



# FCC TEST REPORT (15.407)

**REPORT NO.:** RF120305C07A  
**MODEL NO.:** DIR-826LMO1  
**FCC ID:** KA2IR826LMO1  
**RECEIVED:** May 03, 2012  
**TESTED:** May 26 ~ Jun. 02, 2012  
**ISSUED:** Jun. 13, 2012

**APPLICANT:** D-Link Corporation

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

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## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF120305C07A	Original release	Jun. 13, 2012



## 1. CERTIFICATION

**PRODUCT:** IEEE 802.11a/n Wireless PCIe Module

**MODEL:** DIR-826LMO1

**BRAND:** D-Link

**APPLICANT:** D-Link Corporation

**TESTED:** May 26 ~ Jun. 02, 2012

**TEST SAMPLE:** ENGINEERING SAMPLE

**STANDARDS: FCC Part 15, Subpart E (Section 15.407)**

ANSI C63.10-2009

The above equipment (model: DIR-826LMO1) 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** : Jun. 13, 2012  
Andrea Hsia / Specialist

**APPROVED BY** : Gary Chang , **DATE** : Jun. 13, 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 -5.24dB at 0.52500MHz.
15.407(b/1/2/3) (b)(6)	Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -1.1dB at 5350.00, 5470.00 & 7400.00MHz.
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	Antenna connector is UFL not a standard connector.

### 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

<b>EUT</b>	IEEE 802.11a/n Wireless PCIe Module
<b>MODEL NO.</b>	DIR-826LMO1
<b>POWER SUPPLY</b>	3.3Vdc
<b>MODULATION TYPE</b>	64QAM, 16QAM, QPSK, BPSK
<b>MODULATION TECHNOLOGY</b>	OFDM
<b>TRANSFER RATE</b>	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 300.0Mbps
<b>OPERATING FREQUENCY</b>	5260 ~ 5320MHz & 5500 ~ 5700MHz
<b>NUMBER OF CHANNEL</b>	5260 ~ 5320MHz: 4 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz) 5500 ~ 5700MHz: 8 for 802.11a, 802.11n (20MHz) 3 for 802.11n (40MHz)
<b>OUTPUT POWER</b>	229.4mW for 5260 ~ 5320MHz 240.0mW for 5500 ~ 5700MHz
<b>ANTENNA TYPE</b>	PCBantenna with 0dBi gain
<b>ANTENNA CONNECTOR</b>	UFL
<b>DATA CABLE</b>	NA
<b>I/O PORTS</b>	Refer to user's manual
<b>ACCESSORY DEVICES</b>	NA

**NOTE:**

1. This report is prepared for FCC class II permissive change. The difference compared with the original report is adding frequency band from 5.26 to 5.32GHz and 5.50 to 5.70GHz by software.
2. The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and two receivers.

MODULATION MODE	TX FUNCTION
802.11a	1TX
802.11n (20MHz)	2TX
802.11n (40MHz)	2TX

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

### 3.2 DESCRIPTION OF TEST MODES

#### 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

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
110	5550 MHz		



### 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

#### **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	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	7.2
802.11n (40MHz)		54 to 62	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, 110, 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.

MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11n (40MHz)	5260-5320	54 to 62	54	OFDM	BPSK	15.0
802.11n (40MHz)	5500-5700	102 to 134	134	OFDM	BPSK	15.0

#### **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)
802.11n (40MHz)	5260-5320	54 to 62	54	OFDM	BPSK	15.0
802.11n (40MHz)	5500-5700	102 to 134	134	OFDM	BPSK	15.0

**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.

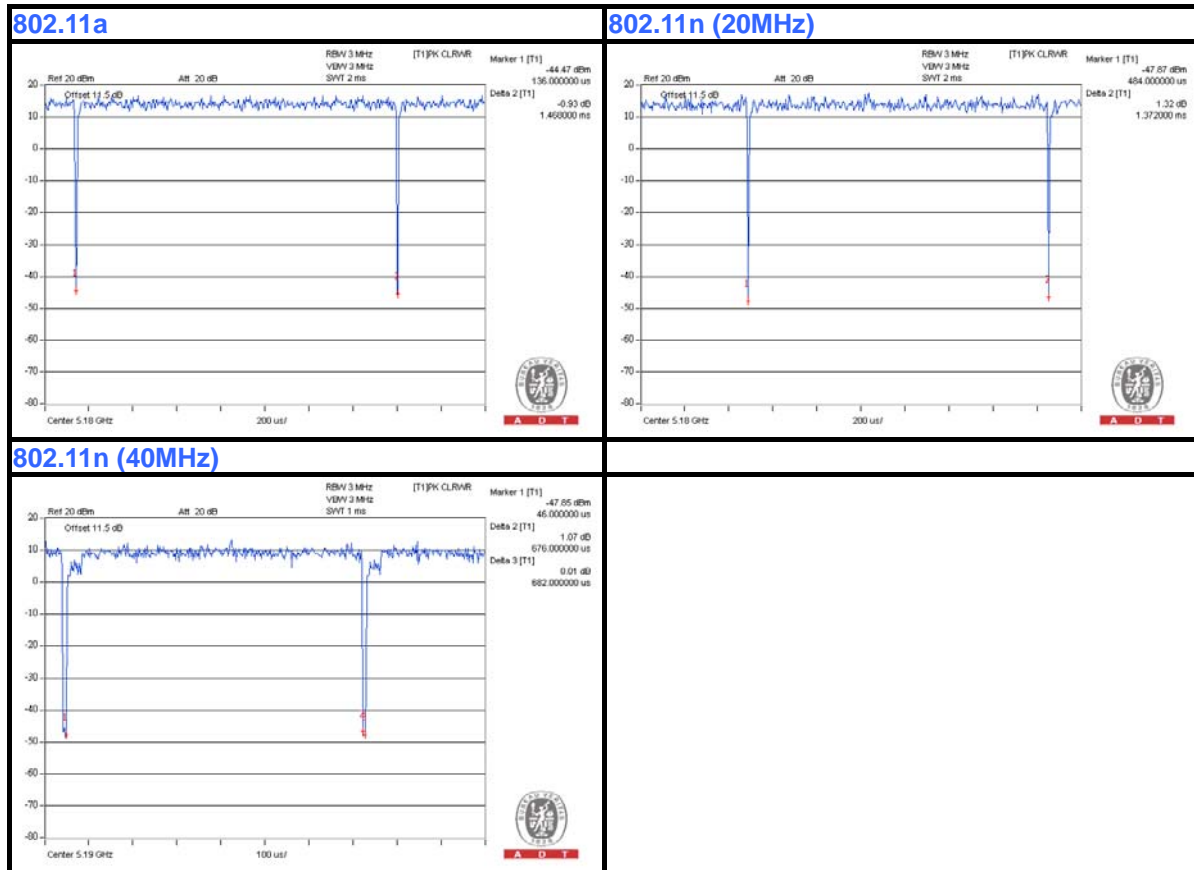
MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	7.2
802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	15.0
802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	7.2
802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	15.0

**TEST CONDITION:**

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER (SYSTEM)	TESTED BY
RE≥1G	25deg. C, 65%RH	120Vac, 60Hz	Haru Yang, Sun Lin
RE<1G	22deg. C, 73%RH	120Vac, 60Hz	Sun Lin
PLC	25deg. C, 65%RH	120Vac, 60Hz	Aska Huang
APCM	25deg. C, 68%RH	120Vac, 60Hz	Brad Wu

### 3.3 DUTY CYCLE OF TEST SIGNAL

Duty cycle of test signal is > 98 %, duty factor is not required.



