FCC TEST REPORT (15.407)

REPORT NO.:	RF120720C10G-1
MODEL NO.:	WS-AP3715e
FCC ID:	QXO-AP3715E1
RECEIVED:	May 03, 2013
TESTED:	May 22 ~ Jun. 18, 2013
ISSUED:	Jun. 20, 2013

APPLICANT:	Enterasys Networks, Inc.
ADDRESS:	9 Northeastern Blvd. Salem, NH 03079

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

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

TABLE OF CONTENTS

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF120720C10G-1	Original release	Jun. 20, 2013

1. CERTIFICATION

PRODUCT:	Wireless 802.11 abgn Router
MODEL:	WS-AP3715e
BRAND:	Enterasys
APPLICANT:	Enterasys Networks, Inc.
TESTED:	May 22 ~ Jun. 18, 2013
TEST SAMPLE:	ENGINEERING SAMPLE
STANDARDS:	**FCC Part 15, Subpart E (Section 15.407)**
	ANSI C63.10-2009

The above equipment (model: WS-AP3715e) 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 : Celine Chou **, DATE :** Jun. 20, 2013

Celine Chou / Specialist

APPROVED BY : Ken Liu **, DATE :** Jun. 20, 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 -9.09dB at 0.51837MHz.
15.407(b/1/2/3) (b)(6)	Radiated Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -1.0dB 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 connectors are RSMA and N-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	Wireless 802.11 abgn Router
MODEL NO.	WS-AP3715e
POWER SUPPLY	5Vdc (host equipment)
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 450.0Mbps
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:** 16.368mW
	Antenna 2: 37.837mW
	Antenna 3: 33.325mW
	Antenna 4: 48.007mW
	Antenna 5: 46.001mW
ANTENNA TYPE	Refer to Note as below
ANTENNA CONNECTOR	Refer to Note as below
DATA CABLE	N/A
I/O PORTS	N/A
ACCESSORY DEVICES	N/A

NOTE:

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

MODULATION MODE	TX FUNCTION
802.11b	3TX
802.11g	3TX
802.11a	3TX
802.11n (20MHz)	3TX
802.11n (40MHz)	3TX

2. The following antenna type is provided to the EUT.

NO.	ANTENNA TYPE	ANTENNA CONNECTOR	ANTENNA GAIN (dBi)	
			2.4GHz BAND	5GHz BAND
1	Dipole	RSMA	3.0	3.0
2	Panel	RSMA	6.5	5.5
3	MIMO Applications Panel	N-Type	10.0	6.0
4	MIMO Applications OMNI	N-Type	2.0	2.0
5	MIMO Applications Sector	N-Type	5.0	5.0

*Antenna connectors are RSMA and N-Type. (The device is professionally installed)

*Antenna 2 gain is including 6dBi attenuator.

3. The above EUT information is declared by manufacturer and for more detailed features 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	
A	√	√	√	√	EUT with antenna 1
B	√	√	√	√	EUT with antenna 2
C	√	√	√	√	EUT with antenna 3
D	√	√	√	√	EUT with antenna 4
E	√	√	√	√	EUT with antenna 5

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

NOTE: The antenna had been pre-tested on the positioned of each 3 axis.
Mode A, B, C, E: The worst case was found when positioned on **Z-plane**.
Mode D: The worst case was found when positioned on **X-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)
A, B, C, D, E	802.11a	36 to 48	36, 40, 48	OFDM	BPSK	6.0
A, B, C, D, E	802.11n (20MHz)	36 to 48	36, 40, 48	OFDM	BPSK	7.2
A, B, C, D, E	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)
A, B, C, D, E	802.11a	36 to 48	48	OFDM	BPSK	6.0

POWER LINE CONDUCTED EMISSION TEST:

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

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A, B, C, D, E	802.11a	36 to 48	48	OFDM	BPSK	6.0

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)
A, B, C, D, E	802.11a	36 to 48	36, 40, 48	OFDM	BPSK	6.0
A, B, C, D, E	802.11n (20MHz)	36 to 48	36, 40, 48	OFDM	BPSK	7.2
A, B, C, D, E	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	Chris Lin Ted Chang
RE<1G	25deg. C, 65%RH	120Vac, 60Hz	Chris Lin
PLC	25deg. C, 60%RH 25deg. C, 65%RH	120Vac, 60Hz	Antony Lee Chris Lin
APCM	25deg. C, 60%RH	120Vac, 60Hz	Frank Liu

3.3 DUTY CYCLE OF TEST SIGNAL

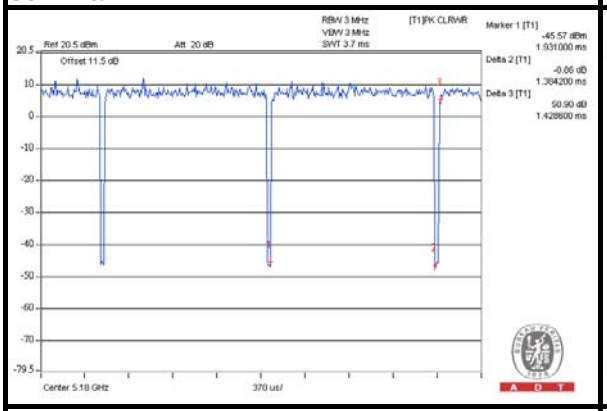
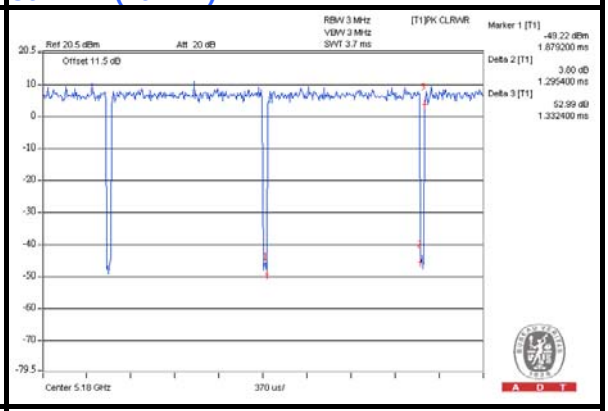
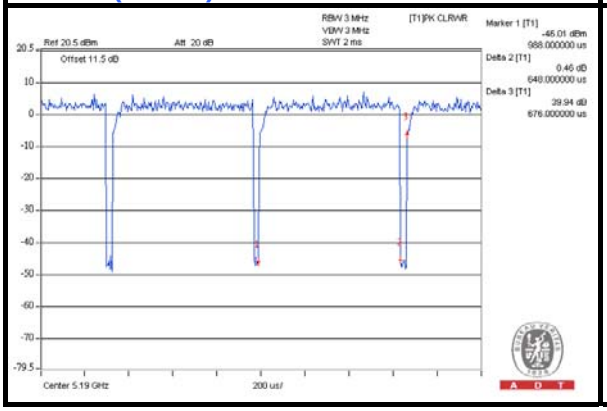
If duty cycle is < 98%, duty factor shall be considered.

TEST MODE A

802.11a: Duty cycle = 1.3842/1.4286 = 0.969, Duty factor = 10 * log(1/0.964) = 0.14

802.11n (20MHz): Duty cycle = 1.2954/1.3324 = 0.972, Duty factor = 10 * log(1/0.972) = 0.12

802.11n (40MHz): Duty cycle = 0.648/0.676 = 0.958, Duty factor = 10 * log(1/0.958) = 0.19

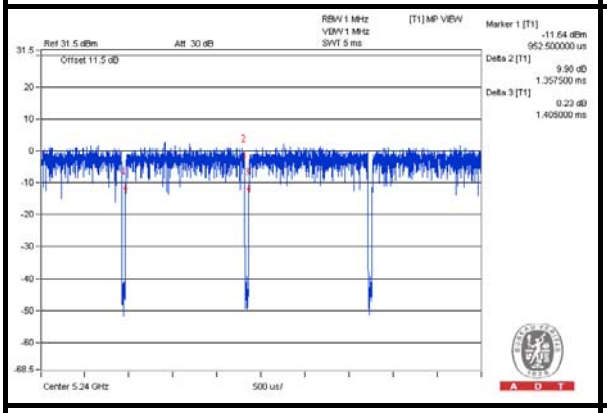
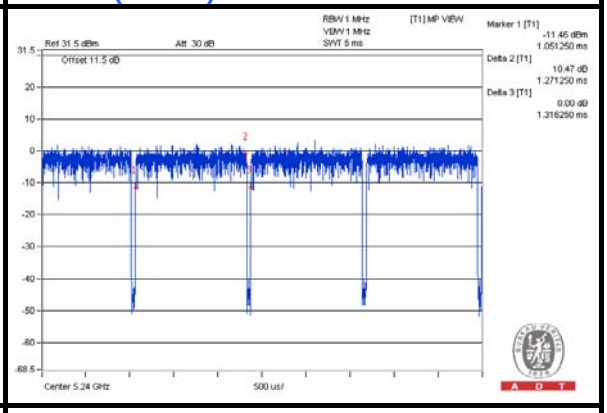
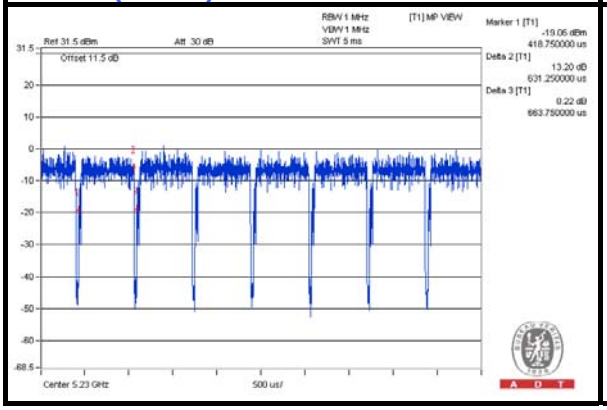
802.11a	802.11n (20MHz)
	
802.11n (40MHz)	
	

TEST MODE B

802.11a: Duty cycle = 1.357/1.405 = 0.966, Duty factor = 10 * log(1/0.966) = 0.15

802.11n (20MHz): Duty cycle = 1.271/1.316 = 0.966, Duty factor = 10 * log(1/0.966) = 0.15

802.11n (40MHz): Duty cycle = 0.631/0.664 = 0.950, Duty factor = 10 * log(1/0.950) = 0.22

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

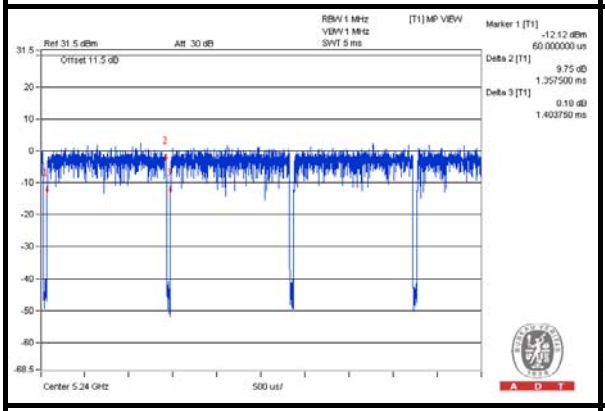
TEST MODE C

802.11a: Duty cycle = 1.357/1.404 = 0.967, Duty factor = 10 * log(1/0.967) = 0.15

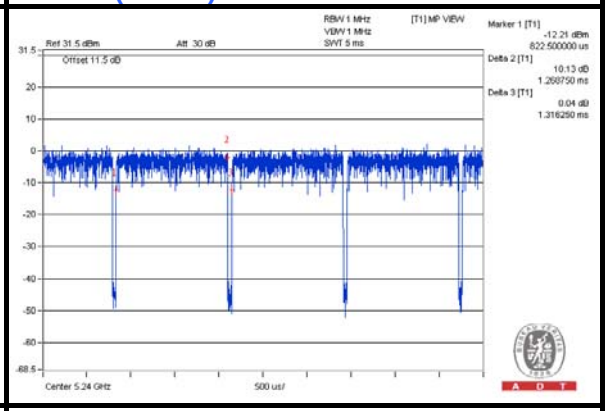
802.11n (20MHz): Duty cycle = 1.269/1.316 = 0.964, Duty factor = 10 * log(1/0.964) = 0.16

802.11n (40MHz): Duty cycle = 0.631/0.664 = 0.950, Duty factor = 10 * log(1/0.950) = 0.22

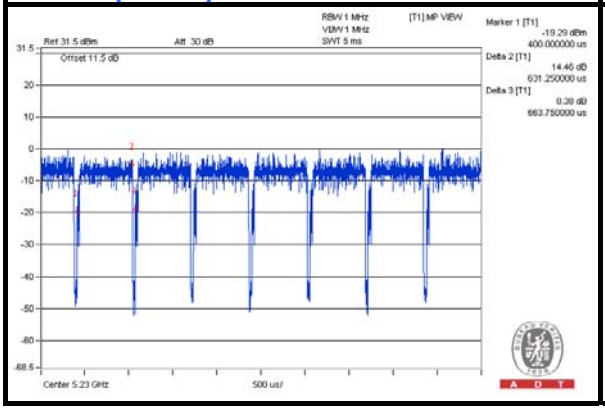
802.11a



802.11n (20MHz)



802.11n (40MHz)



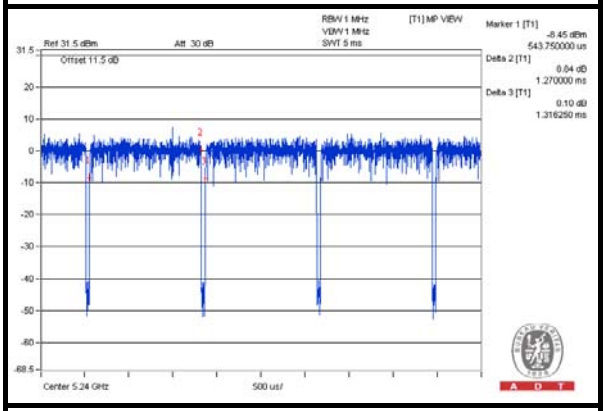
TEST MODE D

802.11a: Duty cycle = 1.270/1.316 = 0.965, Duty factor = 10 * log(1/0.965) = 0.15

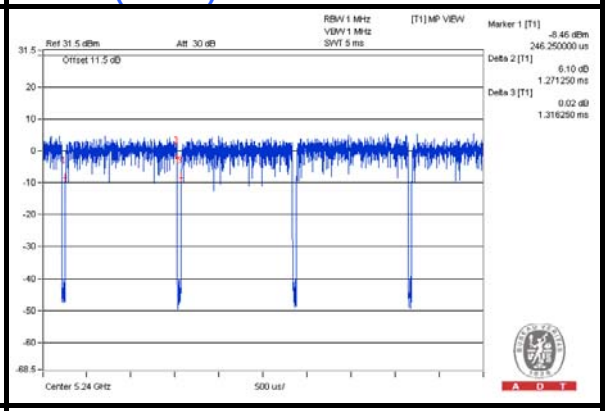
802.11n (20MHz): Duty cycle = 1.271/1.316 = 0.966, Duty factor = 10 * log(1/0.966) = 0.15

802.11n (40MHz): Duty cycle = 0.631/0.665 = 0.949, Duty factor = 10 * log(1/0.949) = 0.23

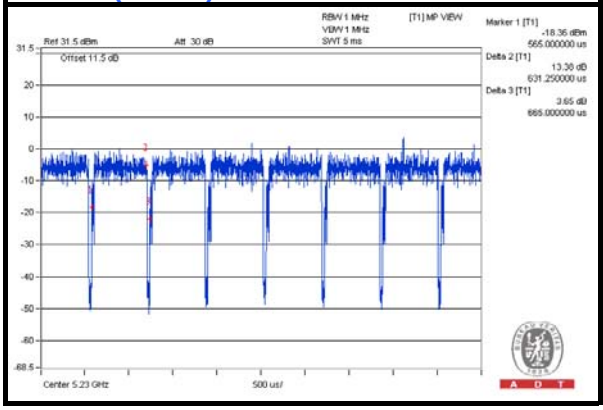
802.11a



802.11n (20MHz)



802.11n (40MHz)

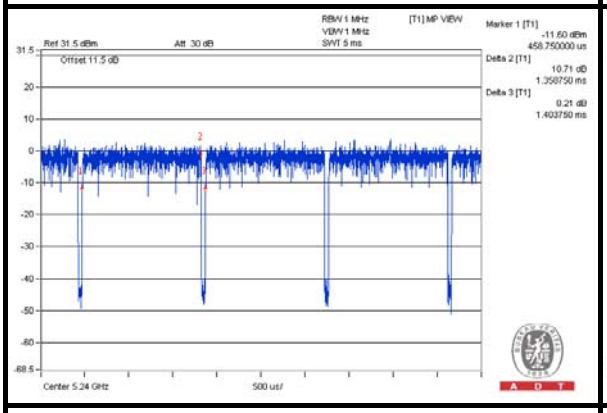
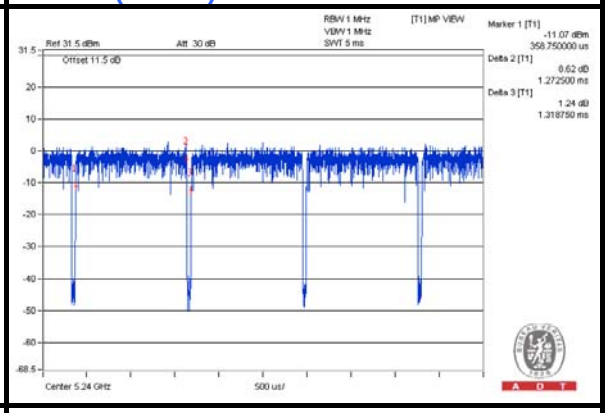
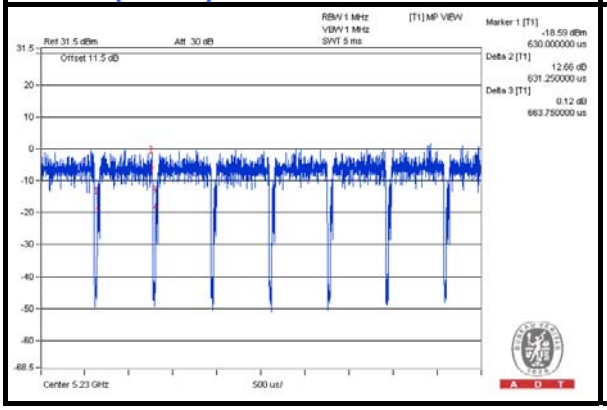


TEST MODE E

802.11a: Duty cycle = 1.359/1.404 = 0.968, Duty factor = 10 * log(1/0.968) = 0.14

802.11n (20MHz): Duty cycle = 1.272/1.319 = 0.964, Duty factor = 10 * log(1/0.964) = 0.16

802.11n (40MHz): Duty cycle = 0.631/0.664 = 0.950, Duty factor = 10 * log(1/0.950) = 0.22

