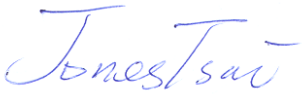
FCC RF Test Report

APPLICANT	:	LG Electronics Inc.
EQUIPMENT	:	Mobile Phone
BRAND NAME	:	LG
MODEL NAME	:	LG-D802, LG-D802T, LG-D802a
FCC ID	:	ZNFD802
STANDARD	:	FCC Part 15 Subpart E §15.407
CLASSIFICATION	:	(NII) Unlicensed National Information Infrastructure

The product was received on Jun. 21, 2013 and completely tested on Jul. 17, 2013. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the procedures and shown the 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

Testing Laboratory
1190

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
FR362142D	Rev. 01	Initial issue of report	Jul. 29, 2013
FR362142D	Rev. 02	Update report for description of straddle band and KDB644545 D02 in section 3.1~3.3	Aug. 01, 2013

SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	15.403(i)	RSS-210 A9.2	26dB & 99% Bandwidth	-	Pass	-
3.2	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 dBm (depend on band)	Pass	-
3.4	15.407(a)(6)	RSS-210 A9.3	Peak Excursion Ratio	≤ 13dB	Pass	-
3.5	15.407(b)	RSS-210 A9.3	Unwanted Emissions	≤ -17, -27 dBm (depend on band)&15.209(a)	Pass	Under limit 6.87 dB at 5150.000 MHz
3.6	15.207	RSS-Gen 7.2.4	AC Conducted Emission	15.207(a)	Pass	Under limit 13.70 dB at 0.438 MHz
3.7	15.407(g)	-	Frequency Stability	Within Operation Band	Pass	-
3.8	15.407(c)	RSS-210 A9.4	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-
3.9	15.203 & 15.407(a)	RSS-210 A9.2	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

LG Electronics Inc.
60-39, Kasan-dong, Kumchon-gu, Seoul 135-801, Korea

1.2 Manufacturer

LG Electronics Inc.
60-39, Kasan-dong, Kumchon-gu, Seoul 135-801, Korea

1.3 Feature of Equipment Under Test

Product Feature & Specification	
Equipment	Mobile Phone
Brand Name	LG
Model Name	LG-D802, LG-D802T, LG-D802a
FCC ID	ZNFD802
EUT supports Radios application	GSM/EGPRS/WCDMA/HSPA/LTE / WLAN a/b/g/n/ac / Bluetooth 3.0/4.0+LE/NFC
HW Version	Rev.d
SW Version	D80207a
EUT Stage	Production Unit

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

1.4 Product Specification of Equipment Under Test

Product Specification subjective to this standard	
Tx/Rx Frequency Range	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5580 MHz and 5660 MHz ~ 5825 MHz
Maximum Output Power to Antenna	**<5180 MHz ~ 5240 MHz>** 802.11a : 13.31 dBm / 0.0214 W 802.11n HT20 : 12.06 dBm / 0.0161 W 802.11n HT40 : 12.20 dBm / 0.0166 W 802.11ac VHT20 : 11.06 dBm / 0.0128 W 802.11ac VHT40 : 11.30 dBm / 0.0135 W 802.11ac VHT80 : 11.02 dBm / 0.0126 W **<5260 MHz ~ 5320 MHz>** 802.11a : 12.96 dBm / 0.0198 W 802.11n HT20 : 11.97 dBm / 0.0157 W 802.11n HT40 : 12.53 dBm / 0.0179 W 802.11ac VHT20 : 10.94 dBm / 0.0124 W 802.11ac VHT40 : 11.26 dBm / 0.0134 W 802.11ac VHT80 : 10.81 dBm / 0.0121 W **<5500 MHz ~ 5580 MHz and 5660 MHz ~ 5725 MHz >** 802.11a : 12.69 dBm / 0.0186 W 802.11n HT20 : 11.83 dBm / 0.0152 W 802.11n HT40 : 12.19 dBm / 0.0166 W 802.11ac VHT20 : 10.81 dBm / 0.0121 W 802.11ac VHT40 : 10.98 dBm / 0.0125 W 802.11ac VHT80 : 10.87 dBm / 0.0122 W **<5725MHz ~ 5825MHz >** 802.11a : 12.11 dBm / 0.0163 W 802.11n HT20 : 11.21 dBm / 0.0132 W 802.11n HT40 : 11.10 dBm / 0.0129 W 802.11ac VHT20 : 10.21 dBm / 0.0105 W 802.11ac VHT40 : 10.61 dBm / 0.0115 W 802.11ac VHT80 : 10.57 dBm / 0.0114 W
99% Occupied Bandwidth	802.11a : 17.95 MHz 802.11n HT20 : 18.75 MHz 802.11n HT40 : 36.72 MHz 802.11ac VHT20 : 18.75 MHz 802.11ac VHT40 : 36.72 MHz 802.11ac VHT80 : 75.96 MHz
Antenna Type	PIFA Antenna with gain -1.27 dBi
Type of Modulation	OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)

1.5 Testing Site

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

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

1.6 Applied Standards

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

- FCC Part 15 Subpart E
- FCC KDB 789033 D01 General UNII Test Procedures v01r03
- ANSI C63.10-2009
- FCC KDB 644545 D01 Guidance for IEEE 802 11ac v01r01
- FCC KDB 644545 D02 Alternative Guidance for IEEE 802 11ac v01

Remark:

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

2 Test Configuration of Equipment Under Test

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

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

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

2.1 Carrier Frequency Channel

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

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

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
Band 3	100	5500	132	5660
	102	5510	134	5670
	104	5520	136	5680
	106	5530	138	5690
	108	5540	140	5700
	110	5550	142	5710
	112	5560	144	5720
	116	5580	-	-

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
Band 4	138	5690	155	5775
	142	5710	157	5785
	144	5720	159	5795
	149	5745	161	5805
	151	5755	165	5825
	153	5765	-	-

2.2 Pre-Scanned RF Power

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

5GHz 802.11a mode								
Data Rate (MHz)	6M bps	9M bps	12M bps	18M bps	24M bps	36M bps	48M bps	54M bps
Average Power (dBm)	13.31	12.95	12.97	12.86	12.82	12.80	12.88	12.77

5GHz 802.11n HT20 mode								
Data Rate (MHz)		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Average Power (dBm)	400GI	12.05	11.81	11.81	11.89	11.95	11.84	11.84	11.94
	800GI	12.06	11.74	11.72	11.81	11.82	11.64	11.69	11.80

5GHz 802.11n HT40 mode								
Data Rate (MHz)		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Average Power (dBm)	400GI	12.48	12.44	12.22	12.27	12.42	12.44	12.31	12.42
	800GI	12.53	12.38	12.06	12.10	12.32	12.32	12.04	12.50

5GHz 802.11ac VHT20 mode										
Data Rate (MHz)		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
Average Power (dBm)	400GI	11.04	10.99	11.01	11.02	10.94	11.03	10.98	11.01	10.69
	800GI	11.06	10.92	10.95	10.96	10.81	10.93	10.95	10.94	10.57

5GHz 802.11ac VHT40 mode											
Data Rate (MHz)		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
Average Power (dBm)	400GI	11.28	11.25	11.25	11.20	11.10	11.27	11.25	11.23	11.16	11.27
	800GI	11.30	11.14	11.26	11.01	10.94	11.26	11.08	11.24	10.85	11.29

5GHz 802.11ac VHT80 mode											
Data Rate (MHz)		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
Average Power (dBm)	400GI	10.99	10.90	10.98	10.96	10.87	10.96	10.94	10.93	10.95	10.95
	800GI	11.02	10.98	10.99	10.97	10.97	11.01	10.83	10.82	10.77	10.99

2.3 Test Mode

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

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

Test Cases				
Radiated TCs	Radiated Band Edge	802.11a	6 Mbps	L/H
		802.11n HT20	MCS0	L/H
		802.11n HT40	MCS0	L/H
		802.11ac VHT80	MCS0	M
	Radiated Spurious Emission	802.11a	6 Mbps	L/M/H/Straddle
		802.11n HT20	MCS0	L/M/H/Straddle
		802.11n HT40	MCS0	L/M/H/Straddle
		802.11ac VHT80	MCS0	M/Straddle
AC Conducted Emission	Mode 1 : GSM850 Idle + Bluetooth Link + WLAN (5GHz) Link + MP3 + Earphone + USB Cable (Charging from Adapter)			

Ch. #		Band 1	Band 2	Band 3	Band 4
		802.11a	802.11a	802.11a	802.11a
L	Low	36	52	100	149
M	Middle	44	60	116	157
H	High	48	64	140	165
Straddle		-	-	144	

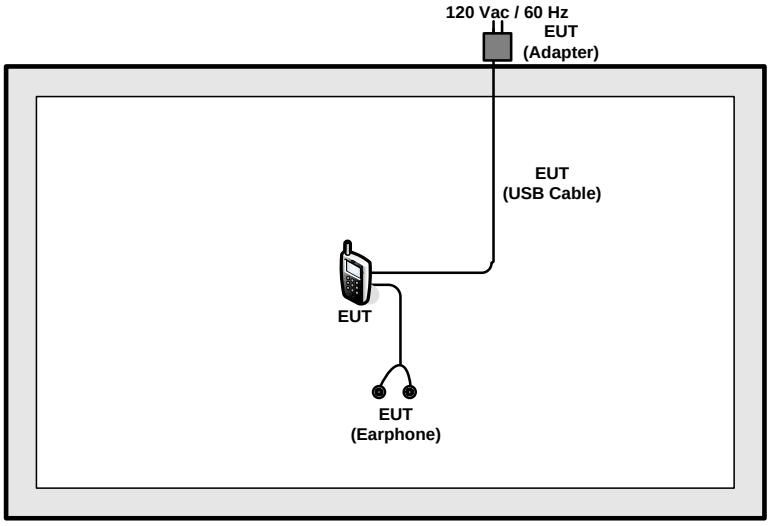
Ch. #		Band 1	Band 2	Band 3	Band 4
		802.11n HT20/ 802.11ac VHT20	802.11n HT20/ 802.11ac VHT20	802.11n HT20/ 802.11ac VHT20	802.11n HT20/ 802.11ac VHT20
L	Low	36	52	100	149
M	Middle	44	60	116	157
H	High	48	64	140	165
Straddle		-	-	144	

Ch. #		Band 1	Band 2	Band 3	Band 4
		802.11n HT40/ 802.11ac VHT40	802.11n HT40/ 802.11ac VHT40	802.11n HT40/ 802.11ac VHT40	802.11n HT40/ 802.11ac VHT40
L	Low	38	54	102	151
M	Middle	-	-	110	-
H	High	46	62	134	159
Straddle		-	-	142	

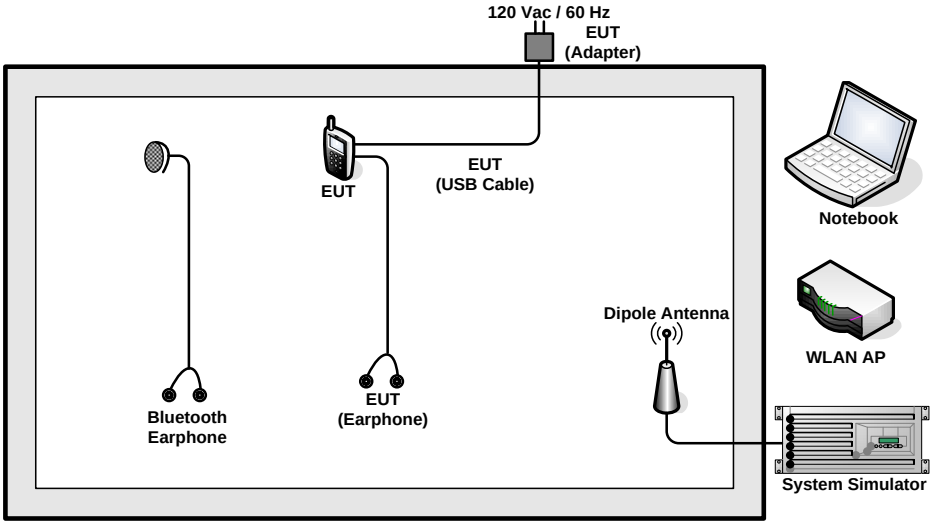
Ch. #		Band 1	Band 2	Band 3	Band 4
		802.11ac VHT80	802.11ac VHT80	802.11ac HT80	802.11ac VHT80
M	Middle	42	58	106	155
Straddle		-	-	138	

2.4 Connection Diagram of Test System

< WLAN Tx Mode >



<AC Conducted Emission Mode>



2.5 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	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	D-Link	DIR-628	KA2DIR628A2	N/A	Unshielded, 1.8 m
4.	Notebook	DELL	Latitude E6320	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

2.6 Description of RF Function Operation Test Setup

For WLAN function, the EUT will get into the engineering modes with supplied software to contact with WLAN AP for continuous transmitting and receiving signals.

2.7 Measurement Results Explanation Example

For all conducted test items:

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

Example :

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

Offset = RF cable loss + attenuator factor.

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

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

= 4.2 + 10 = 14.2 (dB)

3 Test Result

3.1 26dB & 99% Occupied Bandwidth Measurement

3.1.1 Description of Bandwidth Measurement

There is no restriction limits for bandwidth. The maximum conducted output power can be limited by measured emission bandwidth (B). For the band 5150-5250 MHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW (17dBm) or 4 dBm + 10log B. For the bands 5250-5350 MHz and 5470-5600 MHz and 5650-5725MHz, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW (24dBm) or 11 dBm + 10log B. For the band 5725-5825 MHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 1 W (30dBm) or 17 dBm + 10log B. U-NII procedures and limits were applied for operations in the frequency band from 5.725-5.850 GHz in accordance with FCC KDB 654545 D02

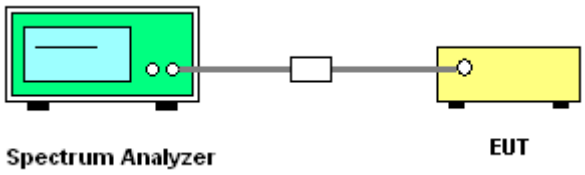
3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D01 General UNII Test Procedures v01r03. Section D) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1MHz and set the Video bandwidth (VBW) ≥ 3 * RBW.
8. Measure and record the results in the test report.

3.1.4 Test Setup



3.1.5 Test Result of 26dB Bandwidth Plots

Test Band :	5GHz band 1	Temperature :	24~26℃
Test Engineer :	Bill Kuo	Relative Humidity :	55~58%

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)
11a	6Mbps	1	36	5180	17.90	20.70	22.53	17.00
11a	6Mbps	1	44	5220	17.75	20.80	22.49	17.00
11a	6Mbps	1	48	5240	17.80	20.85	22.50	17.00
HT20	MCS0	1	36	5180	18.65	21.10	22.71	17.00
HT20	MCS0	1	44	5220	18.75	21.05	22.73	17.00
HT20	MCS0	1	48	5240	18.65	21.10	22.71	17.00
HT40	MCS0	1	38	5190	36.63	41.58	23.00	17.00
HT40	MCS0	1	46	5230	36.63	41.31	23.00	17.00
VHT20	MCS0	1	36	5180	18.70	21.00	22.72	17.00
VHT20	MCS0	1	44	5220	18.70	21.00	22.72	17.00
VHT20	MCS0	1	48	5240	18.65	21.00	22.71	17.00
VHT40	MCS0	1	38	5190	36.72	41.49	23.00	17.00
VHT40	MCS0	1	46	5230	36.63	41.22	23.00	17.00
VHT80	MCS0	1	42	5210	75.84	83.04	23.00	17.00

Test Band :	5GHz band 2	Temperature :	24~26℃
Test Engineer :	Bill Kuo	Relative Humidity :	55~58%

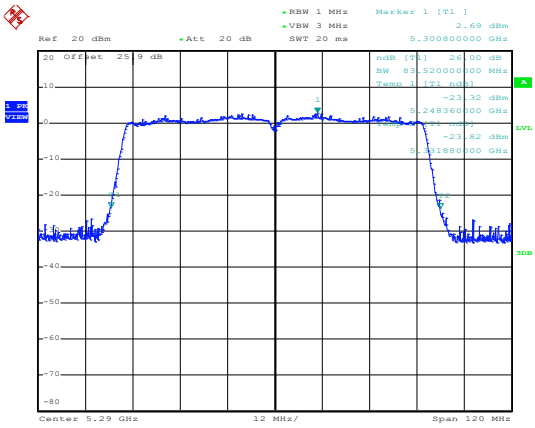
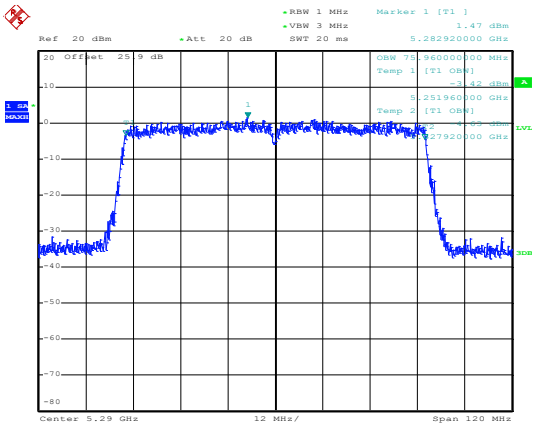
Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (MHz)
11a	6Mbps	1	52	5260	17.90	20.90	29.53	24.00
11a	6Mbps	1	60	5300	17.90	20.85	29.53	24.00
11a	6Mbps	1	64	5320	17.75	20.85	29.49	24.00
HT20	MCS0	1	52	5260	18.65	21.15	29.71	24.00
HT20	MCS0	1	60	5300	18.70	21.20	29.72	24.00
HT20	MCS0	1	64	5320	18.70	21.10	29.72	24.00
HT40	MCS0	1	54	5270	36.72	41.13	30.00	24.00
HT40	MCS0	1	62	5310	36.63	41.22	30.00	24.00
VHT20	MCS0	1	52	5260	18.60	21.00	29.70	24.00
VHT20	MCS0	1	60	5300	18.70	20.95	29.72	24.00
VHT20	MCS0	1	64	5320	18.60	21.30	29.70	24.00
VHT40	MCS0	1	54	5270	36.63	41.67	30.00	24.00
VHT40	MCS0	1	62	5310	36.63	41.49	30.00	24.00
VHT80	MCS0	1	58	5290	75.96	83.52	30.00	24.00

