FCC TEST REPORT

REPORT NO.:	RF120314E09B
MODEL NO.:	SMCD3GN4xxxxx (x =0-9, A-Z, a-z, "-", ".", or blank for marketing purpose only)
FCC ID:	JI5-D3GN4
RECEIVED:	July 23, 2012
TESTED:	July 26 to Aug. 01, 2012
ISSUED:	Sep. 04, 2012
APPLICANT:	SMC Networks Inc.
ADDRESS:	20 Mason, Irvine, CA 92618, USA
ISSUED BY:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
LAB ADDRESS :	No. 81-1, Lu Liao Keng, 9th Ling, Wu Lung Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan, R.O.C.
TEST LOCATION (1):	No. 81-1, Lu Liao Keng, 9th Ling, Wu Lung Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan, R.O.C.
TEST LOCATION (2):	No. 49, Ln. 206, Wende Rd., Shangshan Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan, R.O.C.

This report should not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF120314E09B	Original release	Sep. 04, 2012

1. CERTIFICATION

PRODUCT:	Wireless Gateway
BRAND NAME:	SMC
MODEL NO.:	SMCD3GN4xxxxx (x =0-9, A-Z, a-z, "- ", "." , or blank for marketing purpose only)
TEST SAMPLE:	ENGINEERING SAMPLE
APPLICANT:	SMC Networks Inc.
TESTED:	July 26 to Aug. 01, 2012
STANDARDS:	**FCC Part 15, Subpart C (Section 15.247)** ANSI C63.10-2009

The above equipment (Model: SMCD3GN4) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : _____ , **DATE:** *Sep. 04, 2012*
(Lori Chung, Specialist)

APPROVED BY : _____ , **DATE:** *Sep. 04, 2012*
(May Chen, Deputy Manager)

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)			
STANDARD SECTION	**TEST TYPE**	**RESULT**	**REMARK**
15.247(d) 15.209	Radiated Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -0.7dB at 2500.00MHz
15.247(b)	Conducted power	PASS	Meet the requirement of limit.

NOTE:

1. This report is prepared for FCC class II permissive 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)	3.56 dB
Radiated emissions (6GHz -18GHz)	4.10 dB
Radiated emissions (18GHz -40GHz)	4.24 dB

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Wireless Gateway
MODEL NO.	SMCD3GN4xxxxx (x =0-9, A-Z, a-z, "-", ".", or blank for marketing purpose only)
POWER SUPPLY	DC 12V from external power adapter
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	DSSS, OFDM
TRANSFER RATE	802.11b: up to 11Mbps 802.11a / g: up to 54Mbps 802.11n (HT20, 800ns GI, MCS0 ~ 15): up to 130Mbps 802.11n (HT40, 800ns GI, MCS0 ~ 15): up to 270Mbps 802.11n (HT20, 400ns GI, MCS0 ~ 15): up to 144.4Mbps 802.11n (HT40, 400ns GI, MCS0 ~ 15): up to 300Mbps
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: 36.308mW 802.11g: 870.964mW 802.11n (HT20): 908.567mW 802.11n (HT40): 903.772mW
ANTENNA TYPE	Please see NOTE
DATA CABLE	NA
I/O PORTS	Refer to user's manual
ASSOCIATED DEVICES	Adapter x 1

NOTE:

1. This report is prepared for FCC class II permissive change. The difference compared with the Report No.: RF120314E09A design is as the following information:

   - **u** Disable 5GHz frequency band by software.
   - **u** Added antennas for 2.4GHz as following table:

Newly						
For 2.4GHz						
Transmitter Circuit	Brand	Model	Peak Gain (dBi)	Antenna Type	Connecter Type	Cable Length (cm)
Chain (0)	Airgain	N2420DS_20120621rev2	3.3	PIFA	U.FL	10
Chain (1)	Airgain	N2420DS_20120621rev2	3.3	PIFA	U.FL	10

2. Model Name SMCD3GN4xxxxx, the "x" in the model could be defined as 0-9, A-Z, a-z, "-", ".", or blank for marketing differentiation. For the final test, model: SMCD3GN4 was selected as the representative model for the test and its data is recorded in this report.

