FCC TEST REPORT (15.407)

REPORT NO.:	RF140925C24B
MODEL NO.:	OPPO N5206
FCC ID:	R9C-N5206
RECEIVED:	Oct. 01, 2014
TESTED:	Oct. 01, 2014 ~ Nov. 11, 2014
ISSUED:	Nov. 14, 2014

APPLICANT:	GUANGDONG OPPO MOBILE TELECOMMUNICATIONS CORP.,LTD
ADDRESS:	NO.18 HAIBIN ROAD, WUSHA, CHANG'AN, DONGGUAN, GUANGDONG, CHINA
ISSUED BY:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
LAB ADDRESS:	No. 47-2, 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.

This report should not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.

TABLE OF CONTENTS

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF140925C24B	Original release	Nov. 14, 2014

1. CERTIFICATION

PRODUCT:	Mobile Phone
MODEL NO.:	OPPO N5206
BRAND:	OPPO
APPLICANT:	GUANGDONG OPPO MOBILE TELECOMMUNICATIONS CORP.,LTD
TESTED:	Oct. 01, 2014 ~ Nov. 11, 2014
TEST SAMPLE:	Identical Prototype
STANDARDS:	**FCC Part 15, Subpart E (Section 15.407)** ANSI C63.10-2009

The above equipment (model: OPPO N5206) 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 : _____ **, DATE :** Nov. 14, 2014

Ivonne Wu / Supervisor

APPROVED BY : _____ **, DATE :** Nov. 14, 2014

Sam Chen / Senior Project 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 -10.84dB at 0.27500MHz.
15.407(b/1/2/3) (b)(6)	Radiated Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -4.87dB at 5470MHz.
15.407(a/1/2/3)	Max Average Transmit Power	PASS	Meet the requirement of limit.
15.407(a)(6)	Peak Power Excursion	PASS	Meet the requirement of limit.
15.407(a/1/2/3)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407(e)	6dB bandwidth	PASS	Meet the requirement of limit. (U-NII-3 Band only)
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

EUT	Mobile Phone
MODEL NO.	OPPO N5206
POWER SUPPLY	5.0Vdc (adapter or host equipment) 3.8Vdc (Li-ion battery)
MODULATION TYPE	256QAM, 64QAM, 16QAM, QPSK, BPSK
MODULATION TECHNOLOGY	OFDM
TRANSFER RATE	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
OPERATING FREQUENCY	5180 ~ 5240MHz, 5260 ~ 5320MHz, 5500 ~ 5700MHz, 5745 ~ 5825MHz
NUMBER OF CHANNEL	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: 11 for 802.11a, 802.11n (20MHz) 5 for 802.11n (40MHz) 2 for 802.11ac (80MHz) 5745 ~ 5825MHz: 5 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz) 1 for 802.11ac (80MHz)
OUTPUT POWER	13.55mW for 5180 ~ 5240MHz 13.30mW for 5260 ~ 5320MHz 13.34mW for 5500 ~ 5700MHz 13.84mW for 5745 ~ 5825MHz
ANTENNA TYPE	PIFA antenna with 3.2dBi gain (5180 ~ 5240MHz) PIFA antenna with 3.2dBi gain (5260 ~ 5320MHz) PIFA antenna with 3.2dBi gain (5500 ~ 5700MHz) PIFA antenna with 3.2dBi gain (5745 ~ 5825MHz)
ANTENNA CONNECTOR	NA
DATA CABLE	Refer to Note as below
I/O PORTS	Refer to user's manual
ACCESSORY DEVICES	Refer to Note as below

NOTE:

1. The EUT contains following accessory devices.

ITEM	BRAND	MODEL	SPECIFICATION
Adapter	Salcomp	AK955	I/P: 100-240Vac, 50/60Hz, 700mA O/P: 5Vdc, 5000mA
Battery	OPPO	BLP581	3.8Vdc, 3000mAh
Earphone	OPPO	MH124	1.1m non-shielded cable
USB Cable	LUXSHARE-ICT	RDN1403282	1m shielded cable
LCD Panel	JDI	LPM055A081A TENTATIVE	--
Photo Camera	SUNNY	P16V01C	--

2. 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

WLAN 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 is provided for 802.11ac (80MHz):

CHANNEL	FREQUENCY
42	5210 MHz

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 is provided for 802.11ac (80MHz):

CHANNEL	FREQUENCY
58	5290MHz

WLAN 5500 ~ 5700MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
100	5500MHz	124	5620MHz
104	5520MHz	128	5640MHz
108	5540MHz	132	5660MHz
112	5560MHz	136	5680MHz
116	5580MHz	140	5700MHz
120	5600MHz		

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
102	5510MHz	126	5630MHz
110	5550MHz	134	5670MHz
118	5590MHz		

2 channel is provided for 802.11ac (80MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
106	5530MHz	122	5610MHz

FOR 5.0GHz (5745 ~ 5825MHz):

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
149	5745MHz	161	5805MHz
153	5765MHz	165	5825MHz
157	5785MHz		

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
151	5755MHz	159	5795MHz

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

CHANNEL	FREQUENCY
155	5775MHz

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
-	√	√	√	√	-

Where **RE≥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 **Z-plane.**

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)
-	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
-	802.11a	5745-5825	149 to 161	149, 157, 165	OFDM	BPSK	6.0
	802.11n (20MHz)		149 to 161	149, 157, 165	OFDM	BPSK	MCS0
	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	MCS0
	802.11ac (80MHz)		155	155	OFDM	BPSK	V0

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)
-	802.11ac	5180-5240	42	42	OFDM	BPSK	V0
-	802.11n (20MHz)	5260-5320	52 to 64	64	OFDM	BPSK	MCS0
-	802.11n (40MHz)	5500-5700	102 to 134	102	OFDM	BPSK	MCS0
-	802.11n (40MHz)	5745-5825	151 to 159	151	OFDM	BPSK	MCS0

POWER LINE CONDUCTED EMISSION TEST:

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11n (40MHz)	5500-5700	102 to 134	102	OFDM	BPSK	MCS0

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)
-	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
-	802.11a	5745-5825	149 to 161	149, 157, 165	OFDM	BPSK	6.0
	802.11n (20MHz)		149 to 161	149, 157, 165	OFDM	BPSK	MCS0
	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	MCS0
	802.11ac (80MHz)		155	155	OFDM	BPSK	V0

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)
-	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
-	802.11a	5745-5825	149 to 161	149, 157, 165	OFDM	BPSK	6.0
	802.11n (20MHz)		149 to 161	149, 157, 165	OFDM	BPSK	MCS0
	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	MCS0
	802.11ac (80MHz)		155	155	OFDM	BPSK	V0

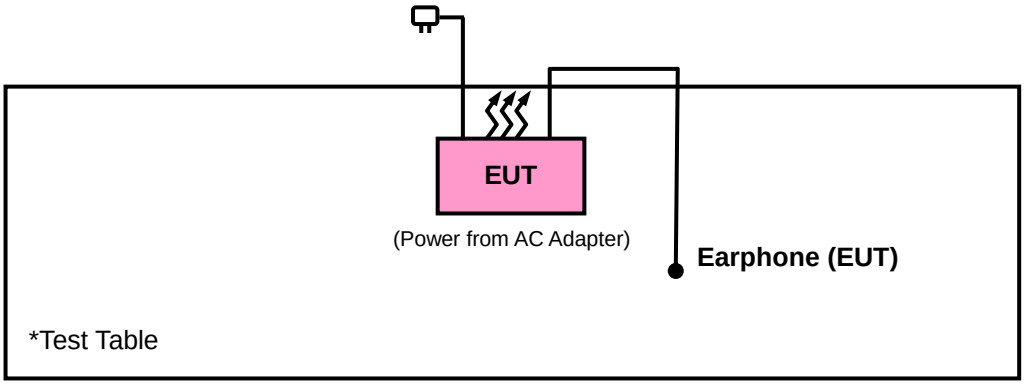
TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	25deg. C, 65%RH	120Vac, 60Hz	Will Chen
RE<1G	25deg. C, 65%RH	120Vac, 60Hz	Will Chen
PLC	25deg. C, 65%RH	120Vac, 60Hz	Gavin Wu
APCM	25deg. C, 65%RH	120Vac, 60Hz	Dylan Yang

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 TEST SIGNAL

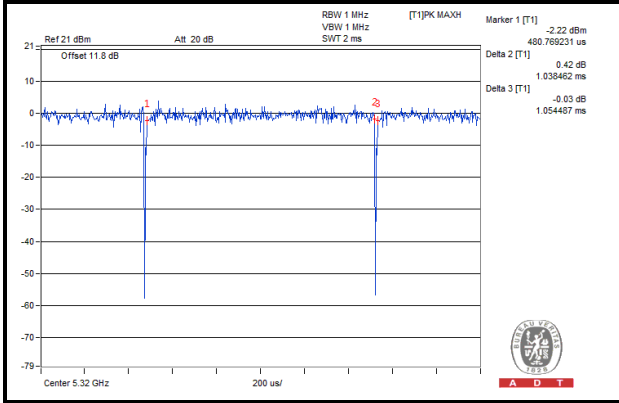
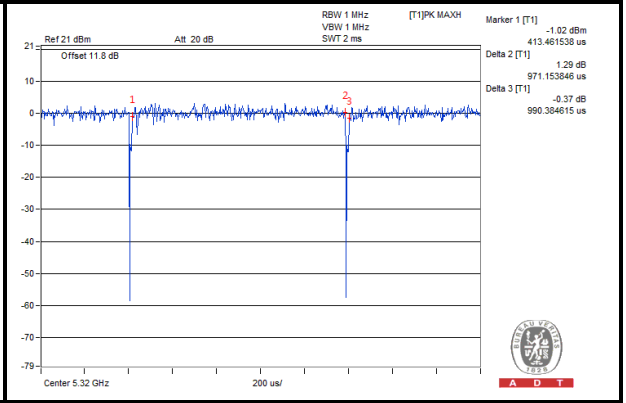
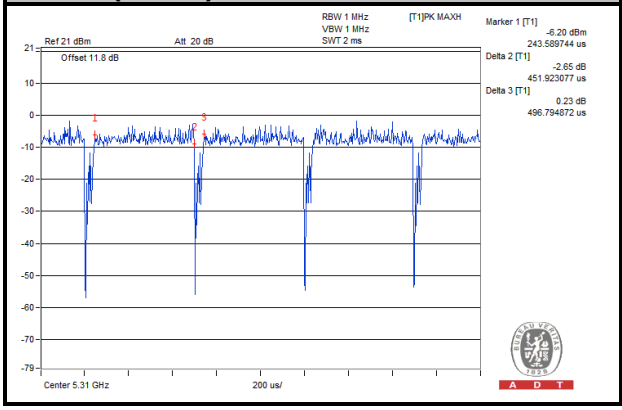
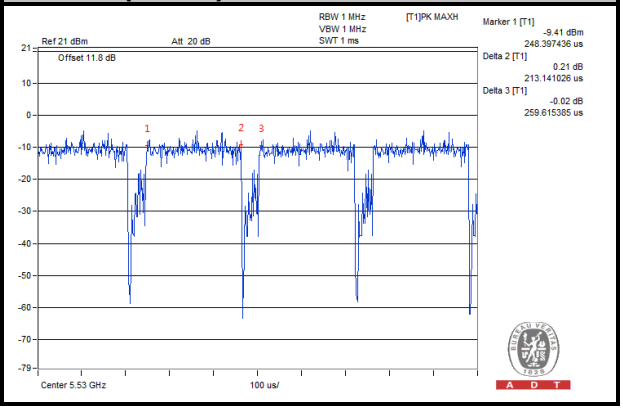
MODULATION TYPE: BPSK

802.11a: Duty cycle of test signal is > 98%, duty factor is not required.

802.11n (20MHz): Duty cycle of test signal is > 98%, duty factor is not required.

