FCC TEST REPORT (15.407)

REPORT NO.:	RF140312C10-1
MODEL NO.:	N435
FCC ID:	P4Q-N435WIFI
RECEIVED:	Mar. 12, 2014
TESTED:	Jul. 04, 2014 ~ Jul. 21, 2014
ISSUED:	Jul. 25, 2014

APPLICANT:	MiTAC International Corp.
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ISSUED BY:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
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TEST LOCATION:	No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF140312C10-1	Original release	Jul. 25, 2014

1. CERTIFICATION

PRODUCT:	Tablet PC
MODEL NO.:	N435
BRAND:	Mio ; Mitac ; Code ; Janam ; Stryker
APPLICANT:	MiTAC International Corp.
TESTED:	Jul. 04, 2014 ~ Jul. 21, 2014
TEST SAMPLE:	Production Unit
STANDARDS:	**FCC Part 15, Subpart E (Section 15.407)**
	ANSI C63.10-2009

The above equipment (model: N435) 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 :** Jul. 25, 2014

Ivonne Wu / Supervisor

APPROVED BY : _____ **, DATE :** Jul. 25, 2014

Sam Chen / Senior Project Engineer

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART E (SECTION 15.407)			
STANDARD SECTION	**TEST TYPE**	**RESULT**	**REMARK**
15.407(b)(6)	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -10.58dB at 0.19297MHz.
15.407(b/1/2/3)(b)(6)	Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -0.65dB at 5725MHz.
15.407(a/1/2)	Peak Transmit Power	PASS	Meet the requirement of limit.
15.407(a)(6)	Peak Power Excursion	PASS	Meet the requirement of limit.
15.407(a/1/2)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	No antenna connector is used.

2.1 MEASUREMENT UNCERTAINTY

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

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

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

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

EUT	Tablet PC
MODEL NO.	N435
POWER SUPPLY	5Vdc (adapter) 3.7Vdc (Li-ion battery)
MODULATION TYPE	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
OPERATING FREQUENCY	5180 ~ 5240MHz, 5260 ~ 5320MHz & 5500 ~ 5700MHz
NUMBER OF CHANNEL	5180 ~ 5240MHz: 4 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz) 5260 ~ 5320MHz: 4 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz) 5500 ~ 5700MHz: 8 for 802.11a, 802.11n (20MHz) 3 for 802.11n (40MHz)
OUTPUT POWER	37.41mW for 5180 ~ 5240MHz 37.67mW for 5260 ~ 5320MHz 41.59mW for 5500 ~ 5700MHz
ANTENNA TYPE	PCB antenna with 2.3dBi gain (5180 ~ 5240MHz) PCB antenna with 2.9dBi gain (5260 ~ 5320MHz) PCB antenna with 3.8dBi gain (5500 ~ 5700MHz)
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. WLAN 2.4GHz cannot transmit simultaneously with WLAN 5GHz.
2. The EUT contains following accessory devices.

ITEM	BRAND	MODEL	SPECIFICATION
Adapter 1	TPT	MII050200	I/P: 100-240Vac, 50-60Hz, 0.3A O/P: 5Vdc, 2A
Adapter 2	SINPRO	MPU16A-102	I/P: 100-240Vac, 47-63Hz, 0.33-0.18A O/P: 5Vdc, 2.6A
Battery	Tian Yu	SJS3060	3.7Vdc, 3060mAh
BCR Scanner 1 (2D LED)	Honeywell	N5600, N56X3, N56X0, N5603	--
BCR Scanner 2 (2D)	Code	CR8012	--
BCR Scanner 3 (1D)	Opticon	MDL-2XXX : MSL-2XXX	--
BCR Scanner 4 (2D Laser)	Honeywell	N5603, N56X3	--
LCD Panel	TIANME	TM059YDH01	5.88 inch
Front Camera	LITE-ON	10P2SA511	--
Rear Camera	LITE-ON	10P2SF130	--
WLAN, BT Module	Jorjin	WG7833-B0 & WX7833-B0	--

3. 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

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

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		

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
A	√	√	√	√	Tablet w/ 2D Laser Honeywell Scanner + Adapter 1
B	√	√	-	-	Tablet w/ 2D LED Honeywell Scanner + Adapter 1
C	√	√	-	-	Tablet w/ 2D Code Scanner + Adapter 1
D	√	√	-	-	Tablet w/ 1D Opticon Scanner + Adapter 1
E	√	√	-	-	Tablet w/o Bar Code Scanner + Adapter 1
F	-	√	-	-	Tablet w/ 2D Laser Honeywell Scanner + Adapter 2
G	-	√	-	-	Tablet w/ 2D LED Honeywell Scanner + Adapter 2
H	-	√	-	-	Tablet w/ 2D Code Scanner + Adapter 2
I	-	√	-	-	Tablet w/ 1D Opticon Scanner + Adapter 2
J	-	√	-	-	Tablet w/o Bar Code Scanner + Adapter 2

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**.

RADIATED EMISSION TEST (ABOVE 1GHz):

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

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

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

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 ~ J	802.11n (40MHz)	5180-5240	38 to 46	38	OFDM	BPSK	MCS0
	802.11n (40MHz)	5260-5320	54 to 62	62	OFDM	BPSK	MCS0
	802.11a	5500-5700	100 to 140	100	OFDM	BPSK	6.0

POWER LINE CONDUCTED EMISSION TEST:

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

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11n (40MHz)	5260-5320	54 to 62	62	OFDM	BPSK	MCS0

BANDEDGE MEASUREMENT:

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

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

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

ANTENNA PORT CONDUCTED MEASUREMENT:

☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.

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

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

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

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

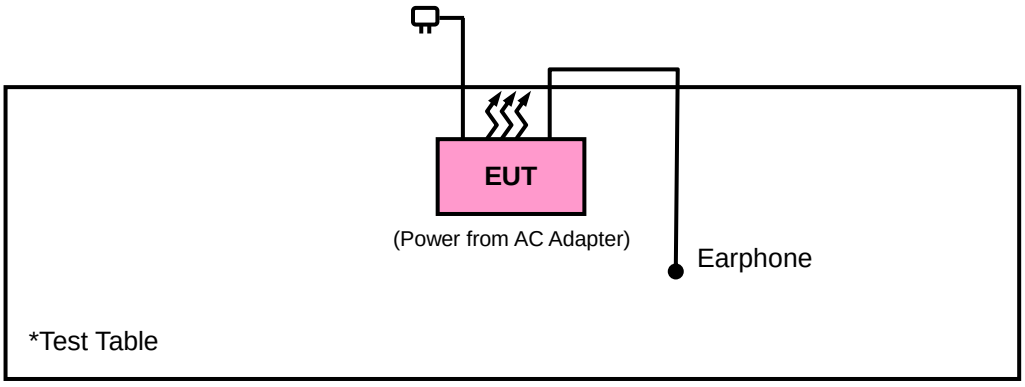
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Earphone	N/A	N/A	N/A	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	N/A

NOTE: 1. All power cords of the above support units are non shielded (1.8m).

3.3.1 CONFIGURATION OF SYSTEM UNDER TEST



3.4 DUTY CYCLE TEST SIGNAL

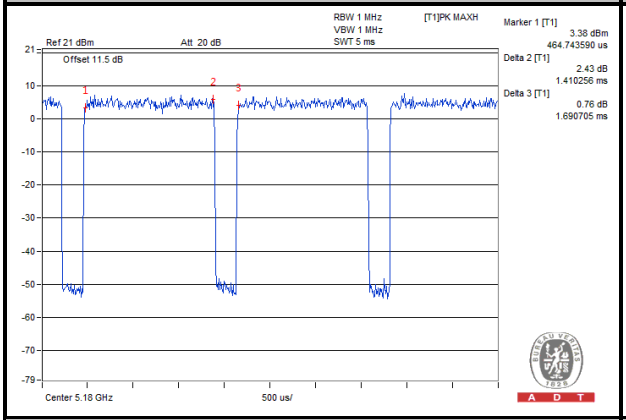
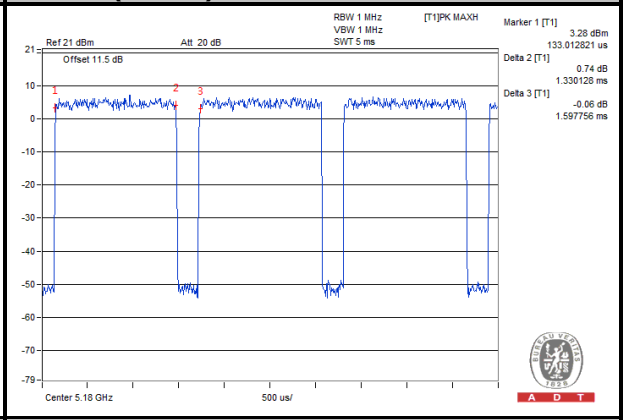
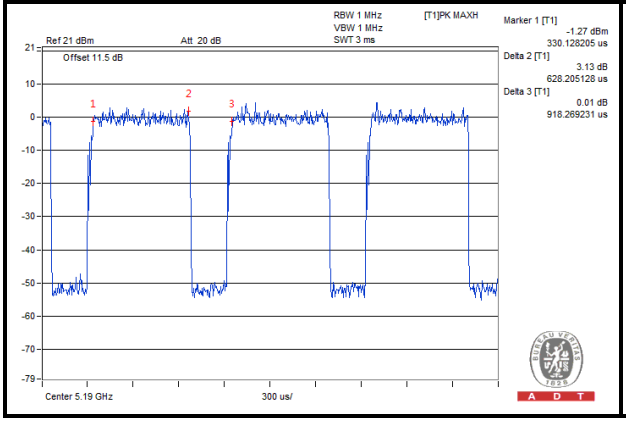
MODULATION TYPE: BPSK

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

802.11a: Duty cycle = 1.410/1.691 = 0.834, Duty factor = 10 * log(1/0.834) = 0.79

802.11n (20MHz): Duty cycle = 1.330/1.598 = 0.832, Duty factor = 10 * log(1/0.832) = 0.80

802.11n (40MHz): Duty cycle = 628.20/918.27 = 0.684, Duty factor = 10 * log(1/0.684) = 1.65

802.11a	802.11n (20MHz)
	
802.11n (40MHz)	
	

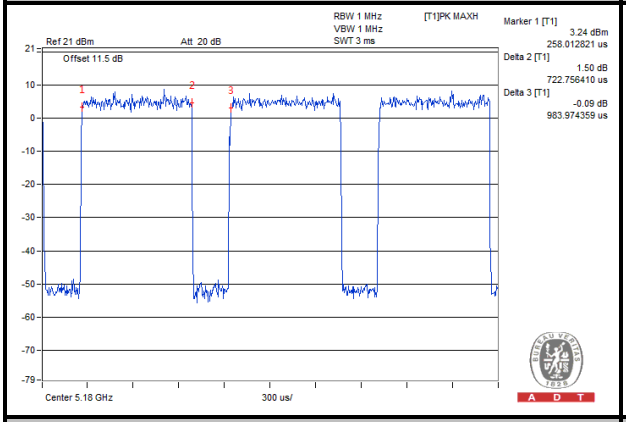
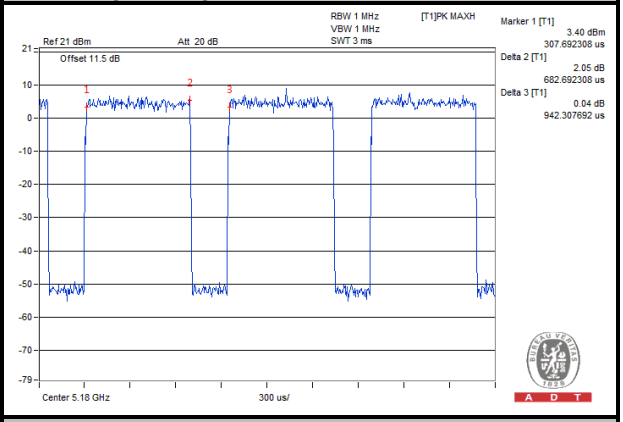
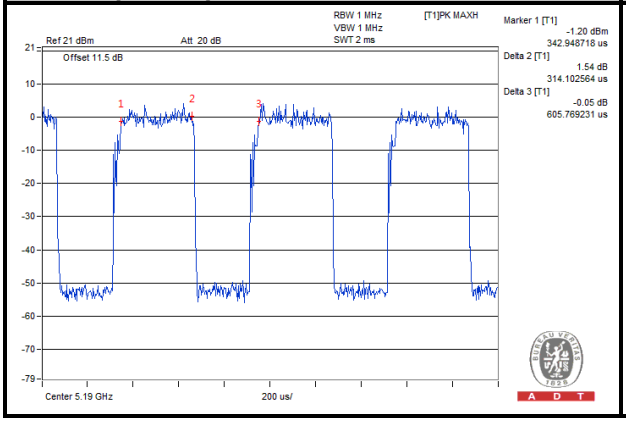
MODULATION TYPE: QPSK

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

802.11a: Duty cycle = 722.76/983.97 = 0.734, Duty factor = 10 * log(1/0.734) = 1.34

802.11n (20MHz): Duty cycle = 682.69/942.31 = 0.724, Duty factor = 10 * log(1/0.724) = 1.40

802.11n (40MHz): Duty cycle = 314.10/605.77 = 0.519, Duty factor = 10 * log(1/0.519) = 2.85

802.11a	802.11n (20MHz)
	
802.11n (40MHz)	
	

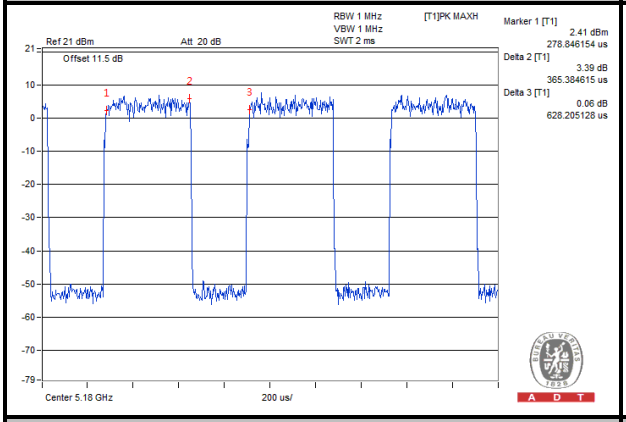
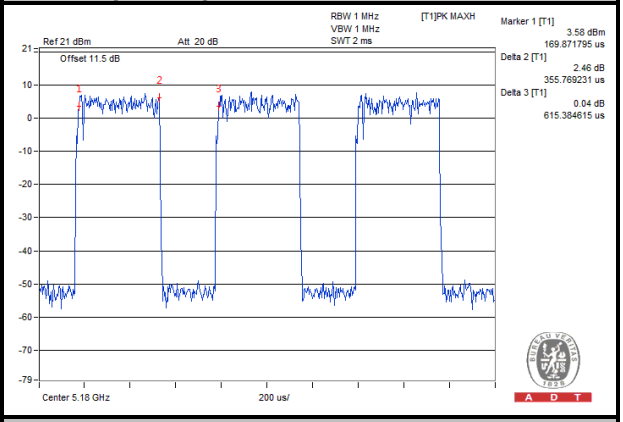
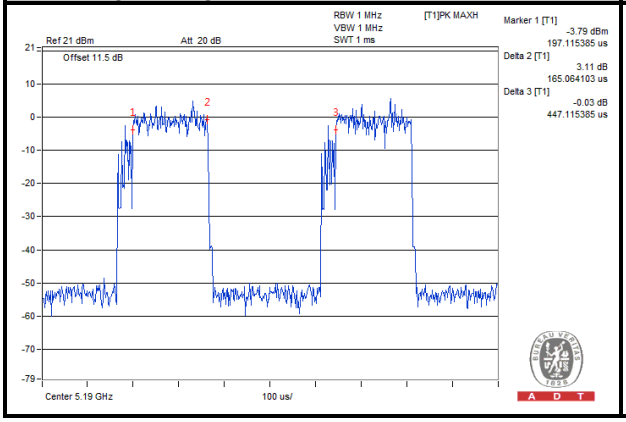
MODULATION TYPE: 16QAM

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

802.11a: Duty cycle = 365.38/628.20 = 0.582, Duty factor = 10 * log(1/0.582) = 2.35

802.11n (20MHz): Duty cycle = 355.77/615.38 = 0.578, Duty factor = 10 * log(1/0.578) = 2.38

802.11n (40MHz): Duty cycle = 165.06/447.11 = 0.369, Duty factor = 10 * log(1/0.369) = 4.33

802.11a	802.11n (20MHz)
	
802.11n (40MHz)	
	

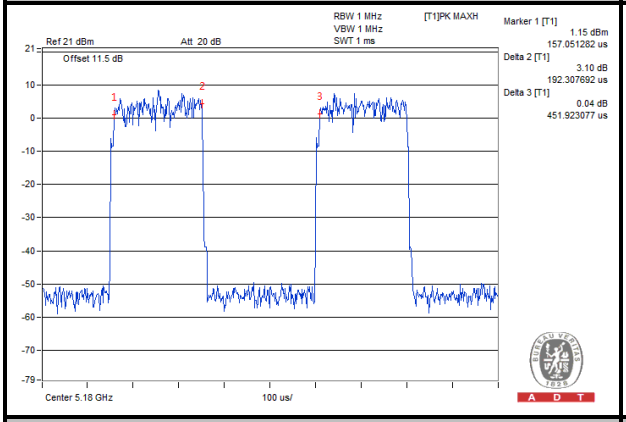
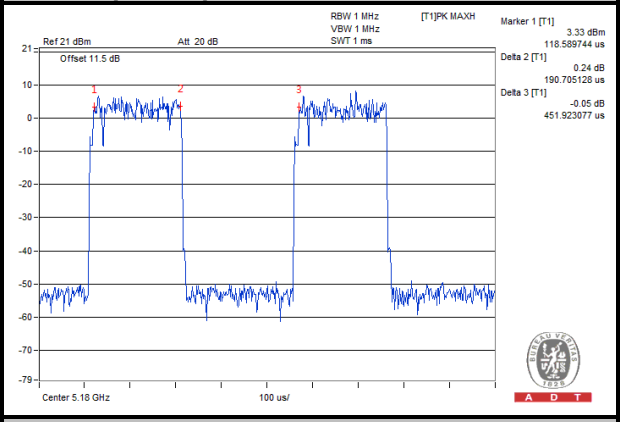
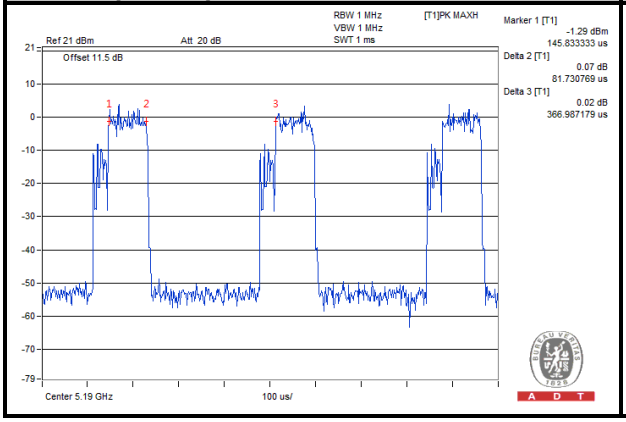
MODULATION TYPE: 64QAM

