FCC Test Report

Report No.:	RF160719C17A
FCC ID:	QXO-4018WP
Test Model:	31025, 31026
Received Date:	Jul. 19, 2016
Test Date:	Jul. 21 ~ Oct. 05, 2016
Issued Date:	Oct. 12, 2016
Applicant:	Extreme Networks, Inc.
Address:	9 Northeastern Blvd. Salem, New Hampshire, United States, 03079
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan, R.O.C.
Test Location:	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)

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Release Control Record

Issue No.	Description	Date Issued
RF160719C17A	Original release	Oct. 12, 2016

1 Certificate of Conformity

Product:	Wireless 802.11 abgn/ac Router
Brand:	Extreme Networks
Test Model:	31025, 31026
Sample Status:	Engineering sample
Applicant:	Extreme Networks, Inc.
Test Date:	Jul. 21 ~ Oct. 05, 2016
Standards:	47 CFR FCC Part 15, Subpart E (Section 15.407) 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 EMC characteristics under the conditions specified in this report.

Prepared by : _____ , **Date:** Oct. 12, 2016

Ivy Lin / Specialist

Approved by : _____ , **Date:** Oct. 12, 2016

Ken Liu / Senior Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.407(b)(6)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -9.47dB at 0.40000MHz.
15.407(b) (1/2/3/4(i/ii)/6)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -1.3dB at 5470.00MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	-	Reference only.
15.407(a)(1/2/3)	Peak Power Spectral Density	Pass	Meet the requirement of limit.
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	Antenna connector is IPEX not a standard connector.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.44 dB
Radiated Emissions up to 1 GHz	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	Wireless 802.11 abgn/ac Router
Brand	Extreme Networks
Test Model	31025, 31026
Status of EUT	Engineering sample
Power Supply Rating	48Vdc or 54Vdc or 55Vdc (POE)
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation Technology	OFDM
Transfer Rate	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 300Mbps 802.11ac: up to 867Mbps
Operating Frequency	5260 ~ 5320MHz, 5500 ~ 5700MHz
Number of Channel	5260 ~ 5320MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 4 802.11n (HT40), 802.11ac (VHT40): 2 802.11ac (VHT80): 1 5500 ~ 5700MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 9 802.11n (HT40), 802.11ac (VHT40): 4 802.11ac (VHT80): 2
Output Power	CDD Mode 5260 ~ 5320MHz: 197.976mW 5500 ~ 5700MHz: 178.111mW Beamforming Mode 5260 ~ 5320MHz: 121.430mW 5500 ~ 5700MHz: 123.636mW
Antenna Type	Refer to note
Antenna Connector	Refer to note
Accessory Device	NA
Data Cable Supplied	NA

Note:

1. This report is prepared for FCC class II permissive change. The difference compared with the original report (BV ADT report no.: RF160719C17-1) is adding 5.26GHz to 5.32GHz and 5.50GHz to 5.70GHz by software.
2. All models are listed as below. Model: 31026 is representative for final test.

Brand	Model	Difference
Extreme Networks	31026	All models are electrically identical, different model names are for marketing purpose.
	31025	

Equipment	EUT	Description	Model
Wireless 802.11 abgn/ac Router	1	WS-AP3912i-ROW	31026
Wireless 802.11 abgn/ac Router	2	WS-AP3912i-FCC	31025

3. The EUT incorporates a MIMO function. Physically, the EUT provides 2 completed transmitters and 2 receivers.

Modulation Mode	TX Function	Beamforming
802.11a	2TX	Not Support
802.11n (HT20)	2TX	Support
802.11n (HT40)	2TX	Support
802.11ac (VHT20)	2TX	Support
802.11ac (VHT40)	2TX	Support
802.11ac (VHT80)	2TX	Support

*The modulation and bandwidth are similar for 802.11n mode for HT20/HT40 and 802.11ac mode for VHT20/VHT40, therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.2.1)

* For 5GHz band, CDD mode is the worst case for final radiated emission below 1GHz and power line conducted emission tests after pretesting CDD mode and beamforming mode.

4. The EUT consumes power from the following POE. (Support unit only)

POE	
Brand	SENAO
Model	EPA5006GP
Input Power	100-240Vac, 0.8A, 50-60Hz
Output Power	54Vdc, 0.6A
Power Line	0.5m non-shielded Power cable without core

5. The EUT with follow antennas gain is listed as table below.

Ant. No.	1	2	3	4	BT / Zigbee
Ant. Type	PIFA				
Frequency (MHz)	2400-2500		5150-5850		2400-2500
Gain (dBi)	3.67	4.31	5.72	5.99	3.51
Connector	IPEX				

6. The EUT doesn't operate in 5600 ~ 5650MHz via software controls.
7. 2.4GHz, 5GHz, BT LE and Zigbee technology can transmit at same time.
8. Spurious emission of the simultaneous operation (2.4GHz, 5GHz, BT LE and Zigbee) has been evaluated and no non-compliance was found.

9. The power setting are list as below:

CDD Mode						
	802.11a	802.11n (HT20)		802.11n (HT40)		802.11ac (VHT80)
CH 52	17	17	CH 54	20	CH 58	14.5
CH 60	17	17	CH 62	17	CH 106	15
CH 64	17	17.5	CH 102	15	CH 138	20
CH 100	17	18	CH 110	20		
CH 116	17	17.5	CH 134	19.5		
CH 140	17	18.5	CH 142	20		
CH 144	18	18				

Beamforming Mode					
	802.11n (HT20)		802.11n (HT40)		802.11ac (VHT80)
CH 52	18.5	CH 54	18	CH 58	14
CH 60	18	CH 62	16	CH 106	15
CH 64	18	CH 102	15	CH 138	20
CH 100	17.5	CH 110	18		
CH 116	18.5	CH 134	18		
CH 140	18	CH 142	20		
CH 144	20				

3.2 Description of Test Modes

For 5260 ~ 5320MHz

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

Channel	Frequency	Channel	Frequency
52	5260 MHz	60	5300 MHz
56	5280 MHz	64	5320 MHz

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
58	5290 MHz

For 5500 ~ 5700MHz

9 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

Channel	Frequency	Channel	Frequency
100	5500 MHz	132	5660 MHz
104	5520 MHz	136	5680 MHz
108	5540 MHz	140	5700 MHz
112	5560 MHz	144	5720 MHz
116	5580 MHz		

4 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

Channel	Frequency	Channel	Frequency
102	5510 MHz	134	5670 MHz
110	5550 MHz	142	5710 MHz

2 channels are provided for 802.11ac (VHT80):

Channel	Frequency	Channel	Frequency
106	5530 MHz	138	5690MHz

3.2.1 Test Mode Applicability and Tested Channel Detail

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

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

PLC: Power Line Conducted Emission **APCM:** Antenna Port Conducted Measurement

Note: The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Z-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	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
-	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
-	802.11n (HT40)		54 to 62	54, 62	OFDM	BPSK	13.5
-	802.11ac (VHT80)		58	58	OFDM	BPSK	58.5
-	802.11a	5500-5700	100 to 140	100, 116, 140, 144	OFDM	BPSK	6.0
-	802.11n (HT20)		100 to 140	100, 116, 140, 144	OFDM	BPSK	6.5
-	802.11n (HT40)		102 to 134	102, 110, 134, 142	OFDM	BPSK	13.5
-	802.11ac (VHT80)		106, 138	106, 138	OFDM	BPSK	58.5

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	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5260-5320, 5500-5700	52 to 64 52 to 140	52	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	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5260-5320, 5500-5700	52 to 64 52 to 140	52	OFDM	BPSK	6.0

Antenna Port Conducted Measurement:

☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.

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

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
-	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
-	802.11n (HT40)		54 to 62	54, 62	OFDM	BPSK	13.5
-	802.11ac (VHT80)		58	58	OFDM	BPSK	58.5
-	802.11a	5500-5700	100 to 140	100, 116, 140, 144	OFDM	BPSK	6.0
-	802.11n (HT20)		100 to 140	100, 116, 140, 144	OFDM	BPSK	6.5
-	802.11n (HT40)		102 to 134	102, 110, 134, 142	OFDM	BPSK	13.5
-	802.11ac (VHT80)		106, 138	106, 138	OFDM	BPSK	58.5

Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER (POE)	TESTED BY
RE≥1G	19deg. C, 70%RH, 16deg. C, 70%RH	54Vdc	Jones Chang, James yang, Nick Hsu
RE<1G	19deg. C, 70%RH	54Vdc	Jones Chang
PLC	20deg. C, 70%RH	54Vdc	Jones Chang
APCM	25deg. C, 60%RH	54Vdc	Antony Lee, Frank Liu

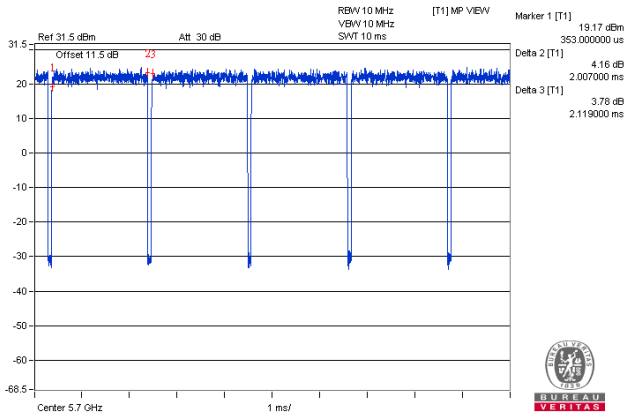
3.3 Duty Cycle of Test Signal

CDD Mode

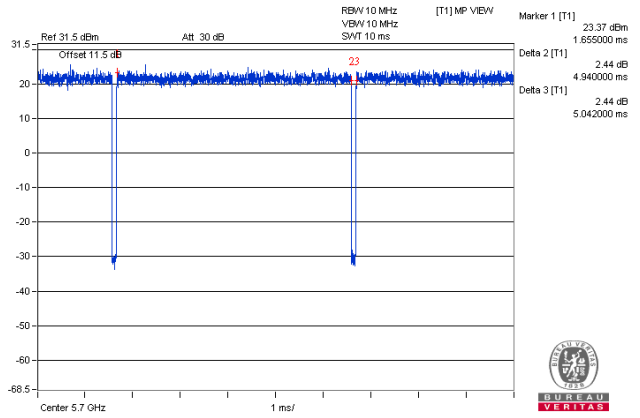
Duty cycle of test signal is > 98%, duty factor is not required.
Duty cycle of test signal is < 98 %, duty factor is required.

802.11a: Duty cycle = 2.007/2.119 = 0.947, Duty factor = 10 * log(1/ 0.947) = 0.24
802.11n (HT20): Duty cycle = 4.940/5.042 = 0.980
802.11n (HT40): Duty cycle = 2.395/2.493 = 0.961, Duty factor = 10 * log(1/ 0.961) = 0.17
802.11ac (VHT80): Duty cycle = 1.127/1.227 = 0.919, Duty factor = 10 * log(1/ 0.919) = 0.37

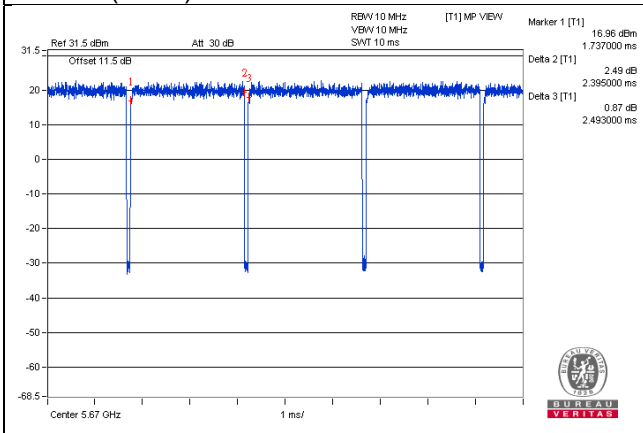
802.11a



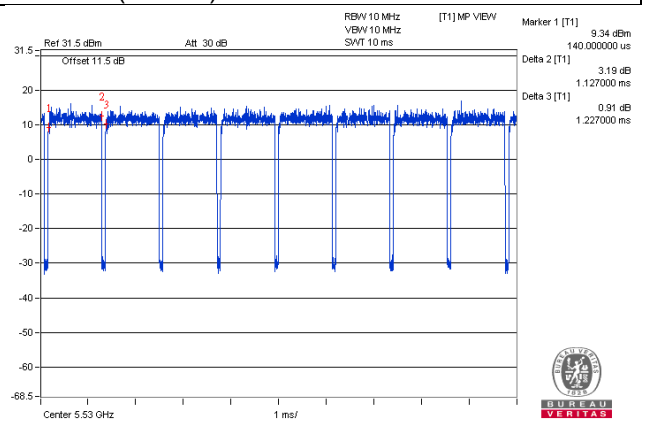
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)

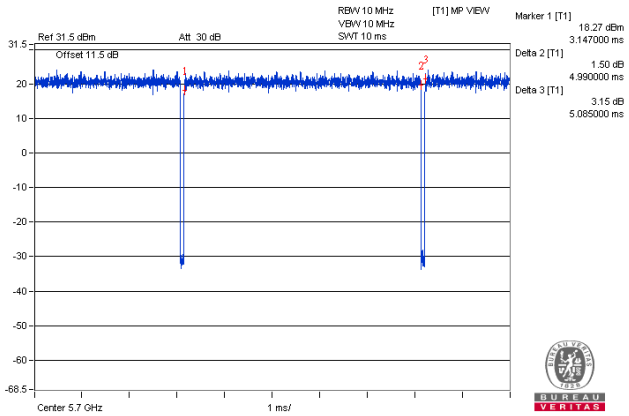


Beamforming Mode

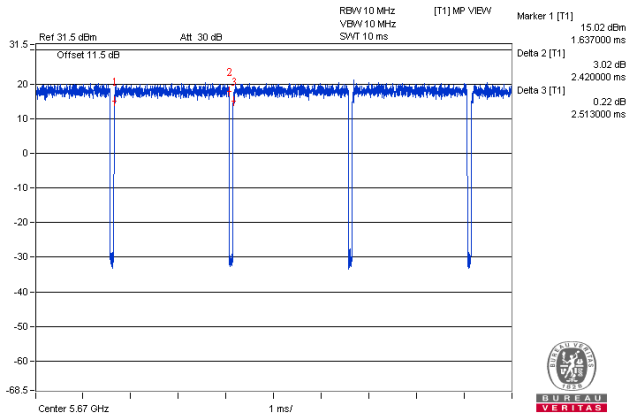
802.11n (HT20): Duty cycle of test signal is > 98 %, duty factor is not required.
802.11n (HT40), 802.11ac (VHT80): Duty cycle of test signal is < 98 %, duty factor is required.

802.11n (HT20): Duty cycle = 4.990/5.085 = 0.981
802.11n (HT40): Duty cycle = 2.420/2.513 = 0.963, Duty factor = 10 * log(1/ 0.963) = 0.16
802.11ac (VHT80): Duty cycle = 1.134/1.239 = 0.915, Duty factor = 10 * log(1/ 0.915) = 0.38

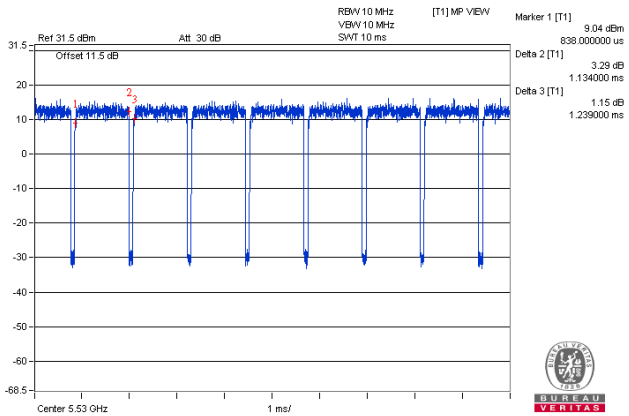
802.11ac (VHT20)



802.11ac (VHT40)



802.11ac (VHT80)



3.4 Description of Support Units

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

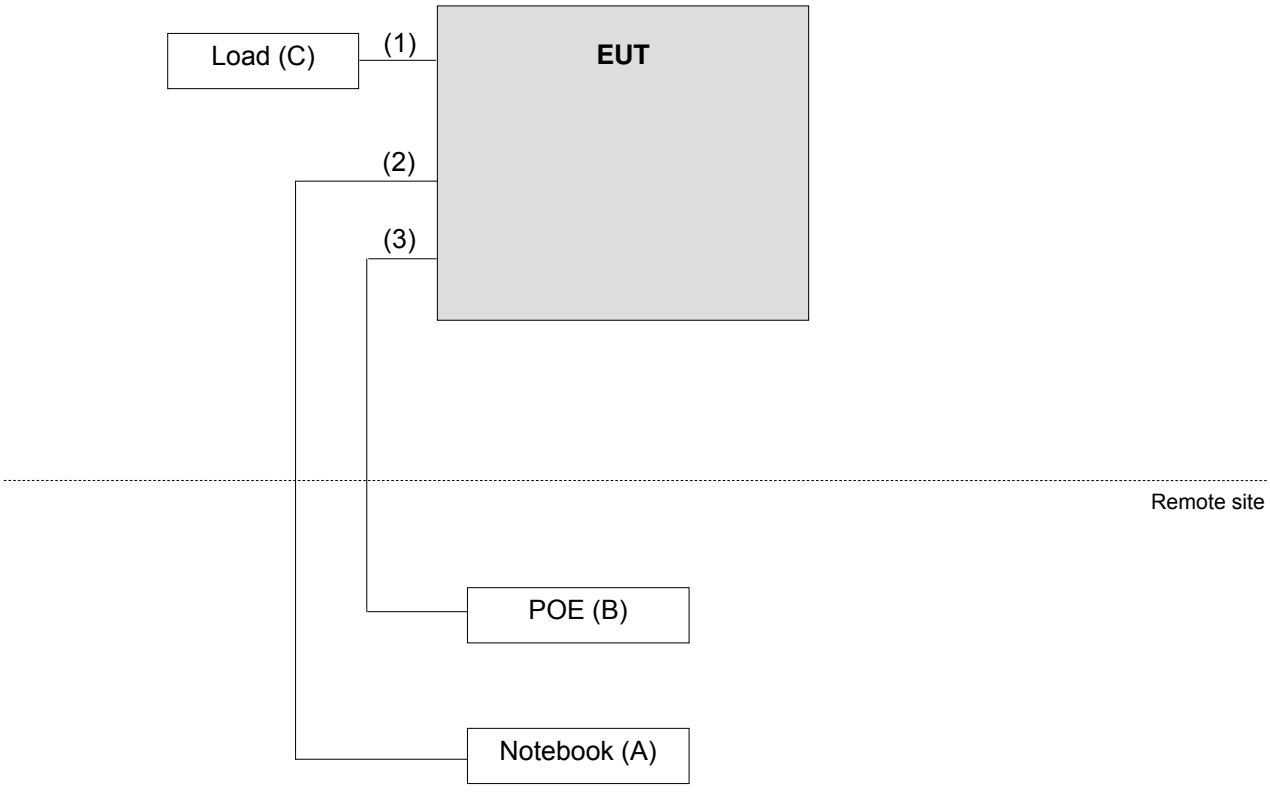
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Notebook	DELL	E5410	1HC2XM1	FCC DoC Approved	-
B.	POE	SENAO	EPA5006GP	N/A	N/A	Provided by manufacturer
C.	Load	N/A	N/A	N/A	N/A	-

Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Item A acted as communication partner to transfer data.

