FCC TEST REPORT (15.407)

REPORT NO.:	RF120117C24-1
MODEL NO.:	PJ75100
FCC ID:	NM8PJ75100
RECEIVED:	Jan. 17, 2012
TESTED:	Feb. 01 ~ Feb. 21, 2012
ISSUED:	Feb. 21, 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
Original release	N/A	Feb. 21, 2012

1. CERTIFICATION

PRODUCT: Smartphone
MODEL: PJ75100
BRAND: HTC
APPLICANT: HTC Corporation
TESTED: Feb. 01 ~ Feb. 21, 2012
TEST SAMPLE: Production Unit
STANDARDS: **FCC Part 15, Subpart E (Section 15.407)**
ANSI C63.10-2009

The above equipment (model: PJ75100) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch,** and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : _____ , DATE : Feb. 21, 2012
Pettie Chen / Specialist

APPROVED BY : _____ , DATE : Feb. 21, 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 -12.62dB at 0.48203MHz.
15.407(b/1/2/3)(b)(6)	Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -1.0dB at 5150.00MHz.
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.	PJ75100
POWER SUPPLY	5.0Vdc (adapter or host equipment) 3.7Vdc (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 150.0Mbps
OPERATING FREQUENCY	5180 ~ 5320MHz & 5500 ~ 5700MHz
NUMBER OF CHANNEL	5180 ~ 5320MHz: 8 for 802.11a, 802.11n (20MHz) 4 for 802.11n (40MHz) 5500 ~ 5700MHz: 8 for 802.11a, 802.11n (20MHz) 3 for 802.11n (40MHz)
OUTPUT POWER	20.56mW for 5180 ~ 5240MHz 21.58mW for 5260 ~ 5320MHz 21.68mW for 5500 ~ 5700MHz
ANTENNA TYPE	5180 ~ 5240MHz: PIFA antenna with -2.56dBi gain 5260 ~ 5320MHz: PIFA antenna with -2.07dBi gain 5500 ~ 5700MHz: PIFA antenna with -2.00dBi 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 frequency bands used in this EUT are listed as follows:

Frequency Band (MHz)	2412~2462	5180~5320	5500~5700	5745~5825
802.11b	√	-	-	-
802.11g	√	-	-	-
802.11a	-	√	√	√
802.11n (20MHz)	√	√	√	√
802.11n (40MHz)	-	√	√	√

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 EUT's accessories list refers to Ext Pho_ NM8PJ75100.pdf.
   *EUT+ item 1, 2, 4, 7, 8, 9 were the worst for the final test.
4. 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 ~ 5320MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
36	5180 MHz	52	5260 MHz
40	5200 MHz	56	5280 MHz
44	5220 MHz	60	5300 MHz
48	5240 MHz	64	5320 MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	54	5270 MHz
46	5230 MHz	62	5310 MHz

FOR 5500 ~ 5700MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
100	5500 MHz	116	5580 MHz
104	5520 MHz	132	5660 MHz
108	5540 MHz	136	5680 MHz
112	5560 MHz	140	5700 MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
102	5510 MHz	134	5670 MHz
118	5590 MHz		

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
-	√	√	√	√	-

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

NOTE:
The 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.

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5180-5320	36 to 64	36, 44, 48, 52, 60, 64	OFDM	BPSK	6.0
-	802.11n (20MHz)		36 to 64	36, 44, 48, 52, 60, 64	OFDM	BPSK	7.2
-	802.11n (40MHz)		38 to 62	38, 46, 54, 62	OFDM	BPSK	15.0
-	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	7.2
-	802.11n (40MHz)		102 to 134	102, 118, 134	OFDM	BPSK	15.0

RADIATED EMISSION TEST (BELOW 1GHz):

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5180-5320	36 to 64	62	OFDM	BPSK	6.0
-	802.11a	5500-5700	100 to 140	140	OFDM	BPSK	6.0

POWER LINE CONDUCTED EMISSION TEST:

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5500-5700	100 to 140	140	OFDM	BPSK	6.0

ANTENNA PORT CONDUCTED MEASUREMENT:

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5180-5320	36 to 64	36, 44, 48, 52, 60, 64	OFDM	BPSK	6.0
-	802.11n (20MHz)		36 to 64	36, 44, 48, 52, 60, 64	OFDM	BPSK	7.2
-	802.11n (40MHz)		38 to 62	38, 46, 54, 62	OFDM	BPSK	15.0
-	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	7.2
-	802.11n (40MHz)		102 to 134	102, 118, 134	OFDM	BPSK	15.0

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	25deg. C, 65%RH	120Vac, 60Hz	Sun Lin
RE<1G	22deg. C, 65%RH	120Vac, 60Hz	Aska Huang
PLC	23deg. C, 65%RH	120Vac, 60Hz	Felix Chen
APCM	23deg. C, 65%RH	120Vac, 60Hz	Brad Wu

3.3 DUTY CYCLE OF TEST SIGNAL

Test tool can set the EUT to transmit at > 98 % duty cycle.

3.4 DESCRIPTION OF SUPPORT UNITS

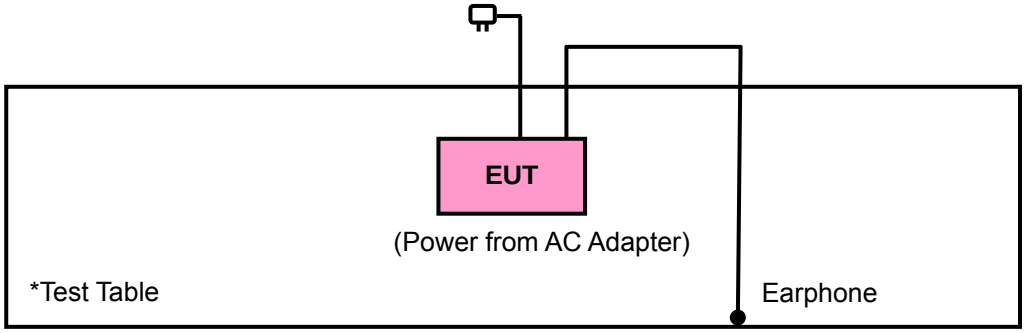
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Earphone	Merry	RC E190	NA	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	1.1m audio cable.

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

3.4.1 CONFIGURATION OF SYSTEM UNDER TEST



3.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC Part 15, Subpart E (15.407)
ANSI C63.10-2009

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

NOTE: The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

4. TEST TYPES AND RESULTS

4.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

4.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

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

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

NOTE:

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

4.1.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

EIRP LIMIT (dBm)	EQUIVALENT FIELD STRENGTH AT 3m (dBμV/m)
PK	PK
-27	68.3

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

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

4.1.3 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCI	100744	Apr. 19, 2011	Apr. 18, 2012
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Aug. 04, 2011	Aug. 03, 2012
BILOG Antenna SCHWARZBECK	VULB9168	9168-156	Apr. 12, 2011	Apr. 11, 2012
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-563	Sep. 06, 2011	Sep. 05, 2012
HORN Antenna SCHWARZBECK	BBHA 9170	148	Jul. 20, 2011	Jul. 19, 2012
Preamplifier Agilent	8449B	3008A01911	Oct. 29, 2011	Oct. 28, 2012
Preamplifier Agilent	8447D	2944A10638	Oct. 29, 2011	Oct. 28, 2012
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	295013/4 283403/4	Aug. 19, 2011	Aug. 18, 2012
RF signal cable Worken	8D-FB	Cable-HYCH9-01	Aug. 13, 2011	Aug. 12, 2012
Software	ADT_Radiated_ V7.6.15.9.2	NA	NA	NA
Antenna Tower EMCO	2070/2080	512.835.4684	NA	NA
Turn Table EMCO	2087-2.03	NA	NA	NA
Antenna Tower &Turn Table Controller EMCO	2090	NA	NA	NA
26GHz ~ 40GHz Amplifier	EM26400	815221	Oct. 29, 2011	Oct. 28, 2012
High Speed Peak Power Meter	ML2495A	0824011	Aug. 04, 2011	Aug. 03, 2012
Power Sensor	MA2411B	0738171	Aug. 04, 2011	Aug. 03, 2012

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

2. The test was performed in HwaYa Chamber 9.

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

4. The FCC Site Registration No. is 460141.

5. 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 camber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

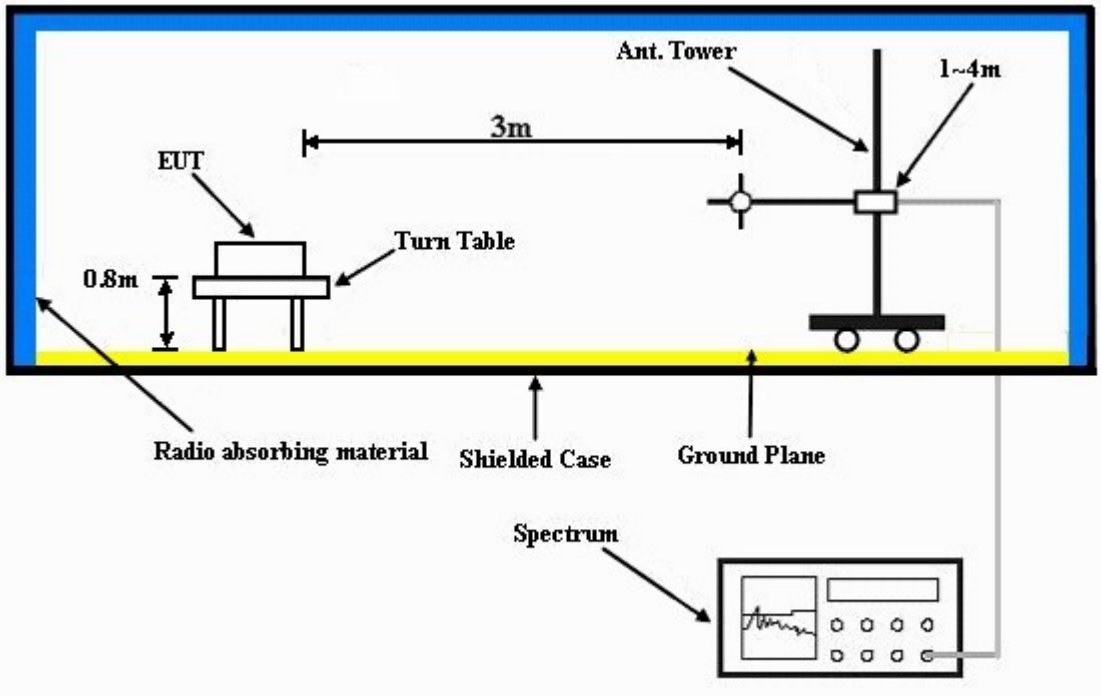
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for 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.

