundamental signal w	hich can be ignored.					
	2.	Average measurement was not pe	erformed if peak level wen	t lower than the				
Remark :		average limit.						
Remark.	3.	16740 MHz is not within a restricted band, and satisfies both the average						
		peak limits of 15.209.						
	4.	No spurious emissions are detecte	d other than listed points as	s below.				

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
5578	99.53	-	-	88.05	35.5	10.33	34.35	108	160	Average
5578	109.19	-	-	97.71	35.5	10.33	34.35	108	160	Peak
11160	49.32	-4.68	54	51.51	38.5	15.14	55.83	100	0	Peak
16740	44.76	-9.24	54	39.35	41.99	19.09	55.67	100	0	Peak

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Test Mode :	802	2.11n HT20	Temperature :	22~24°C				
Test Channel :	140	)	Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1.	I. 5698 MHz is fundamental signal which can be ignored.						
	2.	2. Average measurement was not performed if peak level went low						
Remark :		average limit.						
Kemark.	3.	17100 MHz is not within a restricte	7100 MHz is not within a restricted band, and satisfies both the average					
		peak limits of 15.209.						
	4.	. No spurious emissions are detected other than listed points as below.						

Ī	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
Į			Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
١	(MHz)	( dBµV/m )	(dB)	(dBµV/m)	(dBµV)	( dB )	( dB )	( dB )	(cm)	(deg)	
	5698	95.47	-	-	83.48	35.67	10.7	34.38	100	145	Average
	5698	104.53	-	-	92.54	35.67	10.7	34.38	100	145	Peak
	11400	44.92	-9.08	54	46.87	38.64	15.22	55.81	100	0	Peak
	17100	47.73	-6.27	54	41.88	42.06	19.18	55.39	100	0	Peak

Test Mode :	802	2.11n HT20	Temperature :	22~24°C			
Test Channel :	140	0	Relative Humidity :	46~48%			
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical			
	1.	5698 MHz is fundamental signal w	signal which can be ignored.				
	2.	Average measurement was not pe	erformed if peak level wen	t lower than the			
Remark :	average limit.						
Remark.	3.	3. 17100 MHz is not within a restricted band, and satisfies both the aver					
		peak limits of 15.209.					
	4.	. No spurious emissions are detected other than listed points as below.					

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	(dBµV/m)	(dB)	( dBµV/m )	(dBµV)	(dB)	(dB)	( dB )	( cm )	(deg)	
5698	95.11	-	-	83.12	35.67	10.7	34.38	115	356	Average
5698	105.03	-	-	93.04	35.67	10.7	34.38	115	356	Peak
11400	45.94	-8.06	54	47.89	38.64	15.22	55.81	100	0	Peak
17100	46.41	-7.59	54	40.56	42.06	19.18	55.39	100	0	Peak

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Test Mode :	802.11n HT20	Temperature :	22~24°C				
Test Channel :	144	Relative Humidity :	46~48%				
Test Engineer :	Ivan Chiang and Kyle Jhua	Polarization:	Horizontal				
	1. 5718 MHz is fundamer	ntal signal which can be ignored	signal which can be ignored				
	2. Average measuremen	t was not performed if peak level v	vent lower than the				
Remark :	average limit.	average limit.					
Remark.	3. 17160 MHz is not with	17160 MHz is not within a restricted band, and satisfies both the ave					
	peak limits of 15.209.						
	4. No spurious emissions	No spurious emissions are detected other than listed points as below.					

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBµV/m)	(dB)	$(dB\mu V/m)$	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5718	94.37	-	-	82.28	35.71	10.77	34.39	100	143	Average
5718	103.75	-	-	91.66	35.71	10.77	34.39	100	143	Peak
11439	45.09	-8.91	54	47.01	38.66	15.23	55.81	100	0	Peak
17160	46.83	-7.17	54	41.17	41.97	19.2	55.51	100	0	Peak

Test Mode :	802	2.11n HT20	Temperature :	22~24°C				
Test Channel :	144	4	Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical				
	1.	5722 MHz is fundamental signal w	signal which can be ignored.					
	2.	Average measurement was not pe	erformed if peak level wen	t lower than the				
Remark :		average limit.						
Remark.	3.	3. 17160 MHz is not within a restricted band, and satisfies both the aver						
		peak limits of 15.209.						
	4.	No spurious emissions are detecte	d other than listed points as	s below.				

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
5722	95.77	-	-	83.68	35.71	10.77	34.39	103	124	Average
5722	105.54	-	-	93.45	35.71	10.77	34.39	103	124	Peak
11439	45.62	-8.38	54	47.54	38.66	15.23	55.81	100	0	Peak
17160	48.43	-5.57	54	42.77	41.97	19.2	55.51	100	0	Peak

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Test Mode :	802	2.11n HT40	Temperature :	22~24°C				
Test Channel :	38		Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1.	5188 MHz is fundamental signal which can be ignored						
	2.	2. Average measurement was not performed if peak level went lov						
Remark :		average limit.						
Kemark.	3.	10380 MHz is not within a restricte	0380 MHz is not within a restricted band, and satisfies both the avera					
		peak limits of 15.209.						
	4.	No spurious emissions are detected other than listed points as below.						

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBµV/m)	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	(cm)	(deg)	
5188	92.31	-	-	82.53	35.15	8.98	34.35	100	151	Average
5188	101.6	-	-	91.82	35.15	8.98	34.35	100	151	Peak
10380	44.66	-9.34	54	49.27	37.95	14.89	57.45	100	0	Peak
15570	46.64	-7.36	54	45.78	40.33	19.07	58.54	100	0	Peak

Test Mode :	802	2.11n HT40	Temperature :	22~24°C			
Test Channel :	38		Relative Humidity :	46~48%			
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical			
	1.	5192 MHz is fundamental signal w	hich can be ignored				
	2.	Average measurement was not pe	erformed if peak level wen	t lower than the			
Remark :		average limit.					
Remark :	3.	10380 MHz is not within a restricted band, and satisfies both the av					
		peak limits of 15.209.					
	4.	No spurious emissions are detected other than listed points as below.					

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	(dBµV/m)	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
5192	96.18	-	-	86.36	35.16	9.01	34.35	113	91	Average
5192	106.59	-	-	96.77	35.16	9.01	34.35	113	91	Peak
10380	44.55	-9.45	54	49.16	37.95	14.89	57.45	100	0	Peak
15570	46.14	-7.86	54	45.28	40.33	19.07	58.54	100	0	Peak

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Test Mode :	802	2.11n HT40	Temperature :	22~24°C			
Test Channel :	46		Relative Humidity :	46~48%			
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Horizontal				
	1.	5228 MHz is fundamental signal wl	al which can be ignored				
	2.	Average measurement was not pe	erformed if peak level went	t lower than the			
Remark :		average limit.					
Nemark.	3.	10461 MHz is not within a restricte	0461 MHz is not within a restricted band, and satisfies both the a				
		peak limits of 15.209.					
	4.	No spurious emissions are detected other than listed points as below.					

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	(cm)	( deg )	
5228	93.7	-	-	83.75	35.19	9.11	34.35	100	150	Average
5228	103.29	-	-	93.34	35.19	9.11	34.35	100	150	Peak
10461	44.59	-9.41	54	49.09	37.99	14.92	57.41	100	0	Peak
15690	46.93	-7.07	54	45.99	40.38	19.01	58.45	100	0	Peak

Test Mode :	802	2.11n HT40	Temperature :	22~24°C				
Test Channel :	46		Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical				
	1.	5232 MHz is fundamental signal w	signal which can be ignored					
	2.	Average measurement was not pe	erformed if peak level wen	t lower than the				
Remark :		average limit.						
Remark:	3.	10461 MHz is not within a restricte	the average and					
		peak limits of 15.209.						
	4.	No spurious emissions are detecte	d other than listed points as	s below.				

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
5232	97.85	-	-	87.9	35.19	9.11	34.35	101	86	Average
5232	107.97	-	-	98.02	35.19	9.11	34.35	101	86	Peak
10461	46.11	-7.89	54	50.61	37.99	14.92	57.41	100	0	Peak
15690	48.38	-5.62	54	47.44	40.38	19.01	58.45	100	0	Peak

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Test Mode :	802	2.11n HT40	Temperature :	22~24°C				
Test Channel :	54		Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1.	5268 MHz is fundamental signal wl	nich can be ignored					
	2.	Average measurement was not pe	erformed if peak level went	t lower than the				
Remark :		average limit.						
Nemark.	3.	10539 MHz is not within a restricted band, and satisfies both the ave						
		peak limits of 15.209.						
	4.	No spurious emissions are detecte	d other than listed points as	below.				

F	requency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
			Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
	(MHz)	( dBµV/m )	(dB)	$(dB\mu V/m)$	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
	5268	95.93	-	-	85.76	35.21	9.3	34.34	100	178	Average
	5268	104.74	-	-	94.57	35.21	9.3	34.34	100	178	Peak
	10539	47.03	-6.97	54	50.27	38.03	14.94	56.21	100	0	Peak
	15810	47.23	-6.77	54	43.52	40.42	18.96	55.67	100	0	Peak

Test Mode :	802	2.11n HT40	Temperature :	22~24°C				
Test Channel :	54		Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical				
	1.	5268 MHz is fundamental signal w	signal which can be ignored					
	2.	Average measurement was not pe	erformed if peak level wen	t lower than the				
Remark :		average limit.						
Remark.	3.	10539 MHz is not within a restricted band, and satisfies both the average						
		peak limits of 15.209.						
	4.	No spurious emissions are detecte	d other than listed points as	s below.				

Frequen	cy Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
5268	97.62	-	-	87.45	35.21	9.3	34.34	101	140	Average
5268	107.3	-	-	97.13	35.21	9.3	34.34	101	140	Peak
10539	49.76	-4.24	54	53	38.03	14.94	56.21	100	0	Peak
15810	47.1	-6.9	54	43.39	40.42	18.96	55.67	100	0	Peak

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Test Mode :	802.11n HT40	Temperature :	22~24°C			
Test Channel :	62	Relative Humidity :	46~48%			
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Horizontal			
	1. 5312 MHz is fundamental signal wh	nich can be ignored.				
Remark :	2. Average measurement was not performed if peak level went lower th					
Remark.	average limit.					
	3. No spurious emissions are detected	d other than listed points as	s below.			

