

Partial FCC Test Report

Report No.: RF200114C25-2

FCC ID: O57AX200NGW

Test Model: AX200NGW

Received Date: Jan. 14, 2020

Test Date: Jan. 26 ~ Feb. 20, 2020

Issued Date: Mar. 02, 2020

Applicant: Lenovo(Shanghai) Electronics Technology Co., Ltd.

Address: Section 304-305, Building No.4, #222, Meiyue Road, China(Shanghai) Pilot Free Trade Zone ,Shanghai 200131 , China

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lin Kou Laboratories

Lab Address: No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan

Test Location: No.19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City
33383, Taiwan

**FCC Registration /
Designation Number:** 788550 / TW0003



This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification. The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.

Table of Contents

Release Control Record	3
1 Certificate of Conformity	4
2 Summary of Test Results.....	5
2.1 Measurement Uncertainty.....	5
2.2 Modification Record	5
3 General Information	6
3.1 General Description of EUT	6
3.2 Description of Test Modes.....	8
3.2.1 Test Mode Applicability and Tested Channel Detail.....	9
3.3 Description of Support Units	11
3.3.1 Configuration of System under Test	11
3.4 General Description of Applied Standards.....	11
4 Test Types and Results	12
4.1 Radiated Emission and Bandedge Measurement	12
4.1.1 Limits of Radiated Emission and Bandedge Measurement	12
4.1.2 Test Instruments	13
4.1.3 Test Procedures.....	14
4.1.4 Deviation from Test Standard	15
4.1.5 Test Set Up	15
4.1.6 EUT Operating Conditions.....	16
4.1.7 Test Results	17
4.2 Conducted Emission Measurement.....	61
4.2.1 Limits of Conducted Emission Measurement	61
4.2.2 Test Instruments	61
4.2.3 Test Procedures.....	62
4.2.4 Deviation from Test Standard	62
4.2.5 Test Setup.....	62
4.2.6 EUT Operating Conditions.....	62
4.2.7 Test Results	63
4.3 Conducted Output Power Measurement	67
4.3.1 Limits of Conducted Output Power Measurement.....	67
4.3.2 Test Setup.....	67
4.3.3 Test Instruments	67
4.3.4 Test Procedures.....	67
4.3.5 Deviation from Test Standard	67
4.3.6 EUT Operating Conditions.....	67
4.3.7 Test Results	68
5 Pictures of Test Arrangements.....	71
Appendix – Information of the Testing Laboratories	72

Release Control Record

Issue No.	Description	Date Issued
RF200114C25-2	Original Release	Mar. 02, 2020

1 Certificate of Conformity

Product: WLAN and BT , 2x2 Pcle M.2 2230 adapter card

Brand: Intel® Wi-Fi 6 AX200

Test Model: AX200NGW

Sample Status: Engineering Sample

Applicant: Lenovo(Shanghai) Electronics Technology Co., Ltd.

Test Date: Jan. 26 ~ Feb. 20, 2020

Standards: 47 CFR FCC Part 15, Subpart C (Section 15.247)
ANSI C63.10:2013

The above equipment 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 RF characteristics under the conditions specified in this report.

Prepared by :  , **Date:** Mar. 02, 2020
Gina Liu / Specialist

Approved by :  , **Date:** Mar. 02, 2020
Dylan Chiou / Senior Project Engineer

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247)			
FCC Clause	Test Item	Result	Remarks
15.207	AC Power Conducted Emission	Pass	Meet the requirement of limit. Minimum passing margin is -7.06 dB at 0.52927 MHz.
15.205 / 15.209 / 15.247(d)	Radiated Emissions and Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -1.6 dB at 2390.00 MHz.
15.247(d)	Antenna Port Emission	N/A	Refer to Note
15.247(a)(2)	6 dB Bandwidth	N/A	Refer to Note
---	Occupied Bandwidth Measurement	N/A	Refer to Note
15.247(b)	Conducted power	Pass	Meet the requirement of limit.
15.247(e)	Power Spectral Density	N/A	Refer to Note
15.203	Antenna Requirement	Pass	Antenna connector is I-PEX not a standard connector.

Note:

1. This report is a partial report, only test item of Conducted Emission, Radiated Emissions and Maximum Peak Output Power were performed for this report. Other testing data please refer to Intel report no.: 181210-03.TR04 for module (Brand: Intel® Wi-Fi 6 AX200 , Model: AX200NGW).
2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

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	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150 kHz ~ 30 MHz	2.79 dB
Radiated Emissions up to 1 GHz	9 kHz ~ 30 MHz	3.04 dB
	30 MHz ~ 200 MHz	2.93 dB
	200 MHz ~ 1000 MHz	2.95 dB
Radiated Emissions above 1 GHz	1 GHz ~ 18 GHz	2.26 dB
	18 GHz ~ 40 GHz	1.94 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	WLAN and BT , 2x2 Pcle M.2 2230 adapter card
Brand	Intel® Wi-Fi 6 AX200
Test Model	AX200NGW
Status of EUT	Engineering Sample
Nominal Voltage	3.3Vdc form host equipment
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 1024QAM for OFDMA
Modulation Technology	DSSS, OFDM, OFDMA
Transfer Rate	802.11b: 11.0 / 5.5 / 2.0 / 1.0 Mbps 802.11g: 54.0 / 48.0 / 36.0 / 24.0 / 18.0 / 12.0 / 9.0 / 6.0 Mbps 802.11n: up to 300.0 Mbps 802.11ax: up to 573.5 Mbps
Operating Frequency	2412 ~ 2472 MHz
Number of Channel	13 for 802.11b, 802.11g, 802.11n (HT20), 802.11ax (HE20) 9 for 802.11n (HT40), 802.11ax (HE40)
Output Power	236.048 mW
Antenna Type	Refer to Note as below
Antenna Connector	Refer to Note as below
Accessory Device	N/A
Data Cable Supplied	N/A

Note:

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

Modulation Mode	Tx Function
802.11b	1TX
802.11g	1TX
802.11n (HT20)	2TX
802.11n (HT40)	2TX
802.11ax (HE20)	2TX
802.11ax (HE40)	2TX

* The modulation and bandwidth are similar for 802.11n mode for HT20 / HT40 and 802.11ax mode for HE20 / HE40, therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.2.1)

- The EUT is authorized for use in specific End-product. Please refer to below table for more details.

Product	Brand	Model	Description
Notebook Computer	Lenovo	IdeaPad 5 14ARE05*****	All models are electrically identical, different models are for marketing purpose.
		81YM*****	

Note: *=0~9,A-Z,a-z,"-" or blank, for marketing use only, with no impact on RF compliance of the product.

- The EUT contains two SKU listed as below.

SKU	Description
1	Metal Case SKU
2	Plastic Case SKU

4. The antenna information is listed as below.

Antenna Type	SKU	Manufacturer	Parts Number	Antenna Gain (dBi)				Connector
				BT/WLAN 2.4GHz	WLAN 5.15~5.35 GHz	WLAN 5.47~5.72 5 GHz	WLAN 5.725~5.85 GHz	
PIFA	Metal	YAGEO Corporation	Main Antenna: ANTA0LC13691WLAN1 (DC33002E100)	0.32	-0.56	-1.08	-0.33	I-PEX
			Aux. Antenna: ANTA0LC13691WLAN2 (DC33002E110)	0.11	-2.98	-0.44	1.07	
	Plastic	YAGEO Corporation	Main Antenna: ANTA0LC13691WLAN3 (DC33002E120)	0.46	0.06	-0.67	0.52	
			Aux. Antenna: ANTA0LC13691WLAN4 (DC33002E130)	0.29	-2.34	0.1	1.41	
	Metal	High-Tek Electronics Co., Ltd	Main Antenna: 0ACCN019005N (DC33002E000)	-0.76	-1.70	-0.82	-0.82	
			Aux. Antenna: 0ACCN019006N (DC33002E010)	-2.97	-1.92	0.39	1.64	
	Plastic	High-Tek Electronics Co., Ltd	Main Antenna: 0ACCN019007N (DC33002E020)	0.61	0.86	0.35	0.99	
			Aux. Antenna: 0ACCN019008N (DC33002E030)	0.60	-1.77	0.74	1.84	

* Only the antenna which has the maximum gain was chosen as a representative for the final test.

5. The following accessories were for the End-product.

Product	Brand	Model	Description
Adapter 1	Lenovo	ADLX65YCC3A	I/P: 100-240 Vac, 50-60 Hz, 1.8 A O/P: 20 Vdc, 3.25 A
Adapter 2	Lenovo	ADLX65YAC3D	I/P: 100-240 Vac, 50-60 Hz, 1.8 A O/P: 20 Vdc, 3.25 A
Adapter 3	Lenovo	ADLX65NCC3A	I/P: 100-240 Vac, 50-60 Hz, 1.8 A O/P: 20 Vdc, 3.25 A
Battery 1	Lenovo	L19M3PF4	11.52 Vdc, 4840 mAh, 55 Wh
Battery 2	Lenovo	L19M3PF3	11.1 Vdc, 3950 mAh, 43.5 Wh

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

3.2 Description of Test Modes

13 channels are provided for 802.11b, 802.11g and 802.11n (HT20), 802.11ax (HE20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	8	2447
2	2417	9	2452
3	2422	10	2457
4	2427	11	2462
5	2432	12	2467
6	2437	13	2472
7	2442		

9 channels are provided for 802.11n (HT40), 802.11ax (HE40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
3	2422	8	2447
4	2427	9	2452
5	2432	10	2457
6	2437	11	2462
7	2442		

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable To				Description
	RE \geq 1G	RE<1G	PLC	Power	
A	√	√	√	√	SKU 1 + Battery 1
B	√	√	-	-	SKU 2 + Battery 2

Where **RE \geq 1G**: Radiated Emission above 1 GHz **RE<1G**: Radiated Emission below 1 GHz
PLC: Power Line Conducted Emission **Power**: Maximum Output Power Measurement

Note: “-” means no effect.

Note: For radiated emission (below 1GHz) and power line conducted emission test items chosen the worst maximum fundamental emission level channel

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.

EUT Configure Mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
A, B	802.11b	1 to 13	1, 6, 11, 12, 13	DSSS	DBPSK	1.0
	802.11g	1 to 13	1, 6, 11, 12, 13	OFDM	BPSK	6.0
	802.11ax (HE20)	1 to 13	1, 6, 11, 12, 13	OFDMA	BPSK	MCS0
	802.11ax (HE40)	3 to 11	3, 6, 9, 10, 11	OFDMA	BPSK	MCS0

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.

