FCC TEST REPORT (15.407)

REPORT NO.: RF130514C29-1

MODEL NO.: XR520H

FCC ID: SK6-XR520H

RECEIVED: May 10, 2013

TESTED: Jun. 07 ~ Sep. 24, 2013

ISSUED: Sep. 25, 2013

APPLICANT: Xirrus, INC.

ADDRESS: 2101 Corporate Center Drive Thousand Oaks, California 91320

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

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

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

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF130514C29-1	Original release	Sep. 25, 2013

1. CERTIFICATION

PRODUCT: Hardened Wireless Access Point
MODEL: XR520H
BRAND: Xirrus
APPLICANT: Xirrus, INC.
TESTED: Jun. 07 ~ Sep. 24, 2013
TEST SAMPLE: ENGINEERING SAMPLE
STANDARDS: **FCC Part 15, Subpart E (Section 15.407)**
ANSI C63.10-2009

The above equipment (model: XR520H) 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 :** Sep. 25, 2013
Polly Chien / Specialist

APPROVED BY : _____ **, DATE :** Sep. 25, 2013
Ken Liu / Senior Manager

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 -10.17dB at 0.50538MHz.
15.407(b/1/2/3)(b)(6)	Radiated Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -1.1dB at 5150.00MHz.
15.407(a/1/2)	Max Average Transmit Power	PASS	Meet the requirement of limit.
15.407(a)(6)	Peak Power Excursion	PASS	Meet the requirement of limit.
15.407(a/1/2)	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	Antenna model EHS1GA202A: Antenna connector is 4 x N-Female Type. Antenna model EHS1GA047A: Antenna connector is 6 x N-Female Type. Antenna model MPMI2458-4-RPC: Antenna connector is Reverse Polarity TNC male ANSI 7 / 16 - 28 UNEF 2B threads Type. (The device is professionally installed)

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	Hardened Wireless Access Point
MODEL NO.	XR520H
POWER SUPPLY	55Vdc (POE)
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 300Mbps
OPERATING FREQUENCY	5180.0 ~ 5240.0MHz
NUMBER OF CHANNEL	4 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz)
OUTPUT POWER	**Antenna 1:** 25.826mW
	Antenna 2: 49.368mW
	Antenna 3: 49.368mW
ANTENNA TYPE	Refer to Note as below
ANTENNA CONNECTOR	Refer to Note as below
DATA CABLE	N/A
I/O PORTS	Refer to user's manual
ACCESSORY DEVICES	N/A

NOTE:

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

MODULATION MODE	TX FUNCTION
802.11a	2TX
802.11n (20MHz)	2TX
802.11n (40MHz)	2TX

2. The EUT has two collocated dual band RF modules (top and bottom), which cannot co-transmit in the same band.

3. The antennas used in this EUT are listed as below table (for optional units):

NO.	MODEL	TYPE	2.4G			5G			Connector
			Gain (dBi)	Loss	Total Gain (dBi)	Gain (dBi)	Loss	Total Gain (dBi)	
Ant.1	EHS1GA202A	Panel	14	4.2	9.8	14	5.2	8.8	4 x N-Female
Ant.2	EHS1GA047A	Panel	8	4.2	3.8	8	5.2	2.8	6 x N-Female
Ant.3	MPMI2458-4-RPC	Omni	4	2.3	1.7	4	2.3	1.7	Reverse Polarity TNC male ANSI 7 / 16 - 28 UNEF 2B threads

4. The EUT was powered by the following POE (for support unit).

Brand	PowerDsine
Model	PD9001G
Input Power	100-250Vac, 50/60Hz, 0.8A
Output Power	55Vdc, 0.60A

5. The above EUT information is declared by manufacturer and for more detailed feature description, please refer to the manufacturer's specifications or user's manual.

3.2 DESCRIPTION OF TEST MODES

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190MHz	46	5230MHz

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
A1	√	√	√	√	EUT with antenna 1 & Module 1 (Top)
A2	√	√	√	√	EUT with antenna 1 & Module 2 (Under)
B1	√	√	√	√	EUT with antenna 2 & Module 1 (Top)
B2	√	√	√	√	EUT with antenna 2 & Module 2 (Under)
C1	√	√	√	√	EUT with antenna 3 & Module 1 (Top)
C2	√	√	√	√	EUT with antenna 3 & Module 2 (Under)

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

NOTE:
Mode A1 & A2: The antenna had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Z-plane**.
Mode B1: The antenna had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Y-plane**.
Mode B2: The antenna had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Z-plane** for 5GHz.
Mode C1 & C2: The antenna had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Z-plane**.

RADIATED EMISSION TEST (ABOVE 1GHz):

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A1, A2, B1, B2, C1, C2	802.11a	36 to 48	36, 40, 48	OFDM	BPSK	6.0
A1, A2, B1, B2, C1, C2	802.11n (20MHz)	36 to 48	36, 40, 48	OFDM	BPSK	7.2
A1, A2, B1, B2, C1, C2	802.11n (40MHz)	38 to 46	38, 46	OFDM	BPSK	15.0

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	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A1, A2	802.11n (40MHz)	38 to 46	46	OFDM	BPSK	15.0
B1, B2	802.11n (40MHz)	38 to 46	38	OFDM	BPSK	15.0
C1, C2	802.11n (40MHz)	38 to 46	38	OFDM	BPSK	15.0

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	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A1, A2	802.11n (40MHz)	38 to 46	46	OFDM	BPSK	15.0
B1, B2	802.11n (40MHz)	38 to 46	38	OFDM	BPSK	15.0
C1, C2	802.11n (40MHz)	38 to 46	38	OFDM	BPSK	15.0

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	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A1, A2, B1, B2, C1, C2	802.11a	36 to 48	36, 40, 48	OFDM	BPSK	6.0
A1, A2, B1, B2, C1, C2	802.11n (20MHz)	36 to 48	36, 40, 48	OFDM	BPSK	7.2
A1, A2, B1, B2, C1, C2	802.11n (40MHz)	38 to 46	38, 46	OFDM	BPSK	15.0

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	25deg. C, 65%RH	120Vac, 60Hz	Cedric Wu
	23deg. C, 67%RH	120Vac, 60Hz	Brad Tung,
	23deg. C, 67%RH	120Vac, 60Hz	Alan Wu Cedric Wu
RE<1G	25deg. C, 65%RH	120Vac, 60Hz	Brad Tung,
PLC	24deg. C, 64%RH	120Vac, 60Hz	Match Tsui
APCM	25deg. C, 60%RH	120Vac, 60Hz	Nick Chen

3.3 DUTY CYCLE OF TEST SIGNAL

Module 1 (Top)

MODULATION TYPE: BPSK

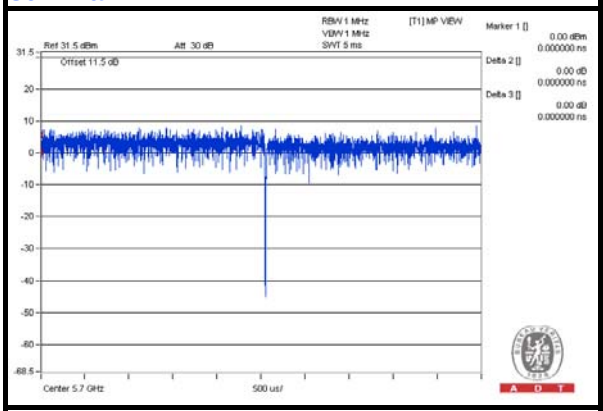
Duty cycle of test signal is > 98 %, duty factor is not required.

802.11a: Duty cycle = 1

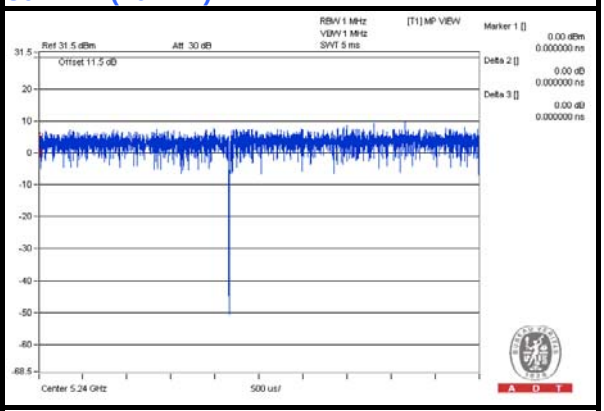
802.11n (20MHz): Duty cycle = 1

802.11n (40MHz): Duty cycle = 1.42375/1.43750 = 0.990

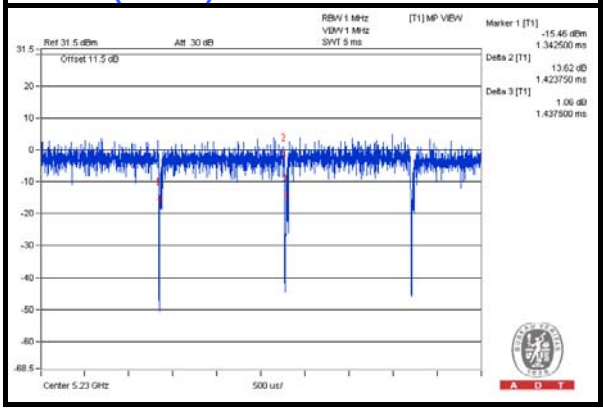
802.11a



802.11n (20MHz)



802.11n (40MHz)



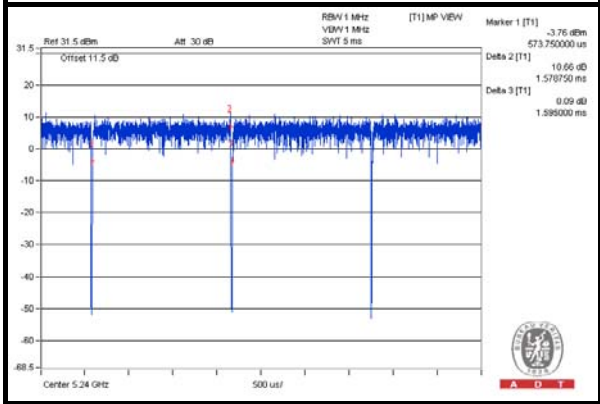
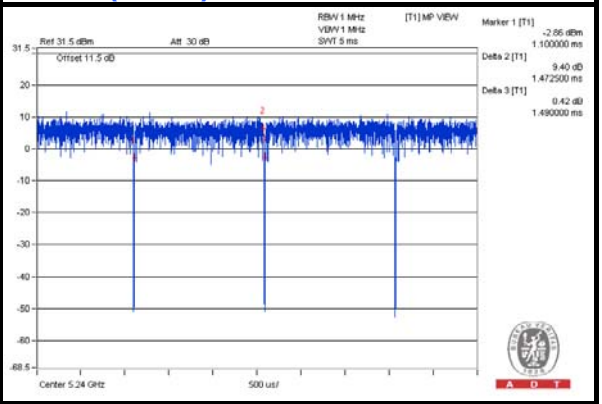
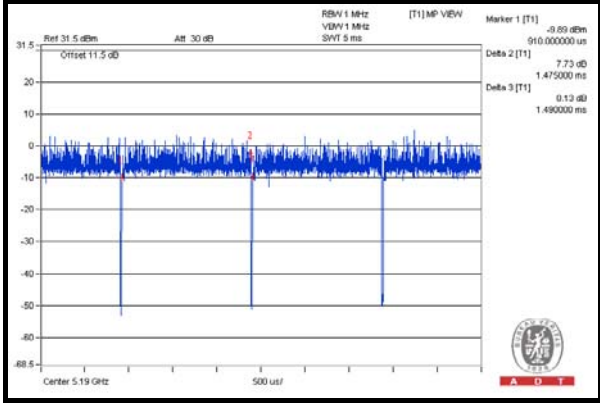
MODULATION TYPE: QPSK

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

802.11a: Duty cycle = 1.578/1.595 = 0.989

802.11n (20MHz): Duty cycle = 1.4725/1.49 = 0.988

802.11n (40MHz): Duty cycle = 1.475/1.49 = 0.990

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

MODULATION TYPE: 16QAM

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

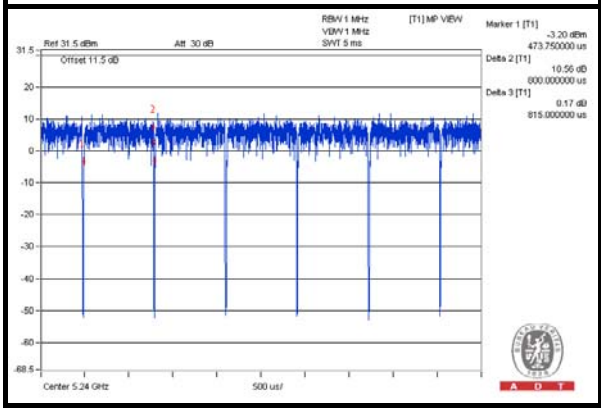
802.11a: Duty cycle = 0.800/0.815 = 0.982

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

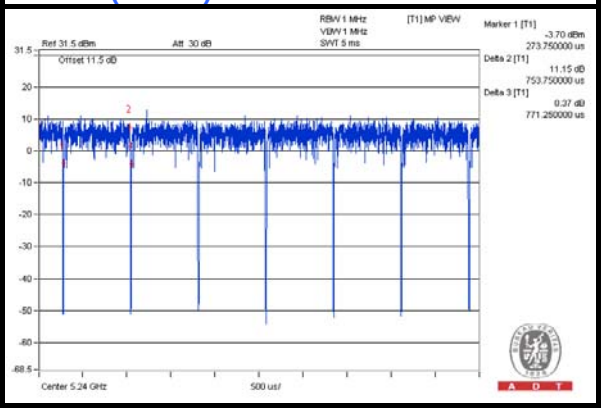
802.11n (20MHz): Duty cycle = 0.754/0.771 = 0.978, Duty factor = 10 * log(1/0.978) = 0.10

802.11n (40MHz): Duty cycle = 0.378/0.398 = 0.950, Duty factor = 10 * log(1/0.950) = 0.22

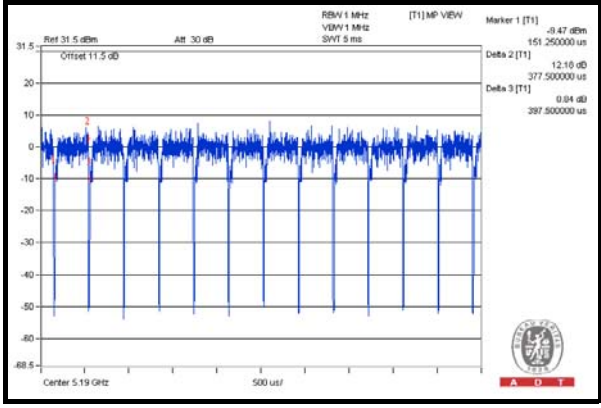
802.11a



802.11n (20MHz)



802.11n (40MHz)



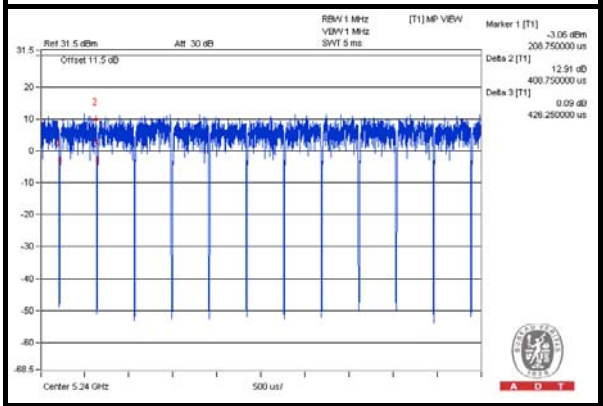
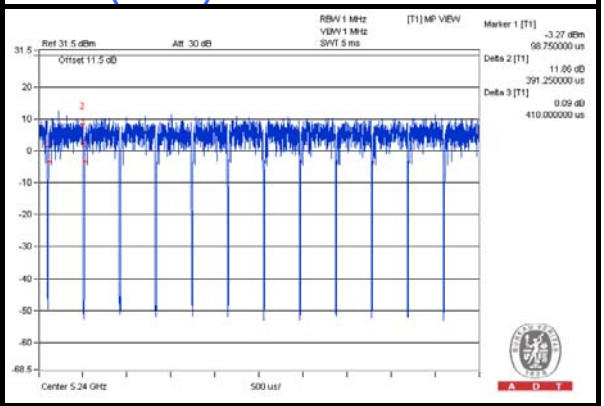
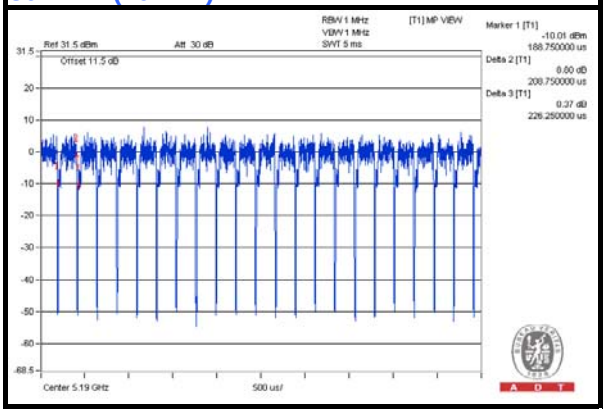
MODULATION TYPE: 64QAM

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

802.11a: Duty cycle = 0.409/0.426 = 0.960, Duty factor = 10 * log(1/0.960) = 0.18

802.11n (20MHz): Duty cycle = 0.391/0.410 = 0.954, Duty factor = 10 * log(1/0.954) = 0.21

802.11n (40MHz): Duty cycle = 0.209/0.226 = 0.925, Duty factor = 10 * log(1/0.925) = 0.34

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

Module 2 (Under)

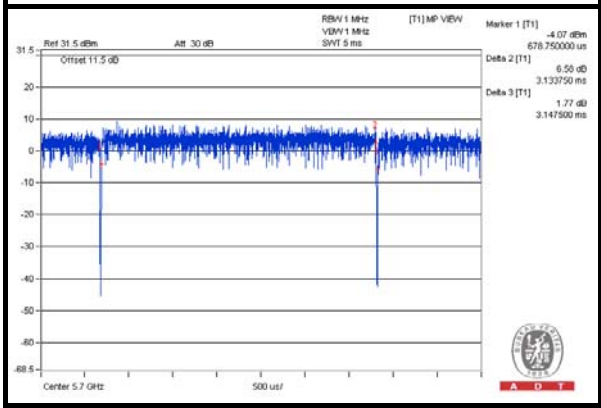
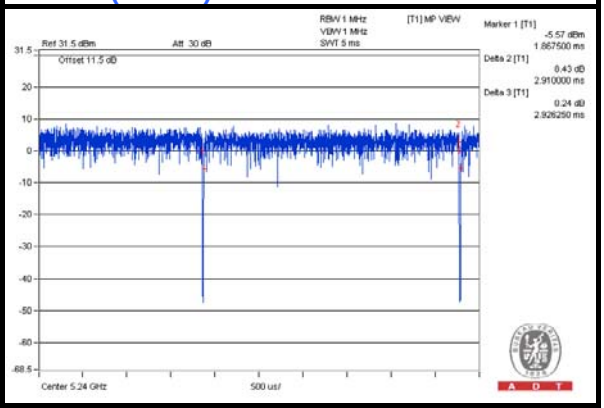
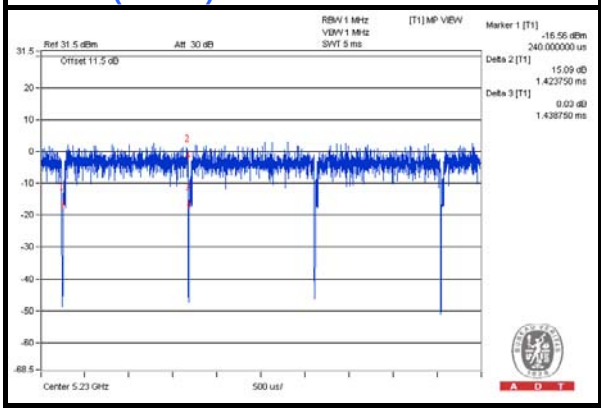
MODULATION TYPE: BPSK