Test Band :	5GHz band 3	Temperature :	24~26℃
Test Engineer :	Bill Kuo	Relative Humidity :	55~58%

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	IC 99% Bandwidth EIRP Limit (dBm)	26dB Bandwidth Power Limit (MHz)
11a	6Mbps	1	100	5500	17.85	20.85	29.52	24.00
11a	6Mbps	1	116	5580	17.95	20.80	29.54	24.00
11a	6Mbps	1	140	5700	17.90	20.80	29.53	24.00
11a	6Mbps	1	144	5720	17.85	15.50	29.52	22.90
HT20	MCS0	1	100	5500	18.65	21.05	29.71	24.00
HT20	MCS0	1	116	5580	18.65	21.15	29.71	24.00
HT20	MCS0	1	140	5700	18.65	21.15	29.71	24.00
HT20	MCS0	1	144	5720	18.70	15.55	29.72	22.92
HT40	MCS0	1	102	5510	36.63	41.22	30.00	24.00
HT40	MCS0	1	110	5550	36.63	41.22	30.00	24.00
HT40	MCS0	1	134	5670	36.72	41.31	30.00	24.00
HT40	MCS0	1	142	5710	36.63	35.70	30.00	24.00
VHT20	MCS0	1	100	5500	18.60	21.25	29.70	24.00
VHT20	MCS0	1	116	5580	18.75	21.20	29.73	24.00
VHT20	MCS0	1	140	5700	18.70	21.15	29.72	24.00
VHT20	MCS0	1	144	5720	18.70	15.65	29.72	22.95
VHT40	MCS0	1	102	5510	36.63	41.58	30.00	24.00
VHT40	MCS0	1	110	5550	36.54	41.13	30.00	24.00
VHT40	MCS0	1	134	5670	36.63	41.31	30.00	24.00
VHT40	MCS0	1	142	5710	36.63	35.79	30.00	24.00
VHT80	MCS0	1	106	5530	75.84	83.40	30.00	24.00
VHT80	MCS0	1	138	5690	75.84	76.64	30.00	24.00

Test Band :	5GHz band 4	Temperature :	24~26℃
Test Engineer :	Bill Kuo	Relative Humidity :	55~58%

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	IC 99% Bandwidth EIRP Limit (dBm)	26dB Bandwidth Power Limit (MHz)
11a	6Mbps	1	144	5720	17.85	5.50	35.52	24.40
11a	6Mbps	1	149	5745	17.80	20.85	35.50	30.00
11a	6Mbps	1	157	5765	17.80	20.95	35.50	30.00
11a	6Mbps	1	165	5825	17.85	20.65	35.52	30.00
HT20	MCS0	1	144	5720	18.70	5.55	35.72	24.44
HT20	MCS0	1	149	5745	18.75	21.10	35.73	30.00
HT20	MCS0	1	157	5765	18.65	21.05	35.71	30.00
HT20	MCS0	1	165	5825	18.70	21.15	35.72	30.00
HT40	MCS0	1	142	5710	36.63	5.52	36.00	24.42
HT40	MCS0	1	151	5755	36.72	40.95	36.00	30.00
HT40	MCS0	1	159	5795	36.63	41.22	36.00	30.00
VHT20	MCS0	1	144	5720	18.70	5.70	35.72	24.56
VHT20	MCS0	1	149	5745	18.70	21.15	35.72	30.00
VHT20	MCS0	1	157	5765	18.55	21.20	35.68	30.00
VHT20	MCS0	1	165	5825	18.75	21.10	35.73	30.00
VHT40	MCS0	1	142	5710	36.63	5.70	36.00	24.56
VHT40	MCS0	1	151	5755	36.54	41.49	36.00	30.00
VHT40	MCS0	1	159	5795	36.63	41.40	36.00	30.00
VHT80	MCS0	1	138	5690	75.84	6.52	36.00	25.14
VHT80	MCS0	1	155	5775	75.84	82.92	36.00	30.00

Maximum 26dB Bandwidth	Maximum 99% Occupied Bandwidth
	
Date: 4.JUL.2013 20:20:27	Date: 4.JUL.2013 20:25:55

Test Band :	Straddle Channel	**Temperature :**	24~26℃
Test Engineer :	Bill Kuo	**Relative Humidity :**	55~58%

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	26dB Bandwidth (MHz)		
					Band 3	Band 4	Total
11a	6Mbps	1	144	5720	15.50	5.50	21.00
HT20	MCS0	1	144	5720	15.55	5.55	21.10
HT40	MCS0	1	142	5710	35.70	5.52	41.22
VHT20	MCS0	1	144	5720	15.65	5.70	21.35
VHT40	MCS0	1	142	5710	35.79	5.70	41.49
VHT80	MCS0	1	138	5690	76.64	6.52	83.16

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

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

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

For the band 5725-5825 MHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 1 W or 17 dBm + 10log B, where B is the 26-dB emission bandwidth in 1-MHz. In addition, the peak power spectral density shall not exceed 17 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

U-NII procedures and limits were applied for operations in the frequency band from 5.725-5.850 GHz in accordance with FCC KDB 654545 D02

3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

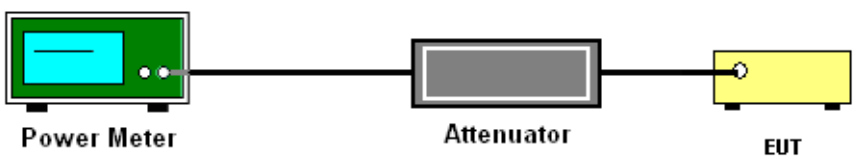
3.2.3 Test Procedures

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

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

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

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Test Band :	5GHz band 1	Temperature :	24~26℃
Test Engineer :	Bill Kuo	Relative Humidity :	55~58%

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	Duty Factor (dB)	RF Output Power (dBm)	Power Limit (dBm)	DG (dBi)	Pass/Fail
11a	6Mbps	1	36	5180	0.20	13.31	17.00	-1.27	Pass
11a	6Mbps	1	44	5220	0.20	12.83	17.00	-1.27	Pass
11a	6Mbps	1	48	5240	0.20	12.67	17.00	-1.27	Pass
HT20	MCS0	1	36	5180	0.22	12.06	17.00	-1.27	Pass
HT20	MCS0	1	44	5220	0.22	11.78	17.00	-1.27	Pass
HT20	MCS0	1	48	5240	0.22	11.65	17.00	-1.27	Pass
HT40	MCS0	1	38	5190	0.44	12.20	17.00	-1.27	Pass
HT40	MCS0	1	46	5230	0.44	11.86	17.00	-1.27	Pass
VHT20	MCS0	1	36	5180	0.22	11.06	17.00	-1.27	Pass
VHT20	MCS0	1	44	5220	0.22	10.61	17.00	-1.27	Pass
VHT20	MCS0	1	48	5240	0.22	10.80	17.00	-1.27	Pass
VHT40	MCS0	1	38	5190	0.44	11.30	17.00	-1.27	Pass
VHT40	MCS0	1	46	5230	0.44	10.96	17.00	-1.27	Pass
VHT80	MCS0	1	42	5210	0.85	11.02	17.00	-1.27	Pass

Note:

1. Final Output Power equals to Measured Output Power adds the duty factor.
2. For the band 5150-5250 MHz, the maximum conducted output power shall not exceed the lesser of 50 mW (17dBm) or 4 dBm + 10log (26dB BW).

Test Band :	5GHz band 2	Temperature :	24~26℃
Test Engineer :	Bill Kuo	Relative Humidity :	55~58%

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	Duty Factor (dB)	RF Output Power (dBm)	Power Limit (dBm)	DG (dBi)	Pass/Fail
11a	6Mbps	1	52	5260	0.20	12.96	24.00	-1.27	Pass
11a	6Mbps	1	60	5300	0.20	12.71	24.00	-1.27	Pass
11a	6Mbps	1	64	5320	0.20	12.62	24.00	-1.27	Pass
HT20	MCS0	1	52	5260	0.22	11.97	24.00	-1.27	Pass
HT20	MCS0	1	60	5300	0.22	11.96	24.00	-1.27	Pass
HT20	MCS0	1	64	5320	0.22	11.77	24.00	-1.27	Pass
HT40	MCS0	1	54	5270	0.44	12.53	24.00	-1.27	Pass
HT40	MCS0	1	62	5310	0.44	11.97	24.00	-1.27	Pass
VHT20	MCS0	1	52	5260	0.22	10.94	24.00	-1.27	Pass
VHT20	MCS0	1	60	5300	0.22	10.86	24.00	-1.27	Pass
VHT20	MCS0	1	64	5320	0.22	10.77	24.00	-1.27	Pass
VHT40	MCS0	1	54	5270	0.44	11.26	24.00	-1.27	Pass
VHT40	MCS0	1	62	5310	0.44	11.12	24.00	-1.27	Pass
VHT80	MCS0	1	58	5290	0.85	10.81	24.00	-1.27	Pass

Note:

1. Final Output Power equals to Measured Output Power adds the duty factor.
2. For the 5250-5350 MHz and 5470-5600MHz and 5650-5725MHz bands, the maximum conducted output power shall not exceed the lesser of 250 mW (24dBm) or 11 dBm + 10log (26dB BW).

Test Band :	5GHz band 3	Temperature :	24~26℃
Test Engineer :	Bill Kuo	Relative Humidity :	55~58%

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	Duty Factor (dB)	RF Output Power (dBm)	Power Limit (dBm)	DG (dBi)	Pass/Fail
11a	6Mbps	1	100	5500	0.20	12.69	24.00	-1.27	Pass
11a	6Mbps	1	116	5580	0.20	11.76	24.00	-1.27	Pass
11a	6Mbps	1	140	5700	0.20	12.37	24.00	-1.27	Pass
11a	6Mbps	1	144	5720	0.20	10.02	22.90	-1.27	Pass
HT20	MCS0	1	100	5500	0.22	11.83	24.00	-1.27	Pass
HT20	MCS0	1	116	5580	0.22	11.18	24.00	-1.27	Pass
HT20	MCS0	1	140	5700	0.22	11.58	24.00	-1.27	Pass
HT20	MCS0	1	144	5720	0.22	9.26	22.92	-1.27	Pass
HT40	MCS0	1	102	5510	0.44	12.19	24.00	-1.27	Pass
HT40	MCS0	1	110	5550	0.44	11.49	24.00	-1.27	Pass
HT40	MCS0	1	134	5670	0.44	12.05	24.00	-1.27	Pass
HT40	MCS0	1	142	5710	0.44	10.44	24.00	-1.27	Pass
VHT20	MCS0	1	100	5500	0.22	10.81	24.00	-1.27	Pass
VHT20	MCS0	1	116	5580	0.22	10.23	24.00	-1.27	Pass
VHT20	MCS0	1	140	5700	0.22	10.55	24.00	-1.27	Pass
VHT20	MCS0	1	144	5720	0.22	8.43	22.95	-1.27	Pass
VHT40	MCS0	1	102	5510	0.44	10.98	24.00	-1.27	Pass
VHT40	MCS0	1	110	5550	0.44	10.76	24.00	-1.27	Pass
VHT40	MCS0	1	134	5670	0.44	10.94	24.00	-1.27	Pass
VHT40	MCS0	1	142	5710	0.44	9.43	24.00	-1.27	Pass
VHT80	MCS0	1	106	5530	0.85	10.57	24.00	-1.27	Pass
VHT80	MCS0	1	138	5690	0.85	10.35	24.00	-1.27	Pass

Note:

1. Final Output Power equals to Measured Output Power adds the duty factor.
2. For the 5250-5350 MHz and 5470-5600MHz and 5650-5725MHz bands, the maximum conducted output power shall not exceed the lesser of 250 mW (24dBm) or 11 dBm + 10log (26dB BW).

Test Band :	5GHz band 4	Temperature :	24~26℃
Test Engineer :	Bill Kuo	Relative Humidity :	55~58%

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	Duty Factor (dB)	RF Output Power (dBm)	Power Limit (dBm)	DG (dBi)	Pass/Fail
11a	6Mbps	1	144	5720	0.20	4.05	24.40	-1.27	Pass
11a	6Mbps	1	149	5745	0.20	12.11	30.00	-1.27	Pass
11a	6Mbps	1	157	5765	0.20	11.72	30.00	-1.27	Pass
11a	6Mbps	1	165	5825	0.20	11.79	30.00	-1.27	Pass
HT20	MCS0	1	144	5720	0.22	3.67	24.44	-1.27	Pass
HT20	MCS0	1	149	5745	0.22	11.21	30.00	-1.27	Pass
HT20	MCS0	1	157	5765	0.22	11.01	30.00	-1.27	Pass
HT20	MCS0	1	165	5825	0.22	10.60	30.00	-1.27	Pass
HT40	MCS0	1	142	5710	0.44	0.26	24.42	-1.27	Pass
HT40	MCS0	1	151	5755	0.44	11.10	30.00	-1.27	Pass
HT40	MCS0	1	159	5795	0.44	10.90	30.00	-1.27	Pass
VHT20	MCS0	1	144	5720	0.22	2.97	24.56	-1.27	Pass
VHT20	MCS0	1	149	5745	0.22	10.21	30.00	-1.27	Pass
VHT20	MCS0	1	157	5765	0.22	10.07	30.00	-1.27	Pass
VHT20	MCS0	1	165	5825	0.22	9.78	30.00	-1.27	Pass
VHT40	MCS0	1	142	5710	0.44	-0.75	24.56	-1.27	Pass
VHT40	MCS0	1	151	5755	0.44	10.61	30.00	-1.27	Pass
VHT40	MCS0	1	159	5795	0.44	9.60	30.00	-1.27	Pass
VHT80	MCS0	1	138	5690	0.85	-3.63	25.14	-1.27	Pass
VHT80	MCS0	1	155	5775	0.85	10.57	30.00	-1.27	Pass

Note:

1. Final Output Power equals to Measured Output Power adds the duty factor.
2. For the band 5725-5825 MHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 1 W or 17 dBm + 10log B.
3. U-NII procedures and limits were applied for operations in the frequency band from 5.725-5.850 GHz in accordance with FCC KDB 654545 D02

Test Band :	Straddle Channel	Temperature :	24~26℃
Test Engineer :	Bill Kuo	Relative Humidity :	55~58%

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	RF Output Power (dBm)		
					Band 3	Band 4	Total
11a	6Mbps	1	144	5720	10.02	4.05	11.00
HT20	MCS0	1	144	5720	9.26	3.67	10.32
HT40	MCS0	1	142	5710	10.44	0.26	10.84
VHT20	MCS0	1	144	5720	8.43	2.97	9.52
VHT40	MCS0	1	142	5710	9.43	-0.75	9.83
VHT80	MCS0	1	138	5690	10.35	-3.63	10.52

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

For the band 5150-5250 MHz, the peak power spectral density shall not exceed 4 dBm in any 1-MHz band. For the bands 5250-5350 MHz and 5470-5600 and 5650-5725 MHz, the peak power spectral density shall not exceed 11 dBm in any 1-MHz band. For the band 5725-5825 MHz, the peak power spectral density shall not exceed 17 dBm in any 1-MHz band. If transmitting antenna directional gain is greater than 6 dBi, both the maximum conducted output 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.

U-NII procedures and limits were applied for operations in the frequency band from 5.725-5.850 GHz in accordance with FCC KDB 654545 D02

3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

3.3.3 Test Procedures

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

Section F) Peak power spectral density (PPSD).

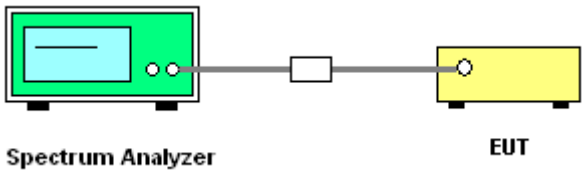
Note: Though the rule refers to “peak power spectral density”, the intent is to measure the maximum value of the time average of the power spectral density measured during a period of continuous transmission.