EUT Configure Mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
A	802.11g	1 to 13	6	OFDM	BPSK	6.0
B	802.11g	1 to 13	6	OFDM	BPSK	6.0

Power Line Conducted Emission Test:

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

EUT Configure Mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
A, B	802.11g	1 to 13	6	OFDM	BPSK	6.0

Maximum Output Power Measurement:

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

EUT Configure Mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
A	802.11b	1 to 13	1, 6, 11, 12, 13	DSSS	DBPSK	1.0
	802.11g	1 to 13	1, 6, 11, 12, 13	OFDM	BPSK	6.0
	802.11n (HT20)	1 to 13	1, 6, 11, 12, 13	OFDM	BPSK	6.5
	802.11n (HT40)	3 to 11	3, 6, 9, 10, 11	OFDM	BPSK	13.5
	802.11ax (HE20)	1 to 13	1, 6, 11, 12, 13	OFDMA	BPSK	MCS0
	802.11ax (HE40)	3 to 11	3, 6, 9, 10, 11	OFDMA	BPSK	MCS0

Test Condition:

Applicable To	Environmental Conditions	Input Power	Tested by
RE≥1G	25 deg. C, 65 % RH	120 Vac, 60 Hz	Titan Hsu
RE<1G	25 deg. C, 65 % RH	120 Vac, 60 Hz	Titan Hsu
PLC	25 deg. C, 65 % RH	120 Vac, 60 Hz	Titan Hsu
Power	25 deg. C, 65 % RH	120 Vac, 60 Hz	Titan Hsu

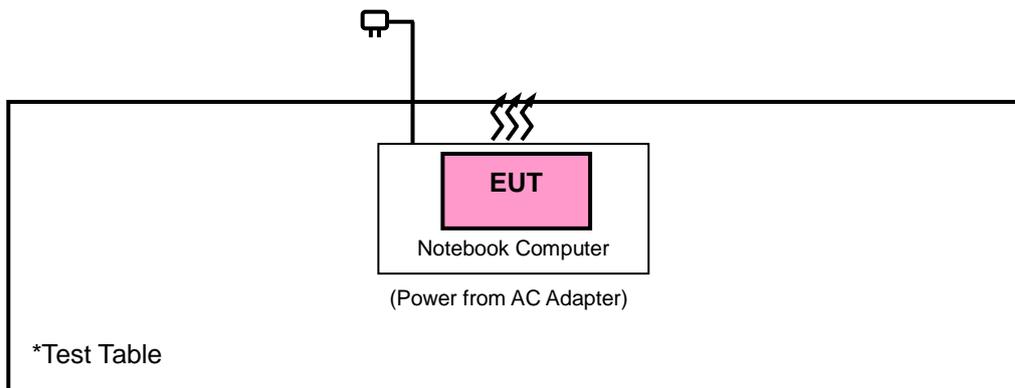
3.3 Description of Support Units

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

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
1.	Notebook Computer	Lenovo	IdeaPad 5 14ARE05***** , 81YM*****	NA	NA	-
2.	Adapter	Lenovo	ADLX65NCC3A	NA	NA	-

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

3.3.1 Configuration of System under Test



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 and references:

Test Standard:

FCC Part 15, Subpart C (15.247)

ANSI C63.10-2013

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

References Test Guidance:

KDB 558074 D01 Meas Guidance v05r02

KDB 662911 D01 Multiple Transmitter Output v02r01

All test items have been performed as a reference to the above KDB test guidance.

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 20 dB 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 1000 MHz, 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 20 dB under any condition of modulation.

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver ROHDE & SCHWARZ	ESIB7	100187	May 30, 2019	May 29, 2020
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100269	Jun. 10, 2019	Jun. 09, 2020
BILOG Antenna SCHWARZBECK	VULB9168	9168-171	Nov. 11, 2019	Nov. 10, 2020
HORN Antenna SCHWARZBECK	9120D	209	Nov. 24, 2019	Nov. 23, 2020
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Nov. 24, 2019	Nov. 23, 2020
Loop Antenna TESEQ	HLA 6121	45745	Jul. 01, 2019	Jun. 30, 2020
Preamplifier Agilent (Below 1GHz)	8447D	2944A10738	Aug. 20, 2019	Aug. 19, 2020
Preamplifier Agilent (Above 1GHz)	8449B	3008A02465	Mar. 27, 2019	Mar. 26, 2020
RF Coaxial Cable WOKEN With 5dB PAD	8D-FB	Cable-CH3-01	Aug. 20, 2019	Aug. 19, 2020
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH3-03 (223653/4)	Aug. 20, 2019	Aug. 19, 2020
RF signal cable HUBER+SUHNER& EMCI	SUCOFLEX 104&EMC104-SM- SM-8000	Cable-CH3-03 (309224+170907)	Aug. 20, 2019	Aug. 19, 2020
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021702	NA	NA
Turn Table BV ADT	TT100	TT93021702	NA	NA
Turn Table Controller BV ADT	SC100	SC93021702	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
USB Wideband Power Sensor KEYSIGHT	U2021XA	MY55050005/MY55 190004/MY551900 07/MY55210005	Jul. 15, 2019	Jul. 14, 2020

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 3.

4.1.3 Test Procedures

For Radiated Emission below 30 MHz

- 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. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case 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.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz at frequency below 30 MHz.

For Radiated Emission above 30 MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30 MHz ~ 1 GHz) / 1.5 meters (for above 1 GHz) above the ground at 3 meter chamber room for test. 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 detected 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:

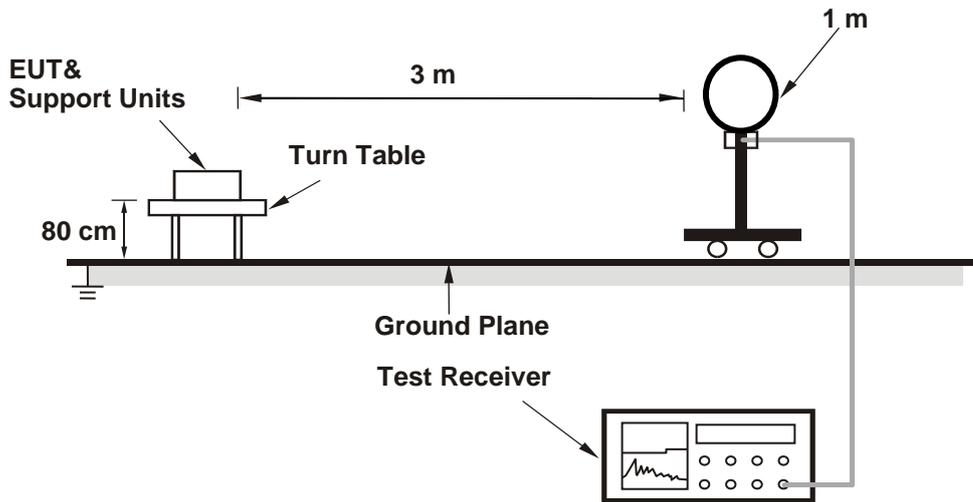
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) or Peak detection (PK) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1 GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is $\geq 1/T$ (Duty cycle < 98 %) or 10 Hz (Duty cycle \geq 98 %) for Average detection (AV) at frequency above 1 GHz.
(11b: RBW = 1 MHz, VBW = 1 kHz ; 11g: RBW = 1 MHz, VBW = 1 kHz ;
11ax (HE20): RBW = 1 MHz, VBW = 1 kHz ; 11ax (HE40): RBW = 1 MHz, VBW = 3 kHz)
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

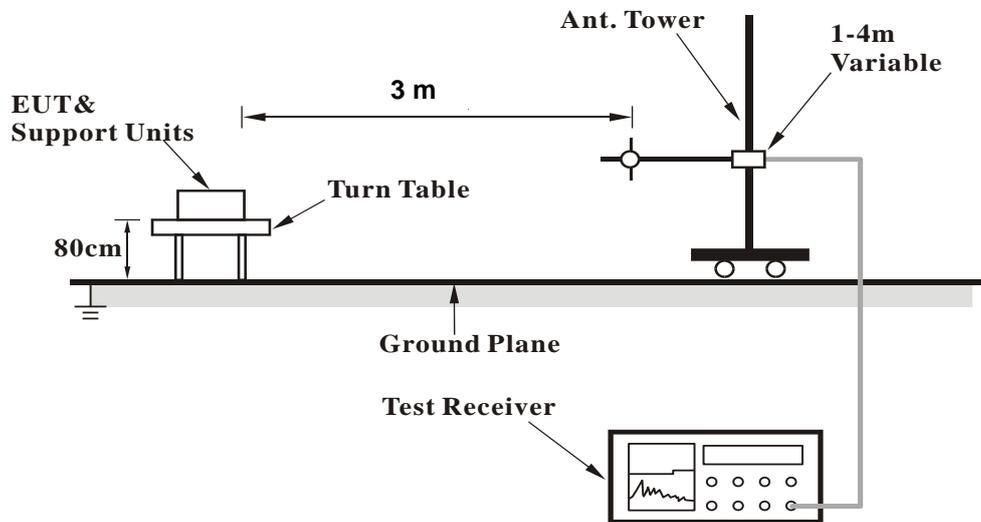
No deviation.