3. The EUT must be supplied with a power adapter and following two different model could be chosen:

Adapter 1:	
Brand :	OEM
Model No. :	ADS0271-W 120200
Input power :	AC 100-240V~, 50-60Hz, 0.6A
Output power :	DC 12V, 2.0A (unshielded, 1.5m)
Adapter 2:	
Brand :	Sunny
Model No. :	SYS1428-2412-W2
Input power :	AC 100-240V~, 50-60Hz, 1.0A
Output power :	DC 12V, 2.0A (unshielded, 1.5m)

For radiated emissions test, the EUT was pre-tested with above adapters 1 & 2 in original report, the worst case was found in adapter 1. Therefore only the test data of the adapter was recorded in this report.

4. The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and two receivers.

MODULATION MODE	Tx/Rx FUNCTION
802.11b	1Tx/1Rx
802.11g	1Tx/1Rx
802.11n (HT20)	2Tx/2Rx
802.11n (HT40)	2Tx/2Rx

5. When the EUT operating in 802.11n, the software operation, which is defined by manufacturer, MCS (Modulation and Coding Schemes) from 0 to 15.

6. The above EUT information was declared by the manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 DESCRIPTION OF TEST MODES

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		

3.2.1 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

NOTE:

The EUT had been pre-tested on the positioned of each 2 axis. The worst case was found when positioned on **X-plane.**

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)
802.11n (HT20)	1 to 11	11	OFDM	BPSK	6.5

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.

☒ 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

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE<1G	22deg. C, 64%RH	120Vac, 60Hz	Evan Huang
RE≥1G	25deg. C, 65%RH	120Vac, 60Hz	Frank Liu
APCM	25deg. C, 60%RH	120Vac, 60Hz	Rex Huang

3.3 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)

ANSI C63.10-2009

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

3.4 DESCRIPTION OF SUPPORT UNITS

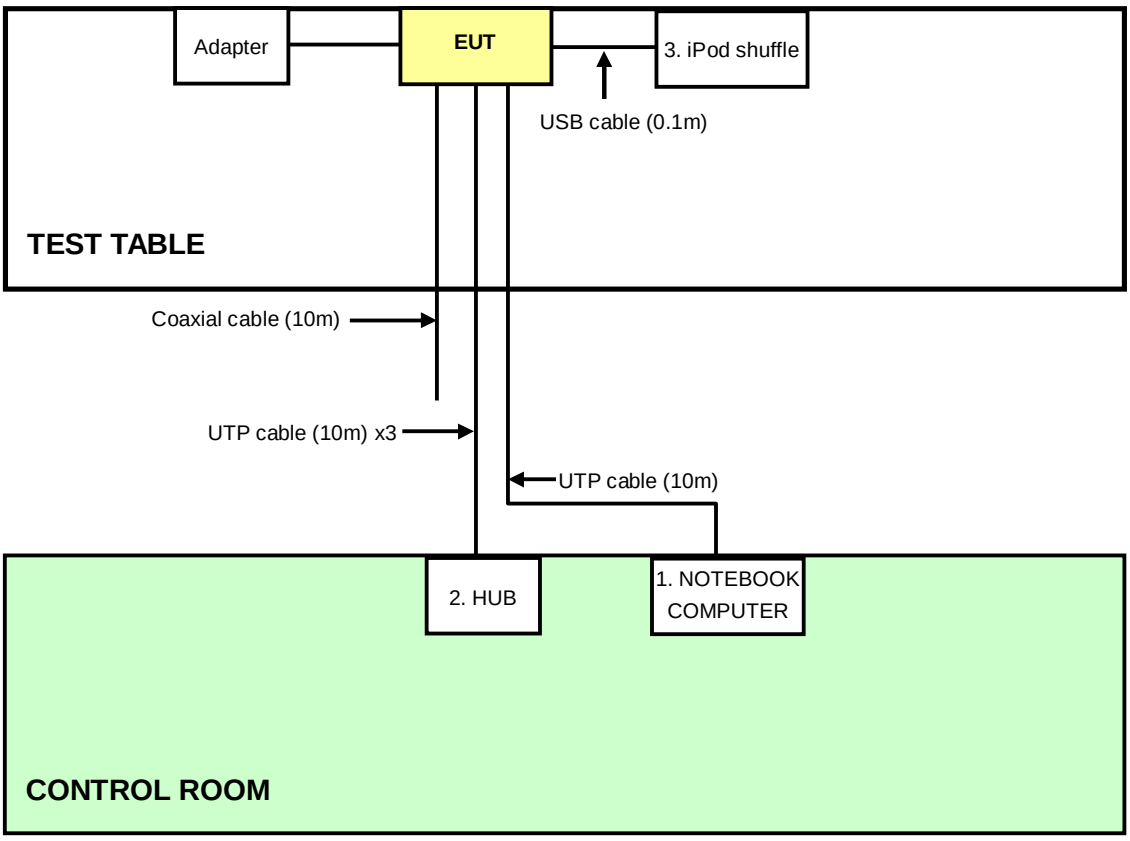
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER	DELL	PP32LA	FSLB32S	FCC DoC
2	HUB	ZyXEL	ES-116P	S060H02000215	FCC DoC
3	iPod shuffle	Apple	MC749TA/A	CC4DMFJUDFDM	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	UTP cable (10m)
2	UTP cable (10m)
3	USB cable (0.1m)