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

3.4 DESCRIPTION OF SUPPORT UNITS

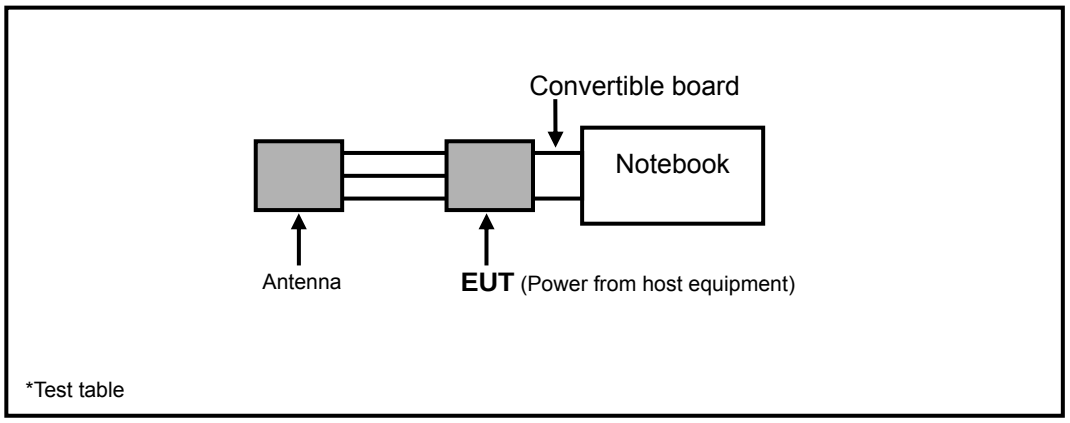
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK	DELL	E5420	33MLMQ1	FCC Doc Approved
2	CONVERTIBLE BOARD	NA	NA	NA	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
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 r02
662911 D01 Multiple Transmitter Output v01 r02
ANSI C63.10-2009

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

4. TEST TYPES AND RESULTS

4.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

4.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

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

FREQUENCIES (MHz)	FIELD STRENGTH (microvolts/meter)	MEASUREMENT DISTANCE (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

NOTE:

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

4.1.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

APPLICABLE TO	LIMIT	
√	FIELD STRENGTH AT 3m (dBμV/m)	
	PK	AV
	74	54
	EIRP LIMIT (dBm)	EQUIVALENT FIELD STRENGTH AT 3m (dBμV/m)
	PK	PK
	-27	68.3

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

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

4.1.3 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100289	Nov. 16, 2012	Nov. 15, 2013
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100269	Jan. 28, 2013	Jan. 27, 2014
BILOG Antenna SCHWARZBECK	VULB9168	9168-156	Mar. 22, 2013	Mar. 21, 2014
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-209	Sep. 03, 2012	Sep. 02, 2013
HORN Antenna SCHWARZBECK	BBHA 9170	148	Jul. 11, 2012	Jul. 10, 2013
Preamplifier Agilent	8449B	3008A01911	Oct. 25, 2012	Oct. 24, 2013
Preamplifier Agilent	8447D	2944A10638	Oct. 25, 2012	Oct. 24, 2013
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	295013/4 283403/4	Aug. 28, 2012	Aug. 27, 2013
RF signal cable Worken	8D-FB	Cable-HYCH9-01	Aug. 11, 2012	Aug. 10, 2013
Software BV ADT	ADT_Radiated_ V7.6.15.9.3	NA	NA	NA
Antenna Tower EMCO	2070/2080	512.835.4684	NA	NA
Turn Table EMCO	2087-2.03	NA	NA	NA
Antenna Tower &Turn Table Controller EMCO	2090	NA	NA	NA
26GHz ~ 40GHz Amplifier	EM26400	815221	Oct. 25, 2012	Oct. 24, 2013
Turn Table Controller ADT.	SC100.	SC93021704	NA	NA
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 test was performed in HwaYa Chamber 9.
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 215374.
5. The IC Site Registration No. is IC 7450F-9.

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.

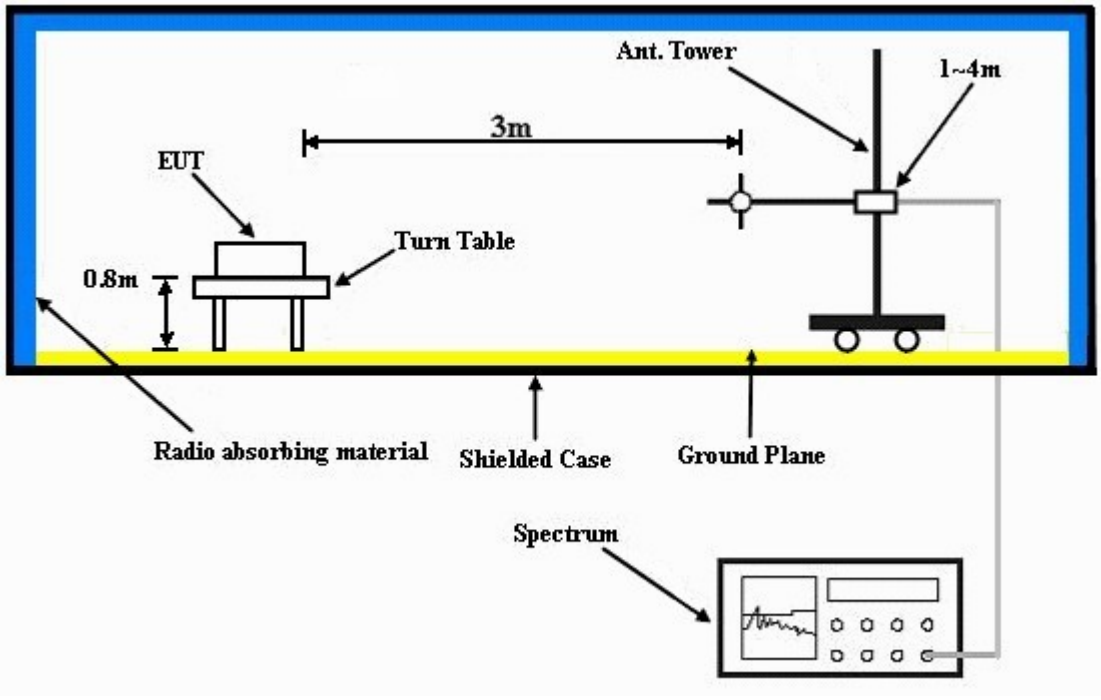
NOTE:

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 1kHz(Duty cycle < 98%) or 10Hz(Duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.5 DEVIATION FROM TEST STANDARD

No deviation.

4.1.6 TEST SETUP



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

4.1.7 EUT OPERATING CONDITION

a. Plugged the EUT into notebook via external board and placed them 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 A

802.11a

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

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	56.0 PK	74.0	-18.0	1.10 H	320	18.20	37.80
2	5150.00	43.2 AV	54.0	-10.8	1.10 H	320	5.40	37.80
3	*5180.00	90.1 PK			1.74 H	333	52.20	37.90
4	*5180.00	80.9 AV			1.74 H	333	43.00	37.90
5	#10360.00	60.2 PK	74.0	-13.8	1.17 H	95	11.10	49.10
6	#10360.00	48.3 AV	54.0	-5.7	1.17 H	95	-0.80	49.10
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	5000.00	59.6 PK	74.0	-14.4	1.00 V	89	22.00	37.60
2	5000.00	48.9 AV	54.0	-5.1	1.00 V	89	11.30	37.60
3	5150.00	57.2 PK	74.0	-16.8	1.18 V	95	19.40	37.80
4	5150.00	44.1 AV	54.0	-9.9	1.18 V	95	6.30	37.80
5	*5180.00	103.9 PK			1.23 V	279	66.00	37.90
6	*5180.00	94.3 AV			1.23 V	279	56.40	37.90
7	#10360.00	62.2 PK	74.0	-11.8	1.28 V	96	13.10	49.10
8	#10360.00	49.2 AV	54.0	-4.8	1.28 V	96	0.10	49.10

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.

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

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	91.6 PK			1.89 H	66	53.70	37.90
2	*5200.00	80.8 AV			1.89 H	66	42.90	37.90
3	#10400.00	61.3 PK	74.0	-12.7	4.00 H	55	12.20	49.10
4	#10400.00	47.9 AV	54.0	-6.1	4.00 H	55	-1.20	49.10
5	15600.00	60.5 PK	74.0	-13.5	1.04 H	136	11.40	49.10
6	15600.00	47.5 AV	54.0	-6.5	1.04 H	136	-1.60	49.10
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	5000.00	57.2 PK	74.0	-16.8	1.12 V	164	19.60	37.60
2	5000.00	46.6 AV	54.0	-7.4	1.12 V	164	9.00	37.60
3	*5200.00	103.8 PK			1.57 V	239	65.90	37.90
4	*5200.00	93.8 AV			1.57 V	239	55.90	37.90
5	#10400.00	62.2 PK	74.0	-11.8	1.18 V	96	13.10	49.10
6	#10400.00	48.9 AV	54.0	-5.1	1.18 V	96	-0.20	49.10
7	15600.00	59.9 PK	74.0	-14.1	1.04 V	136	10.80	49.10
8	15600.00	47.6 AV	54.0	-6.4	1.04 V	136	-1.50	49.10

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.

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

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	91.7 PK			1.00 H	67	53.80	37.90
2	*5240.00	81.7 AV			1.00 H	67	43.80	37.90
3	5350.00	57.7 PK	74.0	-16.3	1.13 H	87	19.60	38.10
4	5350.00	44.4 AV	54.0	-9.6	1.13 H	87	6.30	38.10
5	#10480.00	58.6 PK	74.0	-15.4	1.12 H	85	9.10	49.50
6	#10480.00	46.4 AV	54.0	-7.6	1.12 H	85	-3.10	49.50
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	5000.00	58.3 PK	74.0	-15.7	1.24 V	138	20.70	37.60
2	5000.00	47.9 AV	54.0	-6.1	1.24 V	138	10.30	37.60
3	*5240.00	103.8 PK			1.24 V	234	65.90	37.90
4	*5240.00	93.5 AV			1.24 V	234	55.60	37.90
5	5350.00	57.3 PK	74.0	-16.7	1.11 V	186	19.20	38.10
6	5350.00	44.8 AV	54.0	-9.2	1.11 V	186	6.70	38.10
7	#10480.00	61.8 PK	74.0	-12.2	1.15 V	96	12.30	49.50
8	#10480.00	48.8 AV	54.0	-5.2	1.15 V	96	-0.70	49.50

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.
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 (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Chris Lin

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	57.0 PK	74.0	-17.0	1.09 H	203	19.20	37.80
2	5150.00	43.8 AV	54.0	-10.2	1.09 H	203	6.00	37.80
3	*5180.00	90.1 PK			1.72 H	328	52.20	37.90
4	*5180.00	80.1 AV			1.72 H	328	42.20	37.90
5	#10360.00	58.2 PK	74.0	-15.8	1.10 H	85	9.10	49.10
6	#10360.00	45.8 AV	54.0	-8.2	1.10 H	85	-3.30	49.10
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	5000.00	57.8 PK	74.0	-16.2	1.36 V	292	20.20	37.60
2	5000.00	46.5 AV	54.0	-7.5	1.36 V	292	8.90	37.60
3	5150.00	56.2 PK	74.0	-17.8	1.04 V	125	18.40	37.80
4	5150.00	43.7 AV	54.0	-10.3	1.04 V	125	5.90	37.80
5	*5180.00	103.1 PK			1.22 V	280	65.20	37.90
6	*5180.00	93.1 AV			1.22 V	280	55.20	37.90
7	#10360.00	58.3 PK	74.0	-15.7	1.02 V	74	9.20	49.10
8	#10360.00	48.3 AV	54.0	-5.7	1.02 V	74	-0.80	49.10

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.

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

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	91.3 PK			1.00 H	65	53.40	37.90
2	*5200.00	81.1 AV			1.00 H	65	43.20	37.90
3	#10400.00	58.3 PK	74.0	-15.7	1.15 H	96	9.20	49.10
4	#10400.00	47.0 AV	54.0	-7.0	1.15 H	96	-2.10	49.10
5	15600.00	60.0 PK	74.0	-14.0	1.04 H	158	10.90	49.10
6	15600.00	47.9 AV	54.0	-6.1	1.04 H	158	-1.20	49.10
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	5000.00	57.1 PK	74.0	-16.9	1.04 V	312	19.50	37.60
2	5000.00	45.2 AV	54.0	-8.8	1.04 V	312	7.60	37.60
3	*5200.00	104.0 PK			1.33 V	237	66.10	37.90
4	*5200.00	94.2 AV			1.33 V	237	56.30	37.90
5	#10400.00	62.3 PK	74.0	-11.7	1.25 V	96	13.20	49.10
6	#10400.00	48.9 AV	54.0	-5.1	1.25 V	96	-0.20	49.10
7	15600.00	60.5 PK	74.0	-13.5	1.01 V	136	11.40	49.10
8	15600.00	48.0 AV	54.0	-6.0	1.01 V	136	-1.10	49.10

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.

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

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	94.0 PK			1.33 H	331	56.10	37.90
2	*5240.00	81.8 AV			1.33 H	331	43.90	37.90
3	5350.00	56.5 PK	74.0	-17.5	1.04 H	153	18.40	38.10
4	5350.00	43.6 AV	54.0	-10.4	1.04 H	153	5.50	38.10
5	#10480.00	58.9 PK	74.0	-15.1	1.00 H	85	9.40	49.50
6	#10480.00	47.5 AV	54.0	-6.5	1.00 H	85	-2.00	49.50
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	5000.00	56.9 PK	74.0	-17.1	1.00 V	171	19.30	37.60
2	5000.00	47.9 AV	54.0	-6.1	1.00 V	171	10.30	37.60
3	*5240.00	104.1 PK			1.23 V	234	66.20	37.90
4	*5240.00	94.2 AV			1.23 V	234	56.30	37.90
5	5350.00	56.8 PK	74.0	-17.2	1.32 V	184	18.70	38.10
6	5350.00	45.5 AV	54.0	-8.5	1.32 V	184	7.40	38.10
7	#10480.00	61.8 PK	74.0	-12.2	1.12 V	45	12.30	49.50
8	#10480.00	49.4 AV	54.0	-4.6	1.12 V	45	-0.10	49.50

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.
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 (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Chris Lin

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	56.5 PK	74.0	-17.5	1.05 H	126	18.70	37.80
2	5150.00	43.5 AV	54.0	-10.5	1.05 H	126	5.70	37.80
3	*5190.00	94.1 PK			1.51 H	57	56.20	37.90
4	*5190.00	83.2 AV			1.51 H	57	45.30	37.90
5	#10380.00	58.3 PK	74.0	-15.7	1.15 H	230	9.20	49.10
6	#10380.00	47.0 AV	54.0	-7.0	1.15 H	230	-2.10	49.10
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	5150.00	50.0 PK	74.0	-24.0	1.25 V	135	12.20	37.80
2	5150.00	33.8 AV	54.0	-20.2	1.25 V	135	-4.00	37.80
3	*5190.00	103.5 PK			1.37 V	66	65.60	37.90
4	*5190.00	94.3 AV			1.37 V	66	56.40	37.90
5	#10380.00	62.3 PK	74.0	-11.7	1.05 V	88	13.20	49.10
6	#10380.00	48.8 AV	54.0	-5.2	1.05 V	88	-0.30	49.10

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.

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

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	1.10 H	142	17.30	37.80
2	5150.00	42.5 AV	54.0	-11.5	1.10 H	142	4.70	37.80
3	*5230.00	93.3 PK			1.39 H	257	55.40	37.90
4	*5230.00	83.2 AV			1.39 H	257	45.30	37.90
5	#10460.00	58.4 PK	74.0	-15.6	1.14 H	85	9.00	49.40
6	#10460.00	47.4 AV	54.0	-6.6	1.14 H	85	-2.00	49.40
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	5150.00	56.4 PK	74.0	-17.6	1.04 V	156	18.60	37.80
2	5150.00	42.9 AV	54.0	-11.1	1.04 V	156	5.10	37.80
3	*5230.00	103.5 PK			1.56 V	280	65.60	37.90
4	*5230.00	94.3 AV			1.56 V	280	56.40	37.90
5	#10460.00	61.8 PK	74.0	-12.2	1.02 V	85	12.40	49.40
6	#10460.00	49.2 AV	54.0	-4.8	1.02 V	85	-0.20	49.40

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 B

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	25deg. C, 65%RH	TESTED BY	Ted Chang

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	58.3 PK	74.0	-15.7	1.00 H	180	14.50	43.80
2	5150.00	45.6 AV	54.0	-8.4	1.00 H	180	1.80	43.80
3	*5180.00	104.0 PK			1.06 H	20	60.10	43.90
4	*5180.00	92.9 AV			1.06 H	20	49.00	43.90
5	#10360.00	55.9 PK	74.0	-18.1	1.42 H	152	5.00	50.90
6	#10360.00	42.8 AV	54.0	-11.2	1.42 H	152	-8.10	50.90
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	5150.00	61.0 PK	74.0	-13.0	1.27 V	15	17.20	43.80
2	5150.00	48.0 AV	54.0	-6.0	1.27 V	15	4.20	43.80
3	*5180.00	106.5 PK			1.00 V	16	62.60	43.90
4	*5180.00	96.9 AV			1.00 V	16	53.00	43.90
5	#10360.00	56.7 PK	74.0	-17.3	1.24 V	141	5.80	50.90
6	#10360.00	45.8 AV	54.0	-8.2	1.24 V	141	-5.10	50.90

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
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	Ted Chang

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	104.7 PK			1.04 H	10	60.80	43.90
2	*5200.00	93.6 AV			1.04 H	10	49.70	43.90
3	#10400.00	55.7 PK	74.0	-18.3	1.15 H	96	4.80	50.90
4	#10400.00	43.9 AV	54.0	-10.1	1.15 H	96	-7.00	50.90
5	15600.00	61.2 PK	74.0	-12.8	1.25 H	96	7.20	54.00
6	15600.00	49.3 AV	54.0	-4.7	1.25 H	96	-4.70	54.00
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	*5200.00	107.0 PK			1.00 V	10	63.10	43.90
2	*5200.00	96.3 AV			1.00 V	10	52.40	43.90
3	#10400.00	57.9 PK	74.0	-16.1	1.15 V	63	7.00	50.90
4	#10400.00	45.3 AV	54.0	-8.7	1.15 V	63	-5.60	50.90
5	15600.00	63.1 PK	74.0	-10.9	1.13 V	65	9.10	54.00
6	15600.00	50.6 AV	54.0	-3.4	1.13 V	65	-3.40	54.00

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 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Ted Chang

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	103.1 PK			1.15 H	10	59.10	44.00
2	*5240.00	91.9 AV			1.15 H	10	47.90	44.00
3	5350.00	59.2 PK	74.0	-14.8	1.08 H	221	15.10	44.10
4	5350.00	46.1 AV	54.0	-7.9	1.08 H	221	2.00	44.10
5	#10480.00	54.9 PK	74.0	-19.1	1.15 H	31	3.70	51.20
6	#10480.00	43.8 AV	54.0	-10.2	1.15 H	31	-7.40	51.20
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	*5240.00	104.2 PK			1.27 V	9	60.20	44.00
2	*5240.00	93.7 AV			1.27 V	9	49.70	44.00
3	5350.00	61.3 PK	74.0	-12.7	1.32 V	65	17.20	44.10
4	5350.00	48.9 AV	54.0	-5.1	1.32 V	65	4.80	44.10
5	#10480.00	58.6 PK	74.0	-15.4	1.23 V	85	7.40	51.20
6	#10480.00	45.7 AV	54.0	-8.3	1.23 V	85	-5.50	51.20

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.

