

FCC TEST REPORT (15.407)

REPORT NO.: RF120626C35-5

MODEL NO.: PM63100

FCC ID: NM8PM63100

RECEIVED: Jun. 26, 2012

TESTED: Jul. 10 ~ Jul. 19, 2012

ISSUED: Jul. 20, 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

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

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

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF120626C35-5	Original release	Jul. 20, 2012

1. CERTIFICATION

PRODUCT: Smart Phone
MODEL NO.: PM63100
BRAND: HTC
APPLICANT: HTC Corporation
TESTED: Jul. 10 ~ Jul. 19, 2012
TEST SAMPLE: Production Unit
STANDARDS: **FCC Part 15, Subpart E (Section 15.407)**
ANSI C63.10-2009

The above equipment (model: PM63100) 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 : Andrea Hsia , DATE : Jul. 20, 2012
Andrea Hsia / Specialist

APPROVED BY : Gary Chang , DATE : Jul. 20, 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 -4.16dB at 13.56250MHz.
15.407(b/1/2/3)(b)(6)	Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -1.75dB at 5470.00MHz.
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	Smart Phone
MODEL NO.	PM63100
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	24.378mW for 5180 ~ 5240MHz 23.768mW for 5260 ~ 5320MHz 22.131mW for 5500 ~ 5700MHz
ANTENNA TYPE	PIFA antenna with -3dBi 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:

- The EUT's accessories list refers to Ext Pho_ NM8PM63100.pdf.
* item 2, 3, 5, 6, 7 were the worst for the final test.
- 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

- 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 **Y-plane**.

RADIATED EMISSION TEST (ABOVE 1GHz):

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

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.

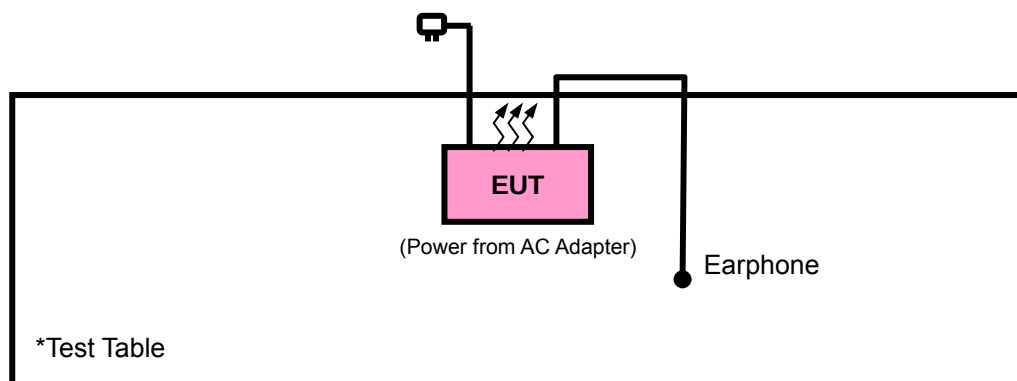
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Earphone	Merry	HS S250	NA	NA

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 = $1.900/2.020 = 0.941$, Duty factor = $10 * \log(1/0.941) = 0.27$

802.11n (20MHz): Duty cycle = $1.910/2.030 = 0.941$, Duty factor = $10 * \log(1/0.941) = 0.26$

802.11n (40MHz): Duty cycle = $0.624/0.768 = 0.813$, Duty factor = $10 * \log(1/0.813) = 0.90$



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.

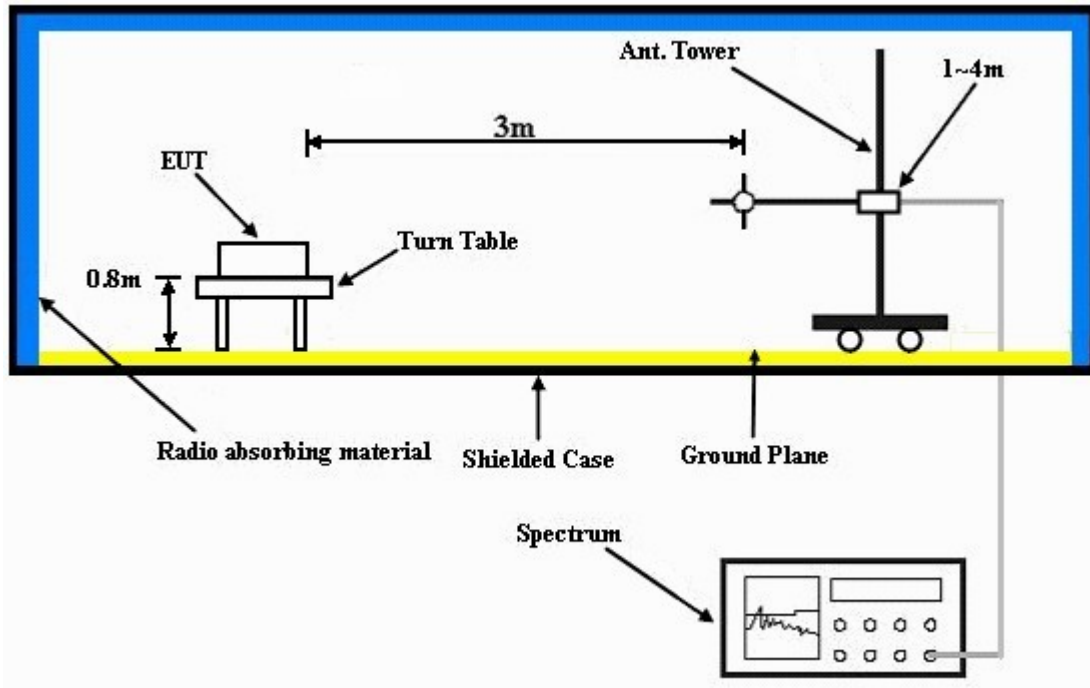
NOTE:

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

- Placed the EUT on a testing table.
- Use the software to control the EUT under transmission condition continuously at specific channel frequency.

4.1.8 TEST RESULTS

ABOVE 1GHz DATA: 802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	30MHz ~ 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	42.13	40.25	54	-11.87	31.87	7.33	37.32	122	234	Average
5150	54.91	53.03	74	-19.09	31.87	7.33	37.32	122	234	Peak
5180	91.19	89.33			31.88	7.32	37.34	122	234	Average
5180	100.09	98.23			31.88	7.32	37.34	122	234	Peak
5350	41.05	38.86	54	-12.95	31.97	7.4	37.18	122	234	Average
5350	49.39	47.2	74	-24.61	31.97	7.4	37.18	122	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
5150	42.14	40.26	54	-11.86	31.87	7.33	37.32	124	261	Average
5150	53.94	52.06	74	-20.06	31.87	7.33	37.32	124	261	Peak
5180	90.39	88.53			31.88	7.32	37.34	124	261	Average
5180	98.29	96.43			31.88	7.32	37.34	124	261	Peak
5350	40.95	38.76	54	-13.05	31.97	7.4	37.18	124	261	Average
5350	50.41	48.22	74	-23.59	31.97	7.4	37.18	124	261	Peak

