FCC TEST REPORT (15.407)

REPORT NO.:	RF140624C19-8
MODEL NO.:	0P82300
FCC ID:	NM80P82300
RECEIVED:	Jun. 24, 2014
TESTED:	Jul. 23, 2014 ~ Aug. 10, 2014
ISSUED:	Aug. 26, 2014

APPLICANT:	HTC Corporation
ADDRESS:	1F, 6-3 Baoqiang Road, Xindian District, New Taipei City, Taiwan 231

ISSUED BY:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
LAB ADDRESS:	No. 47, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan (R.O.C)
TEST LOCATION:	No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

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

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF140624C19-8	Original release	Aug. 26, 2014

1. CERTIFICATION

PRODUCT:	Tablet
MODEL NO.:	0P82300
BRAND:	HTC
APPLICANT:	HTC Corporation
TESTED:	Jul. 23, 2014 ~ Aug. 10, 2014
TEST SAMPLE:	Production Unit
STANDARDS:	**FCC Part 15, Subpart E (Section 15.407)**
	ANSI C63.10-2009

The above equipment (model: 0P82300) 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 :** Aug. 26, 2014

Ivonne Wu / Supervisor

APPROVED BY : _____ **, DATE :** Aug. 26, 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 -13.08dB at 0.56837MHz.
15.407(b/1/2/3) (b)(6)	Radiated Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -0.46dB at 5150.00MHz.
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	Tablet
MODEL NO.	0P82300
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: 8 for 802.11a, 802.11n (20MHz) 3 for 802.11n (40MHz) 1 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	41.74mW for 5180 ~ 5240MHz 44.58mW for 5260 ~ 5320MHz 44.40mW for 5500 ~ 5700MHz 43.45mW for 5745 ~ 5825MHz
ANTENNA TYPE	Refer to Note as below
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's accessories list refers to Ext. Pho.
2. There're 2 configurations for the EUT listed as below.

   Main sample (A): Battery 1 + eMMC 16G

   2nd sample (B): Battery 2 + eMMC 32G

   ✧Only the worst test data was presented in the report.

3. The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and two receivers.

MODULATION MODE	TX FUNCTION
802.11b	1TX
802.11g	1TX
802.11a	1TX
802.11n (20MHz)	1TX / 2TX
802.11n (40MHz)	1TX / 2TX
802.11ac (80MHz)	1TX / 2TX

4. The antenna information is listed as below.

	Frequency (MHz)	Antenna Type	Antenna Gain (dBi)
WLAN	**2412~2462**	PCB	Ant-1: -3.37 Ant-2: -5.2
	5180~5240		Ant-1: -5.6 Ant-2: -7
	5260~5320		Ant-1: -5.95 Ant-2: -7
	5500~5700		Ant-1: -6.14 Ant-2: -7.1
	5745~5825		Ant-1: -6.35 Ant-2: -7.2
Bluetooth EDR	**2402~2480**	PCB	-3.37
Bluetooth LE 4.0	**2402~2480**	PCB	-3.37

5. 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

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

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

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

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

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

CHANNEL	FREQUENCY
106	5530MHz

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	
A	√	√	√	√	Main sample with chain 0
B	-	-	-	√	Main sample with chain 1
C	√	-	-	√	Main sample with chain 0+1
D	√	√	√	-	2nd sample with chain 0

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 **Y-plane** for 5180-5240MHz and **Z-plane** for 5260-5320MHz & 5500-5700MHz & 5745-5825MHz)

RADIATED EMISSION TEST (ABOVE 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5180-5240	36 to 48	36, 44, 48	OFDM	BPSK	6.0
A, C	802.11n (20MHz)		36 to 48	36, 44, 48	OFDM	BPSK	MCS0
A, C	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	MCS0
A, C	802.11ac (80MHz)		42	42	OFDM	BPSK	V0
D	802.11n (40MHz)		38 to 46	38	OFDM	BPSK	MCS0
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
A, C	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	MCS0
A, C	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	MCS0
A, C, D	802.11ac (80MHz)		58	58	OFDM	BPSK	V0
A	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
A, C	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	MCS0
A, C	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	MCS0
A, C	802.11ac (80MHz)		106	106	OFDM	BPSK	V0
D	802.11n (20MHz)		100 to 140	140	OFDM	BPSK	MCS0
A	802.11a	5745-5825	149 to 161	149, 157, 165	OFDM	BPSK	6.0
A, C	802.11n (20MHz)		149 to 161	149, 157, 165	OFDM	BPSK	MCS0
A, C	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	MCS0
A, C	802.11ac (80MHz)		155	155	OFDM	BPSK	V0
D	802.11n (20MHz)		149 to 161	149	OFDM	BPSK	MCS0

RADIATED EMISSION TEST (BELOW 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A, D	802.11n (40MHz)	5180-5240	38 to 46	38	OFDM	BPSK	MCS0
	802.11ac (80MHz)	5260-5320	58	58	OFDM	BPSK	V0
	802.11n (20MHz)	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	MCS0
	802.11n (20MHz)	5745-5825	149 to 161	149	OFDM	BPSK	MCS0

POWER LINE CONDUCTED EMISSION TEST:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A, D	802.11n (40MHz)	5180-5240	38 to 46	38	OFDM	BPSK	MCS0

***Note:** Test mode D was the worst case and only this mode was presented in this report.

BANDEDGE MEASUREMENT:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5180-5240	36 to 48	36, 44, 48	OFDM	BPSK	6.0
A, C	802.11n (20MHz)		36 to 48	36, 44, 48	OFDM	BPSK	MCS0
A, C	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	MCS0
A, C	802.11ac (80MHz)		42	42	OFDM	BPSK	V0
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
A, C	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	MCS0
A, C	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	MCS0
A, C	802.11ac (80MHz)		58	58	OFDM	BPSK	V0
A	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
A, C	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	MCS0
A, C	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	MCS0
A, C	802.11ac (80MHz)		106	106	OFDM	BPSK	V0
A	802.11a	5745-5825	149 to 161	149, 157, 165	OFDM	BPSK	6.0
A, C	802.11n (20MHz)		149 to 161	149, 157, 165	OFDM	BPSK	MCS0
A, C	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	MCS0
B, C	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)
A	802.11a	5180-5240	36 to 48	36, 44, 48	OFDM	BPSK	6.0
A, C	802.11n (20MHz)		36 to 48	36, 44, 48	OFDM	BPSK	MCS0
A, C	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	MCS0
A, C	802.11ac (80MHz)		42	42	OFDM	BPSK	V0
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
A, C	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	MCS0
A, C	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	MCS0
A, C	802.11ac (80MHz)		58	58	OFDM	BPSK	V0
A	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
A, C	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	MCS0
A, C	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	MCS0
A, C	802.11ac (80MHz)		106	106	OFDM	BPSK	V0
A	802.11a	5745-5825	149 to 161	149, 157, 165	OFDM	BPSK	6.0
A, C	802.11n (20MHz)		149 to 161	149, 157, 165	OFDM	BPSK	MCS0
A, C	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	MCS0
B, C	802.11ac (80MHz)		155	155	OFDM	BPSK	V0

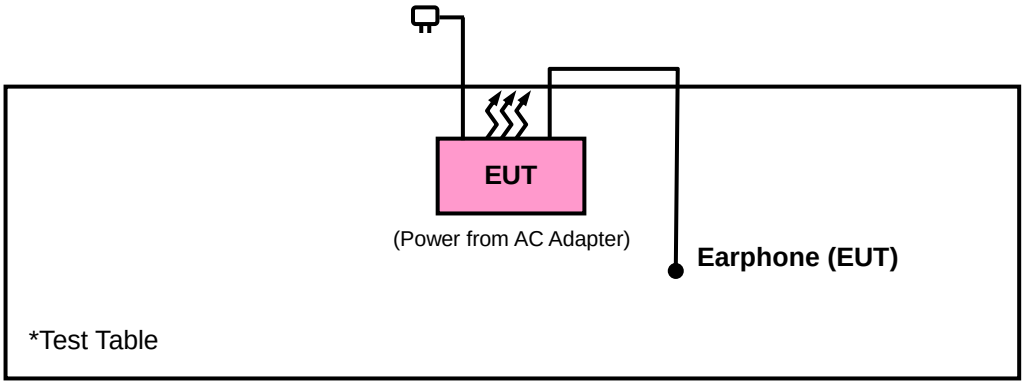
TEST CONDITION:

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	David Huang

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

1TX

MODULATION TYPE: BPSK

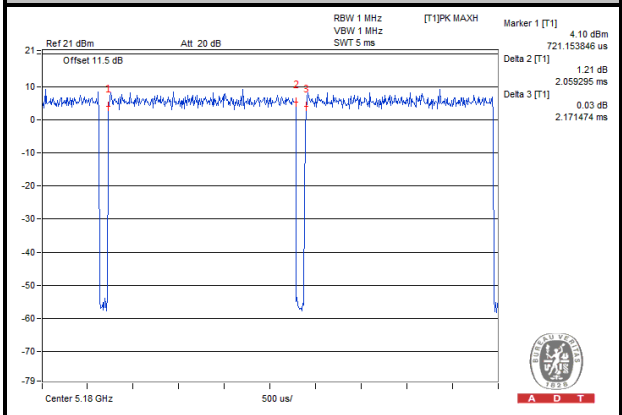
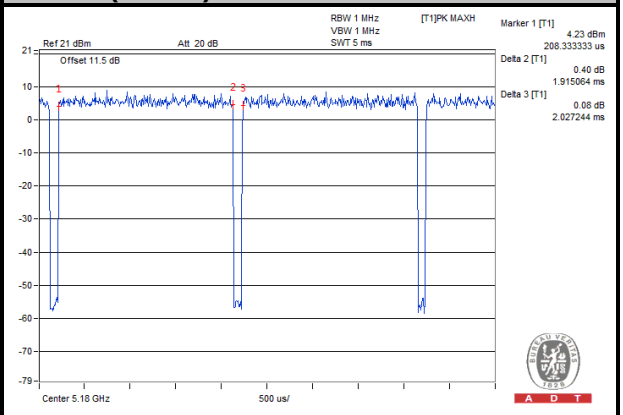
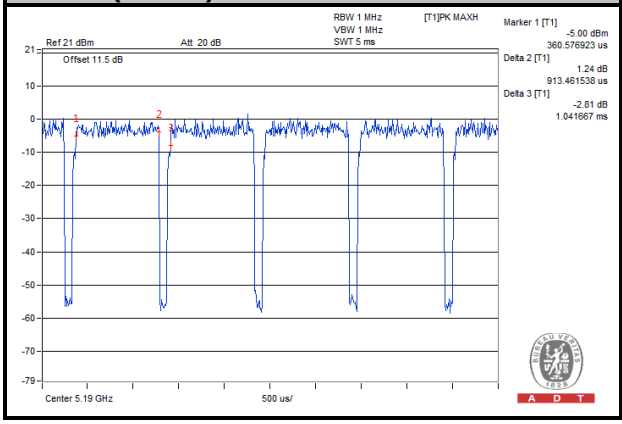
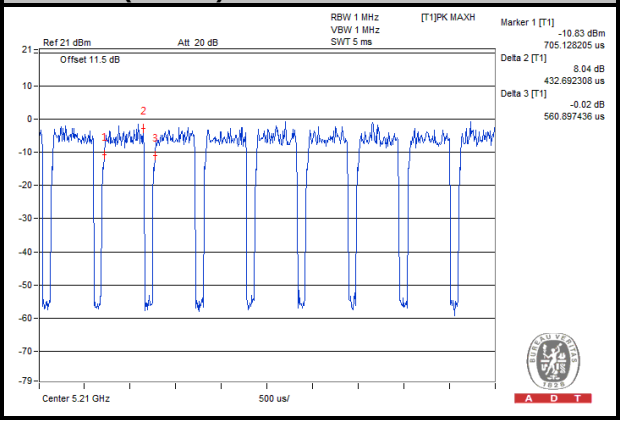
If duty cycle is < 98%, duty factor shall be considered.

802.11a: Duty cycle = 2.059/2.171 = 0.948, Duty factor = 10 * log(1/0.948) = 0.23

802.11n (20MHz): Duty cycle = 1.915/2.027 = 0.945, Duty factor = 10 * log(1/0.945) = 0.25

802.11n (40MHz): Duty cycle = 913.46/1041.67 = 0.877, Duty factor = 10 * log(1/0.877) = 0.57

802.11ac (80MHz): Duty cycle = 432.69/560.90 = 0.771, Duty factor = 10 * log(1/0.771) = 1.13

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

2TX

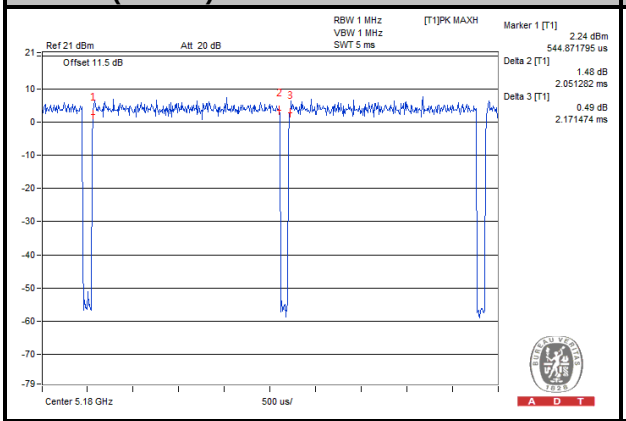
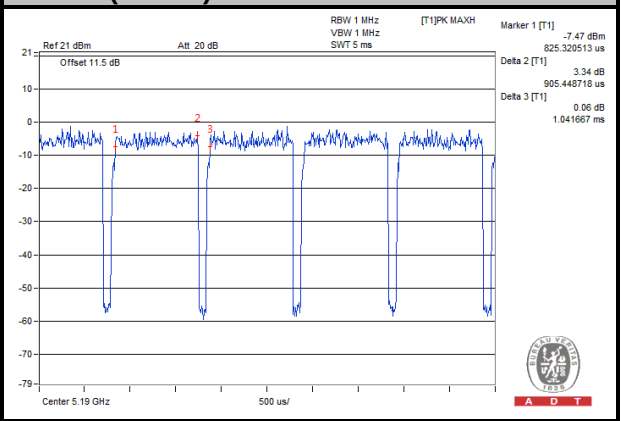
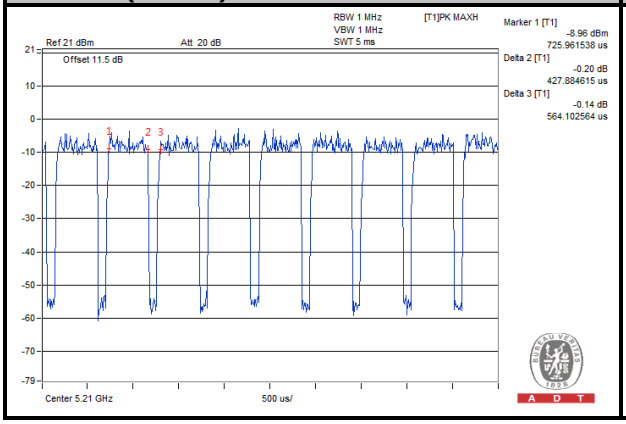
MODULATION TYPE: BPSK

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

802.11n (20MHz): Duty cycle = 2.051/2.171 = 0.945, Duty factor = 10 * log(1/0.945) = 0.25

802.11n (40MHz): Duty cycle = 905.45/1041.67 = 0.869, Duty factor = 10 * log(1/0.869) = 0.61

802.11ac (80MHz): Duty cycle = 427.88/564.10 = 0.758, Duty factor = 10 * log(1/0.758) = 1.20

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
662911 D01 Multiple Transmitter Output v02r01
ANSI C63.10-2009

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

NOTE: The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It 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

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCI	100744	Apr. 15, 2014	Apr. 14, 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	309219/4 2950114	Oct. 18, 2013	Oct. 17, 2014
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	250130/4	Oct. 18, 2013	Oct. 17, 2014
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	Aug. 23, 2013	Aug. 22, 2014
Power Sensor	MA2411B	1207325	Aug. 23, 2013	Aug. 22, 2014

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:

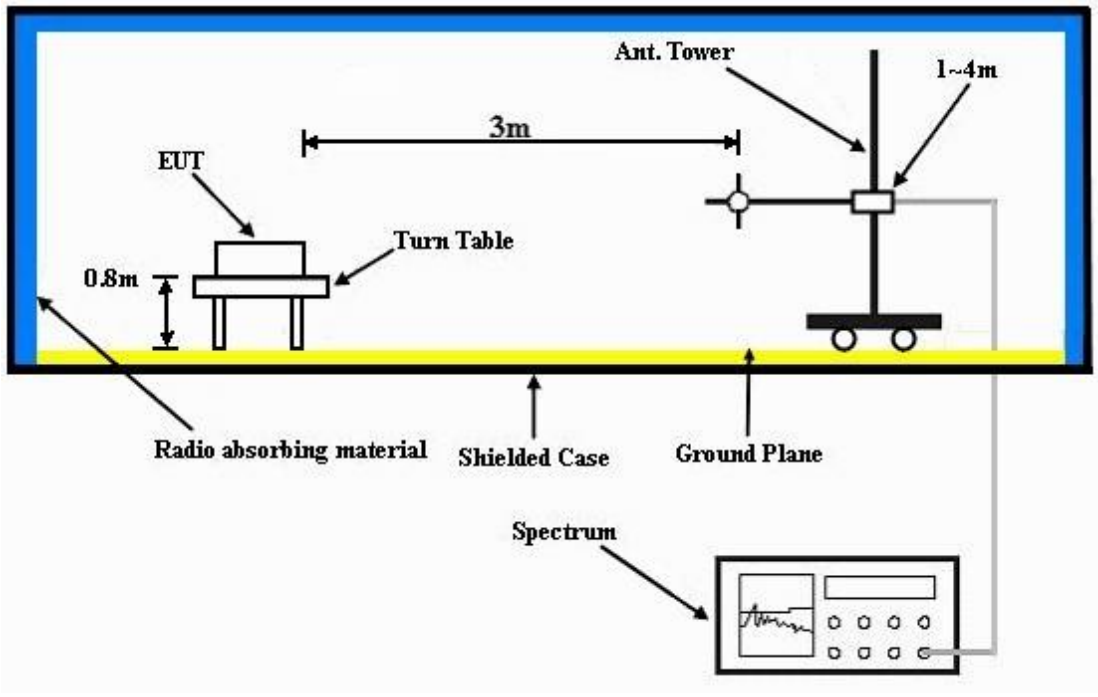
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency 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

