

FCC RF Test Report

APPLICANT : LG ELECTRONICS MOBILECOMM U.S.A., INC.
EQUIPMENT : GSM/WCDMA TRI-BAND PHONE WITH BT,
WLAN, AND NFC
BRAND NAME : LG
MODEL NAME : LG-E960, E960, LGE960
MARKETING NAME : LG-E960
FCC ID : ZNFE960
STANDARD : FCC Part 15 Subpart E
CLASSIFICATION : (NII) Unlicensed National Information
Infrastructure

This is a variant report for FCC permissions change, and the product was received on Sep. 10, 2012 and completely tested on Sep. 18, 2012. 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:



Jones Tsai / Manager



SPORTON INTERNATIONAL INC.

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

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR291007D	Rev. 01	Please refer to FCC ID : ZNFE960 report.	Sep. 26, 2012

SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	15.407(b)	A9.3	Unwanted Emissions	$\leq -17, -27$ dBm (depend on band)&15.209(a)	Pass	Under limit 3.09 dB at 44.040 MHz for Quasi Peak
3.2	15.407(c)	A9.5	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-
3.3	15.203 & 15.407(a)	A9.2	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

LG ELECTRONICS MOBILECOMM U.S.A., INC.
1000 SYLVAN AVENUE ENGLEWOOD CLIFFS, NEW JERSEY 07632

1.2 Manufacturer

LG ELECTRONICS MOBILECOMM U.S.A., INC.
1000 SYLVAN AVENUE ENGLEWOOD CLIFFS, NEW JERSEY 07632

1.3 Feature of Equipment Under Test

Product Feature & Specification	
Equipment	GSM/WCDMA TRI-BAND PHONE WITH BT, WLAN, AND NFC
Brand Name	LG
Model Name	LG-E960, E960, LGE960
Marketing Name	LG-E960
FCC ID	ZNFE960
EUT supports Radios application	GSM/ WCDMA WLAN 11abgn / Bluetooth / NFC
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.

Product Specification subjective to this standard	
Tx/Rx Frequency Range	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5700 MHz
Maximum Output Power to Antenna	<5180 MHz ~ 5240 MHz> 802.11a : 13.52 dBm / 0.0225 W 802.11n (BW 20MHz) : 11.95 dBm / 0.0157 W <5260 MHz ~ 5320 MHz> 802.11a : 12.91 dBm / 0.0195 W 802.11n (BW 20MHz) : 11.96 dBm / 0.0157 W <5500 MHz ~ 5700 MHz> 802.11a : 12.93 dBm / 0.0196 W 802.11n (BW 20MHz) : 11.64 dBm / 0.0146 W
Antenna Type	FPCB Antenna with gain -3.20 dBi
Type of Modulation	OFDM (BPSK / QPSK / 16QAM / 64QAM)

1.4 Testing Site

Test Site	SPORTON INTERNATIONAL INC.	
Test Site Location	No. 52, Hwa Ya 1 st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL: +886-3-3273456 / FAX: +886-3-3284978	
Test Site No.	Sporton Site No.	FCC/IC Registration No.
	03CH05-HY	722060/4086B-1

1.5 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 v01r01
- ANSI C63.4-2003 and ANSI C63.10-2009
- IC RSS-210 Issued 8
- IC RSS-Gen Issue 3

Remark:

All test items were verified and recorded according to the standards and without any deviation during the test.

1.6 Ancillary Equipment List

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	AC Adapter 1	SUNLIN	MCS-01WR	N/A	N/A	N/A
2.	AC Adapter 2	TENPAO	MCS-01WT	N/A	N/A	N/A
3.	AC Adapter 3	DONG DO	MCS-01WD	N/A	N/A	N/A
4.	Battery	LG Chem	BL-T5	N/A	N/A	N/A
5.	USB Cable 1	INTERFACESAMIL	EAD62330101	N/A	N/A	Shielded, 1.1 m
6.	USB Cable 2	NINGBO	EAD62330102	N/A	N/A	Shielded, 1.1 m
7.	Wireless charging pad adaptor	LG	PSTA-D01WT	N/A	N/A	Shielded, 1.5 m
8.	Wireless charging pad	LG	NA	N/A	N/A	NA
9.	Earphone	LG	N/A	N/A	N/A	Shielded, 1.1 m

2 Test Configuration of Equipment Under Test

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

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

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

2.1 Carrier Frequency Channel

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

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

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

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

2.2 RF Power

Below the highest power data rates were chosen for radiated spurious emissions test in the following tables.

5GHz 802.11a mode									
Data Rate (MHz)		6M bps	9M bps	12M bps	18M bps	24M bps	36M bps	48M bps	54M bps
Peak Power (dBm)	36	13.00	12.73	12.64	12.49	12.33	12.14	11.88	11.75
	40	13.01	13.00	13.01	12.81	12.67	12.05	11.79	11.70
	44	13.01	12.89	12.85	12.37	12.63	12.43	12.12	11.85
	48	13.00	12.70	12.62	13.52	12.37	12.12	11.86	11.77
	52	12.91	12.79	12.72	12.57	12.42	12.15	11.88	11.80
	56	12.70	12.50	12.64	12.29	12.33	11.88	11.35	11.28
	60	12.67	12.50	12.49	12.27	12.17	11.88	11.35	11.18
	64	12.45	12.59	12.44	12.21	11.84	11.47	11.18	11.09
	100	12.93	11.97	11.89	11.71	11.52	11.25	11.00	10.89
	104	12.90	12.50	12.19	12.04	11.57	11.24	11.01	10.83
	108	12.50	12.39	12.50	12.19	11.26	11.00	11.23	11.18
	112	12.50	12.07	12.07	11.97	11.73	11.46	11.23	11.12
	116	12.48	12.40	12.29	12.09	11.57	11.26	11.00	10.88
	132	12.50	12.29	12.40	12.29	11.36	11.20	11.33	11.18
	136	12.50	12.40	12.29	12.19	11.21	11.57	11.10	11.31
	140	12.23	12.19	12.07	11.89	11.73	11.46	11.23	11.11

5GHz 802.11n HT20 mode									
Data Rate (MHz)		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Peak Power (dBm)	36	11.95	11.61	11.48	11.30	11.08	10.82	10.75	10.65
	40	11.94	11.69	11.51	11.31	11.05	10.80	10.71	10.59
	44	11.83	11.74	11.32	11.31	11.08	10.82	10.49	10.39
	48	11.93	11.64	11.48	11.32	11.08	10.81	10.69	10.57
	52	11.87	11.71	11.55	11.36	11.11	10.88	10.81	10.64
	56	11.87	11.64	11.41	11.32	11.24	10.88	10.70	10.53
	60	11.61	11.46	11.23	11.00	10.55	10.21	10.13	10.03
	64	11.96	11.55	10.99	10.79	10.47	10.20	10.13	10.02
	100	11.28	10.88	10.70	10.49	10.22	9.95	9.87	9.77
	104	11.17	11.64	11.41	11.32	11.24	10.88	10.70	10.53
	108	11.01	11.26	11.03	11.24	10.85	10.21	10.23	10.13
	112	11.21	11.14	11.23	11.00	10.55	10.21	10.53	10.05
	116	11.17	10.89	10.71	10.50	10.22	9.95	9.86	9.76
	132	11.10	11.23	11.26	11.03	10.21	10.55	10.13	10.02
	136	11.11	11.41	11.24	11.00	10.13	10.21	10.39	10.29
	140	11.24	11.08	10.90	10.71	10.49	10.19	10.07	9.98

