



FCC TEST REPORT (15.407)

REPORT NO.: RF120621C20-5

MODEL NO.: PL83200

FCC ID: NM8PL83200

RECEIVED: Jun. 21, 2012

TESTED: Jul. 29 ~ Aug. 28, 2012

ISSUED: Sep. 04, 2012

APPLICANT: HTC Corporation

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

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF120621C20-5	Original release	Sep. 04, 2012



1. CERTIFICATION

PRODUCT: Smartphone
MODEL NO.: PL83200
BRAND: HTC
APPLICANT: HTC Corporation
TESTED: Jul. 29 ~ Aug. 28, 2012
TEST SAMPLE: Production Unit
STANDARDS: **FCC Part 15, Subpart E (Section 15.407)**
ANSI C63.10-2009

The above equipment (model: PL83200) 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** : Sep. 04, 2012
Ivonne Wu / Senior Specialist

APPROVED BY : Gary Chang , **DATE** : Sep. 04, 2012
Gary Chang / Technical 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 -12.38dB at 0.52109MHz.
15.407(b/1/2/3) (b)(6)	Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -0.8dB at 5725.00MHz.
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	Smartphone
MODEL NO.	PL83200
POWER SUPPLY	5.0Vdc (adapter or host equipment) 3.8Vdc (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	23.823mW for 5180 ~ 5240MHz 21.928mW for 5260 ~ 5320MHz 22.803mW for 5500 ~ 5700MHz
ANTENNA TYPE	PIFA antenna with -2dBi gain
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)
802.11a	5180-5320	36 to 64	36	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.

MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	5180-5320	36 to 64	36	OFDM	BPSK	6.0

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.

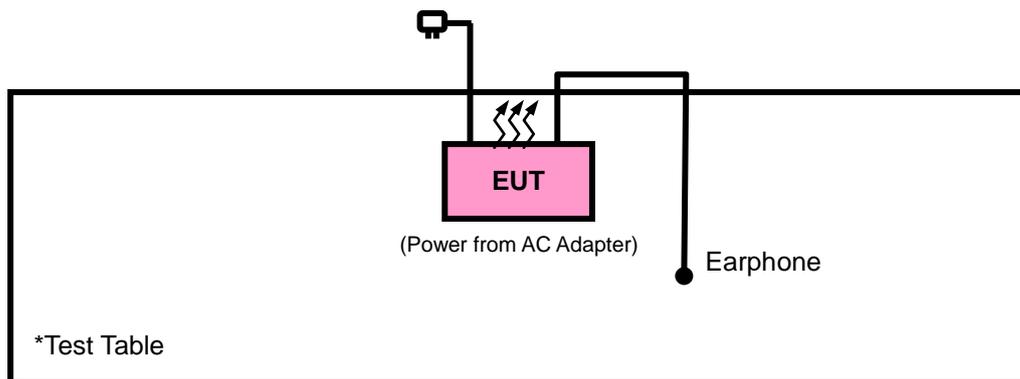
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Earphone	Merry	HS S250	NA	NA

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

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

802.11a: Duty cycle = 2.059/2.163 = 0.952, Duty factor = 10 * log(1/0.952) = 0.21

802.11n (20MHz): Duty cycle = 1.919/2.032 = 0.944, Duty factor = 10 * log(1/0.944) = 0.25

802.11n (40MHz): Duty cycle = 667.385/768.346 = 0.868, Duty factor = 10 * log(1/0.868) = 0.61



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.

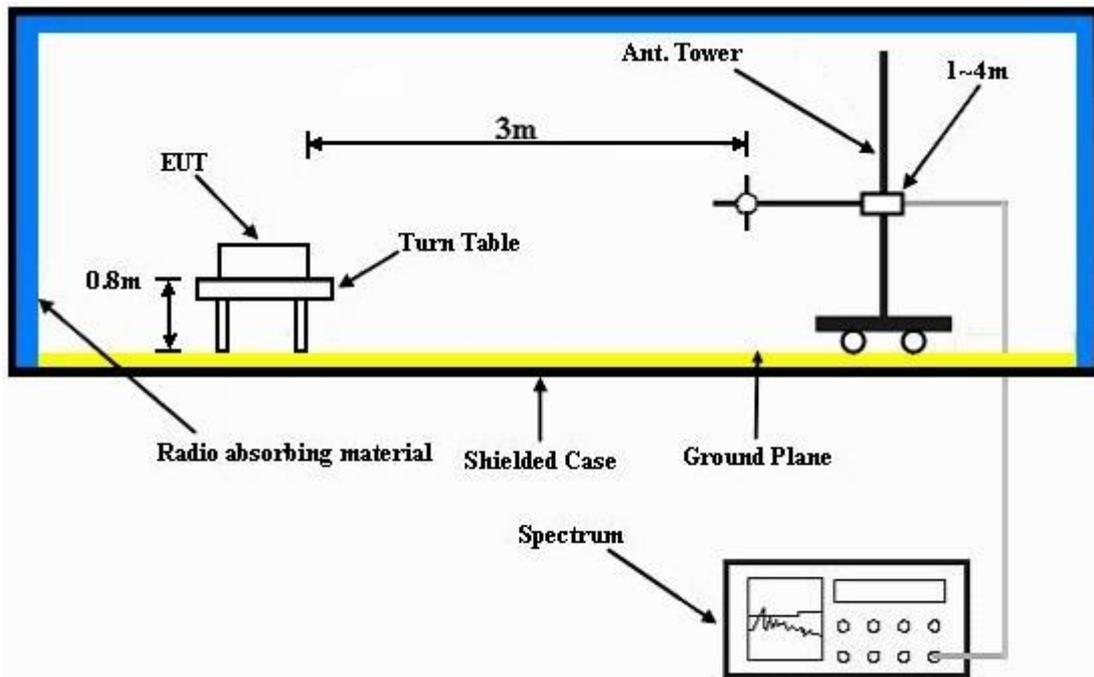
NOTE:

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 (SYSTEM)	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	44.62	42.74	54	-9.38	31.87	7.33	37.32	108	160	Average
5150	58.92	57.04	74	-15.08	31.87	7.33	37.32	108	160	Peak
5180	88.54	86.68			31.88	7.32	37.34	108	160	Average
5180	97.53	95.67			31.88	7.32	37.34	108	160	Peak
5350	41.78	39.59	54	-12.22	31.97	7.4	37.18	108	160	Average
5350	50.7	48.51	74	-23.3	31.97	7.4	37.18	108	160	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	46.55	44.67	54	-7.45	31.87	7.33	37.32	100	10	Average
5150	58.77	56.89	74	-15.23	31.87	7.33	37.32	100	10	Peak
5180	90.66	88.8			31.88	7.32	37.34	100	10	Average
5180	100.28	98.42			31.88	7.32	37.34	100	10	Peak
5350	40.46	38.27	54	-13.54	31.97	7.4	37.18	100	10	Average
5350	50.75	48.56	74	-23.25	31.97	7.4	37.18	100	10	Peak