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	Ted Chang

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	58.5 PK	74.0	-15.5	1.32 H	98	14.70	43.80
2	5150.00	46.0 AV	54.0	-8.0	1.32 H	98	2.20	43.80
3	*5180.00	103.1 PK			1.06 H	11	59.20	43.90
4	*5180.00	93.0 AV			1.06 H	11	49.10	43.90
5	#10360.00	55.2 PK	74.0	-18.8	1.13 H	208	4.30	50.90
6	#10360.00	42.8 AV	54.0	-11.2	1.13 H	208	-8.10	50.90
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	5150.00	60.6 PK	74.0	-13.4	1.23 V	84	16.80	43.80
2	5150.00	48.6 AV	54.0	-5.4	1.23 V	84	4.80	43.80
3	*5180.00	104.4 PK			1.71 V	15	60.50	43.90
4	*5180.00	94.4 AV			1.71 V	15	50.50	43.90
5	#10360.00	58.3 PK	74.0	-15.7	1.13 V	84	7.40	50.90
6	#10360.00	45.2 AV	54.0	-8.8	1.13 V	84	-5.70	50.90

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
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	Ted Chang

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			1.06 H	10	60.60	43.90
2	*5200.00	94.0 AV			1.06 H	10	50.10	43.90
3	#10400.00	55.3 PK	74.0	-18.7	1.56 H	32	4.40	50.90
4	#10400.00	43.0 AV	54.0	-11.0	1.56 H	32	-7.90	50.90
5	15600.00	58.0 PK	74.0	-16.0	1.19 H	52	4.00	54.00
6	15600.00	45.8 AV	54.0	-8.2	1.19 H	52	-8.20	54.00
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	*5200.00	105.1 PK			1.07 V	15	61.20	43.90
2	*5200.00	95.3 AV			1.07 V	15	51.40	43.90
3	#10400.00	58.3 PK	74.0	-15.7	1.52 V	63	7.40	50.90
4	#10400.00	45.3 AV	54.0	-8.7	1.52 V	63	-5.60	50.90
5	15600.00	60.6 PK	74.0	-13.4	1.15 V	230	6.60	54.00
6	15600.00	47.6 AV	54.0	-6.4	1.15 V	230	-6.40	54.00

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 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Ted Chang

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	104.0 PK			1.04 H	21	60.00	44.00
2	*5240.00	93.9 AV			1.04 H	21	49.90	44.00
3	5350.00	59.2 PK	74.0	-14.8	1.36 H	360	15.10	44.10
4	5350.00	46.7 AV	54.0	-7.3	1.36 H	360	2.60	44.10
5	#10480.00	55.7 PK	74.0	-18.3	1.16 H	32	4.50	51.20
6	#10480.00	42.9 AV	54.0	-11.1	1.16 H	32	-8.30	51.20
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	*5240.00	105.3 PK			1.12 V	15	61.30	44.00
2	*5240.00	95.0 AV			1.12 V	15	51.00	44.00
3	5350.00	60.9 PK	74.0	-13.1	1.15 V	62	16.80	44.10
4	5350.00	49.0 AV	54.0	-5.0	1.15 V	62	4.90	44.10
5	#10480.00	58.6 PK	74.0	-15.4	1.33 V	54	7.40	51.20
6	#10480.00	45.7 AV	54.0	-8.3	1.33 V	54	-5.50	51.20

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.

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	Ted Chang

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	58.4 PK	74.0	-15.6	1.26 H	62	14.60	43.80
2	5150.00	47.6 AV	54.0	-6.4	1.26 H	62	3.80	43.80
3	*5190.00	101.1 PK			1.05 H	19	57.20	43.90
4	*5190.00	90.6 AV			1.05 H	19	46.70	43.90
5	#10380.00	56.0 PK	74.0	-18.0	1.39 H	55	5.10	50.90
6	#10380.00	42.9 AV	54.0	-11.1	1.39 H	55	-8.00	50.90
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	5150.00	62.7 PK	74.0	-11.3	1.10 V	10	18.90	43.80
2	5150.00	49.0 AV	54.0	-5.0	1.10 V	10	5.20	43.80
3	*5190.00	102.0 PK			1.00 V	14	58.10	43.90
4	*5190.00	92.6 AV			1.00 V	14	48.70	43.90
5	#10380.00	51.3 PK	74.0	-22.7	1.15 V	63	0.40	50.90
6	#10380.00	38.6 AV	54.0	-15.4	1.15 V	63	-12.30	50.90

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
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	Ted Chang

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	101.2 PK			1.16 H	16	57.30	43.90
2	*5230.00	91.0 AV			1.16 H	16	47.10	43.90
3	5350.00	58.9 PK	74.0	-15.1	1.39 H	64	14.80	44.10
4	5350.00	46.4 AV	54.0	-7.6	1.39 H	64	2.30	44.10
5	#10460.00	56.6 PK	74.0	-17.4	1.32 H	148	5.50	51.10
6	#10460.00	43.2 AV	54.0	-10.8	1.32 H	148	-7.90	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	*5230.00	102.8 PK			1.06 V	12	58.90	43.90
2	*5230.00	92.8 AV			1.06 V	12	48.90	43.90
3	5350.00	60.9 PK	74.0	-13.1	1.13 V	308	16.80	44.10
4	5350.00	48.9 AV	54.0	-5.1	1.13 V	308	4.80	44.10
5	#10460.00	58.6 PK	74.0	-15.4	1.13 V	41	7.50	51.10
6	#10460.00	45.0 AV	54.0	-9.0	1.13 V	41	-6.10	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.

TEST MODE C

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	25deg. C, 65%RH	TESTED BY	Ted Chang

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	58.9 PK	74.0	-15.1	1.00 H	124	15.10	43.80
2	5150.00	46.3 AV	54.0	-7.7	1.00 H	124	2.50	43.80
3	*5180.00	94.0 PK			1.00 H	73	50.10	43.90
4	*5180.00	84.0 AV			1.00 H	73	40.10	43.90
5	#10360.00	55.5 PK	74.0	-18.5	1.29 H	324	4.60	50.90
6	#10360.00	43.7 AV	54.0	-10.3	1.29 H	324	-7.20	50.90
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	5150.00	59.7 PK	74.0	-14.3	1.08 V	184	15.90	43.80
2	5150.00	46.9 AV	54.0	-7.1	1.08 V	184	3.10	43.80
3	*5180.00	105.9 PK			1.00 V	16	62.00	43.90
4	*5180.00	95.7 AV			1.00 V	16	51.80	43.90
5	#10360.00	56.5 PK	74.0	-17.5	1.06 V	56	5.60	50.90
6	#10360.00	43.3 AV	54.0	-10.7	1.06 V	56	-7.60	50.90

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
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	Ted Chang

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	95.7 PK			1.02 H	74	51.80	43.90
2	*5200.00	86.2 AV			1.02 H	74	42.30	43.90
3	#10400.00	55.7 PK	74.0	-18.3	1.05 H	127	4.80	50.90
4	#10400.00	42.5 AV	54.0	-11.5	1.05 H	127	-8.40	50.90
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	*5200.00	105.8 PK			1.00 V	6	61.90	43.90
2	*5200.00	96.7 AV			1.00 V	6	52.80	43.90
3	#10400.00	59.4 PK	74.0	-14.6	1.54 V	163	8.50	50.90
4	#10400.00	46.0 AV	54.0	-8.0	1.54 V	163	-4.90	50.90

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
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	Ted Chang

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	93.8 PK			1.02 H	70	49.80	44.00
2	*5240.00	83.9 AV			1.02 H	70	39.90	44.00
3	5350.00	59.5 PK	74.0	-14.5	1.42 H	132	15.40	44.10
4	5350.00	46.2 AV	54.0	-7.8	1.42 H	132	2.10	44.10
5	#10480.00	56.1 PK	74.0	-17.9	1.64 H	122	4.90	51.20
6	#10480.00	43.1 AV	54.0	-10.9	1.64 H	122	-8.10	51.20
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	*5240.00	104.3 PK			1.00 V	8	60.30	44.00
2	*5240.00	94.5 AV			1.00 V	8	50.50	44.00
3	5350.00	58.4 PK	74.0	-15.6	1.05 V	263	14.30	44.10
4	5350.00	45.8 AV	54.0	-8.2	1.05 V	263	1.70	44.10
5	#10480.00	60.6 PK	74.0	-13.4	1.42 V	193	9.40	51.20
6	#10480.00	46.2 AV	54.0	-7.8	1.42 V	193	-5.00	51.20

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.

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	Ted Chang

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	59.1 PK	74.0	-14.9	1.32 H	184	15.30	43.80
2	5150.00	45.8 AV	54.0	-8.2	1.32 H	184	2.00	43.80
3	*5180.00	93.5 PK			1.08 H	189	49.60	43.90
4	*5180.00	83.2 AV			1.08 H	189	39.30	43.90
5	#10360.00	56.5 PK	74.0	-17.5	1.12 H	308	5.60	50.90
6	#10360.00	42.8 AV	54.0	-11.2	1.12 H	308	-8.10	50.90
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	5150.00	58.4 PK	74.0	-15.6	1.08 V	327	14.60	43.80
2	5150.00	46.8 AV	54.0	-7.2	1.08 V	327	3.00	43.80
3	*5180.00	103.1 PK			1.00 V	15	59.20	43.90
4	*5180.00	93.2 AV			1.00 V	15	49.30	43.90
5	#10360.00	58.8 PK	74.0	-15.2	1.35 V	315	7.90	50.90
6	#10360.00	45.8 AV	54.0	-8.2	1.35 V	315	-5.10	50.90

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
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	Ted Chang

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	95.6 PK			1.15 H	74	51.70	43.90
2	*5200.00	84.3 AV			1.15 H	74	40.40	43.90
3	#10400.00	55.8 PK	74.0	-18.2	1.32 H	110	4.90	50.90
4	#10400.00	42.9 AV	54.0	-11.1	1.32 H	110	-8.00	50.90
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	*5200.00	105.6 PK			1.11 V	357	61.70	43.90
2	*5200.00	95.6 AV			1.11 V	357	51.70	43.90
3	#10400.00	60.0 PK	74.0	-14.0	1.43 V	126	9.10	50.90
4	#10400.00	46.7 AV	54.0	-7.3	1.43 V	126	-4.20	50.90

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
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	Ted Chang

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	94.5 PK			1.00 H	80	50.50	44.00
2	*5240.00	84.1 AV			1.00 H	80	40.10	44.00
3	5350.00	59.5 PK	74.0	-14.5	1.37 H	118	15.40	44.10
4	5350.00	46.5 AV	54.0	-7.5	1.37 H	118	2.40	44.10
5	#10480.00	57.6 PK	74.0	-16.4	1.42 H	133	6.40	51.20
6	#10480.00	43.9 AV	54.0	-10.1	1.42 H	133	-7.30	51.20
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	*5240.00	105.1 PK			1.00 V	16	61.10	44.00
2	*5240.00	95.4 AV			1.00 V	16	51.40	44.00
3	5350.00	61.5 PK	74.0	-12.5	1.33 V	208	17.40	44.10
4	5350.00	47.5 AV	54.0	-6.5	1.33 V	208	3.40	44.10
5	#10480.00	60.5 PK	74.0	-13.5	1.24 V	112	9.30	51.20
6	#10480.00	46.2 AV	54.0	-7.8	1.24 V	112	-5.00	51.20

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.

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	Ted Chang

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	58.0 PK	74.0	-16.0	1.14 H	219	14.20	43.80
2	5150.00	46.0 AV	54.0	-8.0	1.14 H	219	2.20	43.80
3	*5190.00	94.8 PK			1.24 H	81	50.90	43.90
4	*5190.00	84.1 AV			1.24 H	81	40.20	43.90
5	#10380.00	57.1 PK	74.0	-16.9	1.41 H	304	6.20	50.90
6	#10380.00	43.8 AV	54.0	-10.2	1.41 H	304	-7.10	50.90
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	5150.00	70.6 PK	74.0	-3.4	1.06 V	8	26.80	43.80
2	5150.00	52.5 AV	54.0	-1.5	1.06 V	8	8.70	43.80
3	*5190.00	104.2 PK			1.14 V	18	60.30	43.90
4	*5190.00	95.3 AV			1.14 V	18	51.40	43.90
5	#10380.00	59.4 PK	74.0	-14.6	1.11 V	143	8.50	50.90
6	#10380.00	47.0 AV	54.0	-7.0	1.11 V	143	-3.90	50.90

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
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	Ted Chang

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	92.1 PK			1.00 H	80	48.20	43.90
2	*5230.00	82.1 AV			1.00 H	80	38.20	43.90
3	5350.00	59.1 PK	74.0	-14.9	1.14 H	202	15.00	44.10
4	5350.00	46.2 AV	54.0	-7.8	1.14 H	202	2.10	44.10
5	#10480.00	57.2 PK	74.0	-16.8	1.25 H	343	6.00	51.20
6	#10480.00	44.0 AV	54.0	-10.0	1.25 H	343	-7.20	51.20
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	*5230.00	103.8 PK			1.00 V	6	59.90	43.90
2	*5230.00	93.7 AV			1.00 V	6	49.80	43.90
3	5350.00	58.8 PK	74.0	-15.2	1.13 V	44	14.70	44.10
4	5350.00	46.2 AV	54.0	-7.8	1.13 V	44	2.10	44.10
5	#10460.00	60.2 PK	74.0	-13.8	1.43 V	214	9.10	51.10
6	#10460.00	46.1 AV	54.0	-7.9	1.43 V	214	-5.00	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.

TEST MODE D

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	25deg. C, 65%RH	TESTED BY	Ted Chang

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	58.8 PK	74.0	-15.2	1.86 H	255	15.00	43.80
2	5150.00	45.3 AV	54.0	-8.7	1.86 H	255	1.50	43.80
3	*5180.00	100.6 PK			1.96 H	267	56.70	43.90
4	*5180.00	91.0 AV			1.96 H	267	47.10	43.90
5	#10360.00	55.5 PK	74.0	-18.5	1.16 H	307	4.60	50.90
6	#10360.00	42.8 AV	54.0	-11.2	1.16 H	307	-8.10	50.90
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	5150.00	58.6 PK	74.0	-15.4	1.21 V	117	14.80	43.80
2	5150.00	46.0 AV	54.0	-8.0	1.21 V	117	2.20	43.80
3	*5180.00	106.6 PK			1.78 V	240	62.70	43.90
4	*5180.00	96.9 AV			1.78 V	240	53.00	43.90
5	#10360.00	58.2 PK	74.0	-15.8	1.18 V	65	7.30	50.90
6	#10360.00	45.1 AV	54.0	-8.9	1.18 V	65	-5.80	50.90

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
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	Ted Chang

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	101.8 PK			1.98 H	268	57.90	43.90
2	*5200.00	91.5 AV			1.98 H	268	47.60	43.90
3	#10400.00	56.1 PK	74.0	-17.9	1.18 H	208	5.20	50.90
4	#10400.00	43.9 AV	54.0	-10.1	1.18 H	208	-7.00	50.90
5	15600.00	60.1 PK	74.0	-13.9	1.23 H	228	6.10	54.00
6	15600.00	47.7 AV	54.0	-6.3	1.23 H	228	-6.30	54.00
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	*5200.00	107.3 PK			1.64 V	221	63.40	43.90
2	*5200.00	97.8 AV			1.64 V	221	53.90	43.90
3	#10400.00	58.2 PK	74.0	-15.8	1.25 V	62	7.30	50.90
4	#10400.00	46.1 AV	54.0	-7.9	1.25 V	62	-4.80	50.90
5	15600.00	62.5 PK	74.0	-11.5	1.16 V	307	8.50	54.00
6	15600.00	49.7 AV	54.0	-4.3	1.16 V	307	-4.30	54.00

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 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Ted Chang

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	100.4 PK			1.45 H	266	56.40	44.00
2	*5240.00	90.3 AV			1.45 H	266	46.30	44.00
3	5350.00	59.2 PK	74.0	-14.8	1.52 H	330	15.10	44.10
4	5350.00	46.1 AV	54.0	-7.9	1.52 H	330	2.00	44.10
5	#10480.00	56.6 PK	74.0	-17.4	1.18 H	152	5.40	51.20
6	#10480.00	44.0 AV	54.0	-10.0	1.18 H	152	-7.20	51.20
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	*5240.00	107.3 PK			1.65 V	221	63.30	44.00
2	*5240.00	97.4 AV			1.65 V	221	53.40	44.00
3	5350.00	61.4 PK	74.0	-12.6	1.18 V	65	17.30	44.10
4	5350.00	48.5 AV	54.0	-5.5	1.18 V	65	4.40	44.10
5	#10480.00	58.6 PK	74.0	-15.4	1.16 V	222	7.40	51.20
6	#10480.00	46.4 AV	54.0	-7.6	1.16 V	222	-4.80	51.20

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.

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	Ted Chang

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	58.8 PK	74.0	-15.2	1.47 H	250	15.00	43.80
2	5150.00	46.2 AV	54.0	-7.8	1.47 H	250	2.40	43.80
3	*5180.00	99.0 PK			1.87 H	252	55.10	43.90
4	*5180.00	88.1 AV			1.87 H	252	44.20	43.90
5	#10360.00	56.3 PK	74.0	-17.7	1.30 H	55	5.40	50.90
6	#10360.00	43.6 AV	54.0	-10.4	1.30 H	55	-7.30	50.90
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	5150.00	61.5 PK	74.0	-12.5	1.52 V	330	17.70	43.80
2	5150.00	48.3 AV	54.0	-5.7	1.52 V	330	4.50	43.80
3	*5180.00	106.4 PK			1.32 V	230	62.50	43.90
4	*5180.00	96.4 AV			1.32 V	230	52.50	43.90
5	#10360.00	58.2 PK	74.0	-15.8	1.15 V	207	7.30	50.90
6	#10360.00	46.0 AV	54.0	-8.0	1.15 V	207	-4.90	50.90

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
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	Ted Chang

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	101.0 PK			1.00 H	70	57.10	43.90
2	*5200.00	91.7 AV			1.00 H	70	47.80	43.90
3	#10400.00	55.6 PK	74.0	-18.4	1.16 H	214	4.70	50.90
4	#10400.00	44.3 AV	54.0	-9.7	1.16 H	214	-6.60	50.90
5	15600.00	58.7 PK	74.0	-15.3	1.39 H	47	4.70	54.00
6	15600.00	46.3 AV	54.0	-7.7	1.39 H	47	-7.70	54.00
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	*5200.00	107.1 PK			1.38 V	124	63.20	43.90
2	*5200.00	97.2 AV			1.38 V	124	53.30	43.90
3	#10400.00	58.5 PK	74.0	-15.5	1.15 V	29	7.60	50.90
4	#10400.00	46.4 AV	54.0	-7.6	1.15 V	29	-4.50	50.90
5	15600.00	60.9 PK	74.0	-13.1	1.17 V	54	6.90	54.00
6	15600.00	48.5 AV	54.0	-5.5	1.17 V	54	-5.50	54.00

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 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Ted Chang

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	101.2 PK			1.91 H	267	57.20	44.00
2	*5240.00	91.0 AV			1.91 H	267	47.00	44.00
3	5350.00	59.4 PK	74.0	-14.6	1.18 H	65	15.30	44.10
4	5350.00	46.1 AV	54.0	-7.9	1.18 H	65	2.00	44.10
5	#10480.00	56.5 PK	74.0	-17.5	1.38 H	54	5.30	51.20
6	#10480.00	44.7 AV	54.0	-9.3	1.38 H	54	-6.50	51.20
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	*5240.00	107.5 PK			1.93 V	233	63.50	44.00
2	*5240.00	97.6 AV			1.93 V	233	53.60	44.00
3	5350.00	61.9 PK	74.0	-12.1	1.19 V	65	17.80	44.10
4	5350.00	48.9 AV	54.0	-5.1	1.19 V	65	4.80	44.10
5	#10480.00	58.6 PK	74.0	-15.4	1.09 V	65	7.40	51.20
6	#10480.00	46.7 AV	54.0	-7.3	1.09 V	65	-4.50	51.20

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.