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

802.11a: Duty cycle = 192.31/451.92 = 0.425, Duty factor = 10 * log(1/0.425) = 3.71

802.11n (20MHz): Duty cycle = 190.70/451.92 = 0.422, Duty factor = 10 * log(1/0.422) = 3.75

802.11n (40MHz): Duty cycle = 81.73/366.99 = 0.223, Duty factor = 10 * log(1/0.223) = 6.52

802.11a	802.11n (20MHz)
	
802.11n (40MHz)	
	

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)
KDB 789033 D01 General UNII Test Procedures v01r03
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	
	FIELD STRENGTH AT 3m (dBµV/m)	
	PK	AV
	74	54
	EIRP LIMIT (dBm)	EQUIVALENT FIELD STRENGTH AT 3m (dBµV/m)
√	PK	PK
	-27	68.3

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

$$E = \frac{1000000\sqrt{30P}}{3}$$ 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:

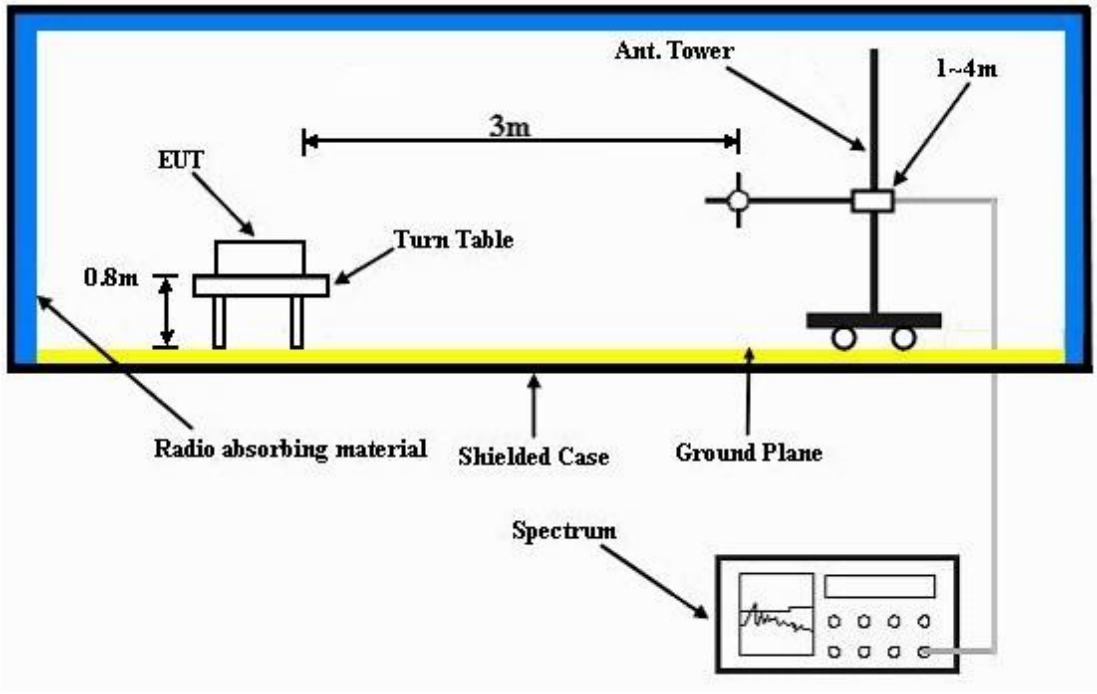
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency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

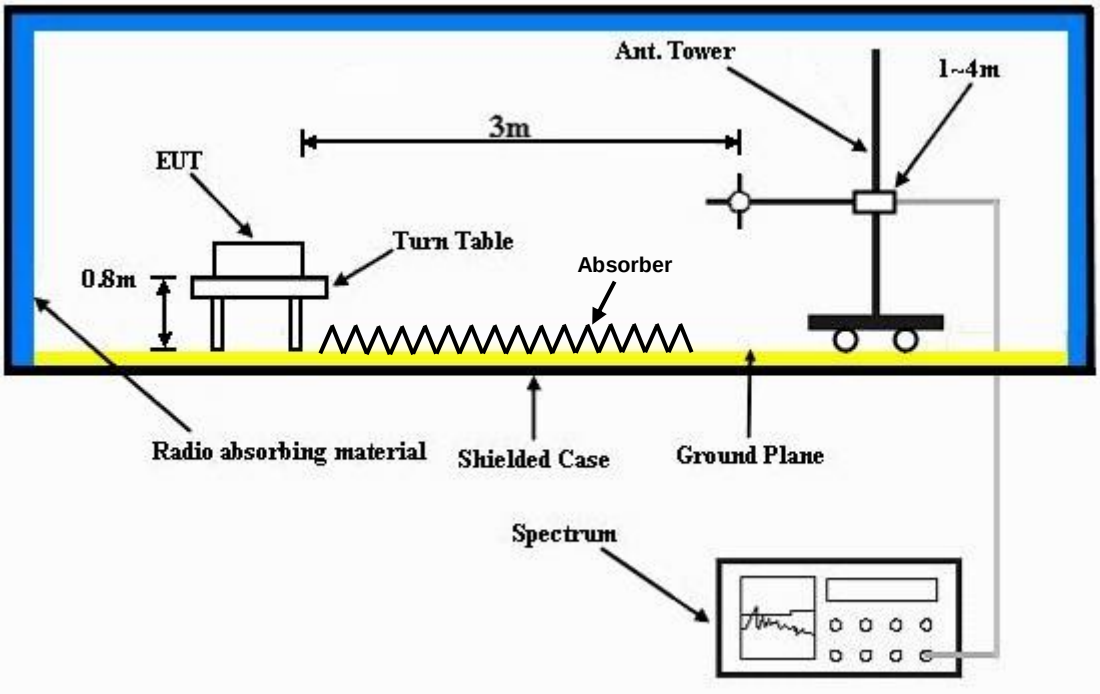
No deviation.

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	46.38	38.13	54	-7.62	34.12	8.13	34	144	122	Average
5150	60.24	51.99	74	-13.76	34.12	8.13	34	144	122	Peak
5180	99.83	91.52			34.15	8.16	34	144	122	Average
5180	107.16	98.85			34.15	8.16	34	144	122	Peak
5446	43.17	34.34	54	-10.83	34.36	8.51	34.04	144	122	Average
5446	58.07	49.24	74	-15.93	34.36	8.51	34.04	144	122	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	48.89	40.64	54	-5.11	34.12	8.13	34	127	92	Average
5150	65.28	57.03	74	-8.72	34.12	8.13	34	127	92	Peak
5180	102.62	94.31			34.15	8.16	34	127	92	Average
5180	109.71	101.4			34.15	8.16	34	127	92	Peak
5388	43.12	34.44	54	-10.88	34.31	8.41	34.04	127	92	Average
5388	57.28	48.6	74	-16.72	34.31	8.41	34.04	127	92	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
5122	43.76	35.56	54	-10.24	34.09	8.1	33.99	144	122	Average
5122	57.19	48.99	74	-16.81	34.09	8.1	33.99	144	122	Peak
5220	100	91.61			34.17	8.22	34	144	122	Average
5220	107.41	99.02			34.17	8.22	34	144	122	Peak
5398	43.12	34.4	54	-10.88	34.32	8.44	34.04	144	122	Average
5398	57.8	49.08	74	-16.2	34.32	8.44	34.04	144	122	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
5028	43.6	35.57	54	-10.4	34.03	7.97	33.97	111	93	Average
5028	57.29	49.26	74	-16.71	34.03	7.97	33.97	111	93	Peak
5220	103.55	95.16			34.17	8.22	34	111	93	Average
5220	109.22	100.83			34.17	8.22	34	111	93	Peak
5440	43.25	34.46	54	-10.75	34.35	8.48	34.04	111	93	Average
5440	57.47	48.68	74	-16.53	34.35	8.48	34.04	111	93	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
5090	43.47	35.3	54	-10.53	34.08	8.07	33.98	129	124	Average
5090	58.08	49.91	74	-15.92	34.08	8.07	33.98	129	124	Peak
5240	101.22	92.78			34.19	8.26	34.01	129	124	Average
5240	107.67	99.23			34.19	8.26	34.01	129	124	Peak
5456	43.25	34.43	54	-10.75	34.36	8.51	34.05	129	124	Average
5456	58.06	49.24	74	-15.94	34.36	8.51	34.05	129	124	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	44.1	35.85	54	-9.9	34.11	8.13	33.99	111	92	Average
5138	57.1	48.85	74	-16.9	34.11	8.13	33.99	111	92	Peak
5240	104.11	95.67			34.19	8.26	34.01	111	92	Average
5240	109.62	101.18			34.19	8.26	34.01	111	92	Peak
5412	44.51	35.78	54	-9.49	34.33	8.44	34.04	111	92	Average
5412	58.34	49.61	74	-15.66	34.33	8.44	34.04	111	92	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
5024	42.89	34.86	54	-11.11	34.03	7.97	33.97	141	125	Average
5024	57.53	49.5	74	-16.47	34.03	7.97	33.97	141	125	Peak
5260	100.2	91.74			34.21	8.26	34.01	141	125	Average
5260	107.74	99.28			34.21	8.26	34.01	141	125	Peak
5448	43.99	35.16	54	-10.01	34.36	8.51	34.04	141	125	Average
5448	57.84	49.01	74	-16.16	34.36	8.51	34.04	141	125	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5042	43.12	35.06	54	-10.88	34.04	8	33.98	110	92	Average
5042	57.4	49.34	74	-16.6	34.04	8	33.98	110	92	Peak
5260	103.67	95.21			34.21	8.26	34.01	110	92	Average
5260	109.91	101.45			34.21	8.26	34.01	110	92	Peak
5362	45.81	37.17	54	-8.19	34.29	8.38	34.03	110	92	Average
5362	58.63	49.99	74	-15.37	34.29	8.38	34.03	110	92	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
5102	42.91	34.75	54	-11.09	34.08	8.07	33.99	140	122	Average
5102	58.77	50.61	74	-15.23	34.08	8.07	33.99	140	122	Peak
5300	101.04	92.5			34.24	8.32	34.02	140	122	Average
5300	108.67	100.13			34.24	8.32	34.02	140	122	Peak
5350	44.57	35.94	54	-9.43	34.28	8.38	34.03	140	122	Average
5350	59.73	51.1	74	-14.27	34.28	8.38	34.03	140	122	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
5028	42.76	34.73	54	-11.24	34.03	7.97	33.97	110	92	Average
5028	57.25	49.22	74	-16.75	34.03	7.97	33.97	110	92	Peak
5300	105.2	96.66			34.24	8.32	34.02	110	92	Average
5300	110.95	102.41			34.24	8.32	34.02	110	92	Peak
5350	46.89	38.26	54	-7.11	34.28	8.38	34.03	110	92	Average
5350	62.97	54.34	74	-11.03	34.28	8.38	34.03	110	92	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
5104	42.97	34.81	54	-11.03	34.08	8.07	33.99	140	122	Average
5104	57.89	49.73	74	-16.11	34.08	8.07	33.99	140	122	Peak
5320	100.04	91.46			34.25	8.35	34.02	140	122	Average
5320	106.78	98.2			34.25	8.35	34.02	140	122	Peak
5350	46.85	38.22	54	-7.15	34.28	8.38	34.03	140	122	Average
5350	65.16	56.53	74	-8.84	34.28	8.38	34.03	140	122	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	42.94	34.74	54	-11.06	34.09	8.1	33.99	110	92	Average
5120	57.87	49.67	74	-16.13	34.09	8.1	33.99	110	92	Peak
5320	103.6	95.02			34.25	8.35	34.02	110	92	Average
5320	109.63	101.05			34.25	8.35	34.02	110	92	Peak
5350	49.64	41.01	54	-4.36	34.28	8.38	34.03	110	92	Average
5350	69.13	60.5	74	-4.87	34.28	8.38	34.03	110	92	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
5414	38.45	38.68	54	-15.55	31.53	5.42	37.18	101	159	Average
5414	60.02	60.25	74	-13.98	31.53	5.42	37.18	101	159	Peak
5470	60.55	60.61	68.3	-7.75	31.57	5.45	37.08	101	159	Peak
5500	96.84	96.81			31.6	5.46	37.03	101	159	Average
5500	105.89	105.86			31.6	5.46	37.03	101	159	Peak
5725	57.49	57.37	68.3	-10.81	31.96	5.59	37.43	101	159	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	38.31	38.54	54	-15.69	31.53	5.42	37.18	100	354	Average
5422	59.21	59.44	74	-14.79	31.53	5.42	37.18	100	354	Peak
5470	58.01	58.07	68.3	-10.29	31.57	5.45	37.08	100	354	Peak
5500	91.67	91.64			31.6	5.46	37.03	100	354	Average
5500	100.52	100.49			31.6	5.46	37.03	100	354	Peak
5725	57.52	57.4	68.3	-10.78	31.96	5.59	37.43	100	354	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5500MHz: Fundamental frequency.
3. 5470MHz & 5725MHz: 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
5446	43.41	34.58	54	-10.59	34.36	8.51	34.04	108	245	Average
5446	58.16	49.33	74	-15.84	34.36	8.51	34.04	108	245	Peak
5470	57.16	48.33	68.3	-11.14	34.37	8.51	34.05	108	245	Peak
5580	105.9	96.91			34.47	8.6	34.08	108	245	Average
5580	112.45	103.46			34.47	8.6	34.08	108	245	Peak
5725	56.18	47.02	68.3	-12.12	34.62	8.65	34.11	108	245	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
5400	43.41	34.69	54	-10.59	34.32	8.44	34.04	101	288	Average
5400	58.41	49.69	74	-15.59	34.32	8.44	34.04	101	288	Peak
5470	57.18	48.35	68.3	-11.12	34.37	8.51	34.05	101	288	Peak
5580	105.46	96.47			34.47	8.6	34.08	101	288	Average
5580	111.48	102.49			34.47	8.6	34.08	101	288	Peak
5725	56.49	47.33	68.3	-11.81	34.62	8.65	34.11	101	288	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5580MHz: Fundamental frequency.
3. 5470MHz & 5725MHz: Out of restricted band

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	43.3	34.48	54	-10.7	34.36	8.51	34.05	115	234	Average
5460	57.66	48.84	74	-16.34	34.36	8.51	34.05	115	234	Peak
5470	57.34	48.51	68.3	-10.96	34.37	8.51	34.05	115	234	Peak
5700	98.22	89.09			34.59	8.64	34.1	115	234	Average
5700	105.11	95.98			34.59	8.64	34.1	115	234	Peak
5725	67.65	58.49	68.3	-0.65	34.62	8.65	34.11	115	234	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5392	43.28	34.6	54	-10.72	34.31	8.41	34.04	100	287	Average
5392	57.98	49.3	74	-16.02	34.31	8.41	34.04	100	287	Peak
5470	57.65	48.82	68.3	-10.65	34.37	8.51	34.05	100	287	Peak
5700	98.12	88.99			34.59	8.64	34.1	100	287	Average
5700	104.98	95.85			34.59	8.64	34.1	100	287	Peak
5725	67.43	58.27	68.3	-0.87	34.62	8.65	34.11	100	287	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

