Partial FCC Test Report

Report No.:	RF191104C25-2
FCC ID:	J9C-QCNFA524
Model:	QCNFA524
Received Date:	Nov. 04, 2019
Test Date:	Dec. 09 ~ Dec. 18, 2019
Issued Date:	Dec. 24, 2019
Applicant:	Qualcomm Technologies, Inc.
Address:	5775 Morehouse Drive, San Diego, CA 92121-1714
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

Testing Laboratory
2021

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Release Control Record

Issue No.	Description	Date Issued
RF191104C25-2	Original release	Dec. 24, 2019

1 Certificate of Conformity

Product:	Wi-Fi 6 + BT 5.1 M.2 1216 Module
Brand:	Qualcomm
Model:	QCNFA524
Sample Status:	Mass product
Applicant:	Qualcomm Technologies, Inc.
Test Date:	Dec. 09 ~ Dec. 18, 2019
Standards:	47 CFR FCC Part 15, Subpart C (Section 15.247) ANSI C63.10:2013

This report is issued as a supplementary report of RF190716E01-6. This report shall be used combined together with its original report.

Prepared by : Pettie Chen , **Date:** Dec. 24, 2019

Pettie Chen / Senior Specialist

Approved by : Bruce Chen , **Date:** Dec. 24, 2019

Bruce Chen / Senior Project Engineer

Note: Radiated emission, conducted emission and Conducted power are performed for the addendum. Refer to original report for the other test data.

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 -10.68dB at 0.76328MHz
15.205 / 15.209 / 15.247(d)	Radiated Emissions and Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -1.0dB at 2390.00MHz.
15.247(d)	Antenna Port Emission	N/A	Refer to Note
15.247(a)(2)	6dB bandwidth	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 IPEX not a standard connector.

*Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

Note: Radiated emission, conducted emission and Maximum Conducted power are performed for the addendum. Refer to original report for the other test data.

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	150kHz ~ 30MHz	2.94 dB
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.04 dB
	30MHz ~ 200MHz	3.86 dB
	200MHz ~1000MHz	3.87 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Wi-Fi 6 + BT 5.1 M.2 1216 Module
Brand	Qualcomm
Model	QCNFA524
Sample Status	Mass product
Power Supply Rating	3.3Vdc (from host equipment)
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11n mode and VHT20/ VHT40 in 2.4GHz mode 1024QAM for OFDMA in 11ax HE mode
Modulation Technology	DSSS, OFDM, OFDMA
Transfer Rate	802.11b: up to 11Mbps 802.11g: up to 54Mbps 802.11n: up to 400Mbps 802.11ax: up to 573.5Mbps
Operating Frequency	2412 ~ 2462MHz
Number of Channel	802.11b, 802.11g, 802.11n (HT20), 802.11n (VHT20), 802.11ax (HE20): 13 802.11n (HT40), 802.11n (VHT40), 802.11ax (HE40): 9
Output Power	468.716mW
Antenna Type	Refer to note
Antenna Connector	IPEX
Accessory Device	NA
Data Cable Supplied	NA

Note:

1. This report is prepared for FCC class II permissive change. This is a supplementary report of RF190716E01-6. The difference compared with original report is adding End-product (Portable Computer, Brand: DELL, Model: P117G). Therefore, test item of Radiated emission, conducted emission and Conducted power was performed for this addendum and the other original data was kept in the report.
2. The EUT incorporates a MIMO function. Physically, the EUT provides 2 completed transmitters and 2 receivers.

Modulation Mode	TX Function
2.4GHz Band	
802.11b	2TX
802.11g	2TX
802.11n (HT20)	2TX
802.11n (HT40)	2TX
802.11n (VHT20)	2TX
802.11n (VHT40)	2TX
802.11ax (HE20)	2TX
802.11ax (HE40)	2TX

* For all test items except conducted output power, the modulation and bandwidth are similar for 802.11n mode for HT20 / HT40, 802.11n mode for VHT20 / VHT40 and 802.11ax mode for HE20 / HE40, therefore the investigated were worst case to representative mode in test report. (Final test mode refer section 3.2.1)

3. The following antennas were provided to the EUT.

Main Antenna Model	Aux. Antenna Model	Type	Antenna Manufacturer	Maximum Gain (dBi)			
				2.400-2.500 GHz	5.150-5.350 GHz	5.470-5.725 GHz	5.725-5.850 GHz
F.0G.FH-6100-004-00 (DC33002BX3L)	F.0G.FH-6100-003-00 (DC33002BX2L)	Slot	Speedwire	0.9	-2.6	-3.0	-4.3
F.0G.FH-6100-004-00 (DC33002BX3L)	F.0G.FH-6100-003-00 (DC33002BX2L)	Slot	Speedwire	1.98	-1.19	-1.84	-3
81ELAS15.G38 (DC33002D03L)	81ELAS15.G37 (DC33002D02L)	Slot	Wistron Neweb Corporation	2.08	-4.03	**-0.25**	**-0.25**
81ELAS15.G38 (DC33002D03L)	81ELAS15.G37 (DC33002D02L)	Slot	Wistron Neweb Corporation	**2.77**	**-0.63**	-2.3	-2.66

*The antenna with the maximum gain was chosen for the final tests.

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

Product Name	Brand Name	Model No.	Description
Portable Computer	DELL	P117G	-

The following accessories were for the End-product.

Product Name	Brand Name	Model No.	Description
Battery	DELL	722KK	Rating: 7.6Vdc, 6500mAh
Adapter 1	DELL	DA45NM180	I/P: 100-240Vac, 1.3A, 50-60 Hz, O/P: 20Vdc, 2.25A or 15Vdc, 3A or 9Vdc, 3A or 5Vdc, 3A 0.85m Type C cable
Adapter 2	DELL	HA45NM180	I/P: 100-240Vac, 1.3A, 50-60 Hz, O/P: 20Vdc, 2.25A or 15Vdc, 3A or 9Vdc, 3A or 5Vdc, 3A 0.85m Type C cable

*Adapter 2 was chosen for the final tests.

3.2 Description of Test Modes

13 channels are provided for 802.11b, 802.11g and 802.11n (HT20), 802.11n (VHT20), 802.11ax (HE20):

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

9 channels are provided for 802.11n (HT40) , 802.11n (VHT40), 802.11ax (HE40):

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

3.2.1 Test Mode Applicability and Tested Channel Detail

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

Where **RE≥1G:** Radiated Emission above 1GHz & Bandedge Measurement **RE<1G:** Radiated Emission below 1GHz

PLC: Power Line Conducted Emission **Power:** Maximum Output Power Measurement

Note: The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **X-plane.**

Radiated Emission Test (Above 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	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	36.0
-	802.11n (VHT20)	1 to 13	1, 6, 11, 12, 13	OFDM	BPSK	MCS4
-	802.11n (VHT40)	3 to 11	3, 6, 9, 10, 11	OFDM	BPSK	MCS4
-	802.11ax (HE20)	1 to 13	1, 6, 11, 12, 13	OFDMA	BPSK	MCS4
-	802.11ax (HE40)	3 to 11	3, 6, 9, 10, 11	OFDMA	BPSK	MCS4

Radiated Emission Test (Below 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11b	1 to 11	6	DSSS	DBPSK	1.0

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)
-	802.11b	1 to 11	6	DSSS	DBPSK	1.0

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)
-	802.11b	1 to 13	1, 6, 11, 12, 13	DSSS	DBPSK	1.0
-	802.11g	1 to 13	1, 2, 6, 10, 11, 12, 13	OFDM	BPSK	36.0
-	802.11n (VHT20)	1 to 13	1, 2, 6, 10, 11, 12, 13	OFDM	BPSK	MCS4
-	802.11n (VHT40)	3 to 11	3, 4, 6, 8, 9, 10, 11	OFDM	BPSK	MCS4
-	802.11ax (HE20)	1 to 13	1, 2, 6, 10, 11, 12, 13	OFDMA	BPSK	MCS4
-	802.11ax (HE40)	3 to 11	3, 4, 6, 8, 9, 10, 11	OFDMA	BPSK	MCS4

Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	23deg. C, 67%RH	120Vac, 60Hz	Adair Peng
RE<1G	23deg. C, 67%RH	120Vac, 60Hz	Adair Peng
PLC	23deg. C, 67%RH	120Vac, 60Hz	Adair Peng
Power	25deg. C, 60%RH	120Vac, 60Hz	Chris Lin

3.3 Description of Support Units

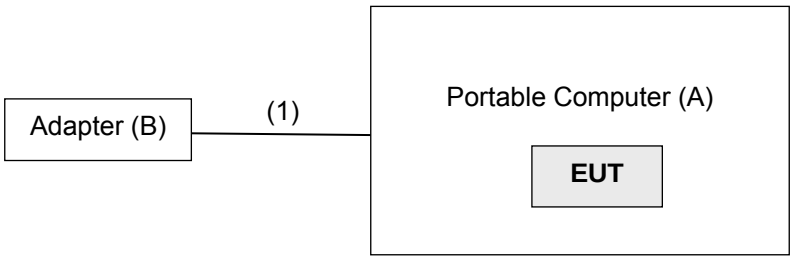
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Portable Computer	DELL	P117G	NA	FCC DoC Approved	-
B.	Adapter	DELL	HA45NM180	NA	NA	-

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

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	Type C cable	1	0.85	-	0	Provided by manufacturer

3.3.1 Configuration of System under Test



3.4 General Description of Applied Standards and References

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 DTS 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 30dB below the highest level of the desired power:

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

Note:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 30dB under any condition of modulation.

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
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/MY5519000 7/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 30MHz

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 9kHz at frequency below 30MHz.

For Radiated emission above 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) 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 detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

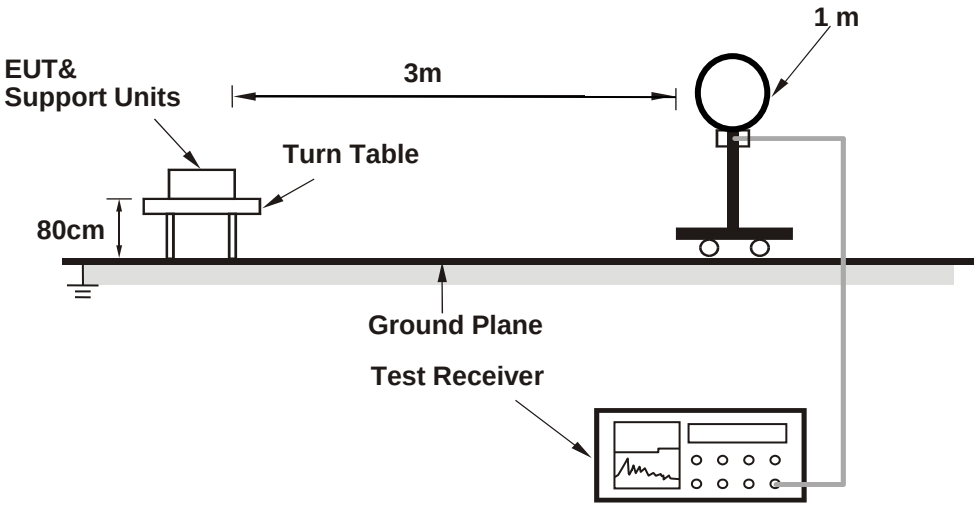
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz. (802.11b: RBW = 1 MHz, VBW =1 kHz; 802.11g: RBW = 1 MHz, VBW = 3 kHz; 802.11n (VHT20): RBW = 1 MHz, VBW = 10Hz; 802.11n (VHT40): RBW = 1 MHz, VBW = 1 kHz; 802.11ax (HE20): RBW = 1 MHz, VBW = 1 kHz; 802.11ax (HE40): RBW = 1 MHz, VBW = 10Hz)
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

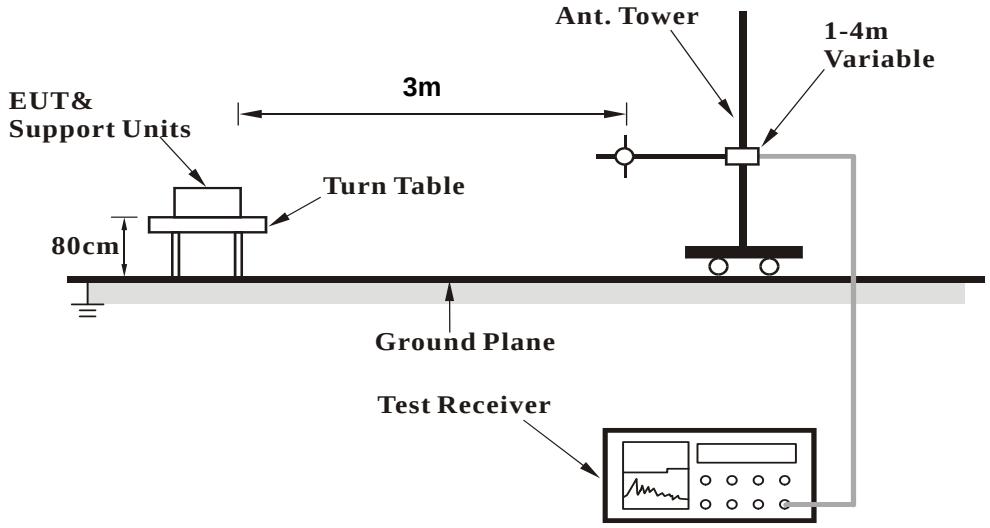
No deviation.

4.1.5 Test Set Up

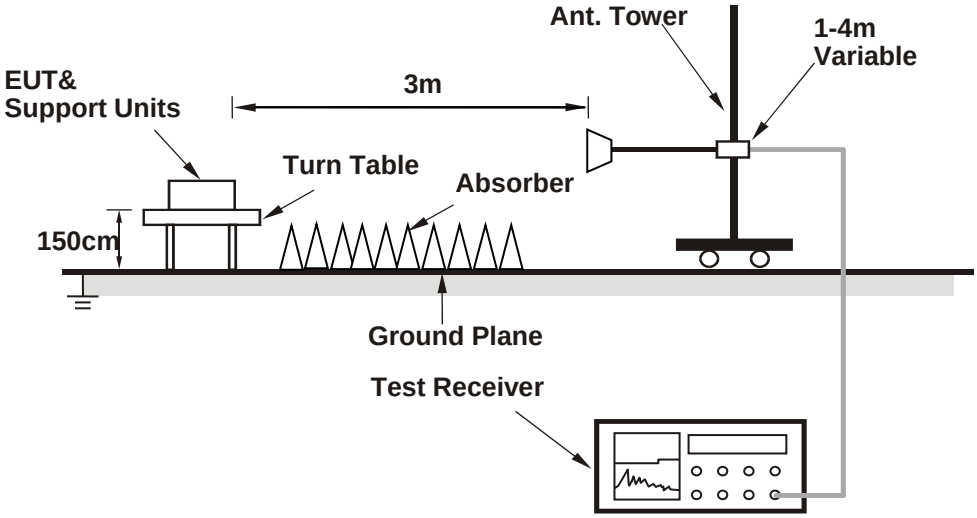
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



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

4.1.6 EUT Operating Conditions

a. Installed the EUT into the Portable Computer which is placed on the testing table.
b. Controlling software (QRCT 4.0) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

4.1.7 Test Results

Above 1GHz worst-Case data:

802.11b

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	56.4 PK	74.0	-17.6	2.58 H	299	24.1	32.3
2	2390.00	44.0 AV	54.0	-10.0	2.58 H	299	11.7	32.3
3	*2412.00	104.5 PK			2.48 H	286	72.2	32.3
4	*2412.00	100.7 AV			2.48 H	286	68.4	32.3
5	4824.00	44.7 PK	74.0	-29.3	1.61 H	293	41.3	3.4
6	4824.00	32.0 AV	54.0	-22.0	1.61 H	293	28.6	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	57.3 PK	74.0	-16.7	3.05 V	298	25.0	32.3
2	2390.00	45.4 AV	54.0	-8.6	3.05 V	298	13.1	32.3
3	*2412.00	112.6 PK			2.94 V	274	80.3	32.3
4	*2412.00	108.8 AV			2.94 V	274	76.5	32.3
5	4824.00	46.9 PK	74.0	-27.1	2.50 V	287	43.5	3.4
6	4824.00	39.7 AV	54.0	-14.3	2.50 V	287	36.3	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	55.1 PK	74.0	-18.9	2.75 H	290	22.8	32.3
2	2390.00	44.2 AV	54.0	-9.8	2.75 H	290	11.9	32.3
3	*2437.00	105.2 PK			1.00 H	288	72.9	32.3
4	*2437.00	101.3 AV			1.00 H	288	69.0	32.3
5	4874.00	45.7 PK	74.0	-28.3	1.73 H	290	42.0	3.7
6	4874.00	36.5 AV	54.0	-17.5	1.73 H	290	32.8	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	56.2 PK	74.0	-17.8	3.03 V	288	23.9	32.3
2	2390.00	44.5 AV	54.0	-9.5	3.03 V	288	12.2	32.3
3	*2437.00	113.1 PK			3.34 V	272	80.8	32.3
4	*2437.00	109.2 AV			3.34 V	272	76.9	32.3
5	4874.00	47.9 PK	74.0	-26.1	2.72 V	300	44.2	3.7
6	4874.00	43.8 AV	54.0	-10.2	2.72 V	300	40.1	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	103.5 PK			3.09 H	287	71.1	32.4
2	*2462.00	100.5 AV			3.09 H	287	68.1	32.4
3	2483.50	56.7 PK	74.0	-17.3	3.15 H	290	24.3	32.4
4	2483.50	45.2 AV	54.0	-8.8	3.15 H	290	12.8	32.4
5	4924.00	45.0 PK	74.0	-29.0	1.85 H	277	41.2	3.8
6	4924.00	33.2 AV	54.0	-20.8	1.85 H	277	29.4	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	111.6 PK			2.90 V	283	79.2	32.4
2	*2462.00	107.7 AV			2.90 V	283	75.3	32.4
3	2483.50	56.9 PK	74.0	-17.1	2.81 V	293	24.5	32.4
4	2483.50	45.3 AV	54.0	-8.7	2.81 V	293	12.9	32.4
5	4924.00	47.1 PK	74.0	-26.9	2.57 V	283	43.3	3.8
6	4924.00	40.1 AV	54.0	-13.9	2.57 V	283	36.3	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2467.00	104.0 PK			3.20 H	295	71.6	32.4
2	*2467.00	101.4 AV			3.20 H	295	69.0	32.4
3	2483.50	57.0 PK	74.0	-17.0	3.03 H	290	24.6	32.4
4	2483.50	45.2 AV	54.0	-8.8	3.03 H	290	12.8	32.4
5	4934.00	45.9 PK	74.0	-28.1	1.90 H	269	41.9	4.0
6	4934.00	31.8 AV	54.0	-22.2	1.90 H	269	27.8	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	112.3 PK			3.14 V	278	79.9	32.4
2	*2467.00	108.7 AV			3.14 V	278	76.3	32.4
3	2483.50	57.3 PK	74.0	-16.7	3.05 V	274	24.9	32.4
4	2483.50	45.4 AV	54.0	-8.6	3.05 V	274	13.0	32.4
5	4934.00	48.0 PK	74.0	-26.0	2.32 V	286	44.0	4.0
6	4934.00	39.0 AV	54.0	-15.0	2.32 V	286	35.0	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2472.00	95.9 PK			2.75 H	286	63.5	32.4
2	*2472.00	92.5 AV			2.75 H	286	60.1	32.4
3	2483.50	56.0 PK	74.0	-18.0	2.61 H	293	23.6	32.4
4	2483.50	44.1 AV	54.0	-9.9	2.61 H	293	11.7	32.4
5	4944.00	42.3 PK	74.0	-31.7	1.69 H	290	38.3	4.0
6	4944.00	30.1 AV	54.0	-23.9	1.69 H	290	26.1	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	103.6 PK			2.65 V	268	71.2	32.4
2	*2472.00	100.2 AV			2.65 V	268	67.8	32.4
3	2483.50	56.3 PK	74.0	-17.7	2.74 V	281	23.9	32.4
4	2483.50	44.2 AV	54.0	-9.8	2.74 V	281	11.8	32.4
5	4944.00	44.4 PK	74.0	-29.6	2.65 V	296	40.4	4.0
6	4944.00	32.5 AV	54.0	-21.5	2.65 V	296	28.5	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	62.6 PK	74.0	-11.4	2.66 H	288	30.3	32.3
2	2390.00	47.0 AV	54.0	-7.0	2.66 H	288	14.7	32.3
3	*2412.00	102.1 PK			2.75 H	279	69.8	32.3
4	*2412.00	92.5 AV			2.75 H	279	60.2	32.3
5	4824.00	43.7 PK	74.0	-30.3	1.80 H	299	40.3	3.4
6	4824.00	30.9 AV	54.0	-23.1	1.80 H	299	27.5	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	71.1 PK	74.0	-2.9	3.36 V	277	38.8	32.3
2	2390.00	52.3 AV	54.0	-1.7	3.36 V	277	20.0	32.3
3	*2412.00	109.8 PK			2.93 V	275	77.5	32.3
4	*2412.00	100.3 AV			2.93 V	275	68.0	32.3
5	4824.00	44.3 PK	74.0	-29.7	2.60 V	277	40.9	3.4
6	4824.00	31.4 AV	54.0	-22.6	2.60 V	277	28.0	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	55.4 PK	74.0	-18.6	2.55 H	277	23.1	32.3
2	2390.00	44.0 AV	54.0	-10.0	2.55 H	277	11.7	32.3
3	*2437.00	103.9 PK			2.70 H	289	71.6	32.3
4	*2437.00	93.6 AV			2.70 H	289	61.3	32.3
5	4874.00	45.3 PK	74.0	-28.7	1.81 H	305	41.6	3.7
6	4874.00	32.4 AV	54.0	-21.6	1.81 H	305	28.7	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	56.2 PK	74.0	-17.8	3.15 V	288	23.9	32.3
2	2390.00	44.2 AV	54.0	-9.8	3.15 V	288	11.9	32.3
3	*2437.00	111.7 PK			3.23 V	278	79.4	32.3
4	*2437.00	101.3 AV			3.23 V	278	69.0	32.3
5	4874.00	45.7 PK	74.0	-28.3	2.71 V	288	42.0	3.7
6	4874.00	32.9 AV	54.0	-21.1	2.71 V	288	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	102.5 PK			3.13 H	286	70.1	32.4
2	*2462.00	92.5 AV			3.13 H	286	60.1	32.4
3	2483.50	65.3 PK	74.0	-8.7	3.16 H	299	32.9	32.4
4	2483.50	45.5 AV	54.0	-8.5	3.16 H	299	13.1	32.4
5	4924.00	45.4 PK	74.0	-28.6	1.93 H	273	41.6	3.8
6	4924.00	32.4 AV	54.0	-21.6	1.93 H	273	28.6	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	110.6 PK			3.20 V	276	78.2	32.4
2	*2462.00	99.9 AV			3.20 V	276	67.5	32.4
3	2483.50	66.9 PK	74.0	-7.1	2.84 V	269	34.5	32.4
4	2483.50	48.4 AV	54.0	-5.6	2.84 V	269	16.0	32.4
5	4924.00	46.0 PK	74.0	-28.0	2.69 V	281	42.2	3.8
6	4924.00	33.0 AV	54.0	-21.0	2.69 V	281	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2467.00	98.3 PK			3.31 H	295	65.9	32.4
2	*2467.00	88.9 AV			3.31 H	295	56.5	32.4
3	2483.50	63.5 PK	74.0	-10.5	3.20 H	300	31.1	32.4
4	2483.50	45.3 AV	54.0	-8.7	3.20 H	300	12.9	32.4
5	4934.00	44.8 PK	74.0	-29.2	1.88 H	278	40.8	4.0
6	4934.00	32.1 AV	54.0	-21.9	1.88 H	278	28.1	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	*2467.00	106.4 PK			3.17 V	278	74.0	32.4
2	*2467.00	96.0 AV			3.17 V	278	63.6	32.4
3	2483.50	63.8 PK	74.0	-10.2	3.18 V	276	31.4	32.4
4	2483.50	47.9 AV	54.0	-6.1	3.18 V	276	15.5	32.4
5	4934.00	45.4 PK	74.0	-28.6	2.74 V	275	41.4	4.0
6	4934.00	32.6 AV	54.0	-21.4	2.74 V	275	28.6	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2472.00	88.8 PK			2.79 H	290	56.4	32.4
2	*2472.00	78.1 AV			2.79 H	290	45.7	32.4
3	2483.50	63.2 PK	74.0	-10.8	2.88 H	279	30.8	32.4
4	2483.50	46.3 AV	54.0	-7.7	2.88 H	279	13.9	32.4
5	4944.00	44.1 PK	74.0	-29.9	1.76 H	288	40.1	4.0
6	4944.00	31.3 AV	54.0	-22.7	1.76 H	288	27.3	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	96.4 PK			3.56 V	274	64.0	32.4
2	*2472.00	85.9 AV			3.56 V	274	53.5	32.4
3	2483.50	72.3 PK	74.0	-1.7	3.57 V	286	39.9	32.4
4	2483.50	50.5 AV	54.0	-3.5	3.57 V	286	18.1	32.4
5	4944.00	44.5 PK	74.0	-29.5	2.91 V	288	40.5	4.0
6	4944.00	31.8 AV	54.0	-22.2	2.91 V	288	27.8	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	65.9 PK	74.0	-8.1	2.98 H	299	33.6	32.3
2	2390.00	45.5 AV	54.0	-8.5	2.98 H	299	13.2	32.3
3	*2412.00	102.5 PK			3.12 H	293	70.2	32.3
4	*2412.00	92.0 AV			3.12 H	293	59.7	32.3
5	4824.00	44.6 PK	74.0	-29.4	2.01 H	269	41.2	3.4
6	4824.00	31.5 AV	54.0	-22.5	2.01 H	269	28.1	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	72.8 PK	74.0	-1.2	2.82 V	272	40.5	32.3
2	2390.00	49.1 AV	54.0	-4.9	2.82 V	272	16.8	32.3
3	*2412.00	110.6 PK			3.35 V	276	78.3	32.3
4	*2412.00	99.2 AV			3.35 V	276	66.9	32.3
5	4824.00	45.3 PK	74.0	-28.7	2.62 V	288	41.9	3.4
6	4824.00	32.1 AV	54.0	-21.9	2.62 V	288	28.7	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	57.2 PK	74.0	-16.8	3.06 H	289	24.9	32.3
2	2390.00	44.7 AV	54.0	-9.3	3.06 H	289	12.4	32.3
3	*2437.00	103.8 PK			3.20 H	293	71.5	32.3
4	*2437.00	93.7 AV			3.20 H	293	61.4	32.3
5	4874.00	45.7 PK	74.0	-28.3	1.90 H	275	42.0	3.7
6	4874.00	32.5 AV	54.0	-21.5	1.90 H	275	28.8	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	57.4 PK	74.0	-16.6	3.18 V	280	25.1	32.3
2	2390.00	44.8 AV	54.0	-9.2	3.18 V	280	12.5	32.3
3	*2437.00	111.9 PK			3.25 V	276	79.6	32.3
4	*2437.00	101.0 AV			3.25 V	276	68.7	32.3
5	4874.00	46.2 PK	74.0	-27.8	2.73 V	279	42.5	3.7
6	4874.00	33.1 AV	54.0	-20.9	2.73 V	279	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	100.0 PK			3.30 H	293	67.6	32.4
2	*2462.00	89.9 AV			3.30 H	293	57.5	32.4
3	2483.50	64.2 PK	74.0	-9.8	3.16 H	303	31.8	32.4
4	2483.50	45.5 AV	54.0	-8.5	3.16 H	303	13.1	32.4
5	4924.00	45.0 PK	74.0	-29.0	2.03 H	273	41.2	3.8
6	4924.00	31.8 AV	54.0	-22.2	2.03 H	273	28.0	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	108.3 PK			2.87 V	274	75.9	32.4
2	*2462.00	97.2 AV			2.87 V	274	64.8	32.4
3	2483.50	64.5 PK	74.0	-9.5	2.68 V	274	32.1	32.4
4	2483.50	46.7 AV	54.0	-7.3	2.68 V	274	14.3	32.4
5	4924.00	45.6 PK	74.0	-28.4	2.69 V	285	41.8	3.8
6	4924.00	32.3 AV	54.0	-21.7	2.69 V	285	28.5	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2467.00	97.7 PK			3.20 H	291	65.3	32.4
2	*2467.00	87.4 AV			3.20 H	291	55.0	32.4
3	2483.50	64.5 PK	74.0	-9.5	3.08 H	288	32.1	32.4
4	2483.50	45.7 AV	54.0	-8.3	3.08 H	288	13.3	32.4
5	4934.00	44.9 PK	74.0	-29.1	1.92 H	276	40.9	4.0
6	4934.00	31.7 AV	54.0	-22.3	1.92 H	276	27.7	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	105.9 PK			3.18 V	278	73.5	32.4
2	*2467.00	94.6 AV			3.18 V	278	62.2	32.4
3	2483.50	65.8 PK	74.0	-8.2	3.18 V	280	33.4	32.4
4	2483.50	48.7 AV	54.0	-5.3	3.18 V	280	16.3	32.4
5	4934.00	45.5 PK	74.0	-28.5	2.74 V	278	41.5	4.0
6	4934.00	32.3 AV	54.0	-21.7	2.74 V	278	28.3	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2472.00	86.4 PK			3.05 H	289	54.0	32.4
2	*2472.00	76.2 AV			3.05 H	289	43.8	32.4
3	2483.50	64.7 PK	74.0	-9.3	3.19 H	299	32.3	32.4
4	2483.50	46.7 AV	54.0	-7.3	3.19 H	299	14.3	32.4
5	4944.00	44.9 PK	74.0	-29.1	1.99 H	263	40.9	4.0
6	4944.00	31.7 AV	54.0	-22.3	1.99 H	263	27.7	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	94.4 PK			2.91 V	282	62.0	32.4
2	*2472.00	83.3 AV			2.91 V	282	50.9	32.4
3	2483.50	71.6 PK	74.0	-2.4	2.88 V	281	39.2	32.4
4	2483.50	50.4 AV	54.0	-3.6	2.88 V	281	18.0	32.4
5	4944.00	45.5 PK	74.0	-28.5	2.61 V	276	41.5	4.0
6	4944.00	32.1 AV	54.0	-21.9	2.61 V	276	28.1	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