REMARKS: 5180MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 44	FREQUENCY RANGE	30MHz ~ 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	40.59	38.71	54	-13.41	31.87	7.33	37.32	122	234	Average
5150	50.39	48.51	74	-23.61	31.87	7.33	37.32	122	234	Peak
5220	91.44	89.58			31.9	7.32	37.36	122	234	Average
5220	100.21	98.35			31.9	7.32	37.36	122	234	Peak
5350	40.64	38.45	54	-13.36	31.97	7.4	37.18	122	234	Average
5350	49.35	47.16	74	-24.65	31.97	7.4	37.18	122	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
5150	40.36	38.48	54	-13.64	31.87	7.33	37.32	125	273	Average
5150	51.2	49.32	74	-22.8	31.87	7.33	37.32	125	273	Peak
5220	90.91	89.05			31.9	7.32	37.36	125	273	Average
5220	100.07	98.21			31.9	7.32	37.36	125	273	Peak
5350	40.58	38.39	54	-13.42	31.97	7.4	37.18	125	273	Average
5350	50.86	48.67	74	-23.14	31.97	7.4	37.18	125	273	Peak

REMARKS: 5220MHz: Fundamental frequency.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	30MHz ~ 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	40.73	38.85	54	-13.27	31.87	7.33	37.32	121	234	Average
5150	49.57	47.69	74	-24.43	31.87	7.33	37.32	121	234	Peak
5240	91.63	89.7			31.91	7.34	37.32	121	234	Average
5240	101.05	99.12			31.91	7.34	37.32	121	234	Peak
5350	40.71	38.52	54	-13.29	31.97	7.4	37.18	121	234	Average
5350	51.39	49.2	74	-22.61	31.97	7.4	37.18	121	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
5150	40.56	38.68	54	-13.44	31.87	7.33	37.32	111	272	Average
5150	51.18	49.3	74	-22.82	31.87	7.33	37.32	111	272	Peak
5240	89.53	87.6			31.91	7.34	37.32	111	272	Average
5240	98.45	96.52			31.91	7.34	37.32	111	272	Peak
5350	40.61	38.42	54	-13.39	31.97	7.4	37.18	111	272	Average
5350	49.91	47.72	74	-24.09	31.97	7.4	37.18	111	272	Peak

REMARKS: 5240MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 52	FREQUENCY RANGE	30MHz ~ 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	40.59	38.71	54	-13.41	31.87	7.33	37.32	121	234	Average
5150	51.77	49.89	74	-22.23	31.87	7.33	37.32	121	234	Peak
5260	92.44	90.43			31.92	7.36	37.27	121	234	Average
5260	102.2	100.19			31.92	7.36	37.27	121	234	Peak
5350	40.91	38.72	54	-13.09	31.97	7.4	37.18	121	234	Average
5350	51.89	49.7	74	-22.11	31.97	7.4	37.18	121	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
5150	40.23	38.35	54	-13.77	31.87	7.33	37.32	122	254	Average
5150	49.63	47.75	74	-24.37	31.87	7.33	37.32	122	254	Peak
5260	89.64	87.63			31.92	7.36	37.27	122	254	Average
5260	99.27	97.26			31.92	7.36	37.27	122	254	Peak
5350	40.49	38.3	54	-13.51	31.97	7.4	37.18	122	254	Average
5350	51.3	49.11	74	-22.7	31.97	7.4	37.18	122	254	Peak

REMARKS: 5260MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 60	FREQUENCY RANGE	30MHz ~ 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	40.61	38.73	54	-13.39	31.87	7.33	37.32	124	248	Average
5150	51.86	49.98	74	-22.14	31.87	7.33	37.32	124	248	Peak
5300	91.68	89.53			31.94	7.4	37.19	124	248	Average
5300	101.02	98.87			31.94	7.4	37.19	124	248	Peak
5350	42.51	40.32	54	-11.49	31.97	7.4	37.18	124	248	Average
5350	53.73	51.54	74	-20.27	31.97	7.4	37.18	124	248	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	40.34	38.46	54	-13.66	31.87	7.33	37.32	122	254	Average
5150	50.62	48.74	74	-23.38	31.87	7.33	37.32	122	254	Peak
5300	90.35	88.2			31.94	7.4	37.19	122	254	Average
5300	100.13	97.98			31.94	7.4	37.19	122	254	Peak
5350	40.9	38.71	54	-13.1	31.97	7.4	37.18	122	254	Average
5350	52.4	50.21	74	-21.6	31.97	7.4	37.18	122	254	Peak

REMARKS: 5300MHz: Fundamental frequency.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 64	FREQUENCY RANGE	30MHz ~ 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	40.44	38.56	54	-13.56	31.87	7.33	37.32	124	248	Average
5150	49.62	47.74	74	-24.38	31.87	7.33	37.32	124	248	Peak
5320	92.03	89.87			31.95	7.4	37.19	124	248	Average
5320	101.03	98.87			31.95	7.4	37.19	124	248	Peak
5350	44.11	41.92	54	-9.89	31.97	7.4	37.18	124	248	Average
5350	56.15	53.96	74	-17.85	31.97	7.4	37.18	124	248	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	40.33	38.45	54	-13.67	31.87	7.33	37.32	124	238	Average
5150	50.06	48.18	74	-23.94	31.87	7.33	37.32	124	238	Peak
5320	90.02	87.86			31.95	7.4	37.19	124	238	Average
5320	98.61	96.45			31.95	7.4	37.19	124	238	Peak
5350	42.58	40.39	54	-11.42	31.97	7.4	37.18	124	238	Average
5350	52.68	50.49	74	-21.32	31.97	7.4	37.18	124	238	Peak

REMARKS: 5320MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	30MHz ~ 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	45.42	42.96	54	-8.58	32.01	7.53	37.08	123	243	Average
5460	55.43	52.97	74	-18.57	32.01	7.53	37.08	123	243	Peak
5470	61.94	59.47	68.3	-6.36	32.02	7.53	37.08	123	243	Peak
5500	96.32	93.72			32.04	7.59	37.03	123	243	Average
5500	105.59	102.99			32.04	7.59	37.03	123	243	Peak
5725	51.48	48.84	68.3	-16.82	32.36	7.71	37.43	123	243	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	42.14	39.68	54	-11.86	32.01	7.53	37.08	113	198	Average
5460	53.78	51.32	74	-20.22	32.01	7.53	37.08	113	198	Peak
5470	56.97	54.5	68.3	-11.33	32.02	7.53	37.08	113	198	Peak
5500	93.72	91.12			32.04	7.59	37.03	113	198	Average
5500	103.02	100.42			32.04	7.59	37.03	113	198	Peak
5725	50.92	48.28	68.3	-17.38	32.36	7.71	37.43	113	198	Peak