4.1.5 Test Set Up

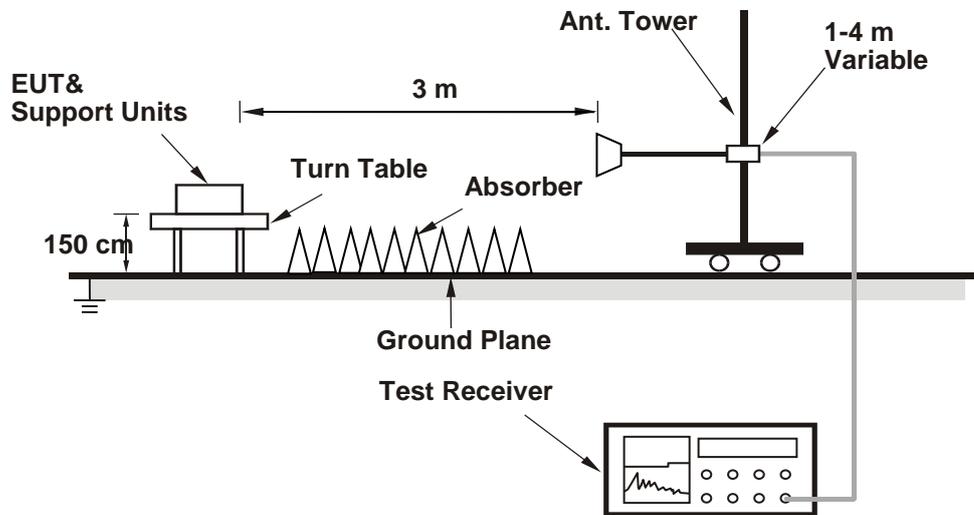
<Radiated Emission below 30 MHz>



<Radiated Emission 30 MHz to 1 GHz>



<Radiated Emission above 1 GHz>



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

4.1.6 EUT Operating Conditions

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

4.1.7 Test Results

ABOVE 1GHz DATA

Mode A

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	2390.00	60.9 PK	74.0	-13.1	1.55 H	270	28.6	32.3
2	2390.00	52.4 AV	54.0	-1.6	1.55 H	270	20.1	32.3
3	*2412.00	103.4 PK			1.49 H	272	71.1	32.3
4	*2412.00	99.7 AV			1.49 H	272	67.4	32.3
5	4824.00	45.9 PK	74.0	-28.1	1.82 H	94	42.5	3.4
6	4824.00	35.2 AV	54.0	-18.8	1.82 H	94	31.8	3.4

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	59.8 PK	74.0	-14.2	1.37 V	137	27.5	32.3
2	2390.00	50.0 AV	54.0	-4.0	1.37 V	137	17.7	32.3
3	*2412.00	101.9 PK			1.44 V	142	69.6	32.3
4	*2412.00	98.1 AV			1.44 V	142	65.8	32.3
5	4824.00	46.2 PK	74.0	-27.8	1.12 V	145	42.8	3.4
6	4824.00	36.5 AV	54.0	-17.5	1.12 V	145	33.1	3.4

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	104.2 PK			1.56 H	273	71.9	32.3
2	*2437.00	100.5 AV			1.56 H	273	68.2	32.3
3	4874.00	47.1 PK	74.0	-26.9	1.68 H	95	43.4	3.7
4	4874.00	35.6 AV	54.0	-18.4	1.68 H	95	31.9	3.7

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	102.3 PK			1.53 V	136	70.0	32.3
2	*2437.00	98.6 AV			1.53 V	136	66.3	32.3
3	4874.00	46.8 PK	74.0	-27.2	1.65 V	136	43.1	3.7
4	4874.00	35.6 AV	54.0	-18.4	1.65 V	136	31.9	3.7

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	102.4 PK			1.46 H	275	70.0	32.4
2	*2462.00	98.8 AV			1.46 H	275	66.4	32.4
3	2483.50	58.9 PK	74.0	-15.1	1.49 H	277	26.5	32.4
4	2483.50	47.1 AV	54.0	-6.9	1.49 H	277	14.7	32.4
5	4924.00	46.6 PK	74.0	-27.4	1.66 H	93	42.8	3.8
6	4924.00	35.1 AV	54.0	-18.9	1.66 H	93	31.3	3.8

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	100.1 PK			1.43 V	133	67.7	32.4
2	*2462.00	96.5 AV			1.43 V	133	64.1	32.4
3	2483.50	58.8 PK	74.0	-15.2	1.45 V	136	26.4	32.4
4	2483.50	47.0 AV	54.0	-7.0	1.45 V	136	14.6	32.4
5	4924.00	47.2 PK	74.0	-26.8	1.62 V	131	43.4	3.8
6	4924.00	35.4 AV	54.0	-18.6	1.62 V	131	31.6	3.8

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 12	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	*2467.00	101.6 PK			1.48 H	273	69.2	32.4
2	*2467.00	97.9 AV			1.48 H	273	65.5	32.4
3	2483.50	59.0 PK	74.0	-15.0	1.50 H	275	26.6	32.4
4	2483.50	47.1 AV	54.0	-6.9	1.50 H	275	14.7	32.4
5	4934.00	47.3 PK	74.0	-26.7	1.48 H	78	43.3	4.0
6	4934.00	34.6 AV	54.0	-19.4	1.48 H	78	30.6	4.0

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	*2467.00	99.8 PK			1.73 V	130	67.4	32.4
2	*2467.00	96.3 AV			1.73 V	130	63.9	32.4
3	2483.50	58.9 PK	74.0	-15.1	1.75 V	132	26.5	32.4
4	2483.50	46.9 AV	54.0	-7.1	1.75 V	132	14.5	32.4
5	4934.00	47.0 PK	74.0	-27.0	1.67 V	129	43.0	4.0
6	4934.00	34.4 AV	54.0	-19.6	1.67 V	129	30.4	4.0

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 13	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	*2472.00	98.5 PK			1.47 H	275	66.1	32.4
2	*2472.00	94.9 AV			1.47 H	275	62.5	32.4
3	2483.50	59.1 PK	74.0	-14.9	1.50 H	277	26.7	32.4
4	2483.50	47.6 AV	54.0	-6.4	1.50 H	277	15.2	32.4
5	4944.00	47.1 PK	74.0	-26.9	1.68 H	93	43.1	4.0
6	4944.00	34.1 AV	54.0	-19.9	1.68 H	93	30.1	4.0

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	*2472.00	96.9 PK			1.32 V	132	64.5	32.4
2	*2472.00	93.2 AV			1.32 V	132	60.8	32.4
3	2483.50	58.9 PK	74.0	-15.1	1.35 V	139	26.5	32.4
4	2483.50	47.4 AV	54.0	-6.6	1.35 V	139	15.0	32.4
5	4944.00	46.3 PK	74.0	-27.7	1.52 V	136	42.3	4.0
6	4944.00	33.7 AV	54.0	-20.3	1.52 V	136	29.7	4.0

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	65.7 PK	74.0	-8.3	1.58 H	269	33.4	32.3
2	2390.00	49.8 AV	54.0	-4.2	1.58 H	269	17.5	32.3
3	*2412.00	103.7 PK			1.29 H	273	71.4	32.3
4	*2412.00	92.8 AV			1.29 H	273	60.5	32.3
5	4824.00	45.8 PK	74.0	-28.2	1.56 H	292	42.4	3.4
6	4824.00	32.6 AV	54.0	-21.4	1.56 H	292	29.2	3.4

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	59.8 PK	74.0	-14.2	1.36 V	132	27.5	32.3
2	2390.00	48.0 AV	54.0	-6.0	1.36 V	132	15.7	32.3
3	*2412.00	100.6 PK			1.34 V	129	68.3	32.3
4	*2412.00	90.8 AV			1.34 V	129	58.5	32.3
5	4824.00	45.9 PK	74.0	-28.1	2.02 V	301	42.5	3.4
6	4824.00	32.9 AV	54.0	-21.1	2.02 V	301	29.5	3.4

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	105.9 PK			1.27 H	277	73.6	32.3
2	*2437.00	95.5 AV			1.27 H	277	63.2	32.3
3	4874.00	46.3 PK	74.0	-27.7	1.53 H	289	42.6	3.7
4	4874.00	33.2 AV	54.0	-20.8	1.53 H	289	29.5	3.7

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	105.0 PK			1.35 V	138	72.7	32.3
2	*2437.00	94.1 AV			1.35 V	138	61.8	32.3
3	4874.00	46.2 PK	74.0	-27.8	1.93 V	293	42.5	3.7
4	4874.00	33.1 AV	54.0	-20.9	1.93 V	293	29.4	3.7

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	102.5 PK			1.26 H	275	70.1	32.4
2	*2462.00	91.3 AV			1.26 H	275	58.9	32.4
3	2483.50	59.0 PK	74.0	-15.0	1.29 H	277	26.6	32.4
4	2483.50	47.0 AV	54.0	-7.0	1.29 H	277	14.6	32.4
5	4924.00	46.4 PK	74.0	-27.6	1.63 H	299	42.6	3.8
6	4924.00	33.3 AV	54.0	-20.7	1.63 H	299	29.5	3.8

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	100.7 PK			1.26 V	133	68.3	32.4
2	*2462.00	90.8 AV			1.26 V	133	58.4	32.4
3	2483.50	58.7 PK	74.0	-15.3	1.30 V	135	26.3	32.4
4	2483.50	46.9 AV	54.0	-7.1	1.30 V	135	14.5	32.4
5	4924.00	46.3 PK	74.0	-27.7	1.98 V	289	42.5	3.8
6	4924.00	33.1 AV	54.0	-20.9	1.98 V	289	29.3	3.8

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 12	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	*2467.00	99.5 PK			1.25 H	274	67.1	32.4
2	*2467.00	89.1 AV			1.25 H	274	56.7	32.4
3	2483.50	59.1 PK	74.0	-14.9	1.27 H	277	26.7	32.4
4	2483.50	47.4 AV	54.0	-6.6	1.27 H	277	15.0	32.4
5	4934.00	46.5 PK	74.0	-27.5	1.48 H	296	42.5	4.0
6	4934.00	33.5 AV	54.0	-20.5	1.48 H	296	29.5	4.0

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	*2467.00	98.0 PK			1.28 V	136	65.6	32.4
2	*2467.00	88.0 AV			1.28 V	136	55.6	32.4
3	2483.50	58.9 PK	74.0	-15.1	1.30 V	135	26.5	32.4
4	2483.50	47.3 AV	54.0	-6.7	1.30 V	135	14.9	32.4
5	4934.00	46.6 PK	74.0	-27.4	2.08 V	311	42.6	4.0
6	4934.00	33.4 AV	54.0	-20.6	2.08 V	311	29.4	4.0

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 13	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	*2472.00	98.3 PK			1.48 H	274	65.9	32.4
2	*2472.00	87.6 AV			1.48 H	274	55.2	32.4
3	2483.50	58.9 PK	74.0	-15.1	1.51 H	275	26.5	32.4
4	2483.50	47.4 AV	54.0	-6.6	1.51 H	275	15.0	32.4
5	4944.00	46.6 PK	74.0	-27.4	1.47 H	289	42.6	4.0
6	4944.00	33.6 AV	54.0	-20.4	1.47 H	289	29.6	4.0

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	*2472.00	96.5 PK			1.27 V	133	64.1	32.4
2	*2472.00	86.1 AV			1.27 V	133	53.7	32.4
3	2483.50	58.7 PK	74.0	-15.3	1.30 V	134	26.3	32.4
4	2483.50	47.3 AV	54.0	-6.7	1.30 V	134	14.9	32.4
5	4944.00	46.5 PK	74.0	-27.5	1.99 V	305	42.5	4.0
6	4944.00	33.4 AV	54.0	-20.6	1.99 V	305	29.4	4.0