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	( dB )	( cm )	(deg)	
5312	94.5	-	-	84.09	35.25	9.5	34.34	100	178	Average
5312	103.67	-	-	93.26	35.25	9.5	34.34	100	178	Peak
10620	44.89	-9.11	54	47.97	38.1	14.97	56.15	100	0	Peak
15930	47.85	-6.15	54	43.74	40.47	18.91	55.27	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	22~24°C				
Test Channel :	62	Relative Humidity :	46~48%				
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Vertical				
	5312 MHz is fundamental signal which can be ignored.						
Remark :	. Average measurement was not performed if peak level went lower than the						
Remark.	average limit.						
	No spurious emissions are detected other than listed points as below.						

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	( dB )	( cm )	(deg)	
5312	96.97	-	-	86.56	35.25	9.5	34.34	102	142	Average
5312	106	-	-	95.59	35.25	9.5	34.34	102	142	Peak
10620	45.34	-8.66	54	48.42	38.1	14.97	56.15	100	0	Peak
15930	46.93	-7.07	54	42.82	40.47	18.91	55.27	100	0	Peak

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Test Mode :	802	2.11n HT40	Temperature :	22~24°C				
Test Channel :	102	2	Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1.	1. 5508 MHz is fundamental signal which can be ignored						
	2.	2. Average measurement was not performed if peak level went lower that						
Remark :		average limit.						
Remark.	3.	16530 MHz is not within a restricted band, and satisfies both the average						
		peak limits of 15.209.	limits of 15.209.					
	4.	No spurious emissions are detected	d other than listed points as	below.				

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
(MHz)	( dBµV/m )	Limit (dB)	Line ( dBµV/m )	Level (dBµV)	Factor ( dB )	Loss (dB)	Factor (dB)	Pos (cm)	Pos ( deg )	
41.61	21.57	-18.43	40	40.33	12.1	0.95	31.81	100	74	Peak
169.05	23.02	-20.48	43.5	43.16	9.74	1.9	31.78	-	-	Peak
243.57	18.45	-27.55	46	36.28	11.66	2.28	31.77	-	-	Peak
458.2	19.74	-26.26	46	31.49	16.96	3.14	31.85	-	-	Peak
699.7	22.22	-23.78	46	31.46	18.89	3.91	32.04	-	-	Peak
927.2	21.91	-24.09	46	28	20.57	4.56	31.22	-	-	Peak
5508	95.31	-	-	84.11	35.4	10.13	34.33	100	150	Average
5508	104.72	-	-	93.52	35.4	10.13	34.33	100	150	Peak
11019	45.81	-8.19	54	48.16	38.41	15.09	55.85	100	0	Peak
16530	46.21	-7.79	54	41.39	41.83	19.03	56.04	100	0	Peak

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Test Mode :	802	2.11n HT40	Temperature :	22~24°C				
Test Channel :	102	2	Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang						
	1.	5508 MHz is fundamental signal which can be ignored.						
	2.	Average measurement was not performed if peak level went lower than						
Remark :		average limit.						
Nemark.	3.	16530 MHz is not within a restrict	ted band, and satisfies both	n the average and				
		peak limits of 15.209.						
	4.	No spurious emissions are detect	ed other than listed points	as below.				

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )		(dB)	(dB)	(dB)	(cm)	( deg )	
39.99	32.5	-7.5	40	49.89	13.5	0.93	31.82	100	155	Peak
122.61	20.83	-22.67	43.5	38.87	12.12	1.62	31.78	-	-	Peak
169.32	24.8	-18.7	43.5	44.98	9.7	1.9	31.78	-	-	Peak
351.1	21.6	-24.4	46	36.23	14.42	2.73	31.78	-	-	Peak
599.6	25.66	-20.34	46	35.46	18.6	3.64	32.04	-	-	Peak
874.7	22.69	-23.31	46	29.44	20.4	4.4	31.55	-	-	Peak
5508	89.81	-	-	78.61	35.4	10.13	34.33	136	342	Average
5508	99.03	-	-	87.83	35.4	10.13	34.33	136	342	Peak
11019	45.22	-8.78	54	47.57	38.41	15.09	55.85	100	0	Peak
16530	45.51	-8.49	54	40.69	41.83	19.03	56.04	100	0	Peak

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Test Mode :	802	2.11n HT40	Temperature :	22~24°C					
Test Channel :	110	)	Relative Humidity :	46~48%					
Test Engineer :	Iva	n Chiang and Kyle Jhuang							
	1.	. 5552 MHz is fundamental signal which can be ignored.							
	2.	Average measurement was not performed if peak level went lower than							
Remark :		average limit.	verage limit.						
Kemark.	3.	16650 MHz is not within a restricted	0 MHz is not within a restricted band, and satisfies both the average a						
		peak limits of 15.209.							
	4.	No spurious emissions are detecte	d other than listed points a	as below.					

Ī	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
Į			Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
١	(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
	5552	95.28	-	-	83.89	35.47	10.26	34.34	103	142	Average
	5552	104.91	-	-	93.52	35.47	10.26	34.34	103	142	Peak
	11100	47.28	-6.72	54	49.54	38.46	15.12	55.84	100	0	Peak
	16650	46.21	-7.79	54	41.05	41.92	19.06	55.82	100	0	Peak

Test Mode :	802	2.11n HT40	Temperature :	22~24°C				
Test Channel :	110	)	Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical				
	1.	5552 MHz is fundamental signal w	nal which can be ignored.					
	2.	2. Average measurement was not performed if peak level went lower						
Remark :		average limit.	average limit.					
Remark :	3.	16650 MHz is not within a restricte	d band, and satisfies both	the average and				
		peak limits of 15.209.						
	4.	No spurious emissions are detecte	d other than listed points	as below.				

Frequency	y Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	( dB )	( cm )	(deg)	
5552	96.77	-	-	85.38	35.47	10.26	34.34	100	163	Average
5552	105.93	-	-	94.54	35.47	10.26	34.34	100	163	Peak
11100	47.7	-6.3	54	49.96	38.46	15.12	55.84	100	0	Peak
16650	46.97	-7.03	54	41.81	41.92	19.06	55.82	100	0	Peak

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Test Mode :	802.11n HT40	Temperature :	22~24°C					
Test Channel :	134	Relative Humidity :	46~48%					
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Horizontal					
	1. 5668 MHz is fundamental signal w	nal which can be ignored.						
	2. Average measurement was not p	Average measurement was not performed if peak level went lower than						
Remark :	average limit.	average limit.						
Remark.	3. 17010 MHz is not within a restricted	ed band, and satisfies both	the average and					
	peak limits of 15.209.							
	4. No spurious emissions are detected	ed other than listed points	as below.					

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	$(dB\mu V/m)$	(dB)	(dBµV/m)	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5668	93.69	-	-	81.88	35.64	10.55	34.38	101	140	Average
5668	103.75	-	-	91.94	35.64	10.55	34.38	101	140	Peak
11340	46.46	-7.54	54	48.48	38.6	15.2	55.82	100	0	Peak
17010	49.17	-4.83	54	43.06	42.18	19.16	55.23	100	0	Peak

Test Mode :	802	2.11n HT40	Temperature :	22~24°C					
Test Channel :	134	1	Relative Humidity :	46~48%					
Test Engineer :	Iva	Ivan Chiang and Kyle Jhuang  Polarization:  Vertical  1. 5672 MHz is fundamental signal which can be ignored.							
	1.	5672 MHz is fundamental signal w	nich can be ignored.						
	2.	Average measurement was not performed if peak level went lower than							
Remark :		average limit.	ige limit.						
Nemark.	3.	17010 MHz is not within a restricted band, and satisfies both the av							
		peak limits of 15.209.							
	4.	No spurious emissions are detected other than listed points as below.							

Fr	equency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	( dB )	( cm )	(deg)	
	5672	95.21	-	-	83.33	35.64	10.62	34.38	135	163	Average
	5672	104.21	-	-	92.33	35.64	10.62	34.38	135	163	Peak
	11340	45.75	-8.25	54	47.77	38.6	15.2	55.82	100	0	Peak
	17010	48.56	-5.44	54	42.45	42.18	19.16	55.23	100	0	Peak

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Test Mode :	802.11n HT40	Temperature :	22~24°C					
Test Channel :	142	Relative Humidity :	46~48%					
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Horizontal					
	1. 5708 MHz is fundamental signal wl	hich can be ignored.						
	2. Average measurement was not pe	Average measurement was not performed if peak level went lower than						
Remark :	average limit.	average limit.						
Remark.	3. 17130 MHz is not within a restricted	d band, and satisfies both	the average and					
	peak limits of 15.209.							
	4. No spurious emissions are detecte	d other than listed points a	as below.					

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	(dB)	$(dB\mu V/m)$	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5708	92.55	-	-	80.55	35.69	10.7	34.39	100	139	Average
5708	102.04	-	-	90.04	35.69	10.7	34.39	100	139	Peak
11421	44.68	-9.32	54	46.62	38.65	15.22	55.81	100	0	Peak
17130	48.19	-5.81	54	42.44	42.01	19.19	55.45	100	0	Peak

Test Mode :	802.	.11n HT40	Temperature :	22~24°C					
Test Channel :	142		Relative Humidity :	46~48%					
Test Engineer :	Ivan	Chiang and Kyle Jhuang	Polarization :	Vertical					
	1.	5711 MHz is fundamental signal which can be ignored.							
	2.	Average measurement was not performed if peak level went lower than							
Remark :	;	average limit.	rage limit.						
Remark.	3.	17130 MHz is not within a restricted	130 MHz is not within a restricted band, and satisfies both the average						
		peak limits of 15.209.	k limits of 15.209.						
	4.	No spurious emissions are detected other than listed points as below.							

