



# FCC TEST REPORT (15.407)

**REPORT NO.:** RF121129C09-5  
**MODEL NO.:** PN07130  
**FCC ID:** NM8PN07130  
**RECEIVED:** Nov. 29, 2012  
**TESTED:** Dec. 28, 2012 ~ Jan. 23, 2013  
**ISSUED:** Jan. 31, 2013

**APPLICANT:** HTC Corporation

**ADDRESS:** 23, Xinghua Rd., Taoyuan 330, Taiwan, R.O.C.

**ISSUED BY:** Bureau Veritas Consumer Products Services  
(H.K.) Ltd., Taoyuan Branch

**LAB ADDRESS:** No. 47, 14th Ling, Chia Pau Vil., Lin Kou Dist.,  
New Taipei City, Taiwan ( R.O.C )

**TEST LOCATION:** No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei  
Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

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## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF121129C09-5	Original release	Jan. 31, 2013

## 1. CERTIFICATION

**PRODUCT:** Smartphone  
**MODEL NO.:** PN07130  
**BRAND:** HTC  
**APPLICANT:** HTC Corporation  
**TESTED:** Dec. 28, 2012 ~ Jan. 23, 2013  
**TEST SAMPLE:** Production Unit  
**STANDARDS:** **FCC Part 15, Subpart E (Section 15.407)**  
ANSI C63.10-2009

The above equipment (model: PN07130) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

**PREPARED BY** : *Vera Huang* , **DATE** : Jan. 31, 2013  
Vera Huang / Specialist

**APPROVED BY** : *Anderson Chiu* , **DATE** : Jan. 31, 2013  
Anderson Chiu / Senior Engineer

## 2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART E (SECTION 15.407)			
STANDARD SECTION	TEST TYPE	RESULT	REMARK
15.407(b)(6)	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -3.43dB at 13.55859MHz.
15.407(b/1/2/3) (b)(6)	Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -1.12dB at 5725MHz.
15.407(a/1/2)	Peak Transmit Power	PASS	Meet the requirement of limit.
15.407(a)(6)	Peak Power Excursion	PASS	Meet the requirement of limit.
15.407(a/1/2)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	No antenna connector is used.

### 2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz~30MHz	2.44 dB
Radiated emissions	30MHz ~ 200MHz	2.93 dB
	200MHz ~1000MHz	2.95 dB
	1GHz ~ 18GHz	2.26 dB
	18GHz ~ 40GHz	1.94 dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k = 2$ .

### 3. GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT

<b>EUT</b>	Smartphone
<b>MODEL NO.</b>	PN07130
<b>POWER SUPPLY</b>	5.0Vdc (adapter or host equipment) 3.8Vdc (Li-ion battery)
<b>MODULATION TYPE</b>	256QAM, 64QAM, 16QAM, QPSK, BPSK
<b>MODULATION TECHNOLOGY</b>	OFDM
<b>TRANSFER RATE</b>	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to MCS7 802.11ac: up to V9
<b>OPERATING FREQUENCY</b>	5180 ~ 5240MHz, 5260 ~ 5320MHz & 5500 ~ 5700MHz
<b>NUMBER OF CHANNEL</b>	5180 ~ 5240MHz: 4 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz) 1 for 802.11ac (80MHz) 5260 ~ 5320MHz: 4 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz) 1 for 802.11ac (80MHz) 5500 ~ 5700MHz: 8 for 802.11a, 802.11n (20MHz) 3 for 802.11n (40MHz) 1 for 802.11ac (80MHz)
<b>OUTPUT POWER</b>	34.198mW for 5180 ~ 5240MHz 59.566mW for 5260 ~ 5320MHz 56.364mW for 5500 ~ 5700MHz
<b>ANTENNA TYPE</b>	PIFA antenna with -2dBi gain (5180 ~ 5240MHz) PIFA antenna with -2dBi gain (5260 ~ 5320MHz) PIFA antenna with -2dBi gain (5500 ~ 5700MHz)
<b>ANTENNA CONNECTOR</b>	NA
<b>DATA CABLE</b>	Refer to Note as below
<b>I/O PORTS</b>	Refer to user's manual
<b>ACCESSORY DEVICES</b>	Refer to Note as below

**NOTE:**

1. The EUT's accessories list refers to Ext. Pho.
2. The EUT provides one completed transmitter and one receiver.

<b>MODULATION MODE</b>	<b>TX FUNCTION</b>
<b>802.11b</b>	1TX
<b>802.11g</b>	1TX
<b>802.11a</b>	1TX
<b>802.11n (20MHz)</b>	1TX
<b>802.11n (40MHz)</b>	1TX
<b>802.11ac (80MHz)</b>	1TX

3. The device has 2 configurations as below.  
Main Sample (A): Battery 1 + LCD Panel 1 + Front Camera 1  
2nd Sample (B): Battery 2 + LCD Panel 2 + Front Camera 2
4. The above EUT information is declared by the manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

### 3.2 DESCRIPTION OF TEST MODES

#### FOR 5180 ~ 5240MHz

4 channels are provided for 802.11a, 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
36	5180 MHz	44	5220 MHz
40	5200 MHz	48	5240 MHz

2 channels are provided for 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

1 channel are provided for 802.11ac (80MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
42	5210MHz		

#### FOR 5260 ~ 5320MHz

4 channels are provided for 802.11a, 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
52	5260 MHz	60	5300 MHz
56	5280 MHz	64	5320 MHz

2 channels are provided for 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
54	5270 MHz	62	5310 MHz

1 channel are provided for 802.11ac (80MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
58	5290MHz		

**FOR 5500 ~ 5700MHz**

8 channels are provided for 802.11a, 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
100	5500MHz	116	5580MHz
104	5520MHz	132	5660MHz
108	5540MHz	136	5680MHz
112	5560MHz	140	5700MHz

3 channels are provided for 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
102	5510MHz	134	5670MHz
110	5550MHz		

1 channels are provided for 802.11ac (80MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
106	5530MHz		

### 3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE $\geq$ 1G	RE<1G	PLC	APCM	
A	√	√	√	√	Main Sample
B	√	-	-	-	2nd Sample

Where **RE $\geq$ 1G**: Radiated Emission above 1GHz      **RE<1G**: Radiated Emission below 1GHz  
**PLC**: Power Line Conducted Emission      **APCM**: Antenna Port Conducted Measurement

**NOTE:** The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **X-plane** for Main Sample (A) and **Z-plane** for 2nd Sample (B).

#### **RADIATED EMISSION TEST (ABOVE 1GHz):**

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5180-5240	36 to 48	36, 44, 48	OFDM	BPSK	6.0
	802.11n (20MHz)		36 to 48	36, 44, 48	OFDM	BPSK	MCS0
	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	MCS0
	802.11ac (80MHz)		42	42	OFDM	BPSK	V0
	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	MCS0
	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	MCS0
	802.11ac (80MHz)		58	58	OFDM	BPSK	V0
	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	MCS0
	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	MCS0
	802.11ac (80MHz)		106	106	OFDM	BPSK	V0
B	802.11n (40MHz)	5180-5240	38 to 46	38	OFDM	BPSK	MCS0
	802.11a	5260-5320	52 to 64	60	OFDM	BPSK	6.0
	802.11n (20MHz)	5500-5700	100 to 140	140	OFDM	BPSK	MCS0

**RADIATED EMISSION TEST (BELOW 1GHz):**

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5260-5320	52 to 64	64	OFDM	BPSK	6.0

**POWER LINE CONDUCTED EMISSION TEST:**

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5260-5320	52 to 64	64	OFDM	BPSK	6.0

**BANDEDGE MEASUREMENT:**

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5180-5240	36 to 48	36, 44, 48	OFDM	BPSK	6.0
	802.11n (20MHz)		36 to 48	36, 44, 48	OFDM	BPSK	MCS0
	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	MCS0
	802.11ac (80MHz)		42	42	OFDM	BPSK	V0
	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	MCS0
	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	MCS0
	802.11ac (80MHz)		58	58	OFDM	BPSK	V0
	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	MCS0
	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	MCS0
	802.11ac (80MHz)		106	106	OFDM	BPSK	V0



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**ANTENNA PORT CONDUCTED MEASUREMENT:**

- This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5180-5240	36 to 48	36, 44, 48	OFDM	BPSK	6.0
	802.11n (20MHz)		36 to 48	36, 44, 48	OFDM	BPSK	6.5
	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
	802.11ac (80MHz)		42	42	OFDM	BPSK	V0
	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
	802.11ac (80MHz)		58	58	OFDM	BPSK	V0
	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
	802.11ac (80MHz)		106	106	OFDM	BPSK	V0

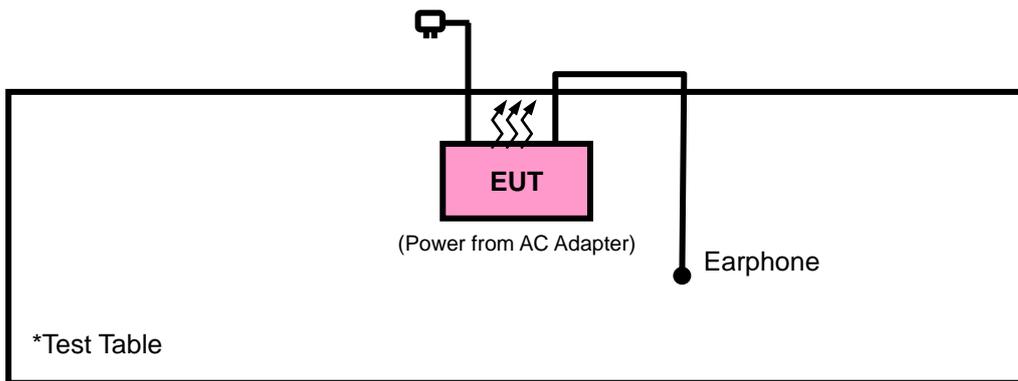
**TEST CONDITION:**

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	25deg. C, 65%RH	120Vac, 60Hz	Kay Wu
RE<1G	25deg. C, 65%RH	120Vac, 60Hz	Kay Wu
PLC	25deg. C, 65%RH	120Vac, 60Hz	David Huang
APCM	25deg. C, 65%RH	120Vac, 60Hz	Howard Kao