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

802.11ax (HE20)

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	59.6 PK	74.0	-14.4	1.91 H	275	27.3	32.3
2	2390.00	47.8 AV	54.0	-6.2	1.91 H	275	15.5	32.3
3	*2412.00	100.9 PK			1.89 H	273	68.6	32.3
4	*2412.00	88.1 AV			1.89 H	273	55.8	32.3
5	4824.00	45.9 PK	74.0	-28.1	1.45 H	293	42.5	3.4
6	4824.00	32.9 AV	54.0	-21.1	1.45 H	293	29.5	3.4

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	1.46 V	231	27.1	32.3
2	2390.00	47.3 AV	54.0	-6.7	1.46 V	231	15.0	32.3
3	*2412.00	100.5 PK			1.44 V	227	68.2	32.3
4	*2412.00	87.9 AV			1.44 V	227	55.6	32.3
5	4824.00	45.8 PK	74.0	-28.2	1.93 V	293	42.4	3.4
6	4824.00	32.8 AV	54.0	-21.2	1.93 V	293	29.4	3.4

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	102.9 PK			1.83 H	275	70.6	32.3
2	*2437.00	89.9 AV			1.83 H	275	57.6	32.3
3	4874.00	46.1 PK	74.0	-27.9	1.53 H	302	42.4	3.7
4	4874.00	33.1 AV	54.0	-20.9	1.53 H	302	29.4	3.7

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			1.53 V	216	69.3	32.3
2	*2437.00	88.9 AV			1.53 V	216	56.6	32.3
3	4874.00	46.5 PK	74.0	-27.5	2.13 V	315	42.8	3.7
4	4874.00	33.3 AV	54.0	-20.7	2.13 V	315	29.6	3.7

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	99.8 PK			1.83 H	274	67.4	32.4
2	*2462.00	87.3 AV			1.83 H	274	54.9	32.4
3	2483.50	58.9 PK	74.0	-15.1	1.85 H	276	26.5	32.4
4	2483.50	47.0 AV	54.0	-7.0	1.85 H	276	14.6	32.4
5	4924.00	46.2 PK	74.0	-27.8	1.60 H	303	42.4	3.8
6	4924.00	33.1 AV	54.0	-20.9	1.60 H	303	29.3	3.8

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	99.4 PK			1.47 V	227	67.0	32.4
2	*2462.00	86.9 AV			1.47 V	227	54.5	32.4
3	2483.50	59.1 PK	74.0	-14.9	1.51 V	233	26.7	32.4
4	2483.50	47.2 AV	54.0	-6.8	1.51 V	233	14.8	32.4
5	4924.00	46.3 PK	74.0	-27.7	2.13 V	312	42.5	3.8
6	4924.00	33.3 AV	54.0	-20.7	2.13 V	312	29.5	3.8

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 12	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	*2467.00	97.1 PK			1.84 H	274	64.7	32.4
2	*2467.00	84.4 AV			1.84 H	274	52.0	32.4
3	2483.50	58.8 PK	74.0	-15.2	1.85 H	273	26.4	32.4
4	2483.50	47.2 AV	54.0	-6.8	1.85 H	273	14.8	32.4
5	4934.00	46.7 PK	74.0	-27.3	1.59 H	303	42.7	4.0
6	4934.00	33.6 AV	54.0	-20.4	1.59 H	303	29.6	4.0

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	*2467.00	96.4 PK			1.47 V	230	64.0	32.4
2	*2467.00	84.2 AV			1.47 V	230	51.8	32.4
3	2483.50	58.9 PK	74.0	-15.1	1.50 V	233	26.5	32.4
4	2483.50	47.0 AV	54.0	-7.0	1.50 V	233	14.6	32.4
5	4934.00	46.3 PK	74.0	-27.7	2.13 V	306	42.3	4.0
6	4934.00	33.5 AV	54.0	-20.5	2.13 V	306	29.5	4.0

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 13	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	*2472.00	94.0 PK			1.80 H	274	61.6	32.4
2	*2472.00	81.3 AV			1.80 H	274	48.9	32.4
3	2483.50	59.4 PK	74.0	-14.6	1.82 H	275	27.0	32.4
4	2483.50	47.4 AV	54.0	-6.6	1.82 H	275	15.0	32.4
5	4944.00	46.5 PK	74.0	-27.5	1.55 H	298	42.5	4.0
6	4944.00	33.6 AV	54.0	-20.4	1.55 H	298	29.6	4.0

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	*2472.00	93.1 PK			1.44 V	226	60.7	32.4
2	*2472.00	81.1 AV			1.44 V	226	48.7	32.4
3	2483.50	59.2 PK	74.0	-14.8	1.46 V	230	26.8	32.4
4	2483.50	47.2 AV	54.0	-6.8	1.46 V	230	14.8	32.4
5	4944.00	46.5 PK	74.0	-27.5	2.01 V	302	42.5	4.0
6	4944.00	33.5 AV	54.0	-20.5	2.01 V	302	29.5	4.0

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

802.11ax (HE40)

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	59.1 PK	74.0	-14.9	1.28 H	272	26.8	32.3
2	2390.00	46.9 AV	54.0	-7.1	1.28 H	272	14.6	32.3
3	*2422.00	97.6 PK			1.26 H	271	65.3	32.3
4	*2422.00	85.1 AV			1.26 H	271	52.8	32.3
5	4844.00	46.0 PK	74.0	-28.0	1.49 H	292	42.5	3.5
6	4844.00	32.8 AV	54.0	-21.2	1.49 H	292	29.3	3.5

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	58.8 PK	74.0	-15.2	1.10 V	235	26.5	32.3
2	2390.00	46.8 AV	54.0	-7.2	1.10 V	235	14.5	32.3
3	*2422.00	96.5 PK			1.06 V	231	64.2	32.3
4	*2422.00	84.8 AV			1.06 V	231	52.5	32.3
5	4844.00	46.0 PK	74.0	-28.0	2.01 V	311	42.5	3.5
6	4844.00	32.9 AV	54.0	-21.1	2.01 V	311	29.4	3.5

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	59.1 PK	74.0	-14.9	1.30 H	276	26.8	32.3
2	2390.00	46.9 AV	54.0	-7.1	1.30 H	276	14.6	32.3
3	*2437.00	98.6 PK			1.27 H	273	66.3	32.3
4	*2437.00	85.3 AV			1.27 H	273	53.0	32.3
5	4874.00	46.2 PK	74.0	-27.8	1.55 H	304	42.5	3.7
6	4874.00	33.2 AV	54.0	-20.8	1.55 H	304	29.5	3.7

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	58.8 PK	74.0	-15.2	1.48 V	230	26.5	32.3
2	2390.00	47.1 AV	54.0	-6.9	1.48 V	230	14.8	32.3
3	*2437.00	96.4 PK			1.46 V	227	64.1	32.3
4	*2437.00	84.4 AV			1.46 V	227	52.1	32.3
5	4874.00	46.2 PK	74.0	-27.8	1.88 V	305	42.5	3.7
6	4874.00	33.2 AV	54.0	-20.8	1.88 V	305	29.5	3.7

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	97.2 PK			1.27 H	272	64.8	32.4
2	*2452.00	84.9 AV			1.27 H	272	52.5	32.4
3	2483.50	59.4 PK	74.0	-14.6	1.30 H	273	27.0	32.4
4	2483.50	47.4 AV	54.0	-6.6	1.30 H	273	15.0	32.4
5	4904.00	46.2 PK	74.0	-27.8	1.48 H	293	42.5	3.7
6	4904.00	33.1 AV	54.0	-20.9	1.48 H	293	29.4	3.7

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	95.8 PK			1.47 V	226	63.4	32.4
2	*2452.00	83.9 AV			1.47 V	226	51.5	32.4
3	2483.50	59.2 PK	74.0	-14.8	1.50 V	230	26.8	32.4
4	2483.50	47.2 AV	54.0	-6.8	1.50 V	230	14.8	32.4
5	4904.00	46.2 PK	74.0	-27.8	1.86 V	305	42.5	3.7
6	4904.00	33.2 AV	54.0	-20.8	1.86 V	305	29.5	3.7

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 10	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	*2457.00	93.4 PK			1.83 H	275	61.0	32.4
2	*2457.00	80.3 AV			1.83 H	275	47.9	32.4
3	2483.50	59.2 PK	74.0	-14.8	1.85 H	277	26.8	32.4
4	2483.50	47.4 AV	54.0	-6.6	1.85 H	277	15.0	32.4
5	4914.00	46.3 PK	74.0	-27.7	1.53 H	302	42.5	3.8
6	4914.00	33.3 AV	54.0	-20.7	1.53 H	302	29.5	3.8

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	*2457.00	91.8 PK			1.40 V	230	59.4	32.4
2	*2457.00	79.1 AV			1.40 V	230	46.7	32.4
3	2483.50	58.9 PK	74.0	-15.1	1.42 V	232	26.5	32.4
4	2483.50	47.0 AV	54.0	-7.0	1.42 V	232	14.6	32.4
5	4924.00	46.4 PK	74.0	-27.6	1.92 V	305	42.6	3.8
6	4924.00	33.6 AV	54.0	-20.4	1.92 V	305	29.8	3.8

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	93.1 PK			1.83 H	275	60.7	32.4
2	*2462.00	80.6 AV			1.83 H	275	48.2	32.4
3	2483.50	59.1 PK	74.0	-14.9	1.85 H	278	26.7	32.4
4	2483.50	47.0 AV	54.0	-7.0	1.85 H	278	14.6	32.4
5	4924.00	46.3 PK	74.0	-27.7	1.55 H	302	42.5	3.8
6	4924.00	33.1 AV	54.0	-20.9	1.55 H	302	29.3	3.8

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	92.9 PK			1.39 V	230	60.5	32.4
2	*2462.00	80.4 AV			1.39 V	230	48.0	32.4
3	2483.50	58.9 PK	74.0	-15.1	1.42 V	232	26.5	32.4
4	2483.50	47.0 AV	54.0	-7.0	1.42 V	232	14.6	32.4
5	4924.00	46.1 PK	74.0	-27.9	1.82 V	302	42.3	3.8
6	4924.00	33.1 AV	54.0	-20.9	1.82 V	302	29.3	3.8