### 3.4 DESCRIPTION OF SUPPORT UNITS

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

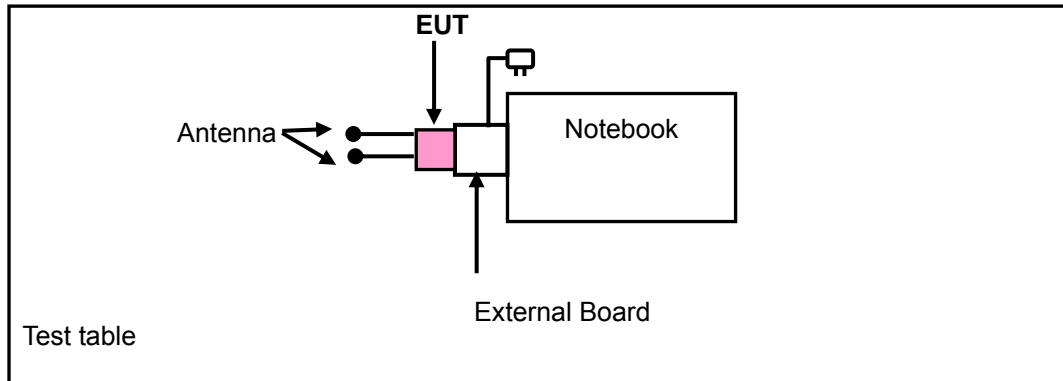
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK	DELL	E5420	1HC2XM1	FCC DoC Approved
2	EXTERNAL BOARD	NA	NA	NA	NA
3	ADAPTER	FAIRWAY	WN10A-050U	NA	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	NA
3	1.8m non-shielded cable without core

**NOTE:**

1. All power cords of the above support units are non shielded (1.8m).
2. Item 2 & 3 were supplied from client.

### 3.4.1 CONFIGURATION OF SYSTEM UNDER TEST



### 3.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

**FCC Part 15, Subpart E (15.407)**

**789033 D01 General UNII Test Procedures v01r01**

**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:

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



#### 4.1.3 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESIB7	100212	Aug. 02, 2011	Aug. 01, 2012
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Aug. 04, 2011	Aug. 03, 2012
BILOG Antenna SCHWARZBECK	VULB9168	9168-472	Dec. 20, 2011	Dec. 19, 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
Loop Antenna	HFH2-Z2	100070	Jan. 31, 2012	Jan. 30, 2014
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 chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

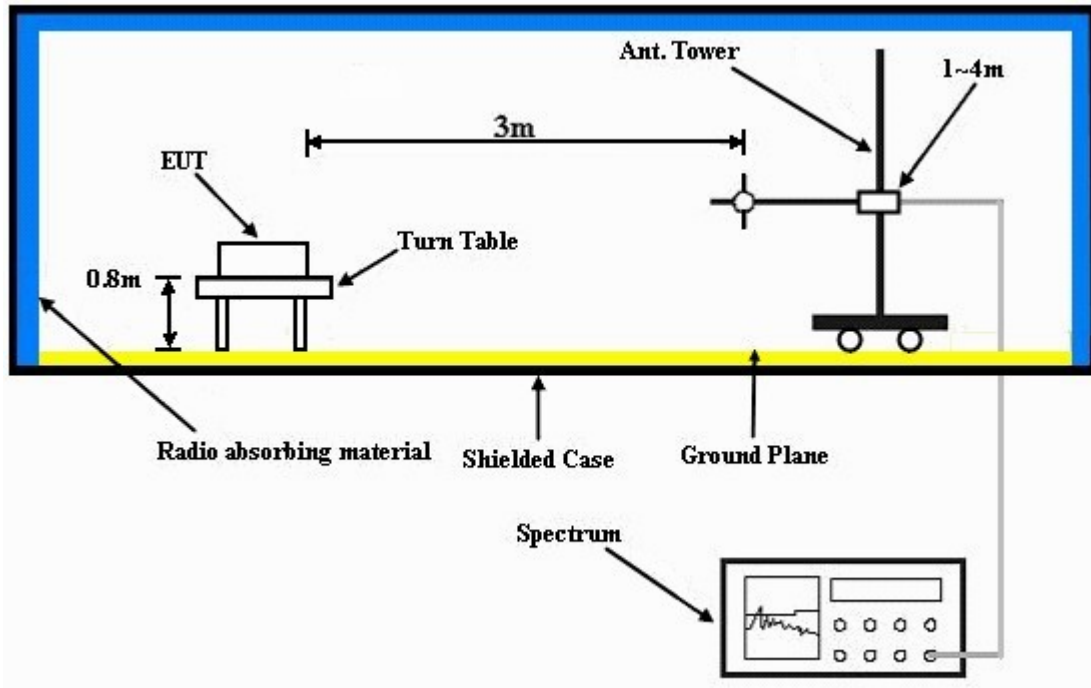
**NOTE:**

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 1kHz for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

#### 4.1.5 DEVIATION FROM TEST STANDARD

No deviation.

#### 4.1.6 TEST SETUP



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

#### 4.1.7 EUT OPERATING CONDITION

- a. Plugged the EUT into notebook via external board and placed them on the testing table.
- b. The notebook system ran a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
- c. The necessary accessories enable the system in full functions.



#### 4.1.8 TEST RESULTS

##### ABOVE 1GHz DATA : 802.11a

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, 65%RH	TESTED BY	Haru Yang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.7 PK	74.0	-15.3	1.44 H	244	20.90	37.80
2	5150.00	45.5 AV	54.0	-8.5	1.44 H	244	7.70	37.80
3	#5208.00	65.1 PK	68.3	-3.2	1.78 H	255	27.20	37.90
4	*5260.00	113.9 PK			1.44 H	244	75.90	38.00
5	*5260.00	102.5 AV			1.44 H	244	64.50	38.00
6	#5312.00	64.3 PK	68.3	-4.0	1.43 H	252	26.30	38.00
7	#7013.00	59.3 PK	68.3	-9.0	1.63 H	100	16.60	42.70
8	#10520.00	60.7 PK	68.3	-7.6	1.00 H	273	11.10	49.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.7 PK	74.0	-15.3	1.04 V	117	20.90	37.80
2	5150.00	45.0 AV	54.0	-9.0	1.04 V	117	7.20	37.80
3	#5208.00	61.1 PK	68.3	-7.2	1.25 V	99	23.20	37.90
4	*5260.00	110.4 PK			1.04 V	117	72.40	38.00
5	*5260.00	99.0 AV			1.04 V	117	61.00	38.00
6	#5312.00	61.5 PK	68.3	-6.8	1.58 V	11	23.50	38.00
7	#7013.00	56.3 PK	68.3	-12.0	1.10 V	299	13.60	42.70
8	#10520.00	59.1 PK	68.3	-9.2	1.00 V	277	9.50	49.60

#### REMARKS:

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



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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, 65%RH	TESTED BY	Haru Yang

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	#5247.00	64.2 PK	68.3	-4.1	1.76 H	263	26.20	38.00
2	*5300.00	113.4 PK			1.73 H	253	75.40	38.00
3	*5300.00	102.2 AV			1.73 H	253	64.20	38.00
4	5350.00	57.9 PK	74.0	-16.1	1.73 H	253	19.80	38.10
5	5350.00	45.5 AV	54.0	-8.5	1.73 H	253	7.40	38.10
6	5352.00	63.2 PK	74.0	-10.8	1.42 H	265	25.10	38.10
7	5352.00	52.0 AV	54.0	-2.0	1.42 H	265	13.90	38.10
8	#7066.00	56.7 PK	68.3	-11.6	1.63 H	101	13.90	42.80
9	10600.00	61.1 PK	74.0	-12.9	1.06 H	273	11.50	49.60
10	10600.00	48.4 AV	54.0	-5.6	1.06 H	273	-1.20	49.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5247.00	62.2 PK	68.3	-6.1	1.04 V	117	24.20	38.00
2	*5300.00	109.4 PK			1.16 V	117	71.40	38.00
3	*5300.00	98.1 AV			1.16 V	117	60.10	38.00
4	5350.00	56.3 PK	74.0	-17.7	1.16 V	117	18.20	38.10
5	5350.00	44.4 AV	54.0	-9.6	1.16 V	117	6.30	38.10
6	5352.00	61.7 PK	74.0	-12.3	1.14 V	119	23.60	38.10
7	5352.00	49.9 AV	54.0	-4.1	1.14 V	119	11.80	38.10
8	#7066.00	54.0 PK	68.3	-14.3	1.09 V	299	11.20	42.80
9	10600.00	59.5 PK	74.0	-14.5	1.00 V	268	9.90	49.60
10	10600.00	45.9 AV	54.0	-8.1	1.00 V	268	-3.70	49.60

**REMARKS:**

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



A D T

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, 65%RH	TESTED BY	Haru Yang

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	#5267.20	65.1 PK	68.3	-3.2	1.73 H	254	27.10	38.00
2	*5320.00	113.9 PK			1.71 H	253	75.80	38.10
3	*5320.00	102.9 AV			1.71 H	253	64.80	38.10
4	5350.00	68.0 PK	74.0	-6.0	1.71 H	253	29.90	38.10
5	5350.00	51.1 AV	54.0	-2.9	1.71 H	253	13.00	38.10
6	5372.20	65.4 PK	74.0	-8.6	1.42 H	249	27.30	38.10
7	5372.20	50.9 AV	54.0	-3.1	1.42 H	249	12.80	38.10
8	#7093.00	57.3 PK	68.3	-11.0	1.61 H	100	14.40	42.90
9	10640.00	63.9 PK	74.0	-10.1	1.07 H	279	14.30	49.60
10	10640.00	50.5 AV	54.0	-3.5	1.07 H	279	0.90	49.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5267.20	62.5 PK	68.3	-5.8	1.03 V	117	24.50	38.00
2	*5320.00	110.2 PK			1.03 V	115	72.10	38.10
3	*5320.00	98.9 AV			1.03 V	115	60.80	38.10
4	5350.00	63.3 PK	74.0	-10.7	1.03 V	115	25.20	38.10
5	5350.00	48.5 AV	54.0	-5.5	1.03 V	115	10.40	38.10
6	5372.00	61.2 PK	74.0	-12.8	1.03 V	118	23.10	38.10
7	5372.00	50.1 AV	54.0	-3.9	1.03 V	118	12.00	38.10
8	#7093.00	55.3 PK	68.3	-13.0	1.09 V	300	12.40	42.90
9	10640.00	60.0 PK	74.0	-14.0	1.00 V	241	10.40	49.60
10	10640.00	46.9 AV	54.0	-7.1	1.00 V	241	-2.70	49.60