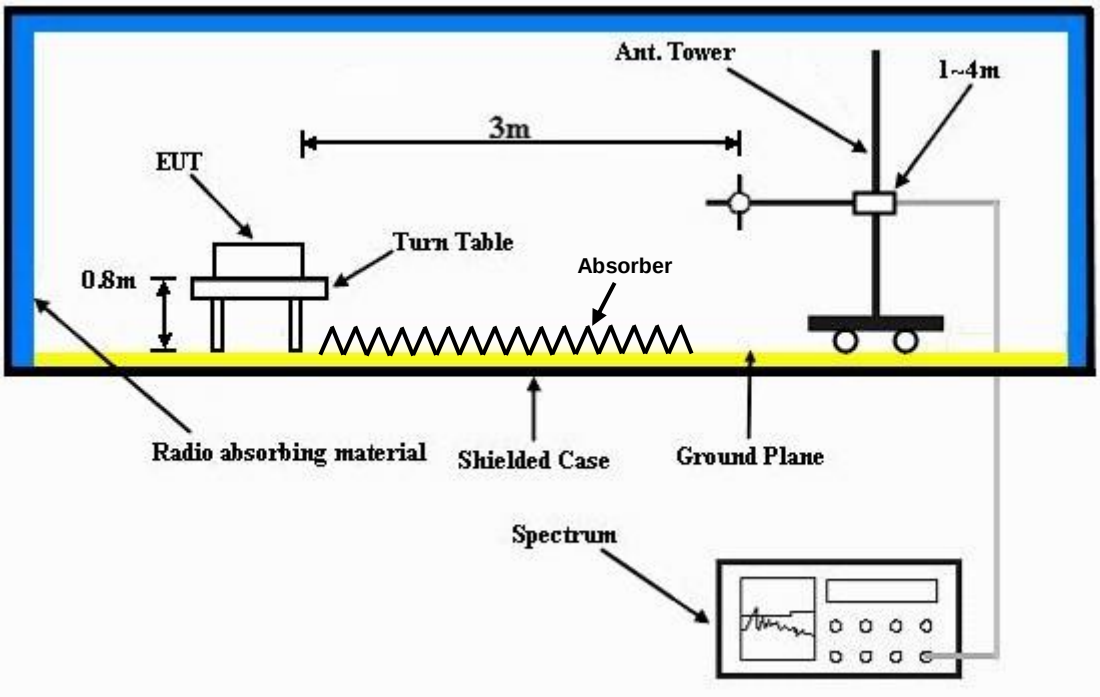
No deviation.