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	Ted Chang

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	59.5 PK	74.0	-14.5	1.23 H	87	15.70	43.80
2	5150.00	46.6 AV	54.0	-7.4	1.23 H	87	2.80	43.80
3	*5190.00	92.7 PK			1.81 H	266	48.80	43.90
4	*5190.00	82.5 AV			1.81 H	266	38.60	43.90
5	#10380.00	56.1 PK	74.0	-17.9	1.00 H	221	5.20	50.90
6	#10380.00	43.8 AV	54.0	-10.2	1.00 H	221	-7.10	50.90
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	5150.00	66.5 PK	74.0	-7.5	1.00 V	179	22.70	43.80
2	5150.00	49.1 AV	54.0	-4.9	1.00 V	179	5.30	43.80
3	*5190.00	104.8 PK			1.00 V	181	60.90	43.90
4	*5190.00	94.6 AV			1.00 V	181	50.70	43.90
5	#10380.00	58.3 PK	74.0	-15.7	1.19 V	65	7.40	50.90
6	#10380.00	46.3 AV	54.0	-7.7	1.19 V	65	-4.60	50.90

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
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	Ted Chang

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	93.8 PK			1.00 H	23	49.90	43.90
2	*5230.00	84.6 AV			1.00 H	23	40.70	43.90
3	5350.00	59.1 PK	74.0	-14.9	1.55 H	222	15.00	44.10
4	5350.00	46.5 AV	54.0	-7.5	1.55 H	222	2.40	44.10
5	#10460.00	55.8 PK	74.0	-18.2	1.13 H	207	4.70	51.10
6	#10460.00	44.1 AV	54.0	-9.9	1.13 H	207	-7.00	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	*5230.00	105.1 PK			1.10 V	227	61.20	43.90
2	*5230.00	95.8 AV			1.10 V	227	51.90	43.90
3	5350.00	62.0 PK	74.0	-12.0	1.25 V	260	17.90	44.10
4	5350.00	48.9 AV	54.0	-5.1	1.25 V	260	4.80	44.10
5	#10460.00	58.5 PK	74.0	-15.5	1.17 V	204	7.40	51.10
6	#10460.00	46.4 AV	54.0	-7.6	1.17 V	204	-4.70	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.

TEST MODE E

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	25deg. C, 65%RH	TESTED BY	Ted Chang

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	59.5 PK	74.0	-14.5	1.47 H	95	15.70	43.80
2	5150.00	46.2 AV	54.0	-7.8	1.47 H	95	2.40	43.80
3	*5180.00	106.3 PK			1.00 H	14	62.40	43.90
4	*5180.00	96.5 AV			1.00 H	14	52.60	43.90
5	#10360.00	56.3 PK	74.0	-17.7	1.12 H	52	5.40	50.90
6	#10360.00	44.1 AV	54.0	-9.9	1.12 H	52	-6.80	50.90
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	5150.00	61.5 PK	74.0	-12.5	1.10 V	350	17.70	43.80
2	5150.00	47.8 AV	54.0	-6.2	1.10 V	350	4.00	43.80
3	*5180.00	108.6 PK			1.50 V	9	64.70	43.90
4	*5180.00	97.9 AV			1.50 V	9	54.00	43.90
5	#10360.00	58.2 PK	74.0	-15.8	1.10 V	152	7.30	50.90
6	#10360.00	45.7 AV	54.0	-8.3	1.10 V	152	-5.20	50.90

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
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	Ted Chang

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	107.6 PK			1.00 H	358	63.70	43.90
2	*5200.00	97.9 AV			1.00 H	358	54.00	43.90
3	#10400.00	57.4 PK	74.0	-16.6	1.25 H	69	6.50	50.90
4	#10400.00	43.8 AV	54.0	-10.2	1.25 H	69	-7.10	50.90
5	15600.00	60.0 PK	74.0	-14.0	1.28 H	65	6.00	54.00
6	15600.00	46.8 AV	54.0	-7.2	1.28 H	65	-7.20	54.00
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	*5200.00	109.0 PK			1.23 V	360	65.10	43.90
2	*5200.00	99.2 AV			1.23 V	360	55.30	43.90
3	#10400.00	59.3 PK	74.0	-14.7	1.52 V	63	8.40	50.90
4	#10400.00	46.2 AV	54.0	-7.8	1.52 V	63	-4.70	50.90
5	15600.00	62.0 PK	74.0	-12.0	1.09 V	304	8.00	54.00
6	15600.00	48.0 AV	54.0	-6.0	1.09 V	304	-6.00	54.00

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 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Ted Chang

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	106.8 PK			1.00 H	0	62.80	44.00
2	*5240.00	96.1 AV			1.00 H	0	52.10	44.00
3	5350.00	59.7 PK	74.0	-14.3	1.17 H	309	15.60	44.10
4	5350.00	46.1 AV	54.0	-7.9	1.17 H	309	2.00	44.10
5	#10480.00	56.6 PK	74.0	-17.4	1.18 H	65	5.40	51.20
6	#10480.00	44.2 AV	54.0	-9.8	1.18 H	65	-7.00	51.20
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	*5240.00	108.3 PK			1.23 V	9	64.30	44.00
2	*5240.00	98.2 AV			1.23 V	9	54.20	44.00
3	5350.00	61.6 PK	74.0	-12.4	1.16 V	52	17.50	44.10
4	5350.00	48.9 AV	54.0	-5.1	1.16 V	52	4.80	44.10
5	#10480.00	59.6 PK	74.0	-14.4	1.52 V	32	8.40	51.20
6	#10480.00	46.4 AV	54.0	-7.6	1.52 V	32	-4.80	51.20

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.

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	Ted Chang

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	57.8 PK	74.0	-16.2	1.05 H	357	14.00	43.80
2	5150.00	45.8 AV	54.0	-8.2	1.05 H	357	2.00	43.80
3	*5180.00	106.0 PK			1.07 H	359	62.10	43.90
4	*5180.00	96.0 AV			1.07 H	359	52.10	43.90
5	#10360.00	55.9 PK	74.0	-18.1	1.12 H	256	5.00	50.90
6	#10360.00	45.0 AV	54.0	-9.0	1.12 H	256	-5.90	50.90
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	5150.00	59.6 PK	74.0	-14.4	1.12 V	9	15.80	43.80
2	5150.00	47.5 AV	54.0	-6.5	1.12 V	9	3.70	43.80
3	*5180.00	110.4 PK			1.12 V	9	66.50	43.90
4	*5180.00	100.0 AV			1.12 V	9	56.10	43.90
5	#10360.00	57.8 PK	74.0	-16.2	1.38 V	168	6.90	50.90
6	#10360.00	44.8 AV	54.0	-9.2	1.38 V	168	-6.10	50.90

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
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	Ted Chang

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	106.4 PK			1.02 H	341	62.50	43.90
2	*5200.00	96.2 AV			1.02 H	341	52.30	43.90
3	#10400.00	56.2 PK	74.0	-17.8	1.08 H	321	5.30	50.90
4	#10400.00	45.2 AV	54.0	-8.8	1.08 H	321	-5.70	50.90
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	*5200.00	110.8 PK			1.08 V	12	66.90	43.90
2	*5200.00	100.2 AV			1.08 V	12	56.30	43.90
3	#10400.00	58.2 PK	74.0	-15.8	1.42 V	178	7.30	50.90
4	#10400.00	45.2 AV	54.0	-8.8	1.42 V	178	-5.70	50.90

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
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	Ted Chang

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	106.2 PK			1.09 H	345	62.20	44.00
2	*5240.00	96.4 AV			1.09 H	345	52.40	44.00
3	5350.00	56.8 PK	74.0	-17.2	1.05 H	347	12.70	44.10
4	5350.00	45.6 AV	54.0	-8.4	1.05 H	347	1.50	44.10
5	#10480.00	55.4 PK	74.0	-18.6	1.15 H	248	4.20	51.20
6	#10480.00	44.2 AV	54.0	-9.8	1.15 H	248	-7.00	51.20
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	*5240.00	110.6 PK			1.08 V	12	66.60	44.00
2	*5240.00	100.3 AV			1.08 V	12	56.30	44.00
3	5350.00	58.4 PK	74.0	-15.6	1.08 V	15	14.30	44.10
4	5350.00	48.2 AV	54.0	-5.8	1.08 V	15	4.10	44.10
5	#10480.00	57.2 PK	74.0	-16.8	1.32 V	158	6.00	51.20
6	#10480.00	45.2 AV	54.0	-8.8	1.32 V	158	-6.00	51.20

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.

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	Ted Chang

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	60.2 PK	74.0	-13.8	1.02 H	341	16.40	43.80
2	5150.00	46.2 AV	54.0	-7.8	1.02 H	341	2.40	43.80
3	*5190.00	102.1 PK			1.02 H	348	58.20	43.90
4	*5190.00	92.0 AV			1.02 H	348	48.10	43.90
5	#10380.00	55.2 PK	74.0	-18.8	1.15 H	296	4.30	50.90
6	#10380.00	44.2 AV	54.0	-9.8	1.15 H	296	-6.70	50.90
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	5150.00	69.2 PK	74.0	-4.8	1.22 V	16	25.40	43.80
2	**5150.00**	**53.0 AV**	**54.0**	**-1.0**	**1.22 V**	**16**	**9.20**	**43.80**
3	*5190.00	106.5 PK			1.18 V	28	62.60	43.90
4	*5190.00	97.0 AV			1.18 V	28	53.10	43.90
5	#10380.00	56.6 PK	74.0	-17.4	1.42 V	152	5.70	50.90
6	#10380.00	44.9 AV	54.0	-9.1	1.42 V	152	-6.00	50.90

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
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	Ted Chang

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			1.04 H	322	61.70	43.90
2	*5230.00	95.2 AV			1.04 H	322	51.30	43.90
3	5350.00	57.2 PK	74.0	-16.8	1.08 H	317	13.10	44.10
4	5350.00	47.5 AV	54.0	-6.5	1.08 H	317	3.40	44.10
5	#10460.00	54.6 PK	74.0	-19.4	1.18 H	304	3.50	51.10
6	#10460.00	43.8 AV	54.0	-10.2	1.18 H	304	-7.30	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	*5230.00	109.8 PK			1.21 V	18	65.90	43.90
2	*5230.00	100.4 AV			1.21 V	18	56.50	43.90
3	5350.00	58.9 PK	74.0	-15.1	1.18 V	12	14.80	44.10
4	5350.00	47.9 AV	54.0	-6.1	1.18 V	12	3.80	44.10
5	#10460.00	57.8 PK	74.0	-16.2	1.39 V	147	6.70	51.10
6	#10460.00	45.2 AV	54.0	-8.8	1.39 V	147	-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.

BELOW 1GHz WORST-CASE DATA：

TEST MODE A

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Chris Lin

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	177.67	37.4 QP	43.5	-6.1	1.24 H	196	24.50	12.90
2	239.88	37.9 QP	46.0	-8.1	1.00 H	176	25.30	12.60
3	300.16	44.9 QP	46.0	-1.1	1.00 H	166	29.90	15.00
4	335.15	38.8 QP	46.0	-7.2	1.00 H	166	22.90	15.90
5	667.63	40.1 QP	46.0	-5.9	1.00 H	136	17.40	22.70
6	700.68	44.6 QP	46.0	-1.4	1.24 H	192	21.60	23.00
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	99.89	31.4 QP	43.5	-12.1	1.24 V	84	22.00	9.40
2	166.00	29.9 QP	43.5	-13.6	1.00 V	67	16.10	13.80
3	239.88	29.8 QP	46.0	-16.2	1.00 V	115	17.20	12.60
4	298.21	39.0 QP	46.0	-7.0	1.24 V	94	24.10	14.90
5	432.37	30.5 QP	46.0	-15.5	1.00 V	140	12.20	18.30
6	700.68	35.6 QP	46.0	-10.4	1.24 V	225	12.60	23.00

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.

TEST MODE B

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Chris Lin

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	99.84	31.5 QP	43.5	-12.0	1.99 H	198	2.90	28.60
2	165.80	26.6 QP	43.5	-16.9	1.24 H	357	-2.00	28.60
3	224.00	31.5 QP	46.0	-14.5	1.00 H	268	2.90	28.60
4	297.72	20.7 QP	46.0	-25.3	1.00 H	263	-7.90	28.60
5	493.66	17.8 QP	46.0	-28.2	1.49 H	232	-10.80	28.60
6	701.24	24.2 QP	46.0	-21.8	1.99 H	339	-4.40	28.60
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	99.84	28.8 QP	43.5	-14.7	1.00 V	239	0.20	28.60
2	229.82	26.8 QP	46.0	-19.2	1.00 V	91	-1.80	28.60
3	365.62	17.8 QP	46.0	-28.2	1.25 V	192	-10.80	28.60
4	480.08	19.3 QP	46.0	-26.7	1.00 V	165	-9.30	28.60
5	701.24	23.0 QP	46.0	-23.0	1.00 V	258	-5.60	28.60
6	840.92	21.9 QP	46.0	-24.1	1.00 V	289	-6.70	28.60

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 C

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Chris Lin

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	82.38	33.0 QP	40.0	-7.0	1.24 H	306	24.20	8.80
2	165.80	31.1 QP	43.5	-12.4	1.00 H	59	17.80	13.30
3	239.52	32.3 QP	46.0	-13.7	1.50 H	83	20.00	12.30
4	297.72	30.6 QP	46.0	-15.4	1.24 H	173	16.20	14.40
5	701.24	38.7 QP	46.0	-7.3	1.50 H	18	15.00	23.70
6	840.92	31.6 QP	46.0	-14.4	1.00 H	6	5.60	26.00
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	99.84	32.8 QP	43.5	-10.7	1.24 V	72	23.00	9.80
2	165.80	29.2 QP	43.5	-14.3	1.00 V	127	15.90	13.30
3	239.52	24.4 QP	46.0	-21.6	1.00 V	7	12.10	12.30
4	336.52	27.2 QP	46.0	-18.8	1.50 V	58	11.70	15.50
5	701.24	36.0 QP	46.0	-10.0	1.00 V	110	12.30	23.70
6	840.92	34.4 QP	46.0	-11.6	1.50 V	119	8.40	26.00

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

TEST MODE D

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Chris Lin

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	64.92	31.0 QP	40.0	-9.0	1.49 H	179	19.10	11.90
2	99.84	36.2 QP	43.5	-7.3	1.99 H	194	26.40	9.80
3	144.46	34.7 QP	43.5	-8.8	1.99 H	90	21.40	13.30
4	299.66	31.6 QP	46.0	-14.4	1.00 H	23	17.10	14.50
5	497.54	33.1 QP	46.0	-12.9	1.99 H	331	13.30	19.80
6	701.24	39.0 QP	46.0	-7.0	1.00 H	158	15.30	23.70
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	62.98	27.7 QP	40.0	-12.3	1.25 V	62	15.60	12.10
2	99.84	32.9 QP	43.5	-10.6	2.00 V	93	23.10	9.80
3	144.46	33.0 QP	43.5	-10.5	1.00 V	130	19.70	13.30
4	297.72	27.0 QP	46.0	-19.0	1.50 V	216	12.60	14.40
5	499.48	32.1 QP	46.0	-13.9	1.00 V	175	12.30	19.80
6	697.36	35.2 QP	46.0	-10.8	2.00 V	104	11.50	23.70

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 E

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Chris Lin

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	72.68	30.1 QP	40.0	-9.9	1.24 H	198	19.50	10.60
2	187.14	35.2 QP	43.5	-8.3	1.00 H	132	23.90	11.30
3	243.40	35.5 QP	46.0	-10.5	1.50 H	110	23.00	12.50
4	299.66	33.6 QP	46.0	-12.4	1.00 H	58	19.10	14.50
5	701.24	39.6 QP	46.0	-6.4	1.24 H	18	15.90	23.70
6	850.62	35.0 QP	46.0	-11.0	1.50 H	188	8.90	26.10
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	33.88	35.8 QP	40.0	-4.2	1.24 V	179	22.80	13.00
2	99.84	36.7 QP	43.5	-6.8	1.00 V	245	26.90	9.80
3	144.46	37.0 QP	43.5	-6.5	1.50 V	225	23.70	13.30
4	229.82	34.8 QP	46.0	-11.2	1.00 V	74	22.90	11.90
5	499.48	30.8 QP	46.0	-15.2	1.24 V	29	11.00	19.80
6	701.24	33.5 QP	46.0	-12.5	1.50 V	141	9.80	23.70

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

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

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

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

3. The VCCI Site Registration No. is C-2047.

4.2.3 TEST PROCEDURES

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.

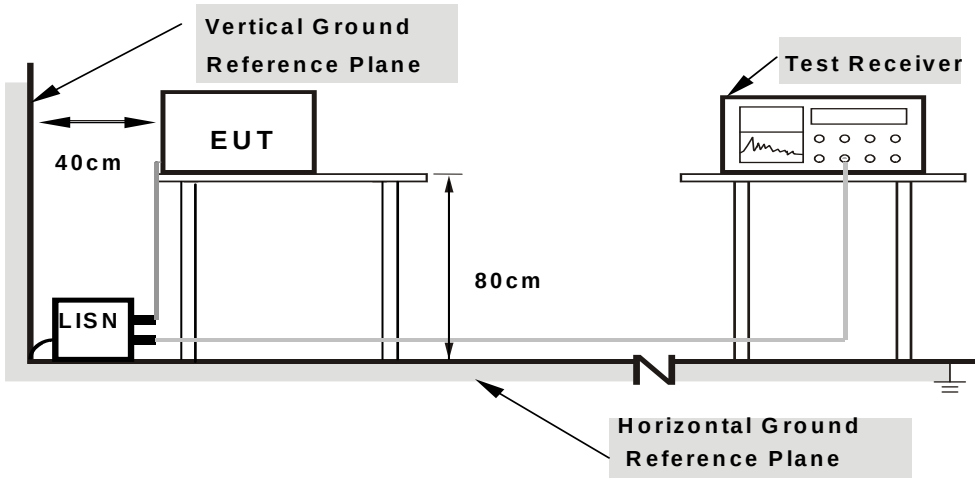
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

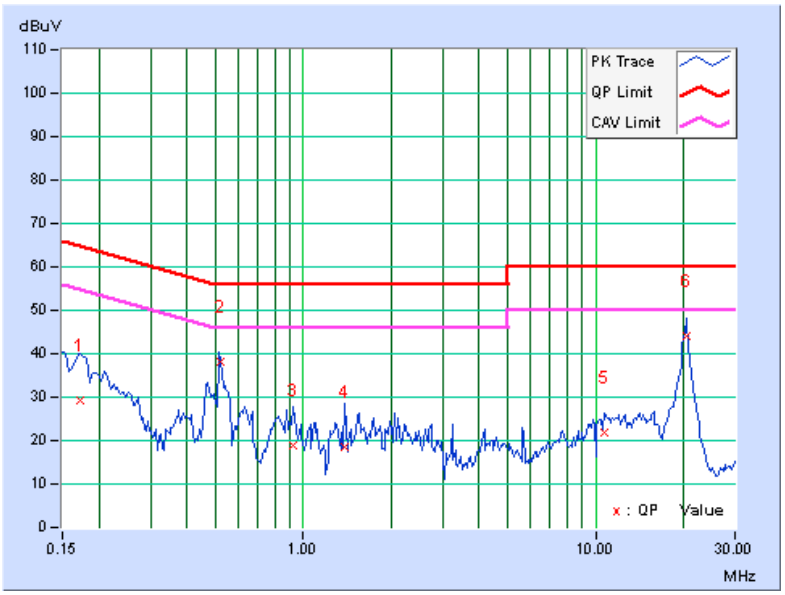
CONDUCTED WORST-CASE DATA：

TEST MODE A

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	0.17344	0.15	29.07	14.05	29.22	14.20	64.79	54.79	-35.57	-40.59
2	**0.51837**	**0.17**	**38.07**	**36.74**	**38.24**	**36.91**	**56.00**	**46.00**	**-17.76**	**-9.09**
3	0.92734	0.19	18.72	13.63	18.91	13.82	56.00	46.00	-37.09	-32.18
4	1.39453	0.22	18.47	13.32	18.69	13.54	56.00	46.00	-37.31	-32.46
5	10.68359	0.44	21.32	15.43	21.76	15.87	60.00	50.00	-38.24	-34.13
6	20.36719	0.63	43.39	38.92	44.02	39.55	60.00	50.00	-15.98	-10.45