**REMARKS:**

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



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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, 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	5447.00	64.6 PK	74.0	-9.4	1.38 H	251	26.40	38.20
2	5447.00	52.0 AV	54.0	-2.0	1.38 H	251	13.80	38.20
3	5460.00	66.2 PK	74.0	-7.8	1.40 H	153	27.90	38.30
4	5460.00	50.3 AV	54.0	-3.7	1.40 H	153	12.00	38.30
5	#5470.00	65.1 PK	68.3	-3.2	1.39 H	251	26.80	38.30
6	*5500.00	113.1 PK			1.62 H	254	74.70	38.40
7	*5500.00	102.1 AV			1.62 H	254	63.70	38.40
8	7333.00	55.8 PK	74.0	-18.2	1.58 H	291	12.20	43.60
9	7333.00	49.1 AV	54.0	-4.9	1.58 H	291	5.50	43.60
10	11000.00	63.9 PK	74.0	-10.1	1.43 H	287	13.60	50.30
11	11000.00	50.7 AV	54.0	-3.3	1.43 H	287	0.40	50.30
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	5447.00	58.5 PK	74.0	-15.5	2.33 V	12	20.30	38.20
2	5447.00	48.1 AV	54.0	-5.9	2.33 V	12	9.90	38.20
3	5460.00	57.1 PK	74.0	-16.9	2.33 V	12	18.80	38.30
4	5460.00	46.5 AV	54.0	-7.5	2.33 V	12	8.20	38.30
5	#5470.00	60.7 PK	68.3	-7.6	2.33 V	12	22.40	38.30
6	*5500.00	109.7 PK			2.33 V	10	71.30	38.40
7	*5500.00	98.7 AV			2.33 V	10	60.30	38.40
8	7333.00	54.0 PK	74.0	-20.0	1.07 V	25	10.40	43.60
9	7333.00	43.5 AV	54.0	-10.5	1.07 V	25	-0.10	43.60
10	11000.00	60.7 PK	74.0	-13.3	1.27 V	177	10.40	50.30
11	11000.00	47.6 AV	54.0	-6.4	1.27 V	177	-2.70	50.30

**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.



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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, 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	5417.00	62.0 PK	74.0	-12.0	1.38 H	241	23.80	38.20
2	5417.00	49.6 AV	54.0	-4.4	1.38 H	241	11.40	38.20
3	#5527.00	65.1 PK	68.3	-3.2	1.37 H	252	26.70	38.40
4	*5580.00	113.7 PK			1.34 H	252	75.30	38.40
5	*5580.00	103.2 AV			1.34 H	252	64.80	38.40
6	#5632.00	63.5 PK	68.3	-4.8	1.37 H	252	25.00	38.50
7	7440.00	54.0 PK	74.0	-20.0	1.55 H	288	10.10	43.90
8	7440.00	46.2 AV	54.0	-7.8	1.55 H	288	2.30	43.90
9	11160.00	66.4 PK	74.0	-7.6	1.42 H	264	16.30	50.10
10	11160.00	51.8 AV	54.0	-2.2	1.42 H	264	1.70	50.10
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	5417.00	53.1 PK	74.0	-20.9	1.99 V	14	14.90	38.20
2	5417.00	39.1 AV	54.0	-14.9	1.99 V	14	0.90	38.20
3	#5527.00	51.6 PK	68.3	-16.7	1.95 V	12	13.20	38.40
4	*5580.00	109.9 PK			1.94 V	14	71.50	38.40
5	*5580.00	98.9 AV			1.94 V	14	60.50	38.40
6	#5632.00	60.1 PK	68.3	-8.2	1.90 V	10	21.60	38.50
7	7440.00	54.4 PK	74.0	-19.6	1.05 V	37	10.50	43.90
8	7440.00	43.8 AV	54.0	-10.2	1.05 V	37	-0.10	43.90
9	11160.00	60.5 PK	74.0	-13.5	1.21 V	198	10.40	50.10
10	11160.00	47.3 AV	54.0	-6.7	1.21 V	198	-2.80	50.10

**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.



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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, 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	5457.00	61.8 PK	74.0	-12.2	1.38 H	256	23.50	38.30
2	5457.00	49.2 AV	54.0	-4.8	1.38 H	256	10.90	38.30
3	#5648.00	64.1 PK	68.3	-4.2	1.52 H	258	25.50	38.60
4	*5700.00	113.1 PK			1.60 H	259	74.40	38.70
5	*5700.00	102.2 AV			1.60 H	259	63.50	38.70
6	#5725.00	65.0 PK	68.3	-3.3	1.59 H	259	26.20	38.80
7	7600.00	55.9 PK	74.0	-18.1	1.57 H	298	11.70	44.20
8	7600.00	49.3 AV	54.0	-4.7	1.57 H	298	5.10	44.20
9	11400.00	62.7 PK	74.0	-11.3	1.41 H	271	12.60	50.10
10	11400.00	49.3 AV	54.0	-4.7	1.41 H	271	-0.80	50.10

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	5457.00	51.7 PK	74.0	-22.3	2.01 V	18	13.40	38.30
2	5457.00	37.9 AV	54.0	-16.1	2.01 V	18	-0.40	38.30
3	#5648.00	47.9 PK	68.3	-20.4	1.78 V	12	9.30	38.60
4	*5700.00	109.6 PK			1.98 V	12	70.90	38.70
5	*5700.00	98.5 AV			1.98 V	12	59.80	38.70
6	#5725.00	58.7 PK	68.3	-9.6	2.02 V	15	19.90	38.80
7	7600.00	54.2 PK	74.0	-19.8	1.05 V	33	10.00	44.20
8	7600.00	43.7 AV	54.0	-10.3	1.05 V	33	-0.50	44.20
9	11400.00	60.1 PK	74.0	-13.9	1.32 V	198	10.00	50.10
10	11400.00	46.8 AV	54.0	-7.2	1.32 V	198	-3.30	50.10

**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.



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802.11n (20MHz)

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, 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	#5208.00	61.3 PK	68.3	-7.0	1.72 H	288	23.40	37.90
2	*5260.00	111.5 PK			1.43 H	243	73.50	38.00
3	*5260.00	100.9 AV			1.43 H	243	62.90	38.00
4	#5312.00	63.6 PK	68.3	-4.7	1.48 H	237	25.60	38.00
5	#7013.00	60.0 PK	68.3	-8.3	1.63 H	289	17.30	42.70
6	#10520.00	60.7 PK	68.3	-7.6	1.48 H	283	11.10	49.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5208.00	63.4 PK	68.3	-4.9	1.00 V	43	25.50	37.90
2	*5260.00	113.3 PK			1.00 V	42	75.30	38.00
3	*5260.00	102.8 AV			1.00 V	42	64.80	38.00
4	#5312.00	64.2 PK	68.3	-4.1	1.00 V	43	26.20	38.00
5	#7013.00	64.3 PK	68.3	-4.0	1.84 V	31	21.60	42.70
6	#10520.00	61.2 PK	68.3	-7.1	1.53 V	247	11.60	49.60

REMARKS:

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



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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, 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	#5247.00	62.1 PK	68.3	-6.2	1.78 H	298	24.10	38.00
2	*5300.00	111.3 PK			1.41 H	252	73.30	38.00
3	*5300.00	100.7 AV			1.41 H	252	62.70	38.00
4	5351.00	61.3 PK	74.0	-12.7	1.43 H	252	23.20	38.10
5	5351.00	51.4 AV	54.0	-2.6	1.43 H	252	13.30	38.10
6	#7066.00	58.8 PK	68.3	-9.5	1.63 H	288	16.00	42.80
7	10600.00	60.2 PK	74.0	-13.8	1.35 H	296	10.60	49.60
8	10600.00	50.1 AV	54.0	-3.9	1.35 H	296	0.50	49.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5247.00	63.4 PK	68.3	-4.9	1.00 V	43	25.40	38.00
2	*5300.00	113.0 PK			1.00 V	48	75.00	38.00
3	*5300.00	102.3 AV			1.00 V	48	64.30	38.00
4	5351.00	61.9 PK	74.0	-12.1	1.00 V	43	23.80	38.10
5	5351.00	51.7 AV	54.0	-2.3	1.00 V	43	13.60	38.10
6	#7066.00	63.2 PK	68.3	-5.1	1.07 V	312	20.40	42.80
7	10600.00	60.9 PK	74.0	-13.1	1.48 V	243	11.30	49.60
8	10600.00	50.8 AV	54.0	-3.2	1.48 V	243	1.20	49.60