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

MODE A

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
5150	47.46	39.21	54	-6.54	34.12	8.13	34	102	283	Average
5150	61.23	52.98	74	-12.77	34.12	8.13	34	102	283	Peak
5180	94.21	85.9			34.15	8.16	34	102	283	Average
5180	101.72	93.41			34.15	8.16	34	102	283	Peak
5450	43.4	34.58	54	-10.6	34.36	8.51	34.05	102	283	Average
5450	58.39	49.57	74	-15.61	34.36	8.51	34.05	102	283	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	51.66	43.41	54	-2.34	34.12	8.13	34	114	14	Average
5150	67.08	58.83	74	-6.92	34.12	8.13	34	114	14	Peak
5180	99.84	91.53			34.15	8.16	34	114	14	Average
5180	107	98.69			34.15	8.16	34	114	14	Peak
5414	43.49	34.76	54	-10.51	34.33	8.44	34.04	114	14	Average
5414	58.12	49.39	74	-15.88	34.33	8.44	34.04	114	14	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
5124	43.05	34.83	54	-10.95	34.11	8.1	33.99	114	14	Average
5124	57.37	49.15	74	-16.63	34.11	8.1	33.99	114	14	Peak
5220	93.42	85.03			34.17	8.22	34	114	14	Average
5220	101.01	92.62			34.17	8.22	34	114	14	Peak
5378	43.55	34.87	54	-10.45	34.31	8.41	34.04	114	14	Average
5378	57.56	48.88	74	-16.44	34.31	8.41	34.04	114	14	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5046	44.46	36.4	54	-9.54	34.04	8	33.98	114	14	Average
5046	57.3	49.24	74	-16.7	34.04	8	33.98	114	14	Peak
5220	100.32	91.93			34.17	8.22	34	114	14	Average
5220	107.67	99.28			34.17	8.22	34	114	14	Peak
5440	44.02	35.23	54	-9.98	34.35	8.48	34.04	114	14	Average
5440	58.73	49.94	74	-15.27	34.35	8.48	34.04	114	14	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
5096	42.96	34.8	54	-11.04	34.08	8.07	33.99	114	14	Average
5096	57.26	49.1	74	-16.74	34.08	8.07	33.99	114	14	Peak
5240	93.82	85.38			34.19	8.26	34.01	114	14	Average
5240	101.34	92.9			34.19	8.26	34.01	114	14	Peak
5348	43.44	34.81	54	-10.56	34.28	8.38	34.03	114	14	Average
5348	58.64	50.01	74	-15.36	34.28	8.38	34.03	114	14	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5084	43.79	35.63	54	-10.21	34.07	8.07	33.98	114	14	Average
5084	57.97	49.81	74	-16.03	34.07	8.07	33.98	114	14	Peak
5240	100.46	92.02			34.19	8.26	34.01	114	14	Average
5240	107.94	99.5			34.19	8.26	34.01	114	14	Peak
5452	43.97	35.15	54	-10.03	34.36	8.51	34.05	114	14	Average
5452	58.54	49.72	74	-15.46	34.36	8.51	34.05	114	14	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
5012	43.34	35.33	54	-10.66	34.01	7.97	33.97	100	53	Average
5012	56.46	48.45	74	-17.54	34.01	7.97	33.97	100	53	Peak
5260	102.99	94.53			34.21	8.26	34.01	100	53	Average
5260	109.35	100.89			34.21	8.26	34.01	100	53	Peak
5438	44.35	35.56	54	-9.65	34.35	8.48	34.04	100	53	Average
5438	57.51	48.72	74	-16.49	34.35	8.48	34.04	100	53	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	44.76	36.51	54	-9.24	34.12	8.13	34	100	211	Average
5150	56.54	48.29	74	-17.46	34.12	8.13	34	100	211	Peak
5260	99.48	91.02			34.21	8.26	34.01	100	211	Average
5260	106.56	98.1			34.21	8.26	34.01	100	211	Peak
5448	44.39	35.56	54	-9.61	34.36	8.51	34.04	100	211	Average
5448	57.14	48.31	74	-16.86	34.36	8.51	34.04	100	211	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
5092	43.38	35.21	54	-10.62	34.08	8.07	33.98	100	54	Average
5092	56.8	48.63	74	-17.2	34.08	8.07	33.98	100	54	Peak
5300	101.55	93.01			34.24	8.32	34.02	100	54	Average
5300	108.93	100.39			34.24	8.32	34.02	100	54	Peak
5350	49.55	40.92	54	-4.45	34.28	8.38	34.03	100	54	Average
5350	59.12	50.49	74	-14.88	34.28	8.38	34.03	100	54	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
5042	43.57	35.51	54	-10.43	34.04	8	33.98	118	212	Average
5042	56.48	48.42	74	-17.52	34.04	8	33.98	118	212	Peak
5300	99.38	90.84			34.24	8.32	34.02	118	212	Average
5300	106.79	98.25			34.24	8.32	34.02	118	212	Peak
5352	49.56	40.93	54	-4.44	34.28	8.38	34.03	118	212	Average
5352	58.9	50.27	74	-15.1	34.28	8.38	34.03	118	212	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
5092	43.19	35.02	54	-10.81	34.08	8.07	33.98	100	55	Average
5092	58.16	49.99	74	-15.84	34.08	8.07	33.98	100	55	Peak
5320	101.49	92.91			34.25	8.35	34.02	100	55	Average
5320	108.39	99.81			34.25	8.35	34.02	100	55	Peak
5351.5	50.77	42.14	54	-3.23	34.28	8.38	34.03	100	55	Average
5351.5	64.42	55.79	74	-9.58	34.28	8.38	34.03	100	55	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5120	43.04	34.84	54	-10.96	34.09	8.1	33.99	184	356	Average
5120	57.68	49.48	74	-16.32	34.09	8.1	33.99	184	356	Peak
5320	97.78	89.2			34.25	8.35	34.02	184	356	Average
5320	105.48	96.9			34.25	8.35	34.02	184	356	Peak
5350	48.05	39.42	54	-5.95	34.28	8.38	34.03	184	356	Average
5350	60.69	52.06	74	-13.31	34.28	8.38	34.03	184	356	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
5460	47.9	39.08	54	-6.1	34.36	8.51	34.05	100	38	Average
5460	60.06	51.24	74	-13.94	34.36	8.51	34.05	100	38	Peak
*5470	63.86	55.03	68.3	-4.44	34.37	8.51	34.05	100	38	Peak
5500	99.85	90.93			34.4	8.57	34.05	100	38	Average
5500	107.37	98.45			34.4	8.57	34.05	100	38	Peak
*5725	58.87	49.71	68.3	-9.43	34.62	8.65	34.11	100	38	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5456	46.07	37.25	54	-7.93	34.36	8.51	34.05	100	279	Average
5456	58.87	50.05	74	-15.13	34.36	8.51	34.05	100	279	Peak
*5470	61.45	52.62	68.3	-6.85	34.37	8.51	34.05	100	279	Peak
5500	97.04	88.12			34.4	8.57	34.05	100	279	Average
5500	104.4	95.48			34.4	8.57	34.05	100	279	Peak
*5725	58.36	49.2	68.3	-9.94	34.62	8.65	34.11	100	279	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
5392	44.25	35.57	54	-9.75	34.31	8.41	34.04	125	36	Average
5392	57.09	48.41	74	-16.91	34.31	8.41	34.04	125	36	Peak
*5470	55.14	46.31	68.3	-13.16	34.37	8.51	34.05	125	36	Peak
5580	98.76	89.77			34.47	8.6	34.08	125	36	Average
5580	107.67	98.68			34.47	8.6	34.08	125	36	Peak
*5725	55	45.84	68.3	-13.3	34.62	8.65	34.11	125	36	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
5434	44.35	35.56	54	-9.65	34.35	8.48	34.04	100	279	Average
5434	57.33	48.54	74	-16.67	34.35	8.48	34.04	100	279	Peak
*5470	57.09	48.26	68.3	-11.21	34.37	8.51	34.05	100	279	Peak
5580	96.59	87.6			34.47	8.6	34.08	100	279	Average
5580	103.93	94.94			34.47	8.6	34.08	100	279	Peak
*5725	55.62	46.46	68.3	-12.68	34.62	8.65	34.11	100	279	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
5364	43.1	34.46	54	-10.9	34.29	8.38	34.03	142	298	Average
5364	58.03	49.39	74	-15.97	34.29	8.38	34.03	142	298	Peak
*5470	56.66	47.83	68.3	-11.64	34.37	8.51	34.05	142	298	Peak
5700	98.54	89.41			34.59	8.64	34.1	142	298	Average
5700	106.29	97.16			34.59	8.64	34.1	142	298	Peak
*5725	64.51	55.35	68.3	-3.79	34.62	8.65	34.11	142	298	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
5434	43.18	34.39	54	-10.82	34.35	8.48	34.04	100	207	Average
5434	58.67	49.88	74	-15.33	34.35	8.48	34.04	100	207	Peak
*5470	56.01	47.18	68.3	-12.29	34.37	8.51	34.05	100	207	Peak
5700	96.05	86.92			34.59	8.64	34.1	100	207	Average
5700	104.18	95.05			34.59	8.64	34.1	100	207	Peak
*5725	63.15	53.99	68.3	-5.15	34.62	8.65	34.11	100	207	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5700MHz: Fundamental frequency.
3. 5470MHz & 5725MHz: 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
*5714	61.97	52.82	68.3	-6.33	34.61	8.65	34.11	144	294	Peak
*5725	73.36	64.2	78.3	-4.94	34.62	8.65	34.11	144	294	Peak
5745	100.83	91.64			34.64	8.66	34.11	144	294	Average
5745	107.94	98.75			34.64	8.66	34.11	144	294	Peak
*5854	57.31	47.99	78.3	-20.99	34.76	8.7	34.14	144	294	Peak
*5870	57.36	48.03	68.3	-10.94	34.76	8.71	34.14	144	294	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
*5714	61.7	52.55	68.3	-6.6	34.61	8.65	34.11	108	203	Peak
*5725	68.88	59.72	78.3	-9.42	34.62	8.65	34.11	108	203	Peak
5745	98.95	89.76			34.64	8.66	34.11	108	203	Average
5745	105.87	96.68			34.64	8.66	34.11	108	203	Peak
*5854	56.39	47.07	78.3	-21.91	34.76	8.7	34.14	108	203	Peak
*5862	56.65	47.32	68.3	-11.65	34.76	8.71	34.14	108	203	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
*5712	58.5	49.35	68.3	-9.8	34.61	8.65	34.11	143	293	Peak
*5720	58.5	49.34	78.3	-19.8	34.62	8.65	34.11	143	293	Peak
5785	100.92	91.69			34.68	8.68	34.13	143	293	Average
5785	107.1	97.87			34.68	8.68	34.13	143	293	Peak
*5858	57.72	48.4	78.3	-20.58	34.76	8.7	34.14	143	293	Peak
*5861	57.72	48.39	68.3	-10.58	34.76	8.71	34.14	143	293	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
*5638	58.94	49.87	68.3	-9.36	34.54	8.62	34.09	108	203	Peak
*5725	57.11	47.95	78.3	-21.19	34.62	8.65	34.11	108	203	Peak
5785	98.88	89.65			34.68	8.68	34.13	108	203	Average
5785	105.35	96.12			34.68	8.68	34.13	108	203	Peak
*5854	56.67	47.35	78.3	-21.63	34.76	8.7	34.14	108	203	Peak
*5864	57.05	47.72	68.3	-11.25	34.76	8.71	34.14	108	203	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
*5632	58	48.95	68.3	-10.3	34.52	8.62	34.09	143	293	Peak
*5724	56.22	47.06	78.3	-22.08	34.62	8.65	34.11	143	293	Peak
5825	100.94	91.65			34.73	8.69	34.13	143	293	Average
5825	107.11	97.82			34.73	8.69	34.13	143	293	Peak
*5852	64	54.7	78.3	-14.3	34.74	8.7	34.14	143	293	Peak
*5861	60.84	51.51	68.3	-7.46	34.76	8.71	34.14	143	293	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
*5612	59.05	50.02	68.3	-9.25	34.5	8.61	34.08	108	202	Peak
*5720	57.55	48.39	78.3	-20.75	34.62	8.65	34.11	108	202	Peak
5825	97.98	88.69			34.73	8.69	34.13	108	202	Average
5825	104.48	95.19			34.73	8.69	34.13	108	202	Peak
*5852	60.51	51.21	78.3	-17.79	34.74	8.7	34.14	108	202	Peak
*5860	59.5	50.18	68.3	-8.8	34.76	8.7	34.14	108	202	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
5146	46.47	38.22	54	-7.53	34.12	8.13	34	102	282	Average
5146	58.93	50.68	74	-15.07	34.12	8.13	34	102	282	Peak
5180	94.25	85.94			34.15	8.16	34	102	282	Average
5180	101.96	93.65			34.15	8.16	34	102	282	Peak
5428	43.06	34.29	54	-10.94	34.33	8.48	34.04	102	282	Average
5428	57.61	48.84	74	-16.39	34.33	8.48	34.04	102	282	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	50.82	42.57	54	-3.18	34.12	8.13	34	113	14	Average
5150	61.91	53.66	74	-12.09	34.12	8.13	34	113	14	Peak
5180	100.37	92.06			34.15	8.16	34	113	14	Average
5180	107.92	99.61			34.15	8.16	34	113	14	Peak
5366	43.3	34.66	54	-10.7	34.29	8.38	34.03	113	14	Average
5366	58.25	49.61	74	-15.75	34.29	8.38	34.03	113	14	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
5088	46.96	38.8	54	-7.04	34.07	8.07	33.98	113	14	Average
5088	57.55	49.39	74	-16.45	34.07	8.07	33.98	113	14	Peak
5220	93.18	84.79			34.17	8.22	34	113	14	Average
5220	100.83	92.44			34.17	8.22	34	113	14	Peak
5378	47.39	38.71	54	-6.61	34.31	8.41	34.04	113	14	Average
5378	58.31	49.63	74	-15.69	34.31	8.41	34.04	113	14	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5072	44.79	36.67	54	-9.21	34.07	8.03	33.98	113	14	Average
5072	57.29	49.17	74	-16.71	34.07	8.03	33.98	113	14	Peak
5220	101.51	93.12			34.17	8.22	34	113	14	Average
5220	107.99	99.6			34.17	8.22	34	113	14	Peak
5366	43.68	35.04	54	-10.32	34.29	8.38	34.03	113	14	Average
5366	58.1	49.46	74	-15.9	34.29	8.38	34.03	113	14	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	43.12	34.86	54	-10.88	34.12	8.13	33.99	113	14	Average
5142	57.38	49.12	74	-16.62	34.12	8.13	33.99	113	14	Peak
5240	92.93	84.49			34.19	8.26	34.01	113	14	Average
5240	100.26	91.82			34.19	8.26	34.01	113	14	Peak
5454	43.81	34.99	54	-10.19	34.36	8.51	34.05	113	14	Average
5454	58.34	49.52	74	-15.66	34.36	8.51	34.05	113	14	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5098	43.76	35.6	54	-10.24	34.08	8.07	33.99	113	14	Average
5098	57.94	49.78	74	-16.06	34.08	8.07	33.99	113	14	Peak
5240	101.96	93.52			34.19	8.26	34.01	113	14	Average
5240	108.62	100.18			34.19	8.26	34.01	113	14	Peak
5446	43.91	35.08	54	-10.09	34.36	8.51	34.04	113	14	Average
5446	57.98	49.15	74	-16.02	34.36	8.51	34.04	113	14	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
5056	43.61	35.51	54	-10.39	34.05	8.03	33.98	100	54	Average
5056	57.47	49.37	74	-16.53	34.05	8.03	33.98	100	54	Peak
5260	102.04	93.58			34.21	8.26	34.01	100	54	Average
5260	109.4	100.94			34.21	8.26	34.01	100	54	Peak
5366	44.23	35.59	54	-9.77	34.29	8.38	34.03	100	54	Average
5366	57.61	48.97	74	-16.39	34.29	8.38	34.03	100	54	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5138	44.75	36.5	54	-9.25	34.11	8.13	33.99	100	212	Average
5138	57.33	49.08	74	-16.67	34.11	8.13	33.99	100	212	Peak
5260	99.04	90.58			34.21	8.26	34.01	100	212	Average
5260	106.6	98.14			34.21	8.26	34.01	100	212	Peak
5384	43.84	35.16	54	-10.16	34.31	8.41	34.04	100	212	Average
5384	58.25	49.57	74	-15.75	34.31	8.41	34.04	100	212	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
5126	44.1	35.88	54	-9.9	34.11	8.1	33.99	100	54	Average
5126	56.92	48.7	74	-17.08	34.11	8.1	33.99	100	54	Peak
5300	102.13	93.59			34.24	8.32	34.02	100	54	Average
5300	109.03	100.49			34.24	8.32	34.02	100	54	Peak
5350	49.79	41.16	54	-4.21	34.28	8.38	34.03	100	54	Average
5350	58.66	50.03	74	-15.34	34.28	8.38	34.03	100	54	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5076	43.63	35.51	54	-10.37	34.07	8.03	33.98	100	212	Average
5076	57.06	48.94	74	-16.94	34.07	8.03	33.98	100	212	Peak
5300	98.11	89.57			34.24	8.32	34.02	100	212	Average
5300	106.39	97.85			34.24	8.32	34.02	100	212	Peak
5448	44.99	36.16	54	-9.01	34.36	8.51	34.04	100	212	Average
5448	58.39	49.56	74	-15.61	34.36	8.51	34.04	100	212	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
5088	42.89	34.73	54	-11.11	34.07	8.07	33.98	100	55	Average
5088	58.35	50.19	74	-15.65	34.07	8.07	33.98	100	55	Peak
5320	101.07	92.49			34.25	8.35	34.02	100	55	Average
5320	108.73	100.15			34.25	8.35	34.02	100	55	Peak
5350	51.14	42.51	54	-2.86	34.28	8.38	34.03	100	55	Average
5350	63.06	54.43	74	-10.94	34.28	8.38	34.03	100	55	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5118	42.99	34.79	54	-11.01	34.09	8.1	33.99	184	357	Average
5118	57.85	49.65	74	-16.15	34.09	8.1	33.99	184	357	Peak
5320	97.48	88.9			34.25	8.35	34.02	184	357	Average
5320	106.83	98.25			34.25	8.35	34.02	184	357	Peak
5350	47.99	39.36	54	-6.01	34.28	8.38	34.03	184	357	Average
5350	60.98	52.35	74	-13.02	34.28	8.38	34.03	184	357	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
5454	46.59	37.77	54	-7.41	34.36	8.51	34.05	100	38	Average
5454	59.01	50.19	74	-14.99	34.36	8.51	34.05	100	38	Peak
*5470	62.91	54.08	68.3	-5.39	34.37	8.51	34.05	100	38	Peak
5500	98.36	89.44			34.4	8.57	34.05	100	38	Average
5500	106.32	97.4			34.4	8.57	34.05	100	38	Peak