REMARKS: 5180MHz: Fundamental frequency.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 44	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	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	42.41	40.53	54	-11.59	31.87	7.33	37.32	104	42	Average
5150	51.09	49.21	74	-22.91	31.87	7.33	37.32	104	42	Peak
5220	88.02	86.16			31.9	7.32	37.36	104	42	Average
5220	96.9	95.04			31.9	7.32	37.36	104	42	Peak
5350	42.52	40.33	54	-11.48	31.97	7.4	37.18	104	42	Average
5350	50.7	48.51	74	-23.3	31.97	7.4	37.18	104	42	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	41.89	40.01	54	-12.11	31.87	7.33	37.32	100	10	Average
5150	51.03	49.15	74	-22.97	31.87	7.33	37.32	100	10	Peak
5220	91.11	89.25			31.9	7.32	37.36	100	10	Average
5220	99.73	97.87			31.9	7.32	37.36	100	10	Peak
5350	42.61	40.42	54	-11.39	31.97	7.4	37.18	100	10	Average
5350	51.32	49.13	74	-22.68	31.97	7.4	37.18	100	10	Peak

REMARKS: 5220MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	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	42.46	40.58	54	-11.54	31.87	7.33	37.32	102	51	Average
5150	50.75	48.87	74	-23.25	31.87	7.33	37.32	102	51	Peak
5240	88.36	86.43			31.91	7.34	37.32	102	51	Average
5240	97.92	95.99			31.91	7.34	37.32	102	51	Peak
5350	42.51	40.32	54	-11.49	31.97	7.4	37.18	102	51	Average
5350	51.67	49.48	74	-22.33	31.97	7.4	37.18	102	51	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	42.3	40.42	54	-11.7	31.87	7.33	37.32	111	17	Average
5150	52.32	50.44	74	-21.68	31.87	7.33	37.32	111	17	Peak
5240	91.67	89.74			31.91	7.34	37.32	111	17	Average
5240	101.01	99.08			31.91	7.34	37.32	111	17	Peak
5350	42.44	40.25	54	-11.56	31.97	7.4	37.18	111	17	Average
5350	52.05	49.86	74	-21.95	31.97	7.4	37.18	111	17	Peak

REMARKS: 5240MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 52	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	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	41.37	39.49	54	-12.63	31.87	7.33	37.32	102	52	Average
5150	49.61	47.73	74	-24.39	31.87	7.33	37.32	102	52	Peak
5260	87.46	85.45			31.92	7.36	37.27	102	52	Average
5260	97.17	95.16			31.92	7.36	37.27	102	52	Peak
5350	41.6	39.41	54	-12.4	31.97	7.4	37.18	102	52	Average
5350	52.02	49.83	74	-21.98	31.97	7.4	37.18	102	52	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	41.88	40	54	-12.12	31.87	7.33	37.32	100	5	Average
5150	49.83	47.95	74	-24.17	31.87	7.33	37.32	100	5	Peak
5260	91.38	89.37			31.92	7.36	37.27	100	5	Average
5260	100.26	98.25			31.92	7.36	37.27	100	5	Peak
5350	42.64	40.45	54	-11.36	31.97	7.4	37.18	100	5	Average
5350	50.19	48	74	-23.81	31.97	7.4	37.18	100	5	Peak

REMARKS: 5260MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 60	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	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	42.18	40.3	54	-11.82	31.87	7.33	37.32	100	335	Average
5150	49.6	47.72	74	-24.4	31.87	7.33	37.32	100	335	Peak
5300	91.49	89.34			31.94	7.4	37.19	100	335	Average
5300	100.02	97.87			31.94	7.4	37.19	100	335	Peak
5350	42.63	40.44	54	-11.37	31.97	7.4	37.18	100	335	Average
5350	50.5	48.31	74	-23.5	31.97	7.4	37.18	100	335	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	41.94	40.06	54	-12.06	31.87	7.33	37.32	103	160	Average
5150	51.08	49.2	74	-22.92	31.87	7.33	37.32	103	160	Peak
5300	91.22	89.07			31.94	7.4	37.19	103	160	Average
5300	100.59	98.44			31.94	7.4	37.19	103	160	Peak
5350	43.73	41.54	54	-10.27	31.97	7.4	37.18	103	160	Average
5350	52.91	50.72	74	-21.09	31.97	7.4	37.18	103	160	Peak

REMARKS: 5300MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 64	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	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	42.35	40.47	54	-11.65	31.87	7.33	37.32	103	150	Average
5150	49.53	47.65	74	-24.47	31.87	7.33	37.32	103	150	Peak
5320	91.78	89.62			31.95	7.4	37.19	103	150	Average
5320	100.99	98.83			31.95	7.4	37.19	103	150	Peak
5350	45.62	43.43	54	-8.38	31.97	7.4	37.18	103	150	Average
5350	57.74	55.55	74	-16.26	31.97	7.4	37.18	103	150	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	42.2	40.32	54	-11.8	31.87	7.33	37.32	109	16	Average
5150	50.83	48.95	74	-23.17	31.87	7.33	37.32	109	16	Peak
5320	92.08	89.92			31.95	7.4	37.19	109	16	Average
5320	101.44	99.28			31.95	7.4	37.19	109	16	Peak
5350	45.18	42.99	54	-8.82	31.97	7.4	37.18	109	16	Average
5350	57.76	55.57	74	-16.24	31.97	7.4	37.18	109	16	Peak