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

802.11a: Duty cycle = 3.134/3.15 = 0.995

802.11n (20MHz): Duty cycle = 2.91000/2.92625 = 0.994

802.11n (40MHz): Duty cycle = 1.42375/1.43875 = 0.990

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

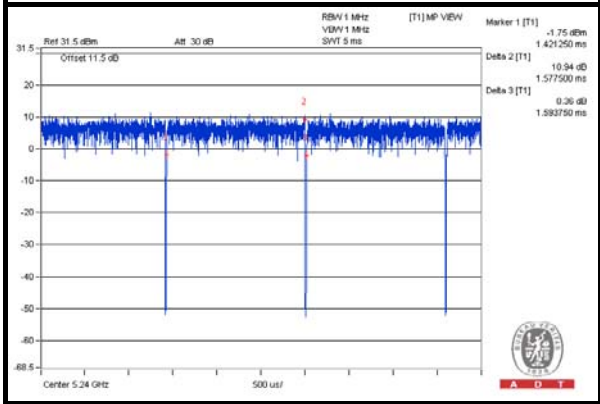
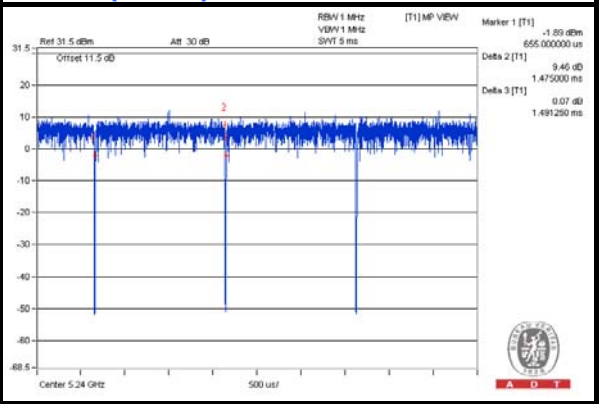
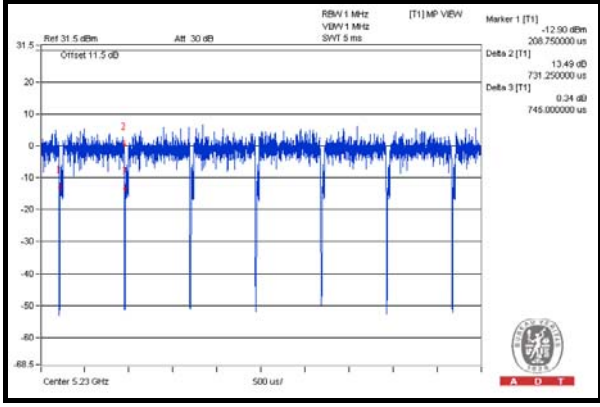
MODULATION TYPE: QPSK

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

802.11a: Duty cycle = 1.578/1.594 = 0.990

802.11n (20MHz): Duty cycle = 1.475/1.491 = 0.989

802.11n (40MHz): Duty cycle = 0.731/0.745 = 0.981

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

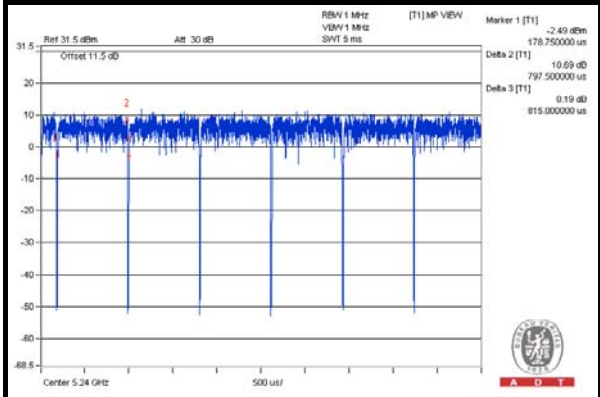
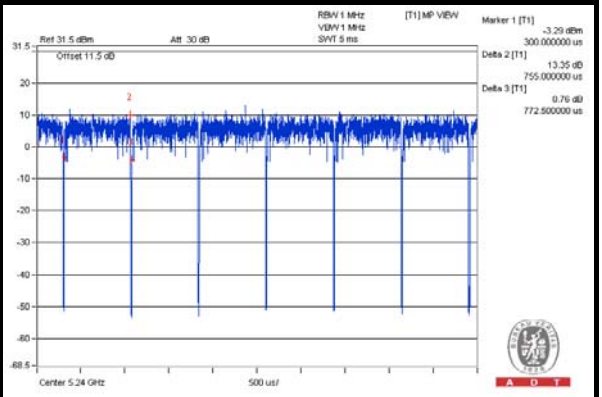
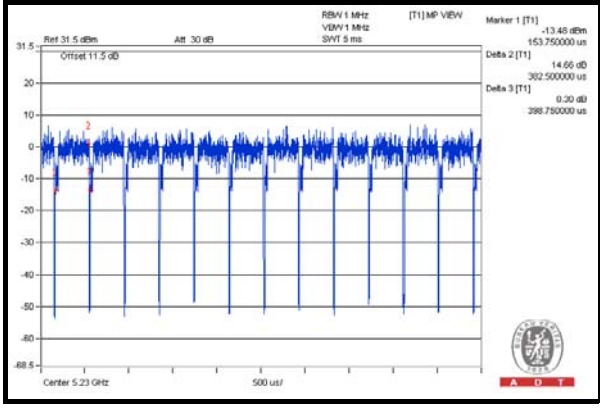
MODULATION TYPE: 16QAM

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

802.11a: Duty cycle = 0.7975/0.815 = 0.978, Duty factor = 10 * log(1/0.978) = 0.10

802.11n (20MHz): Duty cycle = 0.755/0.7725 = 0.977, Duty factor = 10 * log(1/0.977) = 0.10

802.11n (40MHz): Duty cycle = 0.383/0.399 = 0.959, Duty factor = 10 * log(1/0.959) = 0.18

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

MODULATION TYPE: 64QAM

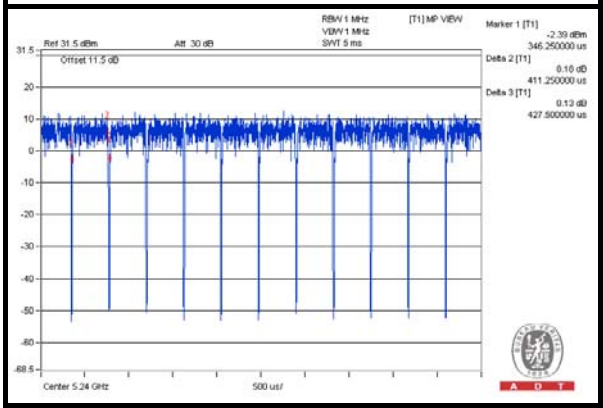
If duty cycle is < 98%, duty factor shall be considered.

802.11a: Duty cycle = 0.411/0.428 = 0.960, Duty factor = 10 * log(1/0.960) = 0.18

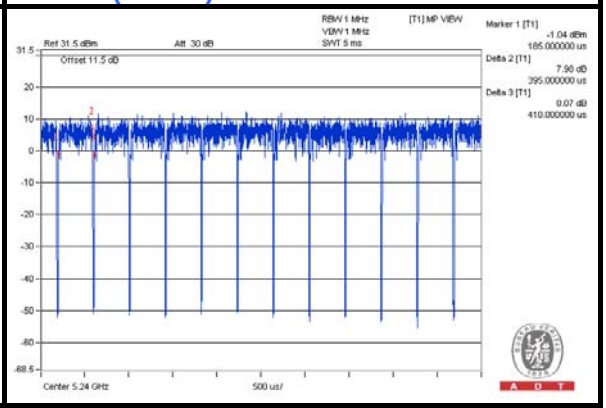
802.11n (20MHz): Duty cycle = 0.395/0.410 = 0.963, Duty factor = 10 * log(1/0.963) = 0.16

802.11n (40MHz): Duty cycle = 0.209/0.225 = 0.929, Duty factor = 10 * log(1/0.929) = 0.32

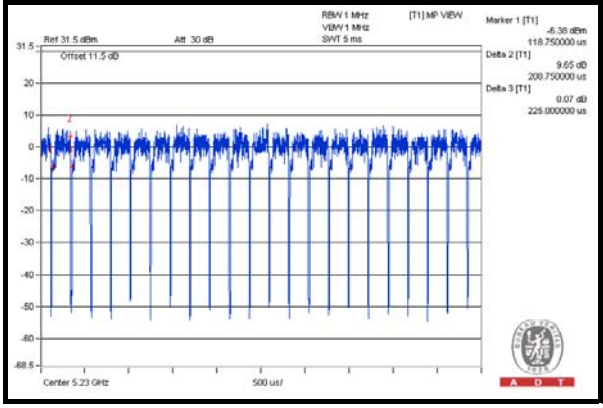
802.11a



802.11n (20MHz)



802.11n (40MHz)



3.4 DESCRIPTION OF SUPPORT UNITS

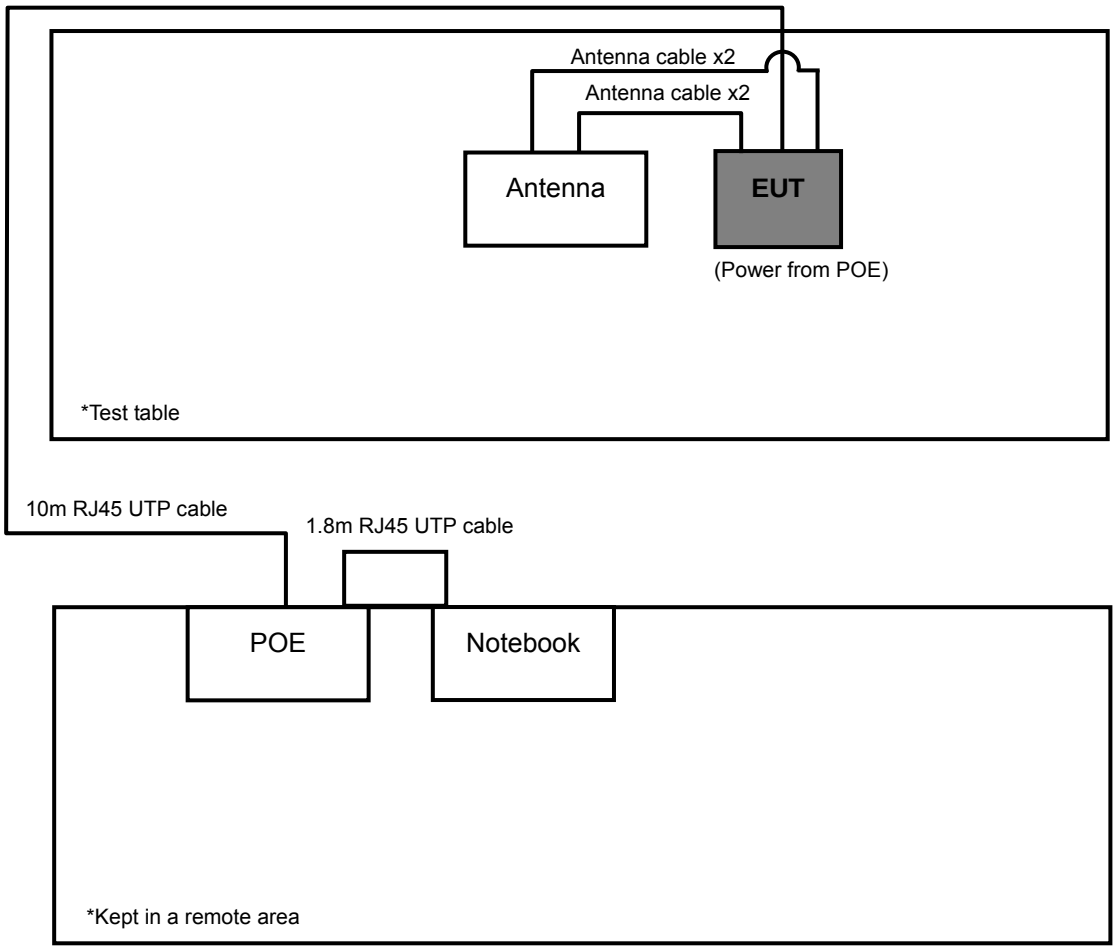
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK	DELL	E5410	6RP2YM1	FCC DoC Approved
2	POE	PowerDsine	PD9001G	NA	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	10m RJ45 UTP cable. 1.8m RJ45 UTP cable.
2	NA

NOTE:
1. All power cords of the above support units are non shielded (1.8m).
2. Item 2 was provided by client.

3.4.1 CONFIGURATION OF SYSTEM UNDER TEST



3.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC Part 15, Subpart E (15.407)
789033 D01 General UNII Test Procedures v01 r03
662911 D01 Multiple Transmitter Output v02
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

Test Date: June 07 ~ Jun. 20, 2013

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCI	100424	Aug. 21, 2012	Aug. 20, 2013
Spectrum Analyzer ROHDE & SCHWARZ	FSU 43	100115	Oct. 25, 2012	Oct. 24, 2013
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Mar. 25, 2013	Mar. 24, 2014
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-404	Dec. 22, 2012	Dec. 21, 2013
HORN Antenna SCHWARZBECK	BBHA 9170	148	Jul. 11, 2012	Jul. 10, 2013
Loop Antenna	HFH2-Z2	100070	Jan. 31, 2012	Jan. 30, 2014
Preamplifier Agilent	8449B	3008A01961	Oct. 25, 2012	Oct. 24, 2013
Preamplifier Agilent	8447D	2944A10738	Oct. 23, 2012	Oct. 22, 2013
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	309220/4	Aug. 28, 2012	Aug. 27, 2013
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	250724/4	Aug. 28, 2012	Aug. 27, 2013
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	295012/4	Aug. 28, 2012	Aug. 27, 2013
Software BV ADT	ADT_Radiated_ V7.6.15.9.3	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA	NA
Antenna Tower Controller inn-co GmbH	CO2000	019303	NA	NA
Turn Table BV ADT	TT100.	TT93021704	NA	NA
Turn Table Controller BV ADT	SC100.	SC93021704	NA	NA
26GHz ~ 40GHz Amplifier	EM26400	815221	Oct. 25, 2012	Oct. 24, 2013
High Speed Peak Power Meter	ML2495A	0824012	Aug. 22, 2012	Aug. 21, 2013
Power Sensor	MA2411B	0738171	Jul. 30, 2012	Jul. 29, 2013
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 13, 2013	Jun. 12, 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 4.
4. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
5. The FCC Site Registration No. is 460141.
6. The IC Site Registration No. is IC7450F-4.

Test Date: Sep. 06 ~ Sep. 24, 2013

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCI	100744	Apr. 15, 2013	Apr. 14, 2014
Spectrum Analyzer ROHDE & SCHWARZ	FSU 43	100115	Oct. 25, 2012	Oct. 24, 2013
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Mar. 25, 2013	Mar. 24, 2014
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-404	Dec. 22, 2012	Dec. 21, 2013
HORN Antenna SCHWARZBECK	BBHA 9170	148	Jul. 15, 2013	Jul. 14, 2014
Preamplifier Agilent	8449B	3008A01961	Oct. 25, 2012	Oct. 24, 2013
Preamplifier Agilent	8447D	2944A10738	Oct. 23, 2012	Oct. 22, 2013
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	309222/4	Aug. 22, 2013	Aug. 21, 2014
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	248780/4	Aug. 22, 2013	Aug. 21, 2014
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	274392/4	Aug. 22, 2013	Aug. 21, 2014
Software BV ADT	ADT_Radiated_ V7.6.15.9.4	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA	NA
Antenna Tower Controller inn-co GmbH	CO2000	019303	NA	NA
Turn Table BV ADT	TT100.	TT93021704	NA	NA
Turn Table Controller BV ADT	SC100.	SC93021704	NA	NA
26GHz ~ 40GHz Amplifier	EM26400	815221	Oct. 25, 2012	Oct. 24, 2013
High Speed Peak Power Meter	ML2495A	0842014	Apr. 25, 2013	Apr. 24, 2014
Power Sensor	MA2411B	1026085	Oct. 12, 2012	Oct. 11, 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 test was performed in HwaYa Chamber 4.

3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.

4. The FCC Site Registration No. is 460141.

5. The IC Site Registration No. is IC7450F-4.

4.1.4 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. 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:

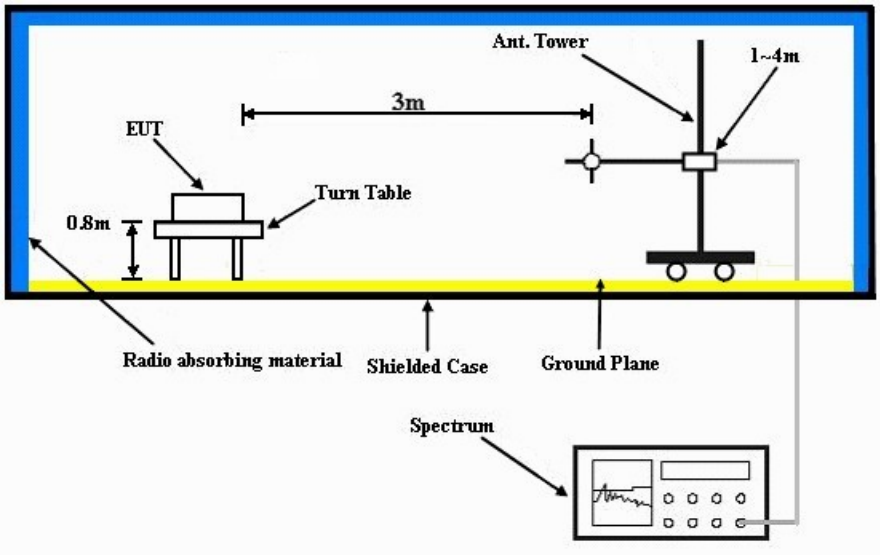
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution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

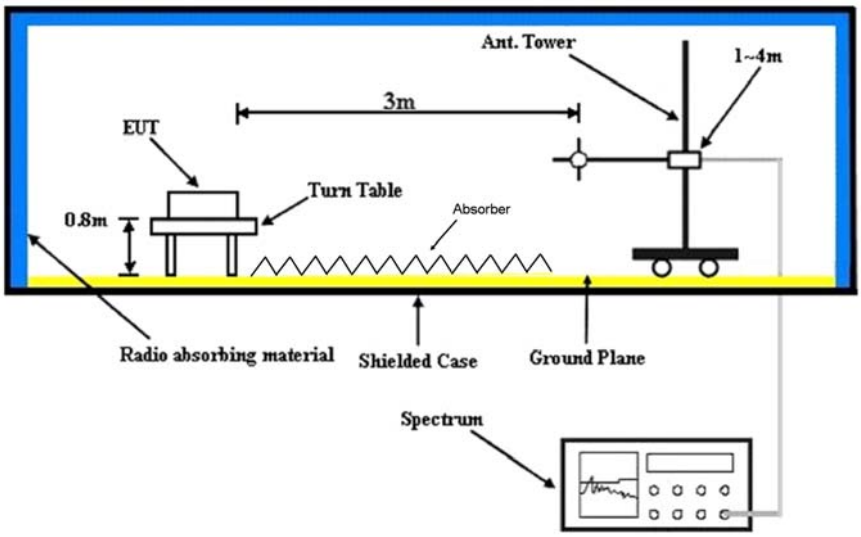
No deviation.

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 CONDITION

a. Placed the EUT on the testing table.
b. The notebook system ran a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
c. The necessary accessories enable the system in full functions.