802.11n (40MHz): Duty cycle = 451.92/496.79 = 0.910, Duty factor = 10*log(1/0.910) = 0.41

802.11ac (80MHz): Duty cycle = 213.14/259.61 = 0.821, Duty factor = 10*log(1/0.821) = 0.86

802.11a	802.11n (20MHz)
	
802.11n (40MHz)	**802.11ac (80MHz)**
	

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)
789033 D02 General UNII Test Procedures New Rules v01
644545 D01 Guidance for IEEE 802 11ac v01r02
ANSI C63.10-2009

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

NOTE: The EUT has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

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

APPLICABLE TO	LIMIT	
789033 D02 General UNII Test Procedures New Rules v01	FIELD STRENGTH AT 3m	
	PK: 74 (dBµV/m)	AV: 54 (dBµV/m)
APPLICABLE TO	**EIRP LIMIT**	**EQUIVALENT FIELD STRENGTH AT 3m**
15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2 (dBµV/m)
15.407(b)(2)		
15.407(b)(3)		
15.407(b)(4)	PK: -27 (dBm/MHz) *1 PK: -17 (dBm/MHz) *2	PK: 68.2 (dBµV/m) *1 PK: 78.2 (dBµV/m) *2

NOTE: *1 beyond 10MHz of the band edge *2 within 10 MHz of band edge

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

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

4.1.3 TEST INSTRUMENTS

Test Date: Oct. 03, 2014 ~ Nov. 04, 2014

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver AGILENT	N9038A	MY51210203	Jan. 17, 2014	Jan. 16, 2015
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	101261	Dec. 21, 2013	Dec. 20, 2014
BILOG Antenna SCHWARZBECK	VULB9168	9168-472	Feb. 27. 2014	Feb. 26, 2015
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-969	Feb. 19, 2014	Feb. 18, 2015
HORN Antenna SCHWARZBECK	BBHA 9170	9170-480	Dec. 18, 2013	Dec. 17, 2014
Loop Antenna	HFH2-Z2	100070	Mar. 06, 2014	Mar. 05, 2016
Preamplifier EMCI	EMC 012645	980115	Dec. 26, 2013	Dec. 25, 2014
Preamplifier EMCI	EMC 184045	980116	Jan. 13, 2014	Jan. 12, 2015
Preamplifier EMCI	EMC 330H	980112	Dec. 27, 2013	Dec. 26, 2014
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	Cable-RF2-02(254644+251640)	Aug. 22, 2014	Aug. 21, 2015
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	Cable-RF2-03(246272/4)	Aug. 22, 2014	Aug. 21, 2015
RF signal cable Worken	RG-213	NA	Nov. 07, 2013	Nov. 06, 2014
Software BV ADT	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
Power Meter	ML2495A	1232002	Sep. 17, 2014	Sep. 16, 2015
Power Sensor	MA2411B	1207325	Sep. 17, 2014	Sep. 16, 2015

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 10.
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 690701.
6. The IC Site Registration No. is IC 7450F-10.

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 meters 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:

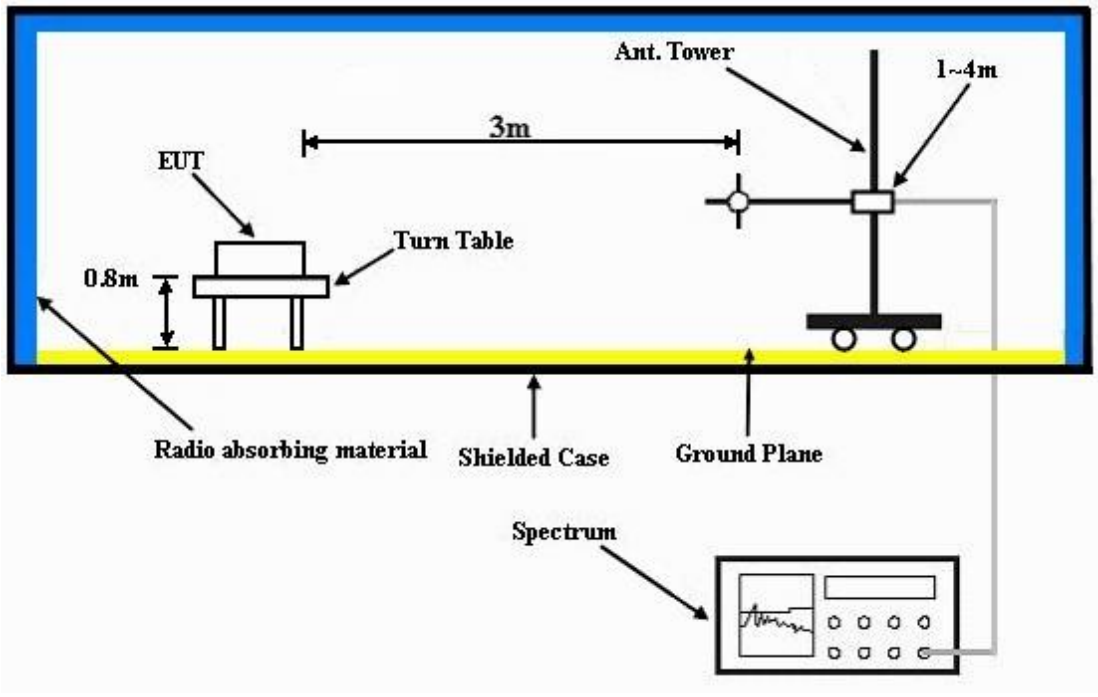
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 1kHz (Duty cycle < 98%) or 10Hz (Duty cycle > 98%) 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

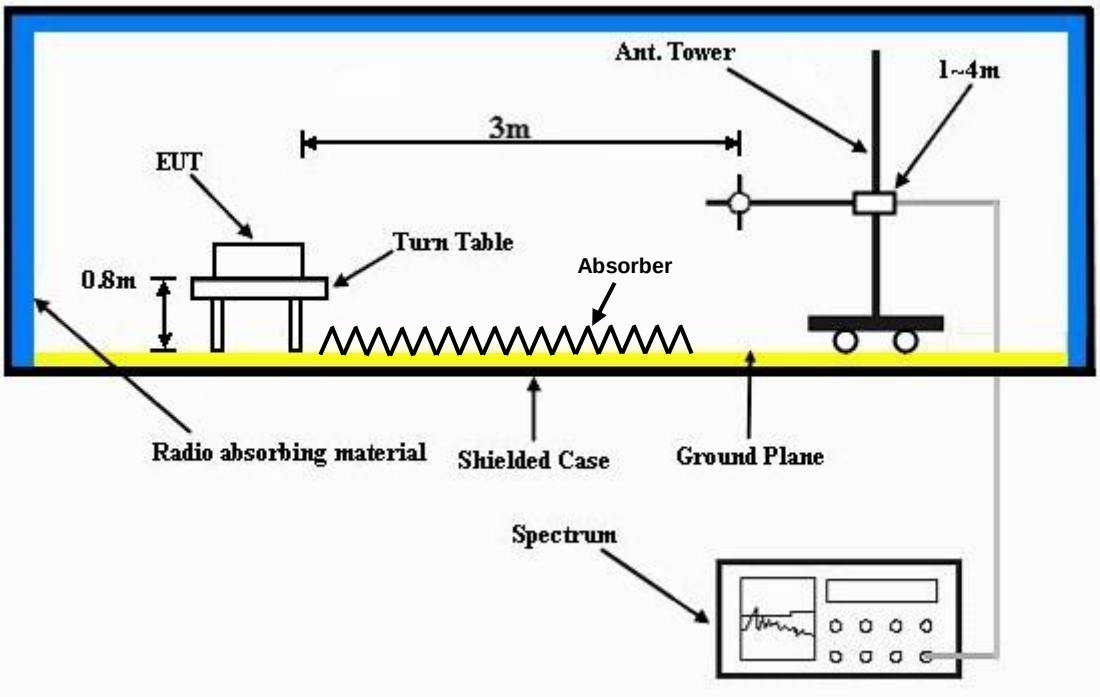
No deviation.

4.1.6 TEST SETUP

Frequency Range 30MHz ~ 1GHz



Frequency Range above 1GHz



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

4.1.7 EUT OPERATING CONDITIONS

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 WORST-CASE DATA

802.11a

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

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
5036	41.87	33.81	54	-12.13	34.03	8	33.97	113	228	Average
5036	57.33	49.27	74	-16.67	34.03	8	33.97	113	228	Peak
5180	83.17	74.86			34.15	8.16	34	113	228	Average
5180	91.05	82.74			34.15	8.16	34	113	228	Peak
5362	41.94	33.3	54	-12.06	34.29	8.38	34.03	113	228	Average
5362	57.58	48.94	74	-16.42	34.29	8.38	34.03	113	228	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
5132	42.71	34.49	54	-11.29	34.11	8.1	33.99	100	198	Average
5132	57.54	49.32	74	-16.46	34.11	8.1	33.99	100	198	Peak
5180	90.1	81.79			34.15	8.16	34	100	198	Average
5180	98.99	90.68			34.15	8.16	34	100	198	Peak
5460	42.12	33.3	54	-11.88	34.36	8.51	34.05	100	198	Average
5460	58.24	49.42	74	-15.76	34.36	8.51	34.05	100	198	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5180MHz: Fundamental frequency.

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

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
5112	41.87	33.67	54	-12.13	34.09	8.1	33.99	114	225	Average
5112	57.32	49.12	74	-16.68	34.09	8.1	33.99	114	225	Peak
5220	83.95	75.56			34.17	8.22	34	114	225	Average
5220	91.62	83.23			34.17	8.22	34	114	225	Peak
5422	42.07	33.3	54	-11.93	34.33	8.48	34.04	114	225	Average
5422	57.54	48.77	74	-16.46	34.33	8.48	34.04	114	225	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
5096	41.86	33.7	54	-12.14	34.08	8.07	33.99	100	199	Average
5096	56.69	48.53	74	-17.31	34.08	8.07	33.99	100	199	Peak
5220	91.66	83.27			34.17	8.22	34	100	199	Average
5220	99.31	90.92			34.17	8.22	34	100	199	Peak
5366	41.94	33.3	54	-12.06	34.29	8.38	34.03	100	199	Average
5366	58.78	50.14	74	-15.22	34.29	8.38	34.03	100	199	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5220MHz: Fundamental frequency.

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

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
5142	41.94	33.68	54	-12.06	34.12	8.13	33.99	100	225	Average
5142	57.69	49.43	74	-16.31	34.12	8.13	33.99	100	225	Peak
5240	83.05	74.61			34.19	8.26	34.01	100	225	Average
5240	91.46	83.02			34.19	8.26	34.01	100	225	Peak
5394	42.02	33.31	54	-11.98	34.31	8.44	34.04	100	225	Average
5394	57.84	49.13	74	-16.16	34.31	8.44	34.04	100	225	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
5136	41.95	33.7	54	-12.05	34.11	8.13	33.99	100	199	Average
5136	56.98	48.73	74	-17.02	34.11	8.13	33.99	100	199	Peak
5240	90.94	82.5			34.19	8.26	34.01	100	199	Average
5240	99.05	90.61			34.19	8.26	34.01	100	199	Peak
5360	41.91	33.28	54	-12.09	34.28	8.38	34.03	100	199	Average
5360	59.05	50.42	74	-14.95	34.28	8.38	34.03	100	199	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5240MHz: Fundamental frequency.

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

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
5050	41.76	33.7	54	-12.24	34.04	8	33.98	110	225	Average
5050	56.84	48.78	74	-17.16	34.04	8	33.98	110	225	Peak
5260	82.65	74.19			34.21	8.26	34.01	110	225	Average
5260	90.76	82.3			34.21	8.26	34.01	110	225	Peak
5378	41.99	33.31	54	-12.01	34.31	8.41	34.04	110	225	Average
5378	57.43	48.75	74	-16.57	34.31	8.41	34.04	110	225	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
5090	41.85	33.68	54	-12.15	34.08	8.07	33.98	109	199	Average
5090	57.31	49.14	74	-16.69	34.08	8.07	33.98	109	199	Peak
5260	90.41	81.95			34.21	8.26	34.01	109	199	Average
5260	99.29	90.83			34.21	8.26	34.01	109	199	Peak
5436	42.11	33.32	54	-11.89	34.35	8.48	34.04	109	199	Average
5436	57.91	49.12	74	-16.09	34.35	8.48	34.04	109	199	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5260MHz: Fundamental frequency.

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

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
5074	42.18	34.06	54	-11.82	34.07	8.03	33.98	111	225	Average
5074	57.59	49.47	74	-16.41	34.07	8.03	33.98	111	225	Peak
5300	83.41	74.87			34.24	8.32	34.02	111	225	Average
5300	91.37	82.83			34.24	8.32	34.02	111	225	Peak
5422	42.19	33.42	54	-11.81	34.33	8.48	34.04	111	225	Average
5422	58.26	49.49	74	-15.74	34.33	8.48	34.04	111	225	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
5048	42.98	34.92	54	-11.02	34.04	8	33.98	108	181	Average
5048	57.46	49.4	74	-16.54	34.04	8	33.98	108	181	Peak
5300	91.59	83.05			34.24	8.32	34.02	108	181	Average
5300	99.49	90.95			34.24	8.32	34.02	108	181	Peak
5458	43.28	34.46	54	-10.72	34.36	8.51	34.05	108	181	Average
5458	57.51	48.69	74	-16.49	34.36	8.51	34.05	108	181	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5300MHz: Fundamental frequency.

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

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
5110	41.96	33.76	54	-12.04	34.09	8.1	33.99	103	179	Average
5110	57.42	49.22	74	-16.58	34.09	8.1	33.99	103	179	Peak
5320	82.17	73.59			34.25	8.35	34.02	103	179	Average
5320	90.62	82.04			34.25	8.35	34.02	103	179	Peak
5440	42.2	33.41	54	-11.8	34.35	8.48	34.04	103	179	Average
5440	58.49	49.7	74	-15.51	34.35	8.48	34.04	103	179	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
5126	42.36	34.14	54	-11.64	34.11	8.1	33.99	107	183	Average
5126	57.92	49.7	74	-16.08	34.11	8.1	33.99	107	183	Peak
5320	89.19	80.61			34.25	8.35	34.02	107	183	Average
5320	98.3	89.72			34.25	8.35	34.02	107	183	Peak
5392	42.48	33.8	54	-11.52	34.31	8.41	34.04	107	183	Average
5392	58.16	49.48	74	-15.84	34.31	8.41	34.04	107	183	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5320MHz: Fundamental frequency.