REMARKS: 5320MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	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
5460	46.47	44.01	54	-7.53	32.01	7.53	37.08	100	159	Average
5460	57.63	55.17	74	-16.37	32.01	7.53	37.08	100	159	Peak
5470	64.77	62.3	68.3	-3.53	32.02	7.53	37.08	100	159	Peak
5500	95.83	93.23			32.04	7.59	37.03	100	159	Average
5500	104.44	101.84			32.04	7.59	37.03	100	159	Peak
5725	52.14	49.5	68.3	-16.16	32.36	7.71	37.43	100	159	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	43.23	40.77	54	-10.77	32.01	7.53	37.08	100	304	Average
5460	54.19	51.73	74	-19.81	32.01	7.53	37.08	100	304	Peak
5470	62.03	59.56	68.3	-6.27	32.02	7.53	37.08	100	304	Peak
5500	92.24	89.64			32.04	7.59	37.03	100	304	Average
5500	101.86	99.26			32.04	7.59	37.03	100	304	Peak
5725	51.98	49.34	68.3	-16.32	32.36	7.71	37.43	100	304	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 (SYSTEM)	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
5460	42.87	40.41	54	-11.13	32.01	7.53	37.08	100	160	Average
5460	51.9	49.44	74	-22.1	32.01	7.53	37.08	100	160	Peak
5470	52.76	50.29	68.3	-15.54	32.02	7.53	37.08	100	160	Peak
5580	94.94	92.39			32.14	7.57	37.16	100	160	Average
5580	104.16	101.61			32.14	7.57	37.16	100	160	Peak
5725	52.26	49.62	68.3	-16.04	32.36	7.71	37.43	100	160	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	42.76	40.3	54	-11.24	32.01	7.53	37.08	120	116	Average
5460	51.47	49.01	74	-22.53	32.01	7.53	37.08	120	116	Peak
5470	52.25	49.78	68.3	-16.05	32.02	7.53	37.08	120	116	Peak
5580	94.24	91.69			32.14	7.57	37.16	120	116	Average
5580	103.58	101.03			32.14	7.57	37.16	120	116	Peak
5725	51.48	48.84	68.3	-16.82	32.36	7.71	37.43	120	116	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 (SYSTEM)	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
3800	49.59	50.96	54	-4.41	29.51	6.18	37.06	100	360	Average
3800	52.93	54.3	74	-21.07	29.51	6.18	37.06	100	360	Peak
5454	40.56	38.1	54	-13.44	32.01	7.53	37.08	107	149	Average
5454	52.87	50.41	74	-21.13	32.01	7.53	37.08	107	149	Peak
5470	50.18	47.71	68.3	-18.12	32.02	7.53	37.08	107	149	Peak
5700	95.67	93.07			32.31	7.69	37.4	107	149	Average
5700	104.4	101.8			32.31	7.69	37.4	107	149	Peak
5725	67.5	64.86	68.3	-0.8	32.36	7.71	37.43	107	149	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
5412	40.23	38.01	54	-13.77	32	7.4	37.18	100	347	Average
5412	51.78	49.56	74	-22.22	32	7.4	37.18	100	347	Peak
5470	49.98	47.51	68.3	-18.32	32.02	7.53	37.08	100	347	Peak
5700	92.85	90.25			32.31	7.69	37.4	100	347	Average
5700	101.92	99.32			32.31	7.69	37.4	100	347	Peak
5725	62.96	60.32	68.3	-5.34	32.36	7.71	37.43	100	347	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 (SYSTEM)	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	42.73	40.85	54	-11.27	31.87	7.33	37.32	100	215	Average
5150	54.11	52.23	74	-19.89	31.87	7.33	37.32	100	215	Peak
5180	85.67	83.81			31.88	7.32	37.34	100	215	Average
5180	94.12	92.26			31.88	7.32	37.34	100	215	Peak
5350	41.93	39.74	54	-12.07	31.97	7.4	37.18	100	215	Average
5350	51.06	48.87	74	-22.94	31.97	7.4	37.18	100	215	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	44.91	43.03	54	-9.09	31.87	7.33	37.32	100	12	Average
5150	59.35	57.47	74	-14.65	31.87	7.33	37.32	100	12	Peak
5180	89.73	87.87			31.88	7.32	37.34	100	12	Average
5180	98.59	96.73			31.88	7.32	37.34	100	12	Peak
5350	42.39	40.2	54	-11.61	31.97	7.4	37.18	100	12	Average
5350	50.51	48.32	74	-23.49	31.97	7.4	37.18	100	12	Peak

REMARKS: 5180MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 44	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	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	42.09	40.21	54	-11.91	31.87	7.33	37.32	116	242	Average
5150	50.23	48.35	74	-23.77	31.87	7.33	37.32	116	242	Peak
5220	85.44	83.58			31.9	7.32	37.36	116	242	Average
5220	94.27	92.41			31.9	7.32	37.36	116	242	Peak
5350	42.39	40.2	54	-11.61	31.97	7.4	37.18	116	242	Average
5350	49.53	47.34	74	-24.47	31.97	7.4	37.18	116	242	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	42.3	40.42	54	-11.7	31.87	7.33	37.32	100	12	Average
5150	50.27	48.39	74	-23.73	31.87	7.33	37.32	100	12	Peak
5220	88.98	87.12			31.9	7.32	37.36	100	12	Average
5220	97.24	95.38			31.9	7.32	37.36	100	12	Peak
5350	42.67	40.48	54	-11.33	31.97	7.4	37.18	100	12	Average
5350	49.91	47.72	74	-24.09	31.97	7.4	37.18	100	12	Peak

REMARKS: 5220MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	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	41.95	40.07	54	-12.05	31.87	7.33	37.32	102	50	Average
5150	50.11	48.23	74	-23.89	31.87	7.33	37.32	102	50	Peak
5240	86.99	85.06			31.91	7.34	37.32	102	50	Average
5240	96.1	94.17			31.91	7.34	37.32	102	50	Peak
5350	42.43	40.24	54	-11.57	31.97	7.4	37.18	102	50	Average
5350	50.36	48.17	74	-23.64	31.97	7.4	37.18	102	50	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	42.3	40.42	54	-11.7	31.87	7.33	37.32	100	10	Average
5150	50.71	48.83	74	-23.29	31.87	7.33	37.32	100	10	Peak
5240	90.41	88.48			31.91	7.34	37.32	100	10	Average
5240	99.81	97.88			31.91	7.34	37.32	100	10	Peak
5350	42.52	40.33	54	-11.48	31.97	7.4	37.18	100	10	Average
5350	52.58	50.39	74	-21.42	31.97	7.4	37.18	100	10	Peak

REMARKS: 5240MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 52	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	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	41.94	40.06	54	-12.06	31.87	7.33	37.32	100	228	Average
5150	49.31	47.43	74	-24.69	31.87	7.33	37.32	100	228	Peak
5260	85.68	83.67			31.92	7.36	37.27	100	228	Average
5260	94.34	92.33			31.92	7.36	37.27	100	228	Peak
5350	42.33	40.14	54	-11.67	31.97	7.4	37.18	100	228	Average
5350	50.59	48.4	74	-23.41	31.97	7.4	37.18	100	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
5150	42.34	40.46	54	-11.66	31.87	7.33	37.32	100	10	Average
5150	51.78	49.9	74	-22.22	31.87	7.33	37.32	100	10	Peak
5260	88.95	86.94			31.92	7.36	37.27	100	10	Average
5260	98.38	96.37			31.92	7.36	37.27	100	10	Peak
5350	42.4	40.21	54	-11.6	31.97	7.4	37.18	100	10	Average
5350	50.15	47.96	74	-23.85	31.97	7.4	37.18	100	10	Peak

REMARKS: 5260MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 60	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	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	42.08	40.2	54	-11.92	31.87	7.33	37.32	103	166	Average
5150	50.14	48.26	74	-23.86	31.87	7.33	37.32	103	166	Peak
5300	90.7	88.55			31.94	7.4	37.19	103	166	Average
5300	99.78	97.63			31.94	7.4	37.19	103	166	Peak
5350	42.99	40.8	54	-11.01	31.97	7.4	37.18	103	166	Average
5350	51.5	49.31	74	-22.5	31.97	7.4	37.18	103	166	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	42.26	40.38	54	-11.74	31.87	7.33	37.32	119	193	Average
5150	50.78	48.9	74	-23.22	31.87	7.33	37.32	119	193	Peak
5300	89.29	87.14			31.94	7.4	37.19	119	193	Average
5300	98.54	96.39			31.94	7.4	37.19	119	193	Peak
5350	42.63	40.44	54	-11.37	31.97	7.4	37.18	119	193	Average
5350	51.78	49.59	74	-22.22	31.97	7.4	37.18	119	193	Peak