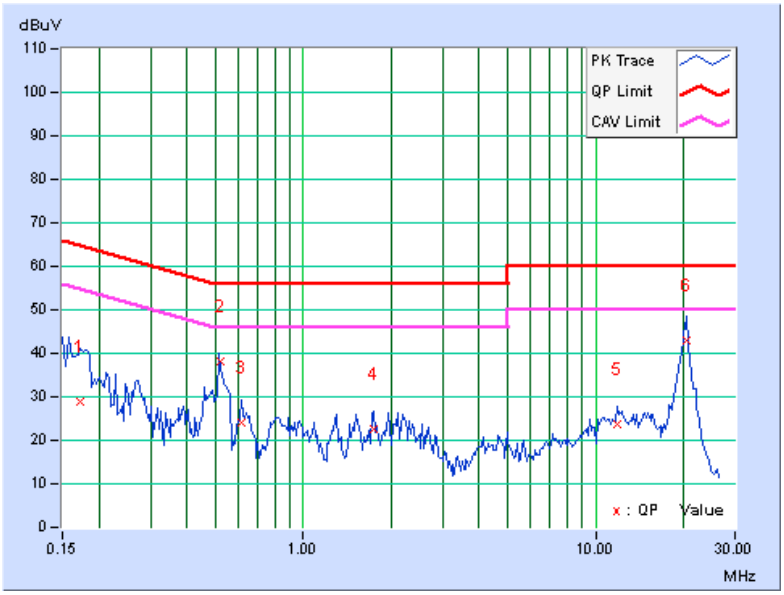
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading 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	0.17344	0.13	28.67	14.26	28.80	14.39	64.79	54.79	-35.99	-40.40
2	**0.51837**	**0.17**	**38.05**	**36.74**	**38.22**	**36.91**	**56.00**	**46.00**	**-17.78**	**-9.09**
3	0.61484	0.17	23.77	20.30	23.94	20.47	56.00	46.00	-32.06	-25.53
4	1.74609	0.24	22.46	18.48	22.70	18.72	56.00	46.00	-33.30	-27.28
5	11.90625	0.53	23.02	17.07	23.55	17.60	60.00	50.00	-36.45	-32.40
6	20.51172	0.71	42.38	37.34	43.09	38.05	60.00	50.00	-16.91	-11.95

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 B

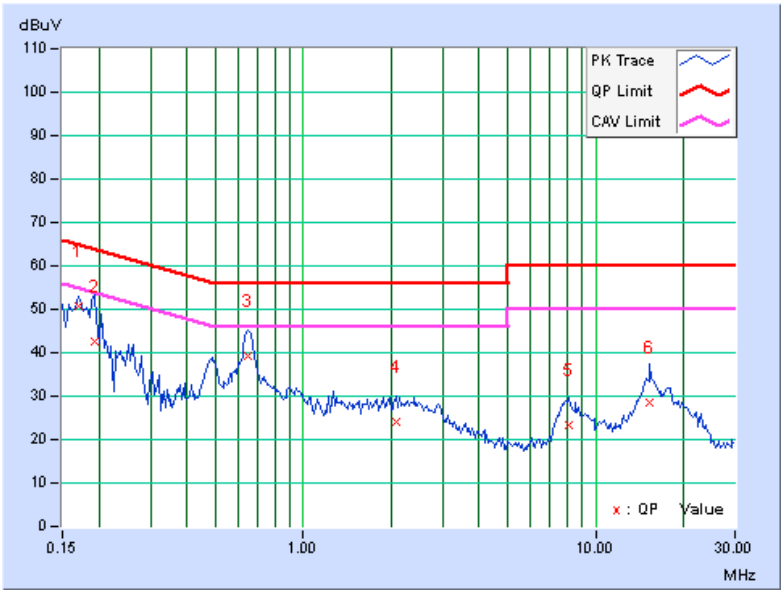
802.11a

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	0.16953	0.17	50.68	36.08	50.85	36.25	64.98	54.98	-14.13	-18.73
2	0.19297	0.17	42.31	27.01	42.48	27.18	63.91	53.91	-21.43	-26.73
3	0.65000	0.24	38.97	24.38	39.21	24.62	56.00	46.00	-16.79	-21.38
4	2.07422	0.28	23.80	17.83	24.08	18.11	56.00	46.00	-31.92	-27.89
5	8.11328	0.41	23.08	16.41	23.49	16.82	60.00	50.00	-36.51	-33.18
6	15.32813	0.54	28.00	22.60	28.54	23.14	60.00	50.00	-31.46	-26.86

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

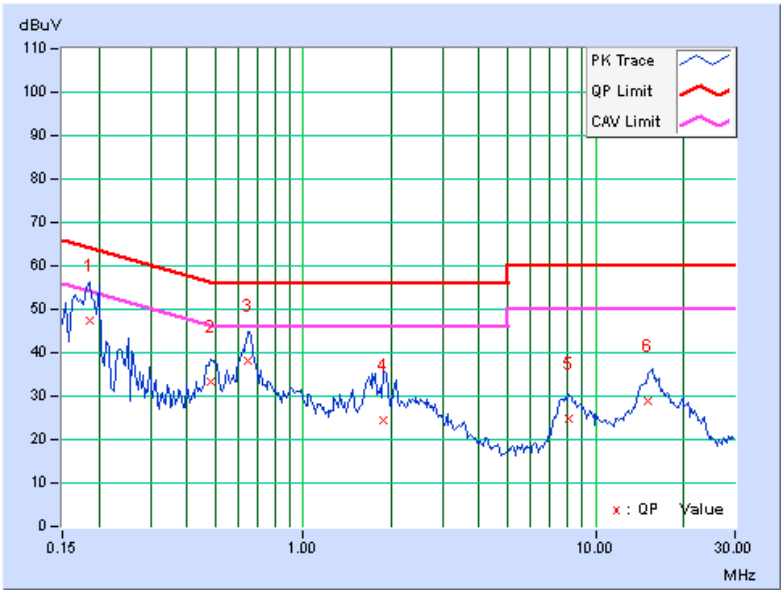


PHASE	Line 2	6dB BANDWIDTH	9kHz

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	0.18516	0.18	47.37	30.94	47.55	31.12	64.25	54.25	-16.70	-23.13
2	0.48203	0.25	33.02	24.45	33.27	24.70	56.30	46.30	-23.04	-21.61
3	0.65000	0.24	38.00	23.51	38.24	23.75	56.00	46.00	-17.76	-22.25
4	1.88672	0.27	24.25	17.25	24.52	17.52	56.00	46.00	-31.48	-28.48
5	8.05469	0.45	24.39	17.08	24.84	17.53	60.00	50.00	-35.16	-32.47
6	15.05469	0.61	28.15	23.01	28.76	23.62	60.00	50.00	-31.24	-26.38

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 C

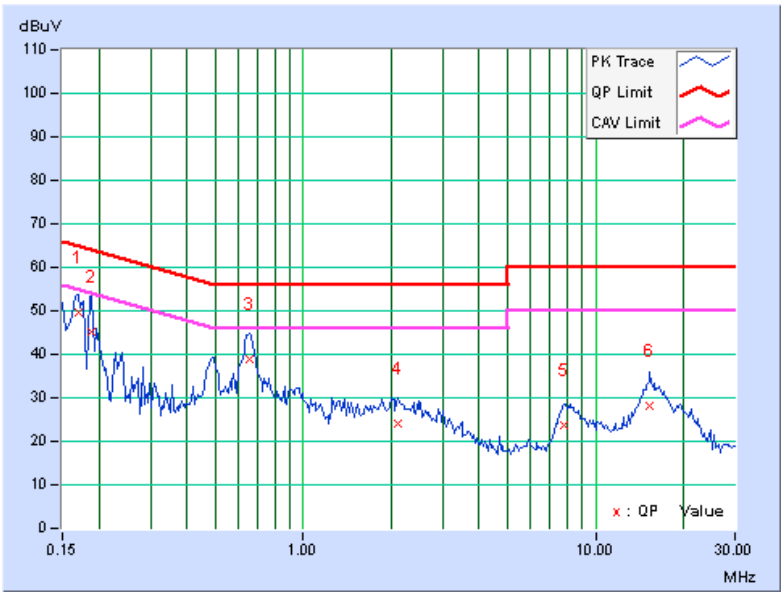
802.11a

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	0.16953	0.17	49.51	35.01	49.68	35.18	64.98	54.98	-15.30	-19.80
2	0.18906	0.17	44.91	26.13	45.08	26.30	64.08	54.08	-19.00	-27.78
3	0.65391	0.24	38.69	23.57	38.93	23.81	56.00	46.00	-17.07	-22.19
4	2.10156	0.28	23.86	17.84	24.14	18.12	56.00	46.00	-31.86	-27.88
5	7.77344	0.41	23.34	16.56	23.75	16.97	60.00	50.00	-36.25	-33.03
6	15.26953	0.54	27.72	22.55	28.26	23.09	60.00	50.00	-31.74	-26.91

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

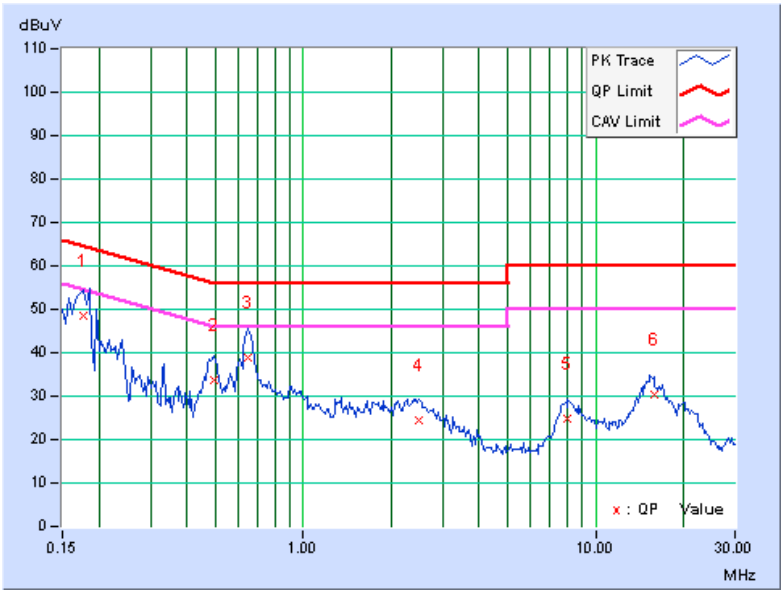


PHASE	Line 2	6dB BANDWIDTH	9kHz

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	0.17734	0.18	48.16	32.24	48.34	32.42	64.61	54.61	-16.27	-22.19
2	0.49375	0.25	33.31	25.45	33.56	25.70	56.10	46.10	-22.55	-20.41
3	0.64609	0.24	38.83	23.90	39.07	24.14	56.00	46.00	-16.93	-21.86
4	2.48828	0.31	24.27	18.30	24.58	18.61	56.00	46.00	-31.42	-27.39
5	8.03906	0.45	24.39	17.84	24.84	18.29	60.00	50.00	-35.16	-31.71
6	15.85547	0.63	29.60	24.94	30.23	25.57	60.00	50.00	-29.77	-24.43

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



TEST MODE D

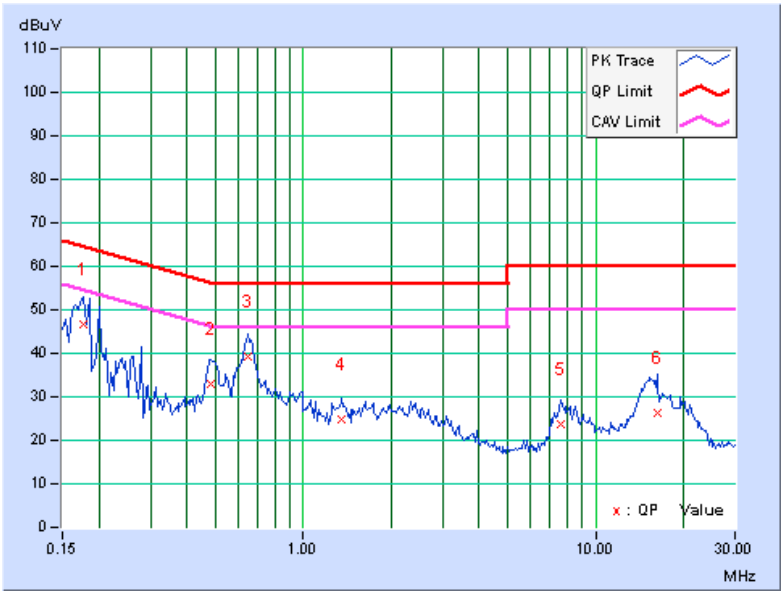
802.11a

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	0.17734	0.17	46.44	29.83	46.61	30.00	64.61	54.61	-18.00	-24.61
2	0.48203	0.22	32.70	24.38	32.92	24.60	56.30	46.30	-23.39	-21.71
3	0.64609	0.23	38.86	24.23	39.09	24.46	56.00	46.00	-16.91	-21.54
4	1.35547	0.27	24.55	18.54	24.82	18.81	56.00	46.00	-31.18	-27.19
5	7.58203	0.41	23.44	16.32	23.85	16.73	60.00	50.00	-36.15	-33.27
6	16.27734	0.56	25.66	20.28	26.22	20.84	60.00	50.00	-33.78	-29.16

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

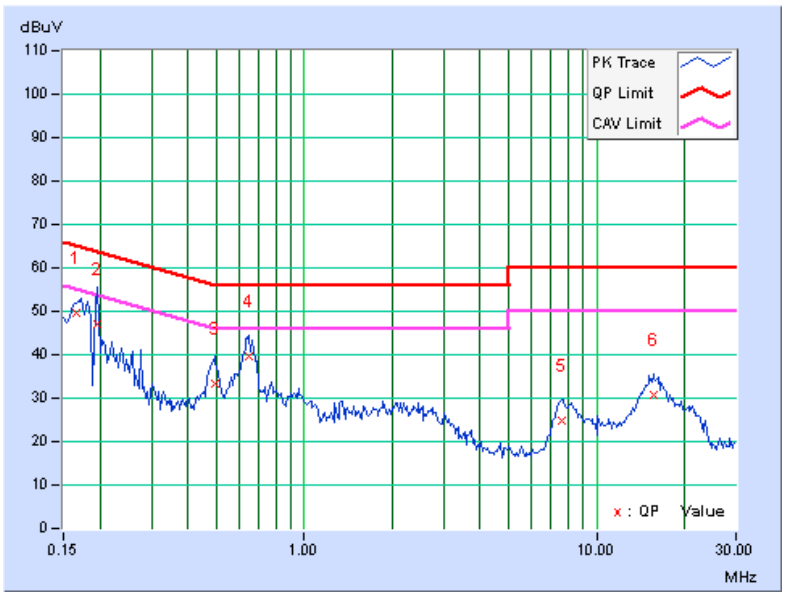


PHASE	Line 2	6dB BANDWIDTH	9kHz

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	0.16562	0.18	49.51	35.49	49.69	35.67	65.18	55.18	-15.48	-19.50
2	0.19687	0.18	46.86	25.95	47.04	26.13	63.74	53.74	-16.70	-27.61
3	0.49375	0.25	33.07	25.61	33.32	25.86	56.10	46.10	-22.79	-20.25
4	0.64609	0.24	39.45	24.67	39.69	24.91	56.00	46.00	-16.31	-21.09
5	7.59375	0.44	24.35	17.48	24.79	17.92	60.00	50.00	-35.21	-32.08
6	15.66797	0.62	29.95	25.08	30.57	25.70	60.00	50.00	-29.43	-24.30

REMARKS:

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



TEST MODE E

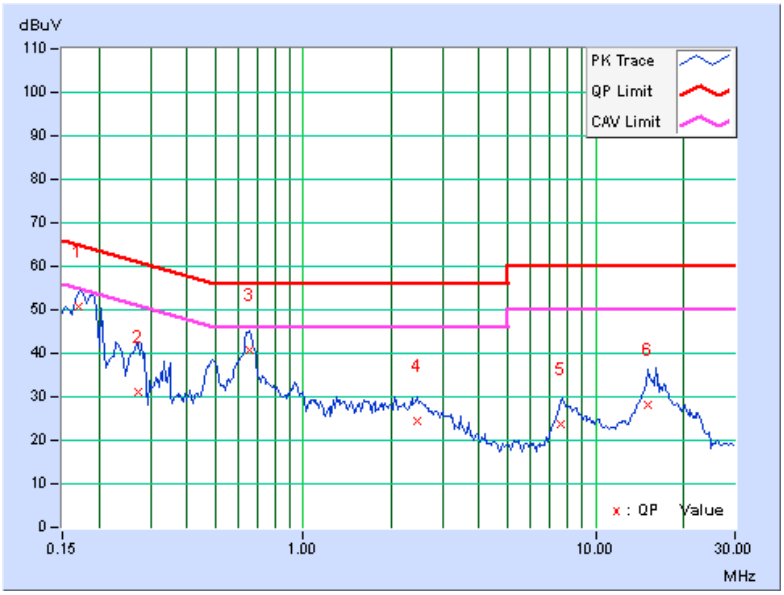
802.11a

PHASE	Line 1	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16953	0.17	50.72	35.72	50.89	35.89	64.98	54.98	-14.09	-19.09
2	0.27109	0.18	31.10	18.48	31.28	18.66	61.08	51.08	-29.80	-32.42
3	0.65781	0.24	40.64	25.38	40.88	25.62	56.00	46.00	-15.12	-20.38
4	2.44922	0.30	23.97	18.02	24.27	18.32	56.00	46.00	-31.73	-27.68
5	7.62500	0.41	23.30	15.92	23.71	16.33	60.00	50.00	-36.29	-33.67
6	15.19922	0.54	27.77	22.71	28.31	23.25	60.00	50.00	-31.69	-26.75

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

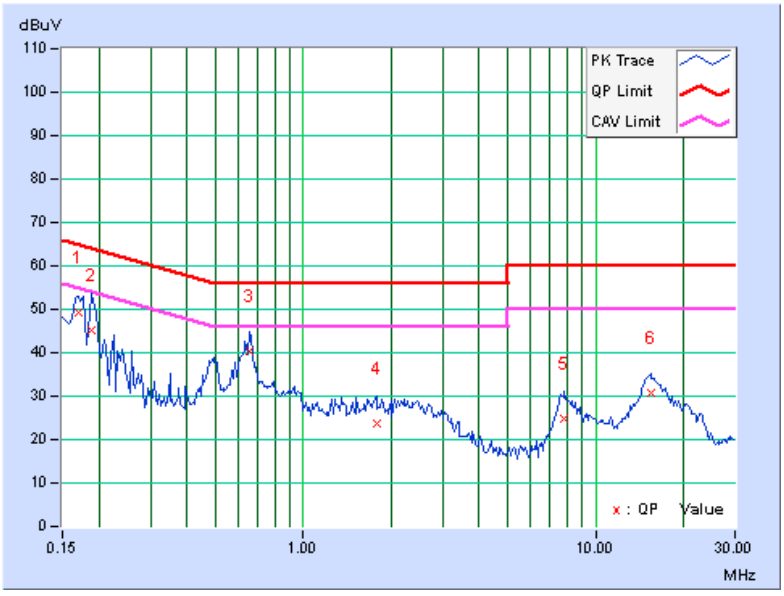


PHASE	Line 2	6dB BANDWIDTH	9kHz

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	0.16953	0.18	48.91	33.94	49.09	34.12	64.98	54.98	-15.89	-20.86
2	0.18906	0.18	44.91	25.77	45.09	25.95	64.08	54.08	-18.99	-28.13
3	0.65781	0.24	40.13	24.53	40.37	24.77	56.00	46.00	-15.63	-21.23
4	1.78125	0.27	23.54	16.80	23.81	17.07	56.00	46.00	-32.19	-28.93
5	7.84375	0.45	24.31	17.82	24.76	18.27	60.00	50.00	-35.24	-31.73
6	15.44531	0.62	30.20	25.13	30.82	25.75	60.00	50.00	-29.18	-24.25

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.