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

3.5 CONFIGURATION OF SYSTEM UNDER TEST



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. 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

For Below 1GHz test:

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-1000VH2B	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. 01, 2012

For Above 1GHz test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer Agilent	E4446A	MY48250254	July 09, 2012	July 08, 2013
Pre-Selector Agilent	N9039A	MY46520311	July 09, 2012	July 08, 2013
Signal Generator Agilent	N5181A	MY49060517	July 09, 2012	July 08, 2013
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-03	Nov. 15, 2011	Nov. 14, 2012
Pre-Amplifier Agilent	8449B	3008A02578	June 26, 2012	June 25, 2013
Pre-Amplifier SPACEK LABS	SLKKa-48-6	9K16	Nov. 15, 2011	Nov. 14, 2012
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-360	Apr. 09, 2012	Apr. 08, 2013
Horn_Antenna AISI	AIH.8018	0000320091110	Nov. 14, 2011	Nov. 13, 2012
Horn_Antenna SCHWARZBECK	BBHA 9170	9170-424	Oct. 07, 2011	Oct. 06, 2012
RF Cable	NA	RF104-201 RF104-203 RF104-204	Dec. 26, 2011	Dec. 25, 2012
RF Cable	NA	CHGCAB_001	Oct. 07, 2011	Oct. 06, 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. G.
4. The FCC Site Registration No. is 966073.
5 The VCCI Site Registration No. is G-137.
6 The CANADA Site Registration No. is IC 7450H-2.
7 Tested Date: July 27, 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 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.

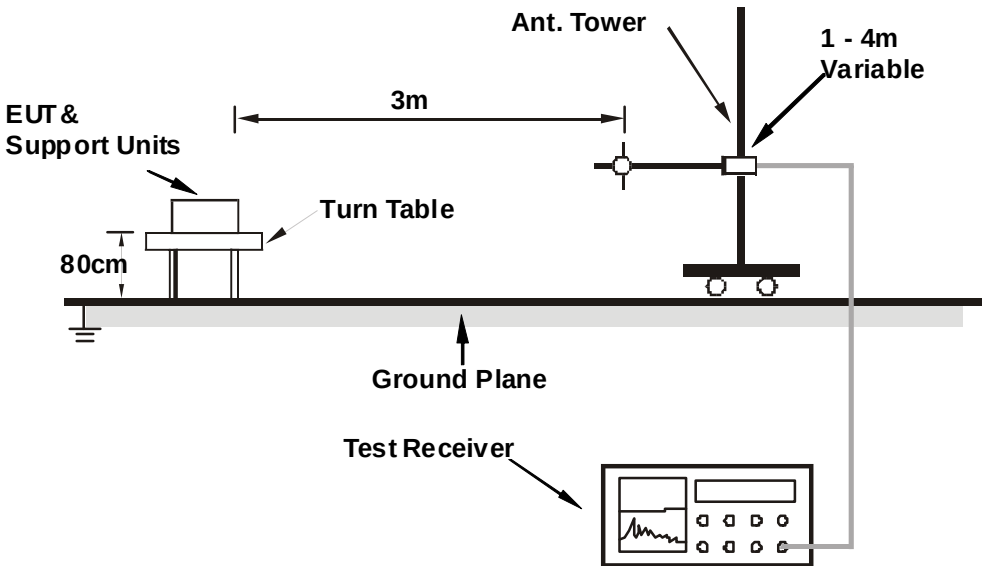
NOTE:

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. Placed the EUT on testing table.
2. Prepared other computer system (support unit 1) to act as communication partners and placed them outside of testing area.
3. The communication partners ran test program “MP_TESE.exe” to enable EUT under transmission/receiving condition continuously via one UTP cable transmission.

4.1.7 TEST RESULTS

BELOW 1GHz WORST-CASE DATA

802.11n (HT20)

CHANNEL	TX Channel 11	**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	124.97	35.7 QP	43.5	-7.8	1.25 H	80	22.91	12.80
2	250.03	41.2 QP	46.0	-4.8	1.00 H	283	27.91	13.30
3	374.97	38.7 QP	46.0	-7.3	2.00 H	18	21.66	17.08
4	500.02	41.5 QP	46.0	-4.6	1.50 H	322	21.41	20.04
5	624.96	39.9 QP	46.0	-6.1	1.25 H	0	17.40	22.54
6	875.06	40.5 QP	46.0	-5.5	1.25 H	316	13.84	26.66
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	47.76	35.1 QP	40.0	-4.9	1.25 V	192	21.08	14.04
2	250.03	35.9 QP	46.0	-10.1	1.50 V	340	22.56	13.30
3	374.97	39.2 QP	46.0	-6.8	1.00 V	345	22.11	17.08
4	500.02	33.4 QP	46.0	-12.6	1.75 V	42	13.40	20.04
5	599.97	35.9 QP	46.0	-10.2	1.25 V	360	13.63	22.22
6	874.95	42.4 QP	46.0	-3.7	1.00 V	0	15.69	26.66

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	65.9 PK	74.0	-8.1	1.60 H	80	33.92	31.98
2	2390.00	52.2 AV	54.0	-1.8	1.60 H	80	20.22	31.98
3	*2412.00	107.9 PK			1.59 H	86	75.85	32.05
4	*2412.00	104.6 AV			1.59 H	86	72.55	32.05
5	4824.00	51.8 PK	74.0	-22.2	1.00 H	243	12.22	39.58
6	4824.00	44.6 AV	54.0	-9.4	1.00 H	243	5.02	39.58
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	60.0 PK	74.0	-14.0	1.02 V	21	28.02	31.98
2	2390.00	47.7 AV	54.0	-6.3	1.02 V	21	15.72	31.98
3	*2412.00	100.8 PK			1.02 V	21	68.75	32.05
4	*2412.00	97.5 AV			1.02 V	21	65.45	32.05
5	4824.00	56.4 PK	74.0	-17.6	1.09 V	4	16.82	39.58
6	4824.00	52.4 AV	54.0	-1.6	1.09 V	4	12.82	39.58

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	108.1 PK			1.57 H	88	75.98	32.12
2	*2437.00	104.8 AV			1.57 H	88	72.68	32.12
3	4874.00	51.9 PK	74.0	-22.1	1.00 H	34	12.20	39.70
4	4874.00	44.8 AV	54.0	-9.2	1.00 H	34	5.10	39.70
5	7311.00	54.4 PK	74.0	-19.6	1.03 H	241	6.81	47.59
6	7311.00	41.5 AV	54.0	-12.5	1.03 H	241	-6.09	47.59
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	100.9 PK			1.06 V	16	68.78	32.12
2	*2437.00	97.7 AV			1.06 V	16	65.58	32.12
3	4874.00	56.3 PK	74.0	-17.7	1.09 V	23	16.60	39.70
4	4874.00	52.6 AV	54.0	-1.4	1.09 V	23	12.90	39.70
5	7311.00	56.5 PK	74.0	-17.5	1.42 V	9	8.91	47.59
6	7311.00	44.4 AV	54.0	-9.6	1.42 V	9	-3.19	47.59