4.1.8 TEST RESULTS

ABOVE 1GHz DATA：

TEST MODE A1

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	**FREQUENCY RANGE**	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH	**TESTED BY**	Brad Tung

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (m)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	#5150.00	56.6 PK	74.0	-17.4	1.20 H	33	51.20	5.40
2	#5150.00	44.1 AV	54.0	-9.9	1.20 H	33	38.70	5.40
3	*5180.00	116.3 PK			1.20 H	33	77.00	39.30
4	*5180.00	106.8 AV			1.20 H	33	67.50	39.30
5	#10360.00	57.3 PK	74.0	-16.7	1.00 H	130	41.30	16.00
6	#10360.00	45.5 AV	54.0	-8.5	1.00 H	130	29.50	16.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (m)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	#5150.00	57.0 PK	74.0	-17.0	1.15 V	8	51.60	5.40
2	#5150.00	44.8 AV	54.0	-9.2	1.15 V	8	39.40	5.40
3	*5180.00	117.0 PK			1.15 V	8	77.70	39.30
4	*5180.00	107.1 AV			1.15 V	8	67.80	39.30
5	#10360.00	57.4 PK	74.0	-16.6	1.00 V	96	41.40	16.00
6	#10360.00	45.8 AV	54.0	-8.2	1.00 V	96	29.80	16.00

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH	TESTED BY	Brad Tung

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	116.6 PK			1.20 H	40	77.30	39.30
2	*5200.00	107.1 AV			1.20 H	40	67.80	39.30
3	#10400.00	57.4 PK	74.0	-16.6	1.00 H	142	41.20	16.20
4	#10400.00	45.6 AV	54.0	-8.4	1.00 H	142	29.40	16.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	116.9 PK			1.04 V	2	77.60	39.30
2	*5200.00	107.3 AV			1.04 V	2	68.00	39.30
3	#10400.00	57.2 PK	74.0	-16.8	1.00 V	142	41.00	16.20
4	#10400.00	45.4 AV	54.0	-8.6	1.00 V	142	29.20	16.20

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH	TESTED BY	Brad Tung

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	116.5 PK			1.25 H	40	77.20	39.30
2	*5240.00	106.9 AV			1.25 H	40	67.60	39.30
3	#10480.00	57.5 PK	74.0	-16.5	1.10 H	153	40.70	16.80
4	#10480.00	45.9 AV	54.0	-8.1	1.10 H	153	29.10	16.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	117.5 PK			1.00 V	0	78.20	39.30
2	*5240.00	107.9 AV			1.00 V	0	68.60	39.30
3	#10480.00	57.3 PK	74.0	-16.7	1.00 V	80	40.50	16.80
4	#10480.00	45.6 AV	54.0	-8.4	1.00 V	80	28.80	16.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	53.7 PK	74.0	-20.3	1.00 H	315	14.50	39.20
2	5150.00	41.9 AV	54.0	-12.1	1.00 H	315	2.70	39.20
3	*5180.00	98.0 PK			1.00 H	319	58.80	39.20
4	*5180.00	88.2 AV			1.00 H	319	49.00	39.20
5	#10360.00	56.8 PK	74.0	-17.2	1.00 H	300	6.00	50.80
6	#10360.00	43.5 AV	54.0	-10.5	1.00 H	300	-7.30	50.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	54.8 PK	74.0	-19.2	1.00 V	355	15.60	39.20
2	5150.00	42.8 AV	54.0	-11.2	1.00 V	355	3.60	39.20
3	*5180.00	99.7 PK			1.00 V	353	60.50	39.20
4	*5180.00	89.6 AV			1.00 V	353	50.40	39.20
5	#10360.00	57.4 PK	74.0	-16.6	1.00 V	90	6.60	50.80
6	#10360.00	44.2 AV	54.0	-9.8	1.00 V	90	-6.60	50.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	98.5 PK			1.00 H	305	59.30	39.20
2	*5200.00	88.1 AV			1.00 H	305	48.90	39.20
3	#10400.00	57.4 PK	74.0	-16.6	1.00 H	305	6.60	50.80
4	#10400.00	44.2 AV	54.0	-9.8	1.00 H	305	-6.60	50.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	100.4 PK			1.00 V	355	61.20	39.20
2	*5200.00	90.5 AV			1.00 V	355	51.30	39.20
3	#10400.00	57.9 PK	74.0	-16.1	1.00 V	96	7.10	50.80
4	#10400.00	44.8 AV	54.0	-9.2	1.00 V	96	-6.00	50.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	100.5 PK			1.00 H	300	61.20	39.30
2	*5240.00	88.0 AV			1.00 H	300	48.70	39.30
3	5350.00	55.7 PK	74.0	-18.3	1.00 H	303	16.30	39.40
4	5350.00	44.6 AV	54.0	-9.4	1.00 H	303	5.20	39.40
5	#10480.00	58.2 PK	74.0	-15.8	1.00 H	289	7.10	51.10
6	#10480.00	44.5 AV	54.0	-9.5	1.00 H	289	-6.60	51.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	102.5 PK			1.00 V	354	63.20	39.30
2	*5240.00	92.5 AV			1.00 V	354	53.20	39.30
3	5350.00	56.8 PK	74.0	-17.2	1.00 V	356	17.40	39.40
4	5350.00	43.7 AV	54.0	-10.3	1.00 V	356	4.30	39.40
5	#10480.00	58.3 PK	74.0	-15.7	1.00 V	88	7.20	51.10
6	#10480.00	45.2 AV	54.0	-8.8	1.00 V	88	-5.90	51.10

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.7 PK	74.0	-14.3	1.00 H	318	20.50	39.20
2	5150.00	45.6 AV	54.0	-8.4	1.00 H	318	6.40	39.20
3	*5190.00	97.6 PK			1.00 H	321	58.40	39.20
4	*5190.00	86.4 AV			1.00 H	321	47.20	39.20
5	#10380.00	55.7 PK	74.0	-18.3	1.00 H	80	4.90	50.80
6	#10380.00	42.5 AV	54.0	-11.5	1.00 H	80	-8.30	50.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	60.4 PK	74.0	-13.6	1.00 V	350	21.20	39.20
2	5150.00	46.0 AV	54.0	-8.0	1.00 V	350	6.80	39.20
3	*5190.00	100.1 PK			1.00 V	352	60.90	39.20
4	*5190.00	88.4 AV			1.00 V	352	49.20	39.20
5	#10380.00	56.4 PK	74.0	-17.6	1.00 V	255	5.60	50.80
6	#10380.00	43.0 AV	54.0	-11.0	1.00 V	255	-7.80	50.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	100.1 PK			1.00 H	328	60.80	39.30
2	*5230.00	88.2 AV			1.00 H	328	48.90	39.30
3	5350.00	56.6 PK	74.0	-17.4	1.00 H	328	17.20	39.40
4	5350.00	43.5 AV	54.0	-10.5	1.00 H	328	4.10	39.40
5	#10460.00	56.1 PK	74.0	-17.9	1.00 H	82	5.10	51.00
6	#10460.00	43.1 AV	54.0	-10.9	1.00 H	82	-7.90	51.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	103.6 PK			1.00 V	354	64.30	39.30
2	*5230.00	91.4 AV			1.00 V	354	52.10	39.30
3	5350.00	57.2 PK	74.0	-16.8	1.00 V	359	17.80	39.40
4	5350.00	44.2 AV	54.0	-9.8	1.00 V	359	4.80	39.40
5	#10460.00	56.9 PK	74.0	-17.1	1.00 V	261	5.90	51.00
6	#10460.00	43.6 AV	54.0	-10.4	1.00 V	261	-7.40	51.00

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

TEST MODE A2

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH	TESTED BY	Brad Tung

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.6 PK	74.0	-16.4	1.05 H	2	52.20	5.40
2	5150.00	44.3 AV	54.0	-9.7	1.05 H	2	38.90	5.40
3	*5180.00	104.5 PK			1.00 H	2	65.20	39.30
4	*5180.00	91.8 AV			1.00 H	2	52.50	39.30
5	#10360.00	56.0 PK	74.0	-18.0	1.11 H	102	40.00	16.00
6	#10360.00	46.5 AV	54.0	-7.5	1.11 H	102	30.50	16.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	56.6 PK	74.0	-17.4	1.32 V	9	51.20	5.40
2	5150.00	44.8 AV	54.0	-9.2	1.32 V	9	39.40	5.40
3	*5180.00	103.0 PK			1.12 V	9	63.70	39.30
4	*5180.00	93.2 AV			1.12 V	9	53.90	39.30
5	#10360.00	58.1 PK	74.0	-15.9	1.03 V	23	42.10	16.00
6	#10360.00	48.6 AV	54.0	-5.4	1.03 V	23	32.60	16.00

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH	TESTED BY	Brad Tung

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	104.4 PK			1.05 H	0	65.10	39.30
2	*5200.00	94.4 AV			1.05 H	0	55.10	39.30
3	#10400.00	56.1 PK	74.0	-17.9	1.12 H	96	39.90	16.20
4	#10400.00	46.7 AV	54.0	-7.3	1.02 H	96	30.50	16.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	103.9 PK			1.20 V	3	64.60	39.30
2	*5200.00	93.9 AV			1.20 V	3	54.60	39.30
3	#10400.00	56.2 PK	74.0	-17.8	1.06 V	30	40.00	16.20
4	#10400.00	46.8 AV	54.0	-7.2	1.06 V	30	30.60	16.20

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH	TESTED BY	Brad Tung

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	105.4 PK			1.00 H	4	66.10	39.30
2	*5240.00	95.4 AV			1.00 H	4	56.10	39.30
3	#10480.00	57.2 PK	74.0	-16.8	1.08 H	100	40.40	16.80
4	#10480.00	47.9 AV	54.0	-6.1	1.08 H	100	31.10	16.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	105.0 PK			1.16 V	10	65.70	39.30
2	*5240.00	95.0 AV			1.16 V	10	55.70	39.30
3	#10480.00	57.0 PK	74.0	-17.0	1.03 V	14	40.20	16.80
4	#10480.00	47.5 AV	54.0	-6.5	1.03 V	14	30.70	16.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.1 PK	74.0	-16.9	1.01 H	12	17.90	39.20
2	5150.00	44.0 AV	54.0	-10.0	1.01 H	12	4.80	39.20
3	*5180.00	104.9 PK			1.01 H	11	65.70	39.20
4	*5180.00	93.0 AV			1.01 H	11	53.80	39.20
5	#10360.00	57.2 PK	74.0	-16.8	1.00 H	100	6.40	50.80
6	#10360.00	44.0 AV	54.0	-10.0	1.00 H	100	-6.80	50.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	60.8 PK	74.0	-13.2	1.00 V	8	21.60	39.20
2	5150.00	44.8 AV	54.0	-9.2	1.00 V	8	5.60	39.20
3	*5180.00	106.9 PK			1.00 V	8	67.70	39.20
4	*5180.00	94.4 AV			1.00 V	8	55.20	39.20
5	#10360.00	58.1 PK	74.0	-15.9	1.00 V	30	7.30	50.80
6	#10360.00	45.1 AV	54.0	-8.9	1.00 V	30	-5.70	50.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	104.5 PK			1.00 H	13	65.30	39.20
2	*5200.00	92.7 AV			1.00 H	13	53.50	39.20
3	#10400.00	57.0 PK	74.0	-17.0	1.00 H	106	6.20	50.80
4	#10400.00	43.7 AV	54.0	-10.3	1.00 H	106	-7.10	50.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	106.6 PK			1.00 V	5	67.40	39.20
2	*5200.00	94.2 AV			1.00 V	5	55.00	39.20
3	#10400.00	57.9 PK	74.0	-16.1	1.00 V	36	7.10	50.80
4	#10400.00	45.8 AV	54.0	-8.2	1.00 V	36	-5.00	50.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	106.1 PK			1.00 H	14	66.80	39.30
2	*5240.00	93.6 AV			1.00 H	14	54.30	39.30
3	5350.00	57.5 PK	74.0	-16.5	1.00 H	16	18.10	39.40
4	5350.00	44.5 AV	54.0	-9.5	1.00 H	16	5.10	39.40
5	#10480.00	57.5 PK	74.0	-16.5	1.00 H	94	6.40	51.10
6	#10480.00	44.3 AV	54.0	-9.7	1.00 H	94	-6.80	51.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	107.7 PK			1.09 V	6	68.40	39.30
2	*5240.00	95.4 AV			1.09 V	6	56.10	39.30
3	5350.00	58.4 PK	74.0	-15.6	1.08 V	7	19.00	39.40
4	5350.00	45.3 AV	54.0	-8.7	1.08 V	7	5.90	39.40
5	#10480.00	58.3 PK	74.0	-15.7	1.00 V	27	7.20	51.10
6	#10480.00	45.4 AV	54.0	-8.6	1.00 V	27	-5.70	51.10

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	64.2 PK	74.0	-9.8	1.11 H	13	25.00	39.20
2	5150.00	52.0 AV	54.0	-2.0	1.11 H	13	12.80	39.20
3	*5190.00	105.6 PK			1.11 H	12	66.40	39.20
4	*5190.00	93.8 AV			1.11 H	12	54.60	39.20
5	#10380.00	55.1 PK	74.0	-18.9	1.00 H	320	4.30	50.80
6	#10380.00	42.0 AV	54.0	-12.0	1.00 H	320	-8.80	50.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	64.0 PK	74.0	-10.0	1.00 V	8	24.80	39.20
2	5150.00	52.5 AV	54.0	-1.5	1.00 V	8	13.30	39.20
3	*5190.00	107.5 PK			1.00 V	10	68.30	39.20
4	*5190.00	94.8 AV			1.00 V	10	55.60	39.20
5	#10380.00	55.9 PK	74.0	-18.1	1.00 V	60	5.10	50.80
6	#10380.00	42.9 AV	54.0	-11.1	1.00 V	60	-7.90	50.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	106.8 PK			1.02 H	15	67.50	39.30
2	*5230.00	94.1 AV			1.02 H	15	54.80	39.30
3	5350.00	55.6 PK	74.0	-18.4	1.05 H	16	16.20	39.40
4	5350.00	45.0 AV	54.0	-9.0	1.05 H	16	5.60	39.40
5	#10460.00	55.6 PK	74.0	-18.4	1.00 H	315	4.60	51.00
6	#10460.00	42.7 AV	54.0	-11.3	1.00 H	315	-8.30	51.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	104.4 PK			1.00 V	6	65.10	39.30
2	*5230.00	95.1 AV			1.00 V	6	55.80	39.30
3	5350.00	57.4 PK	74.0	-16.6	1.00 V	7	18.00	39.40
4	5350.00	45.2 AV	54.0	-8.8	1.00 V	7	5.80	39.40
5	#10460.00	56.6 PK	74.0	-17.4	1.00 V	61	5.60	51.00
6	#10460.00	43.5 AV	54.0	-10.5	1.00 V	61	-7.50	51.00

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

TEST MODE B1

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH	TESTED BY	Alan Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.4 PK	74.0	-16.6	1.01 H	37	52.00	5.40
2	5150.00	44.6 AV	54.0	-9.4	1.01 H	37	39.20	5.40
3	*5180.00	104.4 PK			1.08 H	34	65.10	39.30
4	*5180.00	94.6 AV			1.08 H	34	55.30	39.30
5	#10360.00	59.7 PK	74.0	-14.3	1.00 H	35	43.70	16.00
6	#10360.00	46.5 AV	54.0	-7.5	1.00 H	35	30.50	16.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.1 PK	74.0	-16.9	1.00 V	6	51.70	5.40
2	5150.00	44.0 AV	54.0	-10.0	1.00 V	6	38.60	5.40
3	*5180.00	103.5 PK			1.00 V	1	64.20	39.30
4	*5180.00	94.0 AV			1.00 V	1	54.70	39.30
5	#10360.00	59.6 PK	74.0	-14.4	1.00 V	33	43.60	16.00
6	#10360.00	46.1 AV	54.0	-7.9	1.00 V	33	30.10	16.00

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH	TESTED BY	Alan Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	105.5 PK			1.07 H	35	66.20	39.30
2	*5200.00	95.9 AV			1.07 H	35	56.60	39.30
3	#10400.00	58.5 PK	74.0	-15.5	1.05 H	34	42.30	16.20
4	#10400.00	46.7 AV	54.0	-7.3	1.05 H	34	30.50	16.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	104.0 PK			1.00 V	7	64.70	39.30
2	*5200.00	94.4 AV			1.00 V	7	55.10	39.30
3	#10400.00	58.3 PK	74.0	-15.7	1.00 V	37	42.10	16.20
4	#10400.00	46.3 AV	54.0	-7.7	1.00 V	37	30.10	16.20

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH	TESTED BY	Alan Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	104.9 PK			1.08 H	34	65.60	39.30
2	*5240.00	95.2 AV			1.08 H	34	55.90	39.30
3	#5350.00	56.8 PK	74.0	-17.2	1.06 H	32	51.30	5.50
4	#5350.00	43.5 AV	54.0	-10.5	1.06 H	32	38.00	5.50
5	#10480.00	59.1 PK	74.0	-14.9	1.04 H	38	42.30	16.80
6	#10480.00	45.9 AV	54.0	-8.1	1.04 H	38	29.10	16.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	104.1 PK			1.00 V	10	64.80	39.30
2	*5240.00	94.4 AV			1.00 V	10	55.10	39.30
3	#5350.00	56.4 PK	74.0	-17.6	1.00 V	1	50.90	5.50
4	#5350.00	42.8 AV	54.0	-11.2	1.00 V	1	37.30	5.50
5	#10480.00	59.0 PK	74.0	-15.0	1.00 V	30	42.20	16.80
6	#10480.00	45.4 AV	54.0	-8.6	1.00 V	30	28.60	16.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.5 PK	74.0	-16.5	1.00 H	36	18.30	39.20
2	5150.00	45.6 AV	54.0	-8.4	1.00 H	36	6.40	39.20
3	*5180.00	106.1 PK			1.00 H	35	66.90	39.20
4	*5180.00	95.2 AV			1.00 H	35	56.00	39.20
5	#10360.00	60.2 PK	74.0	-13.8	1.00 H	325	9.40	50.80
6	#10360.00	47.0 AV	54.0	-7.0	1.00 H	325	-3.80	50.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	56.2 PK	74.0	-17.8	1.00 V	316	17.00	39.20
2	5150.00	45.3 AV	54.0	-8.7	1.00 V	316	6.10	39.20
3	*5180.00	105.5 PK			1.00 V	315	66.30	39.20
4	*5180.00	94.8 AV			1.00 V	315	55.60	39.20
5	#10360.00	59.8 PK	74.0	-14.2	1.00 V	220	9.00	50.80
6	#10360.00	46.5 AV	54.0	-7.5	1.00 V	220	-4.30	50.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	105.7 PK			1.00 H	38	66.50	39.20
2	*5200.00	105.0 AV			1.00 H	38	65.80	39.20
3	#10400.00	60.0 PK	74.0	-14.0	1.00 H	331	9.20	50.80
4	#10400.00	46.7 AV	54.0	-7.3	1.00 H	331	-4.10	50.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	105.2 PK			1.00 V	318	66.00	39.20
2	*5200.00	94.4 AV			1.00 V	318	55.20	39.20
3	#10400.00	59.5 PK	74.0	-14.5	1.00 V	226	8.70	50.80
4	#10400.00	46.1 AV	54.0	-7.9	1.00 V	226	-4.70	50.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	106.5 PK			1.01 H	36	67.20	39.30
2	*5240.00	95.5 AV			1.01 H	36	56.20	39.30
3	5350.00	59.0 PK	74.0	-15.0	1.02 H	35	19.60	39.40
4	5350.00	45.9 AV	54.0	-8.1	1.02 H	35	6.50	39.40
5	#10480.00	60.5 PK	74.0	-13.5	1.00 H	333	9.40	51.10
6	#10480.00	47.4 AV	54.0	-6.6	1.00 H	333	-3.70	51.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	105.8 PK			1.00 V	311	66.50	39.30
2	*5240.00	95.2 AV			1.00 V	311	55.90	39.30
3	5350.00	58.5 PK	74.0	-15.5	1.00 V	310	19.10	39.40
4	5350.00	45.5 AV	54.0	-8.5	1.00 V	310	6.10	39.40
5	#10480.00	60.0 PK	74.0	-14.0	1.00 V	218	8.90	51.10
6	#10480.00	46.8 AV	54.0	-7.2	1.00 V	218	-4.30	51.10

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	64.4 PK	74.0	-9.6	1.15 H	330	25.20	39.20
2	5150.00	50.4 AV	54.0	-3.6	1.15 H	330	11.20	39.20
3	*5190.00	105.3 PK			1.15 H	329	66.10	39.20
4	*5190.00	92.8 AV			1.15 H	329	53.60	39.20
5	#10380.00	59.9 PK	74.0	-14.1	1.00 H	345	9.10	50.80
6	#10380.00	47.1 AV	54.0	-6.9	1.00 H	345	-3.70	50.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.5 PK	74.0	-14.5	1.00 V	320	20.30	39.20
2	5150.00	48.1 AV	54.0	-5.9	1.00 V	320	8.90	39.20
3	*5190.00	101.1 PK			1.00 V	317	61.90	39.20
4	*5190.00	89.0 AV			1.00 V	317	49.80	39.20
5	#10380.00	59.2 PK	74.0	-14.8	1.00 V	250	8.40	50.80
6	#10380.00	47.3 AV	54.0	-6.7	1.00 V	250	-3.50	50.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	105.6 PK			1.16 H	335	66.30	39.30
2	*5230.00	93.2 AV			1.16 H	335	53.90	39.30
3	5350.00	59.6 PK	74.0	-14.4	1.15 H	335	20.20	39.40
4	5350.00	46.9 AV	54.0	-7.1	1.15 H	335	7.50	39.40
5	#10460.00	60.4 PK	74.0	-13.6	1.00 H	351	9.40	51.00
6	#10460.00	47.5 AV	54.0	-6.5	1.00 H	351	-3.50	51.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	101.5 PK			1.00 V	307	62.20	39.30
2	*5230.00	89.5 AV			1.00 V	307	50.20	39.30
3	5350.00	59.0 PK	74.0	-15.0	1.00 V	310	19.60	39.40
4	5350.00	46.2 AV	54.0	-7.8	1.00 V	310	6.80	39.40
5	#10460.00	59.8 PK	74.0	-14.2	1.00 V	241	8.80	51.00
6	#10460.00	47.9 AV	54.0	-6.1	1.00 V	241	-3.10	51.00

