

FCC TEST REPORT

REPORT NO.: RF991203E02P

MODEL NO.: AR5B125

FCC ID: PPD-AR5B125

IC: 4104A-AR5B125

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ISSUED: Aug. 09, 2012

APPLICANT: Qualcomm Atheros, Inc.

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A D T

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF991203E02P	Original release	Aug. 09, 2012



A D T

1. CERTIFICATION

PRODUCT: 1X1 802.11b/g/n PCIe Module
BRAND NAME: Atheros
MODEL NO.: AR5B125
TEST SAMPLE: ENGINEERING SAMPLE
APPLICANT: Qualcomm Atheros, Inc.
TESTED: Aug. 07, 2012
STANDARDS: FCC Part 15, Subpart C (Section 15.247)
ANSI C63.10-2009
Canada RSS-210 Issue 8 (2010-12)
Canada RSS-Gen Issue 3 (2010-12)

The above equipment (Model: AR5B125) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and was in 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 : Midoli Peng
(Midoli Peng, Specialist)

DATE: Aug. 09, 2012

APPROVED BY : May Chen
(May Chen, Deputy Manager)

DATE: Aug. 09, 2012

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART C (SECTION 15.247); RSS-210; RSS-Gen				
STANDARD SECTION		TEST TYPE	RESULT	REMARK
FCC PART 15	CANADA STANDARD			
15.247(d) 15.209	RSS-210 A8.5	Radiated Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -0.5dB at 4924.00MHz
15.247(b)	RSS-210 A8.2 (4)	Maximum Peak Output Power	PASS	Meet the requirement of limit.

NOTE: This report is prepared for FCC class II change and IC reassessment change. Only radiated emission and conducted power were presented in this test report.

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:

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

Measurement	Value
Radiated emissions (30MHz-1GHz)	5.69 dB
Radiated emissions (1GHz -6GHz)	3.84 dB
Radiated emissions (6GHz -18GHz)	4.09 dB
Radiated emissions (18GHz -40GHz)	4.24 dB

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	1X1 802.11b/g/n PCIe Module
MODEL NO.	AR5B125
POWER SUPPLY	DC 3.3V from host equipment
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	DSSS, OFDM
TRANSFER RATE	802.11b: Up to 11Mbps 802.11g: Up to 54Mbps 802.11n: Up to 150Mbps
OPERATING FREQUENCY	2412MHz ~ 2462MHz
NUMBER OF CHANNEL	11 for 802.11b, 802.11g, 802.11n (HT20) 7 for 802.11n (HT40)
MAXIMUM OUTPUT POWER	802.11b: 102.329mW 802.11g: 257.040mW 802.11n (HT20): 181.970mW 802.11n (HT40): 158.489mW
ANTENNA TYPE	See item 3.2
ANTENNA CONNECTOR	See item 3.2
DATA CABLE	NA
I/O PORTS	NA
ASSOCIATED DEVICES	NA

NOTE:

1. This report is prepared for FCC class II permissive change and IC reassessment change. The difference compared with the Report No.: RF991203E02 design is as the following information:

- u** HW revision (HW version CUS231)
- u** BOM change : Remove C418, Update C406/C418 from NC to 0.5pF, L411/L412 from NC to 1.8nH
- u** Layout change: Swap TX/RX and RX trace. No change to RF TX characters.

Only radiated spurious emissions were re-evaluated and the changes did not affect the radiated spurious signal levels. The proposed changes do not affect output power and The power remains the same, RF exposure was also not re-evaluated.

3. The test mode was reference to the worst case in the original test report. Therefore only the test data of the mode was recorded in this report individually
4. The EUT is 1 * 1 spatial SISO without beam forming function.
5. The EUT complies with 802.11n standards and backwards compatible with 802.11b, 802.11g products.
6. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

3.2 DESCRIPTION OF ANTENNA

There is one set of antenna provided to this EUT, please refer to the following table:

No.	Brand	Model	Gain(dBi) (included cable loss)	Antenna Type	Connector	Cable Loss(dB)	Cable Length(mm)
1	WNC	81-EBJ15.005	3.62	PIFA	IPEX	1.15	300

3.3 DESCRIPTION OF TEST MODES

Operated in 2400 ~ 2483.5MHz band:

Eleven channels are provided for 802.11b, 802.11g, 802.11n (HT20):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
1	2412MHz	7	2442MHz
2	2417MHz	8	2447MHz
3	2422MHz	9	2452MHz
4	2427MHz	10	2457MHz
5	2432MHz	11	2462MHz
6	2437MHz		

Seven channels are provided for 802.11n (HT40):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
3	2422MHz	7	2442MHz
4	2427MHz	8	2447MHz
5	2432MHz	9	2452MHz
6	2437MHz		

3.3.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO			DESCRIPTION
	RE < 1G	RE ³ 1G	APCM	
-	√	√	√	-

Where **RE < 1G**: Radiated Emission below 1GHz **RE ³ 1G**: Radiated Emission above 1GHz
APCM: Antenna Port Conducted Measurement

RADIATED EMISSION TEST (BELOW 1 GHz):

- ☒ 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	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11g	1 to 11	6	OFDM	BPSK	6

RADIATED EMISSION TEST (ABOVE 1 GHz):

- ☒ 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	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
802.11n (HT20)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
802.11n (HT40)	3 to 9	3, 6, 9	OFDM	BPSK	13.5

ANTENNA PORT CONDUCTED MEASUREMENT:

- ☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
- ☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
802.11n (HT20)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
802.11n (HT40)	3 to 9	3, 6, 9	OFDM	BPSK	13.5

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER (SYSTEM)	TESTED BY
RE<1G	25deg. C, 65%RH	120Vac, 60Hz	Nelson Teng
RE ³ 1G	25deg. C, 65%RH	120Vac, 60Hz	Nelson Teng
APCM	25deg. C, 60%RH	120Vac, 60Hz	Nelson Teng

3.4 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 C. (15.247)

558074 D01 DTS Meas Guidance v01

ANSI C63.10-2009

Canada RSS-210 Issue 8 (2010-12)

Canada RSS-Gen Issue 3 (2010-12)

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

3.5 DESCRIPTION OF SUPPORT UNITS

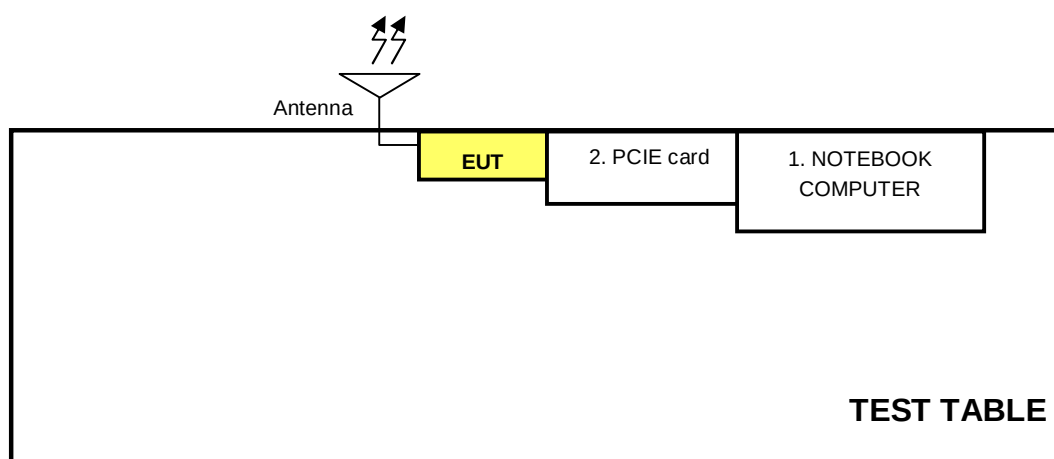
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER	Lenovo	0769	L3-BE248 08/01	FCC DoC
2	PCIE CARD	Atheros	NA	NA	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	NA

NOTE: All power cords of the above support units are non shielded (1.8m).

