



FCC TEST REPORT (15.407)

REPORT NO.: RF120910C03-5
MODEL NO.: PM23220
FCC ID: NM8PM23220
RECEIVED: Sep. 10, 2012
TESTED: Sep. 22 ~ Sep. 26, 2012
ISSUED: Oct. 05, 2012

APPLICANT: HTC Corporation

ADDRESS: 23, Xinghua Rd., Taoyuan 330, Taiwan, R.O.C.

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

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

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TABLE OF CONTENTS

RELEASE CONTROL RECORD	4
1. CERTIFICATION	5
2. SUMMARY OF TEST RESULTS	6
2.1 MEASUREMENT UNCERTAINTY	6
3. GENERAL INFORMATION.....	7
3.1 GENERAL DESCRIPTION OF EUT	7
3.2 DESCRIPTION OF TEST MODES	8
3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL	9
3.3 DESCRIPTION OF SUPPORT UNITS	11
3.3.1 CONFIGURATION OF SYSTEM UNDER TEST	11
3.4 DUTY CYCLE OF TEST SIGNAL	12
3.5 GENERAL DESCRIPTION OF APPLIED STANDARDS	12
4. TEST TYPES AND RESULTS	13
4.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT	13
4.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT	13
4.1.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS	13
4.1.3 TEST INSTRUMENTS	14
4.1.4 TEST PROCEDURES	15
4.1.5 DEVIATION FROM TEST STANDARD	15
4.1.6 TEST SETUP	16
4.1.7 EUT OPERATING CONDITION.....	16
4.1.8 TEST RESULTS	17
4.2 CONDUCTED EMISSION MEASUREMENT	43
4.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT	43
4.2.2 TEST INSTRUMENTS	43
4.2.3 TEST PROCEDURES	44
4.2.4 DEVIATION FROM TEST STANDARD	44
4.2.5 TEST SETUP	44
4.2.6 EUT OPERATING CONDITIONS	44
4.2.7 TEST RESULTS	45
4.3 PEAK TRANSMIT POWER MEASUREMENT	47
4.3.1 LIMITS OF PEAK TRANSMIT POWER MEASUREMENT	47
4.3.2 TEST SETUP	47
4.3.3 TEST INSTRUMENTS	47
4.3.4 TEST PROCEDURE	48
4.3.5 DEVIATION FROM TEST STANDARD	48
4.3.6 EUT OPERATING CONDITIONS	48
4.3.7 TEST RESULTS	49
4.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT	51
4.4.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT	51
4.4.2 TEST SETUP	51
4.4.3 TEST INSTRUMENTS	51
4.4.4 TEST PROCEDURES	51
4.4.5 DEVIATION FROM TEST STANDARD	51
4.4.6 EUT OPERATING CONDITIONS	51
4.4.7 TEST RESULTS	52
4.5 PEAK POWER EXCURSION MEASUREMENT	53



A D T

4.5.1	LIMITS OF PEAK POWER EXCURSION MEASUREMENT	53
4.5.2	TEST SETUP	53
4.5.3	TEST INSTRUMENTS	53
4.5.4	TEST PROCEDURE	53
4.5.5	DEVIATION FROM TEST STANDARD	53
4.5.6	EUT OPERATING CONDITIONS	53
4.5.7	TEST RESULTS	54
4.6	FREQUENCY STABILITY	57
4.6.1	LIMITS OF FREQUENCY STABILITY MEASUREMENT	57
4.6.2	TEST SETUP	57
4.6.3	TEST INSTRUMENTS	57
4.6.4	TEST PROCEDURE	58
4.6.5	DEVIATION FROM TEST STANDARD	58
4.6.6	EUT OPERATING CONDITION	58
4.6.7	TEST RESULTS	59
5.	PHOTOGRAPHS OF THE TEST CONFIGURATION	60
6.	INFORMATION ON THE TESTING LABORATORIES	61
7.	APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB	62



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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF120910C03-5	Original release	Oct. 05, 2012



1. CERTIFICATION

PRODUCT: Windows Phone
MODEL NO.: PM23220
BRAND: HTC
APPLICANT: HTC Corporation
TESTED: Sep. 22 ~ Sep. 26, 2012
TEST SAMPLE: Production Unit
STANDARDS: **FCC Part 15, Subpart E (Section 15.407)**
ANSI C63.10-2009

The above equipment (model: PM23220) 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 : Ivonne Wu , **DATE** : Oct. 05, 2012
Ivonne Wu / Senior Specialist

APPROVED BY : Ken Liu , **DATE** : Oct. 05, 2012
Ken Liu / 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 -7.00dB at 0.25547MHz.
15.407(b/1/2/3) (b)(6)	Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -3.3dB at 5470MHz.
15.407(a/1/2)	Peak Transmit Power	PASS	Meet the requirement of limit.
15.407(a)(6)	Peak Power Excursion	PASS	Meet the requirement of limit.
15.407(a/1/2)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	No antenna connector is used.

2.1 MEASUREMENT UNCERTAINTY

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

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

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

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

EUT	Windows Phone
MODEL NO.	PM23220
POWER SUPPLY	5.0Vdc (adapter or host equipment) 3.75Vdc (Li-ion battery)
MODULATION TYPE	64QAM, 16QAM, QPSK, BPSK
MODULATION TECHNOLOGY	OFDM
TRANSFER RATE	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 135.0Mbps
OPERATING FREQUENCY	5180 ~ 5240MHz, 5260 ~ 5320MHz & 5500 ~ 5700MHz
NUMBER OF CHANNEL	5180 ~ 5240MHz: 4 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz) 5260 ~ 5320MHz: 4 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz) 5500 ~ 5700MHz: 11 for 802.11a, 802.11n (20MHz) 5 for 802.11n (40MHz)
OUTPUT POWER	21.232mW for 5180 ~ 5240MHz 21.827mW for 5260 ~ 5320MHz 20.606mW for 5500 ~ 5700MHz
ANTENNA TYPE	PIFA antenna with -6.2dBi gain for 5180 ~ 5240MHz PIFA antenna with -5.5dBi gain for 5250 ~ 5320MHz PIFA antenna with -5.6dBi gain for 5500 ~ 5700MHz
ANTENNA CONNECTOR	NA
DATA CABLE	Refer to Note as below
I/O PORTS	Refer to user's manual
ACCESSORY DEVICES	Refer to Note as below

NOTE:

1. The EUT's accessories list refers to Ext Pho.
2. The EUT provides one completed transmitter and one receiver.

MODULATION MODE	TX FUNCTION
802.11b	1TX
802.11g	1TX
802.11a	1TX
802.11n (20MHz)	1TX
802.11n (40MHz)	1TX

3. The above EUT information is declared by the manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 DESCRIPTION OF TEST MODES

FOR 5180 ~ 5240MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

FOR 5260 ~ 5320MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
52	5260 MHz	60	5300 MHz
56	5280 MHz	64	5320 MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
54	5270 MHz	62	5310 MHz

FOR 5500 ~ 5700MHz

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

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

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

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

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE \geq 1G	RE $<$ 1G	PLC	APCM	
-	√	√	√	√	-

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

NOTE: The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Z-plane**.

RADIATED EMISSION TEST (ABOVE 1GHz):

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

MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	5180-5240	36 to 48	36, 44, 48	OFDM	BPSK	6.0
802.11n (20MHz)		36 to 48	36, 44, 48	OFDM	BPSK	6.5
802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5

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.

MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11n (20MHz)	5260-5320	52 to 64	64	OFDM	BPSK	6.5

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.

MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11n (20MHz)	5260-5320	52 to 64	64	OFDM	BPSK	6.5

BANDEDGE MEASUREMENT:

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

MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	5180-5240	36 to 48	36, 48	OFDM	BPSK	6.0
802.11n (20MHz)		36 to 48	36, 48	OFDM	BPSK	6.5
802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
802.11a	5260-5320	52 to 64	52, 64	OFDM	BPSK	6.0
802.11n (20MHz)		52 to 64	52, 64	OFDM	BPSK	6.5
802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
802.11a	5500-5700	100 to 140	100, 140	OFDM	BPSK	6.0
802.11n (20MHz)		100 to 140	100, 140	OFDM	BPSK	6.5
802.11n (40MHz)		102 to 134	102, 134	OFDM	BPSK	13.5

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.

MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	5180-5240	36 to 48	36, 44, 48	OFDM	BPSK	6.0
802.11n (20MHz)		36 to 48	36, 44, 48	OFDM	BPSK	6.5
802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	25deg. C, 65%RH	120Vac, 60Hz	Kay Wu
RE<1G	25deg. C, 65%RH	120Vac, 60Hz	Kay Wu
PLC	25deg. C, 65%RH	120Vac, 60Hz	David Huang
APCM	25deg. C, 65%RH	120Vac, 60Hz	Phoenix Chen

3.3 DESCRIPTION OF SUPPORT UNITS

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

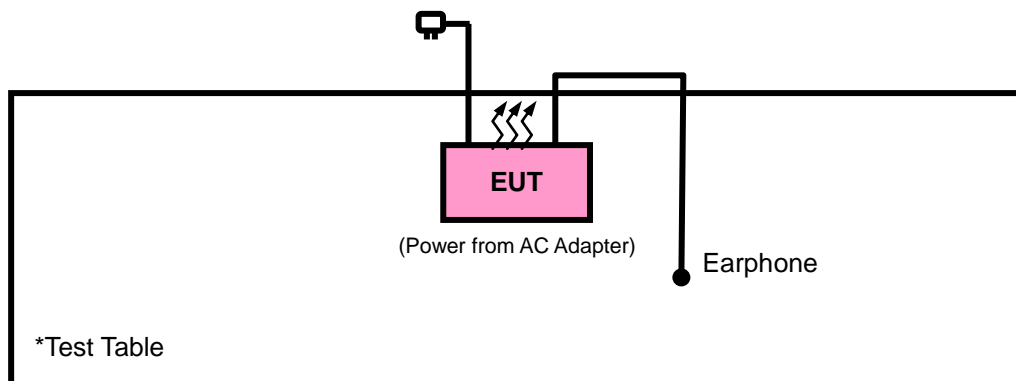
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Earphone	Merry	HS S250	NA	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	1.1m non-shielded cable

NOTE:

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

3.3.1 CONFIGURATION OF SYSTEM UNDER TEST



3.4 DUTY CYCLE OF TEST SIGNAL

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

802.11n (40MHz): Duty cycle is < 98%, duty factor shall be considered.

Duty cycle = 608/648 = 0.938, Duty factor = $10 * \log(1/0.938) = 0.28$



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)

ANSI C63.10-2009

KDB 789033 D01 General UNII Test Procedures v01r01

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

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:

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

4.1.3 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver Agilent	N9038A	MY51210203	Dec. 22, 2011	Dec. 21, 2012
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	101261	Dec. 21, 2011	Dec. 20, 2012
BILOG Antenna SCHWARZBECK	VULB9168	9168-472	Dec. 20, 2011	Dec. 19, 2012
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-969	Dec. 20, 2011	Dec. 19, 2012
ORN Antenna SCHWARZBECK	BBHA 9170	9170-480	Dec. 20, 2011	Dec. 19, 2012
Loop Antenna	HFH2-Z2	100070	Jan. 31, 2012	Jan. 30, 2014
Preamplifier EMCI	EMC 012645	980115	Dec. 30, 2011	Dec. 29, 2012
Preamplifier EMCI	EMC 330H	980112	Dec. 30, 2011	Dec. 29, 2012
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	309219/4	Oct. 21, 2011	Oct. 20, 2012
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	250130/4	Jan. 02, 2012	Jan. 01, 2013
RF signal cable Worken	RG-213	NA	Jan. 02, 2012	Jan. 01, 2013
Software	E3 6.120103	NA	NA	NA
Antenna Tower MF	MFA-440H	NA	NA	NA
Turn Table MF	MFT-201SS	NA	NA	NA
26GHz ~ 40GHz Amplifier	EM26400	815221	Oct. 29, 2011	Oct. 28, 2012
Antenna Tower & Turn Table Controller MF	MF-7802	NA	NA	NA
JFW 20dB attenuation	50HF-020-SMA	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 calibration interval of the loop antenna is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
 3. The test was performed in HwaYa Chamber 9.
 4. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
 5. The FCC Site Registration No. is 460141.
 6. The IC Site Registration No. is IC 7450F-4.

4.1.4 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

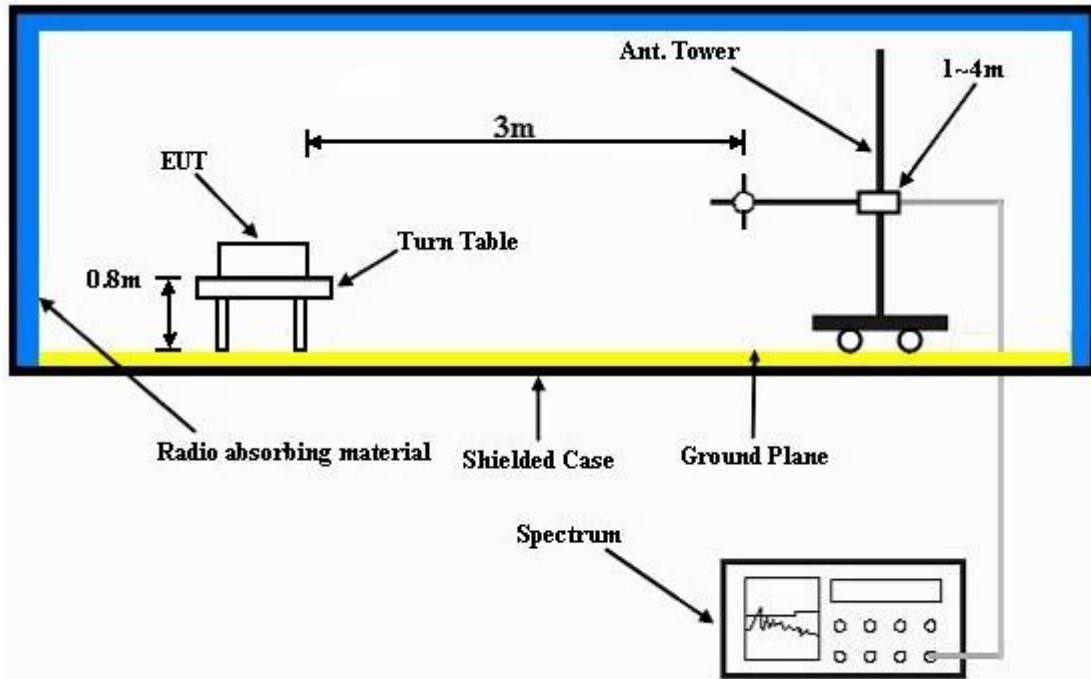
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 1kHz 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. Placed the EUT on a testing table.
- b. Use the software to control the EUT under transmission condition continuously at specific channel frequency.



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4.1.8 TEST RESULTS

ABOVE 1GHz DATA: 802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5102	40.25	38.34	54	-13.75	31.84	7.35	37.28	100	318	Average
5102	52.24	50.33	74	-21.76	31.84	7.35	37.28	100	318	Peak
5180	81.87	80.01			31.88	7.32	37.34	100	318	Average
5180	91.87	90.01			31.88	7.32	37.34	100	318	Peak
5386	40.16	37.96	54	-13.84	31.98	7.4	37.18	100	318	Average
5386	52.43	50.23	74	-21.57	31.98	7.4	37.18	100	318	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5148	41.27	39.39	54	-12.73	31.87	7.33	37.32	126	234	Average
5148	54.15	52.27	74	-19.85	31.87	7.33	37.32	126	234	Peak
5180	87.82	85.96			31.88	7.32	37.34	126	234	Average
5180	98.05	96.19			31.88	7.32	37.34	126	234	Peak
5444	40.14	37.79	54	-13.86	32.01	7.47	37.13	126	234	Average
5444	52.59	50.24	74	-21.41	32.01	7.47	37.13	126	234	Peak

REMARKS: 5180MHz: Fundamental frequency.



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5068	40.16	38.31	54	-13.84	31.82	7.3	37.27	114	239	Average
5068	52.76	50.91	74	-21.24	31.82	7.3	37.27	114	239	Peak
5220	82.15	80.29			31.9	7.32	37.36	114	239	Average
5220	92	90.14			31.9	7.32	37.36	114	239	Peak
5404	40.08	37.87	54	-13.92	31.99	7.4	37.18	114	239	Average
5404	52.13	49.92	74	-21.87	31.99	7.4	37.18	114	239	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5142	40.15	38.24	54	-13.85	31.87	7.34	37.3	100	246	Average
5142	52.66	50.75	74	-21.34	31.87	7.34	37.3	100	246	Peak
5220	89.42	87.56			31.9	7.32	37.36	100	246	Average
5220	99.57	97.71			31.9	7.32	37.36	100	246	Peak
5354	40.02	37.83	54	-13.98	31.97	7.4	37.18	100	246	Average
5354	52.04	49.85	74	-21.96	31.97	7.4	37.18	100	246	Peak

REMARKS: 5220MHz: Fundamental frequency.