### 3.3 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units.

#### 3.3.1 CONFIGURATION OF SYSTEM UNDER TEST



### 3.4 DUTY CYCLE OF TEST SIGNAL

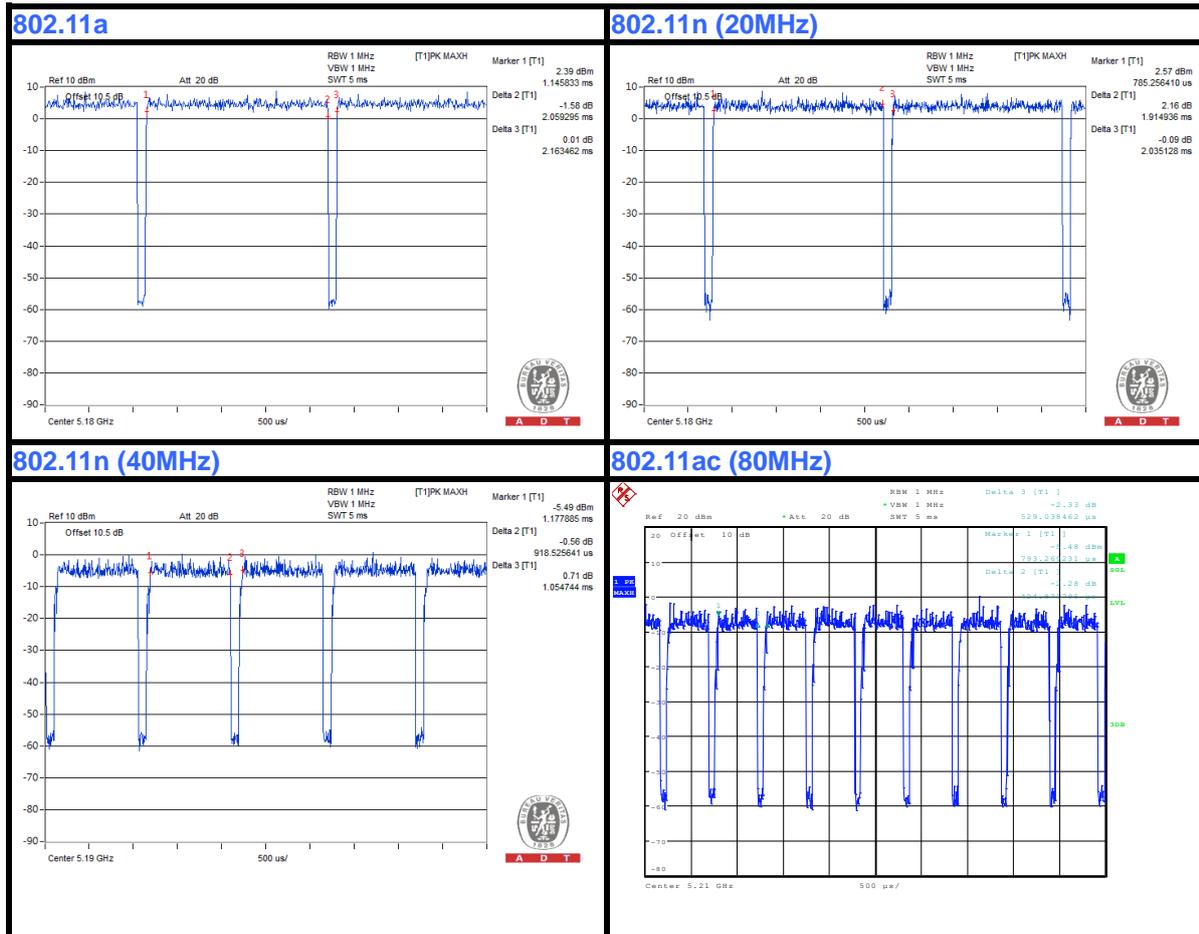
If duty cycle is < 98%, duty factor shall be considered.

**802.11a:** Duty cycle = 2.06/2.163 = 0.952, Duty factor =  $10 * \log(1/0.952) = 0.21$

**802.11n (20MHz):** Duty cycle = 1.915/2.035 = 0.941, Duty factor =  $10 * \log(1/0.941) = 0.26$

**802.11n (40MHz):** Duty cycle = 0.919/1.055 = 0.871, Duty factor =  $10 * \log(1/0.871) = 0.6$

**802.11ac (80MHz):** Duty cycle = 0.425/0.529 = 0.803, Duty factor =  $10 * \log(1/0.803) = 0.95$



### 3.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

**FCC Part 15, Subpart E (15.407)**

ANSI C63.10-2009

KDB 789033 D01 General UNII Test Procedures v01r01

All test items have been performed and recorded as per the above standards.

## 4. TEST TYPES AND RESULTS

### 4.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

#### 4.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table:

FREQUENCIES (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:**

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

#### 4.1.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

EIRP LIMIT (dBm)	EQUIVALENT FIELD STRENGTH AT 3m (dBμV/m)
<b>PK</b>	<b>PK</b>
-27	68.3

**NOTE:** The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

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

#### 4.1.3 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCI	100744	Apr. 19, 2012	Apr. 18, 2013
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	101261	Dec. 17, 2012	Dec. 16, 2013
BILOG Antenna SCHWARZBECK	VULB9168	9168-472	Apr. 03, 2012	Apr. 02, 2013
HORN Antenna SCHWARZBECK	BBHA 9120 D	209	Sep. 03, 2012	Sep. 02, 2013
HORN Antenna SCHWARZBECK	BBHA 9170	9170-480	Dec. 25, 2012	Dec. 24, 2013
Loop Antenna	HFH2-Z2	100070	Jan. 31, 2012	Jan. 30, 2014
Preamplifier EMCI	EMC 012645	980115	Dec. 30, 2011	Dec. 29, 2012
Preamplifier EMCI	EMC 012645	980115	Dec. 28, 2012	Dec. 27, 2013
Preamplifier EMCI	EMC 330H	980112	Dec. 30, 2011	Dec. 29, 2012
Preamplifier EMCI	EMC 330H	980112	Dec. 28, 2012	Dec. 27, 2013
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	309219/4	Oct. 19, 2012	Oct. 18, 2013
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	250130/4	Oct. 19, 2012	Oct. 18, 2013
RF signal cable Worken	RG-213	NA	Jan. 02, 2012	Jan. 01, 2013
RF signal cable Worken	RG-213	NA	Dec. 29, 2012	Dec. 28, 2013
Software	E3 6.120103	NA	NA	NA
Antenna Tower MF	MFA-440H	NA	NA	NA
Turn Table MF	MFT-201SS	NA	NA	NA
Antenna Tower & Turn Table Controller MF	MF-7802	NA	NA	NA
Bluetooth Tester	CBT	100870	Jan. 26, 2012	Jan. 25, 2013
Power Meter	ML2495A	1232002	Aug. 10, 2012	Aug. 09, 2013
Power Sensor	MA2411B	1207325	Aug. 15, 2012	Aug. 14, 2013

- NOTE:** 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The calibration interval of the loop antenna is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. The test was performed in HwaYa Chamber 9.
4. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
5. The FCC Site Registration No. is 460141.
6. The IC Site Registration No. is IC 7450F-4.

#### 4.1.4 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

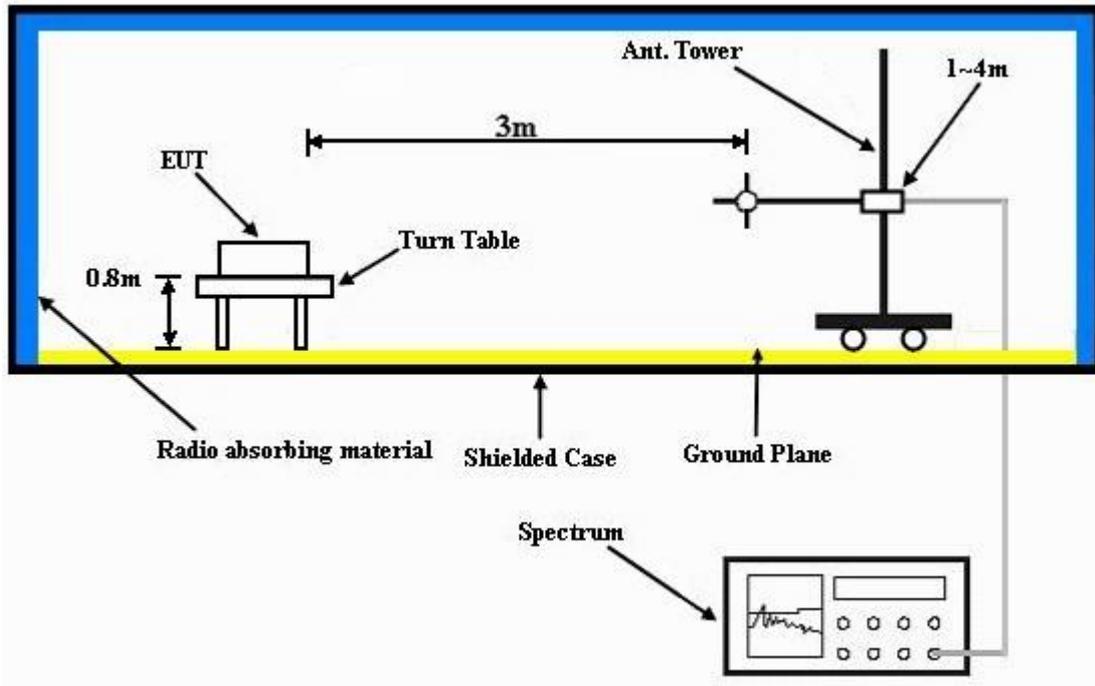
**NOTE:**

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 1kHz for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

#### 4.1.5 DEVIATION FROM TEST STANDARD

No deviation.

#### 4.1.6 TEST SETUP



For the actual test configuration, please refer to the attached file (Test Setup Photo).

#### 4.1.7 EUT OPERATING CONDITION

- a. Placed the EUT on a testing table.
- b. Use the software to control the EUT under transmission condition continuously at specific channel frequency.

### 4.1.8 TEST RESULTS

ABOVE 1GHz DATA: 802.11a

#### TEST MODE A

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	42.44	40.08	54	-11.56	32.35	7.33	37.32	100	47	Average
5150	54.08	51.72	74	-19.92	32.35	7.33	37.32	100	47	Peak
5180	91.42	89.06			32.38	7.32	37.34	100	47	Average
5180	100.34	97.98			32.38	7.32	37.34	100	47	Peak
5382	40.77	37.97	54	-13.23	32.58	7.4	37.18	100	47	Average
5382	53.23	50.43	74	-20.77	32.58	7.4	37.18	100	47	Peak

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	41.48	39.12	54	-12.52	32.35	7.33	37.32	100	275	Average
5150	53.72	51.36	74	-20.28	32.35	7.33	37.32	100	275	Peak
5180	90.98	88.62			32.38	7.32	37.34	100	275	Average
5180	100.14	97.78			32.38	7.32	37.34	100	275	Peak
5382	40.56	37.76	54	-13.44	32.58	7.4	37.18	100	275	Average
5382	52.4	49.6	74	-21.6	32.58	7.4	37.18	100	275	Peak

REMARKS: 5180MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 44	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5138	44.18	41.81	54	-9.82	32.33	7.34	37.3	100	48	Average
5138	55.17	52.8	74	-18.83	32.33	7.34	37.3	100	48	Peak
5220	92.42	90.04	54			7.32	37.36	100	48	Average
5220	101.95	99.57	74			7.32	37.36	100	48	Peak
5436	42.34	39.37	54	-11.66	32.63	7.47	37.13	100	48	Average
5436	53.43	50.46	74	-20.57	32.63	7.47	37.13	100	48	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5140	41.69	39.3	54	-12.31	32.35	7.34	37.3	100	65	Average
5140	53.05	50.66	74	-20.95	32.35	7.34	37.3	100	65	Peak
5220	89.79	87.41	54			7.32	37.36	100	65	Average
5220	99.36	96.98	74			7.32	37.36	100	65	Peak
5442	41.5	38.53	54	-12.5	32.63	7.47	37.13	100	65	Average
5442	53.23	50.26	74	-20.77	32.63	7.47	37.13	100	65	Peak

REMARKS: 5220MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5148	39.91	37.55	54	-14.09	32.35	7.33	37.32	100	20	Average
5148	51.96	49.6	74	-22.04	32.35	7.33	37.32	100	20	Peak
5240	90.19	87.74			32.43	7.34	37.32	100	20	Average
5240	99.07	96.62			32.43	7.34	37.32	100	20	Peak
5460	41.57	38.47	54	-12.43	32.65	7.53	37.08	100	20	Average
5460	53.48	50.38	74	-20.52	32.65	7.53	37.08	100	20	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	40.02	37.66	54	-13.98	32.35	7.33	37.32	100	36	Average
5150	52.65	50.29	74	-21.35	32.35	7.33	37.32	100	36	Peak
5240	88.3	85.85			32.43	7.34	37.32	100	36	Average
5240	97.69	95.24			32.43	7.34	37.32	100	36	Peak
5396	40.99	38.17	54	-13.01	32.6	7.4	37.18	100	36	Average
5396	52.71	49.89	74	-21.29	32.6	7.4	37.18	100	36	Peak