*5725	56.73	47.57	68.3	-11.57	34.62	8.65	34.11	100	38	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5454	45.11	36.29	54	-8.89	34.36	8.51	34.05	100	279	Average
5454	58.41	49.59	74	-15.59	34.36	8.51	34.05	100	279	Peak
*5470	60.82	51.99	68.3	-7.48	34.37	8.51	34.05	100	279	Peak
5500	95.76	86.84			34.4	8.57	34.05	100	279	Average
5500	102.91	93.99			34.4	8.57	34.05	100	279	Peak
*5725	56.87	47.71	68.3	-11.43	34.62	8.65	34.11	100	279	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
5368	44.23	35.56	54	-9.77	34.29	8.41	34.03	125	36	Average
5368	57.69	49.02	74	-16.31	34.29	8.41	34.03	125	36	Peak
*5470	56.59	47.76	68.3	-11.71	34.37	8.51	34.05	125	36	Peak
5580	99.59	90.6			34.47	8.6	34.08	125	36	Average
5580	106.74	97.75			34.47	8.6	34.08	125	36	Peak
*5725	56.55	47.39	68.3	-11.75	34.62	8.65	34.11	125	36	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	44.39	35.57	54	-9.61	34.36	8.51	34.05	100	279	Average
5456	57.54	48.72	74	-16.46	34.36	8.51	34.05	100	279	Peak
*5470	55.57	46.74	68.3	-12.73	34.37	8.51	34.05	100	279	Peak
5580	96.59	87.6			34.47	8.6	34.08	100	279	Average
5580	103.36	94.37			34.47	8.6	34.08	100	279	Peak
*5725	55.84	46.68	68.3	-12.46	34.62	8.65	34.11	100	279	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
5454	43.45	34.63	54	-10.55	34.36	8.51	34.05	142	298	Average
5454	57.92	49.1	74	-16.08	34.36	8.51	34.05	142	298	Peak
*5470	57.09	48.26	68.3	-11.21	34.37	8.51	34.05	142	298	Peak
5700	100.27	91.14			34.59	8.64	34.1	142	298	Average
5700	107.73	98.6			34.59	8.64	34.1	142	298	Peak
*5725	67.82	58.66	68.3	-0.48	34.62	8.65	34.11	142	298	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	43.15	34.33	54	-10.85	34.36	8.51	34.05	100	213	Average
5456	59.52	50.7	74	-14.48	34.36	8.51	34.05	100	213	Peak
*5470	57.2	48.37	68.3	-11.1	34.37	8.51	34.05	100	213	Peak
5700	98.17	89.04			34.59	8.64	34.1	100	213	Average
5700	105.42	96.29			34.59	8.64	34.1	100	213	Peak
*5725	65.91	56.75	68.3	-2.39	34.62	8.65	34.11	100	213	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
*5712	65.29	56.14	68.3	-3.01	34.61	8.65	34.11	143	293	Peak
*5722	73.21	64.05	78.3	-5.09	34.62	8.65	34.11	143	293	Peak
5745	100.87	91.68			34.64	8.66	34.11	143	293	Average
5745	107.61	98.42			34.64	8.66	34.11	143	293	Peak
*5854	56.91	47.59	78.3	-21.39	34.76	8.7	34.14	143	293	Peak
*5864	57.39	48.06	68.3	-10.91	34.76	8.71	34.14	143	293	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
*5716	63.44	54.29	68.3	-4.86	34.61	8.65	34.11	108	202	Peak
*5725	73.45	64.29	78.3	-4.85	34.62	8.65	34.11	108	202	Peak
5745	97.99	88.8			34.64	8.66	34.11	108	202	Average
5745	104.69	95.5			34.64	8.66	34.11	108	202	Peak
*5860	58.11	48.79	78.3	-20.19	34.76	8.7	34.14	108	202	Peak
*5862	57.86	48.53	68.3	-10.44	34.76	8.71	34.14	108	202	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
*5510	58.29	49.38	68.3	-10.01	34.4	8.57	34.06	143	293	Peak
*5718	59.56	50.4	78.3	-18.74	34.62	8.65	34.11	143	293	Peak
5785	100.59	91.36			34.68	8.68	34.13	143	293	Average
5785	107.41	98.18			34.68	8.68	34.13	143	293	Peak
*5852	59.17	49.87	78.3	-19.13	34.74	8.7	34.14	143	293	Peak
*5864	58.02	48.69	68.3	-10.28	34.76	8.71	34.14	143	293	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
*5616	58.19	49.14	68.3	-10.11	34.52	8.61	34.08	108	202	Peak
*5718	58.11	48.95	78.3	-20.19	34.62	8.65	34.11	108	202	Peak
5785	97.92	88.69			34.68	8.68	34.13	108	202	Average
5785	104.27	95.04			34.68	8.68	34.13	108	202	Peak
*5858	57.97	48.65	78.3	-20.33	34.76	8.7	34.14	108	202	Peak
*5866	56.94	47.61	68.3	-11.36	34.76	8.71	34.14	108	202	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
*5568	58.23	49.24	68.3	-10.07	34.47	8.59	34.07	143	293	Peak
*5716	56.74	47.59	78.3	-21.56	34.61	8.65	34.11	143	293	Peak
5825	100.8	91.51			34.73	8.69	34.13	143	293	Average
5825	107.05	97.76			34.73	8.69	34.13	143	293	Peak
*5854	64	54.68	78.3	-14.3	34.76	8.7	34.14	143	293	Peak
*5868	60.57	51.24	68.3	-7.73	34.76	8.71	34.14	143	293	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	58.49	49.7	68.3	-9.81	34.35	8.48	34.04	108	202	Peak
*5724	56.38	47.22	78.3	-21.92	34.62	8.65	34.11	108	202	Peak
5825	98.65	89.36			34.73	8.69	34.13	108	202	Average
5825	104.11	94.82			34.73	8.69	34.13	108	202	Peak
*5854	60.08	50.76	78.3	-18.22	34.76	8.7	34.14	108	202	Peak
*5864	58.83	49.5	68.3	-9.47	34.76	8.71	34.14	108	202	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
5148	48.99	40.74	54	-5.01	34.12	8.13	34	101	283	Average
5148	59.8	51.55	74	-14.2	34.12	8.13	34	101	283	Peak
5190	88.68	80.34			34.15	8.19	34	101	283	Average
5190	95.98	87.64			34.15	8.19	34	101	283	Peak
5392	43.33	34.65	54	-10.67	34.31	8.41	34.04	101	283	Average
5392	58.28	49.6	74	-15.72	34.31	8.41	34.04	101	283	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	53.54	45.29	54	-0.46	34.12	8.13	34	100	14	Average
5150	64.63	56.38	74	-9.37	34.12	8.13	34	100	14	Peak
5190	94.75	86.41			34.15	8.19	34	100	14	Average
5190	102.41	94.07			34.15	8.19	34	100	14	Peak
5442	43.6	34.81	54	-10.4	34.35	8.48	34.04	100	14	Average
5442	58.03	49.24	74	-15.97	34.35	8.48	34.04	100	14	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
5148	43.74	35.49	54	-10.26	34.12	8.13	34	103	37	Average
5148	57.81	49.56	74	-16.19	34.12	8.13	34	103	37	Peak
5230	90.45	82.05			34.19	8.22	34.01	103	37	Average
5230	98.45	90.05			34.19	8.22	34.01	103	37	Peak
5398	44.58	35.86	54	-9.42	34.32	8.44	34.04	103	37	Average
5398	58.3	49.58	74	-15.7	34.32	8.44	34.04	103	37	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
5042	45.84	37.78	54	-8.16	34.04	8	33.98	113	14	Average
5042	58.63	50.57	74	-15.37	34.04	8	33.98	113	14	Peak
5230	95.41	87.01			34.19	8.22	34.01	113	14	Average
5230	103.79	95.39			34.19	8.22	34.01	113	14	Peak
5450	43.92	35.1	54	-10.08	34.36	8.51	34.05	113	14	Average
5450	58.18	49.36	74	-15.82	34.36	8.51	34.05	113	14	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
5082	45.66	37.5	54	-8.34	34.07	8.07	33.98	100	54	Average
5082	57.22	49.06	74	-16.78	34.07	8.07	33.98	100	54	Peak
5270	96.73	88.24			34.21	8.29	34.01	100	54	Average
5270	104.17	95.68			34.21	8.29	34.01	100	54	Peak
5414	45.35	36.62	54	-8.65	34.33	8.44	34.04	100	54	Average
5414	58.24	49.51	74	-15.76	34.33	8.44	34.04	100	54	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
5054	43.9	35.84	54	-10.1	34.04	8	33.98	100	210	Average
5054	58.14	50.08	74	-15.86	34.04	8	33.98	100	210	Peak
5270	92.07	83.58			34.21	8.29	34.01	100	210	Average
5270	99.54	91.05			34.21	8.29	34.01	100	210	Peak
5412	44.9	36.17	54	-9.1	34.33	8.44	34.04	100	210	Average
5412	57.55	48.82	74	-16.45	34.33	8.44	34.04	100	210	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
5140	43.51	35.25	54	-10.49	34.12	8.13	33.99	100	55	Average
5140	57.5	49.24	74	-16.5	34.12	8.13	33.99	100	55	Peak
5310	96.4	87.85			34.25	8.32	34.02	100	55	Average
5310	102.31	93.76			34.25	8.32	34.02	100	55	Peak
5352	53.14	44.51	54	-0.86	34.28	8.38	34.03	100	55	Average
5352	63.95	55.32	74	-10.05	34.28	8.38	34.03	100	55	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5104	43.26	35.1	54	-10.74	34.08	8.07	33.99	184	356	Average
5104	58.41	50.25	74	-15.59	34.08	8.07	33.99	184	356	Peak
5310	90.45	81.9			34.25	8.32	34.02	184	356	Average
5310	97.74	89.19			34.25	8.32	34.02	184	356	Peak
5354	49.82	41.19	54	-4.18	34.28	8.38	34.03	184	356	Average
5354	61.74	53.11	74	-12.26	34.28	8.38	34.03	184	356	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
5458	49.94	41.12	54	-4.06	34.36	8.51	34.05	100	38	Average
5458	61.61	52.79	74	-12.39	34.36	8.51	34.05	100	38	Peak
*5470	67.36	58.53	68.3	-0.94	34.37	8.51	34.05	100	38	Peak
5510	93.91	85			34.4	8.57	34.06	100	38	Average
5510	101.66	92.75			34.4	8.57	34.06	100	38	Peak
*5725	56.59	47.43	68.3	-11.71	34.62	8.65	34.11	100	38	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5456	47.12	38.3	54	-6.88	34.36	8.51	34.05	165	232	Average
5456	59.11	50.29	74	-14.89	34.36	8.51	34.05	165	232	Peak
*5470	64.17	55.34	68.3	-4.13	34.37	8.51	34.05	165	232	Peak
5510	91.45	82.54			34.4	8.57	34.06	165	232	Average
5510	99.66	90.75			34.4	8.57	34.06	165	232	Peak
*5725	56.54	47.38	68.3	-11.76	34.62	8.65	34.11	165	232	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
5418	45.3	36.57	54	-8.7	34.33	8.44	34.04	144	297	Average
5418	57.88	49.15	74	-16.12	34.33	8.44	34.04	144	297	Peak
*5470	56.15	47.32	68.3	-12.15	34.37	8.51	34.05	144	297	Peak
5550	94.93	85.96			34.45	8.59	34.07	144	297	Average
5550	102.88	93.91			34.45	8.59	34.07	144	297	Peak
*5725	56.12	46.96	68.3	-12.18	34.62	8.65	34.11	144	297	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
5422	44.33	35.56	54	-9.67	34.33	8.48	34.04	122	213	Average
5422	57.64	48.87	74	-16.36	34.33	8.48	34.04	122	213	Peak
*5470	57.99	49.16	68.3	-10.31	34.37	8.51	34.05	122	213	Peak
5550	94.57	85.6			34.45	8.59	34.07	122	213	Average
5550	101.15	92.18			34.45	8.59	34.07	122	213	Peak
*5725	55.68	46.52	68.3	-12.62	34.62	8.65	34.11	122	213	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
5460	43.74	34.92	54	-10.26	34.36	8.51	34.05	142	298	Average
5460	57.34	48.52	74	-16.66	34.36	8.51	34.05	142	298	Peak
*5470	57.13	48.3	68.3	-11.17	34.37	8.51	34.05	142	298	Peak
5670	96.06	86.96			34.57	8.63	34.1	142	298	Average
5670	103.72	94.62			34.57	8.63	34.1	142	298	Peak
*5725	62.33	53.17	68.3	-5.97	34.62	8.65	34.11	142	298	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5386	43.69	35.01	54	-10.31	34.31	8.41	34.04	100	212	Average
5386	58.56	49.88	74	-15.44	34.31	8.41	34.04	100	212	Peak
*5470	56.06	47.23	68.3	-12.24	34.37	8.51	34.05	100	212	Peak
5670	94.04	84.94			34.57	8.63	34.1	100	212	Average
5670	101.37	92.27			34.57	8.63	34.1	100	212	Peak
*5725	61.37	52.21	68.3	-6.93	34.62	8.65	34.11	100	212	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
*5714	63.94	54.79	68.3	-4.36	34.61	8.65	34.11	144	293	Peak
*5725	65.14	55.98	78.3	-13.16	34.62	8.65	34.11	144	293	Peak
5755	93.55	84.34			34.66	8.66	34.11	144	293	Average
5755	101.51	92.3			34.66	8.66	34.11	144	293	Peak
*5852	57.71	48.41	78.3	-20.59	34.74	8.7	34.14	144	293	Peak
*5868	57.88	48.55	68.3	-10.42	34.76	8.71	34.14	144	293	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
*5710	63.44	54.29	68.3	-4.86	34.61	8.65	34.11	108	202	Peak
*5722	64.18	55.02	78.3	-14.12	34.62	8.65	34.11	108	202	Peak
5755	91.89	82.68			34.66	8.66	34.11	108	202	Average
5755	99.29	90.08			34.66	8.66	34.11	108	202	Peak
*5852	57.75	48.45	78.3	-20.55	34.74	8.7	34.14	108	202	Peak
*5862	57.58	48.25	68.3	-10.72	34.76	8.71	34.14	108	202	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
*5712	58.54	49.39	68.3	-9.76	34.61	8.65	34.11	143	293	Peak
*5718	59.43	50.27	78.3	-18.87	34.62	8.65	34.11	143	293	Peak
5795	93.94	84.7			34.69	8.68	34.13	143	293	Average
5795	101.26	92.02			34.69	8.68	34.13	143	293	Peak
*5852	58.79	49.49	78.3	-19.51	34.74	8.7	34.14	143	293	Peak
*5870	58.48	49.15	68.3	-9.82	34.76	8.71	34.14	143	293	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
*5698	57.95	48.82	68.3	-10.35	34.59	8.64	34.1	108	202	Peak
*5722	57.72	48.56	78.3	-20.58	34.62	8.65	34.11	108	202	Peak
5795	91.94	82.7			34.69	8.68	34.13	108	202	Average
5795	97	87.76			34.69	8.68	34.13	108	202	Peak
*5852	57.24	47.94	78.3	-21.06	34.74	8.7	34.14	108	202	Peak
*5866	56.84	47.51	68.3	-11.46	34.76	8.71	34.14	108	202	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
5140	49.93	41.67	54	-4.07	34.12	8.13	33.99	103	30	Average
5140	59.67	51.41	74	-14.33	34.12	8.13	33.99	103	30	Peak
5210	88.61	80.25			34.17	8.19	34	103	30	Average
5210	96.19	87.83			34.17	8.19	34	103	30	Peak
5454	44.02	35.2	54	-9.98	34.36	8.51	34.05	103	30	Average
5454	58.18	49.36	74	-15.82	34.36	8.51	34.05	103	30	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5148	53.5	45.25	54	-0.5	34.12	8.13	34	154	354	Average
5148	63.99	55.74	74	-10.01	34.12	8.13	34	154	354	Peak
5210	93.13	84.77			34.17	8.19	34	154	354	Average
5210	100.54	92.18			34.17	8.19	34	154	354	Peak
5358	44.32	35.69	54	-9.68	34.28	8.38	34.03	154	354	Average
5358	57.87	49.24	74	-16.13	34.28	8.38	34.03	154	354	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
5058	45.8	37.7	54	-8.2	34.05	8.03	33.98	100	54	Average
5058	57.69	49.59	74	-16.31	34.05	8.03	33.98	100	54	Peak
5290	93.09	84.56			34.23	8.32	34.02	100	54	Average
5290	100.86	92.33			34.23	8.32	34.02	100	54	Peak
5353	53.31	44.68	54	-0.69	34.28	8.38	34.03	100	54	Average
5353	63.45	54.82	74	-10.55	34.28	8.38	34.03	100	54	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
5026	43.55	35.52	54	-10.45	34.03	7.97	33.97	137	6	Average
5026	57.76	49.73	74	-16.24	34.03	7.97	33.97	137	6	Peak
5290	89.69	81.16			34.23	8.32	34.02	137	6	Average
5290	98.25	89.72			34.23	8.32	34.02	137	6	Peak
5350	50.1	41.47	54	-3.9	34.28	8.38	34.03	137	6	Average
5350	60.73	52.1	74	-13.27	34.28	8.38	34.03	137	6	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
5456	52.29	43.47	54	-1.71	34.36	8.51	34.05	100	37	Average
5456	62.7	53.88	74	-11.3	34.36	8.51	34.05	100	37	Peak
*5470	64.33	55.5	68.3	-3.97	34.37	8.51	34.05	100	37	Peak
5530	90.92	81.99			34.42	8.58	34.07	100	37	Average
5530	98.2	89.27			34.42	8.58	34.07	100	37	Peak
*5725	55.67	46.51	68.3	-12.63	34.62	8.65	34.11	100	37	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
5446	48.65	39.82	54	-5.35	34.36	8.51	34.04	152	251	Average
5446	59.7	50.87	74	-14.3	34.36	8.51	34.04	152	251	Peak
*5470	61.95	53.12	68.3	-6.35	34.37	8.51	34.05	152	251	Peak
5530	88.19	79.26			34.42	8.58	34.07	152	251	Average
5530	96.45	87.52			34.42	8.58	34.07	152	251	Peak
*5725	56.46	47.3	68.3	-11.84	34.62	8.65	34.11	152	251	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
*5715	65.25	56.1	68.3	-3.05	34.61	8.65	34.11	143	293	Peak
*5722	65.38	56.22	78.3	-12.92	34.62	8.65	34.11	143	293	Peak
5775	91.91	82.68			34.68	8.67	34.12	143	293	Average
5775	99.65	90.42			34.68	8.67	34.12	143	293	Peak
*5858	62.37	53.05	78.3	-15.93	34.76	8.7	34.14	143	293	Peak
*5870	61.45	52.12	68.3	-6.85	34.76	8.71	34.14	143	293	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
*5714	63.96	54.81	68.3	-4.34	34.61	8.65	34.11	108	202	Peak
*5724	64.02	54.86	78.3	-14.28	34.62	8.65	34.11	108	202	Peak
5775	89.87	80.64			34.68	8.67	34.12	108	202	Average
5775	97.94	88.71			34.68	8.67	34.12	108	202	Peak
*5860	64.53	55.21	78.3	-13.77	34.76	8.7	34.14	108	202	Peak
*5862	61.97	52.64	68.3	-6.33	34.76	8.71	34.14	108	202	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