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	RJ45 Cable	4	1.8	N	0	Cat5e
2.	RJ45 Cable	1	3	N	0	Cat5e
3.	RJ45 Cable	1	3	N	0	Cat5e

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards

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

FCC Part 15, Subpart E (15.407)

KDB 789033 D02 General UNII Test Procedure New Rules v01r03

KDB 662911 D01 Multiple Transmitter Output v02r01

ANSI C63.10-2013

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

Note: The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

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

Note:

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

Limits of unwanted emission out of the restricted bands

Applicable To			Limit	
789033 D02 General UNII Test Procedure New Rules v01r03			Field Strength at 3m	
			PK:74 (dBμV/m)	AV:54 (dBμV/m)
Frequency Band	Applicable To		EIRP Limit	Equivalent Field Strength at 3m
5150~5250 MHz	15.407(b)(1)		PK:-27 (dBm/MHz)	PK:68.2(dBμV/m)
5250~5350 MHz	15.407(b)(2)			
5470~5725 MHz	15.407(b)(3)			
5725~5850 MHz	☒	15.407(b)(4)(i)	PK:-27 (dBm/MHz) *1 PK:10 (dBm/MHz) *2 PK:15.6 (dBm/MHz) *3 PK:27 (dBm/MHz) *4	PK: 68.2(dBμV/m) *1 PK:105.2 (dBμV/m) *2 PK: 110.8(dBμV/m) *3 PK:122.2 (dBμV/m) *4
	☐	15.407(b)(4)(ii)	Emission limits in section 15.247(d)	

*1 beyond 75 MHz or more above of the band edge.

*2 below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.

*3 below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.

*4 from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

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

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESIB7	100187	Apr. 18, 2016	Apr. 17, 2017
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	May 03, 2016	May 02, 2017
BILOG Antenna SCHWARZBECK	VULB9168	9168-171	Jan. 07, 2016	Jan. 06, 2017
HORN Antenna SCHWARZBECK	9120D	209	Jan. 20, 2016	Jan. 19, 2017
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Jan. 18, 2016	Jan. 17, 2017
Preamplifier Agilent	8447D	2944A10738	Oct.18, 2015	Oct. 17, 2016
Preamplifier Agilent	8449B	3008A01964	Aug. 22, 2015	Aug. 21, 2016
			Aug. 22, 2016	Aug. 21, 2017
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH3-03 (214378)	Aug. 22, 2015	Aug. 21, 2016
			Aug. 22, 2016	Aug. 21, 2017
RF signal cable HUBER+SUHNER	SUCOFLEX 106	Cable-CH3-03 (309224+12738)	Aug. 22, 2015	Aug. 21, 2016
			Aug. 22, 2016	Aug. 21, 2017
Software BV ADT	ADT_Radiated_ V7.6.15.9.4	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
26GHz ~ 40GHz Amplifier	EM26400	815221	Oct. 18, 2015	Oct. 17, 2016
High Speed Peak Power Meter	ML2495A	0824011	Jul. 09, 2016	Jul. 08, 2017
Power Sensor	MA2411B	0738171	Jul. 09, 2016	Jul. 08, 2017
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 08, 2016	Jun. 07, 2017

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.
3. The horn antenna and preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
4. The FCC Site Registration No. is 988962.
5. The IC Site Registration No. is IC 7450F-3.

4.1.3 Test Procedures

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

Note:

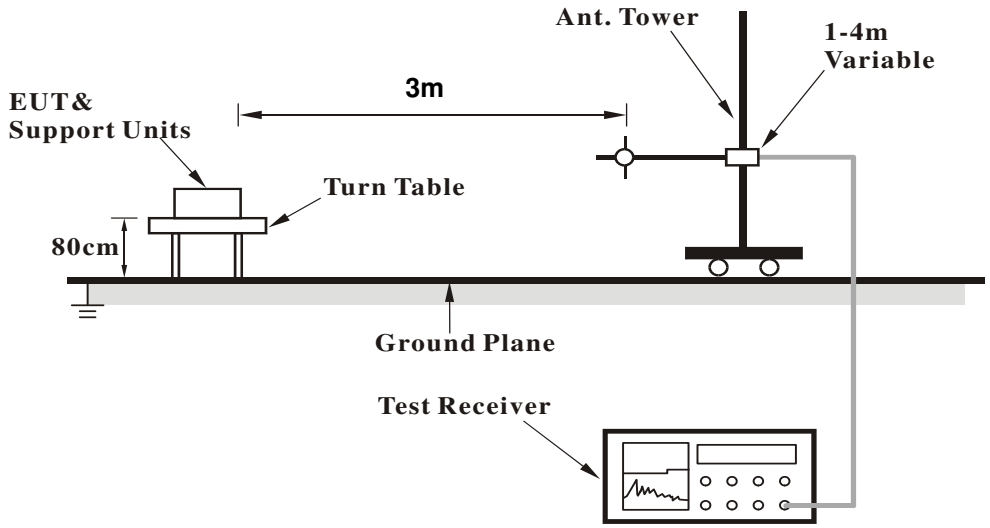
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average (Duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor (10 log(1/duty cycle)).
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz.
5. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

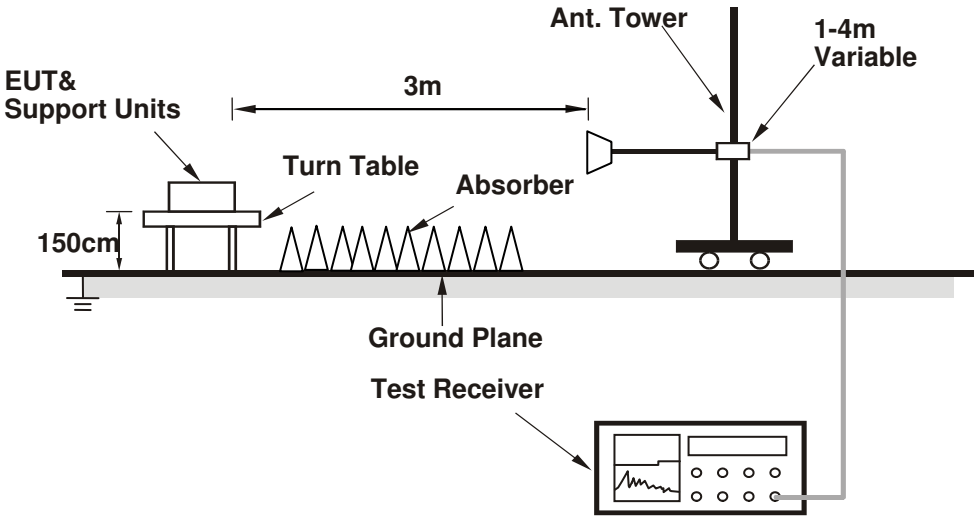
No deviation.

4.1.5 Test Set Up

<Frequency Range below 1GHz>



<Frequency Range above 1GHz>



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 the testing table.
b. Prepared a notebook to act as a communication partner and placed it outside of testing area.
c. The communication partner connected with EUT via a RJ45 cable and ran a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
d. The communication partner sent data to EUT by command "PING".

4.1.7 Test Results

Above 1GHz Worst-Case Data:

CDD Mode

802.11a

CHANNEL	TX Channel 52	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	*5260.00	117.3 PK			1.93 H	357	77.70	39.60
2	*5260.00	107.6 AV			1.93 H	357	68.00	39.60
3	5450.00	63.4 PK	74.0	-10.6	2.04 H	97	56.50	6.90
4	5450.00	49.3 AV	54.0	-4.7	2.04 H	97	42.40	6.90
5	#10520.00	61.9 PK	74.0	-12.1	1.80 H	244	43.00	18.90
6	#10520.00	49.0 AV	54.0	-5.0	1.80 H	244	30.10	18.90
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	*5260.00	117.0 PK			3.10 V	341	77.40	39.60
2	*5260.00	106.5 AV			3.10 V	341	66.90	39.60
3	5400.00	62.3 PK	74.0	-11.7	1.80 V	200	55.60	6.70
4	5400.00	49.5 AV	54.0	-4.5	1.80 V	200	42.80	6.70
5	#10520.00	60.7 PK	74.0	-13.3	1.65 V	149	41.80	18.90
6	#10520.00	47.9 AV	54.0	-6.1	1.65 V	149	29.00	18.90

Remark:

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

CHANNEL	TX Channel 60	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	*5300.00	118.5 PK			1.90 H	337	78.80	39.70
2	*5300.00	107.3 AV			1.90 H	337	67.60	39.70
3	10600.00	61.0 PK	74.0	-13.0	2.13 H	236	42.10	18.90
4	10600.00	48.3 AV	54.0	-5.7	2.13 H	236	29.40	18.90
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	*5300.00	117.5 PK			3.21 V	344	77.80	39.70
2	*5300.00	106.8 AV			3.21 V	344	67.10	39.70
3	10600.00	59.9 PK	74.0	-14.1	1.82 V	44	41.00	18.90
4	10600.00	47.1 AV	54.0	-6.9	1.82 V	44	28.20	18.90

Remark:

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

CHANNEL	TX Channel 64	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	*5320.00	119.2 PK			1.93 H	336	79.50	39.70
2	*5320.00	108.3 AV			1.93 H	336	68.60	39.70
3	5350.00	67.8 PK	74.0	-6.2	2.01 H	330	61.30	6.50
4	5350.00	52.4 AV	54.0	-1.6	2.01 H	330	45.90	6.50
5	10640.00	61.7 PK	74.0	-12.3	1.70 H	180	42.90	18.80
6	10640.00	48.9 AV	54.0	-5.1	1.70 H	180	30.10	18.80
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	*5320.00	115.9 PK			3.19 V	342	76.20	39.70
2	*5320.00	105.3 AV			3.19 V	342	65.60	39.70
3	5350.00	62.9 PK	74.0	-11.1	3.15 V	340	56.40	6.50
4	5350.00	50.4 AV	54.0	-3.6	3.15 V	340	43.90	6.50
5	10640.00	60.0 PK	74.0	-14.0	1.99 V	242	41.20	18.80
6	10640.00	47.3 AV	54.0	-6.7	1.99 V	242	28.50	18.80

Remark:

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

CHANNEL	TX Channel 100	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	62.4 PK	74.0	-11.6	1.86 H	333	55.50	6.90
2	5460.00	48.8 AV	54.0	-5.2	1.86 H	333	41.90	6.90
3	#5470.00	59.7 PK	74.0	-14.3	1.80 H	336	52.80	6.90
4	#5470.00	52.4 AV	54.0	-1.6	1.80 H	336	45.50	6.90
5	*5500.00	117.4 PK			2.20 H	340	77.20	40.20
6	*5500.00	107.3 AV			2.20 H	340	67.10	40.20
7	11000.00	60.4 PK	74.0	-13.6	2.18 H	176	40.50	19.90
8	11000.00	47.3 AV	54.0	-6.7	2.18 H	176	27.40	19.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	58.5 PK	74.0	-15.5	2.90 V	333	51.60	6.90
2	5460.00	47.1 AV	54.0	-6.9	2.90 V	333	40.20	6.90
3	#5470.00	62.0 PK	74.0	-12.0	2.99 V	333	55.10	6.90
4	#5470.00	49.3 AV	54.0	-4.7	2.99 V	333	42.40	6.90
5	*5500.00	81.2 PK			3.27 V	340	74.20	7.00
6	*5500.00	70.4 AV			3.27 V	340	63.40	7.00
7	11000.00	61.7 PK	74.0	-12.3	1.67 V	240	41.80	19.90
8	11000.00	48.5 AV	54.0	-5.5	1.67 V	240	28.60	19.90

Remark:

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

CHANNEL	TX Channel 116	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	*5580.00	117.7 PK			1.97 H	332	77.40	40.30
2	*5580.00	107.0 AV			1.97 H	332	66.70	40.30
3	11160.00	61.0 PK	74.0	-13.0	1.68 H	271	41.60	19.40
4	11160.00	48.4 AV	54.0	-5.6	1.68 H	271	29.00	19.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	83.0 PK			3.18 V	334	75.90	7.10
2	*5580.00	72.2 AV			3.18 V	334	65.10	7.10
3	11160.00	61.0 PK	74.0	-13.0	1.78 V	289	41.60	19.40
4	11160.00	48.1 AV	54.0	-5.9	1.78 V	289	28.70	19.40

Remark:

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

CHANNEL	TX Channel 140	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	*5700.00	114.8 PK			1.88 H	335	74.40	40.40
2	*5700.00	104.8 AV			1.88 H	335	64.40	40.40
3	#5725.00	71.1 PK	74.0	-2.9	1.62 H	5	63.70	7.40
4	#5725.00	52.4 AV	54.0	-1.6	1.62 H	5	45.00	7.40
5	11400.00	60.2 PK	74.0	-13.8	2.20 H	179	41.40	18.80
6	11400.00	47.0 AV	54.0	-7.0	2.20 H	179	28.20	18.80
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	*5700.00	113.5 PK			3.30 V	333	73.10	40.40
2	*5700.00	103.4 AV			3.30 V	333	63.00	40.40
3	#5725.00	64.3 PK	74.0	-9.7	2.91 V	338	56.90	7.40
4	#5725.00	50.0 AV	54.0	-4.0	2.91 V	338	42.60	7.40
5	11400.00	60.1 PK	74.0	-13.9	1.87 V	359	41.30	18.80
6	11400.00	47.1 AV	54.0	-6.9	1.87 V	359	28.30	18.80

Remark:

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

CHANNEL	TX Channel 144	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	#5470.00	57.9 PK	74.0	-16.1	1.31 H	55	51.00	6.90
2	#5470.00	44.9 AV	54.0	-9.1	1.31 H	55	38.00	6.90
3	*5720.00	116.8 PK			1.11 H	4	76.30	40.50
4	*5720.00	106.3 AV			1.11 H	4	65.80	40.50
5	#5850.00	58.6 PK	74.0	-15.4	1.25 H	26	51.00	7.60
6	#5850.00	45.4 AV	54.0	-8.6	1.25 H	26	37.80	7.60
7	11440.00	59.7 PK	74.0	-14.3	1.64 H	219	41.00	18.70
8	11440.00	47.2 AV	54.0	-6.8	1.64 H	219	28.50	18.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	56.9 PK	74.0	-17.1	2.47 V	22	51.20	5.70
2	#5470.00	44.2 AV	54.0	-9.8	2.47 V	22	38.50	5.70
3	*5720.00	114.6 PK			2.45 V	6	74.60	40.00
4	*5720.00	104.1 AV			2.45 V	6	64.10	40.00
5	#5850.00	57.8 PK	74.0	-16.2	2.33 V	357	51.30	6.50
6	#5850.00	44.4 AV	54.0	-9.6	2.33 V	357	37.90	6.50
7	11440.00	61.6 PK	74.0	-12.4	1.25 V	276	42.30	19.30
8	11440.00	47.9 AV	54.0	-6.1	1.25 V	276	28.60	19.30

Remark:

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

802.11n (HT20)

CHANNEL	TX Channel 52	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	*5260.00	117.7 PK			1.95 H	2	78.10	39.60
2	*5260.00	107.5 AV			1.95 H	2	67.90	39.60
3	5350.00	61.6 PK	74.0	-12.4	2.01 H	359	55.10	6.50
4	5350.00	48.8 AV	54.0	-5.2	2.01 H	359	42.30	6.50
5	#10520.00	61.3 PK	74.0	-12.7	1.59 H	162	42.40	18.90
6	#10520.00	48.2 AV	54.0	-5.8	1.59 H	162	29.30	18.90
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	*5260.00	116.9 PK			2.97 V	337	77.30	39.60
2	*5260.00	106.0 AV			2.97 V	337	66.40	39.60
3	5400.00	61.6 PK	74.0	-12.4	2.58 V	333	54.90	6.70
4	5400.00	48.5 AV	54.0	-5.5	2.58 V	333	41.80	6.70
5	#10520.00	60.1 PK	74.0	-13.9	1.78 V	64	41.20	18.90
6	#10520.00	47.3 AV	54.0	-6.7	1.78 V	64	28.40	18.90