 # Method SA-2 #

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

1. The testing follows Method SA-2 of FCC KDB 789033 D01 General UNII Test Procedures v01r03.
   - Measure the duty cycle.
   - Set span to encompass the entire emission bandwidth (EBW) of the signal.
   - Set RBW = 1 MHz.
   - Set VBW ≥ 3 MHz.
   - Number of points in sweep ≥ 2 Span / RBW.
   - Sweep time = auto.
   - Detector = sample
   - Trace average at least 100 traces in power averaging mode.
   - Add 10 log(1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add 10 log(1/0.25) = 6 dB if the duty cycle is 25 percent.
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Test Band :	5GHz band 1	Temperature :	24~26℃
Test Engineer :	Bill Kuo	Relative Humidity :	55~58%

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Max. Limits (dBm/MHz)	DG (dBi)	Pass/Fail
11a	6Mbps	1	36	5180	0.20	2.11	4	-1.27	Pass
11a	6Mbps	1	44	5220	0.20	2.11	4	-1.27	Pass
11a	6Mbps	1	48	5240	0.20	2.04	4	-1.27	Pass
HT20	MCS0	1	36	5180	0.22	0.88	4	-1.27	Pass
HT20	MCS0	1	44	5220	0.22	0.80	4	-1.27	Pass
HT20	MCS0	1	48	5240	0.22	0.73	4	-1.27	Pass
HT40	MCS0	1	38	5190	0.44	-2.00	4	-1.27	Pass
HT40	MCS0	1	46	5230	0.44	-1.72	4	-1.27	Pass
VHT20	MCS0	1	36	5180	0.22	-1.05	4	-1.27	Pass
VHT20	MCS0	1	44	5220	0.22	-1.09	4	-1.27	Pass
VHT20	MCS0	1	48	5240	0.22	-1.00	4	-1.27	Pass
VHT40	MCS0	1	38	5190	0.44	-3.62	4	-1.27	Pass
VHT40	MCS0	1	46	5230	0.44	-3.70	4	-1.27	Pass
VHT80	MCS0	1	42	5210	0.85	-6.75	4	-1.27	Pass

Test Band :	5GHz band 2	Temperature :	24~26℃
Test Engineer :	Bill Kuo	Relative Humidity :	55~58%

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Max. Limits (dBm/MHz)	DG (dBi)	Pass/Fail
11a	6Mbps	1	52	5260	0.20	2.28	11	-1.27	Pass
11a	6Mbps	1	60	5300	0.20	2.00	11	-1.27	Pass
11a	6Mbps	1	64	5320	0.20	1.92	11	-1.27	Pass
HT20	MCS0	1	52	5260	0.22	1.02	11	-1.27	Pass
HT20	MCS0	1	60	5300	0.22	0.81	11	-1.27	Pass
HT20	MCS0	1	64	5320	0.22	0.74	11	-1.27	Pass
HT40	MCS0	1	54	5270	0.44	-1.60	11	-1.27	Pass
HT40	MCS0	1	62	5310	0.44	-1.54	11	-1.27	Pass
VHT20	MCS0	1	52	5260	0.22	-0.73	11	-1.27	Pass
VHT20	MCS0	1	60	5300	0.22	-1.05	11	-1.27	Pass
VHT20	MCS0	1	64	5320	0.22	-1.10	11	-1.27	Pass
VHT40	MCS0	1	54	5270	0.44	-3.31	11	-1.27	Pass
VHT40	MCS0	1	62	5310	0.44	-3.31	11	-1.27	Pass
VHT80	MCS0	1	58	5290	0.85	-6.78	11	-1.27	Pass

Test Band :	5GHz band 3	Temperature :	24~26℃
Test Engineer :	Bill Kuo	Relative Humidity :	55~58%

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Max. Limits (dBm/MHz)	DG (dBi)	Pass/Fail
11a	6Mbps	1	100	5500	0.20	2.11	11	-1.27	Pass
11a	6Mbps	1	116	5580	0.20	1.99	11	-1.27	Pass
11a	6Mbps	1	140	5700	0.20	1.20	11	-1.27	Pass
11a	6Mbps	1	144	5720	0.20	0.90	11	-1.27	Pass
HT20	MCS0	1	100	5500	0.22	1.00	11	-1.27	Pass
HT20	MCS0	1	116	5580	0.22	0.82	11	-1.27	Pass
HT20	MCS0	1	140	5700	0.22	-0.10	11	-1.27	Pass
HT20	MCS0	1	144	5720	0.22	-0.23	11	-1.27	Pass
HT40	MCS0	1	102	5510	0.44	-1.64	11	-1.27	Pass
HT40	MCS0	1	110	5550	0.44	-1.60	11	-1.27	Pass
HT40	MCS0	1	134	5670	0.44	-2.53	11	-1.27	Pass
HT40	MCS0	1	142	5710	0.44	-2.63	11	-1.27	Pass
VHT20	MCS0	1	100	5500	0.22	-0.46	11	-1.27	Pass
VHT20	MCS0	1	116	5580	0.22	-1.10	11	-1.27	Pass
VHT20	MCS0	1	140	5700	0.22	-1.99	11	-1.27	Pass
VHT20	MCS0	1	144	5720	0.22	-1.04	11	-1.27	Pass
VHT40	MCS0	1	102	5510	0.44	-3.00	11	-1.27	Pass
VHT40	MCS0	1	110	5550	0.44	-3.42	11	-1.27	Pass
VHT40	MCS0	1	134	5670	0.44	-4.44	11	-1.27	Pass
VHT40	MCS0	1	142	5710	0.44	-3.65	11	-1.27	Pass
VHT80	MCS0	1	106	5530	0.85	-5.83	11	-1.27	Pass
VHT80	MCS0	1	138	5690	0.85	-6.51	11	-1.27	Pass

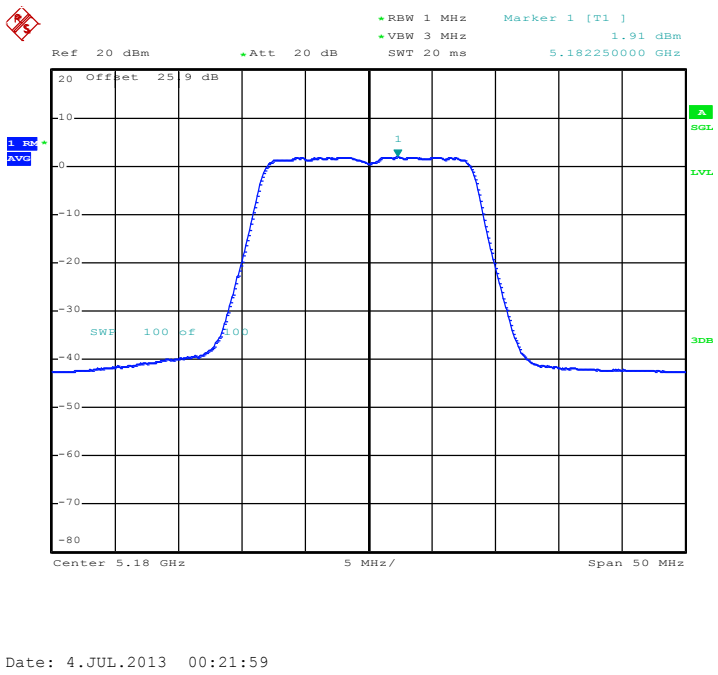
For straddle channels (CH138, CH142, CH144), maximum PSD across the channel bandwidth passed the PSD limit of 5GHz band3, and it was justified to pass the PSD limit in 5.725-5.825GHz band.

Test Band :	5GHz band 4	Temperature :	24~26℃
Test Engineer :	Bill Kuo	Relative Humidity :	55~58%

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Max. Limits (dBm/MHz)	DG (dBi)	Pass/Fail
11a	6Mbps	1	149	5745	0.20	1.09	17	-1.27	Pass
11a	6Mbps	1	157	5765	0.20	1.19	17	-1.27	Pass
11a	6Mbps	1	165	5825	0.20	0.81	17	-1.27	Pass
HT20	MCS0	1	149	5745	0.22	0.10	17	-1.27	Pass
HT20	MCS0	1	157	5765	0.22	0.07	17	-1.27	Pass
HT20	MCS0	1	165	5825	0.22	-0.28	17	-1.27	Pass
HT40	MCS0	1	151	5755	0.44	-2.77	17	-1.27	Pass
HT40	MCS0	1	159	5795	0.44	-3.10	17	-1.27	Pass
VHT20	MCS0	1	149	5745	0.22	-0.74	17	-1.27	Pass
VHT20	MCS0	1	157	5765	0.22	-0.90	17	-1.27	Pass
VHT20	MCS0	1	165	5825	0.22	-1.20	17	-1.27	Pass
VHT40	MCS0	1	151	5755	0.44	-3.34	17	-1.27	Pass
VHT40	MCS0	1	159	5795	0.44	-4.02	17	-1.27	Pass
VHT80	MCS0	1	155	5775	0.85	-6.31	17	-1.27	Pass

Maximum PSD in the 5.725-5.850 GHz range (i.e., the upper U-NII band extended to match the upper frequency of the corresponding 15.247 band) satisfies the PSD limits applicable to the 5.725- 5.825 GHz band, and the PSD limits of the U-NII 4 band and the 5.8 GHz 15.247 band was judged to have been satisfied.

Worst Case Power Spectral Density(dBm/MHz)



Note: Average Power Density (dB) = Measured value+ Duty Factor

3.4 Peak Excursion Ratio Measurement

3.4.1 Limit of Peak Excursion Ratio

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

3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

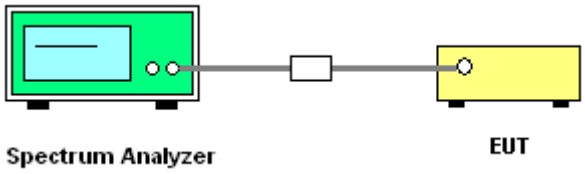
3.4.3 Test Procedures

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

Section G) Peak excursion measurement

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

3.4.4 Test Setup



3.4.5 Test Result of Peak Excursion Ratio

Test Band :	5GHz band 1	Temperature :	24~26℃
Test Engineer :	Bill Kuo	Relative Humidity :	55~58%

Mod.	N_{TX}	Channel	Freq. (MHz)	Peak Excursion Ratio (dB)					Max. Limits (dB)	Pass/Fail
				BPSK	QPSK	16QAM	64QAM	256QAM		
11a	1	36	5180	8.85	9.05	8.46	8.45	-	13	Pass
HT20	1	36	5180	10.18	10.43	9.78	9.40	-	13	Pass
HT40	1	38	5230	9.19	9.52	9.86	9.44	-	13	Pass
VHT20	1	36	5180	9.73	9.95	9.76	9.69	9.82	13	Pass
VHT40	1	38	5180	9.02	9.06	9.13	9.31	9.80	13	Pass
VHT80	1	42	5210	9.64	9.27	8.70	9.35	9.58	13	Pass

Test Band :	5GHz band 2	Temperature :	24~26℃
Test Engineer :	Bill Kuo	Relative Humidity :	55~58%

Mod.	N_{TX}	Channel	Freq. (MHz)	Peak Excursion Ratio (dB)					Max. Limits (dB)	Pass/Fail
				BPSK	QPSK	16QAM	64QAM	256QAM		
11a	1	52	5260	8.66	9.18	8.56	8.33	-	13	Pass
HT20	1	52	5260	9.04	9.62	10.04	9.61	-	13	Pass
HT40	1	54	5270	9.45	9.94	9.87	10.28	-	13	Pass
VHT20	1	52	5260	9.12	9.94	9.57	9.30	10.16	13	Pass
VHT40	1	54	5270	9.24	9.68	9.19	9.09	9.54	13	Pass
VHT80	1	58	5290	9.97	8.78	8.05	8.17	9.63	13	Pass

Test Band :	5GHz band 3	Temperature :	24~26℃
Test Engineer :	Bill Kuo	Relative Humidity :	55~58%

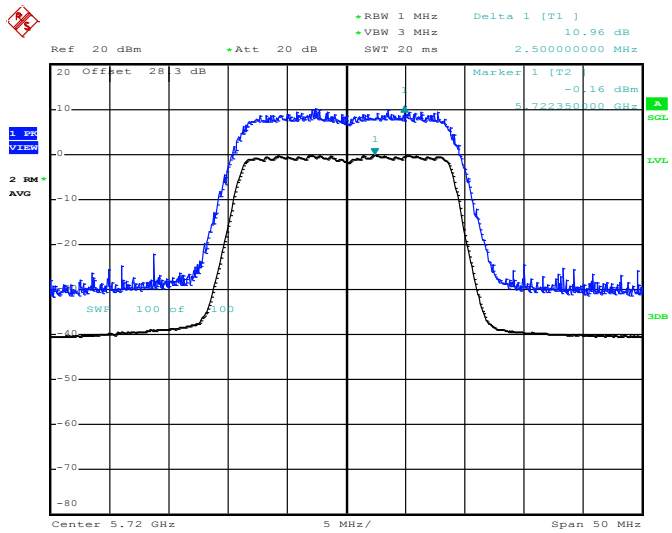
Mod.	N_{TX}	Channel	Freq. (MHz)	Peak Excursion Ratio (dB)					Max. Limits (dB)	Pass/Fail
				BPSK	QPSK	16QAM	64QAM	256QAM		
11a	1	100	5500	8.67	9.25	8.58	8.37	-	13	Pass
11a	1	144	5720	8.81	9.00	8.57	8.59	-	13	Pass
HT20	1	100	5500	9.36	9.99	9.80	9.62	-	13	Pass
HT20	1	144	5720	9.32	10.56	9.73	9.53	-	13	Pass
HT40	1	102	5510	9.56	9.77	10.09	9.69	-	13	Pass
HT40	1	142	5710	9.01	9.62	9.78	9.65	-	13	Pass
VHT20	1	100	5500	9.54	9.56	9.53	9.51	9.66	13	Pass
VHT20	1	144	5720	9.21	9.54	9.86	9.39	9.94	13	Pass
VHT40	1	102	5510	9.38	9.17	9.45	9.27	9.47	13	Pass
VHT40	1	142	5710	9.91	9.09	9.15	8.61	9.54	13	Pass
VHT80	1	106	5530	9.62	8.96	9.07	8.88	9.05	13	Pass
VHT80	1	138	5690	9.35	8.50	9.05	7.98	9.00	13	Pass

Test Band :	5GHz band 4	Temperature :	24~26℃
Test Engineer :	Bill Kuo	Relative Humidity :	55~58%

Mod.	N_{TX}	Channel	Freq. (MHz)	Peak Excursion Ratio (dB)					Max. Limits (dB)	Pass/Fail
				BPSK	QPSK	16QAM	64QAM	256QAM		
11a	1	149	5745	8.93	9.13	8.70	8.56	-	13	11a
HT20	1	149	5745	9.61	10.17	9.95	9.47	-	13	HT20
HT40	1	151	5755	9.22	9.68	9.68	9.22	-	13	HT40
VHT20	1	149	5745	9.11	9.48	10.18	9.32	9.69	13	VHT20
VHT40	1	151	5755	9.66	9.35	9.14	9.12	9.31	13	VHT40
VHT80	1	155	5775	9.56	9.31	8.93	8.66	9.02	13	VHT80

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

Worst Case Peak Excursion Ratio (dB)



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

Duty Cycle Offset: 0.40 dB

3.5 Unwanted Radiated Emission Measurement

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

3.5.1 Limit of Unwanted Emissions

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

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

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

For transmitters operating in the 5725-5825 MHz band: all emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an EIRP of -17 dBm/MHz (78.3dBμV/m); for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an EIRP of -27 dBm/MHz (68.3dBμV/m).
U-NII procedures and limits were applied for operations in the frequency band from 5.725-5.850 GHz in accordance with FCC KDB 654545 D02

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

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

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

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

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

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

3.5.2 Measuring Instruments

See list of measuring instruments of this test report.

3.5.3 Test Procedures

1. The testing follows the guidelines in ANSI C63.10-2009 and FCC KDB 789033 D01 General UNII Test Procedures v01r03.

   Section H) Unwanted emissions measurement.

   (1) Procedure for Unwanted Emissions Measurements Below 1000MHz

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

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

   - The setting follows the H) 5) of FCC KDB 789033.
   - RBW = 1 MHz
   - VBW ≥ 3 MHz
   - Detector = Peak
   - Sweep time = auto
   - Trace mode = max hold

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

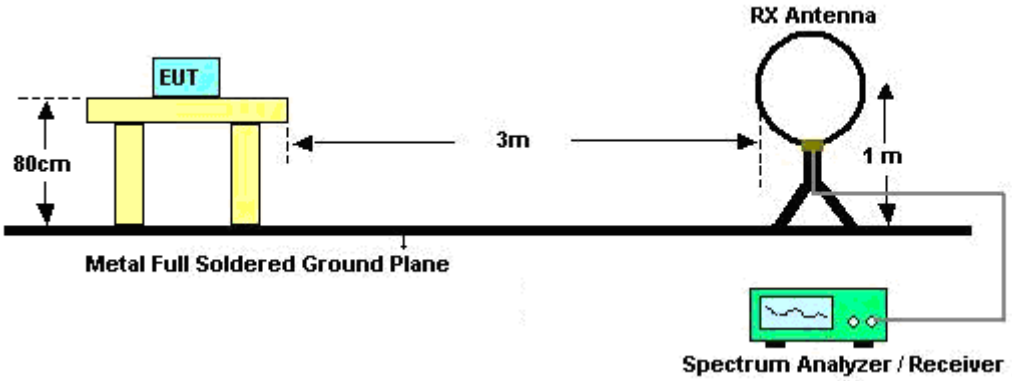
   - The setting follows H) 6) of FCC KDB 789033.
   - RBW = 1 MHz
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power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

Band	Duty Cycle(%)	T(μs)	1/T(kHz)	VBW Setting
802.11a	95.39	2070	0.483	1kHz
802.11n HT20	95.07	1930	0.518	1kHz
802.11n HT40	90.29	948	1.055	3kHz
802.11ac VHT20	95.10	1940	0.515	1kHz
802.11ac VHT40	90.34	954	1.048	3kHz
802.11ac VHT80	82.27	464	2.155	3kHz