3.6 CONFIGURATION OF SYSTEM UNDER TEST



4. TEST TYPES AND RESULTS

4.1 RADIATED EMISSION MEASUREMENT

4.1.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20dB below the highest level of the desired power:

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 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer Agilent	E4446A	MY48250253	Aug. 29, 2011	Aug. 28, 2012
Pre-Selector Agilent	N9039A	MY46520310	Aug. 29, 2011	Aug. 28, 2012
Signal Generator Agilent	N5181A	MY49060347	July 25, 2012	July 24, 2013
Pre-Amplifier Mini-Circuits	ZFL-1000VH2 B	AMP-ZFL-04	Nov. 15, 2011	Nov. 14, 2012
Pre-Amplifier Agilent	8449B	3008A02465	Feb. 27, 2012	Feb. 26, 2013
SPACEK LABS	SLKKa-48-6	9K16	Nov. 15, 2011	Nov. 14, 2012
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-361	Apr. 06, 2012	Apr. 05, 2013
Horn_Antenna AISI	AIH.8018	0000220091110	Nov. 23, 2011	Nov. 22, 2012
Horn_Antenna SCHWARZBECK	BBHA 9170	9170-424	Oct. 07, 2011	Oct. 06, 2012
RF Cable	NA	RF104-205 RF104-207 RF104-202	Dec. 27, 2011	Dec. 26, 2012
RF Cable	NA	CHHCAB_001	Oct. 08, 2011	Oct. 07, 2012
Software	ADT_Radiated _V8.7.05	NA	NA	NA
Antenna Tower & Turn Table CT	NA	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 horn antenna, preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
- 3 The test was performed in 966 Chamber No. H.
4. The FCC Site Registration No. is 797305.
- 5 The CANADA Site Registration No. is IC 7450H-3.
- 6 Tested Date: Aug. 07, 2012

4.1.3 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. 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 height of antenna 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 quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

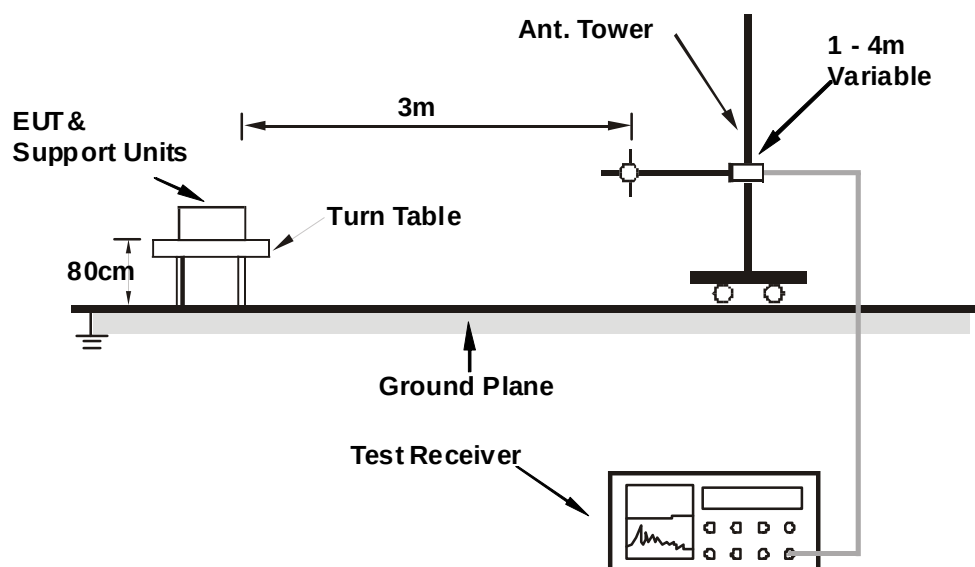
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.1.6 EUT OPERATING CONDITIONS

1. Connect the EUT with the support unit 1 (Notebook Computer) which is placed on a testing table.
2. The support unit 1 (Notebook Computer) run test program “Art2_ver_2_56” to enable EUT under transmission/receiving condition continuously at specific channel frequency.