REMARKS: 5240MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 52	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5044	40.53	38.28	54	-13.47	32.25	7.25	37.25	100	34	Average
5044	52.58	50.33	74	-21.42	32.25	7.25	37.25	100	34	Peak
5260	88.47	85.91			32.47	7.36	37.27	100	34	Average
5260	98.04	95.48			32.47	7.36	37.27	100	34	Peak
5348	41.45	38.68	54	-12.55	32.55	7.4	37.18	100	34	Average
5348	54.54	51.77	74	-19.46	32.55	7.4	37.18	100	34	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5148	40.74	38.38	54	-13.26	32.35	7.33	37.32	101	99	Average
5148	51.76	49.4	74	-22.24	32.35	7.33	37.32	101	99	Peak
5260	92.57	90.01			32.47	7.36	37.27	101	99	Average
5260	101.5	98.94			32.47	7.36	37.27	101	99	Peak
5350	42.39	39.62	54	-11.61	32.55	7.4	37.18	101	99	Average
5350	59.52	56.75	74	-14.48	32.55	7.4	37.18	101	99	Peak

REMARKS: 5260MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 60	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5070	40.57	38.27	54	-13.43	32.27	7.3	37.27	107	82	Average
5070	52.46	50.16	74	-21.54	32.27	7.3	37.27	107	82	Peak
5300	91.2	88.49			32.5	7.4	37.19	107	82	Average
5300	100.74	98.03			32.5	7.4	37.19	107	82	Peak
5374	48.37	45.58	54	-5.63	32.57	7.4	37.18	107	82	Average
5374	58.88	56.09	74	-15.12	32.57	7.4	37.18	107	82	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5084	50.76	48.45	54	-3.24	32.28	7.3	37.27	100	100	Average
5084	51.86	49.55	74	-22.14	32.28	7.3	37.27	100	100	Peak
5300	93.22	90.51			32.5	7.4	37.19	100	100	Average
5300	102.93	100.22			32.5	7.4	37.19	100	100	Peak
5376	51.95	49.16	54	-2.05	32.57	7.4	37.18	100	100	Average
5376	58.36	55.57	74	-15.64	32.57	7.4	37.18	100	100	Peak

REMARKS: 5300MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 64	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5062	40.6	38.33	54	-13.4	32.27	7.25	37.25	103	66	Average
5062	52.41	50.14	74	-21.59	32.27	7.25	37.25	103	66	Peak
5320	89.75	87.02			32.52	7.4	37.19	103	66	Average
5320	99.72	96.99			32.52	7.4	37.19	103	66	Peak
5396	46.5	43.68	54	-7.5	32.6	7.4	37.18	103	66	Average
5396	56.9	54.08	74	-17.1	32.6	7.4	37.18	103	66	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5118	40.71	38.32	54	-13.29	32.32	7.35	37.28	108	232	Average
5118	53.11	50.72	74	-20.89	32.32	7.35	37.28	108	232	Peak
5320	87.75	85.02			32.52	7.4	37.19	108	232	Average
5320	97.48	94.75			32.52	7.4	37.19	108	232	Peak
5400	44.73	41.91	54	-9.27	32.6	7.4	37.18	108	232	Average
5400	56.73	53.91	74	-17.27	32.6	7.4	37.18	108	232	Peak

REMARKS: 5320MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5418	42.59	39.75	54	-11.41	32.62	7.4	37.18	100	33	Average
5418	54.81	51.97	74	-19.19	32.62	7.4	37.18	100	33	Peak
5470	57.73	54.61	68.3	-10.57	32.67	7.53	37.08	100	33	Peak
5500	90.32	87.06			32.7	7.59	37.03	100	33	Average
5500	100.25	96.99			32.7	7.59	37.03	100	33	Peak
5725	52.52	49.27	68.3	-15.78	32.97	7.71	37.43	100	33	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5452	41.44	38.34	54	-12.56	32.65	7.53	37.08	112	52	Average
5452	54.46	51.36	74	-19.54	32.65	7.53	37.08	112	52	Peak
5470	55.41	52.29	68.3	-12.89	32.67	7.53	37.08	112	52	Peak
5500	89.94	86.68			32.7	7.59	37.03	112	52	Average
5500	99.46	96.2			32.7	7.59	37.03	112	52	Peak
5725	52.93	49.68	68.3	-15.37	32.97	7.71	37.43	112	52	Peak

**REMARKS:**

1. 5500MHz: Fundamental frequency.
2. 5470MHz & 5725MHz: Out of restricted band



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 116	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5352	40.77	38	54	-13.23	32.55	7.4	37.18	114	39	Average
5352	53.68	50.91	74	-20.32	32.55	7.4	37.18	114	39	Peak
5470	52.61	49.49	68.3	-15.69	32.67	7.53	37.08	114	39	Peak
5580	92.33	89.14			32.78	7.57	37.16	114	39	Average
5580	102.65	99.46			32.78	7.57	37.16	114	39	Peak
5725	52.93	49.68	68.3	-15.37	32.97	7.71	37.43	114	39	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5380	40.76	37.96	54	-13.24	32.58	7.4	37.18	100	172	Average
5380	53.49	50.69	74	-20.51	32.58	7.4	37.18	100	172	Peak
5470	51.65	48.53	68.3	-16.65	32.67	7.53	37.08	100	172	Peak
5580	89.88	86.69			32.78	7.57	37.16	100	172	Average
5580	100.63	97.44			32.78	7.57	37.16	100	172	Peak
5725	51.63	48.38	68.3	-16.67	32.97	7.71	37.43	100	172	Peak

**REMARKS:**

1. 5580MHz: Fundamental frequency.
2. 5470MHz & 5725MHz: Out of restricted band



**A D T**

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 140	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5368	40.81	38.02	54	-13.19	32.57	7.4	37.18	104	137	Average
5368	53.18	50.39	74	-20.82	32.57	7.4	37.18	104	137	Peak
5470	53.61	50.49	68.3	-14.69	32.67	7.53	37.08	104	137	Peak
5700	91.25	88.03			32.93	7.69	37.4	104	137	Average
5700	101.26	98.04			32.93	7.69	37.4	104	137	Peak
5725	59.76	56.51	68.3	-8.54	32.97	7.71	37.43	104	137	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5378	40.83	38.03	54	-13.17	32.58	7.4	37.18	101	2	Average
5378	53.94	51.14	74	-20.06	32.58	7.4	37.18	101	2	Peak
5470	52.53	49.41	68.3	-15.77	32.67	7.53	37.08	101	2	Peak
5700	91.4	88.18			32.93	7.69	37.4	101	2	Average
5700	101.21	97.99			32.93	7.69	37.4	101	2	Peak
5725	58.69	55.44	68.3	-9.61	32.97	7.71	37.43	101	2	Peak

**REMARKS:**

- 5700MHz: Fundamental frequency.
- 5470MHz & 5725MHz: Out of restricted band



A D T

802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	42.82	40.46	54	-11.18	32.35	7.33	37.32	100	38	Average
5150	55.41	53.05	74	-18.59	32.35	7.33	37.32	100	38	Peak
5180	91.5	89.14			32.38	7.32	37.34	100	38	Average
5180	100.32	97.96			32.38	7.32	37.34	100	38	Peak
5350	41.58	38.81	54	-12.42	32.55	7.4	37.18	100	38	Average
5350	50.37	47.6	74	-23.63	32.55	7.4	37.18	100	38	Peak

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	42.5	40.14	54	-11.5	32.35	7.33	37.32	100	38	Average
5150	52.29	49.93	74	-21.71	32.35	7.33	37.32	100	38	Peak
5180	90.03	87.67			32.38	7.32	37.34	100	38	Average
5180	99.14	96.78			32.38	7.32	37.34	100	38	Peak
5350	41.21	38.44	54	-12.79	32.55	7.4	37.18	100	38	Average
5350	49.95	47.18	74	-24.05	32.55	7.4	37.18	100	38	Peak

REMARKS: 5180MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 44	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5136	41.2	38.83	54	-12.8	32.33	7.34	37.3	100	40	Average
5136	53.55	51.18	74	-20.45	32.33	7.34	37.3	100	40	Peak
5220	90.68	88.3			32.42	7.32	37.36	100	40	Average
5220	98.63	96.25			32.42	7.32	37.36	100	40	Peak
5350	41.52	38.75	54	-12.48	32.55	7.4	37.18	100	40	Average
5350	49.69	46.92	74	-24.31	32.55	7.4	37.18	100	40	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5144	41.64	39.28	54	-12.36	32.35	7.33	37.32	100	32	Average
5144	52.49	50.13	74	-21.51	32.35	7.33	37.32	100	32	Peak
5220	89.49	87.11			32.42	7.32	37.36	100	32	Average
5220	98.5	96.12			32.42	7.32	37.36	100	32	Peak
5378	41.3	38.5	54	-12.7	32.58	7.4	37.18	100	32	Average
5378	53.41	50.61	74	-20.59	32.58	7.4	37.18	100	32	Peak

REMARKS: 5220MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	41.31	38.95	54	-12.69	32.35	7.33	37.32	100	123	Average
5150	49.18	46.82	74	-24.82	32.35	7.33	37.32	100	123	Peak
5240	92.45	90			32.43	7.34	37.32	100	123	Average
5240	101.42	98.97			32.43	7.34	37.32	100	123	Peak
5350	42.25	39.48	54	-11.75	32.55	7.4	37.18	100	123	Average
5350	53	50.23	74	-21	32.55	7.4	37.18	100	123	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	40.63	38.27	54	-13.37	32.35	7.33	37.32	100	140	Average
5150	48.97	46.61	74	-25.03	32.35	7.33	37.32	100	140	Peak
5240	89.29	86.84			32.43	7.34	37.32	100	140	Average
5240	96.31	93.86			32.43	7.34	37.32	100	140	Peak
5350	41.05	38.28	54	-12.95	32.55	7.4	37.18	100	140	Average
5350	50.73	47.96	74	-23.27	32.55	7.4	37.18	100	140	Peak

REMARKS: 5240MHz: Fundamental frequency.



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 52	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5144	40.45	38.09	54	-13.55	32.35	7.33	37.32	100	44	Average
5144	52.49	50.13	74	-21.51	32.35	7.33	37.32	100	44	Peak
5260	90.35	87.79			32.47	7.36	37.27	100	44	Average
5260	99.73	97.17			32.47	7.36	37.27	100	44	Peak
5350	41.43	38.66	54	-12.57	32.55	7.4	37.18	100	44	Average
5350	55.52	52.75	74	-18.48	32.55	7.4	37.18	100	44	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5088	40.18	37.87	54	-13.82	32.28	7.3	37.27	111	26	Average
5088	52.03	49.72	74	-21.97	32.28	7.3	37.27	111	26	Peak
5260	85.13	82.57			32.47	7.36	37.27	111	26	Average
5260	95.41	92.85			32.47	7.36	37.27	111	26	Peak
5348	40.84	38.07	54	-13.16	32.55	7.4	37.18	111	26	Average
5348	53.04	50.27	74	-20.96	32.55	7.4	37.18	111	26	Peak

REMARKS: 5260MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 60	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5064	40.11	37.84	54	-13.89	32.27	7.25	37.25	100	164	Average
5064	52.61	50.34	74	-21.39	32.27	7.25	37.25	100	164	Peak
5300	89.8	87.09			32.5	7.4	37.19	100	164	Average
5300	99.66	96.95			32.5	7.4	37.19	100	164	Peak
5376	45.44	42.65	54	-8.56	32.57	7.4	37.18	100	164	Average
5376	57.08	54.29	74	-16.92	32.57	7.4	37.18	100	164	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5142	40.32	37.93	54	-13.68	32.35	7.34	37.3	108	356	Average
5142	52.79	50.4	74	-21.21	32.35	7.34	37.3	108	356	Peak
5300	88.24	85.53			32.5	7.4	37.19	108	356	Average
5300	97.77	95.06			32.5	7.4	37.19	108	356	Peak
5380	44.53	41.73	54	-9.47	32.58	7.4	37.18	108	356	Average
5380	55.86	53.06	74	-18.14	32.58	7.4	37.18	108	356	Peak