Remark:

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

CHANNEL	TX Channel 60	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	*5300.00	117.2 PK			1.98 H	358	77.50	39.70
2	*5300.00	107.0 AV			1.98 H	358	67.30	39.70
3	10600.00	61.5 PK	74.0	-12.5	1.58 H	255	42.60	18.90
4	10600.00	48.2 AV	54.0	-5.8	1.58 H	255	29.30	18.90
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	*5300.00	116.9 PK			3.22 V	341	77.20	39.70
2	*5300.00	106.5 AV			3.22 V	341	66.80	39.70
3	10600.00	60.5 PK	74.0	-13.5	1.99 V	186	41.60	18.90
4	10600.00	47.6 AV	54.0	-6.4	1.99 V	186	28.70	18.90

Remark:

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

CHANNEL	TX Channel 64	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	*5320.00	116.6 PK			2.00 H	330	76.90	39.70
2	*5320.00	106.4 AV			2.00 H	330	66.70	39.70
3	5350.00	63.3 PK	74.0	-10.7	1.96 H	336	56.80	6.50
4	5350.00	52.3 AV	54.0	-1.7	1.96 H	336	45.80	6.50
5	10640.00	62.2 PK	74.0	-11.8	1.71 H	190	43.40	18.80
6	10640.00	49.3 AV	54.0	-4.7	1.71 H	190	30.50	18.80
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	*5320.00	116.0 PK			3.06 V	336	76.30	39.70
2	*5320.00	105.4 AV			3.06 V	336	65.70	39.70
3	5350.00	63.2 PK	74.0	-10.8	1.66 V	358	56.70	6.50
4	5350.00	48.9 AV	54.0	-5.1	1.66 V	358	42.40	6.50
5	10640.00	60.1 PK	74.0	-13.9	2.06 V	236	41.30	18.80
6	10640.00	47.2 AV	54.0	-6.8	2.06 V	236	28.40	18.80

Remark:

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

CHANNEL	TX Channel 100	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	57.4 PK	74.0	-16.6	1.85 H	332	50.50	6.90
2	5460.00	46.8 AV	54.0	-7.2	1.85 H	332	39.90	6.90
3	#5470.00	66.5 PK	74.0	-7.5	1.88 H	329	59.60	6.90
4	#5470.00	52.4 AV	54.0	-1.6	1.88 H	329	45.50	6.90
5	*5500.00	116.2 PK			1.93 H	331	76.00	40.20
6	*5500.00	105.8 AV			1.93 H	331	65.60	40.20
7	11000.00	62.0 PK	74.0	-12.0	2.12 H	300	42.10	19.90
8	11000.00	49.2 AV	54.0	-4.8	2.12 H	300	29.30	19.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.8 PK	74.0	-14.2	3.00 V	325	52.90	6.90
2	5460.00	46.5 AV	54.0	-7.5	3.00 V	325	39.60	6.90
3	#5470.00	66.2 PK	74.0	-7.8	3.05 V	352	59.30	6.90
4	#5470.00	50.8 AV	54.0	-3.2	3.05 V	352	43.90	6.90
5	*5500.00	114.4 PK			3.00 V	339	74.20	40.20
6	*5500.00	103.8 AV			3.00 V	339	63.60	40.20
7	11000.00	61.5 PK	74.0	-12.5	1.59 V	300	41.60	19.90
8	11000.00	48.3 AV	54.0	-5.7	1.59 V	300	28.40	19.90

Remark:

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

CHANNEL	TX Channel 116	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	*5580.00	116.9 PK			2.02 H	330	76.60	40.30
2	*5580.00	106.8 AV			2.02 H	330	66.50	40.30
3	11160.00	62.1 PK	74.0	-11.9	1.82 H	279	42.70	19.40
4	11160.00	49.0 AV	54.0	-5.0	1.82 H	279	29.60	19.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	115.8 PK			2.92 V	339	75.50	40.30
2	*5580.00	105.3 AV			2.92 V	339	65.00	40.30
3	11400.00	60.2 PK	74.0	-13.8	2.22 V	350	41.40	18.80
4	11400.00	47.1 AV	54.0	-6.9	2.22 V	350	28.30	18.80

Remark:

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

CHANNEL	TX Channel 140	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	*5700.00	115.2 PK			1.78 H	6	74.80	40.40
2	*5700.00	104.3 AV			1.78 H	6	63.90	40.40
3	#5725.00	67.3 PK	74.0	-6.7	1.74 H	11	59.90	7.40
4	#5725.00	52.5 AV	54.0	-1.5	1.74 H	11	45.10	7.40
5	11400.00	61.3 PK	74.0	-12.7	2.00 H	311	42.50	18.80
6	11400.00	48.1 AV	54.0	-5.9	2.00 H	311	29.30	18.80
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	*5700.00	114.3 PK			3.06 V	340	73.90	40.40
2	*5700.00	103.7 AV			3.06 V	340	63.30	40.40
3	#5725.00	66.1 PK	74.0	-7.9	2.91 V	340	58.70	7.40
4	#5725.00	51.7 AV	54.0	-2.3	2.91 V	340	44.30	7.40
5	11400.00	60.3 PK	74.0	-13.7	2.06 V	240	41.50	18.80
6	11400.00	47.5 AV	54.0	-6.5	2.06 V	240	28.70	18.80

Remark:

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

CHANNEL	TX Channel 144	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	#5470.00	58.1 PK	74.0	-15.9	1.52 H	24	51.20	6.90
2	#5470.00	44.9 AV	54.0	-9.1	1.52 H	24	38.00	6.90
3	*5720.00	117.5 PK			1.46 H	6	77.00	40.50
4	*5720.00	106.4 AV			1.46 H	6	65.90	40.50
5	#5850.00	58.5 PK	74.0	-15.5	1.38 H	348	50.90	7.60
6	#5850.00	45.0 AV	54.0	-9.0	1.38 H	348	37.40	7.60
7	11440.00	61.0 PK	74.0	-13.0	2.46 H	177	42.30	18.70
8	11440.00	47.0 AV	54.0	-7.0	2.46 H	177	28.30	18.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	56.8 PK	74.0	-17.2	1.68 V	126	51.10	5.70
2	#5470.00	43.8 AV	54.0	-10.2	1.68 V	126	38.10	5.70
3	*5720.00	114.5 PK			2.45 V	7	74.50	40.00
4	*5720.00	104.2 AV			2.45 V	7	64.20	40.00
5	#5850.00	57.6 PK	74.0	-16.4	2.17 V	166	51.10	6.50
6	#5850.00	45.5 AV	54.0	-8.5	2.17 V	166	39.00	6.50
7	11440.00	61.5 PK	74.0	-12.5	2.56 V	273	42.20	19.30
8	11440.00	48.2 AV	54.0	-5.8	2.56 V	273	28.90	19.30

Remark:

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

802.11n (HT40)

CHANNEL	TX Channel 54	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	114.1 PK			1.97 H	334	74.50	39.60
2	*5270.00	104.6 AV			1.97 H	334	65.00	39.60
3	5350.00	61.1 PK	74.0	-12.9	1.99 H	227	54.60	6.50
4	5350.00	48.6 AV	54.0	-5.4	1.99 H	227	42.10	6.50
5	#10540.00	60.5 PK	74.0	-13.5	1.67 H	179	41.50	19.00
6	#10540.00	47.8 AV	54.0	-6.2	1.67 H	179	28.80	19.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	113.1 PK			3.24 V	329	73.50	39.60
2	*5270.00	103.7 AV			3.24 V	329	64.10	39.60
3	5350.00	59.1 PK	74.0	-14.9	2.23 V	271	52.60	6.50
4	5350.00	46.8 AV	54.0	-7.2	2.23 V	271	40.30	6.50
5	#10540.00	60.2 PK	74.0	-13.8	2.12 V	269	41.20	19.00
6	#10540.00	47.4 AV	54.0	-6.6	2.12 V	269	28.40	19.00

Remark:

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

CHANNEL	TX Channel 62	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	114.3 PK			2.04 H	334	74.60	39.70
2	*5310.00	104.8 AV			2.04 H	334	65.10	39.70
3	5350.00	56.5 PK	74.0	-17.5	1.86 H	325	50.00	6.50
4	5350.00	52.3 AV	54.0	-1.7	1.86 H	325	45.80	6.50
5	10620.00	63.5 PK	74.0	-10.5	1.34 H	176	44.60	18.90
6	10620.00	49.1 AV	54.0	-4.9	1.34 H	176	30.20	18.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	111.1 PK			2.94 V	341	71.40	39.70
2	*5310.00	101.6 AV			2.94 V	341	61.90	39.70
3	5350.00	60.8 PK	74.0	-13.2	2.66 V	340	54.30	6.50
4	5350.00	49.8 AV	54.0	-4.2	2.66 V	340	43.30	6.50
5	#10540.00	60.1 PK	74.0	-13.9	1.88 V	240	41.10	19.00
6	#10540.00	46.9 AV	54.0	-7.1	1.88 V	240	27.90	19.00

Remark:

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

CHANNEL	TX Channel 102	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	62.6 PK	74.0	-11.4	2.12 H	338	55.70	6.90
2	5460.00	50.8 AV	54.0	-3.2	2.12 H	338	43.90	6.90
3	#5470.00	66.1 PK	74.0	-7.9	2.11 H	314	59.20	6.90
4	**#5470.00**	**52.7 AV**	**54.0**	**-1.3**	**2.11 H**	**314**	**45.80**	**6.90**
5	*5510.00	112.2 PK			1.62 H	338	72.00	40.20
6	*5510.00	103.0 AV			1.62 H	338	62.80	40.20
7	#10200.00	61.2 PK	74.0	-12.8	1.73 H	231	42.50	18.70
8	#10200.00	47.9 AV	54.0	-6.1	1.73 H	231	29.20	18.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.9 PK	74.0	-14.1	2.89 V	338	53.00	6.90
2	5460.00	46.7 AV	54.0	-7.3	2.89 V	338	39.80	6.90
3	#5470.00	60.5 PK	74.0	-13.5	2.89 V	338	53.60	6.90
4	#5470.00	48.2 AV	54.0	-5.8	2.89 V	338	41.30	6.90
5	*5510.00	112.3 PK			2.84 V	340	72.10	40.20
6	*5510.00	103.1 AV			2.84 V	340	62.90	40.20
7	11020.00	61.2 PK	74.0	-12.8	1.94 V	289	41.40	19.80
8	11020.00	48.0 AV	54.0	-6.0	1.94 V	289	28.20	19.80

Remark:

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

CHANNEL	TX Channel 110	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	114.5 PK			1.90 H	331	74.30	40.20
2	*5550.00	105.0 AV			1.90 H	331	64.80	40.20
3	11100.00	62.1 PK	74.0	-11.9	2.22 H	156	42.90	19.20
4	11100.00	49.0 AV	54.0	-5.0	2.22 H	156	29.80	19.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	112.3 PK			2.84 V	340	72.10	40.20
2	*5550.00	103.1 AV			2.84 V	340	62.90	40.20
3	11100.00	60.6 PK	74.0	-13.4	1.94 V	289	41.40	19.20
4	11100.00	47.4 AV	54.0	-6.6	1.94 V	289	28.20	19.20

Remark:

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

CHANNEL	TX Channel 134	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	112.2 PK			1.90 H	334	71.90	40.30
2	*5670.00	102.8 AV			1.90 H	334	62.50	40.30
3	#5725.00	68.2 PK	74.0	-5.8	1.81 H	342	60.80	7.40
4	#5725.00	52.5 AV	54.0	-1.5	1.81 H	342	45.10	7.40
5	11340.00	61.6 PK	74.0	-12.4	1.60 H	269	42.40	19.20
6	11340.00	48.5 AV	54.0	-5.5	1.60 H	269	29.30	19.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	110.2 PK			2.54 V	1	69.90	40.30
2	*5670.00	100.7 AV			2.54 V	1	60.40	40.30
3	#5725.00	66.8 PK	74.0	-7.2	2.81 V	3	59.40	7.40
4	#5725.00	51.5 AV	54.0	-2.5	2.81 V	3	44.10	7.40
5	11340.00	60.5 PK	74.0	-13.5	2.77 V	222	41.30	19.20
6	11340.00	47.5 AV	54.0	-6.5	2.77 V	222	28.30	19.20

Remark:

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

CHANNEL	TX Channel 142	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	#5470.00	57.9 PK	74.0	-16.1	1.75 H	29	52.20	5.70
2	#5470.00	44.9 AV	54.0	-9.1	1.75 H	29	39.20	5.70
3	*5710.00	113.1 PK			1.48 H	5	73.10	40.00
4	*5710.00	104.0 AV			1.48 H	5	64.00	40.00
5	#5850.00	58.1 PK	74.0	-15.9	2.24 H	336	51.60	6.50
6	#5850.00	45.3 AV	54.0	-8.7	2.24 H	336	38.80	6.50
7	11420.00	61.1 PK	74.0	-12.9	1.99 H	297	41.80	19.30
8	11420.00	48.0 AV	54.0	-6.0	1.99 H	297	28.70	19.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	57.9 PK	74.0	-16.1	2.51 V	1	52.20	5.70
2	#5470.00	44.0 AV	54.0	-10.0	2.51 V	1	38.30	5.70
3	*5710.00	111.4 PK			2.47 V	8	71.40	40.00
4	*5710.00	101.5 AV			2.47 V	8	61.50	40.00
5	#5850.00	57.8 PK	74.0	-16.2	2.24 V	251	51.30	6.50
6	#5850.00	44.6 AV	54.0	-9.4	2.24 V	251	38.10	6.50
7	11420.00	61.0 PK	74.0	-13.0	1.96 V	297	41.70	19.30
8	11420.00	48.0 AV	54.0	-6.0	1.96 V	297	28.70	19.30

Remark:

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

802.11ac (VHT80)

CHANNEL	TX Channel 58	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	*5290.00	108.2 PK			2.05 H	334	68.50	39.70
2	*5290.00	98.0 AV			2.05 H	334	58.30	39.70
3	5350.00	66.9 PK	74.0	-7.1	2.10 H	333	60.40	6.50
4	5350.00	52.3 AV	54.0	-1.7	2.10 H	333	45.80	6.50
5	#10580.00	61.0 PK	74.0	-13.0	2.37 H	153	42.00	19.00
6	#10580.00	48.4 AV	54.0	-5.6	2.37 H	153	29.40	19.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	56.6 PK	74.0	-17.4	2.22 V	31	50.60	6.00
2	5150.00	45.9 AV	54.0	-8.1	2.22 V	31	39.90	6.00
3	*5290.00	105.3 PK			3.25 V	339	65.60	39.70
4	*5290.00	95.8 AV			3.25 V	339	56.10	39.70
5	5350.00	61.4 PK	74.0	-12.6	3.04 V	352	54.90	6.50
6	5350.00	47.6 AV	54.0	-6.4	3.04 V	352	41.10	6.50
7	#10580.00	59.7 PK	74.0	-14.3	1.75 V	200	40.70	19.00
8	#10580.00	46.7 AV	54.0	-7.3	1.75 V	200	27.70	19.00

Remark:

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

CHANNEL	TX Channel 106	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	65.1 PK	74.0	-8.9	2.18 H	336	58.20	6.90
2	5460.00	52.3 AV	54.0	-1.7	2.18 H	336	45.40	6.90
3	#5470.00	65.1 PK	74.0	-8.9	1.37 H	302	58.20	6.90
4	#5470.00	50.9 AV	54.0	-3.1	1.37 H	302	44.00	6.90
5	*5530.00	108.7 PK			2.20 H	336	68.50	40.20
6	*5530.00	98.2 AV			2.20 H	336	58.00	40.20
7	10600.00	61.1 PK	74.0	-12.9	1.84 H	207	42.20	18.90
8	10600.00	48.4 AV	54.0	-5.6	1.84 H	207	29.50	18.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.7 PK	74.0	-14.3	2.30 V	19	52.80	6.90
2	5460.00	49.0 AV	54.0	-5.0	2.30 V	19	42.10	6.90
3	#5470.00	61.0 PK	74.0	-13.0	2.30 V	10	54.10	6.90
4	#5470.00	47.6 AV	54.0	-6.4	2.30 V	10	40.70	6.90
5	*5530.00	105.8 PK			3.11 V	350	65.60	40.20
6	*5530.00	95.1 AV			3.11 V	350	54.90	40.20
7	#5725.00	57.8 PK	74.0	-16.2	2.88 V	355	50.40	7.40
8	#5725.00	47.0 AV	54.0	-7.0	2.88 V	355	39.60	7.40
9	11060.00	60.8 PK	74.0	-13.2	1.90 V	170	41.30	19.50
10	11060.00	48.4 AV	54.0	-5.6	1.90 V	170	28.90	19.50

Remark:

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

CHANNEL	TX Channel 138	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	#5470.00	57.4 PK	74.0	-16.6	1.63 H	57	51.70	5.70
2	#5470.00	45.1 AV	54.0	-8.9	1.63 H	57	39.40	5.70
3	*5690.00	109.5 PK			1.50 H	3	69.60	39.90
4	*5690.00	99.5 AV			1.50 H	3	59.60	39.90
5	#5850.00	60.6 PK	74.0	-13.4	1.62 H	228	54.10	6.50
6	#5850.00	46.0 AV	54.0	-8.0	1.62 H	228	39.50	6.50
7	11380.00	61.8 PK	74.0	-12.2	2.02 H	287	42.50	19.30
8	11380.00	48.1 AV	54.0	-5.9	2.02 H	287	28.80	19.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	57.8 PK	74.0	-16.2	2.66 V	14	52.10	5.70
2	#5470.00	44.2 AV	54.0	-9.8	2.66 V	14	38.50	5.70
3	*5690.00	107.5 PK			2.70 V	7	67.60	39.90
4	*5690.00	97.9 AV			2.70 V	7	58.00	39.90
5	#5850.00	59.4 PK	74.0	-14.6	2.72 V	13	52.90	6.50
6	#5850.00	46.1 AV	54.0	-7.9	2.72 V	13	39.60	6.50
7	11380.00	61.6 PK	74.0	-12.4	1.43 V	117	42.30	19.30
8	11380.00	47.9 AV	54.0	-6.1	1.43 V	117	28.60	19.30

Remark:

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

Beamforming Mode

802.11n (HT20)

CHANNEL	TX Channel 52	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	5135.00	56.6 PK	74.0	-17.4	1.71 H	355	51.80	4.80
2	5135.00	44.6 AV	54.0	-9.4	1.71 H	355	39.80	4.80
3	*5260.00	122.1 PK			1.88 H	352	83.20	38.90
4	*5260.00	109.3 AV			1.88 H	352	70.40	38.90
5	#10520.00	59.8 PK	74.0	-14.2	1.69 H	291	41.20	18.60
6	#10520.00	46.7 AV	54.0	-7.3	1.69 H	291	28.10	18.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5135.00	56.0 PK	74.0	-18.0	1.60 V	337	51.20	4.80
2	5135.00	43.1 AV	54.0	-10.9	1.60 V	337	38.30	4.80
3	*5260.00	118.2 PK			1.59 V	351	79.30	38.90
4	*5260.00	105.8 AV			1.59 V	351	66.90	38.90
5	#10520.00	59.2 PK	74.0	-14.8	1.82 V	153	40.60	18.60
6	#10520.00	46.5 AV	54.0	-7.5	1.82 V	153	27.90	18.60

Remark:

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

CHANNEL	TX Channel 60	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	*5300.00	120.4 PK			1.34 H	345	81.30	39.10
2	*5300.00	108.9 AV			1.34 H	345	69.80	39.10
3	10600.00	59.8 PK	74.0	-14.2	1.97 H	246	41.30	18.50
4	10600.00	47.0 AV	54.0	-7.0	1.97 H	246	28.50	18.50
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	*5300.00	118.1 PK			1.48 V	5	79.00	39.10
2	*5300.00	105.9 AV			1.48 V	5	66.80	39.10
3	10600.00	60.6 PK	74.0	-13.4	1.93 V	174	42.10	18.50
4	10600.00	47.0 AV	54.0	-7.0	1.93 V	174	28.50	18.50

Remark:

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

CHANNEL	TX Channel 64	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	*5320.00	120.1 PK			1.28 H	353	81.00	39.10
2	*5320.00	107.7 AV			1.28 H	353	68.60	39.10
3	5350.00	64.9 PK	74.0	-9.1	2.00 H	11	59.40	5.50
4	5350.00	49.7 AV	54.0	-4.3	2.00 H	11	44.20	5.50
5	10640.00	60.0 PK	74.0	-14.0	2.77 H	293	41.50	18.50
6	10640.00	46.6 AV	54.0	-7.4	2.77 H	293	28.10	18.50
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	*5320.00	117.8 PK			1.82 V	348	78.70	39.10
2	*5320.00	105.0 AV			1.82 V	348	65.90	39.10
3	5350.00	62.6 PK	74.0	-11.4	1.59 V	347	57.10	5.50
4	5350.00	48.2 AV	54.0	-5.8	1.59 V	347	42.70	5.50
5	10640.00	59.8 PK	74.0	-14.2	2.74 V	290	41.30	18.50
6	10640.00	46.5 AV	54.0	-7.5	2.74 V	290	28.00	18.50

Remark:

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

CHANNEL	TX Channel 100	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	62.6 PK	74.0	-11.4	1.51 H	343	55.70	6.90
2	5460.00	47.8 AV	54.0	-6.2	1.51 H	343	40.90	6.90
3	#5470.00	65.9 PK	74.0	-8.1	1.47 H	342	59.00	6.90
4	#5470.00	51.4 AV	54.0	-2.6	1.47 H	342	44.50	6.90
5	*5500.00	118.7 PK			1.57 H	8	78.50	40.20
6	*5500.00	106.4 AV			1.57 H	8	66.20	40.20
7	11000.00	59.5 PK	74.0	-14.5	2.22 H	196	39.60	19.90
8	11000.00	46.5 AV	54.0	-7.5	2.22 H	196	26.60	19.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.6 PK	74.0	-14.4	2.37 V	8	52.70	6.90
2	5460.00	46.4 AV	54.0	-7.6	2.37 V	8	39.50	6.90
3	#5470.00	62.2 PK	74.0	-11.8	2.45 V	8	55.30	6.90
4	#5470.00	48.7 AV	54.0	-5.3	2.45 V	8	41.80	6.90
5	*5500.00	117.2 PK			2.29 V	10	77.00	40.20
6	*5500.00	103.3 AV			2.29 V	10	63.10	40.20
7	11000.00	60.3 PK	74.0	-13.7	2.26 V	158	40.40	19.90
8	11000.00	47.0 AV	54.0	-7.0	2.26 V	158	27.10	19.90

Remark:

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

CHANNEL	TX Channel 116	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	*5580.00	117.4 PK			1.78 H	315	77.60	39.80
2	*5580.00	105.6 AV			1.78 H	315	65.80	39.80
3	11160.00	60.7 PK	74.0	-13.3	1.92 H	294	41.20	19.50
4	11160.00	47.9 AV	54.0	-6.1	1.92 H	294	28.40	19.50
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	*5580.00	117.2 PK			1.36 V	3	77.40	39.80
2	*5580.00	105.0 AV			1.36 V	3	65.20	39.80
3	11160.00	61.0 PK	74.0	-13.0	2.24 V	239	41.50	19.50
4	11160.00	47.6 AV	54.0	-6.4	2.24 V	239	28.10	19.50

Remark:

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

CHANNEL	TX Channel 140	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	*5700.00	115.9 PK			1.35 H	16	75.50	40.40
2	*5700.00	103.7 AV			1.35 H	16	63.30	40.40
3	#5725.00	63.5 PK	74.0	-10.5	1.39 H	332	56.10	7.40
4	#5725.00	49.4 AV	54.0	-4.6	1.39 H	332	42.00	7.40
5	11400.00	59.9 PK	74.0	-14.1	2.49 H	179	41.10	18.80
6	11400.00	47.2 AV	54.0	-6.8	2.49 H	179	28.40	18.80
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	*5700.00	115.6 PK			2.50 V	10	75.20	40.40
2	*5700.00	103.0 AV			2.50 V	10	62.60	40.40
3	#5725.00	63.7 PK	74.0	-10.3	2.36 V	14	56.30	7.40
4	#5725.00	49.5 AV	54.0	-4.5	2.36 V	14	42.10	7.40
5	11400.00	60.1 PK	74.0	-13.9	2.28 V	145	41.30	18.80
6	11400.00	47.2 AV	54.0	-6.8	2.28 V	145	28.40	18.80

Remark:

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

CHANNEL	TX Channel 144	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	#5470.00	58.4 PK	74.0	-15.6	1.55 H	18	51.50	6.90
2	#5470.00	45.3 AV	54.0	-8.7	1.55 H	18	38.40	6.90
3	*5720.00	119.0 PK			1.47 H	7	78.50	40.50
4	*5720.00	106.2 AV			1.47 H	7	65.70	40.50
5	#5850.00	58.8 PK	74.0	-15.2	1.51 H	22	51.20	7.60
6	#5850.00	45.3 AV	54.0	-8.7	1.51 H	22	37.70	7.60
7	11440.00	59.4 PK	74.0	-14.6	1.67 H	321	40.70	18.70
8	11440.00	46.0 AV	54.0	-8.0	1.67 H	321	27.30	18.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	58.2 PK	74.0	-15.8	2.58 V	7	51.30	6.90
2	#5470.00	45.1 AV	54.0	-8.9	2.58 V	7	38.20	6.90
3	*5720.00	117.8 PK			2.55 V	10	77.30	40.50
4	*5720.00	105.1 AV			2.55 V	10	64.60	40.50
5	#5850.00	58.9 PK	74.0	-15.1	2.47 V	18	51.30	7.60
6	#5850.00	44.9 AV	54.0	-9.1	2.47 V	18	37.30	7.60
7	11440.00	59.7 PK	74.0	-14.3	1.85 V	302	41.00	18.70
8	11440.00	46.7 AV	54.0	-7.3	1.85 V	302	28.00	18.70

Remark:

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

802.11n (HT40)

CHANNEL	TX Channel 54	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	5135.00	56.5 PK	74.0	-17.5	1.69 H	356	51.70	4.80
2	5135.00	44.5 AV	54.0	-9.5	1.69 H	356	39.70	4.80
3	*5270.00	118.9 PK			1.25 H	345	79.90	39.00
4	*5270.00	104.5 AV			1.25 H	345	65.50	39.00
5	#10540.00	59.7 PK	74.0	-14.3	1.93 H	172	41.10	18.60
6	#10540.00	46.8 AV	54.0	-7.2	1.93 H	172	28.20	18.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5135.00	56.6 PK	74.0	-17.4	1.56 V	343	51.80	4.80
2	5135.00	43.3 AV	54.0	-10.7	1.56 V	343	38.50	4.80
3	*5270.00	116.0 PK			1.84 V	353	77.00	39.00
4	*5270.00	105.5 AV			1.84 V	353	66.50	39.00
5	#10540.00	60.6 PK	74.0	-13.4	2.41 V	289	42.00	18.60
6	#10540.00	46.4 AV	54.0	-7.6	2.41 V	289	27.80	18.60

Remark:

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

CHANNEL	TX Channel 62	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	114.6 PK			1.84 H	353	74.90	39.70
2	*5310.00	102.7 AV			1.84 H	353	63.00	39.70
3	5350.00	72.3 PK	74.0	-1.7	1.93 H	352	65.80	6.50
4	5350.00	51.3 AV	54.0	-2.7	1.93 H	352	44.80	6.50
5	10620.00	61.3 PK	74.0	-12.7	2.64 H	276	42.40	18.90
6	10620.00	48.2 AV	54.0	-5.8	2.64 H	276	29.30	18.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	111.1 PK			1.05 V	351	71.40	39.70
2	*5310.00	100.1 AV			1.05 V	351	60.40	39.70
3	5350.00	71.5 PK	74.0	-2.5	1.29 V	0	65.00	6.50
4	5350.00	47.5 AV	54.0	-6.5	1.29 V	0	41.00	6.50
5	10620.00	59.8 PK	74.0	-14.2	2.24 V	231	40.90	18.90
6	10620.00	46.9 AV	54.0	-7.1	2.24 V	231	28.00	18.90

Remark:

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

CHANNEL	TX Channel 102	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	66.2 PK	74.0	-7.8	1.64 H	337	59.30	6.90
2	5460.00	48.2 AV	54.0	-5.8	1.64 H	337	41.30	6.90
3	#5470.00	68.8 PK	74.0	-5.2	1.88 H	4	61.90	6.90
4	#5470.00	50.4 AV	54.0	-3.6	1.88 H	4	43.50	6.90
5	*5510.00	112.9 PK			1.37 H	4	72.70	40.20
6	*5510.00	101.2 AV			1.37 H	4	61.00	40.20
7	11020.00	58.8 PK	74.0	-15.2	1.45 H	56	39.00	19.80
8	11020.00	47.1 AV	54.0	-6.9	1.45 H	56	27.30	19.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	61.0 PK	74.0	-13.0	1.63 V	0	54.10	6.90
2	5460.00	47.3 AV	54.0	-6.7	1.63 V	0	40.40	6.90
3	#5470.00	71.2 PK	74.0	-2.8	1.53 V	7	64.30	6.90
4	#5470.00	48.5 AV	54.0	-5.5	1.53 V	7	41.60	6.90
5	*5510.00	110.9 PK			1.44 V	1	70.70	40.20
6	*5510.00	98.3 AV			1.44 V	1	58.10	40.20
7	11020.00	59.6 PK	74.0	-14.4	1.67 V	172	39.80	19.80
8	11020.00	47.0 AV	54.0	-7.0	1.67 V	172	27.20	19.80

Remark:

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

CHANNEL	TX Channel 110	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	117.0 PK			1.78 H	12	77.40	39.60
2	*5550.00	104.2 AV			1.78 H	12	64.60	39.60
3	11100.00	60.8 PK	74.0	-13.2	1.43 H	265	41.60	19.20
4	11100.00	47.7 AV	54.0	-6.3	1.43 H	265	28.50	19.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	113.2 PK			1.63 V	5	73.60	39.60
2	*5550.00	101.3 AV			1.63 V	5	61.70	39.60
3	11100.00	60.3 PK	74.0	-13.7	2.54 V	291	41.10	19.20
4	11100.00	47.3 AV	54.0	-6.7	2.54 V	291	28.10	19.20

Remark:

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

CHANNEL	TX Channel 134	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	114.9 PK			1.67 H	14	75.10	39.80
2	*5670.00	101.0 AV			1.67 H	14	61.20	39.80
3	#5725.00	71.0 PK	74.0	-3.0	1.39 H	325	64.70	6.30
4	#5725.00	46.4 AV	54.0	-7.6	1.39 H	325	40.10	6.30
5	11340.00	61.4 PK	74.0	-12.6	1.56 H	173	41.90	19.50
6	11340.00	48.0 AV	54.0	-6.0	1.56 H	173	28.50	19.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	113.0 PK			1.18 V	353	73.20	39.80
2	*5670.00	99.6 AV			1.18 V	353	59.80	39.80
3	#5725.00	66.2 PK	74.0	-7.8	1.31 V	346	59.90	6.30
4	#5725.00	44.9 AV	54.0	-9.1	1.31 V	346	38.60	6.30
5	11340.00	61.1 PK	74.0	-12.9	2.86 V	265	41.60	19.50
6	11340.00	47.9 AV	54.0	-6.1	2.86 V	265	28.40	19.50

Remark:

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

CHANNEL	TX Channel 142	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	#5470.00	59.0 PK	74.0	-15.0	1.44 H	356	52.10	6.90
2	#5470.00	45.7 AV	54.0	-8.3	1.44 H	356	38.80	6.90
3	*5710.00	115.5 PK			1.37 H	336	75.00	40.50
4	*5710.00	103.5 AV			1.37 H	336	63.00	40.50
5	#5850.00	59.2 PK	74.0	-14.8	1.30 H	310	51.60	7.60
6	#5850.00	46.3 AV	54.0	-7.7	1.30 H	310	38.70	7.60
7	11420.00	59.7 PK	74.0	-14.3	1.58 H	222	41.00	18.70
8	11420.00	46.6 AV	54.0	-7.4	1.58 H	222	27.90	18.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	58.8 PK	74.0	-15.2	2.40 V	18	51.90	6.90
2	#5470.00	45.5 AV	54.0	-8.5	2.40 V	18	38.60	6.90
3	*5710.00	114.3 PK			2.43 V	21	73.80	40.50
4	*5710.00	102.1 AV			2.43 V	21	61.60	40.50
5	#5850.00	59.2 PK	74.0	-14.8	2.45 V	33	51.60	7.60
6	#5850.00	45.8 AV	54.0	-8.2	2.45 V	33	38.20	7.60
7	11420.00	59.3 PK	74.0	-14.7	1.87 V	58	40.60	18.70
8	11420.00	46.5 AV	54.0	-7.5	1.87 V	58	27.80	18.70

Remark:

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

802.11ac (VHT80)

CHANNEL	TX Channel 58	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	*5290.00	109.4 PK			1.82 H	1	69.70	39.70
2	*5290.00	97.4 AV			1.82 H	1	57.70	39.70
3	5350.00	66.4 PK	74.0	-7.6	1.86 H	348	59.90	6.50
4	5350.00	48.8 AV	54.0	-5.2	1.86 H	348	42.30	6.50
5	#10580.00	60.0 PK	74.0	-14.0	2.20 H	236	41.00	19.00
6	#10580.00	47.3 AV	54.0	-6.7	2.20 H	236	28.30	19.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5290.00	106.1 PK			1.46 V	0	66.40	39.70
2	*5290.00	93.9 AV			1.46 V	0	54.20	39.70
3	5350.00	62.5 PK	74.0	-11.5	1.45 V	354	56.00	6.50
4	5350.00	46.9 AV	54.0	-7.1	1.45 V	354	40.40	6.50
5	#10580.00	60.1 PK	74.0	-13.9	1.93 V	235	41.10	19.00
6	#10580.00	47.0 AV	54.0	-7.0	1.93 V	235	28.00	19.00

Remark:

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

CHANNEL	TX Channel 106	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	71.3 PK	74.0	-2.7	1.81 H	343	64.40	6.90
2	5460.00	51.4 AV	54.0	-2.6	1.81 H	343	44.50	6.90
3	#5470.00	69.7 PK	74.0	-4.3	1.81 H	339	62.80	6.90
4	#5470.00	51.5 AV	54.0	-2.5	1.81 H	339	44.60	6.90
5	*5530.00	108.9 PK			1.74 H	336	68.70	40.20
6	*5530.00	97.0 AV			1.74 H	336	56.80	40.20
7	11060.00	60.8 PK	74.0	-13.2	1.43 H	268	41.30	19.50
8	11060.00	46.6 AV	54.0	-7.4	1.43 H	268	27.10	19.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	65.8 PK	74.0	-8.2	2.62 V	350	58.90	6.90
2	5460.00	49.4 AV	54.0	-4.6	2.62 V	350	42.50	6.90
3	#5470.00	66.6 PK	74.0	-7.4	2.70 V	3	59.70	6.90
4	#5470.00	39.3 AV	54.0	-14.7	2.70 V	3	32.40	6.90
5	*5530.00	106.1 PK			2.47 V	7	65.90	40.20
6	*5530.00	94.2 AV			2.47 V	7	54.00	40.20
7	11060.00	59.9 PK	74.0	-14.1	1.82 V	241	40.40	19.50
8	11060.00	47.2 AV	54.0	-6.8	1.82 V	241	27.70	19.50

Remark:

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

CHANNEL	TX Channel 138	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	#5470.00	59.0 PK	74.0	-15.0	1.58 H	333	52.10	6.90
2	#5470.00	45.5 AV	54.0	-8.5	1.58 H	333	38.60	6.90
3	*5690.00	110.8 PK			1.55 H	328	70.40	40.40
4	*5690.00	99.4 AV			1.55 H	328	59.00	40.40
5	#5850.00	63.2 PK	74.0	-10.8	1.52 H	318	55.60	7.60
6	#5850.00	47.0 AV	54.0	-7.0	1.52 H	318	39.40	7.60
7	11380.00	58.9 PK	74.0	-15.1	1.49 H	251	40.00	18.90
8	11380.00	46.6 AV	54.0	-7.4	1.49 H	251	27.70	18.90
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	#5470.00	59.0 PK	74.0	-15.0	1.45 V	356	52.10	6.90
2	#5470.00	45.6 AV	54.0	-8.4	1.45 V	356	38.70	6.90
3	*5690.00	107.2 PK			1.42 V	352	66.80	40.40
4	*5690.00	97.2 AV			1.42 V	352	56.80	40.40
5	#5850.00	60.6 PK	74.0	-13.4	1.47 V	358	53.00	7.60
6	#5850.00	46.2 AV	54.0	-7.8	1.47 V	358	38.60	7.60
7	11380.00	59.3 PK	74.0	-14.7	2.02 V	30	40.40	18.90
8	11380.00	46.6 AV	54.0	-7.4	2.02 V	30	27.70	18.90

Remark:

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

Below 1GHz Worst-Case Data:

CDD Mode

802.11a

CHANNEL	TX Channel 52	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	57.12	31.0 QP	40.0	-9.0	2.00 H	98	45.60	-14.60
2	144.61	28.4 QP	43.5	-15.1	2.00 H	93	42.60	-14.20
3	169.89	29.0 QP	43.5	-14.5	2.00 H	288	43.20	-14.20
4	288.49	25.6 QP	46.0	-20.4	1.00 H	261	38.10	-12.50
5	399.31	26.0 QP	46.0	-20.0	1.00 H	133	36.20	-10.20
6	525.69	25.2 QP	46.0	-20.8	2.00 H	87	33.00	-7.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	47.40	37.1 QP	40.0	-2.9	1.01 V	16	51.60	-14.50
2	80.45	29.6 QP	40.0	-10.4	1.01 V	194	48.30	-18.70
3	158.22	27.3 QP	43.5	-16.2	1.01 V	297	41.00	-13.70
4	235.99	26.1 QP	46.0	-19.9	1.01 V	178	41.30	-15.20
5	305.99	24.3 QP	46.0	-21.7	1.51 V	219	36.30	-12.00
6	500.42	28.7 QP	46.0	-17.3	1.01 V	248	36.90	-8.20

Remarks:

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

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.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCI	100613	Nov. 16, 2015	Nov. 15, 2016
RF signal cable (with 10dB PAD) Woken	5D-FB	Cable-cond1-01	Dec. 26, 2015	Dec. 25, 2016
LISN ROHDE & SCHWARZ (EUT)	ESH3-Z5	835239/001	Feb. 26, 2016	Feb. 25, 2017
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100220	Nov. 13, 2015	Nov. 12, 2016
Software ADT	BV ADT_Cond_ V7.3.7.3	NA	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Shielded Room 1.
3. The VCCI Site Registration No. is C-2040.

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.

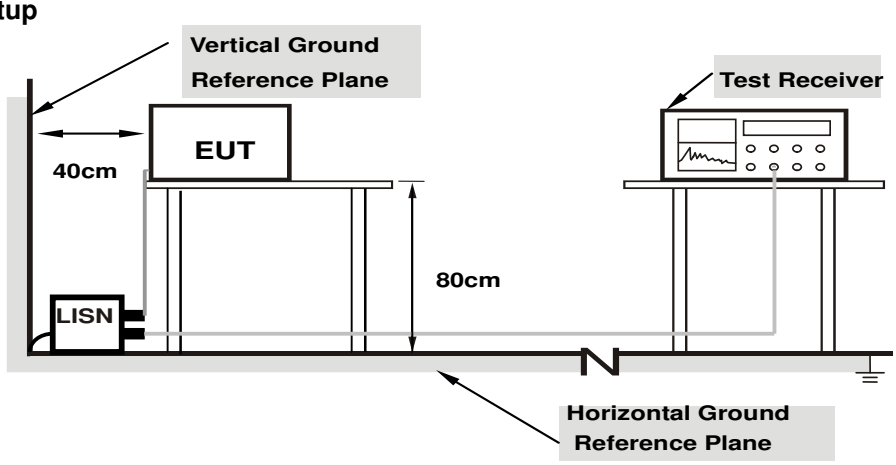
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

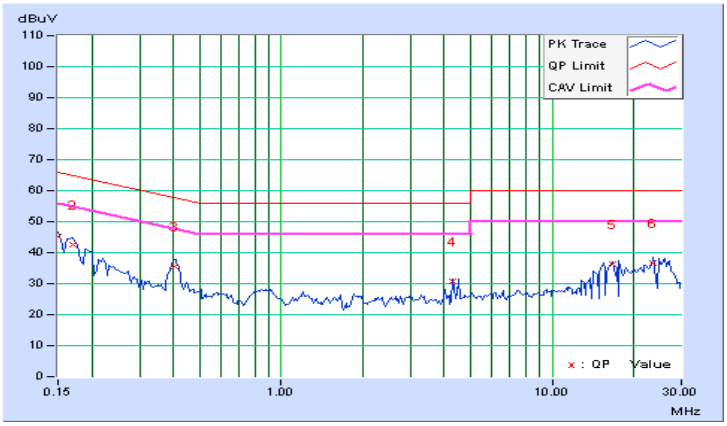
CDD Mode

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	0.15000	10.12	35.17	23.00	45.29	33.12	66.00	56.00	-20.71	-22.88
2	0.16953	10.14	32.53	23.76	42.67	33.90	64.98	54.98	-22.31	-21.08
3	0.40391	10.19	25.33	19.60	35.52	29.79	57.77	47.77	-22.25	-17.98
4	4.29297	10.36	20.47	19.74	30.83	30.10	56.00	46.00	-25.17	-15.90
5	16.66016	10.56	25.56	25.13	36.12	35.69	60.00	50.00	-23.88	-14.31
6	23.48047	10.54	26.12	25.56	36.66	36.10	60.00	50.00	-23.34	-13.90

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.

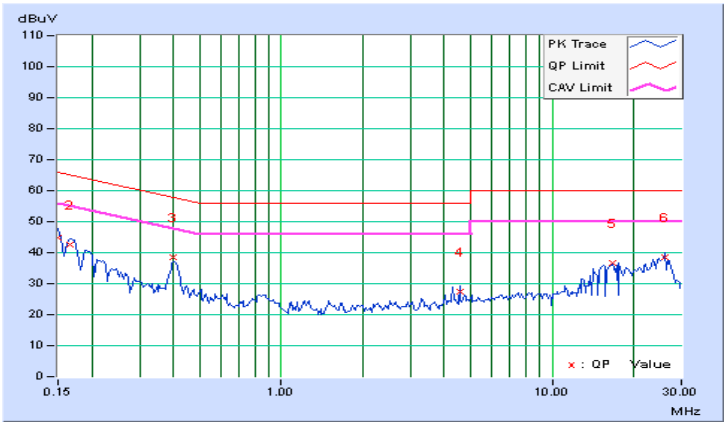


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

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	0.15000	10.13	34.77	22.32	44.90	32.45	66.00	56.00	-21.10	-23.55
2	0.16562	10.14	32.57	21.38	42.71	31.52	65.18	55.18	-22.47	-23.66
3	**0.40000**	**10.19**	**28.50**	**28.19**	**38.69**	**38.38**	**57.85**	**47.85**	**-19.16**	**-9.47**
4	4.54688	10.41	17.17	16.29	27.58	26.70	56.00	46.00	-28.42	-19.30
5	16.66406	10.70	25.87	25.37	36.57	36.07	60.00	50.00	-23.43	-13.93
6	26.00391	10.64	27.72	27.03	38.36	37.67	60.00	50.00	-21.64	-12.33

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 Transmit Power Measurment

4.3.1 Limits of Transmit Power Measurement

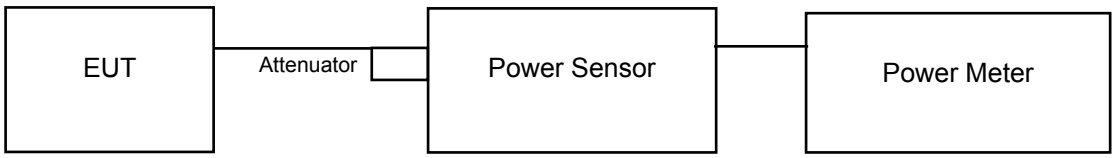
Operation Band	EUT Category		LIMIT
U-NII-1	---	Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p ≦ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
	---	Fixed point-to-point Access Point	1 Watt (30 dBm)
	---	Indoor Access Point	1 Watt (30 dBm)
	---	Mobile and Portable client device	250mW (24 dBm)
U-NII-2A	√		250mW (24 dBm) or 11 dBm+10 log B*
U-NII-2C	√		250mW (24 dBm) or 11 dBm+10 log B*
U-NII-3	√		1 Watt (30 dBm)

*B is the 26 dB emission bandwidth in megahertz

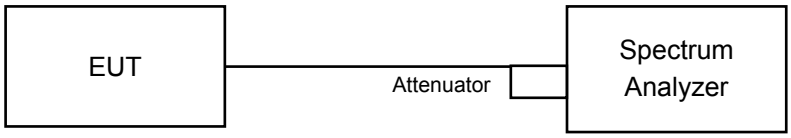
Per KDB 662911 Method of conducted output power measurement on IEEE 802.11 devices,
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less for 20-MHz 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

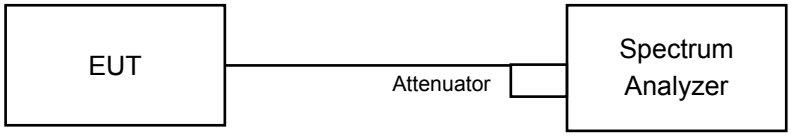
For Power Output Measurement
802.11a, 802.11n (HT20), 802.11n (HT40)



802.11ac (VHT80)



For 26dB Bandwidth



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

For Average Power Measurement

For 802.11a, 802.11n (HT20), 802.11n (HT40)

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

For 802.11ac (VHT80)

a. Set span to encompass the entire 26 dB EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
b. Set sweep trigger to “free run”.
c. Set RBW = 1 MHz.
d. Set VBW ≥ 3 MHz
e. Number of points in sweep ≥ 2 Span / RBW.
f. Sweep time ≤ (number of points in sweep) * T
g. Using emission bandwidth to determine the frequency span for integration the channel bandwidth.
h. Detector = RMS.
i. Trace mode = max hold.
j. Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.
k. Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument’s band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum.

For 26dB Bandwidth

a. Set RBW = approximately 1% of the emission bandwidth.
b. Set the VBW > RBW.
c. Detector = Peak.
d. Trace mode = max hold.
e. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

4.3.5 Deviation fromTest 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 Result

Power Output:

CDD Mode

802.11a

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
52	5260	16.58	16.42	89.352	19.51	23.86	Pass
60	5300	16.77	16.69	94.200	19.74	23.88	Pass
64	5320	16.85	16.95	97.962	19.91	23.87	Pass
100	5500	16.32	16.70	89.629	19.52	23.87	Pass
116	5580	16.03	16.29	82.647	19.17	23.90	Pass
140	5700	16.15	16.28	83.672	19.23	23.83	Pass
144	5720 For U-NII-2C	15.96	16.17	85.371	19.31	22.63	Pass
144	5720 For U-NII-3	11.03	11.15	27.148	14.34	30.00	Pass

Note:
Chain 0
1. 11dBm + 10log (20.00) = 24.01 < 24dBm
2. 11dBm + 10log (19.91) = 23.99 < 24dBm
3. 11dBm + 10log (19.71) = 23.95 < 24dBm
4. 11dBm + 10log (19.61) = 23.92 < 24dBm
5. 11dBm + 10log (19.70) = 23.94 < 24dBm
6. 11dBm + 10log (19.63) = 23.93 < 24dBm
7. 11dBm + 10log(5725.00 - 5710.20) = 22.70 dBm < 24dBm.

Chain 1
1. 11dBm + 10log (19.34) = 23.86 < 24dBm
2. 11dBm + 10log (19.42) = 23.88 < 24dBm
3. 11dBm + 10log (19.40) = 23.87 < 24dBm
4. 11dBm + 10log (19.39) = 23.87 < 24dBm
5. 11dBm + 10log (19.51) = 23.90 < 24dBm
6. 11dBm + 10log (19.20) = 23.83 < 24dBm
7. 11dBm + 10log(5725.00 - 5710.46) = 22.63 dBm < 24dBm.

802.11n (HT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
52	5260	17.68	17.65	116.824	20.68	24	Pass
60	5300	17.79	17.83	120.791	20.82	24	Pass
64	5320	17.65	17.59	115.622	20.63	24	Pass
100	5500	17.35	17.99	117.276	20.69	24	Pass
116	5580	16.93	17.33	103.392	20.14	24	Pass
140	5700	17.71	17.73	118.313	20.73	24	Pass
144	5720 For U-NII-2C	15.79	15.83	80.478	19.06	22.78	Pass
144	5720 For U-NII-3	11.11	11.25	27.716	14.43	30.00	Pass

Note:
Chain 0
1. 11dBm + 10log (20.57) = 24.13 > 24dBm
2. 11dBm + 10log (20.97) = 24.22 > 24dBm
3. 11dBm + 10log (20.54) = 24.13 > 24dBm
4. 11dBm + 10log (20.62) = 24.14 > 24dBm
5. 11dBm + 10log (20.69) = 24.16 > 24dBm
6. 11dBm + 10log (20.53) = 24.12 > 24dBm
7. 11dBm + 10log(5725.00 - 5709.67) = 22.86 dBm < 24dBm.

Chain 1
1. 11dBm + 10log (20.46) = 24.11 > 24dBm
2. 11dBm + 10log (20.49) = 24.12 > 24dBm
3. 11dBm + 10log (20.50) = 24.12 > 24dBm
4. 11dBm + 10log (20.58) = 24.13 > 24dBm
5. 11dBm + 10log (20.66) = 24.15 > 24dBm
6. 11dBm + 10log (20.51) = 24.12 > 24dBm
7. 11dBm + 10log(5725.00 - 5709.95) = 22.78 dBm < 24dBm.

802.11n (HT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
54	5270	19.87	20.04	**197.976**	22.97	24	Pass
62	5310	17.03	16.97	100.240	20.01	24	Pass
102	5510	14.53	15.09	60.664	17.83	24	Pass
110	5550	19.10	19.86	**178.111**	22.51	24	Pass
134	5670	18.81	19.05	156.386	21.94	24	Pass
142	5710 For U-NII-2C	18.33	18.41	145.111	21.62	24	Pass
142	5710 For U-NII-3	10.10	10.38	22.331	13.49	30	Pass

Note:
Chain 0
1. 11dBm + 10log (40.68) = 27.09 > 24dBm
2. 11dBm + 10log (40.70) = 27.10 > 24dBm
3. 11dBm + 10log (40.71) = 27.10 > 24dBm
4. 11dBm + 10log (40.78) = 27.10 > 24dBm
5. 11dBm + 10log (40.52) = 27.08 > 24dBm
6. 11dBm + 10log(5725.00 - 5689.50) = 26.50 dBm > 24dBm.

Chain 1
1. 11dBm + 10log (40.31) = 27.05 > 24dBm
2. 11dBm + 10log (40.70) = 27.10 > 24dBm
3. 11dBm + 10log (40.66) = 27.09 > 24dBm
4. 11dBm + 10log (40.32) = 27.06 > 24dBm
5. 11dBm + 10log (40.30) = 27.05 > 24dBm
6. 11dBm + 10log(5725.00 - 5689.62) = 26.49 dBm > 24dBm.