REMARKS: 5300MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 64	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	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	42.15	40.27	54	-11.85	31.87	7.33	37.32	104	169	Average
5150	49.64	47.76	74	-24.36	31.87	7.33	37.32	104	169	Peak
5320	90.52	88.36			31.95	7.4	37.19	104	169	Average
5320	99.41	97.25			31.95	7.4	37.19	104	169	Peak
5350	45	42.81	54	-9	31.97	7.4	37.18	104	169	Average
5350	55.18	52.99	74	-18.82	31.97	7.4	37.18	104	169	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	42.3	40.42	54	-11.7	31.87	7.33	37.32	100	335	Average
5150	51.08	49.2	74	-22.92	31.87	7.33	37.32	100	335	Peak
5320	87.76	85.6			31.95	7.4	37.19	100	335	Average
5320	96.85	94.69			31.95	7.4	37.19	100	335	Peak
5350	41.58	39.39	54	-12.42	31.97	7.4	37.18	100	335	Average
5350	54.26	52.07	74	-19.74	31.97	7.4	37.18	100	335	Peak

REMARKS: 5320MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	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
5460	44.66	42.2	54	-9.34	32.01	7.53	37.08	111	239	Average
5460	57.77	55.31	74	-16.23	32.01	7.53	37.08	111	239	Peak
5470	60.9	58.43	68.3	-7.4	32.02	7.53	37.08	111	239	Peak
5500	93.46	90.86			32.04	7.59	37.03	111	239	Average
5500	102.69	100.09			32.04	7.59	37.03	111	239	Peak
5725	50.73	48.09	68.3	-17.57	32.36	7.71	37.43	111	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
5460	43.93	41.47	54	-10.07	32.01	7.53	37.08	118	206	Average
5460	54.28	51.82	74	-19.72	32.01	7.53	37.08	118	206	Peak
5470	63.62	61.15	68.3	-4.68	32.02	7.53	37.08	118	206	Peak
5500	93.55	90.95			32.04	7.59	37.03	118	206	Average
5500	102.62	100.02			32.04	7.59	37.03	118	206	Peak
5725	51.5	48.86	68.3	-16.8	32.36	7.71	37.43	118	206	Peak

REMARKS:

1. 5500MHz: 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 (SYSTEM)	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
5460	42.76	40.3	54	-11.24	32.01	7.53	37.08	100	157	Average
5460	50.7	48.24	74	-23.3	32.01	7.53	37.08	100	157	Peak
5470	52.65	50.18	68.3	-15.65	32.02	7.53	37.08	100	157	Peak
5580	94.57	92.02			32.14	7.57	37.16	100	157	Average
5580	103.45	100.9			32.14	7.57	37.16	100	157	Peak
5725	52.74	50.1	68.3	-15.56	32.36	7.71	37.43	100	157	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	42.81	40.35	54	-11.19	32.01	7.53	37.08	116	183	Average
5460	52.58	50.12	74	-21.42	32.01	7.53	37.08	116	183	Peak
5470	51.75	49.28	68.3	-16.55	32.02	7.53	37.08	116	183	Peak
5580	94.73	92.18			32.14	7.57	37.16	116	183	Average
5580	103.62	101.07			32.14	7.57	37.16	116	183	Peak
5725	52.84	50.2	68.3	-15.46	32.36	7.71	37.43	116	183	Peak

REMARKS:

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



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 140	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	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
3800	49.48	50.85	54	-4.52	29.51	6.18	37.06	100	360	Average
3800	52.88	54.25	74	-21.12	29.51	6.18	37.06	100	360	Peak
5398	40.37	38.16	54	-13.63	31.99	7.4	37.18	108	146	Average
5398	52.19	49.98	74	-21.81	31.99	7.4	37.18	108	146	Peak
5470	50.37	47.9	68.3	-17.93	32.02	7.53	37.08	108	146	Peak
5700	92.33	89.73			32.31	7.69	37.4	108	146	Average
5700	102.61	100.01			32.31	7.69	37.4	108	146	Peak
5725	67.22	64.58	68.3	-1.08	32.36	7.71	37.43	108	146	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	40.39	37.93	54	-13.61	32.01	7.53	37.08	100	346	Average
5458	52.12	49.66	74	-21.88	32.01	7.53	37.08	100	346	Peak
5470	51.16	48.69	68.3	-17.14	32.02	7.53	37.08	100	346	Peak
5700	92.53	89.93			32.31	7.69	37.4	100	346	Average
5700	101.34	98.74			32.31	7.69	37.4	100	346	Peak
5725	65.11	62.47	68.3	-3.19	32.36	7.71	37.43	100	346	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 (SYSTEM)	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
5148	47.78	45.9	54	-6.22	31.87	7.33	37.32	100	47	Average
5148	61.81	59.93	74	-12.19	31.87	7.33	37.32	100	47	Peak
5190	83.13	81.27			31.88	7.32	37.34	100	47	Average
5190	92.55	90.69			31.88	7.32	37.34	100	47	Peak
5376	40.83	38.64	54	-13.17	31.97	7.4	37.18	100	47	Average
5376	53.07	50.88	74	-20.93	31.97	7.4	37.18	100	47	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	50.15	48.27	54	-3.85	31.87	7.33	37.32	100	0	Average
5150	67.46	65.58	74	-6.54	31.87	7.33	37.32	100	0	Peak
5190	85.91	84.05			31.88	7.32	37.34	100	0	Average
5190	95.18	93.32			31.88	7.32	37.34	100	0	Peak
5360	40.64	38.45	54	-13.36	31.97	7.4	37.18	100	0	Average
5360	52.61	50.42	74	-21.39	31.97	7.4	37.18	100	0	Peak

REMARKS: 5190MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 46	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	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
5058	40.37	38.55	54	-13.63	31.82	7.25	37.25	100	46	Average
5058	53.19	51.37	74	-20.81	31.82	7.25	37.25	100	46	Peak
5230	84.1	82.17			31.91	7.34	37.32	100	46	Average
5230	93.55	91.62			31.91	7.34	37.32	100	46	Peak
5450	41.12	38.66	54	-12.88	32.01	7.53	37.08	100	46	Average
5450	53.69	51.23	74	-20.31	32.01	7.53	37.08	100	46	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5144	40.89	39.01	54	-13.11	31.87	7.33	37.32	100	0	Average
5144	52.8	50.92	74	-21.2	31.87	7.33	37.32	100	0	Peak
5230	87.02	85.09			31.91	7.34	37.32	100	0	Average
5230	96.86	94.93			31.91	7.34	37.32	100	0	Peak
5460	40.94	38.48	54	-13.06	32.01	7.53	37.08	100	0	Average
5460	52.96	50.5	74	-21.04	32.01	7.53	37.08	100	0	Peak