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

TEST MODE B2

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH	TESTED BY	Alan Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5150.00	56.7 PK	74.0	-17.3	1.03 H	351	51.30	5.40
2	#5150.00	44.0 AV	54.0	-10.0	1.03 H	351	38.60	5.40
3	*5180.00	104.5 PK			1.08 H	356	65.20	39.30
4	*5180.00	94.9 AV			1.08 H	356	55.60	39.30
5	#10360.00	57.6 PK	74.0	-16.4	1.00 H	301	41.60	16.00
6	#10360.00	45.5 AV	54.0	-8.5	1.00 H	301	29.50	16.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5150.00	56.3 PK	74.0	-17.7	1.00 V	19	50.90	5.40
2	#5150.00	43.5 AV	54.0	-10.5	1.00 V	19	38.10	5.40
3	*5180.00	101.3 PK			1.00 V	20	62.00	39.30
4	*5180.00	92.2 AV			1.00 V	20	52.90	39.30
5	#10360.00	57.3 PK	74.0	-16.7	1.00 V	330	41.30	16.00
6	#10360.00	45.0 AV	54.0	-9.0	1.00 V	330	29.00	16.00

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH	TESTED BY	Alan Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	104.2 PK			1.32 H	327	64.90	39.30
2	*5200.00	94.3 AV			1.32 H	327	55.00	39.30
3	#10400.00	58.0 PK	74.0	-16.0	1.01 H	307	41.80	16.20
4	#10400.00	45.8 AV	54.0	-8.2	1.01 H	307	29.60	16.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	100.8 PK			1.12 V	11	61.50	39.30
2	*5200.00	91.1 AV			1.12 V	11	51.80	39.30
3	#10400.00	57.5 PK	74.0	-16.5	1.00 V	334	41.30	16.20
4	#10400.00	45.3 AV	54.0	-8.7	1.00 V	334	29.10	16.20

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH	TESTED BY	Alan Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	105.6 PK			1.30 H	327	66.30	39.30
2	*5240.00	95.6 AV			1.30 H	327	56.30	39.30
3	5350.00	55.9 PK	74.0	-18.1	1.26 H	323	50.40	5.50
4	5350.00	42.8 AV	54.0	-11.2	1.26 H	323	37.30	5.50
5	#10480.00	57.2 PK	74.0	-16.8	1.03 H	309	40.40	16.80
6	#10480.00	44.8 AV	54.0	-9.2	1.03 H	309	28.00	16.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	101.7 PK			1.00 V	307	62.40	39.30
2	*5240.00	92.0 AV			1.00 V	307	52.70	39.30
3	5350.00	55.4 PK	74.0	-18.6	1.00 V	303	49.90	5.50
4	5350.00	42.0 AV	54.0	-12.0	1.00 V	303	36.50	5.50
5	#10480.00	56.9 PK	74.0	-17.1	1.00 V	336	40.10	16.80
6	#10480.00	44.2 AV	54.0	-9.8	1.00 V	336	27.40	16.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	62.5 PK	74.0	-11.5	1.00 H	23	23.30	39.20
2	5150.00	45.8 AV	54.0	-8.2	1.00 H	23	6.60	39.20
3	*5180.00	109.5 PK			1.00 H	22	70.30	39.20
4	*5180.00	98.7 AV			1.00 H	22	59.50	39.20
5	#10360.00	59.4 PK	74.0	-14.6	1.00 H	235	8.60	50.80
6	#10360.00	46.2 AV	54.0	-7.8	1.00 H	235	-4.60	50.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	66.3 PK	74.0	-7.7	1.00 V	4	27.10	39.20
2	5150.00	48.0 AV	54.0	-6.0	1.00 V	4	8.80	39.20
3	*5180.00	111.6 PK			1.00 V	3	72.40	39.20
4	*5180.00	100.6 AV			1.00 V	3	61.40	39.20
5	#10360.00	60.3 PK	74.0	-13.7	1.00 V	90	9.50	50.80
6	#10360.00	47.0 AV	54.0	-7.0	1.00 V	90	-3.80	50.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	109.8 PK			1.00 H	28	70.60	39.20
2	*5200.00	98.9 AV			1.00 H	28	59.70	39.20
3	#10400.00	59.5 PK	74.0	-14.5	1.00 H	241	8.70	50.80
4	#10400.00	46.5 AV	54.0	-7.5	1.00 H	241	-4.30	50.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	111.7 PK			1.00 V	7	72.50	39.20
2	*5200.00	100.6 AV			1.00 V	7	61.40	39.20
3	#10400.00	60.5 PK	74.0	-13.5	1.00 V	93	9.70	50.80
4	#10400.00	47.3 AV	54.0	-6.7	1.00 V	93	-3.50	50.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	110.2 PK			1.00 H	36	70.90	39.30
2	*5240.00	99.5 AV			1.00 H	36	60.20	39.30
3	5350.00	59.0 PK	74.0	-15.0	1.00 H	38	19.60	39.40
4	5350.00	46.5 AV	54.0	-7.5	1.00 H	38	7.10	39.40
5	#10480.00	60.0 PK	74.0	-14.0	1.00 H	234	8.90	51.10
6	#10480.00	46.9 AV	54.0	-7.1	1.00 H	234	-4.20	51.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	112.2 PK			1.00 V	3	72.90	39.30
2	*5240.00	101.1 AV			1.00 V	3	61.80	39.30
3	5350.00	59.5 PK	74.0	-14.5	1.00 V	1	20.10	39.40
4	5350.00	47.2 AV	54.0	-6.8	1.00 V	1	7.80	39.40
5	#10480.00	60.9 PK	74.0	-13.1	1.00 V	82	9.80	51.10
6	#10480.00	47.5 AV	54.0	-6.5	1.00 V	82	-3.60	51.10

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	64.0 PK	74.0	-10.0	1.00 H	20	24.80	39.20
2	5150.00	51.6 AV	54.0	-2.4	1.00 H	20	12.40	39.20
3	*5190.00	104.6 PK			1.00 H	20	65.40	39.20
4	*5190.00	92.2 AV			1.00 H	20	53.00	39.20
5	#10380.00	59.9 PK	74.0	-14.1	1.00 H	325	9.10	50.80
6	#10380.00	46.5 AV	54.0	-7.5	1.00 H	325	-4.30	50.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	64.7 PK	74.0	-9.3	1.00 V	359	25.50	39.20
2	**5150.00**	**52.9 AV**	**54.0**	**-1.1**	**1.00 V**	**359**	**13.70**	**39.20**
3	*5190.00	107.5 PK			1.00 V	1	68.30	39.20
4	*5190.00	95.3 AV			1.00 V	1	56.10	39.20
5	#10380.00	60.5 PK	74.0	-13.5	1.00 V	270	9.70	50.80
6	#10380.00	47.2 AV	54.0	-6.8	1.00 V	270	-3.60	50.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	105.2 PK			1.00 H	21	65.90	39.30
2	*5230.00	92.9 AV			1.00 H	21	53.60	39.30
3	5350.00	59.8 PK	74.0	-14.2	1.00 H	26	20.40	39.40
4	5350.00	46.5 AV	54.0	-7.5	1.00 H	26	7.10	39.40
5	#10460.00	60.6 PK	74.0	-13.4	1.00 H	311	9.60	51.00
6	#10460.00	47.3 AV	54.0	-6.7	1.00 H	311	-3.70	51.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	108.4 PK			1.00 V	359	69.10	39.30
2	*5230.00	96.3 AV			1.00 V	359	57.00	39.30
3	5350.00	60.7 PK	74.0	-13.3	1.00 V	3	21.30	39.40
4	5350.00	47.6 AV	54.0	-6.4	1.00 V	3	8.20	39.40
5	#10460.00	61.3 PK	74.0	-12.7	1.00 V	277	10.30	51.00
6	#10460.00	48.1 AV	54.0	-5.9	1.00 V	277	-2.90	51.00

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

TEST MODE C1

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH	TESTED BY	Alan Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	56.2 PK	74.0	-17.8	1.00 H	243	50.80	5.40
2	5150.00	44.6 AV	54.0	-9.4	1.00 H	243	39.20	5.40
3	*5180.00	97.1 PK			1.00 H	244	57.80	39.30
4	*5180.00	87.7 AV			1.00 H	244	48.40	39.30
5	#10360.00	57.3 PK	74.0	-16.7	1.00 H	122	41.30	16.00
6	#10360.00	43.6 AV	54.0	-10.4	1.00 H	122	27.60	16.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.5 PK	74.0	-16.5	1.08 V	249	52.10	5.40
2	5150.00	45.0 AV	54.0	-9.0	1.08 V	249	39.60	5.40
3	*5180.00	107.6 PK			1.00 V	244	68.30	39.30
4	*5180.00	98.3 AV			1.00 V	244	59.00	39.30
5	#10360.00	58.5 PK	74.0	-15.5	1.00 V	307	42.50	16.00
6	#10360.00	44.9 AV	54.0	-9.1	1.00 V	307	28.90	16.00

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH	TESTED BY	Alan Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	97.3 PK			1.00 H	243	58.00	39.30
2	*5200.00	88.0 AV			1.00 H	243	48.70	39.30
3	#10400.00	57.5 PK	74.0	-16.5	1.00 H	125	41.30	16.20
4	#10400.00	44.0 AV	54.0	-10.0	1.00 H	125	27.80	16.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	109.2 PK			1.00 V	242	69.90	39.30
2	*5200.00	99.5 AV			1.00 V	242	60.20	39.30
3	#10400.00	59.0 PK	74.0	-15.0	1.00 V	314	42.80	16.20
4	#10400.00	45.0 AV	54.0	-9.0	1.00 V	314	28.80	16.20

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH	TESTED BY	Alan Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	96.8 PK			1.00 H	251	57.50	39.30
2	*5240.00	87.2 AV			1.00 H	251	47.90	39.30
3	5350.00	55.3 PK	74.0	-18.7	1.00 H	255	49.80	5.50
4	5350.00	43.5 AV	54.0	-10.5	1.00 H	255	38.00	5.50
5	#10480.00	57.2 PK	74.0	-16.8	1.00 H	115	40.40	16.80
6	#10480.00	43.2 AV	54.0	-10.8	1.00 H	115	26.40	16.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	106.5 PK			1.00 V	241	67.20	39.30
2	*5240.00	97.1 AV			1.00 V	241	57.80	39.30
3	5350.00	55.8 PK	74.0	-18.2	1.00 V	243	50.30	5.50
4	5350.00	44.0 AV	54.0	-10.0	1.00 V	243	38.50	5.50
5	#10480.00	58.4 PK	74.0	-15.6	1.00 V	293	41.60	16.80
6	#10480.00	44.8 AV	54.0	-9.2	1.00 V	293	28.00	16.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	55.1 PK	74.0	-18.9	1.00 H	148	15.90	39.20
2	5150.00	42.9 AV	54.0	-11.1	1.00 H	148	3.70	39.20
3	*5180.00	97.2 PK			1.00 H	146	58.00	39.20
4	*5180.00	87.5 AV			1.00 H	146	48.30	39.20
5	#10360.00	57.0 PK	74.0	-17.0	1.00 H	340	6.20	50.80
6	#10360.00	43.9 AV	54.0	-10.1	1.00 H	340	-6.90	50.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.1 PK	74.0	-15.9	1.19 V	290	18.90	39.20
2	5150.00	44.3 AV	54.0	-9.7	1.19 V	290	5.10	39.20
3	*5180.00	108.4 PK			1.19 V	292	69.20	39.20
4	*5180.00	96.5 AV			1.19 V	292	57.30	39.20
5	#10360.00	57.7 PK	74.0	-16.3	1.00 V	60	6.90	50.80
6	#10360.00	44.7 AV	54.0	-9.3	1.00 V	60	-6.10	50.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	98.2 PK			1.00 H	203	59.00	39.20
2	*5200.00	85.4 AV			1.00 H	203	46.20	39.20
3	#10400.00	56.5 PK	74.0	-17.5	1.00 H	346	5.70	50.80
4	#10400.00	43.5 AV	54.0	-10.5	1.00 H	346	-7.30	50.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	108.1 PK			1.07 V	285	68.90	39.20
2	*5200.00	96.2 AV			1.07 V	285	57.00	39.20
3	#10400.00	57.3 PK	74.0	-16.7	1.00 V	65	6.50	50.80
4	#10400.00	44.2 AV	54.0	-9.8	1.00 V	65	-6.60	50.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	98.3 PK			1.00 H	208	59.00	39.30
2	*5240.00	85.5 AV			1.00 H	208	46.20	39.30
3	5350.00	56.2 PK	74.0	-17.8	1.00 H	210	16.80	39.40
4	5350.00	43.3 AV	54.0	-10.7	1.00 H	210	3.90	39.40
5	#10480.00	57.3 PK	74.0	-16.7	1.00 H	333	6.20	51.10
6	#10480.00	44.5 AV	54.0	-9.5	1.00 H	333	-6.60	51.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	109.1 PK			1.09 V	292	69.80	39.30
2	*5240.00	97.3 AV			1.09 V	292	58.00	39.30
3	5350.00	56.8 PK	74.0	-17.2	1.09 V	290	17.40	39.40
4	5350.00	44.3 AV	54.0	-9.7	1.09 V	290	4.90	39.40
5	#10480.00	58.1 PK	74.0	-15.9	1.00 V	57	7.00	51.10
6	#10480.00	45.1 AV	54.0	-8.9	1.00 V	57	-6.00	51.10

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	55.7 PK	74.0	-18.3	1.00 H	207	16.50	39.20
2	5150.00	43.2 AV	54.0	-10.8	1.00 H	207	4.00	39.20
3	*5190.00	94.9 PK			1.00 H	207	55.70	39.20
4	*5190.00	83.0 AV			1.00 H	207	43.80	39.20
5	#10380.00	56.5 PK	74.0	-17.5	1.00 H	350	5.70	50.80
6	#10380.00	43.4 AV	54.0	-10.6	1.00 H	350	-7.40	50.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	64.8 PK	74.0	-9.2	1.00 V	293	25.60	39.20
2	5150.00	51.1 AV	54.0	-2.9	1.00 V	293	11.90	39.20
3	*5190.00	105.5 PK			1.00 V	293	66.30	39.20
4	*5190.00	93.8 AV			1.00 V	293	54.60	39.20
5	#10380.00	57.4 PK	74.0	-16.6	1.00 V	75	6.60	50.80
6	#10380.00	44.2 AV	54.0	-9.8	1.00 V	75	-6.60	50.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	96.1 PK			1.00 H	206	56.80	39.30
2	*5230.00	84.0 AV			1.00 H	206	44.70	39.30
3	5350.00	55.5 PK	74.0	-18.5	1.00 H	204	16.10	39.40
4	5350.00	43.6 AV	54.0	-10.4	1.00 H	204	4.20	39.40
5	#10460.00	56.8 PK	74.0	-17.2	1.00 H	348	5.80	51.00
6	#10460.00	43.8 AV	54.0	-10.2	1.00 H	348	-7.20	51.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	106.6 PK			1.07 V	279	67.30	39.30
2	*5230.00	94.6 AV			1.07 V	279	55.30	39.30
3	5350.00	57.3 PK	74.0	-16.7	1.08 V	280	17.90	39.40
4	5350.00	44.9 AV	54.0	-9.1	1.08 V	280	5.50	39.40
5	#10460.00	57.6 PK	74.0	-16.4	1.00 V	77	6.60	51.00
6	#10460.00	44.5 AV	54.0	-9.5	1.00 V	77	-6.50	51.00

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

TEST MODE C2

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH	TESTED BY	Cedric Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	56.1 PK	74.0	-17.9	1.00 H	128	50.70	5.40
2	5150.00	44.4 AV	54.0	-9.6	1.00 H	128	39.00	5.40
3	*5180.00	95.7 PK			1.00 H	124	56.40	39.30
4	*5180.00	85.9 AV			1.00 H	124	46.60	39.30
5	#10360.00	56.9 PK	74.0	-17.1	1.00 H	125	40.90	16.00
6	#10360.00	43.3 AV	54.0	-10.7	1.00 H	125	27.30	16.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.3 PK	74.0	-16.7	1.13 V	249	51.90	5.40
2	5150.00	45.5 AV	54.0	-8.5	1.13 V	249	40.10	5.40
3	*5180.00	109.0 PK			1.13 V	248	69.70	39.30
4	*5180.00	98.9 AV			1.13 V	248	59.60	39.30
5	#10360.00	57.8 PK	74.0	-16.2	1.00 V	300	41.80	16.00
6	#10360.00	44.5 AV	54.0	-9.5	1.00 V	300	28.50	16.00

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH	TESTED BY	Cedric Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	95.3 PK			1.00 H	124	56.00	39.30
2	*5200.00	85.8 AV			1.00 H	124	46.50	39.30
3	#10400.00	56.9 PK	74.0	-17.1	1.00 H	131	40.70	16.20
4	#10400.00	43.2 AV	54.0	-10.8	1.00 H	131	27.00	16.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	108.6 PK			1.12 V	245	69.30	39.30
2	*5200.00	98.8 AV			1.12 V	245	59.50	39.30
3	#10400.00	57.8 PK	74.0	-16.2	1.00 V	311	41.60	16.20
4	#10400.00	44.4 AV	54.0	-9.6	1.00 V	311	28.20	16.20

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH	TESTED BY	Cedric Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	95.2 PK			1.00 H	123	55.90	39.30
2	*5240.00	85.8 AV			1.00 H	123	46.50	39.30
3	5350.00	57.5 PK	74.0	-16.5	1.00 H	120	52.00	5.50
4	5350.00	44.2 AV	54.0	-9.8	1.00 H	120	38.70	5.50
5	#10480.00	57.5 PK	74.0	-16.5	1.00 H	114	40.70	16.80
6	#10480.00	43.9 AV	54.0	-10.1	1.00 H	114	27.10	16.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	107.8 PK			1.12 V	246	68.50	39.30
2	*5240.00	98.1 AV			1.12 V	246	58.80	39.30
3	5350.00	57.8 PK	74.0	-16.2	1.12 V	240	52.30	5.50
4	5350.00	44.6 AV	54.0	-9.4	1.12 V	240	39.10	5.50
5	#10480.00	58.2 PK	74.0	-15.8	1.00 V	289	41.40	16.80
6	#10480.00	44.7 AV	54.0	-9.3	1.00 V	289	27.90	16.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	56.2 PK	74.0	-17.8	1.00 H	165	17.00	39.20
2	5150.00	42.6 AV	54.0	-11.4	1.00 H	165	3.40	39.20
3	*5180.00	100.6 PK			1.00 H	167	61.40	39.20
4	*5180.00	88.7 AV			1.00 H	167	49.50	39.20
5	#10360.00	56.9 PK	74.0	-17.1	1.00 H	315	6.10	50.80
6	#10360.00	43.9 AV	54.0	-10.1	1.00 H	315	-6.90	50.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.1 PK	74.0	-15.9	1.00 V	231	18.90	39.20
2	5150.00	45.5 AV	54.0	-8.5	1.00 V	231	6.30	39.20
3	*5180.00	108.6 PK			1.00 V	230	69.40	39.20
4	*5180.00	96.7 AV			1.00 V	230	57.50	39.20
5	#10360.00	57.5 PK	74.0	-16.5	1.00 V	80	6.70	50.80
6	#10360.00	44.6 AV	54.0	-9.4	1.00 V	80	-6.20	50.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	100.7 PK			1.00 H	160	61.50	39.20
2	*5200.00	89.9 AV			1.00 H	160	50.70	39.20
3	#10400.00	57.1 PK	74.0	-16.9	1.00 H	321	6.30	50.80
4	#10400.00	44.3 AV	54.0	-9.7	1.00 H	321	-6.50	50.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	109.8 PK			1.00 V	196	70.60	39.20
2	*5200.00	97.5 AV			1.00 V	196	58.30	39.20
3	#10400.00	57.8 PK	74.0	-16.2	1.00 V	88	7.00	50.80
4	#10400.00	45.0 AV	54.0	-9.0	1.00 V	88	-5.80	50.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	102.1 PK			1.08 H	170	62.80	39.30
2	*5240.00	89.6 AV			1.08 H	170	50.30	39.30
3	5350.00	56.0 PK	74.0	-18.0	1.07 H	173	16.60	39.40
4	5350.00	43.5 AV	54.0	-10.5	1.07 H	173	4.10	39.40
5	#10480.00	56.8 PK	74.0	-17.2	1.00 H	311	5.70	51.10
6	#10480.00	44.2 AV	54.0	-9.8	1.00 H	311	-6.90	51.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	109.7 PK			1.12 V	194	70.40	39.30
2	*5240.00	98.0 AV			1.12 V	194	58.70	39.30
3	5350.00	57.0 PK	74.0	-17.0	1.10 V	195	17.60	39.40
4	5350.00	43.9 AV	54.0	-10.1	1.10 V	195	4.50	39.40
5	#10480.00	57.6 PK	74.0	-16.4	1.00 V	85	6.50	51.10
6	#10480.00	44.9 AV	54.0	-9.1	1.00 V	85	-6.20	51.10