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
5711	94.88	-	-	82.88	35.69	10.7	34.39	104	140	Average
5711	104.97	-	-	92.97	35.69	10.7	34.39	104	140	Peak
11421	45.44	-8.56	54	47.38	38.65	15.22	55.81	100	0	Peak
17130	48.13	-5.87	54	42.38	42.01	19.19	55.45	100	0	Peak

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Test Mode :	802.11ac VHT20	Temperature :	22~24°C			
Test Channel :	36	Relative Humidity: 46~48%				
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Horizontal			
	1. 5182 MHz is fundamental signal	which can be ignored.				
	2. Average measurement was not performed if peak level went lower					
Remark :	average limit.					
Remark.	3. 10360 MHz is not within a restric	cted band, and satisfies	both the average and			
	peak limits of 15.209.					
	4. No spurious emissions are deter	cted other than listed po	ints as below.			

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
5182	95.43	-	-	85.65	35.15	8.98	34.35	100	150	Average
5182	106.29	-	-	96.51	35.15	8.98	34.35	100	150	Peak
10360	47.24	-6.76	54	51.85	37.95	14.89	57.45	100	0	Peak
15540	47.18	-6.82	54	46.36	40.31	19.08	58.57	100	0	Peak

Test Mode :	802	2.11ac VHT20	Temperature :	22~24°C					
Test Channel :	36		Relative Humidity :	46~48%					
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical					
	1.	5178 MHz is fundamental signa	I which can be ignored.						
	2.	Average measurement was not performed if peak level went lower than the							
Remark :		average limit.	average limit.						
Remark.	3.	10359 MHz is not within a restri	cted band, and satisfies	both the average and					
		peak limits of 15.209.	nits of 15.209.						
	4.	No spurious emissions are dete	cted other than listed po	ints as below.					

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	(cm)	( deg )	
5178	98.79	-	-	89.01	35.15	8.98	34.35	102	102	Average
5178	109.84	-	-	100.06	35.15	8.98	34.35	102	102	Peak
10359	45.46	-8.54	54	50.07	37.95	14.89	57.45	100	0	Peak
15538	49.36	-4.64	54	48.54	40.31	19.08	58.57	100	0	Peak

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Test Mode :	802	2.11ac VHT20	Temperature :	22~24°C				
Test Channel :	44		Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1.	5222 MHz is fundamental signa	I which can be ignored.					
	2.	Average measurement was not performed if peak level went lower than t						
Remark :		average limit.						
Kemark.	3.	10441 MHz is not within a restri	MHz is not within a restricted band, and satisfies both the average					
		peak limits of 15.209.	ak limits of 15.209.					
	4.	No spurious emissions are dete	cted other than listed po	ints as below.				

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	(dB)	$(dB\mu V/m)$	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5222	95.52	-	-	85.59	35.17	9.11	34.35	100	149	Average
5222	105.36	-	-	95.43	35.17	9.11	34.35	100	149	Peak
10441	47.1	-6.9	54	51.65	37.97	14.91	57.43	100	0	Peak
15660	48.7	-5.3	54	47.79	40.36	19.03	58.48	100	0	Peak

Test Mode :	802	2.11ac VHT20	Temperature :	22~24°C				
Test Channel :	44		Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical				
	1.	5222 MHz is fundamental signa	I which can be ignored.					
	2.	Average measurement was not performed if peak level went lower than						
Remark :		average limit.	ge limit.					
Remark.	3.	10440 MHz is not within a restri	0 MHz is not within a restricted band, and satisfies both the average a					
		peak limits of 15.209.						
	4.	No spurious emissions are dete	cted other than listed po	ints as below.				

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	(dBµV/m)	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
5222	99.37	-	-	89.44	35.17	9.11	34.35	101	86	Average
5222	109.71	-	-	99.78	35.17	9.11	34.35	101	86	Peak
10440	46	-8	54	50.55	37.97	14.91	57.43	100	0	Peak
15660	49.74	-4.26	54	48.83	40.36	19.03	58.48	100	0	Peak

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Test Mode :	802.11ac VHT20	Temperature :	22~24°C					
Test Channel :	48	Relative Humidity: 46~48%						
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Horizontal					
	1. 5238 MHz is fundamental signa	nal which can be ignored.						
	2. Average measurement was no	Average measurement was not performed if peak level went lower than						
Remark :	average limit.							
rtemark :	3. 10478 MHz is not within a restri	10478 MHz is not within a restricted band, and satisfies both the average						
	peak limits of 15.209.							
	4. No spurious emissions are dete	cted other than listed po	ints as below.					

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
5238	95.45	-	-	85.41	35.19	9.2	34.35	100	151	Average
5238	105.04	-	-	95	35.19	9.2	34.35	100	151	Peak
10478	47.37	-6.63	54	51.87	37.99	14.92	57.41	100	0	Peak
15720	44.19	-9.81	54	43.22	40.39	19	58.42	100	0	Peak

Test Mode :	802	2.11ac VHT20	Temperature :	22~24°C					
Test Channel :	48		Relative Humidity :	46~48%					
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical					
	1.	. 5238 MHz is fundamental signal which can be ignored.							
	2.	Average measurement was not performed if peak level went lower than the							
Remark :		average limit.	verage limit.						
Nemark.	3.	10479 MHz is not within a restri	9 MHz is not within a restricted band, and satisfies both the average a						
		peak limits of 15.209.							
	4.	No spurious emissions are dete	cted other than listed po	oints as below.					

F	requency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	(dB)	( cm )	( deg )	
	5238	97.68	-	-	87.64	35.19	9.2	34.35	100	89	Average
	5238	107.36	-	-	97.32	35.19	9.2	34.35	100	89	Peak
	10479	45.65	-8.35	54	50.15	37.99	14.92	57.41	100	0	Peak
	15722	48.92	-5.08	54	47.95	40.39	19	58.42	100	0	Peak

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Test Mode :	802.11ac VHT20	Temperature :	22~24°C				
		•					
Test Channel :	52	Relative Humidity: 46~48%					
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1. 5258 MHz is fundamental signa	I which can be ignored.					
	Average measurement was no average limit.	Average measurement was not performed if peak level went lower the					
Remark :	<ol> <li>10522 MHz is not within a restri peak limits of 15.209.</li> </ol>	cted band, and satisfies	both the average and				
	4. No spurious emissions are dete	cted other than listed po	ints as below.				

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
5258	96.91	-	-	86.85	35.2	9.2	34.34	100	178	Average
5258	108.18	-	-	98.12	35.2	9.2	34.34	100	178	Peak
10522	48.56	-5.44	54	51.84	38.01	14.94	56.23	100	0	Peak
15780	47.17	-6.83	54	43.57	40.41	18.97	55.78	100	0	Peak

Test Mode :	802	2.11ac VHT20	Temperature :	22~24°C				
Test Channel :	52		Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical				
	1.	5262 MHz is fundamental signal which can be ignored.						
	2.	Average measurement was not performed if peak level went lower than the						
Remark :		average limit.						
Remark.	3.	10522 MHz is not within a restri	22 MHz is not within a restricted band, and satisfies both the average a					
		peak limits of 15.209.						
	4.	No spurious emissions are dete	cted other than listed po	ints as below.				

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant		Remark
(MHz)	( dBuV/m )	Limit ( dB )	Line ( dBµV/m )	Level (dBµV)	Factor ( dB )	Loss (dB)	Factor ( dB )	Pos (cm)	Pos ( deg )	
5262	98.86	-	-	88.69	35.21	9.3	34.34	100	122	Average
5262	108.87	-	-	98.7	35.21	9.3	34.34	100	122	Peak
10522	50.27	-3.73	54	53.55	38.01	14.94	56.23	100	0	Peak
15780	46.91	-7.09	54	43.31	40.41	18.97	55.78	100	0	Peak

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Test Mode :	802	2.11ac VHT20	Temperature :	22~24°C				
Test Channel :	60		<b>Relative Humidity:</b> 46~48%					
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1.	. 5299 MHz is fundamental signal which can be ignored.						
	2.	Average measurement was not performed if peak level went lower than						
Remark :		average limit.	erage limit.					
Nemark.	3.	10598 MHz is not within a restri	MHz is not within a restricted band, and satisfies both the average					
		peak limits of 15.209.						
	4.	No spurious emissions are dete	cted other than listed po	ints as below.				

ĺ	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
			Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
	(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
	5299	97.3	-	-	87	35.24	9.4	34.34	100	178	Average
	5299	106.78	-	-	96.48	35.24	9.4	34.34	100	178	Peak
	10598	49.71	-4.29	54	52.83	38.08	14.96	56.16	100	0	Peak
	15900	48.14	-5.86	54	44.14	40.46	18.92	55.38	100	0	Peak

Test Mode :	802	.11ac VHT20	Temperature :	22~24°C			
Test Channel :	60		<b>Relative Humidity</b> : 46~48%				
Test Engineer :	Ivar	Chiang and Kyle Jhuang	Polarization :	Vertical			
	1.	5302 MHz is fundamental signa	nal which can be ignored.				
	2.	2. Average measurement was not performed if peak level went lower					
Remark :		average limit.					
Remark.	3.	10599 MHz is not within a restri	cted band, and satisfies	both the average and			
		peak limits of 15.209.					
	4.	No spurious emissions are dete	cted other than listed po	ints as below.			

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	(dBµV/m)	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
5302	99.51	-	-	89.21	35.24	9.4	34.34	102	140	Average
5302	109.3	-	-	99	35.24	9.4	34.34	102	140	Peak
10599	49.59	-4.41	54	52.71	38.08	14.96	56.16	100	0	Peak
15900	48.55	-5.45	54	44.55	40.46	18.92	55.38	100	0	Peak

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Test Mode :	802.11ac VHT20	Temperature :	22~24°C			
Test Channel :	64	Relative Humidity :	46~48%			
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Horizontal			
	1. 5318 MHz is fundamental signa	I which can be ignored.				
Remark :	2. Average measurement was no	Average measurement was not performed if peak level went lower than				
Nemark.	average limit.					
	3. No spurious emissions are dete	cted other than listed po	ints as below.			