2.3 Test Mode

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

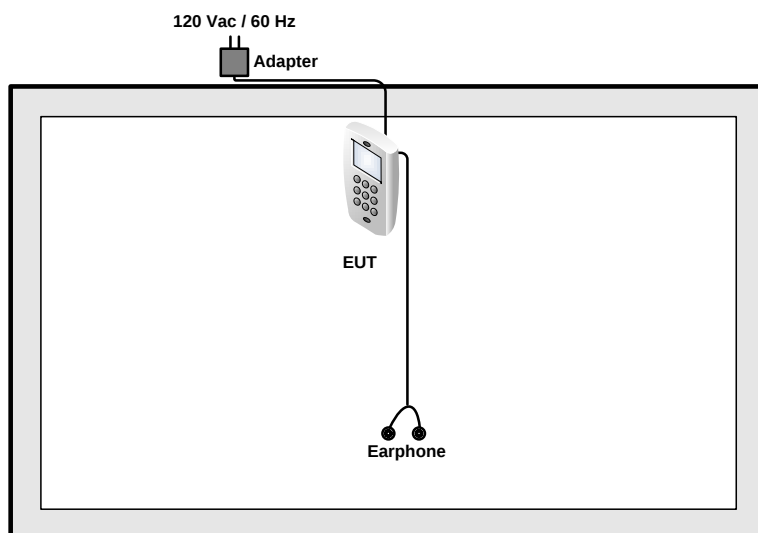
Test Cases				
Conducted TCs	Test Items	Mode	Data rate	Test Channel
	Output Power	802.11a	6 Mbps	L/M/H
		802.11n HT20	6.5 Mbps	L/M/H
Radiated TCs	Radiated Band Edge	802.11a	6 Mbps	L/H
		802.11n HT20	6.5 Mbps	L/H
	Radiated Spurious Emission	802.11a	6 Mbps	L/M/H
		802.11n HT20	6.5 Mbps	L/M/H

Remark: All the performance of Radiated TCs with USB Cable1 and Adaptor 2 for Mode 1~18.

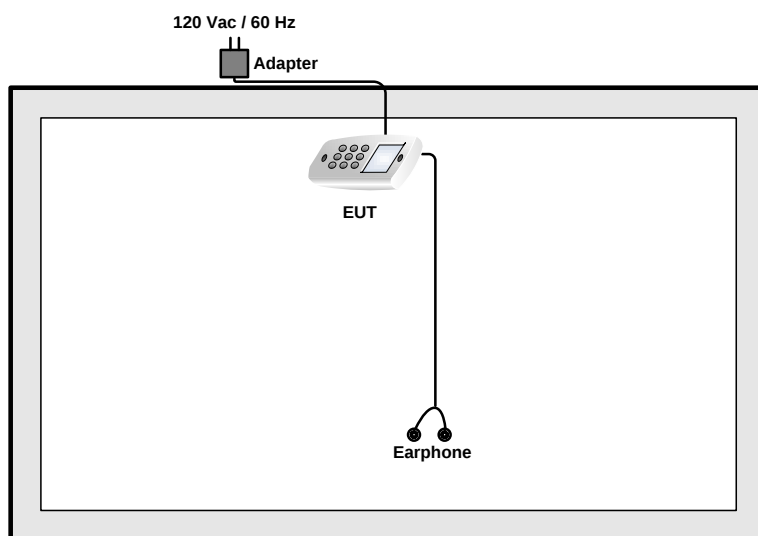
Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5725 MHz
		802.11a	802.11a	802.11a
L	Low	52	52	100
M	Middle	60	60	116
H	High	64	64	140

2.4 Connection Diagram of Test System

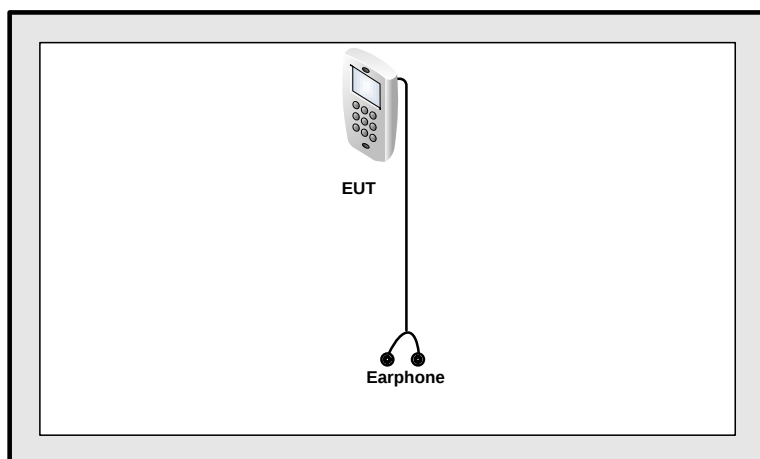
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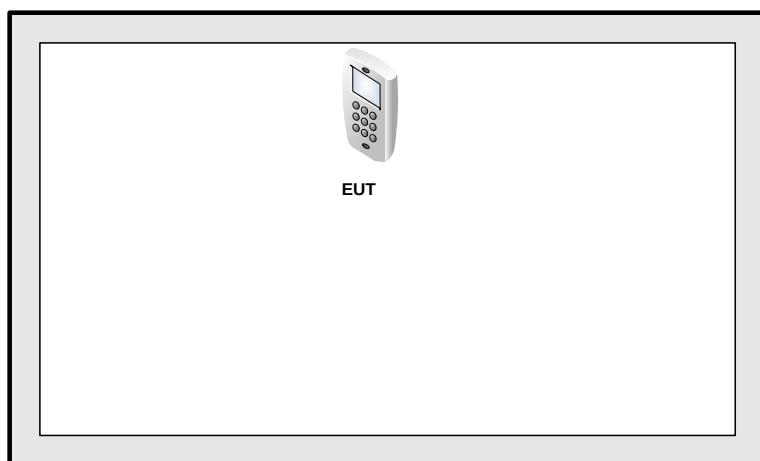
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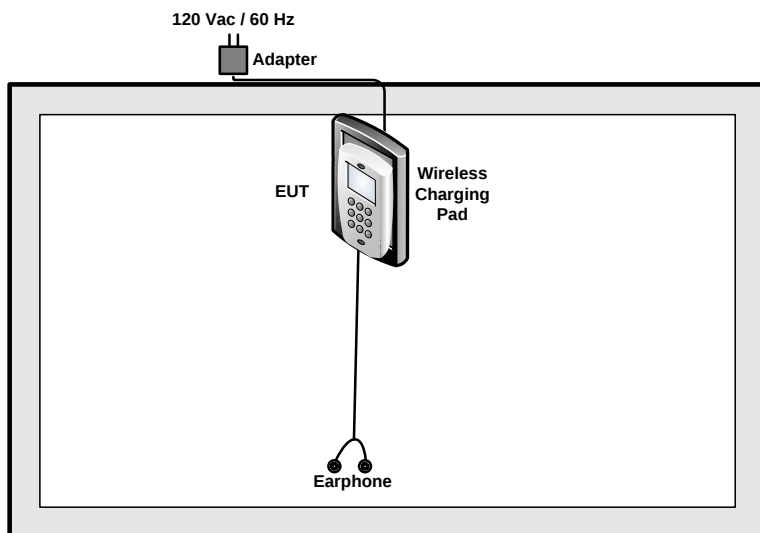
<WLAN Tx Mode 19>