4.1.7 TEST RESULTS

BELOW 1GHz WORST-CASE DATA

802.11g

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	Below 1GHz		

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	99.51	38.5 QP	43.5	-5.0	2.00 H	303	28.84	9.67
2	149.96	37.6 QP	43.5	-6.0	1.50 H	360	22.97	14.58
3	349.98	42.2 QP	46.0	-3.8	1.00 H	357	25.70	16.46
4	499.90	39.7 QP	46.0	-6.3	2.00 H	233	19.70	20.04
5	696.60	35.5 QP	46.0	-10.5	1.50 H	360	11.84	23.62
6	799.87	42.3 QP	46.0	-3.7	1.00 H	61	16.65	25.62
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	149.96	36.9 QP	43.5	-6.6	1.00 V	66	22.35	14.58
2	300.00	41.8 QP	46.0	-4.2	2.00 V	313	26.51	15.30
3	399.95	42.3 QP	46.0	-3.7	1.50 V	305	24.56	17.70
4	497.65	40.0 QP	46.0	-6.0	1.00 V	263	19.99	19.98
5	600.44	42.6 QP	46.0	-3.4	1.00 V	139	20.37	22.23
6	799.51	41.6 QP	46.0	-4.4	1.00 V	360	15.98	25.61

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.

ABOVE 1GHz DATA

802.11b

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	2386.40	57.5 PK	74.0	-16.5	1.25 H	85	25.13	32.37
2	2386.40	45.3 AV	54.0	-8.7	1.25 H	85	12.93	32.37
3	*2412.00	103.8 PK			1.25 H	85	71.36	32.44
4	*2412.00	101.6 AV			1.25 H	85	69.16	32.44
5	4824.00	52.8 PK	74.0	-21.2	1.00 H	130	10.86	41.94
6	4824.00	45.8 AV	54.0	-8.2	1.00 H	130	3.86	41.94

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	2390.00	57.1 PK	74.0	-16.9	1.04 V	241	24.72	32.38
2	2390.00	45.5 AV	54.0	-8.5	1.04 V	241	13.12	32.38
3	*2412.00	104.1 PK			1.04 V	241	71.66	32.44
4	*2412.00	101.5 AV			1.04 V	241	69.06	32.44
5	4824.00	52.7 PK	74.0	-21.3	1.15 V	82	10.76	41.94
6	4824.00	46.8 AV	54.0	-7.2	1.15 V	82	4.86	41.94

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.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	*2437.00	106.1 PK			1.23 H	88	73.59	32.51
2	*2437.00	103.7 AV			1.23 H	88	71.19	32.51
3	4874.00	56.6 PK	74.0	-17.4	1.04 H	128	14.61	41.99
4	4874.00	52.9 AV	54.0	-1.1	1.04 H	128	10.91	41.99
5	7311.00	54.2 PK	74.0	-19.8	1.35 H	136	7.67	46.53
6	7311.00	41.7 AV	54.0	-12.3	1.35 H	136	-4.83	46.53
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	*2437.00	105.7 PK			1.02 V	238	73.19	32.51
2	*2437.00	103.4 AV			1.02 V	238	70.89	32.51
3	4874.00	56.5 PK	74.0	-17.5	1.00 V	87	14.51	41.99
4	4874.00	53.1 AV	54.0	-0.9	1.00 V	87	11.11	41.99
5	7311.00	53.2 PK	74.0	-20.8	1.24 V	195	6.67	46.53
6	7311.00	41.0 AV	54.0	-13.0	1.24 V	195	-5.53	46.53

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.

CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	*2462.00	106.1 PK			1.24 H	88	73.53	32.57
2	*2462.00	103.8 AV			1.24 H	88	71.23	32.57
3	2487.79	56.8 PK	74.0	-17.2	1.24 H	88	24.16	32.64
4	2487.79	45.3 AV	54.0	-8.7	1.24 H	88	12.66	32.64
5	4924.00	57.0 PK	74.0	-17.0	1.00 H	158	14.99	42.01
6	4924.00	52.8 AV	54.0	-1.2	1.00 H	158	10.79	42.01
7	7386.00	54.2 PK	74.0	-19.8	1.32 H	127	7.47	46.73
8	7386.00	41.6 AV	54.0	-12.4	1.32 H	127	-5.13	46.73
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	*2462.00	104.6 PK			1.01 V	242	72.03	32.57
2	*2462.00	102.3 AV			1.01 V	242	69.73	32.57
3	2487.92	57.3 PK	74.0	-16.7	1.01 V	242	24.66	32.64
4	2487.92	44.8 AV	54.0	-9.2	1.01 V	242	12.16	32.64
5	4924.00	57.1 PK	74.0	-16.9	1.00 V	106	15.09	42.01
6	4924.00	53.5 AV	54.0	-0.5	1.00 V	106	11.49	42.01
7	7386.00	53.2 PK	74.0	-20.8	1.24 V	204	6.47	46.73
8	7386.00	41.1 AV	54.0	-12.9	1.24 V	204	-5.63	46.73

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.