Freque	ncy Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
( MHz	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	( dB )	( cm )	(deg)	
5318	96.78	-	-	86.37	35.25	9.5	34.34	100	180	Average
5318	107.85	-	-	97.44	35.25	9.5	34.34	100	180	Peak
1064	1 47.07	-6.93	54	50.11	38.11	14.98	56.13	100	0	Peak
1596	0 48.85	-5.15	54	44.61	40.49	18.9	55.15	100	0	Peak

Test Mode :	802.11ac VHT20	Temperature :	22~24°C			
Test Channel :	64	Relative Humidity :	46~48%			
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Vertical			
	5322 MHz is fundamental signal which can be ignored.					
Remark :	2. Average measurement was not performed if peak level went lower than the					
Remark.	average limit.					
	3. No spurious emissions are dete	cted other than listed po	ints as below.			

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	•	( dBµV/m )		(dB)	(dB)	(dB)	(cm)	( deg )	
5322	99.07	-	-	88.66	35.25	9.5	34.34	101	140	Average
5322	109.13	-	-	98.72	35.25	9.5	34.34	101	140	Peak
10641	46.19	-7.81	54	49.23	38.11	14.98	56.13	100	0	Peak
15960	46.11	-7.89	54	41.87	40.49	18.9	55.15	100	0	Peak

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Test Mode :	802	2.11ac VHT20	Temperature :	22~24°C					
Test Channel :	100	)	Relative Humidity :	46~48%					
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Horizontal					
	1.	5498 MHz is fundamental signal which can be ignored.							
	2.	Average measurement was not performed if peak level went lower than t							
Remark :		average limit.							
Kemark.	3.	16500 MHz is not within a restri	16500 MHz is not within a restricted band, and satisfies both the average ar						
		peak limits of 15.209.							
	4.	No spurious emissions are dete	cted other than listed po	ints as below.					

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	(cm)	( deg )	
41.34	21.16	-18.84	40	39.93	12.1	0.95	31.82	100	36	Peak
123.15	18.57	-24.93	43.5	36.64	12.08	1.63	31.78	-	-	Peak
161.49	22.95	-20.55	43.5	42.84	10.02	1.87	31.78	-	-	Peak
339.2	19.66	-26.34	46	34.87	13.88	2.69	31.78	-	-	Peak
599.6	20.99	-25.01	46	30.79	18.6	3.64	32.04	-	-	Peak
876.8	22.17	-23.83	46	28.9	20.4	4.41	31.54	-	-	Peak
5498	95.26	-	-	84.12	35.4	10.06	34.32	109	328	Average
5498	106.05	-	-	94.91	35.4	10.06	34.32	109	328	Peak
11001	47.2	-6.8	54	49.56	38.4	15.09	55.85	100	0	Peak
16500	44.85	-9.15	54	40.13	41.8	19.02	56.1	100	0	Peak

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Test Mode :	802	2.11ac VHT20	Temperature :	22~24°C			
Test Channel :	100	)	Relative Humidity :	46~48%			
Test Engineer :	Ivai	n Chiang and Kyle Jhuang	Polarization :	Vertical			
	1.	5502 MHz is fundamental signa	I which can be ignored.				
	2.	2. Average measurement was not performed if peak level went lower that					
Remark :		average limit.					
Nemark.	3.	16500 MHz is not within a restricted band, and satisfies both the average a					
		peak limits of 15.209.					
	4.	No spurious emissions are dete	cted other than listed po	ints as below.			

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	(cm)	(deg)	
41.34	32.88	-7.12	40	51.65	12.1	0.95	31.82	100	198	Peak
169.32	24.77	-18.73	43.5	44.95	9.7	1.9	31.78	-	-	Peak
224.13	22.85	-23.15	46	42.89	9.56	2.18	31.78	-	-	Peak
344.8	21.98	-24.02	46	36.9	14.15	2.71	31.78	-	-	Peak
549.2	24.47	-21.53	46	34.23	18.74	3.46	31.96	-	-	Peak
649.3	25.25	-20.75	46	34.5	19.01	3.78	32.04	-	-	Peak
5502	98.73	-	-	87.53	35.4	10.13	34.33	100	149	Average
5502	110.19	-	-	98.99	35.4	10.13	34.33	100	149	Peak
11001	46.84	-7.16	54	49.2	38.4	15.09	55.85	100	0	Peak
16500	45.2	-8.8	54	40.48	41.8	19.02	56.1	100	0	Peak

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Test Mode :	802.11ac VHT20	Temperature :	22~24°C				
Test Channel :	116	Relative Humidity :	46~48%				
Test Engineer :							
	1. 5582 MHz is fundamental signa	. 5582 MHz is fundamental signal which can be ignored.					
	2. Average measurement was not performed if peak level went lower th						
Remark :	average limit.						
Nemark.	3. 16740 MHz is not within a restri	16740 MHz is not within a restricted band, and satisfies both the average					
	peak limits of 15.209.						
	4. No spurious emissions are dete	cted other than listed po	ints as below.				

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant		Remark
(MHz)	( dBµV/m )	Limit ( dB )	Line ( dBµV/m )	Level (dBµV)	Factor ( dB )	Loss (dB)	Factor ( dB )	Pos (cm)	Pos ( deg )	
5582	96.57	-	-	85.07	35.52	10.33	34.35	103	140	Average
5582	105.94	-	-	94.44	35.52	10.33	34.35	103	140	Peak
11162	48.49	-5.51	54	50.68	38.5	15.14	55.83	100	0	Peak
16740	48.17	-5.83	54	42.76	41.99	19.09	55.67	100	0	Peak

Test Mode :	802	2.11ac VHT20	Temperature :	22~24°C				
Test Channel :	116	3	Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Chiang and Kyle Jhuang Polarization :					
	1.	5578 MHz is fundamental signal which can be ignored.						
	2.	Average measurement was not performed if peak level went lower than						
Remark :		average limit.						
Remark.	3.	16740 MHz is not within a restricted band, and satisfies both the average a						
		peak limits of 15.209.						
	4.	No spurious emissions are dete	cted other than listed po	ints as below.				

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )		( dBµV/m )		(dB)	(dB)	(dB)	(cm)	( deg )	
5578	99.04	-	-	87.56	35.5	10.33	34.35	108	162	Average
5578	109.17	-	-	97.69	35.5	10.33	34.35	108	162	Peak
11161	48.88	-5.12	54	51.07	38.5	15.14	55.83	100	0	Peak
16740	46.92	-7.08	54	41.51	41.99	19.09	55.67	100	0	Peak

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Test Mode :	802.11ac VHT20	Temperature :	22~24°C					
Test Channel :	140	Relative Humidity :	46~48%					
Test Engineer :	Ivan Chiang and Kyle Jhuang							
	1. 5698 MHz is fundamental signa	. 5698 MHz is fundamental signal which can be ignored.						
	. Average measurement was not performed if peak level went lower tha							
Remark :	average limit.	average limit.						
Remark.	3. 17100 MHz is not within a restri	cted band, and satisfies	both the average and					
	peak limits of 15.209.							
	4. No spurious emissions are dete	cted other than listed po	ints as below.					

ĺ	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
			Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
	(MHz)	( dBµV/m )	(dB)	(dBµV/m)	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
	5698	95.56	-	-	83.57	35.67	10.7	34.38	100	141	Average
	5698	105.18	-	-	93.19	35.67	10.7	34.38	100	141	Peak
	11400	44.71	-9.29	54	46.66	38.64	15.22	55.81	100	0	Peak
	17100	45.58	-8.42	54	39.73	42.06	19.18	55.39	100	0	Peak

Test Mode :	802	2.11ac VHT20	Temperature :	22~24°C				
Test Channel :	140	)	Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical				
	1.	5698 MHz is fundamental signa	gnal which can be ignored.					
	2. Average measurement was not performed if peak level went le							
Remark :		average limit.	verage limit.					
Remark.	3.	17100 MHz is not within a restri	cted band, and satisfies	both the average and				
		peak limits of 15.209.						
	4.	No spurious emissions are dete	cted other than listed po	ints as below.				

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	( dB )	( cm )	(deg)	
5698	96.82	-	-	84.83	35.67	10.7	34.38	114	122	Average
5698	107.08	-	-	95.09	35.67	10.7	34.38	114	122	Peak
11400	45.07	-8.93	54	47.02	38.64	15.22	55.81	100	0	Peak
17100	48.65	-5.35	54	42.8	42.06	19.18	55.39	100	0	Peak

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Test Mode :	802	2.11ac VHT20	Temperature :	22~24°C				
Test Channel :	144	4	Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1.	722 MHz is fundamental signal which can be ignored.						
	2.	. Average measurement was not performed if peak level went lower th						
Remark :		average limit.						
Kemark.	3.	17160 MHz is not within a restri	MHz is not within a restricted band, and satisfies both the ave					
		peak limits of 15.209.						
	4.	No spurious emissions are dete	cted other than listed po	ints as below.				

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	$(dB\mu V/m)$	(dB)	$(dB\mu V/m)$	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5722	94.5	-	-	82.41	35.71	10.77	34.39	100	139	Average
5722	104.5	-	-	92.41	35.71	10.77	34.39	100	139	Peak
11439	44.68	-9.32	54	46.6	38.66	15.23	55.81	100	0	Peak
17160	46.77	-7.23	54	41.11	41.97	19.2	55.51	100	0	Peak

Test Mode :	802	2.11ac VHT20	Temperature :	22~24°C			
Test Channel :	144	4	Relative Humidity :	46~48%			
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization : Vertical				
	1.	5722 MHz is fundamental signa	signal which can be ignored.				
	2.	Average measurement was no	t performed if peak leve	el went lower than the			
Remark :		average limit.					
Remark.	3.	17160 MHz is not within a restri	cted band, and satisfies	both the average and			
		peak limits of 15.209.					
	4.	No spurious emissions are dete	cted other than listed po	ints as below.			