802.11ac (VHT80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
58	5290	14.36	14.29	54.143	17.34	24	Pass
106	5530	14.11	14.80	55.963	17.48	24	Pass
138	5690 For U-NII-2C	18.44	18.51	148.660	21.72	24	Pass
138	5690 For U-NII-3	7.75	8.27	13.380	11.26	24	Pass

Note:
Chain 0
1. 11dBm + 10log (84.13) = 30.26 > 24dBm
2. 11dBm + 10log (84.06) = 30.24 > 24dBm
3. 11dBm + 10log(5725.00 - 5648.26) = 29.85 dBm > 24dBm.

Chain 1
1. 11dBm + 10log (83.34) = 30.24 > 24dBm
2. 11dBm + 10log (83.78) = 30.23 > 24dBm
3. 11dBm + 10log(5725.00 - 5648.00) = 29.86 dBm > 24dBm.

Beamforming Mode

802.11n (HT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
52	5260	18.21	17.42	**121.430**	20.84	21.13	Pass
60	5300	18.03	17.15	115.413	20.62	21.13	Pass
64	5320	18.23	17.05	117.226	20.69	21.13	Pass
100	5500	17.56	17.66	115.361	20.62	21.13	Pass
116	5580	18.01	17.81	**123.636**	20.92	21.13	Pass
140	5700	18.00	17.73	122.389	20.88	21.13	Pass
144	5720 For U-NII-2C	15.79	15.83	80.478	19.06	21.13	Pass
144	5720 For U-NII-3	11.11	11.25	27.716	14.43	27.13	Pass

* U-NII-2A& U-NII-2C: Directional gain = 10 log[($10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20}$)^2/2]= 8.87 dBi > 6dBi , so the power limit shall be reduced to 24-(8.87-6) = 21.13dBm.
* U-NII-3: Directional gain = 10 log[($10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20}$)^2/2]= 8.87 dBi > 6dBi , so the power limit shall be reduced to 30-(8.87-6) = 27.13dBm.

Note:

Chain 0

1. 11dBm + 10log (20.35) = 24.09 > 21.13dBm
2. 11dBm + 10log (20.31) = 24.08 > 21.13dBm
3. 11dBm + 10log (20.38) = 24.09 > 21.13dBm
4. 11dBm + 10log (20.50) = 24.12 > 21.13dBm
5. 11dBm + 10log (20.43) = 24.10 > 21.13dBm
6. 11dBm + 10log (20.42) = 24.10 > 21.13dBm
7. 11dBm + 10log(5725.00 - 5709.67) = 22.86 dBm > 21.13dBm.

Chain 1

1. 11dBm + 10log (20.42) = 24.10 > 21.13dBm
2. 11dBm + 10log (20.37) = 24.09 > 21.13dBm
3. 11dBm + 10log (20.48) = 24.11 > 21.13dBm
4. 11dBm + 10log (20.53) = 24.12 > 21.13dBm
5. 11dBm + 10log (20.59) = 24.14 > 21.13dBm
6. 11dBm + 10log (20.44) = 24.10 > 21.13dBm
7. 11dBm + 10log(5725.00 - 5709.95) = 22.78 dBm > 21.13dBm.

802.11n (HT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
54	5270	16.18	15.64	78.139	18.93	21.13	Pass
62	5310	15.11	15.15	65.168	18.14	21.13	Pass
102	5510	17.88	17.55	118.261	20.73	21.13	Pass
110	5550	17.75	17.59	116.978	20.68	21.13	Pass
134	5670	16.18	15.64	78.139	18.93	21.13	Pass
142	5710 For U-NII-2C	17.41	17.51	111.400	20.47	21.13	Pass
142	5710 For U-NII-3	9.18	9.48	17.150	12.34	27.13	Pass

* U-NII-2A& U-NII-2C: Directional gain = 10 log[($10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20}$)^2/2]= 8.87 dBi > 6dBi , so the power limit shall be reduced to 24-(8.87-6) = 21.13dBm.
* U-NII-3: Directional gain = 10 log[($10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20}$)^2/2]= 8.87 dBi > 6dBi , so the power limit shall be reduced to 30-(8.87-6) = 27.13dBm.

Note:
Chain 0
1. 11dBm + 10log (40.75) = 27.10 > 21.13dBm
2. 11dBm + 10log (41.06) = 27.13 > 21.13dBm
3. 11dBm + 10log (40.64) = 27.09 > 21.13dBm
4. 11dBm + 10log (40.74) = 27.10 > 21.13dBm
5. 11dBm + 10log (40.65) = 27.09 > 21.13dBm
6. 11dBm + 10log(5725.00 - 5689.50) = 26.50 dBm > 21.13dBm.

Chain 1
1. 11dBm + 10log (40.66) = 27.09 > 21.13dBm
2. 11dBm + 10log (40.88) = 27.12 > 21.13dBm
3. 11dBm + 10log (40.79) = 27.11 > 21.13dBm
4. 11dBm + 10log (40.87) = 27.11 > 21.13dBm
5. 11dBm + 10log (40.88) = 27.12 > 21.13dBm
6. 11dBm + 10log(5725.00 - 5689.62) = 26.49 dBm > 21.13dBm.

802.11ac (VHT80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
58	5290	13.82	13.47	46.332	16.66	21.13	Pass
106	5530	14.74	14.85	60.334	17.81	21.13	Pass
138	5690 For U-NII-2C	17.69	17.67	117.200	20.69	21.13	Pass
138	5690 For U-NII-3	7.00	7.43	10.550	10.23	27.13	Pass

* U-NII-2A& U-NII-2C: Directional gain = 10 log[($10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20}$)^2/2]= 8.87 dBi > 6dBi , so the power limit shall be reduced to 24-(8.87-6) = 21.13dBm.
* U-NII-3: Directional gain = 10 log[($10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20}$)^2/2]= 8.87 dBi > 6dBi , so the power limit shall be reduced to 30-(8.87-6) = 27.13dBm.

Note:
Chain 0
1. 11dBm + 10log (83.75) = 30.23 > 21.13dBm
2. 11dBm + 10log (83.69) = 30.23 > 21.13dBm
3. 11dBm + 10log(5725.00 - 5648.26) = 29.85 dBm > 21.13dBm.
Chain 1
1. 11dBm + 10log (83.72) = 30.23 > 21.13dBm
2. 11dBm + 10log (83.80) = 30.23 > 21.13dBm
3. 11dBm + 10log(5725.00 - 5648.00) = 29.86 dBm > 21.13dBm.

26dB Bandwidth:

CDD Mode

802.11a

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
52	5260	19.99	19.34	Pass
60	5300	19.91	19.42	Pass
64	5320	19.71	19.40	Pass
100	5500	19.61	19.39	Pass
116	5580	19.70	19.51	Pass
140	5700	19.63	19.20	Pass
144	5720	14.80	14.54	Pass

802.11n (HT20)

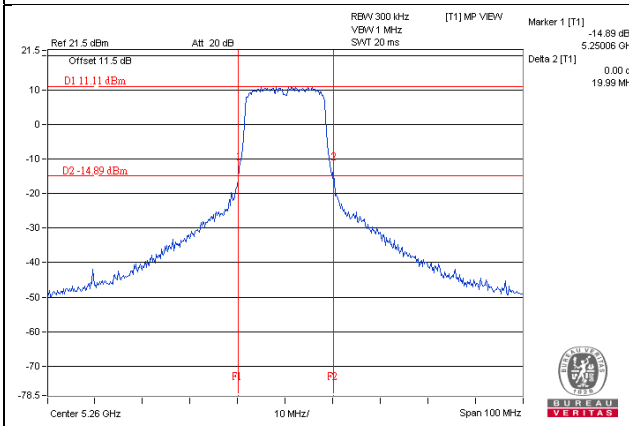
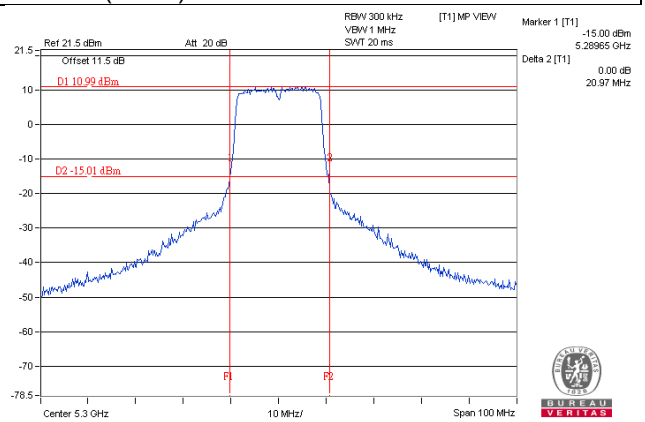
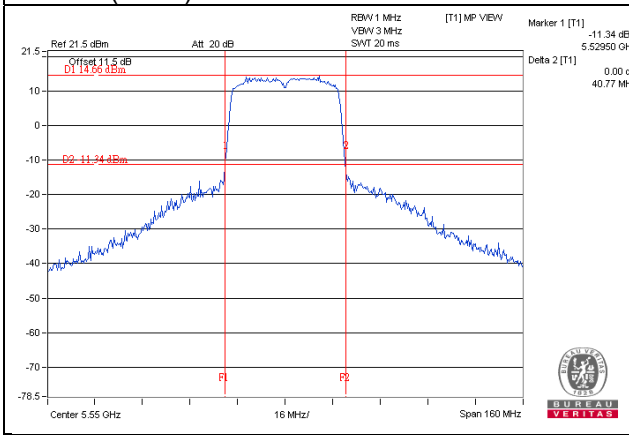
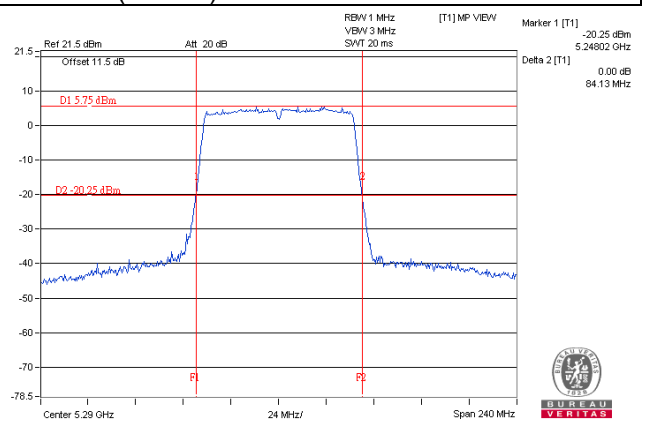
Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
52	5260	20.57	20.46	Pass
60	5300	20.97	20.49	Pass
64	5320	20.54	20.50	Pass
100	5500	20.62	20.58	Pass
116	5580	20.69	20.66	Pass
140	5700	20.53	20.51	Pass
144	5720	15.34	15.06	Pass

802.11n (HT40)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
54	5270	40.68	40.31	Pass
62	5310	40.70	40.70	Pass
102	5510	40.71	40.66	Pass
110	5550	40.77	40.32	Pass
134	5670	40.52	40.30	Pass
142	5710	35.50	35.39	Pass

802.11ac (VHT80)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
58	5290	84.13	83.34	Pass
106	5530	84.06	83.78	Pass
138	5690	76.75	77.01	Pass

Spectrum Plot of Worst Value	
802.11a	802.11n (HT20)
	
802.11n (HT40)	802.11ac (VHT80)
	

Beamforming Mode

802.11n (HT20)

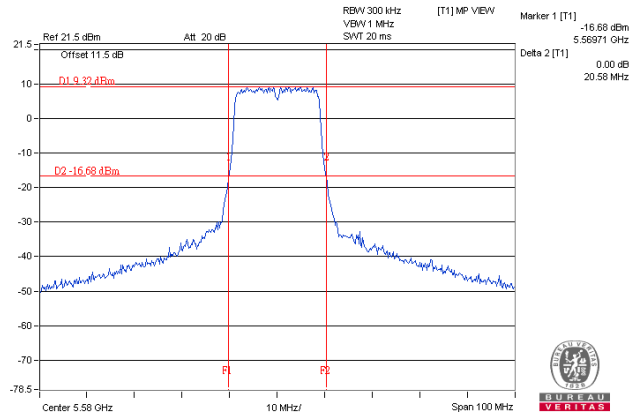
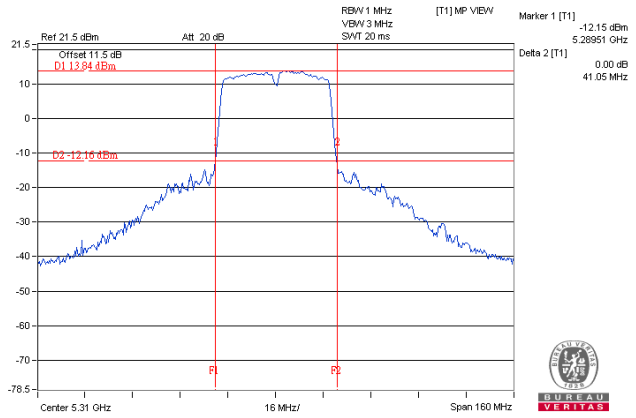
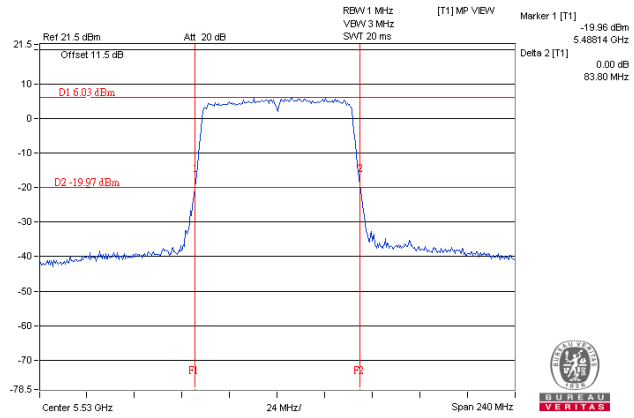
Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
52	5260	20.35	20.42	Pass
60	5300	20.31	20.37	Pass
64	5320	20.38	20.48	Pass
100	5500	20.50	20.53	Pass
116	5580	20.43	20.58	Pass
140	5700	20.42	20.44	Pass
144	5720	15.34	15.06	Pass

802.11n (HT40)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
54	5270	40.75	40.66	Pass
62	5310	41.05	40.88	Pass
102	5510	40.64	40.79	Pass
110	5550	40.74	40.87	Pass
134	5670	40.65	40.88	Pass
142	5710	35.50	35.39	Pass

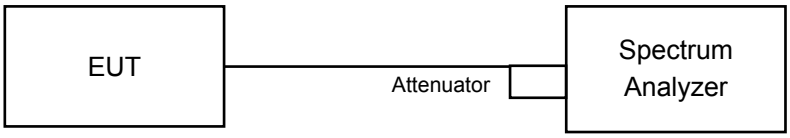
802.11ac (VHT80)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
58	5290	83.75	83.72	Pass
106	5530	83.69	83.80	Pass
138	5690	76.75	77.01	Pass

Spectrum Plot of Worst Value	
802.11n (HT20)	802.11n (HT40)
	
802.11ac (VHT80)	
	

4.4 Occupied Bandwidth Measurement

4.4.1 Test Setup



4.4.2 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.3 Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with resolution bandwidth in the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth and set the detector to sample. The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 %of the total mean power of a given emission.