4.1.8 TEST RESULTS

ABOVE 1GHz WORST-CASE DATA: 802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH	TESTED BY	Sun Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	65.8 PK	74.0	-8.2	1.06 H	205	27.60	38.20
2	5150.00	51.3 AV	54.0	-2.7	1.06 H	205	13.10	38.20
3	*5180.00	106.6 PK			1.04 H	205	68.30	38.30
4	*5180.00	95.7 AV			1.04 H	205	57.40	38.30
5	#10360.00	56.0 PK	68.3	-12.3	1.32 H	58	8.00	48.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.3 PK	74.0	-16.7	1.00 V	175	19.10	38.20
2	5150.00	45.4 AV	54.0	-8.6	1.00 V	175	7.20	38.20
3	*5180.00	98.1 PK			1.00 V	175	59.80	38.30
4	*5180.00	87.2 AV			1.00 V	175	48.90	38.30
5	#10360.00	55.6 PK	68.3	-12.7	1.28 V	357	7.60	48.00

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 44	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH	TESTED BY	Sun Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5220.00	106.5 PK			1.01 H	243	68.20	38.30
2	*5220.00	95.3 AV			1.01 H	243	57.00	38.30
3	#10440.00	56.5 PK	68.3	-11.8	1.08 H	247	8.30	48.20
4	15660.00	56.5 PK	74.0	-17.5	1.37 H	198	7.40	49.10
5	15660.00	45.7 AV	54.0	-8.3	1.37 H	198	-3.40	49.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5220.00	98.2 PK			1.02 V	189	59.90	38.30
2	*5220.00	87.2 AV			1.02 V	189	48.90	38.30
3	#10440.00	55.3 PK	68.3	-13.0	1.48 V	95	7.10	48.20
4	15660.00	55.9 PK	74.0	-18.1	1.22 V	285	6.80	49.10
5	15660.00	44.5 AV	54.0	-9.5	1.22 V	285	-4.60	49.10

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH	TESTED BY	Sun Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	106.1 PK			1.02 H	252	67.70	38.40
2	*5240.00	95.1 AV			1.02 H	252	56.70	38.40
3	#10480.00	56.5 PK	68.3	-11.8	1.34 H	236	8.20	48.30
4	15720.00	56.8 PK	74.0	-17.2	1.08 H	228	7.80	49.00
5	15720.00	45.6 AV	54.0	-8.4	1.08 H	228	-3.40	49.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	97.8 PK			1.08 V	201	59.40	38.40
2	*5240.00	86.7 AV			1.08 V	201	48.30	38.40
3	#10480.00	54.9 PK	68.3	-13.4	1.38 V	68	6.60	48.30
4	15720.00	55.5 PK	74.0	-18.5	1.52 V	47	6.50	49.00
5	15720.00	44.7 AV	54.0	-9.3	1.52 V	47	-4.30	49.00

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 52	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH	TESTED BY	Sun Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	106.2 PK			1.12 H	244	67.80	38.40
2	*5260.00	95.1 AV			1.12 H	244	56.70	38.40
3	#10520.00	56.7 PK	68.3	-11.6	1.03 H	325	8.40	48.30
4	15780.00	56.3 PK	74.0	-17.7	1.13 H	298	7.50	48.80
5	15780.00	45.2 AV	54.0	-8.8	1.13 H	298	-3.60	48.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	98.1 PK			1.04 V	203	59.70	38.40
2	*5260.00	86.9 AV			1.04 V	203	48.50	38.40
3	#10520.00	55.5 PK	68.3	-12.8	1.36 V	332	7.20	48.30
4	15780.00	55.3 PK	74.0	-18.7	1.46 V	188	6.50	48.80
5	15780.00	45.0 AV	54.0	-9.0	1.46 V	188	-3.80	48.80

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 60	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH	TESTED BY	Sun Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	106.4 PK			1.12 H	213	68.00	38.40
2	*5300.00	95.3 AV			1.12 H	213	56.90	38.40
3	10600.00	57.3 PK	74.0	-16.7	1.34 H	95	8.90	48.40
4	10600.00	45.5 AV	54.0	-8.5	1.34 H	95	-2.90	48.40
5	15900.00	56.5 PK	74.0	-17.5	1.18 H	165	8.10	48.40
6	15900.00	45.4 AV	54.0	-8.6	1.18 H	165	-3.00	48.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	98.0 PK			1.00 V	189	59.60	38.40
2	*5300.00	86.7 AV			1.00 V	189	48.30	38.40
3	10600.00	55.4 PK	74.0	-18.6	1.45 V	265	7.00	48.40
4	10600.00	43.9 AV	54.0	-10.1	1.45 V	265	-4.50	48.40
5	15900.00	54.8 PK	74.0	-19.2	1.03 V	48	6.40	48.40
6	15900.00	43.2 AV	54.0	-10.8	1.03 V	48	-5.20	48.40

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 64	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH	TESTED BY	Sun Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	106.2 PK			1.00 H	245	67.70	38.50
2	*5320.00	95.2 AV			1.00 H	245	56.70	38.50
3	5350.00	64.3 PK	74.0	-9.7	1.01 H	186	25.80	38.50
4	5350.00	49.2 AV	54.0	-4.8	1.01 H	186	10.70	38.50
5	10640.00	59.8 PK	74.0	-14.2	1.34 H	59	11.30	48.50
6	10640.00	46.7 AV	54.0	-7.3	1.34 H	59	-1.80	48.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	98.2 PK			1.03 V	198	59.70	38.50
2	*5320.00	86.8 AV			1.03 V	198	48.30	38.50
3	5350.00	60.8 PK	74.0	-13.2	1.02 V	199	22.30	38.50
4	5350.00	43.8 AV	54.0	-10.2	1.02 V	199	5.30	38.50
5	10640.00	58.2 PK	74.0	-15.8	1.21 V	177	9.70	48.50
6	10640.00	45.6 AV	54.0	-8.4	1.21 V	177	-2.90	48.50

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH	TESTED BY	Sun Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	58.9 PK	74.0	-15.1	1.05 H	177	20.20	38.70
2	5460.00	44.7 AV	54.0	-9.3	1.05 H	177	6.00	38.70
3	#5470.00	61.5 PK	68.3	-6.8	1.05 H	177	22.80	38.70
4	*5500.00	105.8 PK			1.00 H	185	67.00	38.80
5	*5500.00	95.0 AV			1.00 H	185	56.20	38.80
6	11000.00	57.4 PK	74.0	-16.6	1.32 H	268	8.10	49.30
7	11000.00	47.0 AV	54.0	-7.0	1.32 H	268	-2.30	49.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	51.3 PK	74.0	-22.7	1.02 V	199	12.60	38.70
2	5460.00	36.1 AV	54.0	-17.9	1.02 V	199	-2.60	38.70
3	#5470.00	52.8 PK	68.3	-15.5	1.02 V	199	14.10	38.70
4	*5500.00	97.9 PK			1.00 V	193	59.10	38.80
5	*5500.00	86.6 AV			1.00 V	193	47.80	38.80
6	11000.00	56.8 PK	74.0	-17.2	1.32 V	235	7.50	49.30
7	11000.00	45.4 AV	54.0	-8.6	1.32 V	235	-3.90	49.30

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 116	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH	TESTED BY	Sun Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3720.00	43.9 PK	74.0	-30.1	1.48 H	298	9.20	34.70
2	3720.00	32.9 AV	54.0	-21.1	1.48 H	298	-1.80	34.70
3	*5580.00	106.1 PK			1.04 H	203	67.20	38.90
4	*5580.00	95.0 AV			1.04 H	203	56.10	38.90
5	11160.00	57.8 PK	74.0	-16.2	1.03 H	357	8.50	49.30
6	11160.00	46.3 AV	54.0	-7.7	1.03 H	357	-3.00	49.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3720.00	40.9 PK	74.0	-33.1	1.07 V	58	6.20	34.70
2	3720.00	31.2 AV	54.0	-22.8	1.07 V	58	-3.50	34.70
3	*5580.00	98.0 PK			1.00 V	185	59.10	38.90
4	*5580.00	86.7 AV			1.00 V	185	47.80	38.90
5	11160.00	56.3 PK	74.0	-17.7	1.28 V	243	7.00	49.30
6	11160.00	45.2 AV	54.0	-8.8	1.28 V	243	-4.10	49.30

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 140	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH	TESTED BY	Sun Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	105.8 PK			1.14 H	181	66.60	39.20
2	*5700.00	94.7 AV			1.14 H	181	55.50	39.20
3	#5725.00	64.7 PK	68.3	-3.6	1.03 H	180	25.40	39.30
4	11400.00	57.7 PK	74.0	-16.3	1.32 H	77	8.30	49.40
5	11400.00	46.3 AV	54.0	-7.7	1.32 H	77	-3.10	49.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	97.7 PK			1.01 V	215	58.50	39.20
2	*5700.00	86.4 AV			1.01 V	215	47.20	39.20
3	#5725.00	60.7 PK	68.3	-7.6	1.02 V	221	21.40	39.30
4	11400.00	56.7 PK	74.0	-17.3	1.08 V	132	7.30	49.40
5	11400.00	45.8 AV	54.0	-8.2	1.08 V	132	-3.60	49.40