MODE C

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
5146	50.56	42.31	54	-3.44	34.12	8.13	34	106	15	Average
5146	62.94	54.69	74	-11.06	34.12	8.13	34	106	15	Peak
5180	97.57	89.26			34.15	8.16	34	106	15	Average
5180	104.74	96.43			34.15	8.16	34	106	15	Peak
5448	43.32	34.49	54	-10.68	34.36	8.51	34.04	106	15	Average
5448	57.73	48.9	74	-16.27	34.36	8.51	34.04	106	15	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	49.21	40.96	54	-4.79	34.12	8.13	34	100	13	Average
5150	61.53	53.28	74	-12.47	34.12	8.13	34	100	13	Peak
5180	98.43	90.12			34.15	8.16	34	113	13	Average
5180	105.57	97.26			34.15	8.16	34	113	13	Peak
5426	43.3	34.53	54	-10.7	34.33	8.48	34.04	113	13	Average
5426	57.57	48.8	74	-16.43	34.33	8.48	34.04	113	13	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
5072	45.61	37.49	54	-8.39	34.07	8.03	33.98	106	15	Average
5072	56.35	48.23	74	-17.65	34.07	8.03	33.98	106	15	Peak
5220	96.95	88.56			34.17	8.22	34	106	15	Average
5220	104.49	96.1			34.17	8.22	34	106	15	Peak
5440	44.92	36.13	54	-9.08	34.35	8.48	34.04	106	15	Average
5440	57.84	49.05	74	-16.16	34.35	8.48	34.04	106	15	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
5062	45.66	37.56	54	-8.34	34.05	8.03	33.98	127	350	Average
5062	56.17	48.07	74	-17.83	34.05	8.03	33.98	127	350	Peak
5220	96.96	88.57			34.17	8.22	34	127	350	Average
5220	104.7	96.31			34.17	8.22	34	127	350	Peak
5456	45.39	36.57	54	-8.61	34.36	8.51	34.05	127	350	Average
5456	57.3	48.48	74	-16.7	34.36	8.51	34.05	127	350	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
5074	44.63	36.51	54	-9.37	34.07	8.03	33.98	106	15	Average
5074	56.91	48.79	74	-17.09	34.07	8.03	33.98	106	15	Peak
5240	97.1	88.66			34.19	8.26	34.01	106	15	Average
5240	104.03	95.59			34.19	8.26	34.01	106	15	Peak
5376	44.27	35.61	54	-9.73	34.29	8.41	34.04	106	15	Average
5376	57.93	49.27	74	-16.07	34.29	8.41	34.04	106	15	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
5040	43.57	35.5	54	-10.43	34.04	8	33.97	136	35	Average
5040	56.68	48.61	74	-17.32	34.04	8	33.97	136	35	Peak
5240	98.01	89.57			34.19	8.26	34.01	136	35	Average
5240	105.75	97.31			34.19	8.26	34.01	136	35	Peak
5416	43.78	35.05	54	-10.22	34.33	8.44	34.04	136	35	Average
5416	57.87	49.14	74	-16.13	34.33	8.44	34.04	136	35	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
5122	43.72	35.52	54	-10.28	34.09	8.1	33.99	117	22	Average
5122	56.26	48.06	74	-17.74	34.09	8.1	33.99	117	22	Peak
5260	97.04	88.58			34.21	8.26	34.01	117	22	Average
5260	104.2	95.74			34.21	8.26	34.01	117	22	Peak
5432	44.35	35.56	54	-9.65	34.35	8.48	34.04	117	22	Average
5432	57.2	48.41	74	-16.8	34.35	8.48	34.04	117	22	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5076	44.35	36.23	54	-9.65	34.07	8.03	33.98	138	28	Average
5076	56.65	48.53	74	-17.35	34.07	8.03	33.98	138	28	Peak
5260	99.33	90.87			34.21	8.26	34.01	138	28	Average
5260	106.16	97.7			34.21	8.26	34.01	138	28	Peak
5374	44.23	35.57	54	-9.77	34.29	8.41	34.04	138	28	Average
5374	58.16	49.5	74	-15.84	34.29	8.41	34.04	138	28	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
5094	44.36	36.2	54	-9.64	34.08	8.07	33.99	117	22	Average
5094	56.32	48.16	74	-17.68	34.08	8.07	33.99	117	22	Peak
5300	97.08	88.54			34.24	8.32	34.02	117	22	Average
5300	104.47	95.93			34.24	8.32	34.02	117	22	Peak
5440	44.35	35.56	54	-9.65	34.35	8.48	34.04	117	22	Average
5440	57.8	49.01	74	-16.2	34.35	8.48	34.04	117	22	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	43.77	35.51	54	-10.23	34.12	8.13	33.99	138	28	Average
5142	57.58	49.32	74	-16.42	34.12	8.13	33.99	138	28	Peak
5300	99.42	90.88			34.24	8.32	34.02	138	28	Average
5300	106.99	98.45			34.24	8.32	34.02	138	28	Peak
5452	44.99	36.17	54	-9.01	34.36	8.51	34.05	138	28	Average
5452	58.61	49.79	74	-15.39	34.36	8.51	34.05	138	28	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
5070	42.77	34.67	54	-11.23	34.05	8.03	33.98	137	35	Average
5070	57.57	49.47	74	-16.43	34.05	8.03	33.98	137	35	Peak
5320	99.88	91.3			34.25	8.35	34.02	137	35	Average
5320	106.85	98.27			34.25	8.35	34.02	137	35	Peak
5350	48.41	39.78	54	-5.59	34.28	8.38	34.03	137	35	Average
5350	60.32	51.69	74	-13.68	34.28	8.38	34.03	137	35	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
5108	42.85	34.65	54	-11.15	34.09	8.1	33.99	102	12	Average
5108	57.36	49.16	74	-16.64	34.09	8.1	33.99	102	12	Peak
5320	97.33	88.75			34.25	8.35	34.02	102	12	Average
5320	104.51	95.93			34.25	8.35	34.02	102	12	Peak
5350	50.15	41.52	54	-3.85	34.28	8.38	34.03	102	12	Average
5350	61.66	53.03	74	-12.34	34.28	8.38	34.03	102	12	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
5454	45.39	36.57	54	-8.61	34.36	8.51	34.05	100	28	Average
5454	58.42	49.6	74	-15.58	34.36	8.51	34.05	100	28	Peak
*5470	58.18	49.35	68.3	-10.12	34.37	8.51	34.05	100	28	Peak
5500	97.75	88.83			34.4	8.57	34.05	100	28	Average
5500	105.42	96.5			34.4	8.57	34.05	100	28	Peak
*5725	55.97	46.81	68.3	-12.33	34.62	8.65	34.11	100	28	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
5454	45.39	36.57	54	-8.61	34.36	8.51	34.05	188	90	Average
5454	58.05	49.23	74	-15.95	34.36	8.51	34.05	188	90	Peak
*5470	57.68	48.85	68.3	-10.62	34.37	8.51	34.05	188	90	Peak
5500	96.62	87.7			34.4	8.57	34.05	188	90	Average
5500	103.25	94.33			34.4	8.57	34.05	188	90	Peak
*5725	55.59	46.43	68.3	-12.71	34.62	8.65	34.11	188	90	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
5438	44.35	35.56	54	-9.65	34.35	8.48	34.04	160	9	Average
5438	57.58	48.79	74	-16.42	34.35	8.48	34.04	160	9	Peak
*5470	57.34	48.51	68.3	-10.96	34.37	8.51	34.05	160	9	Peak
5580	97.63	88.64			34.47	8.6	34.08	160	9	Average
5580	105.66	96.67			34.47	8.6	34.08	160	9	Peak
*5725	56.49	47.33	68.3	-11.81	34.62	8.65	34.11	160	9	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
5434	44.95	36.16	54	-9.05	34.35	8.48	34.04	152	187	Average
5434	56.88	48.09	74	-17.12	34.35	8.48	34.04	152	187	Peak
*5470	55.3	46.47	68.3	-13	34.37	8.51	34.05	152	187	Peak
5580	97.64	88.65			34.47	8.6	34.08	152	187	Average
5580	104.26	95.27			34.47	8.6	34.08	152	187	Peak
*5725	54.46	45.3	68.3	-13.84	34.62	8.65	34.11	152	187	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
5352	45.19	36.56	54	-8.81	34.28	8.38	34.03	122	70	Average
5352	58.36	49.73	74	-15.64	34.28	8.38	34.03	122	70	Peak
*5470	56.5	47.67	68.3	-11.8	34.37	8.51	34.05	122	70	Peak
5700	97.8	88.67			34.59	8.64	34.1	122	70	Average
5700	105.08	95.95			34.59	8.64	34.1	122	70	Peak
*5725	58.06	48.9	68.3	-10.24	34.62	8.65	34.11	122	70	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5452	46.39	37.57	54	-7.61	34.36	8.51	34.05	178	100	Average
5452	57.68	48.86	74	-16.32	34.36	8.51	34.05	178	100	Peak
*5470	57.57	48.74	68.3	-10.73	34.37	8.51	34.05	178	100	Peak
5700	95.8	86.67			34.59	8.64	34.1	178	100	Average
5700	103.78	94.65			34.59	8.64	34.1	178	100	Peak
*5725	57.17	48.01	68.3	-11.13	34.62	8.65	34.11	178	100	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
*5716	57.48	48.33	68.3	-10.82	34.61	8.65	34.11	143	297	Peak
*5724	64.08	54.92	78.3	-14.22	34.62	8.65	34.11	143	297	Peak
5745	97.87	88.68			34.64	8.66	34.11	143	297	Average
5745	104.56	95.37			34.64	8.66	34.11	143	297	Peak
*5854	53.78	44.46	78.3	-24.52	34.76	8.7	34.14	143	297	Peak
*5866	54.23	44.9	68.3	-14.07	34.76	8.71	34.14	143	297	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
*5716	59.37	50.22	68.3	-8.93	34.61	8.65	34.11	100	207	Peak
*5725	65.02	55.86	78.3	-13.28	34.62	8.65	34.11	101	209	Peak
5745	99.87	90.68			34.64	8.66	34.11	100	207	Average
5745	107.09	97.9			34.64	8.66	34.11	100	207	Peak
*5860	57.84	48.52	78.3	-20.46	34.76	8.7	34.14	100	207	Peak
*5864	57.23	47.9	68.3	-11.07	34.76	8.71	34.14	100	207	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
*5672	59.18	50.08	68.3	-9.12	34.57	8.63	34.1	143	297	Peak
*5718	57.29	48.13	78.3	-21.01	34.62	8.65	34.11	143	297	Peak
5785	97.92	88.69			34.68	8.68	34.13	143	297	Average
5785	104.54	95.31			34.68	8.68	34.13	143	297	Peak
*5856	58.15	48.83	78.3	-20.15	34.76	8.7	34.14	143	297	Peak
*5868	58.77	49.44	68.3	-9.53	34.76	8.71	34.14	143	297	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
*5584	58.34	49.33	68.3	-9.96	34.49	8.6	34.08	100	206	Peak
*5720	57.57	48.41	78.3	-20.73	34.62	8.65	34.11	100	206	Peak
5785	98.92	89.69			34.68	8.68	34.13	100	206	Average
5785	106.21	96.98			34.68	8.68	34.13	100	206	Peak
*5852	57.46	48.16	78.3	-20.84	34.74	8.7	34.14	100	206	Peak
*5858	57.06	47.74	68.3	-11.24	34.76	8.7	34.14	100	206	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
*5698	58.29	49.16	68.3	-10.01	34.59	8.64	34.1	143	296	Peak
*5722	56.84	47.68	78.3	-21.46	34.62	8.65	34.11	143	296	Peak
5825	97.65	88.36			34.73	8.69	34.13	143	296	Average
5825	104.62	95.33			34.73	8.69	34.13	143	296	Peak
*5854	58.48	49.16	78.3	-19.82	34.76	8.7	34.14	143	296	Peak
*5870	57.12	47.79	68.3	-11.18	34.76	8.71	34.14	143	296	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
*5434	58.87	50.08	68.3	-9.43	34.35	8.48	34.04	100	209	Peak
*5722	57.39	48.23	78.3	-20.91	34.62	8.65	34.11	100	209	Peak
5825	98.65	89.36			34.73	8.69	34.13	100	209	Average
5825	105.95	96.66			34.73	8.69	34.13	100	209	Peak
*5852	58.55	49.25	78.3	-19.75	34.74	8.7	34.14	100	209	Peak
*5870	59.15	49.82	68.3	-9.15	34.76	8.71	34.14	100	209	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
5146	48.94	40.69	54	-5.06	34.12	8.13	34	107	16	Average
5146	59.71	51.46	74	-14.29	34.12	8.13	34	107	16	Peak
5190	91.5	83.16			34.15	8.19	34	107	16	Average
5190	98.73	90.39			34.15	8.19	34	107	16	Peak
5352	43.39	34.76	54	-10.61	34.28	8.38	34.03	107	16	Average
5352	57.91	49.28	74	-16.09	34.28	8.38	34.03	107	16	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	51.2	42.95	54	-2.8	34.12	8.13	34	113	13	Average
5150	61.8	53.55	74	-12.2	34.12	8.13	34	113	13	Peak
5190	92.6	84.26			34.15	8.19	34	113	13	Average
5190	99.83	91.49			34.15	8.19	34	113	13	Peak
5384	43.61	34.93	54	-10.39	34.31	8.41	34.04	113	13	Average
5384	57.68	49	74	-16.32	34.31	8.41	34.04	113	13	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
5088	42.7	34.54	54	-11.3	34.07	8.07	33.98	106	15	Average
5088	56.91	48.75	74	-17.09	34.07	8.07	33.98	106	15	Peak
5230	91.07	82.67			34.19	8.22	34.01	106	15	Average
5230	98.4	90			34.19	8.22	34.01	106	15	Peak
5458	44.07	35.25	54	-9.93	34.36	8.51	34.05	106	15	Average
5458	57.62	48.8	74	-16.38	34.36	8.51	34.05	106	15	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
5120	43.43	35.23	54	-10.57	34.09	8.1	33.99	136	0	Average
5120	56.89	48.69	74	-17.11	34.09	8.1	33.99	136	0	Peak
5230	91.98	83.58			34.19	8.22	34.01	136	0	Average
5230	99.11	90.71			34.19	8.22	34.01	136	0	Peak
5438	44.35	35.56	54	-9.65	34.35	8.48	34.04	136	0	Average
5438	57.4	48.61	74	-16.6	34.35	8.48	34.04	136	0	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
5076	44.23	36.11	54	-9.77	34.07	8.03	33.98	102	12	Average
5076	56.41	48.29	74	-17.59	34.07	8.03	33.98	102	12	Peak
5270	91.07	82.58			34.21	8.29	34.01	102	12	Average
5270	99.37	90.88			34.21	8.29	34.01	102	12	Peak
5456	44.39	35.57	54	-9.61	34.36	8.51	34.05	102	12	Average
5456	57.47	48.65	74	-16.53	34.36	8.51	34.05	102	12	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5118	43.72	35.52	54	-10.28	34.09	8.1	33.99	138	28	Average
5118	57.96	49.76	74	-16.04	34.09	8.1	33.99	138	28	Peak
5270	94.03	85.54			34.21	8.29	34.01	138	28	Average
5270	101.6	93.11			34.21	8.29	34.01	138	28	Peak
5358	44.9	36.27	54	-9.1	34.28	8.38	34.03	138	28	Average
5358	58.42	49.79	74	-15.58	34.28	8.38	34.03	138	28	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
5104	46.71	38.55	54	-7.29	34.08	8.07	33.99	102	12	Average
5104	57.69	49.53	74	-16.31	34.08	8.07	33.99	102	12	Peak
5310	92.32	83.77			34.25	8.32	34.02	102	12	Average
5310	99.05	90.5			34.25	8.32	34.02	102	12	Peak
5352	51.45	42.82	54	-2.55	34.28	8.38	34.03	102	12	Average
5352	60.96	52.33	74	-13.04	34.28	8.38	34.03	102	12	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5086	47.66	39.5	54	-6.34	34.07	8.07	33.98	137	35	Average
5086	57.66	49.5	74	-16.34	34.07	8.07	33.98	137	35	Peak
5310	94.43	85.88			34.25	8.32	34.02	137	35	Average
5310	101.15	92.6			34.25	8.32	34.02	137	35	Peak
5350	52.72	44.09	54	-1.28	34.28	8.38	34.03	137	35	Average
5350	63.26	54.63	74	-10.74	34.28	8.38	34.03	137	35	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
5456	49.39	40.57	54	-4.61	34.36	8.51	34.05	109	13	Average
5456	58.05	49.23	74	-15.95	34.36	8.51	34.05	109	13	Peak
*5470	59.93	51.1	68.3	-8.37	34.37	8.51	34.05	109	13	Peak
5510	92.83	83.92			34.4	8.57	34.06	109	13	Average
5510	101.15	92.24			34.4	8.57	34.06	109	13	Peak
*5725	57.14	47.98	68.3	-11.16	34.62	8.65	34.11	109	13	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5444	46.39	37.6	54	-7.61	34.35	8.48	34.04	110	91	Average
5444	57.59	48.8	74	-16.41	34.35	8.48	34.04	110	91	Peak
*5470	58.79	49.96	68.3	-9.51	34.37	8.51	34.05	110	91	Peak
5510	90.89	81.98			34.4	8.57	34.06	110	91	Average
5510	97.54	88.63			34.4	8.57	34.06	110	91	Peak
*5725	56.75	47.59	68.3	-11.55	34.62	8.65	34.11	110	91	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
5356	45.17	36.54	54	-8.83	34.28	8.38	34.03	110	13	Average
5356	57	48.37	74	-17	34.28	8.38	34.03	110	13	Peak
*5470	56.05	47.22	68.3	-12.25	34.37	8.51	34.05	110	13	Peak
5550	92.61	83.64			34.45	8.59	34.07	110	13	Average
5550	100.32	91.35			34.45	8.59	34.07	110	13	Peak
*5725	56.25	47.09	68.3	-12.05	34.62	8.65	34.11	110	13	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5436	45.35	36.56	54	-8.65	34.35	8.48	34.04	110	91	Average
5436	57.64	48.85	74	-16.36	34.35	8.48	34.04	110	91	Peak
*5470	55.63	46.8	68.3	-12.67	34.37	8.51	34.05	110	91	Peak
5550	90.9	81.93			34.45	8.59	34.07	110	91	Average
5550	97.59	88.62			34.45	8.59	34.07	110	91	Peak
*5725	56.49	47.33	68.3	-11.81	34.62	8.65	34.11	110	91	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
5398	45.29	36.57	54	-8.71	34.32	8.44	34.04	110	68	Average
5398	57.32	48.6	74	-16.68	34.32	8.44	34.04	110	68	Peak
*5470	55.4	46.57	68.3	-12.9	34.37	8.51	34.05	110	68	Peak
5670	93.77	84.67			34.57	8.63	34.1	110	68	Average
5670	100.72	91.62			34.57	8.63	34.1	110	68	Peak
*5725	56.77	47.61	68.3	-11.53	34.62	8.65	34.11	110	68	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
5352	45.18	36.55	54	-8.82	34.28	8.38	34.03	113	24	Average
5352	58.87	50.24	74	-15.13	34.28	8.38	34.03	113	24	Peak
*5470	56.25	47.42	68.3	-12.05	34.37	8.51	34.05	113	24	Peak
5670	90.06	80.96			34.57	8.63	34.1	113	24	Average
5670	97.46	88.36			34.57	8.63	34.1	113	24	Peak
*5725	57.06	47.9	68.3	-11.24	34.62	8.65	34.11	113	24	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
*5715	61.81	52.66	68.3	-6.49	34.61	8.65	34.11	143	296	Peak
*5724	63.26	54.1	78.3	-15.04	34.62	8.65	34.11	143	296	Peak
5755	90.89	81.68			34.66	8.66	34.11	143	296	Average
5755	98.36	89.15			34.66	8.66	34.11	143	296	Peak
*5854	57.31	47.99	78.3	-20.99	34.76	8.7	34.14	143	296	Peak
*5864	57.16	47.83	68.3	-11.14	34.76	8.71	34.14	143	296	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
*5715	61.51	52.36	68.3	-6.79	34.61	8.65	34.11	102	211	Peak
*5724	62.91	53.75	78.3	-15.39	34.62	8.65	34.11	100	206	Peak
5755	91.89	82.68			34.66	8.66	34.11	100	206	Average
5755	100.75	91.54			34.66	8.66	34.11	100	206	Peak
*5854	57.45	48.13	78.3	-20.85	34.76	8.7	34.14	100	206	Peak
*5868	57.73	48.4	68.3	-10.57	34.76	8.71	34.14	100	206	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
*5692	57.67	48.54	68.3	-10.63	34.59	8.64	34.1	143	296	Peak
*5720	57.25	48.09	78.3	-21.05	34.62	8.65	34.11	143	296	Peak
5795	90.94	81.7			34.69	8.68	34.13	143	296	Average
5795	98.06	88.82			34.69	8.68	34.13	143	296	Peak
*5852	57.65	48.35	78.3	-20.65	34.74	8.7	34.14	143	296	Peak
*5864	58.03	48.7	68.3	-10.27	34.76	8.71	34.14	143	296	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
*5606	57.91	48.88	68.3	-10.39	34.5	8.61	34.08	100	205	Peak
*5724	55.95	46.79	78.3	-22.35	34.62	8.65	34.11	100	205	Peak
5795	92.94	83.7			34.69	8.68	34.13	100	205	Average
5795	99.69	90.45			34.69	8.68	34.13	100	205	Peak
*5858	57.01	47.69	78.3	-21.29	34.76	8.7	34.14	100	205	Peak
*5862	58.27	48.94	68.3	-10.03	34.76	8.71	34.14	100	205	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
5114	50.01	41.81	54	-3.99	34.09	8.1	33.99	107	16	Average
5114	60.64	52.44	74	-13.36	34.09	8.1	33.99	107	16	Peak
5210	89.18	80.82			34.17	8.19	34	107	16	Average
5210	96.68	88.32			34.17	8.19	34	107	16	Peak
5428	43.72	34.95	54	-10.28	34.33	8.48	34.04	107	16	Average
5428	57.9	49.13	74	-16.1	34.33	8.48	34.04	107	16	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	52.74	44.49	54	-1.26	34.12	8.13	34	113	13	Average
5150	62.91	54.66	74	-11.09	34.12	8.13	34	113	13	Peak
5210	89.74	81.38			34.17	8.19	34	113	13	Average
5210	97.18	88.82			34.17	8.19	34	113	13	Peak
5450	44.03	35.21	54	-9.97	34.36	8.51	34.05	113	13	Average
5450	58.13	49.31	74	-15.87	34.36	8.51	34.05	113	13	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
5092	46.66	38.49	54	-7.34	34.08	8.07	33.98	113	9	Average
5092	57.58	49.41	74	-16.42	34.08	8.07	33.98	113	9	Peak
5290	89.9	81.37			34.23	8.32	34.02	113	9	Average
5290	96.9	88.37			34.23	8.32	34.02	113	9	Peak
5358	52.19	43.56	54	-1.81	34.28	8.38	34.03	113	9	Average
5358	60.04	51.41	74	-13.96	34.28	8.38	34.03	113	9	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5084	44.66	36.5	54	-9.34	34.07	8.07	33.98	137	355	Average
5084	57.46	49.3	74	-16.54	34.07	8.07	33.98	137	355	Peak
5290	90.52	81.99			34.23	8.32	34.02	137	355	Average
5290	98.11	89.58			34.23	8.32	34.02	137	355	Peak
5364	50.23	41.59	54	-3.77	34.29	8.38	34.03	137	355	Average
5364	60.93	52.29	74	-13.07	34.29	8.38	34.03	137	355	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
5450	49.15	40.33	54	-4.85	34.36	8.51	34.05	108	13	Average
5450	60.87	52.05	74	-13.13	34.36	8.51	34.05	108	13	Peak
*5470	59.24	50.41	68.3	-9.06	34.37	8.51	34.05	108	13	Peak
5530	89.85	80.92			34.42	8.58	34.07	108	13	Average
5530	97.42	88.49			34.42	8.58	34.07	108	13	Peak
*5725	55.8	46.64	68.3	-12.5	34.62	8.65	34.11	108	13	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5450	47.96	39.14	54	-6.04	34.36	8.51	34.05	186	15	Average
5450	59.2	50.38	74	-14.8	34.36	8.51	34.05	186	15	Peak
*5470	57.82	48.99	68.3	-10.48	34.37	8.51	34.05	186	15	Peak
5530	88.36	79.43			34.42	8.58	34.07	186	15	Average
5530	95.54	86.61			34.42	8.58	34.07	186	15	Peak
*5725	55.8	46.64	68.3	-12.5	34.62	8.65	34.11	186	15	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
*5714	62.77	53.62	68.3	-5.53	34.61	8.65	34.11	143	296	Peak
*5720	62.81	53.65	78.3	-15.49	34.62	8.65	34.11	143	296	Peak
5775	88.91	79.68			34.68	8.67	34.12	143	296	Average
5775	96.02	86.79			34.68	8.67	34.12	143	296	Peak
*5860	60.14	50.82	68.3	-8.16	34.76	8.7	34.14	143	296	Peak
*5864	59.8	50.47	78.3	-18.5	34.76	8.71	34.14	143	296	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
*5714	61.95	52.8	68.3	-6.35	34.61	8.65	34.11	100	205	Peak
*5724	63.16	54	78.3	-15.14	34.62	8.65	34.11	100	205	Peak
5775	91.2	81.97			34.68	8.67	34.12	100	205	Average
5775	98.63	89.4			34.68	8.67	34.12	100	205	Peak
*5856	60.51	51.19	78.3	-17.79	34.76	8.7	34.14	100	205	Peak
*5862	59.52	50.19	68.3	-8.78	34.76	8.71	34.14	100	205	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

MODE D

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
5150	52.61	44.36	54	-1.39	34.12	8.13	34	111	248	Average
5150	63.81	55.56	74	-10.19	34.12	8.13	34	111	248	Peak
5190	93.35	85.01			34.15	8.19	34	111	248	Average
5190	101.3	92.96			34.15	8.19	34	111	248	Peak
5444	43.86	35.07	54	-10.14	34.35	8.48	34.04	111	248	Average
5444	57.69	48.9	74	-16.31	34.35	8.48	34.04	111	248	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5148	53.67	45.42	54	-0.33	34.12	8.13	34	128	337	Average
5148	65.87	57.62	74	-8.13	34.12	8.13	34	128	337	Peak
5190	95.07	86.73			34.15	8.19	34	128	337	Average
5190	102.99	94.65			34.15	8.19	34	128	337	Peak
5458	44.04	35.22	54	-9.96	34.36	8.51	34.05	128	337	Average
5458	57.76	48.94	74	-16.24	34.36	8.51	34.05	128	337	Peak

REMARKS:

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

802.11ac (80MHz)

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
5034	43.87	35.81	54	-10.13	34.03	8	33.97	101	46	Average
5034	63.57	55.51	74	-10.43	34.03	8	33.97	101	46	Peak
5290	91.57	83.04			34.23	8.32	34.02	101	46	Average
5290	99.31	90.78			34.23	8.32	34.02	101	46	Peak
5452	52.97	44.15	54	-1.03	34.36	8.51	34.05	101	46	Average
5452	64.23	55.41	74	-9.77	34.36	8.51	34.05	101	46	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	43.7	35.64	54	-10.3	34.04	8	33.98	163	351	Average
5048	63.16	55.1	74	-10.84	34.04	8	33.98	163	351	Peak
5290	90.36	81.83			34.23	8.32	34.02	163	351	Average
5290	97.96	89.43			34.23	8.32	34.02	163	351	Peak
5354	48.12	39.49	54	-5.88	34.28	8.38	34.03	163	351	Average
5354	63.97	55.34	74	-10.03	34.28	8.38	34.03	163	351	Peak

REMARKS:

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

802.11n (20MHz)

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
5394	43.26	34.55	54	-10.74	34.31	8.44	34.04	142	287	Average
5394	58.36	49.65	74	-15.64	34.31	8.44	34.04	142	287	Peak
*5470	56.67	47.84	68.3	-11.63	34.37	8.51	34.05	142	287	Peak
5700	99.81	90.68			34.59	8.64	34.1	142	287	Average
5700	107.69	98.56			34.59	8.64	34.1	142	287	Peak
*5725	67.95	58.79	68.3	-0.35	34.62	8.65	34.11	142	287	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
5370	43.31	34.64	54	-10.69	34.29	8.41	34.03	128	3	Average
5370	58.05	49.38	74	-15.95	34.29	8.41	34.03	128	3	Peak
*5470	56.4	47.57	68.3	-11.9	34.37	8.51	34.05	128	3	Peak
5700	99.61	90.48			34.59	8.64	34.1	128	3	Average
5700	106.61	97.48			34.59	8.64	34.1	128	3	Peak
*5725	64.78	55.62	68.3	-3.52	34.62	8.65	34.11	128	3	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
*5714	64.44	55.29	68.3	-3.86	34.61	8.65	34.11	140	292	Peak
*5724	70.4	61.24	78.3	-7.9	34.62	8.65	34.11	140	292	Peak
5745	100.89	91.7			34.64	8.66	34.11	140	292	Average
5745	109.19	100			34.64	8.66	34.11	140	292	Peak
*5856	58.6	49.28	78.3	-19.7	34.76	8.7	34.14	140	292	Peak
*5864	57.94	48.61	68.3	-10.36	34.76	8.71	34.14	140	292	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
*5714	62.7	53.55	68.3	-5.6	34.61	8.65	34.11	100	207	Peak
*5722	69.95	60.79	78.3	-8.35	34.62	8.65	34.11	100	207	Peak
5745	98	88.81			34.64	8.66	34.11	100	207	Average
5745	105.91	96.72			34.64	8.66	34.11	100	207	Peak
*5854	57.41	48.09	78.3	-20.89	34.76	8.7	34.14	100	207	Peak
*5864	58.4	49.07	68.3	-9.9	34.76	8.71	34.14	100	207	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

BELOW 1GHz WORST-CASE DATA:

MODE A

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	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
116.13	35.4	57.41	43.5	-8.1	8.96	1.28	32.25	141	148	Peak
162.84	36.31	56.47	43.5	-7.19	10.58	1.52	32.26	193	237	Peak
217.65	33.79	52.79	46	-12.21	11.58	1.65	32.23	196	254	Peak
400.1	20.55	32.33	46	-25.45	18.1	2.34	32.22	124	286	Peak
678	24.82	30.52	46	-21.18	23.36	3.05	32.11	176	279	Peak
864.9	26.55	30.41	46	-19.45	24.4	3.44	31.7	126	327	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
65.64	27.23	51.01	40	-12.77	7.54	0.9	32.22	136	279	Peak
162.84	29.95	50.11	43.5	-13.55	10.58	1.52	32.26	176	249	Peak
193.08	24.3	44.45	43.5	-19.2	10.51	1.61	32.27	186	315	Peak
507.2	21.09	31	46	-24.91	19.57	2.63	32.11	196	156	Peak
639.5	22.9	30.03	46	-23.1	22.1	2.93	32.16	176	296	Peak
890.1	26.86	29.99	46	-19.14	24.92	3.49	31.54	134	218	Peak

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

Margin value = Emission level – Limit value

802.11ac (80MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 58	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
92.64	31.64	53.27	43.5	-11.86	9.14	1.11	31.88	163	323	Peak
162.84	36.43	56.59	43.5	-7.07	10.58	1.52	32.26	163	327	Peak
217.92	33.3	52.24	46	-12.7	11.63	1.65	32.22	185	269	Peak
519.8	21.37	30.49	46	-24.63	20.32	2.7	32.14	181	219	Peak
622.7	23.51	30.65	46	-22.49	22.1	2.93	32.17	162	141	Peak
857.9	26.05	30.15	46	-19.95	24.2	3.44	31.74	193	306	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
50.52	28.86	52.44	40	-11.14	7.74	0.9	32.22	176	327	Peak
160.95	30.13	50.15	43.5	-13.37	10.73	1.52	32.27	196	142	Peak
217.65	23.17	42.17	46	-22.83	11.58	1.65	32.23	109	275	Peak
461.7	19.44	30.56	46	-26.56	18.45	2.56	32.13	108	127	Peak
528.2	21.31	30.11	46	-24.69	20.66	2.7	32.16	197	322	Peak
862.1	26.69	30.77	46	-19.31	24.2	3.44	31.72	161	297	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 140	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
116.94	36.46	58.51	43.5	-7.04	8.92	1.28	32.25	117	274	Peak
161.22	36.41	56.43	43.5	-7.09	10.73	1.52	32.27	175	256	Peak
217.92	32.83	51.77	46	-13.17	11.63	1.65	32.22	141	249	Peak
541.5	21.45	30.44	46	-24.55	20.43	2.76	32.18	116	341	Peak
659.1	24.69	31.31	46	-21.31	22.53	2.99	32.14	146	211	Peak
843.2	25.78	30.53	46	-20.22	23.7	3.38	31.83	139	45	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
30	35.07	48.8	40	-4.93	17.8	0.74	32.27	163	321	Peak
91.02	25.15	46.83	43.5	-18.35	8.98	1.11	31.77	162	224	Peak
162.57	29.95	50.11	43.5	-13.55	10.58	1.52	32.26	146	326	Peak
520.5	21.21	30.14	46	-24.79	20.51	2.7	32.14	175	211	Peak
696.2	24.89	30.73	46	-21.11	23.14	3.11	32.09	168	328	Peak
888.7	26.6	29.75	46	-19.4	24.92	3.49	31.56	174	211	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 149	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
116.94	35.69	57.74	43.5	-7.81	8.92	1.28	32.25	156	231	Peak
163.11	35.61	55.77	43.5	-7.89	10.58	1.52	32.26	154	124	Peak
217.92	33.37	52.31	46	-12.63	11.63	1.65	32.22	158	145	Peak
400.1	20.53	32.31	46	-25.47	18.1	2.34	32.22	153	241	Peak
636.7	22.91	30.04	46	-23.09	22.1	2.93	32.16	162	249	Peak
871.2	26.06	29.68	46	-19.94	24.6	3.44	31.66	144	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
30.27	35.52	49.5	40	-4.48	17.55	0.74	32.27	121	148	Peak
65.91	24.95	48.68	40	-15.05	7.59	0.9	32.22	163	241	Peak
162.84	29.02	49.18	43.5	-14.48	10.58	1.52	32.26	178	124	Peak
400.1	21.27	33.05	46	-24.73	18.1	2.34	32.22	149	342	Peak
692.7	24.53	30.33	46	-21.47	23.19	3.11	32.1	174	124	Peak
871.2	27.1	30.72	46	-18.9	24.6	3.44	31.66	119	291	Peak

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

Margin value = Emission level – Limit value

MODE D

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	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
86.97	24.72	46.71	40	-15.28	8.76	1.11	31.86	114	152	Peak
170.4	27.8	48.48	43.5	-15.7	10.04	1.52	32.24	183	257	Peak
239.79	36	53.75	46	-10	12.54	1.85	32.14	106	190	Peak
478.5	28.25	38.9	46	-17.75	18.91	2.56	32.12	114	269	Peak
723.5	31.35	36.94	46	-14.65	23.36	3.16	32.11	160	179	Peak
888.7	29.92	33.07	46	-16.08	24.92	3.49	31.56	173	128	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
94.8	29.42	51	43.5	-14.08	9.3	1.11	31.99	107	55	Peak
199.02	27.88	47.68	43.5	-15.62	10.84	1.65	32.29	124	199	Peak
240.87	25.84	43.53	46	-20.16	12.59	1.85	32.13	109	320	Peak
340.6	32.24	46.16	46	-13.76	15.97	2.19	32.08	114	299	Peak
680.1	25.39	31.14	46	-20.61	23.31	3.05	32.11	107	188	Peak
848.1	34.34	38.96	46	-11.66	23.75	3.44	31.81	100	342	Peak

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

Margin value = Emission level – Limit value

802.11ac (80MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 58	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
87.51	25.23	47.2	40	-14.77	8.78	1.11	31.86	103	275	Peak
171.21	28.07	48.75	43.5	-15.43	10.04	1.52	32.24	116	191	Peak
239.79	36.15	53.9	46	-9.85	12.54	1.85	32.14	108	54	Peak
339.9	32.97	46.97	46	-13.03	15.89	2.19	32.08	166	185	Peak
479.9	28.32	38.96	46	-17.68	18.92	2.56	32.12	132	172	Peak
724.2	30.53	36.13	46	-15.47	23.36	3.16	32.12	188	216	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
30	30.93	44.66	40	-9.07	17.8	0.74	32.27	133	190	Peak
97.23	28.8	50.16	43.5	-14.7	9.46	1.28	32.1	107	229	Peak
205.23	28.18	47.67	43.5	-15.32	11.13	1.65	32.27	170	196	Peak
327.3	33.54	48.24	46	-12.46	15.29	2.11	32.1	100	339	Peak
723.5	31.29	36.88	46	-14.71	23.36	3.16	32.11	111	297	Peak
911.8	35.16	37.31	46	-10.84	25.72	3.53	31.4	144	256	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 140	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
86.7	25.74	47.81	40	-14.26	8.73	1.11	31.91	106	119	Peak
169.86	28.09	48.81	43.5	-15.41	10	1.52	32.24	171	160	Peak
240.33	36.04	53.73	46	-9.96	12.59	1.85	32.13	108	196	Peak
329.4	32.7	47.14	46	-13.3	15.46	2.19	32.09	117	159	Peak
479.9	28.18	38.82	46	-17.82	18.92	2.56	32.12	109	138	Peak
719.3	30.59	36.23	46	-15.41	23.31	3.16	32.11	114	118	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
30	29.59	43.32	40	-10.41	17.8	0.74	32.27	113	20	Peak
94.8	29.53	51.11	43.5	-13.97	9.3	1.11	31.99	101	296	Peak
201.99	26.94	46.59	43.5	-16.56	10.99	1.65	32.29	112	268	Peak
331.5	32.76	47.12	46	-13.24	15.54	2.19	32.09	164	179	Peak
723.5	30.75	36.34	46	-15.25	23.36	3.16	32.11	107	55	Peak
892.9	37.63	40.7	46	-8.37	24.96	3.49	31.52	144	212	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 149	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
86.43	25.3	47.37	40	-14.7	8.73	1.11	31.91	105	155	Peak
170.4	28.25	48.93	43.5	-15.25	10.04	1.52	32.24	117	159	Peak
238.98	36	53.75	46	-10	12.54	1.85	32.14	109	183	Peak
342	31.56	45.39	46	-14.44	16.06	2.19	32.08	103	88	Peak
479.2	27.78	38.42	46	-18.22	18.92	2.56	32.12	100	269	Peak
722.1	30.14	35.73	46	-15.86	23.36	3.16	32.11	178	196	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
30	29.71	43.44	40	-10.29	17.8	0.74	32.27	124	179	Peak
100.74	30.5	51.8	43.5	-13	9.68	1.28	32.26	106	253	Peak
203.34	27.57	47.16	43.5	-15.93	11.04	1.65	32.28	115	291	Peak
323.8	33.29	48.17	46	-12.71	15.11	2.11	32.1	190	160	Peak
479.9	29.61	40.25	46	-16.39	18.92	2.56	32.12	148	187	Peak
853	36.99	41.53	46	-9.01	23.8	3.44	31.78	112	331	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	Nov. 17, 2013	Nov. 16, 2014
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. 08, 2013	Jul. 07, 2014
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.

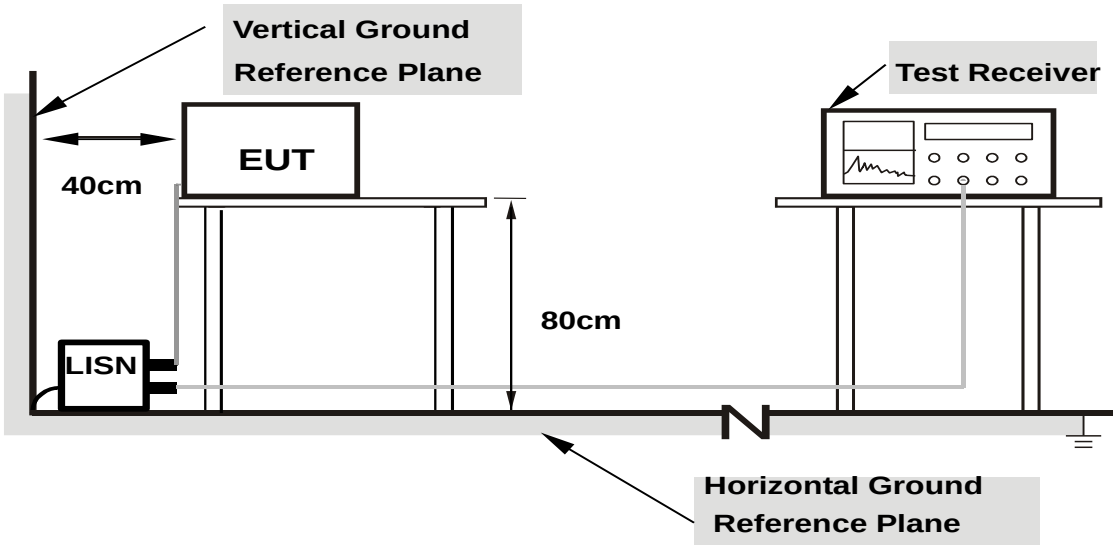
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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：

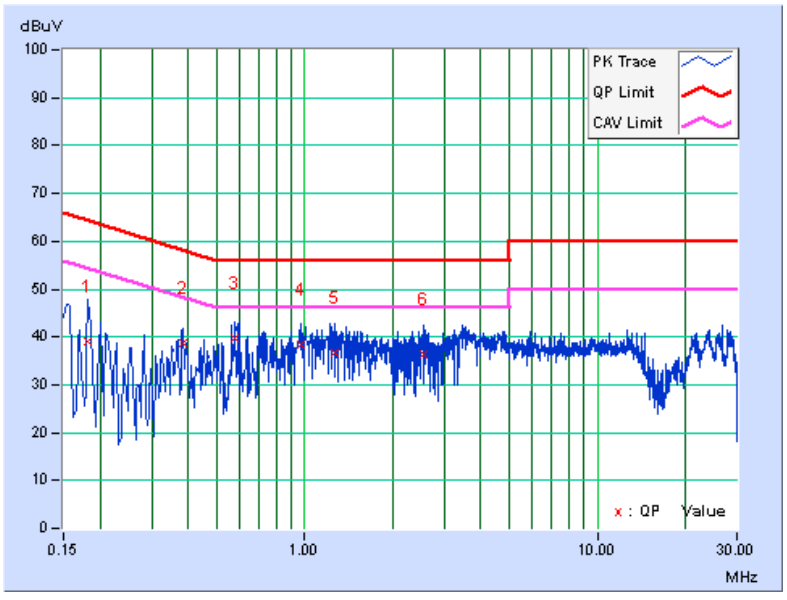
MODE D

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	0.18128	0.07	38.86	23.33	38.93	23.40	64.43	54.43	-25.49	-31.02
2	0.38300	0.08	38.60	28.48	38.68	28.56	58.21	48.21	-19.53	-19.65
3	0.58010	0.09	39.56	29.10	39.65	29.19	56.00	46.00	-16.35	-16.81
4	0.97501	0.11	38.17	27.94	38.28	28.05	56.00	46.00	-17.72	-17.95
5	1.26826	0.12	36.43	26.93	36.55	27.05	56.00	46.00	-19.45	-18.95
6	2.56638	0.17	36.14	26.04	36.31	26.21	56.00	46.00	-19.69	-19.79

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

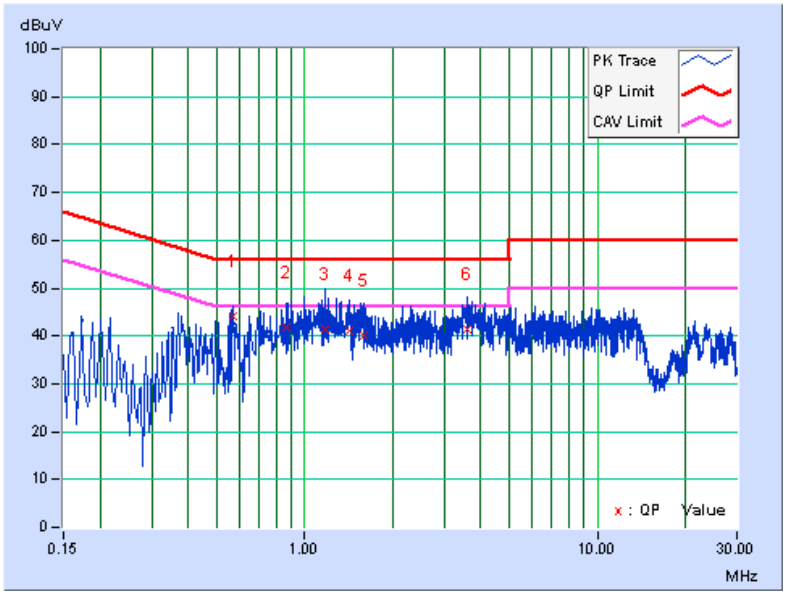


PHASE	Line 2	6dB BANDWIDTH	9kHz

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	0.56837	0.08	44.16	32.84	44.24	32.92	56.00	46.00	-11.76	-13.08
2	0.86162	0.09	41.79	30.41	41.88	30.50	56.00	46.00	-14.12	-15.50
3	1.17051	0.10	41.18	31.97	41.28	32.07	56.00	46.00	-14.72	-13.93
4	1.42857	0.11	40.92	31.03	41.03	31.14	56.00	46.00	-14.97	-14.86
5	1.59670	0.12	40.10	29.89	40.22	30.01	56.00	46.00	-15.78	-15.99
6	3.59080	0.20	41.10	30.79	41.30	30.99	56.00	46.00	-14.70	-15.01

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.

Per KDB 662911 D01 Multiple Transmitter Output v02r01 Method of conducted output power measurement on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 4;

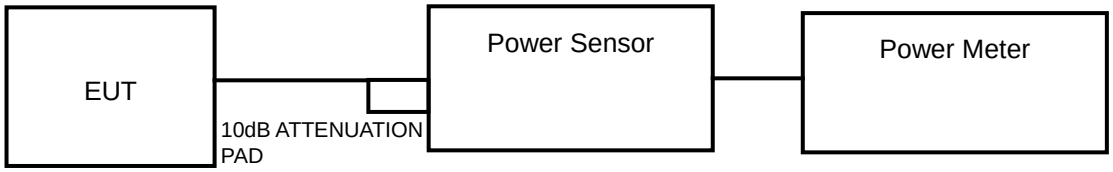
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any NANT;

Array Gain = 5 log(NANT/NSS) dB or 3 dB, whichever is less for 20-MHz channel widths with NANT ≥ 5.

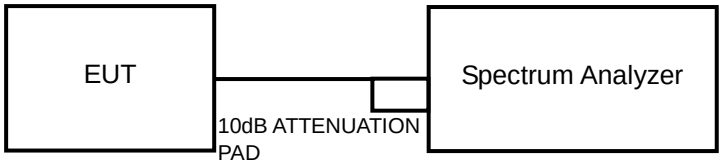
For power measurements on all other devices: Array Gain = 10 log(NANT/NSS) dB.