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
5148	49.52	41.27	54	-4.48	34.12	8.13	34	144	124	Average
5148	66.07	57.82	74	-7.93	34.12	8.13	34	144	124	Peak
5180	100.52	92.21			34.15	8.16	34	144	124	Average
5180	107.35	99.04			34.15	8.16	34	144	124	Peak
5442	43.23	34.44	54	-10.77	34.35	8.48	34.04	144	124	Average
5442	58.4	49.61	74	-15.6	34.35	8.48	34.04	144	124	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	51.37	43.12	54	-2.63	34.12	8.13	34	100	88	Average
5150	67.71	59.46	74	-6.29	34.12	8.13	34	100	88	Peak
5180	103.25	94.94			34.15	8.16	34	100	88	Average
5180	108.98	100.67			34.15	8.16	34	100	88	Peak
5364	42.99	34.35	54	-11.01	34.29	8.38	34.03	100	88	Average
5364	58.07	49.43	74	-15.93	34.29	8.38	34.03	100	88	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
5024	43.15	35.12	54	-10.85	34.03	7.97	33.97	142	124	Average
5024	57.53	49.5	74	-16.47	34.03	7.97	33.97	142	124	Peak
5220	100.68	92.29			34.17	8.22	34	142	124	Average
5220	107.9	99.51			34.17	8.22	34	142	124	Peak
5438	43.15	34.36	54	-10.85	34.35	8.48	34.04	142	124	Average
5438	57.83	49.04	74	-16.17	34.35	8.48	34.04	142	124	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5136	43.83	35.58	54	-10.17	34.11	8.13	33.99	111	91	Average
5136	57.31	49.06	74	-16.69	34.11	8.13	33.99	111	91	Peak
5220	103.48	95.09			34.17	8.22	34	111	91	Average
5220	109.76	101.37			34.17	8.22	34	111	91	Peak
5380	43.13	34.45	54	-10.87	34.31	8.41	34.04	111	91	Average
5380	57.86	49.18	74	-16.14	34.31	8.41	34.04	111	91	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
5054	43.51	35.45	54	-10.49	34.04	8	33.98	129	124	Average
5054	57.56	49.5	74	-16.44	34.04	8	33.98	129	124	Peak
5240	100.79	92.35			34.19	8.26	34.01	129	124	Average
5240	107.69	99.25			34.19	8.26	34.01	129	124	Peak
5408	43.24	34.52	54	-10.76	34.32	8.44	34.04	129	124	Average
5408	58.26	49.54	74	-15.74	34.32	8.44	34.04	129	124	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5132	43.86	35.64	54	-10.14	34.11	8.1	33.99	111	91	Average
5132	57.56	49.34	74	-16.44	34.11	8.1	33.99	111	91	Peak
5240	104.11	95.67			34.19	8.26	34.01	111	91	Average
5240	109.54	101.1			34.19	8.26	34.01	111	91	Peak
5434	44.56	35.77	54	-9.44	34.35	8.48	34.04	111	91	Average
5434	57.49	48.7	74	-16.51	34.35	8.48	34.04	111	91	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
5066	42.96	34.86	54	-11.04	34.05	8.03	33.98	127	123	Average
5066	57.11	49.01	74	-16.89	34.05	8.03	33.98	127	123	Peak
5260	101.1	92.64			34.21	8.26	34.01	127	123	Average
5260	107.79	99.33			34.21	8.26	34.01	127	123	Peak
5366	43.8	35.16	54	-10.2	34.29	8.38	34.03	127	123	Average
5366	57.93	49.29	74	-16.07	34.29	8.38	34.03	127	123	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5050	43.21	35.15	54	-10.79	34.04	8	33.98	110	91	Average
5050	57.87	49.81	74	-16.13	34.04	8	33.98	110	91	Peak
5260	104.72	96.26			34.21	8.26	34.01	110	91	Average
5260	110.32	101.86			34.21	8.26	34.01	110	91	Peak
5358	46.16	37.53	54	-7.84	34.28	8.38	34.03	110	91	Average
5358	58.59	49.96	74	-15.41	34.28	8.38	34.03	110	91	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
5134	43.07	34.82	54	-10.93	34.11	8.13	33.99	127	125	Average
5134	57.46	49.21	74	-16.54	34.11	8.13	33.99	127	125	Peak
5300	101.51	92.97			34.24	8.32	34.02	127	125	Average
5300	108.04	99.5			34.24	8.32	34.02	127	125	Peak
5352	44.58	35.95	54	-9.42	34.28	8.38	34.03	127	125	Average
5352	59.76	51.13	74	-14.24	34.28	8.38	34.03	127	125	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5104	42.91	34.75	54	-11.09	34.08	8.07	33.99	110	92	Average
5104	57.92	49.76	74	-16.08	34.08	8.07	33.99	110	92	Peak
5300	104.91	96.37			34.24	8.32	34.02	110	92	Average
5300	110.43	101.89			34.24	8.32	34.02	110	92	Peak
5352	47.11	38.48	54	-6.89	34.28	8.38	34.03	110	92	Average
5352	64.98	56.35	74	-9.02	34.28	8.38	34.03	110	92	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
5144	43.09	34.84	54	-10.91	34.12	8.13	34	127	125	Average
5144	57.2	48.95	74	-16.8	34.12	8.13	34	127	125	Peak
5320	99.6	91.02			34.25	8.35	34.02	127	125	Average
5320	106.38	97.8			34.25	8.35	34.02	127	125	Peak
5350	47.42	38.79	54	-6.58	34.28	8.38	34.03	127	125	Average
5350	62.57	53.94	74	-11.43	34.28	8.38	34.03	127	125	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5014	42.75	34.74	54	-11.25	34.01	7.97	33.97	109	92	Average
5014	58.78	50.77	74	-15.22	34.01	7.97	33.97	109	92	Peak
5320	104.2	95.62			34.25	8.35	34.02	109	92	Average
5320	109.61	101.03			34.25	8.35	34.02	109	92	Peak
5350	51.48	42.85	54	-2.52	34.28	8.38	34.03	109	92	Average
5350	68.27	59.64	74	-5.73	34.28	8.38	34.03	109	92	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
5396	44.79	36.07	54	-9.21	34.32	8.44	34.04	110	238	Average
5396	58.74	50.02	74	-15.26	34.32	8.44	34.04	110	238	Peak
5470	67.29	58.46	68.3	-1.01	34.37	8.51	34.05	110	238	Peak
5500	102.38	93.46			34.4	8.57	34.05	110	238	Average
5500	109	100.08			34.4	8.57	34.05	110	238	Peak
5725	56.41	47.25	68.3	-11.89	34.62	8.65	34.11	110	238	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5436	44.3	35.51	54	-9.7	34.35	8.48	34.04	104	288	Average
5436	59.27	50.48	74	-14.73	34.35	8.48	34.04	104	288	Peak
5470	66.15	57.32	68.3	-2.15	34.37	8.51	34.05	104	288	Peak
5500	100.27	91.35			34.4	8.57	34.05	104	288	Average
5500	107.03	98.11			34.4	8.57	34.05	104	288	Peak
5725	57.07	47.91	68.3	-11.23	34.62	8.65	34.11	104	288	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5500MHz: Fundamental frequency.
3. 5470MHz & 5725MHz: 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
5422	43.5	34.73	54	-10.5	34.33	8.48	34.04	108	236	Average
5422	57.77	49	74	-16.23	34.33	8.48	34.04	108	236	Peak
5470	57.04	48.21	68.3	-11.26	34.37	8.51	34.05	108	236	Peak
5580	105.97	96.98			34.47	8.6	34.08	108	236	Average
5580	111.9	102.91			34.47	8.6	34.08	108	236	Peak
5725	55.96	46.8	68.3	-12.34	34.62	8.65	34.11	108	236	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	43.21	34.58	54	-10.79	34.28	8.38	34.03	101	288	Average
5352	58.32	49.69	74	-15.68	34.28	8.38	34.03	101	288	Peak
5470	57.45	48.62	68.3	-10.85	34.37	8.51	34.05	101	288	Peak
5580	105.37	96.38			34.47	8.6	34.08	101	288	Average
5580	110.99	102			34.47	8.6	34.08	101	288	Peak
5725	56.49	47.33	68.3	-11.81	34.62	8.65	34.11	101	288	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5580MHz: Fundamental frequency.
3. 5470MHz & 5725MHz: 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
5362	42.82	34.18	54	-11.18	34.29	8.38	34.03	115	233	Average
5362	57.68	49.04	74	-16.32	34.29	8.38	34.03	115	233	Peak
5470	56.66	47.83	68.3	-11.64	34.37	8.51	34.05	115	233	Peak
5700	97.59	88.46			34.59	8.64	34.1	115	233	Average
5700	105.61	96.48			34.59	8.64	34.1	115	233	Peak
5725	67.38	58.22	68.3	-0.92	34.62	8.65	34.11	115	233	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
5354	42.86	34.23	54	-11.14	34.28	8.38	34.03	100	289	Average
5354	57.44	48.81	74	-16.56	34.28	8.38	34.03	100	289	Peak
5470	56.22	47.39	68.3	-12.08	34.37	8.51	34.05	100	289	Peak
5700	97.23	88.1			34.59	8.64	34.1	100	289	Average
5700	105.5	96.37			34.59	8.64	34.1	100	289	Peak
5725	67.04	57.88	68.3	-1.26	34.62	8.65	34.11	100	289	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

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
5052	40.08	40.84	54	-13.92	31.24	5.25	37.25	104	133	Average
5052	59.15	59.91	74	-14.85	31.24	5.25	37.25	104	133	Peak
5190	82.55	83.22			31.35	5.32	37.34	104	133	Average
5190	91.33	92			31.35	5.32	37.34	104	133	Peak
5434	38.08	38.24	54	-15.92	31.55	5.42	37.13	104	133	Average
5434	59.66	59.82	74	-14.34	31.55	5.42	37.13	104	133	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	43.08	43.79	54	-10.92	31.32	5.29	37.32	100	80	Average
5150	59.84	60.55	74	-14.16	31.32	5.29	37.32	100	80	Peak
5190	86.62	87.29			31.35	5.32	37.34	100	80	Average
5190	95.18	95.85			31.35	5.32	37.34	100	80	Peak
5444	38.15	38.29	54	-15.85	31.55	5.44	37.13	100	80	Average
5444	59.95	60.09	74	-14.05	31.55	5.44	37.13	100	80	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
5150	48.28	40.03	54	-5.72	34.12	8.13	34	129	124	Average
5150	64.37	56.12	74	-9.63	34.12	8.13	34	129	124	Peak
5230	98.5	90.1			34.19	8.22	34.01	129	124	Average
5230	105.56	97.16			34.19	8.22	34.01	129	124	Peak
5432	43.71	34.92	54	-10.29	34.35	8.48	34.04	129	124	Average
5432	58.64	49.85	74	-15.36	34.35	8.48	34.04	129	124	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	48.35	40.1	54	-5.65	34.12	8.13	34	111	91	Average
5150	62.14	53.89	74	-11.86	34.12	8.13	34	111	91	Peak
5230	101.82	93.42			34.19	8.22	34.01	111	91	Average
5230	107.86	99.46			34.19	8.22	34.01	111	91	Peak
5442	44.62	35.83	54	-9.38	34.35	8.48	34.04	111	91	Average
5442	60.25	51.46	74	-13.75	34.35	8.48	34.04	111	91	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
5150	43.7	35.45	54	-10.3	34.12	8.13	34	141	121	Average
5150	57.33	49.08	74	-16.67	34.12	8.13	34	141	121	Peak
5270	99.1	90.61			34.21	8.29	34.01	141	121	Average
5270	106.23	97.74			34.21	8.29	34.01	141	121	Peak
5350	48.03	39.4	54	-5.97	34.28	8.38	34.03	141	121	Average
5350	62.96	54.33	74	-11.04	34.28	8.38	34.03	141	121	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
5094	43.53	35.37	54	-10.47	34.08	8.07	33.99	110	83	Average
5094	58.18	50.02	74	-15.82	34.08	8.07	33.99	110	83	Peak
5270	102.77	94.28			34.21	8.29	34.01	110	83	Average
5270	109.21	100.72			34.21	8.29	34.01	110	83	Peak
5350	52.75	44.12	54	-1.25	34.28	8.38	34.03	110	83	Average
5350	71.18	62.55	74	-2.82	34.28	8.38	34.03	110	83	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
5058	37.57	38.32	54	-16.43	31.25	5.25	37.25	101	3	Average
5058	59.05	59.8	74	-14.95	31.25	5.25	37.25	101	3	Peak
5310	85.35	85.72			31.45	5.37	37.19	101	3	Average
5310	94.31	94.68			31.45	5.37	37.19	101	3	Peak
5442	39.63	39.77	54	-14.37	31.55	5.44	37.13	101	3	Average
5442	58.84	58.98	74	-15.16	31.55	5.44	37.13	101	3	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	37.64	38.35	54	-16.36	31.32	5.29	37.32	104	165	Average
5150	60.79	61.5	74	-13.21	31.32	5.29	37.32	104	165	Peak
5310	88.6	88.97			31.45	5.37	37.19	104	165	Average
5310	97.58	97.95			31.45	5.37	37.19	104	165	Peak
5350	43.32	43.63	54	-10.68	31.48	5.39	37.18	104	165	Average
5350	65.67	65.98	74	-8.33	31.48	5.39	37.18	104	165	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
5452	45.11	36.29	54	-8.89	34.36	8.51	34.05	110	238	Average
5452	61.41	52.59	74	-12.59	34.36	8.51	34.05	110	238	Peak
5470	67.45	58.62	68.3	-0.85	34.37	8.51	34.05	110	238	Peak
5510	96.11	87.2			34.4	8.57	34.06	110	238	Average
5510	104.43	95.52			34.4	8.57	34.06	110	238	Peak
5725	56.64	47.48	68.3	-11.66	34.62	8.65	34.11	110	238	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5452	44.83	36.01	54	-9.17	34.36	8.51	34.05	104	288	Average
5452	59.04	50.22	74	-14.96	34.36	8.51	34.05	104	288	Peak
5470	66.52	57.69	68.3	-1.78	34.37	8.51	34.05	104	288	Peak
5510	94.25	85.34			34.4	8.57	34.06	104	288	Average
5510	102.03	93.12			34.4	8.57	34.06	104	288	Peak
5725	57.01	47.85	68.3	-11.29	34.62	8.65	34.11	104	288	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5510MHz: Fundamental frequency.
3. 5470MHz & 5725MHz: 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
5442	44.58	35.79	54	-9.42	34.35	8.48	34.04	108	238	Average
5442	58.85	50.06	74	-15.15	34.35	8.48	34.04	108	238	Peak
5470	60.65	51.82	68.3	-7.65	34.37	8.51	34.05	108	238	Peak
5550	99.32	90.35			34.45	8.59	34.07	108	238	Average
5550	106.43	97.46			34.45	8.59	34.07	108	238	Peak
5725	57	47.84	68.3	-11.3	34.62	8.65	34.11	108	238	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5356	44.27	35.64	54	-9.73	34.28	8.38	34.03	102	288	Average
5356	57.74	49.11	74	-16.26	34.28	8.38	34.03	102	288	Peak
5470	59.87	51.04	68.3	-8.43	34.37	8.51	34.05	102	288	Peak
5550	98.96	89.99			34.45	8.59	34.07	102	288	Average
5550	106.42	97.45			34.45	8.59	34.07	102	288	Peak
5725	56.67	47.51	68.3	-11.63	34.62	8.65	34.11	102	288	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5550MHz: Fundamental frequency.
3. 5470MHz & 5725MHz: 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
5450	43.66	34.84	54	-10.34	34.36	8.51	34.05	115	232	Average
5450	57.92	49.1	74	-16.08	34.36	8.51	34.05	115	232	Peak
5470	57.94	49.11	68.3	-10.36	34.37	8.51	34.05	115	232	Peak
5670	97.81	88.71			34.57	8.63	34.1	115	232	Average
5670	105.57	96.47			34.57	8.63	34.1	115	232	Peak
5725	65.45	56.29	68.3	-2.85	34.62	8.65	34.11	115	232	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
5406	43.47	34.75	54	-10.53	34.32	8.44	34.04	100	289	Average
5406	57.7	48.98	74	-16.3	34.32	8.44	34.04	100	289	Peak
5470	56.08	47.25	68.3	-12.22	34.37	8.51	34.05	100	289	Peak
5670	97.2	88.1			34.57	8.63	34.1	100	289	Average
5670	105.36	96.26			34.57	8.63	34.1	100	289	Peak
5725	65.91	56.75	68.3	-2.39	34.62	8.65	34.11	100	289	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5670MHz: Fundamental frequency.
3. 5470MHz & 5725MHz: Out of restricted band

MODE B

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
5042	40.63	41.39	54	-13.37	31.24	5.25	37.25	169	111	Average
5042	58.73	59.49	74	-15.27	31.24	5.25	37.25	169	111	Peak
5190	83.79	84.46			31.35	5.32	37.34	169	111	Average
5190	92.53	93.2			31.35	5.32	37.34	169	111	Peak
5438	38.09	38.23	54	-15.91	31.55	5.44	37.13	169	111	Average
5438	60.17	60.31	74	-13.83	31.55	5.44	37.13	169	111	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5048	42.15	42.91	54	-11.85	31.24	5.25	37.25	100	91	Average
5048	58.21	58.97	74	-15.79	31.24	5.25	37.25	100	91	Peak
5190	87.06	87.73			31.35	5.32	37.34	100	91	Average
5190	95.05	95.72			31.35	5.32	37.34	100	91	Peak
5530	38.43	38.42	54	-15.57	31.63	5.47	37.09	100	91	Average
5530	60.31	60.3	74	-13.69	31.63	5.47	37.09	100	91	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 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
5102	37.66	38.39	54	-16.34	31.28	5.27	37.28	130	164	Average
5102	58.21	58.94	74	-15.79	31.28	5.27	37.28	130	164	Peak
5310	86.44	86.81			31.45	5.37	37.19	130	164	Average
5310	95.22	95.59			31.45	5.37	37.19	130	164	Peak
5348	42.11	42.42	54	-11.89	31.48	5.39	37.18	130	164	Average
5348	60.2	60.51	74	-13.8	31.48	5.39	37.18	130	164	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5020	37.62	38.41	54	-16.38	31.21	5.24	37.24	100	354	Average
5020	59.4	60.19	74	-14.6	31.21	5.24	37.24	100	354	Peak
5310	86.87	87.24			31.45	5.37	37.19	100	354	Average
5310	95.68	96.05			31.45	5.37	37.19	100	354	Peak
5354	41.97	42.28	54	-12.03	31.48	5.39	37.18	100	354	Average
5354	59.08	59.39	74	-14.92	31.48	5.39	37.18	100	354	Peak

REMARKS:

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

802.11a

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
5448	38.88	39.01	54	-15.12	31.56	5.44	37.13	102	158	Average
5448	59.31	59.44	74	-14.69	31.56	5.44	37.13	102	158	Peak
5470	57.69	57.75	68.3	-10.61	31.57	5.45	37.08	102	158	Peak
5500	95.23	95.2			31.6	5.46	37.03	102	158	Average
5500	103.93	103.9			31.6	5.46	37.03	102	158	Peak
5725	59.14	59.02	68.3	-9.16	31.96	5.59	37.43	102	158	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
5360	38.17	38.48	54	-15.83	31.48	5.39	37.18	100	355	Average
5360	59.38	59.69	74	-14.62	31.48	5.39	37.18	100	355	Peak
5470	57.51	57.57	68.3	-10.79	31.57	5.45	37.08	100	355	Peak
5500	91.59	91.56			31.6	5.46	37.03	100	355	Average
5500	100.1	100.07			31.6	5.46	37.03	100	355	Peak
5725	58.21	58.09	68.3	-10.09	31.96	5.59	37.43	100	355	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5500MHz: Fundamental frequency.
3. 5470MHz & 5725MHz: Out of restricted band

MODE C

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	44.87	45.58	54	-9.13	31.32	5.29	37.32	141	116	Average
5150	62.94	63.65	74	-11.06	31.32	5.29	37.32	141	116	Peak
5190	88.45	89.12			31.35	5.32	37.34	141	116	Average
5190	97.69	98.36			31.35	5.32	37.34	141	116	Peak
5448	38.1	38.23	54	-15.9	31.56	5.44	37.13	141	116	Average
5448	59.57	59.7	74	-14.43	31.56	5.44	37.13	141	116	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	46.42	47.13	54	-7.58	31.32	5.29	37.32	100	80	Average
5150	61.2	61.91	74	-12.8	31.32	5.29	37.32	100	80	Peak
5190	90.16	90.83			31.35	5.32	37.34	100	80	Average
5190	98.76	99.43			31.35	5.32	37.34	100	80	Peak
5410	38.36	38.61	54	-15.64	31.52	5.41	37.18	100	80	Average
5410	60.68	60.93	74	-13.32	31.52	5.41	37.18	100	80	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 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
5042	37.6	38.36	54	-16.4	31.24	5.25	37.25	100	132	Average
5042	58.81	59.57	74	-15.19	31.24	5.25	37.25	100	132	Peak
5310	88.67	89.04			31.45	5.37	37.19	100	132	Average
5310	97.35	97.72			31.45	5.37	37.19	100	132	Peak
5368	43	43.29	54	-11	31.49	5.4	37.18	100	132	Average
5368	60.34	60.63	74	-13.66	31.49	5.4	37.18	100	132	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5044	37.73	38.49	54	-16.27	31.24	5.25	37.25	100	170	Average
5044	59.17	59.93	74	-14.83	31.24	5.25	37.25	100	170	Peak
5310	89.77	90.14			31.45	5.37	37.19	100	170	Average
5310	98.96	99.33			31.45	5.37	37.19	100	170	Peak
5348	43.79	44.1	54	-10.21	31.48	5.39	37.18	100	170	Average
5348	62.96	63.27	74	-11.04	31.48	5.39	37.18	100	170	Peak

REMARKS:

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

802.11a

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
5434	39.4	39.56	54	-14.6	31.55	5.42	37.13	100	158	Average
5434	58.95	59.11	74	-15.05	31.55	5.42	37.13	100	158	Peak
5470	61.49	61.55	68.3	-6.81	31.57	5.45	37.08	100	158	Peak
5500	96.16	96.13			31.6	5.46	37.03	100	158	Average
5500	104.66	104.63			31.6	5.46	37.03	100	158	Peak
5725	58.24	58.12	68.3	-10.06	31.96	5.59	37.43	100	158	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5416	38.49	38.72	54	-15.51	31.53	5.42	37.18	109	210	Average
5416	59.21	59.44	74	-14.79	31.53	5.42	37.18	109	210	Peak
5470	59.59	59.65	68.3	-8.71	31.57	5.45	37.08	109	210	Peak
5500	91.3	91.27			31.6	5.46	37.03	109	210	Average
5500	99.89	99.86			31.6	5.46	37.03	109	210	Peak
5725	58.5	58.38	68.3	-9.8	31.96	5.59	37.43	109	210	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5500MHz: Fundamental frequency.
3. 5470MHz & 5725MHz: 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
5144	44.21	44.92	54	-9.79	31.32	5.29	37.32	131	114	Average
5144	61.05	61.76	74	-12.95	31.32	5.29	37.32	131	114	Peak
5190	87.28	87.95			31.35	5.32	37.34	131	114	Average
5190	97.04	97.71			31.35	5.32	37.34	131	114	Peak
5372	37.73	38.02	54	-16.27	31.49	5.40	37.18	131	114	Average
5372	60.19	60.48	74	-13.81	31.49	5.40	37.18	131	114	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	45.14	45.85	54	-8.86	31.32	5.29	37.32	100	97	Average
5150	61.62	62.33	74	-12.38	31.32	5.29	37.32	100	97	Peak
5190	89.06	89.73			31.35	5.32	37.34	100	97	Average
5190	98.86	99.53			31.35	5.32	37.34	100	97	Peak
5440	38.02	38.16	54	-15.98	31.55	5.44	37.13	100	97	Average
5440	59.12	59.26	74	-14.88	31.55	5.44	37.13	100	97	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 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
5116	37.8	38.51	54	-16.2	31.29	5.28	37.28	100	130	Average
5116	61.03	61.74	74	-12.97	31.29	5.28	37.28	100	130	Peak
5310	90.05	90.42			31.45	5.37	37.19	100	130	Average
5310	99.31	99.68			31.45	5.37	37.19	100	130	Peak
5350	42.65	42.96	54	-11.35	31.48	5.39	37.18	100	130	Average
5350	65.9	66.21	74	-8.1	31.48	5.39	37.18	100	130	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	38.21	38.96	54	-15.79	31.24	5.25	37.24	100	90	Average
5040	59.4	60.15	74	-14.6	31.24	5.25	37.24	100	90	Peak
5310	86.84	87.21			31.45	5.37	37.19	100	90	Average
5310	95.3	95.67			31.45	5.37	37.19	100	90	Peak
5350	40.19	40.5	54	-13.81	31.48	5.39	37.18	100	90	Average
5350	64.39	64.7	74	-9.61	31.48	5.39	37.18	100	90	Peak

REMARKS:

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

802.11a

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
5448	38.98	39.11	54	-15.02	31.56	5.44	37.13	100	156	Average
5448	60.2	60.33	74	-13.8	31.56	5.44	37.13	100	156	Peak
5470	62.68	62.74	68.3	-5.62	31.57	5.45	37.08	100	156	Peak
5500	95.88	95.85			31.6	5.46	37.03	100	156	Average
5500	105.59	105.56			31.6	5.46	37.03	100	156	Peak
5725	59.45	59.33	68.3	-8.85	31.96	5.59	37.43	100	156	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5454	38.52	38.6	54	-15.48	31.56	5.44	37.08	100	3	Average
5454	60.62	60.7	74	-13.38	31.56	5.44	37.08	100	3	Peak
5470	59.01	59.07	68.3	-9.29	31.57	5.45	37.08	100	3	Peak
5500	93.7	93.67			31.6	5.46	37.03	100	3	Average
5500	103.23	103.2			31.6	5.46	37.03	100	3	Peak
5725	59.97	59.85	68.3	-8.33	31.96	5.59	37.43	100	3	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5500MHz: Fundamental frequency.
3. 5470MHz & 5725MHz: Out of restricted band

MODE E

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	46.08	46.79	54	-7.92	31.32	5.29	37.32	167	118	Average
5150	64.67	65.38	74	-9.33	31.32	5.29	37.32	167	118	Peak
5190	90.52	91.19			31.35	5.32	37.34	167	118	Average
5190	99.36	100.03			31.35	5.32	37.34	167	118	Peak
5454	38.14	38.22	54	-15.86	31.56	5.44	37.08	167	118	Average
5454	60.2	60.28	74	-13.8	31.56	5.44	37.08	167	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
5150	48.16	48.87	54	-5.84	31.32	5.29	37.32	100	83	Average
5150	63.69	64.4	74	-10.31	31.32	5.29	37.32	100	83	Peak
5190	91.56	92.23			31.35	5.32	37.34	100	83	Average
5190	100.55	101.22			31.35	5.32	37.34	100	83	Peak
5426	40.8	40.98	54	-13.2	31.53	5.42	37.13	100	83	Average
5426	59.59	59.77	74	-14.41	31.53	5.42	37.13	100	83	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 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
5050	37.71	38.47	54	-16.29	31.24	5.25	37.25	100	130	Average
5050	60.09	60.85	74	-13.91	31.24	5.25	37.25	100	130	Peak
5310	90.18	90.55			31.45	5.37	37.19	100	130	Average
5310	99.01	99.38			31.45	5.37	37.19	100	130	Peak
5350	37.82	38.13	54	-16.18	31.48	5.39	37.18	100	130	Average
5350	62.24	62.55	74	-11.76	31.48	5.39	37.18	100	130	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5126	37.96	38.67	54	-16.04	31.31	5.28	37.3	100	80	Average
5126	61.33	62.04	74	-12.67	31.31	5.28	37.3	100	80	Peak
5310	89.36	89.73			31.45	5.37	37.19	100	80	Average
5310	99.25	99.62			31.45	5.37	37.19	100	80	Peak
5350	41.85	42.16	54	-12.15	31.48	5.39	37.18	100	80	Average
5350	67.41	67.72	74	-6.59	31.48	5.39	37.18	100	80	Peak

REMARKS:

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

802.11a

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	39.55	39.63	54	-14.45	31.56	5.44	37.08	100	150	Average
5460	59.42	59.5	74	-14.58	31.56	5.44	37.08	100	150	Peak
5470	61.26	61.32	68.3	-7.04	31.57	5.45	37.08	100	150	Peak
5500	96.89	96.86			31.6	5.46	37.03	100	150	Average
5500	106.5	106.47			31.6	5.46	37.03	100	150	Peak
5725	59.44	59.32	68.3	-8.86	31.96	5.59	37.43	100	150	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	38.77	38.85	54	-15.23	31.56	5.44	37.08	100	350	Average
5452	59.43	59.51	74	-14.57	31.56	5.44	37.08	100	350	Peak
5470	61.14	61.2	68.3	-7.16	31.57	5.45	37.08	100	350	Peak
5500	93.42	93.39			31.6	5.46	37.03	100	350	Average
5500	102.91	102.88			31.6	5.46	37.03	100	350	Peak
5725	58.43	58.31	68.3	-9.87	31.96	5.59	37.43	100	350	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5500MHz: Fundamental frequency.
3. 5470MHz & 5725MHz: 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
50.52	23.97	41.54	40	-16.03	12.97	0.77	31.31	100	142	Peak
56.19	27.71	45.9	40	-12.29	12.35	0.8	31.34	100	274	Peak
187.14	29.58	49.51	43.5	-13.92	10.26	1.53	31.72	165	360	Peak
415.5	21.98	35.88	46	-24.02	15.64	2.48	32.02	100	122	Peak
510	23.03	34.26	46	-22.97	17.55	2.81	31.59	198	221	Peak
797.7	33.79	39.33	46	-12.21	22.19	3.69	31.42	100	133	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
57	25.99	44.28	40	-14.01	12.25	0.81	31.35	100	198	Peak
149.88	16.87	34.43	43.5	-26.63	12.71	1.34	31.61	108	42	Peak
201.99	22.32	43.02	43.5	-21.18	9.44	1.6	31.74	100	166	Peak
415.5	23.21	37.11	46	-22.79	15.64	2.48	32.02	100	133	Peak
665.4	31.69	39.86	46	-14.31	20.4	3.3	31.87	100	199	Peak
748	25.95	32.23	46	-20.05	21.49	3.57	31.34	100	175	Peak

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

Margin value = Emission level – Limit value

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 62	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
51.06	22.95	40.62	40	-17.05	12.87	0.77	31.31	100	137	Peak
56.19	27.71	45.9	40	-12.29	12.35	0.8	31.34	100	333	Peak
180.66	29.54	49.14	43.5	-13.96	10.74	1.5	31.84	133	175	Peak
415.5	22.98	36.88	46	-23.02	15.64	2.48	32.02	108	274	Peak
615	28.95	38.15	46	-17.05	19.79	3.13	32.12	166	196	Peak
715.1	31.06	38.26	46	-14.94	21.03	3.47	31.7	100	231	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
30.81	24.02	42.43	40	-15.98	12.14	0.57	31.12	117	168	Peak
55.11	23.75	41.83	40	-16.25	12.45	0.8	31.33	100	205	Peak
225.75	27.85	47.47	46	-18.15	10.46	1.72	31.8	100	107	Peak
415.5	25.21	39.11	46	-20.79	15.64	2.48	32.02	100	302	Peak
515.6	28.66	39.73	46	-17.34	17.68	2.83	31.58	100	198	Peak
648.6	31.42	40.01	46	-14.58	20.2	3.24	32.03	100	133	Peak

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

Margin value = Emission level – Limit value

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	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
51.06	22.95	40.62	40	-17.05	12.87	0.77	31.31	100	123	Peak
56.19	25.71	43.9	40	-14.29	12.35	0.8	31.34	100	152	Peak
219.54	29.92	49.75	46	-16.08	10.18	1.69	31.7	100	117	Peak
415.5	24.98	38.88	46	-21.02	15.64	2.48	32.02	107	57	Peak
615	28.95	38.15	46	-17.05	19.79	3.13	32.12	100	107	Peak
664.7	31.86	40.06	46	-14.14	20.39	3.3	31.89	100	207	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
30.81	25.02	43.43	40	-14.98	12.14	0.57	31.12	102	207	Peak
40.53	21.69	38.49	40	-18.31	13.55	0.67	31.02	104	201	Peak
55.65	25.26	43.34	40	-14.74	12.45	0.8	31.33	227	197	Peak
382.6	18.89	33.57	46	-27.11	14.94	2.36	31.98	100	157	Peak
548.5	28.93	39.48	46	-17.07	18.44	2.94	31.93	157	207	Peak
665.4	29.69	37.86	46	-16.31	20.4	3.3	31.87	100	199	Peak

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

Margin value = Emission level – Limit value

MODE B

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
50.52	20.97	38.54	40	-19.03	12.97	0.77	31.31	100	137	Peak
56.19	27.71	45.9	40	-12.29	12.35	0.8	31.34	123	4	Peak
189.57	28.89	48.96	43.5	-14.61	10.05	1.55	31.67	100	285	Peak
415.5	23.98	37.88	46	-22.02	15.64	2.48	32.02	100	88	Peak
526.1	23.93	34.79	46	-22.07	17.91	2.87	31.64	100	312	Peak
664.7	31.86	40.06	46	-14.14	20.39	3.3	31.89	174	185	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
30.81	23.02	41.43	40	-16.98	12.14	0.57	31.12	100	312	Peak
56.19	26.61	44.8	40	-13.39	12.35	0.8	31.34	100	198	Peak
221.43	28.11	47.87	46	-17.89	10.26	1.7	31.72	107	360	Peak
415.5	24.21	38.11	46	-21.79	15.64	2.48	32.02	100	57	Peak
531.7	27.16	37.93	46	-18.84	18.04	2.89	31.7	100	198	Peak
665.4	31.69	39.86	46	-14.31	20.4	3.3	31.87	100	331	Peak

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

Margin value = Emission level – Limit value

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 62	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
55.92	26.18	44.37	40	-13.82	12.35	0.8	31.34	100	360	Peak
168.24	25.92	44.36	43.5	-17.58	11.86	1.44	31.74	100	360	Peak
215.22	30.77	50.74	43.5	-12.73	10.01	1.67	31.65	100	360	Peak
415.5	23.98	37.88	46	-22.02	15.64	2.48	32.02	100	0	Peak
648.6	28.41	37	46	-17.59	20.2	3.24	32.03	100	0	Peak
664.7	31.86	40.06	46	-14.14	20.39	3.3	31.89	100	0	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
30.81	22.02	40.43	40	-17.98	12.14	0.57	31.12	100	360	Peak
56.19	26.61	44.8	40	-13.39	12.35	0.8	31.34	100	360	Peak
180.93	24.97	44.61	43.5	-18.53	10.67	1.51	31.82	100	360	Peak
449.1	21.89	34.95	46	-24.11	16.31	2.61	31.98	100	0	Peak
548.5	27.93	38.48	46	-18.07	18.44	2.94	31.93	100	0	Peak
648.6	30.42	39.01	46	-15.58	20.2	3.24	32.03	100	0	Peak

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

Margin value = Emission level – Limit value

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	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
55.92	27.18	45.37	40	-12.82	12.35	0.8	31.34	100	124	Peak
173.37	27.45	46.38	43.5	-16.05	11.38	1.46	31.77	100	45	Peak
218.19	30.49	50.37	46	-15.51	10.13	1.68	31.69	107	241	Peak
415.5	23.98	37.88	46	-22.02	15.64	2.48	32.02	100	312	Peak
648.6	30.41	39	46	-15.59	20.2	3.24	32.03	100	127	Peak
797.7	34.79	40.33	46	-11.21	22.19	3.69	31.42	100	224	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
30.81	23.02	41.43	40	-16.98	12.14	0.57	31.12	100	124	Peak
56.19	27.61	45.8	40	-12.39	12.35	0.8	31.34	104	274	Peak
223.32	27.9	47.6	46	-18.1	10.34	1.71	31.75	100	332	Peak
399.4	21.83	36.21	46	-24.17	15.33	2.42	32.13	100	228	Peak
548.5	27.93	38.48	46	-18.07	18.44	2.94	31.93	100	0	Peak
665.4	29.69	37.86	46	-16.31	20.4	3.3	31.87	100	197	Peak

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

Margin value = Emission level – Limit value

MODE C

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
56.46	26.46	44.65	40	-13.54	12.35	0.8	31.34	100	198	Peak
180.39	27.93	47.53	43.5	-15.57	10.74	1.5	31.84	103	214	Peak
213.33	29.79	49.83	43.5	-13.71	9.93	1.66	31.63	106	330	Peak
415.5	23.44	37.34	46	-22.56	15.64	2.48	32.02	100	320	Peak
615	27.59	36.79	46	-18.41	19.79	3.13	32.12	105	78	Peak
664.7	32.03	40.23	46	-13.97	20.39	3.3	31.89	107	148	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
55.65	26.7	44.78	40	-13.3	12.45	0.8	31.33	100	145	Peak
180.39	22.82	42.42	43.5	-20.68	10.74	1.5	31.84	100	277	Peak
220.89	27.27	47.03	46	-18.73	10.26	1.7	31.72	100	308	Peak
415.5	22.27	36.17	46	-23.73	15.64	2.48	32.02	104	291	Peak
548.5	28.94	39.49	46	-17.06	18.44	2.94	31.93	100	12	Peak
664.7	30.43	38.63	46	-15.57	20.39	3.3	31.89	100	106	Peak

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

Margin value = Emission level – Limit value

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 62	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
56.73	25.32	43.61	40	-14.68	12.25	0.81	31.35	100	191	Peak
174.72	25.88	44.91	43.5	-17.62	11.28	1.47	31.78	100	207	Peak
209.01	28.64	48.84	43.5	-14.86	9.77	1.64	31.61	100	360	Peak
449.1	22.92	35.98	46	-23.08	16.31	2.61	31.98	100	155	Peak
582.1	26.88	36.77	46	-19.12	19.19	3.04	32.12	102	174	Peak
715.1	31.08	38.28	46	-14.92	21.03	3.47	31.7	103	41	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
55.38	24.9	42.98	40	-15.1	12.45	0.8	31.33	105	265	Peak
174.72	21	40.03	43.5	-22.5	11.28	1.47	31.78	100	173	Peak
219	26.17	46	46	-19.83	10.18	1.69	31.7	100	328	Peak
382.6	20.18	34.86	46	-25.82	14.94	2.36	31.98	102	263	Peak
548.5	28.91	39.46	46	-17.09	18.44	2.94	31.93	100	211	Peak
664.7	29.42	37.62	46	-16.58	20.39	3.3	31.89	100	132	Peak

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

Margin value = Emission level – Limit value

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	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
55.92	26.47	44.66	40	-13.53	12.35	0.8	31.34	100	166	Peak
187.95	27.56	47.53	43.5	-15.94	10.19	1.54	31.7	100	230	Peak
205.77	29.34	49.79	43.5	-14.16	9.6	1.62	31.67	108	243	Peak
415.5	23.9	37.8	46	-22.1	15.64	2.48	32.02	100	210	Peak
665.4	31.26	39.43	46	-14.74	20.4	3.3	31.87	104	78	Peak
715.1	30.6	37.8	46	-15.4	21.03	3.47	31.7	109	235	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
55.92	26.42	44.61	40	-13.58	12.35	0.8	31.34	107	254	Peak
187.14	22.91	42.84	43.5	-20.59	10.26	1.53	31.72	103	217	Peak
221.97	26.78	46.52	46	-19.22	10.3	1.7	31.74	100	120	Peak
415.5	22.33	36.23	46	-23.67	15.64	2.48	32.02	100	68	Peak
548.5	28.34	38.89	46	-17.66	18.44	2.94	31.93	118	251	Peak
637.4	29.07	37.91	46	-16.93	20.06	3.2	32.1	107	234	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
51.06	20.95	38.62	40	-19.05	12.87	0.77	31.31	100	213	Peak
55.92	26.18	44.37	40	-13.82	12.35	0.80	31.34	100	44	Peak
180.66	28.54	48.14	43.5	-14.96	10.74	1.50	31.84	100	167	Peak
548.50	24.61	35.16	46	-21.39	18.44	2.94	31.93	100	331	Peak
715.10	30.06	37.26	46	-15.94	21.03	3.47	31.70	100	221	Peak
748.00	28.80	35.08	46	-17.20	21.49	3.57	31.34	100	186	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	22	40.59	40	-18	11.98	0.57	31.14	128	360	Peak
56.73	24.7	42.99	40	-15.3	12.25	0.81	31.35	100	321	Peak
180.93	23.97	43.61	43.5	-19.53	10.67	1.51	31.82	100	144	Peak
415.5	24.21	38.11	46	-21.79	15.64	2.48	32.02	100	121	Peak
548.5	28.93	39.48	46	-17.07	18.44	2.94	31.93	123	211	Peak
648.6	30.42	39.01	46	-15.58	20.2	3.24	32.03	100	99	Peak