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	108.9 PK			1.56 H	91	76.72	32.18
2	*2462.00	105.6 AV			1.56 H	91	73.42	32.18
3	2483.91	64.2 PK	74.0	-9.8	1.56 H	91	31.96	32.24
4	2483.91	52.0 AV	54.0	-2.0	1.56 H	91	19.76	32.24
5	4924.00	51.2 PK	74.0	-22.8	1.00 H	28	11.36	39.84
6	4924.00	44.4 AV	54.0	-9.6	1.00 H	28	4.56	39.84
7	7386.00	54.7 PK	74.0	-19.3	1.00 H	233	7.18	47.52
8	7386.00	41.9 AV	54.0	-12.1	1.00 H	233	-5.62	47.52
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	101.2 PK			1.00 V	15	69.02	32.18
2	*2462.00	97.8 AV			1.00 V	15	65.62	32.18
3	2485.67	60.2 PK	74.0	-13.8	1.00 V	15	27.96	32.24
4	2485.67	47.8 AV	54.0	-6.2	1.00 V	15	15.56	32.24
5	4924.00	55.1 PK	74.0	-18.9	1.07 V	23	15.26	39.84
6	4924.00	51.8 AV	54.0	-2.2	1.07 V	23	11.96	39.84
7	7386.00	55.9 PK	74.0	-18.1	1.46 V	11	8.38	47.52
8	7386.00	44.0 AV	54.0	-10.0	1.46 V	11	-3.52	47.52

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	66.7 PK	74.0	-7.3	1.55 H	76	34.72	31.98
2	2390.00	52.9 AV	54.0	-1.1	1.55 H	76	20.92	31.98
3	*2412.00	109.4 PK			1.55 H	76	77.35	32.05
4	*2412.00	99.2 AV			1.55 H	76	67.15	32.05
5	4824.00	49.5 PK	74.0	-24.5	1.02 H	36	9.92	39.58
6	4824.00	36.7 AV	54.0	-17.3	1.02 H	36	-2.88	39.58
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	59.4 PK	74.0	-14.6	1.34 V	298	27.42	31.98
2	2390.00	46.2 AV	54.0	-7.8	1.34 V	298	14.22	31.98
3	*2412.00	105.9 PK			1.34 V	298	73.85	32.05
4	*2412.00	95.6 AV			1.34 V	298	63.55	32.05
5	4824.00	51.4 PK	74.0	-22.6	1.10 V	51	11.82	39.58
6	4824.00	37.7 AV	54.0	-16.3	1.10 V	51	-1.88	39.58

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	2377.47	61.5 PK	74.0	-12.5	1.53 H	84	29.57	31.93
2	2377.47	48.3 AV	54.0	-5.7	1.53 H	84	16.37	31.93
3	*2437.00	110.4 PK			1.53 H	84	78.28	32.12
4	*2437.00	100.3 AV			1.53 H	84	68.18	32.12
5	2484.84	69.7 PK	74.0	-4.3	1.53 H	84	37.46	32.24
6	2484.84	52.6 AV	54.0	-1.4	1.53 H	84	20.36	32.24
7	4874.00	49.3 PK	74.0	-24.7	1.03 H	39	9.60	39.70
8	4874.00	36.6 AV	54.0	-17.4	1.03 H	39	-3.10	39.70
9	7311.00	53.6 PK	74.0	-20.4	1.00 H	242	6.01	47.59
10	7311.00	41.3 AV	54.0	-12.7	1.00 H	242	-6.29	47.59
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	107.3 PK			1.39 V	305	75.18	32.12
2	*2437.00	97.4 AV			1.39 V	305	65.28	32.12
3	4874.00	51.3 PK	74.0	-22.7	1.13 V	33	11.60	39.70
4	4874.00	37.8 AV	54.0	-16.2	1.13 V	33	-1.90	39.70
5	7311.00	57.6 PK	74.0	-16.4	1.38 V	17	10.01	47.59
6	7311.00	42.2 AV	54.0	-11.8	1.38 V	17	-5.39	47.59