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	60.0 PK	74.0	-14.0	1.00 H	168	20.80	39.20
2	5150.00	46.0 AV	54.0	-8.0	1.00 H	168	6.80	39.20
3	*5190.00	98.1 PK			1.00 H	166	58.90	39.20
4	*5190.00	85.8 AV			1.00 H	166	46.60	39.20
5	#10390.00	56.4 PK	74.0	-17.6	1.00 H	328	5.60	50.80
6	#10390.00	43.5 AV	54.0	-10.5	1.00 H	328	-7.30	50.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	66.2 PK	74.0	-7.8	1.00 V	195	27.00	39.20
2	5150.00	51.6 AV	54.0	-2.4	1.00 V	195	12.40	39.20
3	*5190.00	106.0 PK			1.00 V	195	66.80	39.20
4	*5190.00	93.9 AV			1.00 V	195	54.70	39.20
5	#10390.00	57.1 PK	74.0	-16.9	1.00 V	105	6.30	50.80
6	#10390.00	44.0 AV	54.0	-10.0	1.00 V	105	-6.80	50.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	98.0 PK			1.08 H	169	58.70	39.30
2	*5230.00	85.9 AV			1.08 H	169	46.60	39.30
3	5350.00	56.2 PK	74.0	-17.8	1.05 H	162	16.80	39.40
4	5350.00	43.2 AV	54.0	-10.8	1.05 H	162	3.80	39.40
5	#10460.00	56.7 PK	74.0	-17.3	1.00 H	336	5.70	51.00
6	#10460.00	43.7 AV	54.0	-10.3	1.00 H	336	-7.30	51.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	106.7 PK			1.10 V	194	67.40	39.30
2	*5230.00	94.5 AV			1.10 V	194	55.20	39.30
3	5350.00	56.7 PK	74.0	-17.3	1.09 V	195	17.30	39.40
4	5350.00	44.0 AV	54.0	-10.0	1.09 V	195	4.60	39.40
5	#10460.00	57.3 PK	74.0	-16.7	1.00 V	113	6.30	51.00
6	#10460.00	44.3 AV	54.0	-9.7	1.00 V	113	-6.70	51.00

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

BELOW 1GHz WORST-CASE DATA：

TEST MODE A1

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 46	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Bard Tung

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	95.87	30.2 QP	43.5	-13.3	1.50 H	80	20.70	9.50
2	157.97	30.8 QP	43.5	-12.7	1.00 H	102	17.10	13.70
3	198.71	30.8 QP	43.5	-12.7	1.00 H	21	20.20	10.60
4	266.63	30.7 QP	46.0	-15.3	1.25 H	85	17.40	13.30
5	332.60	32.7 QP	46.0	-13.3	2.00 H	246	17.50	15.20
6	421.86	34.3 QP	46.0	-11.7	1.00 H	124	16.90	17.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	39.60	28.9 QP	40.0	-11.1	1.25 V	266	14.90	14.00
2	90.05	32.5 QP	43.5	-11.0	1.50 V	144	23.40	9.10
3	198.71	30.9 QP	43.5	-12.6	1.00 V	203	20.30	10.60
4	400.52	36.1 QP	46.0	-9.9	1.00 V	104	19.10	17.00
5	441.26	29.3 QP	46.0	-16.7	2.00 V	310	11.40	17.90
6	734.27	33.9 QP	46.0	-12.1	1.50 V	320	10.30	23.60

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

TEST MODE A2

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 46	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Bard Tung

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	80.35	29.1 QP	40.0	-10.9	1.25 H	6	20.20	8.90
2	157.97	30.8 QP	43.5	-12.7	1.00 H	285	17.10	13.70
3	198.71	31.0 QP	43.5	-12.5	2.00 H	86	20.40	10.60
4	249.17	29.8 QP	46.0	-16.2	1.00 H	81	17.10	12.70
5	330.66	36.7 QP	46.0	-9.3	1.25 H	6	21.50	15.20
6	425.74	33.2 QP	46.0	-12.8	1.00 H	6	15.70	17.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	39.60	27.8 QP	40.0	-12.2	1.00 V	301	13.80	14.00
2	90.05	30.2 QP	43.5	-13.3	1.50 V	91	21.10	9.10
3	336.48	31.4 QP	46.0	-14.6	1.00 V	223	16.10	15.30
4	400.52	30.7 QP	46.0	-15.3	2.00 V	77	13.70	17.00
5	423.80	34.9 QP	46.0	-11.1	2.00 V	152	17.40	17.50
6	441.26	30.9 QP	46.0	-15.1	1.00 V	316	13.00	17.90

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

TEST MODE B1

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Bard Tung

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	107.52	33.0 QP	43.5	-10.5	1.25 H	279	22.40	10.60
2	161.85	30.9 QP	43.5	-12.6	1.50 H	131	17.30	13.60
3	198.71	31.4 QP	43.5	-12.1	1.00 H	66	20.80	10.60
4	280.21	32.1 QP	46.0	-13.9	1.00 H	94	18.40	13.70
5	299.62	32.3 QP	46.0	-13.7	1.25 H	101	18.00	14.30
6	332.60	30.7 QP	46.0	-15.3	1.00 H	251	15.50	15.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	78.41	27.9 QP	40.0	-12.1	1.25 V	323	18.60	9.30
2	159.91	30.8 QP	43.5	-12.7	1.00 V	121	17.10	13.70
3	198.71	32.4 QP	43.5	-11.1	1.00 V	74	21.80	10.60
4	249.17	29.0 QP	46.0	-17.0	1.00 V	89	16.30	12.70
5	280.21	30.0 QP	46.0	-16.0	2.00 V	89	16.30	13.70
6	332.60	32.5 QP	46.0	-13.5	1.25 V	260	17.30	15.20

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

TEST MODE B2

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Bard Tung

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	84.23	29.3 QP	40.0	-10.7	1.25 H	47	20.40	8.90
2	159.91	30.6 QP	43.5	-12.9	1.00 H	277	16.90	13.70
3	198.71	31.2 QP	43.5	-12.3	1.00 H	34	20.60	10.60
4	280.21	29.8 QP	46.0	-16.2	1.50 H	89	16.10	13.70
5	332.60	32.3 QP	46.0	-13.7	1.25 H	256	17.10	15.20
6	375.29	29.0 QP	46.0	-17.0	1.00 H	117	12.70	16.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	39.60	30.9 QP	40.0	-9.1	1.25 V	286	16.90	14.00
2	66.77	29.3 QP	40.0	-10.7	1.50 V	197	17.50	11.80
3	119.16	31.5 QP	43.5	-12.0	2.00 V	168	19.70	11.80
4	198.71	30.9 QP	43.5	-12.6	1.00 V	186	20.30	10.60
5	332.60	34.2 QP	46.0	-11.8	1.00 V	239	19.00	15.20
6	375.29	29.0 QP	46.0	-17.0	1.00 V	49	12.70	16.30

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

TEST MODE C1

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Bard Tung

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	198.71	31.8 QP	43.5	-11.7	1.25 H	88	21.20	10.60
2	400.52	38.4 QP	46.0	-7.6	1.25 H	320	21.40	17.00
3	423.80	36.1 QP	46.0	-9.9	2.00 H	174	18.60	17.50
4	734.27	35.4 QP	46.0	-10.6	1.00 H	103	11.80	23.60
5	800.24	37.1 QP	46.0	-8.9	1.00 H	93	12.40	24.70
6	868.15	37.5 QP	46.0	-8.5	1.00 H	320	11.80	25.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	53.18	25.8 QP	40.0	-14.2	1.00 V	197	12.50	13.30
2	90.05	30.1 QP	43.5	-13.4	1.25 V	318	21.00	9.10
3	198.71	30.7 QP	43.5	-12.8	1.00 V	33	20.10	10.60
4	400.52	31.0 QP	46.0	-15.0	1.00 V	185	14.00	17.00
5	868.15	34.4 QP	46.0	-11.6	2.00 V	98	8.70	25.70
6	999.99	36.0 QP	54.0	-18.0	1.50 V	130	9.20	26.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

TEST MODE C2

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Bard Tung

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	51.24	27.2 QP	40.0	-12.8	1.00 H	150	13.70	13.50
2	90.05	32.7 QP	43.5	-10.8	1.25 H	93	23.60	9.10
3	107.52	35.3 QP	43.5	-8.2	1.25 H	199	24.70	10.60
4	198.71	30.1 QP	43.5	-13.4	1.00 H	34	19.50	10.60
5	332.60	32.1 QP	46.0	-13.9	1.50 H	101	16.90	15.20
6	398.58	32.5 QP	46.0	-13.5	1.00 H	94	15.60	16.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	43.48	27.7 QP	40.0	-12.3	1.25 V	139	13.60	14.10
2	90.05	33.3 QP	43.5	-10.2	1.50 V	326	24.20	9.10
3	198.71	31.0 QP	43.5	-12.5	1.00 V	238	20.40	10.60
4	332.60	32.3 QP	46.0	-13.7	1.00 V	92	17.10	15.20
5	398.58	30.3 QP	46.0	-15.7	1.25 V	124	13.40	16.90
6	423.80	29.8 QP	46.0	-16.2	1.00 V	282	12.30	17.50

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. 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

Test Date: June 07 ~ Jun. 15, 2013

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100289	Nov. 16, 2012	Nov. 15, 2013
RF signal cable Woken	5D-FB	Cable-HYC01-01	Dec. 28, 2012	Dec. 27, 2013
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100312	Jul. 02, 2012	Jul. 01, 2013
LISN ROHDE & SCHWARZ (EUT)	ESH3-Z5	835239/001	Feb. 04, 2013	Feb. 03, 2014
Software ADT	BV ADT_Cond_ V7.3.7.3	NA	NA	NA

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

2. The test was performed in HwaYa Shielded Room 1.

3. The VCCI Site Registration No. is C-2040.

4.2.3 TEST PROCEDURES

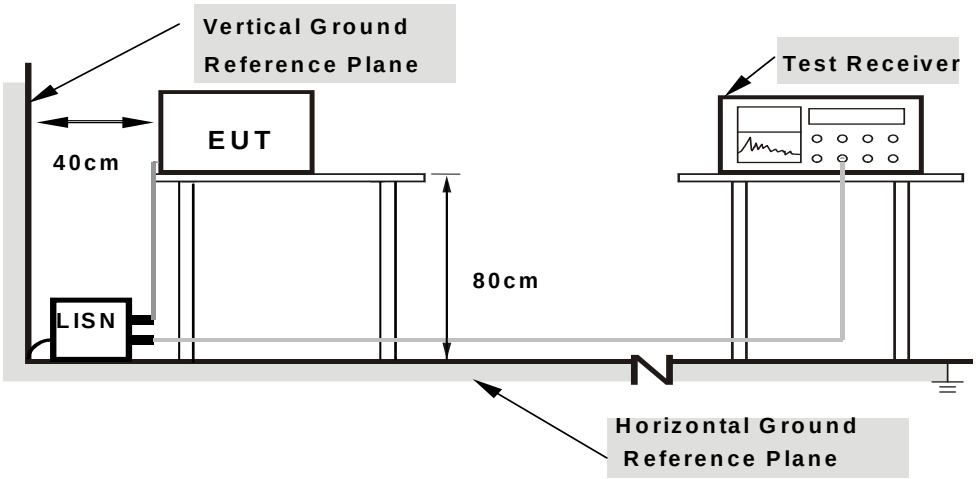
a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling 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 4.1.6.

4.2.7 TEST RESULTS

CONDUCTED WORST-CASE DATA：

TEST MODE A1

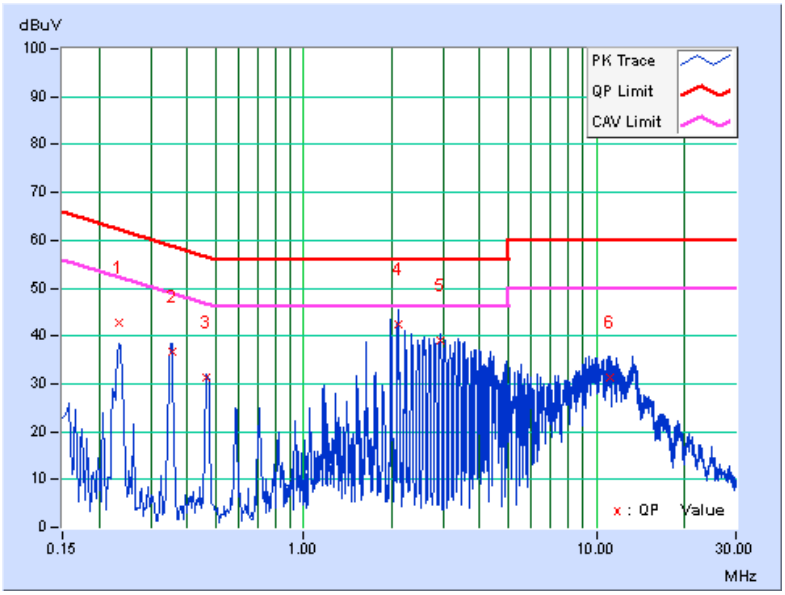
802.11n (40MHz)

PHASE	Line 1	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.23412	0.16	42.56	35.97	42.72	36.13	62.30	52.30	-19.58	-16.17
2	0.35407	0.19	36.47	34.66	36.66	34.85	58.87	48.87	-22.21	-14.02
3	0.46600	0.20	30.96	28.36	31.16	28.56	56.58	46.58	-25.42	-18.02
4	2.10200	0.27	42.21	29.99	42.48	30.26	56.00	46.00	-13.52	-15.74
5	2.92700	0.32	38.81	30.01	39.13	30.33	56.00	46.00	-16.87	-15.67
6	11.18600	0.76	30.44	19.81	31.20	20.57	60.00	50.00	-28.80	-29.43

REMARKS:

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

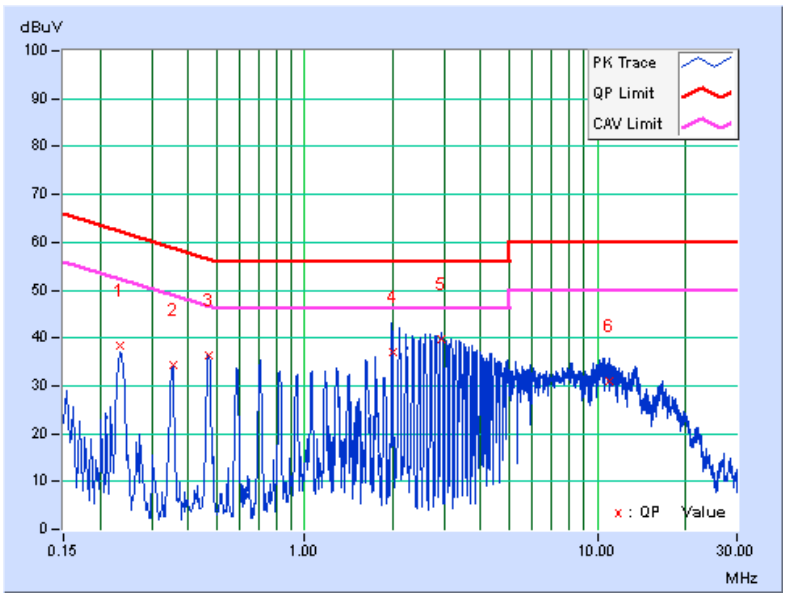


PHASE	Line 2	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.23412	0.21	38.10	36.83	38.31	37.04	62.30	52.30	-23.99	-15.26
2	0.35407	0.25	33.99	31.77	34.24	32.02	58.87	48.87	-24.63	-16.85
3	0.46813	0.26	35.98	35.00	36.24	35.26	56.55	46.55	-20.31	-11.29
4	1.99400	0.31	36.81	26.30	37.12	26.61	56.00	46.00	-18.88	-19.39
5	2.92900	0.36	39.39	30.88	39.75	31.24	56.00	46.00	-16.25	-14.76
6	10.94200	0.66	30.26	18.64	30.92	19.30	60.00	50.00	-29.08	-30.70

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



TEST MODE A2

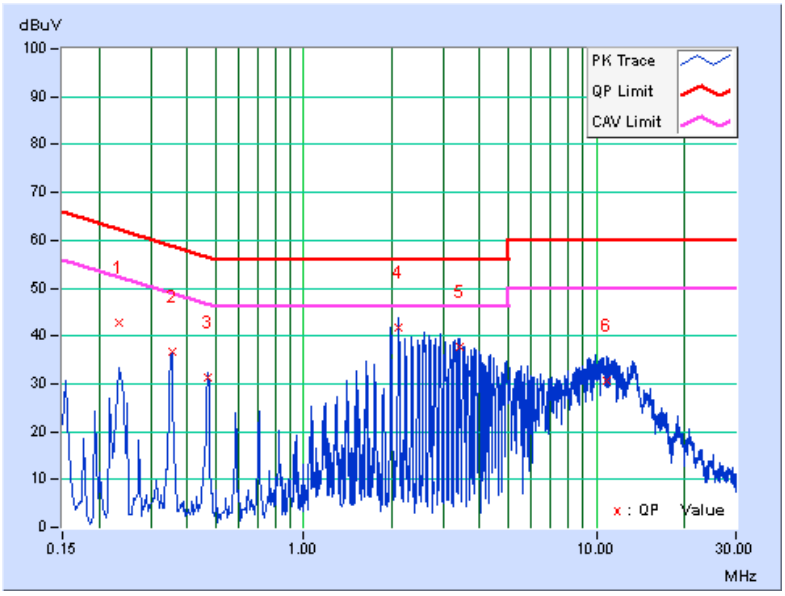
802.11n (40MHz)

PHASE	Line 1	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.23412	0.16	42.51	35.92	42.67	36.08	62.30	52.30	-19.63	-16.22
2	0.35407	0.19	36.67	35.17	36.86	35.36	58.87	48.87	-22.01	-13.51
3	0.47000	0.20	31.12	30.46	31.32	30.66	56.51	46.51	-25.19	-15.85
4	2.11400	0.27	41.41	30.18	41.68	30.45	56.00	46.00	-14.32	-15.55
5	3.39800	0.34	37.36	28.08	37.70	28.42	56.00	46.00	-18.30	-17.58
6	10.85400	0.74	29.86	18.00	30.60	18.74	60.00	50.00	-29.40	-31.26

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

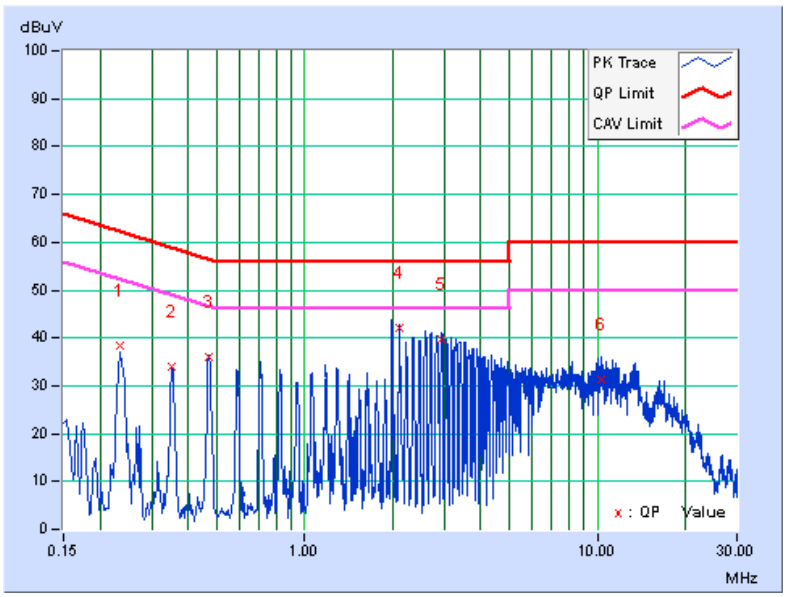


PHASE	Line 2	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.23412	0.21	38.01	36.65	38.22	36.86	62.30	52.30	-24.08	-15.44
2	0.35035	0.25	33.68	31.70	33.93	31.95	58.95	48.95	-25.03	-17.01
3	0.46936	0.26	35.92	35.03	36.18	35.29	56.53	46.53	-20.34	-11.23
4	2.11271	0.32	41.61	30.69	41.93	31.01	56.00	46.00	-14.07	-14.99
5	2.93800	0.36	39.34	31.05	39.70	31.41	56.00	46.00	-16.30	-14.59
6	10.34200	0.64	30.83	19.29	31.47	19.93	60.00	50.00	-28.53	-30.07