REMARKS: 5230MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 54	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	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
5124	40.67	38.77	54	-13.33	31.86	7.34	37.3	103	162	Average
5124	52.15	50.25	74	-21.85	31.86	7.34	37.3	103	162	Peak
5270	86.1	84.09			31.92	7.36	37.27	103	162	Average
5270	96.05	94.04			31.92	7.36	37.27	103	162	Peak
5350	41.82	39.63	54	-12.18	31.97	7.4	37.18	103	162	Average
5350	55.35	53.16	74	-18.65	31.97	7.4	37.18	103	162	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
5064	40.46	38.64	54	-13.54	31.82	7.25	37.25	100	5	Average
5064	52.44	50.62	74	-21.56	31.82	7.25	37.25	100	5	Peak
5270	86.4	84.39			31.92	7.36	37.27	100	5	Average
5270	95.89	93.88			31.92	7.36	37.27	100	5	Peak
5422	41.16	38.94	54	-12.84	32	7.4	37.18	100	5	Average
5422	52.47	50.25	74	-21.53	32	7.4	37.18	100	5	Peak

REMARKS: 5270MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 62	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	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
5128	40.35	38.45	54	-13.65	31.86	7.34	37.3	104	171	Average
5128	51.96	50.06	74	-22.04	31.86	7.34	37.3	104	171	Peak
5310	86.37	84.21			31.95	7.4	37.19	104	171	Average
5310	95.94	93.78			31.95	7.4	37.19	104	171	Peak
5350	50.59	48.4	54	-3.41	31.97	7.4	37.18	104	171	Average
5350	72.8	70.61	74	-1.2	31.97	7.4	37.18	104	171	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	40.43	38.51	54	-13.57	31.85	7.35	37.28	100	4	Average
5114	52.33	50.41	74	-21.67	31.85	7.35	37.28	100	4	Peak
5310	86.52	84.36			31.95	7.4	37.19	100	4	Average
5310	96.4	94.24			31.95	7.4	37.19	100	4	Peak
5350	49.68	47.49	54	-4.32	31.97	7.4	37.18	100	4	Average
5350	69.9	67.71	74	-4.1	31.97	7.4	37.18	100	4	Peak

REMARKS: 5310MHz: Fundamental frequency.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 102	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	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
5460	44.49	42.03	54	-9.51	32.01	7.53	37.08	100	162	Average
5460	55.22	52.76	74	-18.78	32.01	7.53	37.08	100	162	Peak
5470	66.09	63.62	68.3	-2.21	32.02	7.53	37.08	100	162	Peak
5510	88.53	85.96			32.04	7.59	37.06	100	162	Average
5510	97.49	94.92			32.04	7.59	37.06	100	162	Peak
5725	50.05	47.41	68.3	-18.25	32.36	7.71	37.43	100	162	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	42.91	40.45	54	-11.09	32.01	7.53	37.08	100	111	Average
5460	53.23	50.77	74	-20.77	32.01	7.53	37.08	100	111	Peak
5470	58.13	55.66	68.3	-10.17	32.02	7.53	37.08	100	111	Peak
5510	85.78	83.21			32.04	7.59	37.06	100	111	Average
5510	94.9	92.33			32.04	7.59	37.06	100	111	Peak
5725	50.1	47.46	68.3	-18.2	32.36	7.71	37.43	100	111	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 (SYSTEM)	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
5460	43.18	40.72	54	-10.82	32.01	7.53	37.08	100	162	Average
5460	53.83	51.37	74	-20.17	32.01	7.53	37.08	100	162	Peak
5470	56.09	53.62	68.3	-12.21	32.02	7.53	37.08	100	162	Peak
5550	90.76	88.16			32.11	7.58	37.09	100	162	Average
5550	100.44	97.84			32.11	7.58	37.09	100	162	Peak
5725	51.05	48.41	68.3	-17.25	32.36	7.71	37.43	100	162	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	42.51	40.05	54	-11.49	32.01	7.53	37.08	100	118	Average
5460	52.63	50.17	74	-21.37	32.01	7.53	37.08	100	118	Peak
5470	52.37	49.9	68.3	-15.93	32.02	7.53	37.08	100	118	Peak
5550	89.13	86.53			32.11	7.58	37.09	100	118	Average
5550	99.03	96.43			32.11	7.58	37.09	100	118	Peak
5725	51.23	48.59	68.3	-17.07	32.36	7.71	37.43	100	118	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 (SYSTEM)	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
3780	49.99	51.43	54	-4.01	29.48	6.14	37.06	100	136	Average
3780	56.3	57.74	74	-17.7	29.48	6.14	37.06	100	126	Peak
5460	42.4	39.94	54	-11.6	32.01	7.53	37.08	100	30	Average
5460	51.9	49.44	74	-22.1	32.01	7.53	37.08	100	30	Peak
5470	52.54	50.07	68.3	-15.76	32.02	7.53	37.08	100	30	Peak
5670	91.3	88.7			32.28	7.66	37.34	100	30	Average
5670	101.81	99.21			32.28	7.66	37.34	100	30	Peak
5725	62.87	60.23	68.3	-5.43	32.36	7.71	37.43	100	30	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	42.51	40.05	54	-11.49	32.01	7.53	37.08	115	182	Average
5460	51.3	48.84	74	-22.7	32.01	7.53	37.08	115	182	Peak
5470	50.63	48.16	68.3	-17.67	32.02	7.53	37.08	115	182	Peak
5670	92.9	90.3			32.28	7.66	37.34	115	182	Average
5670	102.51	99.91			32.28	7.66	37.34	115	182	Peak
5725	63.09	60.45	68.3	-5.21	32.36	7.71	37.43	115	182	Peak

REMARKS:

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



A D T

BELOW 1GHz WORST-CASE DATA : 802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	30MHz ~ 1GHz
INPUT POWER (SYSTEM)	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
55.38	19.47	37.55	40	-20.53	12.45	0.8	31.33	100	213	Peak
123.96	31.9	51.3	43.5	-11.6	11.28	1.21	31.89	100	243	Peak
240.06	30.33	49.26	46	-15.67	11.07	1.79	31.79	100	241	Peak
560.4	23.61	33.99	46	-22.39	18.7	2.98	32.06	100	136	Peak
774.6	27.48	33.34	46	-18.52	21.87	3.63	31.36	100	213	Peak
923	28.57	32.91	46	-17.43	23.64	4.02	32	100	178	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
32.7	31.85	49.89	40	-8.15	12.47	0.58	31.09	100	266	Peak
172.83	30.31	49.14	43.5	-13.19	11.47	1.46	31.76	100	185	Peak
244.92	30.65	49.42	46	-15.35	11.28	1.82	31.87	100	163	Peak
706.7	26.11	33.5	46	-19.89	20.92	3.45	31.76	100	134	Peak
773.2	27.61	33.47	46	-18.39	21.85	3.63	31.34	100	183	Peak
840.4	28.26	33.53	46	-17.74	22.74	3.79	31.8	100	117	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