802.11g

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	2390.00	70.3 PK	74.0	-3.7	1.30 H	83	37.92	32.38
2	2390.00	53.3 AV	54.0	-0.7	1.30 H	83	20.92	32.38
3	*2412.00	105.9 PK			1.30 H	83	73.46	32.44
4	*2412.00	94.2 AV			1.30 H	83	61.76	32.44
5	4824.00	51.2 PK	74.0	-22.8	1.00 H	153	9.26	41.94
6	4824.00	38.4 AV	54.0	-15.6	1.00 H	153	-3.54	41.94
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	2390.00	68.7 PK	74.0	-5.3	1.03 V	249	36.32	32.38
2	2390.00	53.2 AV	54.0	-0.8	1.03 V	249	20.82	32.38
3	*2412.00	105.7 PK			1.03 V	249	73.26	32.44
4	*2412.00	95.0 AV			1.03 V	249	62.56	32.44
5	4824.00	53.9 PK	74.0	-20.1	1.01 V	110	11.96	41.94
6	4824.00	40.2 AV	54.0	-13.8	1.01 V	110	-1.74	41.94

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.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	2390.00	56.8 PK	74.0	-17.2	1.29 H	90	24.42	32.38
2	2390.00	45.7 AV	54.0	-8.3	1.29 H	90	13.32	32.38
3	*2437.00	109.0 PK			1.29 H	88	76.49	32.51
4	*2437.00	98.5 AV			1.29 H	88	65.99	32.51
5	2483.50	57.3 PK	74.0	-16.7	1.23 H	80	24.67	32.63
6	2483.50	44.5 AV	54.0	-9.5	1.23 H	80	11.87	32.63
7	4874.00	56.2 PK	74.0	-17.8	1.05 H	145	14.21	41.99
8	4874.00	42.8 AV	54.0	-11.2	1.05 H	145	0.81	41.99
9	7311.00	54.1 PK	74.0	-19.9	1.40 H	130	7.57	46.53
10	7311.00	41.8 AV	54.0	-12.2	1.40 H	130	-4.73	46.53
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	*2437.00	107.7 PK			1.00 V	246	75.19	32.51
2	*2437.00	97.4 AV			1.00 V	246	64.89	32.51
3	4874.00	58.9 PK	74.0	-15.1	1.00 V	107	16.91	41.99
4	4874.00	44.9 AV	54.0	-9.1	1.00 V	107	2.91	41.99
5	7311.00	53.6 PK	74.0	-20.4	1.18 V	182	7.07	46.53
6	7311.00	41.4 AV	54.0	-12.6	1.18 V	182	-5.13	46.53

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.

CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	*2462.00	105.3 PK			1.25 H	89	72.73	32.57
2	*2462.00	95.1 AV			1.25 H	89	62.53	32.57
3	2483.50	73.1 PK	74.0	-0.9	1.25 H	89	40.47	32.63
4	2483.50	52.2 AV	54.0	-1.8	1.25 H	89	19.57	32.63
5	4924.00	51.5 PK	74.0	-22.5	1.04 H	143	9.49	42.01
6	4924.00	38.8 AV	54.0	-15.2	1.04 H	143	-3.21	42.01
7	7386.00	54.3 PK	74.0	-19.7	1.32 H	116	7.57	46.73
8	7386.00	41.7 AV	54.0	-12.3	1.32 H	116	-5.03	46.73
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	*2462.00	104.1 PK			1.05 V	237	71.53	32.57
2	*2462.00	93.3 AV			1.05 V	237	60.73	32.57
3	2483.50	68.9 PK	74.0	-5.1	1.05 V	237	36.27	32.63
4	2483.50	49.4 AV	54.0	-4.6	1.05 V	237	16.77	32.63
5	4924.00	53.5 PK	74.0	-20.5	1.01 V	113	11.49	42.01
6	4924.00	39.8 AV	54.0	-14.2	1.01 V	113	-2.21	42.01
7	7386.00	53.4 PK	74.0	-20.6	1.23 V	219	6.67	46.73
8	7386.00	41.2 AV	54.0	-12.8	1.23 V	219	-5.53	46.73

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.