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



TEST MODE B1

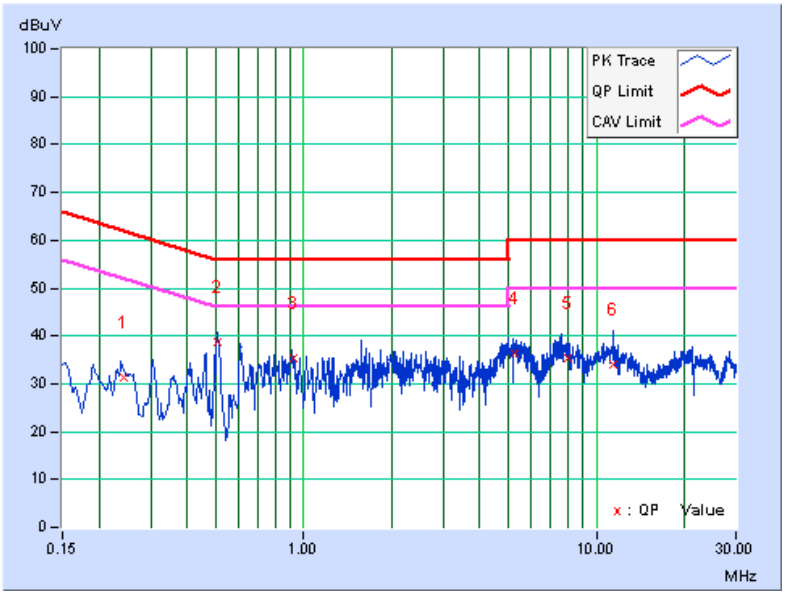
802.11n (40MHz)

PHASE	Line 1	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.24208	0.17	31.02	26.22	31.19	26.39	62.02	52.02	-30.83	-25.63
2	**0.50538**	**0.23**	**38.44**	**35.60**	**38.67**	**35.83**	**56.00**	**46.00**	**-17.33**	**-10.17**
3	0.92134	0.25	35.07	29.81	35.32	30.06	56.00	46.00	-20.68	-15.94
4	5.24305	0.47	35.73	28.45	36.20	28.92	60.00	50.00	-23.80	-21.08
5	7.95400	0.61	34.70	27.42	35.31	28.03	60.00	50.00	-24.69	-21.97
6	11.36200	0.79	33.12	27.01	33.91	27.80	60.00	50.00	-26.09	-22.20

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

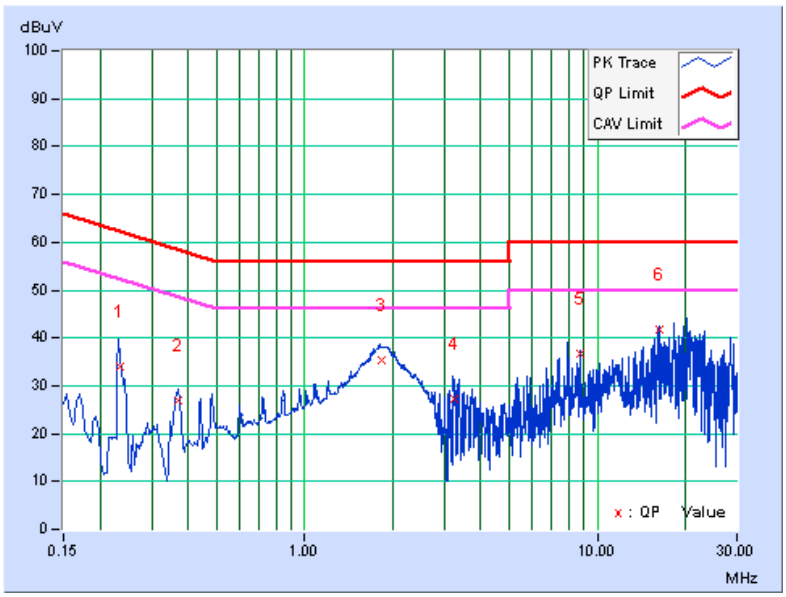


PHASE	Line 2	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.23413	0.18	33.71	20.48	33.89	20.66	62.30	52.30	-28.41	-31.64
2	0.36834	0.23	26.74	19.79	26.97	20.02	58.54	48.54	-31.57	-28.52
3	1.82772	0.27	35.25	26.96	35.52	27.23	56.00	46.00	-20.48	-18.77
4	3.22899	0.34	27.05	14.26	27.39	14.60	56.00	46.00	-28.61	-31.40
5	8.71795	0.55	36.14	34.65	36.69	35.20	60.00	50.00	-23.31	-14.80
6	16.22607	0.80	40.84	38.16	41.64	38.96	60.00	50.00	-18.36	-11.04

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



TEST MODE B2

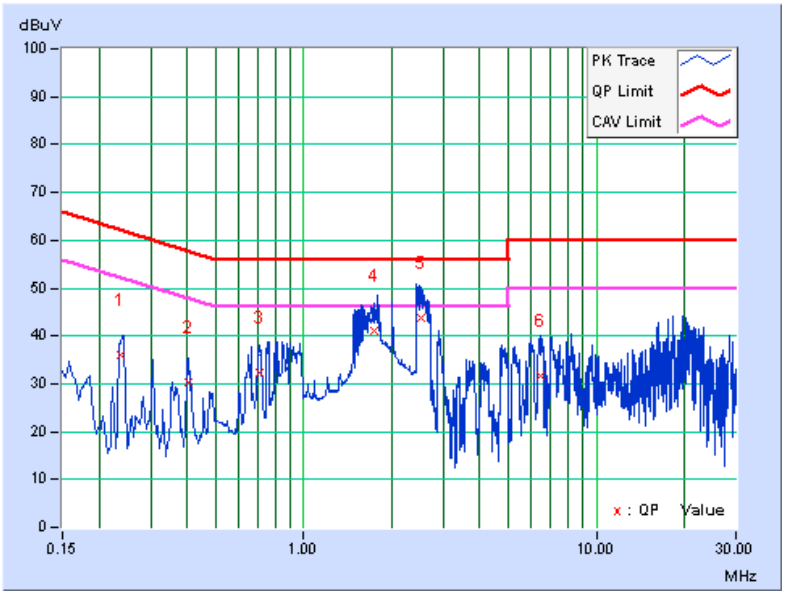
802.11n (40MHz)

PHASE	Line 1	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.23598	0.17	35.93	25.24	36.10	25.41	62.24	52.24	-26.13	-26.82
2	0.40179	0.23	30.05	22.52	30.28	22.75	57.82	47.82	-27.54	-25.07
3	0.70423	0.24	32.07	22.10	32.31	22.34	56.00	46.00	-23.69	-23.66
4	1.73391	0.28	40.66	31.90	40.94	32.18	56.00	46.00	-15.06	-13.82
5	2.50733	0.32	43.32	32.05	43.64	32.37	56.00	46.00	-12.36	-13.63
6	6.41000	0.53	31.08	21.27	31.61	21.80	60.00	50.00	-28.39	-28.20

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

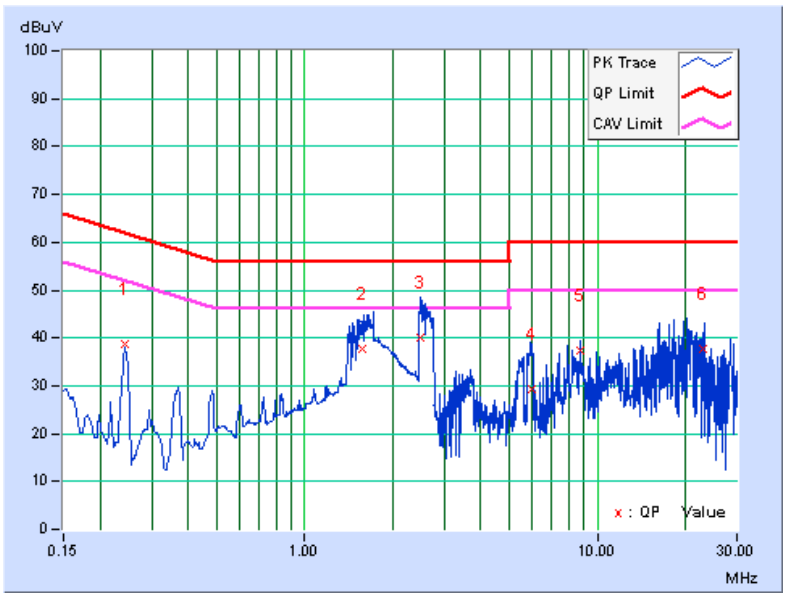


PHASE	Line 2	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.24199	0.18	38.65	30.36	38.83	30.54	62.03	52.03	-23.19	-21.48
2	1.56460	0.27	37.41	28.79	37.68	29.06	56.00	46.00	-18.32	-16.94
3	2.47452	0.30	39.73	30.56	40.03	30.86	56.00	46.00	-15.97	-15.14
4	5.95400	0.45	28.95	14.58	29.40	15.03	60.00	50.00	-30.60	-34.97
5	8.71790	0.55	36.71	34.72	37.26	35.27	60.00	50.00	-22.74	-14.73
6	22.88600	1.03	36.71	33.95	37.74	34.98	60.00	50.00	-22.26	-15.02

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



TEST MODE C1

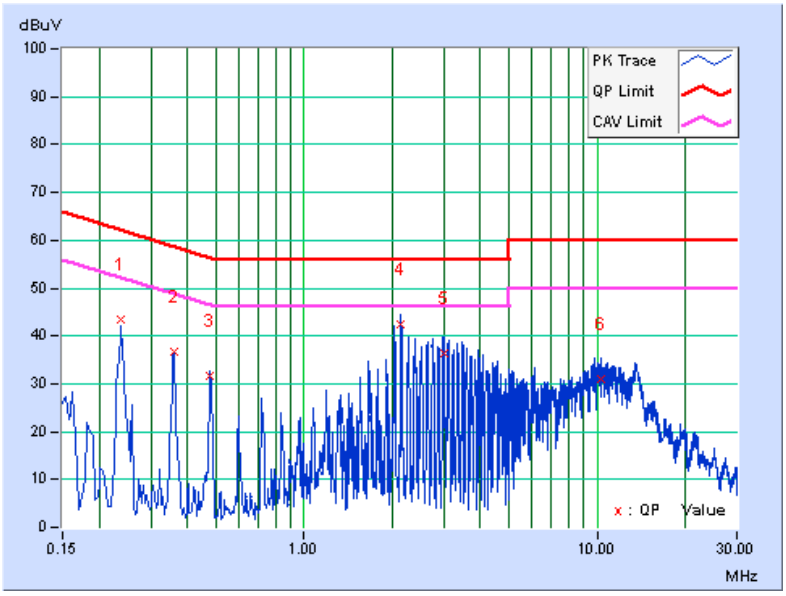
802.11n (40MHz)

PHASE	Line 1	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.23800	0.16	43.19	35.41	43.35	35.57	62.17	52.17	-18.82	-16.60
2	0.36161	0.19	36.61	33.98	36.80	34.17	58.69	48.69	-21.89	-14.52
3	0.47810	0.20	31.46	30.33	31.66	30.53	56.37	46.37	-24.71	-15.84
4	2.14200	0.27	41.99	28.83	42.26	29.10	56.00	46.00	-13.74	-16.90
5	3.01000	0.32	35.99	21.27	36.31	21.59	56.00	46.00	-19.69	-24.41
6	10.33000	0.71	30.33	19.02	31.04	19.73	60.00	50.00	-28.96	-30.27

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

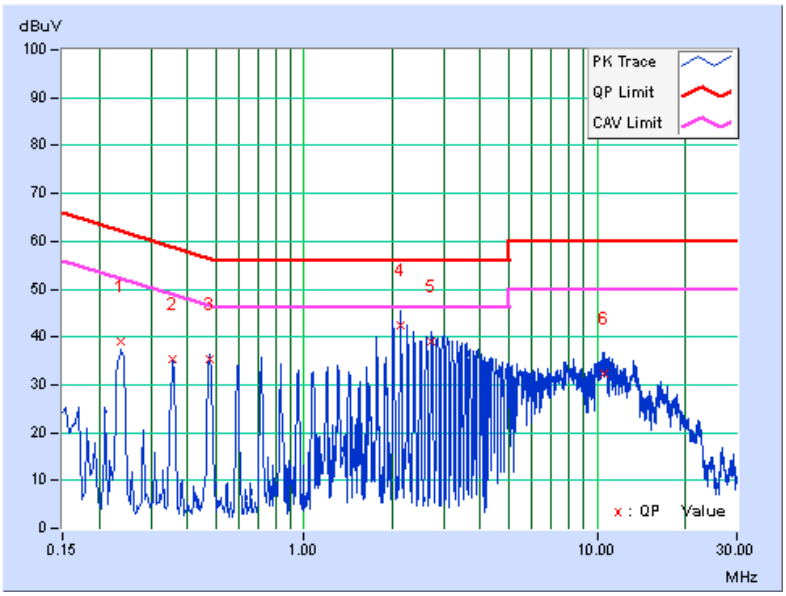


PHASE	Line 2	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.23785	0.21	38.79	37.33	39.00	37.54	62.17	52.17	-23.17	-14.63
2	0.35800	0.25	35.02	33.02	35.27	33.27	58.77	48.77	-23.51	-15.51
3	0.47810	0.26	35.05	33.06	35.31	33.32	56.37	46.37	-21.06	-13.05
4	2.13800	0.32	42.26	31.03	42.58	31.35	56.00	46.00	-13.42	-14.65
5	2.73400	0.35	38.83	30.80	39.18	31.15	56.00	46.00	-16.82	-14.85
6	10.57000	0.65	31.56	20.49	32.21	21.14	60.00	50.00	-27.79	-28.86

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



TEST MODE C2

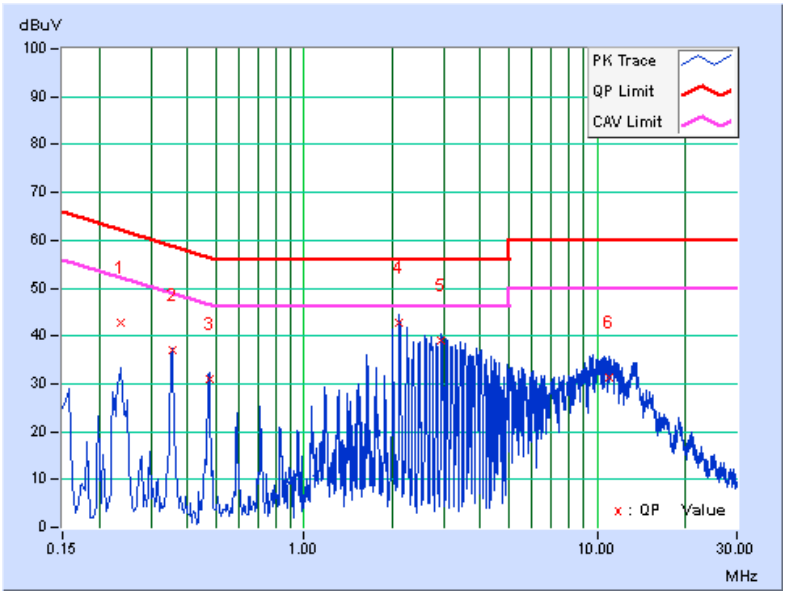
802.11n (40MHz)

PHASE	Line 1	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.23785	0.16	42.51	35.42	42.67	35.58	62.17	52.17	-19.50	-16.59
2	0.35400	0.19	36.84	36.09	37.03	36.28	58.87	48.87	-21.84	-12.59
3	0.47400	0.20	30.67	29.94	30.87	30.14	56.44	46.44	-25.57	-16.30
4	2.11800	0.27	42.42	30.32	42.69	30.59	56.00	46.00	-13.31	-15.41
5	2.94200	0.32	38.71	28.24	39.03	28.56	56.00	46.00	-16.97	-17.44
6	11.05800	0.75	30.51	18.49	31.26	19.24	60.00	50.00	-28.74	-30.76

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

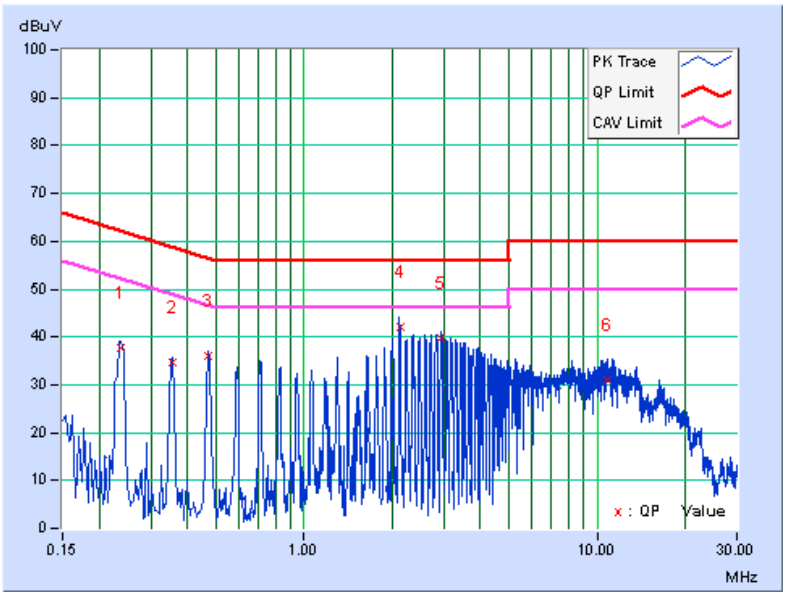


PHASE	Line 2	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.23800	0.21	37.62	35.80	37.83	36.01	62.17	52.17	-24.33	-16.15
2	0.35407	0.25	34.43	33.46	34.68	33.71	58.87	48.87	-24.19	-15.16
3	0.47060	0.26	35.84	34.68	36.10	34.94	56.50	46.50	-20.40	-11.56
4	2.12500	0.32	41.64	30.27	41.96	30.59	56.00	46.00	-14.04	-15.41
5	2.95000	0.36	39.24	31.23	39.60	31.59	56.00	46.00	-16.40	-14.41
6	10.80200	0.66	30.42	19.13	31.08	19.79	60.00	50.00	-28.92	-30.21

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
5.15 ~ 5.25GHz	The lesser of 50mW (17dBm) or 4dBm + 10logB

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

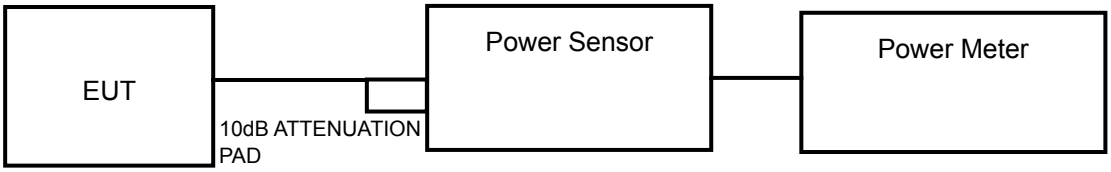
Per KDB 662911 D01 Multiple Transmitter Output v02 Method of conducted output power measurement on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 4;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any NANT;
Array Gain = 5 log(NANT/NSS) dB or 3 dB, whichever is less for 20-MHz channel widths with NANT ≥ 5.

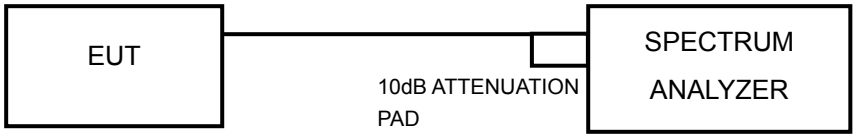
For power measurements on all other devices: Array Gain = 10 log(NANT/NSS) dB.