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 116	FREQUENCY RANGE	30MHz ~ 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	42.24	39.78	54	-11.76	32.01	7.53	37.08	123	243	Average
5460	51.9	49.44	74	-22.1	32.01	7.53	37.08	123	243	Peak
5470	51.09	48.62	68.3	-17.21	32.02	7.53	37.08	123	243	Peak
5580	95.39	92.84			32.14	7.57	37.16	123	243	Average
5580	104.31	101.76			32.14	7.57	37.16	123	243	Peak
5725	52.12	49.48	68.3	-16.18	32.36	7.71	37.43	123	243	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	41.09	38.63	54	-12.91	32.01	7.53	37.08	100	198	Average
5460	50.71	48.25	74	-23.29	32.01	7.53	37.08	100	198	Peak
5470	50.61	48.14	68.3	-17.69	32.02	7.53	37.08	100	198	Peak
5580	95.34	92.79			32.14	7.57	37.16	100	198	Average
5580	104.23	101.68			32.14	7.57	37.16	100	198	Peak
5725	51.83	49.19	68.3	-16.47	32.36	7.71	37.43	100	198	Peak

REMARKS:

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



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 140	FREQUENCY RANGE	30MHz ~ 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	40.84	38.38	54	-13.16	32.01	7.53	37.08	120	244	Average
5460	50.53	48.07	74	-23.47	32.01	7.53	37.08	120	244	Peak
5470	50.41	47.94	68.3	-17.89	32.02	7.53	37.08	120	244	Peak
5700	95.89	93.29			32.31	7.69	37.4	120	244	Average
5700	104.6	102			32.31	7.69	37.4	120	244	Peak
5725	65.14	62.5	68.3	-3.16	32.36	7.71	37.43	120	244	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	40.79	38.33	54	-13.21	32.01	7.53	37.08	102	284	Average
5460	50.87	48.41	74	-23.13	32.01	7.53	37.08	102	284	Peak
5470	50.86	48.39	68.3	-17.44	32.02	7.53	37.08	102	284	Peak
5700	94.01	91.41			32.31	7.69	37.4	102	284	Average
5700	103.07	100.47			32.31	7.69	37.4	102	284	Peak
5725	61.79	59.15	68.3	-6.51	32.36	7.71	37.43	102	284	Peak

REMARKS:

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

802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	30MHz ~ 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	42.88	41	54	-11.12	31.87	7.33	37.32	122	236	Average
5150	53.53	51.65	74	-20.47	31.87	7.33	37.32	122	236	Peak
5180	89.21	87.35			31.88	7.32	37.34	122	236	Average
5180	98.43	96.57			31.88	7.32	37.34	122	236	Peak
5350	41.19	39	54	-12.81	31.97	7.4	37.18	122	236	Average
5350	50.13	47.94	74	-23.87	31.97	7.4	37.18	122	236	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	41.89	40.01	54	-12.11	31.87	7.33	37.32	102	281	Average
5150	52.03	50.15	74	-21.97	31.87	7.33	37.32	102	281	Peak
5180	88.34	86.48			31.88	7.32	37.34	102	281	Average
5180	96.25	94.39			31.88	7.32	37.34	102	281	Peak
5350	40.94	38.75	54	-13.06	31.97	7.4	37.18	102	281	Average
5350	49.76	47.57	74	-24.24	31.97	7.4	37.18	102	281	Peak

REMARKS: 5180MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 44	FREQUENCY RANGE	30MHz ~ 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	40.67	38.79	54	-13.33	31.87	7.33	37.32	121	235	Average
5150	50.05	48.17	74	-23.95	31.87	7.33	37.32	121	235	Peak
5220	89.97	88.11			31.9	7.32	37.36	121	235	Average
5220	98.92	97.06			31.9	7.32	37.36	121	235	Peak
5350	40.93	38.74	54	-13.07	31.97	7.4	37.18	121	235	Average
5350	51.88	49.69	74	-22.12	31.97	7.4	37.18	121	235	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	40.45	38.57	54	-13.55	31.87	7.33	37.32	112	292	Average
5150	50.03	48.15	74	-23.97	31.87	7.33	37.32	112	292	Peak
5220	88.21	86.35			31.9	7.32	37.36	112	292	Average
5220	96.92	95.06			31.9	7.32	37.36	112	292	Peak
5350	40.79	38.6	54	-13.21	31.97	7.4	37.18	112	292	Average
5350	51.17	48.98	74	-22.83	31.97	7.4	37.18	112	292	Peak

REMARKS: 5220MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	30MHz ~ 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	40.89	39.01	54	-13.11	31.87	7.33	37.32	122	236	Average
5150	49.73	47.85	74	-24.27	31.87	7.33	37.32	122	236	Peak
5240	90.48	88.55			31.91	7.34	37.32	122	236	Average
5240	99.9	97.97			31.91	7.34	37.32	122	236	Peak
5350	41.51	39.32	54	-12.49	31.97	7.4	37.18	122	236	Average
5350	52.6	50.41	74	-21.4	31.97	7.4	37.18	122	236	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	40.53	38.65	54	-13.47	31.87	7.33	37.32	101	280	Average
5150	51.51	49.63	74	-22.49	31.87	7.33	37.32	101	280	Peak
5240	90.19	88.26			31.91	7.34	37.32	101	280	Average
5240	98.83	96.9			31.91	7.34	37.32	101	280	Peak
5350	40.79	38.6	54	-13.21	31.97	7.4	37.18	101	280	Average
5350	50.36	48.17	74	-23.64	31.97	7.4	37.18	101	280	Peak

REMARKS: 5240MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 52	FREQUENCY RANGE	30MHz ~ 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	40.49	38.61	54	-13.51	31.87	7.33	37.32	121	236	Average
5150	49.94	48.06	74	-24.06	31.87	7.33	37.32	121	236	Peak
5260	91.56	89.55			31.92	7.36	37.27	121	236	Average
5260	101.28	99.27			31.92	7.36	37.27	121	236	Peak
5350	40.79	38.6	54	-13.21	31.97	7.4	37.18	121	236	Average
5350	51.63	49.44	74	-22.37	31.97	7.4	37.18	121	236	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	40.43	38.55	54	-13.57	31.87	7.33	37.32	121	235	Average
5150	49.93	48.05	74	-24.07	31.87	7.33	37.32	121	235	Peak
5260	91.64	89.63			31.92	7.36	37.27	121	235	Average
5260	101.41	99.4			31.92	7.36	37.27	121	235	Peak
5350	40.69	38.5	54	-13.31	31.97	7.4	37.18	121	235	Average
5350	52.1	49.91	74	-21.9	31.97	7.4	37.18	121	235	Peak

REMARKS: 5260MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 60	FREQUENCY RANGE	30MHz ~ 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
5120	40.26	38.37	54	-13.74	31.85	7.34	37.3	100	178	Average
5120	51.64	49.75	74	-22.36	31.85	7.34	37.3	100	178	Peak
5300	90.99	88.84			31.94	7.4	37.19	100	178	Average
5300	99.85	97.7			31.94	7.4	37.19	100	178	Peak
5356	41.99	39.8	54	-12.01	31.97	7.4	37.18	100	178	Average
5356	53.22	51.03	74	-20.78	31.97	7.4	37.18	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
5144	40.14	38.26	54	-13.86	31.87	7.33	37.32	121	292	Average
5144	51.36	49.48	74	-22.64	31.87	7.33	37.32	121	292	Peak
5300	91.13	88.98			31.94	7.4	37.19	121	292	Average
5300	99.97	97.82			31.94	7.4	37.19	121	292	Peak
5350	41.81	39.62	54	-12.19	31.97	7.4	37.18	121	292	Average
5350	52.65	50.46	74	-21.35	31.97	7.4	37.18	121	292	Peak