A D T

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5142	40.15	38.24	54	-13.85	31.87	7.34	37.3	100	224	Average
5142	52.43	50.52	74	-21.57	31.87	7.34	37.3	100	224	Peak
5240	80.93	79			31.91	7.34	37.32	100	224	Average
5240	90.75	88.82			31.91	7.34	37.32	100	224	Peak
5432	40.22	37.87	54	-13.78	32.01	7.47	37.13	100	224	Average
5432	52.99	50.64	74	-21.01	32.01	7.47	37.13	100	224	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5112	40.08	38.16	54	-13.92	31.85	7.35	37.28	100	279	Average
5112	52.37	50.45	74	-21.63	31.85	7.35	37.28	100	279	Peak
5240	86.4	84.47			31.91	7.34	37.32	100	279	Average
5240	96.38	94.45			31.91	7.34	37.32	100	279	Peak
5422	40.27	38.05	54	-13.73	32	7.4	37.18	100	279	Average
5422	51.56	49.34	74	-22.44	32	7.4	37.18	100	279	Peak

REMARKS: 5240MHz: Fundamental frequency.



A D T

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5078	40.14	38.28	54	-13.86	31.83	7.3	37.27	112	225	Average
5078	52.2	50.34	74	-21.8	31.83	7.3	37.27	112	225	Peak
5260	80.88	78.87			31.92	7.36	37.27	112	225	Average
5260	90.57	88.56			31.92	7.36	37.27	112	225	Peak
5406	40.1	37.89	54	-13.9	31.99	7.4	37.18	112	225	Average
5406	53.3	51.09	74	-20.7	31.99	7.4	37.18	112	225	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5078	40.05	38.19	54	-13.95	31.83	7.3	37.27	104	216	Average
5078	52.68	50.82	74	-21.32	31.83	7.3	37.27	104	216	Peak
5260	89.82	87.81			31.92	7.36	37.27	104	216	Average
5260	99.52	97.51			31.92	7.36	37.27	104	216	Peak
5372	40.15	37.96	54	-13.85	31.97	7.4	37.18	104	216	Average
5372	53.55	51.36	74	-20.45	31.97	7.4	37.18	104	216	Peak

REMARKS: 5260MHz: Fundamental frequency.



A D T

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5090	40.05	38.18	54	-13.95	31.84	7.3	37.27	100	225	Average
5090	52.57	50.7	74	-21.43	31.84	7.3	37.27	100	225	Peak
5300	80.04	77.89			31.94	7.4	37.19	100	225	Average
5300	89.51	87.36			31.94	7.4	37.19	100	225	Peak
5396	40.07	37.86	54	-13.93	31.99	7.4	37.18	100	225	Average
5396	52.73	50.52	74	-21.27	31.99	7.4	37.18	100	225	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5050	40.12	38.3	54	-13.88	31.82	7.25	37.25	104	197	Average
5050	52.37	50.55	74	-21.63	31.82	7.25	37.25	104	197	Peak
5300	92.13	89.98			31.94	7.4	37.19	104	197	Average
5300	101.63	99.48			31.94	7.4	37.19	104	197	Peak
5352	41.65	39.46	54	-12.35	31.97	7.4	37.18	104	197	Average
5352	53.84	51.65	74	-20.16	31.97	7.4	37.18	104	197	Peak

REMARKS: 5300MHz: Fundamental frequency.



A D T

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5064	40.05	38.23	54	-13.95	31.82	7.25	37.25	105	135	Average
5064	51.78	49.96	74	-22.22	31.82	7.25	37.25	105	135	Peak
5320	81.63	79.47			31.95	7.4	37.19	105	135	Average
5320	91.2	89.04			31.95	7.4	37.19	105	135	Peak
5350	40.75	38.56	54	-13.25	31.97	7.4	37.18	105	135	Average
5350	53.83	51.64	74	-20.17	31.97	7.4	37.18	105	135	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5038	39.85	38.08	54	-14.15	31.82	7.19	37.24	103	204	Average
5038	53.15	51.38	74	-20.85	31.82	7.19	37.24	103	204	Peak
5320	91.65	89.49			31.95	7.4	37.19	103	204	Average
5320	101.17	99.01			31.95	7.4	37.19	103	204	Peak
5350	45.55	43.36	54	-8.45	31.97	7.4	37.18	103	204	Average
5350	64.22	62.03	74	-9.78	31.97	7.4	37.18	103	204	Peak

REMARKS: 5320MHz: Fundamental frequency.



A D T

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5430	40.2	37.85	54	-13.8	32.01	7.47	37.13	100	127	Average
5430	52.34	49.99	74	-21.66	32.01	7.47	37.13	100	127	Peak
5470	51.85	49.38	68.3	-16.45	32.02	7.53	37.08	100	127	Peak
5500	81.77	79.17			32.04	7.59	37.03	100	127	Average
5500	91.08	88.48			32.04	7.59	37.03	100	127	Peak
5725	51.23	48.59	68.3	-17.07	32.36	7.71	37.43	100	127	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5458	40.59	38.13	54	-13.41	32.01	7.53	37.08	100	195	Average
5458	53.75	51.29	74	-20.25	32.01	7.53	37.08	100	195	Peak
5470	65	62.53	68.3	-3.3	32.02	7.53	37.08	100	195	Peak
5500	91.94	89.34			32.04	7.59	37.03	100	195	Average
5500	101.07	98.47			32.04	7.59	37.03	100	195	Peak
5725	50.88	48.24	68.3	-17.42	32.36	7.71	37.43	100	195	Peak

REMARKS:

1. 5550MHz: Fundamental frequency.
2. 5470MHz & 5725MHz: Out of restricted band



A D T

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5450	38.98	36.52	54	-13.8	32.01	7.53	37.08	107	124	Average
5450	52.29	49.83	74	-21.66	32.01	7.53	37.08	107	124	Peak
5470	49.33	46.86	68.3	-18.97	32.02	7.53	37.08	107	124	Peak
5580	80.58	78.03			32.14	7.57	37.16	107	124	Average
5580	90.99	88.44			32.14	7.57	37.16	107	124	Peak
5725	50.32	47.68	68.3	-17.98	32.36	7.71	37.43	107	124	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5456	39.02	36.56	54	-14.98	32.01	7.53	37.08	107	179	Average
5456	52.46	50	74	-21.54	32.01	7.53	37.08	107	179	Peak
5470	50.45	47.98	68.3	-17.85	32.02	7.53	37.08	107	179	Peak
5580	89.79	87.24			32.14	7.57	37.16	107	179	Average
5580	101.06	98.51			32.14	7.57	37.16	107	179	Peak
5725	52.43	49.79	68.3	-15.87	32.36	7.71	37.43	107	179	Peak

REMARKS:

1. 5580MHz: Fundamental frequency.
2. 5470MHz & 5725MHz: Out of restricted band



A D T

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5418	38.84	36.62	54	-13.8	32	7.4	37.18	100	202	Average
5418	51.57	49.35	74	-21.66	32	7.4	37.18	100	202	Peak
5470	50.86	48.39	68.3	-17.44	32.02	7.53	37.08	100	202	Peak
5700	78.4	75.8			32.31	7.69	37.4	100	202	Average
5700	88.53	85.93			32.31	7.69	37.4	100	202	Peak
5725	51.14	48.5	68.3	-17.16	32.36	7.71	37.43	100	202	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5380	39.67	37.47	54	-14.33	31.98	7.4	37.18	100	246	Average
5380	51.07	48.87	74	-22.93	31.98	7.4	37.18	100	246	Peak
5470	49.14	46.67	68.3	-19.16	32.02	7.53	37.08	100	246	Peak
5700	87.17	84.57			32.31	7.69	37.4	100	246	Average
5700	96.64	94.04			32.31	7.69	37.4	100	246	Peak
5725	57.33	54.69	68.3	-10.97	32.36	7.71	37.43	100	246	Peak

REMARKS:

- 5700MHz: Fundamental frequency.
- 5470MHz & 5725MHz: Out of restricted band



A D T

802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5056	39.6	37.78	54	-14.4	31.82	7.25	37.25	100	240	Average
5056	52.65	50.83	74	-21.35	31.82	7.25	37.25	100	240	Peak
5180	81.41	79.55			31.88	7.32	37.34	100	240	Average
5180	92.81	90.95			31.88	7.32	37.34	100	240	Peak
5382	38.87	36.67	54	-15.13	31.98	7.4	37.18	100	240	Average
5382	51.9	49.7	74	-22.1	31.98	7.4	37.18	100	240	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	40.36	38.48	54	-13.64	31.87	7.33	37.32	113	232	Average
5150	52.24	50.36	74	-21.76	31.87	7.33	37.32	113	232	Peak
5180	85.79	83.93			31.88	7.32	37.34	113	232	Average
5180	96.11	94.25			31.88	7.32	37.34	113	232	Peak
5408	38.9	36.69	54	-15.1	31.99	7.4	37.18	113	232	Average
5408	52.62	50.41	74	-21.38	31.99	7.4	37.18	113	232	Peak

REMARKS: 5180MHz: Fundamental frequency.