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

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
5404	42.52	33.8	54	-11.48	34.32	8.44	34.04	110	237	Average
5404	57.65	48.93	74	-16.35	34.32	8.44	34.04	110	237	Peak
*5470	57.8	48.97	68.2	-10.4	34.37	8.51	34.05	110	237	Peak
5500	87.46	78.54			34.4	8.57	34.05	110	237	Average
5500	96.66	87.74			34.4	8.57	34.05	110	237	Peak
*5725	57.29	48.13	68.2	-10.91	34.62	8.65	34.11	110	237	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
5424	43.97	35.2	54	-10.03	34.33	8.48	34.04	103	183	Average
5424	58.08	49.31	74	-15.92	34.33	8.48	34.04	103	183	Peak
*5470	57.18	48.35	68.2	-11.02	34.37	8.51	34.05	103	183	Peak
5500	95.82	86.9			34.4	8.57	34.05	103	183	Average
5500	103.07	94.15			34.4	8.57	34.05	103	183	Peak
*5725	57.14	47.98	68.2	-11.06	34.62	8.65	34.11	103	183	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5500MHz: Fundamental frequency.
3. *: Out of restricted band

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

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
5420	42.19	33.42	54	-11.81	34.33	8.48	34.04	110	256	Average
5420	57.59	48.82	74	-16.41	34.33	8.48	34.04	110	256	Peak
*5470	56.82	47.99	68.2	-11.38	34.37	8.51	34.05	110	256	Peak
5580	88.83	79.84			34.47	8.6	34.08	110	256	Average
5580	97.37	88.38			34.47	8.6	34.08	110	256	Peak
*5725	58.21	49.05	68.2	-9.99	34.62	8.65	34.11	110	256	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
5442	42.22	33.43	54	-11.78	34.35	8.48	34.04	101	182	Average
5442	57.61	48.82	74	-16.39	34.35	8.48	34.04	101	182	Peak
*5470	55.91	47.08	68.2	-12.29	34.37	8.51	34.05	101	182	Peak
5580	95.83	86.84			34.47	8.6	34.08	101	182	Average
5580	104.51	95.52			34.47	8.6	34.08	101	182	Peak
*5725	56.54	47.38	68.2	-11.66	34.62	8.65	34.11	101	182	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5580MHz: Fundamental frequency.
3. *: Out of restricted band

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

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	42.25	33.43	54	-11.75	34.36	8.51	34.05	100	269	Average
5456	57.95	49.13	74	-16.05	34.36	8.51	34.05	100	269	Peak
*5470	58.39	49.56	68.2	-9.81	34.37	8.51	34.05	100	269	Peak
5700	87.63	78.5			34.59	8.64	34.1	100	269	Average
5700	96.35	87.22			34.59	8.64	34.1	100	269	Peak
*5725	56.12	46.96	68.2	-12.08	34.62	8.65	34.11	100	269	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
5392	42.13	33.45	54	-11.87	34.31	8.41	34.04	100	196	Average
5392	58.43	49.75	74	-15.57	34.31	8.41	34.04	100	196	Peak
*5470	56.83	48	68.2	-11.37	34.37	8.51	34.05	100	196	Peak
5700	95.48	86.35			34.59	8.64	34.1	100	196	Average
5700	104.11	94.98			34.59	8.64	34.1	100	196	Peak
*5725	57.46	48.3	68.2	-10.74	34.62	8.65	34.11	100	196	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5700MHz: Fundamental frequency.
3. *: Out of restricted band

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 149	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Will Chen

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
*5626	58.44	49.39	68.2	-9.76	34.52	8.61	34.08	100	230	Peak
*5720	58.25	49.09	78.2	-19.95	34.62	8.65	34.11	100	230	Peak
5745	91.43	82.24			34.64	8.66	34.11	100	230	Average
5745	99.63	90.44			34.64	8.66	34.11	100	230	Peak
*5860	57.84	48.52	78.2	-20.36	34.76	8.7	34.14	100	230	Peak
*5868	58.02	48.69	68.2	-10.18	34.76	8.71	34.14	100	230	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
*5692	58.98	49.85	68.2	-9.22	34.59	8.64	34.1	100	197	Peak
*5725	62.18	53.02	78.2	-16.02	34.62	8.65	34.11	100	197	Peak
5745	95.39	86.2			34.64	8.66	34.11	100	197	Average
5745	103.91	94.72			34.64	8.66	34.11	100	197	Peak
*5850	57.85	48.55	78.2	-20.35	34.74	8.7	34.14	100	197	Peak
*5870	58.61	49.28	68.2	-9.59	34.76	8.71	34.14	100	197	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5745MHz: Fundamental frequency.
3. *: Out of restricted band

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 157	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Will Chen

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
*5492	59.73	50.85	68.2	-8.47	34.39	8.54	34.05	104	241	Peak
*5716	57.74	48.59	78.2	-20.46	34.61	8.65	34.11	104	241	Peak
5785	91.05	81.82			34.68	8.68	34.13	104	241	Average
5785	100.2	90.97			34.68	8.68	34.13	104	241	Peak
*5856	57.59	48.27	78.2	-20.61	34.76	8.7	34.14	104	241	Peak
*5866	59.09	49.76	68.2	-9.11	34.76	8.71	34.14	104	241	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
*5664	58.94	49.85	68.2	-9.26	34.56	8.63	34.1	100	197	Peak
*5718	58.66	49.5	78.2	-19.54	34.62	8.65	34.11	100	197	Peak
5785	94.18	84.95			34.68	8.68	34.13	100	197	Average
5785	103.08	93.85			34.68	8.68	34.13	100	197	Peak
*5852	58.23	48.93	78.2	-19.97	34.74	8.7	34.14	100	197	Peak
*5868	59.07	49.74	68.2	-9.13	34.76	8.71	34.14	100	197	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5785MHz: Fundamental frequency.
3. *: Out of restricted band

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 165	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Will Chen

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
*5566	59.53	50.54	68.2	-8.67	34.47	8.59	34.07	103	240	Peak
*5724	58.03	48.87	78.2	-20.17	34.62	8.65	34.11	103	240	Peak
5825	91.89	82.6			34.73	8.69	34.13	103	240	Average
5825	100.13	90.84			34.73	8.69	34.13	103	240	Peak
*5858	58.2	48.88	78.2	-20	34.76	8.7	34.14	103	240	Peak
*5870	57.89	48.56	68.2	-10.31	34.76	8.71	34.14	103	240	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
*5552	59.07	50.1	68.2	-9.13	34.45	8.59	34.07	107	171	Peak
*5718	57.79	48.63	78.2	-20.41	34.62	8.65	34.11	107	171	Peak
5825	94.42	85.13			34.73	8.69	34.13	107	171	Average
5825	102.92	93.63			34.73	8.69	34.13	107	171	Peak
*5850	58.7	49.4	78.2	-19.5	34.74	8.7	34.14	107	171	Peak
*5864	58.15	48.82	68.2	-10.05	34.76	8.71	34.14	107	171	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5825MHz: Fundamental frequency.
3. *: Out of restricted band

802.11n (20MHz)

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

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
5074	42	33.88	54	-12	34.07	8.03	33.98	113	228	Average
5074	57.17	49.05	74	-16.83	34.07	8.03	33.98	113	228	Peak
5180	83.78	75.47			34.15	8.16	34	113	228	Average
5180	92.23	83.92			34.15	8.16	34	113	228	Peak
5444	42.12	33.33	54	-11.88	34.35	8.48	34.04	113	228	Average
5444	58.98	50.19	74	-15.02	34.35	8.48	34.04	113	228	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	43.07	34.82	54	-10.93	34.12	8.13	34	100	198	Average
5150	56.88	48.63	74	-17.12	34.12	8.13	34	100	198	Peak
5180	91.63	83.32			34.15	8.16	34	100	198	Average
5180	99.94	91.63			34.15	8.16	34	100	198	Peak
5350	41.94	33.31	54	-12.06	34.28	8.38	34.03	100	198	Average
5350	57.19	48.56	74	-16.81	34.28	8.38	34.03	100	198	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5180MHz: Fundamental frequency.

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

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	41.94	33.69	54	-12.06	34.12	8.13	34	114	225	Average
5144	57.59	49.34	74	-16.41	34.12	8.13	34	114	225	Peak
5220	84.71	76.32			34.17	8.22	34	114	225	Average
5220	92.65	84.26			34.17	8.22	34	114	225	Peak
5428	42.08	33.31	54	-11.92	34.33	8.48	34.04	114	225	Average
5428	58.58	49.81	74	-15.42	34.33	8.48	34.04	114	225	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
5044	41.82	33.76	54	-12.18	34.04	8	33.98	100	199	Average
5044	57.2	49.14	74	-16.8	34.04	8	33.98	100	199	Peak
5220	92.34	83.95			34.17	8.22	34	100	199	Average
5220	100.47	92.08			34.17	8.22	34	100	199	Peak
5430	42.11	33.32	54	-11.89	34.35	8.48	34.04	100	199	Average
5430	57.71	48.92	74	-16.29	34.35	8.48	34.04	100	199	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5220MHz: Fundamental frequency.

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

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
5048	41.74	33.68	54	-12.26	34.04	8	33.98	100	225	Average
5048	57.43	49.37	74	-16.57	34.04	8	33.98	100	225	Peak
5240	84.8	76.36			34.19	8.26	34.01	100	225	Average
5240	92.59	84.15			34.19	8.26	34.01	100	225	Peak
5408	42.02	33.3	54	-11.98	34.32	8.44	34.04	100	225	Average
5408	57.89	49.17	74	-16.11	34.32	8.44	34.04	100	225	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
5134	41.94	33.69	54	-12.06	34.11	8.13	33.99	100	199	Average
5134	58.5	50.25	74	-15.5	34.11	8.13	33.99	100	199	Peak
5240	92.66	84.22			34.19	8.26	34.01	100	199	Average
5240	100.44	92			34.19	8.26	34.01	100	199	Peak
5412	42.06	33.33	54	-11.94	34.33	8.44	34.04	100	199	Average
5412	57.69	48.96	74	-16.31	34.33	8.44	34.04	100	199	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5240MHz: Fundamental frequency.

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

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
5040	41.73	33.66	54	-12.27	34.04	8	33.97	110	225	Average
5040	57.46	49.39	74	-16.54	34.04	8	33.97	110	225	Peak
5260	83.8	75.34			34.21	8.26	34.01	110	225	Average
5260	92.63	84.17			34.21	8.26	34.01	110	225	Peak
5452	42.12	33.3	54	-11.88	34.36	8.51	34.05	110	225	Average
5452	57.26	48.44	74	-16.74	34.36	8.51	34.05	110	225	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
5104	41.87	33.71	54	-12.13	34.08	8.07	33.99	110	199	Average
5104	58.03	49.87	74	-15.97	34.08	8.07	33.99	110	199	Peak
5260	90.91	82.45			34.21	8.26	34.01	110	199	Average
5260	99.81	91.35			34.21	8.26	34.01	110	199	Peak
5442	42.12	33.33	54	-11.88	34.35	8.48	34.04	110	199	Average
5442	58.41	49.62	74	-15.59	34.35	8.48	34.04	110	199	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5260MHz: Fundamental frequency.

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

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
5118	42.29	34.09	54	-11.71	34.09	8.1	33.99	103	168	Average
5118	57.62	49.42	74	-16.38	34.09	8.1	33.99	103	168	Peak
5300	85.4	76.86			34.24	8.32	34.02	103	168	Average
5300	92.3	83.76			34.24	8.32	34.02	103	168	Peak
5426	42.33	33.56	54	-11.67	34.33	8.48	34.04	103	168	Average
5426	57.33	48.56	74	-16.67	34.33	8.48	34.04	103	168	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
5082	42.55	34.39	54	-11.45	34.07	8.07	33.98	109	194	Average
5082	56.59	48.43	74	-17.41	34.07	8.07	33.98	109	194	Peak
5300	91.54	83			34.24	8.32	34.02	109	194	Average
5300	99.87	91.33			34.24	8.32	34.02	109	194	Peak
5446	43.44	34.61	54	-10.56	34.36	8.51	34.04	109	194	Average
5446	58.32	49.49	74	-15.68	34.36	8.51	34.04	109	194	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5300MHz: Fundamental frequency.

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

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
5030	41.83	33.77	54	-12.17	34.03	8	33.97	103	167	Average
5030	57.53	49.47	74	-16.47	34.03	8	33.97	103	167	Peak
5320	86.04	77.46			34.25	8.35	34.02	103	167	Average
5320	93.53	84.95			34.25	8.35	34.02	103	167	Peak
5404	42.24	33.52	54	-11.76	34.32	8.44	34.04	103	167	Average
5404	57.5	48.78	74	-16.5	34.32	8.44	34.04	103	167	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
5016	41.78	33.77	54	-12.22	34.01	7.97	33.97	107	183	Average
5016	57.88	49.87	74	-16.12	34.01	7.97	33.97	107	183	Peak
5320	92.75	84.17			34.25	8.35	34.02	107	183	Average
5320	100.72	92.14			34.25	8.35	34.02	107	183	Peak
5430	44.1	35.31	54	-9.9	34.35	8.48	34.04	107	183	Average
5430	57.39	48.6	74	-16.61	34.35	8.48	34.04	107	183	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5320MHz: Fundamental frequency.