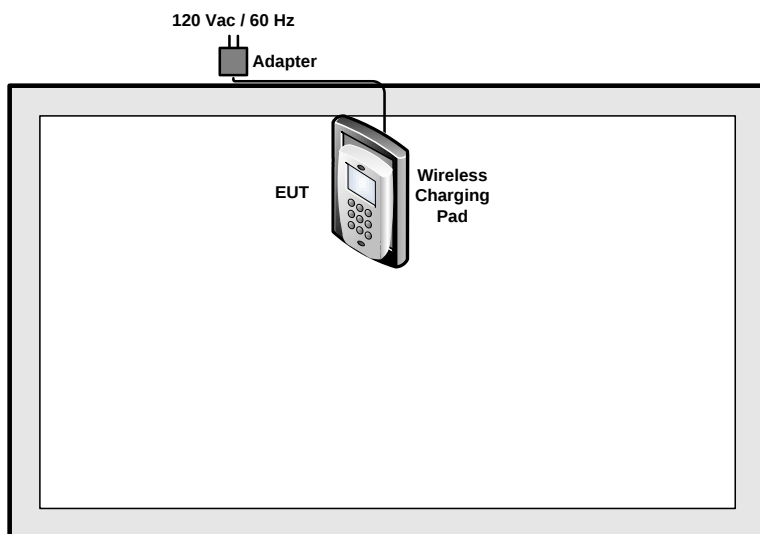
<WLAN Tx Mode 20>



<WLAN Tx Mode 21>



<WLAN Tx Mode 22>



2.5 RF Utility

For WLAN function, key in “3845 # *960 #” on the EUT directly. Then, the EUT will get into the engineering modes to contact with WLAN AP for continuous transmitting and receiving signals.

3 Test Result

3.1 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.

3.1.1 Limit of Unwanted Emissions

- (1) For transmitters operating in the 5.15–5.25 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of –27dBm/MHz.

For transmitters operating in the 5.25-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5.25-5.35 GHz band that generate emissions in the 5.15-5.25 GHz band must meet all applicable technical requirements for operation in the 5.15-5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5.15-5.25 GHz band.

For transmitters operating in the 5.47-5.725 GHz band: all emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.

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

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

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

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

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

3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 Test Procedures

1. The testing follows the guidelines in fulfills ANSI C63.4-2003 and the guidelines in ANSI C63.10-2009 test site requirement and FCC KDB 789033 D01 General UNII Test Procedures v01r01.

Section G) Unwanted emissions measurement.

(1) Procedure for Unwanted Emissions Measurements Below 1000MHz

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

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

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

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

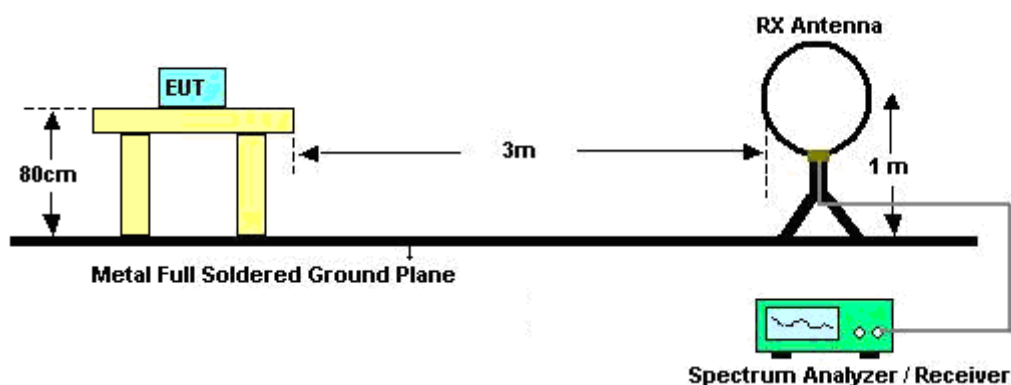
- The setting follows G) 6) of FCC KDB 789033.
- RBW = 1 MHz
- VBW = 10 Hz, when duty cycle is no less than 98 percent.
- VBW $\geq$ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control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

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.

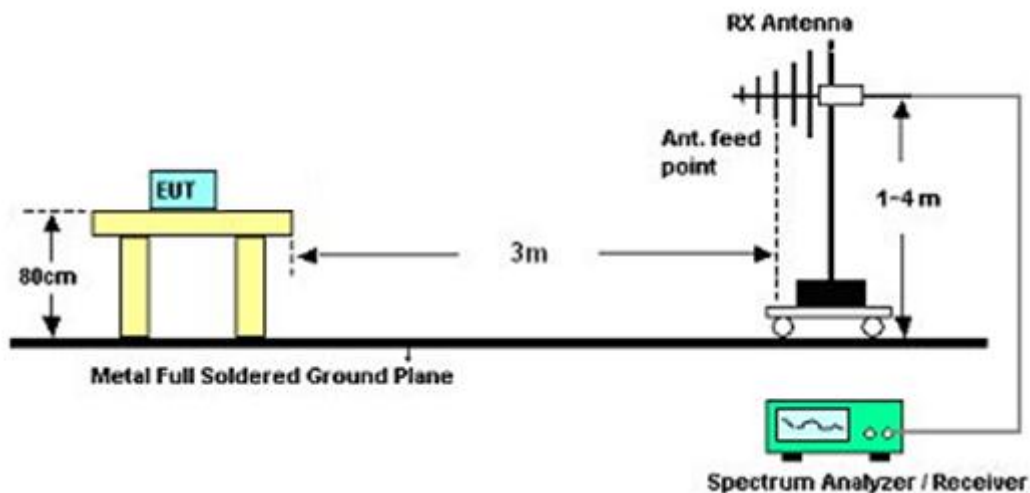
Band	Duty Cycle(%)	T(us)	1/T(KHz)	VBW Setting
802.11a	95.32	2.035	0.491	1KHz
802.11n (BW 20MHz)	94.99	1.895	0.528	1KHz