REMARKS: 5300MHz: Fundamental frequency.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 64	FREQUENCY RANGE	30MHz ~ 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
5024	39.9	38.14	54	-14.1	31.81	7.19	37.24	100	181	Average
5024	52.13	50.37	74	-21.87	31.81	7.19	37.24	100	181	Peak
5320	93.26	91.1			31.95	7.4	37.19	100	181	Average
5320	101.75	99.59			31.95	7.4	37.19	100	181	Peak
5352	45.15	42.96	54	-8.85	31.97	7.4	37.18	100	181	Average
5352	60.19	58	74	-13.81	31.97	7.4	37.18	100	181	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
5102	40.19	38.28	54	-13.81	31.84	7.35	37.28	100	283	Average
5102	52.02	50.11	74	-21.98	31.84	7.35	37.28	100	283	Peak
5320	87.79	85.63			31.95	7.4	37.19	100	283	Average
5320	96.29	94.13			31.95	7.4	37.19	100	283	Peak
5414	41.74	39.52	54	-12.26	32	7.4	37.18	100	283	Average
5414	52.71	50.49	74	-21.29	32	7.4	37.18	100	283	Peak

REMARKS: 5320MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	30MHz ~ 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
5436	42.8	40.45	54	-11.2	32.01	7.47	37.13	121	243	Average
5436	53.84	51.49	74	-20.16	32.01	7.47	37.13	121	243	Peak
5470	56.95	54.48	68.3	-11.35	32.02	7.53	37.08	121	243	Peak
5500	93.03	90.43			32.04	7.59	37.03	121	243	Average
5500	101.93	99.33			32.04	7.59	37.03	121	243	Peak
5725	52.27	49.63	68.3	-16.03	32.36	7.71	37.43	121	243	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	41.15	38.69	54	-12.85	32.01	7.53	37.08	100	196	Average
5456	53.27	50.81	74	-20.73	32.01	7.53	37.08	100	196	Peak
5470	52.4	49.93	68.3	-15.9	32.02	7.53	37.08	100	196	Peak
5500	89.49	86.89			32.04	7.59	37.03	100	196	Average
5500	97.71	95.11			32.04	7.59	37.03	100	196	Peak
5725	50.59	47.95	68.3	-17.71	32.36	7.71	37.43	100	196	Peak

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 116	FREQUENCY RANGE	30MHz ~ 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
5458	41.09	38.63	54	-12.91	32.01	7.53	37.08	122	239	Average
5458	52.86	50.4	74	-21.14	32.01	7.53	37.08	122	239	Peak
5470	51.45	48.98	68.3	-16.85	32.02	7.53	37.08	122	239	Peak
5580	93.96	91.41			32.14	7.57	37.16	122	239	Average
5580	103.39	100.84			32.14	7.57	37.16	122	239	Peak
5725	52.05	49.41	68.3	-16.25	32.36	7.71	37.43	122	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
5440	40.53	38.18	54	-13.47	32.01	7.47	37.13	100	195	Average
5440	52.19	49.84	74	-21.81	32.01	7.47	37.13	100	195	Peak
5470	51.78	49.31	68.3	-16.52	32.02	7.53	37.08	100	195	Peak
5580	91.26	88.71			32.14	7.57	37.16	100	195	Average
5580	101.06	98.51			32.14	7.57	37.16	100	195	Peak
5725	51.27	48.63	68.3	-17.03	32.36	7.71	37.43	100	195	Peak

REMARKS:

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



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 140	FREQUENCY RANGE	30MHz ~ 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
5424	40.26	38.04	54	-13.74	32	7.4	37.18	100	261	Average
5424	52.62	50.4	74	-21.38	32	7.4	37.18	100	261	Peak
5470	51.06	48.59	68.3	-17.24	32.02	7.53	37.08	100	261	Peak
5700	90.96	88.36			32.31	7.69	37.4	100	261	Average
5700	100.17	97.57			32.31	7.69	37.4	100	261	Peak
5725	57.3	54.66	68.3	-11	32.36	7.71	37.43	100	261	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5454	40.49	38.03	54	-13.51	32.01	7.53	37.08	119	187	Average
5454	52.49	50.03	74	-21.51	32.01	7.53	37.08	119	187	Peak
5470	52.13	49.66	68.3	-16.17	32.02	7.53	37.08	119	187	Peak
5700	90.25	87.65			32.31	7.69	37.4	119	187	Average
5700	98.38	95.78			32.31	7.69	37.4	119	187	Peak
5725	57.45	54.81	68.3	-10.85	32.36	7.71	37.43	119	187	Peak

REMARKS:

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

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	30MHz ~ 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	49.72	47.84	54	-4.28	31.87	7.33	37.32	122	235	Average
5150	64.35	62.47	74	-9.65	31.87	7.33	37.32	122	235	Peak
5190	88.62	86.76			31.88	7.32	37.34	122	235	Average
5190	97.35	95.49			31.88	7.32	37.34	122	235	Peak
5456	41.47	39.01	54	-12.53	32.01	7.53	37.08	122	235	Average
5456	53.31	50.85	74	-20.69	32.01	7.53	37.08	122	235	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	46.9	45.02	54	-7.1	31.87	7.33	37.32	100	290	Average
5150	59.05	57.17	74	-14.95	31.87	7.33	37.32	100	290	Peak
5190	84.12	82.26			31.88	7.32	37.34	100	290	Average
5190	92.92	91.06			31.88	7.32	37.34	100	290	Peak
5432	41.21	38.86	54	-12.79	32.01	7.47	37.13	100	290	Average
5432	52.17	49.82	74	-21.83	32.01	7.47	37.13	100	290	Peak

REMARKS: 5190MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 46	FREQUENCY RANGE	30MHz ~ 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
5144	40.73	38.85	54	-13.27	31.87	7.33	37.32	120	236	Average
5144	52.15	50.27	74	-21.85	31.87	7.33	37.32	120	236	Peak
5230	89.22	87.29			31.91	7.34	37.32	120	236	Average
5230	98.39	96.46			31.91	7.34	37.32	120	236	Peak
5354	41.87	39.68	54	-12.13	31.97	7.4	37.18	120	236	Average
5354	53.13	50.94	74	-20.87	31.97	7.4	37.18	120	236	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5134	40.7	38.8	54	-13.3	31.86	7.34	37.3	109	292	Average
5134	52.51	50.61	74	-21.49	31.86	7.34	37.3	109	292	Peak
5230	86.63	84.7			31.91	7.34	37.32	109	292	Average
5230	95.58	93.65			31.91	7.34	37.32	109	292	Peak
5402	41.38	39.17	54	-12.62	31.99	7.4	37.18	109	292	Average
5402	52	49.79	74	-22	31.99	7.4	37.18	109	292	Peak