802.11n (HT20)

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	2390.00	72.4 PK	74.0	-1.6	1.29 H	85	40.02	32.38
2	2390.00	53.0 AV	54.0	-1.0	1.29 H	85	20.62	32.38
3	*2412.00	103.9 PK			1.29 H	85	71.46	32.44
4	*2412.00	93.0 AV			1.29 H	85	60.56	32.44
5	4824.00	52.1 PK	74.0	-21.9	1.05 H	148	10.16	41.94
6	4824.00	39.2 AV	54.0	-14.8	1.05 H	148	-2.74	41.94
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	2390.00	70.5 PK	74.0	-3.5	1.02 V	251	38.12	32.38
2	2390.00	53.2 AV	54.0	-0.8	1.02 V	251	20.82	32.38
3	*2412.00	104.6 PK			1.02 V	251	72.16	32.44
4	*2412.00	93.3 AV			1.02 V	251	60.86	32.44
5	4824.00	53.3 PK	74.0	-20.7	1.05 V	128	11.36	41.94
6	4824.00	39.4 AV	54.0	-14.6	1.05 V	128	-2.54	41.94

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.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	2390.00	57.3 PK	74.0	-16.7	1.33 H	87	24.92	32.38
2	2390.00	45.3 AV	54.0	-8.7	1.33 H	87	12.92	32.38
3	*2437.00	107.5 PK			1.30 H	90	74.99	32.51
4	*2437.00	96.7 AV			1.30 H	90	64.19	32.51
5	2483.50	57.3 PK	74.0	-16.7	1.25 H	81	24.67	32.63
6	2483.50	44.4 AV	54.0	-9.6	1.25 H	81	11.77	32.63
7	4874.00	56.0 PK	74.0	-18.0	1.07 H	154	14.01	41.99
8	4874.00	42.6 AV	54.0	-11.4	1.07 H	154	0.61	41.99
9	7311.00	54.4 PK	74.0	-19.6	1.37 H	125	7.87	46.53
10	7311.00	42.2 AV	54.0	-11.8	1.37 H	125	-4.33	46.53
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	*2437.00	106.4 PK			1.01 V	247	73.89	32.51
2	*2437.00	95.7 AV			1.01 V	247	63.19	32.51
3	4874.00	58.9 PK	74.0	-15.1	1.00 V	116	16.91	41.99
4	4874.00	45.1 AV	54.0	-8.9	1.00 V	116	3.11	41.99
5	7311.00	53.1 PK	74.0	-20.9	1.18 V	185	6.57	46.53
6	7311.00	40.8 AV	54.0	-13.2	1.18 V	185	-5.73	46.53

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.

CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	*2462.00	104.4 PK			1.27 H	87	71.83	32.57
2	*2462.00	93.3 AV			1.27 H	87	60.73	32.57
3	2483.50	68.8 PK	74.0	-5.2	1.27 H	87	36.17	32.63
4	2483.50	51.3 AV	54.0	-2.7	1.27 H	87	18.67	32.63
5	4924.00	51.8 PK	74.0	-22.2	1.04 H	130	9.79	42.01
6	4924.00	38.9 AV	54.0	-15.1	1.04 H	130	-3.11	42.01
7	7386.00	53.8 PK	74.0	-20.2	1.32 H	116	7.07	46.73
8	7386.00	41.3 AV	54.0	-12.7	1.32 H	116	-5.43	46.73
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	*2462.00	102.2 PK			1.01 V	242	69.63	32.57
2	*2462.00	92.1 AV			1.01 V	242	59.53	32.57
3	2483.50	66.1 PK	74.0	-7.9	1.01 V	242	33.47	32.63
4	2483.50	49.2 AV	54.0	-4.8	1.01 V	242	16.57	32.63
5	4924.00	53.4 PK	74.0	-20.6	1.02 V	121	11.39	42.01
6	4924.00	39.9 AV	54.0	-14.1	1.02 V	121	-2.11	42.01
7	7386.00	53.4 PK	74.0	-20.6	1.18 V	202	6.67	46.73
8	7386.00	41.1 AV	54.0	-12.9	1.18 V	202	-5.63	46.73

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.