Freque	ncy Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	( dB )	( cm )	(deg)	
5722	96.84	-	-	84.75	35.71	10.77	34.39	103	120	Average
5722	106.76	-	-	94.67	35.71	10.77	34.39	103	120	Peak
1143	9 45.06	-8.94	54	46.98	38.66	15.23	55.81	100	0	Peak
1716	0 47.93	-6.07	54	42.27	41.97	19.2	55.51	100	0	Peak

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Test Mode :	802.	11ac VHT40	Temperature :	22~24°C				
Test Channel :	38		Relative Humidity :	46~48%				
Test Engineer :	Ivan	Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1. :	5192 MHz is fundamental signa	gnal which can be ignored.					
	2. Average measurement was not performed if peak level went le							
Remark :	,	average limit.						
Nemark.	3.	10380 MHz is not within a restri	MHz is not within a restricted band, and satisfies both the ave					
		peak limits of 15.209.						
	4. 1	No spurious emissions are dete	cted other than listed po	ints as below.				

Ī	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
			Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
١	(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
	5192	93	-	-	83.18	35.16	9.01	34.35	110	54	Average
	5192	102.4	-	-	92.58	35.16	9.01	34.35	110	54	Peak
	10380	44.83	-9.17	54	49.44	37.95	14.89	57.45	100	0	Peak
	15570	47.49	-6.51	54	46.63	40.33	19.07	58.54	100	0	Peak

Test Mode :	802.11ac VHT40	Т	Temperature :	22~24°C			
Test Channel :	38	R	Relative Humidity: 46~48%				
Test Engineer :	Ivan Chiang and Kyl	e Jhuang P	Polarization :	Vertical			
	1. 5192 MHz is fun	damental signal v	ignal which can be ignored.				
	2. Average measurement was not performed if peak level went lower						
Remark :	average limit.						
Remark.	3. 10380 MHz is no	ot within a restrict	ted band, and satisfies	both the average and			
	peak limits of 15	.209.					
	4. No spurious emi	ssions are detect	ted other than listed po	ints as below.			

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
5192	96.56	-	-	86.74	35.16	9.01	34.35	102	91	Average
5192	106.95	-	-	97.13	35.16	9.01	34.35	102	91	Peak
10380	44.89	-9.11	54	49.5	37.95	14.89	57.45	100	0	Peak
15570	47.88	-6.12	54	47.02	40.33	19.07	58.54	100	0	Peak

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Test Mode :	802	2.11ac VHT40	Temperature :	22~24°C			
Test Channel :	46		Relative Humidity :	46~48%			
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Horizontal			
	1.	5232 MHz is fundamental signa	al which can be ignored.				
	2.	Average measurement was no	t performed if peak leve	el went lower than the			
Remark :	average limit.						
Nemark.	3.	10461 MHz is not within a restri	cted band, and satisfies	both the average and			
		peak limits of 15.209.					
	4.	No spurious emissions are dete	cted other than listed po	ints as below.			

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	(dB)	(dBµV/m)	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5232	94.15	-	-	84.2	35.19	9.11	34.35	100	148	Average
5232	103.81	-	-	93.86	35.19	9.11	34.35	100	148	Peak
10461	45.64	-8.36	54	50.14	37.99	14.92	57.41	100	0	Peak
15690	47.8	-6.2	54	46.86	40.38	19.01	58.45	100	0	Peak

Test Mode :	802	2.11ac VHT40	Temperature :	22~24°C				
Test Channel :	46		Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical				
	1.	5232 MHz is fundamental signa	al which can be ignored.					
	2.	2. Average measurement was not performed if peak level went lower that						
Remark :		average limit.						
Remark.	3.	10460 MHz is not within a restricted band, and satisfies both the average						
		peak limits of 15.209.						
	4.	No spurious emissions are dete	cted other than listed po	ints as below.				

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
5232	97.62	-	-	87.67	35.19	9.11	34.35	100	92	Average
5232	107.57	-	-	97.62	35.19	9.11	34.35	100	92	Peak
10460	47.42	-6.58	54	51.94	37.98	14.92	57.42	100	0	Peak
15690	48.9	-5.1	54	47.96	40.38	19.01	58.45	100	0	Peak

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Test Mode :	802.11ac VHT40	Temperature :	22~24°C					
Test Channel :	54	Relative Humidity :	46~48%					
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Horizontal					
	1. 5272 MHz is fundamental signa	l which can be ignored.						
	2. Average measurement was no	Average measurement was not performed if peak level went lower than						
Remark :	average limit.	average limit.						
Remark.	3. 10542 MHz is not within a restri	10542 MHz is not within a restricted band, and satisfies both the average						
	peak limits of 15.209.							
	4. No spurious emissions are dete	cted other than listed po	ints as below.					

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	(dBµV/m)	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
5272	95.06	-	-	84.89	35.21	9.3	34.34	100	179	Average
5272	105.37	-	-	95.2	35.21	9.3	34.34	100	179	Peak
10542	48.09	-5.91	54	51.32	38.03	14.95	56.21	100	0	Peak
15810	46.94	-7.06	54	43.23	40.42	18.96	55.67	100	0	Peak

Test Mode :	802	2.11ac VHT40	Relative Humidity: 46~48% g and Kyle Jhuang Polarization: Vertical  MHz is fundamental signal which can be ignored. The measurement was not performed if peak level went lower than the limit.  MHz is not within a restricted band, and satisfies both the average and the same statement was not performed in the same statement was					
Test Channel :	54		Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang						
	1.	5268 MHz is fundamental signa	nal which can be ignored.					
	2.	2. Average measurement was not performed if peak level went lower th						
Remark :		average limit.						
Remark:	3.	10541 MHz is not within a restricted band, and satisfies both the average						
		peak limits of 15.209.						
	4.	No spurious emissions are dete	cted other than listed po	oints as below.				

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	( dB )	( cm )	(deg)	
5268	97.15	-	-	86.98	35.21	9.3	34.34	101	127	Average
5268	106.66	-	-	96.49	35.21	9.3	34.34	101	127	Peak
10541	47.66	-6.34	54	50.89	38.03	14.95	56.21	100	0	Peak
15810	46.98	-7.02	54	43.27	40.42	18.96	55.67	100	0	Peak

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Test Mode :	802.11ac VHT40	Temperature :	22~24°C				
Test Channel :	62	Relative Humidity :	46~48%				
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1. 5308 MHz is fundamental signal which can be ignored.						
Remark :	2. Average measurement was no	Average measurement was not performed if peak level went lower than t					
Remark.	average limit.	average limit.					
	3. No spurious emissions are dete	cted other than listed po	ints as below.				

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
(MHz)	( dBµV/m )	Limit (dB)	Line ( dBµV/m )	Level (dBµV)	Factor (dB)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	
40.8	21.26	-18.74	40	39.34	12.8	0.94	31.82	100	85	Peak
169.32	23.09	-20.41	43.5	43.27	9.7	1.9	31.78	-	-	Peak
243.57	18.29	-27.71	46	36.12	11.66	2.28	31.77	-	-	Peak
335.7	19.77	-26.23	46	35.05	13.81	2.68	31.77	-	-	Peak
649.3	22.04	-23.96	46	31.29	19.01	3.78	32.04	-	-	Peak
778.1	21.47	-24.53	46	29.4	19.88	4.14	31.95	-	-	Peak
5308	94.65	-	-	84.25	35.24	9.5	34.34	100	180	Average
5308	104.31	-	-	93.91	35.24	9.5	34.34	100	180	Peak
10620	44.64	-9.36	54	47.72	38.1	14.97	56.15	100	0	Peak
15930	45.86	-8.14	54	41.75	40.47	18.91	55.27	100	0	Peak

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Test Mode :	802.11ac VHT40	Temperature :	22~24°C					
Test Channel :	62	Relative Humidity :	46~48%					
Test Engineer :								
	1. 5312 MHz is fundamental signa	I which can be ignored.						
Remark :	2. Average measurement was not performed if peak level went lower than							
Remark.	average limit.							
	3. No spurious emissions are dete	cted other than listed po	ints as below.					

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBµV/m)	(dB)	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	(cm)	(deg)	
41.07	33.03	-6.97	40	51.11	12.8	0.94	31.82	100	188	Peak
123.42	20.43	-23.07	43.5	38.5	12.08	1.63	31.78	-	-	Peak
168.51	24.82	-18.68	43.5	44.96	9.74	1.9	31.78	-	-	Peak
344.8	21.65	-24.35	46	36.57	14.15	2.71	31.78	-	-	Peak
598.9	25.82	-20.18	46	35.63	18.6	3.63	32.04	-	-	Peak
923.7	23.91	-22.09	46	30.08	20.53	4.54	31.24	-	-	Peak
5312	97.07	-	-	86.66	35.25	9.5	34.34	101	135	Average
5312	106.66	-	-	96.25	35.25	9.5	34.34	101	135	Peak
10620	45.33	-8.67	54	48.41	38.1	14.97	56.15	100	0	Peak
15930	45.9	-8.1	54	41.79	40.47	18.91	55.27	100	0	Peak

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Test Mode :	802.11ac	VHT40	Temperature :	22~24°C				
Test Channel :	102		Relative Humidity :	46~48%				
Test Engineer :	Ivan Chia	ang and Kyle Jhuang	Polarization :	Horizontal				
	1. 5512	. 5512 MHz is fundamental signal which can be ignored.						
	2. Avera	. Average measurement was not performed if peak level went lower than t						
Remark :	avera	average limit.						
Nemark.	3. 1653	16530 MHz is not within a restricted band, and satisfies both the average ar						
	peak	limits of 15.209.						
	4. No sp	ourious emissions are dete	ected other than listed po	ints as below.				