3.1.4 Test Setup

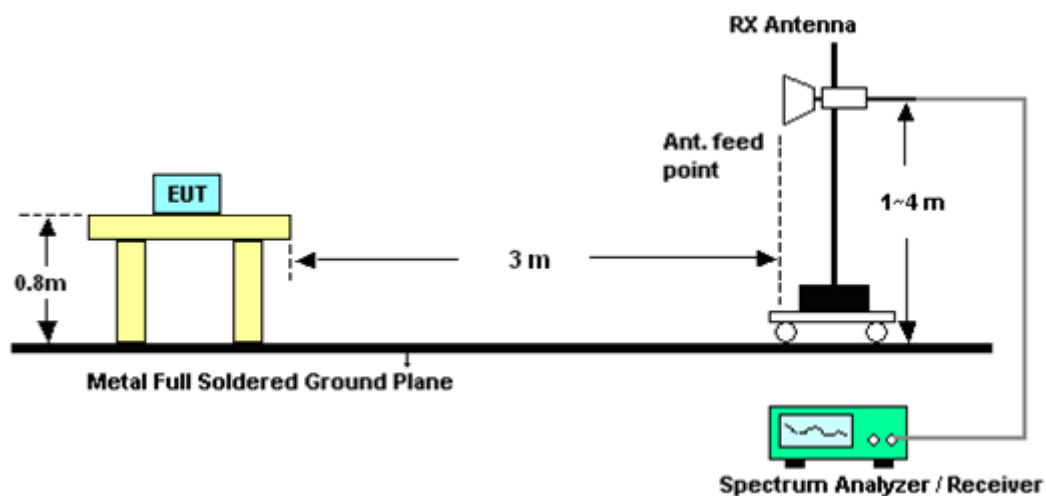
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.1.5 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.

3.1.6 Test Result

3.1.6.1 Test Result of Radiated Band Edges

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	36	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5149.45	56.73	-17.27	74	50.73	34.45	6.69	35.14	100	301	Peak
5127.6	43.89	-10.11	54	37.95	34.43	6.68	35.17	100	301	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
5127.35	51.88	-22.12	74	45.94	34.43	6.68	35.17	100	340	Peak
5127	40.27	-13.73	54	34.33	34.43	6.68	35.17	100	340	Average

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	48	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5136.3	50.77	-23.23	74	44.83	34.43	6.68	35.17	108	42	Peak
5143.05	39.26	-14.74	54	33.29	34.45	6.69	35.17	108	42	Average
5391.25	51.42	-22.58	74	44.79	34.68	6.86	34.91	108	42	Peak
5394.05	39.63	-14.37	54	33	34.68	6.86	34.91	108	42	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5145.05	51.6	-22.4	74	45.6	34.45	6.69	35.14	100	344	Peak
5143	39.74	-14.26	54	33.77	34.45	6.69	35.17	100	344	Average
5371.45	52.31	-21.69	74	45.72	34.67	6.85	34.93	100	344	Peak
5385.5	39.88	-14.12	54	33.25	34.68	6.86	34.91	100	344	Average



Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	52	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5132.9	50.71	-23.29	74	44.77	34.43	6.68	35.17	120	50	Peak
5148.35	39.19	-14.81	54	33.19	34.45	6.69	35.14	120	50	Average
5385.5	51.17	-22.83	74	44.54	34.68	6.86	34.91	120	50	Peak
5399.85	39.63	-14.37	54	32.95	34.7	6.86	34.88	120	50	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
5116.45	51.06	-22.94	74	45.15	34.42	6.68	35.19	100	345	Peak
5144.35	39.21	-14.79	54	33.21	34.45	6.69	35.14	100	345	Average
5358.3	51.91	-22.09	74	45.34	34.65	6.85	34.93	100	345	Peak
5350.4	40.21	-13.79	54	33.66	34.65	6.83	34.93	100	345	Average

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5372.55	53.55	-20.45	74	46.96	34.67	6.85	34.93	105	49	Peak
5372.45	41.97	-12.03	54	35.38	34.67	6.85	34.93	105	49	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
5372.95	57.42	-16.58	74	50.83	34.67	6.85	34.93	100	345	Peak
5372.35	45.74	-8.26	54	39.15	34.67	6.85	34.93	100	345	Average



Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	100	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5447.12	56.7	-17.3	74	49.9	34.75	6.9	34.85	102	335	Peak
5470	51.37	-16.93	68.3	44.51	34.77	6.92	34.83	102	335	Peak
5447.52	45.49	-8.51	54	38.69	34.75	6.9	34.85	102	335	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
5447.04	52.69	-21.31	74	45.89	34.75	6.9	34.85	100	96	Peak
5470	49.5	-18.8	68.3	42.64	34.77	6.92	34.83	100	96	Peak
5447.36	41.84	-12.16	54	35.04	34.75	6.9	34.85	100	96	Average

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	140	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5725	53.53	-14.77	68.3	46.14	35.07	7.17	34.85	100	333	Peak

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	52.23	-16.07	68.3	44.84	35.07	7.17	34.85	104	360	Peak



Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	36	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5127.8	52.25	-21.75	74	46.31	34.43	6.68	35.17	109	49	Peak
5128.1	40.07	-13.93	54	34.13	34.43	6.68	35.17	109	49	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
5127.45	55.14	-18.86	74	49.2	34.43	6.68	35.17	100	337	Peak
5128.35	43.28	-10.72	54	37.34	34.43	6.68	35.17	100	337	Average

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	48	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5139.6	51.17	-22.83	74	45.21	34.45	6.68	35.17	120	58	Peak
5147.35	39.23	-14.77	54	33.23	34.45	6.69	35.14	120	58	Average
5377.65	51.31	-22.69	74	44.69	34.68	6.85	34.91	120	58	Peak
5393.25	39.63	-14.37	54	33	34.68	6.86	34.91	120	58	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
5140.7	51.01	-22.99	74	45.04	34.45	6.69	35.17	100	338	Peak
5143.65	39.62	-14.38	54	33.65	34.45	6.69	35.17	100	338	Average
5356.8	52.03	-21.97	74	45.46	34.65	6.85	34.93	100	338	Peak
5381.15	39.86	-14.14	54	33.23	34.68	6.86	34.91	100	338	Average



Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	52	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5132.45	50.79	-23.21	74	44.85	34.43	6.68	35.17	118	60	Peak
5148.55	39.22	-14.78	54	33.22	34.45	6.69	35.14	118	60	Average
5366.4	51.62	-22.38	74	45.03	34.67	6.85	34.93	118	60	Peak
5361.55	39.65	-14.35	54	33.06	34.67	6.85	34.93	118	60	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5145.05	51.1	-22.9	74	45.1	34.45	6.69	35.14	100	338	Peak
5147.3	39.38	-14.62	54	33.38	34.45	6.69	35.14	100	338	Average
5382.95	51.73	-22.27	74	45.1	34.68	6.86	34.91	100	338	Peak
5352.25	40.1	-13.9	54	33.55	34.65	6.83	34.93	100	338	Average