802.11n (HT40)

CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	2390.00	69.3 PK	74.0	-4.7	1.30 H	85	36.92	32.38
2	2390.00	52.7 AV	54.0	-1.3	1.30 H	85	20.32	32.38
3	*2422.00	100.4 PK			1.30 H	85	67.93	32.47
4	*2422.00	89.5 AV			1.30 H	85	57.03	32.47
5	4844.00	51.3 PK	74.0	-22.7	1.06 H	143	9.34	41.96
6	4844.00	38.6 AV	54.0	-15.4	1.06 H	143	-3.36	41.96
7	7266.00	53.3 PK	74.0	-20.7	1.36 H	158	6.90	46.40
8	7266.00	41.3 AV	54.0	-12.7	1.36 H	158	-5.10	46.40
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	2390.00	69.3 PK	74.0	-4.7	1.00 V	238	36.92	32.38
2	2390.00	53.0 AV	54.0	-1.0	1.00 V	238	20.62	32.38
3	*2422.00	100.4 PK			1.00 V	238	67.93	32.47
4	*2422.00	89.3 AV			1.00 V	238	56.83	32.47
5	4844.00	53.6 PK	74.0	-20.4	1.00 V	121	11.64	41.96
6	4844.00	40.0 AV	54.0	-14.0	1.00 V	121	-1.96	41.96
7	7266.00	53.9 PK	74.0	-20.1	1.22 V	203	7.50	46.40
8	7266.00	41.5 AV	54.0	-12.5	1.22 V	203	-4.90	46.40

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.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	2390.00	65.8 PK	74.0	-8.2	1.32 H	84	33.42	32.38
2	2390.00	48.8 AV	54.0	-5.2	1.32 H	84	16.42	32.38
3	*2437.00	103.8 PK			1.28 H	86	71.29	32.51
4	*2437.00	91.3 AV			1.28 H	86	58.79	32.51
5	2483.50	65.4 PK	74.0	-8.6	1.22 H	82	32.77	32.63
6	2483.50	47.5 AV	54.0	-6.5	1.22 H	82	14.87	32.63
7	4874.00	51.5 PK	74.0	-22.5	1.03 H	141	9.51	41.99
8	4874.00	39.0 AV	54.0	-15.0	1.03 H	141	-2.99	41.99
9	7311.00	54.1 PK	74.0	-19.9	1.30 H	147	7.57	46.53
10	7311.00	42.2 AV	54.0	-11.8	1.30 H	147	-4.33	46.53
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	*2437.00	101.6 PK			1.00 V	240	69.09	32.51
2	*2437.00	90.7 AV			1.00 V	240	58.19	32.51
3	4874.00	53.5 PK	74.0	-20.5	1.00 V	101	11.51	41.99
4	4874.00	39.8 AV	54.0	-14.2	1.00 V	101	-2.19	41.99
5	7311.00	53.6 PK	74.0	-20.4	1.17 V	202	7.07	46.53
6	7311.00	41.4 AV	54.0	-12.6	1.17 V	202	-5.13	46.53

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.

CHANNEL	TX Channel 9	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	*2452.00	100.6 PK			1.25 H	84	68.05	32.55
2	*2452.00	89.4 AV			1.25 H	84	56.85	32.55
3	2483.50	67.8 PK	74.0	-6.2	1.25 H	84	35.17	32.63
4	2483.50	49.7 AV	54.0	-4.3	1.25 H	84	17.07	32.63
5	4904.00	51.7 PK	74.0	-22.3	1.07 H	155	9.68	42.02
6	4904.00	39.3 AV	54.0	-14.7	1.07 H	155	-2.72	42.02
7	7356.00	54.4 PK	74.0	-19.6	1.26 H	151	7.75	46.65
8	7356.00	42.3 AV	54.0	-11.7	1.26 H	151	-4.35	46.65
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	*2452.00	99.4 PK			1.00 V	245	66.85	32.55
2	*2452.00	87.9 AV			1.00 V	245	55.35	32.55
3	2483.50	65.3 PK	74.0	-8.7	1.00 V	245	32.67	32.63
4	2483.50	47.9 AV	54.0	-6.1	1.00 V	245	15.27	32.63
5	4904.00	53.7 PK	74.0	-20.3	1.05 V	117	11.68	42.02
6	4904.00	40.1 AV	54.0	-13.9	1.05 V	117	-1.92	42.02
7	7356.00	53.4 PK	74.0	-20.6	1.17 V	212	6.75	46.65
8	7356.00	41.4 AV	54.0	-12.6	1.17 V	212	-5.25	46.65

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.