Fr	requency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
	5512	92.26	-	-	81.06	35.4	10.13	34.33	107	360	Average
	5512	102.18	-	-	90.98	35.4	10.13	34.33	107	360	Peak
	11019	45.23	-8.77	54	47.58	38.41	15.09	55.85	100	0	Peak
	16530	46.42	-7.58	54	41.6	41.83	19.03	56.04	100	0	Peak

Test Mode :	802	2.11ac VHT40	Temperature :	22~24°C					
Test Channel :	102	2	Relative Humidity :	46~48%					
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical					
	1.	5508 MHz is fundamental signa	nal which can be ignored.						
	2.	Average measurement was not performed if peak level went lower t							
Remark :		average limit.	verage limit. 6530 MHz is not within a restricted band, and satisfies both the average a						
Nemark.	3.	16530 MHz is not within a restri							
		peak limits of 15.209.							
	4.	No spurious emissions are dete	cted other than listed po	ints as below.					

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	( dB )	( cm )	(deg)	
5508	95.83	-	-	84.63	35.4	10.13	34.33	100	154	Average
5508	105.73	-	-	94.53	35.4	10.13	34.33	100	154	Peak
11019	45.62	-8.38	54	47.97	38.41	15.09	55.85	100	0	Peak
16530	45.89	-8.11	54	41.07	41.83	19.03	56.04	100	0	Peak

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Test Mode :	802.11ac VHT40	Temperature :	22~24°C						
Test Channel :	110	Relative Humidity :	46~48%						
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Horizontal						
	1. 5552 MHz is fundamental signa	gnal which can be ignored.							
	. Average measurement was not performed if peak level went lower the								
Remark :	average limit.	average limit.							
Remark.	3. 16650 MHz is not within a restri	50 MHz is not within a restricted band, and satisfies both the avera							
	peak limits of 15.209.								
	4. No spurious emissions are dete	cted other than listed po	ints as below.						

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	(dB)	(dB)	( dB )	( cm )	(deg)	
5552	94.81	-	-	83.42	35.47	10.26	34.34	104	142	Average
5552	104.39	-	-	93	35.47	10.26	34.34	104	142	Peak
11098	49.24	-4.76	54	51.5	38.46	15.12	55.84	100	0	Peak
16650	46.65	-7.35	54	41.49	41.92	19.06	55.82	100	0	Peak

Test Mode :	802	2.11ac VHT40	Temperature :	22~24°C					
Test Channel :	110	)	Relative Humidity :	46~48%					
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical					
	1.	5548 MHz is fundamental signa	signal which can be ignored.						
	2.	2. Average measurement was not performed if peak level went lower							
Remark :		average limit.	verage limit.						
Remark.	3.	16649 MHz is not within a restri	6649 MHz is not within a restricted band, and satisfies both the average						
		peak limits of 15.209.							
	4.	No spurious emissions are dete	cted other than listed po	ints as below.					

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	( dB )	( cm )	(deg)	
5548	97.54	-	-	86.15	35.47	10.26	34.34	108	157	Average
5548	107.49	-	-	96.1	35.47	10.26	34.34	108	157	Peak
11102	48.9	-5.1	54	51.16	38.46	15.12	55.84	100	0	Peak
16649	49.59	-4.41	54	44.43	41.92	19.06	55.82	100	0	Peak

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Test Mode :	802.11ac	VHT40	Temperature :	22~24°C					
Test Channel :	134		<b>Relative Humidity</b> : 46~48%						
Test Engineer :	Ivan Chia	ng and Kyle Jhuang	Polarization :	Horizontal					
	1. 5668	MHz is fundamental signa	ignal which can be ignored.						
	2. Avera	Average measurement was not performed if peak level went lower that							
Remark :	avera	average limit.							
Nemark.	3. 17010	) MHz is not within a restri	MHz is not within a restricted band, and satisfies both the average						
	peak	limits of 15.209.							
	4. No sp	urious emissions are dete	ected other than listed po	ints as below.					

ĺ	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
			Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
	(MHz)	( dBµV/m )	(dB)	(dBµV/m)	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
	5668	93.63	-	-	81.82	35.64	10.55	34.38	102	144	Average
	5668	102.91	-	-	91.1	35.64	10.55	34.38	102	144	Peak
	11340	46.58	-7.42	54	48.6	38.6	15.2	55.82	100	0	Peak
	17010	48.99	-5.01	54	42.88	42.18	19.16	55.23	100	0	Peak

Test Mode :	802	2.11ac VHT40	Temperature :	22~24°C					
Test Channel :	134	1	Relative Humidity: 46~48%						
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical					
	1.	5668 MHz is fundamental signa	ignal which can be ignored.						
	2.	Average measurement was not performed if peak level went lower that							
Remark :		average limit.	age limit. 0 MHz is not within a restricted band, and satisfies both the average						
Remark.	3.	17010 MHz is not within a restri							
		peak limits of 15.209.							
	4.	No spurious emissions are dete	cted other than listed po	oints as below.					

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
5668	95.4	-	-	83.59	35.64	10.55	34.38	108	172	Average
5668	105.46	-	-	93.65	35.64	10.55	34.38	108	172	Peak
11340	47.06	-6.94	54	49.08	38.6	15.2	55.82	100	0	Peak
17010	48.34	-5.66	54	42.23	42.18	19.16	55.23	100	0	Peak

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Test Mode :	802.11ac VHT40	Temperature :	22~24°C					
Test Channel :	142	Relative Humidity: 46~48%						
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Horizontal					
	1. 5708 MHz is fundamental signa	al which can be ignored.						
	Average measurement was not performed if peak level went lower th							
Remark :	average limit.							
Nemark.	3. 17130 MHz is not within a restri	icted band, and satisfies	both the average and					
	peak limits of 15.209.							
	4. No spurious emissions are dete	ected other than listed po	ints as below.					

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	(dB)	$(dB\mu V/m)$	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5708	92.24	-	-	80.24	35.69	10.7	34.39	100	147	Average
5708	101.09	-	-	89.09	35.69	10.7	34.39	100	147	Peak
11421	46.3	-7.7	54	48.24	38.65	15.22	55.81	100	0	Peak
17130	46.42	-7.58	54	40.67	42.01	19.19	55.45	100	0	Peak

Test Mode :	802.11ac VHT40	Temperature :	22~24°C					
Test Channel :	142	<b>Relative Humidity:</b> 46~48%						
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Vertical					
	1. 5712 MHz is fundamental sig	5712 MHz is fundamental signal which can be ignored.						
	2. Average measurement was not performed if peak level went lower the							
Remark :	average limit.	average limit.						
Remark.	3. 17130 MHz is not within a re	17130 MHz is not within a restricted band, and satisfies both the average						
	peak limits of 15.209.							
	4. No spurious emissions are d	No spurious emissions are detected other than listed points as below.						

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
5712	93.62	-	-	81.62	35.69	10.7	34.39	106	140	Average
5712	104.18	-	-	92.18	35.69	10.7	34.39	106	140	Peak
11421	44.89	-9.11	54	46.83	38.65	15.22	55.81	100	0	Peak
17130	46.51	-7.49	54	40.76	42.01	19.19	55.45	100	0	Peak

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Test Mode :	802.11ac VHT80	Temperature :	22~24°C				
Test Channel :	42	Relative Humidity: 46~48%					
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1. 5214 MHz is fundamental sign						
	2. Average measurement was n	Average measurement was not performed if peak level went lower than the					
Remark :	average limit.						
Remark:	3. 10419 MHz is not within a rest	10419 MHz is not within a restricted band, and satisfies both the average a					
	peak limits of 15.209.						
	4. No spurious emissions are det	ected other than listed po	oints as below.				

Ī	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
			Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
ı	(MHz)	( dBµV/m )	(dB)	(dBµV/m)	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
	5214	91.22	-	-	81.29	35.17	9.11	34.35	100	150	Average
	5214	100.45	-	-	90.52	35.17	9.11	34.35	100	150	Peak
	10419	45.67	-8.33	54	50.23	37.97	14.9	57.43	100	0	Peak
	15630	46.05	-7.95	54	45.14	40.36	19.04	58.49	100	0	Peak

Test Mode :	802	2.11ac VHT80	Temperature :	22~24°C				
Test Channel :	42		Relative Humidity: 46~48%					
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical				
	1.	. 5214 MHz is fundamental signal which can be ignored.						
	2.	Average measurement was not performed if peak level went lower than						
Remark :		average limit.	verage limit.					
Remark.	3.	10419 MHz is not within a restri	9 MHz is not within a restricted band, and satisfies both the average ar					
		peak limits of 15.209.						
	4.	No spurious emissions are dete	cted other than listed po	oints as below.				

Frequenc	y Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
5214	94.82	-	-	84.89	35.17	9.11	34.35	100	93	Average
5214	104	-	-	94.07	35.17	9.11	34.35	100	93	Peak
10419	45.06	-8.94	54	49.62	37.97	14.9	57.43	100	0	Peak
15630	46.06	-7.94	54	45.15	40.36	19.04	58.49	100	0	Peak

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Test Mode :	802	.11ac VHT80	Temperature :	22~24°C				
Test Channel :	58		Relative Humidity: 46~48%					
Test Engineer :	Ivan	n Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1.	5292 MHz is fundamental signal which can be ignored.						
	2.	Average measurement was not performed if peak level went lower than						
Remark :		average limit.	verage limit.					
Nemark.	3.	10581 MHz is not within a restri	81 MHz is not within a restricted band, and satisfies both the average and					
		peak limits of 15.209.						
	4.	No spurious emissions are dete	cted other than listed po	ints as below.				

Frequ	ency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
			Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MH	łz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
529	92	92.85	-	-	82.56	35.23	9.4	34.34	100	177	Average
529	92	102.09	-	-	91.8	35.23	9.4	34.34	100	177	Peak
105	81	43.96	-10.04	54	47.1	38.07	14.96	56.17	100	0	Peak
158	70	46.84	-7.16	54	42.9	40.45	18.93	55.44	100	0	Peak

Test Mode :	802	2.11ac VHT80	Temperature :	22~24°C			
Test Channel :	58		Relative Humidity: 46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization : Vertical				
	1.	5288 MHz is fundamental signa					
	2.	2. Average measurement was not performed if peak level went lower the					
Remark :		average limit.					
Kemark.	3.	10581 MHz is not within a restricted band, and satisfies both the average					
		peak limits of 15.209.					
	4.	No spurious emissions are dete	cted other than listed po	ints as below.			