REMARKS: 5300MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 64	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5090	40.76	38.43	54	-13.24	32.3	7.3	37.27	100	31	Average
5090	53.83	51.5	74	-20.17	32.3	7.3	37.27	100	31	Peak
5320	90.63	87.9			32.52	7.4	37.19	100	31	Average
5320	100.59	97.86			32.52	7.4	37.19	100	31	Peak
5350	45.77	43	54	-8.23	32.55	7.4	37.18	100	31	Average
5350	58.21	55.44	74	-15.79	32.55	7.4	37.18	100	31	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5074	40.22	37.91	54	-13.78	32.28	7.3	37.27	103	173	Average
5074	52.71	50.4	74	-21.29	32.28	7.3	37.27	103	173	Peak
5320	90.95	88.22			32.52	7.4	37.19	103	173	Average
5320	100.62	97.89			32.52	7.4	37.19	103	173	Peak
5350	46.67	43.9	54	-7.33	32.55	7.4	37.18	103	173	Average
5350	59.31	56.54	74	-14.69	32.55	7.4	37.18	103	173	Peak

REMARKS: 5320MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5426	42.16	39.2	54	-11.84	32.62	7.47	37.13	100	32	Average
5426	54.72	51.76	74	-19.28	32.62	7.47	37.13	100	32	Peak
5470	55.71	52.59	68.3	-12.59	32.67	7.53	37.08	100	32	Peak
5500	90.46	87.2			32.7	7.59	37.03	100	32	Average
5500	100.71	97.45			32.7	7.59	37.03	100	32	Peak
5725	53.59	50.34	68.3	-14.71	32.97	7.71	37.43	100	32	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5416	42.95	40.11	54	-11.05	32.62	7.4	37.18	100	195	Average
5416	55.06	52.22	74	-18.94	32.62	7.4	37.18	100	195	Peak
5470	57.42	54.3	68.3	-10.88	32.67	7.53	37.08	100	195	Peak
5500	91.5	88.24			32.7	7.59	37.03	100	195	Average
5500	102.3	99.04			32.7	7.59	37.03	100	195	Peak
5725	54.63	51.38	68.3	-13.67	32.97	7.71	37.43	100	195	Peak

**REMARKS:**

1. 5500MHz: Fundamental frequency.
2. 5470MHz & 5725MHz: Out of restricted band



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 116	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5430	40.98	38.01	54	-13.02	32.63	7.47	37.13	100	10	Average
5430	53.23	50.26	74	-20.77	32.63	7.47	37.13	100	10	Peak
5470	52.16	49.04	68.3	-16.14	32.67	7.53	37.08	100	10	Peak
5580	92.02	88.83			32.78	7.57	37.16	100	10	Average
5580	102.22	99.03			32.78	7.57	37.16	100	10	Peak
5725	53.97	50.72	68.3	-14.33	32.97	7.71	37.43	100	10	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	41.1	38	54	-12.9	32.65	7.53	37.08	100	157	Average
5460	53.62	50.52	74	-20.38	32.65	7.53	37.08	100	157	Peak
5470	52.09	48.97	68.3	-16.21	32.67	7.53	37.08	100	157	Peak
5580	92.29	89.1			32.78	7.57	37.16	100	157	Average
5580	102.12	98.93			32.78	7.57	37.16	100	157	Peak
5725	52.57	49.32	68.3	-15.73	32.97	7.71	37.43	100	157	Peak

**REMARKS:**

1. 5580MHz: Fundamental frequency.
2. 5470MHz & 5725MHz: Out of restricted band



**A D T**

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 140	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5446	41	38.01	54	-13	32.65	7.47	37.13	103	215	Average
5446	52.23	49.24	74	-21.77	32.65	7.47	37.13	103	215	Peak
5470	51.33	48.21	68.3	-16.97	32.67	7.53	37.08	103	215	Peak
5700	92.28	89.06			32.93	7.69	37.4	103	215	Average
5700	102.14	98.92			32.93	7.69	37.4	103	215	Peak
5725	60.83	57.58	68.3	-7.47	32.97	7.71	37.43	103	215	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5448	40.99	38	54	-13.01	32.65	7.47	37.13	100	40	Average
5448	52.65	49.66	74	-21.35	32.65	7.47	37.13	100	40	Peak
5470	51.23	48.11	68.3	-17.07	32.67	7.53	37.08	100	40	Peak
5700	90.89	87.67			32.93	7.69	37.4	100	40	Average
5700	100.39	97.17			32.93	7.69	37.4	100	40	Peak
5725	60.47	57.22	68.3	-7.83	32.97	7.71	37.43	100	40	Peak

**REMARKS:**

- 5700MHz: Fundamental frequency.
- 5470MHz & 5725MHz: Out of restricted band



A D T

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	49.71	47.35	54	-4.29	32.35	7.33	37.32	100	55	Average
5150	61.88	59.52	74	-12.12	32.35	7.33	37.32	100	55	Peak
5190	85.4	83.04			32.38	7.32	37.34	100	55	Average
5190	95.18	92.82			32.38	7.32	37.34	100	55	Peak
5350	41.48	38.71	54	-12.52	32.55	7.4	37.18	100	55	Average
5350	51.92	49.15	74	-22.08	32.55	7.4	37.18	100	55	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	49.71	47.35	54	-4.29	32.35	7.33	37.32	100	356	Average
5150	64.76	62.4	74	-9.24	32.35	7.33	37.32	100	356	Peak
5190	84.03	81.67			32.38	7.32	37.34	100	356	Average
5190	94.07	91.71			32.38	7.32	37.34	100	356	Peak
5350	41.21	38.44	54	-12.79	32.55	7.4	37.18	100	356	Average
5350	52.31	49.54	74	-21.69	32.55	7.4	37.18	100	356	Peak

REMARKS: 5190MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 46	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	41.04	38.68	54	-12.96	32.35	7.33	37.32	100	52	Average
5150	49.56	47.2	74	-24.44	32.35	7.33	37.32	100	52	Peak
5230	84.99	82.54			32.43	7.34	37.32	100	52	Average
5230	94.53	92.08			32.43	7.34	37.32	100	52	Peak
5350	41.69	38.92	54	-12.31	32.55	7.4	37.18	100	52	Average
5350	52.29	49.52	74	-21.71	32.55	7.4	37.18	100	52	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	40.89	38.53	54	-13.11	32.35	7.33	37.32	100	267	Average
5150	50.51	48.15	74	-23.49	32.35	7.33	37.32	100	267	Peak
5230	84.97	82.52			32.43	7.34	37.32	100	267	Average
5230	94.22	91.77			32.43	7.34	37.32	100	267	Peak
5350	40.98	38.21	54	-13.02	32.55	7.4	37.18	100	267	Average
5350	52.44	49.67	74	-21.56	32.55	7.4	37.18	100	267	Peak

REMARKS: 5230MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 54	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	40.71	38.35	54	-13.29	32.35	7.33	37.32	100	14	Average
5150	50.33	47.97	74	-23.67	32.35	7.33	37.32	100	14	Peak
5270	88.01	85.45			32.47	7.36	37.27	100	14	Average
5270	95.92	93.36			32.47	7.36	37.27	100	14	Peak
5350	41.43	38.66	54	-12.57	32.55	7.4	37.18	100	14	Average
5350	51.7	48.93	74	-22.3	32.55	7.4	37.18	100	14	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	40	37.64	54	-14	32.35	7.33	37.32	100	7	Average
5150	49.31	46.95	74	-24.69	32.35	7.33	37.32	100	7	Peak
5270	81.04	78.48			32.47	7.36	37.27	100	7	Average
5270	90.12	87.56			32.47	7.36	37.27	100	7	Peak
5350	41.08	38.31	54	-12.92	32.55	7.4	37.18	100	7	Average
5350	51.86	49.09	74	-22.14	32.55	7.4	37.18	100	7	Peak

REMARKS: 5270MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 62	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	40.71	38.35	54	-13.29	32.35	7.33	37.32	110	11	Average
5150	50.25	47.89	74	-23.75	32.35	7.33	37.32	110	11	Peak
5310	87.12	84.39			32.52	7.4	37.19	110	11	Average
5310	96.44	93.71			32.52	7.4	37.19	110	11	Peak
5350	43.24	40.47	54	-10.76	32.55	7.4	37.18	110	11	Average
5350	56.64	53.87	74	-17.36	32.55	7.4	37.18	110	11	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	40.07	37.71	54	-13.93	32.35	7.33	37.32	100	7	Average
5150	49.29	46.93	74	-24.71	32.35	7.33	37.32	100	7	Peak
5310	80.88	78.15			32.52	7.4	37.19	100	7	Average
5310	90.33	87.6			32.52	7.4	37.19	100	7	Peak
5350	42.53	39.76	54	-11.47	32.55	7.4	37.18	100	7	Average
5350	52.47	49.7	74	-21.53	32.55	7.4	37.18	100	7	Peak

REMARKS: 5310MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 102	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	42.33	39.23	54	-11.67	32.65	7.53	37.08	100	12	Average
5460	52.14	49.04	74	-21.86	32.65	7.53	37.08	100	12	Peak
5470	54.55	51.43	68.3	-13.75	32.67	7.53	37.08	100	12	Peak
5510	86.85	83.62			32.7	7.59	37.06	100	12	Average
5510	95.05	91.82			32.7	7.59	37.06	100	12	Peak
5725	51.61	48.36	68.3	-16.69	32.97	7.71	37.43	100	12	Peak

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	42.54	39.44	54	-11.46	32.65	7.53	37.08	100	173	Average
5460	51.33	48.23	74	-22.67	32.65	7.53	37.08	100	173	Peak
5470	56.02	52.9	68.3	-12.28	32.67	7.53	37.08	100	173	Peak
5510	87.18	83.95			32.7	7.59	37.06	100	173	Average
5510	96.23	93			32.7	7.59	37.06	100	173	Peak
5725	51.61	48.36	68.3	-16.69	32.97	7.71	37.43	100	173	Peak

**REMARKS:**

1. 5510MHz: Fundamental frequency.
2. 5470MHz & 5725MHz: Out of restricted band



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 110	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	41.28	38.18	54	-12.72	32.65	7.53	37.08	100	18	Average
5460	50.86	47.76	74	-23.14	32.65	7.53	37.08	100	18	Peak
5470	51.31	48.19	68.3	-16.99	32.67	7.53	37.08	100	18	Peak
5550	87.09	83.84			32.76	7.58	37.09	100	18	Average
5550	97.15	93.9			32.76	7.58	37.09	100	18	Peak
5725	51.61	48.36	68.3	-16.69	32.97	7.71	37.43	100	18	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	41.2	38.1	54	-12.8	32.65	7.53	37.08	100	164	Average
5460	51.37	48.27	74	-22.63	32.65	7.53	37.08	100	164	Peak
5470	51.31	48.19	68.3	-16.99	32.67	7.53	37.08	100	164	Peak
5550	87.13	83.88			32.76	7.58	37.09	100	164	Average
5550	96.92	93.67			32.76	7.58	37.09	100	164	Peak
5725	52.96	49.71	68.3	-15.34	32.97	7.71	37.43	100	164	Peak

**REMARKS:**

- 5550MHz: Fundamental frequency.
- 5470MHz & 5725MHz: Out of restricted band



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 134	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	41.5	38.4	54	-12.5	32.65	7.53	37.08	100	14	Average
5460	51.14	48.04	74	-22.86	32.65	7.53	37.08	100	14	Peak
5470	51.24	48.12	68.3	-17.06	32.67	7.53	37.08	100	14	Peak
5670	88.06	84.83			32.91	7.66	37.34	100	14	Average
5670	98.41	95.18			32.91	7.66	37.34	100	14	Peak
5725	52.35	49.1	68.3	-15.95	32.97	7.71	37.43	100	14	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	41.32	38.22	54	-12.68	32.65	7.53	37.08	103	18	Average
5460	49.47	46.37	74	-24.53	32.65	7.53	37.08	103	18	Peak
5470	50.58	47.46	68.3	-17.72	32.67	7.53	37.08	103	18	Peak
5670	87.72	84.49			32.91	7.66	37.34	103	18	Average
5670	96.69	93.46			32.91	7.66	37.34	103	18	Peak
5725	52.66	49.41	68.3	-15.64	32.97	7.71	37.43	103	18	Peak