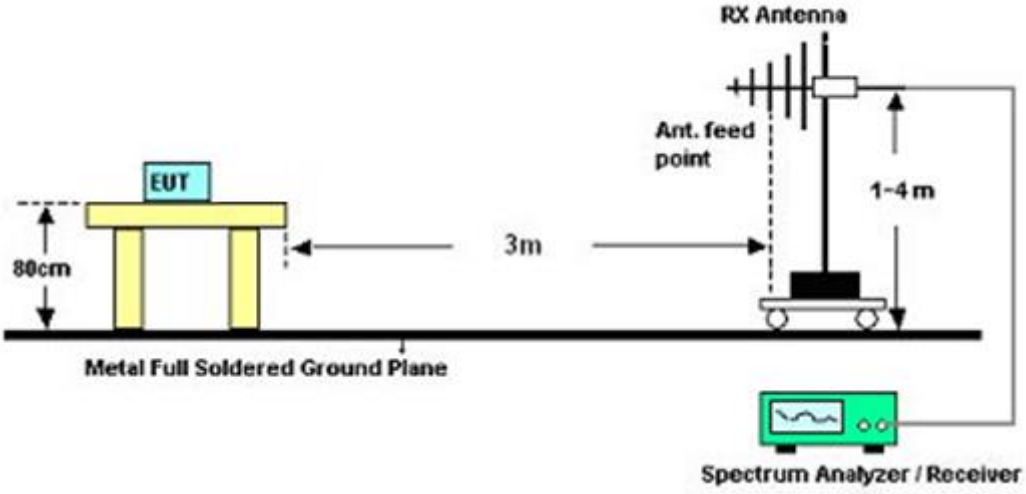
2. The EUT was placed on a rotatable table top 0.8 meter above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters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

3.5.4 Test Setup

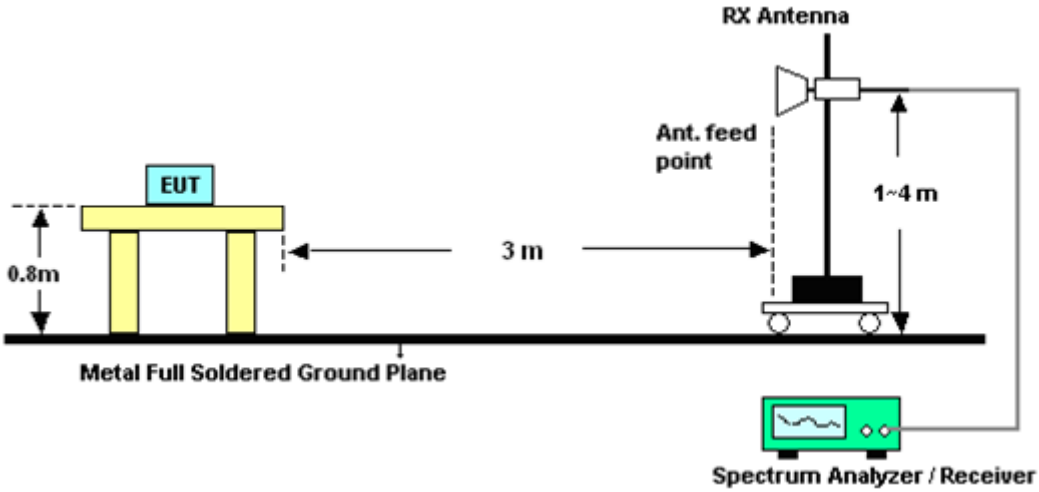
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

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

3.5.6 Test Result

3.5.6.1 Test Result of Radiated Band Edges

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	36	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5145.5	55.51	-18.49	74	43.53	34.89	10.44	33.35	108	261	Peak
5149.25	45.04	-8.96	54	33.06	34.89	10.44	33.35	108	261	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5135.6	56.22	-17.78	74	44.3	34.88	10.4	33.36	101	26	Peak
5146.85	44.78	-9.22	54	32.8	34.89	10.44	33.35	101	26	Average

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	48	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5094.05	55.19	-18.81	74	43.34	34.86	10.37	33.38	106	262	Peak
5147.6	44.65	-9.35	54	32.67	34.89	10.44	33.35	106	262	Average
5427.77	56.45	-17.55	74	43.81	35.05	10.82	33.23	106	262	Peak
5458.35	45.22	-8.78	54	32.48	35.07	10.89	33.22	106	262	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5140.55	55.21	-18.79	74	43.24	34.89	10.44	33.36	100	38	Peak
5146.25	44.69	-9.31	54	32.71	34.89	10.44	33.35	100	38	Average
5445.92	56.48	-17.52	74	43.78	35.07	10.86	33.23	100	38	Peak
5453.95	45.25	-8.75	54	32.51	35.07	10.89	33.22	100	38	Average

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	52	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5080.55	55.43	-18.57	74	43.64	34.85	10.33	33.39	105	264	Peak
5144.45	44.62	-9.38	54	32.64	34.89	10.44	33.35	105	264	Average
5380.58	56.73	-17.27	74	44.16	35.03	10.79	33.25	105	264	Peak
5424.25	45.26	-8.74	54	32.62	35.05	10.82	33.23	105	264	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5133.5	56.09	-17.91	74	44.17	34.88	10.4	33.36	100	347	Peak
5147.6	44.72	-9.28	54	32.74	34.89	10.44	33.35	100	347	Average
5414.24	56.13	-17.87	74	43.5	35.05	10.82	33.24	100	347	Peak
5440.31	45.18	-8.82	54	32.49	35.06	10.86	33.23	100	347	Average

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	64	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5401.59	56.46	-17.54	74	43.87	35.04	10.79	33.24	104	263	Peak
5351.76	45.3	-8.7	54	32.84	35.01	10.72	33.27	104	263	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5424.36	55.99	-18.01	74	43.35	35.05	10.82	33.23	100	352	Peak
5457.03	45.2	-8.8	54	32.46	35.07	10.89	33.22	100	352	Average

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	100	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5456.56	56.74	-17.26	74	44	35.07	10.89	33.22	100	264	Peak
5459.28	45.6	-8.4	54	32.86	35.07	10.89	33.22	100	264	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5470	57.22	-16.78	74	44.47	35.08	10.89	33.22	200	235	Peak
5453.04	45.31	-8.69	54	32.57	35.07	10.89	33.22	200	235	Average

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	140	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5725.88	58.33	-15.67	74	44.87	35.41	11.34	33.29	107	260	Peak
5726.52	46.13	-7.87	54	32.67	35.41	11.34	33.29	107	260	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5740.76	57.54	-16.46	74	44.01	35.44	11.39	33.3	108	257	Peak
5751.32	46.04	-7.96	54	32.51	35.44	11.39	33.3	108	257	Average

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	36	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5096.6	55.68	-18.32	74	43.83	34.86	10.37	33.38	107	263	Peak
5149.55	44.94	-9.06	54	32.96	34.89	10.44	33.35	107	263	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5146.7	56.84	-17.16	74	44.86	34.89	10.44	33.35	100	349	Peak
5148.8	44.82	-9.18	54	32.84	34.89	10.44	33.35	100	349	Average

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	48	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5074.55	55.44	-18.56	74	43.65	34.85	10.33	33.39	106	263	Peak
5138.75	44.56	-9.44	54	32.64	34.88	10.4	33.36	106	263	Average
5409.18	56.29	-17.71	74	43.67	35.04	10.82	33.24	106	263	Peak
5448.45	45.17	-8.83	54	32.47	35.07	10.86	33.23	106	263	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5069.75	55.41	-18.59	74	43.63	34.84	10.33	33.39	100	348	Peak
5131.7	44.63	-9.37	54	32.71	34.88	10.4	33.36	100	348	Average
5422.38	56.28	-17.72	74	43.65	35.05	10.82	33.24	100	348	Peak
5458.02	45.14	-8.86	54	32.4	35.07	10.89	33.22	100	348	Average

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	52	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5099.6	55.57	-18.43	74	43.72	34.86	10.37	33.38	105	263	Peak
5140.85	44.52	-9.48	54	32.55	34.89	10.44	33.36	105	263	Average
5413.14	55.83	-18.17	74	43.2	35.05	10.82	33.24	105	263	Peak
5453.51	45.15	-8.85	54	32.41	35.07	10.89	33.22	105	263	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5138.3	55.56	-18.44	74	43.64	34.88	10.4	33.36	100	350	Peak
5143.55	44.53	-9.47	54	32.56	34.89	10.44	33.36	100	350	Average
5438.99	56.87	-17.13	74	44.18	35.06	10.86	33.23	100	350	Peak
5442.07	45.16	-8.84	54	32.47	35.06	10.86	33.23	100	350	Average

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	64	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5352.53	56.84	-17.16	74	44.38	35.01	10.72	33.27	105	265	Peak
5458.02	45.2	-8.8	54	32.46	35.07	10.89	33.22	105	265	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5356.38	57.38	-16.62	74	44.89	35.01	10.75	33.27	100	350	Peak
5446.69	45.16	-8.84	54	32.46	35.07	10.86	33.23	100	350	Average

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	100	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5417.36	56.3	-17.7	74	43.67	35.05	10.82	33.24	100	266	Peak
5464.08	45.46	-8.54	54	32.71	35.08	10.89	33.22	100	266	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5408.24	56.18	-17.82	74	43.56	35.04	10.82	33.24	200	234	Peak
5441.2	45.24	-8.76	54	32.55	35.06	10.86	33.23	200	234	Average

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	140	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5725.08	62.4	-11.6	74	48.94	35.41	11.34	33.29	106	271	Peak
5727.8	46.09	-7.91	54	32.63	35.41	11.34	33.29	106	271	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5725.64	57.28	-16.72	74	43.82	35.41	11.34	33.29	106	254	Peak
5733.88	45.94	-8.06	54	32.49	35.41	11.34	33.3	106	254	Average

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	38	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5147.6	59.57	-14.43	74	47.59	34.89	10.44	33.35	107	264	Peak
5150	46.71	-7.29	54	34.73	34.89	10.44	33.35	107	264	Average
5373.21	56.18	-17.82	74	43.68	35.02	10.75	33.27	107	264	Peak
5457.25	45.46	-8.54	54	32.72	35.07	10.89	33.22	107	264	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5146.4	57.3	-16.7	74	45.32	34.89	10.44	33.35	100	347	Peak
5147.9	45.98	-8.02	54	34	34.89	10.44	33.35	100	347	Average
5420.84	56.07	-17.93	74	43.44	35.05	10.82	33.24	100	347	Peak
5397.41	45.45	-8.55	54	32.87	35.04	10.79	33.25	100	347	Average

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	46	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5136.5	55.43	-18.57	74	43.51	34.88	10.4	33.36	106	261	Peak
5143.1	44.93	-9.07	54	32.96	34.89	10.44	33.36	106	261	Average
5382.56	56.36	-17.64	74	43.79	35.03	10.79	33.25	106	261	Peak
5436.79	45.42	-8.58	54	32.73	35.06	10.86	33.23	106	261	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5139.95	55.78	-18.22	74	43.85	34.89	10.4	33.36	100	348	Peak
5140.4	44.87	-9.13	54	32.9	34.89	10.44	33.36	100	348	Average
5401.7	56.13	-17.87	74	43.54	35.04	10.79	33.24	100	348	Peak
5454.61	45.46	-8.54	54	32.72	35.07	10.89	33.22	100	348	Average

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	54	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5125.85	55.28	-18.72	74	43.36	34.88	10.4	33.36	105	263	Peak
5144	44.85	-9.15	54	32.87	34.89	10.44	33.35	105	263	Average
5441.85	56.07	-17.93	74	43.38	35.06	10.86	33.23	105	263	Peak
5437.45	45.52	-8.48	54	32.83	35.06	10.86	33.23	105	263	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5141.45	55.56	-18.44	74	43.59	34.89	10.44	33.36	100	347	Peak
5130.05	44.88	-9.12	54	32.96	34.88	10.4	33.36	100	347	Average
5429.2	55.84	-18.16	74	43.15	35.06	10.86	33.23	100	347	Peak
5458.24	45.43	-8.57	54	32.69	35.07	10.89	33.22	100	347	Average

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	62	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5133.65	55.27	-18.73	74	43.35	34.88	10.4	33.36	105	264	Peak
5149.4	44.89	-9.11	54	32.91	34.89	10.44	33.35	105	264	Average
5355.94	60.25	-13.75	74	47.79	35.01	10.72	33.27	105	264	Peak
5350.33	45.88	-8.12	54	33.42	35.01	10.72	33.27	105	264	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5142.05	55.56	-18.44	74	43.59	34.89	10.44	33.36	100	350	Peak
5137.1	44.85	-9.15	54	32.93	34.88	10.4	33.36	100	350	Average
5353.3	57.73	-16.27	74	45.27	35.01	10.72	33.27	100	350	Peak
5352.75	45.48	-8.52	54	33.02	35.01	10.72	33.27	100	350	Average

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	102	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5458.32	57.07	-16.93	74	44.33	35.07	10.89	33.22	100	265	Peak
5469.36	46.2	-7.8	54	33.45	35.08	10.89	33.22	100	265	Average
5754.2	57.13	-16.87	74	43.58	35.46	11.39	33.3	100	265	Peak
5764.68	46.22	-7.78	54	32.64	35.46	11.43	33.31	100	265	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5441.52	56.64	-17.36	74	43.95	35.06	10.86	33.23	161	194	Peak
5468.4	45.57	-8.43	54	32.82	35.08	10.89	33.22	161	194	Average
5740.76	58.03	-15.97	74	44.5	35.44	11.39	33.3	161	194	Peak
5755.88	46.15	-7.85	54	32.61	35.46	11.39	33.31	161	194	Average

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	134	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5394.64	55.5	-18.5	74	42.92	35.04	10.79	33.25	106	261	Peak
5452.24	45.39	-8.61	54	32.65	35.07	10.89	33.22	106	261	Average
5742.36	56.87	-17.13	74	43.34	35.44	11.39	33.3	106	261	Peak
5734.04	46.29	-7.71	54	32.84	35.41	11.34	33.3	106	261	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5386.96	56.35	-17.65	74	43.78	35.03	10.79	33.25	100	227	Peak
5443.28	45.37	-8.63	54	32.68	35.06	10.86	33.23	100	227	Average
5740.92	56.68	-17.32	74	43.15	35.44	11.39	33.3	100	227	Peak
5753.24	46.12	-7.88	54	32.57	35.46	11.39	33.3	100	227	Average

Test Mode :	802.11ac VHT80	Temperature :	23~25°C
Test Channel :	42	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5143.25	59.8	-14.2	74	47.83	34.89	10.44	33.36	106	262	Peak
5150	47.13	-6.87	54	35.15	34.89	10.44	33.35	106	262	Average
5426.12	55.81	-18.19	74	43.17	35.05	10.82	33.23	106	262	Peak
5442.62	45.44	-8.56	54	32.75	35.06	10.86	33.23	106	262	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5133.35	58.99	-15.01	74	47.07	34.88	10.4	33.36	100	350	Peak
5142.95	46.49	-7.51	54	34.52	34.89	10.44	33.36	100	350	Average
5407.97	56.92	-17.08	74	44.3	35.04	10.82	33.24	100	350	Peak
5458.24	45.47	-8.53	54	32.73	35.07	10.89	33.22	100	350	Average

Test Mode :	802.11ac VHT80	Temperature :	23~25°C
Test Channel :	58	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5047.55	55.22	-18.78	74	43.49	34.83	10.3	33.4	105	264	Peak
5146.85	44.7	-9.3	54	32.72	34.89	10.44	33.35	105	264	Average
5352.31	59.63	-14.37	74	47.17	35.01	10.72	33.27	105	264	Peak
5354.62	45.56	-8.44	54	33.1	35.01	10.72	33.27	105	264	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5084.6	55.37	-18.63	74	43.58	34.85	10.33	33.39	100	349	Peak
5141.6	44.9	-9.1	54	32.93	34.89	10.44	33.36	100	349	Average
5354.73	58.15	-15.85	74	45.69	35.01	10.72	33.27	100	349	Peak
5441.63	45.41	-8.59	54	32.72	35.06	10.86	33.23	100	349	Average

Test Mode :	802.11ac VHT80	Temperature :	23~25°C
Test Channel :	106	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5456.4	60.25	-13.75	74	47.51	35.07	10.89	33.22	100	267	Peak
5469.2	46.43	-7.57	54	33.68	35.08	10.89	33.22	100	267	Average
5734.68	57.02	-16.98	74	43.54	35.44	11.34	33.3	100	267	Peak
5725.8	46.15	-7.85	54	32.69	35.41	11.34	33.29	100	267	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5466.16	56.98	-17.02	74	44.23	35.08	10.89	33.22	162	206	Peak
5451.76	45.53	-8.47	54	32.82	35.07	10.86	33.22	162	206	Average
5727.48	57.07	-16.93	74	43.61	35.41	11.34	33.29	162	206	Peak
5757.16	46.13	-7.87	54	32.59	35.46	11.39	33.31	162	206	Average

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	149	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5723.32	60.71	-13.29	74	47.25	35.41	11.34	33.29	100	289	Peak
5724.84	46.4	-7.6	54	32.94	35.41	11.34	33.29	100	289	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5723.64	62.04	-11.96	74	48.58	35.41	11.34	33.29	103	5	Peak
5723.88	46.47	-7.53	54	33.01	35.41	11.34	33.29	103	5	Average

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	165	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5850.56	60.96	-13.04	74	47.16	35.58	11.56	33.34	145	288	Peak
5852.48	46.83	-7.17	54	33.03	35.58	11.56	33.34	145	288	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5850	58.87	-15.13	74	45.07	35.58	11.56	33.34	103	11	Peak
5853.76	46.64	-7.36	54	32.81	35.61	11.56	33.34	103	11	Average

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	149	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5723.64	65.89	-8.11	74	52.43	35.41	11.34	33.29	145	288	Peak
5724.04	46.61	-7.39	54	33.15	35.41	11.34	33.29	145	288	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5722.2	62.91	-11.09	74	49.45	35.41	11.34	33.29	102	7	Peak
5725	46.5	-7.5	54	33.04	35.41	11.34	33.29	102	7	Average

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	165	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5850.64	59.29	-14.71	74	45.49	35.58	11.56	33.34	144	288	Peak
5850.88	46.59	-7.41	54	32.79	35.58	11.56	33.34	144	288	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5851.36	59.13	-14.87	74	45.33	35.58	11.56	33.34	103	7	Peak
5854.8	46.57	-7.43	54	32.74	35.61	11.56	33.34	103	7	Average