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5395	51.62	-22.38	74	44.97	34.7	6.86	34.91	118	60	Peak
5371.7	41	-13	54	34.41	34.67	6.85	34.93	118	60	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
5371.6	55.89	-18.11	74	49.3	34.67	6.85	34.93	100	338	Peak
5371.7	44.31	-9.69	54	37.72	34.67	6.85	34.93	100	338	Average



Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	100	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5448.16	56.26	-17.74	74	49.46	34.75	6.9	34.85	103	338	Peak
5470	50.57	-17.73	68.3	43.71	34.77	6.92	34.83	103	338	Peak
5448.16	45.49	-8.51	54	38.69	34.75	6.9	34.85	103	338	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
5448.88	52.79	-21.21	74	45.99	34.75	6.9	34.85	100	84	Peak
5470	49.64	-18.66	68.3	42.78	34.77	6.92	34.83	100	84	Peak
5448.24	41.44	-12.56	54	34.64	34.75	6.9	34.85	100	84	Average

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	140	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5725	53.78	-14.52	68.3	46.39	35.07	7.17	34.85	100	333	Peak

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	51.12	-17.18	68.3	43.73	35.07	7.17	34.85	117	356	Peak



Test Mode :	802.11a (EUT + Earphone)	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5350.95	54.16	-19.84	74	47.61	34.65	6.83	34.93	117	48	Peak
5372.35	41.88	-12.12	54	35.29	34.67	6.85	34.93	117	48	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5350.2	61.4	-12.6	74	54.85	34.65	6.83	34.93	100	336	Peak
5372.25	46.15	-7.85	54	39.56	34.67	6.85	34.93	100	336	Average

Test Mode :	802.11a (EUT Standalone)	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5353.1	56.25	-17.75	74	49.7	34.65	6.83	34.93	117	53	Peak
5372.35	41.74	-12.26	54	35.15	34.67	6.85	34.93	117	53	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
5354	58.09	-15.91	74	51.54	34.65	6.83	34.93	100	331	Peak
5372.3	45.94	-8.06	54	39.35	34.67	6.85	34.93	100	331	Average



Test Mode :	802.11a (Wireless Charging + Earphone)	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5352.05	53.35	-20.65	74	46.8	34.65	6.83	34.93	100	270	Peak
5372.65	42.02	-11.98	54	35.43	34.67	6.85	34.93	100	270	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
5372.6	54.24	-19.76	74	47.65	34.67	6.85	34.93	100	179	Peak
5372.3	42.06	-11.94	54	35.47	34.67	6.85	34.93	100	179	Average

Test Mode :	802.11a (Wireless Charging)	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5372.4	53.67	-20.33	74	47.08	34.67	6.85	34.93	100	286	Peak
5372.4	42.55	-11.45	54	35.96	34.67	6.85	34.93	100	182	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5352.4	56.39	-17.61	74	49.84	34.65	6.83	34.93	100	286	Peak
5372.3	43.34	-10.66	54	36.75	34.67	6.85	34.93	100	286	Average