**REMARKS:**

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





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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, 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	#5268.00	63.0 PK	68.3	-5.3	1.77 H	302	25.00	38.00
2	*5320.00	111.8 PK			1.41 H	252	73.70	38.10
3	*5320.00	101.1 AV			1.41 H	252	63.00	38.10
4	5350.00	58.1 PK	74.0	-15.9	1.43 H	258	20.00	38.10
5	5350.00	43.1 AV	54.0	-10.9	1.43 H	258	5.00	38.10
6	5371.00	64.2 PK	74.0	-9.8	1.47 H	253	26.10	38.10
7	5371.00	50.5 AV	54.0	-3.5	1.47 H	253	12.40	38.10
8	#7093.00	60.7 PK	68.3	-7.6	1.69 H	299	17.80	42.90
9	10640.00	60.9 PK	74.0	-13.1	1.43 H	277	11.30	49.60
10	10640.00	48.6 AV	54.0	-5.4	1.43 H	277	-1.00	49.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5268.00	64.3 PK	68.3	-4.0	1.00 V	44	26.30	38.00
2	*5320.00	113.7 PK			1.00 V	47	75.60	38.10
3	*5320.00	103.1 AV			1.00 V	47	65.00	38.10
4	5350.00	64.2 PK	74.0	-9.8	1.00 V	44	26.10	38.10
5	5350.00	49.5 AV	54.0	-4.5	1.00 V	44	11.40	38.10
6	5371.00	62.7 PK	74.0	-11.3	1.00 V	44	24.60	38.10
7	5371.00	49.9 AV	54.0	-4.1	1.00 V	44	11.80	38.10
8	#7093.00	64.3 PK	68.3	-4.0	1.79 V	38	21.40	42.90
9	10640.00	61.7 PK	74.0	-12.3	1.57 V	225	12.10	49.60
10	10640.00	49.1 AV	54.0	-4.9	1.57 V	225	-0.50	49.60

**REMARKS:**

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



A D T

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, 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	5447.00	59.7 PK	74.0	-14.3	1.65 H	269	21.50	38.20
2	5447.00	48.9 AV	54.0	-5.1	1.65 H	269	10.70	38.20
3	5460.00	52.1 PK	74.0	-21.9	1.36 H	241	13.80	38.30
4	5460.00	37.3 AV	54.0	-16.7	1.36 H	241	-1.00	38.30
5	#5470.00	57.1 PK	68.3	-11.2	1.36 H	241	18.80	38.30
6	*5500.00	111.2 PK			1.36 H	241	72.80	38.40
7	*5500.00	100.9 AV			1.36 H	241	62.50	38.40
8	#5552.00	59.7 PK	68.3	-8.6	1.34 H	282	21.30	38.40
9	7333.00	56.2 PK	74.0	-17.8	1.61 H	225	12.60	43.60
10	7333.00	49.1 AV	54.0	-4.9	1.61 H	225	5.50	43.60
11	11000.00	60.3 PK	74.0	-13.7	1.52 H	269	10.00	50.30
12	11000.00	47.8 AV	54.0	-6.2	1.52 H	269	-2.50	50.30

**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	5447.00	62.8 PK	74.0	-11.2	1.00 V	16	24.60	38.20
2	5447.00	51.0 AV	54.0	-3.0	1.00 V	16	12.80	38.20
3	5460.00	59.7 PK	74.0	-14.3	1.00 V	63	21.40	38.30
4	5460.00	45.0 AV	54.0	-9.0	1.00 V	63	6.70	38.30
5	#5470.00	62.7 PK	68.3	-5.6	1.00 V	63	24.40	38.30
6	*5500.00	113.6 PK			1.00 V	120	75.20	38.40
7	*5500.00	102.4 AV			1.00 V	120	64.00	38.40
8	#5552.00	59.4 PK	68.3	-8.9	1.09 V	15	21.00	38.40
9	7333.00	68.6 PK	74.0	-5.4	1.85 V	212	25.00	43.60
10	7333.00	51.0 AV	54.0	-3.0	1.85 V	212	7.40	43.60
11	11000.00	62.3 PK	74.0	-11.7	1.45 V	228	12.00	50.30
12	11000.00	49.3 AV	54.0	-4.7	1.45 V	228	-1.00	50.30

**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.



A D T

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, 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	5372.00	57.8 PK	74.0	-16.2	1.64 H	277	19.70	38.10
2	5372.00	47.6 AV	54.0	-6.4	1.64 H	277	9.50	38.10
3	#5527.00	60.1 PK	68.3	-8.2	1.65 H	278	21.70	38.40
4	*5580.00	111.1 PK			1.47 H	289	72.70	38.40
5	*5580.00	100.2 AV			1.47 H	289	61.80	38.40
6	#5631.00	58.0 PK	68.3	-10.3	1.41 H	297	19.50	38.50
7	7440.00	55.7 PK	74.0	-18.3	1.69 H	247	11.80	43.90
8	7440.00	50.8 AV	54.0	-3.2	1.69 H	247	6.90	43.90
9	11160.00	60.8 PK	74.0	-13.2	1.48 H	271	10.70	50.10
10	11160.00	47.3 AV	54.0	-6.7	1.48 H	271	-2.80	50.10

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	5372.00	60.0 PK	74.0	-14.0	1.00 V	120	21.90	38.10
2	5372.00	48.7 AV	54.0	-5.3	1.00 V	120	10.60	38.10
3	#5527.00	64.3 PK	68.3	-4.0	1.06 V	47	25.90	38.40
4	*5580.00	113.0 PK			1.07 V	20	74.60	38.40
5	*5580.00	102.4 AV			1.07 V	20	64.00	38.40
6	#5631.00	63.8 PK	68.3	-4.5	1.06 V	12	25.30	38.50
7	7440.00	62.5 PK	74.0	-11.5	1.43 V	56	18.60	43.90
8	7440.00	52.0 AV	54.0	-2.0	1.43 V	56	8.10	43.90
9	11160.00	60.3 PK	74.0	-13.7	1.43 V	231	10.20	50.10
10	11160.00	50.2 AV	54.0	-3.8	1.43 V	231	0.10	50.10

**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.



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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, 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	#5647.00	58.3 PK	68.3	-10.0	1.52 H	247	19.70	38.60
2	*5700.00	111.2 PK			1.34 H	293	72.50	38.70
3	*5700.00	100.2 AV			1.34 H	293	61.50	38.70
4	#5725.00	64.9 PK	68.3	-3.4	1.34 H	281	26.10	38.80
5	7600.00	55.7 PK	74.0	-18.3	1.48 H	269	11.50	44.20
6	7600.00	50.3 AV	54.0	-3.7	1.48 H	269	6.10	44.20
7	11400.00	60.3 PK	74.0	-13.7	1.43 H	257	10.20	50.10
8	11400.00	46.7 AV	54.0	-7.3	1.43 H	257	-3.40	50.10
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	#5647.00	62.9 PK	68.3	-5.4	1.02 V	47	24.30	38.60
2	*5700.00	113.6 PK			1.02 V	43	74.90	38.70
3	*5700.00	102.5 AV			1.02 V	43	63.80	38.70
4	#5725.00	66.2 PK	68.3	-2.1	1.01 V	47	27.40	38.80
5	7600.00	60.4 PK	74.0	-13.6	1.52 V	57	16.20	44.20
6	7600.00	51.5 AV	54.0	-2.5	1.52 V	57	7.30	44.20
7	11400.00	60.2 PK	74.0	-13.8	1.08 V	218	10.10	50.10
8	11400.00	49.2 AV	54.0	-4.8	1.08 V	218	-0.90	50.10

**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.



A D T

802.11n (40MHz)

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	111.0 PK			1.41 H	242	73.00	38.00
2	*5270.00	100.3 AV			1.41 H	242	62.30	38.00
3	5373.00	60.5 PK	74.0	-13.5	1.41 H	230	22.40	38.10
4	5373.00	48.0 AV	54.0	-6.0	1.41 H	230	9.90	38.10
5	#7027.00	58.2 PK	68.3	-10.1	1.60 H	261	15.50	42.70
6	#10540.00	60.9 PK	68.3	-7.4	1.05 H	149	11.30	49.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	112.5 PK			1.02 V	121	74.50	38.00
2	*5270.00	102.0 AV			1.02 V	121	64.00	38.00
3	5373.00	62.0 PK	74.0	-12.0	1.00 V	21	23.90	38.10
4	5373.00	49.4 AV	54.0	-4.6	1.00 V	21	11.30	38.10
5	#7027.00	60.0 PK	68.3	-8.3	1.66 V	25	17.30	42.70
6	#10540.00	61.7 PK	68.3	-6.6	1.41 V	240	12.10	49.60