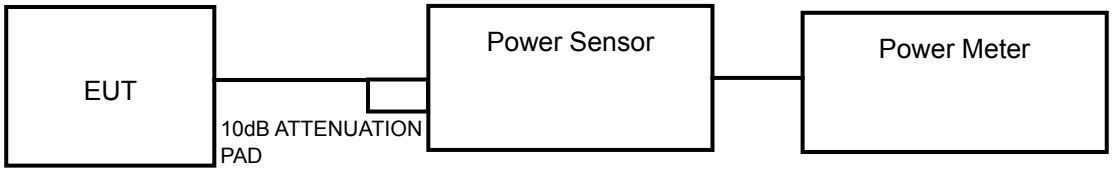
Per KDB 662911 D01 Multiple Transmitter Output v01r02 Method of conducted output power measurement on IEEE 802.11 devices,

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.

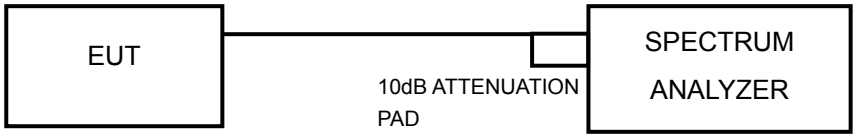
For power measurements on all other devices: Array Gain = 10 log(NANT/NSS) dB.

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 A

802.11a

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)			TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2				
36	5180	4.13	4.45	4.72	8.337	9.21	17	PASS
40	5200	4.02	4.3	4.32	7.925	8.99	17	PASS
48	5240	3.63	4.1	3.85	7.311	8.64	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	CHAIN 2				
36	5180	4.38	4.67	4.95	8.790	9.44	17	PASS
40	5200	4.07	4.59	4.51	8.260	9.17	17	PASS
48	5240	4.01	4.47	4.79	8.337	9.21	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	CHAIN 2				
38	5190	7.20	7.23	7.33	15.922	12.02	17	PASS
46	5230	7.26	7.43	7.40	**16.368**	12.14	17	PASS

TEST MODE B

802.11a

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)			TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2				
36	5180	7.60	8.10	6.70	16.888	12.28	17	PASS
40	5200	8.00	8.30	7.30	18.441	12.66	17	PASS
48	5240	8.00	8.30	7.80	19.097	12.81	17	PASS

NOTE: Antenna 1 gain = 11.5-6 (internal attenuator) = 5.5dBi

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	CHAIN 2				
36	5180	7.50	7.80	6.80	16.435	12.16	17	PASS
40	5200	8.10	8.40	7.10	18.504	12.67	17	PASS
48	5240	7.90	8.20	7.70	18.661	12.71	17	PASS

NOTE: Antenna 1 gain = 11.5-6 (internal attenuator) = 5.5dBi

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	CHAIN 2				
38	5190	10.47	10.52	10.51	33.661	15.27	17	PASS
46	5230	10.63	11.14	11.23	**37.837**	15.78	17	PASS

NOTE: Antenna 1 gain = 11.5-6 (internal attenuator) = 5.5dBi

TEST MODE C

802.11a

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)			TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2				
36	5180	7.20	7.60	6.30	15.268	11.84	17	PASS
40	5200	7.60	8.00	6.80	16.850	12.27	17	PASS
48	5240	7.60	8.10	7.30	17.581	12.45	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	CHAIN 2				
36	5180	7.00	7.30	6.20	14.551	11.63	17	PASS
40	5200	7.60	8.00	6.60	16.635	12.21	17	PASS
48	5240	7.40	8.00	7.00	16.817	12.26	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	CHAIN 2				
38	5190	10.13	10.56	10.43	32.721	15.15	17	PASS
46	5230	10.24	10.65	10.47	**33.325**	15.23	17	PASS

TEST MODE D

802.11a

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)			TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2				
36	5180	10.90	11.40	11.30	39.597	15.98	17	PASS
40	5200	11.60	12.10	11.80	45.808	16.61	17	PASS
48	5240	11.61	12.09	12.39	48.007	**16.81**	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	CHAIN 2				
36	5180	10.90	11.40	11.30	39.597	15.98	17	PASS
40	5200	11.08	11.83	11.32	41.616	16.19	17	PASS
48	5240	11.60	11.96	12.40	47.536	16.77	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	CHAIN 2				
38	5190	11.03	11.87	11.35	41.705	16.20	17	PASS
46	5230	11.25	12.05	12.21	46.001	16.63	17	PASS

TEST MODE E

802.11a

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)			TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2				
36	5180	7.90	8.50	7.20	18.493	12.67	17	PASS
40	5200	8.40	8.80	7.80	20.530	13.12	17	PASS
48	5240	8.50	8.70	8.40	21.410	13.31	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	CHAIN 2				
36	5180	8.20	8.30	7.30	18.738	12.73	17	PASS
40	5200	8.40	9.00	7.60	20.615	13.14	17	PASS
48	5240	8.40	8.70	8.20	20.938	13.21	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	CHAIN 2				
38	5190	10.47	10.52	10.51	33.661	15.27	17	PASS
46	5230	11.25	12.05	12.21	**46.001**	16.63	17	PASS

26dB BANDWIDTH:

TEST MODE A

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
36	5180	23.16	22.32	22.32	PASS
40	5200	23.34	22.42	22.31	PASS
48	5240	23.77	22.45	21.85	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
36	5180	23.43	23.29	23.44	PASS
40	5200	23.36	23.77	23.16	PASS
48	5240	23.40	23.84	23.55	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
38	5190	50.54	48.46	48.18	PASS
46	5230	50.49	48.33	48.52	PASS

TEST MODE B

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
36	5180	19.91	19.72	19.60	PASS
40	5200	20.11	19.27	19.42	PASS
48	5240	19.62	19.54	19.37	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
36	5180	20.65	20.91	19.97	PASS
40	5200	20.60	20.26	20.15	PASS
48	5240	20.64	20.27	20.23	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
38	5190	48.12	46.80	48.51	PASS
46	5230	49.12	47.47	46.92	PASS

TEST MODE C

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
36	5180	19.90	19.06	19.14	PASS
40	5200	19.97	19.43	19.91	PASS
48	5240	19.71	19.79	19.40	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
36	5180	20.42	20.61	20.78	PASS
40	5200	20.55	20.46	20.55	PASS
48	5240	20.58	20.26	20.14	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
38	5190	47.44	45.86	47.01	PASS
46	5230	48.37	47.07	46.90	PASS

TEST MODE D

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
36	5180	19.76	19.83	19.46	PASS
40	5200	20.04	19.31	20.00	PASS
48	5240	19.39	19.27	19.14	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
36	5180	21.44	20.61	20.37	PASS
40	5200	20.69	20.38	20.33	PASS
48	5240	20.71	20.48	20.21	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
38	5190	51.90	47.38	47.10	PASS
46	5230	48.96	47.25	48.13	PASS

TEST MODE E

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
36	5180	19.72	19.53	19.33	PASS
40	5200	20.15	19.46	19.03	PASS
48	5240	19.69	19.49	19.34	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
36	5180	20.93	20.70	20.29	PASS
40	5200	20.74	20.73	20.09	PASS
48	5240	20.63	20.76	20.42	PASS

802.11n (40MHz)

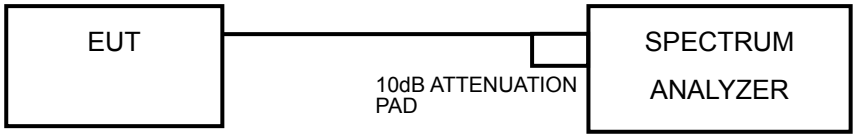
CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
38	5190	47.97	46.55	46.39	PASS
46	5230	50.75	47.79	47.86	PASS

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-2

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

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 A

802.11a

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)			TOTAL PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2					
36	5180	-7.50	-7.65	-7.66	-2.83	0.14	-2.69	2.23	PASS
40	5200	-7.34	-7.70	-7.63	-2.78	0.14	-2.64	2.23	PASS
48	5240	-7.21	-7.34	-7.38	-2.54	0.14	-2.40	2.23	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 = 3dBi + 10log(3) = 7.77dBi > 6dBi , so the limit shall be reduced to 4-(7.77-6) = 2.23dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)			TOTAL PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2					
36	5180	-7.64	-7.26	-7.49	-2.69	0.12	-2.57	2.23	PASS
40	5200	-7.70	-7.61	-7.44	-2.81	0.12	-2.69	2.23	PASS
48	5240	-7.68	-7.61	-7.58	-2.85	0.12	-2.73	2.23	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 = 3dBi + 10log(3) = 7.77dBi > 6dBi , so the limit shall be reduced to 4-(7.77-6) = 2.23dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)			TOTAL PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2					
38	5190	-8.63	-8.59	-8.31	-3.74	0.19	-3.55	2.23	PASS
46	5230	-8.46	-8.67	-8.28	-3.70	0.19	-3.51	2.23	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 = 3dBi + 10log(3) = 7.77dBi > 6dBi , so the limit shall be reduced to 4-(7.77-6) = 2.23dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

TEST MODE B

802.11a

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)			TOTAL PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2					
36	5180	-5.26	-5.35	-5.54	-0.61	0.15	-0.46	-0.27	PASS
40	5200	-5.11	-5.17	-5.56	-0.50	0.15	-0.35	-0.27	PASS
48	5240	-5.44	-5.21	-5.43	-0.59	0.15	-0.44	-0.27	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 = 5.5dBi + 10log(3) = 10.27dBi > 6dBi , so the power density limit shall be reduced to 4-(10.27-6) = -0.27dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)			TOTAL PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2					
36	5180	-5.28	-5.33	-5.77	-0.68	0.15	-0.53	-0.27	PASS
40	5200	-5.29	-5.45	-5.71	-0.71	0.15	-0.56	-0.27	PASS
48	5240	-5.24	-5.24	-5.25	-0.47	0.15	-0.32	-0.27	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 = 5.5dBi + 10log(3) = 10.27dBi > 6dBi , so the power density limit shall be reduced to 4-(10.27-6) = -0.27dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)			TOTAL PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2					
38	5190	-5.29	-5.19	-5.54	-0.57	0.22	-0.35	-0.27	PASS
46	5230	-5.35	-5.22	-5.53	-0.59	0.22	-0.37	-0.27	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 = 5.5dBi + 10log(3) = 10.27dBi > 6dBi , so the power density limit shall be reduced to 4-(10.27-6) = -0.27dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

TEST MODE C

802.11a

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)			TOTAL PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2					
36	5180	-5.64	-5.77	-5.71	-0.94	0.15	-0.79	-0.77	PASS
40	5200	-5.71	-5.73	-5.76	-0.96	0.15	-0.81	-0.77	PASS
48	5240	-5.85	-5.63	-6.01	-1.06	0.15	-0.91	-0.77	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 = 6dBi + 10log(3) = 10.77dBi > 6dBi , so the power density limit shall be reduced to 4-(10.77-6) = -0.77dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)			TOTAL PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2					
36	5180	-5.76	-5.70	-5.89	-1.01	0.16	-0.85	-0.77	PASS
40	5200	-5.86	-5.90	-5.77	-1.07	0.16	-0.91	-0.77	PASS
48	5240	-5.74	-5.80	-5.70	-0.98	0.16	-0.82	-0.77	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 = 6dBi + 10log(3) = 10.77dBi > 6dBi , so the power density limit shall be reduced to 4-(10.77-6) = -0.77dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)			TOTAL PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2					
38	5190	-5.91	-6.04	-5.76	-1.13	0.22	-0.91	-0.77	PASS
46	5230	-5.84	-5.96	-5.59	-1.02	0.22	-0.80	-0.77	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 = 6dBi + 10log(3) = 10.77dBi > 6dBi , so the power density limit shall be reduced to 4-(10.77-6) = -0.77dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

TEST MODE D

802.11a

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)			TOTAL PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2					
36	5180	-2.17	-1.58	-2.19	2.80	0.15	2.95	3.23	PASS
40	5200	-2.17	-1.62	-1.97	2.86	0.15	3.01	3.23	PASS
48	5240	-2.21	-1.47	-1.64	3.01	0.15	3.16	3.23	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 = 2dBi + 10log(3) = 6.77dBi > 6dBi , so the power density limit shall be reduced to 4-(6.77-6) = 3.23dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)			TOTAL PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2					
36	5180	-2.50	-2.03	-2.36	2.48	0.15	2.63	3.23	PASS
40	5200	-2.48	-1.74	-2.05	2.69	0.15	2.84	3.23	PASS
48	5240	-2.44	-1.77	-1.65	2.83	0.15	2.98	3.23	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 = 2dBi + 10log(3) = 6.77dBi > 6dBi , so the power density limit shall be reduced to 4-(6.77-6) = 3.23dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)			TOTAL PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2					
38	5190	-4.89	-4.37	-4.74	0.11	0.23	0.34	3.23	PASS
46	5230	-4.73	-4.51	-4.39	0.23	0.23	0.46	3.23	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 = 2dBi + 10log(3) = 6.77dBi > 6dBi , so the power density limit shall be reduced to 4-(6.77-6) = 3.23dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

TEST MODE E

802.11a

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)			TOTAL PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2					
36	5180	-4.71	-4.79	-5.16	-0.11	0.14	0.03	0.23	PASS
40	5200	-4.66	-4.66	-5.16	-0.05	0.14	0.09	0.23	PASS
48	5240	-4.86	-4.66	-5.13	-0.11	0.14	0.03	0.23	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 = 5dBi + 10log(3) = 9.77dBi > 6dBi , so the power density limit shall be reduced to 4-(9.77-6) = 0.23dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)			TOTAL PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2					
36	5180	-5.43	-4.58	-5.45	0.43	0.16	-0.20	0.23	PASS
40	5200	-5.13	-4.91	-5.37	0.43	0.16	-0.20	0.23	PASS
48	5240	-4.91	-4.69	-4.85	0.11	0.16	0.12	0.23	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 = 5dBi + 10log(3) = 9.77dBi > 6dBi , so the power density limit shall be reduced to 4-(9.77-6) = 0.23dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)			TOTAL PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2					
38	5190	-5.31	-5.31	-5.37	0.57	0.22	-0.34	0.23	PASS
46	5230	-4.79	-4.80	-4.95	0.08	0.22	0.15	0.23	PASS

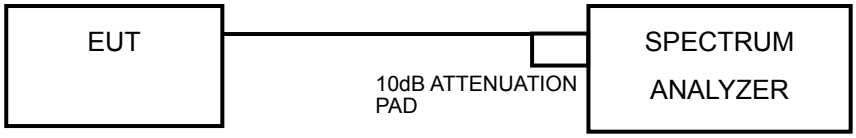
NOTE:
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 5dBi + 10log(3) = 9.77dBi > 6dBi , so the power density limit shall be reduced to 4-(9.77-6) = 0.23dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

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.

4.5.5 DEVIATION FROM TEST STANDARD

No deviation.

4.5.6 EUT OPERATING CONDITIONS

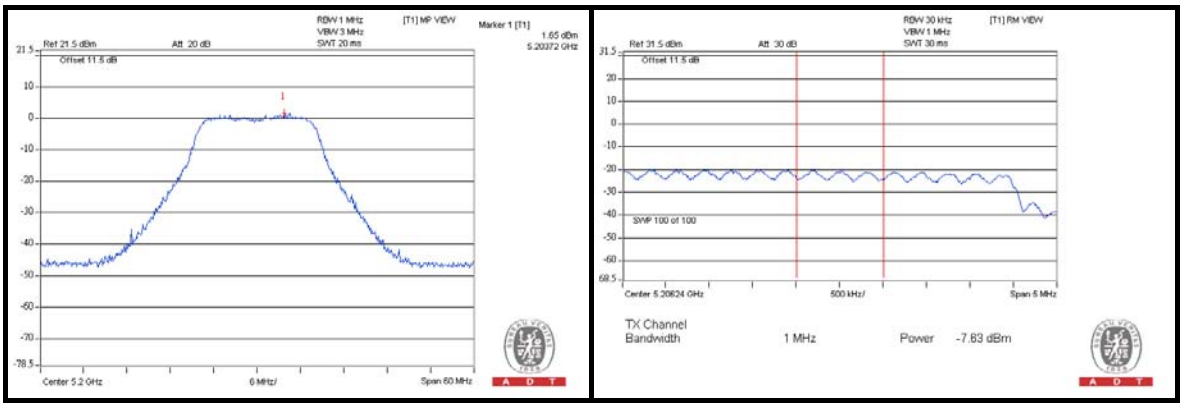
Same as 4.2.6

4.5.7 TEST RESULTS

TEST MODE A

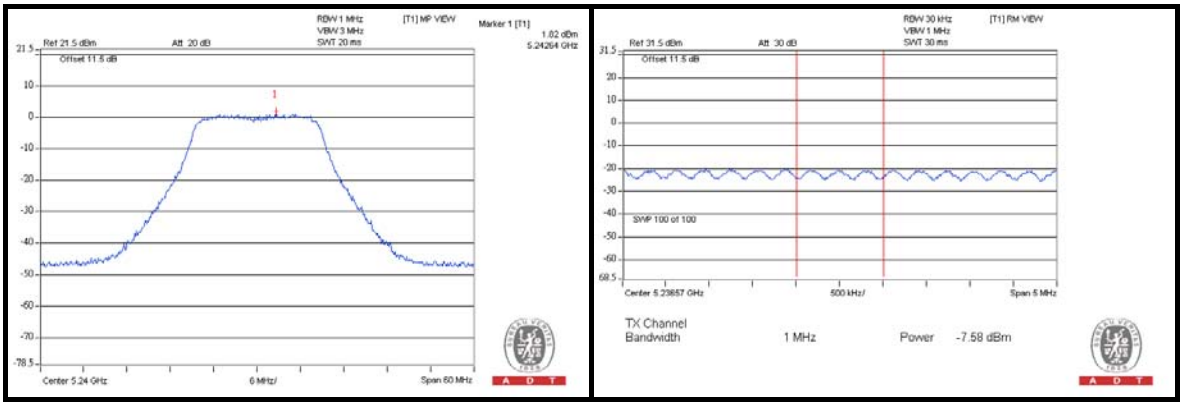
802.11a

CHAN.	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)			PPSD WITHOUT DUTY FACTOR (dBm)			PPSD WITH DUTY FACTOR (dBm)			PEAK EXCURSION (dB)			LIMIT (dB)	PASS/ FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2		
36	5180	1.27	1.34	0.91	-7.50	-7.65	-7.66	-7.36	-7.51	-7.52	8.63	8.85	8.43	13	PASS
40	5200	0.93	1.32	1.65	-7.34	-7.70	-7.63	-7.20	-7.56	-7.49	8.13	8.88	9.14	13	PASS
48	5240	1.97	1.64	1.31	-7.21	-7.34	-7.38	-7.07	-7.20	-7.24	9.04	8.84	8.55	13	PASS