REMARKS: 5230MHz: Fundamental frequency.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 54	FREQUENCY RANGE	30MHz ~ 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
5142	40.84	38.93	54	-13.16	31.87	7.34	37.3	121	237	Average
5142	51.98	50.07	74	-22.02	31.87	7.34	37.3	121	237	Peak
5270	89.95	87.94			31.92	7.36	37.27	121	237	Average
5270	99.1	97.09			31.92	7.36	37.27	121	237	Peak
5360	42.44	40.25	54	-11.56	31.97	7.4	37.18	121	237	Average
5360	53.59	51.4	74	-20.41	31.97	7.4	37.18	121	237	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	40.58	38.7	54	-13.42	31.87	7.33	37.32	100	285	Average
5146	51.35	49.47	74	-22.65	31.87	7.33	37.32	100	285	Peak
5270	84.78	82.77			31.92	7.36	37.27	100	285	Average
5270	95.14	93.13			31.92	7.36	37.27	100	285	Peak
5384	41.31	39.11	54	-12.69	31.98	7.4	37.18	100	285	Average
5384	53.04	50.84	74	-20.96	31.98	7.4	37.18	100	285	Peak

REMARKS: 5270MHz: Fundamental frequency.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 62	FREQUENCY RANGE	30MHz ~ 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
5062	40.35	38.53	54	-13.65	31.82	7.25	37.25	100	178	Average
5062	51.71	49.89	74	-22.29	31.82	7.25	37.25	100	178	Peak
5310	89.36	87.2			31.95	7.4	37.19	100	178	Average
5310	98.05	95.89			31.95	7.4	37.19	100	178	Peak
5348	50.06	47.87	54	-3.94	31.97	7.4	37.18	100	178	Average
5348	69.37	67.18	74	-4.63	31.97	7.4	37.18	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
5140	40.65	38.74	54	-13.35	31.87	7.34	37.3	109	290	Average
5140	52.56	50.65	74	-21.44	31.87	7.34	37.3	109	290	Peak
5310	84.35	82.19			31.95	7.4	37.19	109	290	Average
5310	94.07	91.91			31.95	7.4	37.19	109	290	Peak
5350	46.51	44.32	54	-7.49	31.97	7.4	37.18	109	290	Average
5350	59.74	57.55	74	-14.26	31.97	7.4	37.18	109	290	Peak

REMARKS: 5310MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 102	FREQUENCY RANGE	30MHz ~ 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	47.9	45.44	54	-6.1	32.01	7.53	37.08	124	244	Average
5460	61.47	59.01	74	-12.53	32.01	7.53	37.08	124	244	Peak
5470	66.55	64.08	68.3	-1.75	32.02	7.53	37.08	124	244	Peak
5510	91.77	89.20			32.04	7.59	37.06	124	244	Average
5510	101.95	99.38			32.04	7.59	37.06	124	244	Peak
5725	51.06	48.42	68.3	-17.24	32.36	7.71	37.43	124	244	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	44.96	42.5	54	-9.04	32.01	7.53	37.08	100	189	Average
5460	55.4	52.94	74	-18.6	32.01	7.53	37.08	100	189	Peak
5470	61.2	58.73	68.3	-7.1	32.02	7.53	37.08	100	189	Peak
5510	89.21	86.64			32.04	7.59	37.06	100	189	Average
5510	98.59	96.02			32.04	7.59	37.06	100	189	Peak
5725	50.72	48.08	68.3	-17.58	32.36	7.71	37.43	100	189	Peak

REMARKS:

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



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 110	FREQUENCY RANGE	30MHz ~ 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
5448	41.99	39.64	54	-12.01	32.01	7.47	37.13	100	243	Average
5448	53.58	51.23	74	-20.42	32.01	7.47	37.13	100	243	Peak
5470	52.1	49.63	68.3	-16.2	32.02	7.53	37.08	100	243	Peak
5550	91.64	89.04			32.11	7.58	37.09	100	243	Average
5550	100.63	98.03			32.11	7.58	37.09	100	243	Peak
5725	51.38	48.74	68.3	-16.92	32.36	7.71	37.43	100	243	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	41.23	38.88	54	-12.77	32.01	7.47	37.13	100	192	Average
5448	52.54	50.19	74	-21.46	32.01	7.47	37.13	100	192	Peak
5470	51.78	49.31	68.3	-16.52	32.02	7.53	37.08	100	192	Peak
5550	89.72	87.12			32.11	7.58	37.09	100	192	Average
5550	99.04	96.44			32.11	7.58	37.09	100	192	Peak
5725	50.97	48.33	68.3	-17.33	32.36	7.71	37.43	100	192	Peak

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 134	FREQUENCY RANGE	30MHz ~ 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
5454	41.11	38.65	54	-12.89	32.01	7.53	37.08	100	258	Average
5454	51.7	49.24	74	-22.3	32.01	7.53	37.08	100	258	Peak
5470	50.81	48.34	68.3	-17.49	32.02	7.53	37.08	100	258	Peak
5670	88.90	86.3			32.28	7.66	37.34	100	258	Average
5670	97.93	95.33			32.28	7.66	37.34	100	258	Peak
5725	54.27	51.63	68.3	-14.03	32.36	7.71	37.43	100	258	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
5444	41.09	38.74	54	-12.91	32.01	7.47	37.13	100	212	Average
5444	52.83	50.48	74	-21.17	32.01	7.47	37.13	100	212	Peak
5470	50.84	48.37	68.3	-17.46	32.02	7.53	37.08	100	212	Peak
5670	88.48	85.88			32.28	7.66	37.34	100	212	Average
5670	97.00	94.4			32.28	7.66	37.34	100	212	Peak
5725	52.35	49.71	68.3	-15.95	32.36	7.71	37.43	100	212	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 ~ 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
41.88	26.24	43.05	40	-13.76	13.56	0.68	31.05	132	285	Peak
100.74	34.71	56.44	43.5	-8.79	9.15	1.07	31.95	100	274	Peak
179.04	36.66	56.16	43.5	-6.84	10.83	1.5	31.83	100	285	Peak
300.7	36.96	53.8	46	-9.04	12.96	2.05	31.85	100	74	Peak
508.6	24.49	35.77	46	-21.51	17.51	2.81	31.6	133	258	Peak
784.4	27.44	33.19	46	-18.56	22.01	3.66	31.42	100	252	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
30	33.59	52.18	40	-6.41	11.98	0.57	31.14	100	2	QP
41.88	34.14	50.95	40	-5.86	13.56	0.68	31.05	100	292	QP
173.1	32.86	51.79	43.5	-10.64	11.38	1.46	31.77	100	38	Peak
301.4	32.28	49.09	46	-13.72	12.99	2.06	31.86	100	341	Peak
413.4	28.4	42.33	46	-17.6	15.6	2.48	32.01	125	252	Peak
756.4	26.98	33.18	46	-19.02	21.61	3.59	31.4	124	132	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