REMARKS:

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



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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	109.8 PK			1.40 H	245	71.80	38.00
2	*5310.00	99.0 AV			1.40 H	245	61.00	38.00
3	5350.00	65.4 PK	74.0	-8.6	1.40 H	245	27.30	38.10
4	5350.00	49.6 AV	54.0	-4.4	1.40 H	245	11.50	38.10
5	#7080.00	57.6 PK	68.3	-10.7	1.56 H	238	14.70	42.90
6	10620.00	60.4 PK	74.0	-13.6	1.08 H	113	10.80	49.60
7	10620.00	48.0 AV	54.0	-6.0	1.08 H	113	-1.60	49.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	111.2 PK			1.00 V	44	73.20	38.00
2	*5310.00	100.6 AV			1.00 V	44	62.60	38.00
3	5350.00	68.2 PK	74.0	-5.8	1.00 V	32	30.10	38.10
4	<b>5350.00</b>	<b>52.9 AV</b>	<b>54.0</b>	<b>-1.1</b>	<b>1.00 V</b>	<b>32</b>	<b>14.80</b>	<b>38.10</b>
5	#7080.00	60.3 PK	68.3	-8.0	1.50 V	199	17.40	42.90
6	10620.00	61.2 PK	74.0	-12.8	1.05 V	116	11.60	49.60
7	10620.00	48.6 AV	54.0	-5.4	1.05 V	116	-1.00	49.60

**REMARKS:**

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



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	59.3 PK	74.0	-14.7	1.38 H	241	21.00	38.30
2	5460.00	44.8 AV	54.0	-9.2	1.38 H	241	6.50	38.30
3	#5470.00	65.0 PK	68.3	-3.3	1.38 H	241	26.70	38.30
4	*5510.00	106.6 PK			1.38 H	241	68.20	38.40
5	*5510.00	95.9 AV			1.38 H	241	57.50	38.40
6	7347.00	58.4 PK	74.0	-15.6	1.51 H	243	14.80	43.60
7	7347.00	49.6 AV	54.0	-4.4	1.51 H	243	6.00	43.60
8	11020.00	61.1 PK	74.0	-12.9	1.23 H	206	10.90	50.20
9	11020.00	48.0 AV	54.0	-6.0	1.23 H	206	-2.20	50.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	61.6 PK	74.0	-12.4	1.33 V	206	23.30	38.30
2	5460.00	47.1 AV	54.0	-6.9	1.33 V	206	8.80	38.30
3	#5470.00	67.2 PK	68.3	-1.1	1.33 V	206	28.90	38.30
4	*5510.00	108.4 PK			1.09 V	19	70.00	38.40
5	*5510.00	96.8 AV			1.09 V	19	58.40	38.40
6	7347.00	60.8 PK	74.0	-13.2	1.63 V	269	17.20	43.60
7	7347.00	52.0 AV	54.0	-2.0	1.63 V	269	8.40	43.60
8	11020.00	62.5 PK	74.0	-11.5	1.34 V	215	12.30	50.20
9	11020.00	49.4 AV	54.0	-4.6	1.34 V	215	-0.80	50.20

**REMARKS:**

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



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 110	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	*5550.00	108.0 PK			1.35 H	238	69.60	38.40
2	*5550.00	97.2 AV			1.35 H	238	58.80	38.40
3	7400.00	58.6 PK	74.0	-15.4	1.48 H	236	14.70	43.90
4	7400.00	49.9 AV	54.0	-4.1	1.48 H	236	6.00	43.90
5	11100.00	61.4 PK	74.0	-12.6	1.21 H	199	11.40	50.00
6	11100.00	48.2 AV	54.0	-5.8	1.21 H	199	-1.80	50.00
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	*5550.00	109.8 PK			1.08 V	21	71.40	38.40
2	*5550.00	98.4 AV			1.08 V	21	60.00	38.40
3	7400.00	57.7 PK	74.0	-16.3	1.54 V	61	13.80	43.90
4	7400.00	52.9 AV	54.0	-1.1	1.54 V	61	9.00	43.90
5	11100.00	63.1 PK	74.0	-10.9	1.29 V	194	13.10	50.00
6	11100.00	50.0 AV	54.0	-4.0	1.29 V	194	0.00	50.00

**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.





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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	109.8 PK			1.32 H	235	71.20	38.60
2	*5670.00	99.0 AV			1.32 H	235	60.40	38.60
3	#5725.00	58.2 PK	68.3	-10.1	1.32 H	235	19.40	38.80
4	7560.00	55.6 PK	74.0	-18.4	1.41 H	239	11.50	44.10
5	7560.00	49.3 AV	54.0	-4.7	1.41 H	239	5.20	44.10
6	11340.00	61.2 PK	74.0	-12.8	1.05 H	109	11.00	50.20
7	11340.00	47.9 AV	54.0	-6.1	1.05 H	109	-2.30	50.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	111.6 PK			1.02 V	301	73.00	38.60
2	*5670.00	100.5 AV			1.02 V	301	61.90	38.60
3	#5725.00	60.5 PK	68.3	-7.8	1.63 V	280	21.70	38.80
4	7560.00	58.0 PK	74.0	-16.0	1.65 V	317	13.90	44.10
5	7560.00	51.6 AV	54.0	-2.4	1.65 V	317	7.50	44.10
6	11340.00	63.4 PK	74.0	-10.6	1.21 V	205	13.20	50.20
7	11340.00	50.1 AV	54.0	-3.9	1.21 V	205	-0.10	50.20

**REMARKS:**

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



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**BELOW 1GHz WORST-CASE DATA : 802.11n (40MHz)**

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 54	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	22deg. C, 73%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	86.26	36.3 QP	40.0	-3.7	2.00 H	242	27.40	8.90
2	165.80	35.4 QP	43.5	-8.1	2.00 H	3	21.70	13.70
3	220.12	33.8 QP	46.0	-12.2	1.25 H	3	21.80	12.00
4	299.66	30.9 QP	46.0	-15.1	1.25 H	3	16.00	14.90
5	431.58	32.1 QP	46.0	-13.9	2.00 H	354	13.80	18.30
6	664.38	33.0 QP	46.0	-13.0	1.00 H	246	10.30	22.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	51.34	30.6 QP	40.0	-9.4	1.50 V	8	16.70	13.90
2	90.14	31.7 QP	43.5	-11.8	1.25 V	177	23.40	8.30
3	216.24	28.2 QP	46.0	-17.8	1.00 V	200	16.40	11.80
4	336.52	28.4 QP	46.0	-17.6	1.50 V	242	12.60	15.80
5	365.62	27.5 QP	46.0	-18.5	1.25 V	237	10.90	16.60
6	431.58	27.3 QP	46.0	-18.7	2.00 V	299	9.00	18.30

**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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 134	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	22deg. C, 73%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	88.20	37.2 QP	43.5	-6.3	2.00 H	76	28.60	8.60
2	165.80	32.4 QP	43.5	-11.1	1.50 H	334	18.70	13.70
3	218.18	31.4 QP	46.0	-14.6	1.25 H	17	19.50	11.90
4	299.66	32.2 QP	46.0	-13.8	1.00 H	234	17.30	14.90
5	414.12	30.9 QP	46.0	-15.1	2.00 H	256	13.10	17.80
6	505.30	32.1 QP	46.0	-13.9	1.50 H	345	11.90	20.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	53.28	28.9 QP	40.0	-11.1	2.00 V	17	15.10	13.80
2	97.90	29.4 QP	43.5	-14.1	2.00 V	159	20.20	9.20
3	165.80	26.8 QP	43.5	-16.7	2.25 V	150	13.10	13.70
4	233.70	22.3 QP	46.0	-23.7	2.00 V	270	9.90	12.40
5	431.58	27.8 QP	46.0	-18.2	2.00 V	313	9.50	18.30
6	666.32	26.1 QP	46.0	-19.9	2.00 V	188	3.40	22.70

**REMARKS:**

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

## 4.2 CONDUCTED EMISSION MEASUREMENT

### 4.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dB $\mu$ 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	100312	Jul. 07, 2011	Jul. 06, 2012
Software ADT	BV ADT_Cond_ V7.3.7.3	NA	NA	NA

- NOTE:**
1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
  2. The test was performed in HwaYa Shielded Room 2.
  3. The VCCI Site Registration No. is C-2047.