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

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

802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH	TESTED BY	Sun Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.2 PK	74.0	-16.8	1.12 H	189	19.00	38.20
2	5150.00	44.3 AV	54.0	-9.7	1.12 H	189	6.10	38.20
3	*5180.00	103.8 PK			1.12 H	188	65.50	38.30
4	*5180.00	92.8 AV			1.12 H	188	54.50	38.30
5	#10360.00	57.1 PK	68.3	-11.2	1.48 H	85	9.10	48.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	49.7 PK	74.0	-24.3	1.00 V	177	11.50	38.20
2	5150.00	37.3 AV	54.0	-16.7	1.00 V	177	-0.90	38.20
3	*5180.00	95.0 PK			1.00 V	177	56.70	38.30
4	*5180.00	84.1 AV			1.00 V	177	45.80	38.30
5	#10360.00	54.6 PK	68.3	-13.7	1.43 V	229	6.60	48.00

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 44	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH	TESTED BY	Sun Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5220.00	103.6 PK			1.08 H	183	65.30	38.30
2	*5220.00	92.7 AV			1.08 H	183	54.40	38.30
3	#10440.00	57.2 PK	68.3	-11.1	1.36 H	132	9.00	48.20
4	15660.00	57.5 PK	74.0	-16.5	1.43 H	198	8.40	49.10
5	15660.00	45.2 AV	54.0	-8.8	1.43 H	198	-3.90	49.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5220.00	94.8 PK			1.02 V	162	56.50	38.30
2	*5220.00	84.0 AV			1.02 V	162	45.70	38.30
3	#10440.00	54.3 PK	68.3	-14.0	1.17 V	223	6.10	48.20
4	15660.00	55.5 PK	74.0	-18.5	1.25 V	47	6.40	49.10
5	15660.00	44.2 AV	54.0	-9.8	1.25 V	47	-4.90	49.10

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH	TESTED BY	Sun Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	103.5 PK			1.09 H	231	65.10	38.40
2	*5240.00	92.4 AV			1.09 H	231	54.00	38.40
3	#10480.00	57.5 PK	68.3	-10.8	1.03 H	95	9.20	48.30
4	15720.00	57.2 PK	74.0	-16.8	1.27 H	145	8.20	49.00
5	15720.00	45.0 AV	54.0	-9.0	1.27 H	145	-4.00	49.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	95.1 PK			1.03 V	158	56.70	38.40
2	*5240.00	84.1 AV			1.03 V	158	45.70	38.40
3	#10480.00	56.2 PK	68.3	-12.1	1.37 V	89	7.90	48.30
4	15720.00	55.8 PK	74.0	-18.2	1.24 V	322	6.80	49.00
5	15720.00	44.1 AV	54.0	-9.9	1.24 V	322	-4.90	49.00

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 52	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH	TESTED BY	Sun Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	103.0 PK			1.15 H	217	64.60	38.40
2	*5260.00	91.8 AV			1.15 H	217	53.40	38.40
3	#10520.00	57.4 PK	68.3	-10.9	1.24 H	169	9.10	48.30
4	15780.00	57.5 PK	74.0	-16.5	1.22 H	318	8.70	48.80
5	15780.00	45.3 AV	54.0	-8.7	1.22 H	318	-3.50	48.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	94.6 PK			1.00 V	167	56.20	38.40
2	*5260.00	83.5 AV			1.00 V	167	45.10	38.40
3	#10520.00	56.7 PK	68.3	-11.6	1.28 V	107	8.40	48.30
4	15780.00	55.6 PK	74.0	-18.4	1.02 V	158	6.80	48.80
5	15780.00	43.7 AV	54.0	-10.3	1.02 V	158	-5.10	48.80

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 60	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH	TESTED BY	Sun Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	102.6 PK			1.21 H	232	64.20	38.40
2	*5300.00	91.7 AV			1.21 H	232	53.30	38.40
3	10600.00	58.0 PK	74.0	-16.0	1.27 H	157	9.60	48.40
4	10600.00	46.9 AV	54.0	-7.1	1.27 H	157	-1.50	48.40
5	15900.00	57.1 PK	74.0	-16.9	1.52 H	77	8.70	48.40
6	15900.00	45.1 AV	54.0	-8.9	1.52 H	77	-3.30	48.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	94.2 PK			1.01 V	185	55.80	38.40
2	*5300.00	83.2 AV			1.01 V	185	44.80	38.40
3	10600.00	55.9 PK	74.0	-18.1	1.31 V	117	7.50	48.40
4	10600.00	45.0 AV	54.0	-9.0	1.31 V	117	-3.40	48.40
5	15900.00	55.7 PK	74.0	-18.3	1.08 V	155	7.30	48.40
6	15900.00	43.2 AV	54.0	-10.8	1.08 V	155	-5.20	48.40

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 64	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH	TESTED BY	Sun Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	102.5 PK			1.02 H	199	64.00	38.50
2	*5320.00	91.5 AV			1.02 H	199	53.00	38.50
3	5350.00	61.7 PK	74.0	-12.3	1.08 H	207	23.20	38.50
4	5350.00	47.6 AV	54.0	-6.4	1.08 H	207	9.10	38.50
5	10640.00	56.5 PK	74.0	-17.5	1.34 H	243	8.00	48.50
6	10640.00	45.1 AV	54.0	-8.9	1.34 H	243	-3.40	48.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	93.9 PK			1.00 V	157	55.40	38.50
2	*5320.00	83.0 AV			1.00 V	157	44.50	38.50
3	5350.00	55.6 PK	74.0	-18.4	1.00 V	162	17.10	38.50
4	5350.00	43.3 AV	54.0	-10.7	1.00 V	162	4.80	38.50
5	10640.00	54.8 PK	74.0	-19.2	1.08 V	53	6.30	48.50
6	10640.00	44.3 AV	54.0	-9.7	1.08 V	53	-4.20	48.50

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH	TESTED BY	Sun Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	54.3 PK	74.0	-19.7	1.09 H	181	15.60	38.70
2	5460.00	44.5 AV	54.0	-9.5	1.09 H	181	5.80	38.70
3	#5470.00	58.6 PK	68.3	-9.7	1.09 H	181	19.90	38.70
4	*5500.00	102.8 PK			1.18 H	213	64.00	38.80
5	*5500.00	91.6 AV			1.18 H	213	52.80	38.80
6	11000.00	58.1 PK	74.0	-15.9	1.05 H	254	8.80	49.30
7	11000.00	46.0 AV	54.0	-8.0	1.05 H	254	-3.30	49.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	53.8 PK	74.0	-20.2	1.00 V	163	15.10	38.70
2	5460.00	42.8 AV	54.0	-11.2	1.00 V	163	4.10	38.70
3	#5470.00	55.9 PK	68.3	-12.4	1.00 V	163	17.20	38.70
4	*5500.00	93.6 PK			1.00 V	185	54.80	38.80
5	*5500.00	82.6 AV			1.00 V	185	43.80	38.80
6	11000.00	56.4 PK	74.0	-17.6	1.45 V	105	7.10	49.30
7	11000.00	45.4 AV	54.0	-8.6	1.45 V	105	-3.90	49.30

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 116	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH	TESTED BY	Sun Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3720.00	43.4 PK	74.0	-30.6	1.29 H	347	8.70	34.70
2	3720.00	31.8 AV	54.0	-22.2	1.29 H	347	-2.90	34.70
3	*5580.00	102.7 PK			1.12 H	198	63.80	38.90
4	*5580.00	91.7 AV			1.12 H	198	52.80	38.90
5	11160.00	58.1 PK	74.0	-15.9	1.05 H	165	8.80	49.30
6	11160.00	46.5 AV	54.0	-7.5	1.05 H	165	-2.80	49.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3720.00	42.6 PK	74.0	-31.4	1.39 V	77	7.90	34.70
2	3720.00	30.4 AV	54.0	-23.6	1.39 V	77	-4.30	34.70
3	*5580.00	93.8 PK			1.00 V	178	54.90	38.90
4	*5580.00	82.7 AV			1.00 V	178	43.80	38.90
5	11160.00	55.5 PK	74.0	-18.5	1.38 V	112	6.20	49.30
6	11160.00	45.6 AV	54.0	-8.4	1.38 V	112	-3.70	49.30

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 140	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH	TESTED BY	Sun Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	102.6 PK			1.02 H	247	63.40	39.20
2	*5700.00	91.5 AV			1.02 H	247	52.30	39.20
3	#5725.00	59.7 PK	68.3	-8.6	1.00 H	259	20.40	39.30
4	11400.00	58.2 PK	74.0	-15.8	1.33 H	270	8.80	49.40
5	11400.00	46.3 AV	54.0	-7.7	1.33 H	270	-3.10	49.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	93.7 PK			1.00 V	168	54.50	39.20
2	*5700.00	82.6 AV			1.00 V	168	43.40	39.20
3	#5725.00	52.3 PK	68.3	-16.0	1.00 V	161	13.00	39.30
4	11400.00	55.3 PK	74.0	-18.7	1.48 V	98	5.90	49.40
5	11400.00	45.2 AV	54.0	-8.8	1.48 V	98	-4.20	49.40