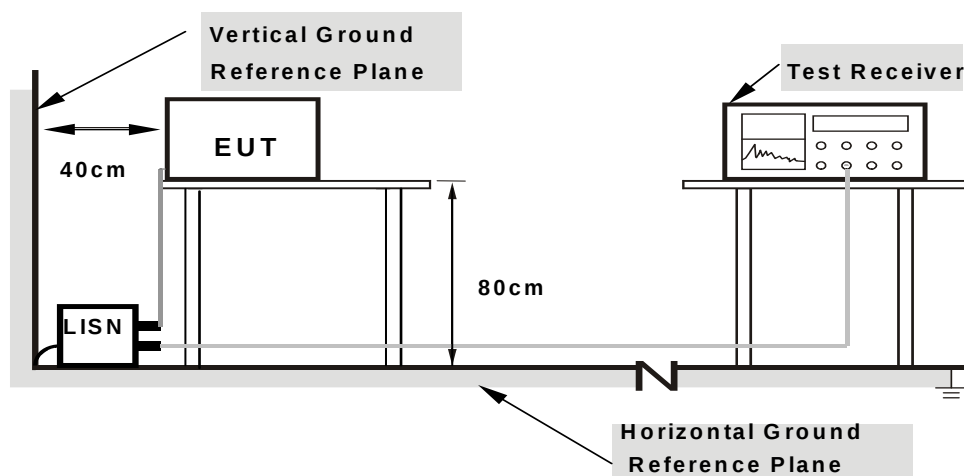
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance 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: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

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

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6.

4.2.7 TEST RESULTS

CONDUCTED WORST-CASE DATA :

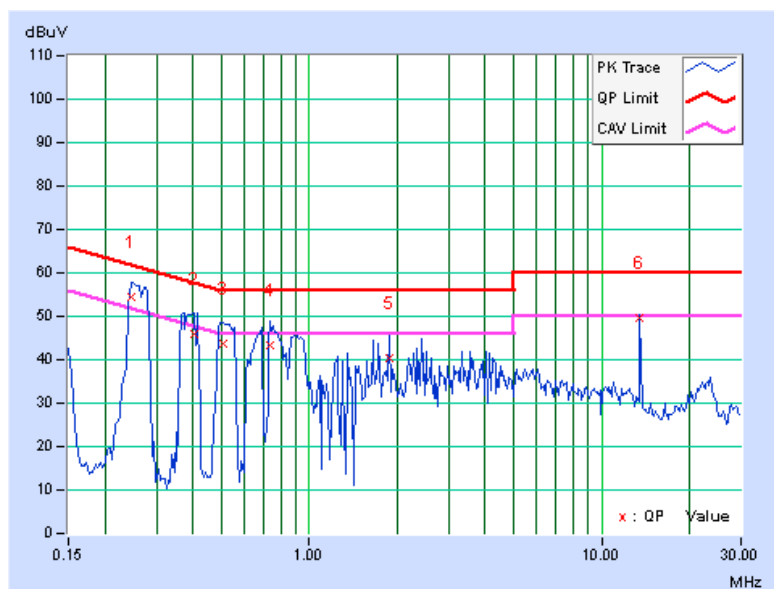
802.11a

PHASE	Line 1	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.26719	0.18	53.38	35.90	53.56	36.08	61.20	51.20	-7.64	-15.12
2	0.39219	0.20	45.80	27.94	46.00	28.14	58.02	48.02	-12.02	-19.88
3	0.49375	0.20	43.77	25.53	43.97	25.73	56.10	46.10	-12.13	-20.37
4	0.73984	0.22	42.58	25.40	42.80	25.62	56.00	46.00	-13.20	-20.38
5	2.29297	0.31	38.32	18.21	38.63	18.52	56.00	46.00	-17.37	-27.48
6	13.56250	0.57	49.24	45.16	49.81	45.73	60.00	50.00	-10.19	-4.27

REMARKS:

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

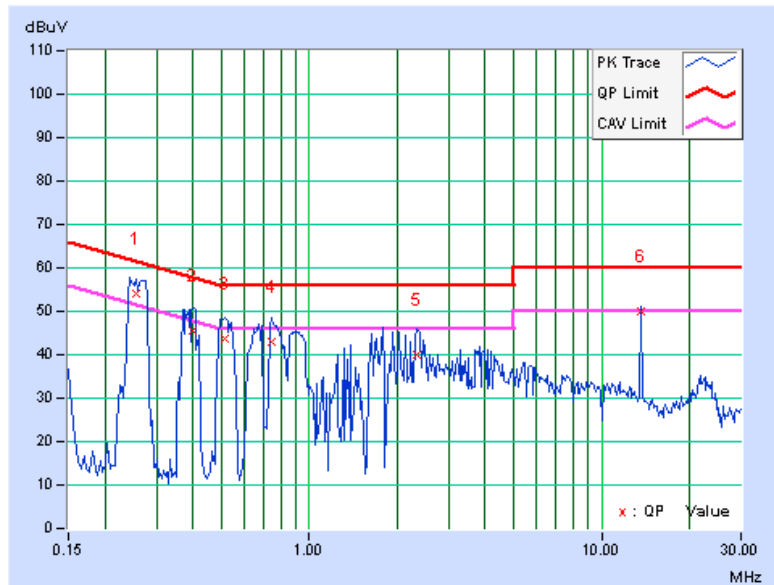


PHASE	Line 2	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.25547	0.16	53.94	37.01	54.10	37.17	61.58	51.58	-7.48	-14.41
2	0.40000	0.18	45.45	27.47	45.63	27.65	57.85	47.85	-12.22	-20.20
3	0.51328	0.18	43.37	25.81	43.55	25.99	56.00	46.00	-12.45	-20.01
4	0.74375	0.19	42.68	25.83	42.87	26.02	56.00	46.00	-13.13	-19.98
5	2.32813	0.29	39.60	22.44	39.89	22.73	56.00	46.00	-16.11	-23.27
6	13.56250	0.66	49.20	45.18	49.86	45.84	60.00	50.00	-10.14	-4.16

REMARKS:

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



4.3 PEAK TRANSMIT POWER MEASUREMENT

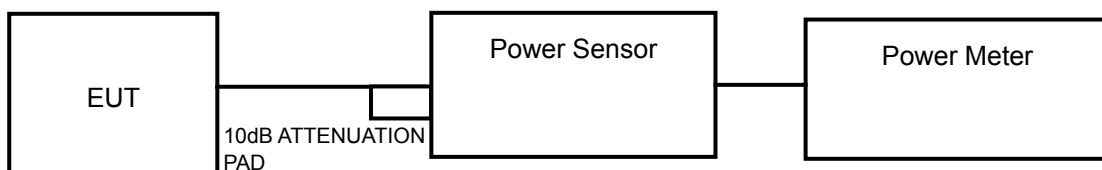
4.3.1 LIMITS OF PEAK TRANSMIT POWER MEASUREMENT

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

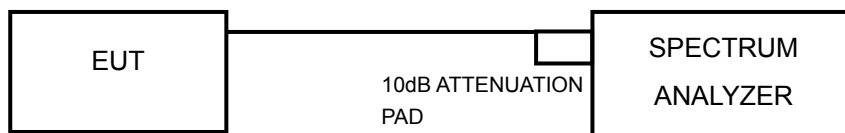
NOTE: Where B is the 26dB emission bandwidth in MHz.