4.4.4 Test Result

CDD Mode

802.11a

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	16.44	16.44
60	5300	16.44	16.44
64	5320	16.44	16.44
100	5500	16.44	16.44
116	5580	16.44	16.44
140	5700	16.44	16.44
144	5720 For U-NII-2C	13.28	13.28
144	5720 For U-NII-3	3.04	3.16

802.11n (HT20)

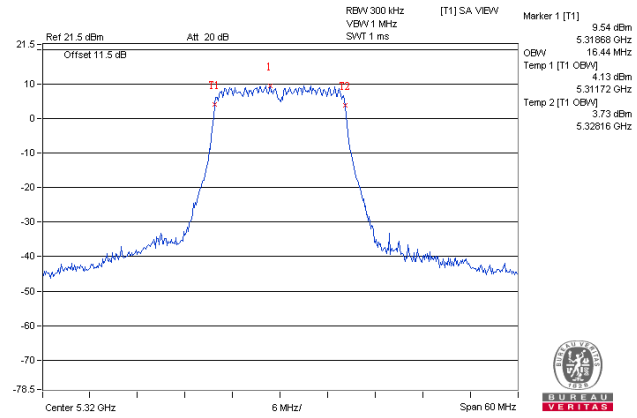
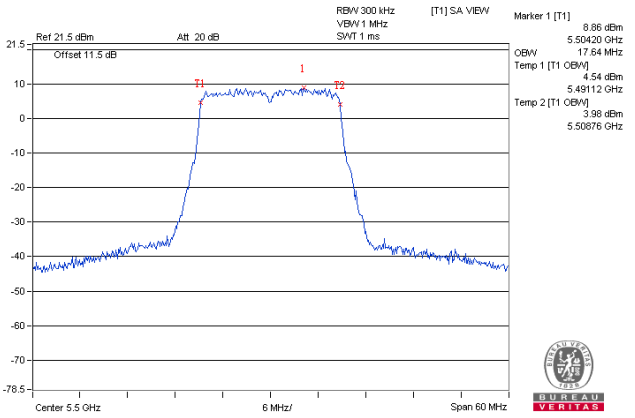
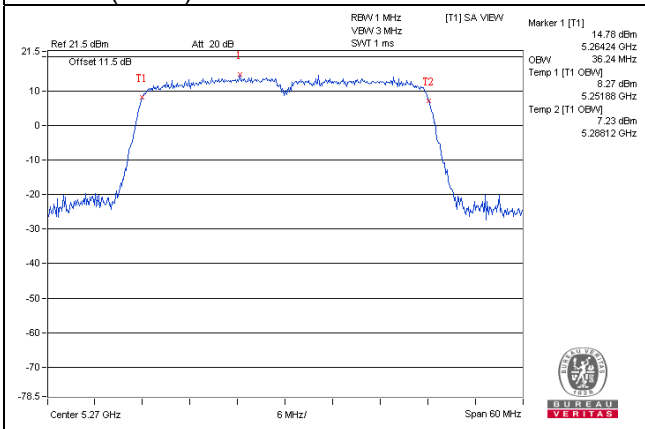
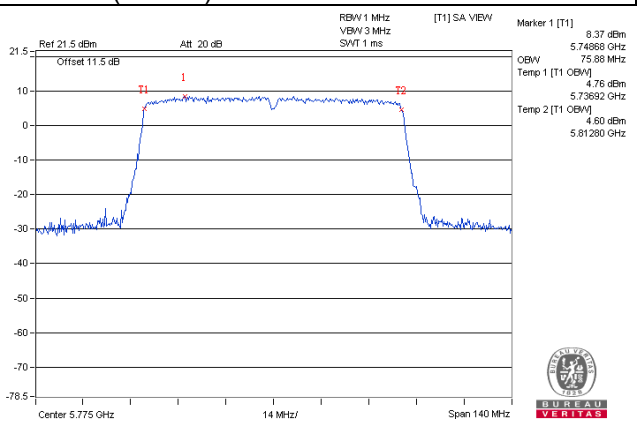
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	17.64	17.64
60	5300	17.64	17.64
64	5320	17.64	17.64
100	5500	17.64	17.64
116	5580	17.64	17.64
140	5700	17.64	17.64
144	5720 For U-NII-2C	13.88	13.88
144	5720 For U-NII-3	3.76	3.76

802.11n (HT40)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
54	5270	36.24	36.24
62	5310	36.24	36.12
102	5510	36.24	36.12
110	5550	36.24	36.12
134	5670	36.12	36.12
142	5710 For U-NII-2C	33.24	33.12
142	5710 For U-NII-3	3.00	3.12

802.11ac (VHT80)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	75.60	75.88
106	5530	75.88	75.60
138	5690 For U-NII-2C	73.16	72.92
138	5690 For U-NII-3	2.68	2.92

Spectrum Plot of Worst Value	
802.11a	802.11n (HT20)
	
802.11n (HT40)	802.11ac (VHT80)
	

Beamforming Mode

802.11n (HT20)

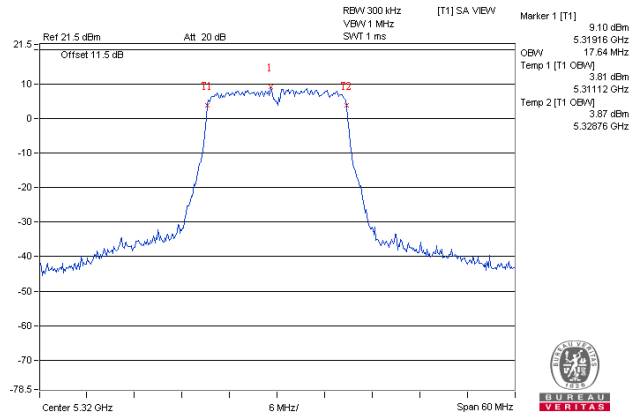
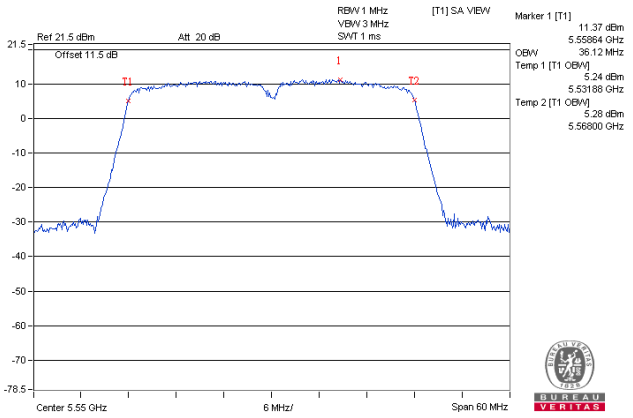
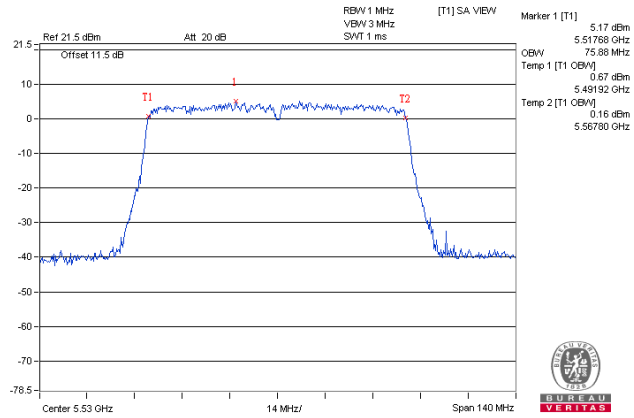
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	17.64	17.64
60	5300	17.64	17.64
64	5320	17.64	17.64
100	5500	17.64	17.64
116	5580	17.64	17.64
140	5700	17.52	17.64
144	5720 For U-NII-2C	13.88	13.88
144	5720 For U-NII-3	3.76	3.76

802.11n (HT40)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
54	5270	36.12	36.00
62	5310	36.12	36.00
102	5510	36.12	36.00
110	5550	36.12	36.00
134	5670	36.12	36.00
142	5710 For U-NII-2C	33.24	33.12
142	5710 For U-NII-3	3.00	3.12

802.11ac (VHT80)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	75.88	75.60
106	5530	75.88	75.60
138	5690 For U-NII-2C	73.16	72.92
138	5690 For U-NII-3	2.68	2.92

Spectrum Plot of Worst Value	
802.11n (HT20)	802.11n (HT40)
	
802.11ac (VHT80)	
	

EUT MAXIMUM CONDUCTED POWER

CDD Mode

802.11a

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	97.962	19.91
5470~5725	89.629	19.52

802.11n (HT20)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	120.791	20.82
5470~5725	118.313	20.73

802.11n (HT40)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	197.976	22.97
5470~5725	178.111	22.51

802.11ac (VHT80)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	54.143	17.34
5470~5725	148.660	21.72

Beamforming Mode

802.11n (HT20)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	121.43	20.84
5470~5725	123.636	20.92

802.11n (HT40)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	78.139	18.93
5470~5725	118.261	20.73

802.11ac (VHT80)

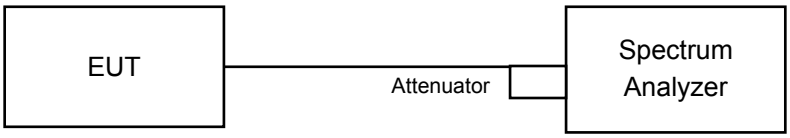
Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	46.332	16.66
5470~5725	117.200	20.69

4.5 Peak Power Spectral Density Measurement

4.5.1 Limits of Peak Power Spectral Density Measurement

Operation Band	EUT Category		LIMIT
U-NII-1	---	Outdoor Access Point	17dBm/ MHz
	---	Fixed point-to-point Access Point	
	---	Indoor Access Point	
	---	Mobile and Portable client device	11dBm/ MHz
U-NII-2A	√		11dBm/ MHz
U-NII-2C	√		11dBm/ MHz
U-NII-3	√		30dBm/ 500kHz

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedures

For U-NII-1, U-NII-2A, U-NII-2C band:

Using method SA-1, Duty cycle >98%:

1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 1MHz, Set VBW ≥ 3MHz, Detector = RMS
3) Set Channel power measure = 1MHz
4) Sweep time = auto, trigger set to “free run”.
5) Trace average at least 100 traces in power averaging mode.
6) Record the max value

Using method SA-2, Duty cycle <98%

1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 1MHz, Set VBW ≥ 3MHz, Detector = RMS
3) Set Channel power measure = 1MHz
4) Sweep time = auto, trigger set to “free run”.
5) Trace average at least 100 traces in power averaging mode.
6) Record the max value and add 10 log (1/duty cycle)

For U-NII-3 band:
1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 300 kHz, Set VBW ≥ 1 MHz, Detector = RMS
3) Use the peak marker function to determine the maximum power level in any 300 kHz band segment within the fundamental EBW.
4) Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log(500kHz/300kHz)
5) Sweep time = auto, trigger set to “free run”.
6) Trace average at least 100 traces in power averaging mode.
7) Record the max value and add 10 log (1/duty cycle)

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Conditions

Same as Item 4.3.6.

4.5.7 Test Results

CDD Mode

For U-NII-2A, U-NII-2C Band

802.11a

Chan.	Freq. (MHz)	PSD (dBm)		Total PSD w/o duty factor (dBm)	Duty factor	Total PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1					
52	5260	4.40	4.65	7.53	0.24	7.77	8.13	Pass
60	5300	4.67	4.46	7.57	0.24	7.81	8.13	Pass
64	5320	4.70	4.33	7.53	0.24	7.77	8.13	Pass
100	5500	3.64	3.77	6.71	0.24	6.95	8.13	Pass
116	5580	4.40	4.57	7.49	0.24	7.73	8.13	Pass
140	5700	4.40	4.16	7.29	0.24	7.53	8.13	Pass
144	5720 For U-NII-2C	4.41	3.99	7.21	0.24	7.45	8.13	Pass

Note:
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/2$]= 8.87 dBi > 6dBi , so the power density limit shall be reduced to 11-(8.87-6) = 8.13dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT20)

Chan.	Freq. (MHz)	PSD (dBm)		Total PSD (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1			
52	5260	4.87	4.16	7.54	8.13	Pass
60	5300	4.96	3.93	7.49	8.13	Pass
64	5320	5.30	4.28	7.83	8.13	Pass
100	5500	4.41	4.53	7.48	8.13	Pass
116	5580	4.25	4.56	7.42	8.13	Pass
140	5700	4.99	3.95	7.51	8.13	Pass
144	5720 For U-NII-2C	3.99	3.99	7.48	8.13	Pass

Note:
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/2$]= 8.87 dBi > 6dBi , so the power density limit shall be reduced to 11-(8.87-6) = 8.13dBm.

802.11n (HT40)

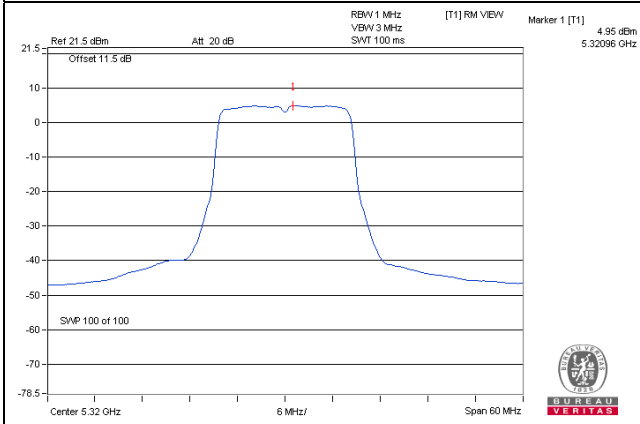
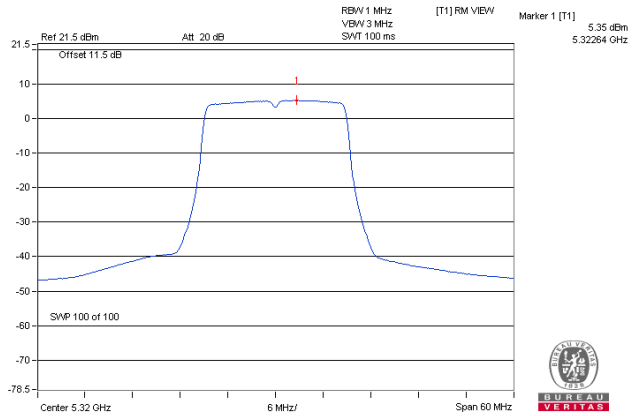
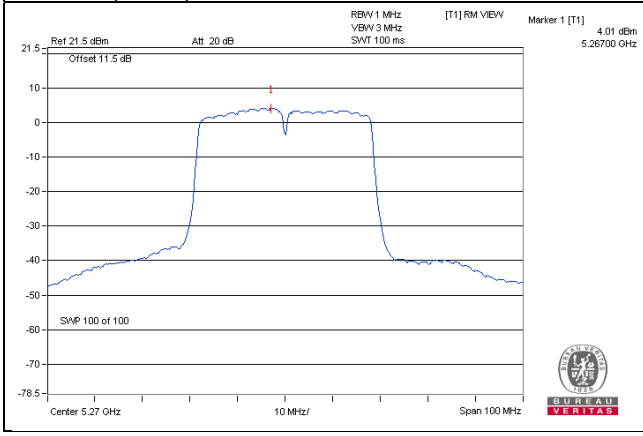
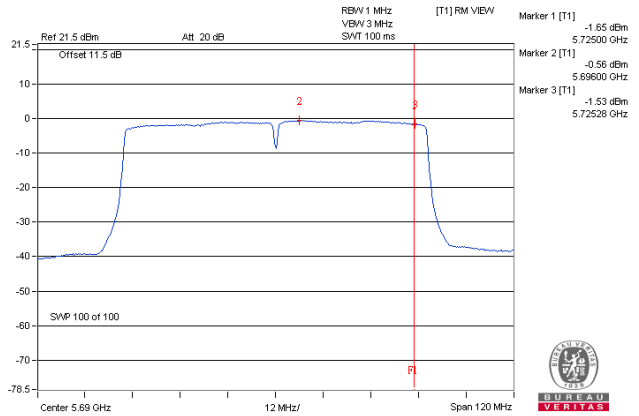
Chan.	Freq. (MHz)	PSD (dBm)		Total PSD w/o duty factor (dBm)	Duty factor	Total PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1					
54	5270	3.71	3.99	6.87	0.17	7.04	8.13	Pass
62	5310	0.75	0.76	3.77	0.17	3.94	8.13	Pass
102	5510	-1.30	-1.02	1.86	0.17	2.03	8.13	Pass
110	5550	3.78	3.86	6.83	0.17	7.00	8.13	Pass
134	5670	2.74	3.30	6.04	0.17	6.21	8.13	Pass
142	5710 For U-NII-2C	2.40	3.33	5.90	0.17	6.07	8.13	Pass

Note:
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/2$]= 8.87 dBi > 6dBi , so the power density limit shall be reduced to 11-(8.87-6) = 8.13dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

Chan.	Freq. (MHz)	PSD (dBm)		Total PSD w/o duty factor (dBm)	Duty factor	Total PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1					
58	5290	-5.84	-5.17	-2.48	0.37	-2.11	8.13	Pass
106	5530	-5.18	-4.67	-1.91	0.37	-1.54	8.13	Pass
138	5690 For U-NII-2C	-1.53	-0.61	1.96	0.37	2.33	8.13	Pass

Note:
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/2$]= 8.87 dBi > 6dBi , so the power density limit shall be reduced to 11-(8.87-6) = 8.13dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value	
802.11a / Chain 0 / CH 64	802.11n (HT20) / Chain 0 / CH 64
	
802.11n (HT40)/ Chain 0 / CH 54	802.11ac (VHT80) / Chain 1 / CH 138
	

For U-NII-3 Band

802.11a

TX chain	Chan.	Freq. (MHz)	PSD (dBm/300 kHz)	PSD (dBm/500 kHz)	10 log (N=2) dB	Duty factor	Total PSD (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	144	5720 For U-NII-3	-3.78	-1.56	3.01	0.24	1.69	27.13	Pass
1	144	5720 For U-NII-3	-3.60	-1.38	3.01	0.24	1.87	27.13	Pass

Note:
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/2$]= 8.87 dBi > 6dBi , so the power density limit shall be reduced to 30-(8.87-6) = 27.13dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT20)

TX chain	Chan.	Freq. (MHz)	PSD (dBm/300 kHz)	PSD (dBm/500 kHz)	10 log (N=2) dB	Total PSD (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	144	5720 For U-NII-3	-4.17	-1.95	3.01	1.06	27.13	Pass
1	144	5720 For U-NII-3	-4.14	-1.92	3.01	1.09	27.13	Pass

Note:
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/2$]= 8.87 dBi > 6dBi , so the power density limit shall be reduced to 30-(8.87-6) = 27.13dBm.