**REMARKS:**

- 5670MHz: Fundamental frequency.
- 5470MHz & 5725MHz: Out of restricted band



A D T

802.11ac (80MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 42	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5146	47.21	44.85	54	-6.79	32.35	7.33	37.32	100	47	Average
5146	57.79	55.43	74	-16.21	32.35	7.33	37.32	100	47	Peak
5210	83.9	81.52			32.42	7.32	37.36	100	47	Average
5210	92.53	90.15			32.42	7.32	37.36	100	47	Peak
5404	41.62	38.8	54	-12.38	32.6	7.4	37.18	100	47	Average
5404	52.71	49.89	74	-21.29	32.6	7.4	37.18	100	47	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5138	42.31	39.94	54	-11.69	32.33	7.34	37.3	102	59	Average
5138	53.62	51.25	74	-20.38	32.33	7.34	37.3	102	59	Peak
5210	79.17	76.79			32.42	7.32	37.36	102	59	Average
5210	87.18	84.8			32.42	7.32	37.36	102	59	Peak
5398	41.3	38.48	54	-12.7	32.6	7.4	37.18	102	59	Average
5398	52.97	50.15	74	-21.03	32.6	7.4	37.18	102	59	Peak

REMARKS: 5210MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 58	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5078	40.8	38.49	54	-13.2	32.28	7.3	37.27	100	44	Average
5078	51.55	49.24	74	-22.45	32.28	7.3	37.27	100	44	Peak
5290	79.2	76.57			32.48	7.38	37.23	100	44	Average
5290	88.32	85.69			32.48	7.38	37.23	100	44	Peak
5350	41.89	39.12	54	-12.11	32.55	7.4	37.18	100	44	Average
5350	54.82	52.05	74	-19.18	32.55	7.4	37.18	100	44	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5112	40.62	38.23	54	-13.38	32.32	7.35	37.28	101	34	Average
5112	51.12	48.73	74	-22.88	32.32	7.35	37.28	101	34	Peak
5290	80.23	77.6			32.48	7.38	37.23	101	34	Average
5290	90.96	88.33			32.48	7.38	37.23	101	34	Peak
5438	42.56	39.59	54	-11.44	32.63	7.47	37.13	101	34	Average
5438	52.2	49.23	74	-21.8	32.63	7.47	37.13	101	34	Peak

REMARKS: 52900MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 106	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5456	43.47	40.37	54	-10.53	32.65	7.53	37.08	100	13	Average
5456	56.86	53.76	74	-17.14	32.65	7.53	37.08	100	13	Peak
5470	57.05	53.93	68.3	-11.25	32.67	7.53	37.08	100	13	Peak
5530	82.92	79.71			32.72	7.58	37.09	100	13	Average
5530	92.49	89.28			32.72	7.58	37.09	100	13	Peak
5725	52.36	49.11	68.3	-15.94	32.97	7.71	37.43	100	13	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5386	41.43	38.63	54	-12.57	32.58	7.4	37.18	100	310	Average
5386	54.02	51.22	74	-19.98	32.58	7.4	37.18	100	310	Peak
5470	53.71	50.59	68.3	-14.59	32.67	7.53	37.08	100	310	Peak
5530	80.51	77.3			32.72	7.58	37.09	100	310	Average
5530	89.87	86.66			32.72	7.58	37.09	100	310	Peak
5725	51.99	48.74	68.3	-16.31	32.97	7.71	37.43	100	310	Peak

**REMARKS:**

1. 5530MHz: Fundamental frequency.
2. 5470MHz & 5725MHz: Out of restricted band



A D T

**TEST MODE B**

**802.11n (40MHz)**

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5148	43.69	42.36	54	-10.31	31.32	7.33	37.32	100	354	Average
5148	58.95	57.62	74	-15.05	31.32	7.33	37.32	100	354	Peak
5190	84.73	83.4			31.35	7.32	37.34	100	354	Average
5190	94.89	93.56			31.35	7.32	37.34	100	354	Peak
5440	40.13	38.24	54	-13.87	31.55	7.47	37.13	100	354	Average
5440	52.42	50.53	74	-21.58	31.55	7.47	37.13	100	354	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5148	43.89	42.56	54	-10.11	31.32	7.33	37.32	102	352	Average
5148	54.67	53.34	74	-19.33	31.32	7.33	37.32	102	352	Peak
5190	86.42	85.09			31.35	7.32	37.34	102	352	Average
5190	95.82	94.49			31.35	7.32	37.34	102	352	Peak
5446	40.26	38.36	54	-13.74	31.56	7.47	37.13	102	352	Average
5446	52.23	50.33	74	-21.77	31.56	7.47	37.13	102	352	Peak

**REMARKS:** 5190MHz: Fundamental frequency.



A D T

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 60	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5132	39.69	38.34	54	-14.31	31.31	7.34	37.3	100	11	Average
5132	51.44	50.09	74	-22.56	31.31	7.34	37.3	100	11	Peak
5300	94.57	92.92			31.44	7.4	37.19	100	11	Average
5300	104.01	102.36			31.44	7.4	37.19	100	11	Peak
5378	49.04	47.31	54	-4.96	31.51	7.4	37.18	100	11	Average
5378	59.46	57.73	74	-14.54	31.51	7.4	37.18	100	11	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5076	39.27	37.97	54	-14.73	31.27	7.3	37.27	100	34	Average
5076	51.39	50.09	74	-22.61	31.27	7.3	37.27	100	34	Peak
5300	93.55	91.9			31.44	7.4	37.19	100	34	Average
5300	103.02	101.37			31.44	7.4	37.19	100	34	Peak
5378	47.27	45.54	54	-6.73	31.51	7.4	37.18	100	34	Average
5378	58.14	56.41	74	-15.86	31.51	7.4	37.18	100	34	Peak

REMARKS: 5300MHz: Fundamental frequency.

802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 140	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5356	39.92	38.22	54	-14.08	31.48	7.4	37.18	100	118	Average
5356	51.31	49.61	74	-22.69	31.48	7.4	37.18	100	118	Peak
5470	50.54	48.52	68.3	-17.76	31.57	7.53	37.08	100	118	Peak
5700	89.09	86.9			31.9	7.69	37.4	100	118	Average
5700	98.81	96.62			31.9	7.69	37.4	100	118	Peak
5725	63.39	61.15	68.3	-4.91	31.96	7.71	37.43	100	118	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5362	40.02	38.31	54	-13.98	31.49	7.4	37.18	102	193	Average
5362	53.11	51.4	74	-20.89	31.49	7.4	37.18	102	193	Peak
5470	50.73	48.71	68.3	-17.57	31.57	7.53	37.08	102	193	Peak
5700	92.89	90.7			31.9	7.69	37.4	102	193	Average
5700	103.18	100.99			31.9	7.69	37.4	102	193	Peak
5725	67.18	64.94	68.3	-1.12	31.96	7.71	37.43	102	193	Peak

**REMARKS:**

- 5700MHz: Fundamental frequency.
- 5470MHz & 5725MHz: Out of restricted band



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**BELOW 1GHz WORST-CASE DATA : 802.11a**

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 64	FREQUENCY RANGE	30MHz ~ 1GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
42.96	27.22	44.02	40	-12.78	13.58	0.7	31.08	100	22	Peak
112.35	32.63	53.08	43.5	-10.87	10.27	1.14	31.86	174	55	Peak
150.69	31.61	49.17	43.5	-11.89	12.71	1.34	31.61	100	102	Peak
300	18.19	35.04	46	-27.81	12.94	2.05	31.84	100	163	Peak
538.7	23.25	33.87	46	-22.75	18.19	2.91	31.72	120	278	Peak
705.3	25.57	32.99	46	-20.43	20.89	3.45	31.76	100	125	Peak
ANTENNA POLARITY & test distance: VERTICAL at 3 m										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
35.13	31.45	49.13	40	-8.55	12.79	0.59	31.06	125	256	QP
42.96	33.3	50.1	40	-6.7	13.58	0.7	31.08	125	256	QP
70.77	31.42	51.77	40	-8.58	10.53	0.91	31.79	100	221	Peak
474.3	21.05	33.41	46	-24.95	16.81	2.7	31.87	122	275	Peak
614.3	23.79	33.01	46	-22.21	19.77	3.13	32.12	138	77	Peak
764.8	26.54	32.57	46	-19.46	21.74	3.61	31.38	100	253	Peak

## 4.2 CONDUCTED EMISSION MEASUREMENT

### 4.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dB $\mu$ V)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	60	50

- NOTE:** 1. The lower limit shall apply at the transition frequencies.  
 2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.  
 3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

### 4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100288	Nov. 09, 2012	Nov. 08, 2013
RF signal cable Woken	5D-FB	Cable-HYCO2-01	Dec. 28, 2012	Dec. 27, 2013
LISN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Dec. 21, 2012	Dec. 20, 2013
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Jul. 06, 2012	Jul. 05, 2013
Software ADT	BV ADT_Cond_ V7.3.7.3	NA	NA	NA

- NOTE:** 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.  
 2. The test was performed in HwaYa Shielded Room 2.  
 3. The VCCI Site Registration No. is C-2047.

### 4.2.3 TEST PROCEDURES

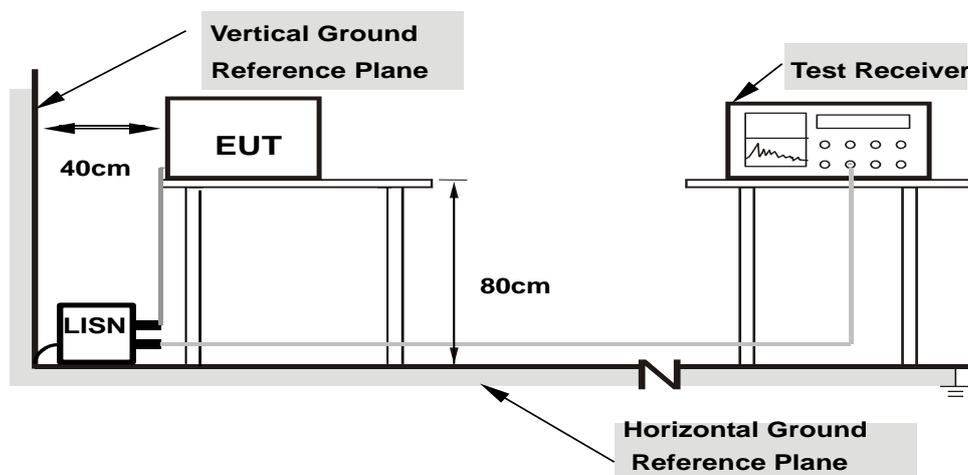
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

**NOTE:** All modes of operation were investigated and the worst-case emissions are reported.

### 4.2.4 DEVIATION FROM TEST STANDARD

No deviation.

### 4.2.5 TEST SETUP



- Note:**
- Support units were connected to second LISN.
  - Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

For the actual test configuration, please refer to the attached file (Test Setup Photo).