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

Mode B
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	2390.00	59.5 PK	74.0	-14.5	1.36 H	296	27.2	32.3
2	2390.00	49.7 AV	54.0	-4.3	1.36 H	296	17.4	32.3
3	*2412.00	105.3 PK			1.47 H	292	73.0	32.3
4	*2412.00	101.6 AV			1.47 H	292	69.3	32.3
5	4824.00	45.4 PK	74.0	-28.6	1.43 H	261	42.0	3.4
6	4824.00	33.6 AV	54.0	-20.4	1.43 H	261	30.2	3.4

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	1.77 V	153	27.1	32.3
2	2390.00	48.3 AV	54.0	-5.7	1.77 V	153	16.0	32.3
3	*2412.00	103.4 PK			1.75 V	152	71.1	32.3
4	*2412.00	99.6 AV			1.75 V	152	67.3	32.3
5	4824.00	45.8 PK	74.0	-28.2	1.75 V	252	42.4	3.4
6	4824.00	34.2 AV	54.0	-19.8	1.75 V	252	30.8	3.4

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	104.8 PK			1.90 H	291	72.5	32.3
2	*2437.00	101.2 AV			1.90 H	291	68.9	32.3
3	4874.00	45.9 PK	74.0	-28.1	1.76 H	236	42.2	3.7
4	4874.00	33.7 AV	54.0	-20.3	1.76 H	236	30.0	3.7

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	102.9 PK			1.24 V	212	70.6	32.3
2	*2437.00	99.2 AV			1.24 V	212	66.9	32.3
3	4874.00	46.2 PK	74.0	-27.8	1.82 V	257	42.5	3.7
4	4874.00	34.2 AV	54.0	-19.8	1.82 V	257	30.5	3.7

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	103.1 PK			1.89 H	297	70.7	32.4
2	*2462.00	99.6 AV			1.89 H	297	67.2	32.4
3	2483.50	58.4 PK	74.0	-15.6	1.92 H	299	26.0	32.4
4	2483.50	47.4 AV	54.0	-6.6	1.92 H	299	15.0	32.4
5	4924.00	46.1 PK	74.0	-27.9	1.51 H	276	42.3	3.8
6	4924.00	33.8 AV	54.0	-20.2	1.51 H	276	30.0	3.8

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	102.4 PK			1.64 V	213	70.0	32.4
2	*2462.00	98.7 AV			1.64 V	213	66.3	32.4
3	2483.50	59.6 PK	74.0	-14.4	1.66 V	215	27.2	32.4
4	2483.50	47.2 AV	54.0	-6.8	1.66 V	215	14.8	32.4
5	4924.00	46.4 PK	74.0	-27.6	1.78 V	267	42.6	3.8
6	4924.00	34.1 AV	54.0	-19.9	1.78 V	267	30.3	3.8

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 12	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	*2467.00	101.8 PK			1.61 H	295	69.4	32.4
2	*2467.00	98.3 AV			1.61 H	295	65.9	32.4
3	2483.50	59.3 PK	74.0	-14.7	1.53 H	282	26.9	32.4
4	2483.50	47.7 AV	54.0	-6.3	1.53 H	282	15.3	32.4
5	4934.00	46.3 PK	74.0	-27.7	1.43 H	266	42.3	4.0
6	4934.00	33.8 AV	54.0	-20.2	1.43 H	266	29.8	4.0

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	*2467.00	100.9 PK			1.36 V	213	68.5	32.4
2	*2467.00	97.2 AV			1.36 V	213	64.8	32.4
3	2483.50	58.9 PK	74.0	-15.1	1.38 V	216	26.5	32.4
4	2483.50	47.6 AV	54.0	-6.4	1.38 V	216	15.2	32.4
5	4934.00	46.4 PK	74.0	-27.6	1.88 V	284	42.4	4.0
6	4934.00	33.5 AV	54.0	-20.5	1.88 V	284	29.5	4.0

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 13	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	*2472.00	97.8 PK			1.28 H	294	65.4	32.4
2	*2472.00	94.4 AV			1.28 H	294	62.0	32.4
3	2483.50	60.1 PK	74.0	-13.9	1.50 H	280	27.7	32.4
4	2483.50	48.9 AV	54.0	-5.1	1.50 H	280	16.5	32.4
5	4944.00	46.4 PK	74.0	-27.6	1.53 H	272	42.4	4.0
6	4944.00	34.0 AV	54.0	-20.0	1.53 H	272	30.0	4.0

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	*2472.00	97.4 PK			1.38 V	212	65.0	32.4
2	*2472.00	94.8 AV			1.38 V	212	62.4	32.4
3	2483.50	59.9 PK	74.0	-14.1	1.52 V	216	27.5	32.4
4	2483.50	48.0 AV	54.0	-6.0	1.52 V	216	15.6	32.4
5	4944.00	46.3 PK	74.0	-27.7	1.89 V	283	42.3	4.0
6	4944.00	33.8 AV	54.0	-20.2	1.89 V	283	29.8	4.0

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	62.5 PK	74.0	-11.5	1.33 H	297	30.2	32.3
2	2390.00	48.8 AV	54.0	-5.2	1.33 H	297	16.5	32.3
3	*2412.00	104.0 PK			1.43 H	291	71.7	32.3
4	*2412.00	93.6 AV			1.43 H	291	61.3	32.3
5	4824.00	45.8 PK	74.0	-28.2	1.52 H	266	42.4	3.4
6	4824.00	32.6 AV	54.0	-21.4	1.52 H	266	29.2	3.4

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	59.8 PK	74.0	-14.2	1.42 V	213	27.5	32.3
2	2390.00	48.1 AV	54.0	-5.9	1.42 V	213	15.8	32.3
3	*2412.00	102.1 PK			1.39 V	211	69.8	32.3
4	*2412.00	91.7 AV			1.39 V	211	59.4	32.3
5	4824.00	46.0 PK	74.0	-28.0	1.69 V	258	42.6	3.4
6	4824.00	33.9 AV	54.0	-20.1	1.69 V	258	30.5	3.4

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	107.3 PK			1.42 H	294	75.0	32.3
2	*2437.00	96.6 AV			1.42 H	294	64.3	32.3
3	4874.00	46.0 PK	74.0	-28.0	1.52 H	269	42.3	3.7
4	4874.00	32.7 AV	54.0	-21.3	1.52 H	269	29.0	3.7

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			1.21 V	214	74.0	32.3
2	*2437.00	95.3 AV			1.21 V	214	63.0	32.3
3	4874.00	46.2 PK	74.0	-27.8	1.82 V	259	42.5	3.7
4	4874.00	34.0 AV	54.0	-20.0	1.82 V	259	30.3	3.7

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	102.8 PK			1.39 H	292	70.4	32.4
2	*2462.00	92.4 AV			1.39 H	292	60.0	32.4
3	2483.50	58.5 PK	74.0	-15.5	1.41 H	293	26.1	32.4
4	2483.50	47.6 AV	54.0	-6.4	1.41 H	293	15.2	32.4
5	4924.00	46.1 PK	74.0	-27.9	1.52 H	263	42.3	3.8
6	4924.00	33.8 AV	54.0	-20.2	1.52 H	263	30.0	3.8

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	101.0 PK			1.65 V	207	68.6	32.4
2	*2462.00	91.0 AV			1.65 V	207	58.6	32.4
3	2483.50	59.9 PK	74.0	-14.1	1.67 V	210	27.5	32.4
4	2483.50	47.4 AV	54.0	-6.6	1.67 V	210	15.0	32.4
5	4924.00	46.4 PK	74.0	-27.6	1.77 V	259	42.6	3.8
6	4924.00	34.3 AV	54.0	-19.7	1.77 V	259	30.5	3.8

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 12	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	*2467.00	98.9 PK			1.43 H	296	66.5	32.4
2	*2467.00	88.8 AV			1.43 H	296	56.4	32.4
3	2483.50	59.2 PK	74.0	-14.8	1.46 H	300	26.8	32.4
4	2483.50	47.5 AV	54.0	-6.5	1.46 H	300	15.1	32.4
5	4934.00	46.5 PK	74.0	-27.5	1.63 H	277	42.5	4.0
6	4934.00	33.8 AV	54.0	-20.2	1.63 H	277	29.8	4.0

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	*2467.00	98.4 PK			1.37 V	212	66.0	32.4
2	*2467.00	88.4 AV			1.37 V	212	56.0	32.4
3	2483.50	59.4 PK	74.0	-14.6	1.40 V	215	27.0	32.4
4	2483.50	47.7 AV	54.0	-6.3	1.40 V	215	15.3	32.4
5	4934.00	46.6 PK	74.0	-27.4	1.80 V	277	42.6	4.0
6	4934.00	33.5 AV	54.0	-20.5	1.80 V	277	29.5	4.0

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 13	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	*2472.00	97.9 PK			1.26 H	296	65.5	32.4
2	*2472.00	87.3 AV			1.26 H	296	54.9	32.4
3	2483.50	62.2 PK	74.0	-11.8	1.28 H	280	29.8	32.4
4	2483.50	47.7 AV	54.0	-6.3	1.28 H	280	15.3	32.4
5	4944.00	46.5 PK	74.0	-27.5	1.53 H	263	42.5	4.0
6	4944.00	33.8 AV	54.0	-20.2	1.53 H	263	29.8	4.0

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	*2472.00	97.1 PK			1.35 V	210	64.7	32.4
2	*2472.00	87.1 AV			1.35 V	210	54.7	32.4
3	2483.50	62.4 PK	74.0	-11.6	1.37 V	213	30.0	32.4
4	2483.50	48.0 AV	54.0	-6.0	1.37 V	213	15.6	32.4
5	4944.00	46.6 PK	74.0	-27.4	1.88 V	282	42.6	4.0
6	4944.00	34.0 AV	54.0	-20.0	1.88 V	282	30.0	4.0

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	59.6 PK	74.0	-14.4	2.86 H	291	27.3	32.3
2	2390.00	48.0 AV	54.0	-6.0	2.86 H	291	15.7	32.3
3	*2412.00	102.9 PK			2.84 H	288	70.6	32.3
4	*2412.00	90.2 AV			2.84 H	288	57.9	32.3
5	4824.00	45.6 PK	74.0	-28.4	1.55 H	266	42.2	3.4
6	4824.00	32.6 AV	54.0	-21.4	1.55 H	266	29.2	3.4