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	151	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5722.44	58.18	-15.82	74	44.72	35.41	11.34	33.29	145	280	Peak
5724.36	46.97	-7.03	54	33.51	35.41	11.34	33.29	145	280	Average
5861.32	57.2	-16.8	74	43.34	35.61	11.6	33.35	145	280	Peak
5858.28	46.67	-7.33	54	32.85	35.61	11.56	33.35	145	280	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5719.96	59.19	-14.81	74	45.73	35.41	11.34	33.29	103	8	Peak
5725	47.05	-6.95	54	33.59	35.41	11.34	33.29	103	8	Average
5859.88	56.82	-17.18	74	43	35.61	11.56	33.35	103	8	Peak
5853.88	46.68	-7.32	54	32.85	35.61	11.56	33.34	103	8	Average

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	159	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5701.48	56.48	-17.52	74	43.07	35.39	11.3	33.28	157	289	Peak
5724.68	46.38	-7.62	54	32.92	35.41	11.34	33.29	157	289	Average
5861.88	57.54	-16.46	74	43.68	35.61	11.6	33.35	157	289	Peak
5863.96	46.79	-7.21	54	32.93	35.61	11.6	33.35	157	289	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5692.92	57.19	-16.81	74	43.8	35.37	11.3	33.28	102	7	Peak
5709.32	46.4	-7.6	54	33	35.39	11.3	33.29	102	7	Average
5863	58.06	-15.94	74	44.2	35.61	11.6	33.35	102	7	Peak
5855.48	46.71	-7.29	54	32.88	35.61	11.56	33.34	102	7	Average

Test Mode :	802.11ac VHT80	Temperature :	23~25°C
Test Channel :	155	Relative Humidity :	52~54%
Test Engineer :	David Ke		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5709.72	58.47	-15.53	74	45.07	35.39	11.3	33.29	144	285	Peak
5720.44	46.92	-7.08	54	33.46	35.41	11.34	33.29	144	285	Average
5850.12	58.08	-15.92	74	44.28	35.58	11.56	33.34	144	285	Peak
5855.48	46.81	-7.19	54	32.98	35.61	11.56	33.34	144	285	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5721.64	58.12	-15.88	74	44.66	35.41	11.34	33.29	101	9	Peak
5723.72	46.91	-7.09	54	33.45	35.41	11.34	33.29	101	9	Average
5857.08	56.87	-17.13	74	43.04	35.61	11.56	33.34	101	9	Peak
5857.16	46.82	-7.18	54	32.99	35.61	11.56	33.34	101	9	Average

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

Test Mode :	802.11a	**Temperature :**	23~25°C
Test Channel :	36	**Relative Humidity :**	52~54%
Test Engineer :	David Ke	**Polarization :**	Horizontal
Remark :	1. 5181 MHz is fundamental signal which can be ignored. 2. 10359 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5181	90.35	-	-	78.31	34.91	10.47	33.34	108	261	Average
5181	100.77	-	-	88.73	34.91	10.47	33.34	108	261	Peak
10359	48.68	-25.32	74	55.71	37.69	10.64	55.36	100	0	Peak

Test Mode :	802.11a	**Temperature :**	23~25°C
Test Channel :	36	**Relative Humidity :**	52~54%
Test Engineer :	David Ke	**Polarization :**	Vertical
Remark :	1. 5179 MHz is fundamental signal which can be ignored. 2. 10359 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5179	87.89	-	-	75.85	34.91	10.47	33.34	101	26	Average
5179	97.88	-	-	85.84	34.91	10.47	33.34	101	26	Peak
10359	48.96	-25.04	74	55.99	37.69	10.64	55.36	100	0	Peak

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	44	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5219 MHz is fundamental signal which can be ignored. 2. 10440 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5219	89.51	-	-	77.37	34.93	10.54	33.33	107	262	Average
5219	99.66	-	-	87.52	34.93	10.54	33.33	107	262	Peak
10440	49.99	-24.01	74	56.87	37.75	10.65	55.28	100	0	Peak

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	44	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5221 MHz is fundamental signal which can be ignored. 2. 10440 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5221	84.04	-	-	71.89	34.93	10.54	33.32	200	62	Average
5221	94.3	-	-	82.15	34.93	10.54	33.32	200	62	Peak
10440	50	-24	74	56.88	37.75	10.65	55.28	100	0	Peak

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	48	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5239 MHz is fundamental signal which can be ignored. 2. 10480 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
62.94	21.67	-18.33	40	46.41	6.14	0.89	31.77	115	204	Peak
98.85	18.87	-24.63	43.5	38.76	10.76	1.1	31.75	-	-	Peak
191.46	20.02	-23.48	43.5	41.26	9.02	1.49	31.75	-	-	Peak
406.4	20.98	-25.02	46	34.58	16.02	2.21	31.83	-	-	Peak
639.5	20.68	-25.32	46	30.73	19.2	2.79	32.04	-	-	Peak
891.5	23.39	-22.61	46	31.1	20.51	3.35	31.57	-	-	Peak
5239	89.03	-	-	76.83	34.94	10.58	33.32	106	262	Average
5239	99.47	-	-	87.27	34.94	10.58	33.32	106	262	Peak
10480	50.24	-23.76	74	57.01	37.79	10.66	55.22	100	0	Peak

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	48	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5241 MHz is fundamental signal which can be ignored. 2. 10480 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
35.94	31.18	-8.82	40	47.23	15.04	0.7	31.79	105	303	Peak
46.2	26.14	-13.86	40	47.28	9.87	0.77	31.78	-	-	Peak
62.4	24.61	-15.39	40	49.43	6.06	0.89	31.77	-	-	Peak
457.5	19.56	-26.44	46	32.15	16.96	2.33	31.88	-	-	Peak
748	21.72	-24.28	46	30.91	19.76	3.04	31.99	-	-	Peak
877.5	23.1	-22.9	46	30.96	20.46	3.31	31.63	-	-	Peak
5241	86.73	-	-	74.53	34.94	10.58	33.32	100	38	Average
5241	96.94	-	-	84.74	34.94	10.58	33.32	100	38	Peak
10480	50.38	-23.62	74	57.15	37.79	10.66	55.22	100	0	Peak

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	52	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5261 MHz is fundamental signal which can be ignored. 2. 10521 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5261	90.19	-	-	77.93	34.96	10.61	33.31	105	264	Average
5261	100.46	-	-	88.2	34.96	10.61	33.31	105	264	Peak
10521	50.48	-23.52	74	57.18	37.81	10.67	55.18	100	0	Peak

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	52	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5259 MHz is fundamental signal which can be ignored. 2. 10520 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5259	87.12	-	-	74.89	34.96	10.58	33.31	100	347	Average
5259	97.91	-	-	85.68	34.96	10.58	33.31	100	347	Peak
10520	50.15	-23.85	74	56.85	37.81	10.67	55.18	100	0	Peak

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	60	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5301 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5301	90.32	-	-	77.98	34.98	10.65	33.29	106	265	Average
5301	100.12	-	-	87.78	34.98	10.65	33.29	106	265	Peak
10600	49.94	-24.06	74	56.5	37.84	10.68	55.08	100	0	Peak

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	60	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5300 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5300	86.72	-	-	74.38	34.98	10.65	33.29	110	348	Average
5300	96.62	-	-	84.28	34.98	10.65	33.29	110	348	Peak
10600	49.02	-24.98	74	55.58	37.84	10.68	55.08	100	0	Peak

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	64	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5319 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
63.75	20.86	-19.14	40	45.51	6.22	0.9	31.77	131	300	Peak
168.24	21.98	-21.52	43.5	42.28	9.84	1.61	31.75	-	-	Peak
293.25	20.45	-25.55	46	37.23	13.06	1.88	31.72	-	-	Peak
410.6	21.23	-24.77	46	34.64	16.2	2.22	31.83	-	-	Peak
562.5	21.41	-24.59	46	31.85	18.97	2.6	32.01	-	-	Peak
791.4	21.88	-24.12	46	30.98	19.8	3.06	31.96	-	-	Peak
5319	90.26	-	-	77.88	34.99	10.68	33.29	104	263	Average
5319	100.58	-	-	88.2	34.99	10.68	33.29	104	263	Peak
10640	48.57	-25.43	74	55.05	37.86	10.69	55.03	100	0	Peak

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	64	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5319 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
36.75	31.13	-8.87	40	47.63	14.58	0.71	31.79	103	265	Peak
62.94	23.43	-16.57	40	48.17	6.14	0.89	31.77	-	-	Peak
94.26	21.84	-21.66	43.5	42.93	9.58	1.08	31.75	-	-	Peak
469.4	20.47	-25.53	46	32.87	17.18	2.32	31.9	-	-	Peak
630.4	21.31	-24.69	46	31.37	19.2	2.79	32.05	-	-	Peak
858.6	23.88	-22.12	46	31.97	20.36	3.25	31.7	-	-	Peak
5319	87.28	-	-	74.9	34.99	10.68	33.29	100	352	Average
5319	97.85	-	-	85.47	34.99	10.68	33.29	100	352	Peak
10641	48.77	-25.23	74	55.25	37.86	10.69	55.03	100	0	Peak

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	100	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5498 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5498	90.85	-	-	78.03	35.1	10.93	33.21	100	264	Average
5498	101	-	-	88.18	35.1	10.93	33.21	100	264	Peak
11000	50.28	-23.72	74	56.12	38	10.76	54.6	100	0	Peak

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	100	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5498 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5498	82.6	-	-	69.78	35.1	10.93	33.21	200	235	Average
5498	93.3	-	-	80.48	35.1	10.93	33.21	200	235	Peak
11001	49.97	-24.03	74	55.81	38	10.76	54.6	100	0	Peak

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	116	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5582 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5582	88.96	-	-	75.9	35.22	11.09	33.25	109	268	Average
5582	99.69	-	-	86.63	35.22	11.09	33.25	109	268	Peak
11160	49.6	-24.4	74	54.96	38.13	10.84	54.33	100	0	Peak

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	116	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5582 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5582	84.27	-	-	71.21	35.22	11.09	33.25	159	207	Average
5582	95.33	-	-	82.27	35.22	11.09	33.25	159	207	Peak
11160	48.79	-25.21	74	54.15	38.13	10.84	54.33	100	0	Peak

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	140	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5699 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
63.75	20.4	-19.6	40	45.05	6.22	0.9	31.77	124	251	Peak
167.7	21.9	-21.6	43.5	42.17	9.88	1.6	31.75	-	-	Peak
280.29	21.13	-24.87	46	38.22	12.8	1.84	31.73	-	-	Peak
408.5	21.59	-24.41	46	35.1	16.11	2.21	31.83	-	-	Peak
667.5	21.19	-24.81	46	31.26	19.13	2.83	32.03	-	-	Peak
837.6	22.5	-23.5	46	30.92	20.18	3.19	31.79	-	-	Peak
5699	88.77	-	-	75.38	35.37	11.3	33.28	107	260	Average
5699	99.96	-	-	86.57	35.37	11.3	33.28	107	260	Peak
11400	50.27	-23.73	74	54.92	38.32	10.99	53.96	100	0	Peak