### 4.2.6 EUT OPERATING CONDITIONS

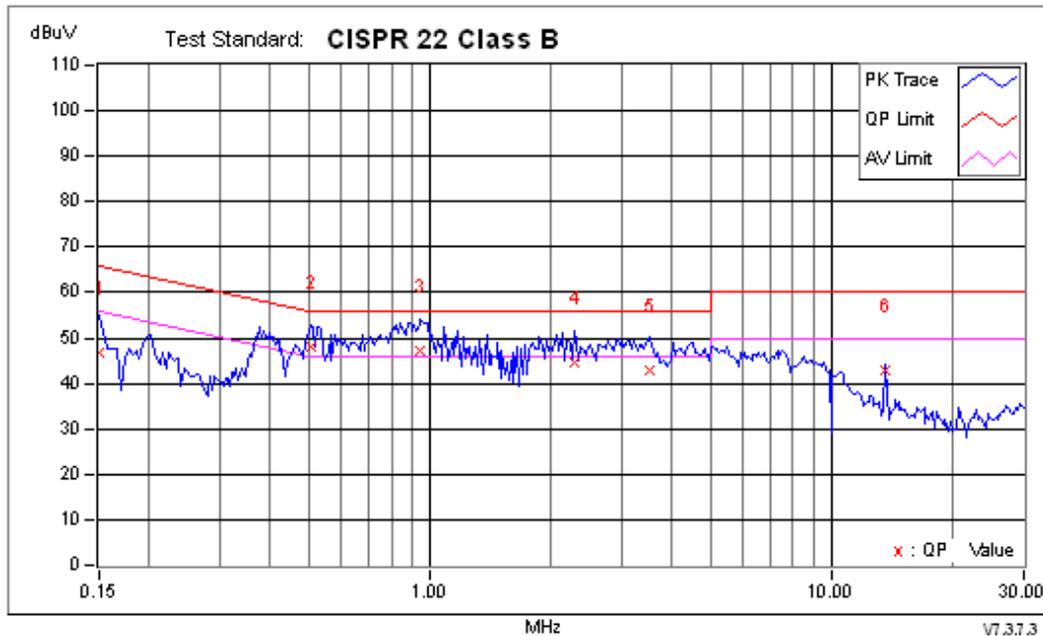
Same as 4.1.6.

## 4.2.7 TEST RESULTS

CONDUCTED WORST-CASE DATA : 802.11a

TEST MODE A

PHASE	Line 1	6dB BANDWIDTH	9kHz
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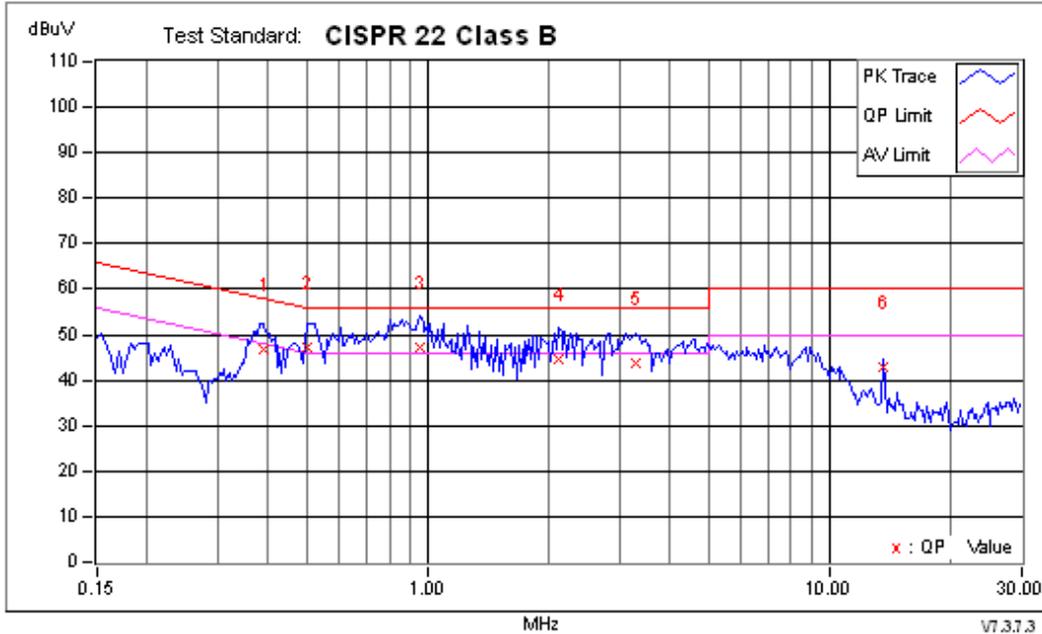


No.	Frequency	Corr. Factor	Reading dBuV		Emission dBuV		Limit dBuV		Margins dB		Notes
	MHz		QP	AV	QP	AV	QP	AV	QP	AV	
1	0.15000	0.18	46.68	33.33	46.86	33.51	66.00	56.00	-19.14	-22.49	
+2	0.50547	0.22	47.65	34.08	47.87	34.30	56.00	46.00	-8.13	-11.70	
3	0.94688	0.26	46.77	35.75	47.03	36.01	56.00	46.00	-8.97	-9.99	
4	2.28125	0.30	44.46	35.99	44.75	36.29	56.00	46.00	-11.25	-9.71	
5	3.49609	0.35	42.33	34.23	42.68	34.58	56.00	46.00	-13.32	-11.42	
6	13.56250	0.53	42.25	39.65	42.78	40.18	60.00	50.00	-17.22	-9.82	

### REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

PHASE	Line 2	6dB BANDWIDTH	9kHz
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No.	Frequency	Corr. Factor	Reading dBuV		Emission dBuV		Limit dBuV		Margins dB		Notes
	MHz		QP	AV	QP	AV	QP	AV	QP	AV	
+1	0.38828	0.20	46.72	39.98	46.92	40.18	58.10	48.10	-11.18	-7.92	
2	0.50156	0.21	46.94	32.42	47.15	32.63	56.00	46.00	-8.85	-13.37	
3	0.95078	0.26	46.91	35.91	47.17	36.17	56.00	46.00	-8.83	-9.83	
4	2.10156	0.29	44.29	36.63	44.58	36.92	56.00	46.00	-11.42	-9.08	
5	3.27734	0.35	43.60	35.12	43.95	35.47	56.00	46.00	-12.05	-10.53	
6	13.55859	0.59	42.35	39.36	42.94	39.95	60.00	50.00	-17.06	-10.05	

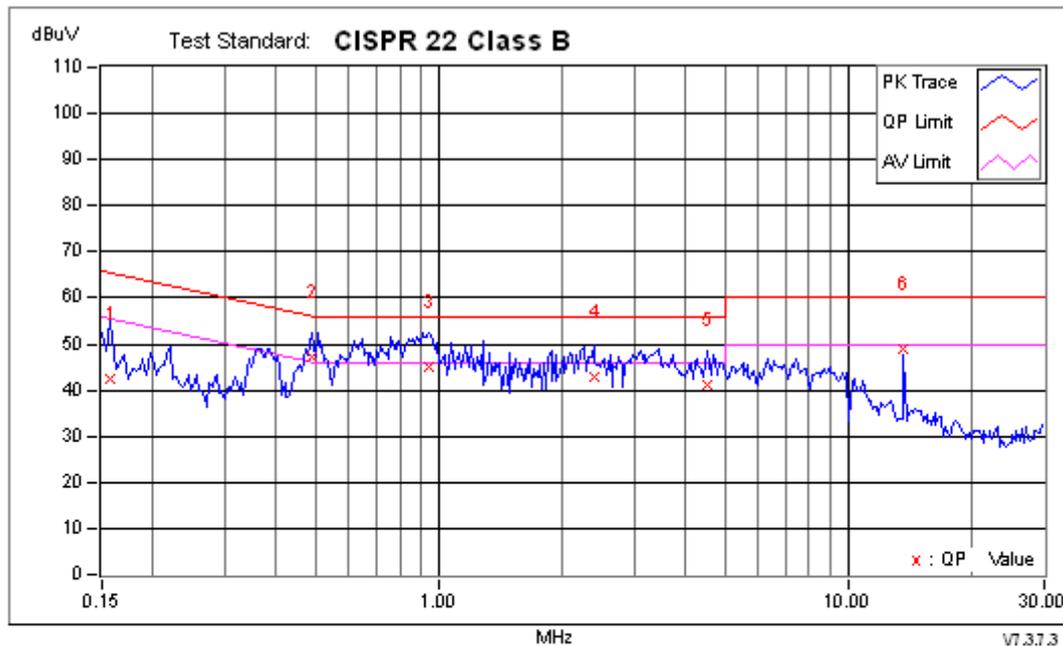
**REMARKS:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

**CONDUCTED WORST-CASE DATA : 802.11a**

**TEST MODE B**

<b>PHASE</b>	Line 1	<b>6dB BANDWIDTH</b>	9kHz
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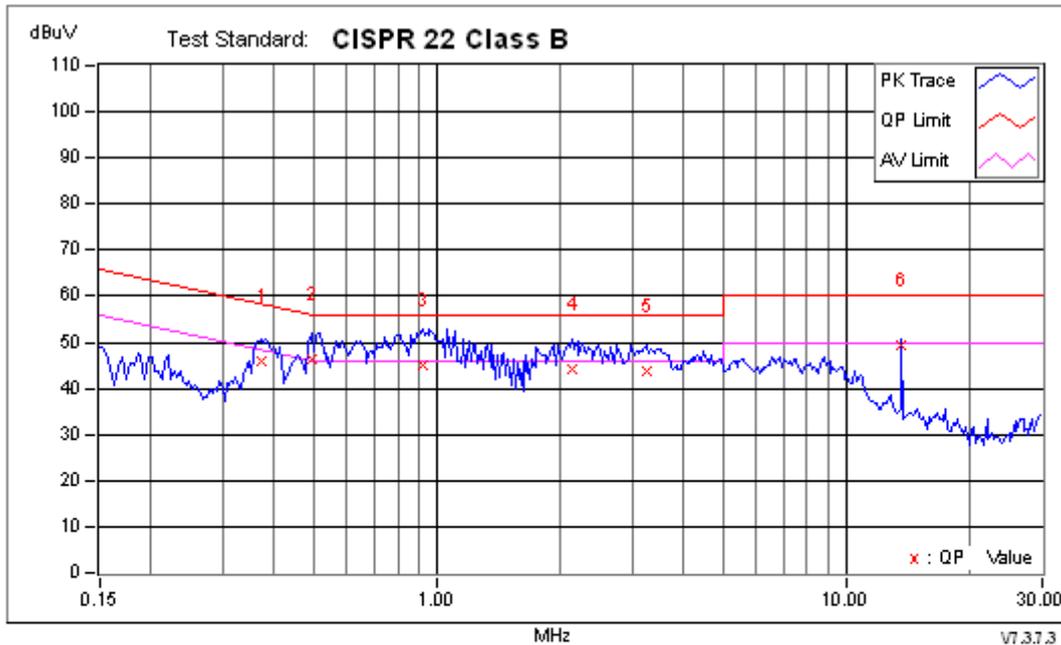


No.	Frequency	Corr. Factor	Reading dBuV		Emission dBuV		Limit dBuV		Margins dB		Notes
	MHz		QP	AV	QP	AV	QP	AV	QP	AV	
1	0.15781	0.17	42.07	29.40	42.24	29.57	65.58	55.58	-23.33	-26.00	
2	0.48984	0.22	47.18	34.11	47.40	34.33	56.17	46.17	-8.77	-11.84	
3	0.93906	0.26	44.66	34.95	44.92	35.21	56.00	46.00	-11.08	-10.79	
4	2.38672	0.30	42.52	34.68	42.82	34.98	56.00	46.00	-13.18	-11.02	
5	4.51172	0.38	40.63	32.28	41.01	32.66	56.00	46.00	-14.99	-13.34	
+6	13.55859	0.50	48.56	45.92	49.06	46.42	60.00	50.00	-10.94	-3.58	

**REMARKS:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

PHASE	Line 2	6dB BANDWIDTH	9kHz
-------	--------	---------------	------



No.	Frequency MHz	Corr. Factor dB	Reading dBuV		Emission dBuV		Limit dBuV		Margins dB		Notes
			QP	AV	QP	AV	QP	AV	QP	AV	
1	0.37266	0.24	45.82	37.39	46.06	37.63	58.44	49.44	-12.38	-10.81	
2	0.49375	0.25	45.90	30.86	46.15	31.11	56.10	46.10	-9.96	-15.00	
3	0.91953	0.23	45.02	36.36	45.25	36.59	56.00	46.00	-10.75	-9.41	
4	2.12500	0.29	43.74	35.68	44.03	35.97	56.00	46.00	-11.97	-10.03	
5	3.24219	0.35	43.35	34.41	43.70	34.76	56.00	46.00	-12.30	-11.24	
+6	13.55859	0.57	48.68	46.00	49.25	46.57	60.00	50.00	-10.75	-3.43	

**REMARKS:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

### 4.3 PEAK TRANSMIT POWER MEASUREMENT

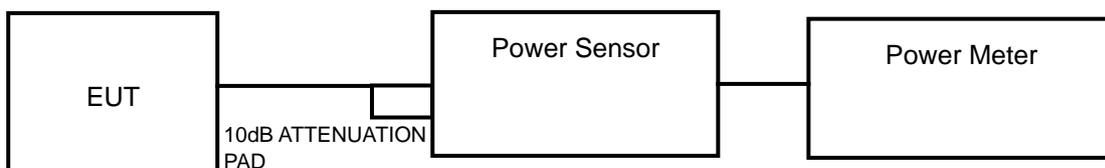
#### 4.3.1 LIMITS OF PEAK TRANSMIT POWER MEASUREMENT

FREQUENCY BAND	LIMIT
5.150 ~ 5.250GHz	The lesser of 50mW (17dBm) or 4dBm + 10logB
5.250 ~ 5.350GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB
5.470 ~ 5.725GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB

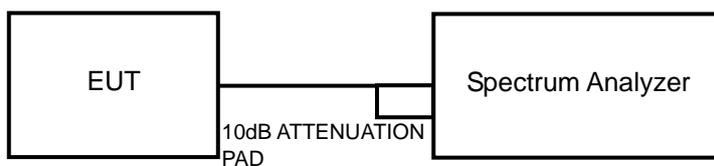
**NOTE:** Where B is the 26dB emission bandwidth in MHz.