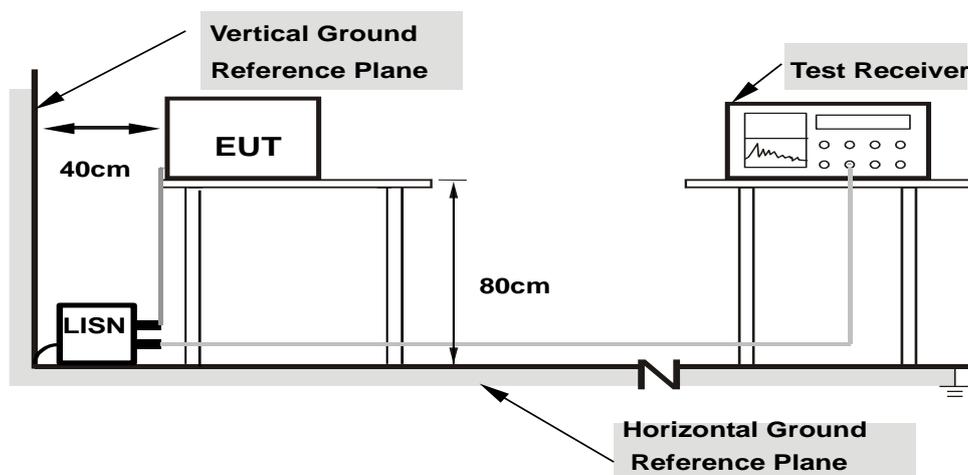
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

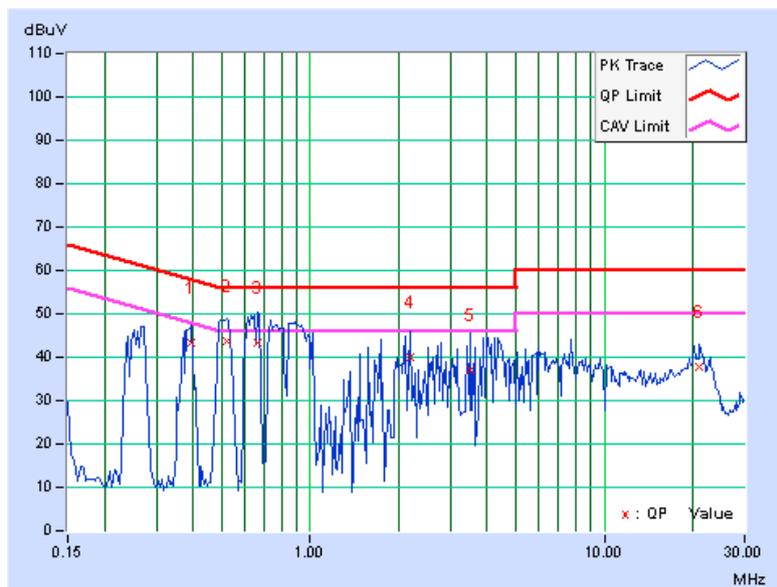
802.11a

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	0.39609	0.20	42.96	22.03	43.16	22.23	57.93
2	0.52109	0.21	43.41	21.81	43.62	22.02	56.00	46.00	-12.38	-23.98
3	0.66563	0.21	43.30	21.64	43.51	21.85	56.00	46.00	-12.49	-24.15
4	2.18750	0.31	39.57	18.66	39.88	18.97	56.00	46.00	-16.12	-27.03
5	3.52344	0.37	36.67	17.14	37.04	17.51	56.00	46.00	-18.96	-28.49
6	21.13281	0.72	37.03	24.61	37.75	25.33	60.00	50.00	-22.25	-24.67

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.





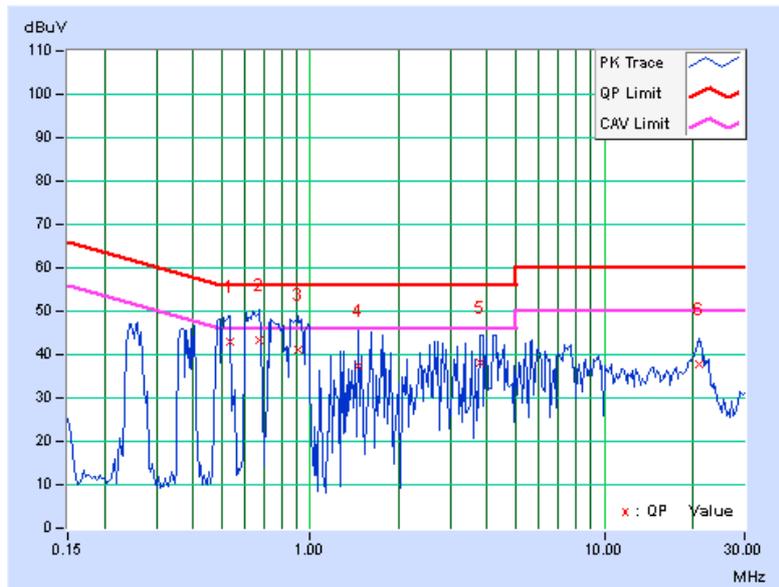
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PHASE	Line 2	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.53672	0.18	42.95	20.83	43.13	21.01	56.00
2	0.67344	0.18	43.00	19.74	43.18	19.92	56.00	46.00	-12.82	-26.08
3	0.90781	0.19	40.98	17.04	41.17	17.23	56.00	46.00	-14.83	-28.77
4	1.44922	0.23	37.36	17.32	37.59	17.55	56.00	46.00	-18.41	-28.45
5	3.80078	0.37	37.80	18.88	38.17	19.25	56.00	46.00	-17.83	-26.75
6	20.94922	0.81	36.88	23.78	37.69	24.59	60.00	50.00	-22.31	-25.41

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

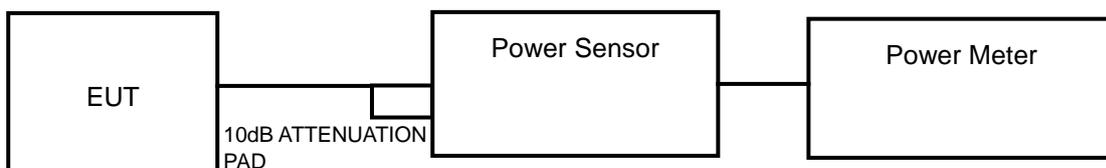
4.3.1 LIMITS OF PEAK TRANSMIT POWER MEASUREMENT

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

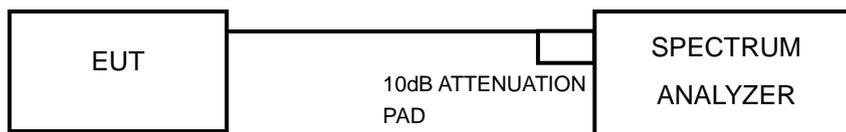
NOTE: Where B is the 26dB emission bandwidth in MHz.