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

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

802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	70.7 PK	74.0	-3.3	1.06 H	210	32.50	38.20
2	**5150.00**	**53.0 AV**	**54.0**	**-1.0**	**1.06 H**	**210**	**14.80**	**38.20**
3	*5190.00	101.0 PK			1.07 H	196	62.70	38.30
4	*5190.00	89.9 AV			1.07 H	196	51.60	38.30
5	#10380.00	56.0 PK	68.3	-12.3	1.35 H	358	7.90	48.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.5 PK	74.0	-14.5	1.02 V	191	21.30	38.20
2	5150.00	46.2 AV	54.0	-7.8	1.02 V	191	8.00	38.20
3	*5190.00	91.8 PK			1.02 V	185	53.50	38.30
4	*5190.00	80.8 AV			1.02 V	185	42.50	38.30
5	#10380.00	56.3 PK	68.3	-12.0	1.07 V	195	8.20	48.10

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	101.2 PK			1.08 H	135	62.90	38.30
2	*5230.00	89.9 AV			1.08 H	135	51.60	38.30
3	#10460.00	56.5 PK	68.3	-11.8	1.13 H	305	8.30	48.20
4	15690.00	57.7 PK	74.0	-16.3	1.24 H	77	8.70	49.00
5	15690.00	45.6 AV	54.0	-8.4	1.24 H	77	-3.40	49.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	91.8 PK			1.08 V	232	53.50	38.30
2	*5230.00	80.7 AV			1.08 V	232	42.40	38.30
3	#10460.00	56.3 PK	68.3	-12.0	1.27 V	299	8.10	48.20
4	15690.00	56.1 PK	74.0	-17.9	1.32 V	285	7.10	49.00
5	15690.00	44.7 AV	54.0	-9.3	1.32 V	285	-4.30	49.00

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

6. "#":The radiated frequency is out the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	100.7 PK			1.12 H	199	62.30	38.40
2	*5270.00	89.7 AV			1.12 H	199	51.30	38.40
3	#10540.00	56.7 PK	68.3	-11.6	1.22 H	104	8.40	48.30
4	15810.00	57.6 PK	74.0	-16.4	1.29 H	68	8.80	48.80
5	15810.00	45.7 AV	54.0	-8.3	1.29 H	68	-3.10	48.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	91.5 PK			1.12 V	221	53.10	38.40
2	*5270.00	80.5 AV			1.12 V	221	42.10	38.40
3	#10520.00	55.8 PK	68.3	-12.5	1.18 V	281	7.50	48.30
4	15810.00	56.3 PK	74.0	-17.7	1.22 V	269	7.50	48.80
5	15810.00	44.8 AV	54.0	-9.2	1.22 V	269	-4.00	48.80

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

6. "#":The radiated frequency is out the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	100.1 PK			1.12 H	98	61.60	38.50
2	*5310.00	89.0 AV			1.12 H	98	50.50	38.50
3	5350.00	65.2 PK	74.0	-8.8	1.12 H	89	26.70	38.50
4	5350.00	50.8 AV	54.0	-3.2	1.12 H	89	12.30	38.50
5	10620.00	55.7 PK	74.0	-18.3	1.02 H	331	7.30	48.40
6	10620.00	43.5 AV	54.0	-10.5	1.02 H	331	-4.90	48.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	91.2 PK			1.17 V	269	52.70	38.50
2	*5310.00	80.3 AV			1.17 V	269	41.80	38.50
3	5350.00	58.1 PK	74.0	-15.9	1.17 V	298	19.60	38.50
4	5350.00	43.3 AV	54.0	-10.7	1.17 V	298	4.80	38.50
5	10620.00	55.2 PK	74.0	-18.8	1.23 V	203	6.80	48.40
6	10620.00	42.2 AV	54.0	-11.8	1.23 V	203	-6.20	48.40

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	64.0 PK	74.0	-10.0	1.01 H	52	25.30	38.70
2	5460.00	47.2 AV	54.0	-6.8	1.01 H	52	8.50	38.70
3	#5470.00	66.9 PK	68.3	-1.4	1.01 H	52	28.20	38.70
4	*5510.00	99.6 PK			1.00 H	57	60.80	38.80
5	*5510.00	88.5 AV			1.00 H	57	49.70	38.80
6	11020.00	55.3 PK	74.0	-18.7	1.07 H	295	6.00	49.30
7	11020.00	43.3 AV	54.0	-10.7	1.07 H	295	-6.00	49.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	60.0 PK	74.0	-14.0	1.02 V	290	21.30	38.70
2	5460.00	45.8 AV	54.0	-8.2	1.02 V	290	7.10	38.70
3	#5470.00	61.8 PK	68.3	-6.5	1.02 V	290	23.10	38.70
4	*5510.00	90.7 PK			1.08 V	292	51.90	38.80
5	*5510.00	80.0 AV			1.08 V	292	41.20	38.80
6	11020.00	55.4 PK	74.0	-18.6	1.17 V	235	6.10	49.30
7	11020.00	42.3 AV	54.0	-11.7	1.17 V	235	-7.00	49.30

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 118	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Sun Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3727.00	43.9 PK	74.0	-30.1	1.38 H	292	9.10	34.80
2	3727.00	32.5 AV	54.0	-21.5	1.38 H	292	-2.30	34.80
3	*5590.00	100.0 PK			1.13 H	122	61.10	38.90
4	*5590.00	88.8 AV			1.13 H	122	49.90	38.90
5	11180.00	55.3 PK	74.0	-18.7	1.27 H	327	6.00	49.30
6	11180.00	43.5 AV	54.0	-10.5	1.27 H	327	-5.80	49.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3727.00	42.5 PK	74.0	-31.5	1.08 V	21	7.70	34.80
2	3727.00	31.2 AV	54.0	-22.8	1.08 V	21	-3.60	34.80
3	*5590.00	91.3 PK			1.05 V	213	52.40	38.90
4	*5590.00	80.1 AV			1.05 V	213	41.20	38.90
5	11180.00	55.2 PK	74.0	-18.8	1.39 V	177	5.90	49.30
6	11180.00	42.0 AV	54.0	-12.0	1.39 V	177	-7.30	49.30

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	99.6 PK			1.21 H	41	60.50	39.10
2	*5670.00	88.5 AV			1.21 H	41	49.40	39.10
3	#5725.00	58.2 PK	68.3	-10.1	1.17 H	41	18.90	39.30
4	11340.00	55.6 PK	74.0	-18.4	1.23 H	247	6.20	49.40
5	11340.00	43.5 AV	54.0	-10.5	1.23 H	247	-5.90	49.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	90.8 PK			1.02 V	257	51.70	39.10
2	*5670.00	79.7 AV			1.02 V	257	40.60	39.10
3	#5725.00	55.2 PK	68.3	-13.1	1.02 V	243	15.90	39.30
4	11340.00	55.8 PK	74.0	-18.2	1.38 V	183	6.40	49.40
5	11340.00	42.3 AV	54.0	-11.7	1.38 V	183	-7.10	49.40

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

6. "#":The radiated frequency is out the restricted band.

BELOW 1GHz WORST-CASE DATA：802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 62	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	22deg. C, 65%RH	TESTED BY	Aska Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	30.8 QP	40.0	-9.2	2.00 H	163	17.10	13.70
2	109.62	31.4 QP	43.5	-12.1	1.50 H	103	20.80	10.60
3	173.78	30.4 QP	43.5	-13.1	1.50 H	148	17.10	13.30
4	206.83	24.9 QP	43.5	-18.6	2.00 H	349	13.60	11.30
5	290.43	23.1 QP	46.0	-22.9	1.00 H	106	8.50	14.60
6	389.59	20.1 QP	46.0	-25.9	1.50 H	202	2.80	17.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	61.01	32.4 QP	40.0	-7.6	1.25 V	46	19.00	13.40
2	78.51	28.0 QP	40.0	-12.0	1.25 V	199	17.70	10.30
3	107.67	27.1 QP	43.5	-16.4	1.25 V	214	16.70	10.40
4	173.78	18.2 QP	43.5	-25.3	1.25 V	133	4.90	13.30
5	210.72	20.7 QP	43.5	-22.8	1.25 V	241	9.20	11.50
6	300.16	22.0 QP	46.0	-24.0	1.50 V	247	7.00	15.00

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 140	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	22deg. C, 65%RH	TESTED BY	Aska Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	55.18	31.8 QP	40.0	-8.2	2.00 H	136	18.00	13.80
2	111.56	30.2 QP	43.5	-13.3	1.25 H	130	19.30	10.90
3	171.83	33.3 QP	43.5	-10.2	1.25 H	130	19.80	13.50
4	204.89	24.9 QP	43.5	-18.6	2.00 H	184	13.70	11.20
5	290.43	23.0 QP	46.0	-23.0	1.00 H	109	8.40	14.60
6	597.63	21.3 QP	46.0	-24.7	1.50 H	199	-0.80	22.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	59.06	33.1 QP	40.0	-6.9	1.50 V	49	19.50	13.60
2	109.62	26.0 QP	43.5	-17.5	1.00 V	238	15.40	10.60
3	169.89	20.5 QP	43.5	-23.0	2.00 V	1	6.90	13.60
4	206.83	21.5 QP	43.5	-22.0	1.50 V	238	10.20	11.30
5	298.21	22.0 QP	46.0	-24.0	1.50 V	262	7.10	14.90
6	469.31	21.1 QP	46.0	-24.9	1.00 V	232	1.80	19.30

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

4.2 CONDUCTED EMISSION MEASUREMENT

4.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	60	50

NOTE: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100291	Nov. 23, 2011	Nov. 22, 2012
RF signal cable Woken	5D-FB	Cable-HYC01-01	Dec. 22, 2011	Dec. 21, 2012
LISN ROHDE & SCHWARZ	ESH3-Z5	100312	Jul. 07, 2011	Jul. 06, 2012
LISN ROHDE & SCHWARZ	ESH2-Z5	100100	Dec. 30, 2011	Dec. 29, 2012
LISN ROHDE & SCHWARZ	ESH3-Z5	835239/001	Feb. 22, 2011	Feb. 21, 2012
V-LISN SCHWARZBECK	NNBL 8226-2	8226-142	Jun. 30, 2011	Jun. 29, 2012
LISN ROHDE & SCHWARZ	ENV216	100072	Jun. 10, 2011	Jun. 09, 2012
Software ADT	ADT_Cond_ V7.3.7	NA	NA	NA