4.3.2 TEST SETUP

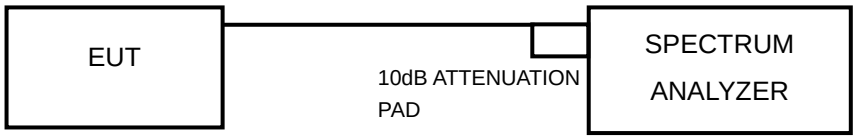
FOR POWER OUTPUT MEASUREMENT



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

MODE A

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	MAX. CONDUCTED POWER (mW)	MAX. CONDUCTED POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	36.98	15.68	24	PASS
44	5220	37.15	15.70	24	PASS
48	5240	37.67	15.76	24	PASS
52	5260	38.64	15.87	24	PASS
60	5300	38.99	15.91	24	PASS
64	5320	38.46	15.85	24	PASS
100	5500	41.30	16.16	24	PASS
116	5580	42.66	16.30	24	PASS
140	5700	33.73	15.28	24	PASS
149	5745	43.45	16.38	30	PASS
157	5785	41.21	16.15	30	PASS
165	5825	43.15	16.35	30	PASS

NOTE:

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

1. 11dBm + 10log(21.86) = 24.40 dBm > 24dBm.
2. 11dBm + 10log(21.86) = 24.40 dBm > 24dBm.
3. 11dBm + 10log(21.80) = 24.38 dBm > 24dBm.
4. 11dBm + 10log(21.76) = 24.38 dBm > 24dBm.
5. 11dBm + 10log(21.89) = 24.40 dBm > 24dBm.
6. 11dBm + 10log(21.84) = 24.39 dBm > 24dBm.

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	MAX. CONDUCTED POWER (mW)	MAX. CONDUCTED POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	37.76	15.77	30	PASS
44	5220	37.24	15.71	30	PASS
48	5240	36.98	15.68	30	PASS
52	5260	38.90	15.90	24	PASS
60	5300	37.50	15.74	24	PASS
64	5320	39.90	16.01	24	PASS
100	5500	31.19	14.94	24	PASS
116	5580	42.07	16.24	24	PASS
140	5700	43.25	16.36	24	PASS
149	5745	43.15	16.35	30	PASS
157	5785	40.36	16.06	30	PASS
165	5825	41.78	16.21	30	PASS

NOTE:

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

1. 11dBm + 10log(22.21) = 24.47 dBm > 24dBm.
2. 11dBm + 10log(22.06) = 24.44 dBm > 24dBm.
3. 11dBm + 10log(22.17) = 24.46 dBm > 24dBm.
4. 11dBm + 10log(22.20) = 24.46 dBm > 24dBm.
5. 11dBm + 10log(22.04) = 24.43 dBm > 24dBm.
6. 11dBm + 10log(22.06) = 24.44 dBm > 24dBm.

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	MAX. CONDUCTED POWER (mW)	MAX. CONDUCTED POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
38	5190	20.99	13.22	30	PASS
46	5230	20.70	13.16	30	PASS
54	5270	21.88	13.40	24	PASS
62	5310	22.28	13.48	24	PASS
102	5510	18.84	12.75	24	PASS
110	5550	19.23	12.84	24	PASS
134	5670	20.99	13.22	24	PASS
151	5755	20.14	13.04	30	PASS
159	5795	19.82	12.97	30	PASS

NOTE:

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

1. 11dBm + 10log(41.46) = 27.18 dBm > 24dBm.
2. 11dBm + 10log(41.53) = 27.18 dBm > 24dBm.
3. 11dBm + 10log(41.55) = 27.19 dBm > 24dBm.
4. 11dBm + 10log(41.60) = 27.19 dBm > 24dBm.
5. 11dBm + 10log(41.90) = 27.22 dBm > 24dBm.

MODE A/B

802.11ac (80MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	MAX. CONDUCTED POWER (mW)	MAX. CONDUCTED POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
42	5210	17.34	12.39	30	PASS
58	5290	22.75	13.57	24	PASS
106	5530	21.98	13.42	24	PASS
155	5775	18.66	12.71	30	PASS

NOTE:

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

1. 11dBm + 10log(93.89) = 30.73 dBm > 24dBm.
2. 11dBm + 10log(81.36) = 30.10 dBm > 24dBm.

MODE C

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	MAX. CONDUCTED POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
36	5180	13.54	12.82	41.74	16.21	30	PASS
40	5200	13.65	12.46	40.79	16.11	30	PASS
48	5240	13.73	12.47	41.27	16.16	30	PASS
52	5260	13.96	11.65	39.51	15.97	24	PASS
60	5300	13.80	11.24	37.29	15.72	24	PASS
64	5320	14.60	11.97	44.58	16.49	24	PASS
100	5500	14.12	11.90	41.31	16.16	24	PASS
116	5580	14.17	12.10	42.34	16.27	24	PASS
140	5700	14.38	12.30	44.40	16.47	24	PASS
149	5745	13.27	12.04	37.228	15.71	30	PASS
157	5785	13.10	12.15	36.823	15.66	30	PASS
165	5825	13.15	11.90	36.142	15.58	30	PASS

NOTE:

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

CHAIN 0

1. 11dBm + 10log(22.11) = 24.45 dBm > 24dBm.
2. 11dBm + 10log(22.20) = 24.46 dBm > 24dBm.
3. 11dBm + 10log(22.08) = 24.44 dBm > 24dBm.
4. 11dBm + 10log(22.14) = 24.45 dBm > 24dBm.
5. 11dBm + 10log(22.19) = 24.46 dBm > 24dBm.
6. 11dBm + 10log(22.10) = 24.44 dBm > 24dBm.

CHAIN 1

1. 11dBm + 10log(22.15) = 24.45 dBm > 24dBm.
2. 11dBm + 10log(22.00) = 24.42 dBm > 24dBm.
3. 11dBm + 10log(22.18) = 24.46 dBm > 24dBm.
4. 11dBm + 10log(22.02) = 24.43 dBm > 24dBm.
5. 11dBm + 10log(21.79) = 24.38 dBm > 24dBm.
6. 11dBm + 10log(22.02) = 24.43 dBm > 24dBm.

802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	MAX. CONDUCTED POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
38	5190	10.61	8.43	18.47	12.67	30	PASS
46	5230	10.60	8.34	18.30	12.63	30	PASS
54	5270	10.93	8.65	19.72	12.95	24	PASS
62	5310	10.57	8.53	18.53	12.68	24	PASS
102	5510	10.81	9.10	20.18	13.05	24	PASS
110	5550	10.96	9.15	20.70	13.16	24	PASS
134	5670	11.11	9.60	22.03	13.43	24	PASS
151	5755	13.66	12.98	43.088	16.34	30	PASS
159	5795	13.66	12.94	42.906	16.33	30	PASS

NOTE:

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

CHAIN 0

1. 11dBm + 10log(41.40) = 27.17 dBm > 24dBm.
2. 11dBm + 10log(41.91) = 27.22 dBm > 24dBm.
3. 11dBm + 10log(41.55) = 27.19 dBm > 24dBm.
4. 11dBm + 10log(41.53) = 27.18 dBm > 24dBm.
5. 11dBm + 10log(41.85) = 27.22 dBm > 24dBm.

CHAIN 1

1. 11dBm + 10log(41.32) = 27.16 dBm > 24dBm.
2. 11dBm + 10log(41.26) = 27.16 dBm > 24dBm.
3. 11dBm + 10log(41.39) = 27.17 dBm > 24dBm.
4. 11dBm + 10log(41.44) = 27.17 dBm > 24dBm.
5. 11dBm + 10log(41.48) = 27.18 dBm > 24dBm.

802.11ac (80MHz)

CHAN.	CHAN. FREQ. (MHz)	MAX. CONDUCTED POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
42	5210	11.39	9.36	22.40	13.50	30	PASS
58	5290	11.63	9.33	23.12	13.64	24	PASS
106	5530	11.35	9.42	22.40	13.50	24	PASS
155	5775	10.79	9.64	21.199	13.26	30	PASS

NOTE:

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

CHAIN 0

1. 11dBm + 10log(81.66) = 30.12 dBm > 24dBm.
2. 11dBm + 10log(81.92) = 30.13 dBm > 24dBm.

CHAIN 1

1. 11dBm + 10log(81.27) = 30.10 dBm > 24dBm.
2. 11dBm + 10log(81.48) = 30.11 dBm > 24dBm.

26dB BANDWIDTH

MODE A

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
52	5260	21.86	PASS
60	5300	21.86	PASS
64	5320	21.80	PASS
100	5500	21.76	PASS
116	5580	21.89	PASS
140	5700	21.84	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
52	5260	22.21	PASS
60	5300	22.06	PASS
64	5320	22.17	PASS
100	5500	22.20	PASS
116	5580	22.04	PASS
140	5700	22.06	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
54	5270	41.46	PASS
62	5310	41.53	PASS
102	5510	41.55	PASS
110	5550	41.60	PASS
134	5670	41.90	PASS

802.11ac (80MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
58	5290	93.89	PASS
106	5530	81.36	PASS

MODE C

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
52	5260	22.11	22.15	PASS
60	5300	22.20	22.00	PASS
64	5320	22.08	22.18	PASS
100	5500	22.14	22.02	PASS
116	5580	22.19	21.79	PASS
140	5700	22.10	22.02	PASS

802.11n (40MHz)

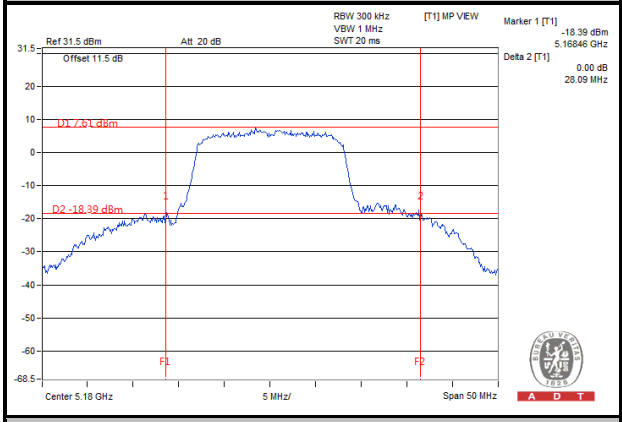
CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
54	5270	41.40	41.32	PASS
62	5310	41.91	41.26	PASS
102	5510	41.55	41.39	PASS
110	5550	41.53	41.44	PASS
134	5670	41.85	41.48	PASS

802.11ac (80MHz)

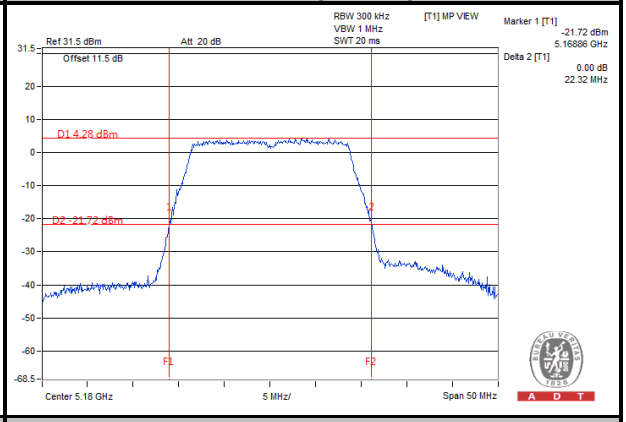
CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
58	5290	81.66	81.27	PASS
106	5530	81.92	81.48	PASS

SPECTRUM PLOT OF WORST VALUE

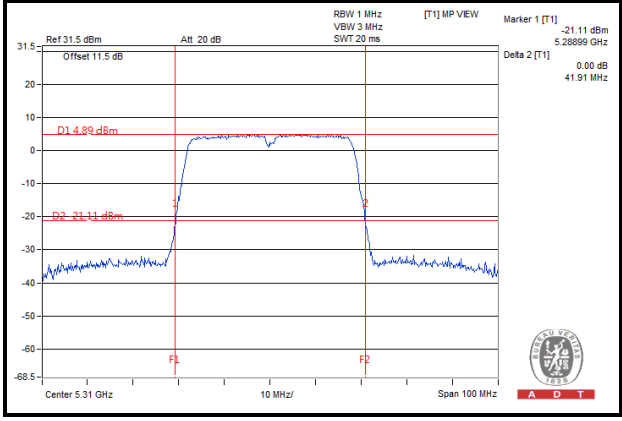
802.11a



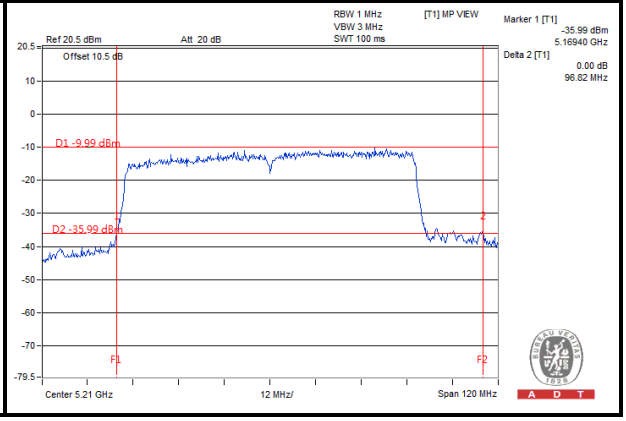
802.11n (20MHz)



802.11n (40MHz)



802.11ac (80MHz)

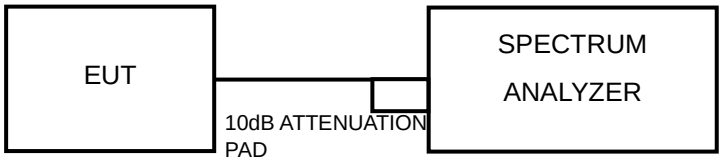


4.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

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), 802.11n (40MHz), 802.11ac (80MHz)>

Using method SA-2 alternative

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

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

MODE A

802.11a

CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	3.29	0.23	3.52	11	PASS
44	5220	3.12	0.23	3.35	11	PASS
48	5240	3.26	0.23	3.49	11	PASS
52	5260	3.46	0.23	3.69	11	PASS
60	5300	3.74	0.23	3.97	11	PASS
64	5320	3.84	0.23	4.07	11	PASS
100	5500	4.52	0.23	4.75	11	PASS
116	5580	4.54	0.23	4.77	11	PASS
140	5700	2.91	0.23	3.14	11	PASS

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

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	2.60	0.25	2.85	11	PASS
44	5220	2.80	0.25	3.05	11	PASS
48	5240	2.98	0.25	3.23	11	PASS
52	5260	3.26	0.25	3.51	11	PASS
60	5300	3.42	0.25	3.67	11	PASS
64	5320	3.56	0.25	3.81	11	PASS
100	5500	3.23	0.25	3.48	11	PASS
116	5580	4.00	0.25	4.25	11	PASS
140	5700	3.57	0.25	3.82	11	PASS

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

802.11n (40MHz)

CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
38	5190	-2.80	0.57	-2.23	11	PASS
46	5230	-2.60	0.57	-2.03	11	PASS
54	5270	-2.18	0.57	-1.61	11	PASS
62	5310	-1.69	0.57	-1.12	11	PASS
102	5510	-2.08	0.57	-1.51	11	PASS
110	5550	-2.21	0.57	-1.64	11	PASS
134	5670	-2.43	0.57	-1.86	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	-20.05	1.13	-18.92	11	PASS
58	5290	-18.97	1.13	-17.84	11	PASS
106	5530	-11.19	1.13	-10.06	11	PASS

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

MODE C

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)		TOTAL PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1					
36	5180	0.66	0.11	3.40	0.25	3.65	11	PASS
40	5200	0.79	0.37	3.40	0.25	3.84	11	PASS
48	5240	0.75	0.24	2.97	0.25	3.76	11	PASS
52	5260	1.28	-0.46	2.09	0.25	3.75	11	PASS
60	5300	1.42	-0.14	3.97	0.25	3.97	11	PASS
64	5320	1.64	-0.40	4.00	0.25	4.00	11	PASS
100	5500	2.26	0.19	4.35	0.25	4.60	11	PASS
116	5580	2.12	-0.11	4.15	0.25	4.40	11	PASS
140	5700	1.75	-1.08	3.57	0.25	3.82	11	PASS

NOTE:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. **For 5180~5240MHz:**
   Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2 / N_{ANT}] = -2.22 < 6dBi$, so the limit no need to be reduced.
   For 5260~5700MHz:
   Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2 / N_{ANT}] = -2.15 < 6dBi$, so the limit no need to be reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)		TOTAL PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1					
38	5190	-5.34	-6.92	-3.05	0.61	-2.44	11	PASS
46	5230	-5.11	-7.11	-2.99	0.61	-2.38	11	PASS
54	5270	-5.01	-6.31	-2.60	0.61	-1.99	11	PASS
62	5310	-4.48	-6.27	-2.27	0.61	-1.66	11	PASS
102	5510	-4.06	-5.83	-1.85	0.61	-1.24	11	PASS
110	5550	-4.13	-5.97	-1.94	0.61	-1.33	11	PASS
134	5670	-4.41	-6.85	-2.45	0.61	-1.84	11	PASS

NOTE:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. **For 5180~5240MHz:**
   Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2 / N_{ANT}$] = -2.22 < 6dBi , so the limit no need to be reduced.
   For 5260~5700MHz:
   Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2 / N_{ANT}$] = -2.15 < 6dBi , so the limit no need to be reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (80MHz)

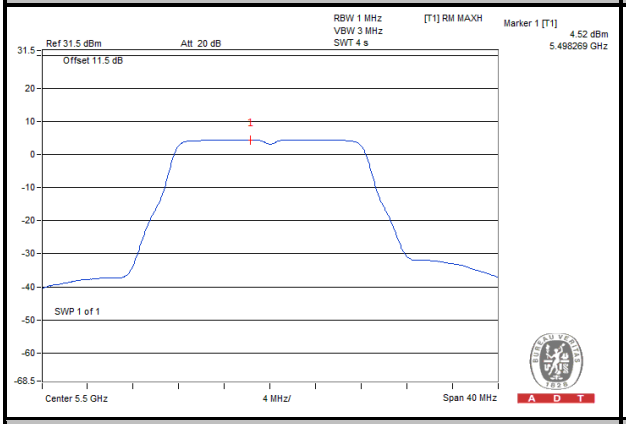
CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)		TOTAL PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1					
42	5210	-7.84	-9.09	-5.41	1.20	-4.21	11	PASS
58	5290	-7.18	-8.78	-4.9	1.20	-3.70	11	PASS
106	5530	-7.47	-9.54	-5.37	1.20	-4.17	11	PASS