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

Margin value = Emission level – Limit value

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 62	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
56.19	26.71	44.9	40	-13.29	12.35	0.8	31.34	100	231	Peak
107.49	15.51	36.45	43.5	-27.99	9.81	1.11	31.86	178	42	Peak
211.98	28.79	48.86	43.5	-14.71	9.89	1.65	31.61	100	287	Peak
415.5	23.98	37.88	46	-22.02	15.64	2.48	32.02	128	312	Peak
648.6	29.41	38	46	-16.59	20.2	3.24	32.03	147	312	Peak
715.1	30.06	37.26	46	-15.94	21.03	3.47	31.7	231	44	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
30.81	23.02	41.43	40	-16.98	12.14	0.57	31.12	100	123	Peak
56.19	26.61	44.8	40	-13.39	12.35	0.8	31.34	100	223	Peak
221.43	27.11	46.87	46	-18.89	10.26	1.7	31.72	153	231	Peak
415.5	24.21	38.11	46	-21.79	15.64	2.48	32.02	165	223	Peak
548.5	28.93	39.48	46	-17.07	18.44	2.94	31.93	100	22	Peak
648.6	30.42	39.01	46	-15.58	20.2	3.24	32.03	100	221	Peak

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

Margin value = Emission level – Limit value

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	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
56.19	25.71	43.9	40	-14.29	12.35	0.8	31.34	100	43	Peak
180.66	29.54	49.14	43.5	-13.96	10.74	1.5	31.84	100	223	Peak
219.54	30.92	50.75	46	-15.08	10.18	1.69	31.7	100	78	Peak
415.5	24.98	38.88	46	-21.02	15.64	2.48	32.02	100	42	Peak
664.7	31.86	40.06	46	-14.14	20.39	3.3	31.89	100	121	Peak
797.7	33.79	39.33	46	-12.21	22.19	3.69	31.42	100	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
30.81	23.02	41.43	40	-16.98	12.14	0.57	31.12	100	56	Peak
56.19	25.61	43.8	40	-14.39	12.35	0.8	31.34	121	221	Peak
223.32	27.9	47.6	46	-18.1	10.34	1.71	31.75	100	265	Peak
482	25.75	37.9	46	-20.25	16.96	2.72	31.83	100	44	Peak
548.5	30.93	41.48	46	-15.07	18.44	2.94	31.93	100	287	Peak
715.1	27.83	35.03	46	-18.17	21.03	3.47	31.7	100	54	Peak

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

Margin value = Emission level – Limit value

MODE E

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
57	24.38	42.67	40	-15.62	12.25	0.81	31.35	100	178	Peak
178.77	24.67	44.08	43.5	-18.83	10.92	1.49	31.82	100	122	Peak
201.18	26.86	47.61	43.5	-16.64	9.4	1.6	31.75	201	197	Peak
416.2	18.17	32.05	46	-27.83	15.66	2.49	32.03	117	301	Peak
636	23.71	32.58	46	-22.29	20.04	3.2	32.11	101	197	Peak
715.1	30.06	37.26	46	-15.94	21.03	3.47	31.7	100	221	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
56.19	27.61	45.8	40	-12.39	12.35	0.8	31.34	100	225	Peak
159.87	19.22	36.98	43.5	-24.28	12.73	1.39	31.88	100	360	Peak
193.89	23.75	44.13	43.5	-19.75	9.77	1.56	31.71	100	312	Peak
552.7	26.09	36.58	46	-19.91	18.53	2.96	31.98	100	155	Peak
582.1	28.65	38.54	46	-17.35	19.19	3.04	32.12	100	2	Peak
681.5	27.98	35.86	46	-18.02	20.6	3.36	31.84	100	3	Peak

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

Margin value = Emission level – Limit value

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 62	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
55.92	26.18	44.37	40	-13.82	12.35	0.8	31.34	100	127	Peak
180.66	29.54	49.14	43.5	-13.96	10.74	1.5	31.84	104	224	Peak
218.19	30.49	50.37	46	-15.51	10.13	1.68	31.69	100	111	Peak
382.6	20.98	35.66	46	-25.02	14.94	2.36	31.98	132	274	Peak
510	23.03	34.26	46	-22.97	17.55	2.81	31.59	100	87	Peak
615	28.95	38.15	46	-17.05	19.79	3.13	32.12	100	198	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
31.35	21.67	40.08	40	-18.33	12.14	0.57	31.12	124	22	Peak
56.19	26.61	44.8	40	-13.39	12.35	0.8	31.34	100	78	Peak
208.47	26.24	46.5	43.5	-17.26	9.73	1.63	31.62	100	178	Peak
515.6	26.66	37.73	46	-19.34	17.68	2.83	31.58	100	64	Peak
582.1	29.65	39.54	46	-16.35	19.19	3.04	32.12	100	37	Peak
665.4	30.69	38.86	46	-15.31	20.4	3.3	31.87	100	198	Peak

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

Margin value = Emission level – Limit value

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	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
51.06	21.95	39.62	40	-18.05	12.87	0.77	31.31	100	132	Peak
56.46	27.16	45.35	40	-12.84	12.35	0.8	31.34	105	214	Peak
180.66	29.54	49.14	43.5	-13.96	10.74	1.5	31.84	204	133	Peak
415.5	22.98	36.88	46	-23.02	15.64	2.48	32.02	100	197	Peak
582.1	27.14	37.03	46	-18.86	19.19	3.04	32.12	100	207	Peak
681.5	30.14	38.02	46	-15.86	20.6	3.36	31.84	100	155	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
30.81	23.02	41.43	40	-16.98	12.14	0.57	31.12	106	122	Peak
56.19	26.61	44.8	40	-13.39	12.35	0.8	31.34	123	207	Peak
220.08	27.04	46.84	46	-18.96	10.22	1.69	31.71	107	228	Peak
515.6	27.66	38.73	46	-18.34	17.68	2.83	31.58	201	197	Peak
548.5	28.93	39.48	46	-17.07	18.44	2.94	31.93	100	197	Peak
648.6	29.42	38.01	46	-16.58	20.2	3.24	32.03	100	222	Peak

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

Margin value = Emission level – Limit value

MODE F

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
57	25.2	43.49	40	-14.8	12.25	0.81	31.35	100	154	Peak
133.14	16.99	35.66	43.5	-26.51	11.88	1.26	31.81	100	167	Peak
179.04	24.43	43.93	43.5	-19.07	10.83	1.5	31.83	100	197	Peak
415.5	21.87	35.77	46	-24.13	15.64	2.48	32.02	157	123	Peak
582.1	26.56	36.45	46	-19.44	19.19	3.04	32.12	100	199	Peak
615	29.32	38.52	46	-16.68	19.79	3.13	32.12	100	108	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
55.11	24.75	42.83	40	-15.25	12.45	0.8	31.33	100	108	Peak
73.2	18.44	39.41	40	-21.56	9.81	0.93	31.71	100	228	Peak
87.51	22.81	45.37	40	-17.19	8.25	1.01	31.82	134	133	Peak
430.9	20.74	34.26	46	-25.26	15.95	2.54	32.01	100	227	Peak
531.7	25.58	36.35	46	-20.42	18.04	2.89	31.7	100	196	Peak
606.6	26.29	35.65	46	-19.71	19.68	3.11	32.15	100	137	Peak

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

Margin value = Emission level – Limit value

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 62	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
42.96	21.84	38.64	40	-18.16	13.58	0.7	31.08	210	107	Peak
56.46	27.13	45.32	40	-12.87	12.35	0.8	31.34	122	198	Peak
193.35	29.59	49.89	43.5	-13.91	9.84	1.56	31.7	100	130	Peak
563.2	26.17	36.48	46	-19.83	18.77	2.99	32.07	167	277	Peak
615	30.32	39.52	46	-15.68	19.79	3.13	32.12	100	223	Peak
665.4	33.57	41.74	46	-12.43	20.4	3.3	31.87	100	188	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
31.08	26.31	44.72	40	-13.69	12.14	0.57	31.12	221	107	Peak
55.65	26.47	44.55	40	-13.53	12.45	0.8	31.33	100	310	Peak
87.51	23.81	46.37	40	-16.19	8.25	1.01	31.82	285	360	Peak
548.5	26.1	36.65	46	-19.9	18.44	2.94	31.93	100	175	Peak
582.1	28.38	38.27	46	-17.62	19.19	3.04	32.12	100	204	Peak
606.6	27.29	36.65	46	-18.71	19.68	3.11	32.15	100	107	Peak

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

Margin value = Emission level – Limit value

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	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
56.46	27.13	45.32	40	-12.87	12.35	0.8	31.34	100	107	Peak
175.8	26.01	45.14	43.5	-17.49	11.19	1.47	31.79	107	221	Peak
211.71	31.41	51.51	43.5	-12.09	9.85	1.65	31.6	100	127	Peak
304.2	22.05	38.81	46	-23.95	13.06	2.07	31.89	157	267	Peak
615	30.32	39.52	46	-15.68	19.79	3.13	32.12	100	199	Peak
715.1	31.46	38.66	46	-14.54	21.03	3.47	31.7	100	227	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
42.69	25.8	42.6	40	-14.2	13.58	0.7	31.08	100	175	Peak
56.19	29.18	47.37	40	-10.82	12.35	0.8	31.34	187	220	Peak
86.16	22.94	45.49	40	-17.06	8.23	1	31.78	100	330	Peak
531.7	25.58	36.35	46	-20.42	18.04	2.89	31.7	100	117	Peak
568.8	29.2	39.4	46	-16.8	18.88	3	32.08	100	175	Peak
749.4	28.05	34.26	46	-17.95	21.52	3.57	31.3	100	228	Peak

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

Margin value = Emission level – Limit value

MODE G

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
42.96	19.84	36.64	40	-20.16	13.58	0.7	31.08	100	132	Peak
55.92	27.62	45.81	40	-12.38	12.35	0.8	31.34	100	198	Peak
219	30.65	50.48	46	-15.35	10.18	1.69	31.7	100	175	Peak
415.5	21.87	35.77	46	-24.13	15.64	2.48	32.02	100	220	Peak
615	29.32	38.52	46	-16.68	19.79	3.13	32.12	100	97	Peak
664.7	33.98	42.18	46	-12.02	20.39	3.3	31.89	107	247	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
42.69	26.8	43.6	40	-13.2	13.58	0.7	31.08	100	123	Peak
55.65	26.47	44.55	40	-13.53	12.45	0.8	31.33	100	174	Peak
86.97	23.66	46.22	40	-16.34	8.25	1.01	31.82	100	331	Peak
415.5	20.81	34.71	46	-25.19	15.64	2.48	32.02	100	75	Peak
548.5	27.1	37.65	46	-18.9	18.44	2.94	31.93	100	54	Peak
615	29.62	38.82	46	-16.38	19.79	3.13	32.12	100	198	Peak

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

Margin value = Emission level – Limit value

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 62	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
51.06	23.39	41.06	40	-16.61	12.87	0.77	31.31	105	221	Peak
55.92	25.62	43.81	40	-14.38	12.35	0.8	31.34	100	57	Peak
219	31.65	51.48	46	-14.35	10.18	1.69	31.7	100	247	Peak
304.2	21.05	37.81	46	-24.95	13.06	2.07	31.89	100	198	Peak
615	28.32	37.52	46	-17.68	19.79	3.13	32.12	100	274	Peak
665.4	32.57	40.74	46	-13.43	20.4	3.3	31.87	100	312	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
36.75	25.84	43.16	40	-14.16	13.09	0.62	31.03	100	198	Peak
56.19	28.18	46.37	40	-11.82	12.35	0.8	31.34	100	227	Peak
84	22.89	45.39	40	-17.11	8.2	0.99	31.69	100	102	Peak
415.5	21.81	35.71	46	-24.19	15.64	2.48	32.02	100	312	Peak
515.6	25.73	36.8	46	-20.27	17.68	2.83	31.58	100	74	Peak
582.1	28.38	38.27	46	-17.62	19.19	3.04	32.12	100	312	Peak

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

Margin value = Emission level – Limit value

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	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
55.92	28.62	46.81	40	-11.38	12.35	0.8	31.34	100	154	Peak
138.54	22.71	40.81	43.5	-20.79	12.27	1.29	31.66	124	117	Peak
211.71	30.41	50.51	43.5	-13.09	9.85	1.65	31.6	137	207	Peak
403.6	19.28	33.51	46	-26.72	15.41	2.44	32.08	100	54	Peak
548.5	25.21	35.76	46	-20.79	18.44	2.94	31.93	100	79	Peak
664.7	33.98	42.18	46	-12.02	20.39	3.3	31.89	107	331	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
36.48	25.98	43.3	40	-14.02	13.09	0.62	31.03	100	228	Peak
55.38	27.7	45.78	40	-12.3	12.45	0.8	31.33	100	123	Peak
86.16	23.94	46.49	40	-16.06	8.23	1	31.78	100	187	Peak
430.9	21.74	35.26	46	-24.26	15.95	2.54	32.01	100	117	Peak
582.1	28.38	38.27	46	-17.62	19.19	3.04	32.12	100	12	Peak
648.6	30.07	38.66	46	-15.93	20.2	3.24	32.03	100	7	Peak

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

Margin value = Emission level – Limit value

MODE H

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
55.92	28.62	46.81	40	-11.38	12.35	0.8	31.34	100	53	Peak
138.54	21.71	39.81	43.5	-21.79	12.27	1.29	31.66	100	123	Peak
187.68	28.38	48.35	43.5	-15.12	10.19	1.54	31.7	100	221	Peak
415.5	22.87	36.77	46	-23.13	15.64	2.48	32.02	100	145	Peak
664.7	33.98	42.18	46	-12.02	20.39	3.3	31.89	100	213	Peak
797.7	33.06	38.6	46	-12.94	22.19	3.69	31.42	144	234	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
42.69	26.8	43.6	40	-13.2	13.58	0.7	31.08	100	224	Peak
106.95	20.48	41.54	43.5	-23.02	9.71	1.11	31.88	100	189	Peak
211.44	21.29	41.39	43.5	-22.21	9.85	1.65	31.6	100	112	Peak
415.5	22.81	36.71	46	-23.19	15.64	2.48	32.02	100	54	Peak
582.1	29.38	39.27	46	-16.62	19.19	3.04	32.12	155	0	Peak
749.4	27.05	33.26	46	-18.95	21.52	3.57	31.3	144	61	Peak

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

Margin value = Emission level – Limit value

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 62	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
56.46	26.13	44.32	40	-13.87	12.35	0.8	31.34	100	220	Peak
89.4	17.4	40.01	43.5	-26.1	8.28	1.02	31.91	100	221	Peak
219	30.65	50.48	46	-15.35	10.18	1.69	31.7	198	360	Peak
615	28.32	37.52	46	-17.68	19.79	3.13	32.12	100	221	Peak
664.7	31.98	40.18	46	-14.02	20.39	3.3	31.89	152	209	Peak
715.1	30.46	37.66	46	-15.54	21.03	3.47	31.7	112	321	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
42.69	26.8	43.6	40	-13.2	13.58	0.7	31.08	100	231	Peak
56.46	25.33	43.52	40	-14.67	12.35	0.8	31.34	231	324	Peak
86.16	23.94	46.49	40	-16.06	8.23	1	31.78	100	76	Peak
468	22.54	35.07	46	-23.46	16.7	2.68	31.91	197	265	Peak
568.8	27.2	37.4	46	-18.8	18.88	3	32.08	100	44	Peak
648.6	29.07	37.66	46	-16.93	20.2	3.24	32.03	100	123	Peak

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

Margin value = Emission level – Limit value

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	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
56.46	26.13	44.32	40	-13.87	12.35	0.8	31.34	231	109	Peak
89.4	17.4	40.01	43.5	-26.1	8.28	1.02	31.91	221	331	Peak
193.35	29.59	49.89	43.5	-13.91	9.84	1.56	31.7	100	22	Peak
449.1	23.76	36.82	46	-22.24	16.31	2.61	31.98	100	212	Peak
582.1	27.56	37.45	46	-18.44	19.19	3.04	32.12	100	154	Peak
664.7	32.98	41.18	46	-13.02	20.39	3.3	31.89	100	213	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
36.48	25.98	43.3	40	-14.02	13.09	0.62	31.03	213	123	Peak
106.95	20.48	41.54	43.5	-23.02	9.71	1.11	31.88	100	223	Peak
174.72	17.58	36.61	43.5	-25.92	11.28	1.47	31.78	165	254	Peak
300	15.57	32.42	46	-30.43	12.94	2.05	31.84	100	287	Peak
515.6	24.73	35.8	46	-21.27	17.68	2.83	31.58	213	190	Peak
768.3	26.22	32.15	46	-19.78	21.78	3.62	31.33	152	223	Peak

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

Margin value = Emission level – Limit value

MODE I

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
51.06	21.39	39.06	40	-18.61	12.87	0.77	31.31	100	231	Peak
56.73	25.33	43.62	40	-14.67	12.25	0.81	31.35	100	231	Peak
211.71	30.41	50.51	43.5	-13.09	9.85	1.65	31.6	100	221	Peak
415.5	22.87	36.77	46	-23.13	15.64	2.48	32.02	100	321	Peak
615	29.32	38.52	46	-16.68	19.79	3.13	32.12	213	106	Peak
797.7	33.06	38.6	46	-12.94	22.19	3.69	31.42	100	311	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
42.69	26.8	43.6	40	-13.2	13.58	0.7	31.08	100	42	Peak
55.38	26.7	44.78	40	-13.3	12.45	0.8	31.33	123	133	Peak
86.16	23.94	46.49	40	-16.06	8.23	1	31.78	100	221	Peak
382.6	19.34	34.02	46	-26.66	14.94	2.36	31.98	100	221	Peak
548.5	26.1	36.65	46	-19.9	18.44	2.94	31.93	100	221	Peak
734	26.14	32.86	46	-19.86	21.3	3.53	31.55	100	112	Peak

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

Margin value = Emission level – Limit value

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 62	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
55.92	27.62	45.81	40	-12.38	12.35	0.8	31.34	100	360	Peak
167.7	25.92	44.29	43.5	-17.58	11.96	1.43	31.76	100	360	Peak
240.6	29.33	48.26	46	-16.67	11.07	1.79	31.79	100	360	Peak
382.6	19.04	33.72	46	-26.96	14.94	2.36	31.98	100	0	Peak
548.5	24.21	34.76	46	-21.79	18.44	2.94	31.93	100	0	Peak
664.7	32.98	41.18	46	-13.02	20.39	3.3	31.89	100	0	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
31.62	24.24	42.47	40	-15.76	12.3	0.58	31.11	100	360	Peak
56.46	26.33	44.52	40	-13.67	12.35	0.8	31.34	100	360	Peak
201.72	18.22	38.92	43.5	-25.28	9.44	1.6	31.74	100	360	Peak
428.8	17.47	31.04	46	-28.53	15.91	2.53	32.01	100	0	Peak
582.1	28.38	38.27	46	-17.62	19.19	3.04	32.12	100	0	Peak
669.6	24.88	32.95	46	-21.12	20.44	3.31	31.82	100	0	Peak

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

Margin value = Emission level – Limit value

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	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
56.46	27.13	45.32	40	-12.87	12.35	0.8	31.34	100	75	Peak
193.35	28.59	48.89	43.5	-14.91	9.84	1.56	31.7	100	234	Peak
219.27	29.52	49.35	46	-16.48	10.18	1.69	31.7	100	322	Peak
533.8	21.48	32.21	46	-24.52	18.08	2.89	31.7	178	4	Peak
681.5	30.42	38.3	46	-15.58	20.6	3.36	31.84	100	321	Peak
748	30.01	36.29	46	-15.99	21.49	3.57	31.34	100	42	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
36.48	24.98	42.3	40	-15.02	13.09	0.62	31.03	100	243	Peak
86.16	22.94	45.49	40	-17.06	8.23	1	31.78	100	112	Peak
142.86	21.5	39.38	43.5	-22	12.44	1.31	31.63	100	32	Peak
531.7	25.58	36.35	46	-20.42	18.04	2.89	31.7	100	42	Peak
648.6	29.07	37.66	46	-16.93	20.2	3.24	32.03	100	222	Peak
766.9	25.21	31.18	46	-20.79	21.76	3.61	31.34	100	311	Peak