802.11n (VHT40)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	61.8 PK	74.0	-12.2	2.53 H	276	29.5	32.3
2	2390.00	44.4 AV	54.0	-9.6	2.53 H	276	12.1	32.3
3	*2422.00	97.1 PK			2.68 H	288	64.8	32.3
4	*2422.00	86.1 AV			2.68 H	288	53.8	32.3
5	4844.00	43.9 PK	74.0	-30.1	1.63 H	269	40.4	3.5
6	4844.00	30.6 AV	54.0	-23.4	1.63 H	269	27.1	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	69.8 PK	74.0	-4.2	3.17 V	265	37.5	32.3
2	2390.00	47.3 AV	54.0	-6.7	3.17 V	265	15.0	32.3
3	*2422.00	104.8 PK			2.79 V	279	72.5	32.3
4	*2422.00	93.8 AV			2.79 V	279	61.5	32.3
5	4844.00	44.4 PK	74.0	-29.6	2.71 V	289	40.9	3.5
6	4844.00	31.0 AV	54.0	-23.0	2.71 V	289	27.5	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	60.2 PK	74.0	-13.8	2.50 H	293	27.9	32.3
2	2390.00	44.3 AV	54.0	-9.7	2.50 H	293	12.0	32.3
3	*2437.00	98.1 PK			2.70 H	290	65.8	32.3
4	*2437.00	87.3 AV			2.70 H	290	55.0	32.3
5	4874.00	44.5 PK	74.0	-29.5	1.89 H	291	40.8	3.7
6	4874.00	31.4 AV	54.0	-22.6	1.89 H	291	27.7	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	67.2 PK	74.0	-6.8	3.14 V	269	34.9	32.3
2	2390.00	49.3 AV	54.0	-4.7	3.14 V	269	17.0	32.3
3	*2437.00	105.8 PK			3.30 V	279	73.5	32.3
4	*2437.00	95.0 AV			3.30 V	279	62.7	32.3
5	4874.00	44.9 PK	74.0	-29.1	2.60 V	271	41.2	3.7
6	4874.00	31.9 AV	54.0	-22.1	2.60 V	271	28.2	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	96.6 PK			3.30 H	293	64.2	32.4
2	*2452.00	86.4 AV			3.30 H	293	54.0	32.4
3	2483.50	65.9 PK	74.0	-8.1	3.14 H	290	33.5	32.4
4	2483.50	46.8 AV	54.0	-7.2	3.14 H	290	14.4	32.4
5	4904.00	45.6 PK	74.0	-28.4	1.97 H	258	41.9	3.7
6	4904.00	31.6 AV	54.0	-22.4	1.97 H	258	27.9	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	*2452.00	104.7 PK			3.22 V	278	72.3	32.4
2	*2452.00	93.6 AV			3.22 V	278	61.2	32.4
3	2483.50	72.6 PK	74.0	-1.4	3.14 V	278	40.2	32.4
4	2483.50	50.7 AV	54.0	-3.3	3.14 V	278	18.3	32.4
5	4904.00	46.2 PK	74.0	-27.8	2.65 V	275	42.5	3.7
6	4904.00	32.2 AV	54.0	-21.8	2.65 V	275	28.5	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 10	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2457.00	88.5 PK			3.16 H	295	56.1	32.4
2	*2457.00	78.1 AV			3.16 H	295	45.7	32.4
3	2483.50	64.7 PK	74.0	-9.3	3.20 H	287	32.3	32.4
4	2483.50	45.2 AV	54.0	-8.8	3.20 H	287	12.8	32.4
5	4914.00	45.5 PK	74.0	-28.5	1.96 H	260	41.7	3.8
6	4914.00	31.5 AV	54.0	-22.5	1.96 H	260	27.7	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	96.6 PK			3.20 V	275	64.2	32.4
2	*2457.00	85.3 AV			3.20 V	275	52.9	32.4
3	2483.50	64.9 PK	74.0	-9.1	3.48 V	273	32.5	32.4
4	2483.50	47.6 AV	54.0	-6.4	3.48 V	273	15.2	32.4
5	4914.00	46.1 PK	74.0	-27.9	2.74 V	280	42.3	3.8
6	4914.00	32.2 AV	54.0	-21.8	2.74 V	280	28.4	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	85.4 PK			2.66 H	282	53.0	32.4
2	*2462.00	73.4 AV			2.66 H	282	41.0	32.4
3	2483.50	60.1 PK	74.0	-13.9	2.57 H	269	27.7	32.4
4	2483.50	44.4 AV	54.0	-9.6	2.57 H	269	12.0	32.4
5	4924.00	44.0 PK	74.0	-30.0	1.89 H	270	40.2	3.8
6	4924.00	30.8 AV	54.0	-23.2	1.89 H	270	27.0	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	93.0 PK			3.25 V	277	60.6	32.4
2	*2462.00	81.2 AV			3.25 V	277	48.8	32.4
3	2483.50	68.1 PK	74.0	-5.9	3.20 V	274	35.7	32.4
4	2483.50	48.3 AV	54.0	-5.7	3.20 V	274	15.9	32.4
5	4924.00	44.3 PK	74.0	-29.7	2.80 V	269	40.5	3.8
6	4924.00	31.2 AV	54.0	-22.8	2.80 V	269	27.4	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