4.3.2 TEST SETUP

FOR POWER OUTPUT MEASUREMENT



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

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:

TEST MODE A1

802.11a

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
36	5180	7.26	8.61	12.582	11.00	14.2	PASS
40	5200	7.64	8.54	12.953	11.12	14.2	PASS
48	5240	8.42	8.55	14.111	11.50	14.2	PASS

NOTE: Directional gain = 8.8 > 6dBi, so the power limit shall be reduced to 17-(8.8-6) = 14.2dBm.

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
36	5180	8.46	7.54	12.690	11.03	14.2	PASS
40	5200	8.54	7.69	13.020	11.15	14.2	PASS
48	5240	8.72	8.53	14.576	11.64	14.2	PASS

NOTE: Directional gain = 8.8 > 6dBi, so the power limit shall be reduced to 17-(8.8-6) = 14.2dBm.

802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
38	5190	11.36	10.43	24.718	13.93	14.2	PASS
46	5230	11.31	10.73	25.351	14.04	14.2	PASS

NOTE: Directional gain = 8.8 > 6dBi, so the power limit shall be reduced to 17-(8.8-6) = 14.2dBm.

TEST MODE A2

802.11a

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
36	5180	7.22	7.66	11.106	10.46	14.2	PASS
40	5200	7.69	7.32	11.270	10.52	14.2	PASS
48	5240	8.32	7.99	13.087	11.17	14.2	PASS

NOTE: Directional gain = 8.8 > 6dBi, so the power limit shall be reduced to 17-(8.8-6) = 14.2dBm.

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
36	5180	8.41	6.55	11.453	10.59	14.2	PASS
40	5200	8.34	6.48	11.269	10.52	14.2	PASS
48	5240	8.61	7.66	13.095	11.17	14.2	PASS

NOTE: Directional gain = 8.8 > 6dBi, so the power limit shall be reduced to 17-(8.8-6) = 14.2dBm.

802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
38	5190	11.53	10.41	25.213	14.02	14.2	PASS
46	5230	11.51	10.67	**25.826**	14.12	14.2	PASS

NOTE: Directional gain = 8.8 > 6dBi, so the power limit shall be reduced to 17-(8.8-6) = 14.2dBm.

TEST MODE B1

802.11a

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
36	5180	12.43	13.70	40.940	16.12	17	PASS
40	5200	13.47	13.52	44.724	16.51	17	PASS
48	5240	13.05	13.01	40.183	16.04	17	PASS

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
36	5180	13.95	13.52	47.322	16.75	17	PASS
40	5200	13.98	13.85	49.269	16.93	17	PASS
48	5240	14.02	13.81	49.279	16.93	17	PASS

802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
38	5190	14.11	13.73	**49.368**	16.93	17	PASS
46	5230	13.97	13.62	47.960	16.81	17	PASS

TEST MODE B2

802.11a

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
36	5180	13.48	13.21	43.225	16.36	17	PASS
40	5200	13.15	13.13	41.213	16.15	17	PASS
48	5240	13.66	13.07	43.504	16.39	17	PASS

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
36	5180	13.91	13.59	47.460	16.76	17	PASS
40	5200	13.81	13.41	45.972	16.62	17	PASS
48	5240	13.79	13.26	45.117	16.54	17	PASS

802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
38	5190	13.82	13.52	46.590	16.68	17	PASS
46	5230	13.91	13.66	47.831	16.80	17	PASS

TEST MODE C1

802.11a

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
36	5180	12.43	13.70	40.940	16.12	17	PASS
40	5200	13.47	13.52	44.724	16.51	17	PASS
48	5240	13.05	13.01	40.183	16.04	17	PASS

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
36	5180	13.95	13.52	47.322	16.75	17	PASS
40	5200	13.98	13.85	49.269	16.93	17	PASS
48	5240	14.02	13.81	49.279	16.93	17	PASS

802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
38	5190	14.11	13.73	**49.368**	16.93	17	PASS
46	5230	13.97	13.62	47.960	16.81	17	PASS

TEST MODE C2

802.11a

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
36	5180	13.48	13.21	43.225	16.36	17	PASS
40	5200	13.15	13.13	41.213	16.15	17	PASS
48	5240	13.66	13.07	43.504	16.39	17	PASS

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
36	5180	13.91	13.59	47.460	16.76	17	PASS
40	5200	13.81	13.41	45.972	16.62	17	PASS
48	5240	13.79	13.26	45.117	16.54	17	PASS

802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
38	5190	13.82	13.52	46.590	16.68	17	PASS
46	5230	13.91	13.66	47.831	16.80	17	PASS

26dB BANDWIDTH:

TEST MODE A1

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
36	5180	25.35	24.91	PASS
40	5200	25.57	25.04	PASS
48	5240	25.25	25.31	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
36	5180	21.53	21.17	PASS
40	5200	21.22	21.15	PASS
48	5240	22.22	21.48	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
38	5190	48.88	49.00	PASS
46	5230	49.14	47.19	PASS

TEST MODE A2

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
36	5180	25.25	25.96	PASS
40	5200	25.47	24.69	PASS
48	5240	24.96	24.84	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
36	5180	22.02	22.45	PASS
40	5200	22.35	20.97	PASS
48	5240	21.71	22.51	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
38	5190	49.56	48.14	PASS
46	5230	50.45	50.56	PASS

TEST MODE B1

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
36	5180	25.26	25.85	PASS
40	5200	25.67	26.03	PASS
48	5240	26.03	25.75	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
36	5180	22.37	21.88	PASS
40	5200	22.30	22.26	PASS
48	5240	22.26	21.87	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
38	5190	52.53	51.25	PASS
46	5230	53.27	50.72	PASS

TEST MODE B2

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
36	5180	26.09	25.79	PASS
40	5200	26.80	26.61	PASS
48	5240	25.72	25.96	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
36	5180	22.31	23.29	PASS
40	5200	22.27	21.84	PASS
48	5240	22.25	21.50	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
38	5190	53.64	51.11	PASS
46	5230	53.07	51.31	PASS

TEST MODE C1

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
36	5180	25.45	25.82	PASS
40	5200	25.59	26.30	PASS
48	5240	24.82	25.43	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
36	5180	22.37	21.88	PASS
40	5200	22.30	22.26	PASS
48	5240	22.26	21.87	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
38	5190	52.53	51.25	PASS
46	5230	53.27	50.72	PASS

TEST MODE C2

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
36	5180	25.88	26.12	PASS
40	5200	26.27	26.09	PASS
48	5240	25.61	25.58	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
36	5180	22.31	23.29	PASS
40	5200	22.27	21.84	PASS
48	5240	22.25	21.50	PASS

802.11n (40MHz)

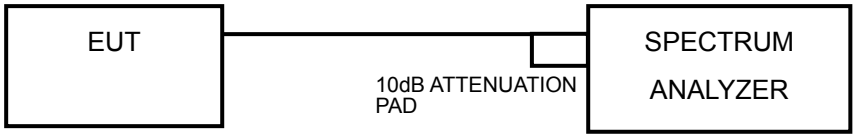
CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
38	5190	53.64	51.11	PASS
46	5230	53.07	51.31	PASS

4.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

4.4.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

FREQUENCY BAND	LIMIT
5.15 ~ 5.25GHz	4dBm

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

Using method SA-1

1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 30 KHz, Set VBW ≥ 1 MHz, Detector = RMS
3) Set Channel power measure = 1MHz
4) Sweep time = auto, trigger set to “free run”.
5) Trace average at least 100 traces in power averaging mode.
6) Record the max value

4.4.5 DEVIATION FROM TEST STANDARD

No deviation.

4.4.6 EUT OPERATING CONDITIONS

Same as 4.3.6.

4.4.7 TEST RESULTS

TEST MODE A1

802.11a

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
36	5180	-4.81	-5.53	-2.14	-1.8	PASS
40	5200	-4.97	-5.21	-2.08	-1.8	PASS
48	5240	-4.87	-5.20	-2.02	-1.8	PASS

NOTE: 1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. Directional gain = 8.8dBi + 10log(2) = 11.8dBi > 6dBi , so the power density limit shall be reduced to 4-(11.8-6) = -1.8dBm.

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
36	5180	-5.04	-5.75	-2.37	-1.8	PASS
40	5200	-5.17	-5.49	-2.32	-1.8	PASS
48	5240	-5.29	-5.51	-2.39	-1.8	PASS

NOTE: 1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. Directional gain = 8.8dBi + 10log(2) = 11.8dBi > 6dBi , so the power density limit shall be reduced to 4-(11.8-6) = -1.8dBm.

802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
38	5190	-5.37	-6.25	-2.74	-1.8	PASS
46	5230	-5.43	-6.05	-2.68	-1.8	PASS

NOTE: 1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. Directional gain = 8.8dBi + 10log(2) = 11.8dBi > 6dBi , so the power density limit shall be reduced to 4-(11.8-6) = -1.8dBm.

TEST MODE A2

802.11a

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
36	5180	-4.85	-5.46	-2.13	-1.8	PASS
40	5200	-4.91	-5.62	-2.24	-1.8	PASS
48	5240	-4.45	-5.28	-1.83	-1.8	PASS

NOTE: 1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. Directional gain = 8.8dBi + 10log(2) = 11.8dBi > 6dBi , so the power density limit shall be reduced to 4-(11.8-6) = -1.8dBm.

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
36	5180	-4.95	-5.61	-2.24	-1.8	PASS
40	5200	-5.33	-5.46	-2.36	-1.8	PASS
48	5240	-5.10	-5.14	-2.09	-1.8	PASS

NOTE: 1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. Directional gain = 8.8dBi + 10log(2) = 11.8dBi > 6dBi , so the power density limit shall be reduced to 4-(11.8-6) = -1.8dBm.

802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
38	5190	-5.20	-5.44	-2.26	-1.8	PASS
46	5230	-5.39	-5.55	-2.41	-1.8	PASS

NOTE: 1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. Directional gain = 8.8dBi + 10log(2) = 11.8dBi > 6dBi , so the power density limit shall be reduced to 4-(11.8-6) = -1.8dBm.

TEST MODE B1

802.11a

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
36	5180	-0.19	-0.04	2.90	4	PASS
40	5200	-0.36	-0.10	2.78	4	PASS
48	5240	-0.29	-0.10	2.82	4	PASS

NOTE: 1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. Directional gain = 2.8dBi + 10log(2) = 5.8dBi < 6dBi , so the power spectral density limit is not reduced

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
36	5180	0.85	0.10	3.50	4	PASS
40	5200	0.91	0.61	3.77	4	PASS
48	5240	0.76	0.87	3.83	4	PASS

NOTE: 1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. Directional gain = 2.8dBi + 10log(2) = 5.8dBi < 6dBi , so the power spectral density limit is not reduced

802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
38	5190	-1.86	-2.18	1.03	4	PASS
46	5230	-1.88	-2.36	0.94	4	PASS

NOTE: 1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. Directional gain = 2.8dBi + 10log(2) = 5.8dBi < 6dBi , so the power spectral density limit is not reduced

TEST MODE B2

802.11a

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
36	5180	0.29	-0.05	3.13	4	PASS
40	5200	-0.03	0.13	3.06	4	PASS
48	5240	-0.06	0.29	3.13	4	PASS

NOTE: 1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. Directional gain = 2.8dBi + 10log(2) = 5.8dBi < 6dBi , so the power spectral density limit is not reduced

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
36	5180	1.00	0.44	3.76	4	PASS
40	5200	0.99	0.11	3.60	4	PASS
48	5240	0.59	0.03	3.35	4	PASS

NOTE: 1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. Directional gain = 2.8dBi + 10log(2) = 5.8dBi < 6dBi , so the power spectral density limit is not reduced

802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
38	5190	-2.17	-2.69	0.64	4	PASS
46	5230	-2.84	-2.68	0.30	4	PASS

NOTE: 1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. Directional gain = 2.8dBi + 10log(2) = 5.8dBi < 6dBi , so the power spectral density limit is not reduced

TEST MODE C1

802.11a

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
36	5180	-0.31	-0.03	2.84	4	PASS
40	5200	0.28	-0.07	3.12	4	PASS
48	5240	0.36	0.04	3.21	4	PASS

NOTE: 1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. Directional gain = 1.7dBi + 10log(2) = 4.7dBi < 6dBi , so the power spectral density limit is not reduced

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
36	5180	0.85	0.10	3.50	4	PASS
40	5200	0.91	0.61	3.77	4	PASS
48	5240	0.76	0.87	3.83	4	PASS

NOTE: 1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. Directional gain = 1.7dBi + 10log(2) = 4.7dBi < 6dBi , so the power spectral density limit is not reduced

802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
38	5190	-1.86	-2.18	0.99	4	PASS
46	5230	-1.88	-2.36	0.90	4	PASS

NOTE: 1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. Directional gain = 1.7dBi + 10log(2) = 4.7dBi < 6dBi , so the power spectral density limit is not reduced

TEST MODE C2

802.11a

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
36	5180	0.23	0.26	3.26	4	PASS
40	5200	0.02	0.30	3.17	4	PASS
48	5240	0.07	0.26	3.18	4	PASS

NOTE: 1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. Directional gain = 1.7dBi + 10log(2) = 4.7dBi < 6dBi , so the power spectral density limit is not reduced

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
36	5180	1.00	0.44	3.74	4	PASS
40	5200	0.99	0.11	3.58	4	PASS
48	5240	0.59	0.03	3.33	4	PASS

NOTE: 1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. Directional gain = 1.7dBi + 10log(2) = 4.7dBi < 6dBi , so the power spectral density limit is not reduced

802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
38	5190	-2.17	-2.69	0.59	4	PASS
46	5230	-2.84	-2.68	0.25	4	PASS

NOTE: 1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

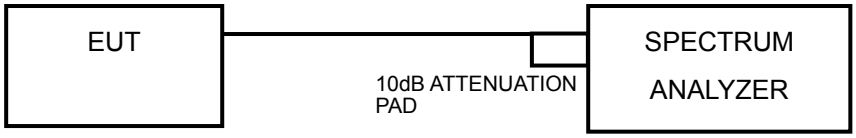
2. Directional gain = 1.7dBi + 10log(2) = 4.7dBi < 6dBi , so the power spectral density limit is not reduced

4.5 PEAK POWER EXCURSION MEASUREMENT

4.5.1 LIMITS OF PEAK POWER EXCURSION MEASUREMENT

Shall not exceed 13 dB

4.5.2 TEST SETUP



4.5.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.5.4 TEST PROCEDURE

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

   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.

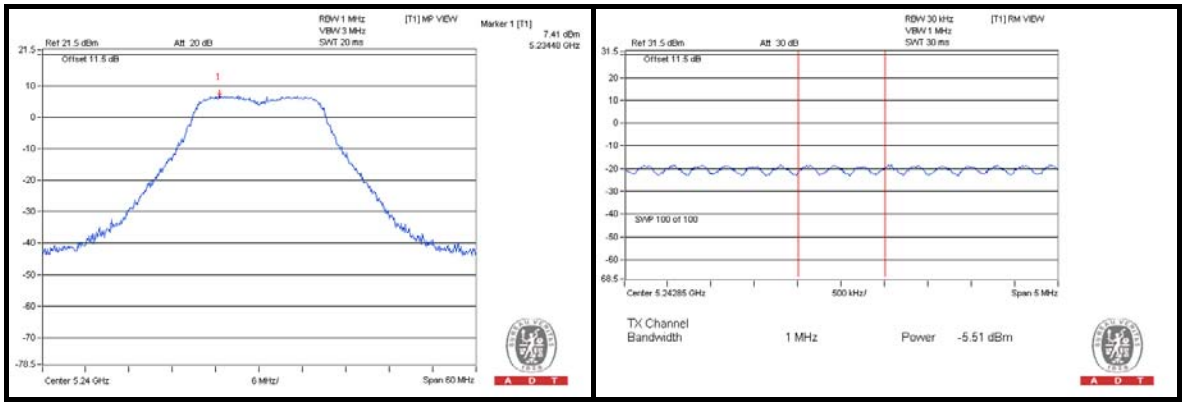
4.5.6 EUT OPERATING CONDITIONS

Same as 4.2.6

4.5.7 TEST RESULTS

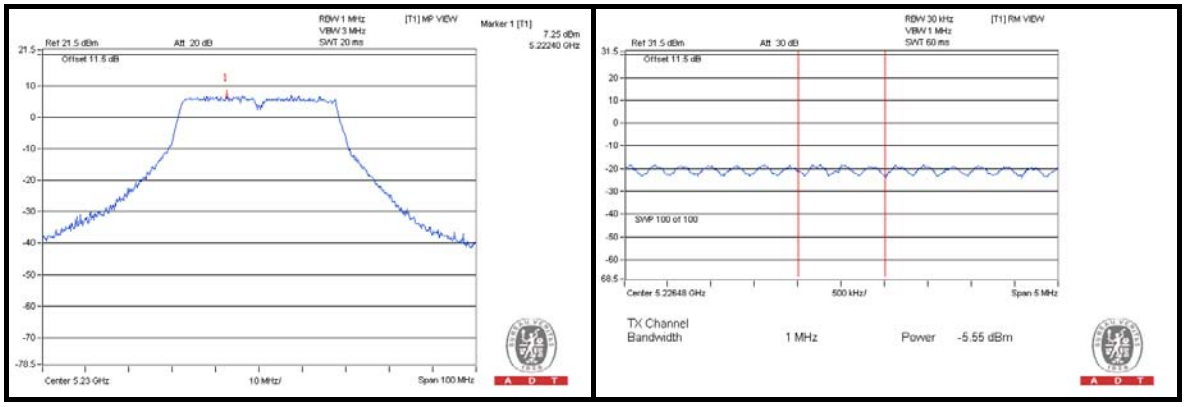
TEST MODE A1

MODULATION MODE	MODULATION TYPE	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	5240	6.15	-5.20	-5.20	11.35	13	PASS
	QPSK		6.11	-5.17	-5.17	11.28	13	PASS
	16QAM		6.05	-5.21	-5.21	11.26	13	PASS
	64QAM		6.00	-5.24	-5.06	11.06	13	PASS
802.11n (20MHz)	BPSK	5240	7.41	-5.51	-5.51	**12.92**	13	PASS
	QPSK		7.22	-5.45	-5.45	12.67	13	PASS
	16QAM		7.35	-5.53	-5.43	12.78	13	PASS
	64QAM		7.32	-5.77	-5.56	12.88	13	PASS
802.11n (40MHz)	BPSK	5190	6.45	-6.25	-6.25	12.70	13	PASS
	QPSK		6.60	-6.16	-6.16	12.76	13	PASS
	16QAM		6.30	-6.33	-6.11	12.41	13	PASS
	64QAM		6.23	-6.30	-5.96	12.19	13	PASS



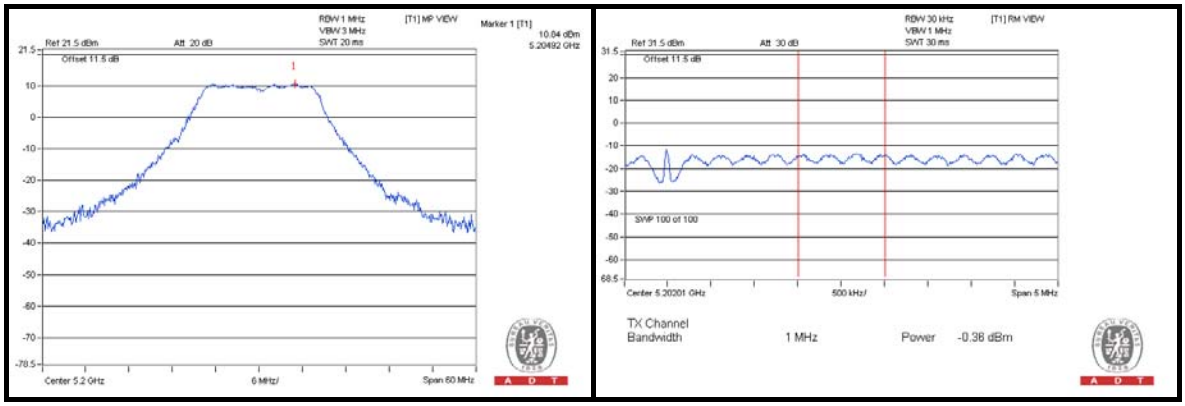
TEST MODE A2

MODULATION MODE	MODULATION TYPE	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	5240	6.49	-5.28	-5.28	11.77	13	PASS
	QPSK		6.41	-5.31	-5.31	11.72	13	PASS
	16QAM		6.32	-5.35	-5.25	11.57	13	PASS
	64QAM		6.21	-5.41	-5.23	11.44	13	PASS
802.11n (20MHz)	BPSK	5180	6.13	-4.95	-4.95	11.08	13	PASS
	QPSK		6.05	-5.14	-5.14	11.19	13	PASS
	16QAM		6.57	-5.13	-5.03	11.60	13	PASS
	64QAM		6.46	-5.12	-4.96	11.42	13	PASS
802.11n (40MHz)	BPSK	5230	7.25	-5.55	-5.55	**12.80**	13	PASS
	QPSK		7.46	-5.22	-5.22	12.68	13	PASS
	16QAM		7.39	-5.49	-5.31	12.70	13	PASS
	64QAM		7.13	-5.77	-5.45	12.58	13	PASS