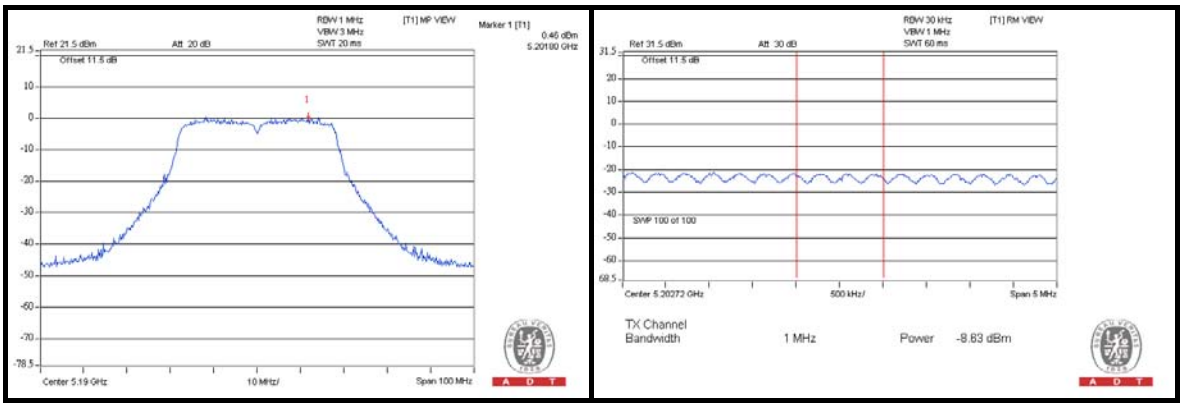
802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)			PPSD WITHOUT DUTY FACTOR (dBm)			PPSD WITH DUTY FACTOR (dBm)			PEAK EXCURSION (dB)			LIMIT (dB)	PASS/ FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2		
36	5180	1.19	1.33	0.88	-7.64	-7.26	-7.49	-7.52	-7.14	-7.37	8.71	8.47	8.25	13	PASS
40	5200	0.87	0.95	1.36	-7.70	-7.61	-7.44	-7.58	-7.49	-7.32	8.45	8.44	8.68	13	PASS
48	5240	1.40	1.15	1.82	-7.68	-7.61	-7.58	-7.56	-7.49	-7.46	8.96	8.64	9.28	13	PASS



802.11n (40MHz)

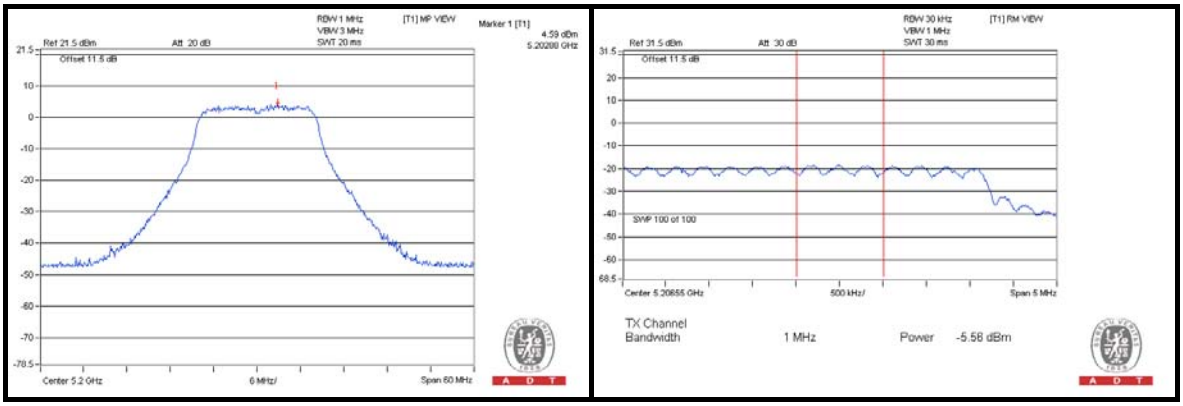
CHAN.	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)			PPSD WITHOUT DUTY FACTOR (dBm)			PPSD WITH DUTY FACTOR (dBm)			PEAK EXCURSION (dB)			LIMIT (dB)	PASS/ FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2		
38	5190	0.46	0.07	0.41	-8.63	-8.59	-8.31	-8.44	-8.40	-8.12	8.90	8.47	8.53	13	PASS
46	5230	0.32	0.33	0.76	-8.46	-8.67	-8.28	-8.27	-8.48	-8.09	8.59	8.81	8.85	13	PASS



TEST MODE B

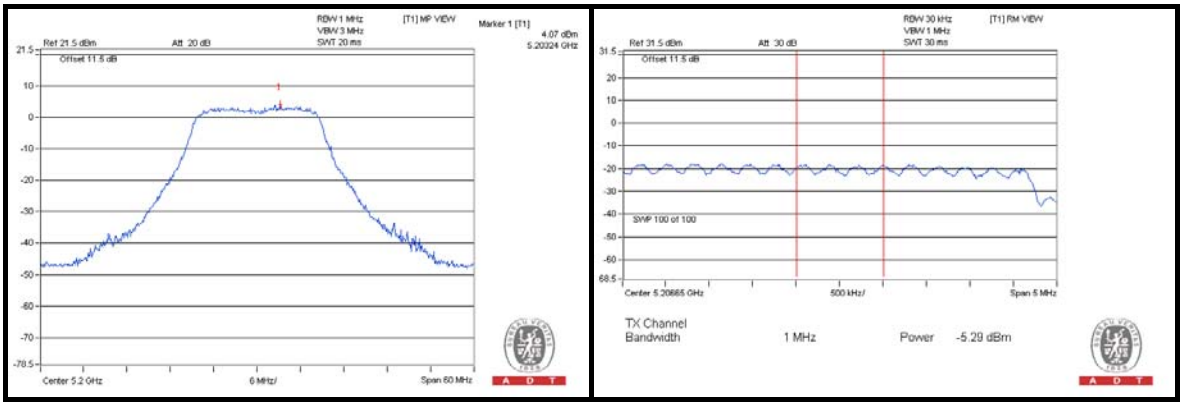
802.11a

CHAN.	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)			PPSD WITHOUT DUTY FACTOR (dBm)			PPSD WITH DUTY FACTOR (dBm)			PEAK EXCURSION (dB)			LIMIT (dB)	PASS/ FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2		
36	5180	3.69	3.97	4.00	-5.26	-5.35	-5.54	-5.11	-5.20	-5.39	8.80	9.17	9.39	13	PASS
40	5200	3.35	3.86	4.59	-5.11	-5.17	-5.56	-4.96	-5.02	-5.41	8.31	8.88	10.00	13	PASS
48	5240	3.72	3.98	4.45	-5.44	-5.21	-5.43	-5.29	-5.06	-5.28	9.01	9.04	9.73	13	PASS



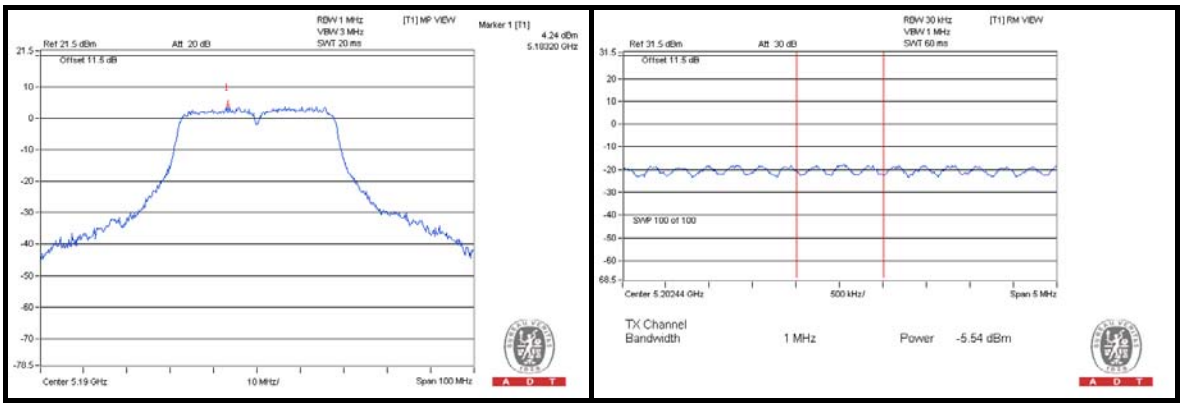
802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)			PPSD WITHOUT DUTY FACTOR (dBm)			PPSD WITH DUTY FACTOR (dBm)			PEAK EXCURSION (dB)			LIMIT (dB)	PASS/ FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2		
36	5180	3.59	3.27	3.15	-5.28	-5.33	-5.77	-5.13	-5.18	-5.62	8.72	8.45	8.77	13	PASS
40	5200	4.07	3.52	3.30	-5.29	-5.45	-5.71	-5.14	-5.30	-5.56	9.21	8.82	8.86	13	PASS
48	5240	3.75	3.56	3.99	-5.24	-5.24	-5.25	-5.09	-5.09	-5.10	8.84	8.65	9.09	13	PASS



802.11n (40MHz)

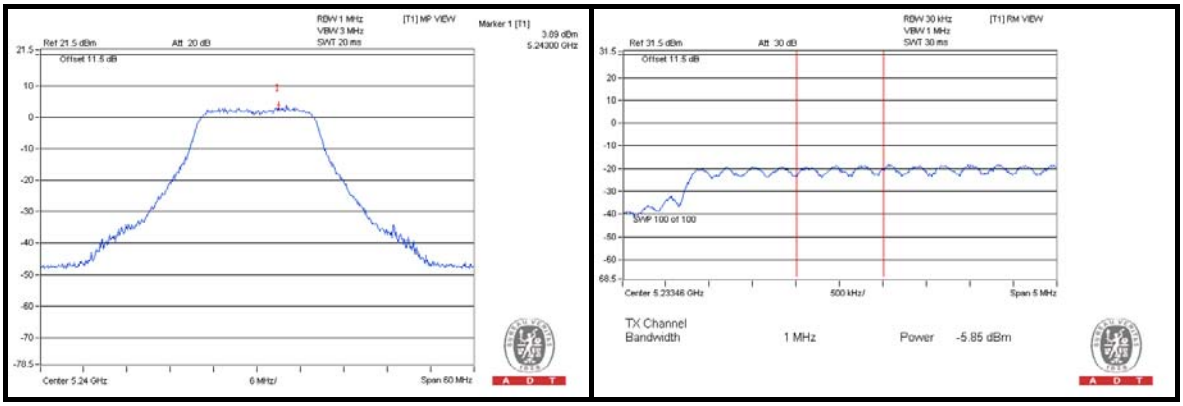
CHAN.	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)			PPSD WITHOUT DUTY FACTOR (dBm)			PPSD WITH DUTY FACTOR (dBm)			PEAK EXCURSION (dB)			LIMIT (dB)	PASS/ FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2		
38	5190	3.79	4.02	4.24	-5.29	-5.19	-5.54	-5.07	-4.97	-5.32	8.86	8.99	9.56	13	PASS
46	5230	4.30	4.50	3.91	-5.35	-5.22	-5.53	-5.13	-5.00	-5.31	9.43	9.50	9.22	13	PASS



TEST MODE C

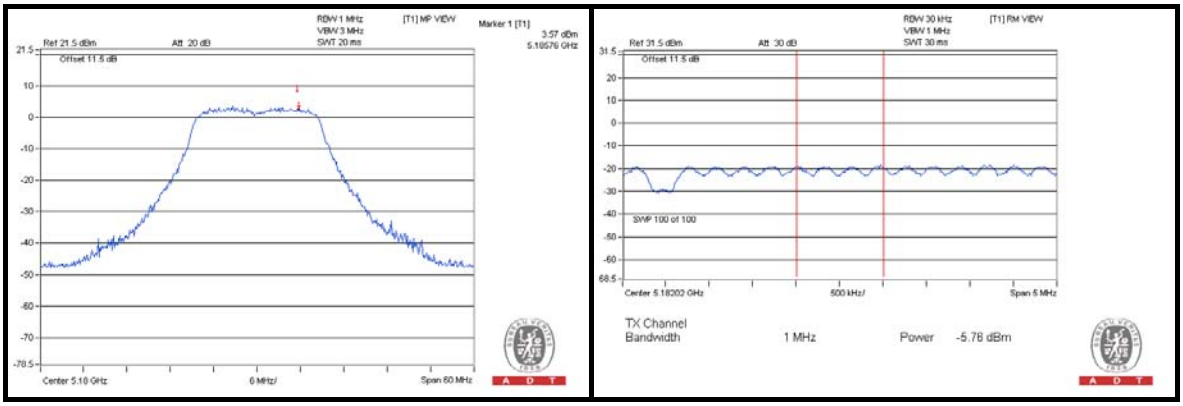
802.11a

CHAN.	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)			PPSD WITHOUT DUTY FACTOR (dBm)			PPSD WITH DUTY FACTOR (dBm)			PEAK EXCURSION (dB)			LIMIT (dB)	PASS/ FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2		
36	5180	3.59	3.76	3.86	-5.64	-5.77	-5.71	-5.49	-5.62	-5.56	9.08	9.38	9.42	13	PASS
40	5200	3.60	3.62	3.34	-5.71	-5.73	-5.76	-5.56	-5.58	-5.61	9.16	9.20	8.95	13	PASS
48	5240	3.89	3.59	3.47	-5.85	-5.63	-6.01	-5.70	-5.48	-5.86	9.59	9.07	9.33	13	PASS



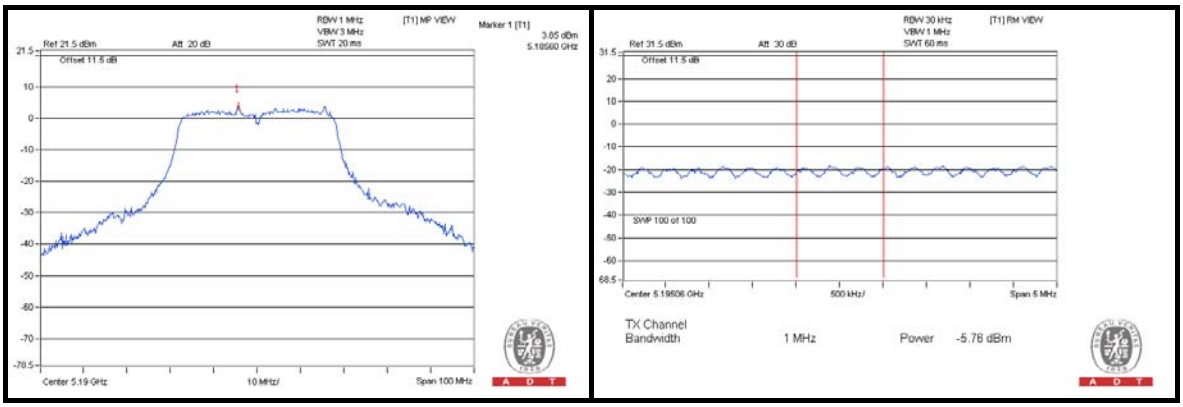
802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)			PPSD WITHOUT DUTY FACTOR (dBm)			PPSD WITH DUTY FACTOR (dBm)			PEAK EXCURSION (dB)			LIMIT (dB)	PASS/ FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2		
36	5180	3.57	2.75	2.84	-5.76	-5.70	-5.89	-5.60	-5.54	-5.73	9.17	8.29	8.57	13	PASS
40	5200	3.07	2.71	2.70	-5.86	-5.90	-5.77	-5.70	-5.74	-5.61	8.77	8.45	8.31	13	PASS
48	5240	3.09	2.79	3.01	-5.74	-5.80	-5.70	-5.58	-5.64	-5.54	8.67	8.43	8.55	13	PASS



802.11n (40MHz)

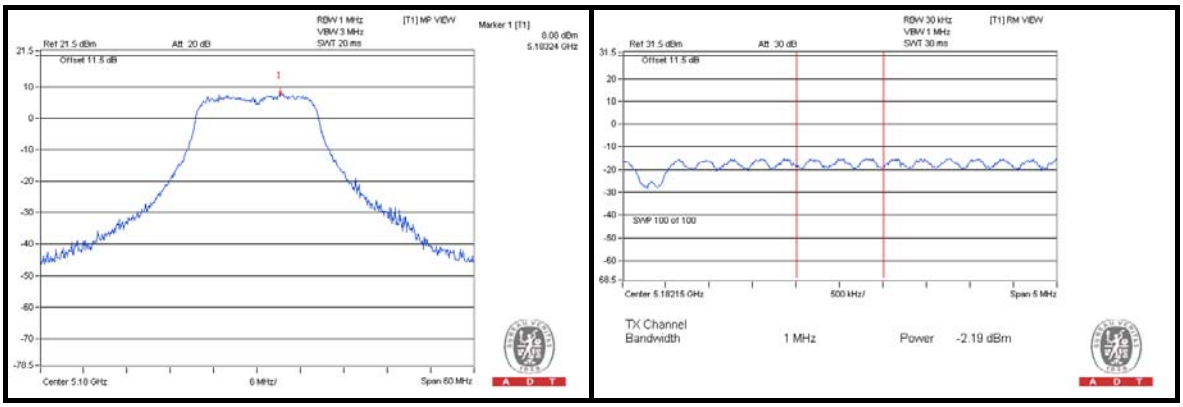
CHAN.	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)			PPSD WITHOUT DUTY FACTOR (dBm)			PPSD WITH DUTY FACTOR (dBm)			PEAK EXCURSION (dB)			LIMIT (dB)	PASS/ FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2		
38	5190	3.03	3.47	3.85	-5.91	-6.04	-5.76	-5.69	-5.82	-5.54	8.72	9.29	9.39	13	PASS
46	5230	3.23	3.49	3.71	-5.84	-5.96	-5.59	-5.62	-5.74	-5.37	8.85	9.23	9.08	13	PASS



TEST MODE D

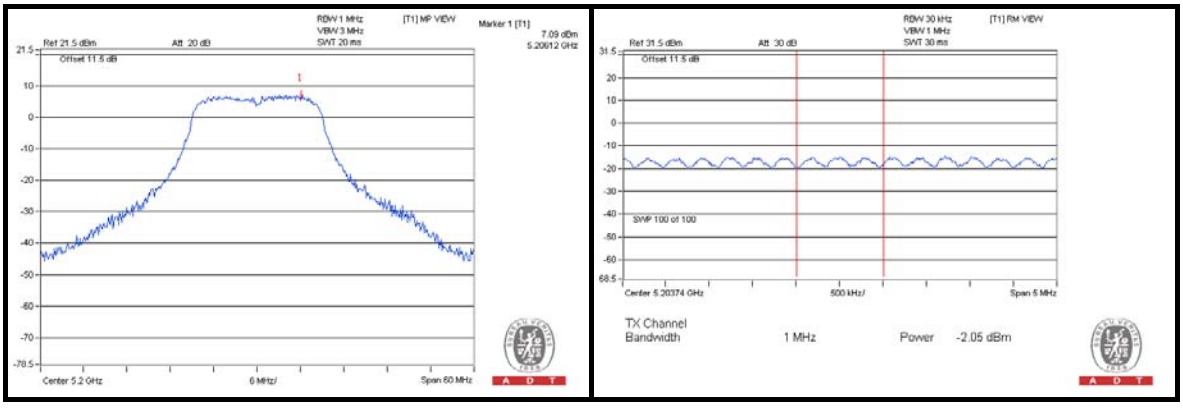
802.11a

CHAN.	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)			PPSD WITHOUT DUTY FACTOR (dBm)			PPSD WITH DUTY FACTOR (dBm)			PEAK EXCURSION (dB)			LIMIT (dB)	PASS/ FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2		
36	5180	7.42	7.42	8.08	-2.17	-1.58	-2.19	-2.02	-1.43	-2.04	9.44	8.85	10.12	13	PASS
40	5200	6.71	7.79	7.38	-2.17	-1.62	-1.97	-2.02	-1.47	-1.82	8.73	9.26	9.20	13	PASS
48	5240	6.88	7.76	8.11	-2.21	-1.47	-1.64	-2.06	-1.32	-1.49	8.94	9.08	9.60	13	PASS