802.11ax (HE20)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	66.0 PK	74.0	-8.0	3.31 H	293	33.7	32.3
2	2390.00	46.3 AV	54.0	-7.7	3.31 H	293	14.0	32.3
3	*2412.00	103.3 PK			3.20 H	292	71.0	32.3
4	*2412.00	91.5 AV			3.20 H	292	59.2	32.3
5	4824.00	44.7 PK	74.0	-29.3	2.06 H	279	41.3	3.4
6	4824.00	31.6 AV	54.0	-22.4	2.06 H	279	28.2	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**	**73.0 PK**	**74.0**	**-1.0**	**3.34 V**	**277**	**40.7**	**32.3**
2	2390.00	50.1 AV	54.0	-3.9	3.34 V	277	17.8	32.3
3	*2412.00	111.4 PK			3.30 V	278	79.1	32.3
4	*2412.00	98.8 AV			3.30 V	278	66.5	32.3
5	4824.00	45.4 PK	74.0	-28.6	2.74 V	278	42.0	3.4
6	4824.00	32.2 AV	54.0	-21.8	2.74 V	278	28.8	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	57.7 PK	74.0	-16.3	2.99 H	299	25.4	32.3
2	2390.00	44.8 AV	54.0	-9.2	2.99 H	299	12.5	32.3
3	*2437.00	104.8 PK			3.12 H	290	72.5	32.3
4	*2437.00	93.6 AV			3.12 H	290	61.3	32.3
5	4874.00	45.7 PK	74.0	-28.3	2.02 H	266	42.0	3.7
6	4874.00	32.6 AV	54.0	-21.4	2.02 H	266	28.9	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	2390.00	57.9 PK	74.0	-16.1	3.15 V	280	25.6	32.3
2	2390.00	44.9 AV	54.0	-9.1	3.15 V	280	12.6	32.3
3	*2437.00	113.0 PK			3.24 V	277	80.7	32.3
4	*2437.00	100.8 AV			3.24 V	277	68.5	32.3
5	4874.00	46.3 PK	74.0	-27.7	2.76 V	281	42.6	3.7
6	4874.00	33.2 AV	54.0	-20.8	2.76 V	281	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	101.9 PK			3.29 H	297	69.5	32.4
2	*2462.00	90.6 AV			3.29 H	297	58.2	32.4
3	2483.50	64.7 PK	74.0	-9.3	3.12 H	303	32.3	32.4
4	2483.50	45.2 AV	54.0	-8.8	3.12 H	303	12.8	32.4
5	4924.00	45.3 PK	74.0	-28.7	1.96 H	269	41.5	3.8
6	4924.00	32.0 AV	54.0	-22.0	1.96 H	269	28.2	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	109.9 PK			3.16 V	278	77.5	32.4
2	*2462.00	97.5 AV			3.16 V	278	65.1	32.4
3	2483.50	66.4 PK	74.0	-7.6	2.99 V	277	34.0	32.4
4	2483.50	47.5 AV	54.0	-6.5	2.99 V	277	15.1	32.4
5	4924.00	45.8 PK	74.0	-28.2	2.74 V	281	42.0	3.8
6	4924.00	32.5 AV	54.0	-21.5	2.74 V	281	28.7	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2467.00	97.9 PK			3.25 H	290	65.5	32.4
2	*2467.00	86.7 AV			3.25 H	290	54.3	32.4
3	2483.50	65.3 PK	74.0	-8.7	3.14 H	299	32.9	32.4
4	2483.50	45.8 AV	54.0	-8.2	3.14 H	299	13.4	32.4
5	4934.00	45.1 PK	74.0	-28.9	1.90 H	274	41.1	4.0
6	4934.00	31.8 AV	54.0	-22.2	1.90 H	274	27.8	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	106.0 PK			3.14 V	275	73.6	32.4
2	*2467.00	93.9 AV			3.14 V	275	61.5	32.4
3	2483.50	66.7 PK	74.0	-7.3	3.20 V	280	34.3	32.4
4	2483.50	48.9 AV	54.0	-5.1	3.20 V	280	16.5	32.4
5	4934.00	45.7 PK	74.0	-28.3	2.67 V	273	41.7	4.0
6	4934.00	32.4 AV	54.0	-21.6	2.67 V	273	28.4	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2472.00	87.1 PK			3.20 H	293	54.7	32.4
2	*2472.00	75.7 AV			3.20 H	293	43.3	32.4
3	2483.50	66.4 PK	74.0	-7.6	3.03 H	296	34.0	32.4
4	2483.50	45.3 AV	54.0	-8.7	3.03 H	296	12.9	32.4
5	4944.00	45.0 PK	74.0	-29.0	2.00 H	269	41.0	4.0
6	4944.00	31.3 AV	54.0	-22.7	2.00 H	269	27.3	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	95.3 PK			3.15 V	275	62.9	32.4
2	*2472.00	82.9 AV			3.15 V	275	50.5	32.4
3	2483.50	72.7 PK	74.0	-1.3	2.91 V	277	40.3	32.4
4	2483.50	48.2 AV	54.0	-5.8	2.91 V	277	15.8	32.4
5	4944.00	45.6 PK	74.0	-28.4	2.74 V	269	41.6	4.0
6	4944.00	32.0 AV	54.0	-22.0	2.74 V	269	28.0	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