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	140	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5702 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
35.94	30.96	-9.04	40	47.01	15.04	0.7	31.79	100	211	Peak
62.4	24	-16	40	48.82	6.06	0.89	31.77	-	-	Peak
93.45	21.76	-21.74	43.5	43.08	9.36	1.07	31.75	-	-	Peak
484.8	20.03	-25.97	46	32.09	17.5	2.35	31.91	-	-	Peak
676.6	21.43	-24.57	46	31.58	19.03	2.85	32.03	-	-	Peak
856.5	22.98	-23.02	46	31.11	20.33	3.25	31.71	-	-	Peak
5702	82.6	-	-	69.19	35.39	11.3	33.28	108	257	Average
5702	93.16	-	-	79.75	35.39	11.3	33.28	108	257	Peak
11400	49.1	-24.9	74	53.75	38.32	10.99	53.96	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	36	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5181 MHz is fundamental signal which can be ignored. 2. 10359 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5181	89.97	-	-	77.93	34.91	10.47	33.34	107	263	Average
5181	100.12	-	-	88.08	34.91	10.47	33.34	107	263	Peak
10359	50.06	-23.94	74	57.09	37.69	10.64	55.36	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	36	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5181 MHz is fundamental signal which can be ignored. 2. 10359 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5181	87.97	-	-	75.93	34.91	10.47	33.34	100	349	Average
5181	98.18	-	-	86.14	34.91	10.47	33.34	100	349	Peak
10359	49.91	-24.09	74	56.94	37.69	10.64	55.36	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	44	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	3. 5221 MHz is fundamental signal which can be ignored. 4. 10440 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5221	89.16	-	-	77.01	34.93	10.54	33.32	105	262	Average
5221	99.06	-	-	86.91	34.93	10.54	33.32	105	262	Peak
10440	49.34	-24.66	74	56.22	37.75	10.65	55.28	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	44	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5221 MHz is fundamental signal which can be ignored. 2. 10440 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5221	86.12	-	-	73.97	34.93	10.54	33.32	100	348	Average
5221	96.26	-	-	84.11	34.93	10.54	33.32	100	348	Peak
10440	49.16	-24.84	74	56.04	37.75	10.65	55.28	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	48	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5240 MHz is fundamental signal which can be ignored. 2. 10479 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
62.94	22.44	-17.56	40	47.18	6.14	0.89	31.77	132	47	Peak
166.35	20.25	-23.25	43.5	40.5	9.92	1.58	31.75	-	-	Peak
289.74	20.15	-25.85	46	37.01	13	1.86	31.72	-	-	Peak
419	21.21	-24.79	46	34.34	16.47	2.24	31.84	-	-	Peak
644.4	20.92	-25.08	46	30.96	19.2	2.8	32.04	-	-	Peak
763.4	22.22	-23.78	46	31.42	19.73	3.05	31.98	-	-	Peak
5240	88.93	-	-	76.73	34.94	10.58	33.32	106	263	Average
5240	98.52	-	-	86.32	34.94	10.58	33.32	106	263	Peak
10479	49.56	-24.44	74	56.33	37.79	10.66	55.22	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	48	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5239 MHz is fundamental signal which can be ignored. 2. 10479 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
37.56	30.65	-9.35	40	47.6	14.12	0.72	31.79	100	174	Peak
62.4	23.9	-16.1	40	48.72	6.06	0.89	31.77	-	-	Peak
77.25	22.44	-17.56	40	46.47	6.75	0.98	31.76	-	-	Peak
322.4	17.43	-28.57	46	33.69	13.52	1.96	31.74	-	-	Peak
529.6	20.55	-25.45	46	31.9	18.1	2.52	31.97	-	-	Peak
748	21.33	-24.67	46	30.52	19.76	3.04	31.99	-	-	Peak
5239	86.94	-	-	74.74	34.94	10.58	33.32	100	348	Average
5239	96.38	-	-	84.18	34.94	10.58	33.32	100	348	Peak
10479	49.58	-24.42	74	56.35	37.79	10.66	55.22	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	52	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5261 MHz is fundamental signal which can be ignored. 2. 10521 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5261	89.11	-	-	76.85	34.96	10.61	33.31	105	263	Average
5261	99.36	-	-	87.1	34.96	10.61	33.31	105	263	Peak
10521	50.85	-23.15	74	57.55	37.81	10.67	55.18	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	52	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5259 MHz is fundamental signal which can be ignored. 2. 10521 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5259	87.11	-	-	74.88	34.96	10.58	33.31	100	350	Average
5259	96.78	-	-	84.55	34.96	10.58	33.31	100	350	Peak
10521	49.41	-24.59	74	56.11	37.81	10.67	55.18	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	60	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5301 MHz is fundamental signal which can be ignored. 2. 10599 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5301	88.57	-	-	76.23	34.98	10.65	33.29	104	265	Average
5301	98.55	-	-	86.21	34.98	10.65	33.29	104	265	Peak
10599	49.27	-24.73	74	55.83	37.84	10.68	55.08	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	60	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5300 MHz is fundamental signal which can be ignored. 2. 10599 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5300	85.07	-	-	72.73	34.98	10.65	33.29	100	346	Average
5300	95.63	-	-	83.29	34.98	10.65	33.29	100	346	Peak
10599	49.34	-24.66	74	55.9	37.84	10.68	55.08	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	64	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5319 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
63.75	20.74	-19.26	40	45.39	6.22	0.9	31.77	117	45	Peak
165.54	21.69	-21.81	43.5	41.91	9.96	1.57	31.75	-	-	Peak
288.66	20.17	-25.83	46	37.05	12.98	1.86	31.72	-	-	Peak
406.4	20.54	-25.46	46	34.14	16.02	2.21	31.83	-	-	Peak
611.5	21.1	-24.9	46	31.46	18.92	2.78	32.06	-	-	Peak
849.5	23.1	-22.9	46	31.41	20.2	3.23	31.74	-	-	Peak
5319	88.92	-	-	76.54	34.99	10.68	33.29	105	265	Average
5319	98.98	-	-	86.6	34.99	10.68	33.29	105	265	Peak
10641	49.22	-24.78	74	55.7	37.86	10.69	55.03	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	64	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5319 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
35.94	31.07	-8.93	40	47.12	15.04	0.7	31.79	100	326	Peak
62.4	23.6	-16.4	40	48.42	6.06	0.89	31.77	-	-	Peak
71.04	21.91	-18.09	40	46.14	6.6	0.94	31.77	-	-	Peak
454	19.18	-26.82	46	31.86	16.88	2.32	31.88	-	-	Peak
641.6	21.29	-24.71	46	31.33	19.2	2.8	32.04	-	-	Peak
872.6	23.11	-22.89	46	31.1	20.36	3.29	31.64	-	-	Peak
5319	86.13	-	-	73.75	34.99	10.68	33.29	100	350	Average
5319	96.56	-	-	84.18	34.99	10.68	33.29	100	350	Peak
10641	49.88	-24.12	74	56.36	37.86	10.69	55.03	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	100	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5499 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5499	88.96	-	-	76.14	35.1	10.93	33.21	100	266	Average
5499	99.05	-	-	86.23	35.1	10.93	33.21	100	266	Peak
11001	50.24	-23.76	74	56.08	38	10.76	54.6	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	100	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5499 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5499	82.94	-	-	70.12	35.1	10.93	33.21	200	234	Average
5499	93.17	-	-	80.35	35.1	10.93	33.21	200	234	Peak
11001	50.03	-23.97	74	55.87	38	10.76	54.6	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	116	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5581 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5581	88.52	-	-	75.48	35.2	11.09	33.25	109	267	Average
5581	98.66	-	-	85.62	35.2	11.09	33.25	109	267	Peak
11160	49.1	-24.9	74	54.46	38.13	10.84	54.33	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	116	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5579 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5579	83.9	-	-	70.86	35.2	11.09	33.25	158	207	Average
5579	94.08	-	-	81.04	35.2	11.09	33.25	158	207	Peak
11160	49.41	-24.59	74	54.77	38.13	10.84	54.33	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	140	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5699 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
62.94	21.29	-18.71	40	46.03	6.14	0.89	31.77	166	212	Peak
99.66	21.49	-22.01	43.5	41.14	11	1.1	31.75	-	-	Peak
181.2	19.81	-23.69	43.5	40.85	9.26	1.45	31.75	-	-	Peak
410.6	21.05	-24.95	46	34.46	16.2	2.22	31.83	-	-	Peak
580	21.08	-24.92	46	31.43	19	2.68	32.03	-	-	Peak
791.4	22.12	-23.88	46	31.22	19.8	3.06	31.96	-	-	Peak
5699	89.6	-	-	76.21	35.37	11.3	33.28	106	271	Average
5699	99.26	-	-	85.87	35.37	11.3	33.28	106	271	Peak
11400	49.6	-24.4	74	54.25	38.32	10.99	53.96	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	140	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5701 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
35.94	31.49	-8.51	40	47.54	15.04	0.7	31.79	103	116	Peak
61.86	23.62	-16.38	40	48.44	6.06	0.89	31.77	-	-	Peak
94.26	21.45	-22.05	43.5	42.54	9.58	1.08	31.75	-	-	Peak
471.5	19.32	-26.68	46	31.69	17.22	2.31	31.9	-	-	Peak
594	21.18	-24.82	46	31.69	18.8	2.74	32.05	-	-	Peak
819.4	22.64	-23.36	46	31.38	20	3.13	31.87	-	-	Peak
5701	83.17	-	-	69.76	35.39	11.3	33.28	106	254	Average
5701	93.12	-	-	79.71	35.39	11.3	33.28	106	254	Peak
11400	50.69	-23.31	74	55.34	38.32	10.99	53.96	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	38	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5188 MHz is fundamental signal which can be ignored. 2. 10380 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
62.94	21.67	-18.33	40	46.41	6.14	0.89	31.77	112	338	Peak
97.5	18.83	-24.67	43.5	38.97	10.52	1.09	31.75	-	-	Peak
189.3	19.47	-24.03	43.5	40.72	9.02	1.48	31.75	-	-	Peak
408.5	21.22	-24.78	46	34.73	16.11	2.21	31.83	-	-	Peak
641.6	20.64	-25.36	46	30.68	19.2	2.8	32.04	-	-	Peak
774.6	22.66	-23.34	46	31.78	19.8	3.05	31.97	-	-	Peak
5188	87.4	-	-	75.36	34.91	10.47	33.34	107	264	Average
5188	97.33	-	-	85.29	34.91	10.47	33.34	107	264	Peak
10380	48.92	-25.08	74	55.91	37.71	10.64	55.34	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	38	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5189 MHz is fundamental signal which can be ignored. 2. 10380 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
35.94	31.63	-8.37	40	47.68	15.04	0.7	31.79	103	228	Peak
62.94	23.39	-16.61	40	48.13	6.14	0.89	31.77	-	-	Peak
81.84	21.19	-18.81	40	44.91	7.04	1	31.76	-	-	Peak
422.5	17.78	-28.22	46	30.87	16.5	2.25	31.84	-	-	Peak
587	21.35	-24.65	46	31.82	18.86	2.71	32.04	-	-	Peak
748	22.7	-23.3	46	31.89	19.76	3.04	31.99	-	-	Peak
5189	85.67	-	-	73.59	34.91	10.51	33.34	100	347	Average
5189	95.21	-	-	83.13	34.91	10.51	33.34	100	347	Peak
10380	49.74	-24.26	74	56.73	37.71	10.64	55.34	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	46	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5231 MHz is fundamental signal which can be ignored. 2. 10461 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5231	86.62	-	-	74.46	34.94	10.54	33.32	106	261	Average
5231	96.14	-	-	83.98	34.94	10.54	33.32	106	261	Peak
10461	48.91	-25.09	74	55.72	37.77	10.66	55.24	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	46	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5231 MHz is fundamental signal which can be ignored. 2. 10461 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5231	85.28	-	-	73.12	34.94	10.54	33.32	100	348	Average
5231	94.68	-	-	82.52	34.94	10.54	33.32	100	348	Peak
10461	49.17	-24.83	74	55.98	37.77	10.66	55.24	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	54	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5271 MHz is fundamental signal which can be ignored. 2. 10539 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5271	87.09	-	-	74.83	34.96	10.61	33.31	105	263	Average
5271	97.32	-	-	85.06	34.96	10.61	33.31	105	263	Peak
10539	48.53	-25.47	74	55.21	37.81	10.67	55.16	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	54	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5271 MHz is fundamental signal which can be ignored. 2. 10539 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5271	85.66	-	-	73.4	34.96	10.61	33.31	100	347	Average
5271	95.4	-	-	83.14	34.96	10.61	33.31	100	347	Peak
10539	49.86	-24.14	74	56.54	37.81	10.67	55.16	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	62	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5311 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
62.94	20.3	-19.7	40	45.04	6.14	0.89	31.77	141	225	Peak
98.85	18.17	-25.33	43.5	38.06	10.76	1.1	31.75	-	-	Peak
167.16	21.79	-21.71	43.5	42.04	9.92	1.58	31.75	-	-	Peak
408.5	21.41	-24.59	46	34.92	16.11	2.21	31.83	-	-	Peak
632.5	21.79	-24.21	46	31.85	19.2	2.79	32.05	-	-	Peak
865.6	22.93	-23.07	46	30.98	20.35	3.27	31.67	-	-	Peak
5311	87.6	-	-	75.22	34.99	10.68	33.29	105	264	Average
5311	97.51	-	-	85.13	34.99	10.68	33.29	105	264	Peak
10620	48.94	-25.06	74	55.46	37.85	10.69	55.06	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	62	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5311 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
36.75	31.37	-8.63	40	47.87	14.58	0.71	31.79	103	254	Peak
62.94	24.11	-15.89	40	48.85	6.14	0.89	31.77	-	-	Peak
93.45	21.59	-21.91	43.5	42.91	9.36	1.07	31.75	-	-	Peak
466.6	20.75	-25.25	46	33.19	17.13	2.32	31.89	-	-	Peak
664	21.02	-24.98	46	31.07	19.15	2.83	32.03	-	-	Peak
821.5	23	-23	46	31.71	20.02	3.13	31.86	-	-	Peak
5311	84.93	-	-	72.55	34.99	10.68	33.29	100	350	Average
5311	93.93	-	-	81.55	34.99	10.68	33.29	100	350	Peak
10620	49.18	-24.82	74	55.7	37.85	10.69	55.06	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	102	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5509 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5509	86.52	-	-	73.68	35.1	10.96	33.22	100	265	Average
5509	96.24	-	-	83.4	35.1	10.96	33.22	100	265	Peak
11019	50.1	-23.9	74	55.9	38.01	10.76	54.57	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	102	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5512 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5512	83.07	-	-	70.23	35.1	10.96	33.22	161	194	Average
5512	93.63	-	-	80.79	35.1	10.96	33.22	161	194	Peak
11019	49.56	-24.44	74	55.36	38.01	10.76	54.57	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	110	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5549 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5549	87.94	-	-	74.95	35.17	11.05	33.23	100	266	Average
5549	97.81	-	-	84.82	35.17	11.05	33.23	100	266	Peak
11100	50.1	-23.9	74	55.64	38.08	10.82	54.44	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	110	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5549 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5549	83.11	-	-	70.12	35.17	11.05	33.23	159	214	Average
5549	93.56	-	-	80.57	35.17	11.05	33.23	159	214	Peak
11100	50.46	-23.54	74	56	38.08	10.82	54.44	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	134	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5669 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
62.94	21.39	-18.61	40	46.13	6.14	0.89	31.77	126	332	Peak
99.66	19.3	-24.2	43.5	38.95	11	1.1	31.75	-	-	Peak
167.16	22.19	-21.31	43.5	42.44	9.92	1.58	31.75	-	-	Peak
410.6	21.45	-24.55	46	34.86	16.2	2.22	31.83	-	-	Peak
564.6	20.75	-25.25	46	31.2	18.95	2.61	32.01	-	-	Peak
830.6	22.14	-23.86	46	30.7	20.1	3.16	31.82	-	-	Peak
5669	87.71	-	-	74.38	35.34	11.26	33.27	106	261	Average
5669	97	-	-	83.67	35.34	11.26	33.27	106	261	Peak
11340	50.04	-23.96	74	54.88	38.27	10.96	54.07	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	134	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5668 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
35.94	32.02	-7.98	40	48.07	15.04	0.7	31.79	100	336	Peak
62.4	24.07	-15.93	40	48.89	6.06	0.89	31.77	-	-	Peak
78.06	21.71	-18.29	40	45.69	6.8	0.98	31.76	-	-	Peak
427.4	18.03	-27.97	46	31.12	16.5	2.26	31.85	-	-	Peak
650	21.34	-24.66	46	31.38	19.2	2.8	32.04	-	-	Peak
837.6	22.61	-23.39	46	31.03	20.18	3.19	31.79	-	-	Peak
5668	82.01	-	-	68.72	35.34	11.22	33.27	100	227	Average
5668	92.18	-	-	78.89	35.34	11.22	33.27	100	227	Peak
11340	49.61	-24.39	74	54.45	38.27	10.96	54.07	100	0	Peak

Test Mode :	802.11ac VHT80	Temperature :	23~25°C
Test Channel :	42	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5212 MHz is fundamental signal which can be ignored. 2. 10419 MHz is not within a restricted band and satisfies both the average and peak limits of15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
63.75	20.95	-19.05	40	45.6	6.22	0.9	31.77	140	261	Peak
167.7	21.43	-22.07	43.5	41.7	9.88	1.6	31.75	-	-	Peak
289.2	20.63	-25.37	46	37.51	12.98	1.86	31.72	-	-	Peak
408.5	21.5	-24.5	46	35.01	16.11	2.21	31.83	-	-	Peak
592.6	21.74	-24.26	46	32.26	18.8	2.73	32.05	-	-	Peak
902	23.61	-22.39	46	31.15	20.6	3.37	31.51	-	-	Peak
5212	82.91	-	-	70.77	34.93	10.54	33.33	106	262	Average
5212	92.32	-	-	80.18	34.93	10.54	33.33	106	262	Peak
10419	48.94	-25.06	74	55.86	37.73	10.65	55.3	100	0	Peak

Test Mode :	802.11ac VHT80	Temperature :	23~25°C
Test Channel :	42	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5212 MHz is fundamental signal which can be ignored. 2. 10419 MHz is not within a restricted band and satisfies both the average and peak limits of15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
36.75	32.12	-7.88	40	48.62	14.58	0.71	31.79	103	88	Peak
62.4	23.83	-16.17	40	48.65	6.06	0.89	31.77	-	-	Peak
94.26	21.49	-22.01	43.5	42.58	9.58	1.08	31.75	-	-	Peak
450.5	19.47	-26.53	46	32.22	16.82	2.31	31.88	-	-	Peak
643	20.88	-25.12	46	30.92	19.2	2.8	32.04	-	-	Peak
805.4	22.27	-23.73	46	31.27	19.85	3.08	31.93	-	-	Peak
5212	80.89	-	-	68.75	34.93	10.54	33.33	100	350	Average
5212	90.12	-	-	77.98	34.93	10.54	33.33	100	350	Peak
10419	48.89	-25.11	74	55.81	37.73	10.65	55.3	100	0	Peak

Test Mode :	802.11ac VHT80	Temperature :	23~25°C
Test Channel :	58	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5289 MHz is fundamental signal which can be ignored. 2. 10581 MHz is not within a restricted band and satisfies both the average and peak limits of15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
63.75	21.06	-18.94	40	45.71	6.22	0.9	31.77	130	341	Peak
99.66	20.23	-23.27	43.5	39.88	11	1.1	31.75	-	-	Peak
165.54	20.71	-22.79	43.5	40.93	9.96	1.57	31.75	-	-	Peak
408.5	20.9	-25.1	46	34.41	16.11	2.21	31.83	-	-	Peak
545	20.57	-25.43	46	31.07	18.95	2.54	31.99	-	-	Peak
772.5	21.98	-24.02	46	31.1	19.8	3.05	31.97	-	-	Peak
5289	82.3	-	-	69.98	34.97	10.65	33.3	105	264	Average
5289	92.2	-	-	79.88	34.97	10.65	33.3	105	264	Peak
10581	49.71	-24.29	74	56.3	37.83	10.68	55.1	100	0	Peak

Test Mode :	802.11ac VHT80	Temperature :	23~25°C
Test Channel :	58	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5288 MHz is fundamental signal which can be ignored. 2. 10581 MHz is not within a restricted band and satisfies both the average and peak limits of15.209.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
35.94	32.24	-7.76	40	48.29	15.04	0.7	31.79	100	195	Peak
62.4	24.16	-15.84	40	48.98	6.06	0.89	31.77	-	-	Peak
82.65	21.89	-18.11	40	45.47	7.18	1	31.76	-	-	Peak
429.5	19.05	-26.95	46	32.14	16.5	2.26	31.85	-	-	Peak
644.4	22.32	-23.68	46	32.36	19.2	2.8	32.04	-	-	Peak
840.4	22.66	-23.34	46	31.04	20.2	3.2	31.78	-	-	Peak
5288	80.46	-	-	68.14	34.97	10.65	33.3	100	349	Average
5288	90.09	-	-	77.77	34.97	10.65	33.3	100	349	Peak
10581	49.7	-24.3	74	56.29	37.83	10.68	55.1	100	0	Peak

Test Mode :	802.11ac VHT80	Temperature :	23~25°C
Test Channel :	106	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5528 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
63.75	20.45	-19.55	40	45.1	6.22	0.9	31.77	112	232	Peak
98.85	21.5	-22	43.5	41.39	10.76	1.1	31.75	-	-	Peak
165	21.25	-22.25	43.5	41.45	10	1.55	31.75	-	-	Peak
410.6	20.38	-25.62	46	33.79	16.2	2.22	31.83	-	-	Peak
655.6	21.39	-24.61	46	31.42	19.2	2.81	32.04	-	-	Peak
863.5	23.21	-22.79	46	31.26	20.37	3.27	31.69	-	-	Peak
5528	82.7	-	-	69.81	35.12	11	33.23	100	267	Average
5528	92.54	-	-	79.65	35.12	11	33.23	100	267	Peak
11061	49.82	-24.18	74	55.47	38.05	10.79	54.49	100	0	Peak

Test Mode :	802.11ac VHT80	Temperature :	23~25°C
Test Channel :	106	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5532 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
36.75	30.95	-9.05	40	47.45	14.58	0.71	31.79	100	99	Peak
62.4	22.83	-17.17	40	47.65	6.06	0.89	31.77	-	-	Peak
78.06	23.72	-16.28	40	47.7	6.8	0.98	31.76	-	-	Peak
396.6	18.22	-27.78	46	32.28	15.58	2.18	31.82	-	-	Peak
557.6	21.01	-24.99	46	31.42	19.02	2.58	32.01	-	-	Peak
770.4	21.92	-24.08	46	31.04	19.8	3.05	31.97	-	-	Peak
5532	80.41	-	-	67.49	35.15	11	33.23	162	206	Average
5532	90.64	-	-	77.72	35.15	11	33.23	162	206	Peak
11061	50.77	-23.23	74	56.42	38.05	10.79	54.49	100	0	Peak

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	149	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5744 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5744	88.26	-	-	74.73	35.44	11.39	33.3	100	289	Average
5744	99.08	-	-	85.55	35.44	11.39	33.3	100	289	Peak
11490	50.18	-23.82	74	54.58	38.39	11.04	53.83	100	0	Peak

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	149	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5744 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5744	87.63	-	-	74.1	35.44	11.39	33.3	103	5	Average
5744	98.08	-	-	84.55	35.44	11.39	33.3	103	5	Peak
11490	50.02	-23.98	74	54.42	38.39	11.04	53.83	100	0	Peak

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	157	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	5784 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5784	87.85	-	-	74.25	35.49	11.43	33.32	145	290	Average
5784	98.9	-	-	85.29	35.49	11.43	33.31	145	290	Peak
11571	41.19	-12.81	54	45.35	38.51	11.09	53.76	100	311	Average
11571	51.99	-22.01	74	56.15	38.51	11.09	53.76	100	311	Peak

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	157	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	5783 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5783	86.2	-	-	72.6	35.49	11.43	33.32	102	6	Average
5783	97.78	-	-	84.17	35.49	11.43	33.31	102	6	Peak
11571	38.99	-15.01	54	43.15	38.51	11.09	53.76	100	65	Average
11571	51.45	-22.55	74	55.61	38.51	11.09	53.76	100	65	Peak