NOTE:

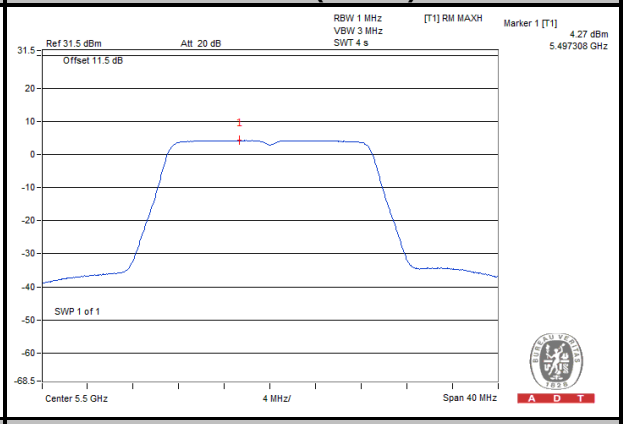
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. **For 5180~5240MHz:**
   Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2 / N_{ANT}$] = -2.22 < 6dBi , so the limit no need to be reduced.
   For 5260~5700MHz:
   Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2 / N_{ANT}$] = -2.15 < 6dBi , so the limit no need to be reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

SPECTRUM PLOT OF WORST VALUE

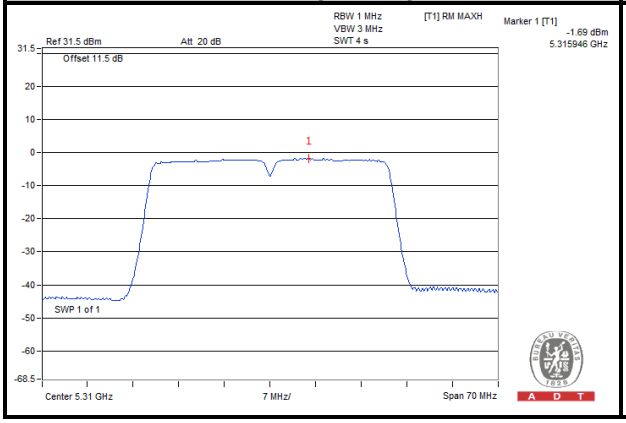
802.11a



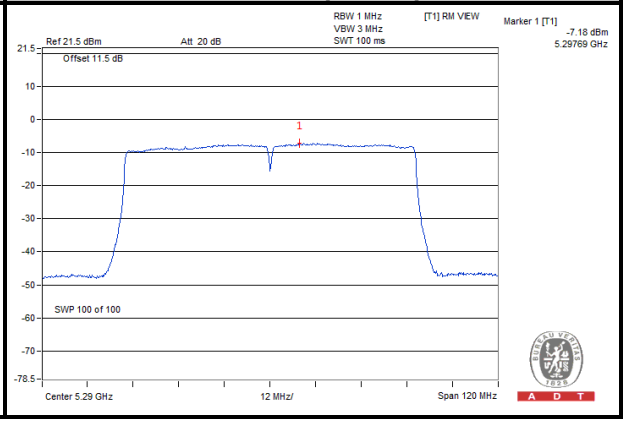
802.11n (20MHz)



802.11n (40MHz)



802.11ac (80MHz)



For U-NII-3 Band

MODE A

802.11a

CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	LIMIT (dBm/500kHz)	PASS/FAIL
149	5745	0.69	0.23	0.92	30	PASS
157	5785	0.91	0.23	1.14	30	PASS
165	5825	1.30	0.23	1.53	30	PASS

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	LIMIT (dBm/500kHz)	PASS/FAIL
149	5745	0.32	0.25	0.57	30	PASS
157	5785	0.66	0.25	0.91	30	PASS
165	5825	0.95	0.25	1.20	30	PASS

802.11n (40MHz)

CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	LIMIT (dBm/500kHz)	PASS/FAIL
151	5755	-6.05	0.57	-5.48	30	PASS
159	5795	-5.67	0.57	-5.10	30	PASS

MODE B

802.11ac (80MHz)

CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	LIMIT (dBm/500kHz)	PASS/FAIL
155	5775	-8.88	1.13	-7.75	30	PASS

MODE C

802.11n (20MHz)

TX chain	Chan	Freq. (MHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Total PSD without Duty Factor (dBm/500kHz)	Duty Factor	Total PSD with Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	PASS /FAIL
0	149	5745	-2.68	3.01	0.33	0.15	0.58	30	PASS
	157	5785	-2.49	3.01	0.52	0.15	0.77	30	PASS
	165	5825	-2.24	3.01	0.77	0.15	1.02	30	PASS
1	149	5745	-2.80	3.01	0.21	0.15	0.46	30	PASS
	157	5785	-2.80	3.01	0.21	0.15	0.46	30	PASS
	165	5825	-2.72	3.01	0.29	0.15	0.54	30	PASS

NOTE:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2 / N_{ANT}$]= -3.75 < 6dBi, so the limit no need to reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (40MHz)

TX chain	Chan	Freq. (MHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Total PSD without Duty Factor (dBm/500kHz)	Duty Factor	Total PSD with Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	PASS /FAIL
0	151	5755	-5.03	3.01	-2.02	0.61	-1.41	30	PASS
	159	5795	-4.68	3.01	-1.67	0.61	-1.06	30	PASS
1	151	5755	-5.29	3.01	-2.28	0.61	-1.67	30	PASS
	159	5795	-4.97	3.01	-1.96	0.61	-1.35	30	PASS

NOTE:

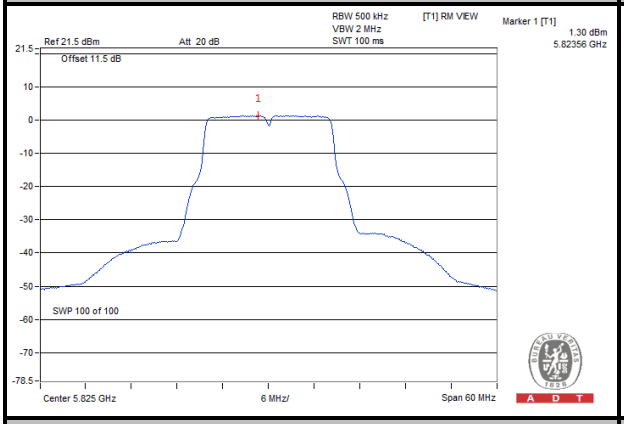
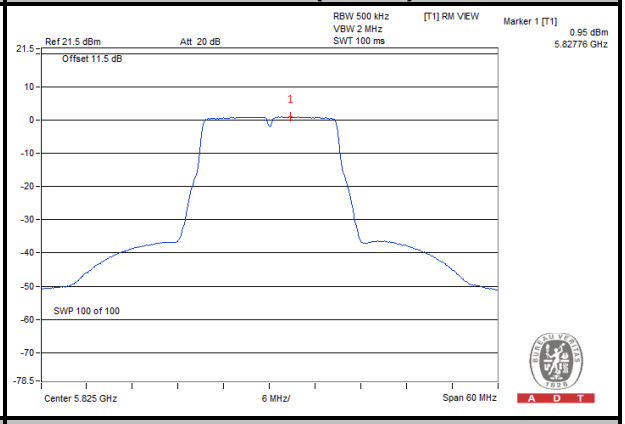
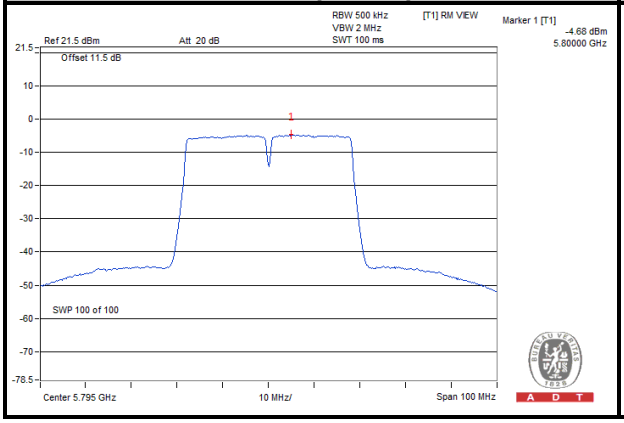
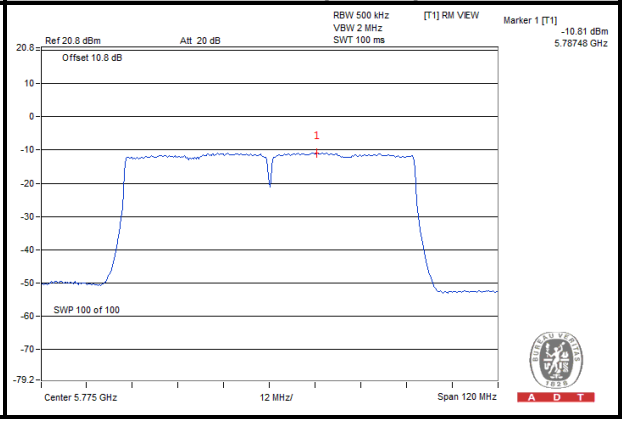
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2 / N_{ANT}$]= -3.75 < 6dBi, so the limit no need to reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (80MHz)

TX chain	Chan	Freq. (MHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Total PSD without Duty Factor (dBm/500kHz)	Duty Factor	Total PSD with Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	PASS /FAIL
0	155	5775	-10.82	3.01	-7.81	1.20	-6.61	30	PASS
1	155	5775	-10.81	3.01	-7.80	1.20	-6.60	30	PASS

NOTE:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2 / N_{ANT}$]= -3.75 < 6dBi, so the limit no need to reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

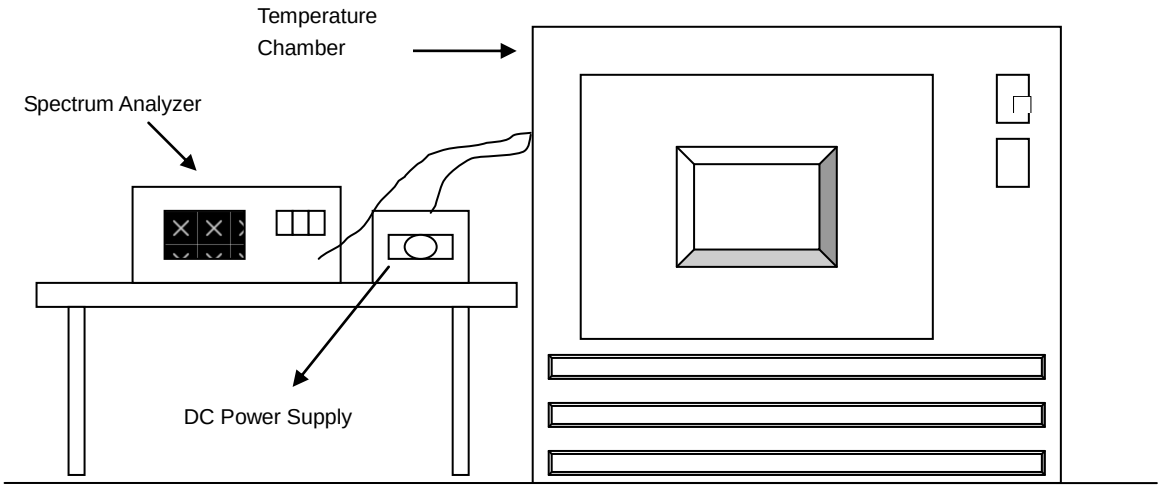
SPECTRUM PLOT OF WORST VALUE	
802.11a	**802.11n (20MHz)**
	
802.11n (40MHz)	**802.11ac (80MHz)**
	

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)
55	3.8	5320.037080	6.970	5320.037581	7.064	5320.037607	7.069	5320.037443	7.038
50	3.8	5320.038208	7.182	5320.037796	7.105	5320.037808	7.107	5320.037907	7.125
40	3.8	5320.037575	7.063	5320.037449	7.039	5320.037959	7.135	5320.037879	7.120
30	3.8	5320.038887	7.310	5320.039366	7.400	5320.039286	7.385	5320.039325	7.392
20	3.8	5320.040328	7.580	5320.040370	7.588	5320.039930	7.506	5320.040356	7.586
10	3.8	5320.041779	7.853	5320.041393	7.781	5320.041603	7.820	5320.041313	7.766
0	3.8	5320.040128	7.543	5320.040171	7.551	5320.040160	7.549	5320.040422	7.598
-10	3.8	5320.038588	7.253	5320.038792	7.292	5320.038728	7.280	5320.038539	7.244
-20	3.8	5320.037959	7.135	5320.038277	7.195	5320.038058	7.154	5320.037933	7.130

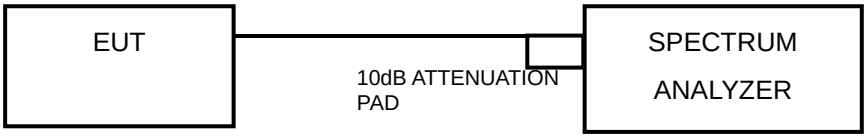
FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5320MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	3.6	5320.039578	7.439	5320.039845	7.490	5320.039636	7.450	5320.039826	7.486
	3.8	5320.040328	7.580	5320.040370	7.588	5320.039930	7.506	5320.040356	7.586
	4.35	5320.041281	7.760	5320.041510	7.803	5320.041763	7.850	5320.041591	7.818

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

MODE A

802.11a

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
149	5745	16.38	0.5	PASS
157	5785	16.39	0.5	PASS
165	5825	16.38	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	17.62	0.5	PASS

802.11n (40MHz)

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
151	5755	36.38	0.5	PASS
159	5795	36.39	0.5	PASS

MODE B

802.11ac (80MHz)

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
155	5775	75.84	0.5	PASS

MODE C

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
149	5745	17.64	17.64	0.5	PASS
157	5785	17.62	17.63	0.5	PASS
165	5825	17.62	17.63	0.5	PASS

802.11n (40MHz)

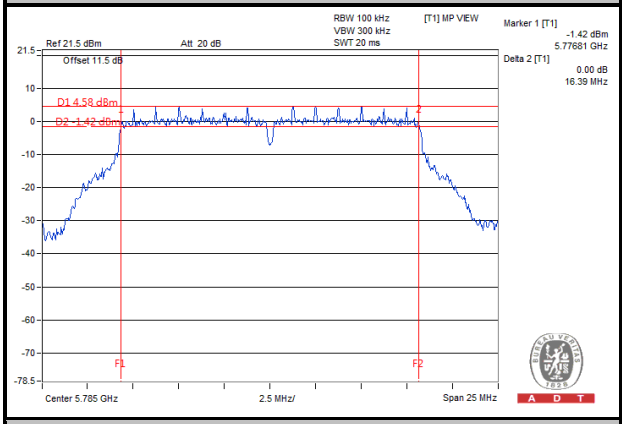
CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
151	5755	36.39	36.40	0.5	PASS
159	5795	36.38	36.41	0.5	PASS

802.11ac (80MHz)

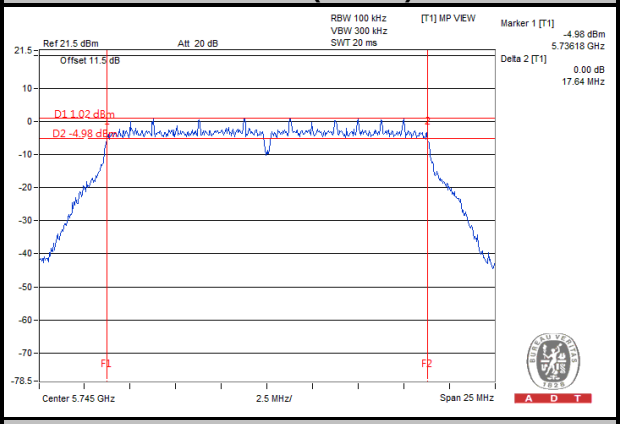
CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
155	5775	75.93	75.93	0.5	PASS

SPECTRUM PLOT OF WORST VALUE

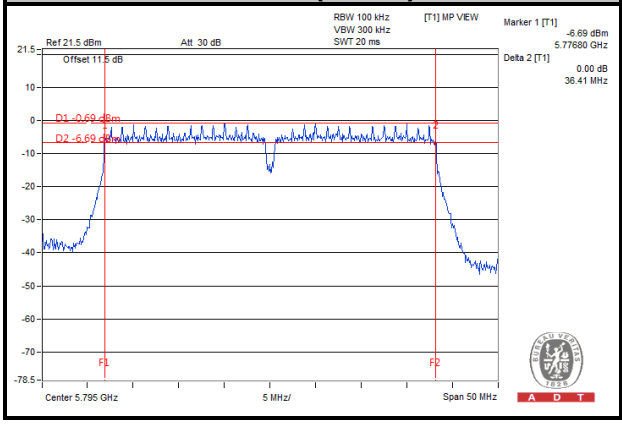
802.11a



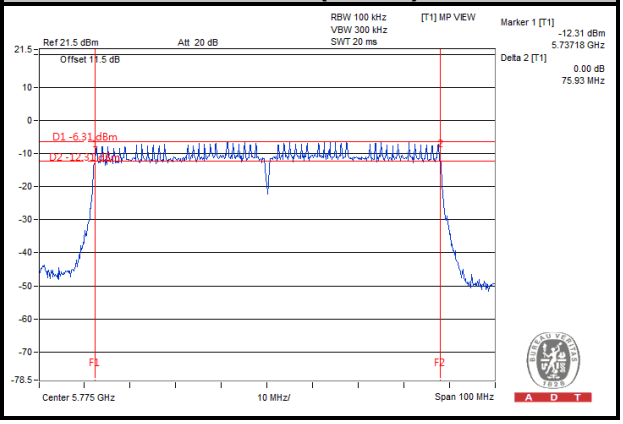
802.11n (20MHz)



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

Hwa Ya EMC/RF/Safety Telecom 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---