802.11ax (HE40)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	61.8 PK	74.0	-12.2	2.55 H	277	29.5	32.3
2	2390.00	44.5 AV	54.0	-9.5	2.55 H	277	12.2	32.3
3	*2422.00	97.8 PK			2.69 H	285	65.5	32.3
4	*2422.00	85.6 AV			2.69 H	285	53.3	32.3
5	4844.00	44.3 PK	74.0	-29.7	1.70 H	293	40.8	3.5
6	4844.00	31.0 AV	54.0	-23.0	1.70 H	293	27.5	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	68.3 PK	74.0	-5.7	3.36 V	277	36.0	32.3
2	2390.00	46.8 AV	54.0	-7.2	3.36 V	277	14.5	32.3
3	*2422.00	105.3 PK			3.35 V	274	73.0	32.3
4	*2422.00	93.2 AV			3.35 V	274	60.9	32.3
5	4844.00	44.6 PK	74.0	-29.4	2.81 V	290	41.1	3.5
6	4844.00	31.3 AV	54.0	-22.7	2.81 V	290	27.8	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	60.5 PK	74.0	-13.5	2.55 H	280	28.2	32.3
2	2390.00	45.5 AV	54.0	-8.5	2.55 H	280	13.2	32.3
3	*2437.00	99.9 PK			2.66 H	289	67.6	32.3
4	*2437.00	87.4 AV			2.66 H	289	55.1	32.3
5	4874.00	44.9 PK	74.0	-29.1	1.80 H	271	41.2	3.7
6	4874.00	31.7 AV	54.0	-22.3	1.80 H	271	28.0	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	2390.00	70.4 PK	74.0	-3.6	3.20 V	280	38.1	32.3
2	2390.00	50.6 AV	54.0	-3.4	3.20 V	280	18.3	32.3
3	*2437.00	107.5 PK			3.31 V	277	75.2	32.3
4	*2437.00	95.1 AV			3.31 V	277	62.8	32.3
5	4874.00	45.2 PK	74.0	-28.8	2.75 V	280	41.5	3.7
6	4874.00	32.0 AV	54.0	-22.0	2.75 V	280	28.3	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	97.4 PK			3.25 H	292	65.0	32.4
2	*2452.00	85.6 AV			3.25 H	292	53.2	32.4
3	2483.50	65.6 PK	74.0	-8.4	3.21 H	292	33.2	32.4
4	2483.50	46.9 AV	54.0	-7.1	3.21 H	292	14.5	32.4
5	4904.00	45.8 PK	74.0	-28.2	1.91 H	259	42.1	3.7
6	4904.00	31.7 AV	54.0	-22.3	1.91 H	259	28.0	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	*2452.00	105.6 PK			3.26 V	277	73.2	32.4
2	*2452.00	92.9 AV			3.26 V	277	60.5	32.4
3	2483.50	72.7 PK	74.0	-1.3	2.77 V	273	40.3	32.4
4	2483.50	51.0 AV	54.0	-3.0	2.77 V	273	18.6	32.4
5	4904.00	46.4 PK	74.0	-27.6	2.79 V	271	42.7	3.7
6	4904.00	32.2 AV	54.0	-21.8	2.79 V	271	28.5	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 10	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2457.00	89.6 PK			3.17 H	288	57.2	32.4
2	*2457.00	78.2 AV			3.17 H	288	45.8	32.4
3	2483.50	65.1 PK	74.0	-8.9	3.20 H	293	32.7	32.4
4	2483.50	44.6 AV	54.0	-9.4	3.20 H	293	12.2	32.4
5	4914.00	45.6 PK	74.0	-28.4	2.01 H	261	41.8	3.8
6	4914.00	31.7 AV	54.0	-22.3	2.01 H	261	27.9	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	97.6 PK			3.20 V	276	65.2	32.4
2	*2457.00	85.4 AV			3.20 V	276	53.0	32.4
3	2483.50	65.5 PK	74.0	-8.5	3.51 V	280	33.1	32.4
4	2483.50	47.7 AV	54.0	-6.3	3.51 V	280	15.3	32.4
5	4914.00	46.3 PK	74.0	-27.7	2.71 V	272	42.5	3.8
6	4914.00	32.3 AV	54.0	-21.7	2.71 V	272	28.5	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	85.6 PK			2.65 H	284	53.2	32.4
2	*2462.00	73.8 AV			2.65 H	284	41.4	32.4
3	2483.50	65.4 PK	74.0	-8.6	2.50 H	281	33.0	32.4
4	2483.50	43.9 AV	54.0	-10.1	2.50 H	281	11.5	32.4
5	4924.00	43.9 PK	74.0	-30.1	1.77 H	281	40.1	3.8
6	4924.00	31.0 AV	54.0	-23.0	1.77 H	281	27.2	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	92.4 PK			3.70 V	285	60.0	32.4
2	*2462.00	80.2 AV			3.70 V	285	47.8	32.4
3	2483.50	66.5 PK	74.0	-7.5	3.50 V	277	34.1	32.4
4	2483.50	44.7 AV	54.0	-9.3	3.50 V	277	12.3	32.4
5	4924.00	44.3 PK	74.0	-29.7	2.75 V	281	40.5	3.8
6	4924.00	31.3 AV	54.0	-22.7	2.75 V	281	27.5	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

Below 1GHz worst-case data:

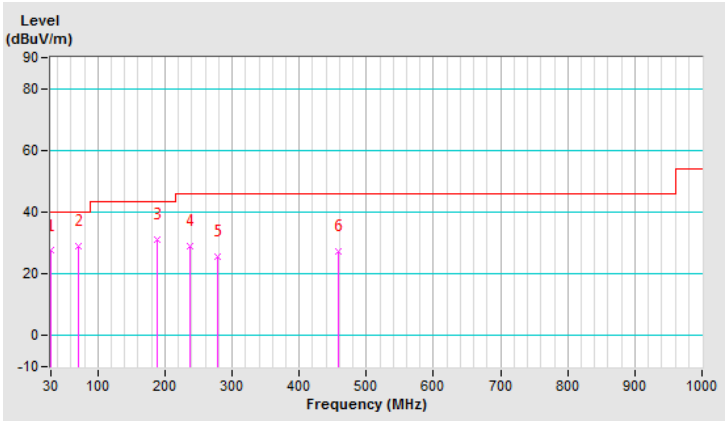
802.11b

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	30.00	27.5 QP	40.0	-12.5	1.01 H	349	37.9	-10.4
2	70.77	29.1 QP	40.0	-10.9	2.00 H	309	40.0	-10.9
3	187.45	31.3 QP	43.5	-12.2	1.51 H	251	42.1	-10.8
4	236.65	28.8 QP	46.0	-17.2	1.51 H	126	39.1	-10.3
5	278.83	25.7 QP	46.0	-20.3	1.51 H	12	33.7	-8.0
6	458.77	27.3 QP	46.0	-18.7	2.00 H	313	29.8	-2.5

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

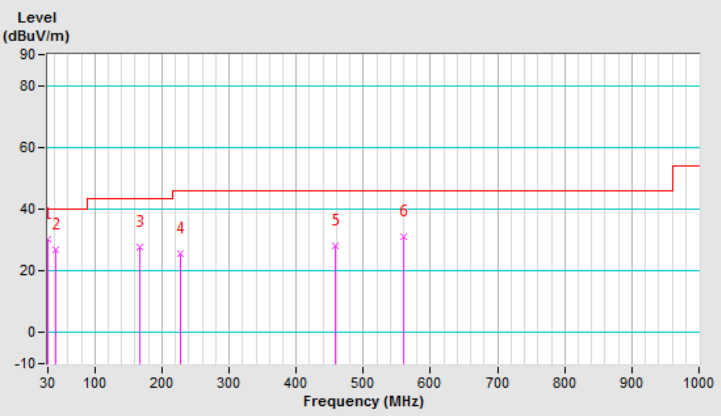


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

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	30.1 QP	40.0	-9.9	1.50 V	254	40.5	-10.4
2	41.25	26.9 QP	40.0	-13.1	1.00 V	222	36.1	-9.2
3	167.77	27.7 QP	43.5	-15.8	2.00 V	121	36.4	-8.7
4	226.81	25.8 QP	46.0	-20.2	1.00 V	11	37.0	-11.2
5	458.77	28.2 QP	46.0	-17.8	1.50 V	244	30.7	-2.5
6	559.99	31.2 QP	46.0	-14.8	1.00 V	11	31.5	-0.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB 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 0.50MHz.