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

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	42.83	34	54	-11.17	34.36	8.51	34.04	110	255	Average
5446	58.91	50.08	74	-15.09	34.36	8.51	34.04	110	255	Peak
*5470	56.83	48	68.2	-11.37	34.37	8.51	34.05	110	255	Peak
5500	87.77	78.85			34.4	8.57	34.05	110	255	Average
5500	96.14	87.22			34.4	8.57	34.05	110	255	Peak
*5725	57.39	48.23	68.2	-10.81	34.62	8.65	34.11	110	255	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
5410	44.65	35.93	54	-9.35	34.32	8.44	34.04	103	183	Average
5410	57.83	49.11	74	-16.17	34.32	8.44	34.04	103	183	Peak
*5470	57.05	48.22	68.2	-11.15	34.37	8.51	34.05	103	183	Peak
5500	95.64	86.72			34.4	8.57	34.05	103	183	Average
5500	104.28	95.36			34.4	8.57	34.05	103	183	Peak
*5725	56.37	47.21	68.2	-11.83	34.62	8.65	34.11	103	183	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5500MHz: Fundamental frequency.
3. *: Out of restricted band

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

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	42.26	33.44	54	-11.74	34.36	8.51	34.05	110	256	Average
5456	58.22	49.4	74	-15.78	34.36	8.51	34.05	110	256	Peak
*5470	57.19	48.36	68.2	-11.01	34.37	8.51	34.05	110	256	Peak
5580	89.5	80.51			34.47	8.6	34.08	110	256	Average
5580	97.79	88.8			34.47	8.6	34.08	110	256	Peak
*5725	56.82	47.66	68.2	-11.38	34.62	8.65	34.11	110	256	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
5458	42.26	33.44	54	-11.74	34.36	8.51	34.05	101	182	Average
5458	58.49	49.67	74	-15.51	34.36	8.51	34.05	101	182	Peak
*5470	57.16	48.33	68.2	-11.04	34.37	8.51	34.05	101	182	Peak
5580	96.51	87.52			34.47	8.6	34.08	101	182	Average
5580	104.92	95.93			34.47	8.6	34.08	101	182	Peak
*5725	58.44	49.28	68.2	-9.76	34.62	8.65	34.11	101	182	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5580MHz: Fundamental frequency.
3. *: Out of restricted band

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

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	42.23	33.41	54	-11.77	34.36	8.51	34.05	100	269	Average
5460	58.32	49.5	74	-15.68	34.36	8.51	34.05	100	269	Peak
*5470	57.07	48.24	68.2	-11.13	34.37	8.51	34.05	100	269	Peak
5700	88.28	79.15			34.59	8.64	34.1	100	269	Average
5700	96.92	87.79			34.59	8.64	34.1	100	269	Peak
*5725	57.65	48.49	68.2	-10.55	34.62	8.65	34.11	100	269	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
5412	42.15	33.42	54	-11.85	34.33	8.44	34.04	100	196	Average
5412	57.73	49	74	-16.27	34.33	8.44	34.04	100	196	Peak
*5470	56.41	47.58	68.2	-11.79	34.37	8.51	34.05	100	196	Peak
5700	96.17	87.04			34.59	8.64	34.1	100	196	Average
5700	105.1	95.97			34.59	8.64	34.1	100	196	Peak
*5725	57.13	47.97	68.2	-11.07	34.62	8.65	34.11	100	196	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5700MHz: Fundamental frequency.
3. *: Out of restricted band

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 149	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Will Chen

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
*5576	58.79	49.79	68.2	-9.41	34.47	8.6	34.07	100	230	Peak
*5725	58.28	49.12	78.2	-19.92	34.62	8.65	34.11	100	230	Peak
5745	90.76	81.57			34.64	8.66	34.11	100	230	Average
5745	99.47	90.28			34.64	8.66	34.11	100	230	Peak
*5854	57.21	47.89	78.2	-20.99	34.76	8.7	34.14	100	230	Peak
*5864	58.94	49.61	68.2	-9.26	34.76	8.71	34.14	100	230	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
*5592	59.17	50.16	68.2	-9.03	34.49	8.6	34.08	100	197	Peak
*5725	67.55	58.39	78.2	-10.65	34.62	8.65	34.11	100	197	Peak
5745	94.72	85.53			34.64	8.66	34.11	100	197	Average
5745	103.01	93.82			34.64	8.66	34.11	100	197	Peak
*5860	58.55	49.23	78.2	-19.65	34.76	8.7	34.14	100	197	Peak
*5868	58.18	48.85	68.2	-10.02	34.76	8.71	34.14	100	197	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5745MHz: Fundamental frequency.
3. *: Out of restricted band

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 157	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Will Chen

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
*5550	58.84	49.87	68.2	-9.36	34.45	8.59	34.07	104	241	Peak
*5716	57.36	48.21	78.2	-20.84	34.61	8.65	34.11	104	241	Peak
5785	91.33	82.1			34.68	8.68	34.13	104	241	Average
5785	100.69	91.46			34.68	8.68	34.13	104	241	Peak
*5858	59.71	50.39	78.2	-18.49	34.76	8.7	34.14	104	241	Peak
*5866	57.34	48.01	68.2	-10.86	34.76	8.71	34.14	104	241	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
*5268	58.68	50.19	68.2	-9.52	34.21	8.29	34.01	100	197	Peak
*5722	58.27	49.11	78.2	-19.93	34.62	8.65	34.11	100	197	Peak
5785	94.41	85.18			34.68	8.68	34.13	100	197	Average
5785	101.94	92.71			34.68	8.68	34.13	100	197	Peak
*5854	58.23	48.91	78.2	-19.97	34.76	8.7	34.14	100	197	Peak
*5864	57.87	48.54	68.2	-10.33	34.76	8.71	34.14	100	197	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5785MHz: Fundamental frequency.
3. *: Out of restricted band

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 165	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Will Chen

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
*5666	59.32	50.23	68.2	-8.88	34.56	8.63	34.1	103	240	Peak
*5716	57.97	48.82	78.2	-20.23	34.61	8.65	34.11	103	240	Peak
5825	91.89	82.6			34.73	8.69	34.13	103	240	Average
5825	100.58	91.29			34.73	8.69	34.13	103	240	Peak
*5852	57.78	48.48	78.2	-20.42	34.74	8.7	34.14	103	240	Peak
*5866	57.83	48.5	68.2	-10.37	34.76	8.71	34.14	103	240	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
*5712	59.24	50.09	68.2	-8.96	34.61	8.65	34.11	107	171	Peak
*5722	57.03	47.87	78.2	-21.17	34.62	8.65	34.11	107	171	Peak
5825	94.51	85.22			34.73	8.69	34.13	107	171	Average
5825	102.59	93.3			34.73	8.69	34.13	107	171	Peak
*5854	58.29	48.97	78.2	-19.91	34.76	8.7	34.14	107	171	Peak
*5868	57.89	48.56	68.2	-10.31	34.76	8.71	34.14	107	171	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5825MHz: Fundamental frequency.
3. *: Out of restricted band

802.11n (40MHz)

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

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
5114	41.93	33.73	54	-12.07	34.09	8.1	33.99	113	228	Average
5114	56.97	48.77	74	-17.03	34.09	8.1	33.99	113	228	Peak
5190	82.91	74.57			34.15	8.19	34	113	228	Average
5190	91.25	82.91			34.15	8.19	34	113	228	Peak
5444	42.12	33.33	54	-11.88	34.35	8.48	34.04	113	228	Average
5444	58.41	49.62	74	-15.59	34.35	8.48	34.04	113	228	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
5106	42.47	34.3	54	-11.53	34.09	8.07	33.99	100	198	Average
5106	58.36	50.19	74	-15.64	34.09	8.07	33.99	100	198	Peak
5190	90.6	82.26			34.15	8.19	34	100	198	Average
5190	98.53	90.19			34.15	8.19	34	100	198	Peak
5416	42.06	33.33	54	-11.94	34.33	8.44	34.04	100	198	Average
5416	58.08	49.35	74	-15.92	34.33	8.44	34.04	100	198	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5190MHz: Fundamental frequency.

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

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
5124	41.93	33.71	54	-12.07	34.11	8.1	33.99	100	225	Average
5124	57.14	48.92	74	-16.86	34.11	8.1	33.99	100	225	Peak
5230	83.37	74.97			34.19	8.22	34.01	100	225	Average
5230	91.87	83.47			34.19	8.22	34.01	100	225	Peak
5458	42.13	33.31	54	-11.87	34.36	8.51	34.05	100	225	Average
5458	57.91	49.09	74	-16.09	34.36	8.51	34.05	100	225	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
5128	42.42	34.2	54	-11.58	34.11	8.1	33.99	100	199	Average
5128	57.91	49.69	74	-16.09	34.11	8.1	33.99	100	199	Peak
5230	90.28	81.88			34.19	8.22	34.01	100	199	Average
5230	98.72	90.32			34.19	8.22	34.01	100	199	Peak
5370	42	33.33	54	-12	34.29	8.41	34.03	100	199	Average
5370	58.01	49.34	74	-15.99	34.29	8.41	34.03	100	199	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5230MHz: Fundamental frequency.

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

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
5086	41.83	33.67	54	-12.17	34.07	8.07	33.98	110	225	Average
5086	56.99	48.83	74	-17.01	34.07	8.07	33.98	110	225	Peak
5270	82.28	73.79			34.21	8.29	34.01	110	225	Average
5270	90.05	81.56			34.21	8.29	34.01	110	225	Peak
5400	42.04	33.32	54	-11.96	34.32	8.44	34.04	110	225	Average
5400	57.38	48.66	74	-16.62	34.32	8.44	34.04	110	225	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
5070	41.81	33.71	54	-12.19	34.05	8.03	33.98	110	199	Average
5070	57.21	49.11	74	-16.79	34.05	8.03	33.98	110	199	Peak
5270	89.4	80.91			34.21	8.29	34.01	110	199	Average
5270	97.36	88.87			34.21	8.29	34.01	110	199	Peak
5428	42.12	33.35	54	-11.88	34.33	8.48	34.04	110	199	Average
5428	57.2	48.43	74	-16.8	34.33	8.48	34.04	110	199	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5270MHz: Fundamental frequency.

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

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	41.88	33.78	54	-12.12	34.05	8.03	33.98	103	167	Average
5070	58.18	50.08	74	-15.82	34.05	8.03	33.98	103	167	Peak
5310	81.9	73.35			34.25	8.32	34.02	103	167	Average
5310	90.5	81.95			34.25	8.32	34.02	103	167	Peak
5454	42.23	33.41	54	-11.77	34.36	8.51	34.05	103	167	Average
5454	58.15	49.33	74	-15.85	34.36	8.51	34.05	103	167	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	42.18	33.92	54	-11.82	34.12	8.13	33.99	107	183	Average
5142	57.32	49.06	74	-16.68	34.12	8.13	33.99	107	183	Peak
5310	88.87	80.32			34.25	8.32	34.02	107	183	Average
5310	97.75	89.2			34.25	8.32	34.02	107	183	Peak
5418	42.85	34.12	54	-11.15	34.33	8.44	34.04	107	183	Average
5418	58.14	49.41	74	-15.86	34.33	8.44	34.04	107	183	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5310MHz: Fundamental frequency.