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	23.823	13.77	17	PASS
44	5220	23.067	13.63	17	PASS
48	5240	22.439	13.51	17	PASS
52	5260	21.928	13.41	24	PASS
60	5300	20.324	13.08	24	PASS
64	5320	19.724	12.95	24	PASS
100	5500	22.803	13.58	24	PASS
116	5580	19.320	12.86	24	PASS
140	5700	19.143	12.82	24	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	20.989	13.22	17	PASS
44	5220	20.464	13.11	17	PASS
48	5240	19.634	12.93	17	PASS
52	5260	19.409	12.88	24	PASS
60	5300	17.824	12.51	24	PASS
64	5320	17.378	12.40	24	PASS
100	5500	20.797	13.18	24	PASS
116	5580	17.498	12.43	24	PASS
140	5700	13.521	11.31	24	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
38	5190	22.284	13.48	17	PASS
46	5230	21.727	13.37	17	PASS
54	5270	20.324	13.08	24	PASS
62	5310	19.055	12.80	24	PASS
102	5510	10.495	10.21	24	PASS
110	5550	19.861	12.98	24	PASS
134	5670	16.596	12.20	24	PASS



26dB BANDWIDTH: 802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
36	5180	39.71	PASS
44	5220	39.80	PASS
48	5240	40.00	PASS
52	5260	39.83	PASS
60	5300	39.82	PASS
64	5320	39.75	PASS
100	5500	40.00	PASS
116	5580	40.00	PASS
140	5700	40.00	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
36	5180	37.98	PASS
44	5220	28.65	PASS
48	5240	29.93	PASS
52	5260	28.26	PASS
60	5300	29.17	PASS
64	5320	29.53	PASS
100	5500	40.00	PASS
116	5580	40.00	PASS
140	5700	40.00	PASS

802.11n (40MHz)

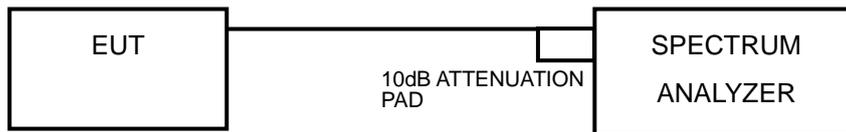
CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
38	5190	76.52	PASS
46	5230	76.25	PASS
54	5270	76.83	PASS
62	5310	76.54	PASS
102	5510	80.00	PASS
110	5550	80.00	PASS
134	5670	80.00	PASS

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 W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	3.27	0.21	3.48	4	PASS
44	5220	3.20	0.21	3.41	4	PASS
48	5240	3.05	0.21	3.26	4	PASS
52	5260	3.05	0.21	3.26	11	PASS
60	5300	2.75	0.21	2.96	11	PASS
64	5320	2.52	0.21	2.73	11	PASS
100	5500	3.31	0.21	3.52	11	PASS
116	5580	3.09	0.21	3.30	11	PASS
140	5700	2.62	0.21	2.83	11	PASS

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

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	1.33	0.25	1.58	4	PASS
44	5220	1.15	0.25	1.4	4	PASS
48	5240	1.09	0.25	1.34	4	PASS
52	5260	0.93	0.25	1.18	11	PASS
60	5300	0.66	0.25	0.91	11	PASS
64	5320	0.60	0.25	0.85	11	PASS
100	5500	1.67	0.25	1.92	11	PASS
116	5580	1.27	0.25	1.52	11	PASS
140	5700	1.55	0.25	1.8	11	PASS

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

802.11n (40MHz)

CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
38	5190	-1.68	0.61	-1.07	4	PASS
46	5230	-1.68	0.61	-1.07	4	PASS
54	5270	-1.88	0.61	-1.27	11	PASS
62	5310	-2.23	0.61	-1.62	11	PASS
102	5510	-1.24	0.61	-0.63	11	PASS
110	5550	-1.47	0.61	-0.86	11	PASS
134	5670	-2.15	0.61	-1.54	11	PASS

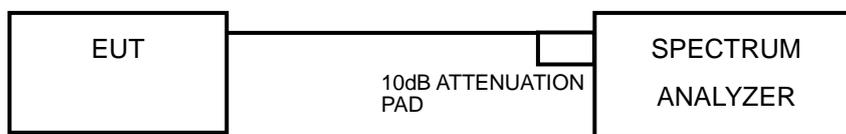
NOTE: Refer to section 3.3 for duty cycle spectrum plot.

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

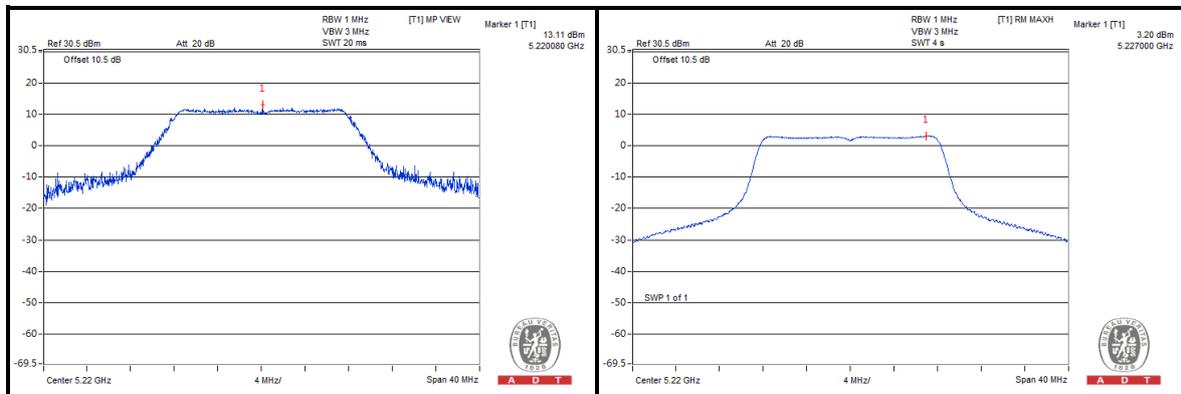
Same as 4.2.6

4.5.7 TEST RESULTS

802.11a

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
36	5180	12.11	3.27	3.48	8.63	13	PASS
44	5220	13.11	3.20	3.41	9.70	13	PASS
48	5240	12.38	3.05	3.26	9.12	13	PASS
52	5260	12.30	3.05	3.26	9.04	13	PASS
60	5300	12.04	2.75	2.96	9.08	13	PASS
64	5320	11.76	2.52	2.73	9.03	13	PASS
100	5500	12.79	3.31	3.52	9.27	13	PASS
116	5580	12.24	3.09	3.30	8.94	13	PASS
140	5700	11.90	2.62	2.83	9.07	13	PASS

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



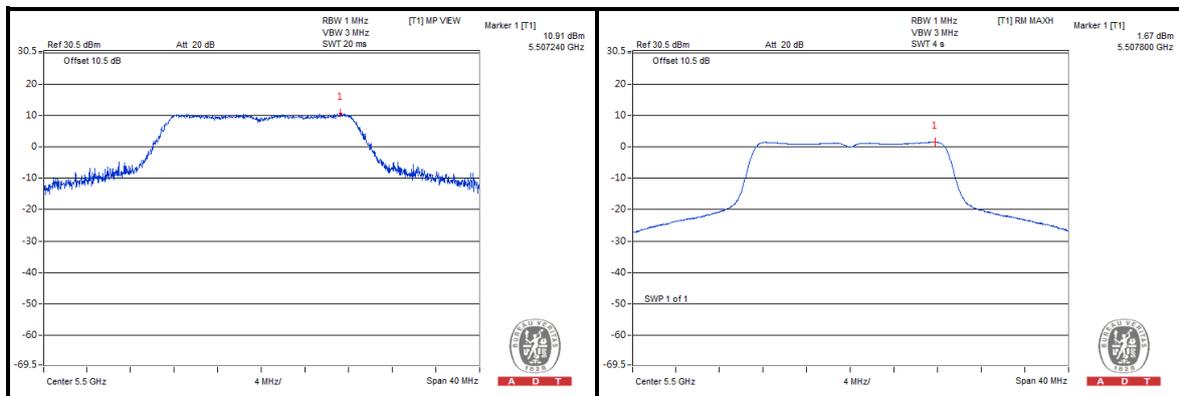


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802.11n (20MHz)