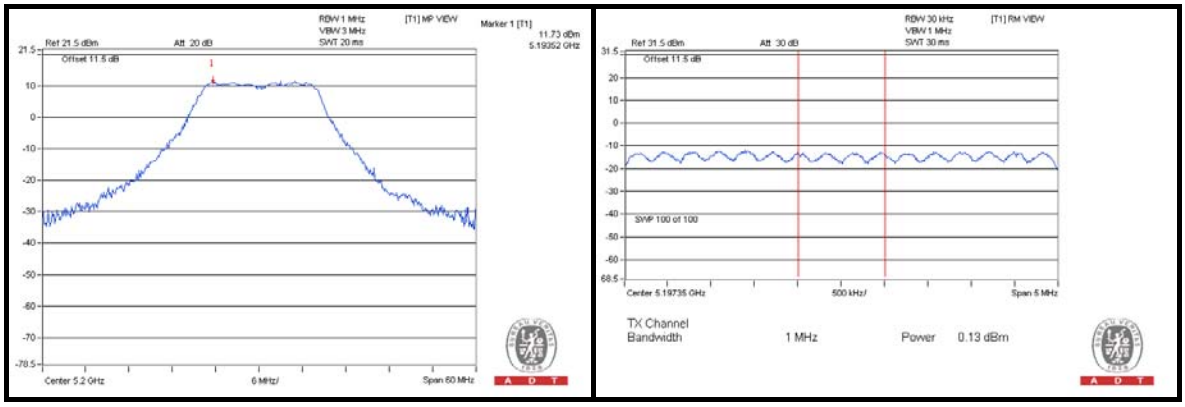
TEST MODE B1

MODULATION MODE	MODULATION TYPE	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	5200	10.84	-0.36	-0.36	**11.20**	13	PASS
	QPSK		10.72	-0.41	-0.41	11.13	13	PASS
	16QAM		10.61	-0.48	-0.48	11.09	13	PASS
	64QAM		10.46	-0.53	-0.35	10.81	13	PASS
802.11n (20MHz)	BPSK	5180	10.17	0.10	0.10	10.07	13	PASS
	QPSK		10.18	-0.04	-0.04	10.22	13	PASS
	16QAM		10.08	0.34	0.24	9.84	13	PASS
	64QAM		9.96	0.23	0.44	9.52	13	PASS
802.11n (40MHz)	BPSK	5190	7.13	-2.18	-2.18	9.31	13	PASS
	QPSK		7.58	-1.80	-1.80	9.38	13	PASS
	16QAM		7.67	-1.78	-1.56	9.23	13	PASS
	64QAM		7.57	-1.86	-1.52	9.09	13	PASS



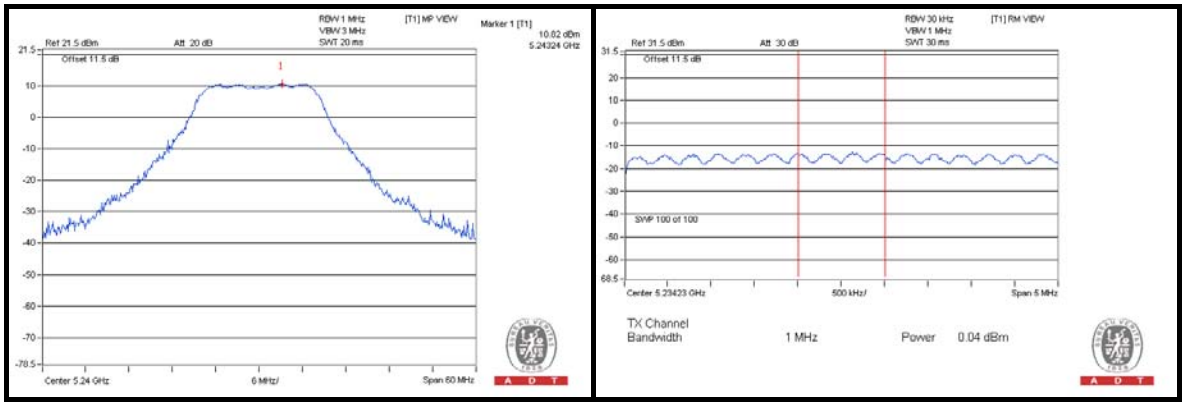
TEST MODE B2

MODULATION MODE	MODULATION TYPE	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	5200	11.73	0.13	0.13	**11.60**	13	PASS
	QPSK		11.65	0.09	0.09	11.56	13	PASS
	16QAM		11.45	-0.04	0.06	11.39	13	PASS
	64QAM		11.21	-0.13	0.05	11.16	13	PASS
802.11n (20MHz)	BPSK	5200	10.10	0.11	0.11	9.99	13	PASS
	QPSK		10.19	0.10	0.10	10.09	13	PASS
	16QAM		10.70	0.04	0.14	10.56	13	PASS
	64QAM		10.63	-0.05	0.11	10.52	13	PASS
802.11n (40MHz)	BPSK	5190	7.03	-2.69	-2.69	9.72	13	PASS
	QPSK		7.08	-2.85	-2.85	9.93	13	PASS
	16QAM		7.15	-2.71	-2.53	9.68	13	PASS
	64QAM		7.49	-2.71	-2.39	9.88	13	PASS



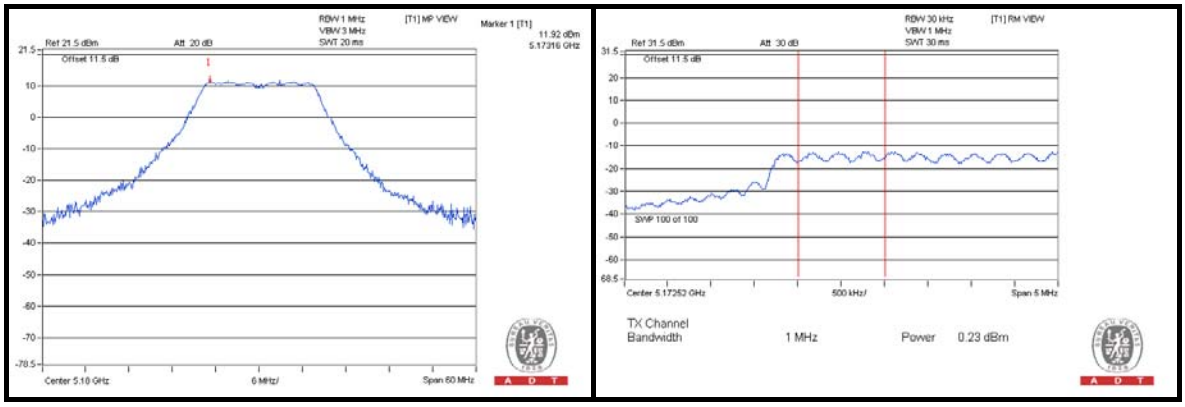
TEST MODE C1

MODULATION MODE	MODULATION TYPE	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	5240	10.82	0.04	0.04	**10.78**	13	PASS
	QPSK		11.01	0.29	0.29	10.72	13	PASS
	16QAM		10.75	0.17	0.17	10.58	13	PASS
	64QAM		10.24	0.04	0.22	10.02	13	PASS
802.11n (20MHz)	BPSK	5180	10.17	0.10	0.10	10.07	13	PASS
	QPSK		10.07	0.01	0.01	10.06	13	PASS
	16QAM		10.09	-0.07	0.03	10.06	13	PASS
	64QAM		10.32	-0.11	0.10	10.22	13	PASS
802.11n (40MHz)	BPSK	5230	7.65	-1.88	-1.88	9.53	13	PASS
	QPSK		7.58	-1.90	-1.90	9.48	13	PASS
	16QAM		7.72	-1.89	-1.67	9.39	13	PASS
	64QAM		7.48	-1.84	-1.50	8.98	13	PASS



TEST MODE C2

MODULATION MODE	MODULATION TYPE	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	5180	11.92	0.23	0.23	**11.69**	13	PASS
	QPSK		11.74	0.14	0.14	11.60	13	PASS
	16QAM		11.52	0.03	0.13	11.39	13	PASS
	64QAM		11.17	-0.13	0.05	11.12	13	PASS
802.11n (20MHz)	BPSK	5200	10.10	0.11	0.11	9.99	13	PASS
	QPSK		10.36	-0.31	-0.31	10.67	13	PASS
	16QAM		10.01	0.14	0.24	9.77	13	PASS
	64QAM		9.96	-0.12	0.04	9.92	13	PASS
802.11n (40MHz)	BPSK	5190	7.03	-2.69	-2.69	9.72	13	PASS
	QPSK		7.37	-2.88	-2.88	10.25	13	PASS
	16QAM		7.18	-2.60	-2.42	9.60	13	PASS
	64QAM		6.97	-2.66	-2.34	9.31	13	PASS

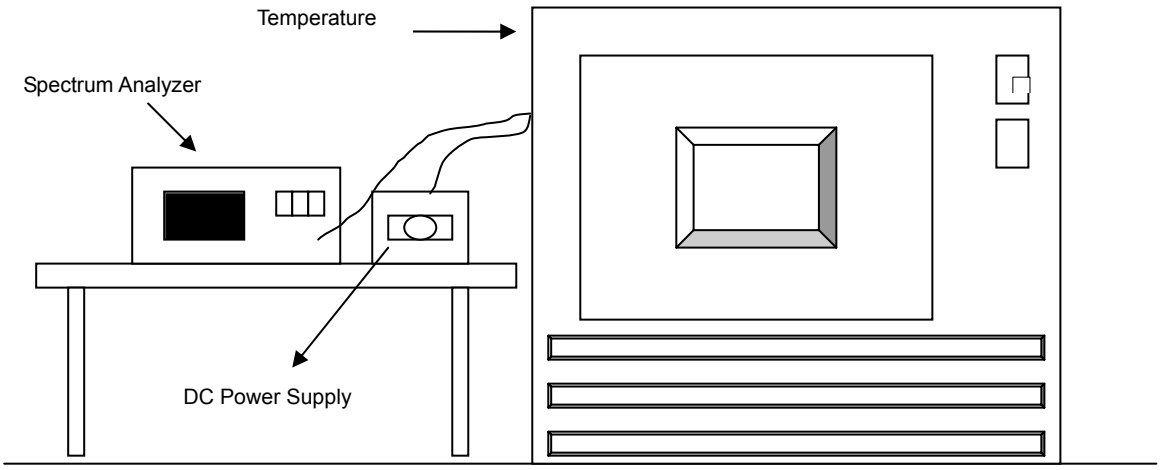


4.6 FREQUENCY STABILITY

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. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.

b. Turn the EUT on and couple its output to a spectrum analyzer.

c. Turn the EUT off and set the chamber to the highest temperature specified.

d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.

e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.

f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

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

TEST MODE A1

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5240MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	55	5240.0095	0.00018	5240.0041	0.00008	5240.0057	0.00011	5240.0064	0.00012
40	55	5239.9991	-0.00002	5239.9947	-0.00010	5240.0002	0.00000	5239.9989	-0.00002
30	55	5240.0269	0.00051	5240.0255	0.00049	5240.023	0.00044	5240.0197	0.00038
20	55	5239.9863	-0.00026	5239.9852	-0.00028	5239.9874	-0.00024	5239.9917	-0.00016
10	55	5239.988	-0.00023	5239.985	-0.00029	5239.9883	-0.00022	5239.9862	-0.00026
0	55	5239.983	-0.00032	5239.9843	-0.00030	5239.9903	-0.00019	5239.9861	-0.00027
-10	55	5239.9906	-0.00018	5239.9842	-0.00030	5239.9837	-0.00031	5239.9866	-0.00026
-20	55	5240.0211	0.00040	5240.0194	0.00037	5240.0246	0.00047	5240.0184	0.00035
-30	55	5240.0065	0.00012	5240.0069	0.00013	5240.0099	0.00019	5240.0095	0.00018

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5240MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	63.25	5239.9859	-0.00027	5239.9845	-0.00030	5239.9874	-0.00024	5239.9914	-0.00016
	55	5239.9863	-0.00026	5239.9852	-0.00028	5239.9874	-0.00024	5239.9917	-0.00016
	46.75	5239.9862	-0.00026	5239.9855	-0.00028	5239.9871	-0.00025	5239.9917	-0.00016

TEST MODE A2

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5240MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	55	5240.0226	0.00043	5240.0192	0.00037	5240.0219	0.00042	5240.0278	0.00053
40	55	5239.9808	-0.00037	5239.9751	-0.00048	5239.9720	-0.00053	5239.9739	-0.00050
30	55	5240.0025	0.00005	5240.0020	0.00004	5239.9980	-0.00004	5239.9980	-0.00004
20	55	5239.9974	-0.00005	5239.9922	-0.00015	5239.9955	-0.00009	5239.9934	-0.00013
10	55	5239.9890	-0.00021	5239.9902	-0.00019	5239.9924	-0.00015	5239.9959	-0.00008
0	55	5239.9857	-0.00027	5239.9899	-0.00019	5239.9914	-0.00016	5239.9949	-0.00010
-10	55	5240.0147	0.00028	5240.0076	0.00015	5240.0065	0.00012	5240.0046	0.00009
-20	55	5239.9817	-0.00035	5239.9787	-0.00041	5239.9755	-0.00047	5239.9809	-0.00036
-30	55	5240.0284	0.00054	5240.0243	0.00046	5240.0240	0.00046	5240.0253	0.00048

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5240MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	63.25	5239.9978	-0.00004	5239.9922	-0.00015	5239.9965	-0.00007	5239.9934	-0.00013
	55	5239.9974	-0.00005	5239.9922	-0.00015	5239.9955	-0.00009	5239.9934	-0.00013
	46.75	5239.9971	-0.00006	5239.9918	-0.00016	5239.9961	-0.00007	5239.9932	-0.00013

TEST MODE B1

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5240MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	55	5240.0151	0.00029	5240.0078	0.00015	5240.0083	0.00016	5240.0080	0.00015
40	55	5240.0042	0.00008	5240.0113	0.00022	5240.0130	0.00025	5240.0050	0.00010
30	55	5240.0069	0.00013	5239.9985	-0.00003	5240.0049	0.00009	5239.9965	-0.00007
20	55	5240.0001	0.00000	5239.9945	-0.00010	5239.9997	-0.00001	5240.0002	0.00000
10	55	5240.0232	0.00044	5240.0222	0.00042	5240.0150	0.00029	5240.0244	0.00047
0	55	5240.0033	0.00006	5240.0003	0.00001	5240.0017	0.00003	5239.9957	-0.00008
-10	55	5239.9961	-0.00007	5239.9936	-0.00012	5239.9925	-0.00014	5239.9979	-0.00004
-20	55	5240.0242	0.00046	5240.0249	0.00048	5240.0160	0.00031	5240.0141	0.00027
-30	55	5240.0002	0.00000	5239.9965	-0.00007	5240.0032	0.00006	5239.9986	-0.00003

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5240MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	63.25	5240.0000	0.00000	5239.9946	-0.00010	5240.0002	0.00000	5239.9994	-0.00001
	55	5240.0001	0.00000	5239.9945	-0.00010	5239.9997	-0.00001	5240.0002	0.00000
	46.75	5240.0000	0.00000	5239.9950	-0.00010	5239.9989	-0.00002	5240.0000	0.00000

TEST MODE B2

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5240MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	55	5239.9776	-0.00043	5239.9844	-0.00030	5239.9828	-0.00033	5239.9839	-0.00031
40	55	5239.9996	-0.00001	5239.9971	-0.00006	5239.9983	-0.00003	5239.9980	-0.00004
30	55	5240.0038	0.00007	5240.0019	0.00004	5240.0038	0.00007	5240.0089	0.00017
20	55	5240.0015	0.00003	5239.9950	-0.00010	5239.9956	-0.00008	5240.0027	0.00005
10	55	5240.0211	0.00040	5240.0120	0.00023	5240.0124	0.00024	5240.0177	0.00034
0	55	5239.9830	-0.00032	5239.9860	-0.00027	5239.9839	-0.00031	5239.9844	-0.00030
-10	55	5240.0061	0.00012	5240.0106	0.00020	5240.0136	0.00026	5240.0038	0.00007
-20	55	5240.0254	0.00048	5240.0213	0.00041	5240.0227	0.00043	5240.0188	0.00036
-30	55	5240.0144	0.00027	5240.0187	0.00036	5240.0213	0.00041	5240.0153	0.00029

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5240MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	63.25	5240.0020	0.00004	5239.9954	-0.00009	5239.9956	-0.00008	5240.0033	0.00006
	55	5240.0015	0.00003	5239.9950	-0.00010	5239.9956	-0.00008	5240.0027	0.00005
	46.75	5240.0020	0.00004	5239.9954	-0.00009	5239.9948	-0.00010	5240.0019	0.00004

TEST MODE C1

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5240MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	55	5240.0114	0.00022	5240.0080	0.00015	5240.0152	0.00029	5240.0152	0.00029
40	55	5240.0078	0.00015	5240.0058	0.00011	5240.0133	0.00025	5240.0084	0.00016
30	55	5240.0143	0.00027	5240.0132	0.00025	5240.0174	0.00033	5240.0181	0.00035
20	55	5239.9776	-0.00043	5239.9776	-0.00043	5239.9815	-0.00035	5239.9745	-0.00049
10	55	5239.9858	-0.00027	5239.9801	-0.00038	5239.9851	-0.00028	5239.9854	-0.00028
0	55	5239.9844	-0.00030	5239.9928	-0.00014	5239.9891	-0.00021	5239.9862	-0.00026
-10	55	5240.0054	0.00010	5240.0075	0.00014	5239.9997	-0.00001	5240.0056	0.00011
-20	55	5240.0232	0.00044	5240.0253	0.00048	5240.0223	0.00043	5240.0251	0.00048
-30	55	5240.0235	0.00045	5240.0174	0.00033	5240.0218	0.00042	5240.0239	0.00046

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5240MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	63.25	5239.9767	-0.00044	5239.9775	-0.00043	5239.9819	-0.00035	5239.9748	-0.00048
	55	5239.9776	-0.00043	5239.9776	-0.00043	5239.9815	-0.00035	5239.9745	-0.00049
	46.75	5239.9778	-0.00042	5239.9767	-0.00044	5239.9815	-0.00035	5239.9738	-0.00050

TEST MODE C2

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5240MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	55	5239.9974	-0.00005	5239.9951	-0.00009	5239.9921	-0.00015	5239.9994	-0.00001
40	55	5239.9999	0.00000	5240.0020	0.00004	5239.9997	-0.00001	5240.0007	0.00001
30	55	5240.0159	0.00030	5240.0153	0.00029	5240.0145	0.00028	5240.0123	0.00023
20	55	5239.9905	-0.00018	5239.9903	-0.00019	5239.9910	-0.00017	5239.9906	-0.00018
10	55	5239.9749	-0.00048	5239.9771	-0.00044	5239.9710	-0.00055	5239.9781	-0.00042
0	55	5240.0239	0.00046	5240.0220	0.00042	5240.0219	0.00042	5240.0201	0.00038
-10	55	5239.9910	-0.00017	5239.9949	-0.00010	5239.9984	-0.00003	5239.9909	-0.00017
-20	55	5240.0154	0.00029	5240.0203	0.00039	5240.0217	0.00041	5240.0139	0.00027
-30	55	5240.0111	0.00021	5240.0123	0.00023	5240.0162	0.00031	5240.0174	0.00033

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5240MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	63.25	5239.9895	-0.00020	5239.9902	-0.00019	5239.9902	-0.00019	5239.9909	-0.00017
	55	5239.9905	-0.00018	5239.9903	-0.00019	5239.991	-0.00017	5239.9906	-0.00018
	46.75	5239.9901	-0.00019	5239.9906	-0.00018	5239.9918	-0.00016	5239.9913	-0.00017

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:

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Hsin Chu EMC/RF Lab:
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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 modifications were made to the EUT by the lab during the test.

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