A D T

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5090	38.81	36.94	54	-15.19	31.84	7.3	37.27	106	226	Average
5090	51.78	49.91	74	-22.22	31.84	7.3	37.27	106	226	Peak
5220	80.5	78.64			31.9	7.32	37.36	106	226	Average
5220	91.14	89.28			31.9	7.32	37.36	106	226	Peak
5358	38.87	36.68	54	-15.13	31.97	7.4	37.18	106	226	Average
5358	51.58	49.39	74	-22.42	31.97	7.4	37.18	106	226	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5114	38.85	36.93	54	-15.15	31.85	7.35	37.28	124	232	Average
5114	52.16	50.24	74	-21.84	31.85	7.35	37.28	124	232	Peak
5220	86.05	84.19			31.9	7.32	37.36	124	232	Average
5220	96.5	94.64			31.9	7.32	37.36	124	232	Peak
5420	38.88	36.66	54	-15.12	32	7.4	37.18	124	232	Average
5420	52.37	50.15	74	-21.63	32	7.4	37.18	124	232	Peak

REMARKS: 5220MHz: Fundamental frequency.



A D T

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5036	39.31	37.55	54	-14.69	31.81	7.19	37.24	100	234	Average
5036	51.96	50.2	74	-22.04	31.81	7.19	37.24	100	234	Peak
5240	80.73	78.8			31.91	7.34	37.32	100	234	Average
5240	91.41	89.48			31.91	7.34	37.32	100	234	Peak
5400	38.87	36.66	54	-15.13	31.99	7.4	37.18	100	234	Average
5400	51.95	49.74	74	-22.05	31.99	7.4	37.18	100	234	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5118	38.87	36.95	54	-15.13	31.85	7.35	37.28	111	230	Average
5118	51.07	49.15	74	-22.93	31.85	7.35	37.28	111	230	Peak
5240	85.84	83.91			31.91	7.34	37.32	111	230	Average
5240	96.49	94.56			31.91	7.34	37.32	111	230	Peak
5440	38.92	36.57	54	-15.08	32.01	7.47	37.13	111	230	Average
5440	52.08	49.73	74	-21.92	32.01	7.47	37.13	111	230	Peak

REMARKS: 5240MHz: Fundamental frequency.



A D T

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5036	38.66	36.9	54	-15.34	31.81	7.19	37.24	121	82	Average
5036	51.63	49.87	74	-22.37	31.81	7.19	37.24	121	82	Peak
5260	80.44	78.43			31.92	7.36	37.27	121	82	Average
5260	91.3	89.29			31.92	7.36	37.27	121	82	Peak
5356	38.82	36.63	54	-15.18	31.97	7.4	37.18	121	82	Average
5356	51.76	49.57	74	-22.24	31.97	7.4	37.18	121	82	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5124	38.87	36.97	54	-15.13	31.86	7.34	37.3	100	233	Average
5124	51.43	49.53	74	-22.57	31.86	7.34	37.3	100	233	Peak
5260	85.29	83.28			31.92	7.36	37.27	100	233	Average
5260	95.79	93.78			31.92	7.36	37.27	100	233	Peak
5350	38.81	36.62	54	-15.19	31.97	7.4	37.18	100	233	Average
5350	49.31	47.12	74	-24.69	31.97	7.4	37.18	100	233	Peak

REMARKS: 5260MHz: Fundamental frequency.



A D T

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5120	38.83	36.94	54	-15.17	31.85	7.34	37.3	100	220	Average
5120	53.14	51.25	74	-20.86	31.85	7.34	37.3	100	220	Peak
5300	78.34	76.19			31.94	7.4	37.19	100	220	Average
5300	88.59	86.44			31.94	7.4	37.19	100	220	Peak
5458	39.06	36.6	54	-14.94	32.01	7.53	37.08	100	220	Average
5458	51.76	49.3	74	-22.24	32.01	7.53	37.08	100	220	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5120	38.84	36.95	54	-15.16	31.85	7.34	37.3	103	180	Average
5120	51.85	49.96	74	-22.15	31.85	7.34	37.3	103	180	Peak
5300	88.94	86.79			31.94	7.4	37.19	103	180	Average
5300	99.24	97.09			31.94	7.4	37.19	103	180	Peak
5350	40.98	38.79	54	-13.02	31.97	7.4	37.18	103	180	Average
5350	51.62	49.43	74	-22.38	31.97	7.4	37.18	103	180	Peak

REMARKS: 5300MHz: Fundamental frequency.



A D T

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5100	38.86	36.95	54	-15.14	31.84	7.35	37.28	100	229	Average
5100	52.04	50.13	74	-21.96	31.84	7.35	37.28	100	229	Peak
5320	79.44	77.28			31.95	7.4	37.19	100	229	Average
5320	90.02	87.86			31.95	7.4	37.19	100	229	Peak
5350	40.08	37.89	54	-13.92	31.97	7.4	37.18	100	229	Average
5350	52.94	50.75	74	-21.06	31.97	7.4	37.18	100	229	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	38.85	36.97	54	-15.15	31.87	7.33	37.32	104	197	Average
5150	52.13	50.25	74	-21.87	31.87	7.33	37.32	104	197	Peak
5320	87.76	85.6			31.95	7.4	37.19	104	197	Average
5320	97.99	95.83			31.95	7.4	37.19	104	197	Peak
5350	43.61	41.42	54	-10.39	31.97	7.4	37.18	104	197	Average
5350	60.72	58.53	74	-13.28	31.97	7.4	37.18	104	197	Peak

REMARKS: 5320MHz: Fundamental frequency.



A D T

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5450	39.04	36.58	54	-13.8	32.01	7.53	37.08	110	126	Average
5450	52.05	49.59	74	-21.66	32.01	7.53	37.08	110	126	Peak
5470	51.12	48.65	68.3	-17.18	32.02	7.53	37.08	110	126	Peak
5500	78.85	76.25			32.04	7.59	37.03	110	126	Average
5500	89.1	86.5			32.04	7.59	37.03	110	126	Peak
5725	49.2	46.56	68.3	-19.1	32.36	7.71	37.43	110	126	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5448	40.9	38.55	54	-13.1	32.01	7.47	37.13	100	178	Average
5448	53.23	50.88	74	-20.77	32.01	7.47	37.13	100	178	Peak
5470	58.61	56.14	68.3	-9.69	32.02	7.53	37.08	100	178	Peak
5500	89.56	86.96			32.04	7.59	37.03	100	178	Average
5500	100.16	97.56			32.04	7.59	37.03	100	178	Peak
5725	50.88	48.24	68.3	-17.42	32.36	7.71	37.43	100	178	Peak

REMARKS:

- 5500MHz: Fundamental frequency.
- 5470MHz & 5725MHz: Out of restricted band



A D T

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5436	38.96	36.61	54	-13.8	32.01	7.47	37.13	100	147	Average
5436	51.91	49.56	74	-21.66	32.01	7.47	37.13	100	147	Peak
5470	50.7	48.23	68.3	-17.6	32.02	7.53	37.08	100	147	Peak
5580	78.58	76.03			32.14	7.57	37.16	100	147	Average
5580	88.93	86.38			32.14	7.57	37.16	100	147	Peak
5725	49.85	47.21	68.3	-18.45	32.36	7.71	37.43	100	147	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5378	38.87	36.67	54	-15.13	31.98	7.4	37.18	107	182	Average
5378	51.57	49.37	74	-22.43	31.98	7.4	37.18	107	182	Peak
5470	49.81	47.34	68.3	-18.49	32.02	7.53	37.08	107	182	Peak
5580	88.54	85.99			32.14	7.57	37.16	107	182	Average
5580	99	96.45			32.14	7.57	37.16	107	182	Peak
5725	49.99	47.35	68.3	-18.31	32.36	7.71	37.43	107	182	Peak