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	20.277	13.07	17	PASS
48	5240	19.861	12.98	17	PASS
52	5260	19.861	12.98	24	PASS
60	5300	19.231	12.84	24	PASS
64	5320	19.634	12.93	24	PASS
100	5500	22.131	13.45	24	PASS
116	5580	21.577	13.34	24	PASS
140	5700	21.528	13.33	24	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	22.751	13.57	17	PASS
44	5220	23.714	13.75	17	PASS
48	5240	24.378	13.87	17	PASS
52	5260	23.768	13.76	24	PASS
60	5300	22.542	13.53	24	PASS
64	5320	22.542	13.53	24	PASS
100	5500	19.099	12.81	24	PASS
116	5580	18.493	12.67	24	PASS
140	5700	18.030	12.56	24	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
38	5190	19.724	12.95	17	PASS
46	5230	19.634	12.93	17	PASS
54	5270	19.679	12.94	24	PASS
62	5310	17.865	12.52	24	PASS
102	5510	20.417	13.10	24	PASS
110	5550	19.409	12.88	24	PASS
134	5670	19.143	12.82	24	PASS

26dB BANDWIDTH: 802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
36	5180	24.62	PASS
44	5220	25.38	PASS
48	5240	24.65	PASS
52	5260	24.59	PASS
60	5300	24.26	PASS
64	5320	24.70	PASS
100	5500	24.68	PASS
116	5580	24.24	PASS
140	5700	24.58	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
36	5180	24.54	PASS
44	5220	24.46	PASS
48	5240	24.21	PASS
52	5260	24.63	PASS
60	5300	24.83	PASS
64	5320	24.42	PASS
100	5500	24.10	PASS
116	5580	24.21	PASS
140	5700	24.15	PASS

802.11n (40MHz)

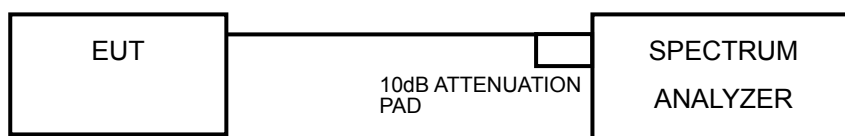
CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
38	5190	53.39	PASS
46	5230	52.78	PASS
54	5270	53.43	PASS
62	5310	52.22	PASS
102	5510	53.62	PASS
110	5550	53.07	PASS
134	5670	52.85	PASS

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	2.55	0.27	2.82	4	PASS
44	5220	2.73	0.27	3.00	4	PASS
48	5240	2.61	0.27	2.88	4	PASS
52	5260	2.46	0.27	2.73	11	PASS
60	5300	2.58	0.27	2.85	11	PASS
64	5320	2.52	0.27	2.79	11	PASS
100	5500	2.76	0.27	3.03	11	PASS
116	5580	2.79	0.27	3.06	11	PASS
140	5700	3.29	0.27	3.56	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	1.39	0.26	1.65	4	PASS
44	5220	1.99	0.26	2.25	4	PASS
48	5240	1.66	0.26	1.92	4	PASS
52	5260	1.80	0.26	2.06	11	PASS
60	5300	1.89	0.26	2.15	11	PASS
64	5320	1.60	0.26	1.86	11	PASS
100	5500	0.79	0.26	1.05	11	PASS
116	5580	0.66	0.26	0.92	11	PASS
140	5700	1.31	0.26	1.57	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	-2.06	0.90	-1.16	4	PASS
46	5230	-2.13	0.90	-1.23	4	PASS
54	5270	-2.29	0.90	-1.39	11	PASS
62	5310	-2.10	0.90	-1.20	11	PASS
102	5510	-1.92	0.90	-1.02	11	PASS
110	5550	-2.13	0.90	-1.23	11	PASS
134	5670	-1.84	0.90	-0.94	11	PASS

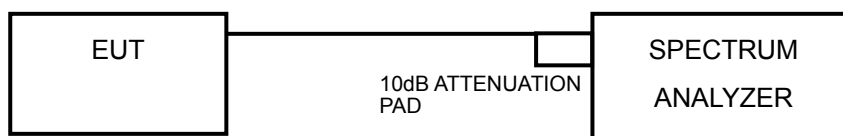
NOTE: Refer to section 3.3 for duty cycle spectrum plot.

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

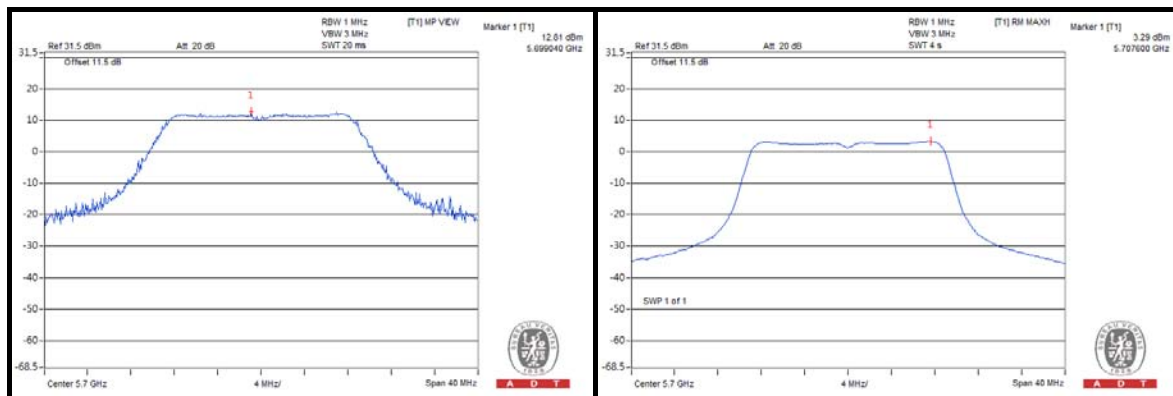
Same as 4.2.6

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	11.84	2.55	2.82	9.02	13	PASS
44	5220	12.07	2.73	3.00	9.07	13	PASS
48	5240	12.03	2.61	2.88	9.15	13	PASS
52	5260	11.70	2.46	2.73	8.97	13	PASS
60	5300	12.04	2.58	2.85	9.19	13	PASS
64	5320	11.54	2.52	2.79	8.75	13	PASS
100	5500	11.71	2.76	3.03	8.68	13	PASS
116	5580	11.86	2.79	3.06	8.8	13	PASS
140	5700	12.81	3.29	3.56	9.25	13	PASS