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

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
5442	42.26	33.47	54	-11.74	34.35	8.48	34.04	110	238	Average
5442	58.09	49.3	74	-15.91	34.35	8.48	34.04	110	238	Peak
*5470	59.1	50.27	68.2	-9.1	34.37	8.51	34.05	110	238	Peak
5510	88.34	79.43			34.4	8.57	34.06	110	238	Average
5510	94.66	85.75			34.4	8.57	34.06	110	238	Peak
*5725	57.76	48.6	68.2	-10.44	34.62	8.65	34.11	110	238	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
5430	42.72	33.93	54	-11.28	34.35	8.48	34.04	103	183	Average
5430	58.35	49.56	74	-15.65	34.35	8.48	34.04	103	183	Peak
*5470	63.33	54.5	68.2	-4.87	34.37	8.51	34.05	103	183	Peak
5510	93.13	84.22			34.4	8.57	34.06	103	183	Average
5510	101.74	92.83			34.4	8.57	34.06	103	183	Peak
*5725	56.61	47.45	68.2	-11.59	34.62	8.65	34.11	103	183	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5510MHz: Fundamental frequency.
3. *: Out of restricted band

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

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	42.21	33.54	54	-11.79	34.29	8.41	34.03	110	256	Average
5368	58.07	49.4	74	-15.93	34.29	8.41	34.03	110	256	Peak
*5470	57.03	48.2	68.2	-11.17	34.37	8.51	34.05	110	256	Peak
5550	86.41	77.44			34.45	8.59	34.07	110	256	Average
5550	95.76	86.79			34.45	8.59	34.07	110	256	Peak
*5725	57.7	48.54	68.2	-10.5	34.62	8.65	34.11	110	256	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	42.8	33.98	54	-11.2	34.36	8.51	34.05	101	182	Average
5460	57.8	48.98	74	-16.2	34.36	8.51	34.05	101	182	Peak
*5470	55.94	47.11	68.2	-12.26	34.37	8.51	34.05	101	182	Peak
5550	93.18	84.21			34.45	8.59	34.07	101	182	Average
5550	101.85	92.88			34.45	8.59	34.07	101	182	Peak
*5725	56.75	47.59	68.2	-11.45	34.62	8.65	34.11	101	182	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5550MHz: Fundamental frequency.
3. *: Out of restricted band

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

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
5434	42.2	33.41	54	-11.8	34.35	8.48	34.04	100	269	Average
5434	58.54	49.75	74	-15.46	34.35	8.48	34.04	100	269	Peak
*5470	56.57	47.74	68.2	-11.63	34.37	8.51	34.05	100	269	Peak
5670	86.4	77.3			34.57	8.63	34.1	100	269	Average
5670	95.41	86.31			34.57	8.63	34.1	100	269	Peak
*5725	56.65	47.49	68.2	-11.55	34.62	8.65	34.11	100	269	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
5458	42.24	33.42	54	-11.76	34.36	8.51	34.05	100	196	Average
5458	58.6	49.78	74	-15.4	34.36	8.51	34.05	100	196	Peak
*5470	58.16	49.33	68.2	-10.04	34.37	8.51	34.05	100	196	Peak
5670	93.87	84.77			34.57	8.63	34.1	100	196	Average
5670	102.76	93.66			34.57	8.63	34.1	100	196	Peak
*5725	58.05	48.89	68.2	-10.15	34.62	8.65	34.11	100	196	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5670MHz: Fundamental frequency.
3. *: Out of restricted band

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 151	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Will Chen

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
*5632	58.79	49.74	68.2	-9.41	34.52	8.62	34.09	100	230	Peak
*5725	58.69	49.53	78.2	-19.51	34.62	8.65	34.11	100	230	Peak
5755	86.66	77.45			34.66	8.66	34.11	100	230	Average
5755	95.6	86.39			34.66	8.66	34.11	100	230	Peak
*5858	57.76	48.44	78.2	-20.44	34.76	8.7	34.14	100	230	Peak
*5868	57.19	47.86	68.2	-11.01	34.76	8.71	34.14	100	230	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
*5474	58.91	50.05	68.2	-9.29	34.37	8.54	34.05	100	197	Peak
*5725	72.07	62.91	78.2	-6.13	34.62	8.65	34.11	100	197	Peak
5755	93.24	84.03			34.66	8.66	34.11	100	197	Average
5755	102.03	92.82			34.66	8.66	34.11	100	197	Peak
*5858	58.33	49.01	78.2	-19.87	34.76	8.7	34.14	100	197	Peak
*5870	57.42	48.09	68.2	-10.78	34.76	8.71	34.14	100	197	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5755MHz: Fundamental frequency.
3. *: Out of restricted band

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 159	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Will Chen

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
*5676	58.82	49.72	68.2	-9.38	34.57	8.63	34.1	104	241	Peak
*5722	58.58	49.42	78.2	-19.62	34.62	8.65	34.11	104	241	Peak
5795	89.05	79.81			34.69	8.68	34.13	104	241	Average
5795	97.46	88.22			34.69	8.68	34.13	104	241	Peak
*5854	58.69	49.37	78.2	-19.51	34.76	8.7	34.14	104	241	Peak
*5862	57.09	47.76	68.2	-11.11	34.76	8.71	34.14	104	241	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
*5576	58.86	49.86	68.2	-9.34	34.47	8.6	34.07	100	197	Peak
*5716	57.4	48.25	78.2	-20.8	34.61	8.65	34.11	100	197	Peak
5795	92.18	82.94			34.69	8.68	34.13	100	197	Average
5795	100.48	91.24			34.69	8.68	34.13	100	197	Peak
*5854	57.01	47.69	78.2	-21.19	34.76	8.7	34.14	100	197	Peak
*5862	58.1	48.77	68.2	-10.1	34.76	8.71	34.14	100	197	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5795MHz: Fundamental frequency.
3. *: Out of restricted band

802.11ac (80MHz)

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

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	42.26	34.01	54	-11.74	34.11	8.13	33.99	114	225	Average
5138	57.14	48.89	74	-16.86	34.11	8.13	33.99	114	225	Peak
5210	82.41	74.05			34.17	8.19	34	114	225	Average
5210	90.9	82.54			34.17	8.19	34	114	225	Peak
5356	41.92	33.29	54	-12.08	34.28	8.38	34.03	114	225	Average
5356	56.99	48.36	74	-17.01	34.28	8.38	34.03	114	225	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
5080	44.03	35.91	54	-9.97	34.07	8.03	33.98	100	199	Average
5080	57.8	49.68	74	-16.2	34.07	8.03	33.98	100	199	Peak
5210	90.17	81.81			34.17	8.19	34	100	199	Average
5210	98.94	90.58			34.17	8.19	34	100	199	Peak
5436	42.1	33.31	54	-11.9	34.35	8.48	34.04	100	199	Average
5436	57.46	48.67	74	-16.54	34.35	8.48	34.04	100	199	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5210MHz: Fundamental frequency.

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

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
5040	41.76	33.69	54	-12.24	34.04	8	33.97	110	225	Average
5040	57.1	49.03	74	-16.9	34.04	8	33.97	110	225	Peak
5290	81.66	73.13			34.23	8.32	34.02	110	225	Average
5290	91.17	82.64			34.23	8.32	34.02	110	225	Peak
5454	42.45	33.63	54	-11.55	34.36	8.51	34.05	110	225	Average
5454	57.83	49.01	74	-16.17	34.36	8.51	34.05	110	225	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
5034	41.7	33.64	54	-12.3	34.03	8	33.97	110	199	Average
5034	57.23	49.17	74	-16.77	34.03	8	33.97	110	199	Peak
5290	90.44	81.91			34.23	8.32	34.02	110	199	Average
5290	99.22	90.69			34.23	8.32	34.02	110	199	Peak
5436	43.54	34.75	54	-10.46	34.35	8.48	34.04	110	199	Average
5436	57.53	48.74	74	-16.47	34.35	8.48	34.04	110	199	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5290MHz: Fundamental frequency.

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

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
5374	44.19	35.53	54	-9.81	34.29	8.41	34.04	110	239	Average
5374	57.32	48.66	74	-16.68	34.29	8.41	34.04	110	239	Peak
*5470	57.25	48.42	68.2	-10.95	34.37	8.51	34.05	110	239	Peak
5530	83.44	74.51			34.42	8.58	34.07	110	239	Average
5530	90.83	81.9			34.42	8.58	34.07	110	239	Peak
*5725	56.33	47.17	68.2	-11.87	34.62	8.65	34.11	110	239	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
5456	45.66	36.84	54	-8.34	34.36	8.51	34.05	103	195	Average
5456	58.85	50.03	74	-15.15	34.36	8.51	34.05	103	195	Peak
*5470	60.78	51.95	68.2	-7.42	34.37	8.51	34.05	103	195	Peak
5530	90.48	81.55			34.42	8.58	34.07	103	195	Average
5530	98.53	89.6			34.42	8.58	34.07	103	195	Peak
*5725	56.64	47.48	68.2	-11.56	34.62	8.65	34.11	103	195	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5530MHz: Fundamental frequency.
3. *: Out of restricted band

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 155	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Will Chen

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
*5502	58.47	49.56	68.2	-9.73	34.4	8.57	34.06	104	239	Peak
*5725	60.15	50.99	78.2	-18.05	34.62	8.65	34.11	104	239	Peak
5775	87.26	78.03			34.68	8.67	34.12	104	239	Average
5775	94.85	85.62			34.68	8.67	34.12	104	239	Peak
*5854	57.42	48.1	78.2	-20.78	34.76	8.7	34.14	104	239	Peak
*5866	58.08	48.75	68.2	-10.12	34.76	8.71	34.14	104	239	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
*5712	58.51	49.36	68.2	-9.69	34.61	8.65	34.11	100	197	Peak
*5725	63.72	54.56	78.2	-14.48	34.62	8.65	34.11	100	197	Peak
5775	90.52	81.29			34.68	8.67	34.12	100	197	Average
5775	98.67	89.44			34.68	8.67	34.12	100	197	Peak
*5852	57.92	48.62	78.2	-20.28	34.74	8.7	34.14	100	197	Peak
*5866	57.17	47.84	68.2	-11.03	34.76	8.71	34.14	100	197	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5775MHz: Fundamental frequency.
3. *: Out of restricted band

BELOW 1GHz WORST-CASE DATA:

802.11ac (80MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 42	FREQUENCY RANGE	30MHz ~ 1GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Will Chen

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
98.58	21.38	42.73	43.5	-22.12	9.58	1.28	32.21	137	190	Peak
160.41	23.84	43.79	43.5	-19.66	10.8	1.52	32.27	162	214	Peak
268.95	19.52	36.15	46	-26.48	13.54	1.94	32.11	151	345	Peak
345.5	18.54	32.28	46	-27.46	16.14	2.19	32.07	189	247	Peak
715.8	24.93	30.66	46	-21.07	23.27	3.11	32.11	162	138	Peak
921.6	28.51	30.1	46	-17.49	26.2	3.53	31.32	118	156	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
31.62	30.14	45.09	40	-9.86	16.57	0.74	32.26	108	179	Peak
97.77	15.72	37.09	43.5	-27.78	9.5	1.28	32.15	194	306	Peak
188.76	14.54	34.78	43.5	-28.96	10.4	1.61	32.25	182	268	Peak
521.2	21.35	30.28	46	-24.65	20.51	2.7	32.14	158	263	Peak
708.1	24.79	30.59	46	-21.21	23.19	3.11	32.1	198	115	Peak
957.3	28.94	30.21	46	-17.06	26.04	3.67	30.98	130	47	Peak

REMARKS: Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor

Margin value = Emission level – Limit value

802.11n (20MHz)

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

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
100.47	25.43	46.71	43.5	-18.07	9.7	1.28	32.26	171	248	Peak
163.65	23.79	44.02	43.5	-19.71	10.51	1.52	32.26	163	182	Peak
216.84	24.26	43.26	46	-21.74	11.58	1.65	32.23	155	290	Peak
442.8	23.94	35.69	46	-22.06	17.92	2.49	32.16	103	27	Peak
722.8	25.38	30.97	46	-20.62	23.36	3.16	32.11	107	348	Peak
922.3	28.8	30.39	46	-17.2	26.2	3.53	31.32	171	289	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
34.32	31.18	47.95	40	-8.82	14.73	0.74	32.24	107	256	Peak
48.09	30	52.92	40	-10	8.4	0.9	32.22	117	352	Peak
98.04	18.85	40.18	43.5	-24.65	9.54	1.28	32.15	188	171	Peak
479.9	21.26	31.9	46	-24.74	18.92	2.56	32.12	129	59	Peak
706.7	24.9	30.7	46	-21.1	23.19	3.11	32.1	115	313	Peak
946.1	28.59	29.91	46	-17.41	26.2	3.62	31.14	106	227	Peak

REMARKS: Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor

Margin value = Emission level – Limit value

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 102	FREQUENCY RANGE	30MHz ~ 1GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Will Chen

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
32.43	21.86	37.41	40	-18.14	15.96	0.74	32.25	114	181	Peak
98.58	22.45	43.8	43.5	-21.05	9.58	1.28	32.21	160	143	Peak
162.57	23.01	43.17	43.5	-20.49	10.58	1.52	32.26	192	253	Peak
521.2	21.26	30.19	46	-24.74	20.51	2.7	32.14	111	18	Peak
730.5	25.68	31.27	46	-20.32	23.37	3.16	32.12	100	61	Peak
921.6	29.12	30.71	46	-16.88	26.2	3.53	31.32	102	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
48.09	30.75	53.67	40	-9.25	8.4	0.9	32.22	124	235	Peak
98.31	19.72	41.05	43.5	-23.78	9.54	1.28	32.15	109	152	Peak
194.97	16.57	36.62	43.5	-26.93	10.62	1.61	32.28	165	296	Peak
479.9	20.86	31.5	46	-25.14	18.92	2.56	32.12	108	356	Peak
689.9	25.13	30.95	46	-20.87	23.23	3.05	32.1	104	241	Peak
915.3	29.03	31.15	46	-16.97	25.72	3.53	31.37	187	275	Peak

REMARKS: Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor

Margin value = Emission level – Limit value

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 151	FREQUENCY RANGE	30MHz ~ 1GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Will Chen