#### 4.3.2 TEST SETUP

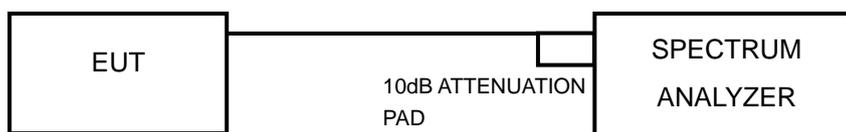
##### FOR POWER OUTPUT MEASUREMENT



or



##### FOR 26dB BANDWIDTH



#### 4.3.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

#### 4.3.4 TEST PROCEDURE

##### FOR AVERAGE POWER MEASUREMENT

<802.11a, 802.11n (20MHz), 802.11n (40MHz)>

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

<802.11 ac (80MHz)>

Method SA-1 is used to perform output power measurement, trigger and gating function of spectrum analyzer is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

##### FOR 26dB BANDWIDTH

- 1) Set RBW = approximately 1% of the emission bandwidth.
- 2) Set the VBW > RBW.
- 3) Detector = Peak.
- 4) Trace mode = max hold.
- 5) 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%.

#### 4.3.5 DEVIATION FROM TEST STANDARD

No deviation.

#### 4.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.



### 4.3.7 TEST RESULTS

#### POWER OUTPUT: 802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	32.434	15.11	17	PASS
44	5220	32.584	15.13	17	PASS
48	5240	34.198	15.34	17	PASS
52	5260	52.845	17.23	24	PASS
60	5300	57.810	17.62	24	PASS
64	5320	59.566	17.75	24	PASS
100	5500	53.456	17.28	24	PASS
116	5580	56.234	17.50	24	PASS
140	5700	56.364	17.51	24	PASS

#### 802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	31.842	15.03	17	PASS
44	5220	32.659	15.14	17	PASS
48	5240	33.651	15.27	17	PASS
52	5260	46.132	16.64	24	PASS
60	5300	46.666	16.69	24	PASS
64	5320	46.989	16.72	24	PASS
100	5500	42.267	16.26	24	PASS
116	5580	44.055	16.44	24	PASS
140	5700	45.920	16.62	24	PASS

#### 802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
38	5190	23.335	13.68	17	PASS
46	5230	23.335	13.68	17	PASS
54	5270	24.322	13.86	24	PASS
62	5310	24.604	13.91	24	PASS
102	5510	22.542	13.53	24	PASS
110	5550	24.155	13.83	24	PASS
134	5670	26.122	14.17	24	PASS



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### 802.11ac (80MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
42	5210	18.707	12.72	17	PASS
58	5290	21.380	13.30	24	PASS
106	5530	23.335	13.68	24	PASS

### 26dB BANDWIDTH: 802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
36	5180	21.01	PASS
44	5220	21.00	PASS
48	5240	20.81	PASS
52	5260	20.86	PASS
60	5300	20.83	PASS
64	5320	21.04	PASS
100	5500	20.87	PASS
116	5580	20.99	PASS
140	5700	25.94	PASS

### 802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
36	5180	21.29	PASS
44	5220	21.70	PASS
48	5240	21.67	PASS
52	5260	21.79	PASS
60	5300	21.18	PASS
64	5320	21.21	PASS
100	5500	21.46	PASS
116	5580	23.11	PASS
140	5700	23.99	PASS



**802.11n (40MHz)**

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
38	5190	41.34	PASS
46	5230	41.43	PASS
54	5270	41.54	PASS
62	5310	41.39	PASS
102	5510	41.19	PASS
110	5550	41.35	PASS
134	5670	41.05	PASS

**802.11ac (80MHz)**

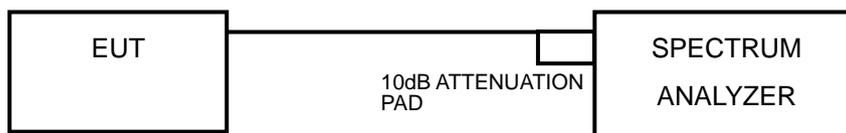
CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
42	5210	83.50	PASS
58	5290	83.50	PASS
106	5530	83.50	PASS

## 4.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

### 4.4.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

FREQUENCY BAND	LIMIT
5.150 ~ 5.250GHz	4dBm
5.250 ~ 5.350GHz	11dBm
5.470 ~ 5.725GHz	11dBm

### 4.4.2 TEST SETUP



### 4.4.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

### 4.4.4 TEST PROCEDURES

<802.11a, 802.11n (20MHz), 802.11n (40MHz)>

Using method SA-2 alternative

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 1 MHz, Set VBW  $\geq$  3 MHz, Detector = RMS
- 3) Sweep time = 4second.
- 4) Perform a single sweep.
- 5) Record the max value and add 10 log (1/duty cycle)

<802.11ac (80MHz)>

Using method SA-1

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 1 MHz, Set VBW  $\geq$  3 MHz, Detector = RMS
- 3) Sweep time = 4second.
- 4) Perform a single sweep.

#### 4.4.5 DEVIATION FROM TEST STANDARD

No deviation.

#### 4.4.6 EUT OPERATING CONDITIONS

Same as 4.3.6.

#### 4.4.7 TEST RESULTS

##### 802.11a

CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	2.04	0.21	2.25	4	PASS
44	5220	2.10	0.21	2.31	4	PASS
48	5240	2.20	0.21	2.41	4	PASS
52	5260	4.52	0.21	4.73	11	PASS
60	5300	4.52	0.21	4.73	11	PASS
64	5320	4.73	0.21	4.94	11	PASS
100	5500	4.48	0.21	4.69	11	PASS
116	5580	4.62	0.21	4.83	11	PASS
140	5700	4.64	0.21	4.85	11	PASS

**NOTE:** Refer to section 3.3 for duty cycle spectrum plot.

##### 802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	1.74	0.26	2.00	4	PASS
44	5220	1.90	0.26	2.16	4	PASS
48	5240	1.98	0.26	2.24	4	PASS
52	5260	3.25	0.26	3.51	11	PASS
60	5300	3.41	0.26	3.67	11	PASS
64	5320	3.33	0.26	3.59	11	PASS
100	5500	3.13	0.26	3.39	11	PASS
116	5580	3.47	0.26	3.73	11	PASS
140	5700	3.10	0.26	3.36	11	PASS

**NOTE:** Refer to section 3.3 for duty cycle spectrum plot.



### 802.11n (40MHz)

CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
38	5190	-3.19	0.60	-2.59	4	PASS
46	5230	-2.78	0.60	-2.18	4	PASS
54	5270	-2.34	0.60	-1.74	11	PASS
62	5310	-2.29	0.60	-1.69	11	PASS
102	5510	-2.59	0.60	-1.99	11	PASS
110	5550	-2.25	0.60	-1.65	11	PASS
134	5670	-2.54	0.60	-1.94	11	PASS

**NOTE:** Refer to section 3.3 for duty cycle spectrum plot.

### 802.11ac (80MHz)

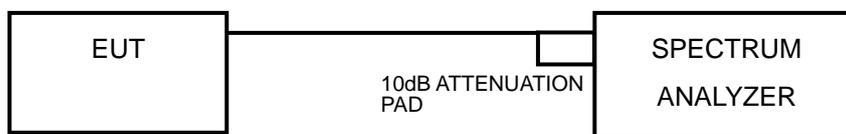
CHANNEL	FREQUENCY (MHz)	PSD (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
42	5210	-5.55	4	PASS
58	5290	-5.14	11	PASS
106	5530	-4.85	11	PASS

## 4.5 PEAK POWER EXCURSION MEASUREMENT

### 4.5.1 LIMITS OF PEAK POWER EXCURSION MEASUREMENT

Shall not exceed 13 dB.

### 4.5.2 TEST SETUP



### 4.5.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

### 4.5.4 TEST PROCEDURE

- 1) Set RBW = 1 MHz, VBW  $\geq$  3 MHz, Detector = peak.
- 2) Trace mode = max-hold. Allow the sweeps to continue until the trace stabilizes.
- 3) Use the peak search function to find the peak of the spectrum.
- 4) Measure the PPSD.
- 5) Compute the ratio of the maximum of the peak-max-hold spectrum to the PPSD.

### 4.5.5 DEVIATION FROM TEST STANDARD

No deviation.

### 4.5.6 EUT OPERATING CONDITIONS

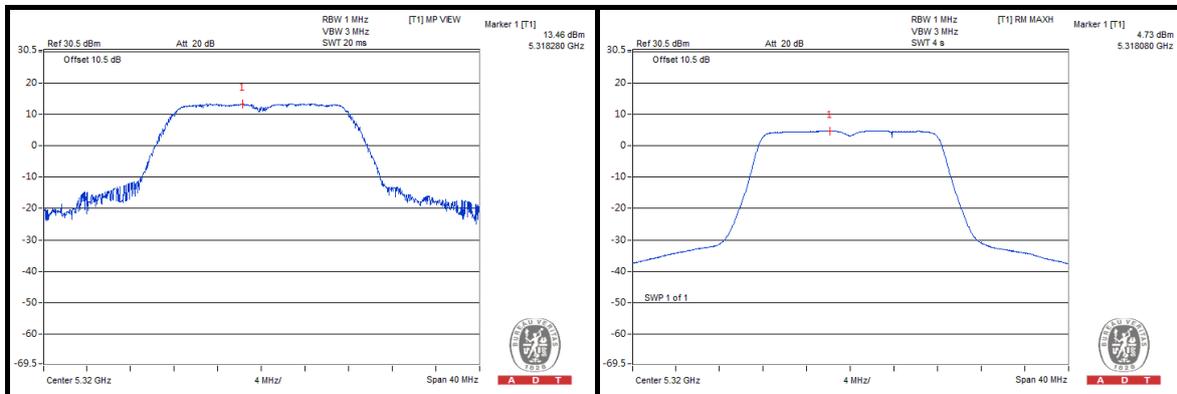
Same as 4.2.6

## 4.5.7 TEST RESULTS

### 802.11a

CHAN.	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD WITHOUT DUTY FACTOR (dBm)	PPSD WITH DUTY FACTOR (dBm)	PEAK POWER EXCURSION (dB)	PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS /FAIL
36	5180	10.85	2.04	2.25	8.60	13	PASS
44	5220	10.95	2.10	2.31	8.64	13	PASS
48	5240	11.05	2.20	2.41	8.64	13	PASS
52	5260	13.05	4.52	4.73	8.32	13	PASS
60	5300	13.28	4.52	4.73	8.55	13	PASS
64	5320	13.46	4.73	4.94	8.52	13	PASS
100	5500	13.22	4.48	4.69	8.53	13	PASS
116	5580	13.30	4.62	4.83	8.47	13	PASS
140	5700	13.32	4.64	4.85	8.47	13	PASS