REMARKS:

1. 5580MHz: Fundamental frequency.
2. 5470MHz & 5725MHz: Out of restricted band



A D T

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5406	38.84	36.63	54	-13.8	31.99	7.4	37.18	100	198	Average
5406	51.64	49.43	74	-21.66	31.99	7.4	37.18	100	198	Peak
5470	49.38	46.91	68.3	-18.92	32.02	7.53	37.08	100	198	Peak
5700	77.32	74.72			32.31	7.69	37.4	100	198	Average
5700	87.44	84.84			32.31	7.69	37.4	100	198	Peak
5725	51.26	48.62	68.3	-17.04	32.36	7.71	37.43	100	198	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5376	38.89	36.7	54	-15.11	31.97	7.4	37.18	100	260	Average
5376	52.1	49.91	74	-21.9	31.97	7.4	37.18	100	260	Peak
5470	48.92	46.45	68.3	-19.38	32.02	7.53	37.08	100	260	Peak
5700	85.7	83.1			32.31	7.69	37.4	100	260	Average
5700	95.91	93.31			32.31	7.69	37.4	100	260	Peak
5725	54.05	51.41	68.3	-14.25	32.36	7.71	37.43	100	260	Peak

REMARKS:

- 5700MHz: Fundamental frequency.
- 5470MHz & 5725MHz: Out of restricted band



A D T

802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	42.94	41.06	54	-11.06	31.87	7.33	37.32	100	225	Average
5150	55.36	53.48	74	-18.64	31.87	7.33	37.32	100	225	Peak
5190	79.47	77.61			31.88	7.32	37.34	100	225	Average
5190	89.24	87.38			31.88	7.32	37.34	100	225	Peak
5396	40.09	37.88	54	-13.91	31.99	7.4	37.18	100	225	Average
5396	51.7	49.49	74	-22.3	31.99	7.4	37.18	100	225	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5146	44.6	42.72	54	-9.4	31.87	7.33	37.32	114	236	Average
5146	56.3	54.42	74	-17.7	31.87	7.33	37.32	114	236	Peak
5190	83.22	81.36			31.88	7.32	37.34	114	236	Average
5190	92.83	90.97			31.88	7.32	37.34	114	236	Peak
5402	40.17	37.96	54	-13.83	31.99	7.4	37.18	114	236	Average
5402	52.4	50.19	74	-21.6	31.99	7.4	37.18	114	236	Peak

REMARKS: 5190MHz: Fundamental frequency.



A D T

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5134	40.49	38.59	54	-13.51	31.86	7.34	37.3	102	228	Average
5134	51.83	49.93	74	-22.17	31.86	7.34	37.3	102	228	Peak
5230	79.11	77.18			31.91	7.34	37.32	102	228	Average
5230	88.58	86.65			31.91	7.34	37.32	102	228	Peak
5422	40.14	37.92	54	-13.86	32	7.4	37.18	102	228	Average
5422	51.94	49.72	74	-22.06	32	7.4	37.18	102	228	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5060	40.26	38.44	54	-13.74	31.82	7.25	37.25	100	244	Average
5060	52.96	51.14	74	-21.04	31.82	7.25	37.25	100	244	Peak
5230	83.51	81.58			31.91	7.34	37.32	100	244	Average
5230	93	91.07			31.91	7.34	37.32	100	244	Peak
5416	40.06	37.84	54	-13.94	32	7.4	37.18	100	244	Average
5416	51.57	49.35	74	-22.43	32	7.4	37.18	100	244	Peak

REMARKS: 5230MHz: Fundamental frequency.



A D T

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5136	40.21	38.31	54	-13.79	31.86	7.34	37.3	100	227	Average
5136	51.92	50.02	74	-22.08	31.86	7.34	37.3	100	227	Peak
5270	77.42	75.41			31.92	7.36	37.27	100	227	Average
5270	86.65	84.64			31.92	7.36	37.27	100	227	Peak
5454	40.34	37.88	54	-13.66	32.01	7.53	37.08	100	227	Average
5454	52.32	49.86	74	-21.68	32.01	7.53	37.08	100	227	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5062	39.98	38.16	54	-14.02	31.82	7.25	37.25	100	238	Average
5062	52.17	50.35	74	-21.83	31.82	7.25	37.25	100	238	Peak
5270	82.9	80.89			31.92	7.36	37.27	100	238	Average
5270	92.56	90.55			31.92	7.36	37.27	100	238	Peak
5402	40.05	37.84	54	-13.95	31.99	7.4	37.18	100	238	Average
5402	52.23	50.02	74	-21.77	31.99	7.4	37.18	100	238	Peak

REMARKS: 5270MHz: Fundamental frequency.



A D T

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5130	40.22	38.32	54	-13.78	31.86	7.34	37.3	100	221	Average
5130	52.35	50.45	74	-21.65	31.86	7.34	37.3	100	221	Peak
5310	76.87	74.71			31.95	7.4	37.19	100	221	Average
5310	86.06	83.9			31.95	7.4	37.19	100	221	Peak
5352	42.67	40.48	54	-11.33	31.97	7.4	37.18	100	221	Average
5352	60.57	58.38	74	-13.43	31.97	7.4	37.18	100	221	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5082	40.07	38.21	54	-13.93	31.83	7.3	37.27	103	191	Average
5082	52.53	50.67	74	-21.47	31.83	7.3	37.27	103	191	Peak
5310	86.31	84.15			31.95	7.4	37.19	103	191	Average
5310	95.72	93.56			31.95	7.4	37.19	103	191	Peak
5350	49.18	46.99	54	-4.82	31.97	7.4	37.18	103	191	Average
5350	66.61	64.42	74	-7.39	31.97	7.4	37.18	103	191	Peak

REMARKS: 5310MHz: Fundamental frequency.



A D T

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5376	39.81	37.62	54	-14.19	31.97	7.4	37.18	109	127	Average
5376	51.91	49.72	74	-22.09	31.97	7.4	37.18	109	127	Peak
5470	59.12	56.65	74	-14.88	32.02	7.53	37.08	109	127	Peak
5510	76.94	74.37			32.04	7.59	37.06	109	127	Average
5510	86.24	83.67			32.04	7.59	37.06	109	127	Peak
5725	50.5	47.86	74	-23.5	32.36	7.71	37.43	109	127	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	43.44	40.98	54	-10.56	32.01	7.53	37.08	100	180	Average
5460	59.22	56.76	74	-14.78	32.01	7.53	37.08	100	180	Peak
5470	67.69	65.22	74	-6.31	32.02	7.53	37.08	100	180	Peak
5510	87.38	84.81			32.04	7.59	37.06	100	180	Average
5510	97.47	94.9			32.04	7.59	37.06	100	180	Peak
5725	49.81	47.17	74	-24.19	32.36	7.71	37.43	100	180	Peak

REMARKS:

1. 5510MHz: Fundamental frequency.
2. 5470MHz & 5725MHz: Out of restricted band



A D T

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5396	39.75	37.54	54	-13.8	31.99	7.4	37.18	100	133	Average
5396	52.34	50.13	74	-21.66	31.99	7.4	37.18	100	133	Peak
5470	50.47	48	68.3	-17.83	32.02	7.53	37.08	100	133	Peak
5550	78.12	75.52			32.11	7.58	37.09	100	133	Average
5550	86.57	83.97			32.11	7.58	37.09	100	133	Peak
5725	51.48	48.84	68.3	-16.82	32.36	7.71	37.43	100	133	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5402	40.32	38.11	54	-13.68	31.99	7.4	37.18	100	190	Average
5402	52.8	50.59	74	-21.2	31.99	7.4	37.18	100	190	Peak
5470	50.84	48.37	68.3	-17.46	32.02	7.53	37.08	100	190	Peak
5550	87.17	84.57			32.11	7.58	37.09	100	190	Average
5550	96.9	94.3			32.11	7.58	37.09	100	190	Peak
5725	50.55	47.91	68.3	-17.75	32.36	7.71	37.43	100	190	Peak

REMARKS:

- 5550MHz: Fundamental frequency.
- 5470MHz & 5725MHz: Out of restricted band



A D T

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5384	39.77	37.57	54	-13.8	31.98	7.4	37.18	100	196	Average
5384	52.66	50.46	74	-21.66	31.98	7.4	37.18	100	196	Peak
5470	50.81	48.34	68.3	-17.49	32.02	7.53	37.08	100	196	Peak
5670	75.66	73.06			32.28	7.66	37.34	100	196	Average
5670	85.41	82.81			32.28	7.66	37.34	100	196	Peak
5725	51.79	49.15	68.3	-16.51	32.36	7.71	37.43	100	196	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5458	40.06	37.6	54	-13.94	32.01	7.53	37.08	100	249	Average
5458	52.94	50.48	74	-21.06	32.01	7.53	37.08	100	249	Peak
5470	51.2	48.73	68.3	-17.1	32.02	7.53	37.08	100	249	Peak
5670	84.69	82.09			32.28	7.66	37.34	100	249	Average
5670	94.33	91.73			32.28	7.66	37.34	100	249	Peak
5725	52.86	50.22	68.3	-15.44	32.36	7.71	37.43	100	249	Peak

REMARKS:

- 5670MHz: Fundamental frequency.
- 5470MHz & 5725MHz: Out of restricted band



A D T

BELOW 1GHz WORST-CASE DATA : 802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
42.15	25.12	41.92	40	-14.88	13.58	0.7	31.08	132	112	Peak
99.39	29.5	51.33	43.5	-14	9.06	1.07	31.96	103	256	Peak
224.67	37.52	57.16	46	-8.48	10.42	1.72	31.78	121	332	Peak
300.7	30.18	47.02	46	-15.82	12.96	2.05	31.85	125	224	Peak
603.1	23.48	32.93	46	-22.52	19.65	3.1	32.2	139	140	Peak
815.9	27.36	32.74	46	-18.64	22.43	3.73	31.54	122	107	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
41.88	35.33	52.14	40	-4.67	13.56	0.68	31.05	107	261	Peak
172.56	33.21	52.04	43.5	-10.29	11.47	1.46	31.76	108	251	Peak
228.18	30.25	49.81	46	-15.75	10.54	1.73	31.83	110	320	Peak
300	25.55	42.4	46	-20.45	12.94	2.05	31.84	100	332	Peak
487.6	24.06	36.03	46	-21.94	17.08	2.74	31.79	115	240	Peak
823.6	28.29	33.65	46	-17.71	22.53	3.75	31.64	113	182	Peak

4.2 CONDUCTED EMISSION MEASUREMENT

4.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dB μ V)	
	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	100289	Nov. 19, 2011	Nov. 18, 2012
RF signal cable Woken	5D-FB	Cable-HYCO2-01	Dec. 29, 2011	Dec. 28, 2012
LISN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Dec. 30, 2011	Dec. 29, 2012
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

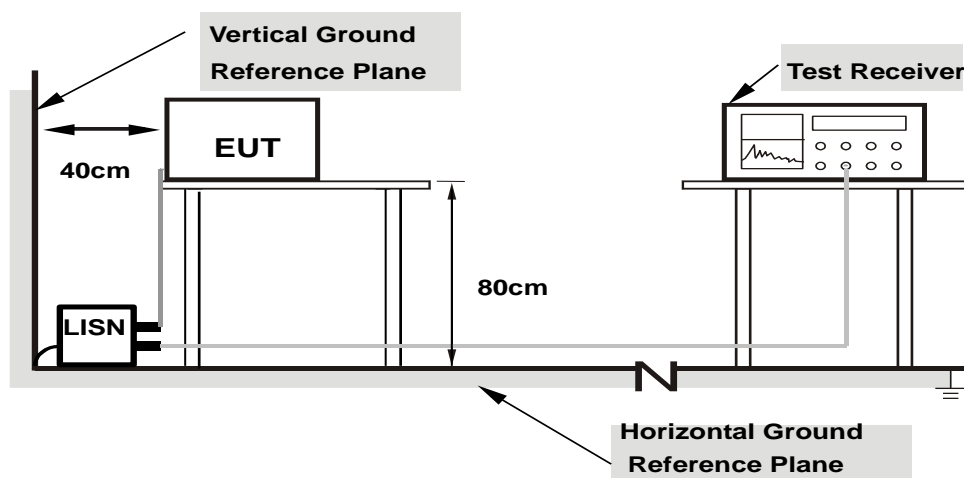
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

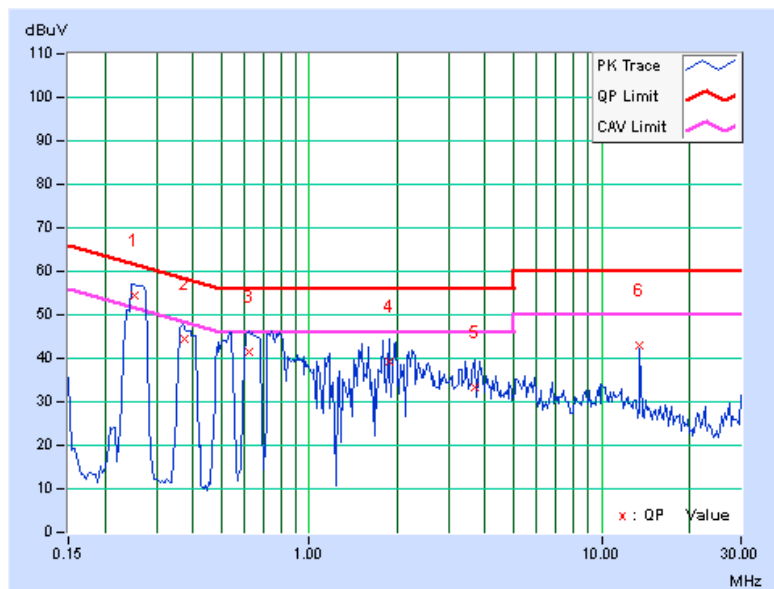
802.11n (20MHz)

PHASE	Line 1	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.25156	0.16	54.24	37.34	54.40	37.50	61.71
2	0.37266	0.17	44.26	28.63	44.43	28.80	58.44	48.44	-14.01	-19.64
3	0.61875	0.18	41.29	24.68	41.47	24.86	56.00	46.00	-14.53	-21.14
4	1.87500	0.25	39.10	21.04	39.35	21.29	56.00	46.00	-16.65	-24.71
5	3.67969	0.33	32.91	18.14	33.24	18.47	56.00	46.00	-22.76	-27.53
6	13.55859	0.50	42.47	38.85	42.97	39.35	60.00	50.00	-17.03	-10.65

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.

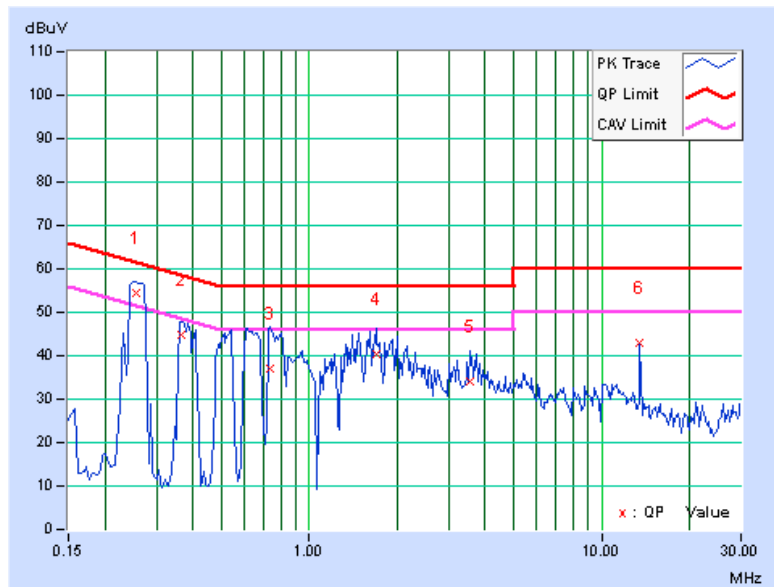


PHASE	Line 2	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.25547	0.15	54.43	37.80	54.58	37.95	61.58
2	0.36484	0.16	44.67	27.86	44.83	28.02	58.62	48.62	-13.79	-20.60
3	0.73594	0.18	37.00	20.93	37.18	21.11	56.00	46.00	-18.82	-24.89
4	1.69141	0.24	39.96	21.50	40.20	21.74	56.00	46.00	-15.80	-24.26
5	3.57031	0.33	33.92	18.45	34.25	18.78	56.00	46.00	-21.75	-27.22
6	13.55859	0.57	42.47	38.81	43.04	39.38	60.00	50.00	-16.96	-10.62

REMARKS:

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



4.3 PEAK TRANSMIT POWER MEASUREMENT

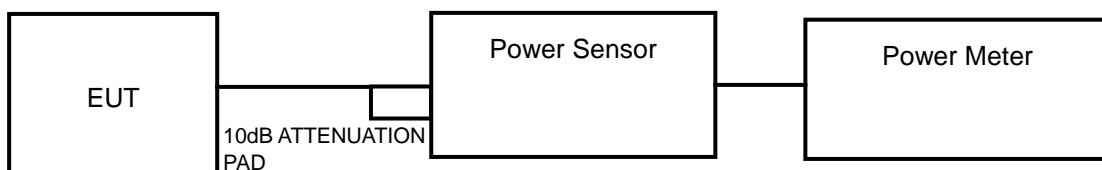
4.3.1 LIMITS OF PEAK TRANSMIT POWER MEASUREMENT

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

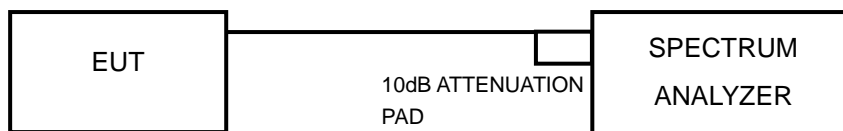
NOTE: Where B is the 26dB emission bandwidth in MHz.

4.3.2 TEST SETUP

FOR POWER OUTPUT MEASUREMENT



FOR 26dB BANDWIDTH



4.3.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.3.4 TEST PROCEDURE

FOR AVERAGE POWER MEASUREMENT

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

FOR 26dB BANDWIDTH

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

4.3.5 DEVIATION FROM TEST STANDARD

No deviation.

4.3.6 EUT OPERATING CONDITIONS

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

4.3.7 TEST RESULTS

POWER OUTPUT: 802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	20.045	13.02	17	PASS
44	5220	20.606	13.14	17	PASS
48	5240	20.941	13.21	17	PASS
52	5260	21.232	13.27	24	PASS
60	5300	20.893	13.20	24	PASS
64	5320	21.528	13.33	24	PASS
100	5500	19.454	12.89	24	PASS
116	5580	20.324	13.08	24	PASS
140	5700	19.320	12.86	24	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	20.277	13.07	17	PASS
44	5220	20.941	13.21	17	PASS
48	5240	21.232	13.27	17	PASS
52	5260	19.770	12.96	24	PASS
60	5300	20.893	13.20	24	PASS
64	5320	21.827	13.39	24	PASS
100	5500	19.861	12.98	24	PASS
116	5580	20.606	13.14	24	PASS
140	5700	19.724	12.95	24	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
38	5190	20.277	13.07	17	PASS
46	5230	20.941	13.21	17	PASS
54	5270	19.907	12.99	24	PASS
62	5310	21.086	13.24	24	PASS
102	5510	19.634	12.93	24	PASS
110	5550	20.045	13.02	24	PASS
134	5670	19.815	12.97	24	PASS



26dB BANDWIDTH: 802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
36	5180	24.14	PASS
44	5220	25.37	PASS
48	5240	24.06	PASS
52	5260	26.28	PASS
60	5300	25.14	PASS
64	5320	27.46	PASS
100	5500	24.95	PASS
116	5580	24.45	PASS
140	5700	27.39	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
36	5180	27.22	PASS
44	5220	26.42	PASS
48	5240	28.56	PASS
52	5260	27.07	PASS
60	5300	26.36	PASS
64	5320	27.66	PASS
100	5500	27.24	PASS
116	5580	28.42	PASS
140	5700	27.83	PASS

802.11n (40MHz)

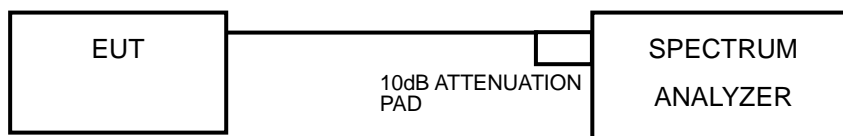
CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
38	5190	68.56	PASS
46	5230	70.96	PASS
54	5270	70.91	PASS
62	5310	71.32	PASS
102	5510	71.06	PASS
110	5550	65.64	PASS
134	5670	71.40	PASS

4.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

4.4.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

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

4.4.2 TEST SETUP



4.4.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.4.4 TEST PROCEDURES

Using method SA-2 alternative

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

4.4.5 DEVIATION FROM TEST STANDARD

No deviation.

4.4.6 EUT OPERATING CONDITIONS

Same as 4.3.6.



4.4.7 TEST RESULTS

802.11a

CHANNEL	FREQUENCY (MHz)	PSD (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	0.75	4	PASS
44	5220	1.08	4	PASS
48	5240	0.97	4	PASS
52	5260	0.92	11	PASS
60	5300	0.39	11	PASS
64	5320	0.37	11	PASS
100	5500	0.70	11	PASS
116	5580	0.82	11	PASS
140	5700	0.70	11	PASS

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	PSD (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	0.41	4	PASS
44	5220	0.77	4	PASS
48	5240	0.68	4	PASS
52	5260	0.21	11	PASS
60	5300	0.11	11	PASS
64	5320	0.08	11	PASS
100	5500	0.45	11	PASS
116	5580	0.69	11	PASS
140	5700	0.30	11	PASS

802.11n (40MHz)

CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
38	5190	-2.31	0.28	-2.03	4	PASS
46	5230	-2.07	0.28	-1.79	4	PASS
54	5270	-2.62	0.28	-2.34	11	PASS
62	5310	-2.65	0.28	-2.37	11	PASS
102	5510	-2.40	0.28	-2.12	11	PASS
110	5550	-2.39	0.28	-2.11	11	PASS
134	5670	-2.32	0.28	-2.04	11	PASS

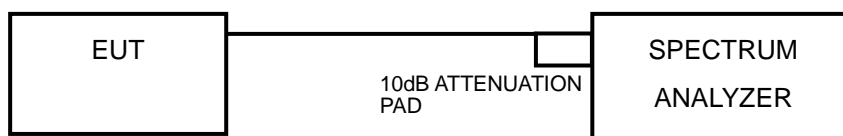
NOTE: Refer to section 3.3 for duty cycle spectrum plot.

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 \geq 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

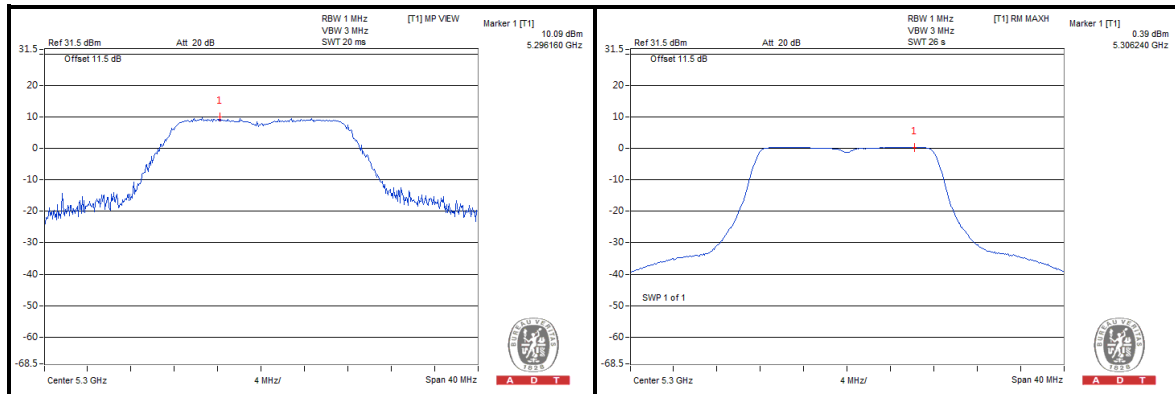


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4.5.7 TEST RESULTS

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD (dBm)	PEAK EXCURSION (dB)	LIMIT (dB)	PASS/FAIL
36	5180	10.08	0.75	9.33	13	PASS
44	5220	10.69	1.08	9.61	13	PASS
48	5240	10.22	0.97	9.25	13	PASS
52	5260	10.15	0.92	9.23	13	PASS
60	5300	10.09	0.39	9.70	13	PASS
64	5320	9.76	0.37	9.39	13	PASS
100	5500	10.06	0.70	9.36	13	PASS
116	5580	9.76	0.82	8.94	13	PASS
140	5700	9.47	0.70	8.77	13	PASS