#### 4.2.3 TEST PROCEDURES

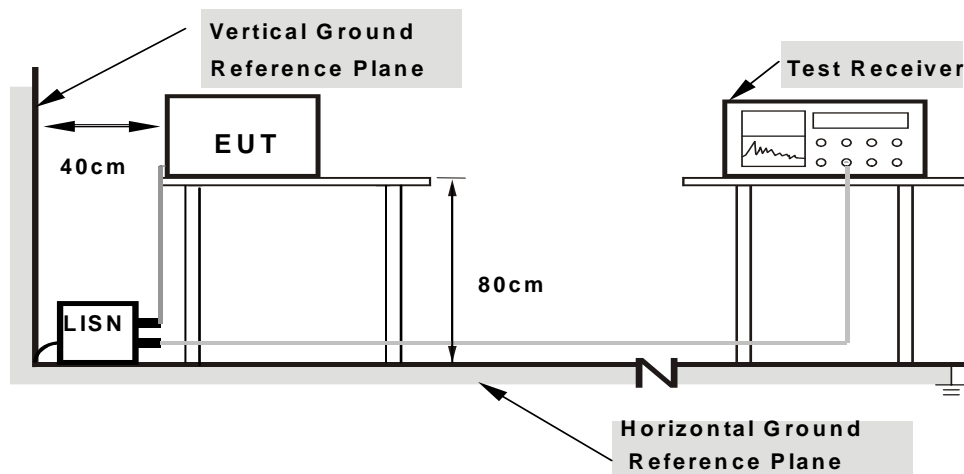
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

#### 4.2.4 DEVIATION FROM TEST STANDARD

No deviation.

#### 4.2.5 TEST SETUP



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

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

#### 4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6.



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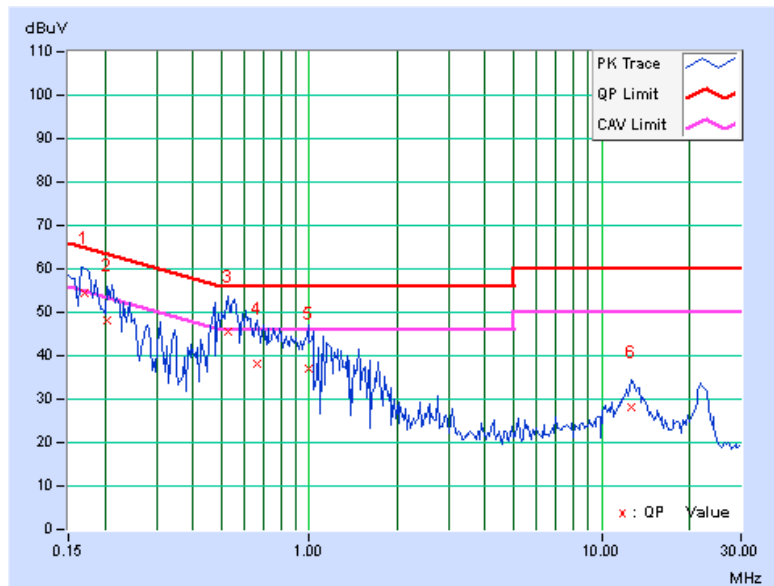
### 4.2.7 TEST RESULTS

#### CONDUCTED WORST-CASE DATA : 802.11n (40MHz)

PHASE	Line 1	6dB BANDWIDTH	9kHz
CHANNEL	Channel 54		

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	0.17089	0.17	54.13	47.29	54.30	47.46	64.92	54.92	-10.62	-7.46
2	0.20469	0.17	48.07	25.21	48.24	25.38	63.42	53.42	-15.18	-28.04
3	0.52500	0.21	45.33	29.98	45.54	30.19	56.00	46.00	-10.46	-15.81
4	0.66563	0.21	37.84	19.73	38.05	19.94	56.00	46.00	-17.95	-26.06
5	0.99375	0.23	36.99	17.75	37.22	17.98	56.00	46.00	-18.78	-28.02
6	12.66797	0.55	27.60	21.85	28.15	22.40	60.00	50.00	-31.85	-27.60

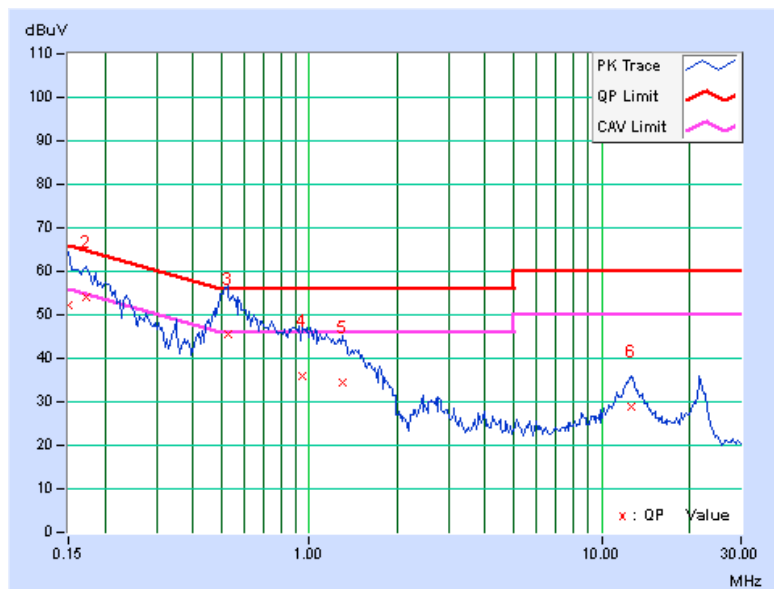
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
  2. The emission levels of other frequencies were very low against the limit.
  3. Margin value = Emission level - Limit value
  4. Correction factor = Insertion loss + Cable loss
  5. Emission Level = Correction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



<b>PHASE</b>	Line 2	<b>6dB BANDWIDTH</b>	9kHz
<b>CHANNEL</b>	Channel 54		

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	0.15000	0.17	51.96	30.81	52.13	30.98	66.00	56.00	-13.87	-25.02
2	0.17344	0.16	53.75	45.13	53.91	45.29	64.79	54.79	-10.88	-9.50
<b>3</b>	<b>0.52500</b>	<b>0.18</b>	<b>45.51</b>	<b>40.58</b>	<b>45.69</b>	<b>40.76</b>	<b>56.00</b>	<b>46.00</b>	<b>-10.31</b>	<b>-5.24</b>
4	0.95078	0.19	35.80	17.58	35.99	17.77	56.00	46.00	-20.01	-28.23
5	1.29297	0.21	34.41	16.41	34.62	16.62	56.00	46.00	-21.38	-29.38
6	12.58203	0.63	28.21	22.07	28.84	22.70	60.00	50.00	-31.16	-27.30

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



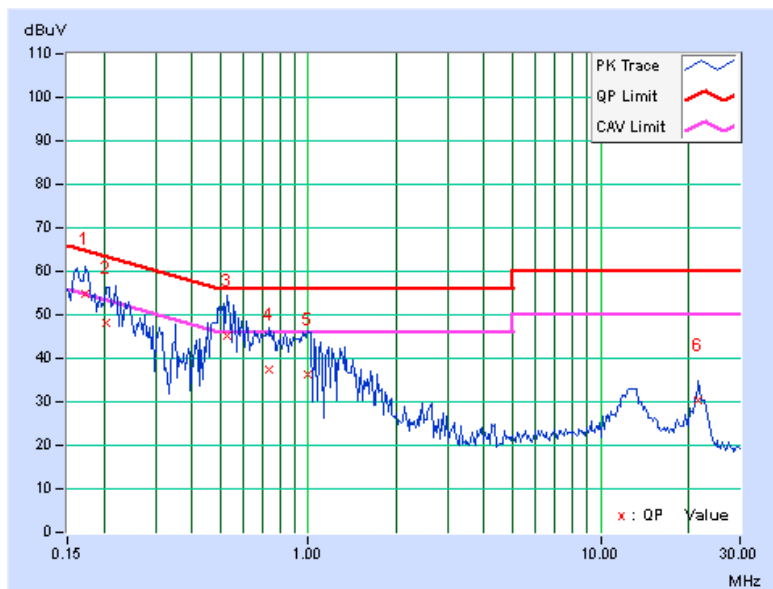


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<b>PHASE</b>	Line 1	<b>6dB BANDWIDTH</b>	9kHz
<b>CHANNEL</b>	Channel 134		

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	0.17344	0.17	54.73	47.47	54.90	47.64	64.79	54.79	-9.89	-7.15
2	0.20469	0.17	48.09	24.72	48.26	24.89	63.42	53.42	-15.16	-28.53
3	0.52891	0.21	44.85	31.58	45.06	31.79	56.00	46.00	-10.94	-14.21
4	0.73594	0.22	37.32	18.96	37.54	19.18	56.00	46.00	-18.46	-26.82
5	0.99375	0.23	36.10	17.73	36.33	17.96	56.00	46.00	-19.67	-28.04
6	21.67578	0.71	29.53	15.25	30.24	15.96	60.00	50.00	-29.76	-34.04