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	109.6 PK			1.56 H	88	77.42	32.18
2	*2462.00	99.2 AV			1.56 H	88	67.02	32.18
3	2483.50	67.6 PK	74.0	-6.4	1.56 H	88	35.36	32.24
4	2483.50	52.7 AV	54.0	-1.3	1.56 H	88	20.46	32.24
5	4924.00	49.0 PK	74.0	-25.0	1.07 H	37	9.16	39.84
6	4924.00	36.6 AV	54.0	-17.4	1.07 H	37	-3.24	39.84
7	7386.00	53.7 PK	74.0	-20.3	1.02 H	253	6.18	47.52
8	7386.00	41.5 AV	54.0	-12.5	1.02 H	253	-6.02	47.52
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	105.0 PK			1.40 V	302	72.82	32.18
2	*2462.00	94.9 AV			1.40 V	302	62.72	32.18
3	2483.50	63.5 PK	74.0	-10.5	1.40 V	302	31.26	32.24
4	2483.50	46.0 AV	54.0	-8.0	1.40 V	302	13.76	32.24
5	4924.00	51.1 PK	74.0	-22.9	1.13 V	49	11.26	39.84
6	4924.00	37.5 AV	54.0	-16.5	1.13 V	49	-2.34	39.84
7	7386.00	58.4 PK	74.0	-15.6	1.34 V	20	10.88	47.52
8	7386.00	42.7 AV	54.0	-11.3	1.34 V	20	-4.82	47.52

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	66.4 PK	74.0	-7.6	1.17 H	21	34.42	31.98
2	2390.00	52.7 AV	54.0	-1.3	1.17 H	21	20.72	31.98
3	*2412.00	115.7 PK			1.17 H	21	83.65	32.05
4	*2412.00	104.6 AV			1.17 H	21	72.55	32.05
5	4824.00	49.0 PK	74.0	-25.0	1.00 H	49	9.42	39.58
6	4824.00	36.4 AV	54.0	-17.6	1.00 H	49	-3.18	39.58
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	57.8 PK	74.0	-16.2	1.00 V	345	25.82	31.98
2	2390.00	45.4 AV	54.0	-8.6	1.00 V	345	13.42	31.98
3	*2412.00	105.7 PK			1.00 V	345	73.65	32.05
4	*2412.00	93.9 AV			1.00 V	345	61.85	32.05
5	4824.00	51.2 PK	74.0	-22.8	1.13 V	46	11.62	39.58
6	4824.00	37.4 AV	54.0	-16.6	1.13 V	46	-2.18	39.58

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	2349.60	65.0 PK	74.0	-9.0	1.21 H	0	33.18	31.82
2	2349.60	53.1 AV	54.0	-0.9	1.21 H	0	21.28	31.82
3	*2437.00	119.3 PK			1.16 H	5	87.18	32.12
4	*2437.00	107.9 AV			1.16 H	5	75.78	32.12
5	2500.00	65.1 PK	74.0	-8.9	1.10 H	3	32.82	32.28
6	**2500.00**	**53.3 AV**	**54.0**	**-0.7**	**1.10 H**	**3**	**21.02**	**32.28**
7	4874.00	49.5 PK	74.0	-24.5	1.04 H	37	9.80	39.70
8	4874.00	36.7 AV	54.0	-17.3	1.04 H	37	-3.00	39.70
9	7311.00	53.4 PK	74.0	-20.6	1.02 H	235	5.81	47.59
10	7311.00	41.4 AV	54.0	-12.6	1.02 H	235	-6.19	47.59
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	106.3 PK			1.28 V	298	74.18	32.12
2	*2437.00	93.8 AV			1.28 V	298	61.68	32.12
3	4874.00	51.2 PK	74.0	-22.8	1.15 V	37	11.50	39.70
4	4874.00	37.7 AV	54.0	-16.3	1.15 V	37	-2.00	39.70
5	7311.00	57.3 PK	74.0	-16.7	1.40 V	31	9.71	47.59
6	7311.00	42.1 AV	54.0	-11.9	1.40 V	31	-5.49	47.59