**NOTE:** Refer to section 3.3 for duty cycle spectrum plot.



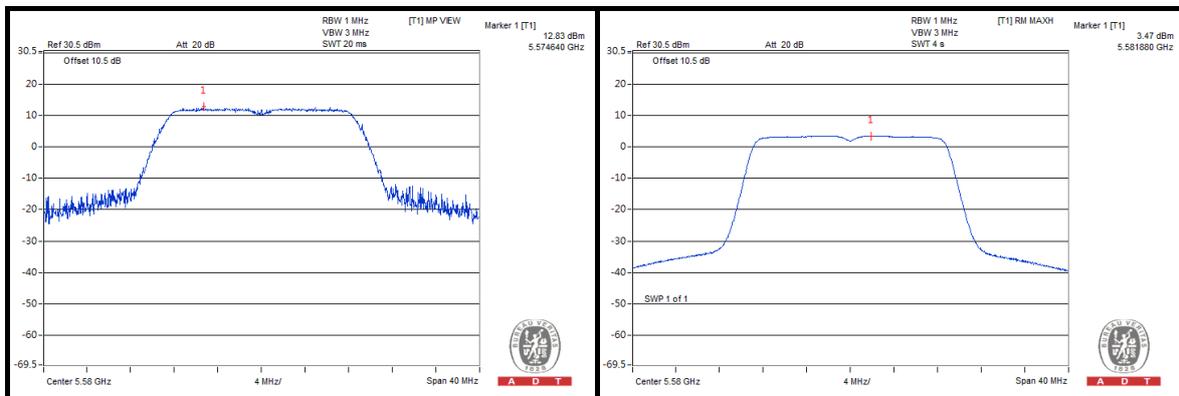


A D T

### 802.11n (20MHz)

CHAN.	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD WITHOUT DUTY FACTOR (dBm)	PPSD WITH DUTY FACTOR (dBm)	PEAK POWER EXCURSION (dB)	PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS /FAIL
36	5180	11.23	1.74	2.00	9.23	13	PASS
44	5220	11.44	1.90	2.16	9.28	13	PASS
48	5240	11.38	1.98	2.24	9.14	13	PASS
52	5260	12.60	3.25	3.51	9.09	13	PASS
60	5300	12.41	3.41	3.67	8.74	13	PASS
64	5320	12.75	3.33	3.59	9.16	13	PASS
100	5500	12.41	3.13	3.39	9.02	13	PASS
116	5580	12.83	3.47	3.73	9.10	13	PASS
140	5700	12.65	3.10	3.36	9.29	13	PASS

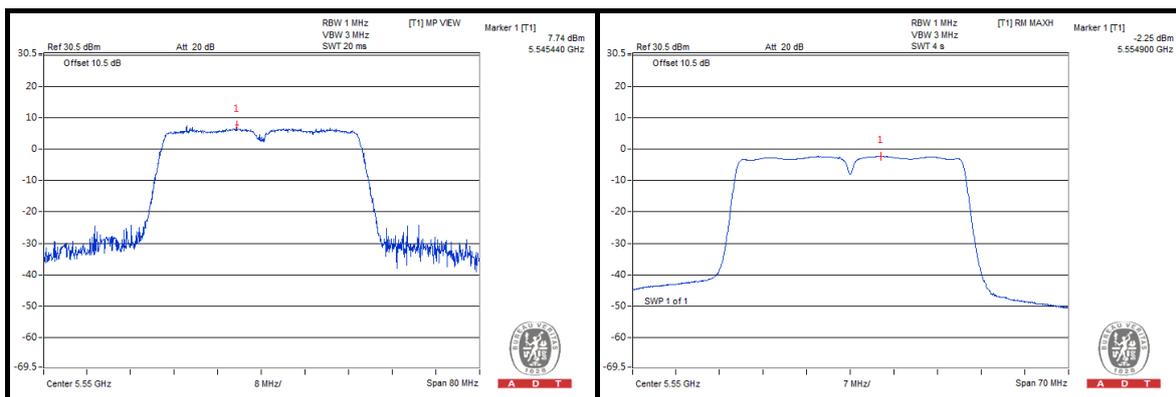
**NOTE:** Refer to section 3.3 for duty cycle spectrum plot.



802.11n (40MHz)

CHAN.	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD WITHOUT DUTY FACTOR (dBm)	PPSD WITH DUTY FACTOR (dBm)	PEAK POWER EXCURSION (dB)	PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS /FAIL
38	5190	6.45	-3.19	-2.59	9.04	13	PASS
46	5230	6.98	-2.78	-2.18	9.16	13	PASS
54	5270	7.38	-2.34	-1.74	9.12	13	PASS
62	5310	7.13	-2.29	-1.69	8.82	13	PASS
102	5510	7.03	-2.59	-1.99	9.02	13	PASS
110	5550	7.74	-2.25	-1.65	9.39	13	PASS
134	5670	7.66	-2.54	-1.94	9.60	13	PASS

NOTE: Refer to section 3.3 for duty cycle spectrum plot.



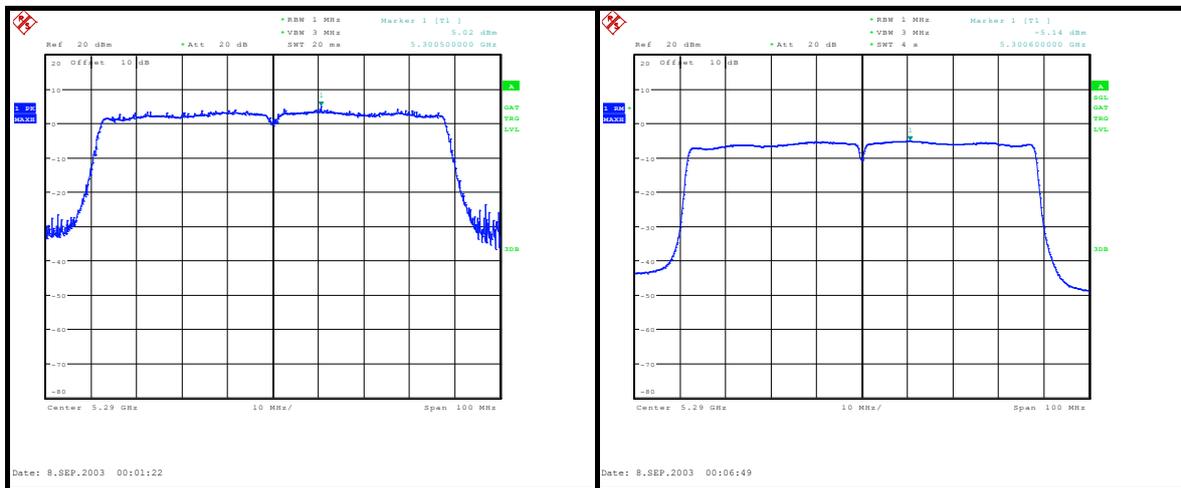


A D T

802.11ac (80MHz)

CHAN.	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD (dBm)	PEAK POWER EXCURSION (dB)	PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS /FAIL
42	5210	4.27	-5.55	9.82	13	PASS
58	5290	5.02	-5.14	10.16	13	PASS
106	5530	5.14	-4.85	9.99	13	PASS

NOTE: Refer to section 3.3 for duty cycle spectrum plot.

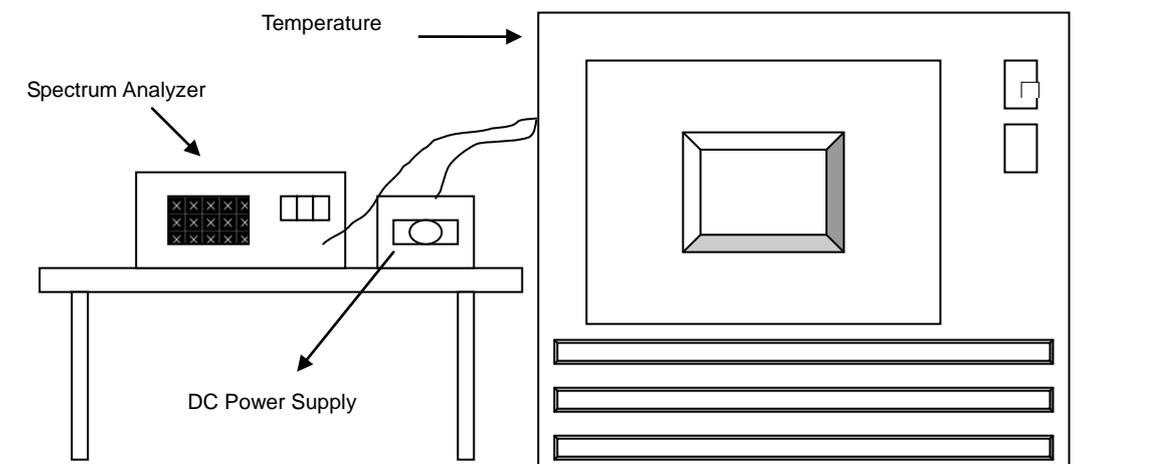


## 4.6 FREQUENCY STABILITY

### 4.6.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

The frequency of the carrier signal shall be maintained within band of operation

### 4.6.2 TEST SETUP



### 4.6.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

#### 4.6.4 TEST PROCEDURE

- a. 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.
- b. 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.
- c. 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.

#### 4.6.5 DEVIATION FROM TEST STANDARD

No deviation.

#### 4.6.6 EUT OPERATING CONDITION

Set the EUT transmit at un-modulation mode to test frequency stability.

#### 4.6.7 TEST RESULTS

FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5320MHz									
TEMP. (°C)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
55	3.8	5320.037946	7.133	5320.038254	7.191	5320.038231	7.186	5320.038102	7.162
50	3.8	5320.038566	7.249	5320.038715	7.277	5320.038592	7.254	5320.038572	7.250
40	3.8	5320.040097	7.537	5320.040178	7.552	5320.039537	7.432	5320.039555	7.435
30	3.8	5320.042463	7.982	5320.043018	8.086	5320.042464	7.982	5320.042693	8.025
20	3.8	5320.016088	3.024	5320.016251	3.055	5320.016335	3.070	5320.015867	2.983
10	3.8	5320.040741	7.658	5320.040573	7.627	5320.041099	7.725	5320.041047	7.716
0	3.8	5320.039668	7.456	5320.039836	7.488	5320.039736	7.469	5320.039768	7.475
-10	3.8	5320.038198	7.180	5320.038218	7.184	5320.038066	7.155	5320.037959	7.135

FREQUENCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5320MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	3.6	5320.015183	2.854	5320.015457	2.905	5320.015310	2.878	5320.015133	2.845
	3.8	5320.016088	3.024	5320.016251	3.055	5320.016335	3.070	5320.015867	2.983
	4.35	5320.017425	3.275	5320.017395	3.270	5320.017935	3.371	5320.018040	3.391

## 5. PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).



## 6. INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

**Linko EMC/RF Lab:**

Tel: 886-2-26052180

Fax: 886-2-26051924

**Hsin Chu EMC/RF Lab:**

Tel: 886-3-5935343

Fax: 886-3-5935342

**Hwa Ya EMC/RF/Safety Telecom Lab:**

Tel: 886-3-3183232

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**Email:** [service.adt@tw.bureauveritas.com](mailto:service.adt@tw.bureauveritas.com)

**Web Site:** [www.bureauveritas-adt.com](http://www.bureauveritas-adt.com)

The address and road map of all our labs can be found in our web site also.

## 7. APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No modifications were made to the EUT by the lab during the test.

---END---