802.11n (HT40)

TX chain	Chan.	Freq. (MHz)	PSD (dBm/300 kHz)	PSD (dBm/500 kHz)	10 log (N=2) dB	Duty factor	Total PSD (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	142	5710 For U-NII-3	-7.04	-4.82	3.01	0.17	-1.64	27.13	Pass
1	142	5710 For U-NII-3	-6.37	-4.15	3.01	0.17	-0.97	27.13	Pass

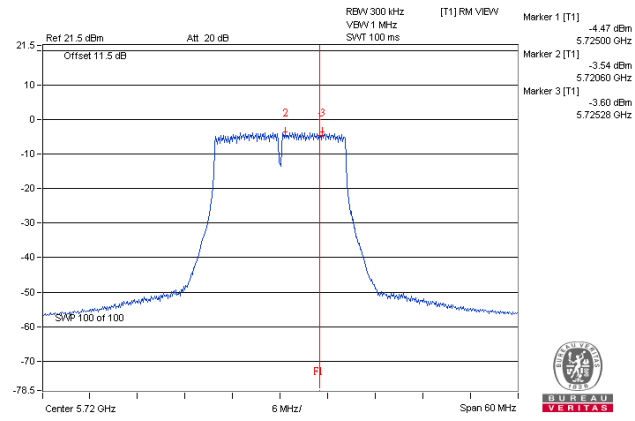
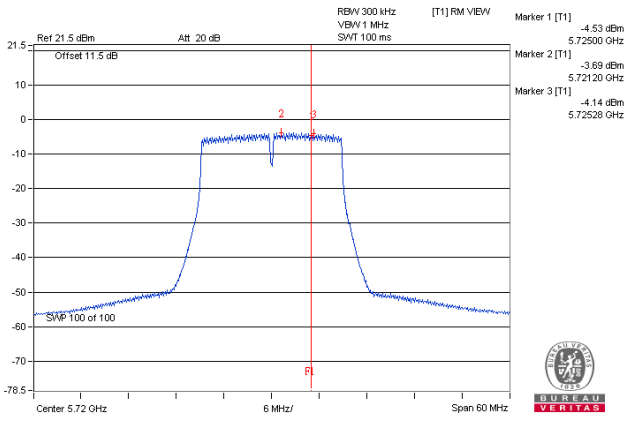
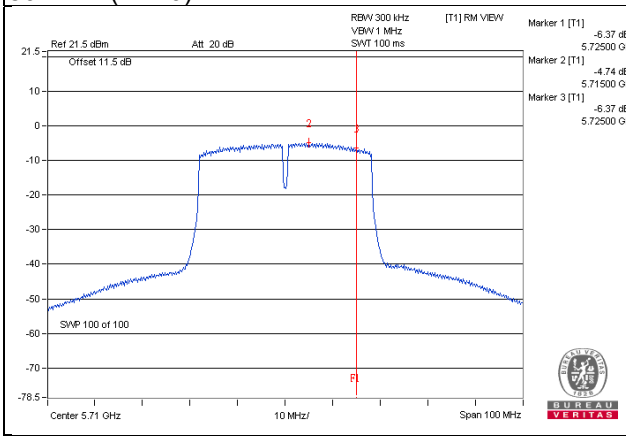
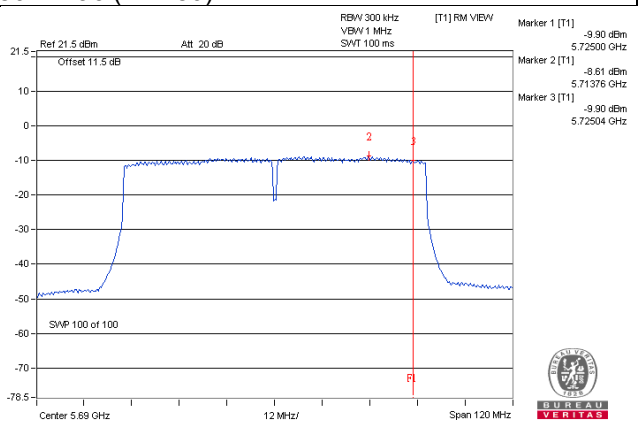
Note:
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/2$]= 8.87 dBi > 6dBi , so the power density limit shall be reduced to 30-(8.87-6) = 27.13dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

TX chain	Chan.	Freq. (MHz)	PSD (dBm/300 kHz)	PSD (dBm/500 kHz)	10 log (N=2) dB	Duty factor	Total PSD (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	138	5690 For U-NII-3	-10.46	-8.24	3.01	0.37	-4.86	27.13	Pass
1	138	5690 For U-NII-3	-9.90	-7.68	3.01	0.37	-4.30	27.13	Pass

Note:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[($10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20}$)^2/2]= 8.87 dBi > 6dBi , so the power density limit shall be reduced to 30-(8.87-6) = 27.13dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value	
802.11a	802.11n (HT20)
	
802.11n (HT40)	802.11ac (VHT80)
	

Beamforming Mode

For U-NII-2A, U-NII-2C Band

802.11n (HT20)

Chan.	Freq. (MHz)	PSD (dBm)		Total PSD (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1			
52	5260	4.79	5.03	7.92	8.13	Pass
60	5300	4.69	4.15	7.44	8.13	Pass
64	5320	4.74	4.05	7.42	8.13	Pass
100	5500	3.98	4.26	7.13	8.13	Pass
116	5580	4.28	4.95	7.64	8.13	Pass
140	5700	3.79	3.85	6.83	8.13	Pass
144	5720 For U-NII-2C	3.99	3.99	7.48	8.13	Pass

Note:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/2$]= 8.87 dBi > 6dBi , so the power density limit shall be reduced to 11-(8.87-6) = 8.13dBm.

802.11n (HT40)

Chan.	Freq. (MHz)	PSD (dBm)		Total PSD w/o duty factor (dBm)	Duty factor	Total PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1					
54	5270	1.62	1.59	3.63	0.16	4.79	8.13	Pass
62	5310	3.87	-0.83	4.15	0.16	5.31	8.13	Pass
102	5510	-1.40	-1.04	0.81	0.16	1.97	8.13	Pass
110	5550	1.54	1.98	3.79	0.16	4.95	8.13	Pass
134	5670	1.43	1.20	3.34	0.16	4.50	8.13	Pass
142	5710 For U-NII-2C	2.40	3.33	5.90	0.16	6.06	8.13	Pass

Note:

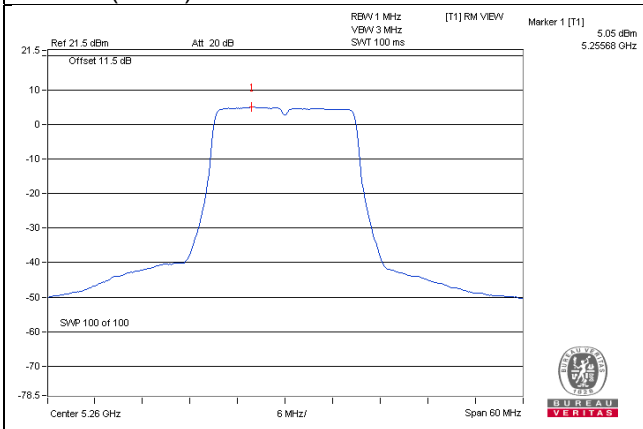
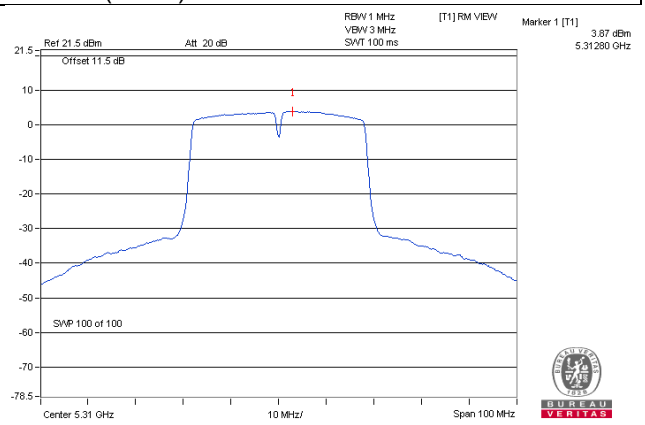
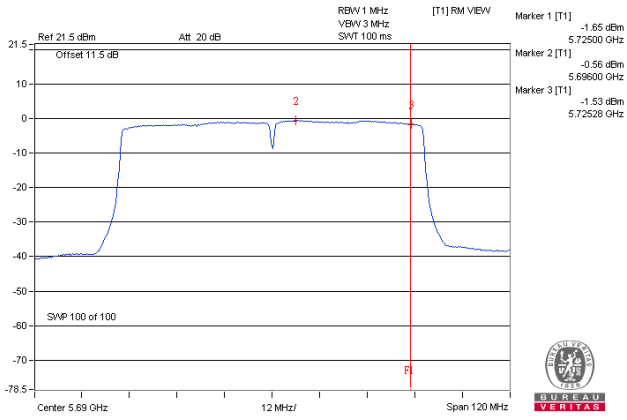
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/2$]= 8.87 dBi > 6dBi , so the power density limit shall be reduced to 11-(8.87-6) = 8.13dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

Chan.	Freq. (MHz)	PSD (dBm)		Total PSD w/o duty factor (dBm)	Duty factor	Total PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1					
58	5290	-5.97	-6.40	-3.16	0.38	-2.78	8.13	Pass
106	5530	-5.16	-4.83	-1.98	0.38	-1.60	8.13	Pass
138	5690 For U-NII-2C	-1.53	-0.61	1.96	0.38	2.34	8.13	Pass

Note:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[($10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20}$)^2/2]= 8.87 dBi > 6dBi , so the power density limit shall be reduced to 11-(8.87-6) = 8.13dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value	
802.11n (HT20) / Chain 1 / CH 52	802.11n (HT40)/ Chain 0 / CH 62
	
802.11ac (VHT80) / Chain 1 / CH 138	
	

For U-NII-3 Band

802.11n (HT20)

TX chain	Chan.	Freq. (MHz)	PSD (dBm/300 kHz)	PSD (dBm/500 kHz)	10 log (N=2) dB	Total PSD (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	144	5720 For U-NII-3	-4.17	-1.95	3.01	1.06	27.13	Pass
1	144	5720 For U-NII-3	-4.14	-1.92	3.01	1.09	27.13	Pass

Note:
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/2$]= 8.87 dBi > 6dBi , so the power density limit shall be reduced to 30-(8.87-6) = 27.13dBm.

802.11n (HT40)

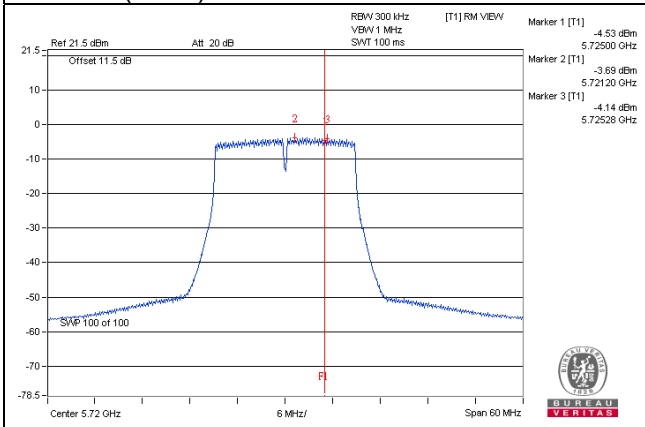
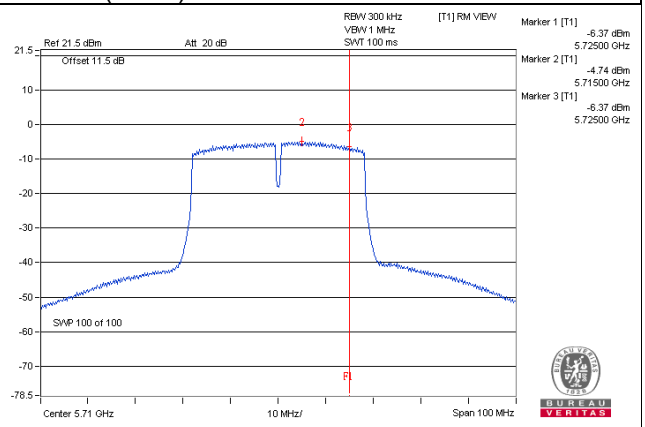
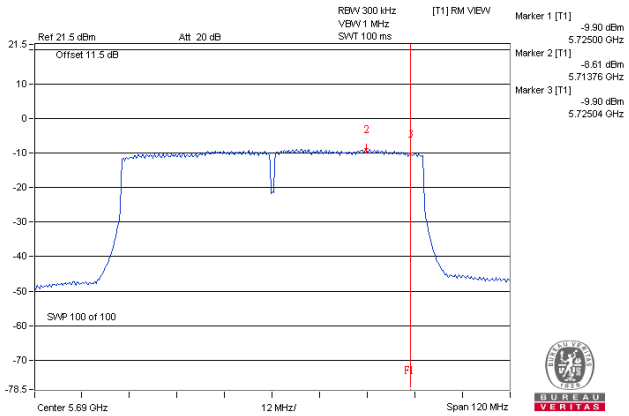
TX chain	Chan.	Freq. (MHz)	PSD (dBm/300 kHz)	PSD (dBm/500 kHz)	10 log (N=2) dB	Duty factor	Total PSD (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	142	5710 For U-NII-3	-7.04	-4.82	3.01	0.16	-1.65	27.13	Pass
1	142	5710 For U-NII-3	-6.37	-4.15	3.01	0.16	-0.98	27.13	Pass

Note:
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/2$]= 8.87 dBi > 6dBi , so the power density limit shall be reduced to 30-(8.87-6) = 27.13dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

TX chain	Chan.	Freq. (MHz)	PSD (dBm/300 kHz)	PSD (dBm/500 kHz)	10 log (N=2) dB	Duty factor	Total PSD (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	138	5690 For U-NII-3	-10.46	-8.24	3.01	0.38	-4.85	27.13	Pass
1	138	5690 For U-NII-3	-9.90	-7.68	3.01	0.38	-4.29	27.13	Pass

Note:
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/2$]= 8.87 dBi > 6dBi , so the power density limit shall be reduced to 30-(8.87-6) = 27.13dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

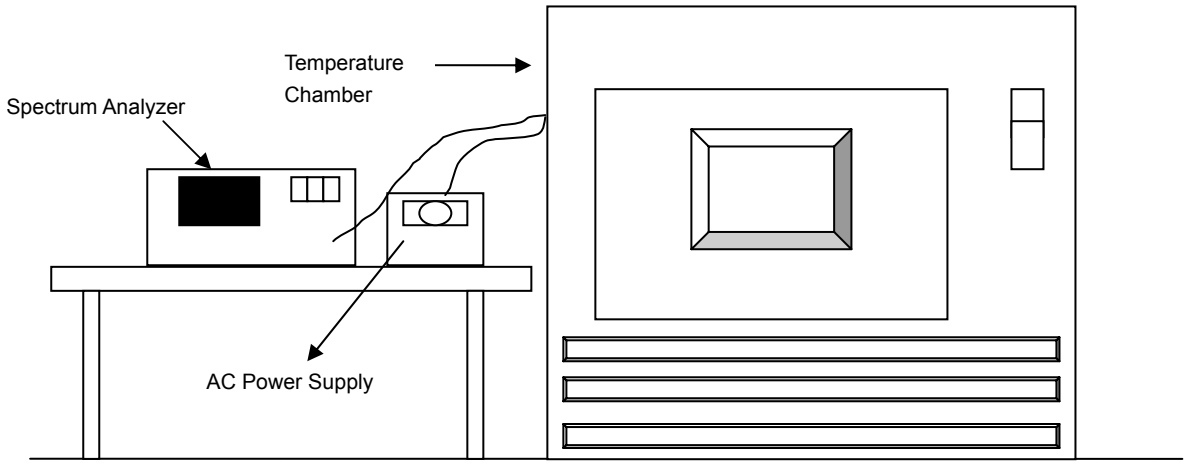
Spectrum Plot of Worst Value	
802.11n (HT20)	802.11n (HT40)
	
802.11ac (VHT80)	
	

4.6 Frequency Stability

4.6.1 Limits of Frequency Stability Measurement

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

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.6.4 Test Procedure

a. The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.

b. Turn the EUT on and couple its output to a spectrum analyzer.

c. Turn the EUT off and set the chamber to the highest temperature specified.

d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.

e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.

f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

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

4.6.7 Test Results

Frequency Stability Versus Temp.									
Operating Frequency: 5720MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency(MHz)	Frequency Drift (%)	Measured Frequency(MHz)	Frequency Drift (%)	Measured Frequency(MHz)	Frequency Drift (%)	Measured Frequency(MHz)	Frequency Drift (%)
50	120	5719.9826	-0.00030	5719.9828	-0.00030	5719.9827	-0.00030	5719.9853	-0.00026
40	120	5720.0301	0.00053	5720.0265	0.00046	5720.0291	0.00051	5720.0287	0.00050
30	120	5719.9708	-0.00051	5719.9729	-0.00047	5719.9752	-0.00043	5719.9719	-0.00049
20	120	5720.0117	0.00020	5720.0084	0.00015	5720.011	0.00019	5720.0107	0.00019
10	120	5719.9872	-0.00022	5719.9853	-0.00026	5719.9834	-0.00029	5719.9876	-0.00022
0	120	5719.9936	-0.00011	5719.9912	-0.00015	5719.9926	-0.00013	5719.989	-0.00019
-10	120	5720.0182	0.00032	5720.0166	0.00029	5720.0153	0.00027	5720.0157	0.00027
-20	120	5719.9859	-0.00025	5719.9857	-0.00025	5719.9827	-0.00030	5719.988	-0.00021
-30	120	5720.0159	0.00028	5720.0159	0.00028	5720.0196	0.00034	5720.0189	0.00033

Frequency Stability Versus Voltage									
Operating Frequency: 5720MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency(MHz)	Frequency Drift (%)	Measured Frequency(MHz)	Frequency Drift (%)	Measured Frequency(MHz)	Frequency Drift (%)	Measured Frequency(MHz)	Frequency Drift (%)
20	138	5720.0113	0.00020	5720.008	0.00014	5720.0121	0.00021	5720.0098	0.00017
	120	5720.0117	0.00020	5720.0084	0.00015	5720.011	0.00019	5720.0107	0.00019
	102	5720.0125	0.00022	5720.0089	0.00016	5720.012	0.00021	5720.0097	0.00017

5 Pictures of Test Arrangements

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

Appendix – Information on the Testing Laboratories

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

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

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Web Site: www.bureauveritas-adt.com

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

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