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

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

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

4.2.3 TEST PROCEDURES

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

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

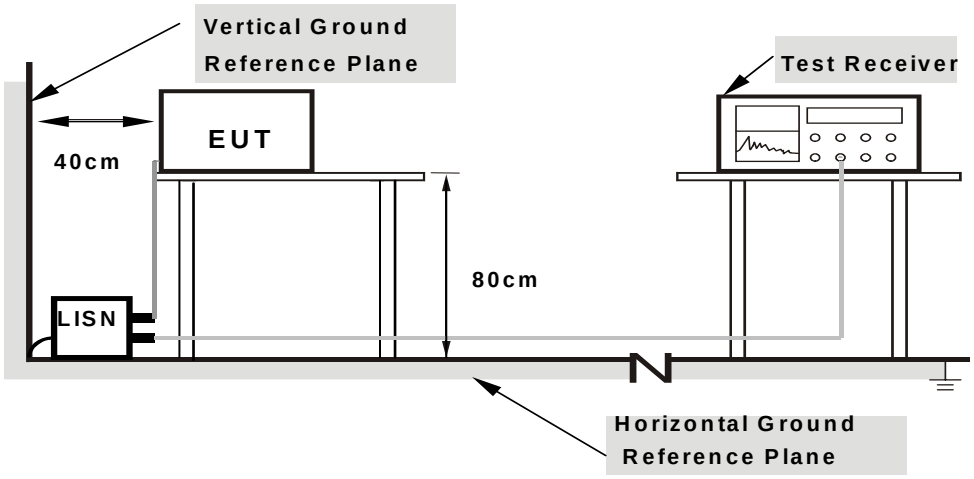
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

NOTE: All modes of operation were investigated and the worst-case emissions are reported.

4.2.4 DEVIATION FROM TEST STANDARD

No deviation.

4.2.5 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

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

4.2.6 EUT OPERATING CONDITIONS

a. Placed the EUT on the testing table.
b. The EUT communicated data with the wireless AP, universal radio communication tester, GPS antenna and Bluetooth earphone, which acted as communication partners.
c. The communication partners connected with EUT via CDMA, Bluetooth, WLAN function and run a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
d. The necessary accessories enable the system in full functions.

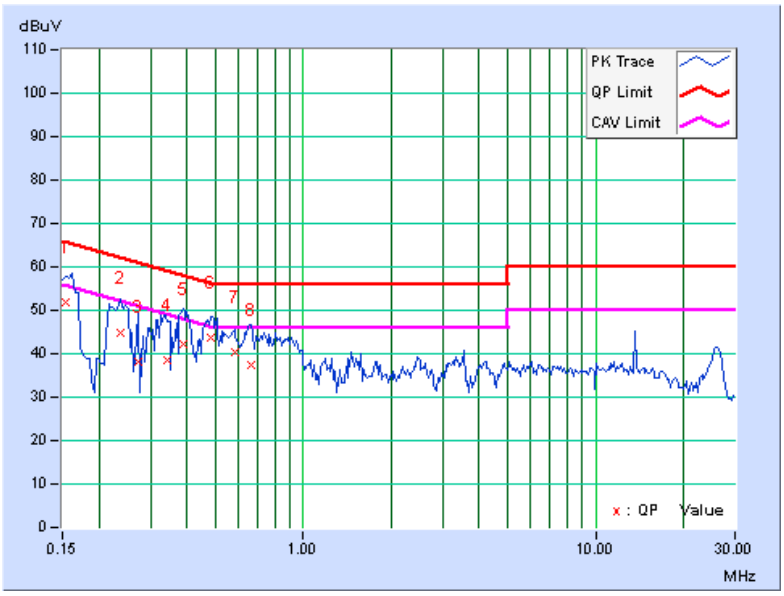
4.2.7 TEST RESULTS

CONDUCTED WORST-CASE DATA：802.11a

PHASE	Line 1	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15409	0.16	51.68	34.38	51.84	34.54	65.78	55.78	-13.93	-21.23
2	0.23594	0.17	44.50	27.52	44.67	27.69	62.24	52.24	-17.57	-24.55
3	0.27109	0.19	37.81	21.45	38.00	21.64	61.08	51.08	-23.09	-29.45
4	0.34122	0.23	38.36	21.75	38.59	21.98	59.17	49.17	-20.59	-27.20
5	0.38828	0.25	42.13	25.42	42.38	25.67	58.10	48.10	-15.72	-22.43
6	**0.48203**	**0.26**	**43.43**	**30.72**	**43.69**	**30.98**	**56.30**	**46.30**	**-12.62**	**-15.33**
7	0.58359	0.25	40.03	28.49	40.28	28.74	56.00	46.00	-15.72	-17.26
8	0.66172	0.25	37.03	26.31	37.28	26.56	56.00	46.00	-18.72	-19.44

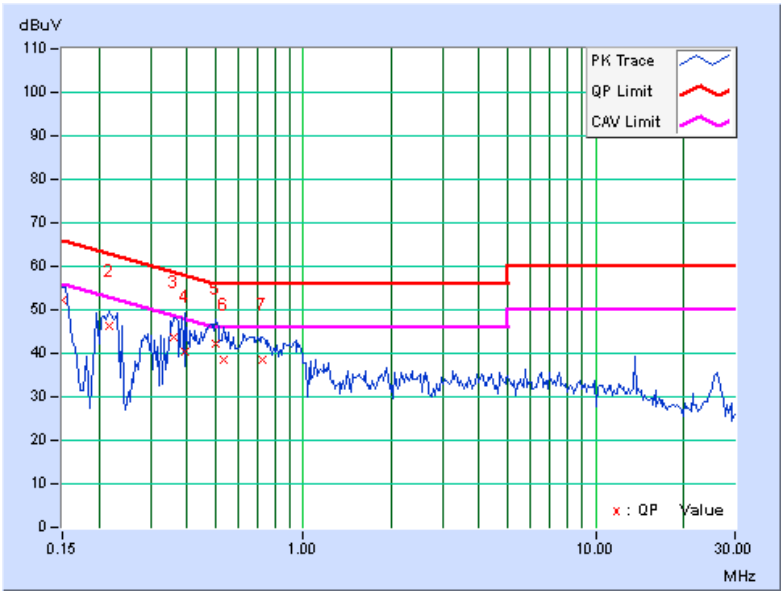
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



PHASE	Line 2	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	0.22	51.87	34.97	52.09	35.19	66.00	56.00	-13.91	-20.81
2	0.21641	0.22	46.21	33.67	46.43	33.89	62.96	52.96	-16.52	-19.06
3	0.36094	0.24	43.53	30.77	43.77	31.01	58.71	48.71	-14.94	-17.70
4	0.39609	0.24	40.19	24.01	40.43	24.25	57.93	47.93	-17.51	-23.69
5	0.50156	0.25	42.03	33.09	42.28	33.34	56.00	46.00	-13.72	-12.66
6	0.53281	0.25	38.21	24.71	38.46	24.96	56.00	46.00	-17.54	-21.04
7	0.72813	0.27	38.12	24.49	38.39	24.76	56.00	46.00	-17.61	-21.24

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



4.3 PEAK TRANSMIT POWER MEASUREMENT

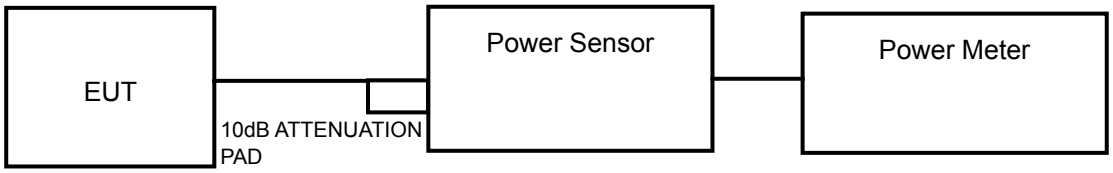
4.3.1 LIMITS OF PEAK TRANSMIT POWER MEASUREMENT

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

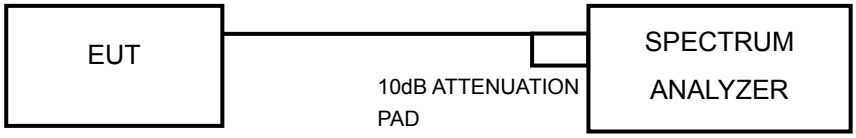
NOTE: Where B is the 26dB emission bandwidth in MHz.

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

An average power sensor was used on the output port of the EUT. A power meter was used to read the response of the average power sensor. Record the power level.