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
36	5180	10.81	1.33	1.58	9.23	13	PASS
44	5220	9.90	1.15	1.4	11.3	13	PASS
48	5240	10.76	1.09	1.34	12.1	13	PASS
52	5260	10.21	0.93	1.18	11.39	13	PASS
60	5300	9.98	0.66	0.91	10.89	13	PASS
64	5320	10.70	0.60	0.85	11.55	13	PASS
100	5500	10.91	1.67	1.92	12.83	13	PASS
116	5580	10.70	1.27	1.52	12.22	13	PASS
140	5700	10.58	1.55	1.8	12.38	13	PASS

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

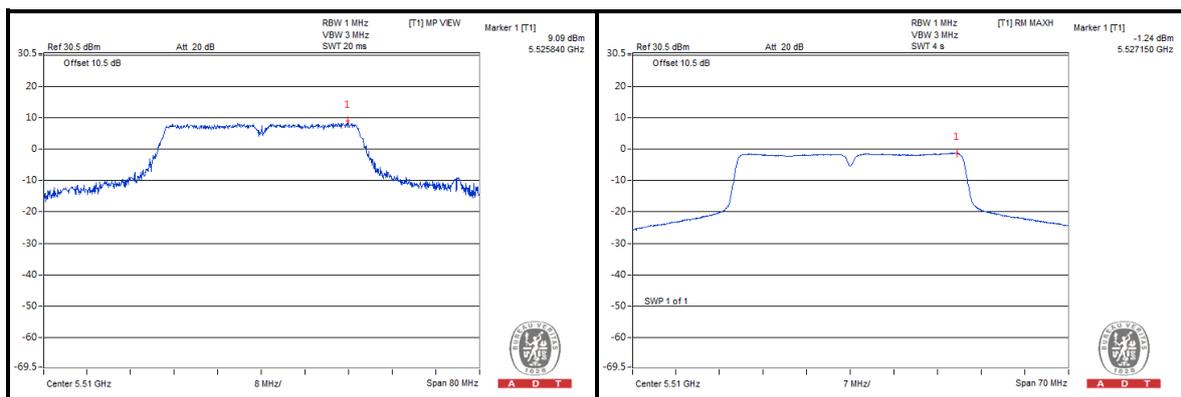




802.11n (40MHz)

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	8.12	-1.68	-1.07	9.19	13	PASS
46	5230	7.74	-1.68	-1.07	8.81	13	PASS
54	5270	7.97	-1.88	-1.27	9.24	13	PASS
62	5310	7.26	-2.23	-1.62	8.88	13	PASS
102	5510	9.09	-1.24	-0.63	9.72	13	PASS
110	5550	8.40	-1.47	-0.86	9.26	13	PASS
134	5670	7.70	-2.15	-1.54	9.24	13	PASS

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

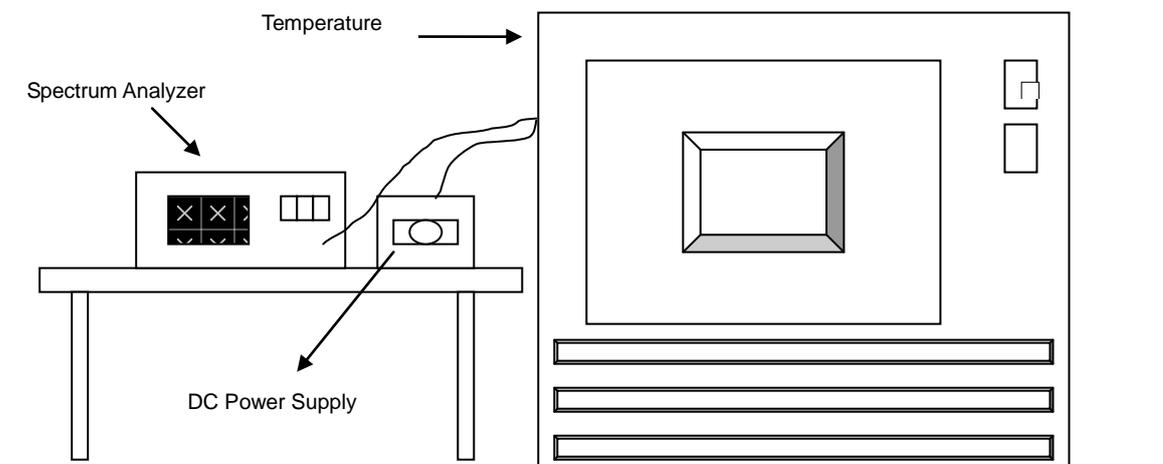


4.6 FREQUENCY STABILITY

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)
60	3.8	5320.013738	2.582	5320.013333	2.506	5320.013455	2.529	5320.013786	2.591
50	3.8	5320.013657	2.567	5320.013592	2.555	5320.013693	2.574	5320.013714	2.578
40	3.8	5320.013838	2.601	5320.013842	2.602	5320.014000	2.632	5320.013762	2.587
30	3.8	5320.015412	2.897	5320.015375	2.890	5320.015552	2.923	5320.015659	2.943
20	3.8	5320.016888	3.174	5320.016917	3.180	5320.016758	3.150	5320.016885	3.174
10	3.8	5320.018274	3.435	5320.018052	3.393	5320.018469	3.472	5320.018251	3.431
0	3.8	5320.016611	3.122	5320.016430	3.088	5320.016455	3.093	5320.016566	3.114
-10	3.8	5320.015463	2.907	5320.015390	2.893	5320.015288	2.874	5320.015531	2.919
-20	3.8	5320.015031	2.825	5320.014399	2.707	5320.014790	2.780	5320.014843	2.790
-30	3.8	5320.013411	2.521	5320.013360	2.511	5320.013612	2.559	5320.013579	2.552

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	5320.015770	2.964	5320.016179	3.041	5320.016083	3.023	5320.015889	2.987
	3.8	5320.016888	3.174	5320.016917	3.180	5320.016758	3.150	5320.016885	3.174
	4.35	5320.018261	3.433	5320.018313	3.442	5320.018214	3.424	5320.017743	3.335

5. PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).



6. INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab:

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF Lab:

Tel: 886-3-5935343

Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety Telecom Lab:

Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com

Web Site: www.adt.com.tw

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---