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
5288	94.98	-	-	84.69	35.23	9.4	34.34	101	134	Average
5288	104.93	-	-	94.64	35.23	9.4	34.34	101	134	Peak
10581	44.81	-9.19	54	47.95	38.07	14.96	56.17	100	0	Peak
15870	47.14	-6.86	54	43.2	40.45	18.93	55.44	100	0	Peak

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Test Mode :	802.11ac VHT80	Temperature :	22~24°C				
Test Channel :	106	Relative Humidity: 46~48%					
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1. 5528 MHz is fundamental signa						
	2. Average measurement was not performed if peak level went lower th						
Remark :	average limit.	average limit.					
Remark.	3. 16590 MHz is not within a restri	6590 MHz is not within a restricted band, and satisfies both the average a					
	peak limits of 15.209.						
	4. No spurious emissions are dete	o spurious emissions are detected other than listed points as below.					

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	(dB)	(dB)	(dB)	(cm)	( deg )	
40.8	21.1	-18.9	40	39.18	12.8	0.94	31.82	100	48	Peak
89.94	16.43	-27.07	43.5	38.1	8.7	1.41	31.78	-	-	Peak
161.76	23.06	-20.44	43.5	42.95	10.02	1.87	31.78	-	-	Peak
328	20.48	-25.52	46	35.92	13.68	2.65	31.77	-	-	Peak
649.3	23.03	-22.97	46	32.28	19.01	3.78	32.04	-	-	Peak
699	21.96	-24.04	46	31.2	18.89	3.91	32.04	-	-	Peak
5528	90.73	-	-	79.45	35.42	10.2	34.34	110	347	Average
5528	100.08	-	-	88.8	35.42	10.2	34.34	110	347	Peak
11061	44.88	-9.12	54	47.17	38.44	15.11	55.84	100	0	Peak
16590	47.19	-6.81	54	42.21	41.87	19.05	55.94	100	0	Peak

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Test Mode :	802	2.11ac VHT80	Temperature :	22~24°C				
Test Channel :	106	5	Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical				
	1.	5532 MHz is fundamental signal which can be ignored.						
	2.	Average measurement was not performed if peak level went lower than the						
Remark :		average limit.						
Nemark.	3.	16590 MHz is not within a restricted band, and satisfies both the average and						
		peak limits of 15.209.						
	4.	No spurious emissions are dete	cted other than listed po	ints as below.				

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	( dB )	( dB )	(cm)	(deg)	
40.26	32.92	-7.08	40	51	12.8	0.94	31.82	100	196	Peak
122.61	20.68	-22.82	43.5	38.72	12.12	1.62	31.78	-	-	Peak
169.32	24.61	-18.89	43.5	44.79	9.7	1.9	31.78	-	-	Peak
346.2	21.82	-24.18	46	36.68	14.2	2.72	31.78	-	-	Peak
599.6	26.52	-19.48	46	36.32	18.6	3.64	32.04	-	-	Peak
749.4	21.86	-24.14	46	29.99	19.8	4.05	31.98	-	-	Peak
5532	94.19	-	-	82.88	35.45	10.2	34.34	100	155	Average
5532	103.3	-	-	91.99	35.45	10.2	34.34	100	155	Peak
11061	45.15	-8.85	54	47.44	38.44	15.11	55.84	100	0	Peak
16590	47.97	-6.03	54	42.99	41.87	19.05	55.94	100	0	Peak

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Test Mode :	802.11ac VHT80	Temperature :	22~24°C	
Test Channel :	122	Relative Humidity :	46~48%	
Test Engineer :	Ivan Chiang and Kyle Jhuang	Polarization :	Horizontal	
Remark :	<ol> <li>5608 MHz is fundamental signa</li> <li>Average measurement was not average limit.</li> <li>16830 MHz is not within a restri peak limits of 15.209.</li> </ol>	t performed if peak leven	both the average and	
	4. No spurious emissions are dete	cted other than listed po	ints as below.	

	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
ı	(MHz)	$(dB\mu V/m)$	(dB)	(dBµV/m)	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
	5608	93.3	-	-	81.72	35.54	10.4	34.36	102	141	Average
	5608	101.83	-	-	90.25	35.54	10.4	34.36	102	141	Peak
	11220	44.77	-9.23	54	46.91	38.53	15.16	55.83	100	0	Peak
	16830	47.14	-6.86	54	41.48	42.06	19.11	55.51	100	0	Peak

Test Mode :	802	2.11ac VHT80	Temperature :	22~24°C			
Test Channel :	122	2	Relative Humidity :	46~48%			
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Vertical			
	1.	5612 MHz is fundamental signal which can be ignored.					
	2.	Average measurement was not performed if peak level went lower than the					
Remark :		average limit.					
Nemark.	3.	16830 MHz is not within a restricted band, and satisfies both the average and					
		peak limits of 15.209.					
	4.	No spurious emissions are dete	cted other than listed po	ints as below.			

F	requency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	(MHz)	( dBµV/m )	(dB)	( dBµV/m )		( dB )	(dB)	( dB )	(cm)	( deg )	
	5612	95	-	-	83.42	35.54	10.4	34.36	107	166	Average
	5612	104.3	-	-	92.72	35.54	10.4	34.36	107	166	Peak
	11220	45.42	-8.58	54	47.56	38.53	15.16	55.83	100	0	Peak
	16830	47.97	-6.03	54	42.31	42.06	19.11	55.51	100	0	Peak

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Test Mode :	802	2.11ac VHT80	Temperature :	22~24°C				
Test Channel :	138	3	Relative Humidity :	46~48%				
Test Engineer :	Iva	n Chiang and Kyle Jhuang	Polarization :	Horizontal				
	1.	5692 MHz is fundamental signal which can be ignored.						
	2.	Average measurement was not performed if peak level went lower than the						
Remark :		average limit.						
Nemark.	3.	17070 MHz is not within a restricted band, and satisfies both the average and						
		peak limits of 15.209.						
	4.	No spurious emissions are dete	cted other than listed po	ints as below.				

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	(dB)	(dBµV/m)	(dBµV)	( dB )	( dB )	( dB )	( cm )	(deg)	
5692	89.1	-	-	77.11	35.67	10.7	34.38	100	145	Average
5692	97.84	-	-	85.85	35.67	10.7	34.38	100	145	Peak
11379	45.36	-8.64	54	47.33	38.63	15.21	55.81	100	0	Peak
17070	48.33	-5.67	54	42.36	42.11	19.18	55.32	100	0	Peak

Test Mode :	802	2.11ac VHT80	Temperature :	22~24°C				
Test Channel :	138	3	Relative Humidity :	46~48%				
Test Engineer :	Polarization :	Vertical						
	1.	5688 MHz is fundamental signal which can be ignored.						
	2.	2. Average measurement was not performed if peak level went lower than the						
Remark :		average limit.						
Remark.	3.	17070 MHz is not within a restricted band, and satisfies both the average and						
		peak limits of 15.209.						
	4.	No spurious emissions are dete	cted other than listed po	ints as below.				

Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	(dB)	( cm )	(deg)	
5688	90.57	-	-	78.66	35.67	10.62	34.38	137	358	Average
5688	99.87	-	-	87.96	35.67	10.62	34.38	137	358	Peak
11379	46.26	-7.74	54	48.23	38.63	15.21	55.81	100	0	Peak
17070	47.8	-6.2	54	41.83	42.11	19.18	55.32	100	0	Peak

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## 3.5 AC Conducted Emission Measurement

## 3.5.1 Limit of AC Conducted Emission

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

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

<sup>\*</sup>Decreases with the logarithm of the frequency.

# 3.5.2 Measuring Instruments

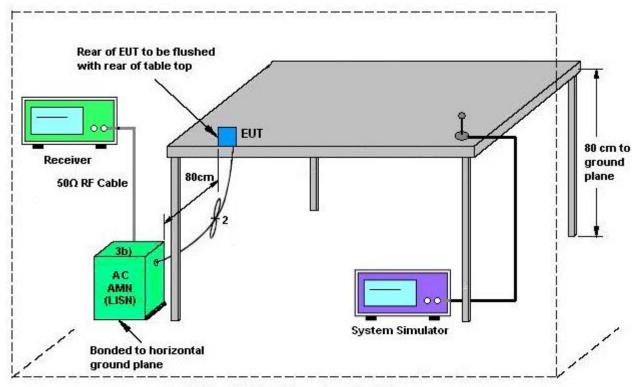
The measuring equipment is listed in the section 4 of this test report.

#### 3.5.3 Test Procedures

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

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# 3.5.4 Test Setup



AMN = Artificial mains network (LISN)

AE = Associated equipment

EUT = Equipment under test

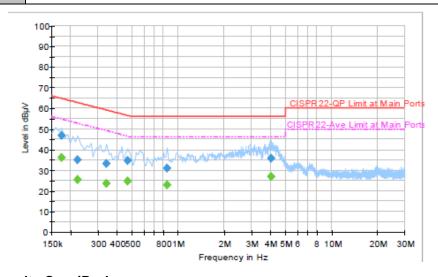
ISN = Impedance stabilization network

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# 3.5.5 Test Result of AC Conducted Emission

Test Mode :	Mode 2	Temperature :	20~22℃						
Test Engineer :	Kai-Chun Chu	Relative Humidity :	46~48%						
Test Voltage :	120Vac / 60Hz	Phase :	Line						
	GSM850 (GPRS class 8) Idle + WLAN (5GHz) Link + Earphone + HDMI Cable								
Function Type :	with Monitor + HDMI to uU	with Monitor + HDMI to uUSB Dongle + USB Cable (Charging from Adapter) +							

Camera (Front)