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	20.70	13.16	17	PASS
44	5220	20.56	13.13	17	PASS
48	5240	20.37	13.09	17	PASS
52	5260	20.42	13.10	24	PASS
60	5300	20.32	13.08	24	PASS
64	5320	21.58	13.34	24	PASS
100	5500	20.00	13.01	24	PASS
116	5580	20.51	13.12	24	PASS
140	5700	21.68	13.36	24	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	10.28	10.12	17	PASS
44	5220	10.21	10.09	17	PASS
48	5240	10.14	10.06	17	PASS
52	5260	10.07	10.03	24	PASS
60	5300	10.00	10.00	24	PASS
64	5320	10.81	10.34	24	PASS
100	5500	10.76	10.32	24	PASS
116	5580	10.67	10.28	24	PASS
140	5700	10.86	10.36	24	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
38	5190	10.69	10.29	17	PASS
46	5230	10.74	10.31	17	PASS
54	5270	10.79	10.33	24	PASS
62	5310	10.91	10.38	24	PASS
102	5510	11.38	10.56	24	PASS
110	5550	10.86	10.36	24	PASS
134	5670	10.76	10.32	24	PASS

26dB BANDWIDTH: 802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
36	5180	27.62	PASS
44	5220	28.44	PASS
48	5240	25.07	PASS
52	5260	25.08	PASS
60	5300	26.38	PASS
64	5320	25.88	PASS
100	5500	28.16	PASS
116	5580	28.77	PASS
140	5700	26.24	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
36	5180	22.62	PASS
44	5220	22.91	PASS
48	5240	22.82	PASS
52	5260	22.71	PASS
60	5300	22.96	PASS
64	5320	22.89	PASS
100	5500	23.48	PASS
116	5580	23.52	PASS
140	5700	23.64	PASS

802.11n (40MHz)

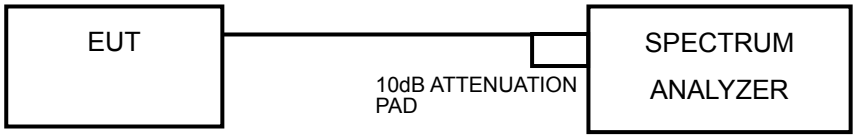
CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
38	5190	53.30	PASS
46	5230	62.84	PASS
54	5270	55.75	PASS
62	5310	55.27	PASS
102	5510	65.01	PASS
118	5590	58.07	PASS
134	5670	50.73	PASS

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

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

4.4.5 DEVIATION FROM TEST STANDARD

No deviation.

4.4.6 EUT OPERATING CONDITIONS

Same as 4.3.6.

4.4.7 TEST RESULTS

802.11a

CHANNEL	FREQUENCY (MHz)	PSD (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	1.37	4	PASS
44	5220	1.45	4	PASS
48	5240	1.46	4	PASS
52	5260	1.54	11	PASS
60	5300	1.48	11	PASS
64	5320	1.42	11	PASS
100	5500	1.36	11	PASS
116	5580	1.65	11	PASS
140	5700	1.83	11	PASS

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	PSD (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	-1.71	4	PASS
44	5220	-1.65	4	PASS
48	5240	-1.69	4	PASS
52	5260	-1.65	11	PASS
60	5300	-1.99	11	PASS
64	5320	-1.29	11	PASS
100	5500	-1.31	11	PASS
116	5580	-1.40	11	PASS
140	5700	-1.34	11	PASS

802.11n (40MHz)

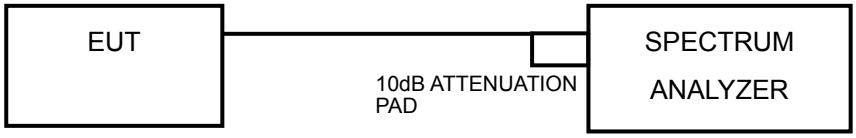
CHANNEL	FREQUENCY (MHz)	PSD (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
38	5190	-5.09	4	PASS
46	5230	-4.96	4	PASS
54	5270	-5.24	11	PASS
62	5310	-4.75	11	PASS
102	5510	-4.67	11	PASS
118	5590	-4.84	11	PASS
134	5670	-4.95	11	PASS

4.5 PEAK POWER EXCURSION MEASUREMENT

4.5.1 LIMITS OF PEAK POWER EXCURSION MEASUREMENT

Shall not exceed 13 dB.

4.5.2 TEST SETUP



4.5.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.5.4 TEST PROCEDURE

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

4.5.5 DEVIATION FROM TEST STANDARD

No deviation.