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

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	36	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Horizontal
Remark :	1. 5180 MHz is fundamental signal which can be ignored. 2. 10360 MHz is not within a restricted band, and its limit line is 68.3dBuV/m.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5180	89.01	-	-	82.94	34.48	6.71	35.12	100	340	Average
5180	99.73	-	-	93.66	34.48	6.71	35.12	100	340	Peak
10360	45.83	-22.47	68.3	54.06	37.72	9.71	55.66	100	0	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	36	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Vertical
Remark :	1. 5180 MHz is fundamental signal which can be ignored. 2. 10360 MHz is not within a restricted band, and its limit line is 68.3dBuV/m.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5180	97.34	-	-	91.27	34.48	6.71	35.12	100	301	Average
5180	107.49	-	-	101.42	34.48	6.71	35.12	100	301	Peak
10360	46.21	-22.09	68.3	54.44	37.72	9.71	55.66	100	0	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	44	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Horizontal
Remark :	1. 5220 MHz is fundamental signal which can be ignored. 2. 10440 MHz is not within a restricted band, and its limit line is 68.3dBuV/m.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5220	89.93	-	-	83.76	34.52	6.74	35.09	122	52	Average
5220	100.12	-	-	93.95	34.52	6.74	35.09	122	52	Peak
10440	47.17	-21.13	68.3	55.31	37.76	9.75	55.65	100	0	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	44	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Vertical
Remark :	1. 5220 MHz is fundamental signal which can be ignored. 2. 10440 MHz is not within a restricted band, and its limit line is 68.3dBuV/m.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5220	97.64	-	-	91.47	34.52	6.74	35.09	113	339	Average
5220	108.11	-	-	101.94	34.52	6.74	35.09	113	339	Peak
10440	47.36	-20.94	68.3	55.5	37.76	9.75	55.65	100	0	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	48	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Horizontal
Remark :	1. 5240 MHz is fundamental signal which can be ignored. 2. 10482 MHz is not within a restricted band, and its limit line is 68.3dBuV/m.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5240	91.25	-	-	85.02	34.53	6.76	35.06	108	42	Average
5240	101.74	-	-	95.51	34.53	6.76	35.06	108	42	Peak
10482	47.18	-21.12	68.3	55.24	37.79	9.78	55.63	100	0	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	48	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Vertical
Remark :	1. 5240 MHz is fundamental signal which can be ignored. 2. 10482 MHz is not within a restricted band, and its limit line is 68.3dBuV/m.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5240	98.65	-	-	92.42	34.53	6.76	35.06	100	344	Average
5240	108.75	-	-	102.52	34.53	6.76	35.06	100	344	Peak
10482	47.35	-20.95	68.3	55.41	37.79	9.78	55.63	100	0	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	52	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Horizontal
Remark :	1. 5260 MHz is fundamental signal which can be ignored. 2. 10520 MHz is not within a restricted band, and its limit line is 68.3dBuV/m.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5260	92.3	-	-	85.99	34.57	6.78	35.04	120	50	Average
5260	103.06	-	-	96.75	34.57	6.78	35.04	120	50	Peak
10520	46.93	-21.37	68.3	54.94	37.81	9.81	55.63	100	0	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	52	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Vertical
Remark :	1. 5260 MHz is fundamental signal which can be ignored. 2. 10524 MHz is not within a restricted band, and its limit line is 68.3dBuV/m.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5260	99.04	-	-	92.73	34.57	6.78	35.04	100	345	Average
5260	108.89	-	-	102.58	34.57	6.78	35.04	100	345	Peak
10524	47.71	-20.59	68.3	55.72	37.81	9.81	55.63	100	0	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	60	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Horizontal
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	91.72	-	-	85.3	34.6	6.8	34.98	119	52	Average
5300	102.16	-	-	95.74	34.6	6.8	34.98	119	52	Peak
10600	45.46	-28.54	74	53.37	37.84	9.85	55.6	100	0	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	60	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	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	99.26	-	-	92.84	34.6	6.8	34.98	100	346	Average
5300	109.96	-	-	103.54	34.6	6.8	34.98	100	346	Peak
10602	47.44	-26.56	74	55.35	37.84	9.85	55.6	100	0	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Horizontal
Remark :	1. 5320 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
32.97	33.83	-6.17	40	46.98	17.76	0.72	31.63	112	215	Peak
40.53	33.51	-6.49	40	51.62	12.72	0.75	31.58			Peak
223.32	28.69	-17.31	46	48.51	9.57	1.55	30.94			Peak
382.6	37.06	-8.94	46	50.83	15.29	1.97	31.03			Peak
685.7	29.98	-16.02	46	37.01	20.52	2.63	30.18			Peak
750.8	28.18	-17.82	46	33.23	22.39	2.75	30.19			Peak
5320	92.25	-	-	85.8	34.62	6.81	34.98	105	49	Average
5320	102.94	-	-	96.49	34.62	6.81	34.98	105	49	Peak
10641	46.59	-27.41	74	54.44	37.86	9.88	55.59	100	0	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Vertical
Remark :	1. 5320 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
39.99	33.27	-6.73	40	50.81	13.3	0.75	31.59	123	258	Peak
104.52	22.25	-21.25	43.5	41.92	10.7	1.12	31.49	-	-	Peak
229.8	25.58	-20.42	46	44.72	10.2	1.58	30.92	-	-	Peak
379.1	33.38	-12.62	46	47.25	15.17	1.96	31	-	-	Peak
622.7	27.58	-18.42	46	34.82	20.53	2.5	30.27	-	-	Peak
668.9	27.78	-18.22	46	35.03	20.29	2.61	30.15	-	-	Peak
5320	99.21	-	-	92.76	34.62	6.81	34.98	100	345	Average
5320	109.57	-	-	103.12	34.62	6.81	34.98	100	345	Peak
10641	48.17	-25.83	74	56.02	37.86	9.88	55.59	100	0	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	100	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Horizontal
Remark :	1. 5500 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
5500	97.92	-	-	90.97	34.8	6.95	34.8	102	335	Average
5500	108.04	-	-	101.09	34.8	6.95	34.8	102	335	Peak
11001	47.16	-26.84	74	54.54	38	10.11	55.49	100	0	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	100	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Vertical
Remark :	1. 5500 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
5500	92.33	-	-	85.38	34.8	6.95	34.8	100	96	Average
5500	102.93	-	-	95.98	34.8	6.95	34.8	100	96	Peak
11001	46.66	-27.34	74	54.04	38	10.11	55.49	100	0	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	116	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Horizontal
Remark :	1. 5580 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
5580	98.16	-	-	91.08	34.88	7.02	34.82	101	337	Average
5580	108.59	-	-	101.51	34.88	7.02	34.82	101	337	Peak
11160	48.18	-25.82	74	55.24	38.17	10.16	55.39	100	0	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	116	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Vertical
Remark :	1. 5580 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
5580	90.79	-	-	83.71	34.88	7.02	34.82	100	83	Average
5580	101.22	-	-	94.14	34.88	7.02	34.82	100	83	Peak
11154	46.84	-27.16	74	53.93	38.15	10.16	55.4	100	0	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	140	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Horizontal
Remark :	1. 5700 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
5700	95.66	-	-	88.32	35.03	7.15	34.84	100	333	Average
5700	107.14	-	-	99.8	35.03	7.15	34.84	100	333	Peak
11394	47.76	-26.24	74	54.42	38.38	10.23	55.27	100	0	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	140	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Vertical
Remark :	1. 5700 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
5700	91.62	-	-	84.28	35.03	7.15	34.84	104	360	Average
5700	102.06	-	-	94.72	35.03	7.15	34.84	104	360	Peak
11400	46.05	-27.95	74	52.68	38.4	10.23	55.26	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	36	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Horizontal
Remark :	1. 5180 MHz is fundamental signal which can be ignored. 2. 10360 MHz is not within a restricted band, and its limit line is 68.3dBuV/m.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5180	87.89	-	-	81.82	34.48	6.71	35.12	109	49	Average
5180	98.18	-	-	92.11	34.48	6.71	35.12	109	49	Peak
10360	45.38	-22.92	68.3	53.61	37.72	9.71	55.66	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	36	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Vertical
Remark :	1. 5180 MHz is fundamental signal which can be ignored. 2. 10362 MHz is not within a restricted band, and its limit line is 68.3dBuV/m.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5180	95.52	-	-	89.45	34.48	6.71	35.12	100	337	Average
5180	105.57	-	-	99.5	34.48	6.71	35.12	100	337	Peak
10362	45.98	-22.32	68.3	54.21	37.72	9.71	55.66	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	44	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Horizontal
Remark :	1. 5220 MHz is fundamental signal which can be ignored. 2. 10440 MHz is not within a restricted band, and its limit line is 68.3dBuV/m.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5220	89.08	-	-	82.91	34.52	6.74	35.09	120	60	Average
5220	99.36	-	-	93.19	34.52	6.74	35.09	120	60	Peak
10440	45.96	-22.34	68.3	54.1	37.76	9.75	55.65	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	44	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Vertical
Remark :	1. 5220 MHz is fundamental signal which can be ignored. 2. 10440 MHz is not within a restricted band, and its limit line is 68.3dBuV/m.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5220	96.39	-	-	90.22	34.52	6.74	35.09	100	337	Average
5220	106.04	-	-	99.87	34.52	6.74	35.09	100	337	Peak
10440	45.77	-22.53	68.3	53.91	37.76	9.75	55.65	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	48	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Horizontal
Remark :	1. 5240 MHz is fundamental signal which can be ignored. 2. 10482 MHz is not within a restricted band, and its limit line is 68.3dBuV/m.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5240	88.47	-	-	82.24	34.53	6.76	35.06	120	58	Average
5240	97.75	-	-	91.52	34.53	6.76	35.06	120	58	Peak
10482	47.28	-21.02	68.3	55.34	37.79	9.78	55.63	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	48	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Vertical
Remark :	1. 5240 MHz is fundamental signal which can be ignored. 2. 10482 MHz is not within a restricted band, and its limit line is 68.3dBuV/m.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5240	96.9	-	-	90.67	34.53	6.76	35.06	100	338	Average
5240	106.09	-	-	99.86	34.53	6.76	35.06	100	338	Peak
10482	46.6	-21.7	68.3	54.66	37.79	9.78	55.63	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	52	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Horizontal
Remark :	1. 5260 MHz is fundamental signal which can be ignored. 2. 10521 MHz is not within a restricted band, and its limit line is 68.3dBuV/m.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5260	89.68	-	-	83.37	34.57	6.78	35.04	118	60	Average
5260	99.97	-	-	93.66	34.57	6.78	35.04	118	60	Peak
10521	46.49	-21.81	68.3	54.5	37.81	9.81	55.63	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	52	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Vertical
Remark :	1. 5260 MHz is fundamental signal which can be ignored. 2. 10521 MHz is not within a restricted band, and its limit line is 68.3dBuV/m.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5260	97.36	-	-	91.05	34.57	6.78	35.04	100	338	Average
5260	107.5	-	-	101.19	34.57	6.78	35.04	100	338	Peak
10521	47.24	-21.06	68.3	55.25	37.81	9.81	55.63	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	60	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Horizontal
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	89.76	-	-	83.34	34.6	6.8	34.98	118	61	Average
5300	99.44	-	-	93.02	34.6	6.8	34.98	118	61	Peak
10600	46.94	-27.06	74	54.85	37.84	9.85	55.6	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	60	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	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	97.52	-	-	91.1	34.6	6.8	34.98	100	338	Average
5300	107.77	-	-	101.35	34.6	6.8	34.98	100	338	Peak
10600	46.95	-27.05	74	54.88	37.83	9.85	55.61	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Horizontal
Remark :	1. 5320 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
5320	89.66	-	-	83.21	34.62	6.81	34.98	118	60	Average
5320	99.92	-	-	93.47	34.62	6.81	34.98	118	60	Peak
10641	46.29	-27.71	74	54.14	37.86	9.88	55.59	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Vertical
Remark :	1. 5320 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
5320	97.13	-	-	90.68	34.62	6.81	34.98	100	338	Average
5320	107.41	-	-	100.96	34.62	6.81	34.98	100	338	Peak
10641	48.28	-25.72	74	56.13	37.86	9.88	55.59	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	100	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Horizontal
Remark :	1. 5500 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
5500	95.14	-	-	88.19	34.8	6.95	34.8	103	338	Average
5500	104.75	-	-	97.8	34.8	6.95	34.8	103	338	Peak
11001	46.99	-27.01	74	54.37	38	10.11	55.49	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	100	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Vertical
Remark :	1. 5500 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
5500	89.28	-	-	82.33	34.8	6.95	34.8	100	84	Average
5500	99.87	-	-	92.92	34.8	6.95	34.8	100	82	Peak
11001	46.48	-27.52	74	53.86	38	10.11	55.49	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	116	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Horizontal
Remark :	1. 5580 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
5580	95.68	-	-	88.6	34.88	7.02	34.82	101	332	Average
5580	106.13	-	-	99.05	34.88	7.02	34.82	101	332	Peak
11160	47.25	-26.75	74	54.31	38.17	10.16	55.39	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	116	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Vertical
Remark :	1. 5580 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
5580	90.76	-	-	83.68	34.88	7.02	34.82	109	92	Average
5580	100.82	-	-	93.74	34.88	7.02	34.82	109	92	Peak
11163	46.97	-27.03	74	54.03	38.17	10.16	55.39	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	140	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Horizontal
Remark :	1. 5700 MHz is fundamental signal which can be ignored. 2. All other emission found more than 20dB below limit line is not reported.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5700	94.98	-	-	87.64	35.03	7.15	34.84	100	333	Average
5700	105.55	-	-	98.21	35.03	7.15	34.84	100	333	Peak
11403	47.85	-26.15	74	54.48	38.4	10.23	55.26	100	0	Peak