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	114.3 PK			1.12 H	7	82.12	32.18
2	*2462.00	103.1 AV			1.12 H	7	70.92	32.18
3	2500.00	65.0 PK	74.0	-9.0	1.12 H	7	32.72	32.28
4	2500.00	53.2 AV	54.0	-0.8	1.12 H	7	20.92	32.28
5	4924.00	48.9 PK	74.0	-25.1	1.00 H	61	9.06	39.84
6	4924.00	36.5 AV	54.0	-17.5	1.00 H	61	-3.34	39.84
7	7386.00	53.1 PK	74.0	-20.9	1.07 H	243	5.58	47.52
8	7386.00	41.3 AV	54.0	-12.7	1.07 H	243	-6.22	47.52
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	106.4 PK			1.30 V	294	74.22	32.18
2	*2462.00	93.9 AV			1.30 V	294	61.72	32.18
3	2483.50	57.9 PK	74.0	-16.1	1.30 V	294	25.66	32.24
4	2483.50	45.9 AV	54.0	-8.1	1.30 V	294	13.66	32.24
5	4924.00	51.9 PK	74.0	-22.1	1.19 V	29	12.06	39.84
6	4924.00	38.1 AV	54.0	-15.9	1.19 V	29	-1.74	39.84
7	7386.00	57.2 PK	74.0	-16.8	1.45 V	44	9.68	47.52
8	7386.00	41.9 AV	54.0	-12.1	1.45 V	44	-5.62	47.52

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	70.8 PK	74.0	-3.2	1.17 H	1	38.82	31.98
2	2390.00	52.9 AV	54.0	-1.1	1.17 H	1	20.92	31.98
3	*2422.00	111.2 PK			1.17 H	1	79.12	32.08
4	*2422.00	99.9 AV			1.17 H	1	67.82	32.08
5	4844.00	50.8 PK	74.0	-23.2	1.05 H	56	11.17	39.63
6	4844.00	37.5 AV	54.0	-16.5	1.05 H	56	-2.13	39.63
7	7266.00	57.4 PK	74.0	-16.6	1.01 H	255	9.80	47.60
8	7266.00	42.2 AV	54.0	-11.8	1.01 H	255	-5.40	47.60
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	2390.00	57.4 PK	74.0	-16.6	1.29 V	299	25.42	31.98
2	2390.00	45.5 AV	54.0	-8.5	1.29 V	299	13.52	31.98
3	*2422.00	102.4 PK			1.29 V	299	70.32	32.08
4	*2422.00	89.7 AV			1.29 V	299	57.62	32.08
5	4844.00	51.9 PK	74.0	-22.1	1.23 V	15	12.27	39.63
6	4844.00	38.3 AV	54.0	-15.7	1.23 V	15	-1.33	39.63
7	7266.00	57.0 PK	74.0	-17.0	1.49 V	54	9.40	47.60
8	7266.00	41.5 AV	54.0	-12.5	1.49 V	54	-6.10	47.60

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.

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	61.5 PK	74.0	-12.5	1.13 H	13	29.52	31.98
2	2390.00	49.7 AV	54.0	-4.3	1.13 H	13	17.72	31.98
3	*2437.00	112.1 PK			1.13 H	13	79.98	32.12
4	*2437.00	100.8 AV			1.13 H	13	68.68	32.12
5	2500.00	65.6 PK	74.0	-8.4	1.13 H	13	33.32	32.28
6	2500.00	53.1 AV	54.0	-0.9	1.13 H	13	20.82	32.28
7	4874.00	50.7 PK	74.0	-23.3	1.09 H	63	11.00	39.70
8	4874.00	37.4 AV	54.0	-16.6	1.09 H	63	-2.30	39.70
9	7311.00	56.9 PK	74.0	-17.1	1.05 H	266	9.31	47.59
10	7311.00	41.9 AV	54.0	-12.1	1.05 H	266	-5.69	47.59
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	102.6 PK			1.24 V	289	70.48	32.12
2	*2437.00	90.5 AV			1.24 V	289	58.38	32.12
3	4874.00	52.2 PK	74.0	-21.8	1.18 V	35	12.50	39.70
4	4874.00	38.6 AV	54.0	-15.4	1.18 V	35	-1.10	39.70
5	7311.00	56.9 PK	74.0	-17.1	1.48 V	38	9.31	47.59
6	7311.00	41.7 AV	54.0	-12.3	1.48 V	38	-5.89	47.59