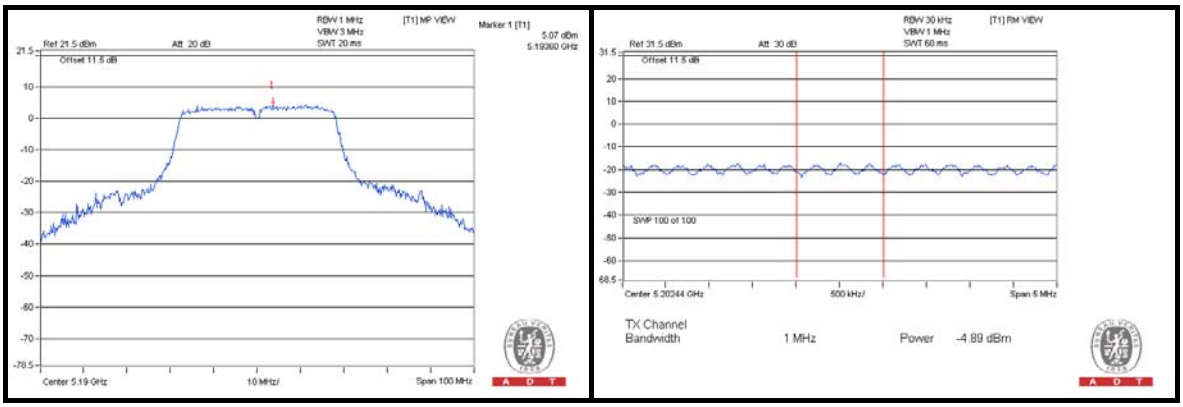
802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)			PPSD WITHOUT DUTY FACTOR (dBm)			PPSD WITH DUTY FACTOR (dBm)			PEAK EXCURSION (dB)			LIMIT (dB)	PASS/ FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2		
36	5180	6.52	6.75	6.48	-2.50	-2.03	-2.36	-2.35	-1.88	-2.21	8.87	8.63	8.69	13	PASS
40	5200	6.25	6.93	7.09	-2.48	-1.74	-2.05	-2.33	-1.59	-1.90	8.58	8.52	8.99	13	PASS
48	5240	6.28	6.56	7.23	-2.44	-1.77	-1.65	-2.29	-1.62	-1.50	8.57	8.18	8.73	13	PASS



802.11n (40MHz)

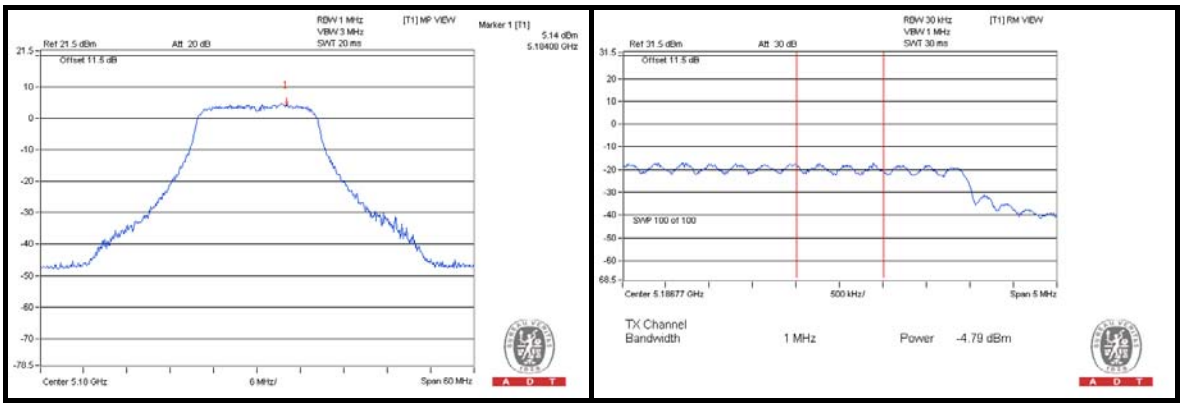
CHAN.	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)			PPSD WITHOUT DUTY FACTOR (dBm)			PPSD WITH DUTY FACTOR (dBm)			PEAK EXCURSION (dB)			LIMIT (dB)	PASS/ FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2		
38	5190	5.07	4.93	4.32	-4.89	-4.37	-4.74	-4.66	-4.14	-4.51	9.73	9.07	8.83	13	PASS
46	5230	4.43	5.20	4.95	-4.73	-4.51	-4.39	-4.50	-4.28	-4.16	8.93	9.48	9.11	13	PASS



TEST MODE E

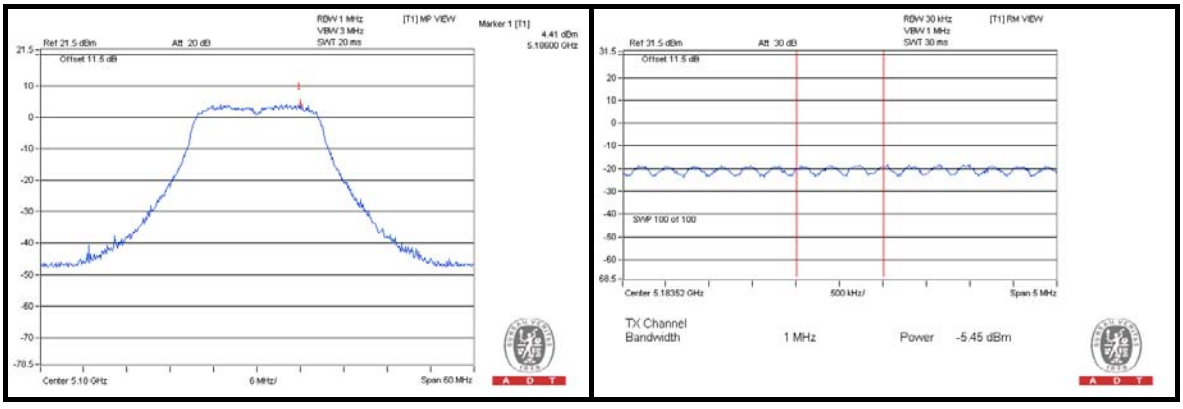
802.11a

CHAN.	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)			PPSD WITHOUT DUTY FACTOR (dBm)			PPSD WITH DUTY FACTOR (dBm)			PEAK EXCURSION (dB)			LIMIT (dB)	PASS/ FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2		
36	5180	4.04	5.14	4.39	-4.71	-4.79	-5.16	-4.57	-4.65	-5.02	8.61	9.79	9.41	13	PASS
40	5200	4.43	4.72	4.40	-4.66	-4.66	-5.16	-4.52	-4.52	-5.02	8.95	9.24	9.42	13	PASS
48	5240	4.56	4.52	4.78	-4.86	-4.66	-5.13	-4.72	-4.52	-4.99	9.28	9.04	9.77	13	PASS



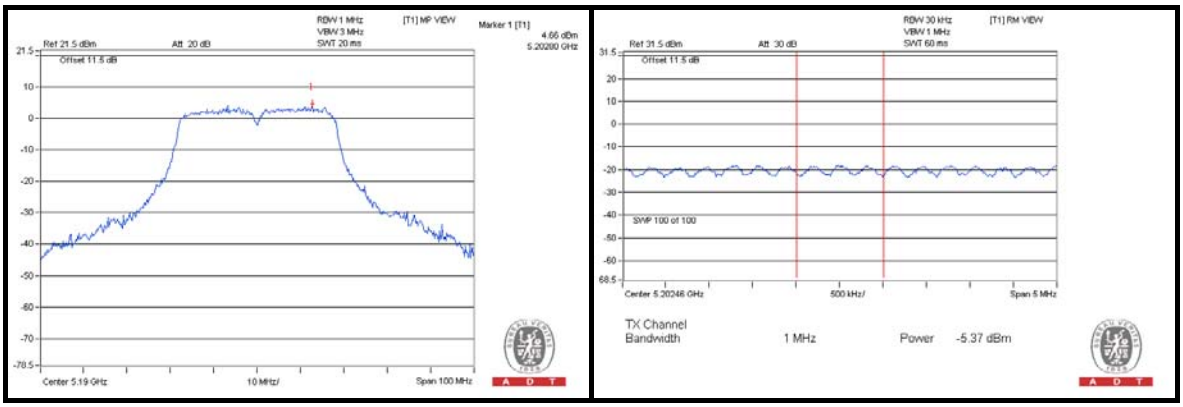
802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)			PPSD WITHOUT DUTY FACTOR (dBm)			PPSD WITH DUTY FACTOR (dBm)			PEAK EXCURSION (dB)			LIMIT (dB)	PASS/ FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2		
36	5180	3.62	3.92	4.41	-5.43	-4.58	-5.45	-5.27	-4.42	-5.29	8.89	8.34	9.70	13	PASS
40	5200	3.90	4.08	3.91	-5.13	-4.91	-5.37	-4.97	-4.75	-5.21	8.87	8.83	9.12	13	PASS
48	5240	3.62	3.60	4.42	-4.91	-4.69	-4.85	-4.75	-4.53	-4.69	8.37	8.13	9.11	13	PASS



802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)			PPSD WITHOUT DUTY FACTOR (dBm)			PPSD WITH DUTY FACTOR (dBm)			PEAK EXCURSION (dB)			LIMIT (dB)	PASS/ FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2		
38	5190	3.31	3.98	4.66	-5.31	-5.31	-5.37	-5.09	-5.09	-5.15	8.40	9.07	9.81	13	PASS
46	5230	4.20	5.16	4.35	-4.79	-4.80	-4.95	-4.57	-4.58	-4.73	8.77	9.74	9.08	13	PASS

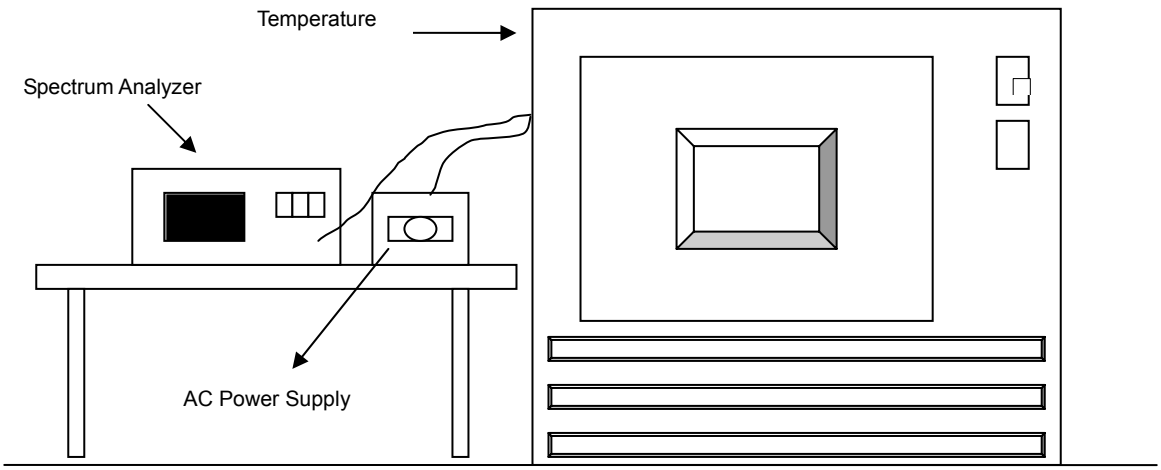


4.6 FREQUENCY STABILITY

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 AC 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 A

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5200MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
55	110.0	5200.018885	3.632	5200.018720	3.600	5200.017997	3.461	5200.018869	3.629
50	110.0	5200.018299	3.519	5200.018405	3.539	5200.018511	3.560	5200.018300	3.519
40	110.0	5200.020487	3.940	5200.020244	3.893	5200.020257	3.896	5200.019904	3.828
30	110.0	5200.020898	4.019	5200.020764	3.993	5200.021217	4.080	5200.021397	4.115
20	110.0	5200.021472	4.129	5200.021327	4.101	5200.020930	4.025	5200.021021	4.043
10	110.0	5200.022285	4.286	5200.022711	4.368	5200.022303	4.289	5200.022412	4.310
0	110.0	5200.019734	3.795	5200.020276	3.899	5200.020294	3.903	5200.020190	3.883
-10	110.0	5200.019475	3.745	5200.019422	3.735	5200.019566	3.763	5200.019870	3.821
-20	110.0	5200.018029	3.467	5200.017727	3.409	5200.018375	3.534	5200.018186	3.497

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5200MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	93.5	5200.020342	3.912	5200.020144	3.874	5200.020115	3.868	5200.020488	3.940
	110.0	5200.021472	4.129	5200.021327	4.101	5200.020930	4.025	5200.021021	4.043
	126.5	5200.023296	4.480	5200.023448	4.509	5200.023223	4.466	5200.023718	4.561

TEST MODE B

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5240MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	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	120	5240.005	0.00010	5240.0111	0.00021	5240.0101	0.00019	5240.0052	0.00010
40	120	5239.9754	-0.00047	5239.9819	-0.00035	5239.9807	-0.00037	5239.9806	-0.00037
30	120	5240.0104	0.00020	5240.0142	0.00027	5240.0089	0.00017	5240.0056	0.00011
20	120	5240.0002	0.00000	5239.9978	-0.00004	5239.9931	-0.00013	5239.9973	-0.00005
10	120	5239.9959	-0.00008	5239.9928	-0.00014	5239.9946	-0.00010	5239.994	-0.00011
0	120	5240.0208	0.00040	5240.028	0.00053	5240.023	0.00044	5240.0222	0.00042
-10	120	5239.9816	-0.00035	5239.9769	-0.00044	5239.9782	-0.00042	5239.9793	-0.00040
-20	120	5239.9815	-0.00035	5239.9824	-0.00034	5239.9847	-0.00029	5239.9834	-0.00032
-30	120	5239.9758	-0.00046	5239.9806	-0.00037	5239.9724	-0.00053	5239.9805	-0.00037

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5240MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	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	138	5239.9992	-0.00002	5239.9968	-0.00006	5239.9927	-0.00014	5239.9981	-0.00004
	120	5240.0002	0.00000	5239.9978	-0.00004	5239.9931	-0.00013	5239.9973	-0.00005
	102	5240.0006	0.00001	5239.9988	-0.00002	5239.9935	-0.00012	5239.9963	-0.00007

TEST MODE C

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5240MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	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	120	5240.0169	0.00032	5240.0207	0.00040	5240.016	0.00031	5240.0188	0.00036
40	120	5240.0049	0.00009	5240.0055	0.00010	5240.0017	0.00003	5240.0011	0.00002
30	120	5240.0157	0.00030	5240.0187	0.00036	5240.0159	0.00030	5240.0222	0.00042
20	120	5240.0243	0.00046	5240.0179	0.00034	5240.021	0.00040	5240.0159	0.00030
10	120	5239.9995	-0.00001	5240.0022	0.00004	5240.0063	0.00012	5240.0013	0.00002
0	120	5239.9986	-0.00003	5239.9989	-0.00002	5240.0004	0.00001	5239.9899	-0.00019
-10	120	5240.0066	0.00013	5240.0014	0.00003	5240.0041	0.00008	5240.0104	0.00020
-20	120	5240.0059	0.00011	5240	0.00000	5240.0034	0.00006	5240.0016	0.00003
-30	120	5239.98	-0.00038	5239.9711	-0.00055	5239.9784	-0.00041	5239.9736	-0.00050

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5240MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	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	138	5240.0242	0.00046	5240.0183	0.00035	5240.0216	0.00041	5240.0163	0.00031
	120	5240.0243	0.00046	5240.0179	0.00034	5240.021	0.00040	5240.0159	0.00030
	102	5240.0249	0.00048	5240.0187	0.00036	5240.0217	0.00041	5240.0166	0.00032

TEST MODE D

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5240MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	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	120	5240.0034	0.00006	5239.9939	-0.00012	5240.0011	0.00002	5239.9939	-0.00012
40	120	5240.0076	0.00015	5240.0176	0.00034	5240.0162	0.00031	5240.0102	0.00019
30	120	5239.9827	-0.00033	5239.9858	-0.00027	5239.9816	-0.00035	5239.9854	-0.00028
20	120	5240.0044	0.00008	5239.9983	-0.00003	5240.0039	0.00007	5240.0041	0.00008
10	120	5239.9914	-0.00016	5239.9866	-0.00026	5239.9858	-0.00027	5239.9888	-0.00021
0	120	5240.0242	0.00046	5240.0262	0.00050	5240.0174	0.00033	5240.0261	0.00050
-10	120	5240.0159	0.00030	5240.0159	0.00030	5240.0155	0.00030	5240.0137	0.00026
-20	120	5239.9792	-0.00040	5239.9827	-0.00033	5239.9808	-0.00037	5239.9881	-0.00023
-30	120	5240.0088	0.00017	5240.0125	0.00024	5240.0083	0.00016	5240.0169	0.00032

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5240MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	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	138	5240.004	0.00008	5239.9982	-0.00003	5240.0037	0.00007	5240.0036	0.00007
	120	5240.0044	0.00008	5239.9983	-0.00003	5240.0039	0.00007	5240.0041	0.00008
	102	5240.0039	0.00007	5239.9978	-0.00004	5240.0039	0.00007	5240.0038	0.00007

TEST MODE E

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5240MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
50	120	5240.0187	0.00036	5240.0183	0.00035	5240.0217	0.00041	5240.0234	0.00045
40	120	5239.9696	-0.00058	5239.9706	-0.00056	5239.9729	-0.00052	5239.9768	-0.00044
30	120	5239.9861	-0.00027	5239.9848	-0.00029	5239.9863	-0.00026	5239.977	-0.00044
20	120	5240.0157	0.00030	5240.0129	0.00025	5240.0129	0.00025	5240.0126	0.00024
10	120	5239.9949	-0.00010	5239.9947	-0.00010	5239.9876	-0.00024	5239.9896	-0.00020
0	120	5239.977	-0.00044	5239.9746	-0.00048	5239.9723	-0.00053	5239.9763	-0.00045
-10	120	5240.0001	0.00000	5240.0005	0.00001	5240.0052	0.00010	5240.0022	0.00004
-20	120	5239.996	-0.00008	5239.992	-0.00015	5239.996	-0.00008	5239.9958	-0.00008
-30	120	5239.9826	-0.00033	5239.9746	-0.00048	5239.9812	-0.00036	5239.9817	-0.00035

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5240MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	138	5240.0157	0.00030	5240.0127	0.00024	5240.0125	0.00024	5240.0129	0.00025
	120	5240.0157	0.00030	5240.0129	0.00025	5240.0129	0.00025	5240.0126	0.00024
	102	5240.0155	0.00030	5240.0119	0.00023	5240.012	0.00023	5240.0122	0.00023

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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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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