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Channel :	140	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Vertical
Remark :	1. 5700 MHz is fundamental signal which can be ignored. 2. All other emission found more than 20dB below limit line is not reported.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5700	90.81	-	-	83.47	35.03	7.15	34.84	117	356	Average
5700	101.59	-	-	94.25	35.03	7.15	34.84	117	356	Peak
11403	45.7	-28.3	74	52.33	38.4	10.23	55.26	100	0	Peak

Test Mode :	802.11a (EUT + Earphone)	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Horizontal
Remark :	1. 5320 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
162.03	21.17	-22.33	43.5	40.67	10.34	1.35	31.19	-	-	Peak
250.05	25.78	-20.22	46	42.42	12.6	1.66	30.9	-	-	Peak
266.79	23.21	-22.79	46	39.3	13.27	1.7	31.06	-	-	Peak
421.1	20.76	-25.24	46	33.14	16.61	2.07	31.06	-	-	Peak
533.1	22.66	-23.34	46	32.75	18.51	2.3	30.9	-	-	Peak
803.3	26.03	-19.97	46	30.86	22.13	2.84	29.8	100	102	Peak
5320	93.4	-	-	86.95	34.62	6.81	34.98	117	48	Average
5320	103.64	-	-	97.19	34.62	6.81	34.98	117	48	Peak
10640	47.1	-26.9	74	54.95	37.86	9.88	55.59	100	0	Peak

Test Mode :	802.11a (EUT + Earphone)	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Vertical
Remark :	1. 5320 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	22.91	-17.09	40	34.05	19.8	0.7	31.64	111	216	Peak
233.04	23.8	-22.2	46	42.58	10.56	1.59	30.93	-	-	Peak
256.8	22.36	-23.64	46	38.13	13.51	1.68	30.96	-	-	Peak
612.9	22.78	-23.22	46	30.36	20.29	2.46	30.33	-	-	Peak
751.5	24.53	-21.47	46	29.58	22.38	2.75	30.18	-	-	Peak
836.2	26.41	-19.59	46	30.01	23.22	2.9	29.72	-	-	Peak
5320	99.55	-	-	93.1	34.62	6.81	34.98	100	336	Average
5320	109.96	-	-	103.51	34.62	6.81	34.98	100	336	Peak
10640	46.69	-27.31	74	54.54	37.86	9.88	55.59	100	0	Peak

Test Mode :	802.11a (EUT Standalone)	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Horizontal
Remark :	1. 5320 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
122.88	13.9	-29.6	43.5	32.24	11.8	1.21	31.35	-	-	Peak
162.03	21.17	-22.33	43.5	40.67	10.34	1.35	31.19	-	-	Peak
166.89	18.53	-24.97	43.5	38.44	9.86	1.36	31.13	-	-	Peak
803.3	26.03	-19.97	46	30.86	22.13	2.84	29.8	-	-	Peak
841.1	26.38	-19.62	46	29.88	23.31	2.9	29.71	-	-	Peak
901.3	26.58	-19.42	46	30.24	23.33	3.01	30	100	236	Peak
5320	93.42	-	-	86.97	34.62	6.81	34.98	117	53	Average
5320	103.75	-	-	97.3	34.62	6.81	34.98	117	53	Peak
10640	45.98	-28.02	74	53.83	37.86	9.88	55.59	100	0	Peak

Test Mode :	802.11a (EUT Standalone)	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Vertical
Remark :	1. 5320 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	22.91	-17.09	40	34.05	19.8	0.7	31.64	100	253	Peak
222.24	23.7	-22.3	46	43.61	9.48	1.55	30.94	-	-	Peak
265.17	20.82	-25.18	46	36.71	13.45	1.7	31.04	-	-	Peak
721.4	23.9	-22.1	46	29.74	21.67	2.69	30.2	-	-	Peak
899.9	26.14	-19.86	46	29.83	23.3	3.01	30	-	-	Peak
949.6	26.87	-19.13	46	29.12	24.8	3.06	30.11	-	-	Peak
5320	99.54	-	-	93.09	34.62	6.81	34.98	100	331	Average
5320	109.78	-	-	103.33	34.62	6.81	34.98	100	331	Peak
10640	47.2	-26.8	74	55.05	37.86	9.88	55.59	100	0	Peak