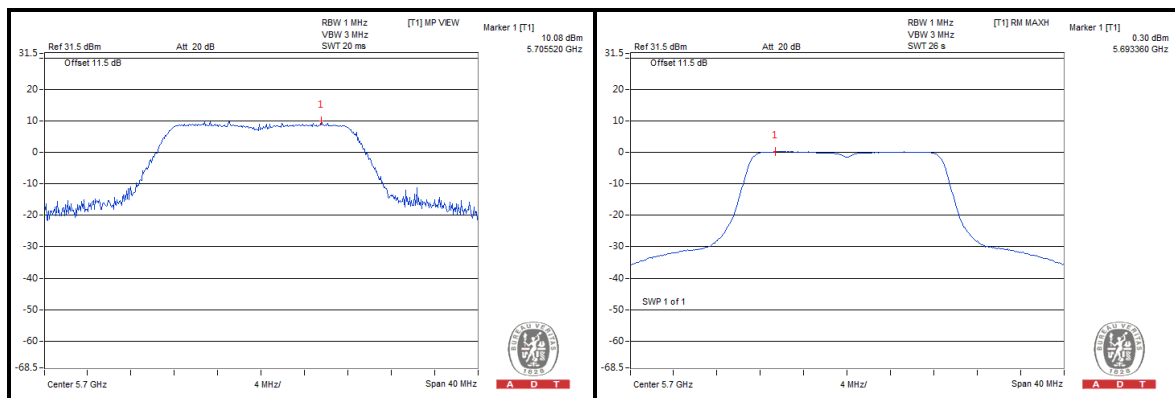




A D T

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD (dBm)	PEAK EXCURSION (dB)	LIMIT (dB)	PASS/FAIL
36	5180	10.28	0.41	9.87	13	PASS
44	5220	10.23	0.77	9.46	13	PASS
48	5240	10.23	0.68	9.55	13	PASS
52	5260	9.93	0.21	9.72	13	PASS
60	5300	10.07	0.11	9.96	13	PASS
64	5320	9.64	0.08	9.56	13	PASS
100	5500	9.66	0.45	9.21	13	PASS
116	5580	10.50	0.69	9.81	13	PASS
140	5700	10.08	0.30	9.78	13	PASS



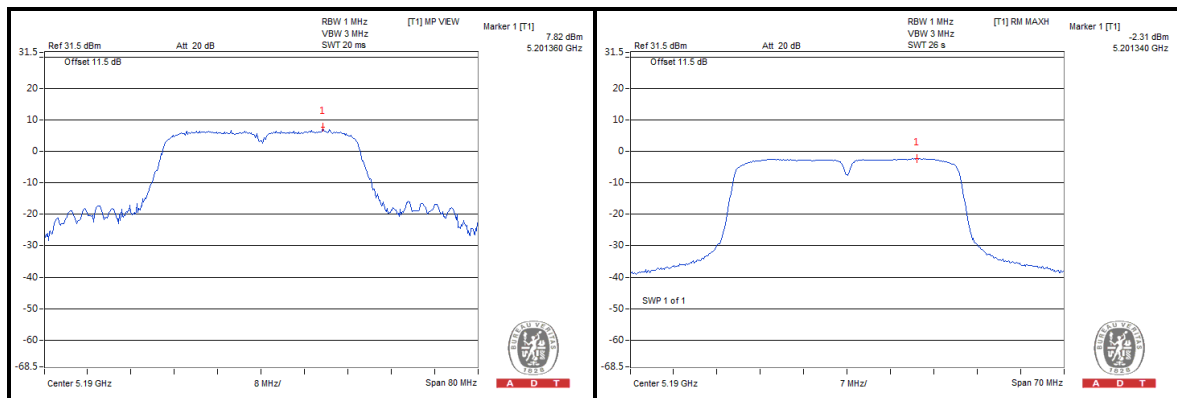


A D T

802.11n (40MHz)

CHAN.	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD WITHOUT DUTY FACTOR (dBm)	PPSD WITH DUTY FACTOR (dBm)	PEAK POWER EXCURSION (dB)	PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS /FAIL
38	5190	7.82	-2.31	-2.03	9.85	13	PASS
46	5230	7.14	-2.07	-1.79	8.93	13	PASS
54	5270	6.98	-2.62	-2.34	9.32	13	PASS
62	5310	6.94	-2.65	-2.37	9.31	13	PASS
102	5510	7.27	-2.40	-2.12	9.39	13	PASS
110	5550	6.90	-2.39	-2.11	9.01	13	PASS
134	5670	7.17	-2.32	-2.04	9.21	13	PASS

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

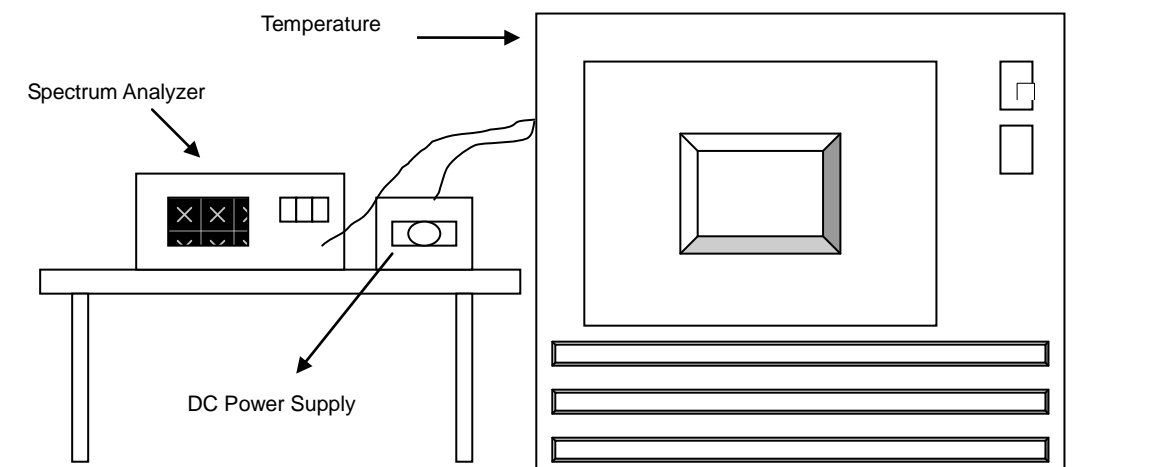


4.6 FREQUENCY STABILITY

4.6.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

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

4.6.2 TEST SETUP



4.6.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.6.4 TEST PROCEDURE

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

4.6.5 DEVIATION FROM TEST STANDARD

No deviation.

4.6.6 EUT OPERATING CONDITION

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

4.6.7 TEST RESULTS

FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5320MHz									
TEMP. (°C)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
55	3.75	5319.991449	-1.607	5319.991305	-1.634	5319.991223	-1.650	5319.991715	-1.557
50	3.75	5319.991990	-1.506	5319.991692	-1.562	5319.992274	-1.452	5319.992138	-1.478
40	3.75	5319.992018	-1.500	5319.992338	-1.440	5319.991729	-1.555	5319.991977	-1.508
30	3.75	5319.993651	-1.193	5319.993660	-1.192	5319.992968	-1.322	5319.993654	-1.193
20	3.75	5319.994873	-0.964	5319.994695	-0.997	5319.994619	-1.011	5319.994971	-0.945
10	3.75	5319.996043	-0.744	5319.996220	-0.711	5319.996205	-0.713	5319.996245	-0.706
0	3.75	5319.994549	-1.025	5319.994762	-0.985	5319.994954	-0.948	5319.994359	-1.060
-10	3.75	5319.993406	-1.239	5319.993064	-1.304	5319.993404	-1.240	5319.992972	-1.321
-20	3.75	5319.992798	-1.354	5319.992834	-1.347	5319.992495	-1.411	5319.992242	-1.458
-30	3.75	5319.991534	-1.591	5319.991410	-1.615	5319.991264	-1.642	5319.991279	-1.639

FREQUENCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5320MHz									
TEMP. (°C)	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	3.6	5319.994140	-1.102	5319.993639	-1.196	5319.994033	-1.122	5319.993967	-1.134
	3.75	5319.994819	-0.974	5319.994864	-0.965	5319.994917	-0.955	5319.994673	-1.001
	4.3	5319.996032	-0.746	5319.996017	-0.749	5319.996400	-0.677	5319.996539	-0.651

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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Fax: 886-2-26051924

Hsin Chu EMC/RF Lab:

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Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

The address and road map of all our labs can be found in our web site also.

7. APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No modifications were made to the EUT by the lab during the test.

---END---