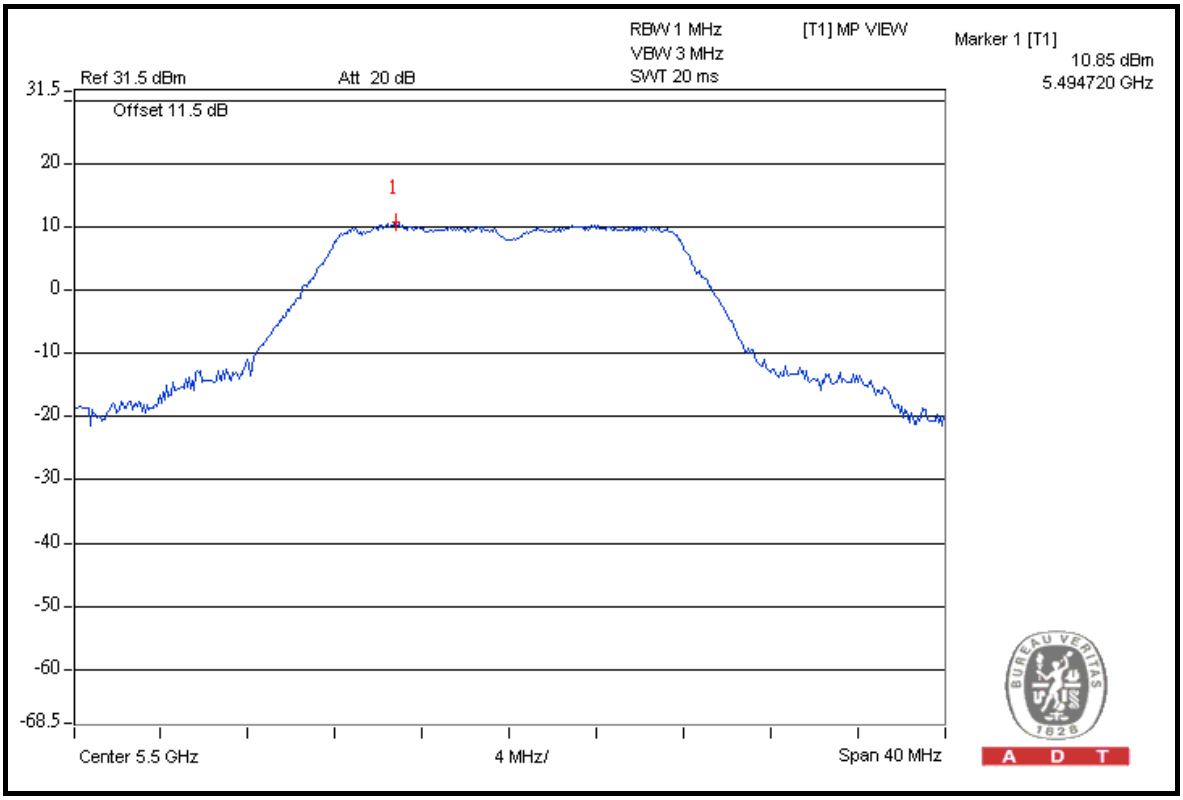
4.5.6 EUT OPERATING CONDITIONS

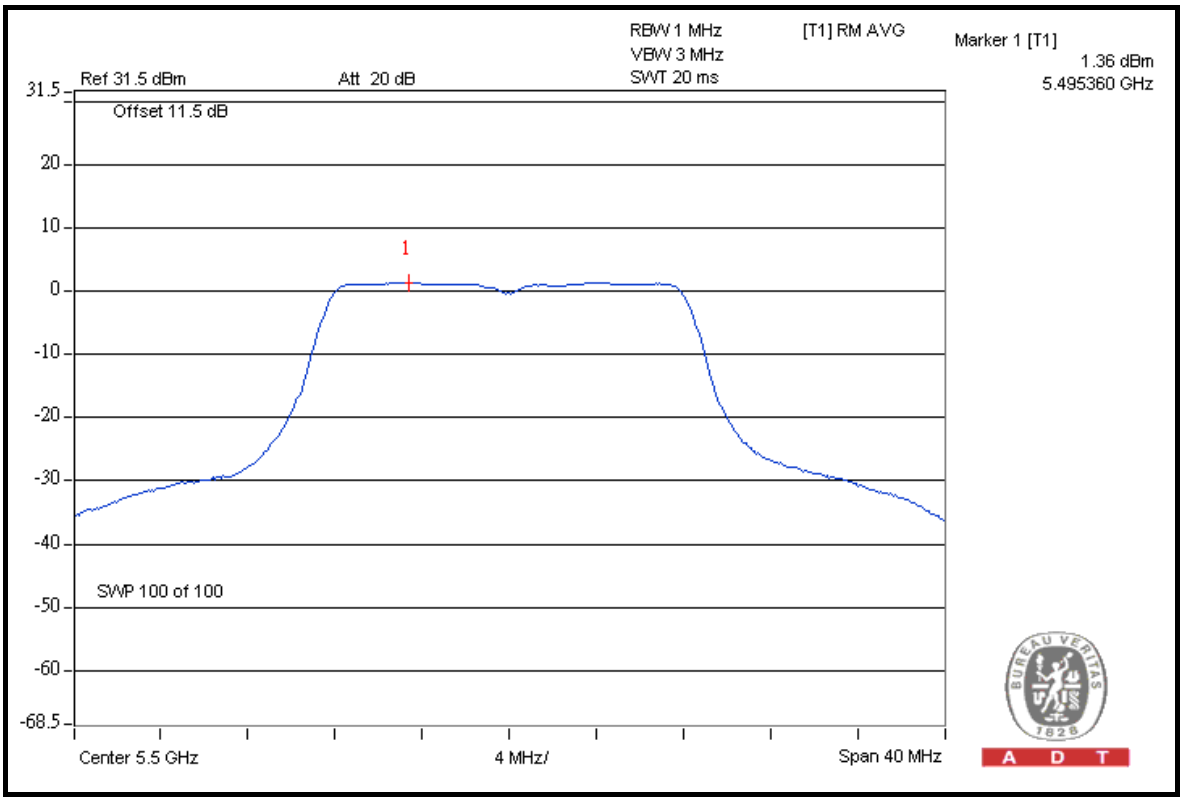
Same as 4.2.6

4.5.7 TEST RESULTS

802.11a

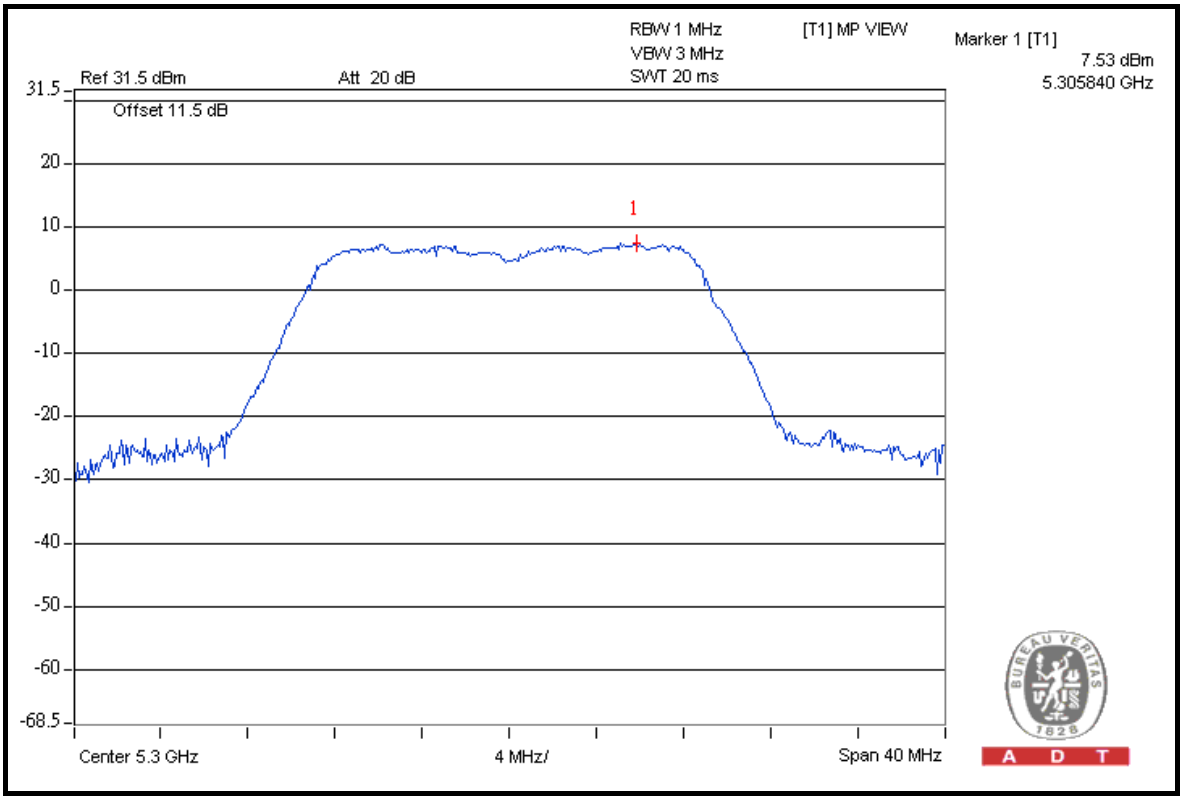
CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD (dBm)	PEAK EXCURSION (dB)	LIMIT (dB)	PASS/FAIL
36	5180	10.41	1.37	9.04	13	PASS
44	5220	10.38	1.45	8.93	13	PASS
48	5240	10.45	1.46	8.99	13	PASS
52	5260	10.49	1.54	8.95	13	PASS
60	5300	10.53	1.48	9.05	13	PASS
64	5320	10.64	1.42	9.22	13	PASS
100	5500	10.85	1.36	9.49	13	PASS
116	5580	11.12	1.65	9.47	13	PASS
140	5700	11.26	1.83	9.43	13	PASS

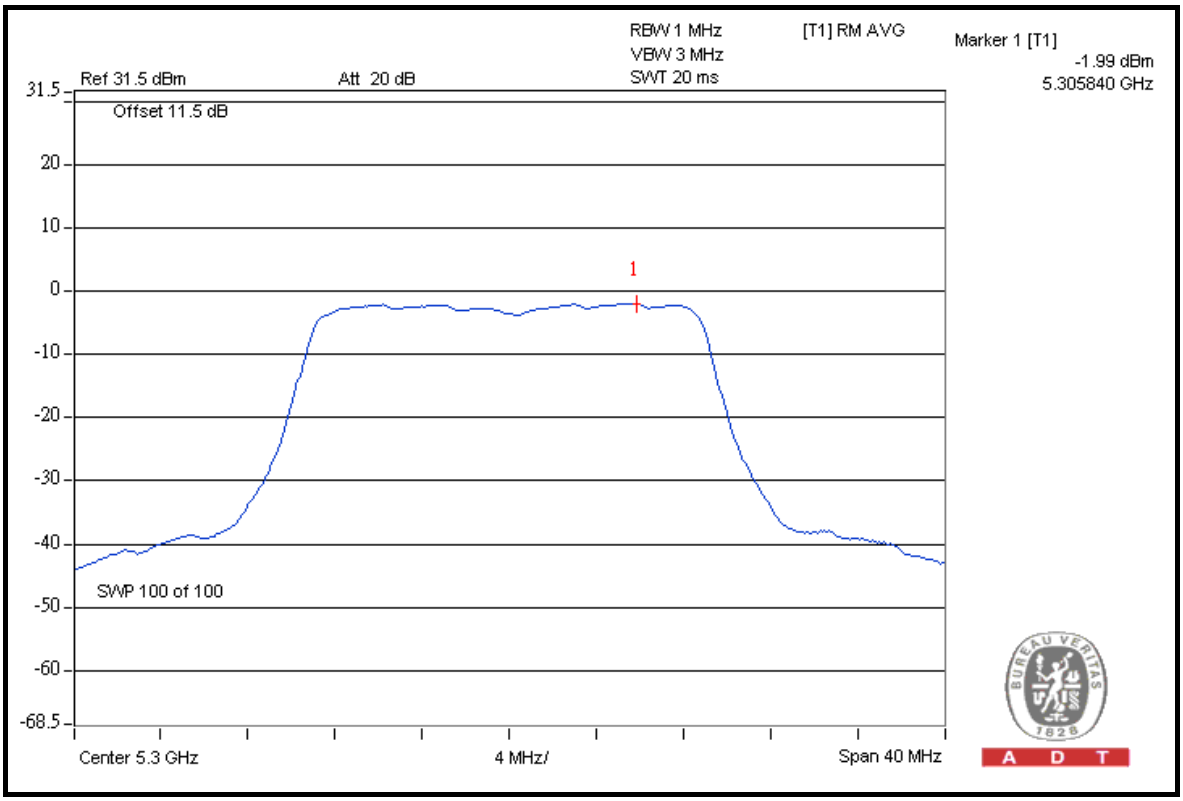

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MP VIEW
Marker 1 [T1]
10.85 dBm
5.494720 GHz
Ref 31.5 dBm
Att 20 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
1
Center 5.5 GHz
4 MHz/
Span 40 MHz


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] RM AVG
Marker 1 [T1]
1.36 dBm
5.495360 GHz
Ref 31.5 dBm
Att 20 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
1
SWP 100 of 100
Center 5.5 GHz
4 MHz/
Span 40 MHz

802.11n (20MHz)

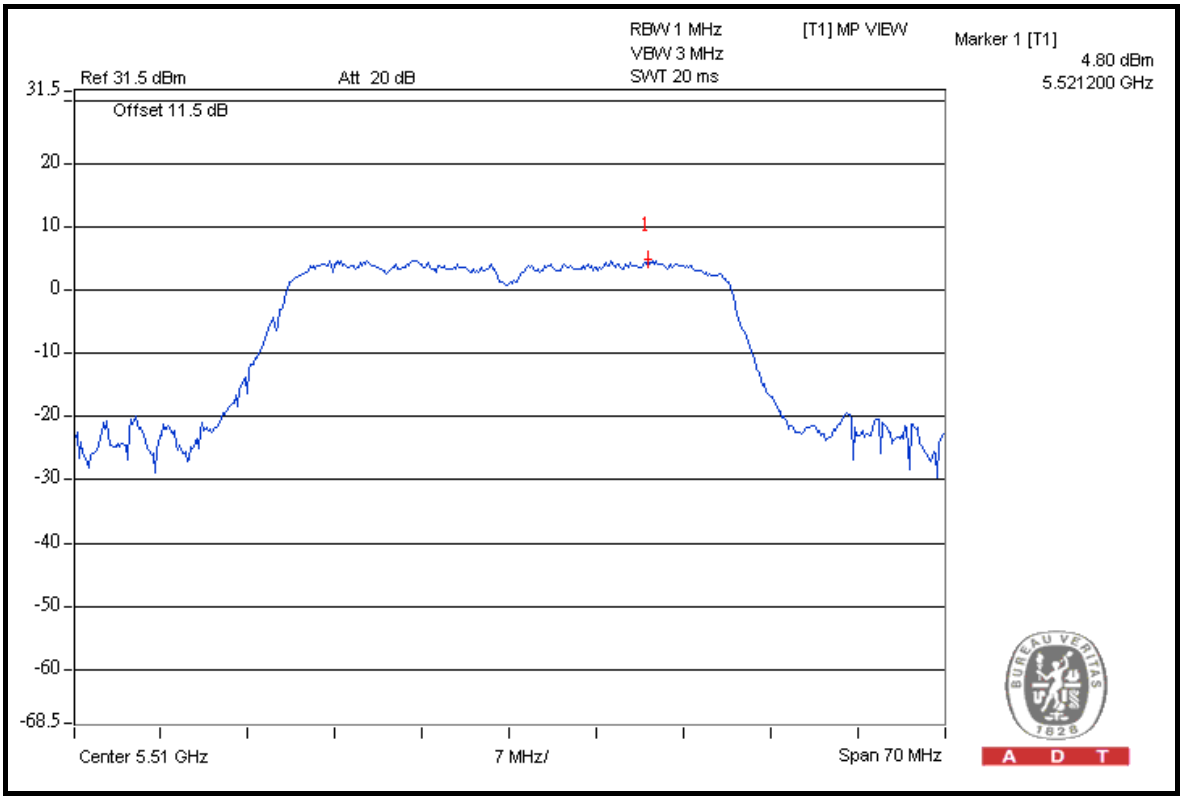
CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD (dBm)	PEAK EXCURSION (dB)	LIMIT (dB)	PASS/FAIL
36	5180	7.60	-1.71	9.31	13	PASS
44	5220	7.54	-1.65	9.19	13	PASS
48	5240	7.68	-1.69	9.37	13	PASS
52	5260	7.75	-1.65	9.40	13	PASS
60	5300	7.53	-1.99	9.52	13	PASS
64	5320	7.97	-1.29	9.26	13	PASS
100	5500	7.96	-1.31	9.27	13	PASS
116	5580	7.84	-1.40	9.24	13	PASS
140	5700	7.82	-1.34	9.16	13	PASS