# Final Result : QuasiPeak

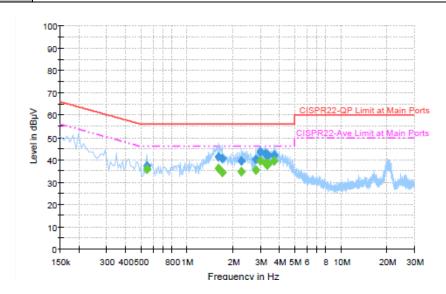
Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.174000	46.7	Off	L1	19.3	18.1	64.8
0.222000	34.9	Off	L1	19.3	27.8	62.7
0.342000	33.3	Off	L1	19.4	25.9	59.2
0.470000	34.7	Off	L1	19.4	21.8	56.5
0.846000	30.9	Off	L1	19.6	25.1	56.0
4.038000	35.7	Off	L1	19.6	20.3	56.0

Final Result : Average

mai recount						
Frequency	Average	Filter	Line	Corr.	Margin	Limit
(MHz)	(dBµV)			(dB)	(dB)	(dBµV)
0.174000	36.1	Off	L1	19.3	18.7	54.8
0.222000	25.5	Off	L1	19.3	27.2	52.7
0.342000	23.8	Off	L1	19.4	25.4	49.2
0.470000	24.7	Off	L1	19.4	21.8	46.5
0.846000	22.9	Off	L1	19.6	23.1	46.0
4.038000	26.8	Off	L1	19.6	19.2	46.0

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Test Mode :	Mode 2	Temperature :	<b>20~22</b> ℃				
Test Engineer :	Kai-Chun Chu	Relative Humidity :	46~48%				
Test Voltage :	120Vac / 60Hz	Phase :	Neutral				
	GSM850 (GPRS class 8) Idle + WLAN (5GHz) Link + Earphone + HDMI Cable						
Function Type :	with Monitor + HDMI to uUSB Dongle + USB Cable (Charging from Adapter) +						
	Camera (Front)						

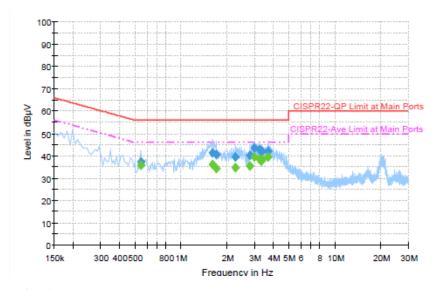


## Final Result : QuasiPeak

Frequency	QuasiPeak			Corr.	Margin	Limit
(MHz)	(dBµV)	Filter	Line	(dB)	(dB)	(dBµV)
0.550000	37.3	Off	N	19.4	18.7	56.0
1.606000	41.3	Off	N	19.5	14.7	56.0
1.694000	40.8	Off	N	19.6	15.2	56.0
2.270000	39.7	Off	N	19.5	16.3	56.0
2.798000	40.2	Off	N	19.6	15.8	56.0
2.990000	43.5	Off	N	19.6	12.5	56.0
3.246000	42.9	Off	N	19.6	13.1	56.0
3.310000	41.6	Off	N	19.6	14.4	56.0
3.382000	42.2	Off	N	19.6	13.8	56.0
3.702000	42.1	Off	N	19.6	13.9	56.0

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Test Mode :	Mode 2	Temperature :	20~22℃			
Test Engineer :	Kai-Chun Chu	Relative Humidity :	46~48%			
Test Voltage :	120Vac / 60Hz	Phase :	Neutral			
	GSM850 (GPRS class 8) Idle + WLAN (5GHz) Link + Earphone + HDMI Cable					
Function Type: with Monitor + HDMI to uUSB Dongle + USB Cable (Charging from Ac						
	Camera (Front)					



## Final Result : Average

•	mar Nesult . Average							
	Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	
	0.550000	35.7	Off	N	19.4	10.3	46.0	
	1.606000	36.0	Off	N	19.5	10.0	46.0	
	1.694000	34.5	Off	N	19.6	11.5	46.0	
	2.270000	34.6	Off	N	19.5	11.4	46.0	
	2.798000	35.3	Off	N	19.6	10.7	46.0	
	2.990000	39.5	Off	N	19.6	6.5	46.0	
	3.246000	38.5	Off	N	19.6	7.5	46.0	
	3.310000	37.5	Off	N	19.6	8.5	46.0	
	3.382000	38.5	Off	N	19.6	7.5	46.0	
	3.702000	39.7	Off	N	19.6	6.3	46.0	

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# 3.6 Frequency Stability Measurement

# 3.6.1 Limit of Frequency Stability

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

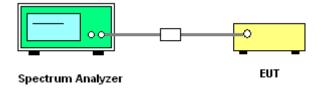
## 3.6.2 Measuring Instruments

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

#### 3.6.3 Test Procedures

- 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.
- The frequency deviation was calculated by adding the upper frequency point and the lower frequency point divided by two. Those detailed values of frequency deviation are provided in table below.

#### 3.6.4 Test Setup



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# 3.6.5 Test Result of Frequency Stability

Test Band: 5GHz band 1,2,3 Test Engineer: Bill Kuo and Stuart Lin

Mod.	Data Rate	N <sub>TX</sub>	Channel	Freq.	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	3.4
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	20	4.2
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	20	3.7
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	0	3.7
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	50	3.7

Mod.	Data Rate	N <sub>TX</sub>	Channel	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stability (ppm)	Temperature (°C)	Voltage (V)
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	20	3.4
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	20	4.2
11a	6Mbps	1	64	5320	5319.950	-0.050	-9.40	20	3.7
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	0	3.7
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	50	3.7

Mod.	Data Rate	N <sub>TX</sub>	Channel	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stability (ppm)	Temperature (°C)	Voltage (V)
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	20	3.4
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	20	4.2
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	20	3.7
11a	6Mbps	1	100	5500	5499.975	-0.025	-4.55	0	3.7
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	50	3.7

#### Note:

- 1. Center Frequency = (Low Frequency + High Frequency) / 2.
- 2. EUT will turn off WLAN signal when operating temperature is lower than -10°C.

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# 3.7 Automatically Discontinue Transmission

# 3.7.1 Limit of Automatically Discontinue Transmission

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

# 3.7.2 Measuring Instruments

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

## 3.7.3 Test Result of Automatically Discontinue Transmission

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

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# 3.8 Antenna Requirements

## 3.8.1 Standard Applicable

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

## 3.8.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

#### 3.8.3 Antenna Gain

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

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

where

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

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

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

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

The EUT supports CDD mode.

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

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

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			DG	DG	Power	PSD
			for	for	Limit	Limit
	Ant 1	Ant 2	Power	PSD	Reduction	Reduction
	(dBi)	(dBi)	(dBi)	(dBi)	(dB)	(dB)
Band I	2.50	2.60	5.56	5.56	0.00	0.00
Band II	1.89	3.20	5.58	5.58	0.00	0.00
Band III	0.65	2.40	4.58	4.58	0.00	0.00

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

 $PSD\ Limit\ Reduction = DG(PSD) - 6dBi,\ (\ min = 0\ )$ 

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# 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	Apr. 14, 2014~ Jun. 05, 2014	Jun. 06, 2014	Conducted (TH02-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100055	9kHz~40GHz	Jun. 09, 2014	Jun. 10, 2014~ Aug. 22, 2014	Jun. 08, 2015	Conducted (TH02-HY)
Power Meter	Anritsu	ML2495A	1036004	300MHz~40GHz	Aug. 17, 2013	Apr. 14, 2014~ Jul. 24, 2014	Aug. 16, 2014	Conducted (TH02-HY)
Power Sensor	Anritsu	MA2411B	1027253	300MHz~40GHz	Aug. 17, 2013	Apr. 14, 2014~ Jul. 24, 2014	Aug. 16, 2014	Conducted (TH02-HY)
EMI Test Receiver	Rohde & Schwarz	ESU26	100472	20Hz – 26.5GHz	Jan. 15, 2014	May 03, 2014~ Jul. 17, 2014	Jan. 14, 2015	Radiation (03CH08-HY)
Bilog Antenna	Teseq GmbH	CBL6112D	35379	30MHz~2GHz	Oct. 10, 2013	May 03, 2014~ Jul. 17, 2014	Oct. 09, 2014	Radiation (03CH08-HY)
Horn Antenna	ESCO	3117	000143261	1GHz~18GHz	Jan. 16, 2014	May 03, 2014~ Jul. 17, 2014	Jan. 15, 2015	Radiation (03CH08-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	BBHA9170251	15GHz~40GHz	Oct. 03, 2013	May 03, 2014~ Jul. 17, 2014	Oct. 02, 2014	Radiation (03CH08-HY)
Amplifier	SONOMA	310N	186713	9kHz~1GHz	Apr. 16, 2014	May 03, 2014~ Jul. 17, 2014	Apr. 15, 2015	Radiation (03CH08-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1590074	1GHz~18GHz	Jul. 09, 2013	May 03, 2014~ Jul. 17, 2014	Jul. 08, 2014	Radiation (03CH08-HY)
Pre Amplifier	Agilent	8449B	3008A02665	1GHz~26.5GHz	Sep. 04, 2013	May 03, 2014~ Jul. 17, 2014	Sep. 03, 2014	Radiation (03CH08-HY)
Turn Table	Chaintek	Chaintek 3000	N/A	0~360 Degree	N/A	May 03, 2014~ Jul. 17, 2014	N/A	Radiation (03CH08-HY)
Antenna Mast	MF	MFA520BS	N/A	1m~4m	N/A	May 03, 2014~ Jul. 17, 2014	N/A	Radiation (03CH08-HY)
EMI Test Receiver	Rohde & Schwarz	ESCS 30	100356	9kHz ~ 2.75GHz	Nov. 15, 2013	Jul. 14, 2014	Nov. 14, 2014	Conduction (CO05-HY)
LISN (for auxiliary equipment)	Rohde & Schwarz	ENV216	100081	9kHz ~ 30MHz	Dec. 12, 2013	Jul. 14, 2014	Dec. 11, 2014	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz ~ 30MHz	Dec. 04, 2013	Jul. 14, 2014	Dec. 03, 2014	Conduction (CO05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Jul. 14, 2014	N/A	Conduction (CO05-HY)

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# 5 Uncertainty of Evaluation

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

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

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

Measuring Uncertainty for a Level of	4.30
Confidence of 95% (U = 2Uc(y))	4.30

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