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	59.3 PK	74.0	-14.7	1.25 V	220	27.0	32.3
2	2390.00	47.3 AV	54.0	-6.7	1.25 V	220	15.0	32.3
3	*2412.00	100.7 PK			1.23 V	216	68.4	32.3
4	*2412.00	88.1 AV			1.23 V	216	55.8	32.3
5	4824.00	46.0 PK	74.0	-28.0	1.77 V	266	42.6	3.4
6	4824.00	33.0 AV	54.0	-21.0	1.77 V	266	29.6	3.4

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	106.4 PK			2.85 H	226	74.1	32.3
2	*2437.00	93.5 AV			2.85 H	226	61.2	32.3
3	4874.00	46.0 PK	74.0	-28.0	1.53 H	267	42.3	3.7
4	4874.00	33.2 AV	54.0	-20.8	1.53 H	267	29.5	3.7

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	102.4 PK			1.39 V	213	70.1	32.3
2	*2437.00	89.8 AV			1.39 V	213	57.5	32.3
3	4874.00	46.2 PK	74.0	-27.8	1.82 V	266	42.5	3.7
4	4874.00	33.2 AV	54.0	-20.8	1.82 V	266	29.5	3.7

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	102.5 PK			2.75 H	286	70.1	32.4
2	*2462.00	88.9 AV			2.75 H	286	56.5	32.4
3	2483.50	59.7 PK	74.0	-14.3	2.77 H	230	27.3	32.4
4	2483.50	47.5 AV	54.0	-6.5	2.77 H	230	15.1	32.4
5	4924.00	46.2 PK	74.0	-27.8	1.56 H	277	42.4	3.8
6	4924.00	33.0 AV	54.0	-21.0	1.56 H	277	29.2	3.8

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	99.8 PK			1.38 V	212	67.4	32.4
2	*2462.00	86.7 AV			1.38 V	212	54.3	32.4
3	2483.50	59.9 PK	74.0	-14.1	1.41 V	215	27.5	32.4
4	2483.50	47.6 AV	54.0	-6.4	1.41 V	215	15.2	32.4
5	4924.00	46.4 PK	74.0	-27.6	1.79 V	259	42.6	3.8
6	4924.00	33.4 AV	54.0	-20.6	1.79 V	259	29.6	3.8

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 12	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	*2467.00	99.1 PK			3.16 H	297	66.7	32.4
2	*2467.00	86.8 AV			3.16 H	297	54.4	32.4
3	2483.50	58.8 PK	74.0	-15.2	3.19 H	300	26.4	32.4
4	2483.50	47.4 AV	54.0	-6.6	3.19 H	300	15.0	32.4
5	4934.00	46.5 PK	74.0	-27.5	1.48 H	259	42.5	4.0
6	4934.00	33.5 AV	54.0	-20.5	1.48 H	259	29.5	4.0

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	*2467.00	98.1 PK			1.52 V	209	65.7	32.4
2	*2467.00	85.6 AV			1.52 V	209	53.2	32.4
3	2483.50	58.9 PK	74.0	-15.1	1.55 V	211	26.5	32.4
4	2483.50	47.4 AV	54.0	-6.6	1.55 V	211	15.0	32.4
5	4934.00	46.3 PK	74.0	-27.7	1.78 V	282	42.3	4.0
6	4934.00	33.4 AV	54.0	-20.6	1.78 V	282	29.4	4.0

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 13	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	*2472.00	96.5 PK			3.15 H	293	64.1	32.4
2	*2472.00	83.9 AV			3.15 H	293	51.5	32.4
3	2483.50	58.8 PK	74.0	-15.2	3.08 H	293	26.4	32.4
4	2483.50	47.4 AV	54.0	-6.6	3.08 H	293	15.0	32.4
5	4944.00	46.3 PK	74.0	-27.7	1.63 H	272	42.3	4.0
6	4944.00	33.3 AV	54.0	-20.7	1.63 H	272	29.3	4.0

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	*2472.00	95.2 PK			1.57 V	213	62.8	32.4
2	*2472.00	83.1 AV			1.57 V	213	50.7	32.4
3	2483.50	58.6 PK	74.0	-15.4	1.60 V	214	26.2	32.4
4	2483.50	47.3 AV	54.0	-6.7	1.60 V	214	14.9	32.4
5	4944.00	46.5 PK	74.0	-27.5	1.83 V	289	42.5	4.0
6	4944.00	33.5 AV	54.0	-20.5	1.83 V	289	29.5	4.0

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	59.1 PK	74.0	-14.9	2.80 H	227	26.8	32.3
2	2390.00	46.8 AV	54.0	-7.2	2.80 H	227	14.5	32.3
3	*2422.00	98.0 PK			2.78 H	225	65.7	32.3
4	*2422.00	85.5 AV			2.78 H	225	53.2	32.3
5	4844.00	46.0 PK	74.0	-28.0	1.52 H	253	42.5	3.5
6	4844.00	33.0 AV	54.0	-21.0	1.52 H	253	29.5	3.5

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	58.6 PK	74.0	-15.4	1.42 V	211	26.3	32.3
2	2390.00	46.8 AV	54.0	-7.2	1.42 V	211	14.5	32.3
3	*2422.00	96.5 PK			1.40 V	209	64.2	32.3
4	*2422.00	84.5 AV			1.40 V	209	52.2	32.3
5	4844.00	46.0 PK	74.0	-28.0	1.72 V	263	42.5	3.5
6	4844.00	33.1 AV	54.0	-20.9	1.72 V	263	29.6	3.5

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	59.3 PK	74.0	-14.7	2.80 H	288	27.0	32.3
2	2390.00	47.4 AV	54.0	-6.6	2.80 H	288	15.1	32.3
3	*2437.00	100.9 PK			2.78 H	284	68.6	32.3
4	*2437.00	88.8 AV			2.78 H	284	56.5	32.3
5	4874.00	46.0 PK	74.0	-28.0	1.52 H	163	42.3	3.7
6	4874.00	33.1 AV	54.0	-20.9	1.52 H	163	29.4	3.7

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	58.9 PK	74.0	-15.1	1.45 V	214	26.6	32.3
2	2390.00	46.9 AV	54.0	-7.1	1.45 V	214	14.6	32.3
3	*2437.00	96.6 PK			1.42 V	211	64.3	32.3
4	*2437.00	84.5 AV			1.42 V	211	52.2	32.3
5	4874.00	46.2 PK	74.0	-27.8	1.72 V	273	42.5	3.7
6	4874.00	33.2 AV	54.0	-20.8	1.72 V	273	29.5	3.7

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	98.5 PK			2.42 H	288	66.1	32.4
2	*2452.00	86.4 AV			2.42 H	288	54.0	32.4
3	2483.50	59.4 PK	74.0	-14.6	2.45 H	290	27.0	32.4
4	2483.50	47.0 AV	54.0	-7.0	2.45 H	290	14.6	32.4
5	4904.00	46.3 PK	74.0	-27.7	1.53 H	268	42.6	3.7
6	4904.00	33.2 AV	54.0	-20.8	1.53 H	268	29.5	3.7

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	98.9 PK			1.64 V	214	66.5	32.4
2	*2452.00	86.7 AV			1.64 V	214	54.3	32.4
3	2483.50	59.3 PK	74.0	-14.7	1.66 V	216	26.9	32.4
4	2483.50	47.4 AV	54.0	-6.6	1.66 V	216	15.0	32.4
5	4904.00	46.0 PK	74.0	-28.0	1.63 V	259	42.3	3.7
6	4904.00	32.9 AV	54.0	-21.1	1.63 V	259	29.2	3.7

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 10	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	*2457.00	95.7 PK			3.15 H	294	63.3	32.4
2	*2457.00	83.3 AV			3.15 H	294	50.9	32.4
3	2483.50	59.9 PK	74.0	-14.1	3.16 H	292	27.5	32.4
4	2483.50	48.7 AV	54.0	-5.3	3.16 H	292	16.3	32.4
5	4914.00	46.3 PK	74.0	-27.7	1.63 H	280	42.5	3.8
6	4914.00	33.1 AV	54.0	-20.9	1.63 H	280	29.3	3.8

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	*2457.00	93.8 PK			1.56 V	210	61.4	32.4
2	*2457.00	81.6 AV			1.56 V	210	49.2	32.4
3	2483.50	59.2 PK	74.0	-14.8	1.60 V	213	26.8	32.4
4	2483.50	47.9 AV	54.0	-6.1	1.60 V	213	15.5	32.4
5	4914.00	46.1 PK	74.0	-27.9	1.53 V	255	42.3	3.8
6	4914.00	32.9 AV	54.0	-21.1	1.53 V	255	29.1	3.8

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	96.0 PK			3.14 H	294	63.6	32.4
2	*2462.00	83.4 AV			3.14 H	294	51.0	32.4
3	2483.50	60.4 PK	74.0	-13.6	3.11 H	296	28.0	32.4
4	2483.50	47.6 AV	54.0	-6.4	3.11 H	296	15.2	32.4
5	4924.00	46.1 PK	74.0	-27.9	1.63 H	275	42.3	3.8
6	4924.00	33.1 AV	54.0	-20.9	1.63 H	275	29.3	3.8

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	95.0 PK			1.55 V	212	62.6	32.4
2	*2462.00	82.1 AV			1.55 V	212	49.7	32.4
3	2483.50	60.1 PK	74.0	-13.9	1.57 V	215	27.7	32.4
4	2483.50	47.0 AV	54.0	-7.0	1.57 V	215	14.6	32.4
5	4924.00	45.9 PK	74.0	-28.1	1.49 V	259	42.1	3.8
6	4924.00	33.0 AV	54.0	-21.0	1.49 V	259	29.2	3.8

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

9 kHz ~ 30 MHz Data:

The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

30 MHz ~ 1 GHz Worst-Case Data:

Mode A

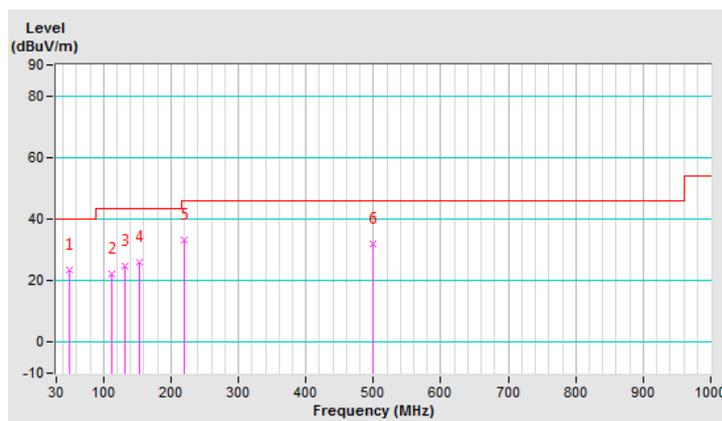
802.11g

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 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	49.68	23.3 QP	40.0	-16.7	1.99 H	180	32.1	-8.8
2	112.94	22.3 QP	43.5	-21.2	1.50 H	102	33.9	-11.6
3	131.22	24.9 QP	43.5	-18.6	1.50 H	245	34.8	-9.9
4	153.71	26.0 QP	43.5	-17.5	1.00 H	250	34.6	-8.6
5	219.78	33.3 QP	46.0	-12.7	1.50 H	49	44.6	-11.3
6	499.54	31.8 QP	46.0	-14.2	1.99 H	18	33.3	-1.5

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



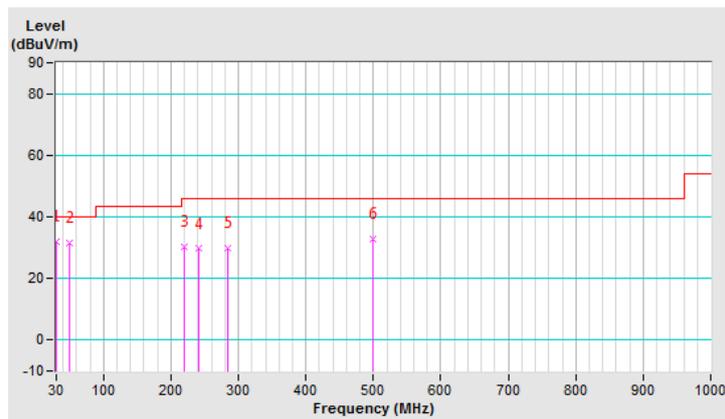
CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

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	30.00	31.9 QP	40.0	-8.1	1.51 V	58	42.3	-10.4
2	49.68	31.5 QP	40.0	-8.5	1.51 V	284	40.3	-8.8
3	219.78	30.2 QP	46.0	-15.8	1.01 V	16	41.5	-11.3
4	240.87	29.6 QP	46.0	-16.4	1.51 V	23	39.4	-9.8
5	284.45	29.8 QP	46.0	-16.2	1.51 V	145	37.7	-7.9
6	499.54	32.7 QP	46.0	-13.3	1.01 V	16	34.2	-1.5

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



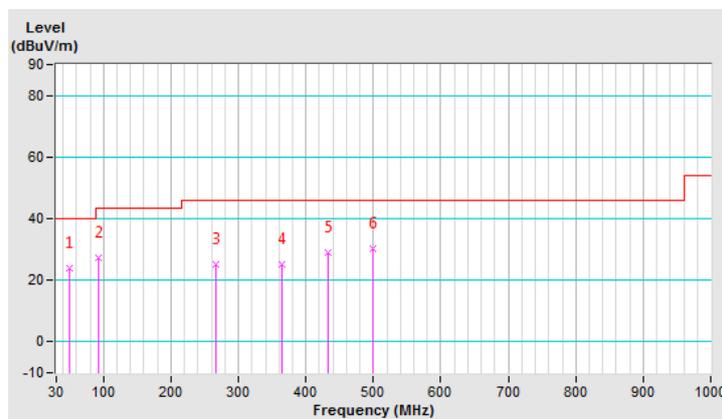
Mode B
802.11g

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 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	49.68	23.7 QP	40.0	-16.3	1.99 H	15	32.5	-8.8
2	91.86	27.3 QP	43.5	-16.2	1.99 H	15	41.5	-14.2
3	266.17	25.1 QP	46.0	-20.9	1.00 H	247	33.8	-8.7
4	364.58	25.1 QP	46.0	-20.9	1.00 H	26	30.6	-5.5
5	433.46	29.0 QP	46.0	-17.0	1.99 H	15	32.0	-3.0
6	499.54	30.1 QP	46.0	-15.9	1.99 H	9	31.6	-1.5

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



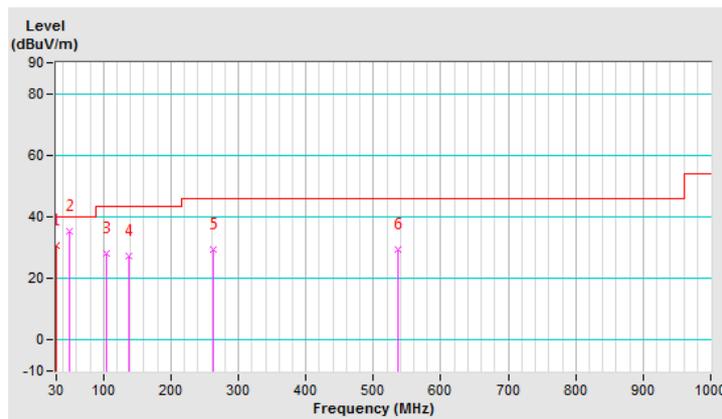
CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

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	30.58	30.7 QP	40.0	-9.3	1.49 V	300	41.4	-10.7
2	49.68	35.5 QP	40.0	-4.5	1.49 V	317	44.3	-8.8
3	104.51	28.0 QP	43.5	-15.5	1.00 V	11	40.4	-12.4
4	138.25	27.3 QP	43.5	-16.2	1.00 V	107	36.5	-9.2
5	263.36	29.3 QP	46.0	-16.7	1.49 V	344	38.2	-8.9
6	536.09	29.4 QP	46.0	-16.6	1.00 V	175	30.2	-0.8

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

Frequency (MHz)	Conducted Limit (dBUV)	
	Quasi-Peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	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 0.50 MHz.

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver ROHDE & SCHWARZ	ESCI	100613	Dec. 11, 2019	Dec. 10, 2020
RF signal cable Woken	5D-FB	Cable-cond1-01	Sep. 05, 2019	Sep. 04, 2020
LISN ROHDE & SCHWARZ (EUT)	ENV216	101826	Feb. 21, 2019	Feb. 20, 2020
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Aug. 22, 2019	Aug. 21, 2020
Software ADT	BV ADT_Cond_ V7.3.7.4	NA	NA	NA

- Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 2. The test was performed in HwaYa Shielded Room 1.
 3. The VCCI Site Registration No. is C-12040.

4.2.3 Test Procedures

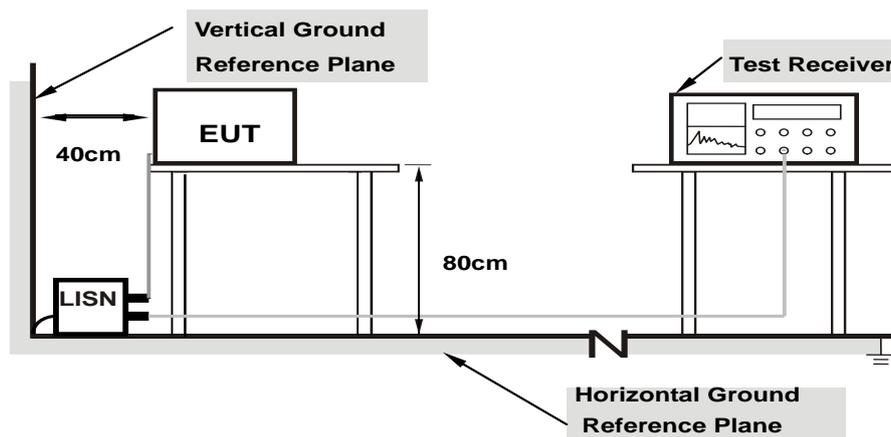
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/50 uH of coupling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

Note: The resolution bandwidth and video bandwidth of test receiver is 9 kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15 MHz – 30 MHz.

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



Note: 1.Support units were connected to second LISN.

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

4.2.6 EUT Operating Conditions

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

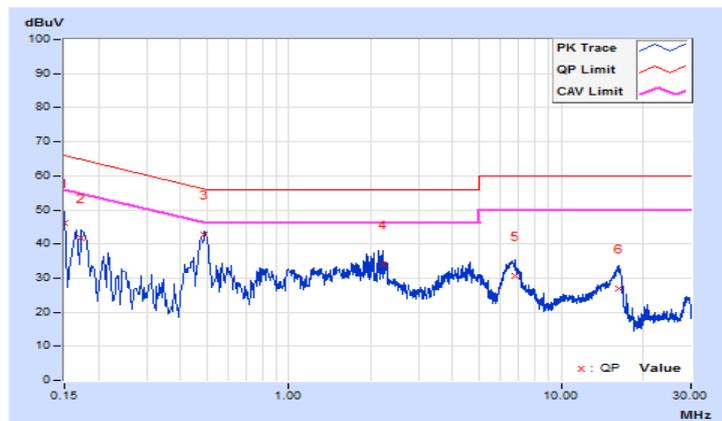
4.2.7 Test Results

Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	23°C, 68%RH
Tested by	Titan Hsu	Test Date	2020/2/20
Test Mode	Mode A		

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.15	35.89	24.39	46.04	34.54	66.00	56.00	-19.96	-21.46
2	0.17346	10.15	31.55	17.18	41.70	27.33	64.79	54.79	-23.09	-27.46
3	0.49017	10.19	32.59	26.42	42.78	36.61	56.16	46.16	-13.38	-9.55
4	2.20666	10.37	23.73	12.65	34.10	23.02	56.00	46.00	-21.90	-22.98
5	6.77745	10.51	20.08	15.72	30.59	26.23	60.00	50.00	-29.41	-23.77
6	16.31394	10.64	16.23	8.77	26.87	19.41	60.00	50.00	-33.13	-30.59

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

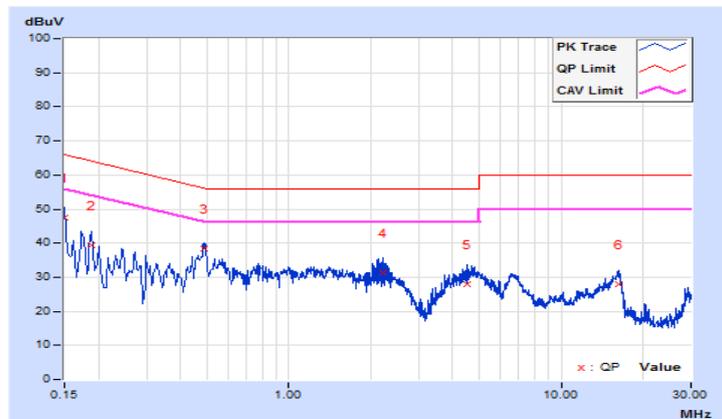


Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	23°C, 68%RH
Tested by	Titan Hsu	Test Date	2020/2/20
Test Mode	Mode A		