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

Margin value = Emission level – Limit value

MODE J

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
55.65	29.61	47.69	40	-10.39	12.45	0.8	31.33	100	157	Peak
175.8	28.01	47.14	43.5	-15.49	11.19	1.47	31.79	100	220	Peak
219	31.65	51.48	46	-14.35	10.18	1.69	31.7	100	142	Peak
615	29.32	38.52	46	-16.68	19.79	3.13	32.12	100	187	Peak
664.7	32.98	41.18	46	-13.02	20.39	3.3	31.89	100	220	Peak
715.1	31.46	38.66	46	-14.54	21.03	3.47	31.7	100	107	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
42.69	26.8	43.6	40	-13.2	13.58	0.7	31.08	104	204	Peak
55.92	27.85	46.04	40	-12.15	12.35	0.8	31.34	100	203	Peak
142.86	22.5	40.38	43.5	-21	12.44	1.31	31.63	100	198	Peak
515.6	23.73	34.8	46	-22.27	17.68	2.83	31.58	100	114	Peak
548.5	28.1	38.65	46	-17.9	18.44	2.94	31.93	100	221	Peak
582.1	29.38	39.27	46	-16.62	19.19	3.04	32.12	100	174	Peak

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

Margin value = Emission level – Limit value

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 62	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
56.73	27.33	45.62	40	-12.67	12.25	0.81	31.35	100	123	Peak
138.54	22.71	40.81	43.5	-20.79	12.27	1.29	31.66	100	23	Peak
193.35	28.59	48.89	43.5	-14.91	9.84	1.56	31.7	100	274	Peak
403.6	20.28	34.51	46	-25.72	15.41	2.44	32.08	100	197	Peak
582.1	26.56	36.45	46	-19.44	19.19	3.04	32.12	100	185	Peak
664.7	32.98	41.18	46	-13.02	20.39	3.3	31.89	145	0	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
42.69	25.8	42.6	40	-14.2	13.58	0.7	31.08	100	312	Peak
56.19	27.18	45.37	40	-12.82	12.35	0.8	31.34	100	360	Peak
87.51	23.81	46.37	40	-16.19	8.25	1.01	31.82	100	225	Peak
548.5	26.1	36.65	46	-19.9	18.44	2.94	31.93	241	10	Peak
664.7	28.74	36.94	46	-17.26	20.39	3.3	31.89	100	0	Peak
715.1	27.07	34.27	46	-18.93	21.03	3.47	31.7	100	7	Peak

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

Margin value = Emission level – Limit value

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	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
55.92	27.62	45.81	40	-12.38	12.35	0.8	31.34	102	123	Peak
193.35	29.59	49.89	43.5	-13.91	9.84	1.56	31.7	100	332	Peak
219	32.65	52.48	46	-13.35	10.18	1.69	31.7	104	197	Peak
582.1	27.56	37.45	46	-18.44	19.19	3.04	32.12	107	125	Peak
648.6	29.08	37.67	46	-16.92	20.2	3.24	32.03	104	197	Peak
664.7	33.98	42.18	46	-12.02	20.39	3.3	31.89	100	222	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
31.08	25.31	43.72	40	-14.69	12.14	0.57	31.12	100	166	Peak
56.46	27.33	45.52	40	-12.67	12.35	0.8	31.34	100	197	Peak
87.51	23.81	46.37	40	-16.19	8.25	1.01	31.82	108	224	Peak
500.2	25.62	37.13	46	-20.38	17.33	2.78	31.62	108	199	Peak
582.1	29.38	39.27	46	-16.62	19.19	3.04	32.12	100	112	Peak
768.3	28.22	34.15	46	-17.78	21.78	3.62	31.33	100	198	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

Tested Date: Jul. 17, 2014

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100288	Apr. 24, 2014	Apr. 23, 2015
RF signal cable Woken	5D-FB	Cable-HYCO2-01	Dec. 27, 2013	Dec. 26, 2014
LISN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Dec. 23, 2013	Dec. 22, 2014
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100312	Jul. 10, 2014	Jul. 09, 2015
Software ADT	BV ADT_Cond_ V7.3.7.3	NA	NA	NA

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa Shielded Room 2.
3. The VCCI Site Registration No. is C-2047.

4.2.3 TEST PROCEDURES

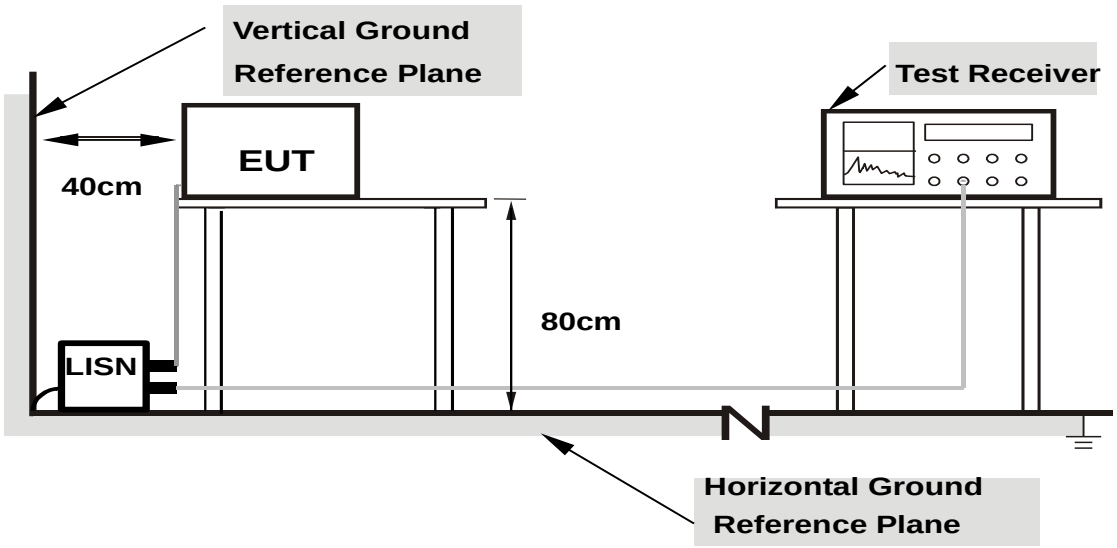
a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling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

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

4.2.4 DEVIATION FROM TEST STANDARD

No deviation.

4.2.5 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

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

4.2.6 EUT OPERATING CONDITIONS

Same as section 4.1.6.

4.2.7 TEST RESULTS

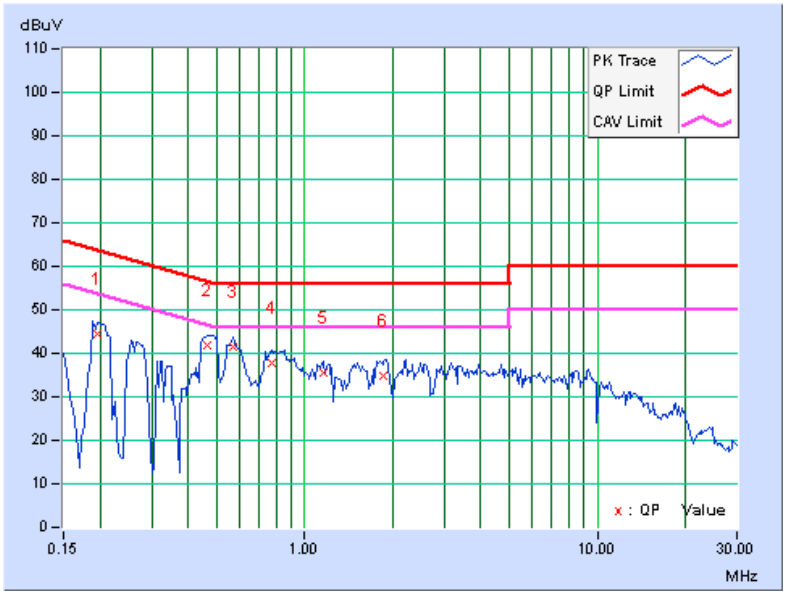
CONDUCTED WORST-CASE DATA：

PHASE	Line 1	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.19687	0.28	44.04	31.31	44.32	31.59	63.74	53.74	-19.42	-22.15
2	0.46641	0.30	41.55	28.73	41.85	29.03	56.58	46.58	-14.72	-17.54
3	0.56797	0.31	41.18	28.87	41.49	29.18	56.00	46.00	-14.51	-16.82
4	0.77500	0.33	37.61	25.71	37.94	26.04	56.00	46.00	-18.06	-19.96
5	1.15625	0.34	35.19	22.47	35.53	22.81	56.00	46.00	-20.47	-23.19
6	1.85547	0.36	34.54	23.34	34.90	23.70	56.00	46.00	-21.10	-22.30

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

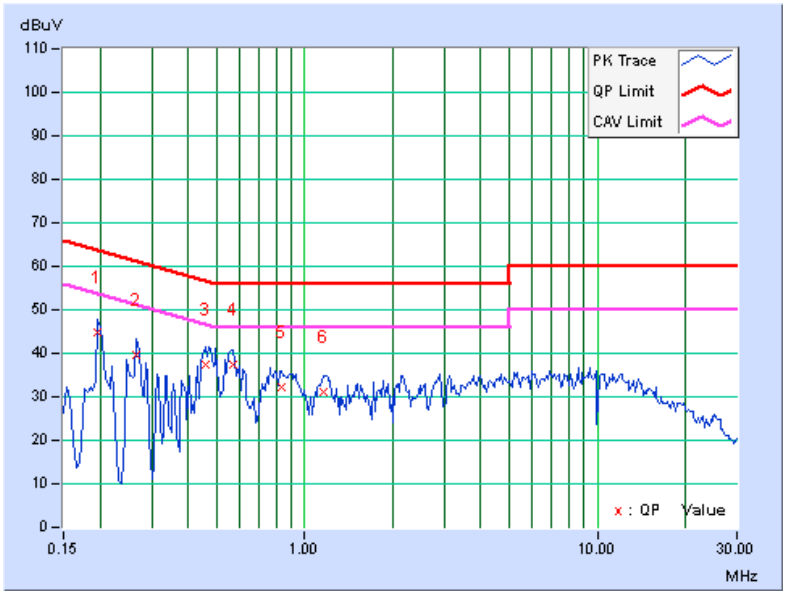


PHASE	Line 2	6dB BANDWIDTH	9kHz

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	0.19687	0.28	44.50	30.90	44.78	31.18	63.74	53.74	-18.96	-22.56
2	0.26719	0.29	39.47	25.35	39.76	25.64	61.20	51.20	-21.45	-25.57
3	0.45859	0.30	36.97	23.62	37.27	23.92	56.72	46.72	-19.44	-22.79
4	0.56797	0.31	37.26	23.83	37.57	24.14	56.00	46.00	-18.43	-21.86
5	0.83359	0.33	31.80	18.99	32.13	19.32	56.00	46.00	-23.87	-26.68
6	1.15625	0.34	30.63	17.27	30.97	17.61	56.00	46.00	-25.03	-28.39

REMARKS:

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



4.3 PEAK TRANSMIT POWER MEASUREMENT

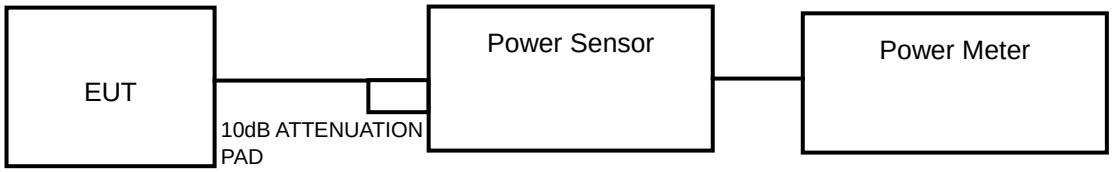
4.3.1 LIMITS OF PEAK TRANSMIT POWER MEASUREMENT

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

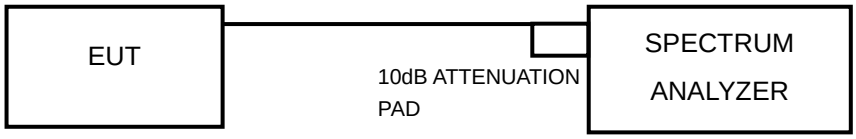
NOTE: Where B is the 26dB emission bandwidth in MHz.

4.3.2 TEST SETUP

FOR POWER OUTPUT MEASUREMENT



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.

FOR 26dB BANDWIDTH

1) Set RBW = approximately 1% of the emission bandwidth.
2) Set the VBW > RBW.
3) Detector = Peak.
4) Trace mode = max hold.
5) Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

4.3.5 DEVIATION FROM TEST STANDARD

No deviation.

4.3.6 EUT OPERATING CONDITIONS

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

4.3.7 TEST RESULTS

POWER OUTPUT

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	24.55	13.90	17	PASS
44	5220	23.77	13.76	17	PASS
48	5240	22.28	13.48	17	PASS
52	5260	24.72	13.93	24	PASS
60	5300	24.89	13.96	24	PASS
64	5320	20.61	13.14	24	PASS
100	5500	20.46	13.11	24	PASS
116	5580	41.59	16.19	24	PASS
140	5700	13.84	11.41	24	PASS

NOTE:

For 5180~5240MHz:

1. 4dBm + 10log(26.64) = 18.26dBm > 17dBm.
2. 4dBm + 10log(26.15) = 18.17dBm > 17dBm.
3. 4dBm + 10log(25.42) = 18.05dBm > 17dBm.

For 5260~5700MHz:

1. 11dBm + 10log(26.40) = 25.22dBm > 24dBm.
2. 11dBm + 10log(25.74) = 25.11dBm > 24dBm.
3. 11dBm + 10log(25.13) = 25.00dBm > 24dBm.
4. 11dBm + 10log(26.97) = 25.31dBm > 24dBm.
5. 11dBm + 10log(40.66) = 27.09dBm > 24dBm.
6. 11dBm + 10log(24.71) = 24.93dBm > 24dBm.

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	23.82	13.77	17	PASS
44	5220	23.23	13.66	17	PASS
48	5240	22.23	13.47	17	PASS
52	5260	25.88	14.13	24	PASS
60	5300	26.12	14.17	24	PASS
64	5320	22.18	13.46	24	PASS
100	5500	16.63	12.21	24	PASS
116	5580	40.27	16.05	24	PASS
140	5700	11.25	10.51	24	PASS

NOTE:

For 5180~5240MHz:

1. 4dBm + 10log(28.87) = 18.60dBm > 17dBm.
2. 4dBm + 10log(28.67) = 18.57dBm > 17dBm.
3. 4dBm + 10log(29.59) = 18.71dBm > 17dBm.

For 5260~5700MHz:

1. 11dBm + 10log(26.45) = 25.22dBm > 24dBm.
2. 11dBm + 10log(28.11) = 25.49dBm > 24dBm.
3. 11dBm + 10log(25.64) = 25.09dBm > 24dBm.
4. 11dBm + 10log(26.29) = 25.20dBm > 24dBm.
5. 11dBm + 10log(40.26) = 27.05dBm > 24dBm.
6. 11dBm + 10log(25.70) = 25.10dBm > 24dBm.

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
38	5190	37.41	15.73	17	PASS
46	5230	36.98	15.68	17	PASS
54	5270	37.67	15.76	24	PASS
62	5310	11.25	10.51	24	PASS
102	5510	8.24	9.16	24	PASS
110	5550	17.70	12.48	24	PASS
134	5670	14.42	11.59	24	PASS

NOTE:

For 5180~5240MHz:

1. 4dBm + 10log(84.20) = 23.25dBm > 17dBm.
2. 4dBm + 10log(81.30) = 23.10dBm > 17dBm.

For 5260~5700MHz:

1. 11dBm + 10log(55.13) = 28.41dBm > 24dBm.
2. 11dBm + 10log(58.09) = 28.64dBm > 24dBm.
3. 11dBm + 10log(47.19) = 27.74dBm > 24dBm.
4. 11dBm + 10log(65.99) = 29.19dBm > 24dBm.
5. 11dBm + 10log(66.69) = 29.24dBm > 24dBm.