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





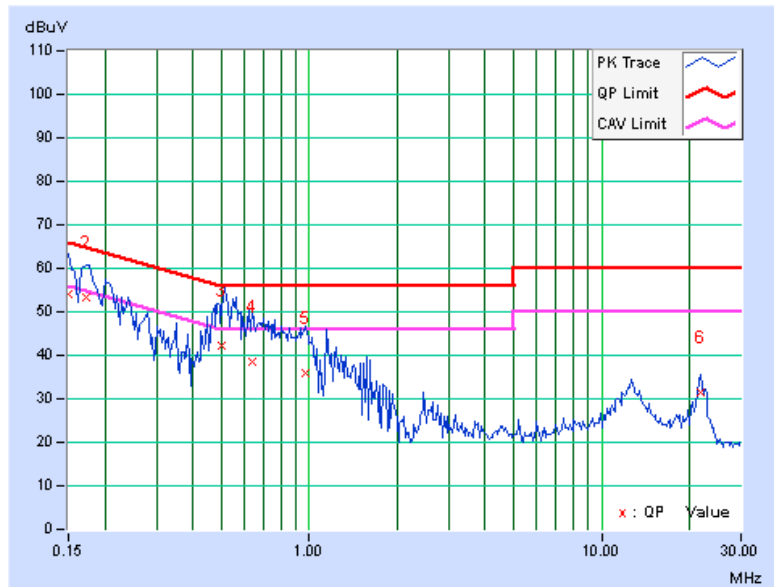


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PHASE	Line 2	6dB BANDWIDTH	9kHz
CHANNEL	Channel 134		

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	0.15000	0.17	53.79	31.20	53.96	31.37	66.00	56.00	-12.04	-24.63
2	0.17344	0.16	53.21	45.02	53.37	45.18	64.79	54.79	-11.42	-9.61
3	0.50000	0.18	41.95	24.45	42.13	24.63	56.00	46.00	-13.87	-21.37
4	0.63828	0.18	38.38	20.30	38.56	20.48	56.00	46.00	-17.44	-25.52
5	0.97031	0.19	35.85	17.01	36.04	17.20	56.00	46.00	-19.96	-28.80
6	21.72266	0.80	30.71	16.32	31.51	17.12	60.00	50.00	-28.49	-32.88

- 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

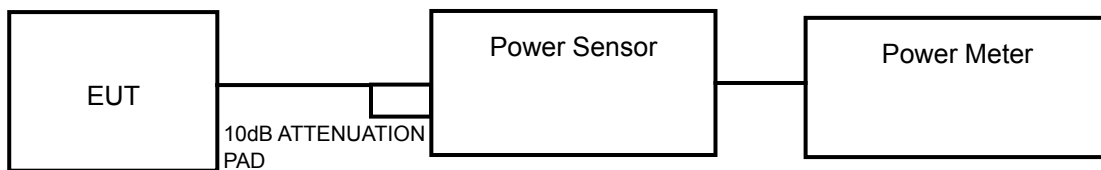
#### 4.3.1 LIMITS OF PEAK TRANSMIT POWER MEASUREMENT

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

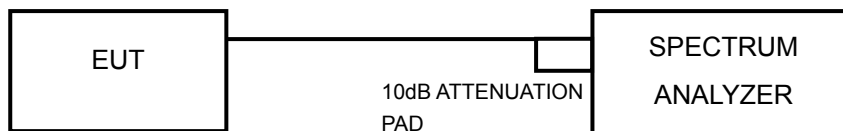
**NOTE:** Where B is the 26dB emission bandwidth in MHz.

#### 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
52	5260	144.9	21.61	24	PASS
60	5300	141.6	21.51	24	PASS
64	5320	145.5	21.63	24	PASS
100	5500	130.9	21.17	24	PASS
116	5580	154.5	21.89	24	PASS
140	5700	147.2	21.68	24	PASS

#### 802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
52	5260	18.31	18.71	142.1	21.5	24	PASS
60	5300	18.52	18.55	142.7	21.5	24	PASS
64	5320	18.88	18.84	153.8	21.9	24	PASS
100	5500	18.71	18.74	149.1	21.7	24	PASS
116	5580	18.62	18.34	141.0	21.5	24	PASS
140	5700	18.43	18.67	143.3	21.6	24	PASS

#### 802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (MW)	TOTAL POWER (DBM)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
54	5270	20.51	20.68	229.4	23.6	24	PASS
62	5310	18.64	18.39	142.1	21.5	24	PASS
102	5510	17.06	17.01	101.1	20.0	24	PASS
110	5550	18.48	18.41	139.8	21.5	24	PASS
134	5670	20.94	20.64	240.0	23.8	24	PASS

**26dB BANDWIDTH: 802.11a**

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (dBm)	PASS / FAIL
52	5260	24.64	PASS
60	5300	22.59	PASS
64	5320	22.57	PASS
100	5500	22.48	PASS
116	5580	23.58	PASS
140	5700	22.52	PASS

**802.11n (20MHz)**

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (dBm)		PASS / FAIL
		CHAIN 0	CHAIN 1	
52	5260	20.52	20.48	PASS
60	5300	20.42	20.42	PASS
64	5320	20.49	20.53	PASS
100	5500	20.49	20.39	PASS
116	5580	20.46	20.61	PASS
140	5700	20.48	20.78	PASS

**802.11n (40MHz)**

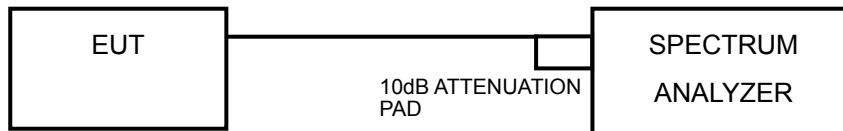
CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (dBm)		PASS / FAIL
		CHAIN 0	CHAIN 1	
54	5270	41.62	41.54	PASS
62	5310	41.50	41.39	PASS
102	5510	41.39	41.45	PASS
110	5550	41.64	41.42	PASS
134	5670	41.61	41.66	PASS

## 4.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

### 4.4.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

FREQUENCY BAND	LIMIT
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-1

- 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 = 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
52	5260	10.74	11	PASS
60	5300	10.46	11	PASS
64	5320	10.54	11	PASS
100	5500	10.35	11	PASS
116	5580	10.64	11	PASS
140	5700	10.21	11	PASS

##### 802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
52	5260	7.89	7.51	10.685	11	PASS
60	5300	7.41	7.24	10.292	11	PASS
64	5320	7.90	7.66	10.733	11	PASS
100	5500	7.13	7.06	10.071	11	PASS
116	5580	7.14	7.55	10.336	11	PASS
140	5700	7.34	7.59	10.479	11	PASS

**NOTE:** Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

##### 802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
54	5270	5.86	5.81	8.705	11	PASS
62	5310	3.84	3.55	6.689	11	PASS
102	5510	2.42	2.07	5.238	11	PASS
110	5550	3.75	3.54	6.636	11	PASS
134	5670	6.24	5.69	8.982	11	PASS

**NOTE:** Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

## 4.5 PEAK POWER EXCURSION MEASUREMENT

### 4.5.1 LIMITS OF PEAK POWER EXCURSION MEASUREMENT

Shall not exceed 13 dB.

### 4.5.2 TEST SETUP



### 4.5.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

### 4.5.4 TEST PROCEDURE

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

### 4.5.5 DEVIATION FROM TEST STANDARD

No deviation.

### 4.5.6 EUT OPERATING CONDITIONS

Same as 4.2.6



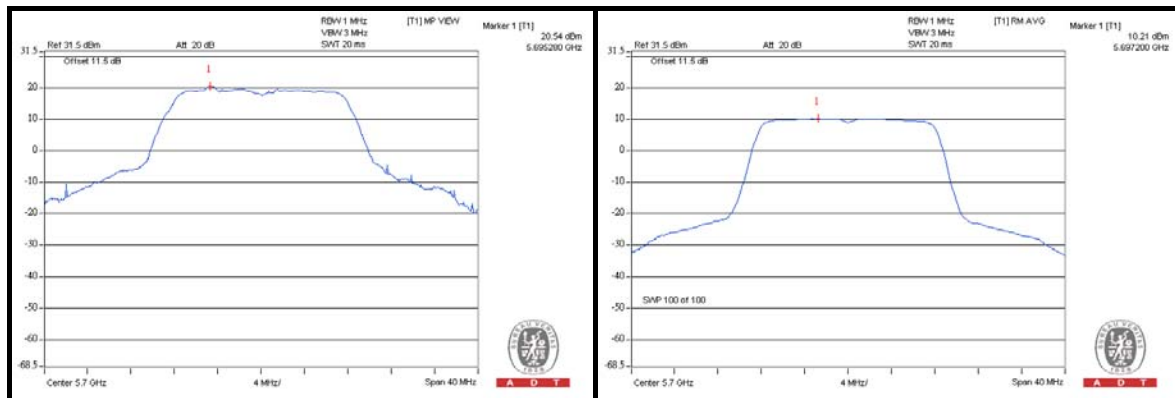


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## 4.5.7 TEST RESULTS

### 802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD (dBm)	PEAK EXCURSION (dB)	LIMIT (dB)	PASS/FAIL
52	5260	20.38	10.74	9.64	13	PASS
60	5300	20.37	10.46	9.91	13	PASS
64	5320	20.37	10.54	9.83	13	PASS
100	5500	19.78	10.35	9.43	13	PASS
116	5580	20.57	10.64	9.93	13	PASS
140	5700	20.54	10.21	10.33	13	PASS