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.13	37.39	25.29	47.52	35.42	66.00	56.00	-18.48	-20.58
2	0.18910	10.13	29.15	17.85	39.28	27.98	64.08	54.08	-24.80	-26.10
3	0.48626	10.18	28.24	20.90	38.42	31.08	56.23	46.23	-17.81	-15.15
4	2.21057	10.37	21.03	11.49	31.40	21.86	56.00	46.00	-24.60	-24.14
5	4.50574	10.47	17.34	11.32	27.81	21.79	56.00	46.00	-28.19	-24.21
6	16.22792	10.70	17.09	11.32	27.79	22.02	60.00	50.00	-32.21	-27.98

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

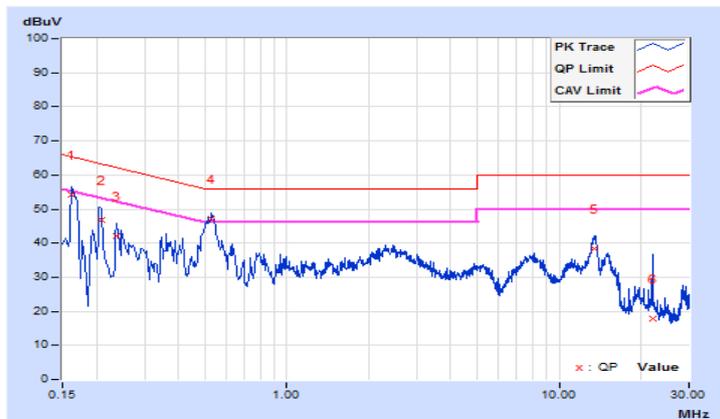


Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	23°C, 68%RH
Tested by	Titan Hsu	Test Date	2020/2/20
Test Mode	Mode B		

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16173	10.15	44.21	30.38	54.36	40.53	65.37	55.37	-11.01	-14.84
2	0.20865	10.16	36.70	22.42	46.86	32.58	63.26	53.26	-16.40	-20.68
3	0.23602	10.16	32.05	20.98	42.21	31.14	62.24	52.24	-20.03	-21.10
4	0.52927	10.19	37.07	28.75	47.26	38.94	56.00	46.00	-8.74	-7.06
5	13.50265	10.60	27.63	22.41	38.23	33.01	60.00	50.00	-21.77	-16.99
6	22.03036	10.75	6.96	2.20	17.71	12.95	60.00	50.00	-42.29	-37.05

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

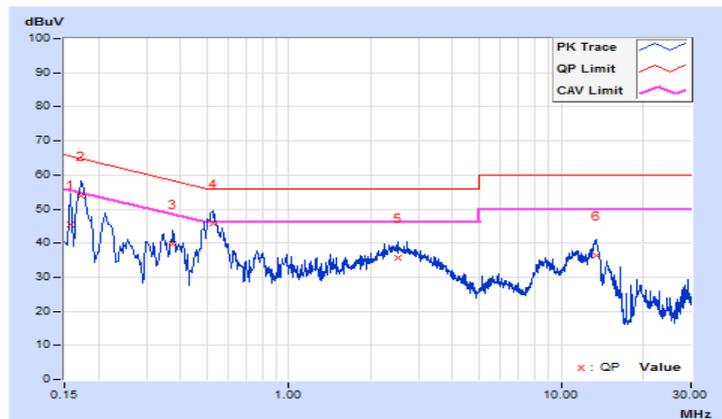


Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	23°C, 68%RH
Tested by	Titan Hsu	Test Date	2020/2/20
Test Mode	Mode B		

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15782	10.13	35.22	19.98	45.35	30.11	65.58	55.58	-20.23	-25.47
2	0.17328	10.13	43.59	31.72	53.72	41.85	64.80	54.80	-11.08	-12.95
3	0.37678	10.17	29.56	22.06	39.73	32.23	58.35	48.35	-18.62	-16.12
4	0.52536	10.19	35.61	26.45	45.80	36.64	56.00	46.00	-10.20	-9.36
5	2.51164	10.39	25.28	20.28	35.67	30.67	56.00	46.00	-20.33	-15.33
6	13.45964	10.63	25.89	19.95	36.52	30.58	60.00	50.00	-23.48	-19.42

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 Conducted Output Power Measurement

4.3.1 Limits of Conducted Output Power Measurement

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

Per KDB 662911 D01 Multiple Transmitter Output Method of conducted output power measurement on IEEE 802.11 devices,

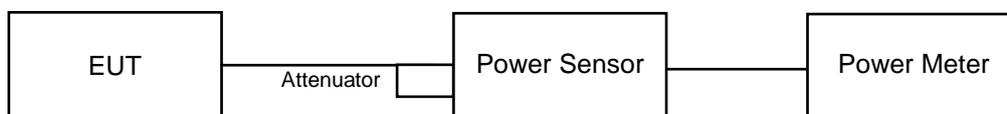
Array Gain = 0 dB (i.e., no array gain) for NANT \leq 4;

Array Gain = 0 dB (i.e., no array gain) for channel widths \geq 40 MHz for any NANT;

Array Gain = $5 \log(\text{NANT}/\text{NSS})$ dB or 3 dB, whichever is less for 20 MHz channel widths with NANT \geq 5.

For power measurements on all other devices: Array Gain = $10 \log(\text{NANT}/\text{NSS})$ dB.

4.3.2 Test Setup



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 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 power level.

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 lowest, middle and highest channel frequencies individually.

4.3.7 Test Results

802.11b (SISO)

Channel	Frequency (MHz)	Peak Power (mW)		Peak Power (dBm)		Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 0	Chain 1		
1	2412	144.212	127.938	21.59	21.07	30	Pass
6	2437	158.489	164.816	22.00	22.17	30	Pass
11	2462	127.057	133.660	21.04	21.26	30	Pass
12	2467	91.622	75.509	19.62	18.78	30	Pass
13	2472	52.966	47.643	17.24	16.78	30	Pass

Channel	Frequency (MHz)	Average Power (mW)		Average Power (dBm)		Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 0	Chain 1		
1	2412	77.983	69.663	18.92	18.43	30	Pass
6	2437	84.528	88.512	19.27	19.47	30	Pass
11	2462	68.391	71.614	18.35	18.55	30	Pass
12	2467	49.431	41.020	16.94	16.13	30	Pass
13	2472	28.184	24.831	14.50	13.95	30	Pass

802.11g (SISO)

Channel	Frequency (MHz)	Peak Power (mW)		Peak Power (dBm)		Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 0	Chain 1		
1	2412	118.032	125.026	20.72	20.97	30	Pass
6	2437	236.048	233.884	23.73	23.69	30	Pass
11	2462	103.276	105.439	20.14	20.23	30	Pass
12	2467	55.208	60.395	17.42	17.81	30	Pass
13	2472	106.414	106.905	20.27	20.29	30	Pass

Channel	Frequency (MHz)	Average Power (mW)		Average Power (dBm)		Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 0	Chain 1		
1	2412	43.251	42.560	16.36	16.29	30	Pass
6	2437	81.470	85.507	19.11	19.32	30	Pass
11	2462	34.277	34.435	15.35	15.37	30	Pass
12	2467	19.275	19.724	12.85	12.95	30	Pass
13	2472	12.503	12.474	10.97	10.96	30	Pass

802.11n (HT20)

Channel	Frequency (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	16.95	16.84	97.949	19.91	30	Pass
6	2437	18.01	17.95	125.603	20.09	30	Pass
11	2462	16.16	15.66	78.163	18.93	30	Pass
12	2467	12.72	13.21	39.628	15.98	30	Pass
13	2472	14.58	14.66	57.943	17.63	30	Pass

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	11.72	11.69	29.648	14.72	30	Pass
6	2437	21.96	13.08	40.087	16.03	30	Pass
11	2462	10.73	10.88	24.099	13.82	30	Pass
12	2467	7.97	7.94	12.503	10.97	30	Pass
13	2472	4.89	4.94	6.209	7.93	30	Pass

802.11n (HT40)

Channel	Frequency (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	14.61	14.72	58.614	17.68	30	Pass
6	2437	15.46	15.22	68.391	18.35	30	Pass
9	2452	15.85	15.63	74.989	18.75	30	Pass
10	2457	10.89	10.58	23.714	13.75	30	Pass
11	2462	15.47	15.13	67.764	18.31	30	Pass

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	10.16	10.40	21.330	13.29	30	Pass
6	2437	10.71	10.97	24.266	13.85	30	Pass
9	2452	10.69	10.89	23.988	13.80	30	Pass
10	2457	6.34	6.48	8.750	9.42	30	Pass
11	2462	6.42	6.46	8.810	9.45	30	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	16.73	16.51	91.833	19.63	30	Pass
6	2437	18.23	18.02	130.017	21.14	30	Pass
11	2462	15.93	15.69	76.208	18.82	30	Pass
12	2467	12.31	12.03	32.961	15.18	30	Pass
13	2472	14.14	13.97	50.933	17.07	30	Pass

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	11.88	11.96	31.117	14.93	30	Pass
6	2437	12.89	13.03	39.537	15.97	30	Pass
11	2462	10.86	11.06	24.946	13.97	30	Pass
12	2467	7.81	8.04	12.417	10.94	30	Pass
13	2472	4.59	4.97	6.012	7.79	30	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	14.68	14.58	58.076	17.64	30	Pass
6	2437	15.97	15.82	77.804	18.91	30	Pass
9	2452	15.87	15.74	76.208	18.82	30	Pass
10	2457	10.62	10.71	23.335	13.68	30	Pass
11	2462	15.81	15.66	74.989	18.75	30	Pass

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	10.31	10.52	22.029	13.43	30	Pass
6	2437	10.69	11.18	24.831	13.95	30	Pass
9	2452	10.56	10.82	23.442	13.70	30	Pass
10	2457	6.21	6.27	8.414	9.25	30	Pass
11	2462	6.28	6.47	8.690	9.39	30	Pass

5 Pictures of Test Arrangements

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

Appendix – Information of 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 FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

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

Lin Kou EMC/RF Lab

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

Tel: 886-3-6668565

Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety Lab

Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

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

--- END ---