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
53.22	23.31	47.19	40	-16.69	7.45	0.9	32.23	129	311	Peak
97.77	26.46	47.83	43.5	-17.04	9.5	1.28	32.15	114	280	Peak
162.03	23.07	43.16	43.5	-20.43	10.65	1.52	32.26	152	263	Peak
507.9	20.74	30.65	46	-25.26	19.57	2.63	32.11	133	279	Peak
729.1	25.21	30.8	46	-20.79	23.37	3.16	32.12	120	94	Peak
921.6	28.66	30.25	46	-17.34	26.2	3.53	31.32	106	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
48.9	32.28	55.46	40	-7.72	8.14	0.9	32.22	151	316	Peak
97.5	21.29	42.66	43.5	-22.21	9.5	1.28	32.15	183	201	Peak
187.95	14.1	34.34	43.5	-29.4	10.4	1.61	32.25	102	74	Peak
522.6	21.67	30.6	46	-24.33	20.51	2.7	32.14	197	358	Peak
730.5	24.91	30.5	46	-21.09	23.37	3.16	32.12	139	243	Peak
951	28.78	30.06	46	-17.22	26.2	3.62	31.1	118	169	Peak

REMARKS: Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor

Margin value = Emission level – Limit value

4.2 CONDUCTED EMISSION MEASUREMENT

4.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	60	50

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	Apr. 24, 2014	Apr. 23, 2015
RF signal cable Woken	5D-FB	Cable-HYCO2-01	Dec. 27, 2013	Dec. 26, 2014
LISN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Dec. 23, 2013	Dec. 22, 2014
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100312	Jul. 10, 2014	Jul. 09, 2015
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

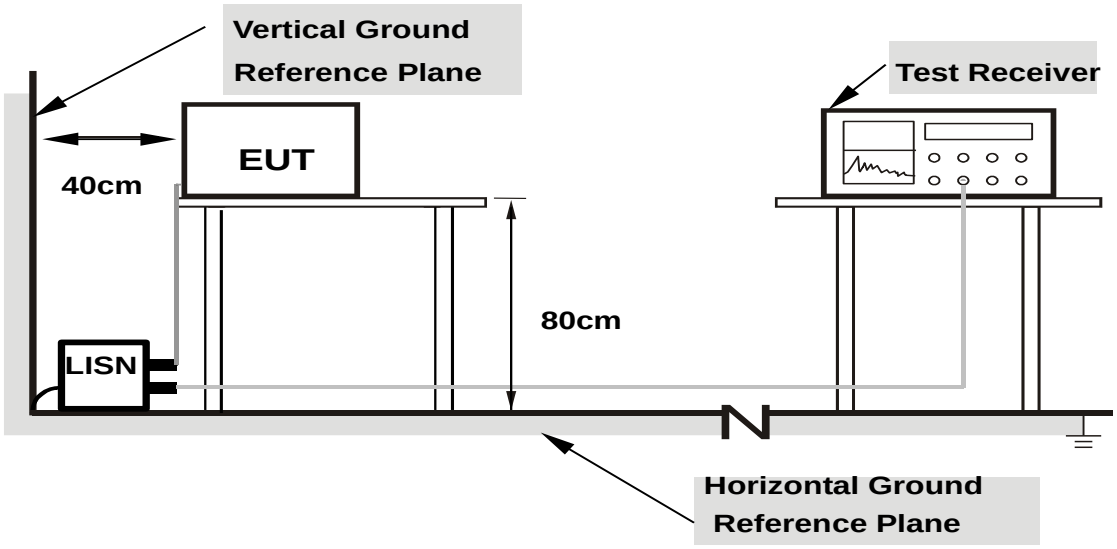
a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
c. 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: 1.Support units were connected to second LISN.
2.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 section 4.1.6.

4.2.7 TEST RESULTS

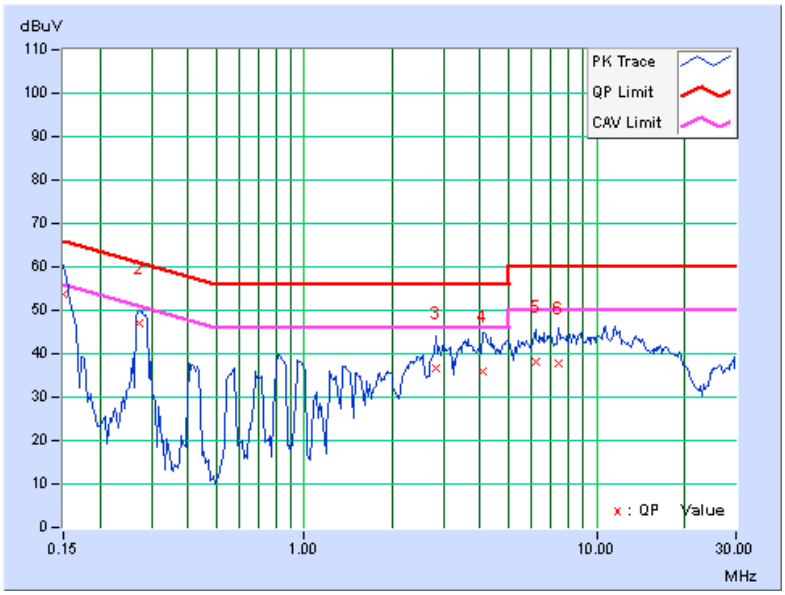
CONDUCTED WORST-CASE DATA：

PHASE	Line 1	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	0.26	53.37	32.80	53.63	33.06	66.00	56.00	-12.37	-22.94
2	0.27109	0.29	46.82	30.41	47.11	30.70	61.08	51.08	-13.98	-20.39
3	2.83594	0.39	36.43	25.09	36.82	25.48	56.00	46.00	-19.18	-20.52
4	4.07031	0.43	35.46	25.18	35.89	25.61	56.00	46.00	-20.11	-20.39
5	6.19531	0.46	37.82	29.82	38.28	30.28	60.00	50.00	-21.72	-19.72
6	7.40625	0.47	37.34	30.39	37.81	30.86	60.00	50.00	-22.19	-19.14

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

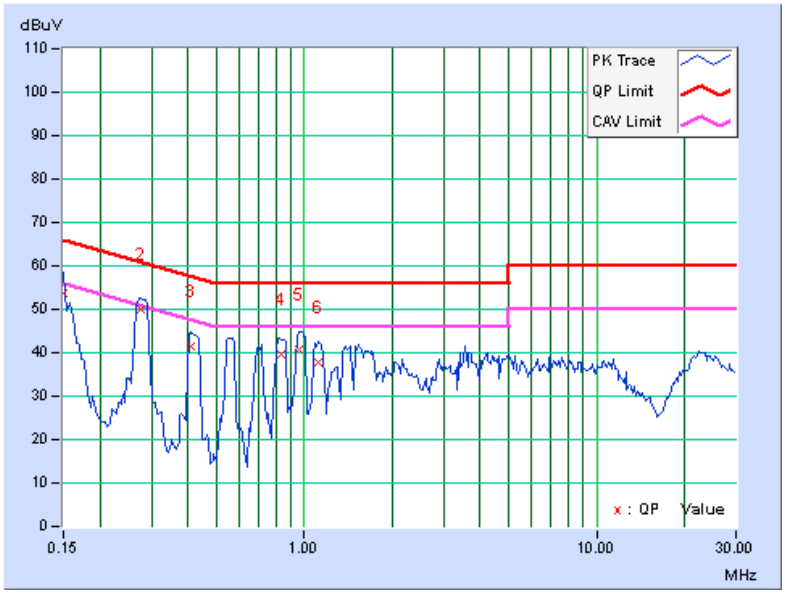


PHASE	Line 2	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	0.26	53.52	33.31	53.78	33.57	66.00	56.00	-12.22	-22.43
2	0.27500	0.29	49.84	38.81	50.13	39.10	60.97	50.97	-10.84	-11.87
3	0.40781	0.30	41.34	32.25	41.64	32.55	57.69	47.69	-16.05	-15.14
4	0.82969	0.33	39.34	28.31	39.67	28.64	56.00	46.00	-16.33	-17.36
5	0.95469	0.34	40.43	29.66	40.77	30.00	56.00	46.00	-15.23	-16.00
6	1.11719	0.34	37.53	25.65	37.87	25.99	56.00	46.00	-18.13	-20.01

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 TRANSMIT POWER MEASUREMENT

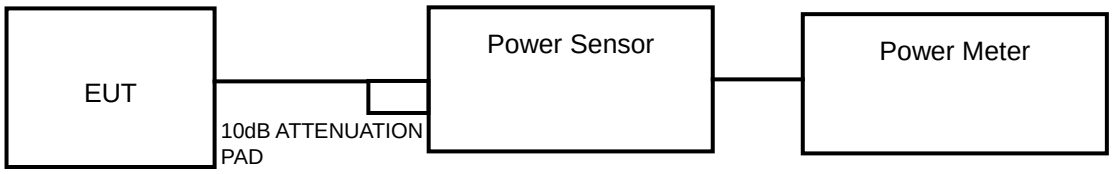
4.3.1 LIMITS OF TRANSMIT POWER MEASUREMENT

OPERATION BAND	EUT CATEGORY		LIMIT
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p ≦ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
		Indoor Access Point	1 Watt (30 dBm)
	√	Mobile and Portable client device	250mW (24 dBm)
U-NII-2A	√	---	250mW (24 dBm) or 11 dBm+10 log B*
U-NII-2C	√	---	250mW (24 dBm) or 11 dBm+10 log B*
U-NII-3	√	---	1 Watt (30 dBm)

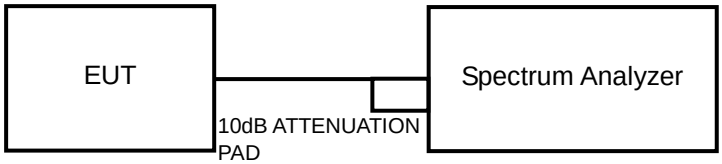
NOTE: Where B is the 26dB emission bandwidth in MHz.

4.3.2 TEST SETUP

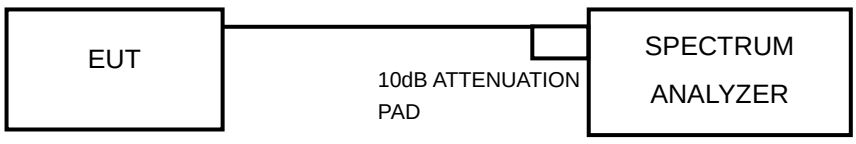
FOR POWER OUTPUT MEASUREMENT



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.

<802.11ac (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)	MAX. CONDUCTED POWER (mW)	MAX. CONDUCTED POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	9.23	9.65	24	PASS
44	5220	9.55	9.80	24	PASS
48	5240	9.02	9.55	24	PASS
52	5260	9.95	9.98	24	PASS
60	5300	10.64	10.27	24	PASS
64	5320	10.07	10.03	24	PASS
100	5500	10.12	10.05	24	PASS
116	5580	10.35	10.15	24	PASS
140	5700	9.98	9.99	24	PASS
149	5745	10.84	10.35	30	PASS
157	5785	10.69	10.29	30	PASS
165	5825	10.62	10.26	30	PASS

NOTE:

For U-NII-2A, U-NII-2C Band:

1. 11dBm + 10log(22.40) = 24.50 dBm > 24dBm.
2. 11dBm + 10log(22.62) = 24.54 dBm > 24dBm.
3. 11dBm + 10log(22.32) = 24.49 dBm > 24dBm.
4. 11dBm + 10log(22.61) = 24.54 dBm > 24dBm.
5. 11dBm + 10log(22.59) = 24.54 dBm > 24dBm.
6. 11dBm + 10log(22.66) = 24.55 dBm > 24dBm.

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	MAX. CONDUCTED POWER (mW)	MAX. CONDUCTED POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	11.56	10.63	24	PASS
44	5220	12.11	10.83	24	PASS
48	5240	11.59	10.64	24	PASS
52	5260	11.69	10.68	24	PASS
60	5300	13.30	11.24	24	PASS
64	5320	13.03	11.15	24	PASS
100	5500	12.47	10.96	24	PASS
116	5580	13.34	11.25	24	PASS
140	5700	12.13	10.84	24	PASS
149	5745	11.97	10.78	30	PASS
157	5785	12.45	10.95	30	PASS
165	5825	12.30	10.9	30	PASS

NOTE:

For U-NII-2A, U-NII-2C Band:

1. 11dBm + 10log(22.75) = 24.57 dBm > 24dBm.
2. 11dBm + 10log(22.84) = 24.59 dBm > 24dBm.
3. 11dBm + 10log(22.68) = 24.56 dBm > 24dBm.
4. 11dBm + 10log(22.89) = 24.60 dBm > 24dBm.
5. 11dBm + 10log(23.17) = 24.65 dBm > 24dBm.
6. 11dBm + 10log(22.75) = 24.57 dBm > 24dBm.

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	MAX. CONDUCTED POWER (mW)	MAX. CONDUCTED POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
38	5190	13.27	11.23	24	PASS
46	5230	13.55	11.32	24	PASS
54	5270	12.68	11.03	24	PASS
62	5310	13.21	11.21	24	PASS
102	5510	12.91	11.11	24	PASS
110	5550	13.09	11.17	24	PASS
134	5670	11.83	10.73	24	PASS
151	5755	12.97	11.13	30	PASS
159	5795	13.84	11.41	30	PASS

NOTE:

For U-NII-2A, U-NII-2C Band:

1. 11dBm + 10log(45.48) = 27.58 dBm > 24dBm.
2. 11dBm + 10log(45.94) = 27.62 dBm > 24dBm.
3. 11dBm + 10log(45.72) = 27.60 dBm > 24dBm.
4. 11dBm + 10log(46.11) = 27.64 dBm > 24dBm.
5. 11dBm + 10log(45.92) = 27.62 dBm > 24dBm.