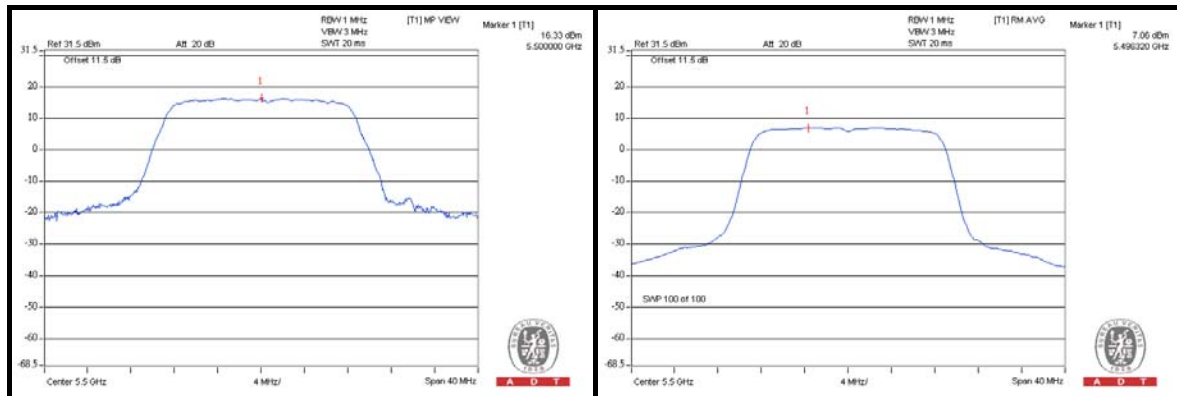




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802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)		PPSD (dBm)		PEAK EXCURSION (dB)		LIMIT (dB)	PASS/ FAIL
		CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1		
52	5260	15.31	16.38	7.89	7.51	7.42	8.87	13	PASS
60	5300	15.36	16.08	7.41	7.24	7.95	8.84	13	PASS
64	5320	15.75	16.67	7.90	7.66	7.85	9.01	13	PASS
100	5500	15.85	16.33	7.13	7.06	8.72	9.27	13	PASS
116	5580	15.62	16.16	7.14	7.55	8.48	8.61	13	PASS
140	5700	15.54	16.51	7.34	7.59	8.20	8.92	13	PASS

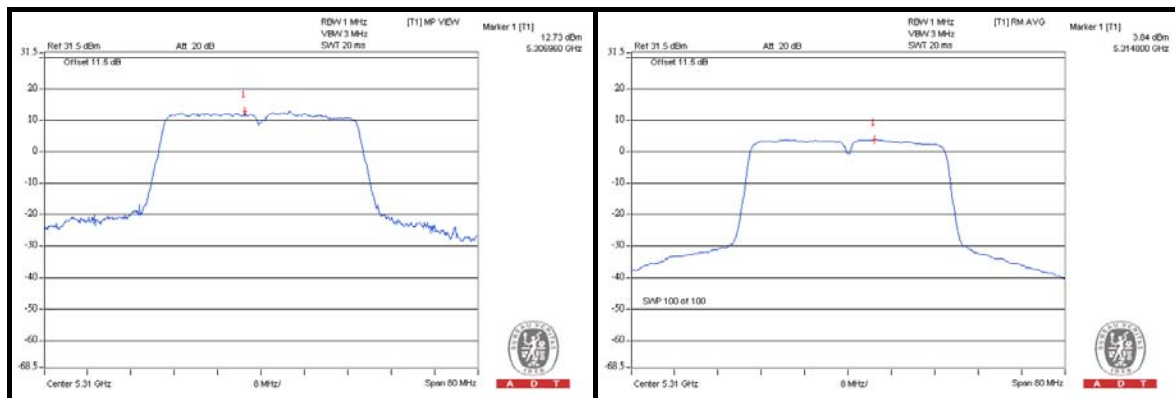




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### 802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)		PPSD (dBm)		PEAK EXCURSION (dB)		LIMIT (dB)	PASS/ FAIL
		CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1		
54	5270	14.46	14.62	5.86	5.81	8.60	8.81	13	PASS
62	5310	12.73	12.42	3.84	3.55	8.89	8.87	13	PASS
102	5510	10.82	10.85	2.42	2.07	8.40	8.78	13	PASS
110	5550	12.41	12.22	3.75	3.54	8.66	8.68	13	PASS
134	5670	14.87	14.43	6.24	5.69	8.63	8.74	13	PASS

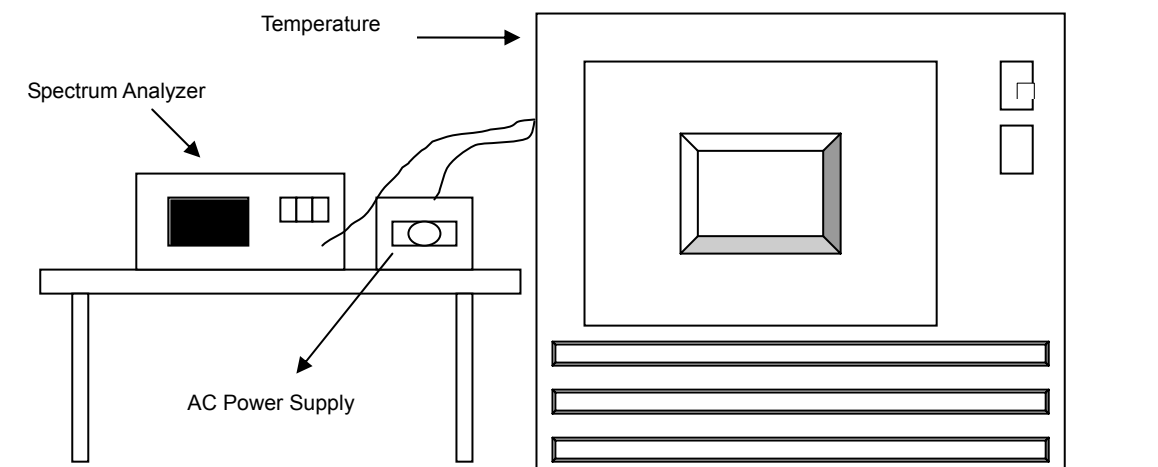


## 4.6 FREQUENCY STABILITY

### 4.6.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

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

### 4.6.2 TEST SETUP



### 4.6.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

#### 4.6.4 TEST PROCEDURE

- a. The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.
- b. Turn the EUT on and couple its output to a spectrum analyzer.
- c. Turn the EUT off and set the chamber to the highest temperature specified.
- d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
- e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
- f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

#### 4.6.5 DEVIATION FROM TEST STANDARD

No deviation.

#### 4.6.6 EUT OPERATING CONDITION

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

#### 4.6.7 TEST RESULTS

FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5320MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
55	110.0	5320.008612	1.619	5320.008307	1.561	5320.008711	1.637	5320.008076	1.518
50	110.0	5320.008939	1.680	5320.008696	1.635	5320.009074	1.706	5320.008683	1.632
40	110.0	5320.009856	1.853	5320.009765	1.836	5320.009813	1.845	5320.009804	1.843
30	110.0	5320.010857	2.041	5320.011172	2.100	5320.011194	2.104	5320.011258	2.116
20	110.0	5320.013222	2.485	5320.012569	2.363	5320.012796	2.405	5320.013165	2.475
10	110.0	5320.011853	2.228	5320.011942	2.245	5320.011597	2.180	5320.011597	2.180
0	110.0	5320.010460	1.966	5320.010032	1.886	5320.009895	1.860	5320.009747	1.832
-10	110.0	5320.008700	1.635	5320.008467	1.592	5320.008732	1.641	5320.008977	1.687
-20	110.0	5320.008910	1.675	5320.008712	1.638	5320.008551	1.607	5320.008645	1.625
-30	110.0	5320.008804	1.655	5320.008510	1.600	5320.008750	1.645	5320.008972	1.686

FREQUENCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5320MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	93.5	5320.009504	1.786	5320.009824	1.847	5320.009673	1.818	5320.009943	1.869
	110.0	5320.013222	2.485	5320.012569	2.363	5320.012796	2.405	5320.013165	2.475
	126.5	5320.013108	2.464	5320.012721	2.391	5320.013072	2.457	5320.012935	2.431

## 5. PHOTOGRAPHS OF THE TEST CONFIGURATION

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



## 6. INFORMATION ON THE TESTING LABORATORIES

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

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

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**Web Site:** [www.adt.com.tw](http://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---