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	109.4 PK			1.15 H	7	77.24	32.16
2	*2452.00	98.3 AV			1.15 H	7	66.14	32.16
3	2483.50	67.2 PK	74.0	-6.8	1.15 H	7	34.96	32.24
4	2483.50	52.8 AV	54.0	-1.2	1.15 H	7	20.56	32.24
5	4904.00	50.7 PK	74.0	-23.3	1.11 H	49	10.93	39.77
6	4904.00	37.4 AV	54.0	-16.6	1.11 H	49	-2.37	39.77
7	7356.00	57.2 PK	74.0	-16.8	1.04 H	253	9.65	47.55
8	7356.00	42.2 AV	54.0	-11.8	1.04 H	253	-5.35	47.55
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	101.8 PK			1.28 V	288	69.64	32.16
2	*2452.00	90.0 AV			1.28 V	288	57.84	32.16
3	2483.50	58.6 PK	74.0	-15.4	1.28 V	288	26.36	32.24
4	2483.50	45.6 AV	54.0	-8.4	1.28 V	288	13.36	32.24
5	4904.00	52.2 PK	74.0	-21.8	1.16 V	35	12.43	39.77
6	4904.00	38.4 AV	54.0	-15.6	1.16 V	35	-1.37	39.77
7	7356.00	57.3 PK	74.0	-16.7	1.49 V	55	9.75	47.55
8	7356.00	41.9 AV	54.0	-12.1	1.49 V	55	-5.65	47.55

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 band: 1 Watt (30dBm)

4.2.2 INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Power Meter Anritsu	ML2495A	0824006	May 10, 2012	May 09, 2013
Power Sensor Anritsu	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 : July 26, 2012

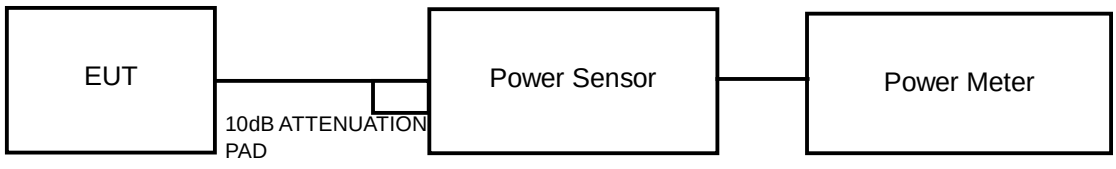
4.2.3 TEST PROCEDURES

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	26.303	14.20	30	PASS
6	2437	36.308	15.60	30	PASS
11	2462	25.119	14.00	30	PASS

802.11g

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
1	2412	602.560	27.80	30	PASS
6	2437	870.964	29.40	30	PASS
11	2462	562.341	27.50	30	PASS

802.11n (HT20)

CHAN.	FREQUENCY (MHz)	PEAK POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
1	2412	25.90	26.80	867.675	29.38	30	PASS
6	2437	26.10	27.00	908.567	29.58	30	PASS
11	2462	26.60	26.40	893.604	29.51	30	PASS

802.11n (HT40)

CHAN.	FREQUENCY (MHz)	PEAK POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
3	2422	25.60	26.40	799.594	29.03	30	PASS
6	2437	26.60	26.50	903.772	29.56	30	PASS
9	2452	25.40	25.30	685.581	28.36	30	PASS

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

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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