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/ 50uH of coupling impedance for the measuring instrument.

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

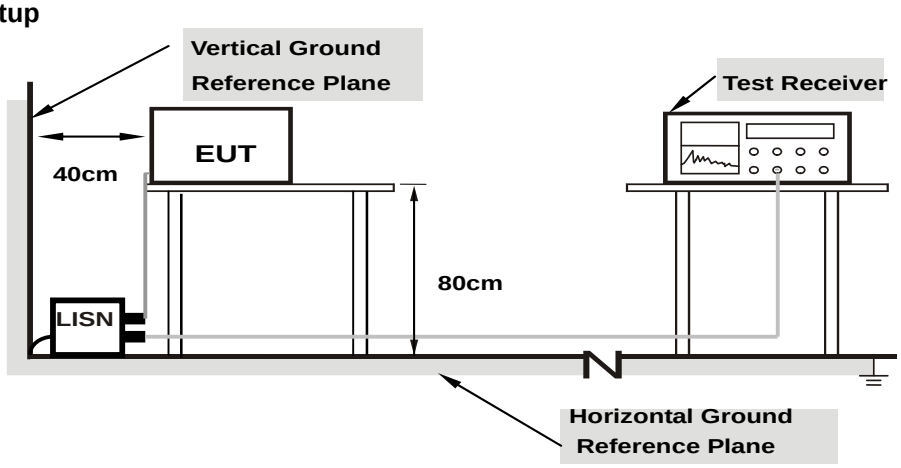
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

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

Same as 4.1.6.

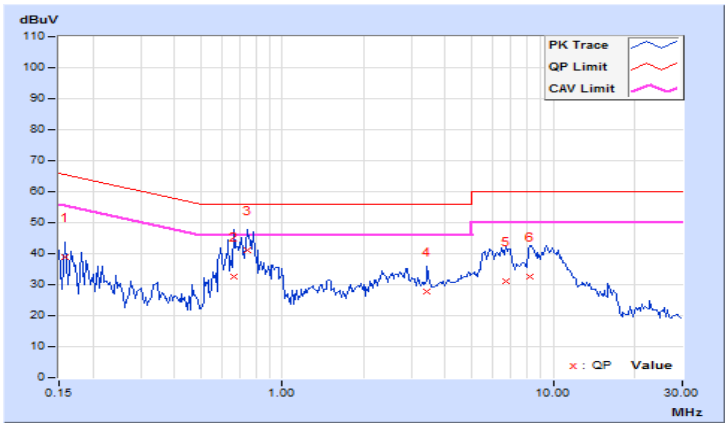
4.2.7 Test Results

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15781	9.67	29.31	15.12	38.98	24.79	65.58	55.58	-26.60	-30.79
2	0.66563	9.71	22.88	17.36	32.59	27.07	56.00	46.00	-23.41	-18.93
3	0.73984	9.71	31.48	22.88	41.19	32.59	56.00	46.00	-14.81	-13.41
4	3.43750	9.82	17.87	11.32	27.69	21.14	56.00	46.00	-28.31	-24.86
5	6.68359	9.88	21.07	14.44	30.95	24.32	60.00	50.00	-29.05	-25.68
6	8.21484	9.90	22.57	16.89	32.47	26.79	60.00	50.00	-27.53	-23.21

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.

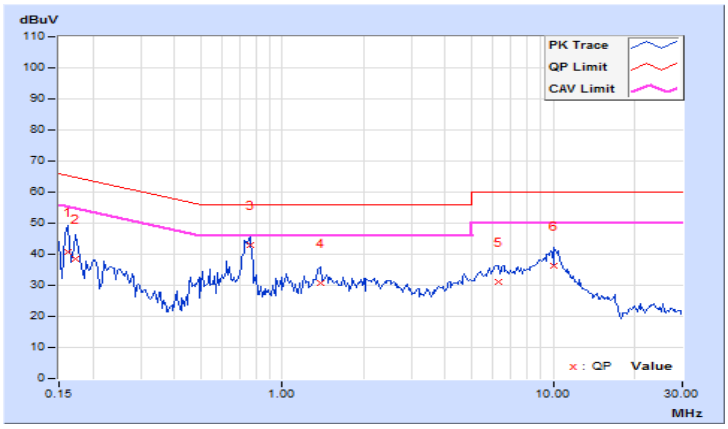


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16172	9.64	31.27	18.15	40.91	27.79	65.38	55.38	-24.47	-27.59
2	0.17344	9.64	29.06	17.82	38.70	27.46	64.79	54.79	-26.09	-27.33
3	**0.76328**	**9.68**	**33.39**	**25.64**	**43.07**	**35.32**	**56.00**	**46.00**	**-12.93**	**-10.68**
4	1.38281	9.72	21.14	14.13	30.86	23.85	56.00	46.00	-25.14	-22.15
5	6.27344	9.85	21.26	14.81	31.11	24.66	60.00	50.00	-28.89	-25.34
6	10.04688	9.91	26.34	19.18	36.25	29.09	60.00	50.00	-23.75	-20.91

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

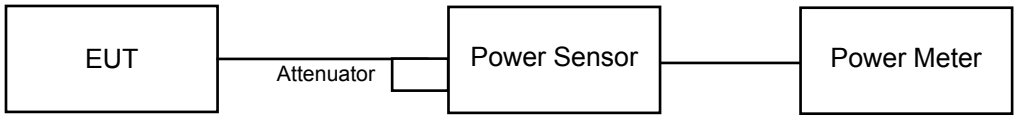
For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30dBm)

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 $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

For power measurements on all other devices: Array Gain = 10 log(N_{ANT}/N_{SS}) 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

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

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

Channel	Frequency (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	20.64	20.82	236.659	23.74	30.00	Pass
6	2437	20.39	21.05	236.746	23.74	30.00	Pass
11	2462	21.14	21.02	256.491	24.09	30.00	Pass
12	2467	20.65	21.07	244.083	23.88	30.00	Pass
13	2472	14.52	15.06	60.377	17.81	30.00	Pass

802.11g

Channel	Frequency (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	20.21	20.57	218.979	23.40	30.00	Pass
2	2417	23.04	22.34	372.768	25.71	30.00	Pass
6	2437	22.46	23.19	384.647	25.85	30.00	Pass
10	2457	22.96	24.33	**468.716**	26.71	30.00	Pass
11	2462	21.68	22.05	307.556	24.88	30.00	Pass
12	2467	19.12	19.76	176.282	22.46	30.00	Pass
13	2472	10.98	11.54	26.787	14.28	30.00	Pass

802.11n (VHT20)

Channel	Frequency (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	22.11	22.21	328.896	25.17	30.00	PASS
2	2417	23.15	23.65	438.277	26.42	30.00	PASS
6	2437	23.39	23.75	455.410	26.58	30.00	PASS
10	2457	23.47	23.66	454.605	26.58	30.00	PASS
11	2462	22.61	22.93	378.726	25.78	30.00	PASS
12	2467	19.84	20.15	199.897	23.01	30.00	PASS
13	2472	10.52	10.68	22.967	13.61	30.00	PASS

802.11n (VHT40)

Channel	Frequency (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	19.62	20.19	196.094	22.92	30.00	PASS
4	2427	20.65	20.47	227.574	23.57	30.00	PASS
6	2437	21.98	22.04	317.717	25.02	30.00	PASS
8	2447	21.91	22.38	328.221	25.16	30.00	PASS
9	2452	20.01	20.41	210.132	23.22	30.00	PASS
10	2457	14.32	14.55	55.550	17.45	30.00	PASS
11	2462	10.66	10.36	22.505	13.52	30.00	PASS