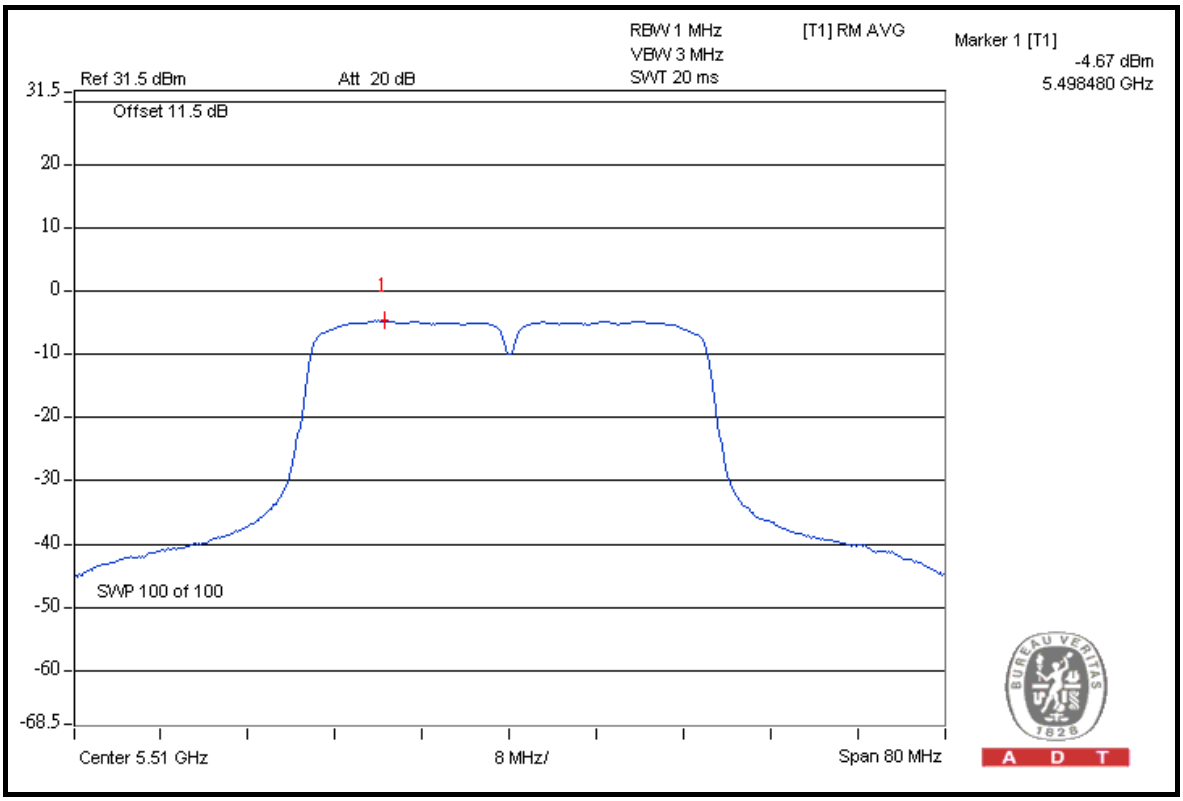

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MP VIEW
Marker 1 [T1]
7.53 dBm
5.305840 GHz
Ref 31.5 dBm
Att 20 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
1
Center 5.3 GHz
4 MHz/
Span 40 MHz


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] RM AVG
Marker 1 [T1]
-1.99 dBm
5.305840 GHz
Ref 31.5 dBm
Att 20 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
1
SWP 100 of 100
Center 5.3 GHz
4 MHz/
Span 40 MHz

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD (dBm)	PEAK EXCURSION (dB)	LIMIT (dB)	PASS/FAIL
38	5190	4.34	-5.09	9.43	13	PASS
46	5230	4.38	-4.96	9.34	13	PASS
54	5270	4.23	-5.24	9.47	13	PASS
62	5310	4.42	-4.75	9.17	13	PASS
102	5510	4.80	-4.67	9.47	13	PASS
118	5590	4.53	-4.84	9.37	13	PASS
134	5670	4.52	-4.95	9.47	13	PASS


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MP VIEW
Marker 1 [T1]
4.80 dBm
5.521200 GHz
Ref 31.5 dBm
Att 20 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
Center 5.51 GHz
7 MHz/
Span 70 MHz

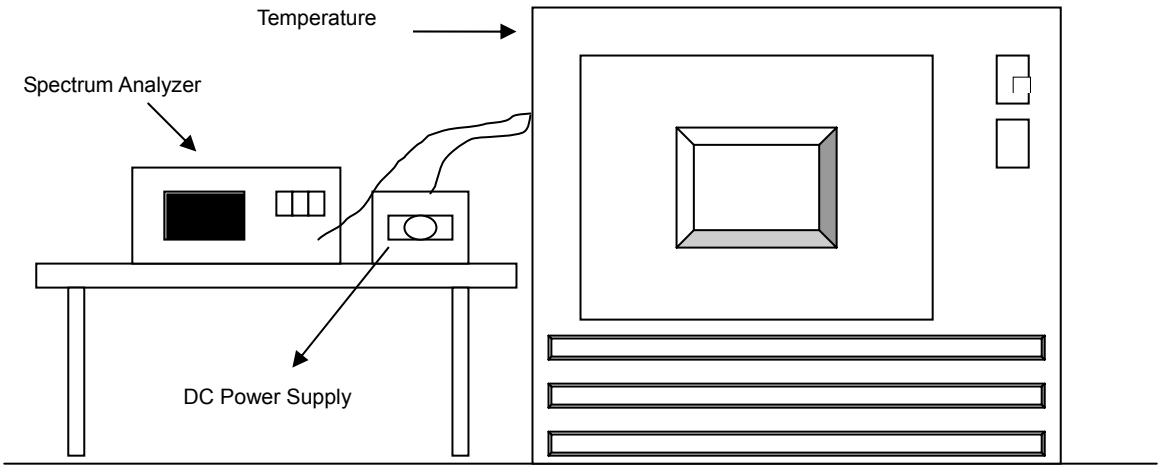

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] RM AVG
Marker 1 [T1]
-4.67 dBm
5.498480 GHz
Ref 31.5 dBm
Att 20 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
SWP 100 of 100
Center 5.51 GHz
8 MHz/
Span 80 MHz

4.6 FREQUENCY STABILITY

4.6.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

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

4.6.2 TEST SETUP



4.6.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.6.4 TEST PROCEDURE

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

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

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

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

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

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

4.6.5 DEVIATION FROM TEST STANDARD

No deviation.

4.6.6 EUT OPERATING CONDITION

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

4.6.7 TEST RESULTS

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5320MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
55	3.8	5319.988704	-2.123	5319.988086	-2.239	5319.988225	-2.213	5319.988301	-2.199
50	3.8	5319.988668	-2.130	5319.988715	-2.121	5319.989030	-2.062	5319.989051	-2.058
40	3.8	5319.989806	-1.916	5319.990091	-1.863	5319.990121	-1.857	5319.990155	-1.851
30	3.8	5319.991431	-1.611	5319.991683	-1.563	5319.991475	-1.602	5319.991535	-1.591
20	3.8	5319.993357	-1.249	5319.993486	-1.224	5319.993456	-1.230	5319.993507	-1.220
10	3.8	5319.992053	-1.494	5319.991637	-1.572	5319.991552	-1.588	5319.991811	-1.539
0	3.8	5319.990092	-1.862	5319.990194	-1.843	5319.990545	-1.777	5319.990746	-1.739
-10	3.8	5319.989277	-2.016	5319.989338	-2.004	5319.989469	-1.980	5319.989457	-1.982
-20	3.8	5319.988921	-2.083	5319.988535	-2.155	5319.988580	-2.147	5319.988829	-2.100
-30	3.8	5319.988883	-2.090	5319.988466	-2.168	5319.988468	-2.168	5319.988924	-2.082

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5320MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	4.20	5319.991330	-1.630	5319.991320	-1.632	5319.992079	-1.489	5319.991982	-1.507
	3.80	5319.993357	-1.249	5319.993486	-1.224	5319.993456	-1.230	5319.993507	-1.220
	3.60	5319.992024	-1.499	5319.992180	-1.470	5319.992381	-1.432	5319.992418	-1.425

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.

Copies of accreditation and authorization certificates of our laboratories obtained from approval agencies can be downloaded from our web site: www.adt.com.tw/index.5.phtml. 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: 886-3-3185050

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---