802.11ac (80MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	MAX. CONDUCTED POWER (mW)	MAX. CONDUCTED POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
42	5210	10.23	10.10	24	PASS
58	5290	10.33	10.14	24	PASS
106	5530	10.42	10.18	24	PASS
155	5775	9.79	9.91	30	PASS

NOTE:

For U-NII-2A, U-NII-2C Band:

1. 11dBm + 10log(82.85) = 30.18 dBm > 24dBm.
2. 11dBm + 10log(83.07) = 30.19 dBm > 24dBm.

26dB BANDWIDTH

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
52	5260	22.40	PASS
60	5300	22.62	PASS
64	5320	22.32	PASS
100	5500	22.61	PASS
116	5580	22.59	PASS
140	5700	22.66	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
52	5260	22.75	PASS
60	5300	22.84	PASS
64	5320	22.68	PASS
100	5500	22.89	PASS
116	5580	23.17	PASS
140	5700	22.75	PASS

802.11n (40MHz)

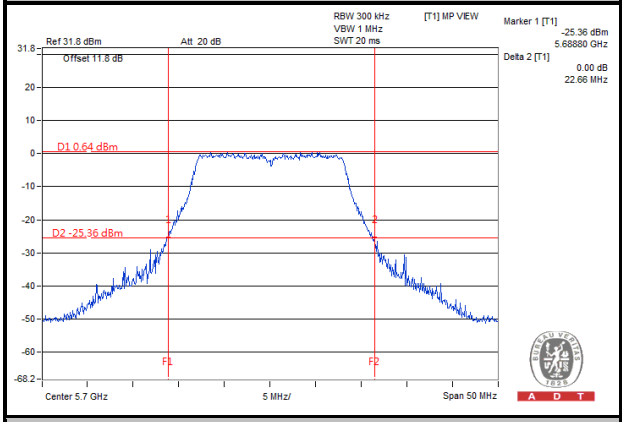
CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
54	5270	45.48	PASS
62	5310	45.94	PASS
102	5510	45.72	PASS
110	5550	46.11	PASS
134	5670	45.92	PASS

802.11ac (80MHz)

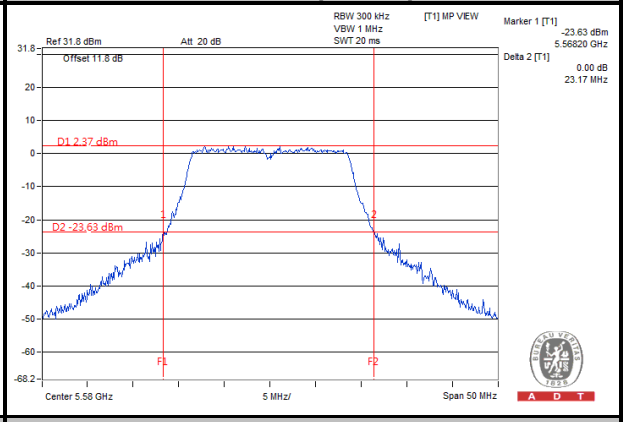
CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
58	5290	82.85	PASS
106	5530	83.07	PASS

SPECTRUM PLOT OF WORST VALUE

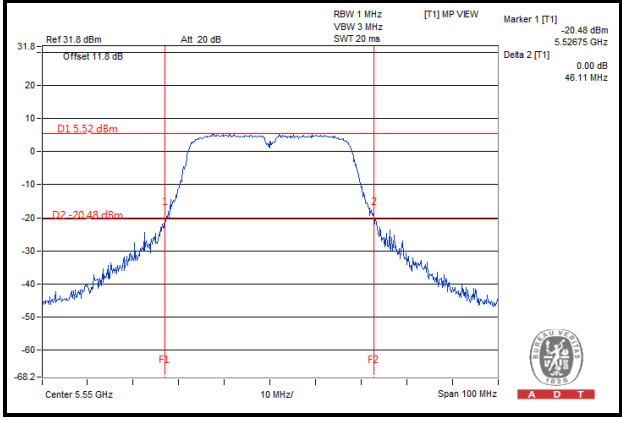
802.11a



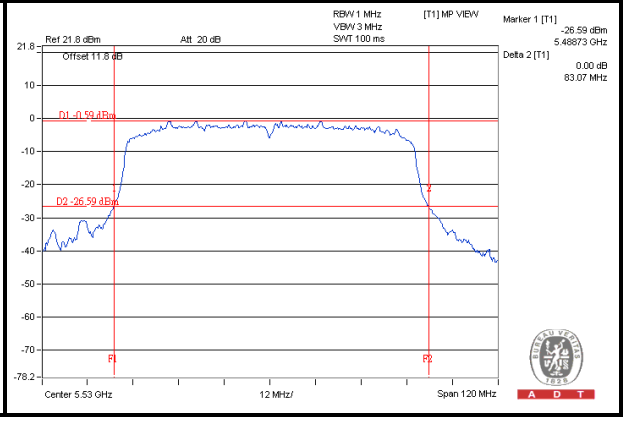
802.11n (20MHz)



802.11n (40MHz)



802.11ac (80MHz)

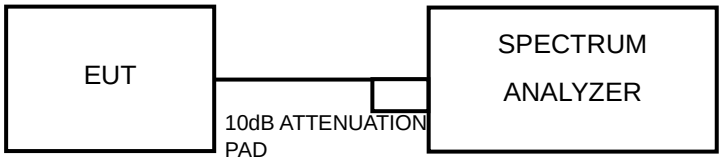


4.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

4.4.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	17dBm/ MHz
		Fixed point-to-point Access Point	
		Indoor Access Point	
	√	Mobile and Portable client device	11dBm/ MHz
U-NII-2A	√	---	11dBm/ MHz
U-NII-2C	√	---	11dBm/ MHz
U-NII-3	√	---	30dBm/ MHz

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

For U-NII-1, U-NII-2A, U-NII-2C band:

<802.11a, 802.11n (20MHz)>
Using method SA-1 alternative
1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 30 kHz, Set VBW ≥ 1 MHz, Detector = RMS
3) Set Channel power measure = 1MHz
4) Sweep time = 4s second.
5) Perform a single sweep.
6) Record the max value

<802.11ac (80MHz)>
Using method SA-2
1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 30 kHz, Set VBW ≥ 1 MHz, Detector = RMS
3) Set Channel power measure = 1MHz
4) Sweep time = auto, trigger set to “free run”.
5) Trace average at least 100 traces in power averaging mode.
6) Record the max value and add 10 log (1/duty cycle)

<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 = 30 kHz, Set VBW ≥ 1 MHz, Detector = RMS
3) Set Channel power measure = 1MHz
4) Sweep time = 4s second.
5) Perform a single sweep.
6) Record the max value and add 10 log (1/duty cycle)

For U-NII-3 band:

1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 500 kHz, Set VBW ≥ 3 RBW, Detector = RMS
3) Sweep time = auto, trigger set to “free run”.
4) Trace average at least 100 traces in power averaging mode.
5) Record the max value and add 10 log (1/duty cycle)

4.4.5 DEVIATION FROM TEST STANDARD

No deviation.

4.4.6 EUT OPERATING CONDITIONS

Same as Item 4.3.6.

4.4.7 TEST RESULTS

For U-NII-1, U-NII-2A, U-NII-2C Band

802.11a

CHANNEL	FREQUENCY (MHz)	PSD (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	-2.49	11	PASS
44	5220	-2.32	11	PASS
48	5240	-2.22	11	PASS
52	5260	-2.71	11	PASS
60	5300	-2.35	11	PASS
64	5320	-2.25	11	PASS
100	5500	-1.99	11	PASS
116	5580	-2.34	11	PASS
140	5700	-3.38	11	PASS

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	PSD (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	-1.74	11	PASS
44	5220	-1.76	11	PASS
48	5240	-1.73	11	PASS
52	5260	-2.07	11	PASS
60	5300	-1.67	11	PASS
64	5320	-1.54	11	PASS
100	5500	-1.26	11	PASS
116	5580	-1.65	11	PASS
140	5700	-2.64	11	PASS

802.11n (40MHz)

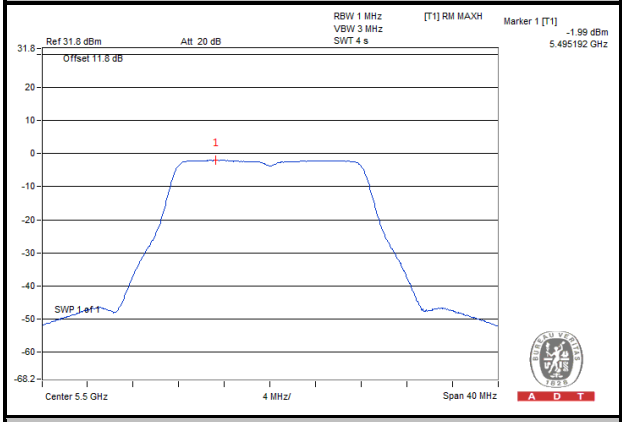
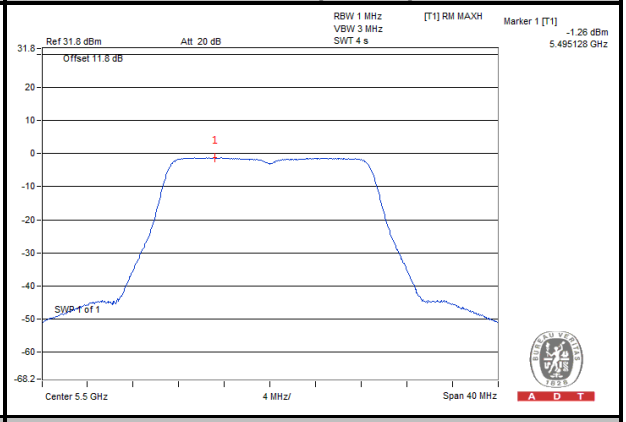
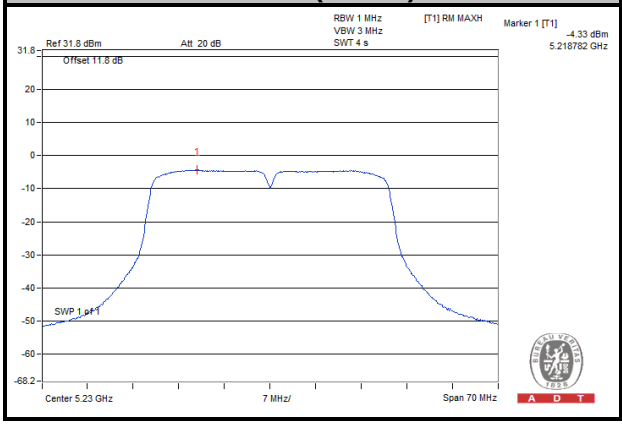
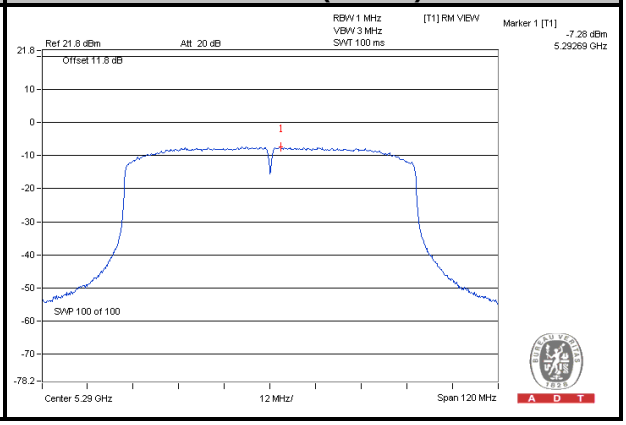
CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
38	5190	-4.34	0.41	-3.93	11	PASS
46	5230	-4.33	0.41	-3.92	11	PASS
54	5270	-6.17	0.41	-5.76	11	PASS
62	5310	-5.81	0.41	-5.40	11	PASS
102	5510	-4.73	0.41	-4.32	11	PASS
110	5550	-4.82	0.41	-4.41	11	PASS
134	5670	-5.88	0.41	-5.47	11	PASS

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

802.11ac (80MHz)

CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
42	5210	-7.59	0.86	-6.73	11	PASS
58	5290	-7.28	0.86	-6.42	11	PASS
106	5530	-8.65	0.86	-7.79	11	PASS

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

SPECTRUM PLOT OF WORST VALUE	
802.11a	**802.11n (20MHz)**
	
802.11n (40MHz)	**802.11ac (80MHz)**
	

For U-NII-3 Band

802.11a

CHANNEL	FREQUENCY (MHz)	PSD (dBm/500kHz)	LIMIT (dBm/500kHz)	PASS / FAIL
149	5745	-6.43	30	PASS
157	5785	-6.41	30	PASS
165	5825	-6.08	30	PASS