26dB BANDWIDTH

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
36	5180	26.64	PASS
44	5220	26.15	PASS
48	5240	25.42	PASS
52	5260	26.40	PASS
60	5300	25.74	PASS
64	5320	25.13	PASS
100	5500	26.97	PASS
116	5580	40.66	PASS
140	5700	24.71	PASS

802.11n (20MHz)

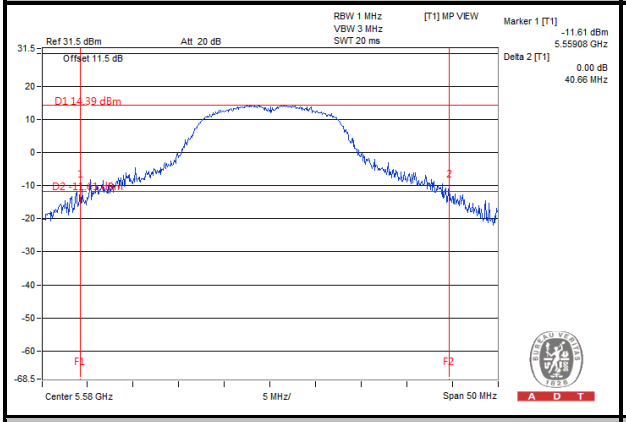
CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
36	5180	28.87	PASS
44	5220	28.67	PASS
48	5240	29.59	PASS
52	5260	26.45	PASS
60	5300	28.11	PASS
64	5320	25.64	PASS
100	5500	26.29	PASS
116	5580	40.26	PASS
140	5700	25.70	PASS

802.11n (40MHz)

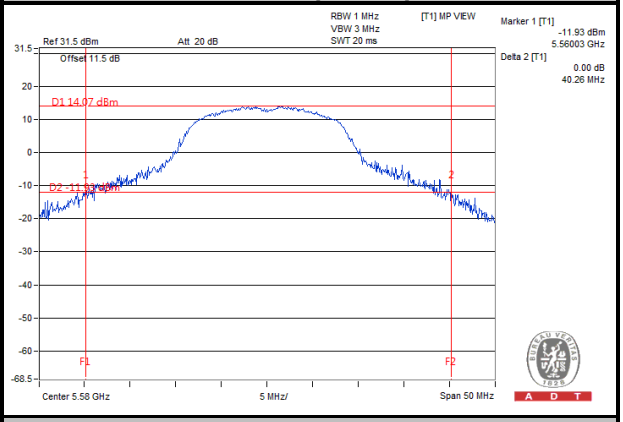
CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
38	5190	84.20	PASS
46	5230	81.30	PASS
54	5270	55.13	PASS
62	5310	58.09	PASS
102	5510	47.19	PASS
110	5550	65.99	PASS
134	5670	66.69	PASS

SPECTRUM PLOT OF WORST VALUE

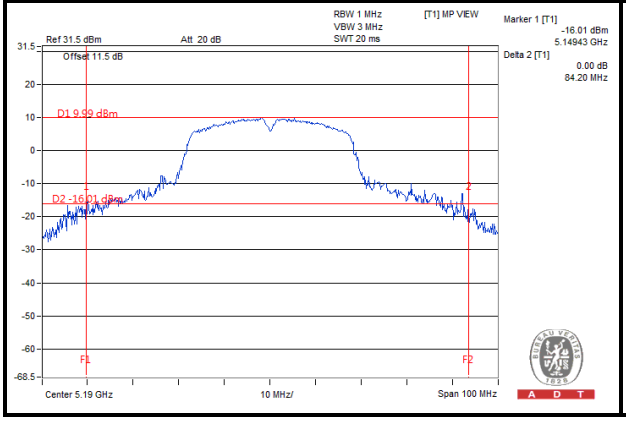
802.11a



802.11n (20MHz)



802.11n (40MHz)

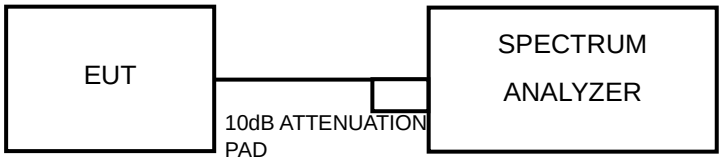


4.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

4.4.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

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

4.4.2 TEST SETUP



4.4.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.4.4 TEST PROCEDURES

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

Using method SA-2 alternative

1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 1 MHz, Set VBW ≥ 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)

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

802.11a

CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	2.36	0.79	3.15	4	PASS
44	5220	2.38	0.79	3.17	4	PASS
48	5240	2.31	0.79	3.10	4	PASS
52	5260	2.38	0.79	3.17	11	PASS
60	5300	2.74	0.79	3.53	11	PASS
64	5320	1.53	0.79	2.32	11	PASS
100	5500	1.96	0.79	2.75	11	PASS
116	5580	4.74	0.79	5.53	11	PASS
140	5700	-1.20	0.79	-0.41	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	2.36	0.80	3.16	4	PASS
44	5220	2.38	0.80	3.18	4	PASS
48	5240	2.31	0.80	3.11	4	PASS
52	5260	2.38	0.80	3.18	11	PASS
60	5300	2.66	0.80	3.46	11	PASS
64	5320	1.40	0.80	2.20	11	PASS
100	5500	0.65	0.80	1.45	11	PASS
116	5580	4.38	0.80	5.18	11	PASS
140	5700	-2.42	0.80	-1.62	11	PASS

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

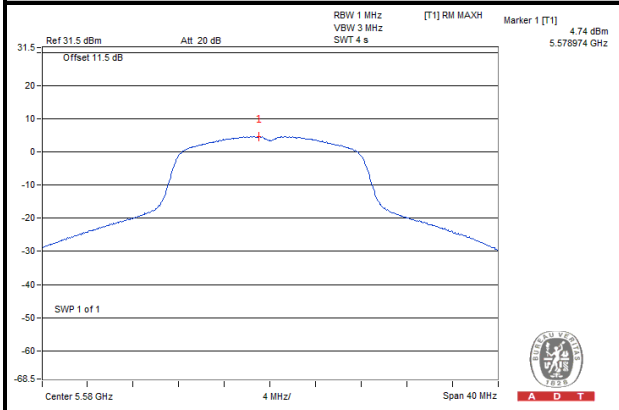
802.11n (40MHz)

CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
38	5190	-0.33	1.65	1.32	4	PASS
46	5230	-0.37	1.65	1.28	4	PASS
54	5270	-0.23	1.65	1.42	11	PASS
62	5310	-5.25	1.65	-3.60	11	PASS
102	5510	-6.10	1.65	-4.45	11	PASS
110	5550	-2.59	1.65	-0.94	11	PASS
134	5670	-4.88	1.65	-3.23	11	PASS

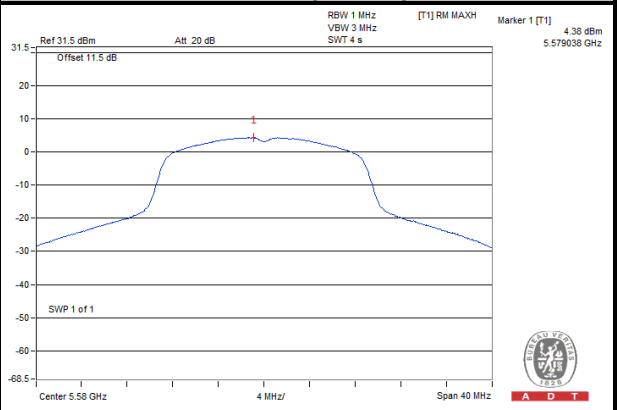
NOTE: Refer to section 3.3 for duty cycle spectrum plot.

SPECTRUM PLOT OF WORST VALUE

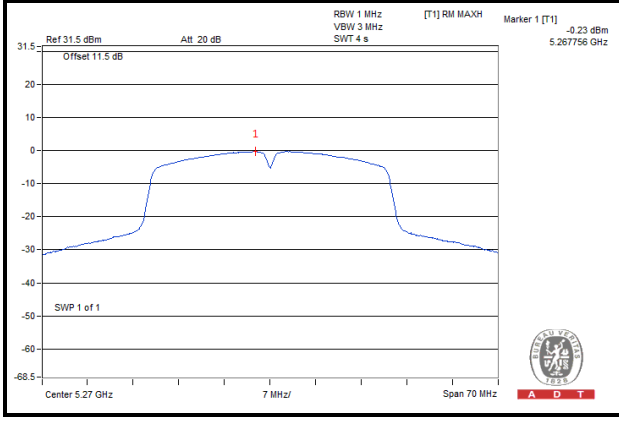
802.11a



802.11n (20MHz)



802.11n (40MHz)

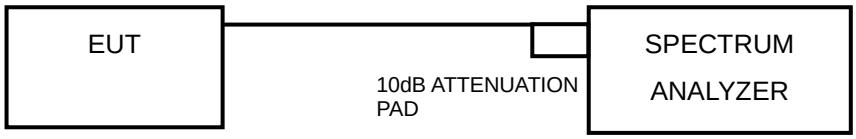


4.5 PEAK POWER EXCURSION MEASUREMENT

4.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

Shall not exceed 13 dB.

4.5.2 TEST SETUP



4.5.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.5.4 TEST PROCEDURE

a. Set the RBW = 1 kHz, VBW ≥ 3 MHz, Detector = peak.
b. Trace mode = max-hold. Allow the sweeps to continue until the trace stabilizes.
c. Use the peak search function to find the peak of the spectrum.
d. Measure the PPSD.
e. Compute the ratio of the maximum of the peak-max-hold spectrum to the PPSD.
Find the worst channel and modulation mode as above test procedure, and follow KDB 789033 D01 General UNII Test Procedures v01r03 and repeat step 1 to 5 for final testing of each modulation mode on a single channel (all modulation types) in a single operating band to compliance with the peak excursion requirement.

4.5.5 DEVIATION FROM TEST STANDARD

No deviation.

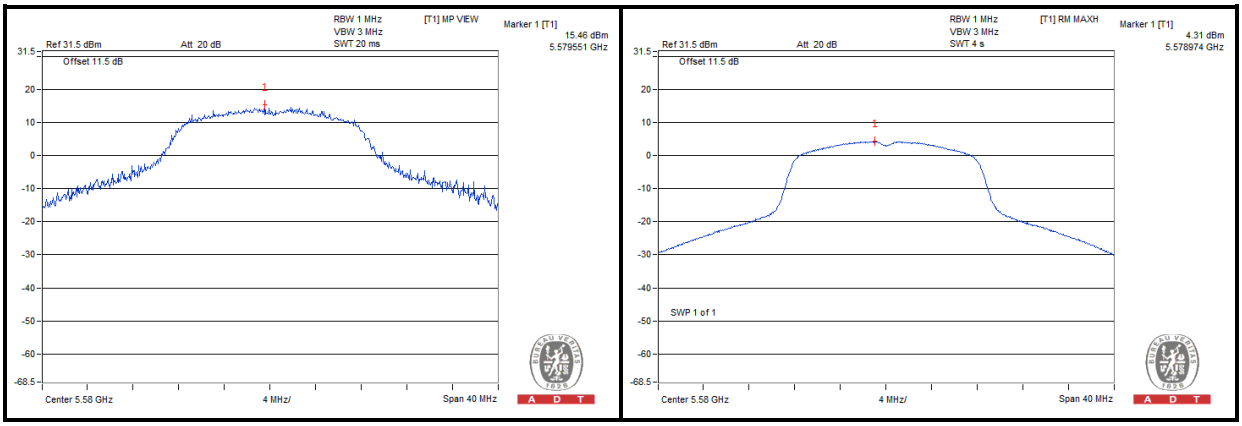
4.5.6 EUT OPERATING CONDITION

Same as Item 4.3.6.

4.5.7 TEST RESULTS

MODULATION MODE	MODULATION TYPE	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)	PPSD WITHOUT DUTY FACTOR (dBm)	PPSD WITH DUTY FACTOR (dBm)	PEAK EXCURSION (dB)	LIMIT (dB)	PASS/FAIL
802.11a	BPSK	5580	14.27	4.74	5.53	8.74	13	PASS
	QPSK		15.46	4.31	5.65	9.81	13	PASS
	16QAM		13.72	2.25	4.60	9.12	13	PASS
	64QAM		12.56	-0.44	3.27	9.29	13	PASS
802.11n (20MHz)	BPSK	5320	13.74	4.38	5.18	8.56	13	PASS
	QPSK		14.00	3.85	5.25	8.75	13	PASS
	16QAM		14.46	3.30	5.68	8.78	13	PASS
	64QAM		12.16	-0.60	3.15	9.01	13	PASS
802.11n (40MHz)	BPSK	5270	9.89	-0.23	1.42	8.47	13	PASS
	QPSK		10.36	-0.72	2.13	8.23	13	PASS
	16QAM		10.95	-1.76	2.57	8.38	13	PASS
	64QAM		10.90	-3.14	3.38	7.52	13	PASS

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

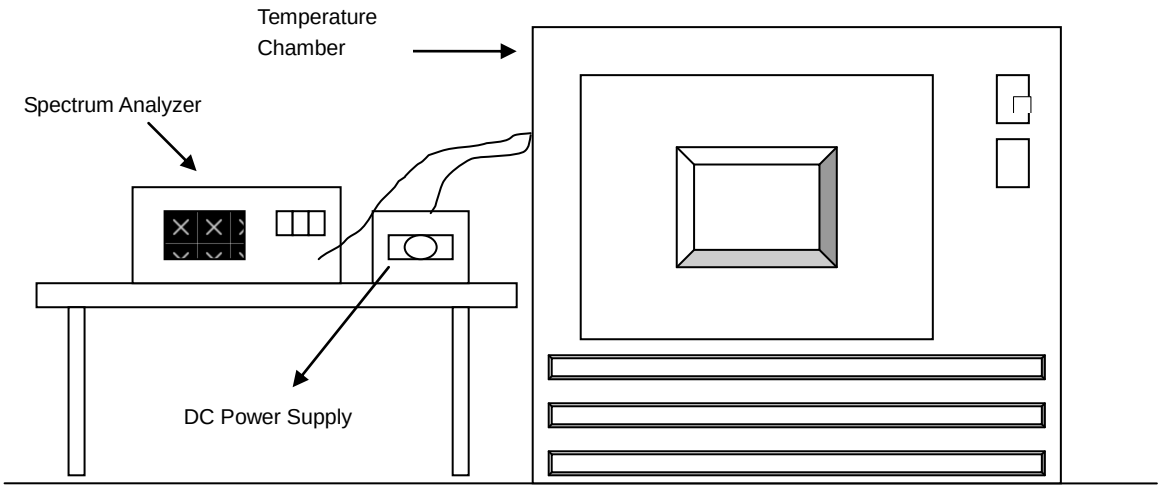


4.6 FREQUENCY STABILITY

4.6.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

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

4.6.2 TEST SETUP



4.6.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.6.4 TEST PROCEDURE

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

4.6.5 DEVIATION FROM TEST STANDARD

No deviation.

4.6.6 EUT OPERATING CONDITION

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

4.6.7 TEST RESULTS

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5320MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
50	3.7	5320.036088	6.78346	5320.036187	6.80207	5320.036517	6.86410	5320.036437	6.84906
40	3.7	5320.036814	6.91992	5320.036992	6.95338	5320.036773	6.91222	5320.037171	6.98703
30	3.7	5320.037812	7.10752	5320.038176	7.17594	5320.038133	7.16786	5320.037930	7.12970
20	3.7	5320.038847	7.30207	5320.039372	7.40075	5320.039382	7.40263	5320.039017	7.33402
10	3.7	5320.040857	7.67989	5320.040735	7.65695	5320.040626	7.63647	5320.040735	7.65695
0	3.7	5320.039273	7.38214	5320.039254	7.37857	5320.038699	7.27425	5320.038961	7.32350
-10	3.7	5320.037635	7.07425	5320.037584	7.06466	5320.037358	7.02218	5320.037977	7.13853
-20	3.7	5320.037239	6.99981	5320.036963	6.94793	5320.037215	6.99530	5320.037061	6.96635
-30	3.7	5320.036160	6.79699	5320.035731	6.71635	5320.036015	6.76974	5320.035980	6.76316

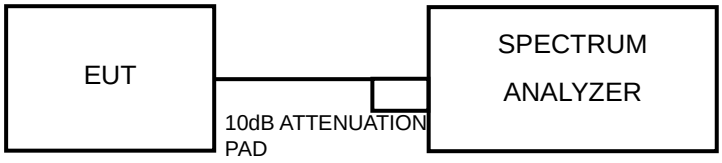
FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5320MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	3.3	5320.038608	7.25714	5320.038690	7.27256	5320.038517	7.24004	5320.038599	7.25545
	3.7	5320.038847	7.30207	5320.039372	7.40075	5320.039382	7.40263	5320.039017	7.33402
	4.07	5320.040297	7.57462	5320.040368	7.58797	5320.040239	7.56372	5320.039973	7.51372

4.7 20dBc BANDWIDTH MEASUREMENT

4.7.1 LIMITS OF 20dBc BANDWIDTH MEASUREMENT

20dBc point shall not overlap in 5150~5700MHz.

4.7.2 TEST SETUP



4.7.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.7.4 TEST PROCEDURES

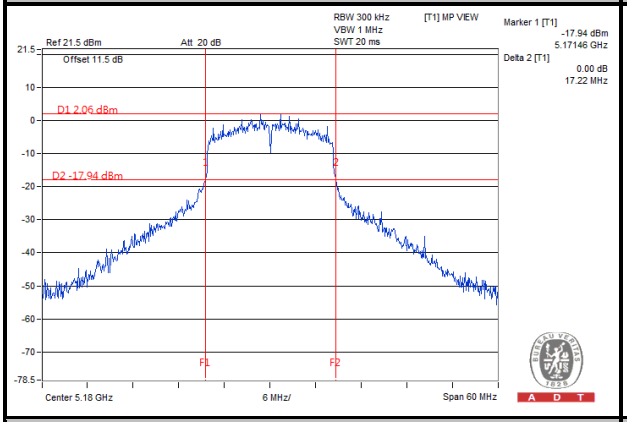
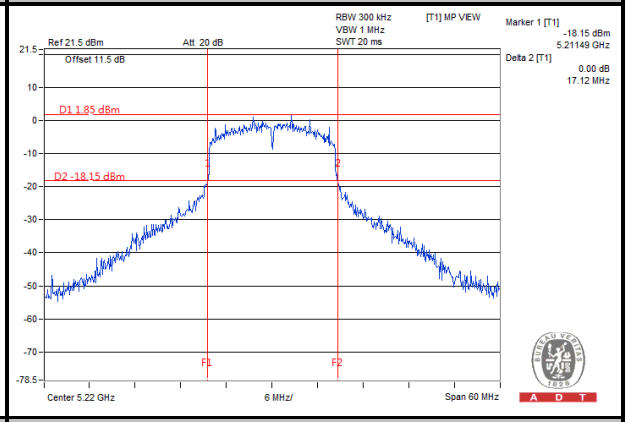
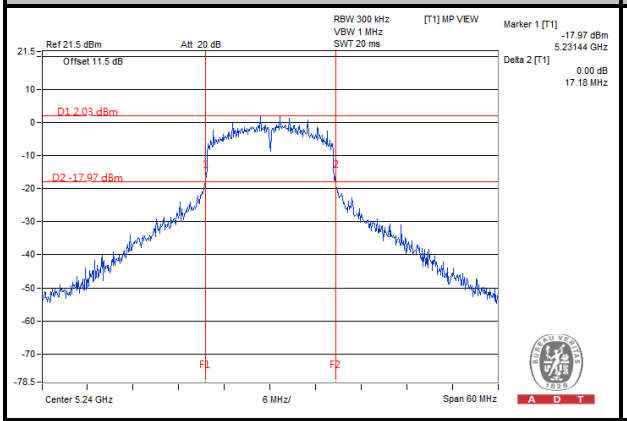
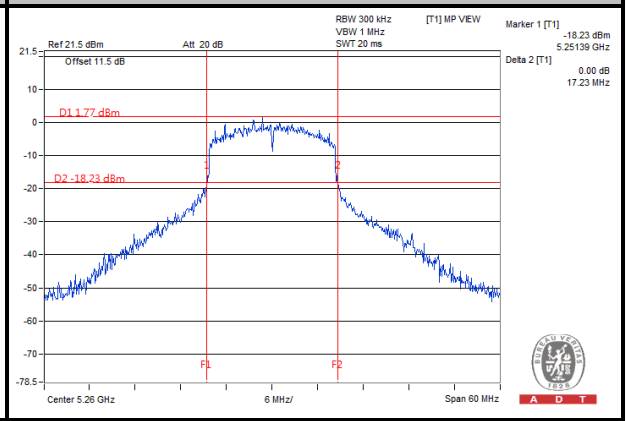
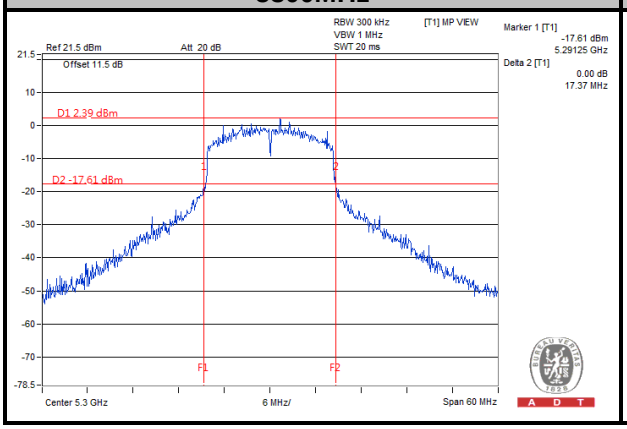
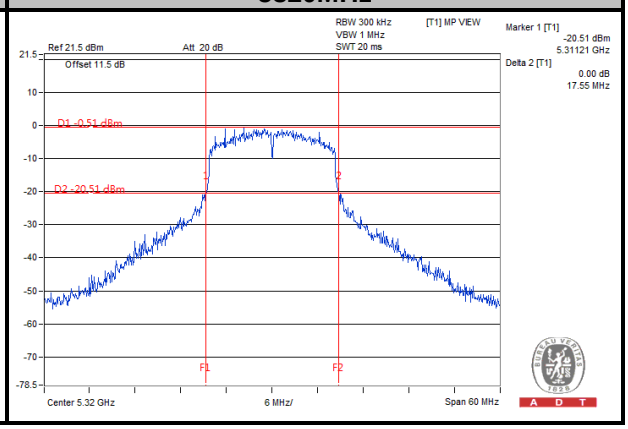
789033 D01 General UNII Test Procedures v01r03