Test Mode :	802.11a (Wireless Charging + Earphone)	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Horizontal
Remark :	1. 5320 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
42.15	35.8	-4.2	40	55.04	11.56	0.76	31.56	100	115	Peak
155.82	38.58	-4.92	43.5	57.67	10.82	1.32	31.23	-	-	Peak
181.74	38.39	-5.11	43.5	59.11	8.88	1.4	31	-	-	Peak
402.9	25.07	-20.93	46	38.16	16.08	2.02	31.19	-	-	Peak
533.1	25.64	-20.36	46	35.73	18.51	2.3	30.9	-	-	Peak
800.5	26.73	-19.27	46	31.61	22.1	2.83	29.81	-	-	Peak
5320	94.57	-	-	88.12	34.62	6.81	34.98	100	179	Average
5320	106.17	-	-	99.72	34.62	6.81	34.98	100	179	Peak
10640	45.63	-28.37	74	53.48	37.86	9.88	55.59	100	0	Peak

Test Mode :	802.11a (Wireless Charging + Earphone)	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Vertical
Remark :	1. 5320 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
44.04	41.43	1.43	40	61.21	10.98	0.77	31.53	100	206	Peak
44.04	36.91	-3.09	40	56.69	10.98	0.77	31.53	100	206	QP
79.14	36.9	-3.1	40	59.77	7.53	0.98	31.38	-	-	Peak
179.85	31.54	-11.96	43.5	52.18	8.93	1.4	30.97	-	-	Peak
470.8	26.1	-19.9	46	37.16	17.6	2.18	30.84	-	-	Peak
777.4	24.95	-21.05	46	30.02	22.12	2.79	29.98	-	-	Peak
838.3	26.26	-19.74	46	29.82	23.26	2.9	29.72	-	-	Peak
5320	93.89	-	-	87.42	34.62	6.81	34.96	100	270	Average
5320	105.06	-	-	98.59	34.62	6.81	34.96	100	270	Peak
10640	46.54	-27.46	74	54.39	37.86	9.88	55.59	100	0	Peak

Test Mode :	802.11a (Wireless Charging)	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Horizontal
Remark :	1. 5320 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
114.78	23.4	-20.1	43.5	41.98	11.7	1.17	31.45	-	-	Peak
149.07	37.33	-6.17	43.5	56.13	11.18	1.27	31.25	102	253	Peak
267.06	24.34	-21.66	46	40.43	13.27	1.7	31.06	-	-	Peak
478.5	24.39	-21.61	46	35.25	17.68	2.19	30.73	-	-	Peak
759.2	25.85	-20.15	46	30.89	22.31	2.77	30.12	-	-	Peak
836.9	26.55	-19.45	46	30.13	23.24	2.9	29.72	-	-	Peak
5320	95.68	-	-	89.23	34.62	6.81	34.98	100	182	Average
5320	105.77	-	-	99.32	34.62	6.81	34.98	100	182	Peak
10640	46.34	-27.66	74	54.19	37.86	9.88	55.59	100	0	Peak

Test Mode :	802.11a (Wireless Charging)	Temperature :	23~24°C
Test Channel :	64	Relative Humidity :	48~49%
Test Engineer :	Hayden Wu	Polarization :	Vertical
Remark :	1. 5320 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
34.59	34.68	-5.32	40	49.17	16.4	0.74	31.63	-	-	Peak
45.12	40.39	0.39	40	61.15	9.98	0.78	31.52	100	238	Peak
45.12	35.04	-4.96	40	55.8	9.98	0.78	31.52	100	238	QP
148.8	28.02	-15.48	43.5	46.84	11.16	1.27	31.25	-	-	Peak
479.9	24.46	-21.54	46	35.27	17.7	2.19	30.7	-	-	Peak
750.1	24.48	-21.52	46	29.52	22.4	2.75	30.19	-	-	Peak
853.7	26.1	-19.9	46	29.52	23.36	2.93	29.71	-	-	Peak
5320	95.29	-	-	88.84	34.62	6.81	34.98	100	286	Average
5320	105.79	-	-	99.34	34.62	6.81	34.98	100	286	Peak
10640	46.1	-27.9	74	53.95	37.86	9.88	55.59	100	0	Peak

3.2 Automatically Discontinue Transmission

3.2.1 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.

3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

3.2.3 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.



3.3 Antenna Requirements

3.3.1 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.

3.3.2 Antenna Connected Construction

Non-standard connector used.

3.3.3 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	R&S	ESU26	100390	20Hz ~ 26.5GHz	Dec. 22, 2011	Sep. 17, 2012 ~ Sep. 18, 2012	Dec. 21, 2012	Radiation (03CH05-HY)
Bilog Antenna	SCHAFFNER	CBL6111C	2725	30MHz ~ 2GHz	Oct. 22, 2011	Sep. 17, 2012 ~ Sep. 18, 2012	Oct. 21, 2012	Radiation (03CH05-HY)
Turn Table	HD	Deis HD 2000	420/611	0 ~ 360 degree	N/A	Sep. 17, 2012 ~ Sep. 18, 2012	N/A	Radiation (03CH05-HY)
Antenna Mast	HD	MA 240	240/666	1 m ~ 4 m	N/A	Sep. 17, 2012 ~ Sep. 18, 2012	N/A	Radiation (03CH05-HY)
Horn Antenna	ESCO	3117	66584	1GHz~18GHz	Aug. 10, 2012	Sep. 17, 2012 ~ Sep. 18, 2012	Aug. 09, 2013	Radiation (03CH05-HY)
Pre Amplifier	Agilent	8449B	3008A02665	1GHz~26.5GHz	Aug. 28, 2012	Sep. 17, 2012 ~ Sep. 18, 2012	Aug. 27, 2013	Radiation (03CH05-HY)
Spectrum Analyzer	R&S	ESU26	100390	20Hz ~ 26.5GHz	Dec. 22, 2011	Sep. 17, 2012 ~ Sep. 18, 2012	Dec. 21, 2012	Radiation (03CH05-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	15GHz ~ 40GHz	Oct. 21, 2011	Sep. 17, 2012 ~ Sep. 18, 2012	Oct. 20, 2012	Radiation (03CH05-HY)
Loop Antenna	R&S	HFH2-Z2	860004/001	9KHz ~ 30MHz	Jul. 03, 2012	Sep. 17, 2012 ~ Sep. 18, 2012	Jul. 02, 2014	Radiation (03CH05-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	2.54
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Uncertainty of Radiated Emission Measurement (1GHz ~ 40GHz)

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