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	PSD (dBm/500kHz)	LIMIT (dBm/500kHz)	PASS / FAIL
149	5745	-6.39	30	PASS
157	5785	-6.61	30	PASS
165	5825	-6.01	30	PASS

802.11n (40MHz)

CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
151	5755	-9.26	0.41	-8.85	11	PASS
159	5795	-9.14	0.41	-8.73	11	PASS

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

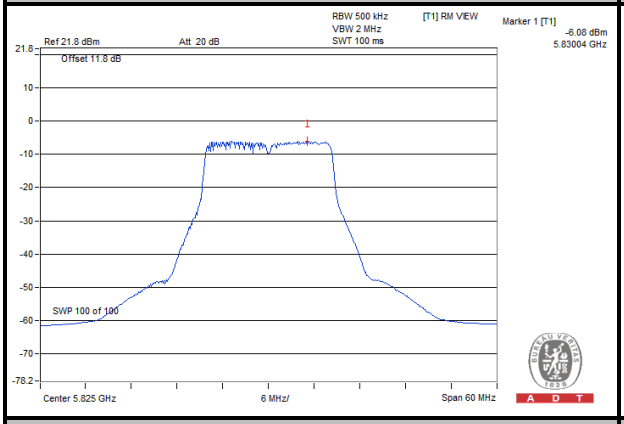
802.11ac (80MHz)

CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
155	5775	-9.92	0.86	-9.06	11	PASS

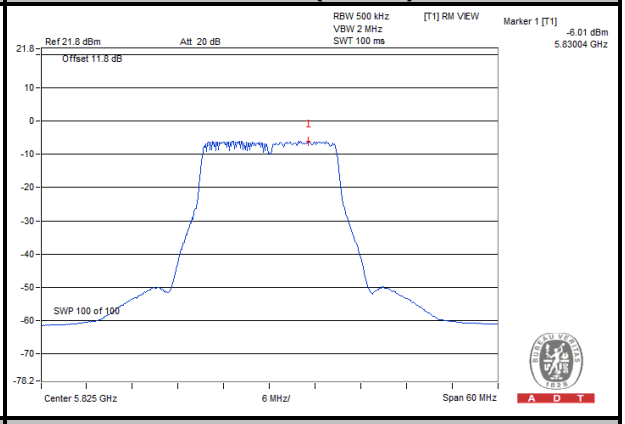
NOTE: Refer to section 3.3 for duty cycle spectrum plot.

SPECTRUM PLOT OF WORST VALUE

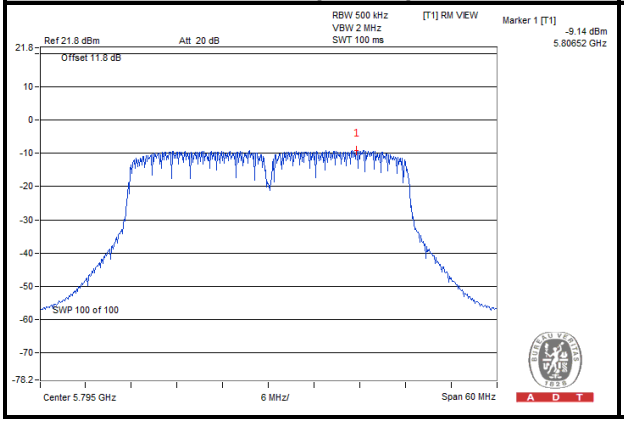
802.11a



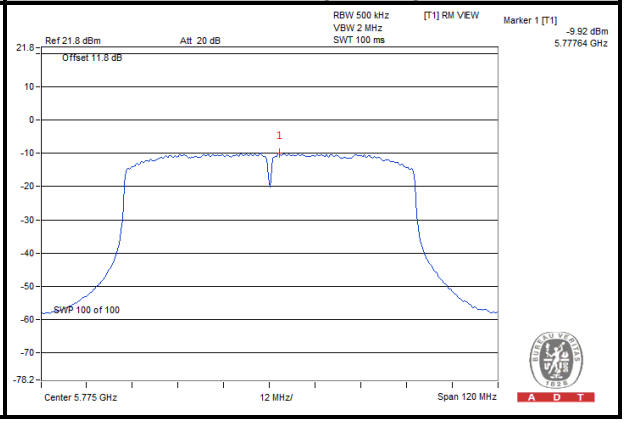
802.11n (20MHz)



802.11n (40MHz)



802.11ac (80MHz)

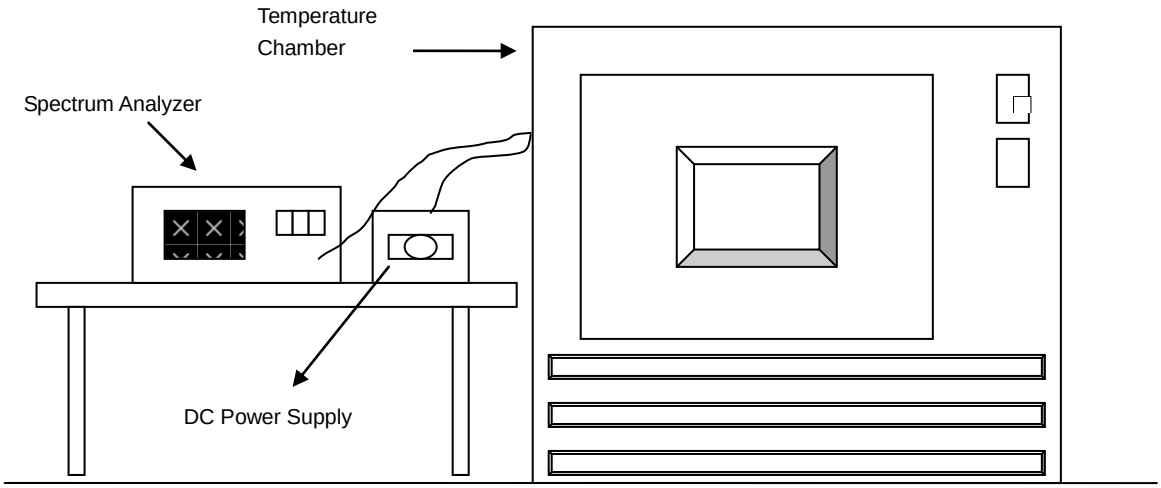


4.5 FREQUENCY STABILITY

4.5.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

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

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

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.

4.5.5 DEVIATION FROM TEST STANDARD

No deviation.

4.5.6 EUT OPERATING CONDITION

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

4.5.7 TEST RESULTS

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5320MHz									
TEMP. (℃)	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)
50	3.8	5320.039470	7.419	5320.059708	11.223	5320.049412	9.288	5320.039549	7.434
40	3.8	5320.040076	7.533	5320.059955	11.270	5320.044067	8.283	5320.039943	7.508
30	3.8	5320.041018	7.710	5320.048004	9.023	5320.048258	9.071	5320.041528	7.806
20	3.8	5320.042428	7.975	5320.031973	6.010	5320.043323	8.143	5320.042301	7.951
10	3.8	5320.043626	8.200	5320.043477	8.172	5320.043678	8.210	5320.043651	8.205
0	3.8	5320.041986	7.892	5320.042386	7.967	5320.042342	7.959	5320.041881	7.872
-10	3.8	5320.040434	7.600	5320.046562	8.752	5320.042751	8.036	5320.040497	7.612
-20	3.8	5320.040252	7.566	5320.040190	7.555	5320.029846	5.610	5320.039836	7.488

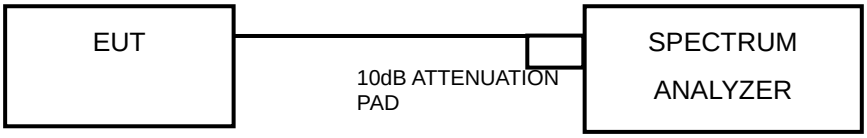
FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5320MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	3.6	5320.051881	9.752	5320.047512	8.931	5320.043450	8.167	5320.041755	7.849
	3.8	5320.040428	7.599	5320.046973	8.830	5320.045323	8.519	5320.042901	8.064
	4.35	5320.041467	7.795	5320.043435	8.164	5320.049210	9.250	5320.046750	8.788

4.6 6dB BANDWIDTH MEASUREMENT

4.6.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

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. Set resolution bandwidth (RBW) = 100kHz
b. Set the video bandwidth (VBW) ≥ 3 x RBW, Detector = Peak.
c. Trace mode = max hold.
d. Sweep = auto couple.
e. Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

4.6.5 DEVIATION FROM TEST STANDARD

No deviation.

4.6.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.6.7 TEST RESULTS

802.11a

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
149	5745	16.42	0.5	PASS
157	5785	16.42	0.5	PASS
165	5825	16.41	0.5	PASS

802.11n (20MHz)

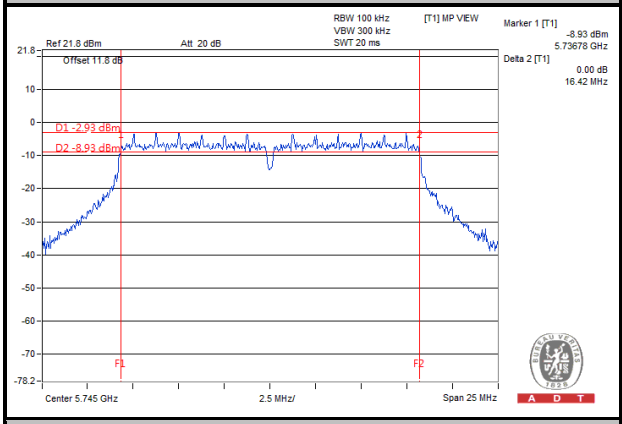
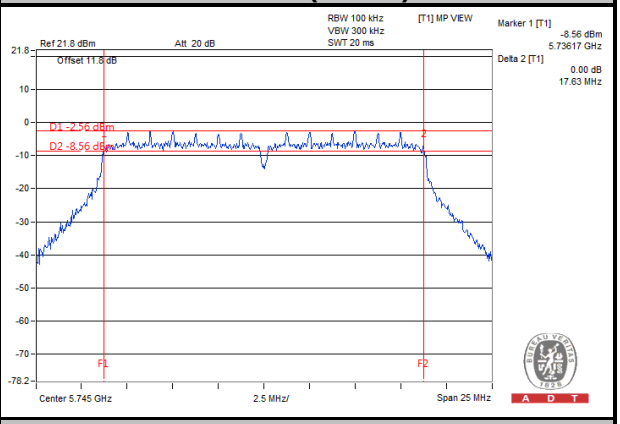
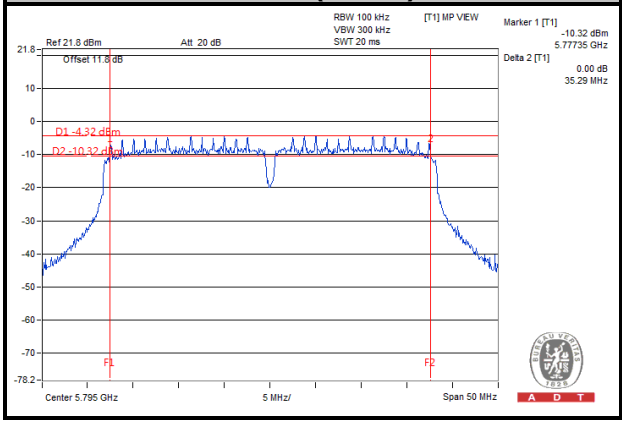
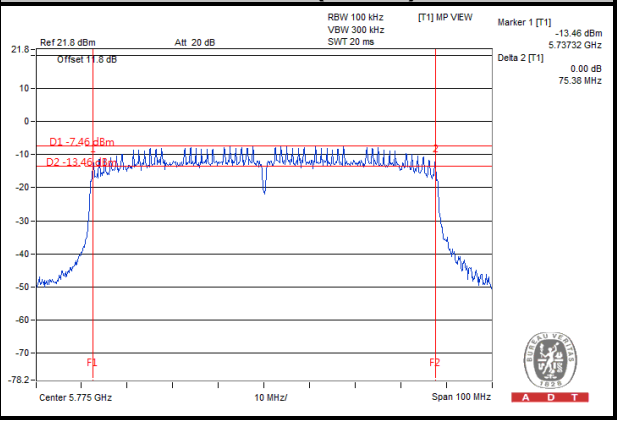
CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
149	5745	17.63	0.5	PASS
157	5785	17.63	0.5	PASS
165	5825	17.63	0.5	PASS

802.11n (40MHz)

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
151	5755	35.21	0.5	PASS
159	5795	35.29	0.5	PASS

802.11ac (80MHz)

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
155	5775	75.38	0.5	PASS

SPECTRUM PLOT OF WORST VALUE	
802.11a	**802.11n (20MHz)**
	
802.11n (40MHz)	**802.11ac (80MHz)**
	

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/Telecom Lab:
Tel: 886-3-5935343
Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety Lab:
Tel: 886-3-3183232
Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com
Web Site: 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 any modifications are made to the EUT by the lab during the test.

---END---