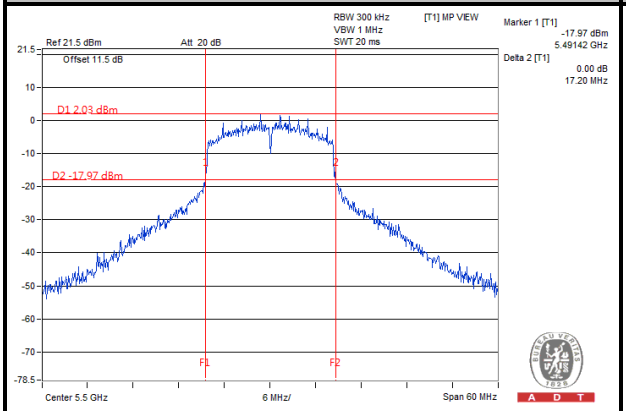
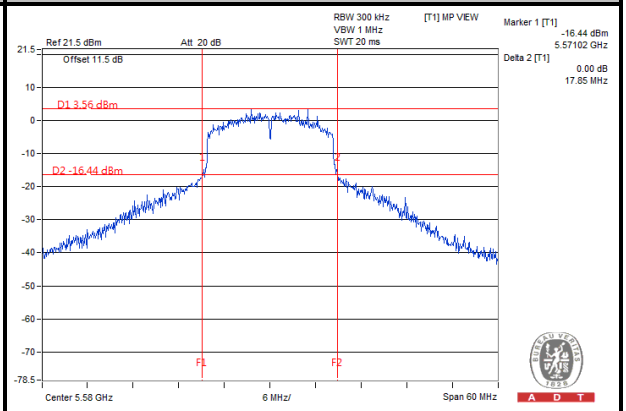
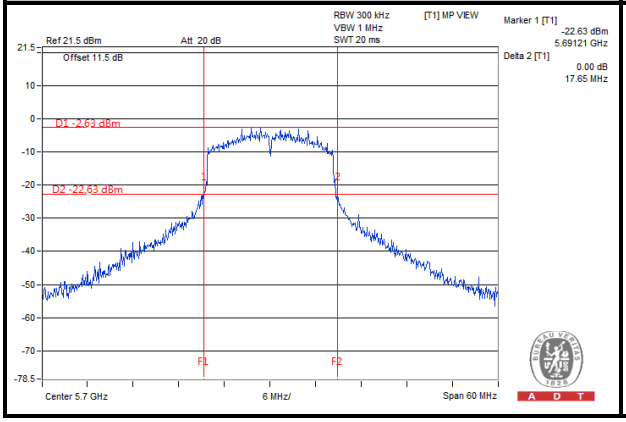
Emission bandwidth

1) Set RBW = approximately 1% of the emission bandwidth.
2) Set the VBW > RBW.
3) Detector = Peak
4) Trace mode = max hold.
5) Measurement the maximum width of the emission that is 20dB down from the peak of the emission. Compare this with RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

4.7.5 TEST RESULTS

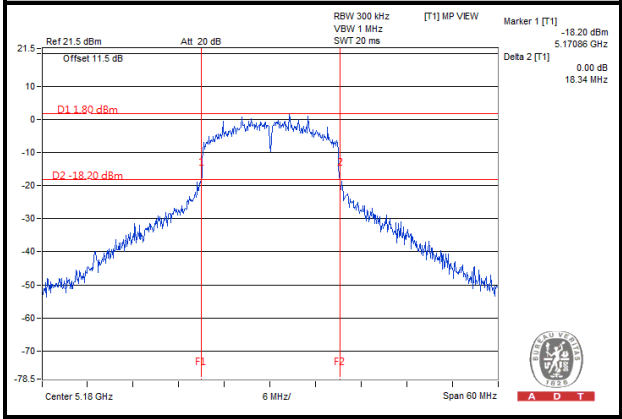
802.11a

5180MHz	5220MHz
	
5240MHz	**5260MHz**
	
5300MHz	**5320MHz**
	

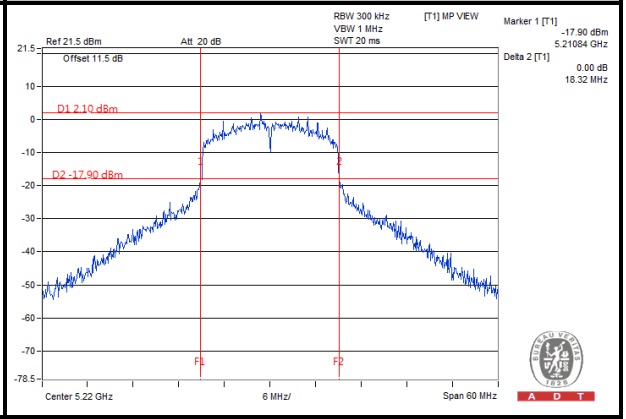
5500MHz	5580MHz
	
5700MHz	
	

802.11n (20MHz)

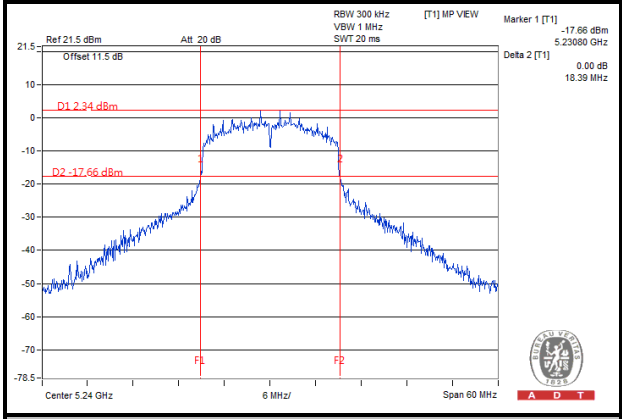
5180MHz



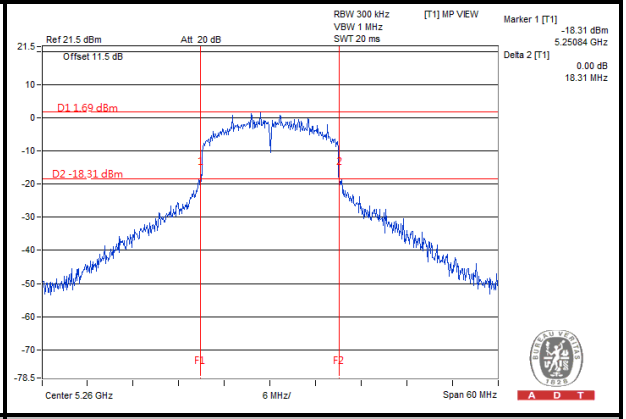
5220MHz



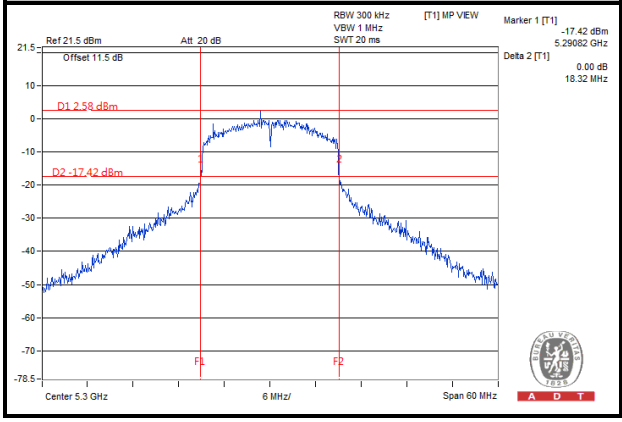
5240MHz



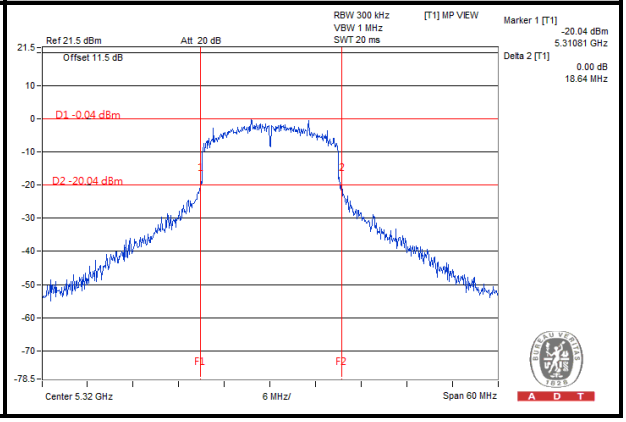
5260MHz

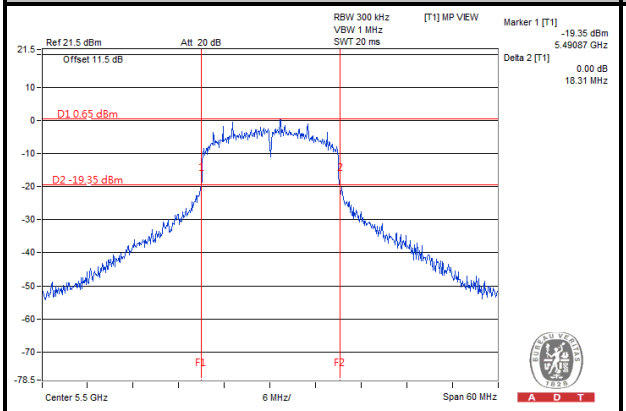
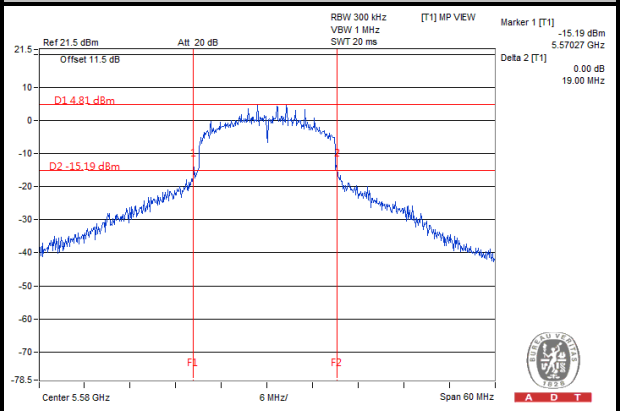
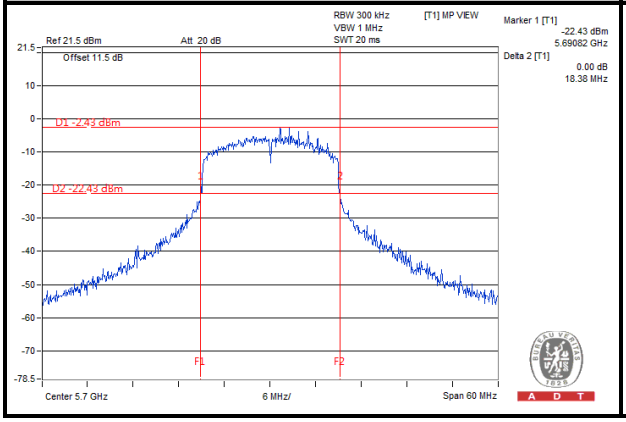


5300MHz



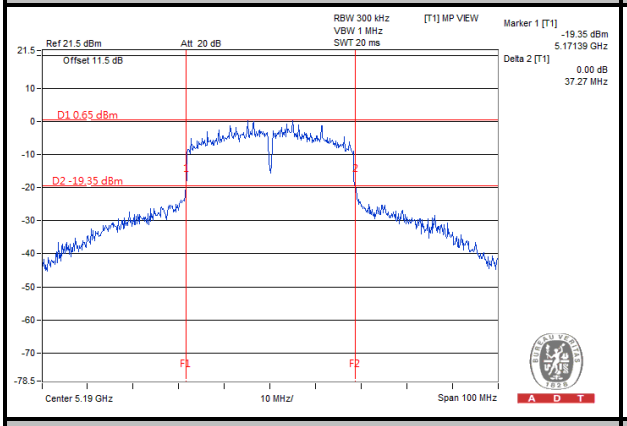
5320MHz



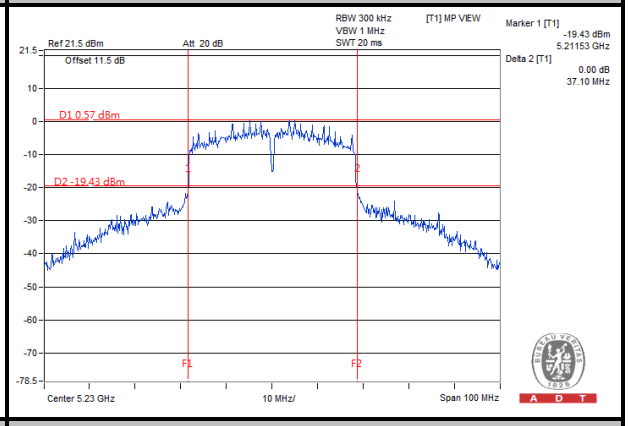
5500MHz	5580MHz
	
5700MHz	
	

802.11n (40MHz)

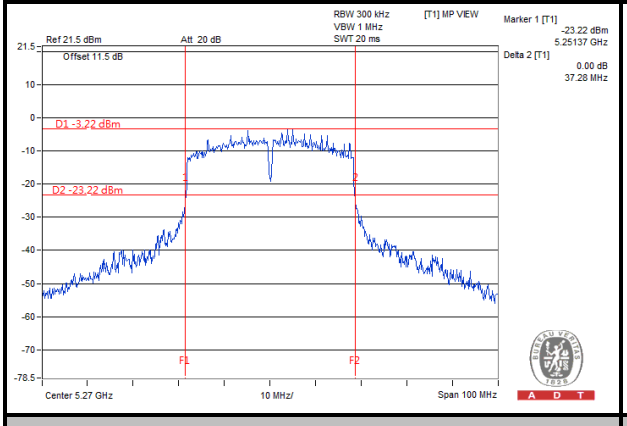
5190MHz



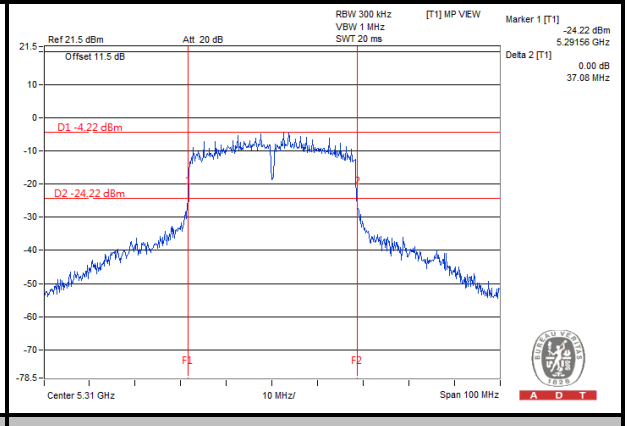
5230MHz



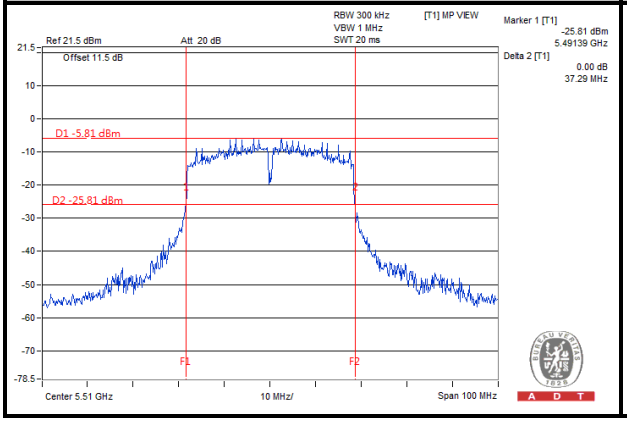
5270MHz



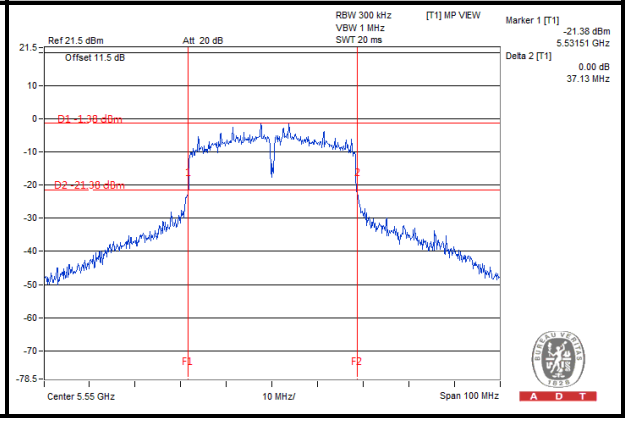
5310MHz

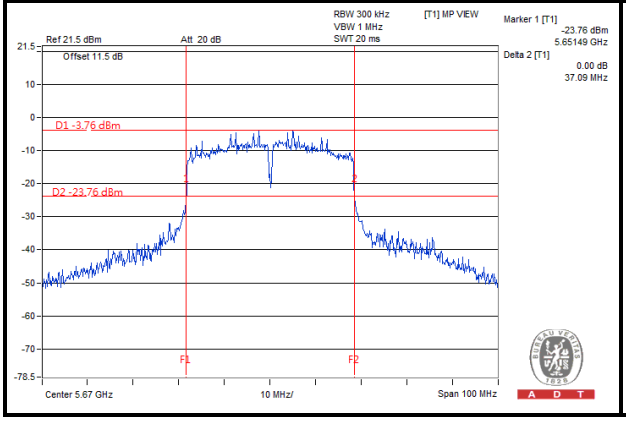


5510MHz



5550MHz



5670MHz	
	

RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MP VIEW
Marker 1 [T1]
-23.76 dBm
5.65149 GHz
Delta 2 [T1]
0.00 dB
37.09 MHz
Ref 21.5 dBm
Att 20 dB
Offset 11.5 dB
D1 -3.76 dBm
D2 -23.76 dBm
21.5
10
0
-10
-20
-30
-40
-50
-60
-70
-78.5
F1
F2
Center 5.67 GHz
10 MHz/
Span 100 MHz

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---