802.11ax (HE20)_CDD

Channel	Frequency (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	21.89	22.11	317.080	25.01	30.00	PASS
2	2417	22.59	23.53	406.976	26.10	30.00	PASS
6	2437	22.82	23.37	408.696	26.11	30.00	PASS
10	2457	22.68	23.52	410.258	26.13	30.00	PASS
11	2462	22.35	22.54	351.264	25.46	30.00	PASS
12	2467	19.63	20.83	212.893	23.28	30.00	PASS
13	2472	10.13	9.51	19.237	12.84	30.00	PASS

802.11ax (HE40)_CDD

Channel	Frequency (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	20.66	20.93	240.293	23.81	30.00	PASS
4	2427	20.86	20.55	235.400	23.72	30.00	PASS
6	2437	21.77	22.56	330.616	25.19	30.00	PASS
8	2447	21.46	22.53	319.020	25.04	30.00	PASS
9	2452	20.31	20.84	228.738	23.59	30.00	PASS
10	2457	14.57	13.69	52.030	17.16	30.00	PASS
11	2462	10.35	10.11	21.096	13.24	30.00	PASS

802.11ax (HE20 RU26)

Channel	Frequency (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	21.16	21.41	268.974	24.30	30.00	PASS
2	2417	21.95	22.86	349.872	25.44	30.00	PASS
6	2437	23.23	22.90	405.362	26.08	30.00	PASS
10	2457	22.33	22.95	368.244	25.66	30.00	PASS
11	2462	18.26	19.98	166.529	22.21	30.00	PASS
12	2467	11.24	11.38	27.045	14.32	30.00	PASS
13	2472	9.42	9.25	17.164	12.35	30.00	PASS

802.11ax (HE20 RU52)

Channel	Frequency (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	21.76	21.49	290.897	24.64	30.00	290.897
2	2417	22.73	22.96	385.196	25.86	30.00	385.196
6	2437	23.07	23.05	404.605	26.07	30.00	404.605
10	2457	22.13	22.01	322.160	25.08	30.00	322.160
11	2462	18.41	19.52	158.879	22.01	30.00	158.879
12	2467	11.95	11.54	29.924	14.76	30.00	29.924
13	2472	9.87	8.96	17.575	12.45	30.00	17.575

802.11ax (HE20 RU106)

Channel	Frequency (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	22.11	22.14	326.237	25.14	30.00	PASS
2	2417	22.41	22.99	373.248	25.72	30.00	PASS
6	2437	23.10	23.06	406.476	26.09	30.00	PASS
10	2457	22.26	22.74	356.199	25.52	30.00	PASS
11	2462	19.63	19.89	189.332	22.77	30.00	PASS
12	2467	12.88	12.31	36.431	15.61	30.00	PASS
13	2472	10.81	10.73	23.880	13.78	30.00	PASS

802.11ax (HE20 RU242)

Channel	Frequency (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	18.99	19.96	178.333	22.51	30.00	PASS
2	2417	22.35	22.76	360.590	25.57	30.00	PASS
6	2437	22.85	23.02	393.199	25.95	30.00	PASS
10	2457	22.98	23.12	403.725	26.06	30.00	PASS
11	2462	20.18	20.93	228.112	23.58	30.00	PASS
12	2467	13.05	13.25	41.319	16.16	30.00	PASS
13	2472	10.97	11.15	25.535	14.07	30.00	PASS

802.11ax (HE40 RU484)

Channel	Frequency (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	18.11	18.06	128.687	21.10	30.00	PASS
4	2427	18.73	19.49	163.565	22.14	30.00	PASS
6	2437	22.14	22.18	328.878	25.17	30.00	PASS
8	2447	17.36	17.52	110.944	20.45	30.00	PASS
9	2452	16.84	16.98	98.194	19.92	30.00	PASS
10	2457	12.45	12.61	35.818	15.54	30.00	PASS
11	2462	9.53	9.41	17.704	12.48	30.00	PASS

802.11b

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
1	2412	17.52	17.66	114.839	20.60
6	2437	17.77	17.85	120.795	20.82
11	2462	17.82	17.65	118.744	20.75
12	2467	17.94	17.96	124.747	20.96
13	2472	10.73	10.76	23.742	13.76

802.11g

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
1	2412	12.75	12.83	38.023	15.80
2	2417	15.56	15.57	72.033	18.58
6	2437	15.65	15.78	74.572	18.73
10	2457	15.60	15.66	73.121	18.64
11	2462	14.13	14.48	53.936	17.32
12	2467	10.58	10.78	23.396	13.69
13	2472	1.97	1.91	3.126	4.95

802.11n (VHT20)

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
1	2412	13.31	13.29	42.759	16.31
2	2417	15.53	15.73	73.138	18.64
6	2437	15.89	15.94	78.079	18.93
10	2457	15.77	15.86	76.305	18.83
11	2462	13.46	13.18	42.979	16.33
12	2467	10.75	10.88	24.131	13.83
13	2472	1.63	1.58	2.894	4.61

802.11n (VHT40)

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
3	2422	11.46	11.95	29.664	14.72
4	2427	11.63	11.92	30.115	14.79
6	2437	13.51	13.92	47.099	16.73
8	2447	13.56	13.97	47.645	16.78
9	2452	11.57	11.78	29.421	14.69
10	2457	5.93	5.63	7.573	8.79
11	2462	1.88	1.55	2.971	4.73

802.11ax (HE20)_CDD

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
1	2412	13.10	13.49	42.753	16.31
2	2417	15.62	15.95	75.830	18.80
6	2437	15.55	15.93	75.066	18.75
10	2457	15.52	15.94	74.909	18.75
11	2462	13.45	13.49	44.467	16.48
12	2467	10.60	10.76	23.394	13.69
13	2472	1.15	1.09	2.588	4.13

802.11ax (HE40)_CDD

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
3	2422	11.53	11.98	29.999	14.77
4	2427	11.55	11.95	29.957	14.76
6	2437	13.57	13.92	47.411	16.76
8	2447	13.52	13.90	47.038	16.72
9	2452	11.01	11.47	26.646	14.26
10	2457	5.89	5.62	7.530	8.77
11	2462	1.98	1.57	3.013	4.79

802.11ax (HE20 RU26)

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
1	2412	13.03	13.32	41.569	16.19
2	2417	15.11	15.26	66.008	18.20
6	2437	15.55	15.72	73.217	18.65
10	2457	14.71	14.97	60.985	17.85
11	2462	10.62	10.98	24.066	13.81
12	2467	3.60	3.77	4.673	6.70
13	2472	0.99	0.85	2.472	3.93

802.11ax (HE20 RU52)

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
1	2412	13.03	13.27	41.323	16.16
2	2417	15.06	15.05	64.052	18.07
6	2437	15.56	15.81	74.082	18.70
10	2457	14.71	14.96	60.913	17.85
11	2462	10.68	10.92	24.054	13.81
12	2467	3.92	3.65	4.783	6.80
13	2472	0.89	0.81	2.432	3.86

802.11ax (HE20 RU106)

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
1	2412	13.05	13.34	41.761	16.21
2	2417	15.09	15.17	65.170	18.14
6	2437	15.60	15.66	73.121	18.64
10	2457	14.72	14.98	61.125	17.86
11	2462	11.02	11.04	25.353	14.04
12	2467	3.89	3.92	4.915	6.92
13	2472	0.94	0.75	2.431	3.86

802.11ax (HE20 RU242)

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
1	2412	9.48	9.46	17.703	12.48
2	2417	14.43	14.79	57.863	17.62
6	2437	15.62	15.80	74.494	18.72
10	2457	14.46	14.78	57.986	17.63
11	2462	11.32	11.43	27.452	14.39
12	2467	4.79	4.57	5.877	7.69
13	2472	0.90	0.62	2.383	3.77

802.11ax (HE40 RU484)

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
3	2422	9.10	9.25	16.542	12.19
4	2427	10.17	10.43	21.440	13.31
6	2437	13.56	13.82	46.798	16.70
8	2447	9.04	9.45	16.827	12.26
9	2452	9.03	9.06	16.052	12.06
10	2457	4.92	4.67	6.036	7.81
11	2462	1.72	1.53	2.908	4.64

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 and approved according to ISO/IEC 17025.

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

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

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