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	165	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5822 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
37.56	26.33	-13.67	40	43.28	14.12	0.72	31.79	166	283	Peak
62.94	20.9	-19.1	40	45.64	6.14	0.89	31.77	-	-	Peak
280.56	22.72	-23.28	46	39.81	12.8	1.84	31.73	-	-	Peak
410.6	20.89	-25.11	46	34.3	16.2	2.22	31.83	-	-	Peak
643	21.06	-24.94	46	31.1	19.2	2.8	32.04	-	-	Peak
863.5	22.6	-23.4	46	30.65	20.37	3.27	31.69	-	-	Peak
5822	87.02	-	-	73.28	35.56	11.51	33.33	145	288	Average
5822	97.58	-	-	83.84	35.56	11.51	33.33	145	288	Peak
11649	50.29	-23.71	74	54.25	38.62	11.14	53.72	100	0	Peak

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	165	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5829 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
36.75	30.64	-9.36	40	47.14	14.58	0.71	31.79	100	346	Peak
62.4	22.07	-17.93	40	46.89	6.06	0.89	31.77	-	-	Peak
75.9	22.99	-17.01	40	47.14	6.65	0.96	31.76	-	-	Peak
469.4	20.32	-25.68	46	32.72	17.18	2.32	31.9	-	-	Peak
651.4	20.63	-25.37	46	30.67	19.2	2.8	32.04	-	-	Peak
867	22.94	-23.06	46	31	20.33	3.28	31.67	-	-	Peak
5829	85.87	-	-	72.13	35.56	11.51	33.33	103	11	Average
5829	96.76	-	-	83.02	35.56	11.51	33.33	103	11	Peak
11649	50.34	-23.66	74	54.3	38.62	11.14	53.72	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	149	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	5748 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
36.75	25.24	-14.76	40	41.74	14.58	0.71	31.79	155	174	Peak
62.94	20.82	-19.18	40	45.56	6.14	0.89	31.77	-	-	Peak
283.26	22.88	-23.12	46	39.9	12.86	1.85	31.73	-	-	Peak
408.5	21.85	-24.15	46	35.36	16.11	2.21	31.83	-	-	Peak
618.5	21.64	-24.36	46	31.83	19.08	2.78	32.05	-	-	Peak
847.4	22.89	-23.11	46	31.22	20.2	3.22	31.75	-	-	Peak
5748	88.19	-	-	74.66	35.44	11.39	33.3	145	288	Average
5748	99.76	-	-	86.23	35.44	11.39	33.3	145	288	Peak
11490	41.31	-12.69	54	45.71	38.39	11.04	53.83	103	300	Average
11490	52.37	-21.63	74	56.77	38.39	11.04	53.83	103	300	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	149	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	5741 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	28.63	-11.37	40	40.89	18.9	0.64	31.8	100	103	Peak
60.24	22.04	-17.96	40	47.04	5.9	0.87	31.77	-	-	Peak
75.9	22.71	-17.29	40	46.86	6.65	0.96	31.76	-	-	Peak
452.6	19.13	-26.87	46	31.83	16.86	2.32	31.88	-	-	Peak
650	21.3	-24.7	46	31.34	19.2	2.8	32.04	-	-	Peak
931.4	23.37	-22.63	46	30.54	20.71	3.36	31.24	-	-	Peak
5741	86.82	-	-	73.29	35.44	11.39	33.3	102	7	Average
5741	97.41	-	-	83.88	35.44	11.39	33.3	102	7	Peak
11490	39.62	-14.38	54	44.02	38.39	11.04	53.83	100	358	Average
11490	51.57	-22.43	74	55.97	38.39	11.04	53.83	100	358	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	157	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5783 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5783	87.56	-	-	73.96	35.49	11.43	33.32	145	291	Average
5783	98.2	-	-	84.59	35.49	11.43	33.31	145	291	Peak
11571	50.15	-23.85	74	54.31	38.51	11.09	53.76	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	157	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5784 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5784	85.95	-	-	72.35	35.49	11.43	33.32	103	6	Average
5784	96.98	-	-	83.38	35.49	11.43	33.32	103	6	Peak
11571	50.18	-23.82	74	54.34	38.51	11.09	53.76	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	165	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5821 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5821	86.09	-	-	72.35	35.56	11.51	33.33	144	288	Average
5821	97.53	-	-	83.79	35.56	11.51	33.33	144	288	Peak
11649	50.19	-23.81	74	54.15	38.62	11.14	53.72	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	165	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5828 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5828	84.85	-	-	71.11	35.56	11.51	33.33	103	7	Average
5828	95.15	-	-	81.41	35.56	11.51	33.33	103	7	Peak
11652	50.63	-23.37	74	54.55	38.65	11.14	53.71	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	151	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5751 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
36.75	24.47	-15.53	40	40.97	14.58	0.71	31.79	145	226	Peak
63.75	20.45	-19.55	40	45.1	6.22	0.9	31.77	-	-	Peak
167.7	19.34	-24.16	43.5	39.61	9.88	1.6	31.75	-	-	Peak
410.6	20.49	-25.51	46	33.9	16.2	2.22	31.83	-	-	Peak
629	21.2	-24.8	46	31.27	19.19	2.79	32.05	-	-	Peak
861.4	22.55	-23.45	46	30.59	20.39	3.26	31.69	-	-	Peak
5751	85.23	-	-	71.7	35.44	11.39	33.3	145	280	Average
5751	96.91	-	-	83.38	35.44	11.39	33.3	145	280	Peak
11511	50.92	-23.08	74	55.26	38.4	11.06	53.8	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	151	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5751 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	28.73	-11.27	40	40.99	18.9	0.64	31.8	100	52	Peak
42.96	21.92	-18.08	40	41.26	11.7	0.75	31.79	-	-	Peak
78.06	22.72	-17.28	40	46.7	6.8	0.98	31.76	-	-	Peak
422.5	18.74	-27.26	46	31.83	16.5	2.25	31.84	-	-	Peak
506.5	21.07	-24.93	46	32.81	17.7	2.5	31.94	-	-	Peak
800.5	22.23	-23.77	46	31.32	19.8	3.06	31.95	-	-	Peak
5751	83.3	-	-	69.77	35.44	11.39	33.3	103	8	Average
5751	94.9	-	-	81.37	35.44	11.39	33.3	103	8	Peak
11511	50.92	-23.08	74	55.26	38.4	11.06	53.8	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	159	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	5792 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5792	84.4	-	-	70.74	35.51	11.47	33.32	157	289	Average
5792	95.76	-	-	82.1	35.51	11.47	33.32	157	289	Peak
11589	40.46	-13.54	54	44.57	38.54	11.1	53.75	100	278	Average
11589	51.02	-22.98	74	55.13	38.54	11.1	53.75	100	278	Peak

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	159	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	5791 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5791	83.65	-	-	69.99	35.51	11.47	33.32	102	7	Average
5791	94.25	-	-	80.59	35.51	11.47	33.32	102	7	Peak
11589	39.22	-14.78	54	43.33	38.54	11.1	53.75	100	15	Average
11589	51.74	-22.26	74	55.85	38.54	11.1	53.75	100	15	Peak

Test Mode :	802.11ac VHT80	Temperature :	23~25°C
Test Channel :	155	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	5779 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
36.75	24.15	-15.85	40	40.65	14.58	0.71	31.79	167	221	Peak
62.94	20.2	-19.8	40	44.94	6.14	0.89	31.77	-	-	Peak
278.94	22.71	-23.29	46	39.79	12.81	1.84	31.73	-	-	Peak
408.5	20.78	-25.22	46	34.29	16.11	2.21	31.83	-	-	Peak
657	21.01	-24.99	46	31.04	19.2	2.81	32.04	-	-	Peak
858.6	23	-23	46	31.09	20.36	3.25	31.7	-	-	Peak
5779	81.78	-	-	68.17	35.49	11.43	33.31	144	285	Average
5779	92.08	-	-	78.42	35.51	11.47	33.32	144	285	Peak
11550	40.91	-13.09	54	45.11	38.48	11.09	53.77	100	302	Average
11550	51.02	-22.98	74	55.22	38.48	11.09	53.77	100	302	Peak

Test Mode :	802.11ac VHT80	Temperature :	23~25°C
Test Channel :	155	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	5779 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	28.61	-11.39	40	40.87	18.9	0.64	31.8	100	305	Peak
60.24	21.77	-18.23	40	46.77	5.9	0.87	31.77	-	-	Peak
76.44	23.52	-16.48	40	47.61	6.7	0.97	31.76	-	-	Peak
473.6	19.56	-26.44	46	31.89	17.26	2.31	31.9	-	-	Peak
699	21.83	-24.17	46	32.06	18.9	2.89	32.02	-	-	Peak
819.4	23.37	-22.63	46	32.11	20	3.13	31.87	-	-	Peak
5779	79.11	-	-	65.5	35.49	11.43	33.31	101	9	Average
5779	90.49	-	-	76.91	35.46	11.43	33.31	101	9	Peak
11550	41.25	-12.75	54	45.45	38.48	11.09	53.77	100	91	Average
11550	51.62	-22.38	74	55.82	38.48	11.09	53.77	100	91	Peak

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	144	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5716 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5716	86.77	-	-	73.37	35.39	11.3	33.29	134	288	Average
5716	98.03	-	-	84.63	35.39	11.3	33.29	134	288	Peak
11439	50.41	-23.59	74	54.96	38.35	11.01	53.91	100	0	Peak

Test Mode :	802.11a	Temperature :	23~25°C
Test Channel :	144	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5724 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5724	86.13	-	-	72.67	35.41	11.34	33.29	103	8	Average
5724	96.92	-	-	83.46	35.41	11.34	33.29	103	8	Peak
11439	50.59	-23.41	74	55.14	38.35	11.01	53.91	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	144	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5716 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5716	86.72	-	-	73.32	35.39	11.3	33.29	146	282	Average
5716	97.96	-	-	84.56	35.39	11.3	33.29	146	282	Peak
11439	50.67	-23.33	74	55.22	38.35	11.01	53.91	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~25°C
Test Channel :	144	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5724 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5724	85.63	-	-	72.17	35.41	11.34	33.29	103	7	Average
5724	96.22	-	-	82.76	35.41	11.34	33.29	103	7	Peak
11439	50.3	-23.7	74	54.85	38.35	11.01	53.91	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	142	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5714 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5714	85.94	-	-	72.54	35.39	11.3	33.29	146	291	Average
5714	96.74	-	-	83.34	35.39	11.3	33.29	146	291	Peak
11420	50.27	-23.73	74	54.87	38.33	11	53.93	100	0	Peak

Test Mode :	802.11n HT40	Temperature :	23~25°C
Test Channel :	142	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5714 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5714	83.98	-	-	70.58	35.39	11.3	33.29	103	9	Average
5714	94.71	-	-	81.25	35.41	11.34	33.29	103	9	Peak
11421	50.11	-23.89	74	54.71	38.33	11	53.93	100	0	Peak

Test Mode :	802.11ac VHT20	Temperature :	23~25°C
Test Channel :	144	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	5716 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5716	85.27	-	-	71.87	35.39	11.3	33.29	146	288	Average
5716	96.66	-	-	83.26	35.39	11.3	33.29	146	288	Peak
11440	40.1	-13.9	54	44.65	38.35	11.01	53.91	100	332	Average
11440	51.14	-22.86	74	55.69	38.35	11.01	53.91	100	332	Peak

Test Mode :	802.11ac VHT20	Temperature :	23~25°C
Test Channel :	144	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5724 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5724	85.26	-	-	71.8	35.41	11.34	33.29	103	7	Average
5724	95.35	-	-	81.89	35.41	11.34	33.29	103	7	Peak
11439	50.58	-23.42	74	55.13	38.35	11.01	53.91	100	0	Peak

Test Mode :	802.11ac VHT40	Temperature :	23~25°C
Test Channel :	142	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5714 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5714	84.53	-	-	71.13	35.39	11.3	33.29	146	295	Average
5714	94.35	-	-	80.89	35.41	11.34	33.29	146	295	Peak
11420	50.47	-23.53	74	55.07	38.33	11	53.93	100	0	Peak

Test Mode :	802.11ac VHT40	Temperature :	23~25°C
Test Channel :	142	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5714 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5714	83.76	-	-	70.36	35.39	11.3	33.29	102	9	Average
5714	93.49	-	-	80.09	35.39	11.3	33.29	102	9	Peak
11421	50.42	-23.58	74	55.02	38.33	11	53.93	100	0	Peak

Test Mode :	802.11ac VHT80	Temperature :	23~25°C
Test Channel :	138	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Horizontal
Remark :	1. 5692 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5692	81.08	-	-	67.69	35.37	11.3	33.28	147	291	Average
5692	91.16	-	-	77.77	35.37	11.3	33.28	147	291	Peak
11380	50.38	-23.62	74	55.09	38.31	10.97	53.99	100	0	Peak

Test Mode :	802.11ac VHT80	Temperature :	23~25°C
Test Channel :	138	Relative Humidity :	52~54%
Test Engineer :	David Ke	Polarization :	Vertical
Remark :	1. 5694 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5694	80.12	-	-	66.73	35.37	11.3	33.28	104	9	Average
5694	90.8	-	-	77.39	35.39	11.3	33.28	104	9	Peak
11379	50.36	-23.64	74	55.07	38.31	10.97	53.99	100	0	Peak

3.6 AC Conducted Emission Measurement

3.6.1 Limit of AC Conducted Emission

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

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

*Decreases with the logarithm of the frequency.

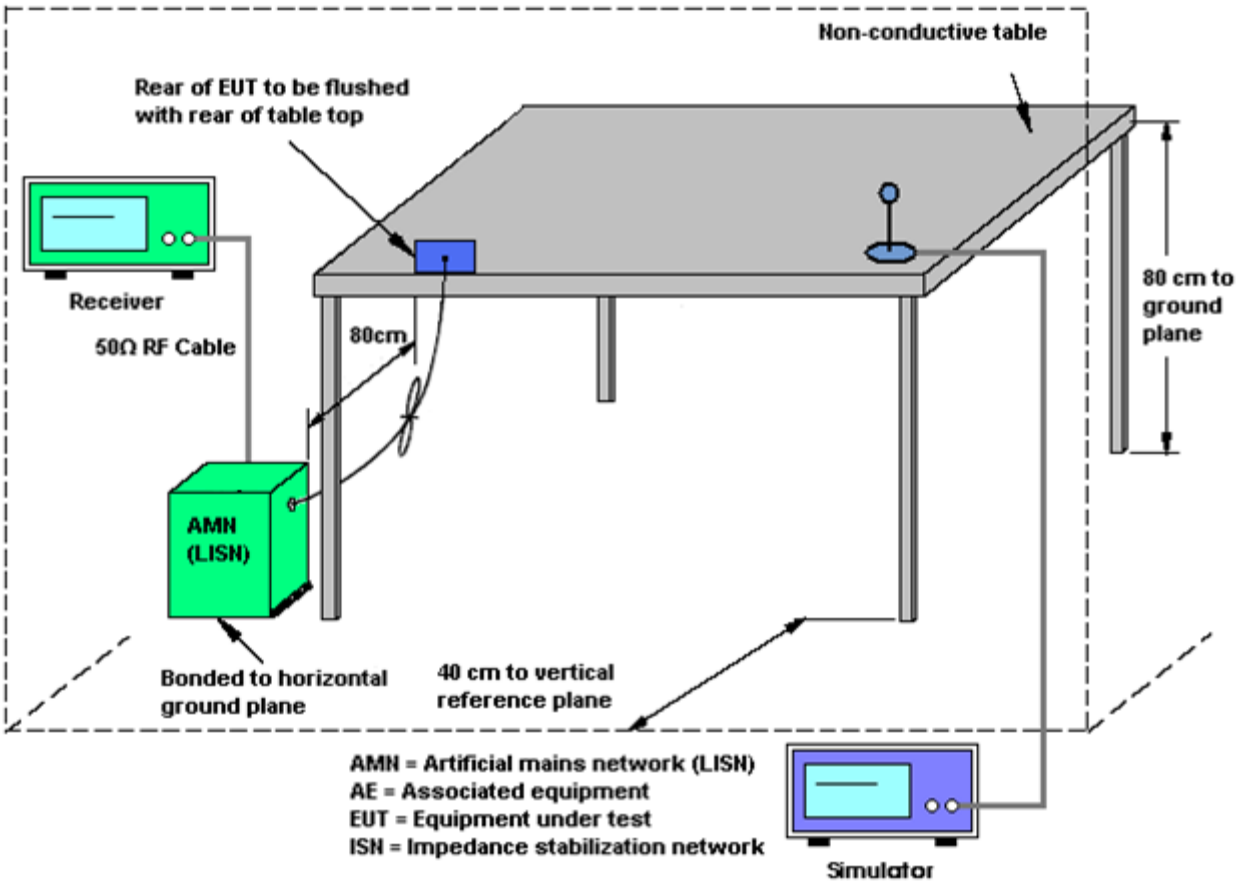
3.6.2 Measuring Instruments

See list of measuring instruments of this test report.