4.2 CONDUCTED OUTPUT POWER

4.2.1 LIMITS OF CONDUCTED OUTPUT POWER MEASUREMENT

For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30dBm)

4.2.2 INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Power Meter	ML2495A	0824006	May 10, 2012	May 09, 2013
Peak Power Sensor	MA2411B	0738172	May 10, 2012	May 09, 2013

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. Tested date : Aug. 07, 2012

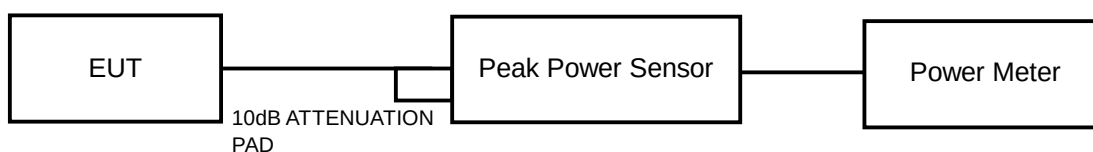
4.2.3 TEST PROCEDURES

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

4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 TEST SETUP



4.2.6 EUT OPERATING CONDITIONS

Same as Item 4.1.6

4.2.7 TEST RESULTS

802.11b

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
1	2412	70.795	18.5	30	PASS
6	2437	102.329	20.1	30	PASS
11	2462	93.325	19.7	30	PASS

802.11g

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
1	2412	131.826	21.2	30	PASS
6	2437	257.040	24.1	30	PASS
11	2462	120.226	20.8	30	PASS

802.11n (HT20)

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
1	2412	104.713	20.2	30	PASS
6	2437	181.970	22.6	30	PASS
11	2462	95.499	19.8	30	PASS

802.11n (HT40)

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
3	2422	102.329	20.1	30	PASS
6	2437	158.489	22.0	30	PASS
9	2452	95.499	19.8	30	PASS

4.3 AVERAGE OUTPUT POWER

4.3.1 FOR REFERENCE.

4.3.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Power Meter	ML2495A	0824006	May 10, 2012	May 09, 2013
Average Power Sensor	MA2411B	0738172	May 10, 2012	May 09, 2013

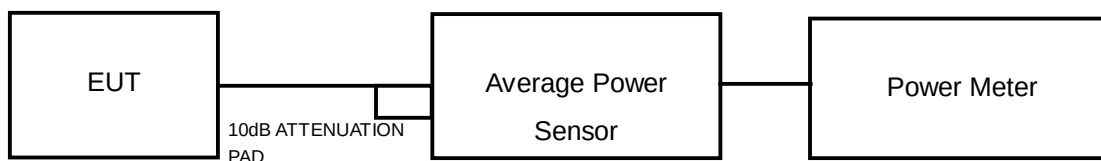
Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. Tested date : Aug. 07, 2012

4.3.3 TEST PROCEDURES

1. The transmitter output was connected to the power meter through an attenuator, the bandwidth of the fundamental frequency was measured with the power meter.
2. Record the average power level.

4.3.4 TEST SETUP



4.3.5 EUT OPERATING CONDITIONS

Same as Item 4.1.6

4.3.6 TEST RESULTS

802.11b

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER OUTPUT (dBm)
1	2412	16.4
6	2437	18.2
11	2462	17.8

802.11g

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER OUTPUT (dBm)
1	2412	14.6
6	2437	18.2
11	2462	13.7

802.11n (HT20)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER OUTPUT (DBM)
1	2412	13.3
6	2437	16.5
11	2462	12.8

802.11n (HT40)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER OUTPUT (dBm)
3	2422	12.0
6	2437	14.3
9	2452	11.6

5. 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

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



A D T

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

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

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