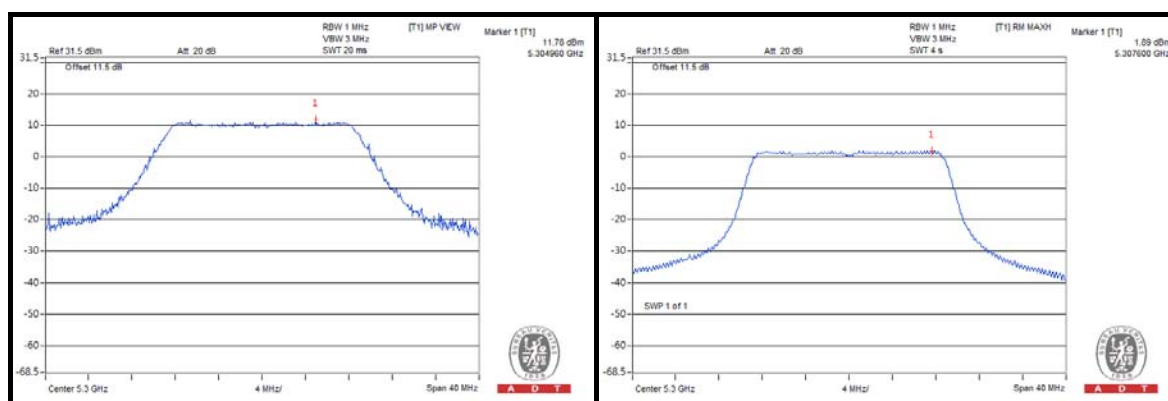
NOTE: Refer to section 3.3 for duty cycle spectrum plot.



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	10.75	1.39	1.65	9.10	13	PASS
44	5220	10.86	1.99	2.25	8.61	13	PASS
48	5240	11.04	1.66	1.92	9.12	13	PASS
52	5260	10.68	1.80	2.06	8.62	13	PASS
60	5300	11.78	1.89	2.15	9.63	13	PASS
64	5320	10.84	1.60	1.86	8.98	13	PASS
100	5500	10.31	0.79	1.05	9.26	13	PASS
116	5580	10.03	0.66	0.92	9.11	13	PASS
140	5700	10.77	1.31	1.57	9.20	13	PASS

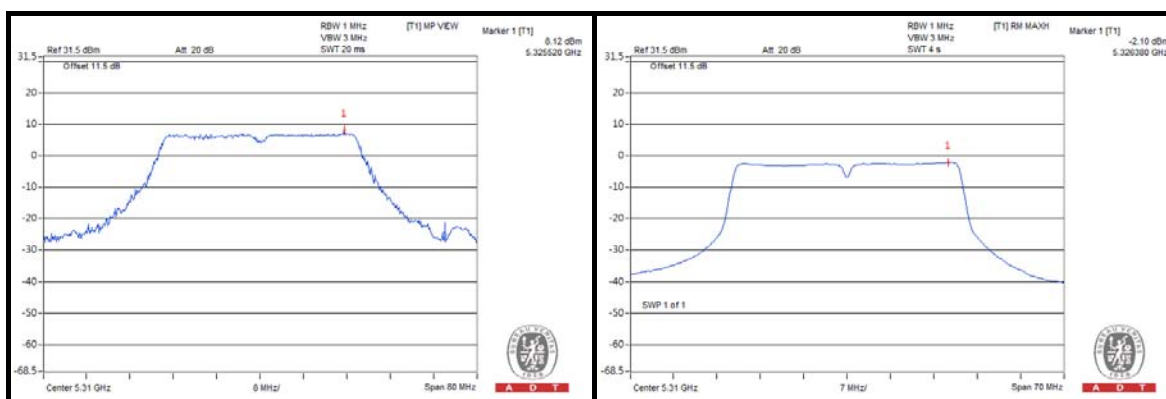
NOTE: Refer to section 3.3 for duty cycle spectrum plot.



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	8.00	-2.06	-1.16	9.16	13	PASS
46	5230	7.43	-2.13	-1.23	8.66	13	PASS
54	5270	7.56	-2.29	-1.39	8.95	13	PASS
62	5310	8.12	-2.10	-1.20	9.32	13	PASS
102	5510	7.95	-1.92	-1.02	8.97	13	PASS
110	5550	7.35	-2.13	-1.23	8.58	13	PASS
134	5670	7.70	-1.84	-0.94	8.64	13	PASS

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

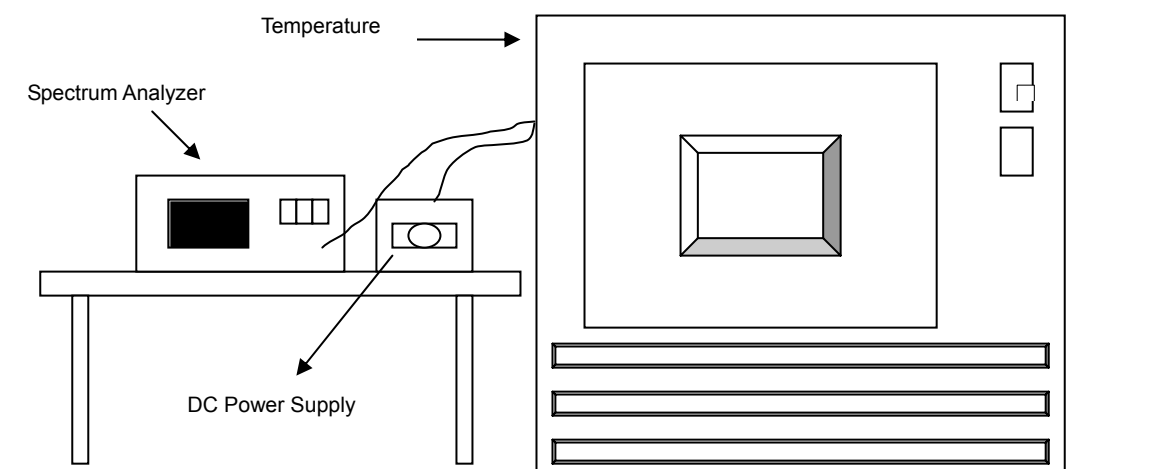


4.6 FREQUENCY STABILITY

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.				
802.11a				
Channel	Frequency (MHz)	Low Frequency (Fl)	High Frequency (Fh)	Frequency Stability (ppm)
36	5180	5171.83	5188.20	2.41
40	5200	5211.80	5228.20	0.00
48	5240	5231.80	5248.20	0.00
52	5260	5251.80	5268.20	0.00
60	5300	5291.80	5308.20	0.00
64	5320	5311.80	5328.20	0.00
100	5500	5491.80	5508.20	0.00
116	5580	5571.80	5588.20	0.00
140	5700	5691.83	5708.20	2.19

FREQUENCY STABILITY VERSUS TEMP.				
802.11n (20MHz)				
Channel	Frequency (MHz)	Low Frequency (Fl)	High Frequency (Fh)	Frequency Stability (ppm)
36	5180	5171.20	5188.80	0.00
40	5200	5211.18	5228.83	0.00
48	5240	5231.18	5248.83	0.00
52	5260	5251.20	5268.80	0.00
60	5300	5291.20	5308.85	4.72
64	5320	5311.20	5328.85	4.70
100	5500	5491.20	5508.80	0.00
116	5580	5571.18	5588.83	0.00
140	5700	5691.18	5708.83	0.00

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.

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