3.6.3 Test Procedures

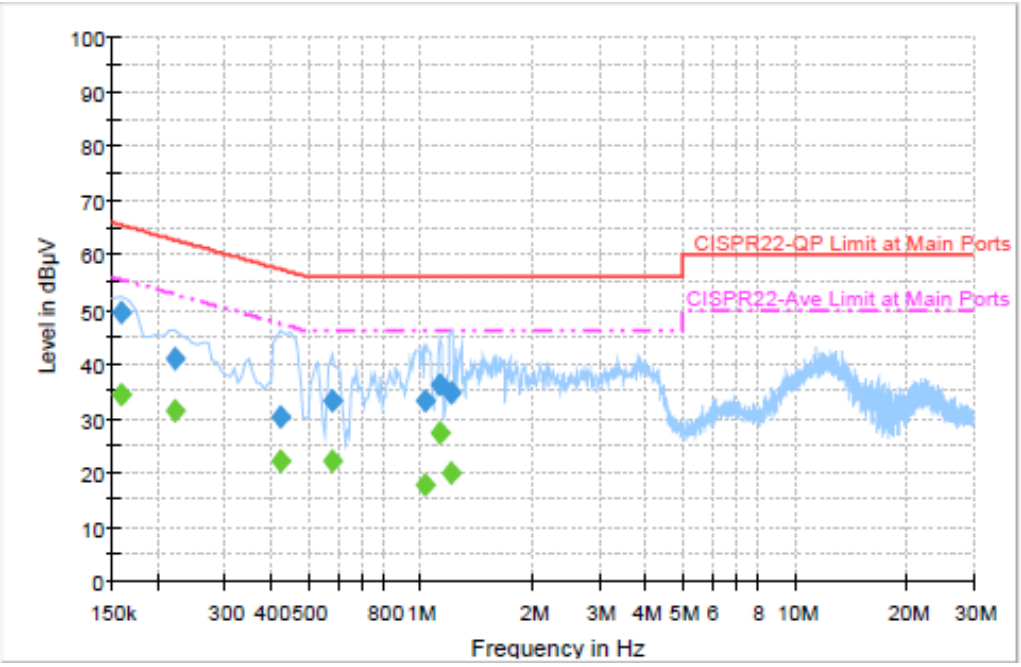
1. The testing follows the guidelines in ANSI C63.10-2009 test site requirement.
2. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
3. Connect EUT to the power mains through a line impedance stabilization network (LISN).
4. All the support units are connecting to the other LISN.
5. The LISN provides 50 ohm coupling impedance for the measuring instrument.
6. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
7. Both sides of AC line were checked for maximum conducted interference.
8. The frequency range from 150 kHz to 30 MHz was searched.
9. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

3.6.4 Test Setup



3.6.5 Test Result of AC Conducted Emission

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



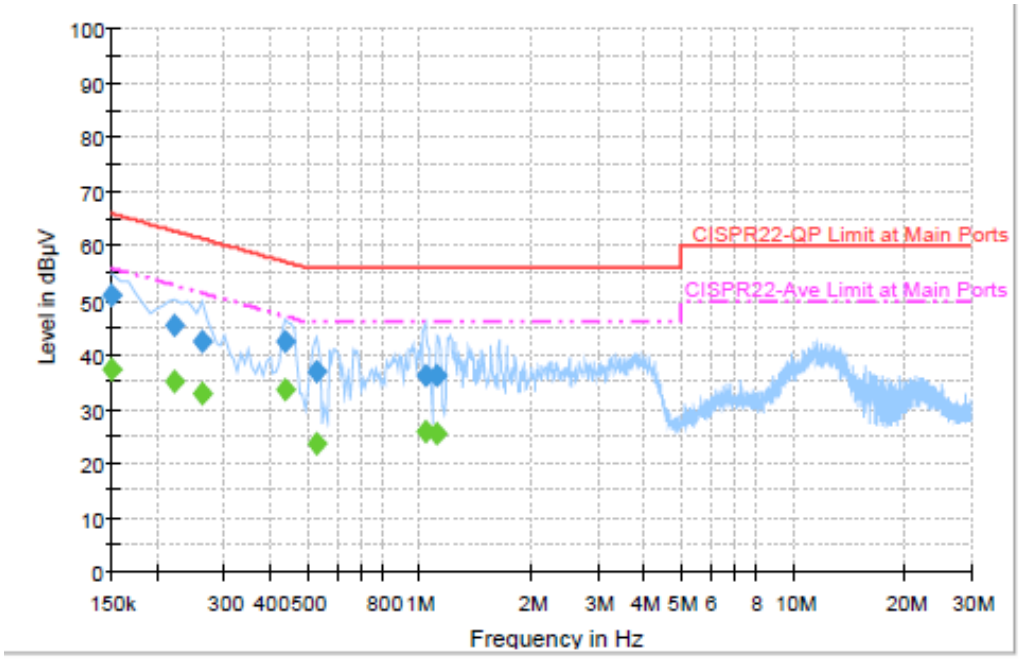
Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	49.6	Off	L1	19.3	16.0	65.6
0.222000	41.1	Off	L1	19.4	21.6	62.7
0.422000	30.3	Off	L1	19.4	27.1	57.4
0.582000	33.3	Off	L1	19.4	22.7	56.0
1.030000	33.1	Off	L1	19.4	22.9	56.0
1.126000	36.2	Off	L1	19.4	19.8	56.0
1.206000	34.6	Off	L1	19.5	21.4	56.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	34.5	Off	L1	19.3	21.1	55.6
0.222000	31.5	Off	L1	19.4	21.2	52.7
0.422000	22.0	Off	L1	19.4	25.4	47.4
0.582000	22.2	Off	L1	19.4	23.8	46.0
1.030000	17.9	Off	L1	19.4	28.1	46.0
1.126000	27.4	Off	L1	19.4	18.6	46.0
1.206000	20.0	Off	L1	19.5	26.0	46.0

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



Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	50.8	Off	N	19.4	15.2	66.0
0.222000	45.4	Off	N	19.4	17.3	62.7
0.262000	42.5	Off	N	19.4	18.9	61.4
0.438000	42.3	Off	N	19.4	14.8	57.1
0.534000	37.0	Off	N	19.4	19.0	56.0
1.038000	36.0	Off	N	19.5	20.0	56.0
1.118000	36.2	Off	N	19.5	19.8	56.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	37.3	Off	N	19.4	18.7	56.0
0.222000	35.2	Off	N	19.4	17.5	52.7
0.262000	32.9	Off	N	19.4	18.5	51.4
0.438000	33.4	Off	N	19.4	13.7	47.1
0.534000	23.8	Off	N	19.4	22.2	46.0
1.038000	26.0	Off	N	19.5	20.0	46.0
1.118000	25.3	Off	N	19.5	20.7	46.0

3.7 Frequency Stability Measurement

3.7.1 Limit of Frequency Stability

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

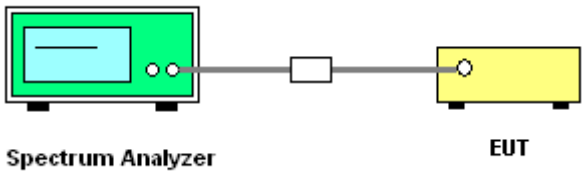
3.7.2 Measuring Instruments

See list of measuring instruments of this test report.

3.7.3 Test Procedures

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

3.7.4 Test Setup



3.7.5 Test Result of Frequency Stability

Test Band :	5GHz band 1	Temperature :	24~26℃
Test Engineer :	Bill Kuo	Relative Humidity :	55~58%

Mod.	Data Rate	N_{TX}	Channel	Frequency (MHz)	Low Frequency (MHz)	High Frequency (MHz)	Mid Frequency (MHz)	Frequency Stability (ppm)
11a	6Mbps	1	36	5180	5171.70	5188.30	5180.00	0
11a	6Mbps	1	44	5220	5211.70	5228.30	5220.00	0
11a	6Mbps	1	48	5240	5231.75	5248.25	5240.00	0
HT20	MCS0	1	36	5180	5171.10	5188.90	5180.00	0
HT20	MCS0	1	44	5220	5211.10	5228.90	5220.00	0
HT20	MCS0	1	48	5240	5231.05	5248.85	5239.95	-9.54
HT40	MCS0	1	38	5190	5171.82	5208.27	5190.05	8.67
HT40	MCS0	1	46	5230	5211.73	5248.18	5229.96	-8.60
VHT20	MCS0	1	36	5180	5171.10	5188.85	5179.98	-4.83
VHT20	MCS0	1	44	5220	5211.10	5228.90	5220.00	0.00
VHT20	MCS0	1	48	5240	5231.05	5248.90	5239.98	-4.77
VHT40	MCS0	1	38	5190	5171.73	5208.27	5190.00	0.00
VHT40	MCS0	1	46	5230	5211.82	5248.27	5230.05	8.60
VHT80	MCS0	1	42	5210	5171.72	5248.28	5210.00	0.00

Test Band :	5GHz band 2	Temperature :	24~26℃
Test Engineer :	Bill Kuo	Relative Humidity :	55~58%

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	Low Frequency (MHz)	High Frequency (MHz)	Mid Frequency (MHz)	Frequency Stability (ppm)
11a	6Mbps	1	52	5260	5251.75	5268.30	5260.03	4.75
11a	6Mbps	1	60	5300	5291.70	5308.30	5300.00	0.00
11a	6Mbps	1	64	5320	5311.70	5328.30	5320.00	0.00
HT20	MCS0	1	52	5260	5251.10	5268.95	5260.03	4.75
HT20	MCS0	1	60	5300	5291.05	5308.90	5299.98	-4.72
HT20	MCS0	1	64	5320	5311.10	5328.85	5319.98	-4.70
HT40	MCS0	1	54	5270	5251.73	5288.27	5270.00	0.00
HT40	MCS0	1	62	5310	5291.82	5328.18	5310.00	0.00
VHT20	MCS0	1	52	5260	5251.10	5268.95	5260.03	4.75
VHT20	MCS0	1	60	5300	5291.10	5308.90	5300.00	0.00
VHT20	MCS0	1	64	5320	5311.05	5328.85	5319.95	-9.40
VHT40	MCS0	1	54	5270	5251.64	5288.27	5269.96	-8.54
VHT40	MCS0	1	62	5310	5291.82	5328.18	5310.00	0.00
VHT80	MCS0	1	58	5290	5251.84	5328.28	5290.06	11.34

Test Band :	5GHz band 3	Temperature :	24~26℃
Test Engineer :	Bill Kuo	Relative Humidity :	55~58%

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	Low Frequency (MHz)	High Frequency (MHz)	Mid Frequency (MHz)	Frequency Stability (ppm)
11a	6Mbps	1	100	5500	5491.75	5508.25	5500.00	0.00
11a	6Mbps	1	116	5580	5571.75	5588.25	5580.00	0.00
11a	6Mbps	1	140	5700	5691.75	5708.30	5700.03	4.39
11a	6Mbps	1	144	5720	5711.70	5728.30	5720.00	0.00
HT20	MCS0	1	100	5500	5491.05	5508.85	5499.95	-9.09
HT20	MCS0	1	116	5580	5571.05	5588.85	5579.95	-8.96
HT20	MCS0	1	140	5700	5691.10	5708.90	5700.00	0.00
HT20	MCS0	1	144	5720	5711.10	5728.90	5720.00	0.00
HT40	MCS0	1	102	5510	5491.82	5528.18	5510.00	0.00
HT40	MCS0	1	110	5550	5531.73	5568.27	5550.00	0.00
HT40	MCS0	1	134	5670	5651.64	5688.27	5669.96	-7.94
HT40	MCS0	1	142	5710	5691.73	5728.27	5710.00	0.00
VHT20	MCS0	1	100	5500	5491.05	5508.90	5499.98	-4.55
VHT20	MCS0	1	116	5580	5571.05	5588.85	5579.95	-8.96
VHT20	MCS0	1	140	5700	5691.10	5708.90	5700.00	0.00
VHT20	MCS0	1	144	5720	5711.10	5728.85	5719.98	-4.37
VHT40	MCS0	1	102	5510	5491.82	5528.36	5510.09	16.33
VHT40	MCS0	1	110	5550	5531.82	5568.18	5550.00	0.00
VHT40	MCS0	1	134	5670	5651.73	5688.27	5670.00	0.00
VHT40	MCS0	1	142	5710	5691.73	5728.18	5709.96	-7.88
VHT80	MCS0	1	106	5530	5491.84	5568.28	5530.06	10.85
VHT80	MCS0	1	138	5690	5651.84	5728.16	5690.00	0.00

Test Band :	5GHz band 4	Temperature :	24~26℃
Test Engineer :	Bill Kuo	Relative Humidity :	55~58%

Mod.	Data Rate	N_{TX}	Channel	Freq. (MHz)	Low Frequency (MHz)	High Frequency (MHz)	Mid Frequency (MHz)	Frequency Stability (ppm)
11a	6Mbps	1	149	5745	5736.75	5753.25	5745.00	0.00
11a	6Mbps	1	157	5785	5776.75	5793.30	5785.03	4.32
11a	6Mbps	1	165	5825	5816.75	5833.30	5825.03	4.29
HT20	MCS0	1	149	5745	5736.05	5753.95	5745.00	0.00
HT20	MCS0	1	157	5785	5776.05	5793.90	5784.98	-4.32
HT20	MCS0	1	165	5825	5816.10	5833.90	5825.00	0.00
HT40	MCS0	1	151	5755	5736.73	5773.18	5754.96	-7.82
HT40	MCS0	1	159	5795	5776.82	5813.18	5795.00	0.00
VHT20	MCS0	1	149	5745	5736.10	5753.90	5745.00	0.00
VHT20	MCS0	1	157	5785	5776.05	5793.90	5784.98	-4.32
VHT20	MCS0	1	165	5825	5816.10	5833.90	5825.00	0.00
VHT40	MCS0	1	151	5755	5736.64	5773.18	5754.91	-15.64
VHT40	MCS0	1	159	5795	5776.82	5813.18	5795.00	0.00
VHT80	MCS0	1	155	5775	5736.72	5813.28	5775.00	0.00

3.8 Automatically Discontinue Transmission

3.8.1 Limit of Automatically Discontinue Transmission

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

3.8.2 Measuring Instruments

See list of measuring instruments of this test report.

3.8.3 Test Result of Automatically Discontinue Transmission

During no any information transmission, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

3.9 Antenna Requirements

3.9.1 Standard Applicable

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

3.9.2 Antenna Connected Construction

Non-standard connector used.

3.9.3 Antenna Gain

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

4 List of Measuring Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	Rohde & Schwarz	FSP40	100055	9kHz~40GHz	Jun. 07, 2013	Jun. 30, 2013~ Jul. 17, 2013	Jun. 06, 2014	Conducted (TH02-HY)
Power Meter	Anritsu	ML2495A	1036004	300MHz~40GHz	Sep. 08, 2012	Jun. 30, 2013~ Jul. 17, 2013	Sep. 07, 2013	Conducted (TH02-HY)
Power Sensor	Anritsu	MA2411B	1027253	300MHz~40GHz	Sep. 08, 2012	Jun. 30, 2013~ Jul. 17, 2013	Sep. 07, 2013	Conducted (TH02-HY)
Spectrum Analyzer	R&S	FSP30	101352	9kHz~30GHz	Nov. 07, 2012	Jul. 05, 2013~ Jul.17, 2013	Nov. 06, 2013	Radiation (03CH06-HY)
Spectrum Analyzer	Agilent	E4408B	MY44211030	9kHz ~ 26.5GHz	Nov. 26, 2012	Jul. 05, 2013~ Jul.17, 2013	Nov. 25, 2013	Radiation (03CH06-HY)
EMI Test Receiver	R&S	ESVS10	834468/0003	20MHz ~ 1000MHz	May 06, 2013	Jul. 05, 2013~ Jul.17, 2013	May 05, 2014	Radiation (03CH06-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	860004/0001	9 kHz~30 MHZ	Jul. 03, 2012	Jul. 05, 2013~ Jul.17, 2013	Jul. 03, 2014	Radiation (03CH06-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz ~ 2GHz	Oct. 06, 2012	Jul. 05, 2013~ Jul.17, 2013	Oct. 05, 2013	Radiation (03CH06-HY)
Double Ridge Horn Antenna	EMCO	3117	00066583	1GHz ~ 18GHz	Aug. 01, 2012	Jul. 05, 2013~ Jul.17, 2013	Jul. 31, 2013	Radiation (03CH06-HY)
Amplifier	Agilent	310N	186713	9kHz ~ 1GHz	Apr. 12, 2013	Jul. 05, 2013~ Jul.17, 2013	Apr. 11, 2014	Radiation (03CH06-HY)
Pre Amplifier	EMCI	EMC051845	SN980048	1GHz ~ 18GHz	Jul. 21, 2012	Jul. 05, 2013~ Jul.17, 2013	Jul. 20, 2013	Radiation (03CH06-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	15GHz ~ 40GHz	Sep. 28, 2012	Jul. 05, 2013~ Jul.17, 2013	Sep. 27, 2013	Radiation (03CH06-HY)
Preamplifier	Agilent	8449B	3008A01917	1GHz ~ 26.5GHz	Apr. 12, 2013	Jul. 05, 2013~ Jul.17, 2013	Apr. 11, 2014	Radiation (03CH06-HY)
Turn Table	INN-CO	DS2000	420/650/00	0 - 360 degree	N/A	Jul. 05, 2013~ Jul.17, 2013	N/A	Radiation (03CH06-HY)
Antenna Mast	MF	MF-7802	MF780208212	1 m ~ 4 m	N/A	Jul. 05, 2013~ Jul.17, 2013	N/A	Radiation (03CH06-HY)
EMI Test Receiver	Rohde & Schwarz	ESCS 30	100356	9kHz ~ 2.75GHz	Nov. 13, 2012	Jul. 03, 2013	Nov. 12, 2013	Conduction (CO05-HY)
Two-LISN (for auxiliary equipment)	Rohde & Schwarz	ENV216	100081	9kHz ~ 30MHz	Dec. 12, 2012	Jul. 03, 2013	Dec. 11, 2013	Conduction (CO05-HY)
Two-LISN	Rohde & Schwarz	ENV216	100080	9kHz ~ 30MHz	Dec. 06, 2012	Jul. 03, 2013	Dec. 05, 2013	Conduction (CO05-HY)
AC Power Source	APC	APC-1000W	N/A	N/A	N/A	Jul. 03, 2013	N/A	Conduction (CO05-HY)

5 Uncertainty of Evaluation

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

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

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.54**

Uncertainty of Radiated Emission Measurement (1GHz ~ 40GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.72**